



PRINCE MAHIDOL AWARD CONFERENCE

*Prince Mahidol  
Award Conference*  
**2008**

**Three Decades of Primary Health Care :  
Reviewing the Past and Defining the Future**

**30 January - 1 February 2008  
Bangkok, Thailand**

**Prince Mahidol Award Conference 2008**



**PRINCE MAHIDOL AWARD CONFERENCE**



## Prince Mahidol Award

Prince Mahidol Award was established in 1992, to commemorate the 100<sup>th</sup> birthday anniversary of Prince Mahidol of Songkla who is recognized by the Thais as ***'The Father of Modern Medicine and Public Health of Thailand'***.

His Royal Highness Prince Mahidol of Songkla was born on January 1, 1892, a royal son of Their Majesties King Rama V and Queen Savang Vadhana of Siam. He received his education in England and Germany and earned a commission as a lieutenant in the Imperial German Navy in 1912. In that same year, His Majesty King Rama VI also commissioned him as a lieutenant in the Royal Thai Navy.

Prince Mahidol of Songkla had noted, while serving in the Royal Thai Navy, the serious need for improvement in the standards of medical practitioners and public health in Thailand. In undertaking such mission, he decided to study public health at M.I.T. and medicine at Harvard University, U.S.A. Prince Mahidol set in motion a whole range of activities in accordance with his conviction that human resources development at the national level was of utmost importance and his belief that improvement of public health constituted an essential factor in national development. During the first period of his residence at Harvard, Prince Mahidol negotiated and concluded, on behalf of the Royal Thai Government, an agreement with the Rockefeller Foundation on assistance for medical and nursing education in Thailand. One of his primary tasks was to lay a solid foundation for teaching basic sciences which Prince Mahidol pursued through all necessary measures. These included the provision of a considerable sum of his own money as scholarships for talented students to study abroad.

After he returned home with his well-earned M.D. and C.P.H. in 1928, Prince Mahidol taught preventive and social medicine to final year medical students at Siriraj Medical School. He also worked as a resident doctor at McCormick Hospital in Chiang Mai and performed operations alongside Dr. E.C. Cord, Director of the hospital. As ever, Prince Mahidol did much

more than was required in attending his patients, taking care of needy patients at all hours of the day and night, and even, according to records, donating his own blood for them.

Prince Mahidol's initiatives and efforts produced a most remarkable and lasting impact on the advancement of modern medicine and public health in Thailand such that he was subsequently honoured with the title of ***“Father of Modern Medicine and Public Health of Thailand”***.

In commemoration of the Centenary of the Birthday of His Royal Highness Prince Mahidol of Songkla on January 1, 1992, the Prince Mahidol Award Foundation was established under the Royal Patronage of His Majesty the King Bhumibol Adulyadej to bestow international awards upon individuals or institutions which have made outstanding and exemplary contributions to the advancement of medical, and public health and human services in the world.

The Prince Mahidol Award will be conferred on an annual basis with prizes worth a total of approximately USD 100,000. A Committee, consisting of world-renowned scientists and public health experts, will recommend the selection of awardees whose nominations should be submitted to the Secretary-General of the Foundation before May 31<sup>st</sup> of each year. The committee will also decide on the number of prizes to be awarded annually, which shall not exceed two in any one year. The prizes will be given to outstanding performance and/or research in the field of medicine for the benefit of mankind and for outstanding contribution in the field of public health for the sake of the well-being of the people. These two categories were established in commemoration of His Royal Highness Prince Mahidol's graduation with Doctor of Medicine (Cum Laude) and Certificate of Public Health and in respect to his speech that:

***“True success is not in the learning, but in its application to the benefit of mankind”***.

The Prince Mahidol Award ceremony will be held in Bangkok in January each year and presided over by His Majesty the King of Thailand.

## Message from the Chairs of the Organizing Committee

The year 2008 marks the 30<sup>th</sup> year of the Alma Ata Declaration (1978) on Primary Health Care (PHC) to achieve Health for All by 2000, and a mid-point to the commitment to reach the 2015 Millennium Development Goals. Over the three decades that followed the Declaration, there have been many significant achievements, especially in the reduction of infant and child deaths, improvement in immunization coverage and increased access to clean water and sanitation. Nevertheless, an unaccomplished agenda remains. The main concerns are to minimize health inequities between the rich and the poor, to revitalize the functioning of PHC in the changing context of globalization and to meet the complexity of health challenges, now and in the future.

In this connection, “Three Decades of Primary Health Care: Reviewing the Past and Defining the Future” was chosen as the theme for the Prince Mahidol Award Conference in 2008. We hope that the Conference will serve as a neutral and participatory Global Forum to discuss significant global health issues and provide recommendations for further actions.

This Conference is the third in the series of PHC conferences (Buenos Aires August 2007, Beijing November 2007, Bangkok January-February 2008 and others scheduled in Africa and Kazakhstan in 2008) to commemorate the 30<sup>th</sup> anniversary of PHC.

As Chairs of the Organizing Committee, we are grateful to all contributions provided by many organizations to make the Conference a success. Main contributors are the World Health Organization, the World Bank, the Prince Mahidol Award Foundation, and the Royal Thai Government who co-host this conference. Each parallel session was sponsored by organizations that provide support in terms of technical assistance and or funding support to the participants. We are most thankful to the following organizations: China Medical Board, Global Fund to fight AIDS, Tuberculosis and Malaria, Global Alliance on Vaccines and Immunization, Global Health and Security Initiative-NTI, Global Health Workforce Alliance, Google Foundation, Health Metrics Network, Mekong Basin Disease Surveillance Networks, the French Embassy in Thailand, the Rockefeller Foundation, and UNAIDS. Finally, we would like to express our appreciation to Secretariat Team who have worked so hard in preparing for the Conference.

Prof. Dr. Vicharn Panich  
Chair  
Organizing Committee,  
International Award  
Committee, PMAF  
Bangkok, Thailand

Dr. Ian Smith  
Co-Chair  
Organizing Committee,  
Advisor to the Director-  
General, WHO Geneva,  
Switzerland

Dr. Toomas Palu  
Co-Chair  
Organizing Committee,  
Lead Health Specialist,  
World Bank, Cambodia

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## Prince Mahidol Award Conference 2008

Three Decades of Primary Health Care : Reviewing the Past and Defining the Future

30 January - 1 February 2008

The Dusit Thani Hotel, Bangkok, Thailand

CONFERENCE PROGRAM IN BRIEF		
<b>Wednesday, 30 January 2008</b>		
<b>07.30 - 17.00</b>	<b>Field Trip</b>	
<b>Thursday, 31 January 2008</b>		
<b>09.00 - 09.10</b>	<b>Opening Ceremony</b>	<b>Napalai Ballroom</b>
<b>09.10 - 10.00</b>	<b>Keynote Speeches</b> <i>Thirty Years of PHC: Discern the Past, Understand the Present and the Way Forward</i>	<b>Napalai Ballroom</b>
<b>10.00 - 10.30</b>	<b>Break</b>	<b>Foyer in front of Napalai Ballroom</b>
<b>10.30 - 13.00</b>	<b>Panel Session</b> <i>Primary Health Care: Past Achievement, Future Challenges and Responses : Five Country Case Studies</i>	<b>Napalai Ballroom</b>
<b>13.00 - 14.00</b>	<b>Lunch</b>	<b>Dusit Thani Hall</b>
<b>14.00 - 17.00</b> (Break during session)	<b>Parallel Session 1</b> <i>Who Services Primary Health Care and How They Can Be Effectively and Equitably Created, Motivated and Maintained to Provide Good PHC Services?</i>	<b>Napalai Ballroom</b>
	<b>Parallel Session 2</b> <i>PHC and Public Health Surveillance and Response</i>	<b>Vimarnsuriya</b>
<b>18.30 - 20.30</b>	<b>Welcome Dinner hosted by Royal Thai Government</b>	<b>Dusit Thani Hall</b>
<b>Friday, 1 February 2008</b>		
<b>09.00 - 12.00</b> (Break during session)	<b>Parallel Session 3</b> <i>Impact of Global Health Initiatives on PHC and their Contribution to Strengthening Health Systems</i>	<b>Napalai Ballroom</b>
	<b>Parallel Session 4</b> <i>International Trade, Trade Agreements and Health : Implications on Primary Health Care</i>	<b>Vimarnsuriya</b>
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<b>13.00 - 15.30</b>	<b>Parallel Session 5</b> <i>Financing PHC: Allocating Resources for Improved Effectiveness and Equity</i>	<b>Napalai Ballroom</b>
	<b>Parallel Session 6</b> <i>Evidence, Information for Health Systems strengthening in Support of PHC</i>	<b>Vimarnsuriya</b>
<b>15.30-16.00</b>	<b>Break</b>	<b>Foyer in front of Napalai Ballroom</b>
<b>16.00 - 17.00</b>	<b>Conference Synthesis Session</b> <i>Summary, Conclusion and Policy Recommendations</i>	<b>Napalai Ballroom</b>
<b>17.00 - 17.45</b>	<b>Commemoration of 30 Years of Primary Health Care</b>	<b>Napalai Ballroom</b>
<b>17.45 - 18.15</b>	<b>Press Conference</b>	<b>Napalai Ballroom</b>



## List of Speakers, Panelists, Co-Chairs and Rapporteurs

Session	Speakers
<b>Keynote Speeches:</b>	
<i>Thirty Years of PHC: Discern the Past, Understand the Present and the Way Forward</i>	Anarfi Asamoah-Baah Joy Phumaphi Sanduk Ruit
<b>Panel Session</b>	
<i>Primary Health Care: Past Achievement, Future Challenges and Responses: Five Country Case Studies</i>	Toomas Palu Viroj Tangcharoensathien
<b>Parallel Session 1</b>	
<i>Who Services Primary Health Care and How They Can Be Effectively and Equitably Created, Motivated and Maintained to Provide Good PHC Services?</i>	Manuel Dayrit Srinath Reddy Miriam Were Sultana Khanum Baraba Samb
<b>Parallel Session 2</b>	
<i>PHC and Public Health Surveillance and Response</i>	Stella Chungong Hamid Jafari Holly Ladd, JD Ahmed Tayeh Terence Taylor
<b>Parallel Session 3</b>	
<i>Impact of Global Health Initiatives on PHC and their Contribution to Strengthening Health Systems</i>	Perna Banati Tedros Adhanom Ghebreyesus Badara Samb David Sanders

## Panelists

## Co-Chairs

## Rapporteurs

William M.Honsa, Jr  
Pornchai O-Charoenrat

Lo Veasnakiry  
Robert Woollard  
Tedros Adhanom Ghebreyesus  
Paulin Basinga  
Komatra Chuengsatiansup  
Fran Baum  
Tim Evans  
Julian Schweitzer

Tim Evans  
Ariel Pablos-Mendez  
Lincoln Chen  
(Moderator)

Jeff Johns  
Adrian Ong  
Siriwan Pitayarangsarit

Sigrun Mogedal  
Ravi Narayan  
Francis Omaswa  
Lepani Waqatakirewa

Keizo Takemi  
Wang Longde

William Aldis  
Thinakorn Noree  
Nonglak Pagaiya  
Susan Rifkin  
Dean Shuey

David Heymann  
Myint Htwe

Amanda Glassman  
Chanwit Tribuddharat  
Kumnuan Ungchusak  
Melinda Moore

Perna Banati  
Kathy Cahill  
Tedros Adhanom Ghebreyesus  
Raj Kumar  
Badara Samb  
David Sanders  
Bernhard Schwartlander  
Julian Schweitzer

Manto Tshabalala-Msimang  
Marie-Odile Waty

Lee Nah Hsu  
Philip Guest  
Pungpond Rukumnuaykit



Session	Speakers
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***Parallel Session 4***

*International Trade, Trade Agreements and Health: Implications on Primary Health Care*

Pierre Sauve  
 Frederick M Abbott  
 Elisabeth Tuerk  
 Bounpheng Philavong  
 Choy Lup Bong  
 Sripen Tantivess  
 David Vivas-Eugui

***Parallel Session 5***

*Financing PHC: Allocating Resources for Improved Effectiveness and Equity*

Pablo Gottret  
 Rifat Atun  
 Ahmad Jan Naeem  
 Amanda Glassman

***Parallel Session 6***

*Evidence, Information for Health Systems Strengthening in Support of PHC*

Crispinita Valdez  
 Clifford W. Kamara  
 Lo Veasnakiry  
 Pepela Wanjala  
 Hani Serag  
 Thomas Inui  
 Carla AbouZahr

***Conference Synthesis***

*Summary, Conclusion and Policy Recommendations*

Rapporteur Team

***Commemoration Ceremony***

Mongkol Na Songkhla  
 Samlee Plianbangchang  
 Supachai Panitchpakdi

**Panelists****Co-Chairs****Rapporteurs**

Sameen Siddiqi  
Santiago Alcazar

Nick Drager  
Fadia Saadah

William Aldis  
Juthamas Arunanondchai  
Chantal Blouin  
Benedikte Dal  
Nusaraporn Kessomboon

Anne Mills  
Ammar Siamwalla  
Adam Wagstaff

David de Ferranti  
Emmanuel Jimenez

Supon Limwatananon  
Marty Makinen  
Pongsadhorn Pokpermddee  
Kavita Sivaramakrishnan  
Samrit Srithamrongsawat

Virasakdi Chongsuvivatwong

Abdul Azeez Yoosuf  
Philip Hay (Facilitator)

Carla AbouZahr  
Wichai Aekplakorn  
Kanitta Bundhamcharoen  
Pinij Faramnuayphol  
Waranya Teokul

Anarfi Asamoa-Baah

# **Prince Mahidol Award Conference 2008**

## **Three Decades of Primary Health Care : Reviewing the Past and Defining the Future**

*30 January - 1 February 2008*  
*The Dusit Thani Hotel, Bangkok, Thailand*

### **PROGRAM**

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#### **1. The Context**

The global commitment by governments on the achievement of MDGs, especially in the context of working towards universal coverage of maternal, newborn and child health interventions<sup>1</sup> and on sustainable health financing, universal coverage and social health insurance<sup>2</sup>, universal access to HIV prevention treatment and care by 2010, requires a well-functioning Primary Health Care (PHC) to deliver effective services to target populations.

Investment in primary healthcare infrastructure, adequate financing and social protection for the poor would ensure better access to services and achievement of health-related MDGs. Strong health systems promote international health security, and that governments, WHO, international organizations, private industry and civil society are all stakeholders in and have responsibilities on strengthening health systems (WHO 2007, Issues Paper: invest in health, build a safe future).

A well-organized and sustainable health system is essential to achieve Health, Nutrition and Population (HNP) results on the ground, and form a guiding principle for the World Bank loan and technical supports in the next decade (World Bank 2007, Healthy Development: the World Bank Strategy for Health, Nutrition, and Population Results). In addition, health system strengthening means improving capacity in critical components of health systems in order to get more equitable and sustained improvement across health services and outcomes. The six components are: policy; financing; human resources; supply systems; service management; and information and monitoring systems (WHO 2006, Opportunities for Global Health Initiatives in the health systems, action agenda, WHO/EIP/healthsystems/2006.1). In particular human resources requires adequate production, ensure proper skill-mix that address health needs of the population, equitable distribution and better retention, especially at primary care level.

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<sup>1</sup> WHA58.31

<sup>2</sup> WHA58.33

In developing countries, the private sector including clinics, pharmacies and traditional providers play a significant role, despite lack of adequate regulatory framework. Free movement of population across borders and trade in health services often channel well-trained human resources away from primary care in favor of the urban affluence population. International migration of human resource from poor to rich countries warrants global concerted efforts and ethical recruitment, not to undermine the health systems of sending countries.

The functioning of PHC closely relates to financing, human resources, relationship of PHC in a broader health system context, the role of the private sector, and the impact of trade in health services.

It is noted that 2008 marks the 60<sup>th</sup> year of WHO (1948) and the 30<sup>th</sup> year of the Alma Ata Declaration (1978) on PHC as main strategies to achieve HFA2000 and a mid-point to the 2015 commitment towards the MDGs. There is a need to revisit PHC after three decades of implementation to learn the lessons and plan for the future. The conclusion of PMAC 2007 highlights the utmost importance of a functioning primary health care in effective delivery of essential health products. Therefore, Three Decades of Primary Health Care: Reviewing the Past and Defining the Future was chosen as the theme for the Prince Mahidol Award Conference in 2008.

Referred to the Declaration of Alma-Ata International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978, paragraph VI,

*Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.*

## **2. Objectives of the Prince Mahidol Award Conference 2008**

1. To review/synthesize, under the current situation and globalization context, the achievements and emerging problems facing PHC
2. To recommend policies and practical actions by developing countries and all concerned development partners on achieving functioning PHC system

### 3. Program of the Prince Mahidol Award Conference 2008

Wednesday, 30 January 2008

07.30 -17.00

#### **An optional one day field trip**

The objectives of the field visit are:

- To expose to the Thai PHC experiences in different settings
- To debrief by conference participants on lessons learned

There are 7 interesting sites not too far from Bangkok as follows (See description of each site in the Field Trip Program):

- 1. *Voluntary Participation Club Providing Health Services and Products***  
Wat Kaew Community Health Center, Bang Pae District, Ratchaburi Province
- 2. *Financing and Managing PHC through Private Health Care Provider***  
Roeu Phra Rong Clinic Vetchakarm, Bang Khun Thien District, Bangkok
- 3. *Innovative and Appropriate Health Activities through Strong Community Ties***  
Makham Lom Community Health Care Center, Bangplama District, Suphanburi Province
- 4. *Cooperation with Social Groups Driving Health Care***  
Phuttamonthol Hospital, Salaya Subdistrict, Nakhon Pathom Province
- 5. *PHC Workers and Their Alliances to Improve Quality of Integrated Health Services***  
Wangnoi Hospital, Wangnoi District, Pra Nakhon Si Ayutthaya Province
- 6. *Home Stay to Change Health Behavior***  
Sao Hai Hospital, Sao Hai District, Saraburi Province
- 7. *Community Drugstore with Tripartite Management***  
Sanam Chai Khet Hospital, Sanam Chai Khet District, Chacheongsao Province

**Thursday, 31 January 2008**

**09.00 - 09.10**

**Opening Ceremony**

- Her Royal Highness Princess Maha Chakri Sirindhorn

**09.10 - 10.00**

**Keynote speakers :**

***Thirty Years of PHC: Discern the Past, Understand the Present and the Way Forward***

The objectives of this session are

- To demonstrate the social dimension of health as portrayed in the concept of PHC
- To review the past experiences and current achievement of PHC in the context of MDGs, in the changing global context and increasing players in health of the population, both successes and failures of PHC in addressing health of the population, in low and lower middle income countries
- To portray the future challenges and how PHC could cope with
- To recommend policies and strategies for future PHC development

**Keynote speakers :**

- Anarfi Asamoah-Baah, Deputy Director-General, WHO
- Joy Phumaphi, Vice President and Network Head, Human Development, The World Bank
- Sanduk Ruit, Medical Director, Tilganga Eye Center and Prince Mahidol Awardee 2007

**10.00 - 10.30**

**Break**



**10.30 - 13.00**

**Panel Session**

***Primary Health Care: Past Achievement, Future Challenges and Responses: Five Country Case Studies***

- The goals of this panel session is to provide an overview and an in-depth understanding, from five country perspectives, on their past experiences on how PHC managed to meet health of the population, and given the future challenges what are their recommendations.

**Short VDO presentation**

***Synthesis of five cross country experiences***

- Toomas Palu, Lead Health Specialist, East Asia and Pacific Region, The World Bank
- Viroj Tangchareonsathien, Director, International Health Policy Programme, Ministry of Public Health, Thailand

***Moderated interactive panel discussion***

- Lo Veasnakiry, Director, Department of Planning & Health Information, Ministry of Health, Cambodia
- Robert Woollard, Royal Canadian Legion Professor and Head of the Department of Family Practice, The University of British Columbia, Canada
- Tedros Adhanom Ghebreyesus, Minister of Health, Ethiopia
- Paulin Basinga, Lecturer, School of Public Health, National University of Rwanda
- Komatra Chuengsatiansup, Director of Society and Health Institute, Bureau of Health Policy and Strategy, Ministry of Public Health, Thailand
- Fran Baum, Co-Chair of the Global Steering Council, People's Health Movement
- Tim Evans, Assistant Director-General, Information, Evidence and Research, WHO
- Julian Schweitzer, Director, Health, Nutrition and Population, Human Development Network, The World Bank

***Moderator :***

- Lincoln Chen, President of the China Medical Board and the Chair of the Global Health Workforce Alliance Board

***Co-Chairs:***

- Tim Evans, Assistant Director-General, Information, Evidence and Research, WHO
- Ariel Pablos-Mendez, Managing Director, The Rockefeller Foundation

**13.00 - 14.00**

**Lunch**

**14.00- 17.00**

**(With Break During Session)**

**Parallel Session 1**

***Who Services Primary Health Care and How They Can Be Effectively and Equitably Created, Motivated and Maintained to Provide Good PHC Services?***

The objectives of this session are

- review the evidences, both experimental and experiential, on the effective and equitable ways to employ, motivate, and deploy the Primary Health Care workers
- To analyze the influential factors behind the successes and failures
- To formulate and recommend policy options at national, regional and global level to further strengthen health systems based on Primary Health Care

***Presentations :***

- Global Review on the PHC Workers and Community Health Workers
  - Manuel Dayrit, Director, Department of Human Resources for Health, WHO/HQ
- Synthesis from Case Studies on the Key Lessons Learnt and Recommendations to Develop Primary Health Care Workers
  - K. Srinath Reddy, President, Public Health Foundation of India
- Synthesis of Experience from African Region
  - Miriam Were, Chair of African Medical and Research Foundation
- Regional Movements on PHC Workers in South-East Asia
  - Sultana Khanum, Director, Health Systems Development, WHO/SEARO
- Task Shifting: An Emergency Response to the Health Workforce Crisis in the Era of HIV
  - Badara Samb, Advisor, Health Systems and Services, WHO

***Lead discussants :***

- Sigrun Mogedal, Ambassador, HIV/AIDS and Global Health Initiatives, Royal Ministry of Foreign Affairs, Norway
- Ravi Narayan, Community Health Advisor, Society for Community Health Awareness, Research and Action, Bangalore, India
- Francis Omaswa, Executive Director, the Global Health Workforce Alliance
- Lepani Waqatakirewa, Secretary of Health, Ministry of Health, Fiji

Rapporteur presents the summary of key findings/lessons learnt and recommendations

### **Open discussion on summary of lessons learnt and recommendations**

#### **Co-Chairs :**

- Keizo Takemi, Former Senior Vice Minister of Health, Labour and Welfare
- Wang Longde, President, Chinese Preventive Medicine Association and Former Vice Minister of Health, China

### **Parallel Session 2**

#### ***PHC and Public Health Surveillance and Response***

The goal of this session is to highlight the needs and contributions for public health surveillance at the primary health care level in light of the International Health Regulations (IHR) framework.

#### ***Presentations :***

- Strengthening National Core Capacities for the IHR
  - Stella Chungong, Coordinator, IHR Coordination Programme, WHO
- Increasing and Strengthening Human Resources for Surveillance
  - Hamid Jafari, Project Manager, National Polio Surveillance Project, WHO
- Enhancing Community-Based Disease Surveillance in Rural and Low Resource Settings Using Affordable ICT Interventions
  - Holly Ladd, JD, Vice President and Center Director, AED-SATELLIFE Center for Health Information and Technology
- Community Level Surveillance for Guinea Worm Disease Eradication
  - Ahmed Tayeh, Global Dracunculiasis Eradication Programme, WHO
- Public Health Surveillance: Learning from Regional Networks - Diplomacy, Science and Technology
  - Terence Taylor, Director, Global Health and Security Initiative, NTI, USA

### **Open discussion on synthesis of lessons learnt and recommendations**

#### **Co-Chairs :**

- David Heymann, Assistant Director-General, Health Security and Environment and Special Representative of the Director-General for Polio Eradication, WHO
- Myint Htwe, Director, Programme Management, WHO/SEARO

**18.30-20.30**

### **Welcome Dinner hosted by Royal Thai Government**

Video Presentation

Dinner and Performance by College of Music, Mahidol University and Cultural Shows

**Friday, 1 February 2008**

**09.00-12.00**

**(With Break During Session)**

**Parallel Session 3**

***Impact of Global Health Initiatives on PHC and their Contribution to Strengthening Health Systems***

The goal of this session is to recommend how disease-specific programs can contribute towards PHC and health systems strengthening.

***Presentations :***

- The Diagonal Approach: The Global Fund and Health Systems
  - Prerna Banati, Strategic Information Officer, Performance Evaluation and Policy, The Global Fund to Fight AIDS, Tuberculosis & Malaria (representing the Global Fund and GAVI)
- Harmonized Approaches of GHI and Bilateral Partners
  - Tedros Adhanom Ghebreyesus, Minister of Health, Ethiopia
- Strengthening National Health Sector Plans and Alignment to Boost National Health Systems Capacity
  - Badara Samb, Advisor, Health Systems and Services, WHO
- The Context and Implications of Global Health Initiatives with Particular Reference to Africa
  - David Sanders, Director of the School of Public Health, University of the Western Cape, South Africa

***Moderated panel :***

- Prerna Banati, Strategic Information Officer, Performance Evaluation and Policy, The Global Fund to Fight AIDS, Tuberculosis & Malaria
- Kathy Cahill, Global Health Program, Bill & Melinda Gates Foundation
- Tedros Adhanom Ghebreyesus, Minister of Health, Ethiopia
- Raj Kumar, Senior Programme Officer, Global Alliance for Vaccines and Immunization
- Badara Samb, Health Systems and Services Cluster, WHO
- David Sanders, Director of the School of Public Health, University of Western Cape, South Africa
- Bernhard Schwartlander, Country Coordinator, UNAIDS China
- Julian Schweitzer, Director, Health, Nutrition and Population, Human Development Network, The World Bank

***Co-Chairs :***

- Manto Tshabalala-Msimang, Minister of Health, South Africa
- Marie-Odile Waty, Head of the Health and Social Protection Division, French Development Agency

#### **Parallel Session 4**

##### ***International Trade, Trade Agreements and Health: Implications on Primary Health Care***

This session will explore the implications of international trade and trade agreements on primary health care (PHC). The focus will be on the implications from international trade in general and international trade on health services but will also cover implications for PHC from trade and trade agreements on access to medicine.

##### ***Overview :***

- Towards a diagnostic tool on trade in health services
  - Pierre Sauve, Director of Studies, World Trade Institute, Bern, Switzerland
- Current issues in trade agreements, access to medicines and implications for PHC
  - Frederick M. Abbott, Edward Ball Eminent Scholar, Professor of International Law, Florida State University College of Law

##### **International trade in health services: Key findings and recommendations from country and regional case studies**

- Implications of International Trade and Trade Agreements for Primary Health Care: The Case of Services
  - Elisabeth Tuerk, Economic Affairs Officer, Division on International Trade in Goods and Services and Commodities (DITC), UNCTAD, Switzerland
- ASEAN Cooperation on Trade in Health Services
  - Bounpheng Philavong, Assistant Director of Bureau for Resources Development and Head of Health and Population Unit, ASEAN Secretariat, Indonesia
- Malaysia: Medical Tourism in Malaysia and Implications for Public Health Care
  - Choy Lub Bong, Undersecretary, Corporate Policy and Health Industry, Ministry of Health, Malaysia

##### ***Panel discussion***

- Pierre Sauve, Director of Studies, World Trade Institute, Bern, Switzerland
- Sameen Siddiqi, Regional Advisor, Health Policy and Planning, WHO/EMRO

##### **Open discussion on lessons learnt and recommendations**

##### ***Trade agreements and access to essential medicines: Key findings and recommendations from country case studies***

- Government Use Provision and Access to Medicines and Primary Health Care: The Case of Antiretrovirals in Thailand
  - Sripen Tantivess, Senior Reseracher, International Health Policy Program, Ministry of Public Health, Thailand
- Intellectual Property in Public Health and Primary Health Care in FTAs and EPAs : A Shift in Policy?
  - David Vivas-Eugui, Deputy Programmes Director, International Center for Trade and Sustainable Development (ICTSD), Switzerland
  - Technology and Services, The International Centre for Trade and Sustainable Development (ICTSD), Switzerland

**Panel discussion**

- Santiago Alcazar, Head of the Office of International Affairs, Ministry of Health, Brazil
- Frederick M. Abbott, Edward Ball Eminent Scholar, Professor of International Law, Florida State University College of Law

**Open discussion on lessons learnt and recommendations****Co-Chairs :**

- Nick Drager, Acting Director, Department of Ethics, Equity, Trade and Human Rights, WHO
- Fadia Saadah, Sector Manager for Health, Nutrition, and Population for the East Asia and Pacific Region, The World Bank

**12.00 - 13.00****Lunch****13.00 - 15.30****Parallel Session 5*****Financing PHC: Allocating Resources for Improved Effectiveness and Equity***

The goal of the session would be to synthesize good practices in PHC financing and to identify controversies and bottlenecks to more rapid progress in attaining PHC goals.

***Presentations :***

- Health Financing in Low and Middle Income Countries
  - Pablo Gottret, Lead Economist of Health, Nutrition and Population, Human Development Network, The World Bank
- Primary Health Care Development in European Region and the Case of Estonia
  - Rifat Atun, Professor of International Health Management and Director of the Centre for Health Management, Imperial College London
- Contracting for PHC - Financing for Results
  - Ahmad Jan Naeem, General Director Policy and Planning, Ministry of Public Health, Afghanistan
- The Role of Conditional Cash Transfers in Improving Access to and Results from Primary Health Care: Experiences from Latin America and the Caribbean
  - Amanda Glassman, Deputy Director, Global Health Financing Initiative, The Brookings Institution

***Discussants :***

- Anne Mills, Professor of Health Economics and Policy, London School of Hygiene and Tropical Medicine and Head of the Department of Public Health and Policy
- Ammar Siamwalla, Acting President, Thailand Development Research Institute
- Adam Wagstaff, Lead Economist, Development Research Group, The World Bank Security Board

## **Open Discussion on Summary of lessons learnt and recommendations**

### ***Co-Chairs :***

- David de Ferranti, Senior Fellow and Executive Director, Global Health Financing Initiative, The Brookings Institution
- Emmanuel Jimenez, Director, Human Development, East Asia and Pacific Region, The World Bank

## **Parallel Session 6**

### ***Evidence, Information for Health Systems Strengthening in Support of PHC***

The session will focus on country experiences in improving the availability and quality of health information and its use to inform decision-making for the support of PHC.

### ***Presentations :***

- Using Information and Statistics for Planning at Local (District, Health Facility) Levels
  - Crispinita Valdez, Director, Information Management Service, Department of Health, Philippines
- Rebuilding the Health System on a Foundation of Better Data
  - Clifford W. Kamara, Director of Planning and Information, Ministry of Health and Sanitation, Sierra Leone
- Involving Policy Makers in Evidence-Based Decision Making Through the Provision of Better Information: The Case of Cambodia
  - Lo Veasnakiry, Director, Department of Planning & Health Information, Ministry of Health, Cambodia
- Using Feedback of Information on Care-Seeking Behaviour and Coverage to Communities to Improve Coverage and Outcome Indicators
  - Pepela Wanjala, Deputy Head, Health Management Information System, Ministry of Health, Kenya
- Why Better Data Means Better Health: The People's Perspective on Health Information
  - Hani Serag, Global Secretariat Coordinator, People's Health Movement
- Informatics, Health Information, and Primary Health Care
  - Thomas Inui, President and CEO, Regenstrief Institute, USA
- Using District Level Indicators to Track the Performance of the Health System: Evidence from Africa: Preliminary Results of a Research Analysis
  - Carla AbouZahr, Deputy Executive Secretary, Health Metrics Network

### ***Discussants :***

- Virasakdi Chongsuvivatwong, Professor of Epidemiology, Prince of Songkla University, Thailand

**Chair :**

- Abdul Azeez Yousuf, Deputy Minister of Health, Maldives

**Facilitator :**

- Philip Hay, Communications Advisor, Human Development Network, The World Bank

**15.30 - 16.00****Break****16.00-17.00****Conference Synthesis Session*****Summary, Conclusion and Policy Recommendations***

- Leading Rapporteur Team

**Chair :**

- Anarfi Asamoah-Baah, Deputy Director-General, WHO/HQ

**17.00 - 17.45****Commemoration Ceremony of 30 Years of Primary Health Care  
“*Health in the Next Three Decades and the Role of PHC*”**

- Mongkol Na Songkhla, Minister of Public Health, Thailand
- Samlee Plianbangchang, Regional Director, WHO/SEARO
- Supachai Panitchpakdi, Secretary-General, UNCTAD

***Commemoration with cultural and participatory activities*****17.45 - 18.15****Press Conference**

- Vicharn Panich, Thailand, Chair of the Conference Organizing Committee
- Ian Smith, WHO, Co-Chair of the Conference Organizing Committee
- Toomas Palu, World Bank, Co-Chair of the Conference Organizing Committee
- Mongkol Na Songkhla, Minister of Public Health, Thailand
- Samlee Plianbangchang, Regional Director, WHO/SEARO
- Supachai Panitchpakdi, Secretary-General, UNCTAD

**4. Conference Participants**

The Conference consists of approximately 300 participants from Ministries of Health of developed and developing countries, the World Health Organization, the World Bank, UN organizations, Academic Institutes, Development Partners, Global Health Partners, Foundations, NGOs, Regional Partners, Professional Councils and Associations, Private Sector, and other relevant institutes.

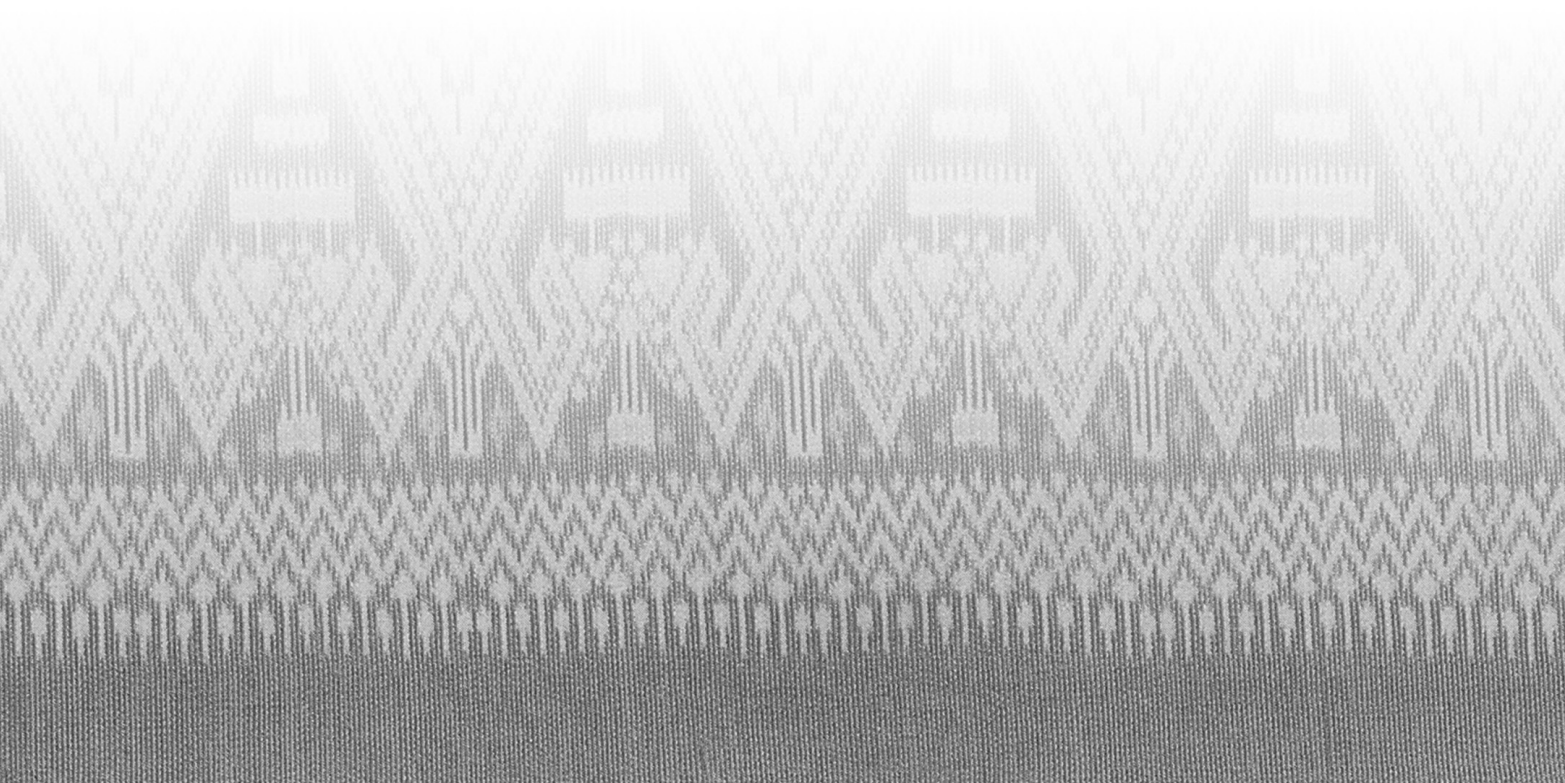


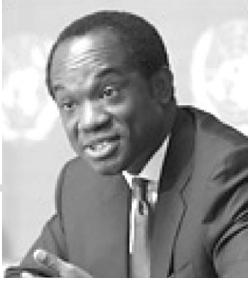




## **Keynote Speeches**

*Thirty Years of PHC : Discern the Past,  
Understand the Present and the Way Forward*





## **Anarfi Asamoah-Baah**

Deputy Director-General  
WHO

*Dr.* Anarfi Asamoah-Baah, from Ghana, was appointed as WHO Deputy Director-General in January 2007.

Dr. Asamoah-Baah is a medical doctor with specialization in public health, with postgraduate degrees in health economics, and in health policy and planning, from the UK and USA respectively.

He started his career as medical administrator of a 180 bed district hospital, and then as Primary Health Care Coordinator for the Catholic Church in Ghana. Dr. Asamoah-Baah rapidly rose through the ranks of the Ghanaian Health Services, from District Medical Officer; Provincial Director of Health Services; Director for Policy, Planning, Monitoring and Evaluation at the Ministry of Health, and the Director-General of Health Services in Ghana.

Between 1988 and 1998 Dr Asamoah-Baah served as a WHO Consultant on Primary Health Care and health systems strengthening. He also served as a member of the Scientific and Technical Advisory Committee (STAC) of the WHO Special Programme for Research and Training in Tropical Diseases (TDR), and on the Expert Committee of the Expanded Programme on Immunization.

Dr. Asamoah-Baah started at the World Health Organization (WHO) in 1998, as Senior Policy Adviser to Dr. Brundtland, Director-General, having served as Co-Chair of Dr Brundtland's Transition Team.

From 2000-2002 he was appointed as Executive Director for External Relations and Governing Bodies. His responsibilities included managing the Secretariat of the World Health Assembly and the Executive Board, strengthening donor and partner relationships, resource mobilization, and coordinating WHO's country work.

From 2002-2003 Dr Asamoah-Baah served as Executive Director for Health Technology and Pharmaceuticals (HTP), which covered WHO's work on immunization, including polio, medicines, blood transfusion, diagnostics and laboratory technology, transplantation and essential surgical care.

From 2003-2005 Dr Asamoah-Baah served as Assistant Director-General of Communicable Diseases, responsible for the revision and subsequent adoption of the International Health Regulations, strengthening of epidemic alert and response, and the neglected tropical infectious diseases. Dr. Asamoah-Baah was also Coordinator of the WHO Special Programme for Research and Training in Tropical Diseases.

From 2005 - December 2006, Dr Asamoah-Baah was Assistant Director-General, for the HIV/AIDS, Tuberculosis and Malaria programme. He guided the three departments and partnerships on strategy formulation to achieve universal access to high quality health care and treatment.

In his present position as WHO Deputy Director-General, Dr Asamoah-Baah leads the formulation of specific strategies and advises programmes on WHO policies and operations. In the capacity of Deputy Director-General, he is also Co-Chair of the WHO Global Task Force on Primary Health Care.



**Joy Phumaphi**

Vice President  
The World Bank

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*Joy* Phumaphi, a Botswana national, is Vice President of the World Bank's Human Development Network. Before joining the Bank in February, 2007, Joy served as Assistant Director General for Family and Community Health at the World Health Organization (WHO) in Geneva, managing a global staff of more than 1,100, and representing the World Health Organization on the Board of the Global Alliance for Vaccines and Immunizations (GAVI).

From 1994-2003, Ms. Phumaphi served variously as a Member of Parliament, a Cabinet Minister with responsibility for lands and housing-in the course of which she developed Botswana's first national housing policy-and Minister for Health. During her tenure as Minister, Ms. Phumaphi restructured the health ministry to make it more focused on results, and implementing a multi-sectoral plan to provide prevention, care, and treatment services for HIV/AIDS.

Joy Phumaphi holds a Master of Science degree in Financial Accounting and Decision Sciences from Miami University, Ohio.



## **Sanduk Ruit**

Medical Director, Tilganga Eye Centre  
Prince Mahidol Awardee 2007

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Sanduk Ruit was borne in mountain area of Nepal so remote that the nearest school was eleven days away, by foot. Diligence brought him a scholarship to be educated in India. When he was seventeen, his older sister died of tuberculosis and this painful loss led him to medicine. Upon completing medical school in India, he returned to Nepal as a government health officer. Following an assignment with the WHO Nepal Blindness Survey in 1980, he completed a residency in ophthalmology. Later, in Australia, he learned from his friend and mentor Dr. Fred Hollows the latest techniques in cataract microsurgery using implanted intraocular lenses.

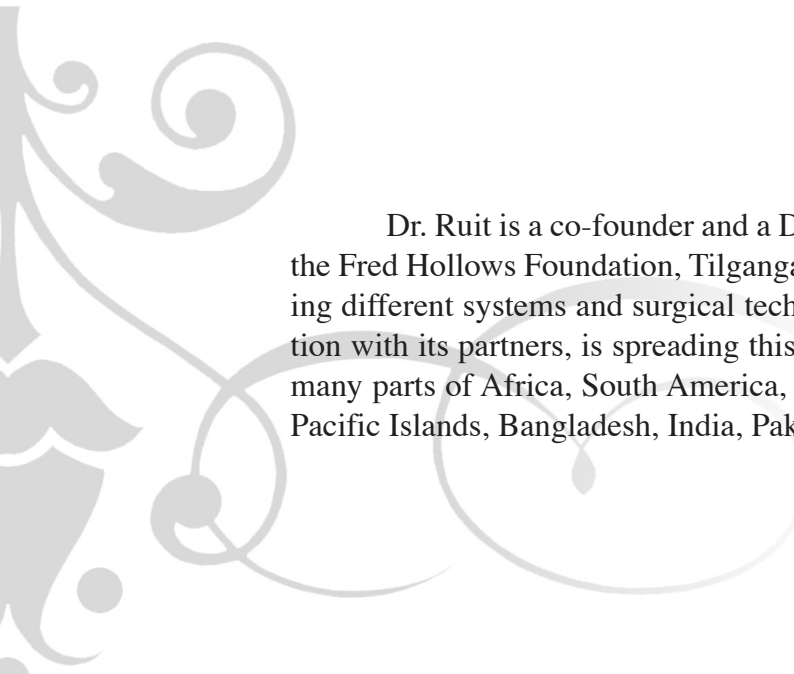
In the late 80s, Dr. Ruit and his team first simplified the cataract surgical technique and made it appropriate for local conditions. They struggled hard to develop an efficient, simple, cost effective and high quality cataract surgery delivery system in Nepal.

Dr. Ruit and his colleagues have over the last 20 years been spreading this technology to many parts of the world, particularly in Asia. This system has been received extremely well by hundreds of thousands of patients, eye doctors, health personnel and politicians in many parts of the Asia.

Over a period of time, this technique and system has been evolved together with the evolution of technology in the western world. The most important for this is that his group has always attempted to provide the best outcome of surgery even to the most under privileged and into the most remote areas of the world, and, to be made affordable to them. Also, this technique of modern cataract surgery and philosophy has been passed onto more than five hundred eye surgeons from around the world and they are now applying it for the benefit of patients in their own areas.

The cost of an intra ocular lens used for this modern cataract surgery was very high - about US\$100 per lens. Dr. Ruit took the initiative, with the Fred Hollows Foundation, to manufacture these lenses locally for about \$4. This has been a tremendous breakthrough in the process of providing high quality and modern technology to the masses, till now the fred hollows foundation has provided about 3.5 million high quality intraocular lenses.

Tilganga Eye Centre acts as a model for instituting the concept of high quality eye care for the community and for developing an effective cost recovery scheme. This efficient model of eye care has been quoted by many and is now practiced in many parts of the world. Dr. Ruit was one of the Founders of Tilganga Eye Centre, which opened in 1994.



Dr. Ruit is a co-founder and a Director of the Himalayan Cataract Project. With the Fred Hollows Foundation, Tilganga Eye Centre is working very closely in developing different systems and surgical techniques. Tilganga Eye Centre, in close conjunction with its partners, is spreading this very effective and proudly Nepalese system, in many parts of Africa, South America, Thailand, Bhutan, Myanmar, Cambodia, China, Pacific Islands, Bangladesh, India, Pakistan, etc.







## **Panel Session**

*Primary Health Care : Past Achievement,  
Future Challenges and Responses :  
Five Country Case Studies*

## **Policy and Practices**

### **Primary Health Care : past achievement and future challenges, five country case studies**

**Viroj Tangcharoensathien\***  
**Toomas Palu\*\***

#### **I. Introduction**

Since 1978 Alma Ata Declaration, Primary Health Care (PHC) has been advocated as main strategy to achieve Health for All (HFA) through the application of principles of equitable access to affordable health services using appropriate technology, community participation and empowerment.

At the turn of the century, HFA target was not fully achieved. Despite global achievement in significant reduction in infant deaths, improvement in child immunization coverage and access to safe water and sanitation, HFA fell short of minimizing health inequity gap <sup>[1]</sup>.

New medicines and vaccines were developed but prices were out of reach by poor nations and the delivery systems were inadequate. In the 1990s, HIV epidemic wiped off 30 year gains in life expectancy particularly in Sub-Saharan African nations. Global health inequity gap widened, such as infant mortality, skilled birth attendances between rich and poor. There are unacceptable, avoidable and unfair disparities to overcome among and within nation. <sup>[2]</sup>

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\* International Health Policy Program, Ministry of Public Health, Thailand.

\*\* World Bank, East Asia and Pacific Region

A study on the contributions of primary care on health outcomes in 18 OECD members revealed a positive relationship of the strengths of primary care and health outcomes measured by mortality<sup>[3]</sup>. Stronger primary care, the availability of primary care physicians resulted in better health outcome of the population<sup>[4, 5]</sup> at much lower cost compared to specialist hospital care.<sup>[6]</sup>

PHC is viewed as a primary contact with a country health system through effective interface between individual, families, community and public health programs, primary health care clinics and referral services. Community health workers (CHW) and volunteers play catalytic role in this effective interface.

By 2008, PHC has gone through three decades of implementation and experiences. An international forum, Prince Mahidol Award Conference<sup>[7]</sup> was organized in Bangkok in early 2008 to discuss the past and the future of Primary Health Care. The ambition of this paper is to provide inputs to global discussions taking place during 2008 on redefining the Primary Health Care and its role in healthy development. This is not a comprehensive review of international practice but rather a synthesis based on PHC policy experiences from five country studies presented at this conference with wide variations in socio-economic and health development as case studies: Cambodia<sup>[8]</sup>, Canada<sup>[9]</sup>, Ethiopia<sup>[10]</sup>, Rwanda<sup>[11]</sup> and Thailand<sup>[12]</sup>. Methods applied by these case studies included literature reviews, secondary data analysis and interviews of key informants who are policy stakeholders.

The case studies briefly reviewed health achievement in the context of socio-economic development, looked back into the past experiences to draw lessons; and looked forward to recommend proper role of PHC in view of changing context, new and old challenges. The paper addressed PHC in relation to Millennium Development Goal 4 (MDG4), reduce by two thirds the mortality rate among under five children, and MDG5, reduce by three quarters the maternal mortality rate.

#### **Box 1** Case Study Highlights

**Cambodia.** Successful health system innovations to improve access to quality essential health services were achieved. Contracting NGOs to run district health services have restored confidence to health system, improved service delivery in remote and poorer areas. Health Equity Funds that pay user fees on behalf of the poor have had an impact of catching two birds with one try - better access service by the poor while service providers get paid for their work. Challenge is scaling up.

**Canada.** Renewal of PHC in a wealthy and healthy nation achieved. Fundamental PHC principles of universality, accessibility, comprehensiveness enshrined in legislation endorsed, as well as introducing Family Medicine Discipline to bridge the individual health care and public health. PHC renewal principles: multidisciplinary, community based, 24 hours seven days a week services, enhanced information technology, focus on prevention/health promotion. Challenge - specialist interventionist medical culture.

**Ethiopia.** Successful expansion of health infrastructure including the model of pastoralist community, and services especially on health workers under Health Extension Program, health achievement achieved though rich poor equity gap still large. Donor coordination and harmonization along the line of health development policy and plan achieved, advocates of three onesí policy, one plan, one budget and one reporting. Financing much relied on donors and out of pocket, yet to develop pre-payment scheme and protection of the poor.

**Rwanda.** Successful innovative service delivery approaches - autonomy and co-management of health facilities, performance based contracting, remarkable achievement when the mutual health insurance covering 70% of population. Challenge - sustaining these interventions in terms of management and finance.

**Thailand.** Successful investment and extension of PHC coverage and investment in human resources achieved. In parallel of PHC extension, significant mobilization of community health volunteers for community based PHC action achieved. Recent universal health insurance coverage achieved with a pro-equity outcome. Challenges - redefine role of community engagement in PHC, changing disease patterns, new medical technologies and policies towards private health sector.

## II. Past achievements and Challenges

**Table 1** Selected socio-economic and health achievements, 5 case studies

	Cambodia	Canada	Ethiopia	Rwanda	Thailand
<b>Overall indicators</b>					
• Human Development Index Rank	131	4	169	161	78
<b>Health Indicators</b>					
• IMR, per 1000 live births	98 (66*)	5	109	118	18
• Life expectancy at birth, years	58.0	80.3	51.8	45.2	69.9
• Adult HIV prevalence, %	1.6[0.9-2.6] (0.9%*)	0.3 [0.2-0.5]	[0.9-3.5]	3.1 [2.9-3.2]	1.4 [0.7-2.1]
<b>Health expenditure</b>					
• Public health expenditure (% of GDP) 2004	1.7	6.8	2.7	4.3	2.3
• Private health expenditure (% of GDP) 2004	5	3	2.6	3.2	1.2
• Health expenditure per capita (PPP US\$) 2004	140	3,173	21	126	293
<b>Inequity indicators</b>					
• Births attended by skilled health personnel (%) Poorest 20%	21	..	1	27	93
• Births attended by skilled Health personnel (%) Richest 20%	90	..	27	66	100
• One-year-olds fully immunized (%) Poorest 20%	56	..	14	74	92
• One-year-olds fully immunized (%) Richest 20%	76	..	36	74	86
• Infant mortality rate (per 1,000 live births) Poorest 20%	101	..	80	114	..
• Infant mortality rate (per 1,000 live births) Richest 20%	34	..	60	73	..
• Gini Index	41.7	32.6	30	46.8	42

Source: UNDP 2008<sup>[13]</sup>

Note \* Cambodia CDHS 2005

In Table 1, achievements along selected indicators varied greatly. A slow progress of life expectancy gain was observed in Ethiopia, 4 years in 30 years, from 43.6 years in 1974 to 47.8 in 2004, though there was significant infant mortality reduction, by half from 155 in 1974 to 77 in 2004. [10]

One should note that health outcomes are determined by multiple determinants such as economic development and income distribution, investment in health and other social interventions, quality of health systems. PHC is one of piece of the puzzles in the interface of these many determinants.

Country contexts varied. Historically, Cambodia and Rwanda faced political conflicts and genocide, where major reconstruction and reconciliation marked significant progresses in health and social developments when peace restored [14]. Thailand and Canada had stable and smooth economic and social development.

A marked rich-poor health gap was observed in Ethiopia, Cambodia and Rwanda especially on births attended by skilled personnel and infant deaths. Smaller gap in immunization coverage rate was observed, no gap in Rwanda and reverse gap in Thailand [higher coverage in poorest than richest quintiles].

Although improvements were made on aggregate outcomes, performance on equity dimension varied. For example, the Cambodian Demographic and Health Survey (DHS) 2000 and 2005 reported successful achievement in MCH services, for example, ANC coverage increased from 38% to 69%, births assisted by trained health workers improved from 32% to 44%. Despite these achievements, table 2 describes rich poor inequity health gap.

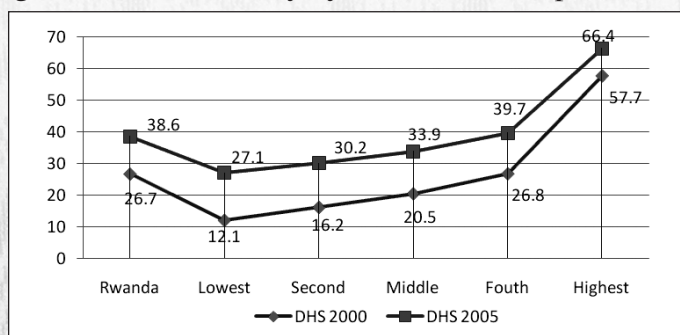
**Table 2** Inequity health gap in Cambodia

	Income quintile				
	Lowest	Second	Middle	Fourth	Highest
Infant Mortality	101	109	98	78	34
Under Five Mortality	127	129	114	92	43

*Source: Cambodia DHS 2005 (10-year period preceding survey)*

Health gap was again reconfirmed by Rwanda DHS 2000 and 2005 trend of percent assisted delivery by trained personnel across wealth quintiles. Improvement of coverage between 2000 and 2005 with persistent rich poor gaps were observed, Figure 1.

**Figure 1** Percentage of assisted delivery by a skilled health provider by Wealth quintile



*Source of data: Rwanda DHS 2000 and 2005.*

In summary, micro-country level confirmed macro-global observation of significant health gain but rich-poor gap remained challenge and that strong PHC would mitigate the gap whereby most of the poor can reach and use. Maternal mortality reduction has been slowed and remained major challenges in achieving MDG5.

### III. Lessons learned from the past

A framework of health systems constraint and how to overcome in order to achieve MDG by Travis et al<sup>[15]</sup> was applied for the synthesis of country case studies. Table 3 described how country responded to the constraints: demand and supply side determinants and stewardship function.

**Table 3** Case Study Country responses to health systems constraints

Constraints	Samples of country PHC response
<b>Demand side determinants</b>	
Financial inaccessibility: inability to pay, informal fees	<ul style="list-style-type: none"> <li>• Cambodia: Health Equity Fund and regulated user fees in public hospitals</li> <li>• Canada: universal coverage achieved</li> <li>• Ethiopia: no risk pooling developed, relies on user fees, use of revenue will be formalized</li> <li>• Rwanda: <i>Mutuelles</i> + exempting the poor, high coverage of CBHI</li> <li>• Thailand: All instruments applied, Low Income Scheme for the poor, Voluntary public subsidized insurance for the non-poor, social health insurance for formal public and private employee, achieve Universal Coverage by 2001</li> </ul>
Physical inaccessibility: distance to facility	<ul style="list-style-type: none"> <li>• In all cases: extension of public health infrastructure, rural focus plus improvement of upper tier referral backups.</li> <li>• Ethiopia: significant achievement of health infrastructure development and geographical extension, including model for pastoralist communities</li> <li>• Rwanda: three tier systems, currently 60% of population lives in 5 km. to a health centre, 85% within 10 km.</li> <li>• Thailand: extensive geographical coverage of health infrastructure in 2 decades (1980s and 90s), effective mobilization of 800,000 community health volunteers minimize socio-cultural barriers</li> </ul>
<b>Supply side determinants</b>	
Inappropriately skilled staff	<ul style="list-style-type: none"> <li>• In all cases, revision of training curriculum, training and deployment of paramedical staff, and community health workers training capacity, different cadres of health workers</li> <li>• Rwanda, the application of traditional midwives for recognition signs of high risk pregnancies was terminated as it did not reduce maternal mortality, skilled personnel is responsible for assisted delivery</li> <li>• Canada: new discipline Family Practice/Family medicine to bridge public health and individual health objectives</li> </ul>



Constraints	Samples of country PHC response
Poorly motivated staff	<ul style="list-style-type: none"> <li>• In all cases, Ethiopian Health Extension Program efforts, moving from voluntarism to paid personnel</li> <li>• Cambodia: contracting district services to non-government providers, incentive based performance agreement with staffs resulted in improved utilization</li> </ul>
Poor quality care among private sector providers	<ul style="list-style-type: none"> <li>• Still major challenge and little is done in several cases</li> <li>• Thailand had advanced development of private sector and medical tourism, adverse impact on PHC through internal brain drain and net loss to rural areas.</li> </ul>
<b>Stewardship function</b>	
Weak planning and management	<ul style="list-style-type: none"> <li>• All cases invested in capacity strengthening, public health management, information systems for planning, monitoring and evaluation</li> <li>• Ethiopia: Health information system development, donor coordination and harmonization along the line of health development policy and plan, advocates of three ones' policy, one plan, one budget and one reporting</li> <li>• Rwanda demonstrated a good case using donor resources for HIV, TB and Malaria to strengthen the whole health system, integrating vertical program at PHC level.</li> <li>• Canada: core values strongly enshrined in legislation and health system</li> </ul>
Lack of intersectoral action and partnership	<ul style="list-style-type: none"> <li>• All cases focused in inter-sectoral collaboration from central to local levels, significant role of community level volunteers.</li> <li>• High level of social solidarity at community level, an Ethiopian social asset</li> <li>• Thailand: significant contributions by village health volunteers</li> </ul>

*Source: Framework modified from Travis et al [15], and country reports [8-12]*

## Application of PHC principles

All case countries had adopted the equity principle embedded in the Alma Ata Declaration as a moral framework on which health systems and other sectors [education, rural development, social protection and agriculture] were developed either on policy framework, programmatic design and budget allocations. They have had specific measures to protect the poor and reaching remote and underserved areas. The large rich-poor gap on maternal deaths reaffirmed the relevance of PHC equity principle as guiding principle for health systems development.

However, the interpretation and implementation of community participation is context specific, mostly through the governance of local health committee in Cambodia and Ethiopia and the empowerment of village health volunteers in Thailand. However, in line of socio-economic transition and development, community participation in original form and intent is on decline in Thailand.

## Supply side responses

All countries applied supply side extension through consistent investment in public health infrastructure with explicit equity goal and rural focus where the poor lived [for example 1996 Health Coverage Plan in Cambodia, Health Extension Program in Ethiopia, Decade for Health Centre Development in Thailand, and infrastructure rehabilitation in Rwanda when peace restored]. Also increased training capacity of human resources and policy towards retention such as mandatory rural services in Thailand for all medical and nursing graduates, task shifting and role of other community health workers were major responses by all cases.

However, human resources remained a major bottleneck. Shortage and maldistribution of human resources, inadequate and inappropriate skill, poorly motivated staff were common problems yet to resolve. Thailand described a success story of the role and changing role of community health volunteers. In Cambodia and Ethiopia where maternal mortality were high, the major challenges were inadequate number of nurses and midwives, half of the midwives posts were filled in Cambodia.

Cambodia described a successful case of six year experiences of contracting district health services to non-government providers, in terms of better access and improved utilization. Interpretation of success should be made with care as surveys were self-evaluated by concerned agencies who managed contracting projects. The remaining challenges were about scaling up, harmonizing services in contracting districts with national program on vertical disease control, and long term programmatic and financial sustainability, as it relied mostly on donor financial and technical inputs.

The role of private sector was briefly mentioned but there was lack of in-depth analysis. In Cambodia private service provision was unregulated, unreliable and lied outside the official health system. There were signs of flourishing private sector in Ethiopia which may have negative equity impacts and health gain. It is not attractive to provide health promotion and prevention than curative services and selling medicines. Internal brain drain from public to private may deplete the limited human resource pool in public sector.

## Demand side responses

User charges deterred demand for services, especially among the poor. Cambodia introduced Health Equity Fund (HEF) where the identified poor were subsidized for services provided by public hospitals. HEF, managed by local NGO and financed by international donors or community contribution in some cases, increased access and utilization by the poor and prevent impoverishment from household spending on health. Challenges were heavy reliance on external funding and technical inputs which may result in programmatic and financial sustainability.

There was good lesson from the community based health insurance, the *mutuelles* covered 73% of population by 2006 in Rwanda. Large risk pooling resulted in a minimum moral hazard and adverse selection. Capitation transferred risk to providers sent strong signal towards efficiency, and public subsidies to the poor boosted access to care. In addition, there is a high potential of scaling up towards universal coverage, but financial sustainability was a major concern.



It took 28 years for Thailand to achieve universal coverage since the policy on free healthcare for the poor in 1975. Its experiences had much to learn on the reform processes and political context, systems design and pro-poor outcome of the scheme. [16, 17, 18]

## Stewardship

Health services were decentralized to local government in all cases, with varying levels of implementation, poorer implementation capacity among local governments was observed, especially among developing countries. Intersectoral collaboration was fostered with varying degree of success.

Donor harmonization and alignment with national policy and plan were major concerns in all countries with diversified experiences in views of many global players at country level, such as PEPFAR, Global Fund, GAVI and other bilateral.

Integration with vertical programs was reported to be successful in Rwanda. Strengths in Cambodia are government constructive and open-minded attitudes, welcome experimenting contracting and HEF by donors and NGO partners. Success of HEF and performance contracting can be applied for scaling up though resource gap is within government capacity.

## Unfinished agenda

In summary, despite significant supply side extension and health achievement in Cambodia, Ethiopia and Rwanda, health gaps still persisted.

By 2008, PHC in these countries still faced chronic shortage and mal-distribution of human resources whereas financing health care was vulnerable to sustainability risks due to heavy financial and technical inputs from outside.

Better integration of PHC is still a challenge given significant disease/problem specific fund flows from Global Fund and PEPFAR on HIV/AIDS TB and Malaria in Cambodia, Ethiopia, and Rwanda.

Challenges is scaling up proven effective pilots such as contracting district services and HEF have to overcome several bottlenecks - incremental financial resources, human resources, management and stewardship, in particular sub-national levels. The *mutuelles* in Rwanda had the highest potential to scale up towards universal coverage, though the package was still limited.

Financing healthcare in Ethiopia still relied on donor resources and household out of pocket, that catastrophic, welfare losses and impoverishment is likely.

## IV. Looking forward

Given the unfinished agenda of PHC development in the last decades, it is difficult to achieve MDG4 [under five mortality rate] and MDG5 [Maternal Mortality] as wished. Globally, under five mortality rate is forecasted to decline by 27% from 1990 to 2015, substantially less than the target of MDG4 of a 67% decrease [19]. Global progress on MDG4 is dominated by slow reduction in sub-Saharan Africa. The dim chance of achieving MDG4 in some cases was compiled in Table 4. The annual decline rate in 1990 to 2015 in most cases was well short of the target of 4.3%.

**Table 4** Probability of achieving MDG4, selected countries

Country	Mean annual percentage decline in under 5 mortality				Probability of achieving MDG4 (%)**	Under 5 mortality (2005) per 1000
	1970-80	1980-90	1990-2000	1990-2015		
Cambodia	3.9	2.6	1.3	2.1 (1.1-4.4)	5	94*** (73-98)
Canada*	4.7	4.1	3.6	3.5 (2.1-4)	0	5 (5-6)
Ethiopia	1.5	2	2.4	2.4 (0.6-4.7)	5	120(86-145)
Rwanda	0.5	0.9	0.5	0.4 (-0.6-0.8)	0	168(164-197)
Thailand	5.1	5.6	4.6	4.5(0.4-5.8)	67	14(13-26)

Source [19]

\* High income country is not committed to MDG4 target

\*\* Percent of the full set of forecasts, which capture specification and parameter uncertainty, that yield a decline in under 5 mortality between 1990 and 2015 of greater than 67%

\*\*\* Latest Cambodia IMR figures from CDHS 2005 indicate that Cambodia is on track meeting the MDG4

The root causes of these unfinished problems are: effective interventions reached too few people especially the poor.<sup>[20]</sup> PHC can play a vital role in delivering these services to the communities.

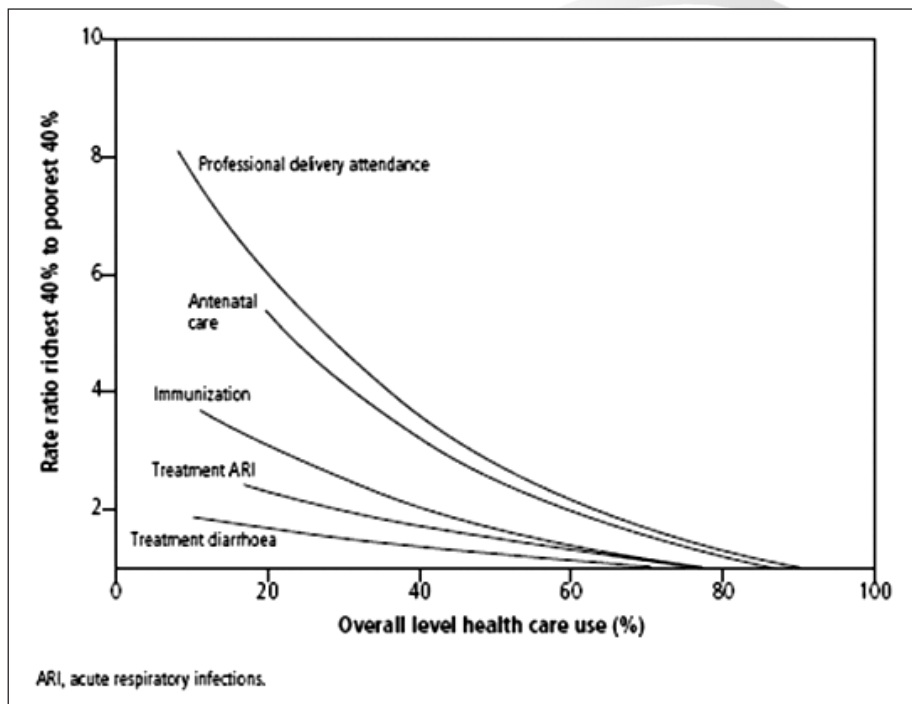
We propose several recommendations on fostering PHC role in health development of the population.

### **PHC: key vehicle for delivering cost effective interventions while promoting equity**

Effective and cost-effective PHC interventions are known. For example, the key preventive interventions<sup>[22]</sup> for child mortality include breastfeeding, safe disposal of stool and use of latrine, safe preparation of weaning foods, use of insecticide-treated bed nets, complementary feeding, immunization, micronutrients supplementation (zinc and vitamin A), prenatal care, including steroids and tetanus toxoid, anti malarial intermittent preventive treatment in pregnancy, newborn temperature management, nevirapine and replacement feeding, antibiotics for premature rupture of membranes and clean delivery. Figure 2 shows the relationship between the size of relative inequalities in health care use and the overall levels of health care use for five types of health care<sup>[21]</sup>. At all overall levels, inequalities in professional delivery attendance and antenatal care are systematically larger than inequalities in the other types of care. The Thai universal coverage scheme provides its members to a free comprehensive package of PHC services at health centres and district hospitals and proper referral backups, had significantly prevented catastrophic and impoverishment, and achieved equity as measured by benefit incidence analysis.<sup>[18]</sup>

The finding fosters the policy message to ensure equitable access by all through the functioning of PHC. It indicates that the better access to and use of MCH services, the smaller the rich poor gap.

**Figure 2** Association between poor-rich rate ratio and overall level for five types of healthcare use, based on data for 45 developing countries



Source<sup>[21]</sup>

### Reallocation resources

Shifting spending from tertiary care in urban centre toward PHC and cost effective interventions as proposed in various chapters in the Diseases Control Priority in Developing Countries<sup>[22]</sup> is challenging. In both developing and developed countries, medical and society elites’ resistance to reorientation is not uncommon. This requires leadership and institutional capacity to introduce and manage changes.

### Additional financial resources required

Immunization coverage is a good test of a functioning PHC. On global scale, despite the significant additional new resources for immunization since early 2000s, through the GAVI Alliance and other global efforts, financing immunization remains a significant challenge. A funding gap of between US\$ 11 billion and US\$ 15 billion is estimated to remain if the goal of saving 10 million more lives is to be achieved by 2015.<sup>[23]</sup> Immunization services can serve as an entry for achieving MDG4 and MDG5 through integration of several cost effective interventions at PHC level.

On country scale, domestic capacity to track resources and estimate total resource required for scaling up is vital. For example, in Cambodia, scaling up of contracting, HEF and performance based salary incentives would require additional US\$ 23 million a year which is US\$ 1.6 per capita, compared to the current government spending of US\$ 1.5 to 2.0. It seems feasible to meet the financial gap. Ethiopia applied Marginal Budgeting for Bottlenecks while Cambodia used evidence from pilot innovations to estimate total resources required to achieve MDG health targets.

While mobilizing outside resources, it is the legitimate responsibility of the government to mobilize domestic resources, through political commitment and leadership as well as institutional capacity to harmonize donor programs along the line with national priorities. Public health expenditure in Ethiopia increased from 9.1% of government expenditure in 2004 to 11.6% in 2006; and total health expenditure per capita increased from US\$ 4.5 in 1996 to 5.6 in 2000 and 7.14 in 2005, this achievement is far below the target expenditure of US\$ 34 per capita recommended by the Commission on Macroeconomics and Health.

### **Removing financial barriers for the poor and beyond**

A systematic review <sup>[24]</sup> indicates that user fees deterred use especially by the poor, although it is often unclear to what extent and what kind of use were most affected. Cambodia and Rwanda experiences indicated that targeted and funded user fee exemptions can be effective.

Insurance has potential for risk pooling and reduction of catastrophic expenditure, but the research evidence is still scanty for how these systems can be scaled up, and for their effect on equity. However, the Thai case of universal coverage produces equity gain by advocating the contract model of PHC at district level <sup>[18]</sup>. Where improving supply and lowering financial barriers for access are not enough to address key public health priorities such as high maternal mortality, additional demand mobilization policies such as conditional cash transfer experiences from Latin America would be considered.

### **Strong policies and institutions matter**

Evidence indicates development assistance yields better effects in countries with strong policies and institutions than in countries with only average-quality policy and institutions and non-significant impact in countries where policies and institutions are weak. <sup>[25]</sup> This prompts to parallel reforms on country governance, policies and institutional capacity.

In order to achieve MDG5, it is recommended <sup>[26]</sup> that safe motherhood programs should emphasize country ownership, funding harmonization and results based financing, the capacity of countries to implement services urgently needs to be strengthened.

### **Performance orientation and incentives matter**

Performance based payment and contracting of PHC services in the context of limited public provision capacity has shown positive results in Rwanda and Cambodia. Among others, human resources are the main bottleneck and weakest link in the chain of PHC development.

### **Private sector role needs to be better understood and addressed**

Empirical evidence on effective engagement of private sector in furthering PHC goals is still scanty and not enough researched. Similarly, how to deal with adverse

impacts from private sector growth, e.g. claims against one common pool of scarce human resources, requires further evidence from health systems research.

### **Community participation and empowerment need redesign**

Originally conceived as an effective way to get public health messages and interventions into communities and substituting to lacking formal health systems, perceived as “another helpful hands”, some of community roles would need to be rethought.

Successful expansion of formal health systems, improved access to mass media and telecommunications, improved road networks and overall educational improvement, upsurge of chronic non-communicable disease requiring more sophisticated management - this all point to different PHC interactions with the community. Community engagement in participatory health policy process, engagement in inter-sectoral issues, being more responsive to community needs, increasing health services accountability towards community - these may be the new directions for consideration.

### **Facing emerging challenges**

PHC is facing new challenges in the new millennium. Rise of chronic disease creates demands for new skills and for additional financial protection. Multi-drug resistant TB strains, SARS and avian flu in the era of globalization pose specific challenges for public health surveillance and clinical management capacity. The case studies discussed some but did not provide strong empirical evidence or experience how to deal with those.

## **V. Epilogues**

The fundamental equity principle of PHC is still valid. The thirty year experiences furnished invaluable lessons how countries, WHO and development partners should move forwards for the better health of the Nations. Given the globalization, demographic and epidemiological transitions, emerging public health threats, multiple health players at country and global level, and domestic institutional challenges, assessment and redefine the role and approaches of PHC are the key missions by all concerned parties.

To achieve the MDG as committed by all Nations, there is a need to revitalize PHC as Director General of WHO, Dr. Margaret Chan addressed in her opening speech at the Buenos Aires conference.

... I do not believe we will be able to reach the Millennium Development Goals unless we return to the values, principles, and approaches of primary health care.

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## Breaking barriers to access to provide primary health care for the poor in Cambodia

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### 1. Health sector developments

Health indicators in Cambodia are responding both to improvements in the economic situation and to the introduction of innovative health reform measures. In the last decade Cambodia has rebuilt its primary care infrastructure, after the conflicts of the 1970s had completely destroyed the health system. Under conditions of isolation and shortages, reconstruction during the 1980s was slow, but in the 1990s health facilities were renovated or rebuilt, staff trained and a drug supply system established. From 2000, significant improvements have been evident within a context of prolonged political stability and economic growth, and a number of unique and effective pilot projects in health financing and relief for the poor have been initiated (Annear et al. 2008 (forthcoming)).

Primary care services are provided horizontally by the Ministry of Health (MOH) through health centers and referral hospitals and through nationally coordinated vertical disease control programs. The definition of Primary Health Care (PHC) provided by the Alma Ata declaration is the basis for a 1995 Royal Sub-Decree formalising PHC as an inter-ministerial commitment by the government (involving health, rural development, agriculture). The government's 2000 National Policy on Primary Health Care promotes PHC as a practical, scientifically sound, community-based, cross-sectoral and socially acceptable form of service delivery that is integrated into the country's health system (IMC-PHC 2000). The MOH, however, takes the lead in PHC implementation.

The need to reduce child and maternal mortality rates, improve service quality and reduce excessive user costs are at the heart of the PHC National Policy. Universal accessibility in relation to need is one of the principles on which resource allocation in health and related sectors (water, sanitation, food supply and transport) was to be based. Social and economic factors were considered unacceptable as barriers to access. Community participation was to be achieved through a number of existing village volunteer and health-related community networks. Close cooperation between the various inter-ministerial, non-government, community and private organisations was encouraged to promote inter-sectoral action. Health services were to be provided in a

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way that was affordable and appropriate to conditions. Expanding service coverage through the use of cost-effective methods was considered fundamental to providing sustainability of PHC services along with the growth of the national health budget.

To what extent has this health-systems approach to providing PHC been successful? And what has been the contribution of innovative schemes to this process? This paper discusses Cambodia's efforts in providing primary health care to its population and in particular looks at two innovative financing schemes that have emerged (Contracting and Health Equity Funding), their contribution to extending primary care and the implications for national health and health-financing policy. The evidence on which this analysis is based comes from official documentary sources, a review of the published literature, data from the Cambodian Demographic and Health Survey (CDHS) 2005, recent operational research, interviews with key informants over a number of years and the extensive experience of the authors working with and within the Cambodian health system.

Determining the link between improved health outcomes and improvements in service delivery is notoriously difficult. In this paper, key maternal and child health indicators - specifically, childhood and maternal mortality rates - are used as 'tracers' of improvements in primary health care outcomes. To analyse the links between these health-outcome tracers and improvements in service delivery, we first consider the risk factors identified as contributing to maternal and childhood mortality; we then consider changes in proxy service-delivery indicators related to these risk factors. We conclude that a number of factors have contributed to improved health status and that the innovative schemes have played a significant role. In the next section we investigate the key tracers, in Section 3 we look at the innovative schemes that have added to the gains made and the final section discusses the lessons learned.

## **2. Results and tracers of health impact**

Significant reductions in childhood mortality rates are the most dramatic 'tracers' of recent improvements in health status. The major changes that have occurred were revealed by the CDHS 2005 and comparison with the CDHS 2000 (NIPH and NIS 2006). After several years of inconsistent progress, the infant mortality rate fell by almost 40% between 1998 and 2003 and the child mortality rate has fallen more gradually since 1982. While the postneonatal mortality rate still exceeds the neonatal mortality rate - indicating that if babies survive the first month of life they are still at increased risk until one year old - these rates have fallen also. By 2003, for children who survived the first year of life the chances of surviving until age five (and beyond) were considerably improved. However, despite the acknowledged progress, one in every 12 Cambodian children dies before reaching the age of five, and four-fifths of these deaths occur in the first year of life.

The results are summarised in Table 3. The figures for 1982 reflect the immediate post-Democratic Kampuchea period. Fertility rates increased dramatically in the years that followed and by the early 1990s almost half the population were under 15 years old (Annear 1998). Following the 1993 UNTAC-sponsored national election, funding from international donors and support for health increased significantly. And by 2003, a new generation of young Cambodians who had not lived under the Khmer Rouge had begun to produce children of their own. There has, however, been no significant change in the maternal mortality ratio, which remains unacceptably high at

472 maternal deaths per 100,000 live births. Because of the difficulties in achieving complete and accurate reporting of maternal deaths, the estimate of maternal mortality is less than precise. However, about one woman in six who died in the seven years prior to the CDHS 2005 lost her life from pregnancy-related causes.

**Table 1. Childhood maternal mortality rates, Cambodia 1982-2003**

<b>Mortality rates</b>	<b>1982</b>	<b>1987</b>	<b>1993</b>	<b>1998</b>	<b>2003</b>
(per 1000 live births)					
Neonatal mortality	..	..	44	37	28
Postneonatal mortality	..	..	50	58	37
Infant mortality	85	79	93	109	66
Child mortality (per 1000 children surviving to age one)	53	39	34	21	19
Under 5 Mortality	133	115	124	127	83
Maternal mortality ratio (per 100,000 live births)	..	..	..	437	472

Source: CDHS 2005 (NIPH and NIS 2006)

Definitions:

Neonatal Mortality Rate - probability of dying within the first month of life

Postneonatal Mortality Rate - probability of dying between first month of life and the first birthday

Infant Mortality Rate - probability of dying between birth and first birthday

Child Mortality Rate - probability of dying between first and fifth birthday

Under-5 Mortality Rate - probability of dying between birth and fifth birthday

### *Risk factors and proxy indicators*

There is no official explanation of the fall in mortality rates and no research has yet been carried out to reveal the causes. However, by looking at the risk factors for the main causes of mortality and at proxy indicators of service delivery activities it is possible to gain some understanding of the causes of reduced mortality. Based on data from the CDHS 2005, the main mortality risk factors are listed in Table 2. In general, children born to younger (under 18) or older (over 34) women with a low birth interval and into an already large family are 1.8 times more likely to die than others. The main cause of maternal mortality is the lack of attended births and the very low utilization of public health facilities for deliveries. Considering the risk factors associated with child birth (age of mother, birth interval, number of children), three-quarters of currently married women have the potential of giving birth to a child at elevated risk level.

**Table 2. Main causes of childhood and maternal mortality**

<b>Tracers</b>	<b>Main causes of mortality</b>	<b>Associated risk factors</b>
Infant mortality	[includes neonatal and postneonatal mortality]	
- Neonatal mortality	Obstetric complications; neonatal tetanus; low birth weight	Insufficient ANC, assisted delivery, PNC
- Postneonatal mortality	Respiratory infection; diarrheal disease; dengue hemorrhagic fever	Poor environmental conditions, limited access to health services
Child mortality	Anaemia; poor nutrition; infectious disease; ARI; fever-malaria; diarrheal disease	Low diagnosis and treatment of disease

Under-5 mortality [additional predisposing factors]	Mother's age <18-34> years; low birth interval; number of children	Demographic conditions, inadequate health promotion
Maternal mortality	Obstetric complications	Low levels of assisted delivery

Source: derived from CDHS 2005 (NIPH and NIS 2006)

Changes in key proxy indicators recorded by the CDHS 2000 and 2005 provide some of the explanation for declining mortality rates. Indicators for which relevant data is available in both surveys are listed in Table 3. These data show a significant increase in the number of women receiving antenatal care from trained personnel, a doubling in the proportion of deliveries at a health facilities (which remains low), elevated levels of childhood immunization and an increasing use of public facilities for care of childhood illness.

**Table 3. Proxy indicators of mortality-related health service delivery**

Tracers	Main risk factors	Health-status and service-delivery indicators	CDHS 2000	CDHS 2005
Neonatal mortality	Low birth weight	% of babies weighed at birth	17%	40%
	Neonatal tetanus	% of women with live births in previous five years with two or more tetanus toxoid inoculations	30%	54%
Postneonatal mortality	Diarrheal disease	% of children <5 with diarrhea in previous two weeks who were taken to a health provider	22%	37%
	Dengue hemorrhagic fever	% of households with at least one mosquito net	82%	96%
Infant mortality	Low birth interval	% of non-first births < 24 months after previous birth	21%	18%
	Number of children	TFR for three previous years: number of children per woman (lifetime)	4.0	3.4
		% of married women with unmet need for family planning	33%	25%
Child mortality	Infectious disease	% of children 12-23 months with all basic recommended vaccinations (BCG, DPT, polio, measles)	31%	60%
	Poor nutrition	% of children <5 who are stunted	45%	37%
Maternal mortality	Obstetric complications	% of women who gave birth in prior five years with two or more ANC visits	38%	69%
		% of births assisted by a trained health professional	32%	44%
		% of births in previous five years delivered at a public health facility	10%	22%
		% of women 15-49 years with any anaemia	58%	47%

Source: CDHS 2005 (NIPH and NIS 2006)

*Distribution of the gains*

Despite the impressive results, the gains in improved health status have not been equally distributed, and a growing inequality in income distribution is reflected in differential childhood mortality rates (Table 4). A child born to a mother in the bottom income quintile is three-times more likely to die before reaching the age of five than to a mother in the top quintile. Children born into the wealthiest households had infant mortality and under-five mortality rates two-thirds lower than those living in the poorest households.

**Table 4. Childhood mortality rates by income quintile, Cambodia CDHS 2005**

Mortality rates	Income quintile				
	Lowest	Second	Middle	Fourth	Highest
(per 1000 live births)					
Neonatal mortality	34	45	38	38	22
Post-neonatal mortality	66	64	60	39	12
Infant mortality	101	109	98	78	34
Child mortality	29	23	18	15	9
Under 5 Mortality	127	129	114	92	43

Source: CDHS 2005 (NIPH and NIS 2006)

There are also significant disparities in the rural-urban distribution of health gains. In urban compared to rural areas, rates of infant and child mortality are considerably lower, the use of health facilities for deliveries is three-times more likely, women receive proportionately more postnatal care and they are marginally more likely to get trained antenatal care. Rates are lowest in remote north-eastern provinces where infant mortality is more than three-times the level in Phnom Penh. Infant mortality rates also fall dramatically as the level of mother's education rises and as household incomes rise (two-thirds lower in the most wealthy compared to the least wealthy households). Women with secondary education are more likely to get antenatal care from trained personnel, more likely to benefit from assisted deliveries and more likely to have access to postnatal care. Vaccination levels also increase with household wealth and mother's education.

**3. Original and innovative programs**

Despite the constraints, mortality rates therefore appear to be responding in part to improved primary care delivery, including increased utilization of services in some cases. Building on health reforms that began in 1995, more recent supply-side initiatives such as Contracting have served to improve delivery of primary care services such as immunization through stronger management and incentives. As well, demand-side initiatives, particularly health equity funding, have attacked chronically low rates of utilization of government facilities by breaking through barriers to access.

*Supply-side strengthening*

The chronic underutilization of health services and the limited quality of service delivery have both been challenges to strengthening PHC delivery. While the district-level public health infrastructure has been largely (though not completely)

rebuilt under the 1996 Health Coverage Plan, which set minimum standards for district-level health centre and referral hospital services, the demand for services has not increased in proportion to supply (MOH 1996a; 2006b; 2007). At the same time, the right of public health facilities to levy official user fees was granted under the Health Financing Charter (MOH 1996b), which aimed mainly to provide revenue for staff incentives and to regulate or remove unofficial payments in a situation where under-the-table charges by public health staff were rife and expensive (Barber et al. 2004).

In these circumstances, the Contracting of public health service delivery to non-government providers was trialled from 1999 by the Ministry of Health with the support of international donors (particularly the Asian Development Bank and the World Bank). In essence, Contracting is designed to strengthen the management of district-level public health services, to improve quality of service delivery and to increase utilization (Bhushan et al. 2002; Schwartz and Bhushan 2004; Bhushan et al. 2005; Loevinsohn and Harding 2005). It was first piloted in five areas and is currently implemented in 11 of Cambodia's 77 health districts. Under Contracting, all service delivery in a selected health district is contracted by the MOH to a non-government provider (commonly an international NGO) with donor funding to supplement the MOH budget. The NGO uses seconded government staff and facilities and provides overall management and accountability, including incentive-based performance agreements with staff.

A number of surveys and evaluations conclude that Contracting has helped to restore confidence in the public health system, to increase utilization of services, to improve service delivery and has favoured the poor by targeting more vulnerable populations (Keller and Schwartz 2001; Soeters and Griffiths 2003; Rao 2005; Keller and Thomé 2006; MOH and AFD 2007). The most relevant findings by these various surveys are summarised in Table 5. (Tables 5 and 6 below record by way of example only those indicators for which documented evidence is available and are not offered as a comprehensive assessment.)

**Table 5. Proxy indicators of mortality-related health service delivery in Contracted districts**

<b>Tracers</b>	<b>Main risk factors</b>	<b>Health-status and service-delivery indicators</b>	<b>Results</b>
Utilization of public health facilities		Curative care utilization at district health facilities	Utilization increased in all Contracted health facilities: 1997-2003 increase of 5-10 fold for Contracting c.f. <2-fold for survey control districts; a greater than average increase in the proportion of users who consult a public health provider in Contracted districts and a significantly better per capita contact rate. By 2007, per capita contact rate increased in 10/11 Contracted districts together with an increase in quality of service and better availability of health staff (esp. where bans on private practice were enforced).

Neonatal mortality	Obstetric complications Neonatal tetanus	% of women with live births in previous five years with two or more tetanus toxoid inoculations	[See maternal mortality outcomes below]  1997-2002: increased 150-400% in Contracted districts c.f. 150% in survey control.
Postneonatal mortality	Respiratory infection	% of dead children 1-12 months born since January 2000 who presented with cough and difficult breathing lasting more than two days	[Likely improvement from increased utilization]
	Diarrheal disease	% of children <5 with diarrhea in previous two weeks who were taken to a health provider	[Likely improvement from increased utilization] In Peareang OD 1998-2001: 151% increase in children with diarrhea treated with ORS.
Child mortality	Infectious disease	Immunization - % of children 12-23 months receiving basic recommended vaccinations (BCG, DPT, polio, measles): [National target by 2005: 70%]	1997-2002: greater increase in coverage of Contracted (82-158% increase) c.f. survey control districts (56% increase). In Peareang OD 1998-2001: increase of 116% in number of children fully immunized.
	Anaemia	Vitamin A: % of children 6-59 months who had received supplements in the previous six months	1997-2002: increase in coverage greater in Contracted c.f. survey control districts; by 2001 50-53% coverage in Contracted districts c.f. 32% coverage in survey control districts. By 2006: coverage averaged 42-100% in Contracted districts.
	Low diagnosis and treatment of disease	Treatment at a public health facility for ARI, fever/malaria and diarrhea	[Likely improvement from increased utilization]
Maternal mortality	Obstetric complications	ANC from a health professional (two or more visits): % of women who had a birth in previous five years with Birth assisted by a trained health	1997-2002: coverage of ANC in Contracted districts 38-54% c.f. 23% in survey control districts; increase in Contracted districts by 2-4 times c.f. <double in survey control districts. In Peareang OD 1998-2001: coverage increased by 740% 1998-2001. No significant improvement in Contracted compared to other districts: rates remain

	professional during the last year [NPRS target by 2005: 46%]	around 1/3 of deliveries.
Deliveries	Delivery at a health facility: % of births in previous five years delivered at a public health facility	Generally, little significant improvement in Contracted compared to other districts: rates remain around 7-14% of deliveries (c.f. 5% 1997). In Peareang OD 1998-2001: the number of deliveries increased 5-fold in 1998-2001.

Sources: Keller and Schwartz 2001; Bhushan et al. 2002; Soeters and Griffiths 2003; Schwartz and Buhushan 2004; Bhushan et al. 2005; Loevinsohn and Harding 2005; Rao 2005; Keller and Thomé 2006; MOH 2006b; MOH and AFD 2007.

A number of caveats should, however, be kept in mind: a number of the surveys quoted here are self-evaluations by those who initiated or managed the Contracting projects; in some cases progress has at times been recorded against project targets; no comparison is made between Contracting and other service-strengthening projects (such as NGO project support or comparable contracting models); the effect of vertical programs has not been isolated; and Contracting has been most successful in for those services requiring little behavioural change (such as immunization - see (Jacobs et al. 2007).

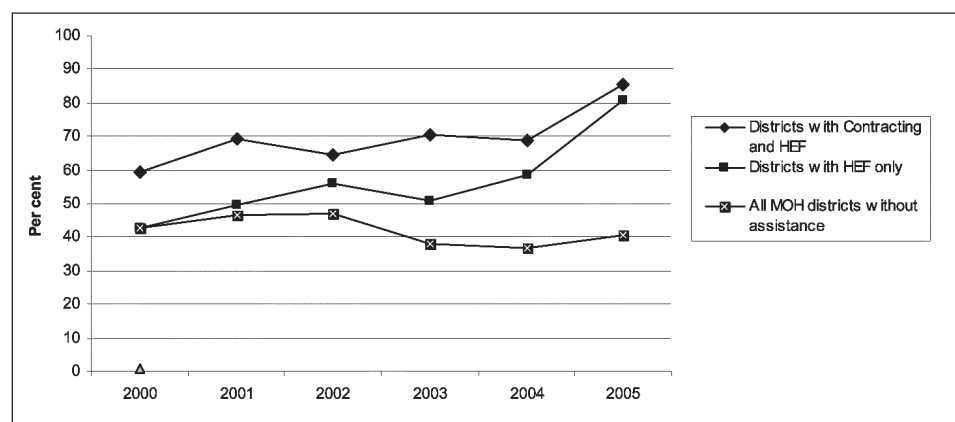
Among the outstanding challenges to be faced is the need for improved cooperation between the horizontal district-based Contracting programs and national vertical disease-control programs; often targets and approaches are in conflict. Another significant gap in national health-service delivery remains the inadequate placement of staff, particularly trained midwives, at health centres and referral hospitals. Despite success in graduating new midwives, only half of all midwifery posts nationally were filled, due mainly to an insufficient number of applicants at health centre level. A major issue is the mal-distribution of staff, with few midwives working in peripheral locations. Professional regard for midwives is still limited and Traditional Birth Attendants continue to play an important role in service delivery. A Midwifery Review and a National Plan for the Reduction of Maternal Mortality have been completed (MOH 2006a).

### Health Equity Funding

The effectiveness of the health systems approach to providing PHC requires that public health services are accessible and affordable. Health Equity Funding (HEF) emerged in 2000 to address both the low utilization of health facilities (effectiveness of PHC delivery) and the mal-distribution of health gains (equity in access to services) and now covers half of all health districts (Annear et al. forthcoming). First developed in Cambodia, HEF is a third-party, funded fee-exemption mechanism specifically targeting the poor. The HEF is managed at district level by a local agent (usually a local NGO), supervised by an international NGO and financed by donors (or in some cases through community collections). The HEF pays user charges and other costs related to accessing treatment at public health facilities for the poor. The poor are identified at or prior to the point of service and receive free care at the health facility. The facility then receives reimbursement monthly directly from the fund for the services provided to the poor.

The rapid expansion of independent HEF schemes across Cambodia was a spontaneous process led by NGOs working to assist public health service delivery. The process has been managed and monitored by the MOH. As Figure 1 illustrates, HEF has significantly increased utilization of facilities and works best in combination with improved management arrangements (such as Contracting). Recent operational research (the 'Access Study') suggests that HEF alone provides adequate access to public health facilities to those people who could not previously attend because they could not afford the user fees and associated costs of treatment (Annear et al. 2006; Annear et al. 2007).

**Figure 1. Average monthly bed occupancy rate per year at selected referral hospitals by type of financing scheme: Contracting, HEF and MOH health districts**



Source: Adapted from (Annear et al. 2006)

Note. The averages are formed by the number of districts with reliable routine data available at the time of the Access Study. The number of facilities included in these averages is as follows:

Number of districts with Contracting and HEF = 4 from Jan 2000; 5 from Dec 2004

Number of districts with HEF only = 3 from Jan 2000; 4 from August 2000; 6 from Jan 2002

Number of MOH districts without assistance = 4 'control' districts from 2000

In those districts with HEF only and for those with Contracting and HEF the average is formed by the number of districts with available data from 2000 regardless of when HEF or Contracting began (i.e. the trend over time indicates the impact of introducing these schemes).

Note that some districts chosen for HEF already had above average facilities and supply of services (which is a prerequisite for HEF introduction). Districts chosen for Contracting were more remote, poorer performing and required assistance particularly with service delivery.

While conditions vary between districts, the proportion of in-patients receiving HEF exemptions has commonly risen to the average level of poverty in the district, suggesting that the poor have been provided with access. Women and children are the main users of the public health system: the Access study indicated that HEF provides access to services for poor women and children in proportion to their general usage (among patients interviewed at an urban referral hospital 56% had attended for MCH services). Coverage by HEF leads to reduced levels of household health-related debt and allows greater discretion in the use of household monies for health care.

The main impact of HEF is to provide increase access to and utilization of primary care services (the specific gains in PHC indicators are not commonly reported). Table 6 summarises the general and particular gains documented under HEF. The caveats associated with the HEF data are three-fold: achieving PHC goals through



HEF is dependent not only on increased access and utilization but also on the nature and quality of PHC services delivered at hospitals and health centres (and this is not generally recorded in the data); in general, the routine data supporting increases in utilization and access is in some cases inconsistent and incomplete (although the data is sufficient to substantiate the general gains); and the impact of vertical programs has not been isolated.

**Table 6. Proxy indicators of mortality-related health service delivery in HEF districts**

Tracers	Main risk factors	Health-status and service-delivery indicators	Results
Utilization of public health facilities		Curative care utilization at district health facilities	HEF associated with service strengthening, incentives, training; increased quality of care, increased service delivery of HC and RH services; significant increases in access and utilisation (Annear et al 2006, 2007); increased referrals from HC to RH; 1999-2001 80% increase in deliveries THS and HC (Meessen et al 2002); increased utilization at various locations especially for the poor (Hardeman et al 2004, Meessen et al 2002, Soeters et al 2003, Akashi 2004, Nguyen 2004, Barber et al 2004, Jacobs et al 2004, 2006, 2007, 2008).
Infant mortality, child mortality	Respiratory infection, diarrheal disease and other infectious disease	% of children 1-12 months born since January 2000 who presented with symptoms and died as a result	Increased BOR in paediatric ward recorded following HEF 2002-2004 and number of cases of ARI and diarrhea treated has increased since the introduction of the HEF (Nguyen 2004).
Maternal mortality	Obstetric complications	Maternal deaths: % of all deaths for women 15-49 years  Birth assisted by a trained health professional: NPRS target by 2005 46%	Increased BOR in maternity ward 2002-2004 following HEF (but number of deliveries decreased) (Nguyen 2004); MOH HEF Framework National Plan for Reduction of Maternal Morality both include commitment to safe motherhood packages at health centers and hospitals; HEF proposed for reproductive health within NPRMM.  Deliveries assisted by trained midwife (HC data) 1999-2001 - increased by 80% c.f. total consultations 17% (Meessen et al 2002); increased assisted deliveries with HEF (Jacobs et al 2007).

Sources: Meessen et al 2002; Soeters et al 2003; Hardeman et al 2004; Akashi 2004; Nguyen 2004; Barber et al 2004; Jacobs et al 2004, 2006, 2007, 2008; Annear et al 2006, 2007.

#### 4. Lessons learned

The reduction in mortality rates is the result of various complex factors. Economic growth and rising incomes alone lead to reduced mortality, more so where the gains are equitably distributed. But without improved delivery of basic health services and increased access by all layers of the population the gains will be more limited. It would be wrong to conclude that the innovative schemes developed in Cambodia are a direct cause of the observed improvements in national health status indicators. So far, these schemes are too narrowly distributed and coverage is too limited to be able to claim such an impact. Nonetheless, the contribution made by these schemes to improved service delivery and increased access cannot be denied.

The recent gains in Cambodia have come after almost 25 years of reconstruction, rebuilding and reform, indicating again that improvements in health status require extended periods of consistent investment and development. Since the mid-1990s, Cambodia's health investments have focused on extending district-level and health-centre services in a way that supports the delivery of primary care services (each health centre serving 10-20 villages). Delivering these services is a Ministry of Health concern; primary health care activities related to water and sanitation, rural development and food supply at village level are the responsibility of the Inter-Ministerial Committee. Our analysis, which focuses on MOH services, has identified key issues in the supply of health services and in the conditions of demand for services that deserve close examination.

Whatever challenges remain (and there are many), the determinants of success can be thought of as beginning with the construction of a suitable (technologically and socially appropriate) health delivery system at community level. As well, the constructive *laissez faire* approach of the MOH - which provides the physical, human and administrative infrastructure, the policy and direction and the regulation and monitoring of the system while also supporting experimental approaches through collaborating NGO and donor agencies - has been critical to the emergence and success of the pilot schemes.

The MOH has therefore developed a flexible financial architecture that commits government resources to staffing and drug supplies while regulating user fee payments and opening up the possibility of supplementary sources of revenue for facility and staff incentives. A key lesson of these arrangements is the need to develop demand-side financing strategies, like health equity funding. The demonstrated success in correcting inequities in access to health services is not only at the heart of the PHC approach it also provides for extending primary care delivery to a large part of the population. By raising utilization levels (through increased access by the poor) and supplementary revenues (received through funded exemptions), HEF has also increased the efficiency of health facilities and added to the performance of the health system.

Clearly, by combining supply-side and management-strengthening initiative such as Contracting with demand-side financing and access programs like HEF the impact on health outcomes can be magnified. This approach differs somewhat from other PHC programs but seems to have been effective in addressing key concerns such as ante-natal care, immunization and treatment of common illnesses. Excessive maternal mortality (which reflects complex cultural as well as medical issues) remains the central concern that has yet to respond to improvements in service delivery. Under current plans, the strong cultural preference for home births may be balanced by the removal of financial

barriers to facility-based deliveries (where medically required) through programs associated with the equity-funding approach.

This health-systems approach is not strictly based on community participation as many PHC programs understand it. However, within and alongside these programs are community participation mechanisms that enhance the results. These may include, for example, community representation on Health Centre Management Committees (which is often a prerequisite for approval to levy user fees), participation by Village Health Volunteers, the activities of Village Development Committees or the use of Buddhist pagodas or temples to mobilise community support for health services (as in one notable HEF project (Jacobs 2003)).

Many challenges still confront the Cambodian health system, particularly extending coverage, raising the quality of care to an acceptable level and finding the mechanisms to provide universal affordable financial access. Resolving these issues will take many years. To date, health planners have set down the principles for health systems development, not as a vision for the future but as a guide to an approach that remains open and flexible. This flexibility has been a decided advantage but has required on the part of donors and other supporting agencies the responsibility to align programs with government priorities and harmonise their activities. An additional challenge is to address the issue of private service provision, which at the current time is unregulated and unreliable and lies outside the official health system.

Scaling up effective pilot programs for national coverage remains a major issue and has important implications for health financing. As a first step, the Health Coverage Plan needs to be completed in all health districts to provide the basic health infrastructure. Different cost scenarios for scaling up current programs have been developed, most recently by Lane (2007). Lane predicts that economic growth, an increase in government expenditure as a proportion of GDP and an increase in the share of health in the government budget will provide additional resources, with a predicted increase in real per capita total health expenditure from \$37 in 2005 to ~\$55 in 2015. Under these conditions, Lane estimates the *incremental* expenditures needed for scaling up primary care programs to national coverage. These include: a total of \$14 million per year to extend Contracting; \$4.9 million to extend HEF; and \$3.7 million to provide performance-based salary incentives.

The additional national per capita funds required would be \$1.60, compared to current government spending on primary care services of \$1.50-2.00 (i.e. it would double recurrent spending on district-level health service delivery). Given the economic projections, the gap in funding needed for such a scaling-up program could be covered without great difficulty. A more pressing question is whether increased public financing should be channelled through supply-side or demand-side financing mechanisms. For example, while HEF currently depends on donor funding, the Government's recent decision to begin funding HEF activities is a positive step.

The future of Contracting when current contracts end in 2008 is also under discussion. One of the challenges for scaling up beyond the current 11 Contracting districts is the need to respond to the concerns of public health service providers, many of whom hope that Contracting may become locally administered. The MOH regards Contracting as relatively expensive and has indicated it may consider moving towards internal contracting arrangements with independent monitoring. The Ministry of Finance wants reassurance that the existing model is consistent with new

arrangements for government financing of health care. And the Government's Council for Administrative Reform believes a model based on social health insurance would be more sustainable.

The most effective path towards increased sustainability of funding for primary care services is through increased public financing for the health system and the development of universal health insurance coverage. Along this path, the public health system not only must deal with the existing issues of coverage and quality of care but will also face emerging challenges that come with economic growth: among the most significant are the emerging health transition, increased urbanization and the increasing incidence of chronic and non-communicable disease. Cambodia is on course to achieve its health-related Millennium Development Goals. To reach these goals the current national plans for health system strengthening, national health financing and anticipated universal health insurance coverage need to be carefully and fully implemented. Based on past experience, the prospect for doing so appears to be good.

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## **Primary Health Care in Canada : An Overview of its Introduction and Renewal**

**Robert Woollard**

### **Content**

This paper considers the role of Primary Health Care (P.H.C.) in a wealthy and broadly healthy country.

It reflects on various attempts at renewal of P.H.C. in that context. The declaration of Alma Ata provided a broad and inclusive definition of Primary Care and fostered great hope and great debate, but limited action to interrupt the seemingly inexorable march of medicine towards increasing specialization and concentrated focus on technological and pharmaceutical responses to the many and varied health challenges existing across the various populations in the world. Much time and effort has been spent making fine distinctions between “primary care”, “primary health care”, and “primary medical care”, etc. much of this debate is arcane by global standards and falls into the category Freud referred to as the “narcissism of small differences”.

This paper adopts a functional definition of P.H.C. and attempts to reflect the major developmental themes of Canada’s health care system and to situate the elements of P.H.C. within that development.

### **Recent History**

In a real sense, the development of P.H.C. in Canada during the later half of the 20<sup>th</sup> century is reflected in the co-evolution of three aspects of policy and action:

- The development of “Medicare”, the system of mutual public administration and coverage of institutional and medical care
- The establishment of the discipline of Family Practice/ Family Medicine
- The parallel development of “Public Health” attending to such issues as infectious disease, immunization, water quality etc.

In common with the rest of North America, increasingly elaborate medical school enterprises and the realm of public health tended to evolve in two relatively separate parallel “solitudes” at the educational, policy, and practice levels.

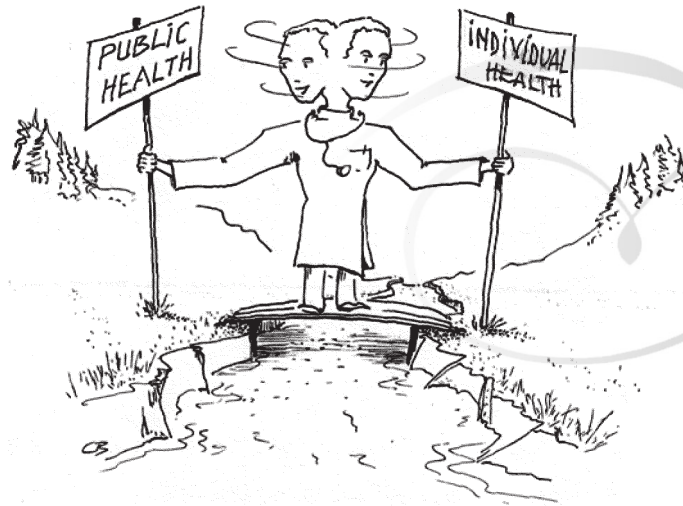


Image courtesy Professor Cynthia Haq, University of Wisconsin, Madison

Primary care medicine thus has only evolved recently to attempt to bridge these two important areas of endeavour.

“*Medicare*,” is the colloquial term describing the complex array of federal, provincial regional, and institutional supports for the delivery of health care services in Canada. These have evolved over the last forty years with the provinces providing single payer administration and the federal government setting legislative requirements such that each provincial plan demonstrates five fundamental principles.

(See Box 1)

Box 1

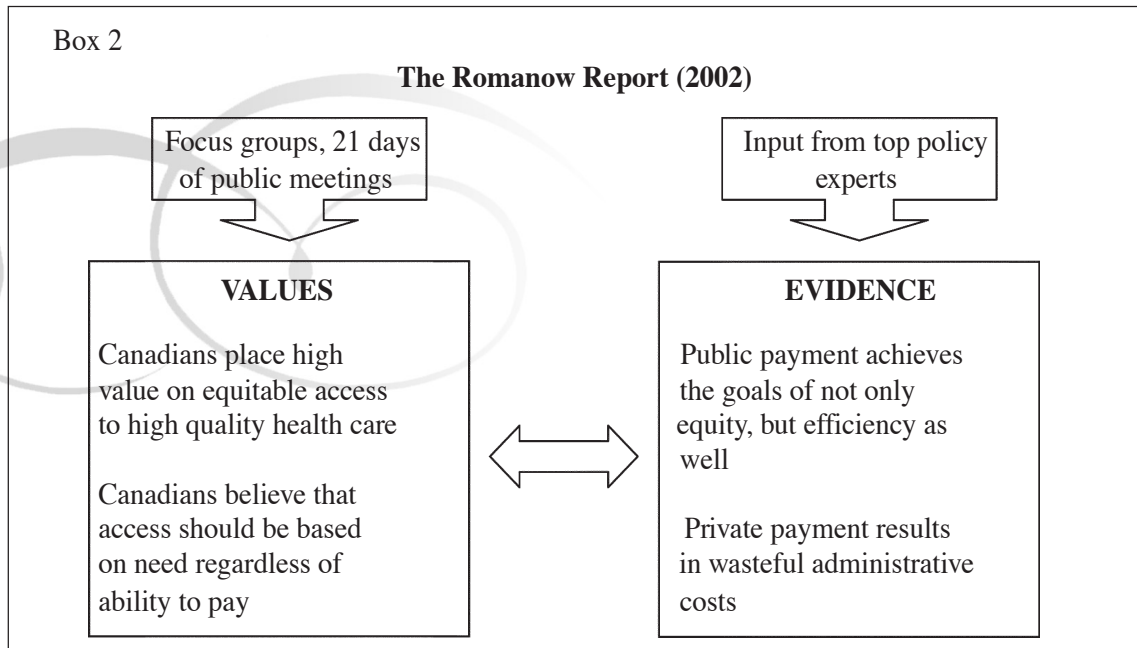
**The Canada Health Act (1984)**

- Universality
- Accessibility
- Comprehensiveness
- Portability
- Public Administration

In its best expression, this has been characterized as “*a responsive sustainable publicly funded health care system exists as the highest expression of Canadians caring for one another.*”<sup>1</sup> An extensive review and affirmation of this was undertaken in 2002.<sup>2</sup>

<sup>1</sup> Canadian Doctors for Medicare <http://www.canadiandoctorsformedicare.ca/>

<sup>2</sup> Building on Values. The Final Report of the Commission on the Future of Health Care in Canada, November 2002- Building on Values, Roy J, Romanow, QC, Commissioner. [www.hc-sc.gc.ca/english/care/reomanow/hec0086.html](http://www.hc-sc.gc.ca/english/care/reomanow/hec0086.html)

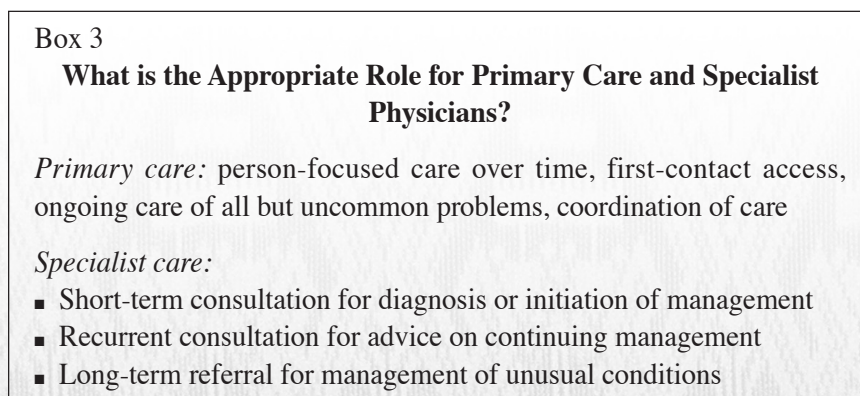


This process is briefly outlined in Box 2 and resulted in an affirmation of medicare and a call for its refinement but not fundamental alterations.

*Family Practice* as a distinct discipline evolved over a similar period of time with increasing rigor of focused postgraduate training<sup>3</sup> and the increasing presence of a defining research base. For purposes of our discussion, Family Practice can be defined as *relationship based care that endures over time and over place of care*. Notwithstanding the continued pressure towards progressively specialized and technologically based care, a role has increasingly been defined for Family Practice as the Canadian healthcare system has had to wrestle with the issues of its sustainability, timelessness, and quality of care. The literature relevant to its role and value has been greatly enhanced by the work of Barbara Starfield.<sup>4</sup>

This work has helped to define the distinct role of primary care and specialist physicians in the North America context.

(See Box 3)



<sup>3</sup> <http://www.cfpc.ca>

<http://www.cfpc.ca/English/cfpc/research/section%20of%20researchers/home/default.asp?S=1>

<sup>4</sup> Barbara Starfield is a professor at the Johns Hopkins Bloomberg School of Public Health. Much of the material referenced herein comes from a her presentation Global Perspectives in Primary Care: Challenges and Initiatives, January 15, 2006, Edmonton, Canada



**Public Health** has had a long and distinguished presence in Canada and has had dramatic influence on the population's health with the increasing control of infectious diseases, immunization programs, and attention to many of the determinants of population health.<sup>5</sup> However, as with many wealthy nations in Europe and America, it has tended to receive proportionately less funding and attention as compared to the acute care system and the evolution of technical and pharmaceutical care. In the face of the SARS epidemic and concerns regarding Avian Influenza the realm has been given belated public support and presence through the Public Health Agency of Canada.<sup>6</sup>

Other initiatives of various kinds have contributed to changes in Public Health and P.H.C. and the delivery of services but these three broad initiatives (Medicare, Family Practice, and Public Health) have received bulk of attention and resources for matters relevant to the Alma Ata declaration of 1978.

The early part of the 21<sup>st</sup> century in Canadian Healthcare has featured a series of reassessments and attempts at modifying the system to enhance its sustainability, quality, and effectiveness. With specific reference to P.H.C., federal government initiatives have sought to work with provincial delivery systems to achieve an enhancement in a number of specific areas. (See Box 4) Because of the complexity of the

Box 4

**"Renewal" Principles**

General outline:

- Multidisciplinary
- Community based
- 24/7 coverage
- Enhanced information technology
- Focus on prevention/health promotion

political arrangements, the frame work offered opportunities for innovation but there has been an ongoing challenge to coordinate change and disseminate innovations across the provincial systems. Various initiatives were taken across the country but with only belated attempts to have effective evaluation let alone effective communications of successful projects. Indeed, perhaps because of this complexity the political attention has turned more recently to specific issue of waiting time around five particular technologies (Hip and knee replacement cataract, etc). Large amounts of funding and a great deal of political attention has moved in this direction with Primary Care being moved down the political agenda.

### **Lessons Learned**

It is relatively early in the process of change in P.H.C. in Canada. Nonetheless, a number of lessons are clearly evident from our experience:

- Values driven legislation can be helpful in shaping change when the momentum towards increasing specialization and technology carries the risk of unsustainable and ineffective change.

<sup>5</sup> Bob Evans, Why are some people healthy and others not?

<sup>6</sup> [http://www.phac-aspc.gc.ca/new\\_e.html](http://www.phac-aspc.gc.ca/new_e.html)

- Perverse incentives for practitioners and institutions can undo the best formulated plans for change.
- Devolution of responsibility to regional authorities can provide a platform for grass root change but can also be a simple “political narcotic” to devolve public reaction and political pain onto regional rather than governmental authorities.
- There is a huge distance between rhetoric and reality in a host of realms including interdisciplinarity, collaborative care, patterns of practice and particularly information technology as applied to healthcare. In these realms, promise rarely matches reality and frequently deters effective positive change.
- It is always easier to focus on, measure and fund technology and procedures than human resources and relationships.
- Accreditation and credentialing systems are helpful in ensuring quality of care during periods of transition.
- A focus on work satisfaction and relationship support is essential to any positive change.
- Respectful professionalism and enduring relationships provide the most likely routes to cost effective positive change.
- Family doctors can feel beleaguered with a constant refrain from government about the need to “reform primary care” with scant attention to what has been working effectively.
- Little to no attention has been paid to specialist reform.
- Application of a “business model” to health care delivery tends to destroy relationships, increase costs and decrease quality and outcomes.
- “Lots of money does not necessarily solve lots of problems.”

Some of these lessons seem obvious, others less so. What is important from the perspective of this paper is that some forty years after the articulation of P.H.C. at Alma Ata, even a very wealthy country has had a staggered and spotty start in bringing the principles outlined into active public policy and health service delivery to the population. Nor is Canada alone among industrialized nations in this regard. In the particular realm of *health equity*, the subject of this conference, Canada has achieved more than some. However, we must keep in mind that the health status and service delivery of our aboriginal populations is striking worse than the rest of the population.<sup>7</sup>

### **The Way Forward**

While it may be disappointing that even a wealthy nation has not achieved the vision established at Alma Ata, this may be a reflection of the complexity of the task involved. We have certainly learned some salient lessons and perhaps gained some insights as to the elements of eventual success. As we shall see below, some of these elements are not especially resource dependent. Indeed other nations may be able to avoid pitfalls that have been both expensive and unhelpful. The continuing trend towards hyperspecialization and technological response is but one important example. The Way Forward then can be seen as having five broad elements (see Box 5).

<sup>7</sup> “The Report of the Royal Commission on Aboriginal Peoples”  
<http://www.part.gc.ca/information/library/PRBpubs/prb9924-e.pdf>

As we move forward to embrace this task it is worth reminding ourselves where we sit in terms of overall historical development. At a time of intensely distracting conflict and crisis, it is important to recall the British historian Arnold Toynbee's assessment of the last century:

Box 5
<b><u>The Way Forward</u></b>
<b>Engagement</b>
<b>Focus on Relationships</b>
<b>Focus on Generalism</b>
<b>Attention to Scale</b>
<b>Appreciative Approach</b>

*"The twentieth century will be chiefly remembered by future generations not as an era of political conflicts or technical inventions, but as an age in which human society dared to think of the welfare of the whole human race as a practical objective."*

- Arnold Toynbee (A Study of History)

Since the task of this conference is to advance the practical expression of that objective, we may consider the importance of the five elements outlined in Box 5.

## **Engagement**

It is very clear that positive social change only occurs when there is simultaneous and ultimately connected *top down* and *bottom up* forces for change. This means that health and social systems need to be engaged in the process of change across a variety of levels. The Romanow commission noted above<sup>2</sup> sought and achieved a remarkable degree of engagement. A related frame-work praised by Mr. Romanow was *the social accountability of medical schools* and a vision paper developed in Canada.<sup>8</sup> This initiative was grounded in the World Health Organization definition of social accountability:

*...the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have the mandate to serve.*

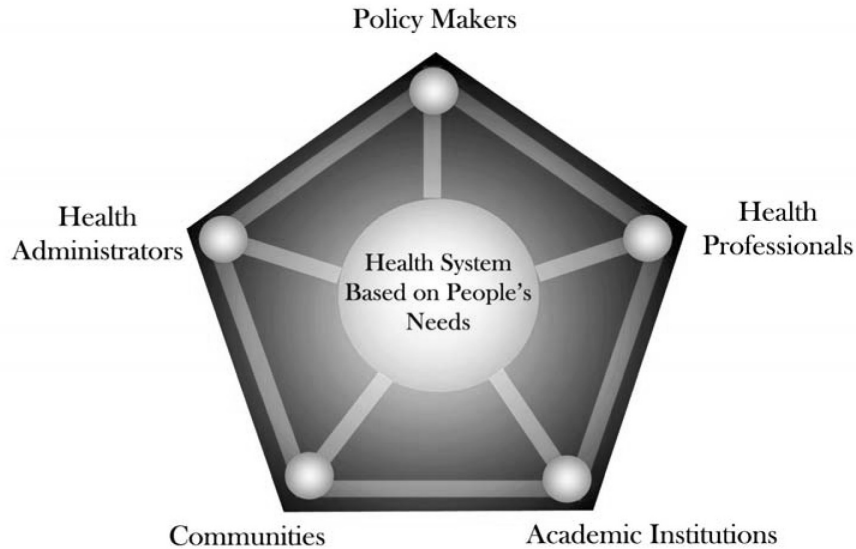
*The priority health concerns are to be identified jointly by governments, healthcare organizations, health professionals, and the public.*

World Health Organization, 1995<sup>9</sup>

As this would indicate, the priority health concerns are established not by a single element in society but by a five way partnership with a shared focus of developing a health care system ambiguously focused on the needs of the population:

<sup>8</sup> Social Accountability: A Vision for Canadian Medical Schools (<http://www.hc.sc.gc.ca/hcs-sss/all-formats/hpb-dgpps/pubs/2001-social-vision-med/2001-social-vision-med-e.pdf>)

<sup>9</sup> C Boelen, JE Heck Defining and measuring the social accountability of medical school. (World Health Organization, Geneva 1995) <http://www.the-networktufh.org/publications-resources/furtherreading.asp>



This system of relationships is increasingly used at a number of levels to foster more coherent and inclusive dialogue among many sectors that will need to be involved for effective reform of the primary health care system. Methods of measuring and fostering this have been undertaken in many jurisdictions.<sup>10</sup>

### Focus on Relationships

A sustained and effective focus on *relationships* must form the foundation of any hoped for success in the implementation of P.H.C. The very design of the system and the focus of its daily work must be on multitudes of relationships that are necessary both to provide care and to promote healing. Relationships of concern include those between caregivers and patients as well as those between caregivers and across the spectrum of the “pentagram” illustrated above. If we return to Toynbee we will see why this is important:

*“Society is the total network of relations between human beings. The components of society are thus not human beings but the relations between them. In a social structure individuals are merely the foci in the network of relationships...”*

*A visible and palpable collection of people is not a society; it is a crowd. A crowd, unlike a society, can be assembled, dispersed, photographed, or massacred.”*

- Arnold Toynbee (A Study of History)

Very powerful evidence of the practical application of this perspective can be found in the experience of the Alaska Native Medical Center.<sup>11</sup> This is a 45,000 patient clinic primarily serving Native American patients through 375,000 patient visits per year. It is self-described as initially being “a big, impersonal, ‘crank-em-through’ type place”.<sup>12</sup> The clinic undertook a process of change from a “staff centred” to a “patient

<sup>10</sup> R F Woollard (2006) Caring for a common future: medical schools’ social accountability Medical Education 40 (4), 301-313. <http://www.blackwell-synergy.com/doi/full/10.1111/j.1365-2929.2006.0241.5x>

<sup>11</sup> <http://www.ihl.ogr/IHI/Topics/PatientCenteredCare/PatientCenteredCareGeneral/ImprovementStories/Building+Healthy+Relationships+at+Alaska+Native+Medical+Center.htm>

<sup>12</sup>

centred” model, and for the past three years, patients have been guaranteed their own primary care provider. This patient-provider match is achieved for 75-80% of patients, moving them beyond relationships characterized by multiple caregivers to having reliable contact with a single point of care with subsequent connections to needed services beyond. In fact, they **DID NOT** undertake the usual initiatives associated with the P.H.C. reform such as:

- Nurse advice lines, separate health coaches
- Triage in primary care
- Different appointment types
- Disease specific primary care teams for diabetes, asthma, etc.
- Performance incentives that had perverse, unmerited consequences

What they **DID** achieve is quite remarkable (see Box 6):

Box 6

**Alaska Native Medical Centre**

- Use of the Urgent Care Center for primary care is down by 50%
- Use of specialist is down by 30%
- Wait times have decreased significantly across the system

This impact has not been achieved by any of the far more elaborate and incalculably more expensive innovations carried out in the rest of North America. In reflecting on these results, Douglas Eby makes two very trenchant observations:

*“We want to tell the world: It’s not about access. Access is only a tool that helps create relationships because it breaks down barriers. Relationships are really what it’s all about.”*

*“It is only through solid relationships, that you can begin to get at insidious underlying health issues such as depression, domestic violence, and obesity.”*

- Douglas Eby

Box 7

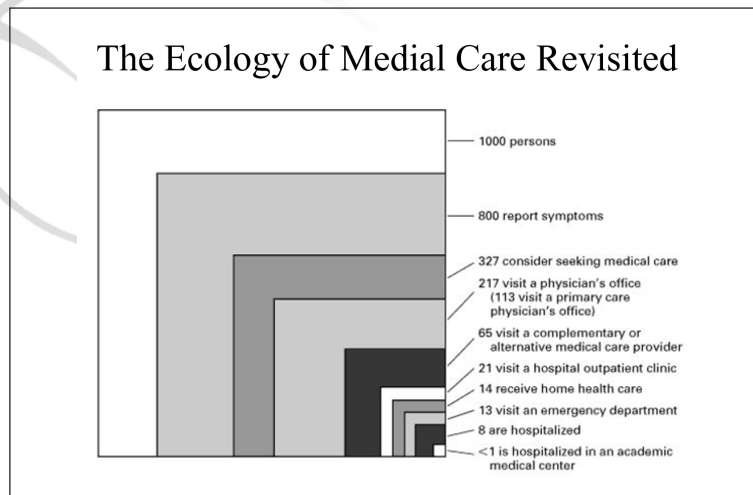
Above a certain level of specialist supply, the more specialists per population, the worse the outcomes. In 35 analyses dealing with differences between types of areas (7) and 5 rates of mortality (total, heart, cancer, stroke, infant), the greater the primary care physician supply, the lower the mortality for 28. The higher the specialist ratio, the higher the mortality in 25.

### Focus on Generalism

There is increasing evidence that beyond a certain point increasing specialization of the health care system becomes actively counterproductive (see Box 7). Keeping in mind the definition of appropriate role for primary care outlined in Box 3, it is apparent that the bulk of health events that occur to patients can and should be handled by the

primary health care systems. The situation in North America can be best summed up by the study of the Ecology of Medical care undertaken by Green et al. (See Box 8)<sup>13</sup>

Box 8



Green et al, N Engl J Med 2001; 344:2021-2025

This diagram is useful at a number of levels. It provides a better understanding of how patients in a relatively wealthy country achieve the care that they need when confronting health challenges. It also demonstrates graphically the very limited number of patients on which the overwhelming bulk of the education of physicians takes place. It therefore helps us to understand why the move towards increased specialization persists in spite of contrary evidence regarding its usefulness. Indeed, as Starfield points out, “the higher the ratio of medical specialists to population, the higher the surgery rates, performance of procedures, and expenditures”. This is true across a range of geographic areas where the “higher the level of spending on health, the more people see specialists rather than primary care physicians”. This is troubling since the “quality of care, both for illnesses and for preventative care, are no better in higher spending areas, and in most cases are worse”. Indeed as Starfield points out, “areas with high use of resources and greater supply of specialists have neither better quality of care nor better results from care”. Why this should be so is not intuitively obvious but at least some of the factors rest in the Iatrogenesis (see Box 9)<sup>14</sup> and error in the complex specialty care.

Box 9

	Estimated number of deaths per year
Harm from unnecessary surgery (1/200)	12,000
Medication errors in hospital	7,000
Other errors in hospital	20,000
Nosocomial infections in hospital	80,000
Non-error adverse effects of drugs	106,000
<b>Total</b>	<b>225,000 deaths, or, in other words, the third leading cause of death in the US</b>

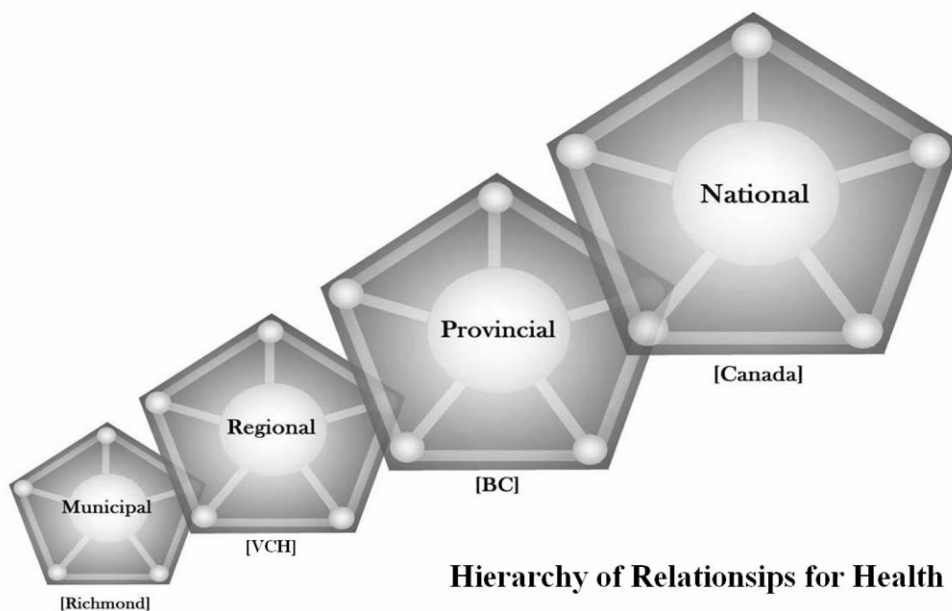
<sup>13</sup> Green et al, N Engl J Med 2001 ; 344: 2021-2025.

<sup>14</sup> Leape, Annu Rev Public Health 1992; 13:363-83. McCarthy & Widmer, N Engl J Med 1974; 291:1331-5. Phillips et al, Lancet 1998; 351:643-4. Lazarou et al, JAMA 1998; 279-1200-5

As Starfield further points out, across OECD countries errors, medical mistakes, medication errors or lab diagnostic error occurs in between a quarter to a third of patients over a two year period.<sup>15</sup> It appears that these occur less frequently with well established long term relationships between caregivers with generalist credentials and their patients.

**Attention to Scale**

Any system functions on the basis of feedback loops which help to adjust the trajectory and impact of a complex nonlinear system. Even in *complicated* linear systems such as space travel, effective feed back loops at various scales will determine success or failure. The health care system is a *complex* system and in its best expression, a *complex* adaptive system.<sup>16</sup> The development of this self correcting system requires feedback loops and relationships be developed at a nested hierarchy of levels. Thus the “pentagram partnerships” can be seen at a number of levels, from the local to the national:

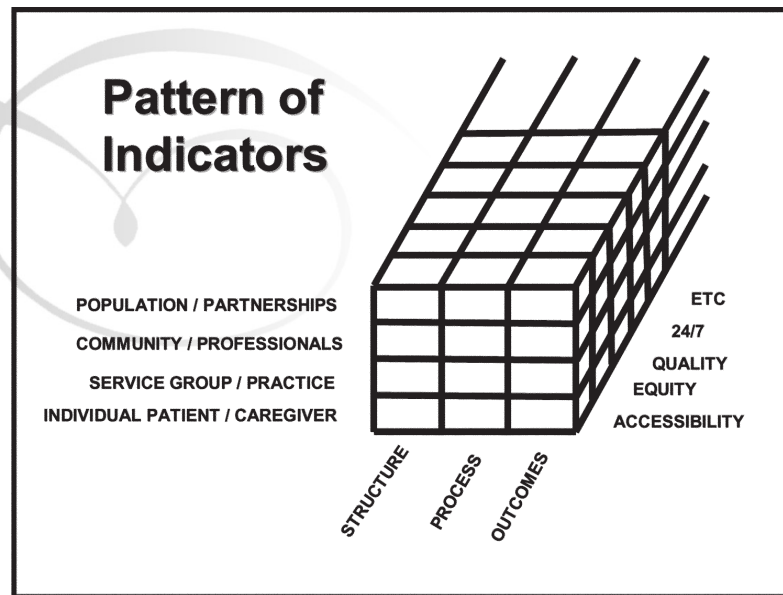


This runs the risk of generating a level of complexity that prevents effective evaluation of progress in the P.H.C. However, one model of assessment of P.H.C. can be found below. This seeks to reflect the nested hierarchy of relationships on the vertical axis, the desirable characteristics of the P.H.C. system in the depth axis, and the nature of indicators across the horizontal axis.

<sup>15</sup> Schoen et al, health Affairs 2005; W5: 509-525

<sup>16</sup> M. Mitchell Saldrop, Complexity: The Emerging Science at the Edge of Order and Chaos. New York: Simon & Schuster, 1992. 363 pp

Box 10



In a complex system, very few outcomes can be directly attributed to any particular intervention. Notwithstanding, the various cells in the above pattern of indicators if developed by an engaged process are likely to give reasonable assurance that a P.H.C. system is moving forward in the desired direction.

### Appreciative Approach

One of the more frustrating and fruitless approaches to system assessment and reform has been the traditional strategic planning model involving Strengths, Weaknesses, Opportunities, and Threats (SWOT). The experience of focusing on “barriers to change” and assigning blame to various sectors and partners has proven to be expensive, destructive, and not particularly productive. More recent experience with the concept of Appreciative Inquiry<sup>17</sup> has proven more fruitful, for as Einstein says:

*“No problem can be solved from the consciousness that created it. We must learn to see the world anew.”*

- Albert Einstein

Therefore the Appreciative Inquiry approach seeks to find what is working within a system, determine the roots of that success, and engage people in building further success towards their shared vision.

### Conclusion

It is often held that P.H.C. is what a society settles for until they can afford a more specialized and high tech system. Experience in wealthier countries would seem to indicate that this perspective is based on erroneous assumptions and in fact an emphasis on P.H.C. may move less wealthy countries more rapidly into a more equitable AND effective system of support for health and wellness. Attention to the five factors outlined in this paper may be helpful in designing a nation’s approach to P.H.C.

<sup>17</sup> <http://appreciativeinquiry.case.edu/>



## **“Extending Health” The experiences of Primary Health Care in Ethiopia**

Jancloes M.<sup>1</sup>, Gebre-Hegziabher E.<sup>2</sup>, Kassie W.<sup>2</sup> and Wonde T.<sup>3</sup>

### **Abstract**

Over the last 30 years, Ethiopia has made different attempts to translate the social values - equity, participation and solidarity- of “Health for All”/ Primary Health Care (PHC) into practice. This paper intends to appraise the national PHC experiences through the different and successive political regimes. Lessons learnt, current and future health challenges are analyzed for their response to the health needs and aspirations of Ethiopian individuals, families and communities.

Obvious progress has been made, such as the increase in life expectancy, the decrease of infant and children under five mortality. Fewer epidemic outbreaks and a better control of HIV/AIDS, Tuberculosis and Malaria have been positive signs of a better performing PHC system. However, some indicators such as lifetime risk of maternal deaths-still one out 14-, the proportion of stunted children under the age of five years ( 47% )show the importance of the challenges ahead...

Over times, PHC policies, planning and training have been sustained but implementation has faced several obstacles and constraints (limited budget, weak community empowerment, inadequate supervision, drugs shortages , fragmented donor support, transportation difficulties...)

Better results have been achieved when outreach activities have been focused and supported with adequate human capacity and financial resources and based on organized interactions between the communities and the primary level facilities and further to performing referral services.

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<sup>2</sup> Elias Gebre-Hegziabher and Workneh Kassie, Consultants, Senior Public Health specialists, Addis Ababa, Ethiopia

<sup>3</sup> Dr. Teffera Wonde, Senior health policy analyst, WHO Country office, Addis Ababa, Ethiopia, Thanks to national officials and experts and WHO Regional Office Africa for useful contributions and comments. All correspondence to jancloesm@yahoo.fr

Building on emerging socio economic opportunities, the government is promoting a Health Extension Program, through an administrative decentralization and a Health Sector Development approach. This involves the recruitment of female health workers who deliver “health care package” on an outreach basis. This focuses on hygiene and sanitation, communicable disease prevention and control, family health services and health information /education.

In the near future, health governance is likely going to face an increasing demand for health (due to demographic, epidemiological and cultural changes) and rapid private sector development. Based on accumulated PHC capacities and experiences, new health strategies could mobilize communities and professionals to expand a PHC centered health system .However, working in a pluralist social environment will be a key challenge.

## Introduction

In 1978, an international conference held in Alma Ata (Kazakhstan) declared the Goal of ‘Health for All’ by the Year 2000 through the Primary Health Care (PHC) strategy. This was unanimously adopted by the 1979 World Health Assembly and later approved by the 1981 World Health Assembly as a definitive goal, and specific indicators developed to measure its progress<sup>4</sup>. Since then, Ethiopia has translated this declaration into its successive policies and plans and has been continuously collaborating with WHO for its implementation.

Ethiopia has an estimated population of 77 million (2007) and a land area of 1222 thousand square kilometers, with more than 80 different languages spoken by a great diversity of ethnic groups. The country ranked 170<sup>th</sup> with a health development index of 0,371 in 2004. About 47 % of its population is living below the poverty line. In 2003/4, the Gross National Income per capita (GNI) was of 110 dollars (or equivalent to USD 810 in purchasing power parity terms) making of Ethiopia one of the poorest countries in the world. (World Bank 2006)

About 85% of the population lives in rural areas of which, more than 90% engaged in subsistence farming.

The total fertility rate is 5,4 and life expectancy at birth is 47,8 years. 22 % of the population has access to safe drinking water and 13% to sanitation. One child out of 13 dies before his first birthday and one out of 8 dies before reaching the age of five years. Lifetime risk of maternal deaths is one out of 14.

## Objective

This study, by reviewing three decades of PHC implementation in Ethiopia, aims to:

- provide evidence-based information on how PHC has managed to meet health needs, especially for those most in need,
- identify new health challenges, and
- propose approaches for making PHC more relevant than ever.

<sup>4</sup> WHO, 1981, Development of indicators for monitoring progress towards HFA/2000. Health for all series, No. 4, WHO, Geneva

## **Methodology**

The study design was made under the guidance of WHO and the Prince Mahidol Award Conference secretariat (PMAC).

A list of issues and questions, relevant to PHC in Ethiopia, was prepared to direct the study. Two local consultants, specialists in public health were recruited to make a preliminary report. With the assistance of the WHO country office, a plan of work was designed and field visits and meetings organized. This work consisted in reviewing published and unpublished documents, leading field observations and interviews with relevant officials from the Federal Ministry of Health, civil society groups, partner organizations and practitioners at regional and district levels.

A WHO mission was organized to review the draft report and share the key findings with a group of experts in PHC. The purpose of this mission was to provide a forum for data screening, get additional evidence based information and verify the relevance and practicality of the recommendations.

A revised document was distributed for peer review. Comments, especially from WHO Africa Regional Office were integrated. Lastly, a presentation of findings to PMAC for critical review, resulted in a conclusive revision and production of this final document.

## **Outline**

This paper is organized in four parts. The first describes the history of PHC implementation in Ethiopia and its evolution up to now. The second part shows the achievements of health status, health delivery performances and capacity development. The third part draws lessons learnt from the past and current PHC experiences. The last part focuses on the analysis of future health challenges in Ethiopia and the way forward.

# **1. HISTORY OF PRIMARY HEALTH CARE IN ETHIOPIA**

## **1.1 The era of basic health services**

By mid 1950s, the idea of extending the modest network of basic health services through out the country was conceptualized with an identified the need and interest to train teams of mid level health workers to serve both in clinical settings and public health interventions. An agreement was reached between the Ethiopian Government, WHO and USAID (then known as point-four), which led to the opening of the Gondar Public Health College. Initially, the training focused on health officers, community nurses, and sanitarians; the training of laboratory technicians and health assistants was added later.

Health centers were equipped with a team of health officers while health stations/clinics which were closer to the communities were staffed by a health assistant, under the supervision of the health centers.

The first initiative for training and deploying Community Health Workers (CHW) was made by this College in the early 1960s. These workers were serving with some monthly payment, and supervised by intern trainees. Unfortunately this experience was phased out due to lack of budgetary support.

A policy statement on the health center program and the functions of the health teams was initiated by WHO and issued in 1960 by the Imperial Ethiopian Government, entitled: 'Program for local health services of Ethiopia'; it was followed by the Decree on "Health Tax", which came into force by the Order no. 22 of 1960. This was further elaborated during the second Five Year Plan (1963-1967), where targets were set for the establishment of 1 HC for every 50,000 population, and 1 HS for every 5000 population. Specialized vertical programs of disease control/eradication were also introduced. A third Five Year Plan also ready for implementation aimed at strengthening the BHS approach aborted because of the change of government when the military led socialist oriented regime, called 'Derg' came to power in 1974.

## 1.2 A "Primary Health Care" Movement

The new regime in its declaration of National Revolutionary Program announced a policy for reaching all sectors of the population with essential care.

When the social goal of "Health for All" through PHC was declared in 1978, it was warmly received in Ethiopia, as the right approach corresponding to these national objectives<sup>5</sup>.

During the 1980s the health care delivery system, as a whole and the supporting systems were reoriented towards the implementation of PHC, this, including health policies, strategies, plans resource allocation, infrastructure investments and human resource development.

Plans, objectives and targets were set at the central level and passed down as mandatory directives to be implemented by lower levels. The central planning was issuing pre-plan guidelines to the sector ministries and government agencies; these further developed the plan for action in the regions to be then submitted to government approval. These plans of actions were followed-up by the Ministry of Health and the Regional Health Departments and implemented by health care institutions and operational departments of the Ministry. Several constraints, such as the lack of managerial capabilities, mostly at the intermediate level, budgetary limitations, shortage of staff, low level of people's participation and weak inter-sector coordination undermined the realization of policies and plans.

Reports in the 1990s (MOH, PHC Reviews, 1985, 1990) showed that all health centers throughout the country and a few hospitals provided many components of primary health care including vaccination, antenatal care, child delivery, vitamin A distribution, child health care, basic diagnoses and treatments, provision of essential drugs, health education in an integrated and inclusive manner both in static and outreach sites.

The promotion of food supply and proper nutrition, safe water supply and some elements related to health education were beyond the responsibility of the health sector and attributed to other development ministries of education, agriculture and water resources. The Ministry of Water Resources and its counterpart institutions at regional and woreda/district levels were involved in big scale water projects on irrigation and water conservation

<sup>5</sup> MOH, Health Services in Socialist Ethiopia, 1978.

This line of development continued for several years until it was redefined and included in the country Ten-Year National Development Perspective Plan. Accordingly, the health care delivery system and its management was restructured (on six tiers basis, with a central referral hospitals, regional hospitals, a rural hospital for every 500,000 population, one health center for every 100,000 population, one health station for every 10,000 population, one community health service for every 1,000 population)

This led to a major reform in the health manpower development scheme. The curriculum of all health professionals was revised and the training period for health workers reduced. The Jimma Health Science Institute was established and the Gondar Public Health College reorganized and enlarged, while the intake of students substantially increased in the Addis Ababa faculty of Medicine. During the period 1976/77-1986/87, the number of medical schools increased from one to three and the number of students rose from 14 to 360. The number of nursing schools also raised from 6 to 14. The total number of health workers graduating from the different category of training schools, from 766 reached 2363, an increment of 209%. The total number of health professionals working in the public health care delivery system grew from 6,606 to 14,492 during the same period The number of community health services had reached 10,000 in 1990 with the training of an equal number of community health agents (CHA) and trained traditional birth attendants (TBA). Between 1974 to 1990, the number of health facilities widely increased: from 650 to 2292 for health stations; from 93 to 160 for health centers and from 8415 to 12106 hospital beds.

Community health service was the most peripheral health activity and was conducted through community participation and contribution. In the 1980s and 1990s, CHAs got a three months basic training on elementary public health and clinical practice for a limited number of health common conditions; the CHAs were also expected to play an active role in social mobilization in water and sanitation and other health projects

TBAs, trained for about one month on safe child birth and development were expected to work in team and act as front-line volunteer health cadres with no or little remuneration from the community they served..

In Addis Ababa, Urban PHC was also developed and its implementation, initiated with UNICEF assistance, included the provision of public pharmacies, training and deployment of community health workers, establishment of PHC committees at community level and city-wide level, as well as the development of the waste disposal system for the city.

Successful activities of immunization and cleaning were led in neighborhood campaigns.

### **1.3 The Health Extension Programme**

After a long civil war and the liberation movement, a new government with a new Ethiopian constitution was established in the early 90's. In line with the PHC strategy for reaching those mostly in need, emphasis was laid on the expansion of health care facilities to the rural areas, particularly health stations, health centers and community health services/health posts. Health workers training was geared towards health promotion and disease prevention.

With a new vigor, the government promoted Health For All/PHC and developed a long term health development plan. This has guided successive plans for the Health Sector Development Programs (HSDP I 1997-2002, HSDP II 2002 -05, HSDP III 2005 -10) . .

Several other policy and planning documents were also adopted: such as the Health Service Extension Programme (HEP), the Health Sector Human Resource Development Plan, the Accelerated Expansion of PHC coverage, the Ethiopian Sustainable Development and Poverty Reduction Program (SDPRP). More recently, the plan for Accelerated and Sustained Development to end poverty and achieve the Millennium Development Goals and the Health Care Financing Strategy are worth noting. The policy gives primary focus on health promotion, the prevention of poverty related diseases, the control of major communicable diseases and the provision of quality primary and referral care, able to reach all population groups, especially those mostly in need.

Since the launching of HEP, female extension workers (HEW) have been assigned in each rural sub-district to implement the 16 health packages (See Annex 1: “The Morning star of HEP”) These workers were “institutionalized”: officially employed they receive a better level of training (completion of grade 10 +one year of intensive training, as compared to the previous basic literacy level +3 months of training)..

HEP consists of a set of basic and essential interventions aimed to the household level. Based on the concept and principles of PHC, it is designed to improve the health status of families, with their full participation, using local technologies and community’s skill and wisdom. It is assumed that, if the right knowledge and skill is transferred to households they can take responsibility for promoting and maintaining their own health and preventing the most common illnesses prevailing in their community. Health Promotion is provided by gate keepers, who are selected by their own communities. They are supervised by HEWs. These “gate keepers” are expected to be exemplary models in their community and officially awarded in community meetings when they reach a certain level of improved life styles.. Their actions are believed to bring key maternal, neonatal and child health interventions close to the door steps of the community, making way for the full implementation of the National Child Survival Strategy.

The plan was to train and deploy 30,000 Health Extension Workers (HEWs) by 2009 in order to adequately staff all Health Posts with two HEWs each, and reach all households in the country. By 2007 17,653 HEWs were officially trained and deployed, accounting for about nearly 59% of the total national requirement.. A HEP specific to pastoralist and semi-pastoralist communities has been developed and is at its early stages of implementation. HEP for urban areas is also in development phase and is yet to be adopted and implemented.

In addition to HEWs, there are also Voluntary Community Health Workers (VCHW), including the previously trained Kebele(sub district) Health Agents and Trained Traditional Attendants, who are working closely with HEWs.

Health Centers have a crucial role in providing referral care, technical support and supervision to HEWs, while the Woreda (district) Health Offices also is supporting and coordinating the efforts of Health Centers ( HCs), Health Posts( HPs) and the community.<sup>6</sup>

<sup>6</sup> FMOH Health Extension and Education Centre, Health Extension Program in Ethiopia: PROFILE, June, 2007

Health posts/Community Health Stations( CHS ) are either to be upgraded to HC when they are identified as appropriately located to support 5 health posts, or to be down graded to a health post level, providing more comprehensive quality health services at the first level of referral and basic care closer to the community.

The HCs and rural hospitals are to be upgraded with better qualified staffing and equipment for providing quality of care, including basic obstetric emergencies. Emphasis is given to rapidly respond to the highly alarming maternal and child morbidity and mortality. HCs are crucial actors for the success of HEP, ensuring the technical back up as referral centre, delivering first line of basic clinical services and supervising units. The target for HSDP-III is to put in place 3,200 HCs by 2009/10. During 2006/07 (EFY 1999) 55 health centers (HC+ Nucleus HC were built and 228 nucleus health centers upgraded..

Field observations and discussions reveal that the HEP is well under way and is winning acceptance and support from the communities. However, the inclusion of curative services into the HEP packages at the HPs level, the acceptability by the communities of young girls acting as HEWs, the need for regular supervision from HCs/Woreda Health Offices/Zonal or Regional levels with adequate staff, the lack of budget for fuel and daily allowances; the shortages of drugs, supplies, equipment and means of transport for sustained implementation of planned activities, remain important issues

While the training of a large number of health workers of the different categories is an impressive performance, a fast turnover within the health care workforce becomes a hindrance to continuity and sustainability of services and activities.

## **2. IMPACT ON HEALTH STATUS, SERVICES DELIVERY and DEVELOPMENT**

### **2.1 Impact on health status and service delivery**

Since 1978, although progress has been uneven, the health of the people of Ethiopia has improved. The table I, below, shows the trends of these changes over the last two decades.

Life expectancy, has increased from 43.64 years to 47.8 years, between 1974 and 2004. Infant mortality has steadily decreased from 155/1000 by 1974/75 to 95/1000 by 1990 and 77/1000 by 2005.

Under five year mortality has decreased from 260/1000 by 1984, 166/1000 by 1990 down to 123/1000 by 2005. These improvements may be due to progress made in health service delivery. However, lifetime risk of maternal deaths ( 1/14) remains very high, 47% of children under five years are stunted, and communicable and infectious diseases, which are preventable, still constitute 80% of health problems.

The total fertility rate has decreased from 6.8 by 1984, to 6,4 by 1990 and to 5,4 by 2005 while the acceptance of contraceptive use has increased from 5% by 1990 to 15 % by 2005.

**Table I: Health status and health care Indicators, Ethiopia. (1974/75 - 2004/05)**

	1974/5 <sup>7</sup>	1984/5 <sup>8</sup>	1990/1 <sup>9</sup>	2000/1	2004/5 <sup>10</sup>	2006/7 <sup>11</sup>
HDI		0.293		0.314	0.371	
Population size (in million)	33.0	42.2	47.0	65.3*	73.0	75.0
Life Expectancy at birth (years)	43.6	46	47.0		47.8	
Maternal Mortality Rate (per 100,000 live births)			1528		870	
Infant Mortality Rate (per 1000 live births)	155	144	95		77	
Under-five Mortality Rate (per 1000 live births)		260	166		123	
Underweight children (% under five)		33	38		47	
Low birth weight babies (%)			10		15	
Annual Population growth rate (%)	2.6	2.85	3		2.4	
Public Health Expenditure as % of Total Gov. Expenditure	4.7	4.4			3.4	11.5
Fertility Rate		6.8	6.4	6.1	5.4	
ANC Coverage (%)				34.1*	28	52
Contraceptive Prevalence Rate		2	5	8	15	36
One-year old immunized (DPT3 %)		44	46	51.5	71	73
Births attended by health personnel (%)		14	10	9.9*	6 (+28% TTBA)	16
Population with access to health services (%)	15	34	62	61*		
Population with access to improved water source (%)	6	16	18	24	22	
Population with access to improved sanitation (%)	..	..	17	20	30.6*	35 (est.)
Population per doctor ('000)	83.6	57.9	77.8	58.9*	33.3	
Population per nurse+HA ('000)	6.4	4.7	5.4	9.1*		

<sup>7</sup> Ethiopia: Recent Economic Development & Prospects, W.B. 1987; Comprehensive Health Service Directory, MOH, 1977 and 1983

<sup>8</sup> PHC Review, MOH/WHO, 1985 (National Sample Survey)

<sup>9</sup> The 1993 Human Development Report

<sup>10</sup> The 2006 Human Development Report

\* FMOH Report on the Final Evaluation of HSDP 1 March 2003; HSDP III Annual Review Report, 2006

\*\* Demographic and Health Surveys, CSA, 2000 and 2005

<sup>11</sup> FMOH Annual Performance Report on HSDP III, Oct. 2007



A good tracer of PHC performances has been the reduction of outbreaks of epidemics and the control of poverty related diseases, such as HIV/AIDS, Malaria and Tuberculosis because they require a political leaderships, an implementation capacity with a sustained surveillance, people's participation and solidarity, and last but not least an extensive population coverage.

The eradication of polio, the dramatic reduction of reported cases of M. Meningitis and the effective management of Acute Watery Diarrhea epidemics have been monitored and results confirmed with evidence based data.

On HIV/AIDS, the trend in the last four years is towards a stabilization with a current prevalence rate of 2.1 (1.7 for males and 2.6 for females; 7.7 for urban and 0.9 for rural areas) which has been leveled. There has also been a tremendous increase in the provision and use of testing, antiretroviral therapy, care and support services;

Related to Tuberculosis, the prevalence of active TB cases was estimated to be 500,000 in the 1960s and about 800,000 in the 1970s. A 1988-90 country wide survey showed an Annual Risk of TB infection of 1.4%. Since the 80s, DOTS was introduced as the treatment strategy and by 2002, 90% of the zones (reaching 40% of the total population in the country) were equipped and providing expected services. Further expansion and consolidation of DOTS service and improvement of quality of care are taking place, resulting to a TB treatment success rate of 85%, a cure rate of 69%. However, the case detection rate is of 32%.

Malaria control has also improved. Frequent epidemics had been documented since 1930s, a major one in 1958 affecting 3.0 million with 150,000 deaths. In the last ten years, more robust interventions with national guidelines for diagnosis and treatment, vector control and use of insecticide treated nets have curtailed the occurrence of malaria epidemics. Community level detection and treatment by CHWs have been promoted, and nowadays, 70% of the treatments are being provided at community level. Impregnated bed nets became an additional preventive measure with its wide distribution since 1998, and, by 2005, 90% of households in malaria areas were using these bed nets. No epidemic of malaria occurred that year.

The number of registered cases of leprosy has decreased from 80,927 in 1982/3 to 5,852 by 2002/3. More than 94,700 patients were treated and cured with MDT and the Prevalence rate has also decreased from 2.4/10,000 to 0.8/10,000 during the same period. However, the number of new cases detected remained constant and the proportion of newly detected patients with 2<sup>nd</sup> grade disability was of 15.1% (2002/3)

72% of the population has access to health facilities within a two hour walking distance (or less than a ten kilometer distance) and the immunization coverage is of 73 %; however, the health service utilization rate (out patient visits by person per year) is only 0.32.

Health care coverage indicators since the launching of HSDP II in 2001/02 are reported in annex 2.

## **2.2 PHC Heritages**

Over the last four decades, efforts have been made to increase and improve populations access to essential health services. New managerial and institutional capacities have been built. It make sense to recognize all heritages in human capital and investments accumulated over time. Given the limited resources, all of these existing

capacities need to be identified and mobilized for expanding access to health services.

The following is a brief inventory of these heritages:

First of all, it should be kept in mind that, over centuries, the Ethiopian communities have survived thanks to solid practices of solidarity. Modalities of **community organizations** vary between ethnic groups. Some examples could illustrate this traditional capacity such as the collective agricultural works based on a rotation basis, community savings for solidarity purposes (funerals, pilgrimages, public works such as bridge and roads), local administration of taxes collected at village levels....

Some community development initiatives, including village health projects and organizations have been promoted, based on these social and cultural assets.

**Training institutions** for different categories of health professionals and workers have designed and oriented their education agenda and curricula on the principles of PHC since the 60s. Not only successive Ethiopian governments but also other African countries and international organizations have benefited from these high standard institutions. In several provinces (regions) pre and in-service training institutions have been promoted, in particular for PHC workers.

**PHC data reporting** still in use by health institutions at all levels is cited as one of the best organized among developing countries. Monthly, quarterly and annual reporting formats for all levels of the health service delivery system have been utilized for several years. Recently, a reform of the Health Management Information System (HMIS) <sup>12</sup> has been initiated to focus on a limited number of pertinent indicators and on the most important PHC programs/activities and their impact. The aim has been to produce data with appropriate interpretation and analysis for policy formulation, planning, monitoring and evaluation use at all levels. The plan is to reduce the burden of data collection, compilation and reporting thereby improving the reliability and timely exchange of information. Based on the planned streamlining, tools and forms have been improved and the number of tasks-oriented and sensitive indicators has been reduced from 245 to 75. For example, the 400+ data items collected at the HC level have been brought down to 40-50. The use of computerized Information and Communication Technology (ICT), has been promoted at all levels. The HMIS reform was pilot tested and is expected to be fully functional by 2009/10 as agreed at the HSDP III Annual Review Meeting, October, 2006.

Strong **capacities for central planning** were developed, during the “Derg” regime (1974-1990) in particular related to budget allocation, infrastructure investment, recruitment and deployment of staff. The department of pharmaceutical services was the regulatory body and a corporation under the health ministry was established to ensure the manufacture, procurement and distribution of drugs and medical supplies/equipment (based on a national list of essential drugs). This regulatory institution is still in place. This list of essential drugs for each level of service was designed and further updated. Health planners, trained during this period, are still contributing to resource mobilization and allocation, in different capacities. The well organized

<sup>12</sup> FMOH, HSDP 111, 2006.

administrative structure supported a highly centralized managerial system. The resulting administrative culture and discipline, in spite of different decentralization reforms, still subsist.. The latest changes have taken place, along with the 1994 new constitution, in the organizational structure of both the Ministry of Health and the Administrative division of the country<sup>13</sup>. Health departments have been enacted officially at all administrative levels of the country - 9 Regional States, 7 Special Districts (Woredas) and 2 City Administrations, 75 Zonal Administrative units, 630 Districts (Woredas) and about 15,000 neighborhood communities (Kebeles) each with their level of Government, except the Zonal level which has a role of coordination and of monitoring/evaluation role without a governance power or structure.

During the period of civil war (late 80s), in several places within the country, some **front line capacity** levels were developed such as first aid. Experiences of performing logistics accompanied by effective line of command showed an unused potential for interventions at village level. Some PHC strategies today have in mind this first aid capacity in communities (such as malaria control).

An other heritage from the period that could be called “The Global Alliance Era”(the 90s and early 2000s) are **the special programmes** supported by many international partners with single objectives, vertical planning, marketing, staff recruitment, training, public information and methods of works. They have focused on immediate results, such as initiatives like the Global Fund to fight AIDS, Tuberculosis and Malaria; Polio Eradication, GAVI....New technologies, new public health approaches, new capacities have shown evident results. They have also learned that complementary support has to be provided to health system strengthening for optimizing and sustaining their impact.

This period has also been very conducive for public information and some private sector collaboration.

More recently, with the launching of the **health sector development programme** (HSDP) the government has instituted a sector-wide approach (SWAP), involving the major international donors, the main local NGOs, and relevant government offices. This has resulted in the development of a Revised Program Implementation Manual detailing processes and procedures for joint planning and monitoring/evaluation.. The governance structures between the Government and Donors are the Central Joint Steering Committee, the Donors Group, the Joint Consultative Forum and the Joint Core Coordinating Committee. A Health Sector Harmonization Action Plan has also been developed, focusing on funds pooling (The health pooled fund) and coordination/collaboration.. So far, the Government, the Global Fund and PEPFAR have signed a Memorandum of Understanding, and a Code of Conduct to reduce the number of financing channels to a minimum. The HSDP Harmonization Manual has been finalized through an extensive consultative process, endorsed by the Federal Ministry of Health and the Donor Group. The motto of this manual is “one plan, one-budget, and one-report”. This work is in progress and developments are so far highly promising<sup>14</sup>.

<sup>13</sup> Yayehyirad Kitaw, Gebre-Emanuel Tekla and Hailu Meche; The evolution of Public Health in Ethiopia, EPHA, 2005.

<sup>14</sup> FMOH, HSDP III Annual Review Report, 2007.

The Annual Review Meetings (ARM), in which all major stake holders are represented, have proved to be highly useful and important discussions led to recommendations for the way forward. Nine ARMs have been conducted so far, the latest being in October, 2007<sup>15</sup>.

### III. LEARNING FROM PAST AND CURRENT EXPERIENCES

In Ethiopia, through different PHC strategies, a high degree of continuity in HFA/PHC policies, planning, training and surveillance in the health sector has been sustained over the last 30 years. Implementation issues, however, have always been challenging and can explain why progress in health and services delivery has been slow, especially related to maternal health. Like in many other countries, inadequate budget, especially for operational costs at woreda and kebele levels, regular breakouts of basic medical supplies and drugs, lack of incentives for PHC workers and supervisors, low performances of referral centers and weak support for community participation have been main PHC obstacles. But, from experiences and in spite of obvious obstacles, successful lessons have been learnt.

The following have been ingredients for effective PHC implementation:

**Involvement of existing formal or informal, organizations or institutions,** such as schools, traditional societies, youth or women organizations, national non governmental organizations (NGOs).

In areas such as personal hygiene, healthy behavior, family planning, safe water, nutrition, care of the sick or handicapped, the participation in campaigns like immunization and first aid, community participation has proven to get long term results.

The community participation in the constructions of facilities, latrines or water supply systems has been often observed, either through cash payment or direct support from skilled laborers. However, committees established during constructions do not always continue to control their utilization modalities and maintenance. (The Woreda Integrated Basic Services (WIBS) Rapid Assessment of 2002 report). With the recent devolution of power to the Kebele level, where full time employed agents of development sectors are employed, the opportunity for joint planning, coordinated implementation and support has been created. Field observations indicate that the school health strategy of HEP based on the collaboration of the ministries of health and education is performing with promising signs of impact, noticeable on nutrition, hygiene and sanitation, the school community, and the promotion of health interventions at the household level.

Increasingly, over the recent years, nearly 400 NGOs are involved in health and health related activities in Ethiopia. They are mostly present in regions with better level of development (Addis Ababa, Oromia, SNNPR, and Amhara compared to the emerging and largely pastoralist regions of Afar, Somali, Gambela, Benishangul & Gumuz)<sup>16</sup>. They have largely contributed to the training of PHC workers and

<sup>15</sup> FMOH, Annual HSDP Review Reports, 2000-2007.

<sup>16</sup> Dr. Eyerusalem Development Program, CRDA, April, 2004.

traditional birth attendants. They provide 7% of health services and represent 10% of the public health expenditure for the country (excluding the bilateral and multilateral funding sources that separately represent 16% of public health expenditure) in the national accounts. One example of NGOs contribution is the support to the polio eradication program provided by a group of 43 US based NGOs. This group, managed by CORE Ethiopia, has been promoting the country wide program.. One aspect of its program is community based surveillance, early detection and reporting of acute flaccid paralysis, neo natal tetanus and measles by community volunteers benefiting of three days training. They have also mobilized the communities to improve compliance and appropriate use of immunization services, in 41 districts (woredas); of these, 28 are distributed in the less developed 'emerging' regions.<sup>17</sup>

### **Partners coordination**

The international community has been inspired by PHC strategies in the previous and current political settings. The harmonization of all partners' contribution has been facilitated by various coordination instruments such as the sector wide approach, joint planning, monitoring and evaluation.

Lessons learned show that the coordination of all partners is the most effective at the district/woreda, health center and community levels.

At central level, like in other countries, the international community has been influencing programming favoring the "verticalization" of programs and services. They often mobilize resources for building national, regional and district/woreda capacities during the period of their collaboration while they contribute to the weakening of the same institutions for the long run, in terms of policy compliance, sustainability, transparency, and accountability. The Government of Ethiopia is now streamlining their respective contributions through a joint development of national programs, such as the Health Sector Development Program (HSDP, Education Sector Development (ESDP), the Road Program and Water Program etc. In the attempt of controlling fragmentation and overlapping in programming, implementation and coordination, the HSDP platform is a good example whereby all relevant donors contribute. HSDP I, II and III have been developed and implemented in a positive spirit. The HSDP Harmonization Manual (HHM) is becoming a governing instrument for both the government and the donor community working in the health sector<sup>18</sup>. (See above, section 2.2 on existing coordination instruments).

### **Creating an interface between communities and front line health workers**

Community health workers (CHW), when active and supervised, have contributed a great deal in the implementation of planned activities like EPI, water protection, VIP latrines construction, hygiene education and cleanliness campaigns, and in the provision of primary medical care especially where they were housed and equipped in a health post<sup>19</sup>. They have performed well for time limited tasks, such as targeted campaigns. They could provide information and health education, orient the demand for

<sup>17</sup> Dr. Filimona Bisrat, CORE Group Partners, CORE Ethiopia, 2007 (Power Point presentation).

<sup>18</sup> FMOH, HSDP Harmonization Manual (HHM), February 2007

<sup>19</sup> WHO, Where are we in PHC, countries look at their performance, PHC Review workshop report The Gambia, 1985.

health services and help for references; they can also report on outbreaks of epidemics. However, the lack of institutionalization and remuneration of the CHWs and traditional birth attendants (TBAs), the lack of support from supervisory health facilities, the poor selection, lack of understanding of their role, lack of support from their communities and lack of drugs or material such as delivery kits are causes of high attrition rate (estimated to be 40% for CHWs and 85% for TBAs)<sup>20</sup>.

Conceptually, the reduction of travel time to primary health care facilities is a way for ensuring accessibility to PHC services. This is the HEP approach. A ten-kilometer radius or two hours walk from a primary health care facility is considered as ideal. Studies show that the use of health care units diminishes rapidly beyond a one hour walking distance between that unit and home. As pregnant or lactating women cannot travel 10 km or two hours to reach to a PHC facility, the HEP ambition is to bring the service to the household level.

This interface has a cost, not to be underestimated: sufficient budget allocations have to be mobilized and regularly provided for sufficient production of well trained staff, supervision expenditures, in service training, essential drug supplies and salaries of health workers. This issue is crucial...

### **Performing referral facilities and supportive health system**

PHC implementation has had a better impact especially related to safe pregnancies when it is connected to the intermediary and higher levels of health facilities. The referral and supervision functions of these facilities have been essential. The sustainability of these performances has been clearly linked with the stability of staff and their interest in working at this level. Career development opportunities, such as in the army, could be considered.

## **IV Rethinking Primary Health Care**

### **4.1 Challenges**

The key health challenges that Ethiopia anticipates, are among others the following:

First of all, Ethiopia will be challenged by demographic factors such as high population growth, high urban migration with the development of slums and shanty towns, the marginalization of special populations such as nomads and aging population. Most small towns such as Bahir Dar, Mekelle, Gondar, Nazareth, Awassa, Gambella and Assosa are now becoming major cities. Therefore, special PHC/HEP strategies for these urban populations should be developed.

Secondly, **epidemiologic changes** in morbidity and mortality have started with the emergence of diseases, related to life styles such as road accidents, mental disorders, alcoholism and substance abuse especially among the youth., diabetes, malnutrition, cardio vascular diseases as well as with the emergence of other new acute communicable diseases (avian human influenza, severe acute respiratory syndrome

<sup>20</sup> MOH, Primary Health Care Review, February 1985

(SARS)). Climate changes and increased water catchments projects developed for the major agricultural and industrial economic activities increase the potential for transmission of malaria and water borne diseases. HIV/AIDS, Tuberculosis, current communicable diseases and maternal and newborn health problems will continue to require intensified control; lastly, longer life expectancy increases the demand for health care and services.

Thirdly, **funding** health and in particular PHC has always been and will remain critical. The need for efficient advocacy to influence decision makers at all levels and for substantial increase in government budget allocation to the health sector is a priority. The share of the public health expenditure from total public expenditure was 11.56% in 2006/07 showing a 2.46% improvement from 9.1% in 2004/05. The per capita total health expenditure of USD 4.5 in 1996, USD 5.6 in 2000 and USD 7.14 in 2005<sup>21</sup> while improved, is still much lower than other SSA countries and far from the USD 34 per capita spending recommended by WHO Macroeconomics and Health Commission. Currently, Ethiopia has a relatively better amount of financial assistance from the international community than previously. As a poor highly indebted country, it has benefited much from the HIPC initiative. It has also secured a fairly large amount of financial resource from GAVI for strengthening its health care system, from PEPFAR and the Global Fund for the same purpose and expanding its inter sector response program on HIV/AIDS. The sustained economic growth witnessed in the last four years is an additional potential resource to the country to commit more resources to the health sector at the national and regional levels.

Given the degree of poverty, out of pocket contribution will remain very low.. The government budget is largely allocated for salaries rather than for operational costs, which will require a viable exit strategy to ensure smooth take over of costs for sustainability of interventions. The new Health Financing Strategy aims at the retention of generated revenue by health institutions (from fees for services and from income of special public pharmacies operating in health institutions). This strategy will need to be fine tuned, endorsed and implemented by all regions and woredas.

Moreover, there are now signs of a flourishing private sector in health care. This may have some negative impacts on the provision of equitable health services, with less focus on health promotion and prevention, with increasing cost of medical services and drugs etc. However, new financing mechanisms will be generated. Also human resources for health might be unbalanced between regions and areas of works, accompanied by high turn over of staff and migration within the sector or even outside the country. This expansion is particularly obvious in urban areas. Out of pocket payments for health care is being left to demand and supply market forces as any other commodity. Introduction of cost and risk sharing insurance schemes has not been introduced yet at a large scale. While the pharmaceuticals regulatory department is still in place, the national drug policy and drug provision strategy to health institutions, especially in the advent of fast expansion and extension to rural areas, and of the free market economy getting its foot

<sup>21</sup> PMOH/MOFED, 3rd, National Health Accounts Report, 2004/05.

hold, is still evolving. This is an area which needs careful handling because of the many forces in play within the lucrative drug business.

In this context, the protection of those most in needs, the support for promotion and prevention measures, the quality control and cost regulations will be, in the future, developed subject to new policies, legislation and innovative partnerships. The issue is to identify best ways and means for developing a PHC centered health system where the private sector should have a role with specific functions and contributions. The public sector also should be reviewed and received special support in areas where it can do best. In this regard, a recent budget increases for expanding a package of basic preventive interventions to the whole country shows a political will to meet the Millennium Development Goals.

Lastly, remains a challenge related to **good governance and leadership** at all levels. This is also linked with the gap between the health status of the people in emerging regions and in relatively well developed big regions. The culture of governance will need also changes. In Ethiopia, it has not been easy to do away with the top-down culture of decision-making and planning, although regions, district woredas and communities have been legally empowered. Along with the overall process of democratization and decentralization presently under way, Regional State Health Bureaus and District (Woreda) Health Offices will be given more responsibility and authority to fulfill their functions. They are directly accountable to the Governing People's Council at their level. Health Bureau/Office officials are appointed by the council at their level are therefore accountable to the same councils. This highly decentralized system will have its own transitional problems at the beginning where the health bureaus/offices are weak and the councils lack experience.

A policy shift in planning towards a bottom up approach, based on national policies and strategic plan frame-works is expected to take place. In this regard, Regional State Governments have to develop their plan with set targets and financial allocations, and to provide an umbrella frame work to the districts (woredas) where detailed plans of actions are generated and budgeted for. In this context, donors are also expected to design their support and better comply to local development needs.

A special mention should be given to the governance issue in emerging regions and areas of nomad populations. In Ethiopia, effectively reaching the mobile pastoralist population has always been a problem. Although there have been implicit and explicit constitutional and policy stances and frameworks to reach them with PHC services, the pastoralist population constitute about 10% of the total population and lives in 50% of the land mass of the country and mostly living in the north eastern, eastern and south eastern lowlands of the country, and have not been effectively reached. The work done in this area remains very limited until recent years.

There will be an increased demand for **public health information** and community participation. New means of communicating and of sharing access to development opportunities have a huge influence on people behavior and on their expectations. When their level of awareness and knowledge related to health and health determinants develop, the demand for services and access to it substantially increases. This may induce a greater mobilization of resources for medical services. But well managed health education and information, through schools and multimedia, can have an impact



on healthy lifestyles and behaviors. Public information will become more and more a State responsibility

Taking the multidisciplinary nature of health, a **multi-sectoral mobilization**, particularly in education, information, water, agriculture and rural development, urban development and other relevant sectors is a key challenge. This mobilization does not only mean the inter-ministerial and inter-departmental coordination and involvement, but also the involvement of the society organizations, communities, women and youth groups, parliamentarians, health promotion and disease prevention activists. In general, linkages between these sectors, expected to help implement and support the components of PHC remain weak. Planning and financing PHC programs and activities, training and deployment of the necessary primary health workers have been left to the MOH. Other development sectors which were widely scattered throughout the country could have played a major role in health promotion, control of major communicable disease and ensuring adequate food and nutrition both in urban and rural areas.

## 4.2 Looking forward

Keeping in mind, both PHC heritages from history and lessons learnt from experiences, and the major development challenges, it is worth rethinking PHC, in Ethiopia.

For doing so, the ruling party has committed itself to the realization of the current HEP. The party in its programme/manifesto, Abiotawi Democracy (Revolutionary Democracy) outlined the development directions and strategies of the health sector. In the document, it is stated that the health service in Ethiopia will be based on prevention and will focus on environmental sanitation, personal hygiene, household livelihood, immunization, reproductive health and HIV/AIDS prevention. All these services will be provided at community and household levels and will be complemented and supervised by the intermediate and higher levels of health facilities (health centers and hospitals respectively)<sup>22</sup>. This is reiterated in the Rural Development Strategy of the Government, where it is stated that adequate and equitable health services will be provided through the PHC services that include among others, better housing and adequate nutrition<sup>23</sup>.

Policies have been made clear and publicly stated. The Ethiopian Health System is to be based on PHC/HFA values and driven by PHC. The Health Extension Program is the strategy to provide the populations with the greatest access to a package of essential health services. HEP stewardship is ensured by the Prime Minister, who holds monitoring meetings with Regional Health Bureaus every three months. The Steering Committee at FMOH holds follow up meetings every two months. Similar monitoring meetings also take place in each region. At the district level, given the importance of the programme, the District/woreda health office is a member of the district cabinet and one of the HEWs is a Member of the community/kebele cabinet. The training of HEWs is

<sup>22</sup> EPRDF, The Directions and Strategies of Abiotawi Democracy, Amharic version (pp231-239) August 1980.

<sup>23</sup> MOI, Ethiopia's Rural Development Strategies, Amharic version pp219-220. Hidar 1994 (Nov. 2002)

hosted at the technical and vocational education-training centers established by the Regional Education Bureaus. The HEWs are salaried health workers and entitled with annual salary increments and career structure.

In consistency with the current government policies in Health, a tentative scenario on possible and desirable planning components could be considered. From below-mentioned proposals, most have been discussed by participants of the last Annual Review Meeting on Health sector Performances .

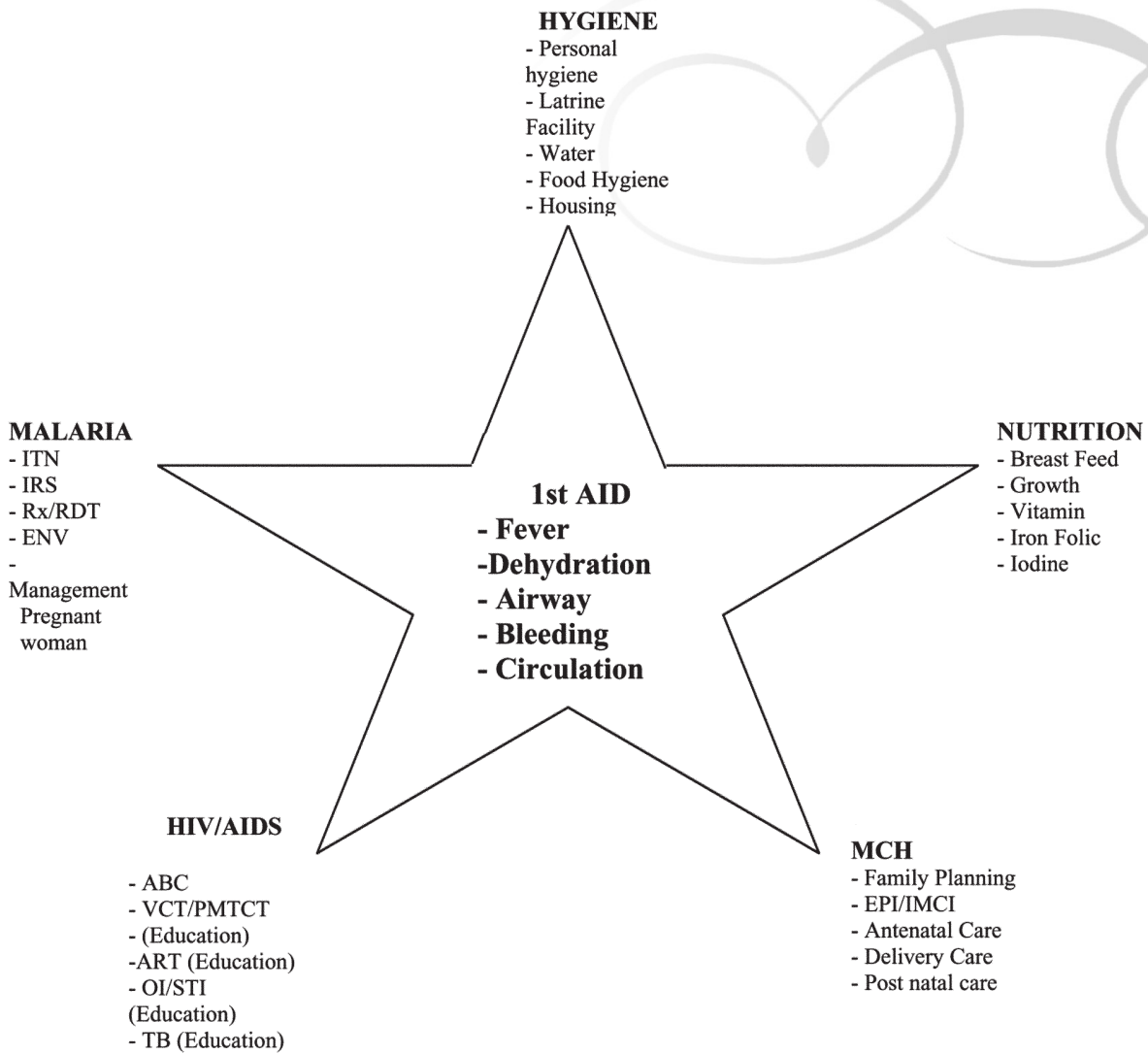
**For the further development of HEP** (supported by a PHC-centered Health system) it is proposed to:

- Supervise, monitor and evaluate HEP (Health Expansion Programme) and learn by doing about community participation, and disseminate to the lower level findings of these evaluations.
- Ensure quality performances of referral hospitals, especially for obstetric emergencies and rationalize the network of referral hospitals (public and private) based on population distribution.
- Mobilize more financial, human resources to support the intermediary level in its backing up and supportive supervision role to HEP/CHS.

**For the development of a PHC centred Health System** (supporting HEP), it is proposed to:

- Develop cost and risk sharing alternatives through social and community-based insurances.
- Build capacities for local health governance related to its public health responsibilities (micro planning, management of inter-sector interventions, coordination of all actors, emergencies coordination)
- Involve the private and pharmaceutical sector in the implementation of HEP and HSDP activities and regulate it, as deemed relevant, and define the share of responsibility between the public and private sectors and other entities.
- Develop PHC strategies to respond to special population needs, such as the mobile pastoralist population, the internally displaced population and the refugees.
- Institutionalize the HSDP Harmonization Manual (HHM) and mobilize donors and other partners to operate within the framework of “three ones” principles (one plan, one budget and one report)
- Develop an intensive health education and information programme through schools , medias.
- Integrate HEP components into programs and activities of the relevant sectors, particularly in the education, information, agriculture and rural development sector, housing and public works, communication, industry and water and sanitation sectors.
- Continue working on long term human resource capacity building for HEP concepts, minimize staff turn over and migration with adequate incentives.
- Use education and research institutions for evaluating and monitoring progress in health status, care delivery, resource allocation and utilization for policy development and sector management purposes

## The “Morning Star” of HEP



## Annex 2

Table II: Health Care Indicators 2001/02 - 2006/07.

<b>Indicators</b>	<b>1994 (2001/02)</b>	<b>1995 (2002/03)</b>	<b>1996 (2003/04)</b>	<b>1997 (2004/05)</b>	<b>1998 (2005/06)</b>
Total population	65.3 MILLION	67.2 MILLION	69.1 MILLION	73.0 MILLION	75.0 MILLION
PHS coverage	61.1%	61.3%	64.0%	72.1%	76.9%
EPI coverage (DPT3)	51.5%	50.4%	60.8%	70.1%	75.6%
Health service use	0.27%	0.29%	0.36%	0.30%	0.33%
CPR	14%	21.5%	23.0%	25.2%	35.8%
Antenatal coverage	34.1%	27.4%	40.8%	42.1%	50.4%
<b>No of facilities</b>					
Hospital	115	119	126	131	138
Health center	412	451	519	600	635
Health stations	2452	2396	1797	1662	1206
Private clinic/ non- profit	434	383	359	379	480
Private clinic/ for profit	1235	1229	1299	1578	1784
Health posts	1311	1432	2899	4211	5955
Pharmacies	311	302	275	276	246
Drug shop	309	299	375	381	476
Rural drug Venders	1856	1888	1783	1787	1754
<b>Human Resource at work</b>					
Physicians	1888	2032	1996	2453	2115
Health officers	484	631	683	776	715
Nurses	12838	14160	15544	18809	17845
Health assistant	8149	6856	6628	6363	4800
Para medical	3824	4641	5215	6259	5431
HEWs				2737	8901
<b>Human Resource/trained</b>					
Specialists	91	103	96	183	57
General Practitioners	152	182	193	309	188
Health officer	183	181	249	333	247
Nurses	1562	1465	2384	4536	1618
Para medicals	656	1054	999	803	791
HEWs			2737	7090	7136

## **Scaling up innovation in services delivery of Primary Health Care : Case of Rwanda**

**Basinga Paulin, Sekabaraga Claude, Soucat Agnes**

### **Abstract**

Primary health care strategy was adopted in Rwanda after the Alma-Ata conference in 1978 and good progress has been noticed. The 1994 genocide decimated Rwanda's fragile economic base, destroyed a large share of the country's human capital, and eroded the country's health infrastructure bringing the country at starting line of the beginning of 1980s. Surprisingly, Rwanda has made a remarkable transition from reconstruction to development since the 1994 genocide. The country has made dramatic progress toward resettlement, reconciliation, demobilization, and reintegration of ex-combatants. To date, about 3.5 million Rwandan refugees have been repatriated and resettled in a country of 9 million. As a result of extensive economic and governance reform measures taken between 1995 and 2005, GDP growth rates averaged over 7.4 percent per annum. Outcomes have also been most remarkable in the area of service delivery, particularly for primary health care. Immunization rates, at 95 percent, are among the highest in Sub-Saharan. HIV prevalence has been decreasing and Rwanda is the only African country about to reach universal access to HIV treatment. Use of insecticide-treated bed nets increased from 4 to 70 percent of the population from 2004 to 2007. These achievements can be linked to Rwanda's implementation of innovative service delivery approaches including autonomization and co-management of health facilities as well as performance based financing and unique in Africa, Rwanda has also scaled-up access to health insurance, from 3 to 70% percent of the population between 2002 and 2007, leading to increased use of health services. Nonetheless Rwanda still faces challenges to sustain those interventions in the future in terms of management and finance.

### **1 Background, economic and related health indicators drawn from most updated WHR and WDR**

Rwanda is a small, landlocked country in Sub-Saharan Africa with a population of approximately 9 million and a per capita GDP of approximately US\$250. Population

density is one of the highest in the world with over 345 inhabitants per square kilometer. In 2005, agriculture accounted for about 43 % of GDP, services for about 38%, manufacturing accounts for only 9% and construction 10%. Rwanda has made a remarkable transition from reconstruction to development over the past twelve years. The 1994 genocide decimated Rwanda's fragile economic base, destroyed a large share of the country's human capital, and eroded the country's ability to attract private sector investment. Close to one million people died and large numbers of people became refugees. Following genocide, poverty dramatically increased - particularly among women-, reaching 78 percent of the population in 1994. During reconstruction, the Government of Rwanda focused on rebuilding institutions which led to significant improvements in economic outcomes and social indicators. The country has made dramatic progress toward resettlement, reconciliation, demobilization, and reintegration of ex-combatants. As a result of extensive economic and governance reform measures taken between 1995 and 2005, GDP growth rates averaged over 7.4 percent per annum. By the year 2000, the proportion of the poor had declined to 60 percent.

Rwanda has made substantial progress on the MDG targets Impressive results have been achieved in the social sectors: primary school enrollment reached 92 percent in 2006 and completion rates increased to 55 percent in 2005. Child mortality which had reached more than 300 per thousand after the genocide, decreased to 150 per thousand in 2000-2005 back to pre-genocide levels. Immunization rates, at 95 percent, are among the highest in Sub-Saharan. Use of insecticide-treated bed nets increased from 4 to more 70 percent of the population from 2004 to 2007. HIV prevalence is at 3% and has been decreasing. A comparison of data from consistent surveillance sites shows a drop in HIV prevalence among pregnant women in urban areas, particularly in 1998-2003. In Kigali, prevalence declined from a little over 16% to 13% in that period, while in two other urban areas it declined from 9.5% to 5.8%. That declining trend appears to have weakened in recent years. In rural areas, meanwhile, HIV prevalence has remained stable, albeit at considerably lower levels (between 2.1% and 2.8% in 1998-2003) (Kayirangwa et al., 2006). Close to 440,000 individuals benefited from voluntary counseling and HIV testing; roughly 11.5 million condoms have been distributed to high risk groups; over 4,400 patients have been placed on antiretroviral therapy treatment (of which two-thirds are female), with an adherence rate of 95 percent; over 38,000 households are benefiting from expanded access to community health financing schemes; and roughly 27,000 orphans and vulnerable children are benefiting from payment of school fees. Rwanda is the only African country about to reach universal access to HIV treatment. Unique in Africa, Rwanda has also scaled-up access to health insurance, from 7 to 51 percent of the population between 2003 and 2006, leading to increased use of health services. The scale-up of performance-based contracting schemes for high impact services and implementation of a decentralized program for community health at the district level, using performance contracts with local governments, is a particularly notable achievement. Innovative schemes are being piloted to address the shortage of human resources in the sector, including hardship allowances for work in rural areas.

## 2 30 years of primary health care in Rwanda

The 1978 conference of the World Health Organization (WHO) in Alma-Ata pointed out “primary health care as the key to achieving an acceptable level of health throughout the world”. And it stressed the “importance of maximum community and individual self-reliance as the most reliable route to widespread, equitable, and sustained improvements of health”<sup>1</sup>

Primary Health Care serves after the conference as the goal of the World Health Organization and those individual states, including Rwanda, which forms its membership.

As one of the countries who participated in the Alma Ata conference, Rwanda adopted the implementation of the components of the primary health care. In the early 1980s Rwandan government developed strategies and action aimed to strengthen the implementation of primary health care. Those strategies are among many:

- The definition of the catchment area for all health facilities
- Creation of communal, regional and a national health committee. The committee worked together to implement effective primary health services at the local level
- Operationalisation of the national immunization program created in 1978. In 1982 all health facilities in Rwanda were providing immunization services, and Rwanda was at the time cited as one of the African countries with good immunization coverage.
- Strengthening of existing health facilities and creation of new health facilities to implement components of primary health care.

A global view of primary health care in Rwanda in early 1980s involved renewed emphasis on health education, the promotion of healthful and nutritious foods, the provision of sufficient and no contaminated water, maternal and child health and the prevention and treatment of local epidemics<sup>2</sup>.

The table below shows the evolution of health facilities in Rwanda over the years which increased substantially despite the 1994 genocide which destroyed the system.

**Table : Evolution of health facilities in Rwanda since 1980s\***

	1982	1990	2000	2007
Hospitals	27	29	29	38
Health centers, dispensaries and health posts	208	302	348	411

Source: Rwanda Ministry of health annual reports 1982, 1990, 2000 and 2006.

<sup>1</sup> World Health Organization. Primary health care report the International Conference on Primary Health Care; 978 Sep 6-12; Alma-Ata, USSR. Geneva: WHO; 1978.

<sup>2</sup> Mirasano C. The significance of “Health for All” and the primary health care approach.: *Imbonezamuryango*. 1984;(1): 33-40

Even if the construction of health facilities increased, efforts need to be done to increase geographic accessibility of the population to health facility. To date, almost 60% of the Rwanda population lives within 5 km of a health centre, and 85% of the population within 10 km.

The implementation of PHC strategies was very slow and regressed during 1990 to 1994 which correspond to the civil war and genocide period. After the 1994 genocide the new government was faced with a completely destroyed system, a system that lacked administrative machinery with 75% reduced human capital and destroyed health facilities.

After the genocide, the primary health care strategy was implemented through districts health network working as a unit of planning and execution dealing with all health problems of a given population that lives in a demarcated geographic area.

The health system in Rwanda was organized in a pyramidal structure. The base of the pyramid is the health care center; the intermediate level comprises district hospitals, and the top of the pyramid is the referral hospitals.

From the decentralized structure, district hospitals are dealing with complementary package of activities that include surgery and management of complicated cases such as severe malaria, organization of health services in health centers, administrative functioning and logistics, including the management of resources and supply of drugs as well as supervision of community health workers. The health centers provide primary health care included out-patient services and in patient services, preventive services such as immunizations.

Lately in 2006 the government undertook major's reforms to increase the coverage of primary health care. Those actions are:

- The administrative reforms which led to the disappearance of the 'Health District' and creation of "administrative districts" which are autonomous from the central level and effectively operational in all development sector including health.
- Public administrative reforms led to a strong reduction of manpower at the central Ministry of health and emphasis of district level activities
- A very large coverage of the community health insurance with a national subsidy for those too poor to pay;
- Rolling out performance based financing for health centers and district hospitals and an introduction of community Performance Based Financing.

The combination of these strategies has shown interesting results in term of the increase of coverage of primary health care, the present paper present results of some keys indicators and the resulting reduction in the maternal and infant mortality over the years.



### 3 Tracer intervention: Skilled delivery at birth

#### 3.1 Introduction to bottleneck analysis

The success of the Rwanda government in drastically increase the coverage of main indicators of the primary health care was to apply strategies based on a bottleneck analysis strategy.

The identification of bottlenecks is based on an analysis of indicators measuring the availability of essential drugs and supplies, access to health services and health workers, initial utilization of service, continuity in utilization (adequate coverage) and quality of the service. These indicators measure a 'chain' of determinants for effective coverage. The box below provides definitions of each determinant.

This paper identified the "assisted delivery by a skilled health provider" as a tracer intervention for coverage of primary health care in Rwanda.

Data for the six bottleneck determinants have been collected for 3 critical periods of the history of the implementation of primary health care in Rwanda:

- 1992: period before the 1994 genocide. The first national Demographic and Health Survey was done in 1992 collecting data covering the period from 1987 to 1992.
- In 2000, Rwanda almost completed his emergency period after the genocide and started the development period. Taking as baseline the year 2000 allow comparison of Rwanda with other poor setting country.
- 2005: the availability of data after the implementation of important policy allows analyzing the evolution of key indicators over time taking the 1992 as a baseline.

Most data used in the present paper are validated data from representative ousehold surveys mainly the demographic and health survey (1992, 2000 and 2005) and the Integrated Living Conditions Survey (2000 and 2005). See references for the complete citations. Other data are from the ministry of health.

Box 1 : Determinants of coverage of assisted delivery at birth.

The key determinants of coverage of assisted delivery analyzed are:

- *Availability* of critical health system inputs such as drugs, vaccines, supplies, and/or human resources for assisted delivery in a health facility.
- *Accessibility*: physical access to health services providing a skilled delivery at birth and basic and emergency obstetric care services.
- *Utilization*: use of assisted delivery at birth, in other words the indicator measure first contacts with health service providers.
- *Adequate coverage: proportion of post-natal care two days after delivery*. This indicator compares the actual contact with providers relative to optimal number of contacts.
- *Quality*: Delivery with life saving skills. The indicator examines quality of care by assessing the skills of health workers, for example in terms of their ability to examine the beneficiary, to diagnose, to provide the requisite interventions, to use the equipment and to advice appropriately.

### 3.2 Assisted delivery as a tracer of PHC in Rwanda

Births attended by skilled attendants are one of the most important MDG indicators as it is effective in reducing maternal mortality. The indicator is chosen as a tracer because of the complexity of its bottleneck analysis as an intervention provided at health facility level over the years of implementation of primary health care in Rwanda. In the past years there has been a progressive increase in the percentage of women attended by a skilled birth attendant during delivery, from 20% in 1980, 26% in 1992 to 39% in 2005 but still the coverage is far to be universal due to bottlenecks in the system that need to be addressed. In Rwanda this indicator is among the indicators which increased slowly in the last 30 years.

When primary health care was being implemented in Rwanda in the 1980s only about 20% of Rwanda's mothers were giving birth at health facilities, and many of the rest deliver at home in deplorable sanitary conditions assisted only by an older women with experience of childbirth but no scientific obstetrical knowledge. In the traditional milieu, the delivery is regulated by custom. In an uncomplicated delivery, the woman is assisted by a trusted companion, usually the mother-in-law. Difficult deliveries were blamed on infractions of social rules, offenses against the ancestors, or bad spirits seeking vengeance against the woman by impeding the birth. Offerings or animal sacrifices were used to correct these situations, but they take time, and further time was consumed in transport if the decision was made to seek help at a health station. At that time the traditional midwife had an important place in providing maternal health services. The traditional midwife was incorporated into the primary health care system and received continuing education on a regular basis. The objective of the training was to help traditional midwives to be able to recognize the signs of high risk pregnancies and deliveries and refer the women to appropriate health facilities while conducting normal deliveries themselves<sup>3</sup>.

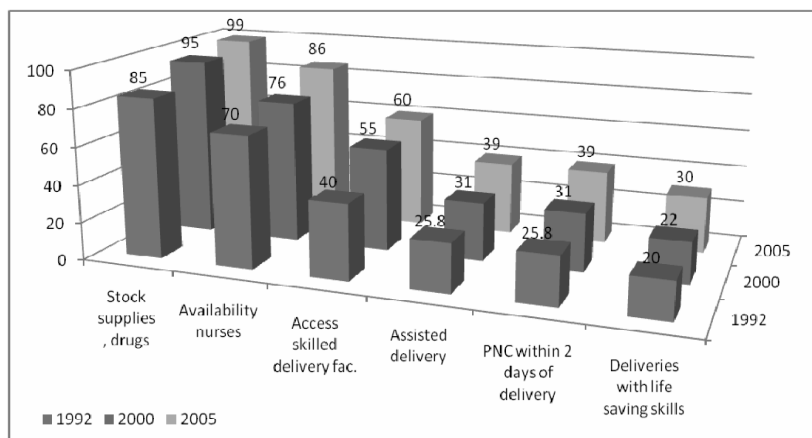
But evidences shows years ago that traditional birth attendance strategy is useful in the maternal health network, but there was no substantial reduction in maternal mortality by TBAs delivering clinical services alone<sup>4</sup>. Based on this fact, the government stops the TBAs strategy in late 1990s and makes an emphasis on assisted delivery by skilled personnel.

The figure below presents the analysis of bottlenecks at clinical level for assisted delivery in Rwanda.

<sup>3</sup> Nkundakozera A. The role of traditional midwives in the provision of primary health care in Rwanda. *Imponezamuryango*. 1985 Apr;(2):8-11

<sup>4</sup> World Health Organization (WHO). 1999, *Care in Normal Birth: A Practical Guide*, Report of a Technical Working Group, WHO: Geneva.

**Figure : Bottleneck analysis for the assisted by a skilled provider**



Source of data: Demographic health surveys 1992, 2000 and 2005 and Ministry of health reports.

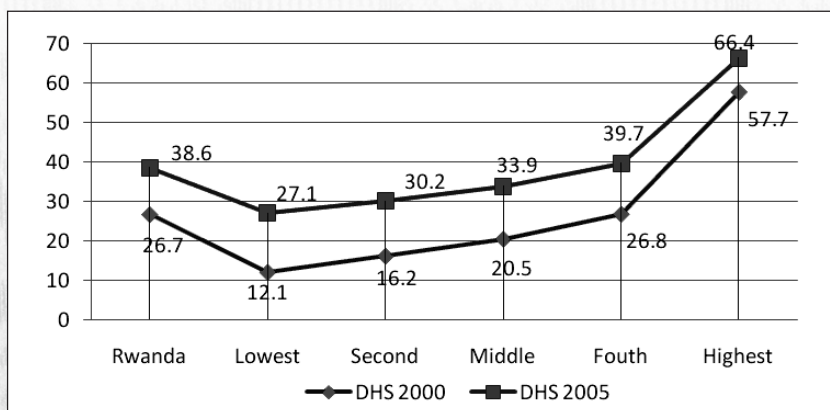
The main Bottlenecks to provide primary health care at clinical level that have to be addressed in order to increase the coverage of skilled delivery are mostly:

The insufficient number of providers, low staff motivation, insufficient financial access for the poor, insufficient health workers with a high staff turnover, limited geographical access in isolated areas, limited information given to mothers on newborn care, rapid discharge after delivery, poor referral system, low scale-up of clinical IMNCI, limited capacity of facilities to handle emergency cases appropriately, poor fast referral means (ambulance system), limited monitoring and supervision means.

There are others determinants of assisted delivery. The factors affecting the likelihood of a woman being assisted by a trained attendant during delivery are education, the number of prior deliveries, and wealth. The percentage of mothers assisted during delivery is inversely proportional to their level of education and the rank of the birth. Similarly, the greater the number of prior deliveries a woman has had, the less likely she will seek antenatal care (DHS, 2005).

There is a rural-urban divide in the number of antenatal care visits, with the proportion of women making four WHO recommended antenatal visits ranging from 18% in urban areas, to 13% in rural areas (DHS, 2005). The table below presents the proportion of assisted delivery by poverty level for 2000 and 2005.

**Table: Percentage of assisted delivery by a skilled health provider by Wealth quintile**



Source of data: Demographic health surveys 2000 and 2005.

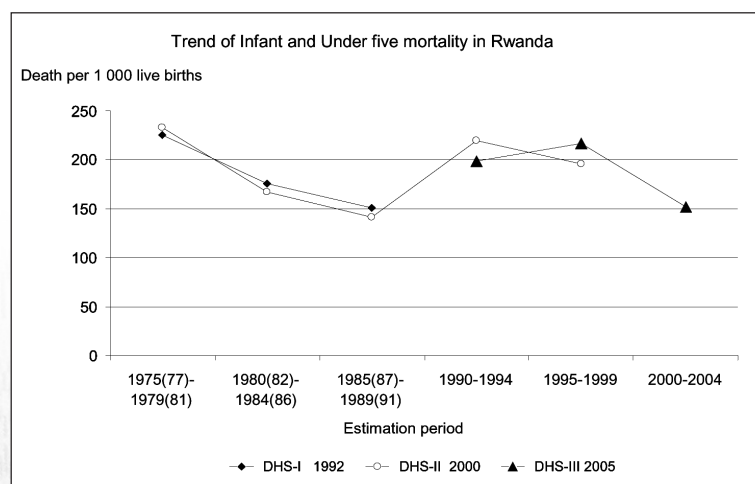
The data shows that wealth (poverty level) has significant effects on likelihood of having births attended. Thus in 2005, 66% of the wealthiest quintile of women interviewed was attended to when they gave birth, compared to 40% for the fourth wealthiest quintile, and only 27% for the very poorest quintile (DHS, 2005). The Coverage of skilled birth attendant for the poor is quite low, in spite of reasonably good geographical access. Significant inequalities exist in service coverage between higher and lower socio-economic groups.

Nonetheless the increase in coverage between 2000 and 2005 did not really decrease the disparity between poor and rich in term of accessing the assisted delivery care, but the effort made from 2000 to 2005 benefited both the poorest and the richest part of the population.

#### 4 Impact of the primary health care implementation on mortality in Rwanda

As shown in figure.... below Infant mortality has declined since 1980, but the 1994 genocide and its aftermath complicated the situation. Infant mortality rate increased from 85 deaths per 1,000 live births in 1992 to 107 deaths per 1,000 live births in 2000. Between 2000 and 2005 many effective interventions proven to decrease infant mortality have been implemented in Rwanda and by 2005 the situation had improved. The infant mortality rate dropped to 86 deaths per 1,000 live births. However, a combination of high population growth rates, and the aftermath of the 1994 genocide means that the MDG target of 28 deaths for 1,000 live births might not be reached<sup>5</sup>.

**Figure 1 : Trend of infant and under five mortality in Rwanda**

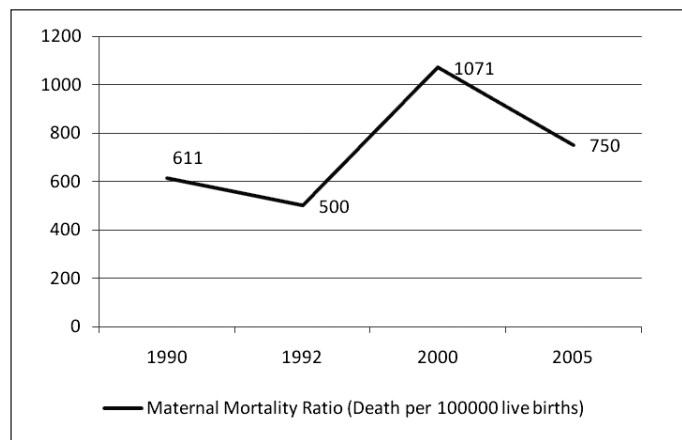


Source: Institut National de la Statistique du Rwanda (INSR) and ORC Macro. 2006. Rwanda Demographic and Health Survey 2005. Calverton, Maryland, U.S.A.: INSR and ORC Macro.

<sup>5</sup> Rwanda National Institute of Statistics. Ministry of Finance and Economic Planning, Against All Odds: Achieving the MDGs in Rwanda. Country Report 2007. Draft Sept 2007

Before 1990 Maternal Mortality Ratio was declining (from 611 deaths per 100000 live births to 500 in 1992) in response to the full implementation of the primary health care in Rwanda. Due to the instability and the genocide, the MMRs increased from 500 in 1992 to 1,071 in 2000. Between 2000 and 2005 after the reconstruction of the health system many high impact intervention in reducing maternal mortality were scaled up. In 2005, the MMRs were estimated to be 750 maternal deaths per 100,000 live births for the period 0-4 years preceding the survey. The ratio has dropped substantially compared with the 2000. If this current trend continues one can conclude that the MDG MMR target will be met by 2015. The table below describes the trend of MMR over time.

**Maternal Mortality Ratio (Death per 1000 live births)**



Source: Demographic and Health survey, 1992, 2000 and 2005.

**5 Lessons learned: Important policies**

The following are the main lessons learnt in Rwanda as result of the expansion of the primary health care:

**5.1 Political and security stability is crucial for the scaling up of primary health care**

After the devastating 1994 genocide, and related conflicts of 1996 - 2000, there was total displacement of the population, both internally and externally. This situation was bringing a situation of insecurity impeding the socio-economic development.

The main preoccupation of the government after the genocide and related conflicts was the stabilization of the country, the integration of returnees, and re-building of structures. Also a new constitution was promulgated in 2003 and the same year the first multi party election was held.

It was also important to maintain a regional peace and stability because of the effect of the genocide in the neighboring countries. This political and security situation was favorable for the implementation and scale up of primary health care in Rwanda.

**5.2 Strong government leadership and coordination**

The government of Rwanda has shown strong leadership in rebuilding the country after what namely have come to describe as the tragedy of the 20<sup>th</sup> Century.

Rwanda developed the vision 2020 which highlights strategies for the short and long term in Rwanda.

Rwanda has also been making significant strides toward the attainment of the MDGs. Since the country's first national MDG report was prepared in 2003, more progress has been made toward the MDGs. For example, while the country was off course with regards to the hunger and maternal mortality targets in 2003, it is now on course<sup>6</sup>.

The government develops also its Economic Development Poverty Reduction Strategy (EDPRS) which are the strategic instruments that will take the country towards further progress in achieving the objectives of Vision 2020 and the Millennium Declaration.

In Rwanda, a combination of the determination of the peoples, sound policies, and visionary leadership is bringing out a sustainable justice, democracy, and economic growth. For the health sector, the government believes that building strong partnership and good coordination between various stakeholder and initiatives, is critical in addressing challenges faced in implementing effective primary health care in Rwanda. Rwanda has reinforced national partnership including all key health partners through the SWAP (sector wide approach) process.

### **5.3 Government coordination of donors funding**

The health sector in Rwanda to date is dominated by project support interventions. The Ministry of Health conducted a donor mapping study, in which all donors were asked to classify their support in terms of the Rwanda health sector strategic plan (HSSP) and the geography of intervention. The National commission against AIDS requested its major project support donors to identify their alignment with the objectives of the HIV/AIDS strategic plan and to align their interventions geographically with the plans of the Government. This process helped in the issue of integration of HIV/AIDS interventions in general health interventions.

To achieve this alignment with the HSSP, the government did a systematic costing of the health sector strategic plan and orient donor support to where it is needed most. Also each year the government and all donors meet to evaluate progress made and plan for coming activities.

Each year the government makes sure that each stakeholder in the health sector is working according to the Health Sector Policy and Health sector Strategy (HSS). So donors use the HSS to align their assistance regarding the local priority needs.

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<sup>6</sup> Rwanda National Institute of Statistics. Ministry of Finance and Economic Planning. Against All Odds: Achieving the MDGs in Rwanda. Country Report 2007. Draft Sept 2007

#### **5.4 Use of HIV/TB and Malaria fund to strengthen the whole health system, Integration of vertical services in PHC**

In the past years, the government of Rwanda received important funding for the support to its HIV/AIDS coordination and national response plan. An emphasis has been made to the prevention strategies as well as treatment and biological aspect.

Presently the Ministry of Health through a network of 433 health facilities provides Prevention of Maternal to Child in 232 sites, antiretroviral therapy in 136 sites and Voluntary Testing and counseling in 251 sites.

Because of the financial constrain the government adopted a policy of free universal access to antiretroviral therapy and drugs against opportunistic infections.

Also, people living with HIV/AIDS, through their associations, are supported as regards their food, their children education, their access to the national health insurance scheme<sup>7</sup>, whereas they are also encouraged to start income generating activities.

Much progress has been made under the new national development strategy as a result of the use of an integrated approach to the provision of HIV/AIDS services. This has been done to allow the strengthening of other underfunded components of primary health care while scaling up HIV services. In pursuit of the approach the health system infrastructures have been considerably improved and the capacity of health personnel straightened enabling them to manage cases of malaria, tuberculosis and other maternal and child related illness.

An evaluation of this approach done by the Family Health International in Rwanda in 30 health facilities in Rwanda revealed that key indicators of primary health care increased significantly after the introduction of HIV services in those health facilities. The greatest increase was registered for outpatient consultation, non-HIV lab tests, syphilis screening of pregnant women, family planning and child grow monitoring. Also the number of women attending first- and second-trimester antenatal care visits grew, along with the number who completed all four recommended visits. A subset of the data revealed that more than 80 percent of HIV-positive women enrolled in PMTCT programs returned to the health facilities to give birth. This is in sharp contrast with demographic health survey findings that less than 30 percent of Rwandan women give birth in health facilities<sup>8</sup>. Nonetheless more need to be done to fully understand the impact on the integrated approach in Rwanda, future studies may address factors such as the effect of integrating HIV services into STI, tuberculosis, and malaria services; whether improvements are being seen in the quality of non-HIV patient care; the specific costs of introducing HIV services; and improvements over time. This will help in the future to better allocate HIV funds to maximize program impact on primary healthcare.

<sup>7</sup> In 2007 the government through the “mutuelle de sante” project paid health insurance fees to 77,496 orphans and 117,904 people living with HIV/AIDS, Ministry of Health

<sup>8</sup> Source: <http://www.fhi.org/en/HIVAIDS/country/Rwanda/res-HIVServicesaffectPrimaryCare.htm> consulted on December 13th, 2007

## **5.5 Decentralization of responsibilities and means**

The government initiated an effective decentralization policy in order to reinforce the institutional arrangement for the provision of primary health care. The main innovative change was to emphasize the health district as an operational unit.

The district is the operational level for the health system; it deals with the health problems of its population in the catchment area. The health functions of a district level include: (i) the organization of health services in health centres and the district in terms of the minimum and complementary package of activities, (ii) administrative functioning and logistics, including the management of resources and supply of drugs, under the responsibility of the district medical officer who heads the district hospital and (iii) the supervision of community health workers under the responsibility of the family and health unit.

At all levels of the district, health decisions are made collectively through various committees, which serve as vehicles of community participation in the health sector. Community participation is a key element in the implementation of the primary health care strategy: it plays a role in the planning, execution and monitoring of primary health care activities, including the provision of certain services at the grass roots level (nutrition, mental health, family planning etc) and the search for appropriate solutions to local health problems and the mobilization of resources.

## **5.6 Autonomisation of health centers**

There are more than 365 functioning health centres located within all 30 Rwandan administrative districts. These health centres provide primary health care to close to 80% of the Rwandese population. Health centers are autonomous in term of administrative and financial management.

The head of the health centers coordinating actions are monitored by health management committee which includes community members. The majority of management committees meet once or twice per month to review the head of health centers actions and plan for the next period. This autonomization of health centers by the government allows taking actions which relevant to resolve specific local health center problems. As the health workers are the keys component of service delivery at the health center, Ministry of Health is working on a fully decentralization of the health workers management at the health center level.

## **5.7 Implementation and scaling up of innovative policies to boost primary health care**

The main source of success for the primary health care services in Rwanda was the implementation and a rapid scaling up of innovative policies such as the “performance Based contracting” and “the micro-health insurance scheme”.

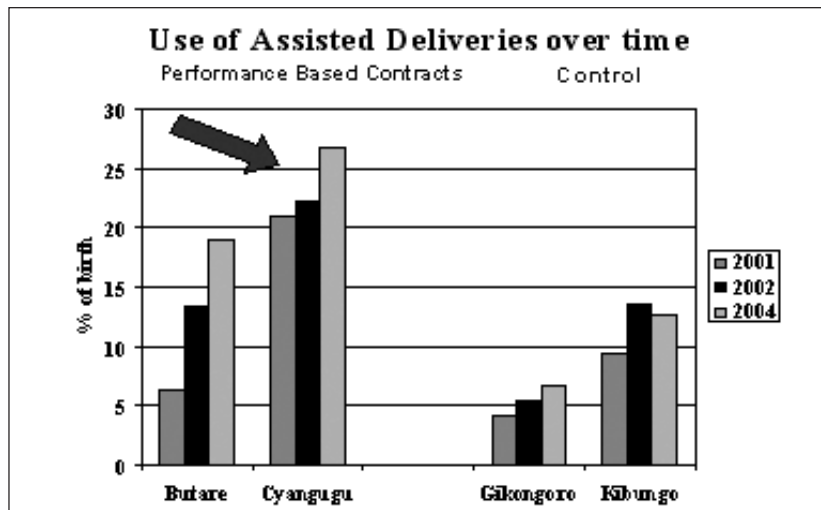
These two main policies are discussed in detail as we strongly believe that they had a positive impact on the delivery of sustainable quality primary health services. Also the two policies are the intersection of almost all the main objectives of the Health Sector Policy and Health Sector Strategy.



### 5.7.1 Performance Based Contracts in Rwanda

With the joint support of donors<sup>9</sup>, the Government of Rwanda has recently scaled up several innovative programs which transfer conditional grants from the central government to municipalities for the purchase of essential health outputs. The health program includes a program that transfers resources (about US\$0.5 per capita) to primary care centers on the basis a performance-based contract. The scheme was initially piloted in two provinces (Butare and Cyangugu) with the support of NGOs and bilateral aid. The contract includes indicators related to quantity as well as quality of services. Most of the proceeds of the contract are used to supplement the salaries of health workers on a performance basis.

In both provinces the implementation of these incentives schemes for health workers in the form of a performance based contract based on a few monitorable indicators has been followed by a dramatic increase in the use of OPD, assisted deliveries and even family planning.



An evaluation was conducted which showed a significant increase in utilization of health services, including immunization, family planning and assisted deliveries- in the provinces where the contracts had been implemented as compared to other provinces of the country. (see Figure ) Immunization overall stands at more than 85% nationally for DPT3. The provinces in which the performance based approach was implemented outperformed the control provinces on all indicators –both in absolute achievements, in proportional increase per indicator as well as in quality - since the introduction of the output based schemes. For example a 28 times difference in family planning coverage was found between Cyangugu and Kibungo provinces and a 4 times difference between the institutional delivery coverage rates between Cyangugu and Gikongoro provinces. The study concluded that centralized line item subsidy of salaries should be considered with care and may be advantageously replaced by extension of performance based subsidy schemes.<sup>10</sup>

<sup>9</sup> Six agencies provide Direct Budget Support to Rwanda, (AfDB, DFID, EC, IMF, SIDA, World Bank). The World Bank provides support through the Poverty Reduction Support Grant (PRSG)

<sup>10</sup> Global Partnership on Output-Based Aid (GPOBA)- World Bank-Ministry of Health, Rwanda. “Comparison of two output based schemes in Butare and Cyangugu provinces with two control provinces in Rwanda, 2005

The government expanded performance based contracts (PBC) to all of the health centers in Rwanda in 2006 and the expansion to hospitals is happening in 2007. The program has fully transferred to the government's budget and there is a direct link between service delivery, results, and payment. A steering committee has been established in each district to independently monitor the performance of the health centers using Lot Quality Sampling and satisfaction surveys techniques. The results of the independent verification directly affect the amount of funding received by the center. The expansion is happening in a phased way with control districts receiving financing under an input based contract for the first two years. Districts are grouped in pairs (similar districts were matched according to household, water, education, literacy, and assets indicators). One district from each pair was randomly selected to be receiving PBC in 2006, while the other receives an input contract and the full PBC will be introduced in 2008. An impact evaluation takes advantage of the matching and random assignment into treatment and control groups. Measurement of key indicators of the primary health care including health facility activities, patient utilization and health outcome are the variables of importance that the evaluation is measuring.

The result of this impact evaluation will be valuable for Rwanda and the rest of the world for providing evidences of using performance based financing in strengthening the primary health care in developing countries.

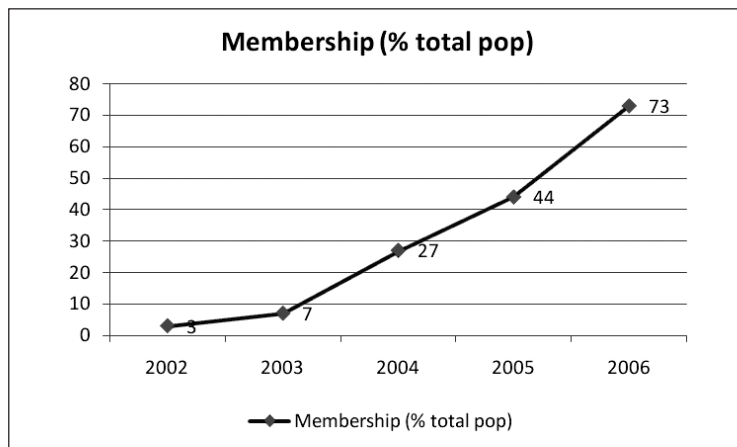
### **5.7.2 Micro health insurance schemes.**

The Financial Access to Health Services has been limited by the high cost of health services and the population cites it as the greatest barrier to accessing health care in Rwanda. Improving financial access of the population and especially the poor to cost effective proven health and nutrition interventions was one of the main challenges chosen by the government in reducing mortality and reaching the MDGs. Great efforts have been put into risk pooling mechanisms since 1999 through the design and implementation of pilot community health insurance schemes. Based on the experience from the first 3 health districts, the government, based on the lessons learned, expended the experience to cover all the health facilities by 2006. The scaling up was well planned and systematically implemented, by 2003 a quarter of health facilities started a community insurance scheme. A year later, half of all the facilities were enrolling clients.

In 2006 all the health centers were working with communities insurance schemes. The government of Rwanda has systematically supported the expansion of these schemes. In 2005 the focus of the government was on building administrative and management support and technical capacity, including training and development of appropriate tools. Since 2006 the GoR transfer funds to cover premiums for the poorest people in the community (about US\$ 0.15 per capita). One of the important reasons of the success of the schemes in Rwanda, apart from the support from the government is the fact that the schemes made payments to the health centers on a capitated basis, essentially transferring all risk to health centers. Also evaluations show that *mutuelles* are more effective when they have strong community participation in their governance structures.

Presently the schemes expanded and are covering the services provided at the district level and national referral hospital. All these efforts resulted to boost the scheme membership from 35 in 2002 to 73% in 2006 (see graph below).

**Figure : Evolution of insurance membership in Rwanda.**

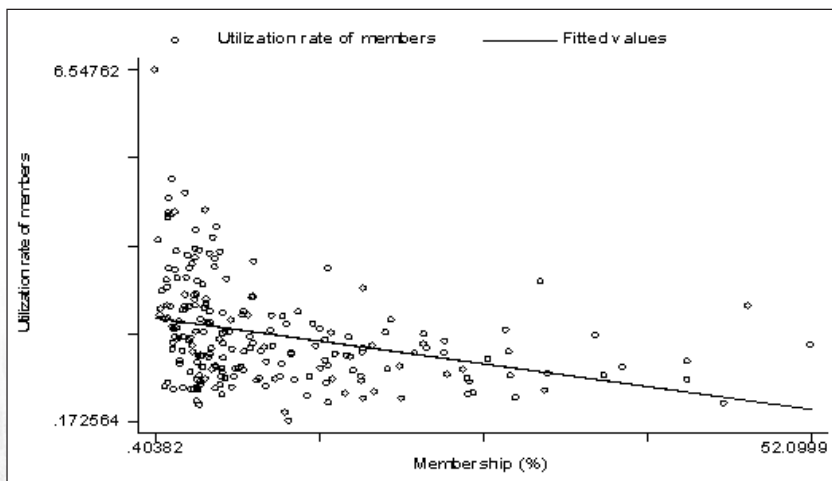


Source: Cellule d'appui aux mutuelles de sante. Ministry of Health / Rwanda

The Rwanda insurance scheme faced the classical threats of insurance schemes: the adverse selection and the moral hazard.

The first was controlled by implementing the family package; where the families as a whole were encouraged to join the scheme instead of specific family member potentially with high probability of using the services. To control the second threat, the program manager put in place a window period of one month minimum between the payment of the premium and the use of services. The second action taken was the instauration of a co-payment for each visit.

An evaluation proved that the substantive increase of the membership reduces service utilization by the members over time, and this was statistically significant as shown in the graph below.



Source: Jean Kagubare (a completer)

## 6 Challenges faced

In the past years Rwanda has been implementing important policies aimed to boost the primary health care. Nonetheless Rwanda is facing important challenges to sustain those important initiatives. We list some of the key challenges faced by Rwanda presently:

- The lack of skilled and sufficient health professionals remains one of the greatest challenges for the Rwandan health sector. The number of inhabitants per nurse is 3,900, and the number of inhabitants per doctor is 50,000. The nurse to population ratio is within the WHO norm of 5,000 inhabitants; however the doctor to population ratio is almost five times the WHO norm of 10,000 inhabitants. The number of qualified doctors and nurses across the country is insufficient, and the problem is particularly acute in rural areas. Existing staff shortages present Rwanda with the added challenge of rapidly increasing the number of staff providing HIV/AIDS services without negatively affecting the provision of other health primary health services.
- Even if the government contribution to health has risen significantly in the past years in Rwanda (the share of overall government spending has increased from up to 9% in 2003), the donors community remain the leading contributor of health funding in Rwanda covering 43 % of the total health expenditures, while the government covers 32% and the household 25%.<sup>11</sup> Presently more than 15 donor agencies are assisting the Government of Rwanda to finance and implement health services interventions, the scale-up of HIV/AIDS services being the most funded. The increase in donor funding is primarily due to the surge in large grants such as the Global Fund, PEPFAR (President's Emergency Plan for AIDS Relief). Rwanda will face an important challenge to sustain all these activities at the end of the funding period even though Rwanda is receiving direct budget support from the World Bank and other donors.
- Monitoring of interventions of the implemented activities will be a continuous challenge in the context of scarce skilled human resources in Rwanda. As Rwanda is implementing and scaling up new and innovative interventions, it is crucial that a strong monitoring and evaluation plan helps to track important indicators and inform decisions. But still Rwanda is facing challenges in term of financial and human capacity to develop and implement monitoring and evaluation plans for the implemented activities.
- The sustainability of the community health insurance and the performance based financing will not only depend upon the availability of funds but also the capacity of the health centers management to deal with the expansions of these initiatives. While the automization of the health centers seems to work for the past years, the management growing interventions is still a challenge.
- The community level interventions are not yet reinforce in the same line with the health facility based interventions. To reduce child and infant mortality, there is a need to strengthen community level to provide evidence based intervention at the community. Rwanda has a well organized and strong health facility system; this opportunity may be used to reinforce the community level

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<sup>11</sup> Rwanda Ministry of Health. National Health Account 2003, 2006

by fully working with community health workers. Rwanda is initiating community based intervention such as home based malaria treatment, community based DOT for Tuberculosis. It will be important that Rwanda scale up those effective interventions in all districts.

- Lastly, another important challenge that Rwanda will continue to face is the information and communication for behavior change. Even though communication strategies are accompanying the preventive intervention offered in Rwanda (assisted delivery, family planning, voluntary counseling and testing, prevention of the transmission of HIV from mother to child, etc) there still a need to strengthen different communication methods used and to come up with new strategies that will bring adoption of safe behavior by the population. .

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## **25//Localizing Global Policy: The Experience of Primary Health Care in Thailand<sup>+</sup>**

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### **Abstract**

In the past three decades, Thailand was one of the countries in which serious attempts were made to implement primary health care (PHC) policy. Various measures and numerous efforts taken during mid 1970s up to late 1980s led to substantial improvement of health in rural area. Health situation as well as socio-political context has considerably changed since. This paper is an attempt to appraise the nation's experience of primary health care movement from today's vantage point. Combining critical review of studies on community health, various case studies on local health initiatives, and findings from a nationwide survey on the roles and performance of village health volunteers, this paper assesses the achievement, reviews lessons learnt, and suggests what the new health situations and the changing contexts mean to the renewal of primary health care. The study reveals that as PHC policy has created much needed spaces for community action for health. As PHC ran its course, however, the meanings of health and community actions have become more and more contested. What was needed at the local level was a more inclusive and more pluralistic health policy process in which various actors with their various identities could enter and openly negotiate their interest. At the global level, a shift of strategies among global health agencies toward a greater role in putting health in the global macroeconomic agenda was needed. The aim was to create a better global system of health governance by which political, social, and economic issues effecting health could be negotiated.

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## **Introduction:**

Primary health care as a social concept was historically contingent; it was a concept created within specific contextual circumstances and thus need to be understood and assessed within its politico-historical contexts. Although development has become the *raison d'être* of the state, particularly for third world, or “developing countries” since World War II and health featured prominently as an important domain of state intervention, it was within the context of the Cold War that the concept of primary care was conceived. Over the past three decades primary health care (PHC) has been one of the most important global health development strategies (WHO 1981). As an international health policy, it provided not only a set of clear directions but also a powerful guiding moral ideology to health policy and action (Cueto 2004: 1868). Health was not for the few, but for all.

Thailand was unmistakably one of many countries to put in serious effort in the implementation of primary health care policies. Building on its experience in community-based malaria program in the 1950s, community health development in Sarapee project and the famous Lampang project in the 1960s, the Thai Government started a national PHC program in 1977, one year prior to the official Alma Ata declaration of PHC. In the following years, extensive programs and activities in crucial areas of health problems such as nutrition, procurement of essential drugs, supply of clean water, sanitation, expanded program on immunization, maternal and child health, early diagnosis and prompt treatment of common diseases, and health education were enthusiastically implemented. Community organizations were set up, community volunteers recruited, and training courses organized. In the span of almost a decade during the late 1970s to mid 1980s, primary health care had become the most important policy not only in health development domain but also in directing the broader socio-economic policy in national development plan of Thailand.

Thailand's primary health care existed and evolved in relation to the changing socio-political situation and the shifting of health policy and development strategies. The Post-Cold War era, with the dissolution of the dividing ideological line and the emerging global capitalism, has not only made public health more and more transnational but also led to rapid industrialization of Thai economic outlook. Free trade and direct capital investment from developed countries boosted up Thailand's economic growth and created an unprecedented expansion of middle class strata (Pasuk Phongpaichit and Baker 1998). Urbanization and modern lifestyle has increasingly become part and parcel of contemporary Thai way of life. New state policies - universal health coverage scheme, decentralization policy, public sector reform, and health systems reform - as well as the on going epidemiologic transition with the increasing burden of chronic illnesses and emerging diseases (Ministry of Public Health 2007) were the new contexts to be taken into consideration in rethinking the future of primary health care.

This study will examine Thailand's experience of primary health care from today's vantage point. It aims to assess the situation and to take stock of what we can learn from primary health care in Thailand during the past three decades.

## **Objectives**

In analyzing the past three decades of Thailand's experience in the implementation of primary health care policy, this study sets forth the following objectives:



1. To examine the contexts and assess the processes in which primary health care policy was adopted, developed, and implemented in Thailand.
2. To appraise the achievement and to draw lessons learnt from the implementation of primary health care in Thailand.
3. To explore new challenges and new contexts that should be taken into account for the rethinking of primary health care.
4. To propose new developmental strategies for further strengthening and renewal of primary health care in the future.

### **Material and Method:**

Current situation of the primary health care and community health development activities was initially assessed through review of related materials both from relevant documents and from a technical workshop with experienced community health workers. Participants of the workshop consisted of community health officials, volunteer representatives, representatives from health NGOs, local administration officers, and community health researchers. Results from the review of literatures and the workshop were used to develop the conceptual framework for quantitative evaluation of community health volunteer performance as well as for in-depth investigation of issues of special interest. To assess the overall situation of nationwide community health volunteer, a quantitative study was undertaken to evaluate the performance, competency, as well as the existing supporting systems, impact and problems encountered by community health volunteers and community health workers. Interview of health volunteers, community leaders, community health officials, and local administrative organizations in 132 villages in 11 provinces across the country was conducted using semi structured questionnaires. Additional mailed questionnaires were sent to chairmen of provincial health volunteer organizations in all provinces. In addition, in order to identify future potential of health volunteers, interesting volunteer works in related health fields were identified. Detailed case studies including community work in caring of HIV/AIDS, immigrant workers, organic farming, promoting indigenous healing, and consumer protection were documented and used as input for the final synthesis.

### **Result:**

Result of the study will be presented in five parts. The first part traces the emergence of PHC policy in Thailand and its evolution up to present. The second part is the assessment of past achievement of PHC policy. The third part draws some interesting lessons from the nation's experience of PHC implementation. The following fourth part examines current development and the changing contexts of Thai health system. The final part of the study situates the result of the study in rethinking the principle of primary health care.

## **1. Overview: Primary Health Care and Its Contexts in Thailand**

In Thailand, although PHC program was officially initiated in 1977 as part of the Fourth National Health Development Plan (1977-1981), experiments in community-based health development and community volunteer system began much earlier. During the 1950s, tropical disease control programs started projects on community health problems such as hook worm project, tuberculosis prevention

(Sombun Pongaksorn 2524), and malaria control program. Initially employing vertical program approach, these programs gradually developed community-based strategies for a more effective method and sustainable result. Community volunteer system, for instance, was initiated in malaria control program, which later developed into the village health volunteer, one of the most important primary health care strategies in Thailand.

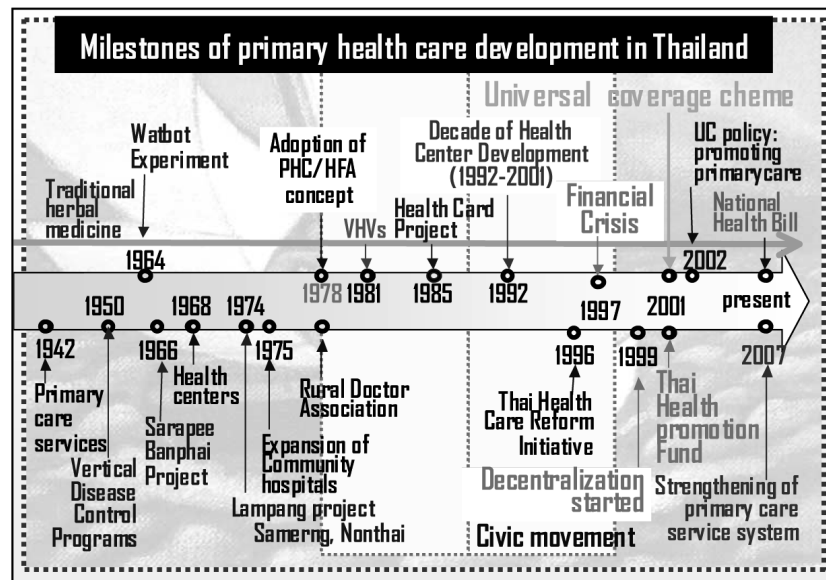


Diagram #1: Timeline of health development related to PHC policy

As mentioned earlier, primary health care policy emerged within the historical-political context of the Cold War. In Thailand, certain historical development in the 1960s and early 1970s could be viewed as factors leading to the successful implementation of PHC policy. Democratic movement which eventually led to the October 1973 uprising set the stage for a new political struggle for a more equitable social and economic development. In 1975, the first ever national policy under the Krukrit Pramoj administration announced free medical care for the poor. The policy was followed by an expansion of rural medical facilities (i.e. community health centers and rural hospitals) which became a fertile ground for a number of young generation medical personnel to work in the remote, underserved rural area (Suwit Wibulpol prasert 2003). These young medical professionals were dedicated to rural health and became the leading figures in putting the concept of primary health care into practice.

From mid 1970s up to 1980s community development and primary health care was on the national development agenda. Resources were allocated for primary care program as part of the effort to lessen rural-urban disparity. Innovative approaches were created and PHC evolved into various kinds of activities: community organization, community self-financing and management, the restructuring of the health system and multisectoral co-ordination. Many of the essential elements of PHC have been achieved. Improvements in the nutritional status of children under five, households' accessibility to clean water, immunization coverage, and the availability of essential drugs have been observed.

According to one of its pioneers, PHC in Thailand has been successful in Thailand because of community involvement in health, collaboration between government and

non-government organizations, the integration of the PHC program, the decentralization of planning and management, intersectoral collaboration at operational levels, resource allocation in favour of PHC, the management and continuous supervision of the PHC program from the national down to the district level, and the horizontal training of villagers to villagers (Sanguan Nitayarumphong 1990). As the Cold War coming to an end and Thailand has moved rapidly into a newly industrialized country, state policies put greater concern on economic growth and primary health care was on the wane. By the late 1990s, as primary health care receded to the background, new areas of health development emerged. Policy attention and action quickly moved to the new fronts.

The establishment of Thai Health Promotion Fund with alcohol and tobacco taxes has created great impacts on health promotion and represents the most important and the most instructive health promotion initiative in the region (Buasai 1997; Rob Moodie et al. 2000). The inception of universal coverage scheme and the inauguration of National Health Security Office has reduced barrier and created more equitable access to health care through the strengthening of primary care service (Adrian Towse, Anne Mills, and Tangcharoensathien 2004). The promulgation of the new National Health Act, with the long process of drafting which served as an opportunity for civic engagement and the building of health consciousness, has created parallel spaces for deliberation and participation in health policy process and actions (Komatra 2005). New ideas and new initiatives in health development such as the humanization of health care, health and volunteer spirit, health and spiritual well-being, human right and health, as well as increasing roles of civil society and non-state actors in the field of health both at local and global level were shaping the direction of health development in Thailand.

These new health initiatives did not develop from their own separate ground. Rather, most of progressive health policy initiatives could be said as being the result of collective, albeit loosely organized, effort of high profile public health technocrats most of whom shared their experience of working in the rural area during the heyday of primary health care. With dwindling support and endorsement from international organizations, primary health care was no long an area of high recognition. From one of the most progressive areas of health policy and action, primary health care has now become an inconsequential health program desperately struggling for resources and survival. The only task left for the once prestigious Office of Primary Health Care was to maintain its patronistic relationship with certain fractions of volunteers and to round them up for political mobilization.

## **2. Achievement**

Although during the heyday of primary health care various activities were implemented to solve health problems at hand, what concern us as achievements needed to be assessed were accomplishments with long lasting impact. This section will first provide an overall assessment in terms of health impacts and outcome, which will be followed by specific assessment through two main tracers: village health volunteers and the reorientation of basic health service. The last part of this section assesses the impact of PHC policy and its socio-political consequences.

## **Overview: Health impact and outcome.**

Although showing definite evidence on the impact and outcome of community development program is still a challenge (S M Moazzem Hossein et al. 2004), Thailand public health has made considerable progress in health development based on health indicators and epidemiological outlook. Maternal & child health and family planning program has successfully brought about the remarkable decline in the population growth rate and gradual rise in life expectancy, resulting in changes in the Thai demographic profile. This demographic transition was evidenced by the shift from a broad-based, pyramid-like Thai population age-structure in 1970 to a columnar-based form. Thailand's infant mortality rate declined from 125 per 1,000 live births in 1960 to 26.1 per 1,000 in 1996, indicating a remarkable improvement (Ministry of Public Health 2002: 175). However, an obvious disparity exists between the urban sector (27 per 1,000) and rural sector (41 per 1,000) (Yongyuth Kachondham and Somsak Chunharas 1993).

Thailand also experienced epidemiological transitions. Infectious and parasitic diseases, as well as nutritional deficiency, have dropped sharply. The Expanded Program for Immunization (EPI) has succeeded in decreasing incidence of diphtheria and tetanus neonatorum. Tuberculosis and malaria ceased to be major health threats. Diarrheal diseases and respiratory tract infections were no longer the leading causes of death due partly to the improvement in clean water supply, sanitary condition, and the availability of prompt treatment in the community. Post-transitional problems of non-communicable, chronic degenerative diseases, however, were emerging as a new threat to the health of the nation. Accidents, cardiovascular disease, and neoplasm were currently the three leading causes of death in Thailand (Ministry of Public Health 2002).

During the mid 1980s to the mid 1990s, the spread of HIV infection in Thailand emerged as the greatest threat in the history of Thai public health, and contributed to the resurgence of tuberculosis. Thailand was one of the most severely afflicted areas, described as the epicenter of the AIDS epidemic in Asia. To a large extent, Thailand has been successful in the containment of the AIDS epidemic due to an extraordinary concerted effort among various agencies, particularly health authorities, non-governmental agencies, and grassroots community organizations. Village health volunteers played an instrumental role in disseminating correct understanding about the epidemics and lessening the stigmatization of people living with AIDS.

Primary health care played an unmistakable role in shaping health impact and outcome of Thailand's public health policy in the past three decades. While disease of poverty were, to a large extent, contained, current health problems of highest concern were the re-emergence of infectious diseases such as tuberculosis, malaria, filariasis, Dengue, and leptospirosis and other newly discovered diseases such as SARS and Avian Flu (Vichai Chokwiwat 2002: 312). Occupational and environmental related health problems were also on the rise (Ministry of Public Health 2007).

## **Tracing achievement through specific tracers**

- **Community based health workforces**

Although most activities relating to primary health care have either been suspended or disregarded, the nationwide network of village health volunteers in Thailand was currently still thriving and striding. During the 1970s, village health volunteers and village health communicators were set up in most villages. Thailand

has accumulated the total of approximately 800,000 village health volunteers to date. The nation's countrywide network of village health volunteer was arguably one of the most outstanding legacies of primary care movement of Thai public health. It exemplified the concept of community participation and contributed to the highly-acclaimed accomplishment of health development in Thailand. The assessment of the role and performance of village health volunteer scheme reveals both its strengths and weaknesses (see Komatra Chuengsatiansup, et al 2007). Findings of the study can be summarized in the following a seven-point synopsis.

1. Village health volunteers in Thailand numbered almost a total of 800,000. It was an extremely valuable health resource. Village health volunteers were mostly selected by local communities. Although the recruitment of a number of them was relatively problematic, village health volunteers were mostly well respected by local villagers. Volunteers were generally selected because local people knew them as ones who devoted to collective affair and people trusted them.
2. Existing system of village health volunteer in Thailand was still very much alive and has become increasingly feminized. More than 35% of existing volunteers were recruited in less than five years, while the number of female volunteers rose to almost 70%.
3. Existing village health volunteers performed comparatively well on short-termed task such as ad hoc health survey, periodic collecting of health data, or disease prevention campaign. Their role in avian influenza campaign in the communities was an illustrated case (WHO 2006). They did not fare well, however, in the areas of work that need long-term, continuing devotion, such as caring of chronically ill patients.
4. Existing volunteer workforce was recruited from comparatively low educational and economic background. This poses the question, how could higher quality of volunteer workforce with an economic status more prepared to dedicate be recruited.
5. The changing supporting system and decentralization has greatly affected the relationship between health volunteers, local administration, and the role of Ministry of Health. Although a coordination mechanism was recently created at various levels, local health volunteers have little participation above the district level.
6. Village health volunteer has been apparently politicized and become instrumental in local and national politics.
7. A number of case studies suggested an increasing innovative roles and forms of volunteers in health development, ranging from volunteers in hospital settings to disaster relief volunteers.

Although the recruitment of village health volunteer has occasionally been questioned as being nepotistic or incentive-driven, the irrefutable fact is that village health volunteers were mostly those perceived and chosen by the communities as persons who not only had public mind, generous, and willing to help those in need, but also were comparatively knowledgeable and concern about health matter. In addition, these volunteers have formed a continuing and long lasting working

relationship with health officials and in due process building up trust and benevolent attitude toward community health development.

It can be said that village health volunteers served as a critical link for mutual understanding between community and public health system. These volunteers were thus a valuable social capital with great potential in community and health development. While the relevance of conventional model of village health volunteers for the changing contexts was a concern, case studies suggested increasing innovative roles and novel forms of volunteers in health development, ranging from volunteers in hospital settings, self-help groups, cancer survival groups, right and advocacy groups, volunteers in palliative care, to disaster relief volunteers. This strongly indicated that the idea of volunteer has been progressively more accepted in Thai society and new forms of volunteerism were rising to the new health challenges.

- **The Reorientation of Basic Health Services**

Fifteen years after the adoption of PHC policy, as the community-based programs were working out, attempt was made to boost up the situation. The Decade of Community Health Center Development was launched. Resources were allocated for the strengthening of local health facilities, particularly for curative capacity. Large-sized health centers with sizable population were procured with additional medical supplies and equipments. Supply of additional manpower in community health centers was granted with a better career ladder. Although this development was seen by some as an unfavorable sway from comprehensive, community-based approach toward a narrowly curative approach, it has been a prime mover preceding the national health care reform which expanded into the third decade of PHC.

It should be noted that rural health facility has greatly been expanded during Thailand's economic recession from the late 1970s to mid 1980s. This was due to strong and decisive technocratic leadership. During that period almost all capital investment for the expansion of urban, tertiary care medical facilities was totally frozen. Rural hospitals at district level were built and medical personnel allocated. Within a span of almost two decades from 1979 to 1986 the disparity of proportion of Northeastern to Bangkok's population/doctor ratio reduced from 21.3 in 1979 to 8.6 in 1986. As the economy boomed during the late 1980s, the disparity increased. In 1997, the overheated Thai economy melted down. The Thai government was forced by the severity of the crisis to accept an economic recovery agreement with the International Monetary Fund (Pasuk Phongpaichit and Baker 1998). Yet again, the economic crisis had a positive effect on the distribution of health resource. Disparity of population/doctor ratio between Northeast Thailand and Bangkok improved from 13.7 in 1997 to 10.5 in the year 2000.

In 1996, the Health Care Reform Project started with financial and technical support from the European Union. Pilot projects were launched aiming at developing workable models for health care through health service research. After the economic crisis in 1997, the government started the "Good Health at Low Cost" policy. The continuing emphasis on community health facilities could be readily seen through the changes in the proportion of out patients accessing health services in the past three decades. From an inverse pyramid structure of accessing health care in which the majority of out patients directly visited tertiary medical facilities in 1970s,

proportion of out patient accessing health care gradually changed into a more favorable pyramid-like structure (Suwit Wibulpolprasert 2003). Primary care facilities have increasingly become the main providers for the majority of basic health service (see diagram # 2).

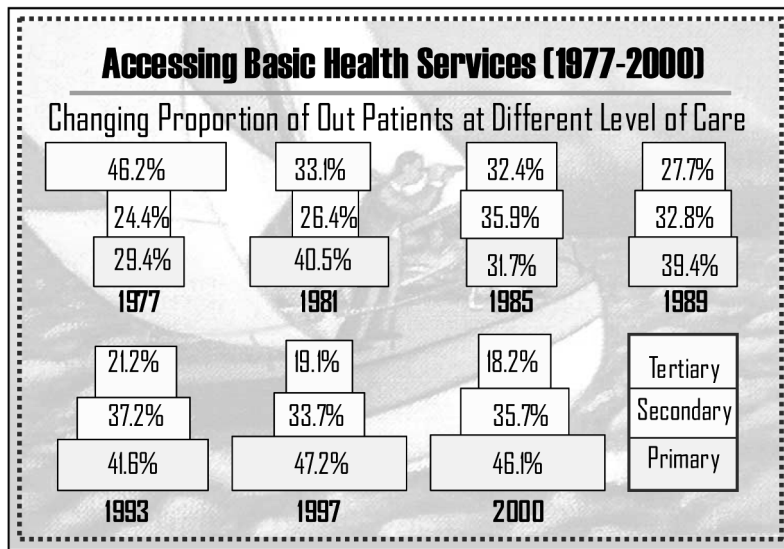


Diagram #2: Increasing proportion of out patients accessing health care at primary care level

Source: Suwit Wibulpolprasert, ed. 2003, Thailand Health Profile 1999-2000. p. 311.

In 2001, the universal coverage in health care was initiated. Along with the reform of health care financing system, the national health security movement gave strong emphasis on the strengthening of network of primary care provides. Primary care facilities were upgraded from the previous health centers to provide holistic and comprehensive care in the communities. Of utmost importance was the attempt to incorporate health promotion and disease prevention into the new health security system. Specific budget was allocated and earmarked fro health promotion and disease prevention activities. This effort pushed health care reform to go beyond conventional universal coverage scheme which an overemphasis on curative activities and medical intervention.

### PHC Policy and Its Socio-political consequences

In the late 1980s, as primary health care policy was on the wane, the first National Health Assembly was organized in Bangkok. The event was considered by many as a landmark in health policy development in Thailand. It was the first time when high-level policy makers and political leaders, not only from health, but also from various sectors outside the conventional public health domain, gathered to discuss issues facing the health of the nation. The event was considered an extraordinary achievement as it exemplified the much-praised concept of multisectoral collaboration in health policy development.

In 2000, twelve years after the first national assembly, another national health assembly was organized. Although organizers of the two assemblies were closely linked, the events were remarkably different. The latter assembly was attended not so much by state officials and policy makers, but by grassroots community organizations, development NGOs, professional associations, charitable foundations, and various

other kinds of civil society organizations. The focus of the assembly was on the roles of local initiatives and civil society organizations in shaping and carrying forward the health reform agenda.

The shift from an assembly of decision makers in official policy processes toward non-state actors was significant, with a drastic transformation in politics and governance in the domain of the Thai health system. The national health assembly of the year 2000 became a newly invented social space in which the deliberative function of governance could be realized. "People participation" in health development achieved a new meaning; it was not merely collaboration with a predetermined official health action plan but deliberative action and active involvement in health policy processes. Annual national health assembly has been regularly organized since. In 2007 the new National Health Act legally instated annual national health assembly as the deliberative function of the newly established national health governance system. In addition to the national health assembly to be annually convened, regional and specific health issue assemblies were obligatory.

While it is reasonable to think of the national health assembly as the result of the expansion of PHC concept such as intersectoral collaboration and people participation, it should be noted that civil society organizations involved in the health assembly were much more diversified than community organizations created during the PHC movement. In fact, village health volunteers exhibited an unpretentious role in the formation of the assemblies. A number of village health volunteers participated in this newly invented social space were active in community work other than primary health care activities in the communities. They participated in the assembly not so much as village health volunteers as members of citizen groups active in various health related issues, such as organic farming, alternative health, or community forestry.

We can readily see that PHC as a social movement in Thailand has led to the creation of new social space and the construction of health more and more as a contested domain of social action. What was needed, it seemed, was a more inclusive and more pluralistic health policy process in which various actors with their various identities could enter and openly negotiate their interest.

### 3. Lessons Learnt

- **Long term benefit of human resource development**

Experience in Thailand on the implementation of PHC made it clear that investment on human resources has proven to yield a long-lasting return. Although other activities generated by PHC policy have since been abandoned or suspended in Thailand, village health volunteers persisted and from time to time evolved into new roles in community health development. The fact that Thailand was able to maintain 800,000 village health volunteers who worked primarily on a voluntary basis suggested the possibility of building healthy community health workforces with minimal financial incentive. Three decades of village health volunteers in Thailand have created trust and sustained working relationship between local health authority and community volunteers. This working relationship could be viewed as social capital accumulated through collaboration, social recognition, and official acknowledgement of volunteer's contribution to local and national health. Any future attempt to renew primary health care could do well by emphasizing the importance of human resource and community workforces for health through social capital building.



- **Politicization of village health volunteer**

In the past two decades, health policies and priorities have changed both at the global, national, and local levels. With political development in Thailand moving toward “electocracy,” village health volunteers were constantly sought after by electorates and politicians as their political power base. As the national PHC program gradually faded away from public attention, certain fractions of village health volunteers become more and more implicated in local and national politics. The changing administrative system and decentralization has also caused village health volunteer to be increasingly politicized. The resulting bureaucratic and political clientelism greatly impeded the development of civic consciousness. Such a patronistic relationship and the politicization of village health volunteer poses the risk of volunteers being co-opted as mere instruments of politicians rather than being an independent, non-partisan entity pursuing their own communities’ agenda while seeking collaboration with political bodies on an equal partnership.

- **Limit of “narrow” definition of health**

Thailand’s experience in fostering a broad-based social movement for national health system reform suggested that a broader concept of health was crucial in expanding community participation. The biomedical definition of health cuts off health from wider issues of social and economic development and poverty alleviation. The expansion of the operational definition of health from a disease-oriented, curative approach to a more holistic approach will broaden the scope of possible participation of various parties including civil society in health action. Although primary health care was a dramatic shift from the biomedical view, putting expanded definition of health into practice has proven to be an extremely difficult undertaking. A new concept of health expanded to include multiple dimensions of health can facilitate further cross-border collaboration. Expanding the concept of health is thus a prerequisite for broader participation of health policy and actions.

- **Limit of official health policy process**

Most health development efforts relied on what can be called the “official policy process” in which the process of policy formulation, planning, and implementation of the national health reform policy were undertaken exclusively within the public health bureaucracy. As pointed out by Jareg & Kaseje (Jareg and Kaseje 1998), the grand vision of “Health for All by the Year 2000” launched by WHO in 1978 could never be fulfilled by governments working alone. NGOs, with their experience of working with the dispossessed and groups difficult to reach, had to be the core alliance to accomplish such an important goal. Civic engagement and public deliberation of health reform can be useful to overcome the limitations of official politics. Experience from health system reform and health assembly in Thailand suggested that broadening of the platform in which civil society and active citizens can participate more directly and variously in public affairs is to creating a more pluralistic policy process.

- **Implementation without Deliberation**

A number of evaluations of primary health care examined how village health volunteers and various groups were set up to conduct development activities during

the heyday of primary health care (see Thavithong et al 1988; and Morgan 1993). The roles of these community organizations were mostly to cooperate with health agencies in implementation of health activities. They had a very limited role in the decision-making process to determine both what was to be done and how implementation should be carried out. Rather, they participated in prearranged activities based on a universally standardized primary health care handbook.

It can be said that the primary health care movement has successfully created new, albeit limited, social spaces in which laypersons could play certain roles in health development. Instead of viewing the public as passive recipients of health services, PHC policy and its implementation permitted laypersons and communities to partake in various development activities to improve their health. Participation, however, was permitted only insofar as it did not hinder policy decision-making. In other words, it was participation in the implementation processes rather than in the political processes of deliberating and determining how to improve health. Despite various interpretations of the primary health care movement from various political perspectives, in hindsight, people's participation in primary health care was conceived and executed as "implementation without deliberation."

#### **4. The New Contexts**

##### **New Health Concerns: The New Epidemics**

The new health threats at the advent of Twenty First Century were characterized by the topping up on increasing burden of chronic degenerative diseases of the emerging/reemerging diseases, wide spreading of conflict and violence, and alarming increase of incidences of natural disaster. As Barrett et al (1998) suggested, recent resurgence of infectious disease mortality marks the third epidemiologic transition. Distinctive to the first, which associated with a rise in infectious diseases during the Neolithic Revolution, and the second, which involved the shift from infectious to chronic disease associated with industrialization, the third epidemiologic transition is characterized by newly emerging, re-emerging, and antibiotic resistant pathogens in the context of an accelerated globalization (Barrett et al. 1998).

Thailand as a middle-income country was caught in between these epidemiologic transitions. While the country still could not do away with infectious diseases such as diarrhea, malaria, and pneumonia, chronic degenerative diseases such as diabetes, cardiovascular diseases, and malignancy currently amount for more than 35% of causes of mortality in Thailand (Choprapawan 2003). The burgeoning problem of chronic, non-communicable diseases not only put great medical burden on health services but also created economic burden both on family and national medical expenditure. Local health facilities were currently flooded by patients with chronic degenerative diseases, which demanded long-term, continuing care from families. While village health volunteers were helpful for the short-term disease prevention and screening campaigns, the burden of chronic diseases asked for alternative form of community health workforces.

While chronic diseases such as diabetes, hypertension, and other cardiovascular diseases were on the rise, the advent of the third epidemiologic transition was confirmed by outbreaks of avian flu, SARS, and XDR tuberculosis. The new context of speedy globalization in the past few decades has made the third epidemiologic transition exceedingly alarming. Statistics from the World Tourism Organization show that some

1 million persons per day traveled from their homes by air in 1995. International travel has steadily increased at the average of 6% per annum in the past thirty years [13]. The rapid spread of emerging and re-emerging infectious diseases is clearly attributed to global changes such as increasing mobility of populations on a global scale.

In addition to these disease epidemics, the continuing ecological changes and fluctuation of global climate has resulted in increasing natural calamities. Although the UN/ISDR report indicated that disaster statistics show that there were more disasters but few people die in proportion, affected population and economic losses were increasing in real terms (UN/ISDR 2004). The International Federation of Red Cross and Red Crescent Societies confirmed the worsening trend of human suffering and economic lost during the last decade. Comparing the last three decades, the trend shows an increase in the number of natural calamities and affected population (IFRC 2004). Even though the number of disasters has more than tripled since the 1970s, the reported death toll has decreased to less than half. Recent catastrophes, however, seemed to indicate a changing trend. The 2004 Indian Ocean tsunami killed more than 300,000, including almost a hundred thousand in Thailand, while the death tolls of recent earthquake in Pakistan have already reached 78,000. Natural catastrophes increased both in scale and rate of recurrence. In addition, global climactic change such as warmer climates and El Niño were thought to have significant effects on pathogen and disease vector environments (Bouma and Dye 1997; Colwell 1996). Community preparedness needed to be put on health agenda.

Man-made disaster was also on the upsurge. From domestic violence to ethnic conflict to global terrorist attacks, conflict and violence has become a new public health problem. In the southern part of Thailand, eruption of ethnic conflict and armed assault not only caused direct casualties but also prohibited routine public health intervention. In some regions, malaria infestation significantly increased due to the fact that routine spraying of insecticide for vector control was impossible. While official health personnel were unable to continue their work in the communities, village health volunteers were targeted and killed as they were viewed by terrorists as instrument of the state. Such a situation left local villagers in conflict-ridden areas with neither essential public health intervention nor necessary health and medical care. This new context challenged the new PHC approach to prove its relevance.

### **Changing Administrative Structure and New Health Policies**

Health administrative structure and policies have dynamically evolved during the past two decades. In 2001 Thai Health Promotion Fund was established. With financial endowment from taxes from tobacco and alcohol consumption, the fund was a boost to health promotion in Thai society (Buasai 1997). The fund supported a great variety of health activities in communities, schools, workplaces, as well as national campaigns on various health problems. This created scores of new health actors in the communities in addition to village health volunteers. A number of village health volunteer groups were keen in seeking support from the fund other than relied solely on regular official budget. The result was a more diversified actors and distinctive local action for health.

Although there were concern that the funding with a rigid state regulation could be seen as a means for the government to impose its priorities on the NGO sector (Rob Moodie et al. 2000), the Thai Health Promotion Fund was a big step forward from

the conventional model of PHC with all its predetermined activities and standardized operational model. At the personal and community levels, various health promotion measures were relatively satisfactory, interventions at the national level, such as the attainment of healthy public policies, however, were comparatively less effective. As the nation moved toward rapid industrialization and urbanization, the impacts of development policies and projects could be felt in every facet of life. Reports of factories releasing polluted water, chemicals, air and noise pollution have been repeatedly recorded. Mega-development projects such as dam construction and industrial estates have become not only important sources of health problems but also of social conflict and violence.

In 2001, universal coverage scheme for health care was introduced. More than 40 million people have since registered. The scheme provides a basic benefit package for all Thai citizens. Although it has helped to increase equality and access to medical facilities for those who had been left out in the past, the scheme focused principally on reforming the country's health care system and priority was given to the financial and curative aspects of medical care. The newly introduced National Health Act in 2007 was an attempt to reform Thailand's health systems in a more comprehensive manner (Komatra 2005). According to the new law, health was holistically defined and new mechanisms were created to invite stakeholders to participate in health policy formation. To build a new system of governance for national health, three main strategies will be employed: (1) Social Mobilization; (2) Knowledge Management; and (3) Political Involvement (see diagram #3 for structure of national health governance according to the new National Health Bill). National and local health assemblies will be supported and regularly held to provide forums for policy deliberation. The new law also required health impact assessment for policies and projects allegedly affecting health of local communities.

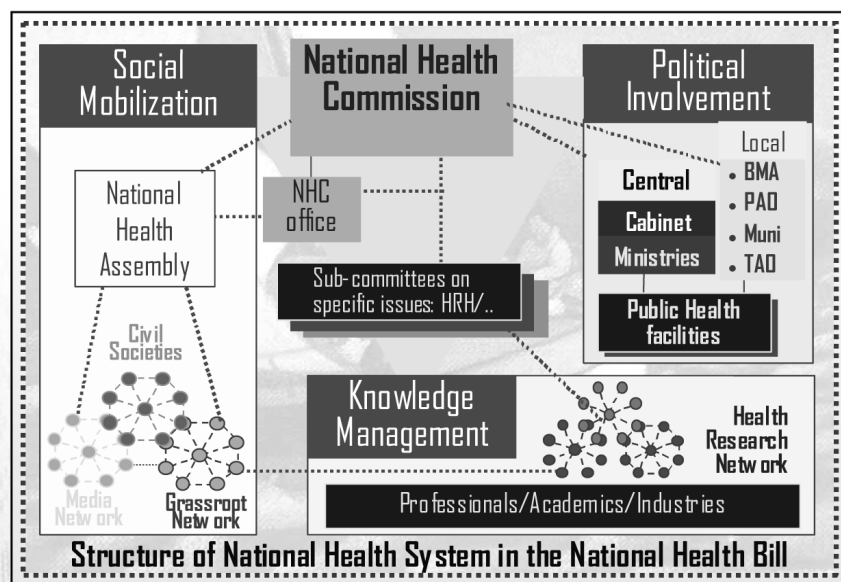


Diagram #3 Health System Governance as introduced by the new National Health Bill

### **Emerging Roles of Civil Society Organizations**

Non-state actors in the field of public services and community development have a long history in Thailand. During the 1980s and 1990s, however, with Thailand's economic expansion creating a growing stratum of middle class, the role of non-profit, non-governmental organizations multiplied. A number of these civil society organizations worked in grassroots community: providing health care to the poor, running child survival programs, advocating the use of herbal medicines and indigenous healing, providing rehabilitation for the disabled, and supporting prevention and control of diseases such as AIDS, malaria, and tuberculosis. Some high profile non-governmental organizations worked at national level advocating consumer right, engaging public policy processes in various ways including public education, running campaigns on specific issues, advocating legislative changes, as well as working as political watchdogs (Amara Phongsapit 2002; Anuchat Puangsamlee and Krittaya Achawanijkul 1999; Benjamas Siripat and Suraphol Mulada 2002).

The roles of civil society in health development have been increasingly diversified in Thailand in the past three decades. In addition to the conventional role of providing services and support for those in need, civil society organizations gradually expanded their roles in protection of right and advocacy, knowledge generation, and provision of health and development alternatives. At the community level, community-based grassroots health organizations have the benefit of external assistance from non-profit development agencies.

### **Globalization and Its Impacts on Health**

From disease globalism to health threat from global macroeconomic policies, impacts of globalization on health could be felt more than ever before. Although the devastating impacts of infectious diseases were evident throughout human history (Aginam 2004; Diamond 2005), the third epidemiologic transition, which was taking place within the context of accelerating globalization, was exceedingly alarming. Statistics from the World Tourism Organization showed that some 1 million persons per day traveled from their homes by air in 1995 (Alleyne 1998). International travel has steadily increased at the average of 6% per annum in the past thirty years (IATA 2003). The rapid spreading of re/emerging of infectious diseases is clearly attributed to global changes such as the increasing mobility at the global scale. As the UNFAO stated in its 2001 report that no country can consider itself safe from the risk of the disease due to increased international trade, tourism, the movement of animals, animal products, and foodstuff.

Global impacts on health were not confined to the inadvertent spreading of pathogens. Global political economy could harm the health of a nation in a more deliberate manner. The illustrated case is the campaign conducted since the early 1980s by US trade officials to force Japan, South Korea, Taiwan and Thailand to open their markets for American tobacco. In 1995, the US Embassy in Thailand intervened on behalf of US tobacco companies when the government proposed regulations that required the disclosure of ingredients of all brand-name cigarettes sold (Frankel 1996; cited in Rob Moodie et al. 2000). Within the context of newly emerging diseases and accelerated globalization, global impacts were even more complicate. A closer look at avian flu outbreak in Thailand revealed how global forces shaped local experience and responses to the epidemic. As early as November 2003, stories of massive deaths of chickens in the central provinces rapidly spread, and although a veterinarian at

Chulalongkorn University found the H5N1 virus in several dead chickens from Nakhon Sawan, the government came to admit the presence of fatal strain of avian flu only after three humans were afflicted by the virus.

There was evidence that this late admission concerning the presence of a fatal strain of the avian flu was due to the fact that Thailand is the world's fourth-largest poultry exporter, with export revenues reaching \$1.2 billion in 2003. While most avian flu victims have been local villagers who contracted the disease from their own backyard fowls, global forces played a definite role to increase their risk. It was noted that rich countries failed to come forward with for avian influenza prevention and control efforts, even though these more developed countries could benefit from resource-poor countries being well-prepared and thus able to provide an epidemic firewall against the global spread of infection. Failure to act quickly and adequately may be due to the fact that the poultry industries in developed countries could take advantage of the massive culling of chickens and the subsequent potential collapse of the developing world's poultry industries. Part of the delay and inadequate financial and medical support on the part of rich countries in response to avian flu outbreaks may have resulted from lobbying by the Western poultry industry (Davis 2005: 166). Such an obstruction of assistance in public health and veterinary measures could cause not only failure of epidemic control, but also in the creation of unnecessary human suffering.

Global health politics is also affecting the production of avian influenza vaccines. In January 2005 the WHO executive board meeting was informed that vaccine development has moved forward, "but not with a speed appropriate to the urgency of the situation" (WHO 2005). Two years later, in March 2007, Mike Leavitt, Secretary of the U.S. Department of Health and Human Services, commented that, in regards to the global effort to increase vaccine supplies, "current global capacity to produce a vaccine to respond to an influenza pandemic is insufficient to meet the global need, especially in developing countries" (Leavitt 2006). The problem of vaccine production was not only a technical problem but also a global and political problem. As Indonesian Health Minister Siti Fadilah Supari stated, while developing countries supplied H5N1 samples to WHO collaborating centers for analysis and preparation for vaccine production, they were unlikely to have access to the resulting vaccines. "Previously, WHO used a mechanism that was not fair for developing countries," Supari said at a March 27 press conference in Jakarta. "We think that mechanism was more dangerous than the threat of pandemic H5N1 itself" (WHO 2007). Even more damaging was that there is evidence that donated viruses were being used for commercial activities, without obtaining appropriate permission. Indonesian health officials have complained that they were not informed, nor were their permission sought or obtained, when companies in industrialized countries used virus samples to make commercialized products (Khor and Shashikant 2007). It could be readily seen that in the case of avian flu transnational agro-capitalism and global politics in international health organizations and multinational drug companies has profound effect local epidemics.

Any attempt to renew primary health care must take into consideration the global forces affecting local health. Particularly in the context of rapid globalization and disease globalism, interface between economic development at the global scale and its impacts in local communities is especially crucial (Walt 1996). Followings are some of the recommendations by the WHO commission on macroeconomic policy that were relevant to the strengthening of local health system.

- Developing countries should begin to map out a path for universal access to essential health services based on epidemiological evidence and the health priorities of the poor. They should also aim to raise domestic budgetary spending on health by an additional 1% of their GNP by 2007, rising to 2% in 2015, and use resources more efficiently.
- Developing countries could establish a National Commission on Macroeconomics and Health or similar mechanism to help identify health priorities and financing mechanisms, consistent with the national macroeconomic framework, to reach the poor with cost-effective health interventions.
- Donor countries should begin to mobilize annual financial commitments to reach the international recommended standard of 0.7% of OECD countries' GNP, in order to help finance the scaling up of essential interventions and increased investment in health research and development and other "global public goods".
- WHO and the World Bank would be charged with coordinating the massive, multi-year scaling up of donor assistance for health and with monitoring donor commitments and funding.
- The WTO Member Governments should ensure adequate safeguards for developing countries, in particular the right of countries that do not produce the relevant pharmaceutical products to invoke compulsory licensing for imports from third-country generic suppliers.
- The international community and agencies such as WHO and the World Bank should strengthen their operations. The Global Fund to Fight AIDS, TB and Malaria should have adequate funding to support the process of scaling up actions against HIV/AIDS, TB and malaria. A Global Health Research Fund was proposed.
- The supply of global public goods should be bolstered through additional financing of agencies such as WHO and the World Bank.
- Private-sector incentives for drug development to combat diseases of the poor must be supported. The Global Fund to Fight AIDS, TB and Malaria and purchasing entities should establish precommitments to purchase targeted new products as a market-based incentive.
- The international pharmaceutical industry, in cooperation with WHO and low-income countries, should ensure that people in low-income countries have access to essential medicines. This should be achieved through commitments to provide essential medicines at the lowest viable commercial price in poor countries and to license to producers the production of generic forms of essential medicines.
- The IMF and the World Bank should work with recipient countries to incorporate the scaling up of health and other poverty-reduction programs into a viable macroeconomics framework.
- Encouraging Dialogue between Civil Society and International Agencies.

As countries were increasingly incorporated into the global economy, local civil society organizations have been working more closely with transnational civil society organizations. Greenpeace, World Wildlife Foundation, Transparency International, for instance, have set up their regional and country offices in Thailand and

in many parts of the world. At the same time, with the global regime of free trade, transnational corporations have increased their presence in every region. Just as with politics and economics, health has become simultaneously a global as well as a local issue. It was more crucial than ever for local civic initiatives to coordinate and form networks, not only with transnational NGOs, but also with other global institutions. Linking local NGOs initiatives to the global agenda needs continuous dialogue between agencies in the UN system, multilateral financial institutions, and funding agencies.

The roles of international NGOs and the emerging global civil society were increasingly prominent. International NGOs could help raise global awareness and monitor the compliance of corporations and nation states on various issues. In the past, Baby Milk Action has worked successfully to promote legislation and practices in line with the WHO's International Code of Marketing of Breast Milk Substitutes. Other organizations performed different roles such as challenging international financial institutions or development agencies to rethink their policies and practices. These different forms of interaction and relationships can be more constructive by encouraging continuous and open dialogue between the different perspectives.

## Conclusion

From the extensive review above, we can see how PHC in Thailand emerged and evolved in to current situation. Although the complexity and dynamism of PHC evolution was difficult to reduce to a few indications, the review reveals that along four main principles of primary care there were lessons and insights that could be drawn for the rethinking and renewing of primary health care policy.

**Community Participation:** Case study of Thailand suggests that village health volunteers were an enduring form of community participation. Although other activities pertaining to primary health care policy have been suspended or abandoned, village health volunteers adapted and evolved into new roles and took on new activities. Along with village health volunteers, Thailand has experienced an upsurge of the roles of civil society organizations in various areas of social policy including health. Global civil society organizations and transnational volunteer organizations were playing an increasing role in local health from advocating access to drugs to humanitarian assistance in disastrous situation. Experience of emerging disease revealed that participation must be considered with a global perspective to include global and non-state actors.

**Appropriate Technology:** As disease pattern changed from common infectious diseases into chronic degenerative and newly emerging diseases, health technology needed for the caring of the sick also changed. Self care and basic health technology for chronic illness such as sugar blood test, measuring blood pressure, physio-therapy or behavioral modification could be applied in local setting without any difficulties. The problem was the organizations by which this appropriate technology could be localized. Study in Thailand revealed that village health volunteers were not keen on long term task. They could do well in ad hoc health activities such as disease prevention campaign, health data collection, or screening of patients. Study also showed that basic medical equipments provided by government in the communities were scarcely used



by village health volunteers. New organizational forms were needed for the application of appropriate technologies in local settings.

**Intersectoral Collaboration:** Thailand's attempt to make health a collaborative effort evolved from the heyday of PHC to its serious effort to reform the nation's health systems. In the past six years, the National Health System Reform Office (NHSO) has created a broad-based social movement by involving a great number of civil society organizations to draft a new national health bill. In 2007, the new bill was approved by the Parliament. New platforms, such as health assemblies, and a more open system of national health governance, such as National Health Commission were being created. In addition, the establishment of Thai Health Promotion Fund using taxes from tobacco and alcohol was a clear example of an active role of Ministry of Finance in health promotion. These new developments provided mechanism for collaboration far beyond what was once expected during the PHC era. It was realized that various areas of health development seeking collaboration was not sufficient. What was needed was deliberation and negotiation.

**Reorientation of Basic Health Service:** The introduction of universal coverage health insurance scheme in Thailand has a strong impact on the role of primary care. Primary care units were upgraded from the previous health centers to provide holistic and comprehensive care in the communities. Along with health care financing reform, the universal coverage policy attempted to strengthen country-wide networks of primary care providers. Although more than 10,000 primary care units were set up, it was too early to assess the impact of the reorientation of basic health service on community health development. While health service in Thailand was evolving toward a system of health care relevant for local situation, it was not at all immune to global forces. Medical tourism and the desire to make Thailand as the medical hub of Asia have tripled the number of foreign patients in Thai health care market. The result was a severe brain-drain of medical professionals from public sector. It was estimated that in the last five years more than 400 medical doctors have moved out of public service into private hospitals serving patients imported from rich countries.

As globalization ushered in an era of public health without border, any attempt to renew primary health care must take into account that local health and local communities were no longer isolated, self-sustained entities. Rather local well being was tightly connected to global policy and action. What was needed at the global level is a shift of strategies among global health agencies toward a greater role in putting health in the global macroeconomic agenda. The aim was to level the playing field so as to create a better global system of health governance by which political, social, and economic issues effecting health could be negotiated. At the local level, a model of primary health care in which health could be construed as a sphere of deliberative construction of active citizen was necessary. The aim is to strengthen local health system through broadening the concept of health and pluralizing policy processes and actions.

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His affiliation with The Rockefeller Foundation started in 1998, when Dr. Pablos-Méndez spearheaded the program “Harnessing the New Sciences” on product development for diseases of poverty through public-private partnerships. In 2000, his vision and leadership drove the creation of the Global Alliance for TB Drug Development (New York). He also led a rethinking of the Rockefeller Foundation’s program in AIDS and a program for the treatment of mothers with AIDS and their families (MTCT-Plus) in 2001. In 2002, Ariel championed the creation of the international Center for the Management of IPR in Health R&D (MIHR, Oxford UK). In 2003, he managed the Joint Learning Initiative on Human Resources for Health. Ariel served as Deputy and interim Director of the Health Program at the Rockefeller Foundation until 2004.

As Director of Knowledge Management & Sharing at WHO from 2004 to 2007, Dr. Pablos-Méndez worked to establish the principles and practice of KM as a core competence of public health, fostering shared learning and social entrepreneurship to help bridge the know-do gap in global health. His team developed a global KM strategy, advanced the agenda on Knowledge Translation, established WHO Press, launched the Global Health Library, a Global Health Histories initiative, and WHO’s e-Health unit, which produced the first global e-Health report in 2006.

In 2007, Dr. Pablos-Méndez returned as Managing Director to The Rockefeller Foundation, where he is currently working on various new initiatives addressing the Global Challenge of Health Systems, including eHealth and the role of the private sector in health in the developing world.

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**Julian Schweitzer**  
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While working in the South Asia Region, he focused on developing sector wide approaches to mobilize external financing effectively in support of a single country health strategy. He restructured and strengthened the Bank's regional HIV/AIDS engagement with clients and external partners, while also strengthening the Bank's advisory and financial role.

He has extensive operational and management experience of health and development issues in different parts of the world. His health sector interests include health finance and health systems strengthening.

Before joining the Bank, Mr. Schweitzer worked in the public and private sectors in the UK and India.

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**Member/ Academic works,**

1. Member: Scientific and Technical Advisory Committee (STAC) : WHO-TDR, 1998-2000
2. Editorial Board member: Health Policy and Planning Journal, London School of Hygiene and Tropical and Tropical Medicine, 1991 -
3. Editorial Board members: Reproductive Health Matters 2004 -
4. Referee in international peer review journals: Social Science and Medicine (1997-), Health Policy and Planning (1999-), WHO Bulletin (2000-), Human Resource Development Journal (1998-) Lancet (2001-), Health Policy (2001-) Several other national Thai journals.
5. Chair: GAVI Independent Review Committee - Proposal Evaluation Team, 2000-2004
6. Member: GAVI Independent Review Committee - Monitoring and Evaluation Team. 2004-
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His research interests include the policy researches on healthcare financing, Universal Health Coverage (UC), social protection and health security, resource tracking such as National Health Account, National AIDS Spending Assessment, equity in health system; impact of globalization and its implication for human resources for health; the assessment of the cost-effectiveness of new interventions

Through his research, education and service activities, Dr. Tangchareonsathien works closely with decision makers in Ministry of Public Health, other government levels while maintain its independence as policy researcher, and provide consultancies, capacity building as well as technical supports for countries in the region.

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Health economics and financing, Health policy and systems research

**Consultancy Works**

1. ILO Short Term Consultant in Lao PDR, the development of Social Health Insurance, 2002-2007
2. World Bank Short Term Consultant on Bhutan STI, HIV/AIDS prevention and control program, 2004-

**Selected Publications**

1. Wibulpolprasert S, Tangcharoensathien V, Kanchanachitra C, Are cost effective interventions enough to achieve the millennium development goals? *BMJ*. 2005 Nov 12;331(7525):1093-4.
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*Dr.* Lo Veasnakiry was qualified as a Medical Doctor from the University of Health Sciences in Cambodia in 1989 and earned a Master of Arts in Health Management, Planning and Policy from the University of Leeds, United Kingdom in 1996. Since his graduation from the University of Health Sciences, he had worked at a National Hospital in Phnom Penh (the capital City) as an assistant-surgeon until 1993, and then has moved to work at the Ministry of Health as a Planning Officer. He has held the current position, Director of Department of Planning & Health information since 2005. Dr. Kiry has broad knowledge of global health policy and health sector reform and gained experiences in health system development, strategic planning, health financing and sector coordination.

Dr. Kiry is a public health planner and policy analyst. His main responsibility is to exercise executive management and direct the development and maintenance of national health policy and strategic framework for sector wide planning, financing including social health insurance, monitoring and evaluation; advise the development of sub-sector strategic plans and resources allocation for health; and to develop technical guidelines to support implementation of sector policy and plans.

Dr. Kiry has a long time experience of working in multi-sectoral environment and cross-cutting challenges at both national and sectoral level in Cambodia. He has been a member of the Cambodian National Social Security Funds Board and joint many inter-ministerial taskforces and working groups. He also has strong working relationship with international agencies and multi/bilateral donors, as well as internal and national NGOs active in health.

Furthermore, Dr. Kiry has experienced in academic teaching as a visiting lecturer on health policy and planning at the Royal School of Administration and the National Institute of Public Health and Research. He also has extensively experienced in attending regional and international conferences and other high level official meetings.



**Robert Woollard**  
 Royal Canadian Legion Professor  
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*A* Fellow of the College of Family Physicians of Canada, Dr. Woollard received his MD from the University of Alberta. After 16 years of rural family practice and teaching undergraduate medicine, he moved to the University of British Columbia in 1989 and has been Royal Canadian Legion Professor and Head of the Department of Family Practice since 1998.

Dr. Woollard has extensive national and international experience in the field of medical education, ecosystem health and development. He is Chair of the Committee on the Accreditation of Canadian Medical Schools. He is heavily involved in the issue of the social accountability of medical schools, has chaired a major AFMC initiative on this topic and is currently actively involved in the development of a new national medical school founded on these principles in Nepal. He is also working in East Africa on social accountability, primary care and accreditation systems. He is Chair of the Board of the Canadian Hunger Foundation and has completed a five-year, five-university project on localized poverty reduction in Vietnam. He chaired the initial development of the Canadian Medical Association (CMA) Ethical Guidelines on relationships with industry and the Task Force developing the response to Health Canada's major statement on Health Promotion, "Achieving Health for All".

He currently works in a number of venues at the local, national and international level on issues relevant to social responsibility of the medical profession. His primary research focus is the study of complex adaptive systems as they apply to the intersection between human and environmental health. His book, "Fatal Consumption: Rethinking Sustainable Development" details some of his work in this regard.

His commitment to Canadian Doctors for Medicare arises directly from both the clinical practice of medicine and the systems work that clearly demonstrates both the privileges we have as physicians and the obligations we bear in return for those privileges. Every effort must be made to both neutralize the threat to Canadian medicare posed by thoughtless and vested interests and to continue to improve the system based on the best available evidence, informed by our shared values of Canadians caring for one another.







## **Parallel Session 1**

*Who Services Primary Health Care  
and How They Can Be Effectively and Equitably Created,  
Motivated and Maintained to Provide Good PHC Services?*

# Primary Health Care and Human Resources for Health

Manuel M. Dayrit MD, MSc

## 1. Background

The 1978 Declaration of Alma Ata presented the concept primary health care (PHC) (Alma Ata Declaration 1978 and a new paradigm to explain how health improves). The PHC vision of Alma Ata embraces five principles. Firstly, it recognizes health is rooted in and is a result of the social, political and economic conditions of countries, communities and people. Secondly, improving health needs fundamental improvement of its social determinants; bio-medical interventions are necessary but not sufficient. Thirdly, monitoring changes in disease statistics alone is not enough to gauge improvements in health; the influence of the wider environment must also be considered. Fourthly, the opportunities people have and the choices they make have a major influence on health. And fifthly, that poverty and ill health are inextricably linked.

Green (2004) identifies five themes that have emerged from the declaration: the importance of equity; the critical role of community participation in decision making; the emphasis on health promotion; the importance of a multisectoral approach to health problems; and the need to provide and adapt appropriate technology to improving health.

Almost 30 years later, in 2007, PHC's core values of social justice and equity and a broad interpretation of health to include the social determinants and emphasis on the importance of people-providers and intended beneficiaries have been reaffirmed by WHO's Director-General (Chan 2007).

## 2. The PHC Vision and People: Human Resources for Health

### 2.1 Overview

History has not been kind to the PHC vision and its promotion of people as the key to health for all. By 2000, it had become clear that the deterioration of health care, particularly for the poor, was largely due to inadequate human resources and weak health infrastructures. In response, 100 global health leaders created the Joint Learning

Initiative (JLI) to tackle the global crisis in human resources for health. The JLI identified the reasons for and solutions to the crisis, addressing issues as diverse as a critical shortage of trained health professionals to the role of local communities. Its report (Joint Learning Initiative 2004) called attention to the synergy between providers and beneficiaries and highlighted the critical importance of community action, leadership, strategic planning and global responsibility.

The crisis in human resources for health was more elaborately presented in the World Health Report 2006, which describes the reasons for the dire situation and looks in-depth at concrete measures to support the recommendations in the JLI report.

The term “human resources for health” implies that it is not limited to those who are professionally trained to provide a health service. As such, WHR 2006 defines health workers to be “all people engaged in actions whose primary intent is to enhance health” (WHO 2006: 2).

This paper examines the influence of the PHC vision on health and human resources. To do so it disaggregates WHO’s definition into three levels of workers. **Health professionals** are those with formal and recognized qualifications employed to deliver a service that is regulated by government authorities. **Community health workers** live in local communities and have been trained to respond to local needs. By selection or by choice, they provide health care to those who request it. **Community members** are those who are the intended beneficiaries of this care and are either passive or active in relation to care.

## 2.2 Group One: Health Professionals

Most health professionals, including those in policy making, have demonstrated little interest in PHC over the past 30 years. There are several reasons why. First, there is a common misconception that PHC means providing basic care for poor rural people as opposed to doctors, hospitals and modern technology. Second, for the overwhelming majority of health professionals, career advancement and personal gain are found mainly in curative practices. Third, PHC is not a component of conventional medical training (Visschedijk 1997). These barriers must be overcome before health professionals embrace the PHC approach.

The key value for health professionals is motivation to pursue the PHC vision in order to change the management of health service delivery, to find ways of sustaining improved health outcomes as a result of new technologies or means of provision, and to find ways of improving professional and personal relationships.

Motivation is not merely about more money for health staff. To see money as the main motivator has the potential to undermine a public service ethos (Hongoro & McPake 2004). As important are intangibles that include appreciation of contributions to health care, recognition of the work carried out and opportunities to gain new knowledge. In addition to adequate salaries, the JLI points out that motivation depends on a good working environment with good communication channels between workers and management, a culture of quality, participatory approaches to decisions, challenging tasks, and clear career paths (JLI 2004: 78). It also depends on adequate

equipment and medicines, proper supervision for work, and reasonable and planned workloads (Dieleman et al. 2003; Macinko et al. 2006).

### **2.3 Group Two: Community Health Workers**

In the early years, PHC was synonymous with community health workers (CHWs). “Barefoot doctors” in the Peoples’ Republic of China were one of the inspirations behind the PHC concept. Local people who had been trained in basic curative, preventive and educative practices provided front-line health-care services to rural communities. Barefoot doctors also served as “agents of change” helping people to embrace the new values of the Peoples’ Republic (Walt et. al. 1990). The tension between health provider and “agent of change” provoked a lively exchange of ideas that is perhaps best captured in an article by Werner entitled “Community Health Worker: Lackey or Liberator?” (Werner 1977).

In spite of the early enthusiasm, rolling out national CHW programs proved difficult in many countries. Among the barriers were inadequate training, lack of supervision, and excessive demands for government employment and career advancement by volunteers (Walt et al. 1990). In the 1990s, concerns about cost effectiveness (output) took precedence over participation and empowerment values (process), and many governments withdrew their support for CHW programs. Many CHW programs in non-government organizations did not suffer the same fate and have remained strong (Lehmann, Friedman, & Sanders 2004, Taylor-Ide & Taylor 2002).

Today, CHWs are again high on the health policy agenda as evidence suggests that countries with depleted human resources need more human resources to stop worsening health situations (Haines et. al. 2007). However, as Haines and colleagues point out, CHWs are not a substitute for health workers where there are weak and unsustainable health systems. The challenge for CHWs within the PHC context is to have both their skills and knowledge of health care and their role as a facilitator for change recognized and rewarded.

For many reasons, the potential of CHWs has not been fully exploited. In part it may be that because of the critical need for service providers in poor communities, CHWs have been categorized as extensions of the health service and have been judged by how well they fulfill this role. Policymakers have tended to undervalue their status as community members who are the glue that binds the use of health care and knowledge to those in need. CHWs, for the most part, give time, effort and even money because they are committed and compassionate about the people around them. They volunteer with no or sometimes with small monetary incentives to serve their fellow community members because they believe they can make a difference to peoples lives.

The key value for CHWs is respect. CHW programs have thrived in environments that have recognized their contribution and given these volunteers the respect and trust they deserve. The strongest CHW programs are valued and supported by the formal health services. Lack of support translates into lack of training, money, materials, and supervision. In this environment, CHWs struggle because

expectations about their role from the community or from the formal health services are unrealistic. As a result, CHWs do not gain respect nor do communities gain the extension of health care they so desperately need.

#### **2.4 Group Three: Communities**

The third group of actors in the PHC approach is the community. Questions about the role of the community focus firstly on whether communities have the capacity and the willingness to contribute to health improvements and secondly on the challenges raised by the changing nature of the communities themselves.

Experience over the years has shown that communities can and do make decisions about what is best for themselves. However, lacking experience and confidence, they are often reluctant to take initiatives in health. These attitudes and behaviors have changed markedly over the past three decades due in part to the rapid spread of training programs. The promotion and development of tools and techniques emerging from the Participatory Learning and Action approaches developed by Chambers and colleagues have created rural and urban grassroots programs that allow communities to become active partners in securing their own health and welfare (Chambers 1997).

When the concept of PHC started to be widely promoted 30 years ago, nearly 80% of the population of the developing world lived in rural areas with poor access to health and health care. The situation today is very different. Urbanization has been a major influence on health and development and in some countries 50-70% of the population now resides in urban centers where traditional community structures and relationships no longer exist.. As in the rural areas, moreover, it is the poor that are most disadvantaged by weak social relationships and lack what Putnam calls “social capital” to ensure their basic needs can be met (Putnam 1993).

Communities, as the JLI points out, have a large role to play in human resources for health. People are often the first-line carers for their own families. They also contribute time, effort, labor and sometimes money to improve the lives of other people with whom they live and work. More formally, they become volunteers in the form of CHWs providing first-line care, education, information and support for people in their local areas. They also could and should provide an accountability system for health professionals to ensure the services provided are acceptable, accessible and affordable. As individuals they belong to organizations from outside the health sector that are critical to improving health. Communities are both the subject and object of good health care and improved health.

The key value for communities is ownership. Where communities have recognized the importance of their role, health and other aspects of life have improved. However, it is not easy for ownership to be created. Popay and Finegan (2006) in their review of attempts by the UK government to engage communities in a partnership to improve their health and health care, identify several barriers. These barriers include: 1) the lack of capacity and willingness of service users and the general public to become involved in community health programs; 2) the lack of skills and competencies of public service providers to support community engagement

activities; 3) the dominance of the culture of health professionals and of the ideologies that underpin this dominance; 4) the organizational ethos and culture of health professionals that undermine community involvement; and 5) the dynamics of the local and national political system that, in the case of the UK, gave lip service to community engagement but reduced funds and authority to carry out the mandate.

To create ownership, health professionals will need to address these issues and find ways of creating partnerships with community members to fully engage them in the task of improving their own health and the health of others in their area. How to build these partnerships is one of the biggest challenges for human resources for health.

### **3. Reflections on the PHC Vision: A Way Forward for HRH**

The technical aspects of this crisis in human resources for health need professional input and experience. Inputs include assessments of the numbers of health-care workers, the deployment of these workers, the training and support of these workers including payments, and a strategic overview of how these aspects will be addressed in the future. As necessary as technical appraisals and solutions are to solve the crisis, they are not sufficient. Human resources are people and people have views and values that will help or hinder the solution.

This paper has looked at three groups of people critical to finding a way forward and defined key values for each group. Each of these values emphasizes the importance of people and reflects the PHC vision of the Alma Ata Declaration. For health professionals it is motivation. For CHWs it is respect. For communities it is ownership. Although these three values are important to all groups of actors, the one specifically identified for each group is pivotal for progress.

In addition, technical inputs must be seen in relationship to the process of change. The field of health care has been notoriously reluctant to recognize and act upon the concept of process. Welded traditionally to seeking outcomes or products, success has most often been presented in quantitative terms. PHC recognizes the importance of process by highlighting the role of people, communities and health providers, in changing dismal health-care patterns. Failure to confront the challenges of examining and learning lessons from the process of change has been a major factor in the present crisis in human resources.

More specifically, the process of change needs to examine lessons about how trust can be built between providers, carers and intended beneficiaries of health care. Building trust takes time. First, it is critical to build partnerships among all those involved in specific health-care programs. These partnerships are not limited to those providing services and those receiving them. They include partnerships within the official service delivery and among the different levels of service providers. They include partnerships between public and private service providers. They include community members, civil society and local organizations. Partnerships should be the foundation of improving health care and should reflect the values discussed above.

Second, to build these partnerships, productive consultations must be developed. These consultations are not merely meetings of interested parties to discuss of topic of common concern. They need to be more carefully orchestrated by using facilitators with group dynamic skills and training in participatory approaches to decision making. Outcomes of these meetings should enable participants not only to reach consensus but to build knowledge, skills and opportunities to work with others to meet health needs. In addition, these consultations should develop mechanisms to both ensure the consultations continue and to translate decisions into actions.

Third, opportunities should be created to support programs that build leadership and positive role models. Those who are tackling the human resource crisis should be rewarded for their efforts and encouraged to share ideas and solutions to others in similar circumstances. Building a reward system and expanded a network of successful programs could help to encourage health professionals, CHWs and communities to seek out innovative solutions to extremely difficult problems.

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## **Regional Movements on Primary Health Care Workers in South-East Asia**

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### **1. Introduction**

The South-East Asia Region has a rich history in terms of Primary Health Care (PHC) workforce. The history of organized development of PHC workers can be traced back to 1926, when the first Community Health Unit was established in Kalutara which was then a small town in Sri Lanka. Since then, many countries in the Region, such as Thailand, Myanmar and India, had developed many components of health care which were later packaged under Primary Health Care. Nearly all Member countries in the South-East Asia Region were practicing many of the elements included in the PHC approach when it was formally launched 30 years ago globally in 1978 in the form of the Alma-Ata Declaration on Health for All (HFA), through Primary Health Care<sup>1</sup>.

A number of fundamental principles for health development have been identified as essential to the attainment of HFA and its operationalization. Of the PHC principles, the most practiced and emphasized with a large amount of knowledge and experience gathered on it has been the promotion of community participation and self-reliance in health.

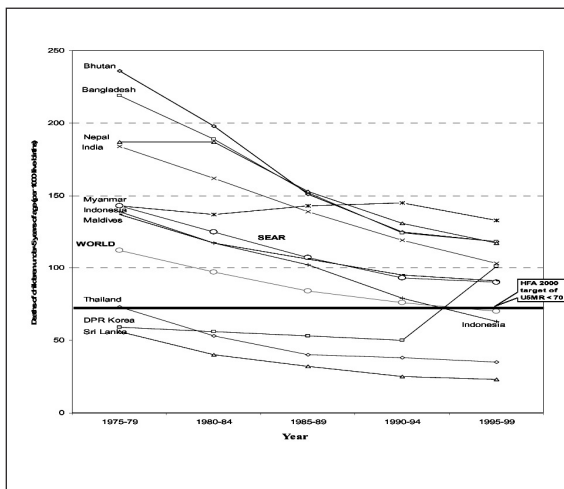
Most countries in the Region had scaled up their PHC programmes to national levels by the late 1980s<sup>2</sup>. The rapid expansion of PHC programmes seen during the initial years following the Alma-Ata Declaration was not sustained long enough in many countries of the Region to bear fruitful results. Whether it was a lack of dedicated, motivated, competent PHC workforce that contributed to the disaggregation of the PHC concept, or it was a lack of commitment and focus on the PHC concept that caused the dismantling of the PHC workforce remains unclear.

This paper presents some initiatives taken by the WHO South-East Asia Region to utilize the inherent strength of the PHC concept to address some of the health issues and challenges faced by many Member countries.

## 2. The need to revisit Primary Health Care approach

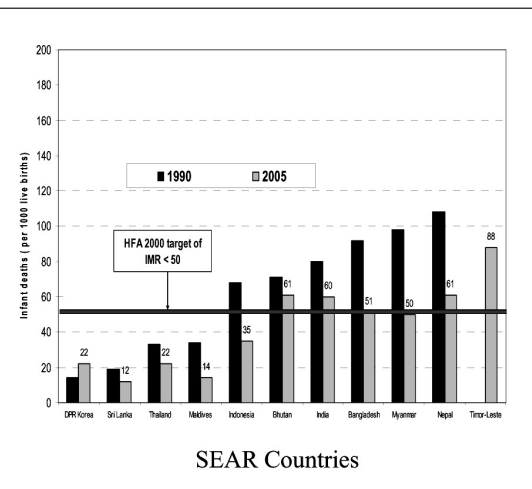
The Primary Health Care (PHC) approach which was introduced through out the world in 1978 has been instrumental in making many improvements in health outcomes of SEA Regional countries. Its successes in many countries are well portrayed through reported health indicators while it also shows that some Member countries could not achieve the desired goals of PHC - as reflected in under-five mortality trend (figure 1) and infant mortality rates in SEAR Countries (figure 2).

**Figure 1: Trends in under-five mortality in the SEA Region, by country, 1975 - 1999**



Source: WHO Geneva, *Bulletin of the World Health Organization*, 2000

**Figure 2: Infant Mortality Rate of SEAR countries 1990 and 2005**



Source: Country reports on MDG

Thirty years after the Alma-Ata Declaration many countries in the South-East Asia Region are striving to ensure adequate and equitable health service coverage to its population. The rapidly changing priority health needs of the countries fuelled by number of critical factors from within and outside the health system, has challenged the functioning of health systems of these countries.

Many countries in the Region are undergoing demographic transition. The increasing number of middle-aged and elderly population is directly and indirectly changing the landscape of health needs and demands. The epidemiological transition in countries which is partly affected by demographic changes also reveals the change in disease patterns. While countries in the Region are still attempting to reduce the burden of infectious diseases, the burden from chronic and noncommunicable diseases as well as injuries and road traffic accidents are causing a double burden that many of the countries cannot bear. The rapid socio-economic development of countries has led to urbanization and higher living standards leading to increased expectations of population and internal migration of health workforce leading to increasing unmet health needs in urban as well as in remote areas. The technological advancement seen over the past two decades have increased demands and expectations of service seekers, at an increasing cost of health services.

The cost of health care influenced by the above and a range of many other factors are contributing to the current health challenges. Amidst all these challenges, govern-

ments are being pressurized to scale-up health interventions covering all segments of the population, while maintaining good quality health services at an affordable cost. The PHC service components which are serviced by the PHC workforce are likely to be an effective and affordable alternative to ensure equitable access to preventive, promotive and curative health services for existing and emerging health problems and challenges.

It is in the light of these issues, based on the experiences and the changing socio-economic and political dimensions over the last 30 years, that the need to revisit the PHC approach and the use of community-based health workforce to provide good quality PHC services has arisen.

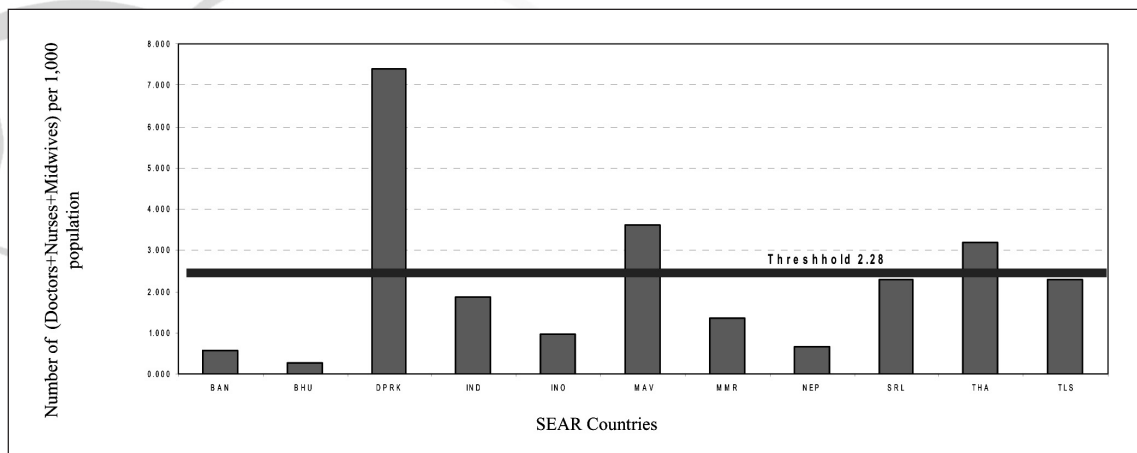
### **3. WHO's stand in the Region on PHC approach**

The consultation on review of the PHC policy organized by the WHO Regional Office for South-East Asia in June 2001 concluded that the original principles of PHC are still appropriate to address many of the health challenges of the new millennium. However the consultation identified that new models of PHC organization and delivery that are adequately flexible are needed to ensure effective action with regard to the changing health challenges<sup>3</sup>.

In keeping with the current WHO stand of revisiting and reinvigorating PHC, a Regional Consultation on Strengthening Health Systems through PHC approach was organized in Pyongyang, Democratic People's Republic of Korea, in April, 2007<sup>4</sup>. At this consultation, among the many constrains that confront health systems of the regional countries in the Region, health workforce-related issues such as lack of competence and maldistribution fuelled by poor HRH planning were specifically identified. This consultation has led to the development of the "Regional six-point strategy for health systems strengthening which is based on the PHC approach"<sup>5</sup> which includes strengthening: health service delivery, leadership and governance, health financing, health workforce, Health Information and systems and management of medical products and logistics. This strategic document explicitly identifies the need to strengthen the Primary Health Care workforce as a key strategy to ensure the availability of a competent, passionate and highly motivated health workforce for primary health care service delivery.

The World Health Report 2006 clearly reflected the pivotal role played by the health workforce in achieving the health outcomes of Member countries and regions. It highlighted the close correlation between trained health workers and key health outcomes<sup>6</sup> which could have been addressed by effective PHC interventions. Even though the information on PHC workforce in the SEA Region is not complete the available information, especially on midwives, nurses and doctors shows the critical shortage, as shown in Figure 3.

**Figure 1: Number of (Doctors + Nurses + Midwives) per 1,000 population in countries of the South-East Asia Region against the critical population norm of 2.28 / 1000 Doctors, Nurses and Midwives**



Source: Based on data of World Health Report 2006

The commitment of Member countries in the Region to the address the challenges faced in relation to health workforce was portrayed strongly at the 24<sup>th</sup> Health Ministers Meeting and at the 59<sup>th</sup> session of the Regional Committee held in Dhaka in 2006. The Dhaka Declaration on ‘Strengthening health workforce in WHO Member countries of the South-East Asia Region’ and the resolution (SEA/RC 59/R6)<sup>7</sup> adopted by the Regional Committee on ‘Strengthening the health workforce in South-East Asia’ was a testimony to this commitment. The Regional Committee in 2007 endorsed the draft Regional Strategic Plan for Health Workforce Development<sup>8</sup> which is being implemented by the WHO South-East Asia Region from 2007. Another related resolution adopted by the Regional Committee in the recent past was resolution SEA/RC56/R7 on ‘Strengthening of Nursing and Midwifery Workforce’ which emphasize the need to develop the nursing and midwifery professions<sup>9</sup>.

#### 4. Primary Health Care workforce

The need to develop a motivated, competent, community-based PHC workforce which is equitably distributed is central to the success of the PHC approach. To advocate this need among policy makers of South-East Asia Region countries in the Region, the Regional Office organized a regional consultation in October 2007, which led to the development of a yet another strategic document. The document on “Strategic Directions for Strengthening Community Based Health Workers and Community Health Volunteers in the South-East Asia Region” is expected to be published in the second quarter of 2008. In an attempt to maintain the intense focus on grass-root level PHC workers, WHO South-East Asia Region has introduced slightly different terminology to identify community-based PHC workers as explained below.

It is acknowledged that the terminology that is currently being used to refer to community-based health workers varies significantly from country to country. They are referred as field health workers, community health volunteers, community health workers etc. WHO SEARO has attempted to re-define these categories which will, in turn, facilitate a common understanding among the Member countries.

Health workers are defined as 'all people engaged in actions whose primary intent is to enhance health'<sup>6</sup>. They include all workers who are working in the health and non-health sectors based either in institutions or in the community but working with the primary intent of improving health of either individuals or communities. The rich experiences and diversity in SEAR countries clearly shows that it may not be possible to include all categories of people who are working in the community with the primary intention of improving health within a given definition. Some of these categories may include members of the local administrative units and different civic groups in the communities such as Non-Government organizations and faith-based organizations, traditional healers etc. which vary from country to country. It is therefore for each country to identify the different groups of health workers as part of the PHC workforce in order to suit each country's experience.

Even though there are many categories of PHC workers carrying out a wide range of job functions in the SEAR countries, WHO/SEARO has attempted to categorize PHC workers serving the communities under two broad groups. They are Community- Based Health Workers and Community Health Volunteers.

**Community Based Health Workers (CBHW):** These include all health care workers who are part of the formal health organization, have undergone formal training to carry out a series of specified roles and functions, and spend a substantial part of their working time actively reaching the community, discharging their services at the individual, family or at the community level. They may include nurse midwives and public health midwives who work in the communities, public health inspectors etc.

**Community Health Volunteers (CHV):** These are members from communities often selected by the communities themselves and are answerable to the community, who have undergone shorter training than professional workers, are not salaried, but may receive financial and/or other incentives and are predominantly involved in health promotion and prevention of health related problems. They may be supported by the community and the health system but they do not necessarily form a part of its formal organization.

There are many other categories of health workers that work closely with communities responding to the PHC needs and demands, such as spiritual healers, traditional healers, indigenous medical practitioners, quacks, etc. These definitions do not cover these categories, however, WHO-SEARO is of the view that the respective Member Countries would take appropriate action to develop their services within the specific country policies and regulations.

The 'Strategic Directions for Strengthening Community-Based Health Workers and Community Health Volunteers in the South-East Asia Region' focus more on the development of the CBHWs and CHVs who are the grass-root level PHC workers within the rapidly changing environment, keeping in mind that the experiences of a strong community-based health workforce could be effectively and efficiently applied to benefit resource constrained settings. Experience in the Region shows that a community-based health workforce will play a dual role. According to the report of the Joint Learning Initiative (JLI)<sup>10</sup> and the World Health Report 2006<sup>6</sup>, the development of Community Health Volunteers is a strategy that needs to solve the crisis due to the acute shortage of human resources faced by most of the developing countries including

countries in the Region under the present globalization trend. Learning from the rich experiences of the Region it is clear that the rationale and the logic for development of the community-based PHC workforce includes much more than the above 'stop-gap measure' and introduces an 'empowerment and participation' philosophy, i.e. CBHWs and CHVs as a mean to empowering communities and individuals so that they become active partners in health promotion and diseases prevention in the community rather than mere 'stop-gap' service providers<sup>11</sup>.

## **5. Proposed strategic actions for development of Community based PHC workers**

Future action in the development of community-based PHC workers in the Region will be aligned under nine strategic areas that are built on three pillars. They encapsulate the past experiences of the community-based health workforce movement and take into account some of the changing environment and reiterated values and principles which are critical for the success of scaling-up essential health interventions to reach the un-reached through development of a competent, motivated, and equitably and strategically placed workforce.

- a) **Identification of the need for community-based PHC workers in a changing environment :** The recognition of the need for community-based PHC workers, their different roles and functions, based on the current and future health needs and demands of countries and communities would provide the policy support and opportunity to strategically place them within the health system to play their facilitating role in supplementing national efforts to reach better health outcomes. The two broad strategic actions packaged under this pillar are: Identification of needs for community-based health actions and mapping out health workforce requirements for delivery of community health actions.
- b) **Development of the community-based PHC worker movement :** The need for community-based PHC workers would trigger off a series of strategic actions that will lead to continuous evolution of the PHC movement. The strategic actions have been identified with the assumption that these PHC workers form an integral part of a well-functioning health system. The four broad strategic actions are: training and retraining of PHC workers based on health needs and demands, developing effective incentive schemes and motivation mechanisms, creating local ownership and partnership, and maximizing support from district/sub-national health systems.
- c) **Ensuring supportive environmental factors for effective functioning of community-based PHC workers :** Often, the health sector has less control over the environmental factors that affect the effective functioning of community-based PHC workers. However, the goal of creating community-based actions through these workers with effective community participation would only take place within certain favourable socio-political environments. Therefore the need to develop a supportive environment is valid. The three broad

strategic actions organized under this pillar are: ensuring adequate legal and administrative framework, tuning local/district administrative structures to harness synergies of community-based PHC workers<sup>1</sup> action; and development of favourable values among societies for community health actions.

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## **A Synthesis of Country Case Studies from the Chiang Mai and Beijing Workshops Community health Workers and Community Health Volunteers**

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### **SUMMARY OF PRESENTATION :**

The challenge to mobilize and strengthen the precarious supply of human resources for health has been a growing concern recently. According to the World Health Report 2006 -“the workforce crisis in many of the poorest countries is characterized by severe shortages, inappropriate skill mixes, and gaps in service coverage.” In this context , Community Health Workers and Volunteers have been viewed as an effective means to improving access to and coverage of communities with basic health services. To understand and analyze existing national experiences and strategies in the employment and motivation of Community Health Workers is therefore a critical priority as we review the role and function of Community Health Workers in the context of new and emerging health crises and the need for health system strengthening.

This report is a synthesis of issues and lessons that emerge from country experiences with community health worker and volunteer programmes that were presented at the WHO Regional Meeting on Revisiting Community-based Health Workers and Community Health Volunteers at Chiang Mai (03 - 05 October 2007) and the Asia Pacific Action Alliance on Human Resources for Health (AAAH) hosted Conference on Health Workforce for Rural and Primary Care Conference held at Beijing ( 12-14 October 2007).

- It traces the contours of these programmes and reviews the success stories and the challenges facing community health worker and volunteer initiatives.
- It reviews and puts together the success stories and challenges that various countries faced in running these programmes.

- Finally it recommends key policy options at various levels ( national, regional and global level) to strengthen the CHW programmes to key recommendations in the face of changing health scenarios today.

The papers presented at the conference are mostly from the South Asian and South East Asian countries , besides papers from Iran, Ethiopia and Uganda. They show that community health worker programmes were initiated in many of these countries prior to the formal recognition of their importance in the Alma Ata Declaration on PHC in 1978, following which they were further intensified. Most of the country papers cite the successes achieved and also challenges they face in their resource poor settings.

**Factors Influencing the effectiveness of CHW programmes :** They suggest that aspects such as selection, training, coverage, service provision, supervision and relationship with the health system are critical coordinates that influence the contribution of CHWs. They are in turn shaped by cross sectoral, non health factors such as access to employment, education, nutrition, transport, drinking water and sanitation services which are more distant but critical causal factors impinging upon the success of CHW programmes. Missions like the NRHM in India recognize this and attempt convergence through guidelines for administrative practices.

It is seen that the availability of suitably educated community members and the power dynamics in the village or urban community affect the selection of community health workers and volunteers. Appropriate training to provide services responding to community needs is critical to ensure effectiveness and sustainability. There have been success stories of developing new training materials to train workers with low educational attainments. Skill upgradation and continuous training has been attempted through refresher courses.

The effectiveness of training, coverage and service provision is hinged upon the availability of infrastructure and support from a responsive health service system . They indicate that CHW programmes cannot be considered a cheap substitute for functional health service systems underlining the importance of a political commitment to the development of a progressively funded, accessible and affordable health care system. There is also little evidence in these papers, of community health worker programmes being able to sustain themselves in the long term purely on the basis of voluntary contributions on the part of the workers. This also points to the importance of addressing the issue of remuneration. The experiences of countries like China, Iran and Sri Lanka are examples of innovative approaches resulting in CHW programmes that also bore fruit in the form of better health outcomes. In this direction, a range of community based actions for health have been undertaken to support CHW programmes in many countries.

The presentation will therefore synthesise these experiences and offer recommendations on policy options that would need to be considered for context specific and resource sensitive CHW programmes .

## **Task shifting: an emergency response to the health workforce crisis in the era of HIV**

**Dr Badara Samb**

Health Systems and Services  
World Health Organization

### **The problem**

#### *ART scale-up and human resource constraints*

Countries across the globe have made significant progress in scaling up antiretroviral treatment (ART) for HIV infection. There is consensus, however, that major barriers must be overcome if universal access is to be reached[1].

One of the main constraints is a serious shortage of human resources for health (HRH) [2]. For example, it is estimated that sub-Saharan African countries will have to triple their current health workforce in order to come close to reaching the Health Millennium Development Goals[3]. Not surprisingly, the countries with the most severe crises in human resources are also those that currently have the lowest ART coverage[4]. The crisis varies across the sub-continent: when expressed in number of people living with HIV/AIDS (PLHA) per doctor, it ranges from over 7,000 PLHA per doctor in Malawi to fewer than 200 for South Africa<sup>1</sup>. In the US and the UK, there are nearly 2 doctors per PLWHA.

As we work toward achieving the goal of universal access, human resources must be rapidly scaled up. The traditional doctor-centred delivery model will not be adequate: the 6-7 years time needed to train a doctor will take us beyond the agreed 2010 deadline. There is growing recognition that the solution lies in an adaptation of ART delivery models and a reorganisation of the demography of the health workforce. New and existing cadres of health workers must be trained quickly to deliver ART services without compromising quality of care. It is in this context that task shifting is proposed[4].

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<sup>1</sup> 1 See Table 1

### **Task shifting - promising innovation or second class care?**

Task shifting involves shifting technical tasks from more specialised to less specialised health workers: for example from specialist doctors to general practitioners, from physicians to nurses, from nurses to trained members of the community (including people living with HIV). Task shifting to the least skilled suitable cadre of worker expands the human resource pool, maximising the availability of more skilled workers.

A distinction should be made between two main levels of task shifting. Firstly, there is the practice of shifting tasks within the health team, from medical doctors to other health professionals. These are sometimes referred to as 'substitutes for medical doctors' or 'non-physician clinicians' and may include clinical officers and medical assistants as well as specialized nurses. In this paper, clinical officers, medical assistants, and specialized nurses are regrouped under the terminology 'non-physician clinicians'. Secondly, there is task shifting from health professionals to trained community members such as community health workers, village health workers, lay providers, counsellors and expert patients.

The term task shifting is a recent one, but there has been a long history of such practices outside HIV service delivery from which we can learn. As described below, the experience with task shifting within the health team has been a generally positive one. Experiences of the second type, which involve shifting tasks even further to community members, are more complex and difficult to evaluate. However the broad consensus is that, if certain conditions are observed, both types of task shifting can and have strengthened health systems and impacted positively on health outcomes.

There has been concern that the task shifting approach may be seen as an inferior or second class model, and that standards of care will inevitably be diminished. However, it is important to note that the use of 'non-physician clinicians' is not confined to low and middle-income countries. There is also a growing interest in the use of physician-assistants and nurse-practitioners in high-income countries. Here alternative models have been adopted, not as an emergency response to scarcity, but to enhance the quality of care. The promise shown by the task shifting approach has warranted its inclusion in national health systems of countries like UK, USA and Australia. Examples used throughout this paper are reminders of the possibilities and benefits of this approach. [6-9,13]

## **Learning from the past**

### **Task shifting within the health team**

Since the Alma-Ata international conference on primary healthcare in 1978 which inspired the health care for all movement of the 1970s, a wide variety of experience has shown the potential for using non-physician clinicians in regions where they are in short supply. Countries such as Mozambique, Malawi, Tanzania and Congo have long standing experience in this regard. Over the years, these substitutes have been given a variety of names such as medical assistants, clinical officers, t\_cnicos, physician assistants and nurse practitioners. In many countries of sub-Saharan Africa, especially francophone countries, such cadres are often referred to simply as nurse (Infirmier d'Etat, Infirmier sup\_rieur etc), but the training they receive and the roles they fulfil are similar to those of clinical officers.

What distinguishes health workers in this category from doctors is their shorter pre-service training and lower qualifications. Ideally they are part of a clinical team, but in reality they form the backbone of the health team in many low income countries [10]. Such task shifting from doctors to non-physician clinicians has been practised for decades in a variety of contexts and programmes under the rubric of the 'delegation of tasks'. Delegating tasks from doctors and non-physician clinicians to other mid-level cadres such as nurses and pharmacists has also been a common experience. In many countries a further level of delegation occurs — to assistant or auxiliary categories of health worker such as auxiliary nurse, counsellor and pharmacy assistant with appropriate training.

One of the earliest and most systematic studies of the experience of delegation of tasks was undertaken in the 1970s and 1980s in the Democratic Republic of Congo (then Zaire). Here low numbers of fully trained staff made it necessary to use auxiliary personnel in the health service. The study concluded that delegation of tasks to lower level cadres, typically from doctors to nurses with between two and four years polyvalent medical training, could take different forms, with different patient outcomes[5]. From this, and from many subsequent studies, it is possible to highlight three key issues that are central to ensuring quality of care. These are:

- **Standardization of tasks**, based on current medical knowledge. The use of standard strategies makes it possible to achieve rapid management of serious illnesses by nurses and other mid-level cadres.
- **Initial training of the auxiliaries** is crucial to enable tasks to be successfully delegated.
- **Continuous training and support through supervision and teamwork** is also an essential element in the development of staff potential. This does not merely refer to inspection and monitoring. It is an essential instrument for the continuous training of personnel. Supervision ensure quality of health service delivery and gives auxiliaries new confidence and enhances their status in the eyes of the local population.

Reviews of these experiences also stress the importance of team-based care, especially in the long-term follow-up of chronic conditions. Teamwork can create synergies between the different skills of doctors, nurses, and other health professionals, rather than leading to a competitive regimen of overlapping clinical roles. And it is teamwork that generates gains in efficiency without sacrificing quality of care. The participation of the patients is also important. Reviews conclude that any public policy on task delegation that does not take full account of patient preferences and expectations is bound to be a failure[6,7,8].

Such alternative delivery models were shown to have the advantage of freeing doctors to use their time and skill for more complicated patients. Further, patients are able to be treated closer to home, as many health problems can be dealt with at local health centres, rather than in the hospital.

These practices have other positive benefits for both doctor and auxiliary cadre. For a highly qualified doctor, the execution of repetitive tasks could become tedious but for the auxiliary cadre, such tasks attract prestige and represent an enhancement of professional and social status. Delegation thus can have a stimulating effect, and in fact tasks may be better accomplished by the lower-level cadre. This is referred to as the 'work-enhancing' aspect of delegation.

One area, in which there has been substantive progress, is that of nurse prescribing health interventions and commodities. Regulatory frameworks for this practice exist in both high and middle-income countries where nurse prescribing health interventions and commodities is seen as both a way of improving clinical outcomes and expanding services [9].

#### *Does it work?*

Reviews of such experiences in low-income countries generally conclude that the use of non-physician clinicians for doctors has had a positive effect on health care and has sustained health services in rural and peri-urban communities. Substitutes with adequate training have been able to take up the important tasks of emergency care in hard-to-reach areas [10].

Where these strategies have failed, it has been largely due to lack of management, supervision and poor training. In these cases the weakness affects all cadres; for example one study has shown that a sizeable proportion of both doctors and medical assistants failed to observe adequate diagnostic processes when examining an under-five child [10].

Research to assess quality of care, acceptance and treatment outcomes has been conducted in both high and low-income countries and confirms that lower-level cadres are not only capable of performing delegated tasks, but they may even perform them better than skilled physicians [6-8, 11,12]. Some studies commented that lower-level cadres had superior interpersonal skills than their physician counterparts. In the UK, systematic reviews done in primary care settings suggested that patients were more satisfied with nurse practitioners, who achieved more patient compliance with treatment recommendations than did physicians. In most other settings, outcomes were equivalent [8].

Cost comparisons of different delivery models have not been systematic. One US study commented that although nurse practitioners and physician assistants earned less than physicians and were cheaper to train, their consultations were longer and they ordered more tests than doctors [13]. However, reviews from Mozambique, Kenya and Ghana showed considerable cost savings in terms of training of health workers as well as costs (to clients) of consultations [10].

#### *The challenges*

Although the experience of task shifting between professional categories of health worker has been largely positive, it has not been without its challenges.

In some countries there has been serious opposition to the introduction of new categories of mid-level workers on the part of health professionals. For example, in Ghana, Malawi, Kenya and Zambia the training of enrolled nurses was stopped for this reason. [10].

Determining levels of training and grades of cadre also present a challenge that must be met. The extent of the training for task shifting requires a fine balance between cost saving and efficacy, and also affects acceptance. In South Africa - which has assistant categories for most health workers - there is concern that if levels of training are too high, and the gap between professional categories and assistants is too small, health workers will opt for the traditional role. On the other hand, if training levels are too low then there is a limit to the usefulness of the cadre [13]. There is also a danger

that mid-level workers may eventually demand the pay rates of the workers whose tasks they are performing, thus creating professional conflict and low morale.

Although mid-level cadres represent an opportunity to scale up service delivery, they also require appropriate training. This may challenge already strained training institutions which may not be able to produce cadres to scale. This is a particular challenge for nurse-based task shifting in countries with shortages of nurses. For example in Malawi, 64% of nurse posts are already vacant. [15] In South Africa the new category of medical assistant requires three years pre-service specialized training and thus the first 100 cadres will only be available in 2009; not a rapid solution to human resources for health needs. [16]

### ***From professionals to community members***

In the enthusiasm following Alma-Ata international conference on primary health care, many countries experimented with different approaches to the shifting of tasks to cadres of health workers with very little formal training. These cadres have been described by a variety of names, but 'village health workers' and 'community-based health workers' are those most frequently used. Sometimes the people selected for such training were traditional providers, in other instances they were lay people.

Recent literature reviews have described the wide range of health activities undertaken by these groups - from primary health care and general health promotion to a range of roles in disease-specific programmes. [17-20]

The reviews also chart the changing nature of these programmes and approaches over the past three decades. Initially community or village health workers were seen as 'agents of change' and health advocates. Many of the programmes of this era were integral to the radical health reforms catalysed during periods of political transformation. Over time, and under pressure of fiscal reform, governments' commitment to these programmes faltered. In the climate of structural adjustment, the remit of these programmes remained similar, but funding and management shifted more towards civil society organisations such as faith-based organisations and NGOs which often operated independently from the state sector. As a result, programmes of varying types, qualities, aims and standards proliferated within and between low-income countries.

In the new era of commitment to health and development goals, attention has returned to these programmes, which are seen as key to scaling up health services with scarce resources. In this context, issues around coverage, quality of care, standardisation of services, training and certification have assumed a greater importance. This has led to the more technical task shifting approach, which proposes that community members are trained to perform clearly delineated tasks usually performed by professional health workers, as part of the clinical team.

Parallel to these developments, changes in both disease pattern and approaches to health care in the developed countries of the north have occurred. As chronic diseases assumed a larger part of the disease burden, it was realised that patient self-management could be effective in the management of diseases like asthma, arthritis and diabetes. Patients trained to manage their own diseases on a daily basis had better health outcomes and made less use of health facilities. Many support and self management groups sprang up around specific diseases, and self management became an integral part of chronic care models. Trained lay people living with the disease, or 'expert patients' were used as tutors for other patients. This has led to the beginnings of 'expert patient' programmes as part of the national health system in the UK and Australia. [21]

### *Does it work?*

The broad consensus of the recent literature and reviews on the subject is that, like task shifting within the health team, this type of task delegation can and does have a positive impact on health outcomes [17-20].

Despite diversity of programmatic approaches, it has been demonstrated that those that succeeded were characterised by good management, support, supervision and political commitment [19]. Conversely, where outcomes have been less positive this has largely been due to the failure of health systems and health professionals to give support, supervision and backing to community health workers [20].

Some recent experiences show the potential of community workers in malaria, TB and HIV. For example, malaria rapid diagnostic tests were accepted and easily used by community health workers in Philippines, allowing for timely detection and the avoidance of over treatment. [12] Similar examples of successful community involvement in Directly Observed Treatment (DOTS) provision in TB programmes can be found in several countries including Zambia, South Africa, Malawi, Bangladesh, India, Colombia and Bolivia. Studies show that the distribution of DOTS at community level enhances adherence to treatment [22].

A few studies have sought to systematically compare community health worker programmes with the traditional medical model. One review of 43 studies found that lay health worker programmes showed greater efficiency in certain programmes, such as immunisation [23]. Other studies have concluded that lay health workers can achieve better patient outcomes at considerable cost saving in comparison with clinic-based care [18].

Other researchers have shown that, where successful, the use of community volunteers and traditional providers has reduced the workload of regular health workers, and brought positive benefits such as enhanced ownership and adaptation to local needs [24].

### *The challenges*

Despite the diversity of programmes and approaches, certain general conclusions can be drawn from the years of experience with community health worker programmes [17]. In many cases these programmes have faced challenges that can be categorised as financing and political, socio-economic and professional.

Early programmes were generally cost-efficient, and added value to public health systems, however hidden costs emerged in the scaling-up process. It became clear that these programmes were not an inexpensive alternative to primary health care, but a complementary activity to be integrated into the district health system which requires investment. In this context, political commitment faltered and many programmes fell apart.

One major socio-economic challenge which has been the subject of ongoing debate has been the issue of payment vs voluntarism. The initial idea of the community or village health worker assumed the existence of a pool of willing volunteers, but lack of payment has emerged as an important cause of attrition of community health workers in many programmes.

The relationship between professional and community health workers created another fault line for some programmes. These suffered due to the condescending attitudes of formal health personnel towards community health workers, which led to rivalry and feuding. Health workers often saw community members as lowly aides and



failed to understand the potential value of their contributions. This was more common in cases where formal health workers were not consulted or part of the development of the scheme. In the worse case scenario community health worker programmes have been blocked by professional health workers.

### **Task shifting in the era of HIV**

Due to the recent development of alternative models in HIV management, there is little systematic literature on the subject. However, a wide range of sources, from surveys to country reports indicate that a number of HIV service delivery programmes have already begun reassigning tasks as a result of shortages in specific classes of personnel. This includes assigning nurses to evaluate patients for ART and prescribe in uncomplicated cases, and shifting counselling and education from nurses to lay counsellors and trained PLHA [25, 26].

Many different models have been employed, but central to task-shifting for ART has been the adoption of a public health approach [27]. The technical dimension of this approach involves the use of standardised and simplified drug regimens and delivery systems. It is essential that standardized protocols that can be modified to local circumstances be developed and utilized. These standardized protocols will avoid the duplication of effort that often leads to inefficient use of resources and delays in implementation. The WHO led process on prevention-of-mother-to-child transmission to which the US Centers for Disease Control and Prevention contributed is an example of these standardized protocols. It is these protocols that enable a radical departure from traditional delivery models that depend on specialist health workers, and facilitate the deployment of less skilled professional cadres and trained community members [24].

### **Task shifting within the health team**

A recent review confirms that although current ART programmes are heavily dependent on physicians, other provider types are already playing a significant role in various tasks such as assessing eligibility for ART, initiating ART, assessing toxicity/failure and adherence support [25].

In some countries it is standard in ART, as in other health service delivery, for medical officers or medical assistants to perform the bulk of tasks. For example, Kenya, Ethiopia and Malawi now allow clinical officers to prescribe ART [29].

A number of countries are already delegating tasks in ART to nurses and nurse practitioners. For example, the Rwandan government is piloting a programme where nurses prescribe antiretrovirals and are trained to do follow-up[29]. In Zambia, nurses have been identified as cardinal cadres in scale-up operations, and legislative barriers to nurses prescribing health interventions and commodities are being explored with the view to protect them[30]. Although these programmes are in their early days, there is evidence of success. In South Africa, for example, care models based on nurses are found to be feasible, potentially more affordable to patients and acceptable. Moreover, at six months follow-up, outcomes like virological suppression, adherence and patient retention were similar in sites with doctors and sites without doctors but with adequate supervision[31].

There is evidence from high-income countries that alternative models are able to deliver a superior service to traditional medical models. For example one study in the US found that nurse practitioners and physician assistants were able to deliver better

quality HIV/AIDS care (including ART provision) than that provided by non-specialist physicians [13]. The study suggested that the key to their success lay in their high levels of experience and focus on a single disease. Participation in specialist teams or access to physicians with HIV expertise was also essential.

### **From professionals to community members**

From the start of the epidemic, community members and people living with HIV have played an important role in delivering a range of HIV services - from prevention, to counselling to home-based care and other support activities.

In most countries, PLHA also play an important role in treatment literacy and adherence counselling, which enhance the efficiency of ART programmes [21].

These experiences incorporate a wide range of programmatic approaches. Many are community-based programmes located in the NGO sector. They may or may not function in conjunction with the formal health services; and many are pilot programmes funded generously by international donors. In their focus on health advocacy, their reliance on voluntarism and emphasis on community and patient education and empowerment, they resemble the community health worker programmes of the early days. Many of these programs are focused on home or family-based care. Programs of this type, TASO in Uganda for example, use this focus on providing HIV services in the home and to the family to identify and leverage a broad range of resources for a comprehensive approach to health care that goes beyond HIV care.

This 'community health worker approach' has its own strengths and weaknesses. Ownership and motivation may be very high, which may increase compliance and reduce attrition. On the other hand, relationships with the formal health facilities may be weak and scaling up and ensuring coverage of these programmes presents an important challenge. Other challenges to this approach are the need to ensure quality and to coordinate and standardise services of a wide range of such projects.

Since the dramatic scale up of ART in low-income countries, thinking has turned to the possibility of training community members and PLHA as new cadres of health workers who perform tasks and deliver services formerly restricted to health professionals. This model depends on simplified protocols, a standard preventive care package of services and systems as characterised by a public health approach. In this model, trained and paid community members act as ART aides within the health facility. In addition to treatment support, they can be trained to take on additional tasks of tracking patients, contact tracing, TB treatment support and ART refills. This model also gives PLHA a role as 'expert patient trainers', enhancing the in-service training of professional health workers.

Community health workers may form an important bridge between the health system and the community, ensuring the continuity of care and bringing services closer to home. One programme in rural South Africa, for example, places adherence counsellors at the centre of the ART delivery system, training them in a wide range of support roles including counselling and testing, treatment adherence, collection and collation of statistics, and defaulter tracing. In this decentralised programme, remote clinics out-performed the hospital in service-user retention. This was attributed to the close relationship between the adherence counsellors and service-users at village level [33].

Different approaches to engaging trained community members in delivering ART have different strengths and weaknesses, which may determine their relevance in a

specific context. For example, programmes that depend on PLHA as publicly identified health agents will probably encounter difficulties in a context where stigma and discrimination around HIV is high. On the other hand, trained PLHA may be essential to the sustainability of a mature treatment programme where there are many service users who are stable but require adherence support.

Although the task-shifting approach enables the delegation of tasks to relatively unskilled people, it does depend on the training of large numbers of ART aides which may overburden already stressed health systems.

### **The way forward**

There is a growing consensus that task-shifting, in its various forms, represents a key strategy to strengthen the health workforce to deliver HIV services [25]. But if this is to be effectively implemented, there is much work to be done.

Firstly, regulatory frameworks for training, licensure and registration must be devised and implemented to ensure quality of care. These will need to be flexible enough to cater for [to ?] the wide range of models and systems — sometimes even within the same country — that are currently in operation. Training and certification for specific competencies in HIV must be available at every level. It has been suggested that a single credentialing mechanism for all cadres may be most appropriate for a rapid expansion of services [35]. While regulation of task-shifting is essential, this in itself poses challenges to the institutional capacity of low-income countries. In addition, acceptance by both professional health workers and community members will have to be carefully negotiated. Another challenge will be to provide career development opportunities for all cadres, to motivate their ongoing engagement. Links and bridges between levels and into formal training and accreditation may be essential here.

Secondly, task-shifting for ART delivery must find its place within ongoing national health and education system reforms. While in the worst-affected countries it may be appropriate to develop new cadres of health workers for ART delivery, in others it may be more appropriate to integrate HIV/AIDS competencies into broader task-shifting programmes.

Thirdly, the history of experience with community health worker programmes raises many issues and challenges. Different national and regional contexts may require different models of community engagement for ART. For a start, any new approach must build on and enhance existing community mobilisation around HIV and AIDS, rather than supplant it. While the inclusion of trained and paid community members is seen as essential, this must not be allowed to demoralise existing community-based programmes that rely on voluntarism. It should be noted, however, that HIV-specific workers and resources can be a lever to building a broader community health infrastructure.

International and bilateral health, education and labour agencies have an important role to play in assisting hard-hit countries to make best use of the task-shifting approach.

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**Appendix:**

Table 1: Doctors and nurses available and PLWHAs in selected countries

	<b>Medical doctors/ 100 000 population</b>	<b>Nurses / 100 000 population</b>	<b>PLWHAs(x1000)</b>	<b>Total population(x1000)</b>	<b>PLWHAs/ 100 000 population</b>
<b>Malawi</b>	1	26	900	12,105	7,435
<b>Mozambique</b>	2	21	1300	18,863	6,892
<b>Zimbabwe</b>	6	54	1800	12,835	14,024
<b>Tanzania</b>	2	37	1600	36,977	4,327
<b>Rwanda</b>	2	21	250	8,387	2,981
<b>Zambia</b>	7	113	920	10,812	8,509
<b>Swaziland</b>	18	320	220	1,077	20,427
<b>Botswana</b>	29	241	350	1,785	19,608
<b>Uganda</b>	5	54	530	26,699	1,985
<b>South Africa</b>	69	388	5300	45,026	11,771
<b>Cambodia</b>	16	61	170	14,144	1,202
<b>Thailand</b>	30	162	570	62,833	907
<b>Brazil</b>	206	52	660	178,470	370
<b>USA</b>	256	937	477	295,410	161
<b>UK</b>	230	1212	83	59,479	138

## **WHO SERVICES PRIMARY HEALTH CARE SERVICES AND HOW CAN THEY BE EFFECTIVELY AND EQUITABLY CREATED, MOTIVATED AND MAINTAINED TO PROVIDE GOOD PHC SERVICES?**

**Miriam Were**

### **1. PREAMBLE**

This title is a mouthful!

That is the title I was given! It almost frightened me out but then I decided that I wanted to come to the conference so much and I accepted it.

Thank you Organizers for the invitation.

### **2. CONTEXT**

#### **2.1 The Alma Ata Declaration from the 1978 PHC Conference**

- a) This Declaration provides the context for most work on PHC.
- b) This declaration was very important in establishing common ground within nations and internationally on health services with respect to:-
  - > **Social justice and equity** as the bedrock for health services within a Human Rights framework and as per the WHO definition of health
  - > Confirming that **Governments have the responsibility** for establishing health care for all people as their right.
  - > The **minimum** of what health care services should contain.
- c) It is also the spring board for this presentation.

#### **2.2 A Working Definition of PHC**

- a) Article VI of the declaration breaks new ground specifically with reference to the formal recognition of **community participation in health as an integral part and first level of the national health system.**

## **Article VI of the Declaration**

*“Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self reliance and self-determination. It forms an integral part both of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.”*

### **2.3 Challenges arising from this Definition**

**a) Scientifically sound to whom?** Through the centuries, African people must have had a fairly sound scientific base regarding health care! Otherwise we would have died off from poisonous snakes, tropical diseases and stress from external oppression for centuries! Yet “those who know” disregard the African experience.

**b) Socially acceptable methods by whom?**

- To the sanitized euro-centric health professionals like me?
- To those with “Management by objective” for their objectives?
- By us, “the natives” who have gone through numerous transitions?:-

For Africa these transitions include:-

- i. Centuries as Creators of the Cradle of human Civilization.
- ii. 5 centuries of the brutalizing transatlantic slave trade.
- iii. Manipulations towards the end of cold war that entrenched poverty embedded in divide and rule tactics
- iv. Current economic strangulation as evidenced by the stalemate over the Doha Round of Negotiations

The impact of the last three on Africa is absolute poverty. The social norms of the “haves” and “have nots” can be very different. I argue that rather “socially acceptable”, we use “socially transformative” approaches towards improved quality lives.

**c) Universally accessible to individuals and families in their communities** is what African traditional healing systems were all about with parents as first level practitioners and availability of specialists e.g. midwives and bone setters. But “those who know” called this primitive and dismantled it. In colonial Kenya, traditional medicine was equated to “witchcraft” which was punishable by law. Fortunately we went underground so not everything was lost.

### **2.4 My involvement in PHC**

I was the director of the Kenya National Pilot Project in Community-Based Health Care (CBHC) 1976 - 1982. We started before The Declaration of Alma Ata.

**a) So we established the following three Guide Posts to working with communities.**

- i. Work with people in a mutually respectful context
- ii. Health professionals shall be clear and simple without being dangerous.
- iii. Results must show there is improving quality in the lives of the people, otherwise health workers get out.



Our work was presented at Alma Ata Conference. The book out of this work is ORGANIZATION AND MANAGEMENT OF COMMUNITY BASED HEALTH CARE (CBHC), published by UNICEF in 1982. It provides evidence of improving health status in project communities.

### 2.5 The Journey from 1978 to date

a) From the beginning, the journey has been characterized by:-

i) **Fear of Community Participation** by health professionals in and outside Ministries of Health. So in most PHC activities, the community was left out of formal health system which chose to focus on District and other levels of health service with familiar health professionals to continue to function within familiar “boxes”.

ii) Most of those who went to communities stamped the people with their objectives: students out to get a thesis or a research publication. Untruthfulness and manipulation of people to get what was wanted took the upper hand.

iii) Most ministries of health did not take responsibility for the content of what was taught in communities. Some thought the community-based approach was second class health care and would be irrelevant by 1980s because, “everyone” will have developed. Resurgence of interest in the mid 2000s shows that we didn’t get as far as we thought we would WITHOUT involving people in their communities in their health care!

b) Now we better do it right

“Doing it Right” means:-

i) Getting it right at the community level and

ii) Effectively linking the community level to the national health system. Community involvement should **not** mean professionals dumping the baby on the community with a deceitful smile.

c) NOW WE HAVE A REAL CHANCE TO MAKE SOCIAL JUSTICE AND EQUITY A REALITY IN HEALTH CARE SERVICES IN THE HEIGHTENED AWARENESS ON UNIVERSAL HUMAN RIGHTS. LET’S DO IT!

## **3. WHO CAN PROVIDE EFFECTIVE PRIMARY HEALTH CARE SERVICE?**

### 3.1 Those Who :-

a) Can effectively contribute to **reduction of the disease burden** at individual, family and community level that translates in reduced national burden through health promotion, disease prevention and proper first line curative services for acute diseases and maintenance care for chronic diseases.

b) Can concurrently **contribute to improvement of the quality of life** of the people resulting in greater productivity and, hopefully, greater joy in communities.

Therefore, the most critical workers are those:-

> **Community Health Workers (CHWs)** who work directly with the majority people in their communities.

- **Middle Level Workers** who link the communities to the Health System in a supportive context of social justice and equity.

According to GHWA “THE ULTIMATE GOAL IS THAT EVERYONE SHOULD HAVE ACCESS TO A SUITABLY TRAINED AND MOTIVATED HEALTH WORKER AS PART OF A FUNCTIONAL HEALTH SYSTEM.”

### **3.2 Effective Community Health Workers (CHWs)**

#### **a) Main Obstacles**

- i) The death bed for effective CHW services is the attitude of this being “a simple commonsense matter” to be undertaken off the cuff and without careful preparation and planning.
- ii) Some see the importance but focus only on CHW as if they exist in a vacuum. “Parachuting” CHWs into communities is counterproductive. One of the value-added from the presence of a CHW in a community is that s/he is one of them accepted by them, and understands the nuances within a community in order to participate in the positive social transformation of communities.

#### **b) Facilitating Factors for Effectiveness**

- i) **The recognition and facilitation by Ministries of Health** of the community level as an integral level of the health system supported by an indicative budget and with referral links to the rest of the health system.
- ii) Establishing CHWs within a context of a mobilized social base of Community Based Health care (CHBC) where members of the community are key stakeholders.
- iii) Establishing the criteria of who becomes a CHW with participation of structures existing in the community and their participation in at least some of the process in the actual selection of the CHWs.
- iv) Clarity on how CHWs will be trained, supervised, provided with referral facilities and paid as discussed later in this document.

### **3.3 Training Content for the Community Health Workers**

a) The **Curriculum for Training** CHWs should be in the form of nationally approved and standardized modules to allow quality control in a context of flexibility. There should be:

- **Well developed Core Modules** that apply to all CHWs within a nation and with potential for sharing in an international south - south context
- **Well developed Elective Modules** on the basis of local priorities e.g. One on Malaria for malarious areas; on Home Based Care for terminally ill (especially AIDS) patients where needed. .
- **Modules for curative activities, e.g.** re-hydration should give clear limits of when CHWs must refer. The guiding principle of being clear and simple without becoming dangerous must be enforced.

b) Involvement of the supervisors of CHWs in the training is critical both for establishing rapport and for clarity of the flow of activities and reporting relationships. These supervisors need to be orientated and trained prior to involvement in the training of CHWS

c) Even if CHWs are trained in centralized institutions for logistic purposes, there must be a period of training when trainees are trained in the community in which they will work to allow interaction with the community training for this new role.

### **3.4 Supervision of CHWs and Referral Arrangements**

a) Content and Modalities of supervision should be clear  
 b) The bulk of the supervision should be by an identified middle level cadre who need to be health workers attached to the **first referral facility**. This is to ensure CHWs access to a supervisor's subsequent support and guidance particularly with respect to referral.

c) Supervisors should have training on monitoring processes, relationships, inputs (whether information or materials) as well as outputs indicative of an improving situation e.g.

- > Increased % of households who construct and use a latrine
- > Increased % of households with clean water
- > Increased % of pregnant women accessing service
- > Increased % of children on the "Road Health" Map
- > Significant reduction in child and maternal mortality e.t.c

IT SHOULD BE CLEAR THAT CHWs ARE NOT ORNAMENTAL OR JUST FOR THE "FEEL GOOD" FACTOR. CHWs should be seen to contribute to the reduction of the disease burden and the improvement of the quality of life. The CHWs, their supervisors and the entire health system must be held accountable for added value from CHWs

d) Linked to the supervision must be the clear referral process to the first level referral facility. Of critical importance is that when a referral is made, it is ensured that the second level service (e.g. re-hydration by IV) is present at the first referral level. Without an effective referral system that delivers, the CHW system collapses.

### **3.5 CHWs as an Integral Part of the Health System**

a) Formal placement of CHW in the Ministries of Health is of critical importance.

Failure to recognize the community level as an integral part of the health system has left countries open to professional quacks who "do their own thing" under no supervision whatsoever: both national and international under the "guise of NGO." **I have seen "modern quacks" who call themselves CHWs and set themselves up with syringes and needles to exploit the magical attachment of most rural people to injection and actually giving injections without ever had training!** In addition to being dangerous, the haphazard approaches to setting up CHW services have left some countries in utter confusion

Ministries of Health **must** hold themselves **and** must be held responsible for EVERYTHING that happens in health service provision in a country. The community level, which is the most critical, must be formally recognised through a highly placed department.

b) CHWs must be Salaried

- i. CHWs are most needed in circumstance of high disease burden; often poverty stricken areas

- ii. Therefore, CHWs have huge workloads.
- iii. CHWs are themselves poor people whose main resource is their time and labour. When their labour and time is “volunteered” as CHWs, they have nothing left for themselves and their families. That is when stealing, shortcuts and preoccupation with negative alternatives occur.
- iv. Therefore CHWs must be salaried. Ministries of Health must determine the basic pay.

## **4. MIDDLE LEVEL WORKERS AND THE FIRST REFERRAL HEALTH FACILITY**

### **4.1 Mix of Cadre in the Mid- Level Categories.**

“Mid-Level” is often made up of a mix of cadre of health workers. It is almost imperative that there should be several types of cadre to ensure an appropriate skill mix in the middle level. Among these cadres is the one directly in contact with the CHWs. Currently, the most appropriate term for this cadres comes from Ethiopia: Community Health Extension Workers (CHEW), that straddles both health and agriculture concepts.

### **4.2 Need for a Link between the CHW and First Level Referral Facility**

a) Due to the centrality of effective referrals to second level care, the middle level worker (i.e. CHEW) needs to have a recognized position at the first referral level facility. This is necessary even if daily work of CHEWs is not at the health facility. What seems critical is that the CHEW spends at least one day per week at the health facility to be familiar with what services are available and how to facilitate those referred by the CHW accessing these second level services directly, promptly and effectively.

b) Because of cadre mix in the middle level, it is unrealistic to provide generic curriculum guidance. Anyway, most of these already exist within ministries of health. i.e. Enrolled/Auxiliary Nurses, Pharmaceutical Assistance, Public Health Technicians, Surveillance Assistance and so on.

It is critical that the cadre with direct responsibilities for CHWs be clearly identified and known and appropriately trained in establishing and maintaining rapport through both cognitive and affective domains.

c) In the event of high disease burden from preventive causes, it may be prudent to introduce a new cadre in the middle level category to ensure that the orientation and content of training is tailored to that of the CHW. This is what Ethiopia has done in the creation of CHEWs who are the supervisors of CHWs who in Ethiopia are known as Community Health Agents (CHA).

e) The CHEW, like all others in the middle level category, are salaried health workers as spelt in 3.2 (b)

### **4.3 Referral Beyond the First Referral Facility**

a) In the case of a woman in obstructed labor, the referral by CHW to the first referral level may be sufficient, e.g. through assisted delivery at the first referral level. e.g. by - Forceps delivery, vacuum extraction.

b) However, sometimes there may be need for further referrals up the health

system e.g. when caesarian section is needed. Therefore, the first referral level needs to have access to logistical support (e.g. transport) to get the referred patients to the next level.

The GHWA states that what is needed is **ACCESS TO A SUITABLY TRAINED AND MOTIVATED HEALTH WORKER AS PART OF A FUNCTIONING HEALTH SYSTEM**. The entire health system needs to be functionally and effectively linked with the community level needs to see that it **CONSTITUTING THE FIRST ELEMENT OF A CONTINUING HEALTH CARE PROCESS**

## 5. KEEPING UP THE MOTIVATION OF PHC WORKERS

Low morale and low motivation contributes to poor services resulting in brain drain for higher level health workers.

For the first two levels (CHWs and CHEWs, a sense of “trappedness” arises that results in utter lethargy or disengagement from the responsibility of the health sector. How this is to be prevented is of critical importance. Each ministry of health should establish:

- a) What approaches to be used to institutionalize supportive and affirming supervisory relationship;
- b) What kind of incentives are appealing in the national/regional contexts
- c) How bonuses be linked to performance;
- d) Should these bonuses be :-
  - > Mainly financial?
  - > Improved/availability of housing?
  - > Earning training for the next level?
  - > A study tour overseas for best performers?
  - > Education support to offspring?

A way must be established to have motivated and effective PHC workers.

## 6. IN CONCLUSION

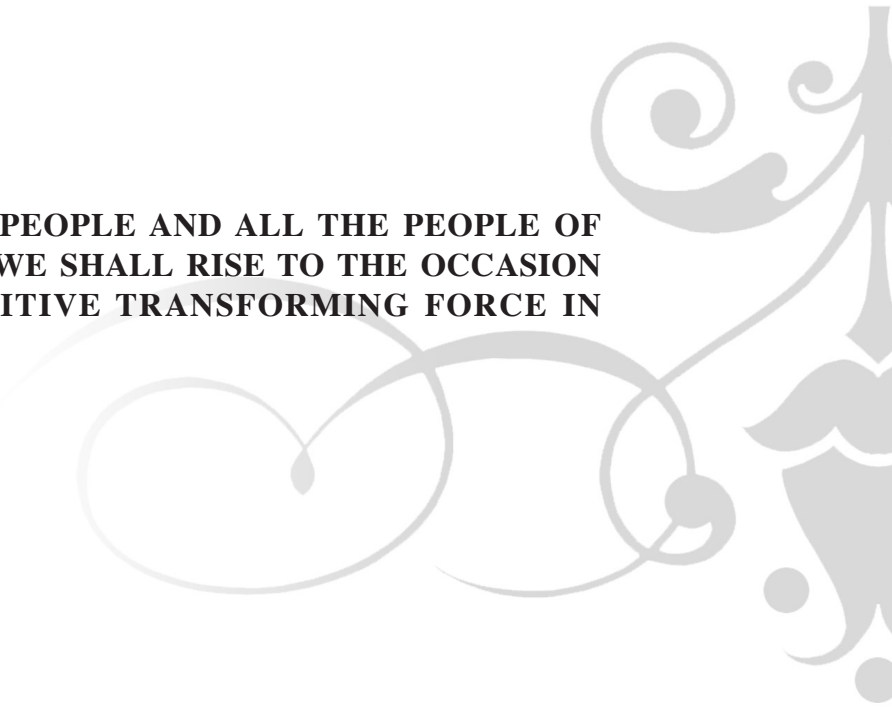
I believe that:

- a) The most challenging areas in current health care in most countries are:-
  - > Matching technological progress with the human touch in a compassionate context
  - > Placing technological and other knowledge at the service of the improvement of the quality of life of all people
- b) Effectiveness in improving the quality of health from the community level through the first referral level upwards can transform health care.

**IF IT HAPPENS IN THE COMMUNITY, IT WILL HAPPEN IN THE NATION. IF IT DOES NOT HAPPEN IN THE COMMUNITY, IT DOES NOT HAPPEN IN THE NATION, AND IT WILL NOT HAPPEN HOWEVER MUCH WE SHOUT FROM OUR CAPITAL CITIES.**

**I BLESS THAILAND AND HER PEOPLE AND ALL THE PEOPLE OF THE WORLD. I BELIEVE THAT WE SHALL RISE TO THE OCCASION AND MAKE HEALTH THE POSITIVE TRANSFORMING FORCE IN THE WORLD.**

**Thank you for your kind attention.**





**Manuel M. Dayrit**  
 Director, Department of Human  
 Resources for Health  
 WHO

*M*anuel M. Dayrit was Secretary of Health (Minister) of the Philippines from 2001 to 2005. Under his guidance, national coverage of social insurance doubled from 30 to 60%, lower priced generic medicines became more widely available through the government supply chain, the national TB control program surged to achieve its global targets, and SARS was contained to 14 cases during the SARS epidemic of 2003. He led 2 national immunization campaigns to stop the spread of the vaccine-derived polio virus, immunizing 12 million children in each round. During his term, the Department of Health was highly regarded by the public and the media for its measures to fight corruption. Dr. Dayrit gained wide recognition for his transparency and leadership as evidenced by high approval ratings in public opinion surveys and citations from private sector and non-governmental stakeholders. This is a legacy which his successors have successfully continued.

Dr. Dayrit began his public health career 31 years ago, the year before the Alma Ata Declaration on Primary Health Care. Working with his wife Elvira as community physicians in the villages of Davao del Norte, Mindanao during the martial law period, he trained community health workers, organized community-based TB programs and coordinated a Church-affiliated program across the different dioceses of the Catholic Church in Mindanao in Southern Philippines. In 1980, Dr. Dayrit became a founding member of the Asian Community Health Action Network (ACHAN) which sought to promote community-based health action in Asia.

Dr. Dayrit's personal philosophy and work ethic have been indelibly influenced by his immersion in the rural villages during the early part of his career.

Dr. Dayrit joined the Department of Health in 1984 as a research epidemiologist. For his work in AIDS, cholera, and red tide, he was named Outstanding Young Scientist by the National Academy of Science and Technology in 1990. He was the founding director of the Philippine Field Epidemiology Training Program in 1986 and directed it till 1997.

Dr. Dayrit's private sector experience includes working as Vice-President for Health Services of Aetna HMO in Manila, a subsidiary of the multinational insurance firm. He also set up the Office of Regulatory Affairs of a Filipino-owned pharmaceutical company United Laboratories Inc.

A Bachelor of Arts honors graduate of the Ateneo de Manila University, Dr. Dayrit earned his Doctor of Medicine degree from the University of the Philippines in 1976.

In 1981-82, he was awarded a British Council Scholarship to the London School of Hygiene and Tropical Medicine (LSHTM) where he completed a Master of Science in Community Health with a mark of distinction. In 2006, in recognition of his service in public health to millions of his countrymen, Dr. Dayrit was made an Honorary Fellow of LSHTM.

Dr. Dayrit joined the World Health Organization in August 2005 and has since been involved in working closely with partners on global health workforce issues.





## **Sultana Khanum**

Director, Health Systems Development  
WHO/SEARO

*Dr.* Sultana Khanum is currently the Director, Health Systems Development in WHO South-east Asia Region (SEAR) since February 2006. She began her WHO career, as Regional Adviser for Nutrition and food safety in 1995 before moving to WHO headquarters in Geneva in 2001. At headquarters she coordinated the global nutrition programme, which provided her with a global perspective on various aspects of management of nutrition and health systems across all Regions of WHO. An MD pediatrician, specializing in public health nutrition, with a Masters in Public Health and a diploma in Health Policy Planning and Health Financing; and PhD in childhood malnutrition from London School of Hygiene and Tropical Medicine (LSHTM), Dr. Khanum's qualifications are as diverse and distinguished as her career. She had earlier worked as the Medical Director of Save the Children UK in Bangladesh, as well as with the National Health Services in the United Kingdom. Her achievements include- founding of the Child Nutrition Unit which treated childhood illness and malnutrition in children of urban poor in Bangladesh and initiated best care and practices in hospital settings with successfully reducing mortality in children, developed research and innovative training and case management guidelines which received international recognition, established cost-effective management schemes in hospital versus community care, Dr Khanum was awarded with the prestigious Woodruff Medal in 1994 from LSHTM, University of London for her contribution in Medical Science. She has many original publications in peer-reviewed international journals and she is also member of many prestigious societies namely: Fellow Royal Society of Tropical Medicine and Hygiene; Member Royal Society of Medicine; Honorary Regional vice president of London School of Hygiene & Tropical Medicine Alumni Association; Member, Society for international development (SID, HQ in Rome); Member- International Child Health Group (London). In her current position, her goal is to provide technical and operational support to develop sustainable and equitable health infrastructure in all Member countries in SEAR, that can provide health services to all the people of the Region at all times.



**Sigrun Mogedal**  
Ambassador, HIV/AIDS and Global Health  
Initiatives  
Royal Ministry of Foreign Affairs, Norway

*A*ll together more than 30 years in public health, health system management and engagement in broader policy and development issues with a broad mix of experiences; from grass root participation to developing and negotiating international policies; from NGO activist to public sector administration;

Professional engagement has also included policy analysis, applied research and evaluation research, research to policy linkages; ethics as related to medical ethics, environment and North South dialogue. Facilitation skills with experience from complex development projects/ processes at both national, regional and international level.

Extensive leadership experience as a board member and chair/vice chair in a variety of national and international organisations, alliances, networks and processes, including both on the NGO side (ecumenical church structures) and intergovernmental processes.

**Current position:** Ambassador, HIV/AIDS and Global Health Initiatives  
Royal Ministry of Foreign Affairs, Norway

- Board Member, Global Fund to Fight against Aids, TB and Malaria (**GFATM**) 2007-2008;  
Alternate Board Member 2005 -2006
- Board Member, Global Health Workforce Alliance (**GHWA**), 2006 and current
- Board Member **UNITAID**, 2006 and current
- Board Member, Global Alliance for Vaccines and Immunization (**GAVI**) (2001-2002 and 2005- 2007)

**Previous posts**

- State Secretary (Deputy Minister), Ministry of Foreign Affairs (international development), Government of Norway (2000-2001)
- Senior Executive Adviser, Global Initiatives, NORAD, 2001 - 2005
- Senior Policy Adviser to the Executive Director, UNAIDS 2001-2004
- Chief Technical Adviser, Social Sector Development, NORAD 1998 - 2000
- Director, DiS, Centre for Partnership in Development (resource centre research/ consultancy, advocacy) Oslo Norway 1987-1998
- Head of programme evaluation /health consultant, Norwegian Church Aid. 1983-1987
- Health Services Director, United Mission to Nepal, 1980-82
- Director, Lalitpur District Community Health and Development Programme, Kathmandu, Nepal 1977-80
- Medical officer for primary health care, Lumbini Zonal Hospital, Government of Nepal, 1971-1976



**Ravi Narayan**  
Community Health Advisor  
Society for Community Health Awareness,  
Research and Action, Bangalore, India

*Dr.* Ravi Narayan is a Public Health Consultant, and Health Policy advocate who has been deeply involved with promoting the social / community paradigm in public health education and public health system development for over three decades in various capacities apart from being an active catalyst of the Peoples Health Movement. He is presently the Community Health Advisor for the Society for Community Health Awareness, Research and Action, Bangalore, India.

He was a faculty member at St John's Medical College, Bangalore, and an overseas faculty of the London School of Hygiene and Tropical Medicine for over a decade after which he co-initiated the Society for Community Health Awareness, Research and Action - a health policy resource group in Bangalore, India which works with State and Central governments, international health agencies, NGOs and civil society and Peoples movements in the country and globally. He has been a resource person and advisor for many organizations including WHO, WHO-SEARO, Indian Council of Medical Research (ICMR), Planning Commission, Malaria Research Centre of ICMR, Voluntary Health Association of India (VHAI), Asian Community Health Action Network (ACHAN) and a host of Indian and international networks and campaigns groups.

**From 2003 - 2006 he was the Coordinator of the Global Secretariat of the People's Health Movement (PHM) - a global movement promoting the Health for All goal through strengthening public health and community health policy responses.** He received the AIFO- Italy Human Rights Award in Health on behalf of PHM. in 2004. From July 2006, he continues on the Global steering council of the People's Health Movement. **He is also a member of the Foundation Council of the Global Forum for Health Research, Geneva, promoting public health research on health systems and social determinants.**

In 2006 he was invited to be a Consultant of the National Rural Health Mission of the Government of India and a Member of the Medical Education Task Force; a Member of the Indian Planning commissions steering Committee on Primary Health Care for the Eleventh Five Year Plan (2007-12); a member of the Planning Commission Task force on Alternative Systems of Medicine and Public Health; and most recently a member of a sub group of the National Knowledge Commission on Community Health and Medical Education.

In 2006, he was also invited to be a founding governing body member of the Public Health Foundation of India, to strengthen Public Health capacity and health human power development in India. He is an International Advisory board member of the British Medical Journal and more recently has been invited to be their specialty advisor on public health.

Dr. Narayan has numerous papers, books and monographs written over the three decades on Public Health policy, Primary Health Care, Community Health action, Medical Education and Health human power development and health advocacy. Community Health training has been a special area of focus. He led the evaluation team of the Jan Swasthya Rakshak (CHW's in Madhya Pradesh) in 1999 and 2001 and has made over views of CHW's in India. He was involved as a key mentor in the Community Health Fellowship Scheme of CHC since 2003 and is also a mentor of the International People's Health University of the PHM.



## **Francis Omaswa**

Executive Director

Global Health Workforce Alliance

*D*r. Francis Omaswa is Executive Director of the Global Health Workforce Alliance (GHWA) that was officially launched in May 2006. GHWA is a partnership that is dedicated to identifying and providing solutions to the global health workforce crises and the secretariat is provided by WHO.

Before joining GHWA in June 2005, he was the Director General for Health Services in the Ministry of Health in Uganda for a period of seven years during which time he was responsible for coordinating major reforms in the health sector in Uganda which included the introduction of the Swaps and decentralization. Prior to that he was the Chief Surgeon, Head of the Quality Assurance program and Director of the Uganda Heart Institute, in the Ministry of Health and Makerere University in Uganda. He has a keen interest in cost-effective approaches for increasing access of the poor to quality health care and spent five years in a remote mission hospital testing various models and innovations for this between 1982 and 1987.

At the global level he was closely involved in the establishment of the Global Stop TB Partnership and was Vice-Chairman of its Coordinating Board. He was one of the architects of the Global Fund to Fight AIDS, TB and Malaria and served as Chair of the Portfolio and Procurement Committee of its Board. He has been a member of the steering committee of the High Level Forum on health-related MDGs.

Dr Omaswa is a graduate of Makerere Medical School, Kampala, Uganda, a Fellow of the Royal College of Surgeons of Edinburgh, founding President of the College of Surgeons of East, Central and Southern Africa and is a Senior Associate at the Johns Hopkins Bloomberg School of Public Health. As a public health services manager, he has several qualifications in health services management and education.



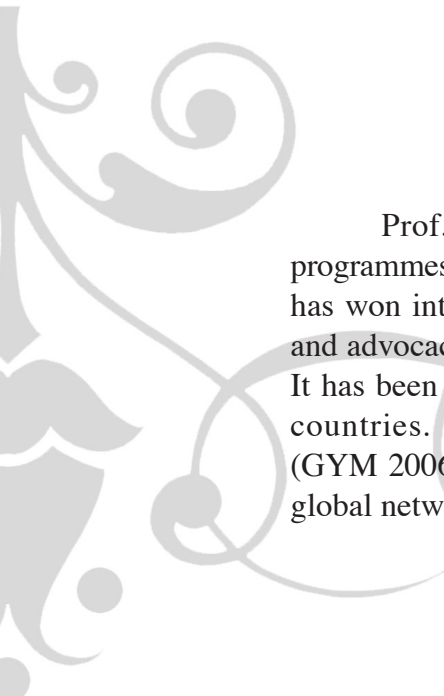
**K. Srinath Reddy**  
President  
Public Health Foundation of India

*Prof. K. Srinath Reddy* is presently President, Public Health Foundation of India and till recently headed the Department of Cardiology at All India Institute of Medical Sciences (AIIMS). He graduated from Osmania Medical College, Hyderabad and later trained at AIIMS, Delhi, where he received his MD (Medicine) and DM (Cardiology) degrees, with high academic honours. He is a clinical cardiologist, also trained in epidemiology (at McMaster University, Canada), and has a career commitment to preventive cardiology and public health.

Prof. Reddy has been involved in several major international and national research studies including the INTERSALT global study of blood pressure and electrolytes, Indian Council of Medical Research commissioned national collaborative studies on Epidemiology of Coronary Heart Disease and Community Control of Rheumatic Heart Disease and INTERHEART global study on risk factors of myocardial infarction. He is Coordinator of the Initiative for Cardiovascular Health Research in the Developing Countries, a global partnership programme which serves to strengthen research related to prevention of cardiovascular diseases in the developing countries. He has served on many WHO expert panels. He has also served as Chair of the Scientific Council on Epidemiology of the World Heart Federation (2003-2006) and has recently been elected to serve as Chair of the Federation's Foundation Advisory Board (2007-2010).

Prof. Reddy edited the National Medical Journal of India for 10 years and is on editorial board of several international and national journals. He has more than 210 scientific publications in international and Indian peer reviewed-journals.

Prof. Reddy was awarded the WHO Director General's Award for Global Leadership in Tobacco Control at the 56<sup>th</sup> World Health Assembly in May 2003. He has represented India in inter-governmental treaty negotiations on the WHO Framework Convention on Tobacco Control (FCTC) and the Conference of Parties of that treaty. He was conferred the prestigious national award PADMA BHUSHAN by the President of India (one of the highest civilian awards conferred by the Government of India) on the occasion of the 57<sup>th</sup> Republic Day of India, in 2005. The Royal Society for the Promotion of Health, UK, conferred the award of the Queen Elizabeth Medal for 2005 to Prof. Reddy.



Prof. Reddy has been active in organizing school based health education programmes, under the HRIDAY-SHAN programme which he initiated in 1992. HRIDAY has won international recognition for its innovative programmes of health awareness and advocacy and was awarded the WHO Global Tobacco Free World Award in 2002. It has been recommended by WHO as a model programme, to be replicated in other countries. He recently organized the first ever Global Youth Meet on Health (GYM 2006) in New Delhi and facilitated the launch of the Youth For Health (Y4H) global network for health advocacy and action.



## **Badara Samb**

Advisor, Health Systems and Services  
WHO

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*B*adara Samb, MD, PhD, is the advisor of the WHO's Assistant Director General for Health Systems and Services. Before joining WHO in 2001 he worked with the Joint United Nations Programme on HIV/AIDS (UNAIDS) as care adviser for two years.

After beginning his career as a field assistant for UNICEF and a medical doctor in Senegal, Dr. Samb worked with WHO and the French Institute for Scientific Research and Development Cooperation (IRD, formerly ORSTORM) studying measles and measles vaccines. From there he moved to the French Institute for Medical Research (INSERM), working as a senior researcher and epidemiologist for much of the 1990s. During this period, he also served as an Associate Professor of Public Health at the University Pierre et Marie Curie in Paris.

Holding dual citizenships of Senegal and France, Dr. Samb received his medical degree from the University of Cheikh Anta Diop, in Dakar, and a PhD in Public Health from the Pierre and Marie Curie University in Paris.

Dr. Samb is fluent in French, English and Wolof. He was granted the 2003 International Health Professional of the Year award by the International Biographical Centre, Cambridge, United Kingdom. He is currently an associate professor of health and international relations at the Geneva School of Diplomacy and International Relations.





## **Keizo Takemi**

**Former Senior Vice Minister of Health,  
Labour and Welfare**

*F*ormer Senior Vice Minister of Health, Labour and Welfare

Former Member, House of Councillors

Former State Secretary for Foreign Affairs

In September 2006, Mr. Keizo Takemi was appointed Senior Vice-Minister for Health, Labour and Welfare of Japan, along with serving his second term as a member of the House of Councillors until July 2007. Prior to this appointment, Mr. Takemi assumed various responsibilities in the House, including Executive Member for the Committee on Health, Welfare and Labor, a Member for the Committee on Audit, Executive Member for Joint Meeting of Both Houses on the Reform of Pension and Other Social Security Systems, Executive Member for the Research Commission on the Constitution, and Chairman of the Committee on Foreign Affairs and Defense. In the LDP, He served as Deputy Chairman on the Medical Care Committee for Research of the Social Security System. He also served as Chairman of the Special Committee on Ocean Matters. Mr. Takemi is widely acknowledged as having great expertise on ODA and the United Nations system. In 2006, he worked as a member of Secretary-General's High-level Panel on UN System-wide Coherence in the areas of Development, Humanitarian Assistance and the Environment. In 1999, as a State Secretary for Foreign Affairs, he took the initiative to establish the United Nations Trust Fund for Human Security. He was also a Member of the International Advisory Group for the 2005 UNDP Human Development Report on Regional Co-operation in Central Asia. He played a leading role in 2006 in restructuring Japanese ODA system and integrating Japan's aid implementation functions (technical assistance, grant aid and yen loan) into JICA in 2008 as the Secretary General. ODA Reform Working Team in the LDP. He received his undergraduate and graduate degrees from Faculty of Law, Keio University. Since 1995, he has been a Professor at the School of Political Science and Economics, Tokai University. He was also an anchor person on CNN Day Watch in Japan and a visiting scholar at Harvard University.

[Career]

Date of Birth: November 5, 1951

1974 Keio University

1976 Keio University, Graduate School of Law, Master in Law

1976~77 Chinese Language Center, National Normal University, Taiwan

1978, 1992~93 Visiting Scholar, Fairbank Center for East Asian Research, Harvard University

1995-2007 Professor, Strategic Peace & International Affairs Research Institute, Tokai University

2007~ Professor, Research Institute of Science and Technology, Tokai University

1995~2007 Member, House of councillors LDP

1998~99 State Secretary for Foreign Affairs

2006~ Senior Vice Minister of Health, Labour and Welfare



## Wang Longde

President, Chinese Preventive Medicine Association  
Former Vice Minister of Health, China

Dr. Wang Longde graduated from Lanzhou Medical College in 1969, and got the master degree in Chinese Academy of Medical Sciences in 1978. In 1980, he studied in Mt. Sinai College of New York University as an exchange scholar for two years, and got the national award for that after his coming back.

Dr. Wang also worked in Public Health College of Union Medical University as a tutor, and devoted himself to the study of epidemiology and public health, all that provide him abundant experience in administration and academic study. More than 40 pieces of articles have been published in famous Chinese and foreign magazines, ranging from the administration essays to academic thesis. Dr. Wang wrote and edited plenty of professional works, including the *Tuberculosis Control*. He was acquired "Science and Technology Award" from Gansu Health Bureau in 1981, and "Science and Technology Award of Gansu Province" from Scientific Committee of Gansu province in 1993, and "the third Award of Science and Technology" from Beijing Municipal Government. The serial books designed and edited by Wang Longde were acquired "the 2<sup>nd</sup> Award of National Science and Technology" from the State Council.

### Curriculum Vitae

Wang Longde, Male, 60, Born in 1947, Master Degree

**Title:** Professor, Senior physician

**Profession:** Epidemiology, Public Health

**Position:** President, Chinese Preventive Medicine Association

#### Knowledge Background:

1964-1969 Lanzhou Medical College

1973-1974 the Subordinate Hospital of Lanzhou Medical College

1978-1980 Chinese Academy of Medical Sciences

1980-1982 Mt. Sinai College of New York University

1986 Management Training Class of Ministry of Health (four months)

1995 New South Wales University in Australia  
Health Economy Study Class (one month)

**Working Experiences:**

- 1969-1978 Gansu Centers of Disease Control and Prevention
- 1982-1983 Cancer Institute of Chinese Academy of Medical Sciences
- 1983-1984 Scientific and Educational Department of Gansu Health Bureau
- 1984-1991 Vice Director of Gansu Provincial Health Bureau
- 1991-1995 Director of Gansu Provincial Health Bureau
- 1995-1997 Vice Minister of Chinese Ministry of Health

**Other Positions mainly held:**

- 2004 President, Chinese Health Information Association

**Scientific Works:**

- 1981-2005 more than 40 pieces of thesis have been published in Chinese and Foreign Magazines and more than 5 books have been published



**Lepani D. Waqatakirewa**  
Secretary of Health  
Ministry of Health, Fiji

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*R*eceive basic medical training at the Fiji School of Medicine (1982) and later Masters in Public Health (1991) from the Hebrew University at Jerusalem. A Public Health specialist having been closely involved in preventive health care and Primary Health Care programmes in Fiji. Notable engagement is in the area of childhood vaccination such as the introduction of Haemophilus Influenzae B (HIB) vaccination programme in Fiji. Recently was involved in addressing micronutrient deficiencies in Fiji through the introduction of iodised salt for iodine deficiency and iron fortification of wheat flour for iron deficiency anaemia. Both programmes led to the reduction in prevalence and morbidity in both medical conditions. Actively involved in regional work related to primary health care such as been a consultant for the review of Essential Public Health Functions with WHO.



## **Miriam Were**

Chair of African Medical and Research Foundation

*Prof.* Miriam K. Were, a medical doctor, public health specialist, teacher and publisher was born on April 12, 1940. She joined the teaching profession in 1965 but later enrolled in Medical School. In 1973, she graduated as a Medical Doctor from the University of Nairobi, being awarded the Best All-Round Graduating Medical Student Prizes. She worked in the Ministry of Health before joining the Faculty of Medicine of the University of Nairobi on her journey to teaching Public Health. She holds both Masters and Doctor of Public Health (Dr. PH) degrees from the John Hopkins University of USA.

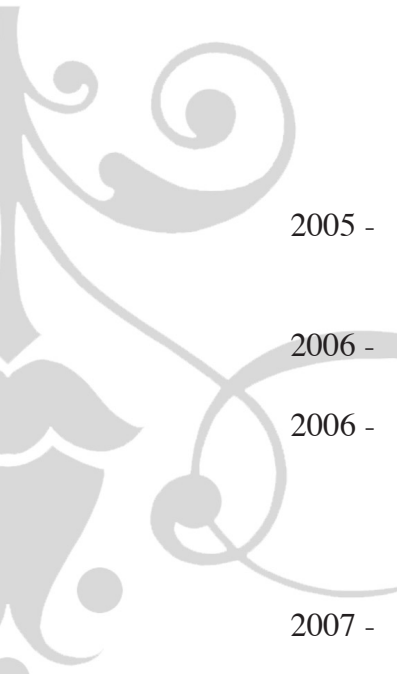
Between 1976 and 1982, while teaching Public Health, she was also the Director of the National Pilot Project on **Community Based Health Care (CBHC)**, in the pre Alma Ata period to address community participation in the improvement of their health. In 1985 she was recruited by the United Nations working for UNICEF (5 years), WHO Representative (3 years) and Director of the UN Population Fund (8 years). She retired from the UN in 2000.

Among her current responsibilities are Chair of the National AIDS Control Council (NACC) and also the African Medical and Research Foundation (AMREF) and on the Board of GHWA.

Over and above writing profusely on technical topics, Miriam Were is also a published author of biographies, poems and four novels.

Her achievements are reflected in the awards received. :-

- 1977 - Bananas, Water Pot and Blessings from the community she mobilized for improvement of the quality of their lives.
- 1978 - The 1978 UNICEF Maurice Pate Award for "Outstanding Contribution to the Development of Primary Health Care with People's Involvement" ; first time award came to Africa
- 1980 - The George P. Tolbert Health Award of the USA National Council of International Health (now Global Health Council) for Outstanding Contribution to International Health.
- 1998 - In the period 1998 - 2000 Honoured by being the Sole OAU Candidate for consideration by the UN Secretary General for the post of UN Undersecretary General as UNFPA Executive Director.
- 2000 - Cited in the INTERNATIONAL WHO'S WHO OF PROFESSIONAL AND BUSINESS WOMEN, 8<sup>th</sup> Edition and awarded the INTERNATIONAL ORDER OF MERIT, (IOM).

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- 2005 - On Kenya's National Day, 12th December, presented by the President Mwai Kibaki, the National EBS Award for "distinguished service rendered to the nation"
  - 2006 - On 10<sup>th</sup> March, marking the International Women's Day in Kenya, was awarded THE EVE WOMAN OF YEAR AWARD IN THE ACADEMIA CATEGORY
  - 2006 - On 29<sup>th</sup> October in Italy, Awarded the MEDAL OF THE ITALIAN CABINET by the International Scientific Committee of the Pio Manzù Centre along with President Ellen Johnson-Sirleaf of Liberia; Citation includes "Enabling the poor to achieve good health as a means of helping them escape from the vicious circle of poverty".
  - 2007 - On 5<sup>th</sup> July in Nairobi during the GLOBAL YWCA SUMMIT ON WOMEN IN LEADERSHIP received the TRAIL BLAZER Award - "For her life-long commitment to working with disadvantaged people to improve the quality of their lives and her innovative approaches to community-based empowerment and for her current leadership driving the National HIV/AIDS response in Kenya".
  - 2007 - On 18<sup>th</sup> July, , received THE QUEEN ELIZABETH II GOLD MEDAL FOR Outstanding Contributions to International Public Health and Supporting the health needs of disadvantaged people. In London.

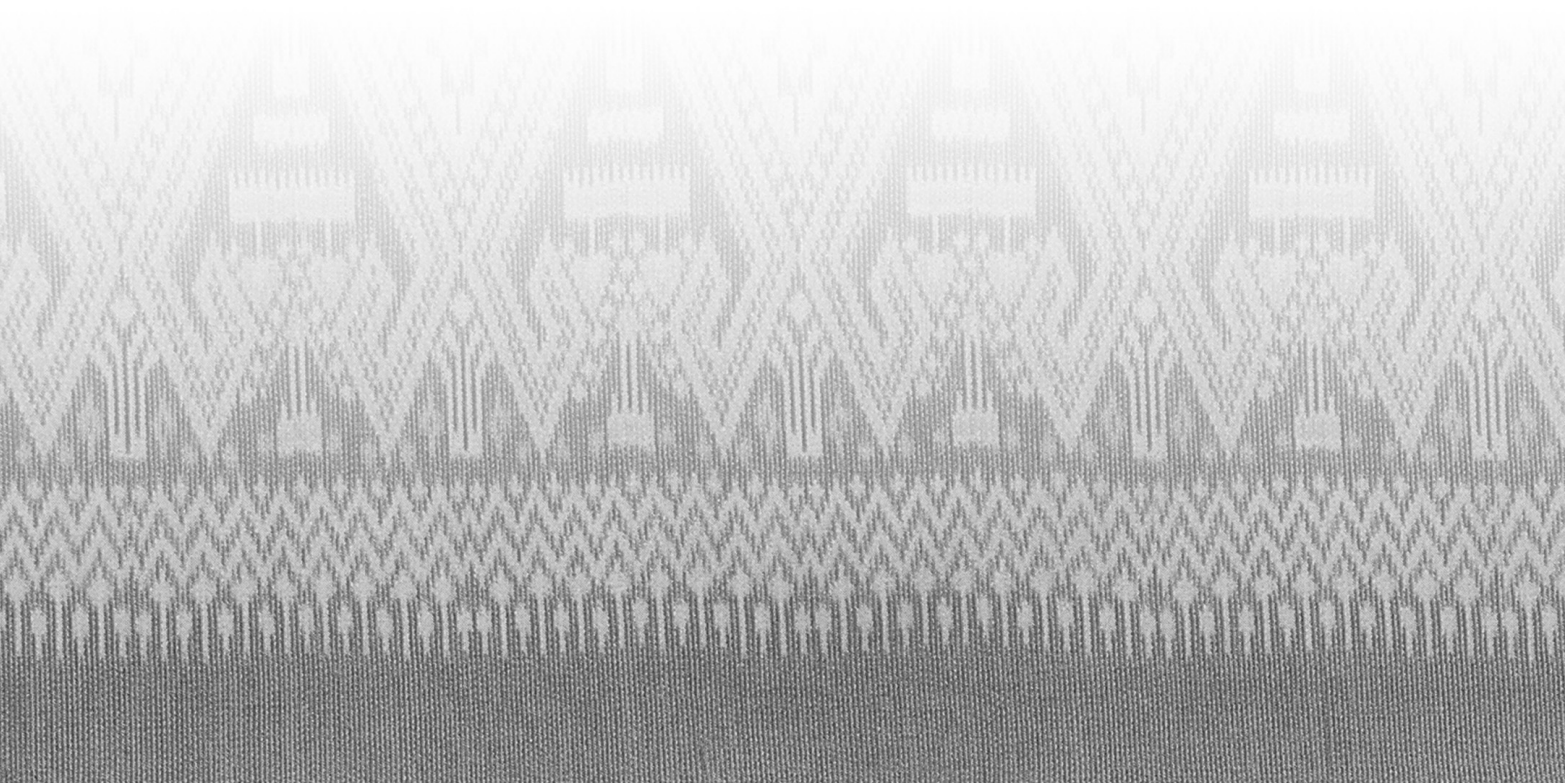






## **Parallel Session 2**

*PHC and Public Health Surveillance and Response*



## **Bellagio Call for Action on**

### **Public Health Surveillance Networks: Learning, Trust, Diplomacy, Science and Technology**

We, twenty-two representatives from infectious disease surveillance networks in Africa, the Americas, Asia, Europe and the Middle East, including leading experts in epidemiological surveillance and health informatics, met from 3 to 6 December 2007 at the Rockefeller Conference Centre in Bellagio, Italy. Our aim was to share best practices and lessons learned and recommend action required to advance the global capacity for public health surveillance with particular attention to infectious disease surveillance in developing countries.

Our three vital concerns with regard to infectious disease surveillance are:

- Governance arrangements for networks. We concluded that a flexible approach to governance arrangements is needed that is appropriate to local political, economic and social conditions. While lessons could be learned from each other no single model will suit all regions. We also concluded that experience showed that investment of time in building trust between collaborating partners is an essential ingredient for success;
- Efficient electronic knowledge management and sharing. We agreed that the most appropriate information and communications technology (ICT) should be developed and employed to facilitate timely and accurate sharing of surveillance information and best practices. This will allow for timely alert and collective responses to control outbreaks. Public-private partnerships should be promoted to advance and ensure the best use of ICT systems; and,
- Capacity Building. We concluded that capacity especially human and laboratory capabilities are seriously inadequate in many developing countries. We considered that advances are required urgently, not only to enhance badly needed national capacities, but also to facilitate substantive cross-border cooperation between and among countries.

We commit ourselves to pursuing the following actions:

- To further strengthen national capacity and regional networks based on effective communication both through electronic means, by regular meetings and joint projects;
- To promote and enhance the overall global capacity for infectious disease surveillance by connecting the regional networks into a global cooperative activity, including making the December 2007 Bellagio meeting into an annual event;
- To develop and encourage collaboration between the human, animal and agricultural sectors to achieve a holistic approach to infectious disease surveillance; and,
- To promote the development of national capacities and new regional networks, particularly in Africa and South Asia.

We highly commend the concerned governments and intergovernmental organisations, in particular the World Health Organisation (WHO), and private foundations, for their active support to regional and sub-regional infectious disease surveillance networks. We call for their further support and action to:

- Actively support current networks and efforts to develop and promote new cross-border networks, especially in areas of high endemic disease concern such as Africa and Asia;
- Support the effort to connect all regional networks to facilitate sharing of experiences and best practices and training and to promote the implementation of the International Health Regulations (2005);
- Provide appropriate technical support to build the necessary level of human and laboratory capabilities, particularly in the less developed countries; and,
- Support and encourage private and public partnerships in a sustained effort to help exploit available and novel technologies to enhance capabilities, in particular in data handling, communications and laboratory capacity.

To learn more about this meeting and the recommendations and how you can contribute, please contact the focal point at the Global Health and Security Initiative via the Director, Terence Taylor ([taylor@nti.org](mailto:taylor@nti.org), telephone: +1 202-296-4810).

The Bellagio meeting was supported by the Rockefeller Foundation in cooperation with the Global Health and Security Initiative.

Participants at the meeting, ***acting in their personal capacity***, were drawn from:

- Dr. R. Jawad Asghar, Centers for Disease Control and Response FELTP (Pakistan)
- Dr. Silvia Bino, South Eastern Europe Health Network
- Mr. Karl Brown, The Rockefeller Foundation

Dr. Louise Gresham, Global Health and Security Initiative, NTI  
Mr. Sari Hussein, Middle East Consortium on Infectious Disease Surveillance  
Dr. James Kaufman, IBM Almaden Research Center  
Dr. Ann Marie Kimball, Asia Pacific Economic Cooperation Emerging  
Infections Network  
Dr. Alex Leventhal, Middle East Consortium on Infectious Disease Surveillance  
Dr. Marlo Libel, Pan American Health Organization  
Dr. Melinda Moore, RAND Corporation  
Dr. S.M. Mursalin, Ministry of Health, Pakistan  
Dr. Mongkol Na Songkhla, Minister, Ministry of Public Health, Thailand  
Dr. Moe Ko Oo, Mekong Basin Disease Surveillance Network  
Dr. Assad Ramlawi, Middle East Consortium on Infectious Disease Surveillance  
Dr. Mark Rweyemamu, UK Foresight Project on Infectious Diseases  
Dr. Mark Smolinski, Google.org  
Dr. Stanley Sonoiya, East African Community  
Dr. Sally Stansfield, Health Metrics Network  
Dr. Rudolph Tangermann, World Health Organization Polio Eradication Initiative  
Mr. Terence Taylor, Global Health and Security Initiative, NTI  
Dr. Sok Touch, Mekong Basin Disease Surveillance Network  
Dr. Kumnuan Ungchusak, Mekong Basin Disease Surveillance Network  
Dr. Suwit Wibulprasert, Mekong Basin Disease Surveillance Network



## **Strengthening National Core Capacities for the IHR**

**Background Paper for Prince Mahidol Award Conference 2008  
Bangkok, January 2008**

**Dr. Stella Chungong**  
IHR Coordination Programme  
WHO, Geneva

### **I. Introduction**

The International Health Regulations (IHR) were first adopted by the World Health Assembly in 1969, and initially covered six diseases. The regulations were amended in 1973 and 1981 to cover 3 diseases (Cholera, Yellow Fever and Plague). Due to the increase in international travel and trade, and the emergence and re-emergences of international disease threats, a substantial revision of the IHR was carried out and the revised regulations came into force on 15 June 2007.

The purpose and scope of the new IHR are to prevent, protect against and control and provide a public health response to the international spread of disease, in ways that are commensurate with, and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade. The scope of obligations is not limited to any specific disease or manner of transmission, but to conditions, irrespective of source, that could present significant harm to humans.<sup>1</sup> In addition, State Parties are required to develop certain minimum core public health capacities, and to notify WHO of all events which may constitute a public health emergency of international concern (PHEIC), and the Director General will declare a PHEIC and issue related temporary recommendations. WHO can take into consideration unofficial reports of disease events, and obtain verification from State Parties. The establishment

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<sup>1</sup> International Health Regulations (2005), WHO

of National Focal Points (NFP) and WHO contact points for urgent communications between State Parties and WHO has also been included. PHEICs are not restricted to communicable diseases with epidemic and pandemic potential but may include emergencies due to contamination with toxins, chemicals or radioactive material due to industrial leaks or intentional release.

In addition, the IHR emphasize the potential impact of PHEICs on multiple sectors of a society. Examples of this impact are the 2003 SARS pandemic and the 1995 plague epidemic in India and the devastating effect on tourism, trade, and commerce worldwide.

## II. The Core Capacities

Each State Party is expected to develop, strengthen and maintain, no later than five years from the entry into force of the regulations, the capacity to detect, assess, notify and report events below for surveillance and response. In addition State Parties are required to do likewise for designated airports, ports and ground crossings. Specifically, countries are expected to assess, within two years following the entry into force of the regulations, the ability of existing national structures and resources to meet the minimum requirements. Countries are expected to develop and implement plans of action to ensure that these capacities are present and functioning. Specific core capacities are expected at the local/community level and/or primary public health response level, the intermediate level, and the national level for surveillance and response.

### The national level capacities include:

#### *Assessment and notification.*

- (a) to assess all reports of urgent events within 48 hours; and
- (b) to notify WHO immediately through the National IHR Focal Point when the assessment indicates the event is notifiable and to inform WHO as required

#### *Public health response.* The capacities:

- (a) to determine rapidly the control measures required to prevent domestic and international spread;
- (b) to provide support through specialized staff, laboratory analysis of samples (domestically or through collaborating centres) and logistical assistance (e.g. equipment, supplies and transport);
- (c) to provide on-site assistance as required to supplement local investigations;
- (d) to provide a direct operational link with senior health and other officials to approve rapidly and implement containment and control measures;
- (e) to provide direct liaison with other relevant government ministries;
- (f) to provide, by the most efficient means of communication available, links with hospitals, clinics, airports, ports, ground crossings, laboratories and other key operational areas for the dissemination of information and recommendations received from WHO regarding events in the State Party's own territory and in the territories of other States Parties;
- (g) to establish, operate and maintain a national public health emergency response plan, including the creation of multidisciplinary/multisectoral teams to

- respond to events that may constitute a public health emergency of international concern; and
- (h) to provide the foregoing on a 24-hour basis.

Intermediate level:

- (a) To confirm the status of reported events and to support or implement additional control measures; and
- (b) To assess reported events immediately and, if found urgent, to report all essential information to the national level.

Local community level and primary public health response level:

- (a) To detect events involving disease and death above expected levels for the particular time and place
- (b) To report all available essential information immediately to the appropriate level of health care response.
- (c) To implement preliminary control measures immediately

To meet the surveillance and response requirements for the IHR, capacities that need to be developed, include among others, a legal and political framework, mechanisms of coordination, an event management system, early warning, alert and response systems, case management and infection control, field epidemiology training, quality laboratory systems, outbreak communications and social mobilization.

### **III. WHO's Response**

There is a clear need to strengthen national surveillance and response systems to meet the IHR requirements. To this end WHO has developed an Areas of Work for IHR Implementation framework, that outlines 7 strategic areas of support. The goal is to provide a global alert and response system built on partnership, quality, and transparency that is based on:

- (a) Strong national public health systems able to maintain active surveillance of diseases and public health events, able to rapidly investigate reports, assess public health risk, share information, and implement public health control measures.
- (b) An effective international system that supports disease control programmes to contain specific public health threats, is able to continuously assess the global picture of public health risks (global risk assessment), and is prepared to rapidly respond to unexpected internationally spreading events.

A number of regional and global networks are dedicated to disease surveillance, prevention and response. WHO is operating many of them, such as the global influenza surveillance network, the poliomyelitis laboratory network and the International Food Safety Authorities Network (INFOSAN), while a number of intergovernmental organizations have developed their own regional network, such as the Early Warning and Response System of the European Union.

WHO's international alert and response activities use local, regional and global knowledge of the technical evidence-base, situational context, operations, and risk

communication to assess acute public health events, and identify public health risks and vulnerabilities in accordance with WHO's mandate under the International Health Regulations.

The 7 areas of work for IHR implementation include:

*1. Fostering global partnerships*

In a closely interdependent world, global partnerships are essential to the successful implementation of the Regulations. Partnership is required between all countries to share technical skills and resources, to support capacity strengthening at all levels, to support each other in times of crisis and promote transparency. Partnership between different sectors (e.g. health, agriculture, travel, trade, education, defense) is also essential to build coherent alert and response systems which cover all public health threats, and, at the time of events, are able to rapidly mobilize the required resources in a flexible and responsive way.

*2. Strengthen national disease surveillance, prevention, control and response systems:*

This is the cornerstone for enhanced national and international public health security. By strengthening national public health systems, specifically in the area of disease surveillance and response, countries can detect, assess, and respond to public health threats in a timely manner and prevent international spread.

*3. Strengthen public health security in travel and transport:*

the control of diseases at border crossings remains a fundamental element of the Regulations. A number of IHR (2005) requirements apply to designated airports, ports and ground crossings. They entail close collaboration with other UN organizations (e.g. International Civil Aviation Organization (ICAO), International Maritime Organization (IMO), World Tourism Organization (WTO) and industry associations (e.g. International Air Transport Association (IATA), Airports Council International (ACI)).

*Prevent and respond to international public health emergencies*

*4. Strengthen WHO global alert and response systems:*

effective global systems for alert and response are critical to provide global risk assessment, support countries that request assistance, mobilize international resources and coordinate international response. Such systems monitor global public health threats, assess risks, and complement national alert and response systems.

*5. Strengthen the management of specific risks, including control programmes for chemical, toxic and environmentally induced events.* The improvement of international control efforts to contain, eliminate, or eradicate epidemic-prone diseases is one of the most effective ways to improve international health security. The same applies to control programmes which aim to reduce the public health risks associated with chemical, toxic and environmentally induced events.

*Legal issues and monitoring*

*6. Sustain rights, obligations and procedures:* to properly implement IHR (2005) it is essential that all relevant national and WHO staff be fully aware of, and understand,



the new rights, obligations and procedures laid out in the Regulations. In addition, a number of legal bodies and procedures (e.g. National IHR Focal Points, WHO IHR contact points, international roster of experts, emergency and review committees) must be identified and/or set up and maintained.

*7. Conduct studies and monitor progress:* monitoring and evaluating the implementation of the IHR is essential to provide States Parties, the WHA and partners to the implementation with information on progress and/or difficulties in implementing the Regulations. This will allow proposals for improvement.

#### **IV. Challenges in implementation of IHR core capacities**

While many countries have made great strides in detecting and responding to priority health events, many countries still have weak surveillance and response systems that need to be strengthened. Further developing rapid response capacity, laboratory capacity, preparedness, infection control and case management are only a few of the area that need to be addressed. Keeping the momentum for, and subsequently the investment in the IHR is critical. While political commitments has been made at the highest levels to the IHR in countries, mobilizing the resources needed for a functional surveillance and response system that meets the requirements of the IHR remains a critical issue that needs to be addressed in a sustained manner.

#### **V. Conclusion**

The IHR provides a global framework for strengthening WHO and Member States capacity to manage national and international processes, activities and information during public health emergencies. The procedures for interaction, communication and joint risk assessment between WHO and countries facilitates the process of notification, risk assessment and collective action envisaged in the WHA resolutions<sup>2</sup> on compliance with the IHR. WHO's ability to capture, interpret and disseminate accurate and timely information, and to coordinate support to countries for timely risk assessment, rapid outbreak response, access to technical guidance and support, and information management is crucial to international health security.

It requires countries to strengthen their core surveillance and response capacities at all levels of the health system to meet with the challenges posed by public health events of international concern, as well the opportunity to detect and respond to national priority events. Partnership is key for the successful implementation of the IHR. Building on existing resources and strategies is important, and monitoring progress, evaluating outcomes is a critical component of surveillance and response, and for the IHR implementation.

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<sup>2</sup> See International Health Regulations (2005), WHO

## **Increasing and Strengthening Human Resources for Surveillance**

**Dr. Hamid Jafari**

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### **Introduction and Background**

Surveillance for acute flaccid paralysis (AFP) linked to a WHO-accredited poliovirus laboratory network is one of the four basic strategies for global polio eradication. Globally, WHO supports a network of more than 3300 surveillance staff and 145 national, regional reference and global specialized polio laboratories.

In the countries of the South East Asia Region of WHO, the management of AFP surveillance systems is variable and is specific to the country situation. In India, Nepal and Bangladesh, the surveillance systems are mainly funded and managed by WHO. In Myanmar and Indonesia the systems are partially funded by WHO but managed by the government. In other countries the system is supported and managed by the government. The determinants of surveillance quality in the countries include the management of the system, availability of trained human resources and adequate funding.

The National Polio Surveillance Project (NPSP) was created in 1997 by WHO in collaboration with the Government of India (GoI) with the objective of establishing AFP surveillance in India. The project is managed by WHO and currently is comprised of 298 surveillance medical officers who are supervised and supported by 27 Sub-regional team leaders and 7 Regional team Leaders. The project is led by the Project Manager and is supported by three additional international WHO staff and a number of technical, administration and Finance teams located in the central unit in Delhi. The total personnel strength of the project is around 1200.

### **Geographic Coverage and Scope of the System**

Depending on the endemicity of polio, operational challenges, and the capacity of the states in India to implement surveillance activities, the average number of

districts covered by an SMO varies between 1 district per SMO (polio endemic states), 3 districts per SMO (areas of moderate risk) and around 5 districts per SMO (better-performing polio-free states).

Each one of the 613 districts in India is covered by the network of SMOs. More than 10,600 disease reporting units report weekly, including zero reports, to the network. These reporting units are comprised of government and private hospitals and health centers. In addition, 18,500 informers comprised of medical practitioners, traditional healers and temples/shrines report AFP cases. More than 40,750 AFP cases have been reported and investigated in 2007. Stool specimens collected from AFP cases are tested in one of the 8 WHO-accredited poliovirus laboratories in the network. In 2007, 78,600 specimens were collected, shipped and processed by the laboratory network.

### **Role of Human Resources in Key Surveillance Functions**

The NPSP SMOs ensure timely AFP case detection, immediate reporting and investigation through ongoing analysis of health facility contacts of patients, advocacy, sensitization and orientation of reporting sites, and training and capacity building of district immunization staff. Although the district immunization officers are responsible for all case investigations, a vast majority of AFP cases are examined and reviewed personally by the SMOs. SMOs closely monitor and track specimen collection, handling, and shipment to laboratories.

Data on cases and system performance are managed and analyzed at the district level by SMOs for local feedback, dissemination and action. Data are sent every week to state and national levels for additional analyses, action and weekly publication. Data on laboratory results are also sent weekly by network laboratories and are linked with case data at the national level. Given the large volume of specimens processed by the network, each laboratory is provided funding by WHO for additional staff.

### **Key Success Factors**

There are a number of key success factors that are responsible for this high performing surveillance system. These include:

- **Quality Control:** There are several mechanisms in place for ongoing quality control of the system. Standards for surveillance performance indicators have been established globally and are monitored and analyzed regularly at all levels. In addition to timeliness and completeness of reporting these indicators include non-polio AFP reporting rates and percent of AFP cases with adequate specimens. In addition, periodic district and state surveillance reviews are undertaken from the national level with participation of external experts.

Each laboratory uses standardized methodologies and reagents and annually undergoes proficiency testing and a rigorous process of WHO accreditation. The laboratories are monitored for timeliness of result reporting.

- **Logistics and personnel support:** Each SMO is provided with a vehicle and a driver and a mobile phone to ensure mobility and communication. Each SMO unit office is staffed by an administrative and data assistant and is equipped with computers, internet/email, fax machines, photocopiers etc.

- **Partnerships:** Longstanding partnerships with funding and technical support from a wide range of partners have been instrumental in establishment and running of the project. These include: Government of India, Rotary International, DFID (UK), CDC, USAID, UN Foundation, and KFW (Germany).
- **Poliovirus Laboratory Network:** The AFP surveillance is linked to a highly reliable and efficient network of laboratories that provides real time information on poliovirus. These laboratories perform virus isolation, serotyping, intra-typic differentiation (Sabin vs wild poliovirus) and genetic sequencing of poliovirus isolates. As members of the network, a variety of government and academic research laboratories are functioning in a new paradigm of national public health laboratories.
- **Role of WHO:** The involvement of WHO has brought a high level of technical rigor and management oversight to this large project. This in turn has attracted energetic, talented and committed Indian medical professionals into the project. The structure and systems put in place have ensured a solid supervisory, training and monitoring system for staff, competitive remuneration, and most importantly, adequate decentralization of authority to facilitate local travel, rapid decision making, and implementation of activities.

The project has also been very effective in building capacity of government staff through ongoing training and joint implementation of activities as well as deputation of government staff to the NPSP. At any time, 50% to 60% of medical officers are on multi-year deputation to the project from state and central governments. These staff develop a range of skills including public health leadership, technical expertise, program management, advocacy and negotiation.

WHO support to laboratories includes ongoing funding, provision of reagents and specialized equipment and training of staff. Management of the laboratory network focuses on routine internal and external quality assurance processes.

## **Beyond Polio Eradication**

The NPSP provides a very robust platform for surveillance of other diseases of public health importance and monitoring of immunization activities. In polio-free states of India, the system of reporting and the infrastructure for AFP surveillance is being used for reporting of measles and investigation of measles outbreaks. Similarly, given the seasonal outbreaks of Japanese encephalitis in known endemic areas of India, NPSP is assisting the government of India by establishing sentinel surveillance for acute encephalitis/meningitis syndrome (AES). Both the measles and AES surveillance is linked with a network of WHO-accredited laboratories. NPSP has also assisted the national and state governments with investigations of outbreaks of other diseases and public health emergencies, for example cholera, earthquake and tsunami.

In addition to surveillance of vaccine-preventable diseases, NPSP plays a central role in assisting the central and state governments in planning, implementation and monitoring of polio vaccination campaigns. Increasingly, NPSP is also assisting the states in improving immunization coverage through better planning and monitoring of routine immunization activities.

## **Conclusion**

The National Polio Surveillance Project in India is an excellent model of a robust and high quality syndromic disease surveillance system that is geographically representative, is linked with a strong laboratory network that provides accurate and timely data for action, and is able to detect and investigate a large volume of cases and specimens. Recognizing the key success factors that include ongoing quality control by WHO, adequate staffing and logistics support, strong partnerships, and a sound management system, this model can be expanded and adapted for detecting and responding to other diseases of public health importance.

## **Enhancing Community-Based Disease Surveillance in Rural and Low Resource Settings Using Affordable ICT Interventions**

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December, 2007

### **Background Paper**

#### **The Challenge**

The core functions of public health make it an immensely information-intensive field, requiring constant measurement of operational parameters, program outcomes, and health conditions over large populations, for specific program goals. In many cases, such measurements are extremely time-critical, location-specific, or require frequent measurements (such as logistics management). Disease surveillance and reporting presents its own host of challenges in terms of human resources, diagnostic capabilities, lab capacities, communication, and the need for rapid decision making and action. Breakdowns, delays, or poor quality information from the ground threaten the health sector's ability to respond to lesser events or prevent large-scale crises.

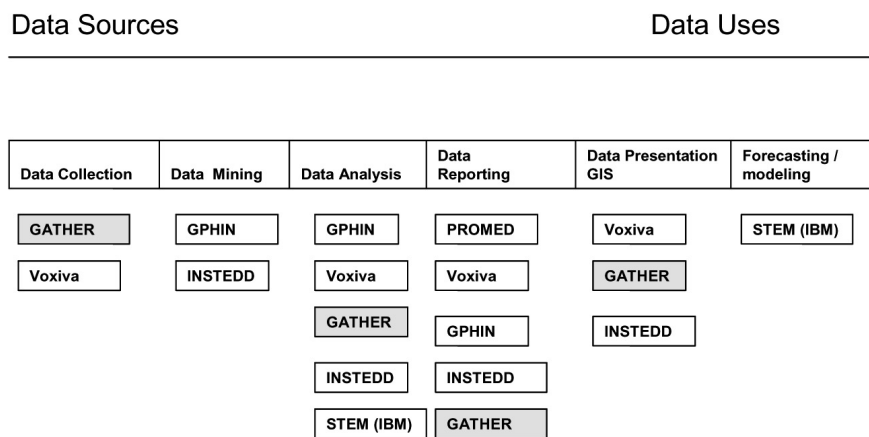
Unfortunately, it is precisely those rural and remote environments that possess the least information and communications infrastructure which are most susceptible to devastating infectious disease outbreaks. A significant barrier to success in the global fight against these diseases is the lack of a coordinated communications system to link all arms of the health care delivery system and provide accurate and timely information. The Institute of Medicine (IOM) links the ability to deliver public health effectively with access to "timely, accurate and authoritative data from a wide variety of sources," while the World Health Organization (WHO) advises that developing an information system for use in managing and monitoring diseases is critical in the fight against them. Therefore, while much of the effort to improve infectious disease surveillance must

focus on improving human resources and lab capacity, the urgency of developing the capacity to gather data and the necessity of building the infrastructure to effectively disseminate information must not be neglected.

A growing awareness of the power of information and communication tools when applied to public health activities has accompanied the expansion of technology to developing environments. In remote areas, we have seen that ICTs can provide new opportunities to improve the timeliness and quality of both routine public health data and critical disease surveillance and reporting. These ICT initiatives support the concept of a continuum of information collection and analysis needs and the necessity of considering a broad spectrum of approaches and technologies. While AED-SATELLIFE has focused on ground level data collection and reporting tools, it is important to see these efforts in context.

Figure 1 illustrates several of these activities in the ecosystem ranging from data collection to data application.

Figure 1. Continuum of Data Sources and Data Uses



We can see that geo-coded data from individual health centers can find its way into the most sophisticated data modeling systems that help predict outbreaks and the potential impact that they may have. However, in order for the data analysis and modeling tools to produce actionable, analyzable information, data must be accurate and timely, and flow from the very first interaction with the health system - at the community and patient level.

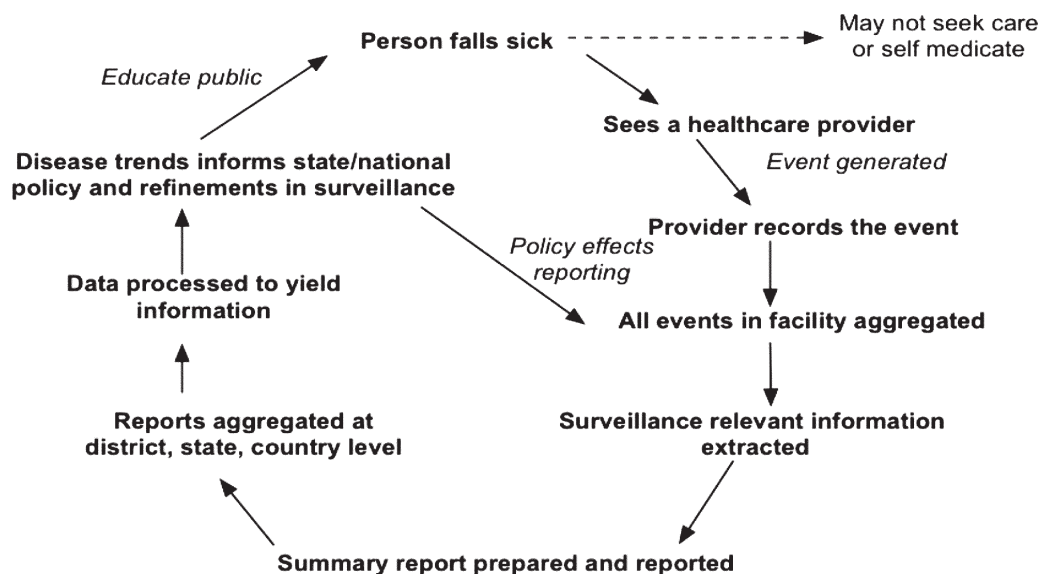
Many organizations involved in public health are still grappling with antiquated information systems. A majority of such organizations lack the information technology expertise and budgets to implement custom-made or off-the-shelf modern information management systems. This handicap has assumed greater significance at a time when public health and environment are facing global crises. Infectious diseases remain major killers; some once thought conquered are reemerging in newly resistant forms, while new ones pose novel threats. As public health intervention programs grow to counter these challenges, their effectiveness is contingent on the use of modern digital information collection, analysis, and dissemination technologies.

To understand the complexity of information management in a large-scale program, let us examine some of the steps involved in disease surveillance, which, if conducted on a national level, can be a major undertaking. Public health

authorities usually carry out disease surveillance, which requires health care providers (physicians' offices, hospitals, etc.) to submit regular reports on the occurrence of infectious diseases like cholera, malaria, etc. This process is usually passive; that is, the healthcare providers are expected to report findings to the authorities, preferably as soon as infectious cases are seen. However, in many cases, reporting is delayed or does not occur at all.

Figure 2 shows a simplified model of the surveillance process. The process begins when a person falls ill with an infection. Many people self medicate, while some seek care by visiting a health care provider. The provider usually records this medical event, which, in due course, is aggregated with other records in the same facility. The facility may then report summary statistics of interest to the appropriate health authorities. Once reported, the authorities may investigate certain cases or further aggregate the data to calculate general epidemiological statistics, which are used to inform health care policy decisions at a national level.

Figure 2. Surveillance Information Life Cycle



As demonstrated in Figure 2, there are many steps in the disease surveillance process and at each point some data is collected, analyzed, and reported. An ideal information system would address all the steps while minimizing the time from event detection to final event reporting.

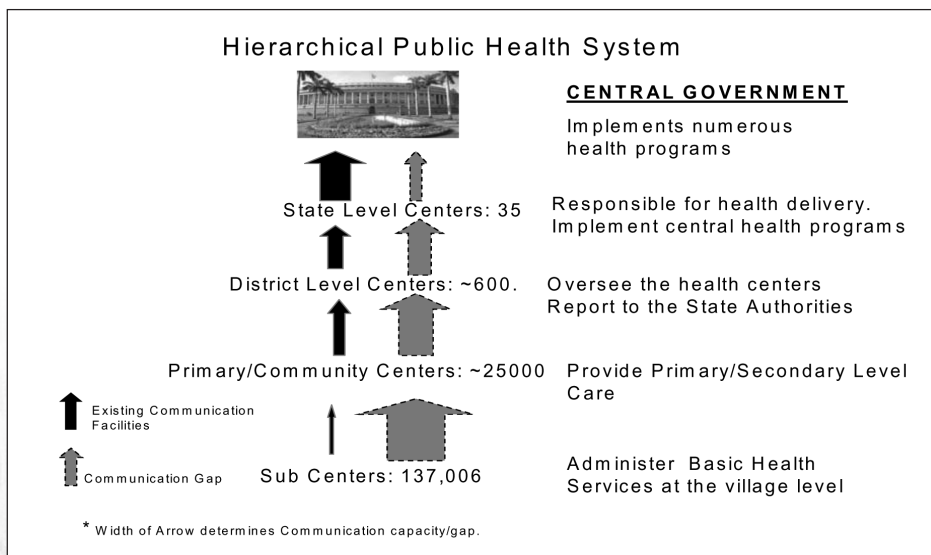
Several limitations in current disease monitoring and other public health information management systems make them unsuitable to counter threats and challenges to public health or the environment. Many health organizations still use paper as the predominant means of data collection, storage, and dissemination. While there are some cases in which paper-based data collection may be the optimal solution, this mechanism has many downsides. Paper forms often lead to duplicate data entry; they have to be transcribed or aggregated by hand; and they suffer from lack of error checking. Data collected on paper forms is usually mailed or hand-delivered, introducing additional potential points of failure and opportunities for delays. Moreover, paper forms are difficult to organize and structure and thus do not lend themselves to decision support or analysis.



Another drawback of currently used paper-based information management systems is their inability to effect two-way communication exchanges between peripheral and central organization staff. In such systems, data is usually fed from the periphery (remote field locations) to the center, but the analyzed and summarized information is rarely communicated to the peripheral workers except for program updates or policy changes. This leads to *uninformed* and sometimes even *disillusioned* workers, who expected to learn from the data they collected. In addition, the pipeline of communication in such systems is not sufficient to enable rapid dissemination of any urgent information from the top to the bottom.

The top-down, pyramidal, organizational structure of most public health departments can itself become a barrier to efficient data collection, limiting effective monitoring. Departmental hierarchies magnify the pitfalls of paper-based information systems. For example, in India's public health care system (Figure 3), the organizational setup typically results in separate programs being implemented for each public health issue, such as immunization camps, maternal and child health clinics, etc. each of which requires and conducts its own separate data collection and monitoring activity. Because most programs collect at least some overlapping data elements, this practice leads to redundant data entry by the public health workers in the field. The data, controlled by the program that collected it resides in multiple separate databases, one for tuberculosis, one for HIV, another for immunization, and so on. These silos of information make it difficult to analyze data across diseases or geographic areas, or to identify broad trends.

Figure 3. India public health system organization as an example of hierarchical organization



## The Response

Advances in affordable mobile computing and the burgeoning availability of cell phone and Internet communication technologies have created an opportunity to save lives and improve the quality of life for millions of people by applying information and communications technologies to health delivery systems in resource-constrained environments. By moving from today's paper-and-post data collection systems to

technology-based systems that offer better timeliness, accuracy, and ease of use, we can bring data collected at the most remote edges of health service delivery efficiently and cost-effectively to the highest levels of data aggregation and analysis.

The focus of AED-SATELLIFE's work in this arena has been two-fold. Over the course of the last five years we have trained health care workers in a variety of settings to use handheld and mobile technologies effectively in their daily work. We have established data communication networks in two countries covering a total of 280 rural health clinics that now complete and transmit their weekly disease surveillance and other weekly and monthly reports electronically. These projects have demonstrated both the capacity of rural health workers to use technology routinely over a sustained period and the efficacy of a technology intervention to improve the quality and timeliness of reporting. The networks that we have developed have proven to be cost-effective and sustainable and have been used not only for upstream reporting, but to support the dissemination of treatment guidelines, official communications, and continuing education materials, including those relevant to improved diagnosis and treatment.

It is important to note that technology can not solve everything. The barriers posed by the top-down hierarchical organizational structure discussed earlier are not eliminated by modern systems. Organizational structures, necessary to ensure effective management, will remain with both their challenges and benefits. However, information systems can help the decision-making process be more informative and effective.

Organizations will face barriers to achieving end-to-end digital data collection. Public health delivery organizations often operate in remote and rural regions that may not have the infrastructure (such as electricity and secure locations) to support desktop-based information systems. Available paradigms of information systems designed to support data collection in well-equipped and networked environments, such as large logistics or retail companies, may not be appropriate to such resource-constrained environments.

Most organizations lack the in-house expertise and budgets to implement custom-made modern information management systems. Many of them also cannot afford off-the-shelf proprietary solutions. Those who can afford them often find that they have hidden costs. Because of their proprietary nature, it can be expensive to purchase the services to install, configure, and maintain them. Also, because of their proprietary nature, it can be difficult or impossible to have local developers gain the knowledge and access needed to extend these systems to meet evolving local needs. This can lead to systems that are not sustainable due to expense or communication gaps between end-users and those who have the capability to extend the systems. As a result, there is a need for a non-proprietary, flexible, and extensible software architecture to enable large-scale data collection, aggregation, and analysis for organizations providing health services, education, and environmental protection.

Over the past fifteen years, there has been tremendous growth in open-source software and a corresponding acceptance of such technologies in advanced systems development. Many "industrial-strength" information systems are currently powered by open-source software. AED-SATELLIFE has been working to develop an open source platform that will enable us to employ a broad range of data collection appliances - PDAs, cell phones, voice telephone, traditional computers, and paper -

to collect and transmit data over a variety of communications networks and to gather that data into a unified database.

Our goal is to create an affordable, flexible platform that can be used by public health organizations. By employing open-source components and mobile, low cost tools we aim to also make it easier for local developers to maintain and extend applications, thereby reducing the reliance on external developers and achieving a reduction in the total cost of ownership. Empowering local developers also helps ensure that the system evolves to meet the changing needs of local users. Employing open-source components in the design and architecture for a digital data collection, analysis, and reporting system for public health and related organizations would significantly reduce the upfront financial investment needed to implement such proprietary systems. Such a system will not only enhance data collection and reporting in low-resourced environments, it will transmit automatic outbreak alerts triggered by the database to people in the district or, in fact, anywhere in the world.

Advances in affordable mobile computing and the widening availability of communication technology have created an opportunity to improve the delivery, monitoring, and planning of large-scale public health programs in resource-constrained environments. Computers have become inexpensive enough to be used in locales where they were all but unknown a decade ago; there are now over two billion cell phone users throughout the world. Mobile technologies create the possibility of migrating from the current paper-and-post data collection systems being used in public health and other sectors to technology-driven systems that offer much-improved timeliness and accuracy of information and yet are easy to implement, use, and maintain.

## Community level surveillance for guinea worm disease eradication

By Dr Ahmed Tayeh

### Abstract

Dracunculiasis (or Guinea Worm Disease) eradication has been successful in reducing the number of endemic countries from 20 countries reporting about one million cases in 1989 to only 5 countries reporting about 10,000 cases in 2007. A key strategy has been the use of trained community-based volunteers to conduct active surveillance, early detection and treatment of cases, maintain case registers and provide monthly reports. These volunteers have also played an instrumental role in health education of communities. These networks form an infrastructure that is being used by other disease control programmes to reach populations that would otherwise be inaccessible. The challenge is to integrate those volunteers into the health system before the national guinea worm eradication programme start to wind down.

### 1. Introduction

Dracunculiasis, or guinea worm disease, is a painful and debilitating parasitic disease caused by *Dracunculus medinensis*, the largest nematode known to infect human. The disease is exclusively transmitted through drinking contaminated water. Although recognized since antiquity and previously widespread, the disease was largely confined during the last two centuries to poor rural and isolated communities lacking access to safe water supplies.

The transmission cycle requires the infected person to immerse the affected part of the body, usually the leg or foot, in water to relieve the pain. This stimulates the worm to release hundreds of thousands of larvae. The larvae are ingested by a suitable species of tiny predatory crustaceans (copepods), where they develop further. The cycle continues when humans ingest the infected copepod in contaminated drinking water. One year later, the mature female worm, measuring 0.6-0.9 metres in length, begins to

emerge from its human host contaminating the drinking water sources, usually ponds and shallow wells. Infection is characterized by an extremely painful swelling, a blister, and then an ulcer accompanied by fever, nausea, and vomiting.

Each infection lasts approximately one year and gives no protective immunity. Persons may be simultaneously infected with several worms. The disease has no vaccine or treatment that can kill the parasite before its emergence. Removal of the worm, traditionally by winding it on a stick, is slow and painful. The disease, which temporarily crippled infected persons for at least a month and prevents them from performing their daily duties - from child care to school attendance and agricultural activities - has a profound economic impact on households and communities.

As humans are the only reservoir, the parasite will become extinct once the cycle of transmission is interrupted. Transmission can be prevented by: (i) early case detection and containment, preventing affected people from entering water bodies; (ii) providing drinking water which is free of copepods, such as by filtering the water through finely woven cloth, (iii) by killing copepods and larvae with a pesticide (temephos) applied to open ponds, (iv) providing safe sources of water such as wells or piped water; and (v) health education to reinforce all such measures.

In 1991, with the disease being endemic in 20 countries, the World Health Assembly resolution 44.5 established the goal of eradicating dracunculiasis by the end of 1995. Although this goal was not achieved, the reported number of cases decreased by 70%, from approximately 423,000 cases in 1991 to 130,000 cases in 1995. The partners supporting the eradication continued to press on to mobilize more support for the national eradication programmes and resolve to eradicate the disease soon. In 2004, the number of cases was further reduced to 16,000 in 11 countries (WHO, 2005a). The World Health Assembly urged member states and partners in 2004, through resolution WHA57.9, to continue their commitment to complete eradication by 2009. By the end of 2007, the number of endemic countries was only 5 reporting about 10,000 cases (Fig 1, 2a and 2b). Ghana and Sudan alone reported 97% of the number of cases (3274 cases and 6096 cases, respectively), Mali reported 223 cases, Niger and Nigeria reported a total of 55 cases.

A key strategy has been the use of trained village-based volunteers or the village Health Workers to conduct active surveillance and detect and treat cases, maintain case registers, and provide monthly reports. These volunteers have also played an instrumental role in health education of communities.

## **2. Village-based Health Workers and their selection and activities**

Soon after the adoption of the resolution to eradicate guinea worm disease, by the World Health Assembly in 1991, the endemic countries, with the assistance of WHO and other partners, established their National Guinea Worm Eradication Programme. The National Programmes aimed first at evaluating the numerical importance of the disease, as well as its geographical distribution with the identification of all endemic villages. The next steps of the Programme were to implement the eradication strategy in each and every affected village and to set up a surveillance system at the village level. For this purpose, a village-based health worker was identified by the villagers and subsequently trained to implement the strategy and collect basic epidemiological data on the disease for surveillance purpose.

Village-based volunteers have different names in each guinea worm endemic country. They are called Village-based Health Workers (VHWs) in Nigeria, Community-based Surveillance System Volunteers in Ghana, Health Promoters in South Omo and village-based volunteers in Gambella, both in Ethiopia. In this paper, the title Village-based Health Workers (VHWs) will be used.

The number of VHWs increased progressively per year. Fig 3 shows the increase in the number of villages with monthly reporting cases at the end of each year from 1989 to 1993. The number of villages reported cases were about 17,000 villages although the number of villages under surveillance was about 20,000 villages (Cairncross *et al.*, 1996). In order to reduce cost, some programmes started to drop villages from the list of villages which were under surveillance after one year of reporting zero cases because external partners terminated financial support to these villages. Some other countries continued to support guinea worm freed-villages from their own resources. In the same time there were villages that emerged as newly endemic and require surveillance. In 2001, There were 11,688 villages that were under surveillance. In 2003 and 2004 the number of villages that were under surveillance were 8326 and 7918 (excluding Côte d'Ivoire, Mauritania, Niger and Nigeria) respectively. In 2006, Ghana and Sudan reported 2,238 and 19,152 villages under active surveillance respectively. In each of these villages, at least one VHW was trained to detect cases and was equipped with supplies to contain cases and with surveillance forms to record cases. The number of VHWs varied from country to country and from year to year. In Ghana in 2001, there were 13,260 trained VHWs (9280 males and 3980 females). In South Sudan, there were 10,745 trained VHWs in 3137 endemic villages by end of 2006.

VHWs are usually chosen by their communities. In Ghana, most of them have been working for the programme since it was started in 1989. The criteria for selecting the VHW varied from country to country. In Nigeria, the VHWs were required to be literate in order that they complete the surveillance forms. But this led to the appointment of "village-based health workers" who were not usually resident in the village but in nearby towns. In Mauritania and Niger, most of the VHWs were illiterate. Relaxing the literacy requirement made it possible to recruit women as VHWs. In Mauritania, 80% of VHWs were women. Women VHWs were found to be more reliable than men, particularly married women as they did not leave their villages.

VHWs do not work for the guinea worm programme only but carry out surveillance and health promotion for other health programme. In Ghana, VHWs conduct the following (i) infants and maternal mortality surveillance, (ii) Acute Flaccid paralysis and participation in the polio eradication campaigns, (iii) Meningitis detection and reporting, (iv) Tetanus surveillance, (v) Elimination of elephantiasis campaign, (vi) Reports suspected cholera outbreaks and (vii) Active surveillance and report of any other strange disease.

### **3. The surveillance system**

Any eradication programme depends greatly on efficient surveillance (Richards and Hopkins, 1989). The surveillance system was designed in a pyramidal structure whereby data collected at village level were compiled at district level and then sent to the national programme headquarters for processing and analysis.

Ghana and Nigeria were the first in Africa to establish surveillance system with the VHWs as its backbone in 1988. In this context, it is useful to take Ghana as an example to explain the hierarchy of the Community-Based Surveillance System (CBS) as it is known in Ghana which was used for guinea worm surveillance and interventions, mainly in the Northern Region; the largest region in Ghana and highly endemic with guinea worm disease. The responsibilities of VHWs were to detect, contain and report guinea worm cases on a monthly basis and raise awareness on prevention. The system expanded in 1997 to include other diseases and health events such as polio, cerebrospinal meningitis and measles as well as infant death, neonatal tetanus, pregnancy-related death, all other deaths and new birth. The system extended to cover two more regions, Brong-Ahafo and Volta, and parts of other regions. Large amounts of resources have been invested in the development of this system, which currently comprises about 7,000 trained VHWs, one or more in almost all the villages that were endemic with the guinea worm. The VHWs were expected to daily visit all households in their villages. In large villages with scattered households, this can not be done when only one VHW was covering a village. Thus, Red Cross Mother's Club were recruited to support them. On average there were about 10 Red Cross mothers supporting the village volunteers which amount to 7,000. Those were supervised by Red Cross mother's club Coaches. Furthermore, large villages or towns were divided into sectors, each with its own pair of VHWs. Zonal and Area Coordinators were appointed to accommodate this change (WHO, 2005b).

The second level of the community-based surveillance in Ghana was the Zonal Coordinators who were each supervising from 10 to 20 VHWs. Because this level was found to be the weakest link in Community-Based Surveillance System during 2005 evaluation, it was recently reinforced by Area Coordinators. One Area Coordinator was supposed to cover about 5 Zonal Coordinator. Zonal Coordinator main task was to supervise VHWs and collect data from them and send it to Area Coordinator. The sub-district level was not fully involved in the system. However, sub-district sought the support of the VHWs when they implemented health interventions in the villages such as Polio vaccination and Vitamin A distribution. The lack of manpower and transport seemed to be a major constraint at that level. At district level, District Coordinators were usually responsible about the Community-Based Surveillance network in their district. The Regional Coordinators tended to intervene at district level mainly to meet the districts' needs. The programme also created the "stop team," which was employed during the guinea worm transmission period to provide assistance in active surveillance. They were well paid to report every new case in their specific communities. The stop team carried out surveillance in the same areas as the volunteers.

Another example of surveillance hierarchy is in South Sudan where the surveillance system was re-established in early 2006 after signing of the Comprehensive Peace Treaty. The Programme recruited 10,745 trained VHWs in 3137 endemic villages in 2006. These were supervised by 896 Area Supervisors (one Area Supervisor for 15 VHWs). Those were supervised by 87 County Field Officers, 7 State Field Coordinators and 20 Technical Advisers (Recruited by The Carter Center). The network of health workers on different level functioned in a similar patten to Ghana Community-Based Surveillance System although the system collect data only on guinea worm disease.

#### **4. Preventive interventions**

The most powerful tools in monitoring eradication of dracunculiasis are village-based surveillance coupled to case containment, prevention and health education measures. Ideally, cases are identified prior to worm emergence or at the latest 24 hours after the worm appears. Containment measures are then initiated, the wound is bandaged to avoid further transmission and the patient is advised to avoid contact with stagnant water. Community members are educated regarding prevention and containment and encouraged to filter their drinking water. Health education activities can be combined with surveillance. The monthly household visit of VHW for the detection of cases, provide an excellent opportunity for discussion of preventive measures. They also organized public meeting to promote preventive measures. Furthermore, they also help the team who treat water sources by abate (temephos).

#### **5. Motivating the VHWs.**

In most countries, the motivation of those who serve the Programme in a semi-voluntary capacity - Village Health Workers (VHWs) and Zonal Coordinators, seems patchy in most guinea worm endemic countries. The classical mechanism has been to offer gifts in-kind, especially those which help the VHW perform her duties, or enhance their status. When these are not available on the market (e.g. tee-shirts and bolts of cloth), their value to the recipient far exceeds their cost to the Programme.

A recent study in Ghana (Liyosi, 2007) found that community selection of VHWs came out as a very powerful tool as most VHWs felt honoured and valued for being selected as VHW by their own people. VHW expected to eliminate GW and alleviate suffering of their community members especially at a time when they are needed most by their family and community. Some were interested in getting the experience, being popular in their community and humanity to their people. Other expected to eliminate guinea worm and be rewarded and employed either with public health services or any other programme. On the long run, they can not work continuously on voluntary basis, and they expect to be fully paid. Motivation of VHWs can be boosted by different ways as was found in the study (Liyosi, 2007) such as be registered and given health insurance together with their families, be given a reward to if they are get rid of guinea worm from their community, be given identification cards as VHW and a standard uniform. Monthly meetings of VHWs provided some incentives for both VHWs and Zonal Coordinators.

#### **6. Integration and prospect for the future**

Establishing the network of VHWs was a great investment which should serve other health problems. As more and more villages become free of guinea worm disease, it is hard to maintain the commitment of VHWs to search for a fading number of cases. The VHW would be reluctant to go from household to another in search of cases when the chance of finding one becomes very small. It is also difficult to keep the commitment of external partners to support them when the country becomes disease-free. Furthermore the cost of setting up the network is more than its yearly



maintenance. The main items are the salary of supervisors, retraining of VHWs and incentive to keep them motivated whether in-kind or cash (Cairncross et al., 2002). When villages become guinea worm disease-free, financial support to maintain VHWs were usually met from the general health budget which is usually small as partners terminate their support. This call for the integration of VHWs in primary health care and Integrated Disease Surveillance and Response.

Major problem in integration was seen as overburdening the VHW with other health issues. Another problem was the fear that eradication programme can be weakened by leaving it to weak primary health care system. Furthermore, integration will require extending the network to have complete coverage rather than concentrating on few endemic villages. Although all agencies concerned with guinea worm eradication were in favour of integration, this was always difficult to achieve in practice. But integration could benefit guinea worm eradication and other health agenda as far as it is thoughtfully done. In Ghana, VHWs who make monthly visit to record guinea worm cases are also recording birth and keep register of monthly immunization for children. The register of birth will also help providing identity documents. This makes the monthly visit of VHW more interesting rather than focusing on one seasonal disease which effect only few persons especially when the number of cases are reduced or seized to exist.

## 7. Conclusions

When eradication of dracunculiasis is achieved, it will mark the first complete victory over a non-viral disease with no medical intervention to facilitate its control. Progress to date has already demonstrated the feasibility of the community level surveillance and interventions to detect and contain guinea worm cases and influence population in endemic villages to change their behaviour in poor rural areas and the capacity of health education, provided by VHWs, to achieve this change.

If the existing network of VHWs are abandoned as guinea worm retreats, an unparalleled opportunity for better public health in Africa will have been lost. Efforts to combat dracunculiasis will produced a lasting benefit if the VHWs are incorporated into broader surveillance and prevention activities before the national eradication programmes began to wind down.

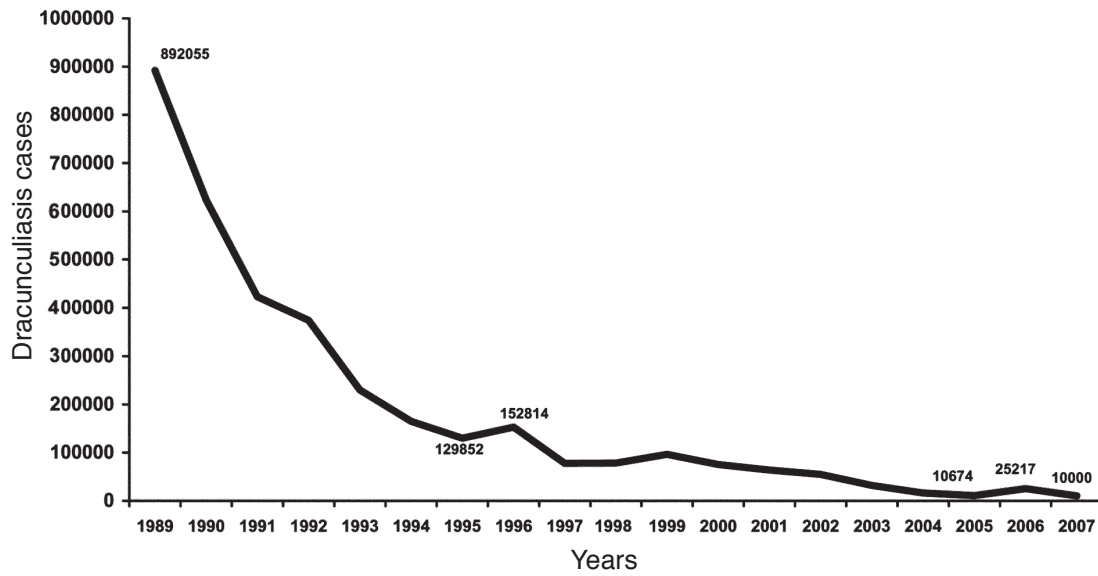
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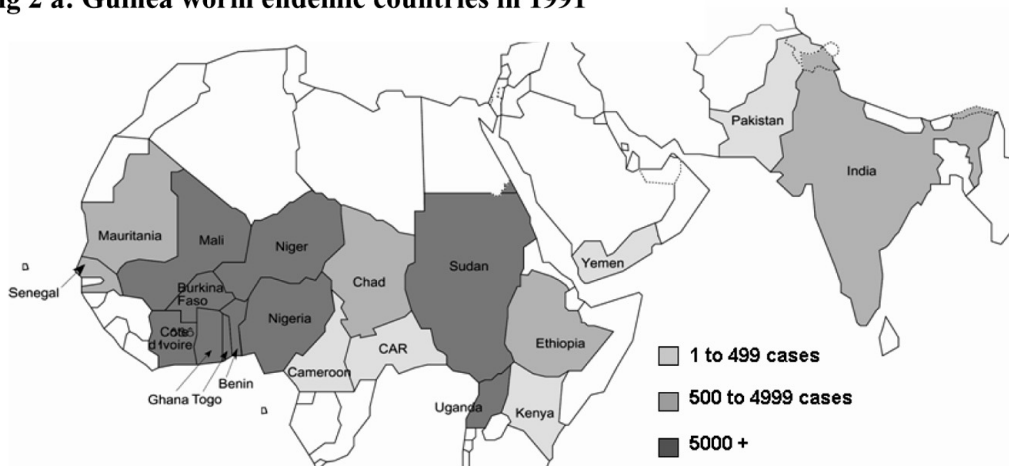
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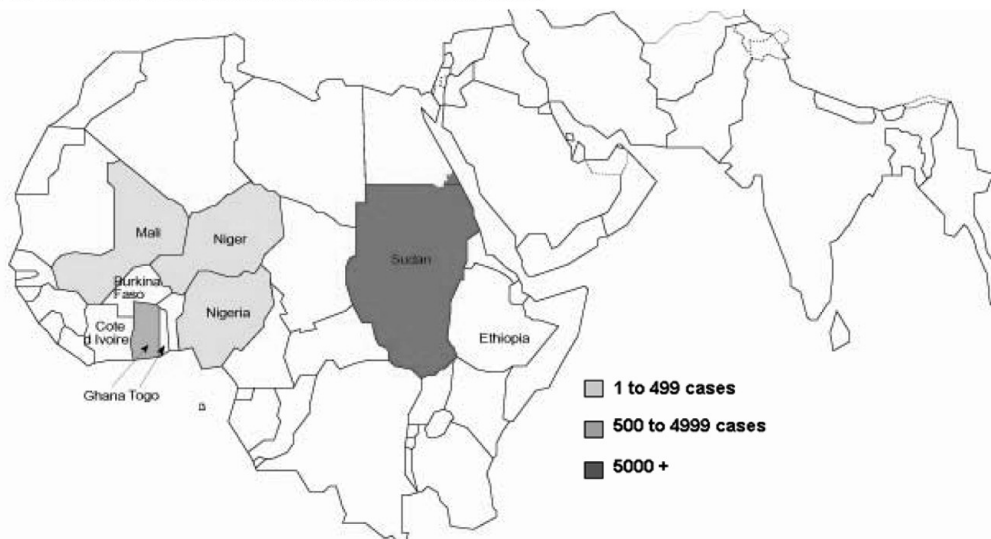
**Fig 1 Global number of dracunculiasis cases 1989-2007**



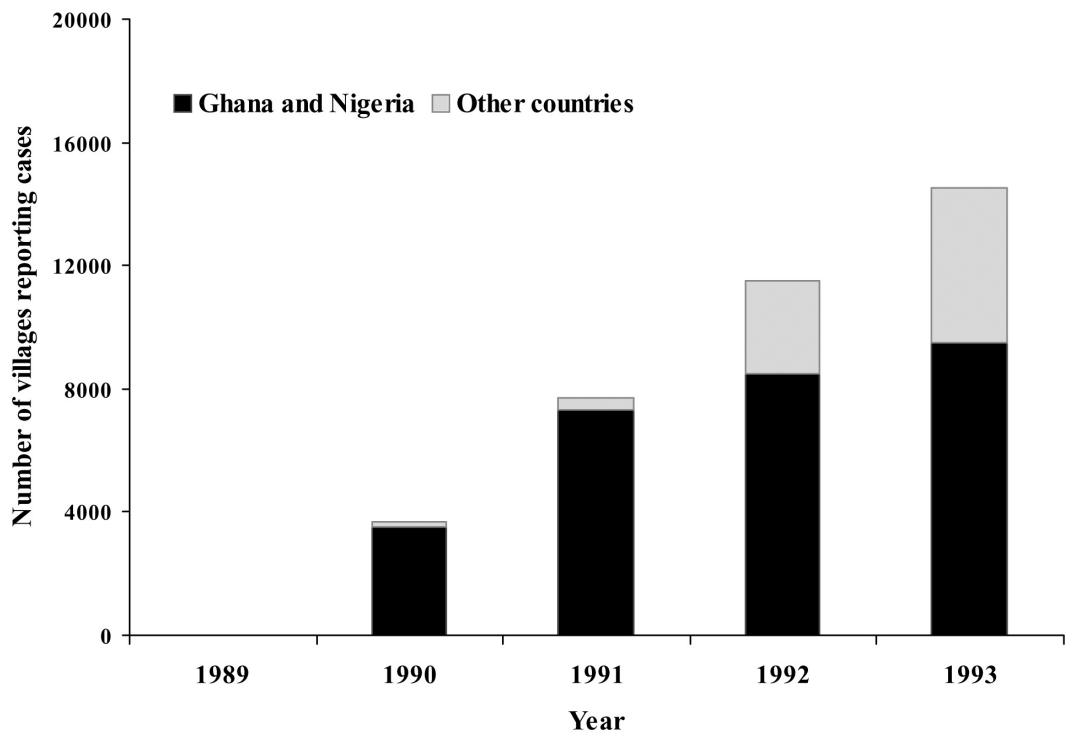
**Fig 2 a: Guinea worm endemic countries in 1991**



**Fig 2 b: Guinea worm endemic countries in 2007**



**Fig 3. Progressive extension of village-based surveillance for guinea worm in Africa**



Source: Cairncross, S., Braide, E.I. and Bugri, S.Z. (1996). Community participating in the eradication of guinea worm disease, *Acta Tropica*, **61**, 121-136

## **PUBLIC HEALTH SURVEILLANCE :**

### **LEARNING FROM REGIONAL NETWORKS - DIPLOMACY, SCIENCE AND TECHNOLOGY**

**Terence Taylor**

Director

Global Health and Security Initiative (NTI) <sup>1</sup>

#### **Abstract**

Invaluable experience has been gained by a number of regional disease surveillance networks in developing countries, in particular in South East Asia and the Middle East. These organizations are in effect proving grounds for developing novel approaches that could enhance the quality of disease surveillance worldwide. They have developed three elements that are vital to the success of such partnerships:

- A functioning, sustainable management architecture and structure created through careful cooperation and negotiation;
- Application of technologies appropriate to regional circumstances; and
- A foundation of trust between the governmental and non-governmental partners across national borders.

An important element in the development of the regional networks is the role of public/private partnerships between governments, international organisations (such as the WHO), private foundations and private companies. In support of the networks they are working together to enhance the capacity for more effective infectious disease surveillance in countries with limited resources.

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<sup>1</sup> Terence Taylor, Director Global Health and Security Initiative, NTI, 1747 Pennsylvania Ave NW, Suite 700, Washington DC 20006 ([www.ghsi.org](http://www.ghsi.org), [taylor@nti.org](mailto:taylor@nti.org)). The views in this abstract are those of the author and are not attributable to any particular organisation.

There is also an urgent need continue to bring resources and develop stronger public/private partnerships for these consortia to maintain their momentum and future development. Other regions of the world, in particular in Asia and Africa, could also share experience and techniques being developed in order to capture the diversity of settings and corresponding approaches.

Representatives from infectious disease consortia in Africa, the Americas, Asia, Europe and the Middle East, as well as leading experts in epidemiological surveillance and health informatics, met from 3 to 6 December in Bellagio, Italy to share experience to advance their capacity for infectious disease surveillance.

In three days of deliberations, the participants shared best practices and developed a plan for future action in three areas of vital concern. They are:

- The development of governance arrangements, appropriate to local political economic and social conditions. While no single model would suit all regions, the participants concluded that a flexible approach is needed to respond to nature of the political relationships between the countries in which the collaborating human and animal health organisations are located;
- The development, promotion and dissemination of best practices, techniques and capabilities in information and communications technologies to enable sharing and analysis of surveillance data across borders to facilitate appropriate responses to infectious disease outbreaks. Based on shared experience the participants considered that the encouragement of private/public partnerships is a vital element in securing much-needed advances, including novel technologies and approaches, in this regard; and
- To develop a plan to enhance core laboratory capacities to improve the ability for early detection and good quality diagnostics, particularly in the least developed countries where endemic infectious disease is of a serious magnitude. The participants considered that advances are required urgently, not only to enhance badly needed national capacities, but also to facilitate substantive cross-border cooperation between less developed and more developed countries.

At the Prince Mahidol Award Conference on 1 February 2008 the participants at the Bellagio conference will publish a declaration that will call for the action needed to respond to the areas of vital concern outlined above.



**Stella Chungong**

Coordinator, IHR Coordination Programme  
WHO

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*Dr.* Stella Chungong, MD, MPH currently works as Technical Coordinator for National Surveillance System Strengthening and Monitoring for the International Health Regulations (IHR), within the Director's office of the IHR Coordinator Programme, in WHO, Geneva. Her areas of work include coordinating WHO support to, and working with partners to support national surveillance strengthening and monitoring for the IHR. This includes the development of relevant indicators to monitor progress and evaluate outcomes of the IHR national surveillance strengthening efforts.

Prior to this position, Dr. Chungong worked within the Global Influenza Programme, in WHO Geneva, where she supported among other issues, national and global level activities for Avian and Pandemic Influenza in terms of risk assessment, outbreak investigation, training material development, training and pandemic preparedness planning. She has also worked as a coordinator of the Epidemiological Surveillance Team within the WHO Lyon Office of the then Department of Communicable Disease Surveillance and Response (CSR). This involved working with WHO regions and Member States to strengthen public health surveillance and epidemic response capacity through strengthening the public health actors within the systems, through human resource development and global training programs, and strengthening the quality, availability, exchange and dissemination of information through networking.

Dr. Chungong has worked with both developing countries and developed countries, supporting the development of guidance, policies and strategies for national surveillance system strengthening for communicable diseases. She has also worked in various other areas such as nutrition, particularly on nutritional assessments, access to drugs and other amenities for women in Sub-Saharan Africa, and is interested in gender related issues.



### **David L. Heymann**

Assistant Director-General, Health Security and Environment and Special Representative of the Director-General for Polio Eradication, WHO

*Dr.* David L. Heymann is currently Assistant Director-General for Communicable Diseases and the Representative of the Director General for Polio Eradication at the World Health Organization (WHO). Prior to that, from July 1998 until July 2003, Dr. Heymann was Executive Director of the WHO Communicable Diseases Cluster which includes WHO's programmes on infectious and tropical diseases, and from which the public health response to SARS was mounted in 2003. From October 1995 to July 1998 Dr. Heymann was Director of the WHO Programme on Emerging and other Communicable Diseases, and prior to that was the Chief of research activities in the WHO Global Programme on AIDS.

Before joining WHO, Dr. Heymann worked for thirteen years as a medical epidemiologist in sub-Saharan Africa (Cameroon, Cote d'Ivoire, Malawi, and the Democratic Republic of Congo - formerly Zaire) on assignment from the US Centers for Disease Control and Prevention (CDC) in CDC-supported activities. These activities aimed at strengthening capacity in surveillance of infectious diseases and their control, with special emphasis on the childhood immunizable diseases including measles and polio, African haemorrhagic fevers, poxviruses and malaria. While based in Africa, Dr. Heymann participated in the investigation of the first outbreak of Ebola in Yambuku (former Zaire) in 1976, then again investigated the second outbreak of Ebola in 1977 in Tandala, and in 1995 directed the international response to the Ebola outbreak in Kikwit.

Prior to these thirteen years in Africa, Dr. Heymann worked two years in India as a medical epidemiologist in the WHO Smallpox Eradication Programme.

Dr. Heymann holds a B.A. from the Pennsylvania State University, an M.D. from Wake Forest University, a Diploma in Tropical Medicine and Hygiene from the London School of Hygiene and Tropical Medicine, and has completed practical epidemiology training in the two year Epidemic Intelligence Service (EIS) of CDC. He is a recipient of the American Public Health Association Award for Excellence and the American Society of Tropical Medicine and Hygiene Donald MacKay medal, and is a member of the US Institute of Medicine. Dr. Heymann has published over 140 scientific articles on infectious diseases and related issues in medical and scientific journals, and authored several chapters on infectious diseases in medical textbooks. He is currently editor of the 18<sup>th</sup> edition of the Control of Communicable Diseases Manual, a joint publication of WHO and American Public Health Association publication.





**Myint Htwe**  
Director, Programme Management  
WHO/SEARO

*Dr.* Myint Htwe joined WHO Regional Office for South-East Asia, New Delhi, in August 1994, as Regional Adviser, Research Policy and Cooperation. Since then, he has been serving in WHO at various important positions, such as Regional Adviser, Evidence for Health Policy; Coordinator, Regional Director's Office & Liaison with Country Offices and Chief, Internal Review and Technical Assessment.

Recognizing his strong technical background and excellent technical and managerial capabilities, Dr. Myint Htwe was appointed as Director, Programme Management in February 2006, the position he continues to hold. As Director, Programme Management, he is the Principal Adviser to the Regional Director on policy, technical programmes and management matters and assists the Regional Director in the establishment of an effective framework for regional policy, overall programme formulation and implementation, and high-level managerial functions.

Before joining WHO, Dr. Myint Htwe served in the Ministry of Health, Yangon, as Chief of International Health Division. He has held various important positions in the Ministry of Health such as Health Systems Research Unit In-charge and Epidemiologist/ Malariologist, Vector-borne Diseases Control Programme in the Ministry of Health.

Dr Myint Htwe obtained the Medical Degree (M.B.B.S.) from the Institute of Medicine (I), Rangoon in 1973; completed Diploma in Preventive and Tropical Medicine from the same Institute in 1979. He obtained Master of Public Health degree from the Institute of Public Health, University of the Philippines Systems, Philippines in 1982 and Doctor of Public Health (Dr. PH) from Johns Hopkins University, School of Hygiene and Public Health, Maryland, USA in 1991.



### **Hamid Jafari**

**Project Manager, National Polio Surveillance Project, WHO**

*A*s Project Manager of WHO's National Polio Surveillance Project (NPSP), Dr. Hamid Jafari serves as the chief technical advisor to the Government of India (GoI) in the implementation of the nation's \$280 million/year polio eradication activities and directs WHO's extensive network of almost 1000 staff, including more than 300 surveillance medical officers, who are instrumental in providing technical and programmatic assistance to the government.

Before his assignment as Project Manager of NPSP, Dr. Hamid Jafari was appointed as Regional Advisor for Polio Eradication and Vaccine-Preventable Disease Surveillance in WHO Regional Office for South-East Asia. Prior to this he served as Director of the Global Immunization Division (2004-06) and Chief of the Polio Eradication Branch (2002-04) at the Centers for Disease Control & Prevention (CDC), Atlanta, USA. He began his career in epidemiology and public health in the National Center for Infections Diseases CDC, (1992-94), and later worked at the National Immunization Program, CDC, (1992-1996). Dr. Jafari served as Medical Officer for Polio Eradication in the Regional Office of WHO for Eastern Mediterranean from 1996-2002 on assignment from the CDC.

Dr. Jafari is certified by the American Board of Pediatrics (1989) and the American Board of Pediatric Infectious diseases (1994). Before his pediatrics training, Dr. Jafari completed a research fellowship at Harvard Medical School. Dr. Jafari has published over 50 scientific papers and book chapters on polio eradication, other vaccine-preventable diseases and in the area of pathogenesis and epidemiology of invasive bacterial diseases. Dr. Jafari is a graduate of Sind Medical College, Karachi University, Pakistan.



**Holly Ladd, JD**  
Vice President and Center Director  
AED-SETELLIFE Center for Health Information  
and Technology

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*Holly* D. Ladd, J.D., is a Vice President at the Academy for Educational Development, an international non-governmental organization, as serves as the and Director of the AED-SATELLIFE Center for Health Information Technology. Formerly SATELLIFE, the Center is dedicated to providing critical medical and public health information to health workers in low-resource environments.

Ms. Ladd whose previous positions include founding Executive Director of the Boston AIDS Consortium and Program Officer at the Harvard Center for Health and Human Rights, has consulted extensively with public health officials in developing countries regarding the need for information systems to support improved health care delivery, disease surveillance and reporting. Ms Ladd has overseen multiple data collection projects and the deployment of cost effective routine electronic health data networks in Uganda and Mozambique.

As Executive Director of SATELLIFE since 1998, she spearheaded innovative efforts to leverage Information and Communication Technology to support health programs in the developing world. Her efforts include teaching frontline health care workers to use technology to access continuing education. Her effort to expand access to technology includes the introduction and use of low-cost mobile computers linked to wireless telecommunications systems to create health information networks for data collection and information dissemination, which reach even the most isolated rural communities. Local empowerment and capacity building have been a primary focus of her work. Formerly a practicing attorney, her professional career includes positions in the public and private sector in public health and health law.



**Ahmed Tayeh**  
Global Dracunculiasis Eradication Programme  
WHO

A public health engineer by profession and an epidemiologist by vocation, Dr. Ahmed Tayeh is interested in environmental interventions for control of water-related disease, particularly dracunculiasis or guinea-worm disease.

Dr. Tayeh started his career as civil engineer in his country of origin, Syria. He then worked with UNICEF in building of health facilities and in safe water supply and environmental sanitation programmes in Yemen (1980-1985) and Sudan (1986 and 1989). There, he got involved in Primary Health Care Programmes supporting a pilot project in training and implementing Primary Health Programme in remote villages in Yemen.

With a MSc and PhD in epidemiology from London School of Hygiene and Tropical Medicine, he worked in several countries including conducting researches on guinea-worm in Sudan and Ghana during 1987 to 1992 and participating in a field trial to test the efficacy of pre-impregnated bed-nets on the control of cutaneous leishmaniasis in his home town, Aleppo-Syria.

From 1996 to 1998 he resided in Toronto, Canada, working as freelance consultant with WHO and other organizations. He also conducted a study on the Arab community health status and their access to health services in Canada in collaboration with University of Toronto. During 1998 to 2000, he worked in North Korea supporting the country's water supply and sanitation systems and also led the first MICS and Nutrition survey in the country.

From 2000 until this date, he works in WHO Geneva coordinating the Global Dracunculiasis Eradication Programme supporting 18 countries (endemic countries and countries that interrupted disease transmission) and help in certifying countries as disease-free.

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**Terence Taylor**  
Director, Global Health and Security Initiative  
NTI, USA

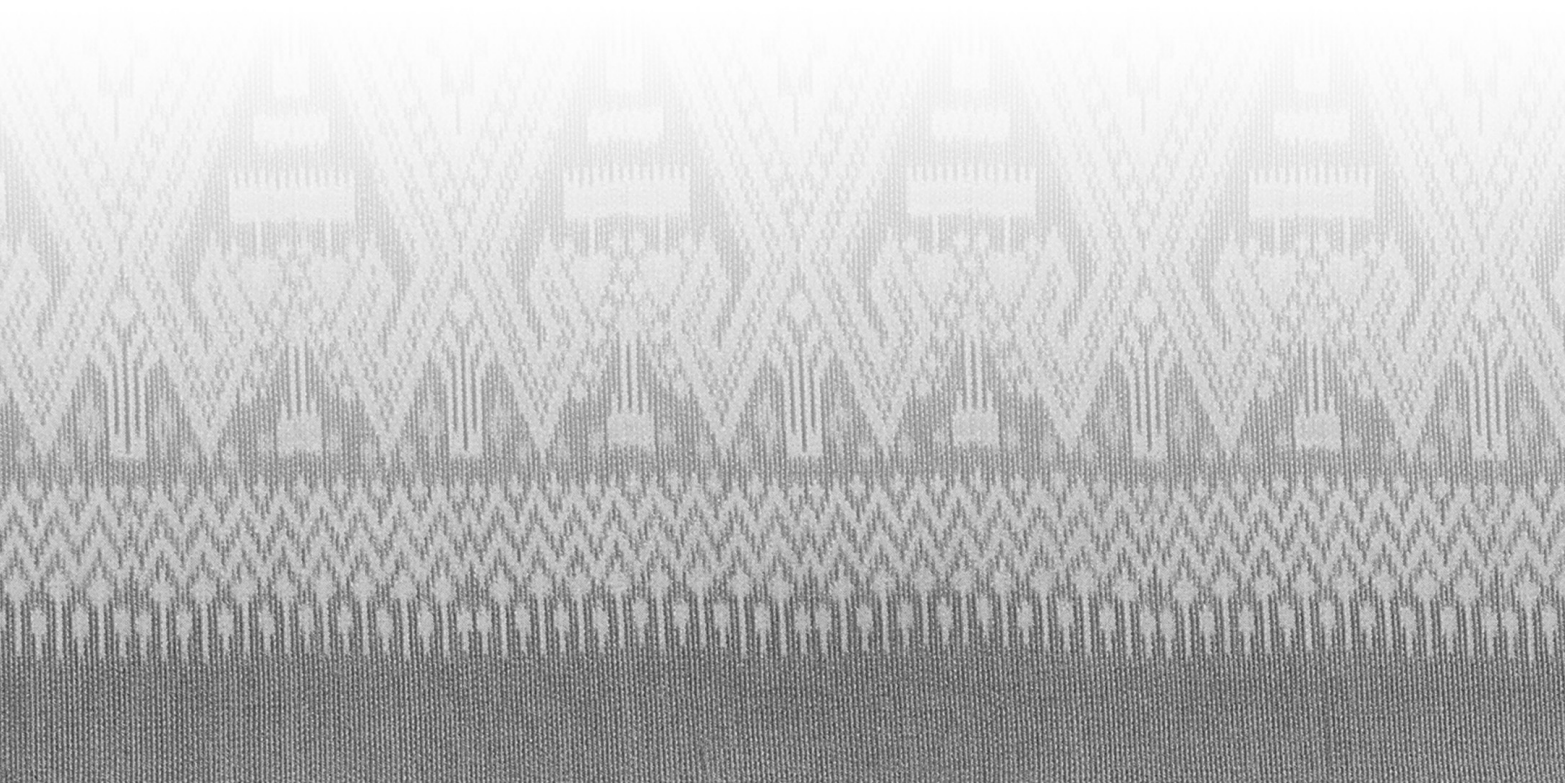
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*T*erence Taylor is the Director of the Global Health and Security Initiative (GHSI), which is part of the Nuclear Threat Initiative headed by Mr Ted Turner and former Senator Sam Nunn. GHSI supports and runs projects aimed at enhancing biological safety and security including regional epidemiological surveillance systems for infectious disease in various parts of the world. Terence Taylor is also the President and Director of the International Council for the Life Sciences (ICLS). The ICLS is an independent organisation with a global reach and designed to promote best practices and codes of conduct for safety and security in relation to biological risks. He is a member of the US Institute of Medicine's Forum on Microbial Threats. Before establishing ICLS he was at the International Institute for Strategic Studies (IISS), a leading independent international institute with its headquarters in London and was President and Executive Director of IISS-US. At IISS, in addition to his overall program responsibilities, he led the Institute's work on life sciences and security. He has substantial experience in international security policy matters as a UK government official (both military and diplomatic) and for the United Nations both in the field and at UN Headquarters. He was a Commissioner and one of the Chief Inspectors with the UN Special Commission on Iraq with particular responsibilities for biological issues. His government experience is related to both military field operations and to the development and implementation of policies in relation to arms control and non-proliferation treaties and agreements for both conventional and weapons of mass destruction and law of armed conflict aspects of International Humanitarian Law. He has also conducted consulting work on political risk assessment and studies of the private biotechnology industry. He was a Science Fellow at Stanford University's Center for International Security and Cooperation. He was an officer in the British Army with experience in many parts of the world including UN peacekeeping, counter-insurgency and counter-terrorism operations.



## **Parallel Session 3**

*Impact of Global Health Initiatives on PHC  
and their Contribution to Strengthening Health Systems*



## **The diagonal approach : the Global Fund and health systems Building health systems to support impact and the Millennium goals**

**Prerna Banati and Daniel Low-Beer**

The Global Fund to fight AIDS, TB and Malaria

### **Abstract**

Global initiatives have become an established part of the international aid architecture, delivering services through targeted interventions. Evidence supports a diagonal approach, where investments in high priority diseases through specific programs strengthen the wider health system and address broader health goals. System-wide challenges to making the money work effectively have stimulated innovative approaches. Performance based funding and incentive mechanisms advanced by Global initiatives provide a basis for accountability to financing and results. Focused improvements in budgeting and monitoring of costed health sector plans and ensuring linkages with disease plans can facilitate effective investments in health systems.

### **1. Context**

Coming out of a 2001 UN general assembly special session, the Global Fund to fight AIDS, TB and malaria was created with an acknowledgement that HIV, TB and malaria were broad development problems, contributing a significant burden of disease in many developing countries. The Global Fund was conceived as a Global initiative with a novel approach to development financing in health. The subsequent design was a simple approach created with an aid effectiveness lens: a financing conduit with strong country ownership, no country presence and managing for collective results. The Global Fund has steadily become an established part of the aid landscape, and has moved from an issue of concern at the Paris High Level Forum, to be fully engaged and represented towards the Accra High Level Forum. This has been reinforced by internal decisions to support national strategies and the broader strengthening of health systems [1].

Functioning mechanisms and systems have been put in place. At the country level, representative governance structures, Country Coordinating Mechanisms, lend oversight to grant operations and applications. Partnerships between government departments, NGOs and CSOs have been formed to accelerate scale up, and broaden access to all sectors of the community. Inclusion of Global Fund financing has not been smooth in all countries, and adaptations of the aid landscape have been required to better use Global Fund financing.

The model of upstream harmonization through the Global Fund has allowed efficiencies to be gained at country level, though this can be better employed across countries. A country-owned mandate allows a program-based approach and parallel implementation units are largely avoided; streamlined disbursement mechanisms permit for high levels of aid predictability; 100% of aid is untied and a focus managing by results with results-oriented frameworks forming the basis for development outcomes.

Evidence suggests investments in high priority diseases can strengthen health systems as a whole, despite some challenges. There is evidence that current HIV, TB and malaria specific interventions can support a positive system-wide effect through a diagonal investment. Supporting the interventions to deliver disease specific outcomes can create broad health system gains. An analysis of HIV, TB and other key health indices daily of a Global Fund supported AIDS and TB scale up program in Haiti highlighted some of the potential benefits on health systems, including improved delivery of essentials such as vaccinations, sanitation and clean water, improved primary health care indicators, an increase in prenatal care visits, family planning and health promotion outcomes, and improved staff morale and community participation. The authors concluded that 'The lessons of scale up have shown us that improving AIDS care, far from diverting resources, has in fact strengthened primary health care throughout Haiti's lower central plateau'[2].

There are system-wide challenges to making the money work; ensuring financing can be more effective. Key bottlenecks to scale up effectively include increased human resourcing and technical capacity at country level, better use of country systems for procurement, sound financial management systems put in place with finances passing through health ministries reflected on budget. Coordination of missions, monitoring and reporting can also be improved. Collectively tackling these through robust monitoring, budgeting and costed sector plans linked to disease specific plans can facilitate health systems improvements.

## **2. System-wide impacts**

In many countries in Africa, fighting AIDS, TB and malaria is also a massive component of sustaining health systems. In these countries the horizontal-vertical distinction is unclear and as support for these major health problems occupies a considerable part of the health system, a diagonal approach has emerged [3].

In Rwanda, the refurbishment of clinics to provide AIDS and TB treatment has had knock-on effects on health benefits outside AIDS and TB, doubling the rate of vaccination and increasing maternal health consultations. Impact on AIDS, TB and malaria in high burden countries also has an impact on the health system.

In Malawi, the AIDS problem brought to the surface the human resource crisis. In the 1990s, the number of health personnel in Malawi declined by 50%. A major cause



was AIDS itself, as well as out-migration. Initial evidence of ARV treatment in Malawi suggests it may reduce the mortality or attrition rate by 40% in health personnel. Health workers may be a major beneficiary of disease programs in these countries. A concerted effort is required to achieve impact on the diseases and health systems. This requires partners defining comparative advantages to their support and investing collectively into a country plan to support long term health systems strengthening.

In Haiti, evidence shows that financing for Aids and TB improved broader primary health outcomes and showed benefits for the health systems. Analysis of HIV, TB and other key health indices daily for a 14-month period of a Global Fund-supported AIDS and TB scale-up in Haiti highlighted some of the potential benefits on health systems [2]. They include improved delivery of essentials such as vaccinations, sanitation and clean water, introducing comprehensive AIDS care improved staff morale and increased the flow of essential medications and vaccines to treat and prevent other infections, expanding capacity for PMTCT and enhanced the quality of prenatal care and all women's health services. Primary health care indicators improved. Improving AIDS prevention and care in at least one part of central Haiti led to a dramatic improvement in the quality of primary health care. Prenatal care visits increased four times. Prenatal care, not offered properly in the clinic prior to AIDS scale-up, showed a fourfold increase in visits over 14 months. Vaccinations also increased significantly. Improved vaccination, family planning, health promotion: AIDS prevention and care had a favorable and readily-measured impact on a number of primary health care goals including vaccination, family planning, TB case finding and cure and health promotion. Staff morale and community participation: Less-easily quantified results included improved staff morale and greater community participation.

In South Africa community responses have stepped up to the challenge and community health care workers are responding where the public health care system has been unable to reach. Financing for AIDS has strongly evoked community responses to health. Communities have innovated to provide services in areas where these have been unavailable. Community health workers have contributed to substantial reductions in child mortality for example by providing case management of ill children. Capacitating communities to provide contextualized responses and fill gaps in the national response will help scale up and increase coverage and consequently health outcomes. To meet the Millennium Goals will require a concerted effort from all corners.

In Ethiopia when AIDS and malaria programs extended their services to rural areas, they found that 30,000 community health workers needed training and community health posts needed refurbishing, which Global Fund, World Bank, PEPFAR and GAVI were able to support collectively. These finances were able to support health interventions more generally, beyond AIDS or vaccination services.

There have been challenges to supporting countries more broadly and there are cases where additional financing has had unanticipated side-effects, where negative examples exist. Challenges to making the money work for health are apparent from individual grant situations. The Uganda grants have shown the importance of clear and accountable implementation arrangements. Grants to Uganda amounting over USD 200 million over 2 years were suspended when evidence of serious mismanagement of finances by the management unit in the Ministry of Health was revealed. Explicit performance decisions and ratings made for each grant have included stopping grants or reducing funding, for example in Nigeria. When important inconsistencies have been

found, the response has been rapid. The HIV grant in Nigeria was discontinued, partly because ARV patient results could not be verified. These collectively show the challenges of linking Global Fund finance into existing development frameworks (with public sector spending limits). Increases in HIV financing in a few countries have had unintended effects including salary inflation and inequitable staff distribution. These side-effects can be managed with broader integration into development plans and financial controls for a net positive outcome. On balance, the evidence suggests positive impacts of additional financing from Global initiatives.

### **3. The Innovation of Performance Based Funding**

The performance based funding model is a tool to ensure results and strengthen systems, by optimizing results and systems outcomes. Performance-based funding provides powerful incentives to scale up health outcomes by linking finance to the delivery of services. Driven by a commitment to ensure that health finance is effective, incentives are increasingly being used to focus on outcomes, identify problems, reward solutions, and manage results [4-7]. Performance-based funding was developed in the 1970s in the education sector, and is used by a number of recent development initiatives, including the GAVI Alliance (formerly known as the Global Alliance for Vaccines and Immunisation), the Millennium Challenge Account [8], and the European Commission, as well as more general health initiatives [9-10]. The Global Fund uses performance based funding to disburse all funds, which are released incrementally based on demonstrated results against targets, and fund recipients must provide an explanation of deviations, what has worked, and what can be improved [11]. Explicit performance ratings are made for each grant and used as a basis for decisions, including: (1) stopping grants (which has occurred in Nigeria, South Africa, Senegal, and Pakistan); (2) reducing funding (the Kenya malaria program had US\$5.8 million reduced commensurate with delays of one year); or (3) accelerating funding (the Ethiopia malaria grant had its year 4 budget accelerated into year 3 to double the number of ITNs distributed to families). Funds are geared to the speed and efficiency of implementation, not to a fixed calendar.

Performance-based funding provides powerful incentives to scale up the fight against HIV, TB, and malaria. It also has more general implications for the delivery of development and health finance. At its best, performance-based funding combines the inventiveness of country solutions with the sharp focus and incentives of performance. Most country programs have been able to make the money work, in poor countries and fragile states, across the three diseases and with civil society and government implementers. However, there is considerable inherent risk in the results we can expect from health programs and finance. The variability in returns in health programs (well performing programs return twice the results) is not always recognized and needs to be actively managed with financial incentives and technical support.

A major question is whether funding for specific diseases like AIDS, TB, and malaria ('vertical financing') has positive or negative effects on more general or 'horizontal' health systems. The Global Fund provides 'diagonal funding,' with a sharp focus on achieving disease goals while allowing finance to more broadly strengthen the supporting health sector. As health programs keep scaling up, the major gap in health systems strengthening is increasingly obvious. Such strengthening requires dedicated finances

and increasing flexibility in disease-specific financing to fill key gaps in capacity. Due to the flexibility of Global Fund financing in supporting services and systems, countries with weaker health systems or human resources for health did not perform significantly worse (25% and 26% poor-performing compared to 25% for all grants). Global Fund finance can be delivered vertically to AIDS, TB, and malaria control programs or horizontally through pooled or sector-wide approach funding (for example in Ghana or Mozambique). Many effective programs have used Global Funds 'diagonally' to effectively finance AIDS, TB, and malaria services, while building the necessary supporting systems, including human resources.

On the ground, flexible finance is critical. However, many programs do not use Global Fund finance as flexibly and effectively, and there remains a financial gap in health systems. Reaching the Millennium Goals will require US\$67 billion for human resources for health [9]. Other donors are urgently required, particularly for financing long-term, systematic health infrastructure [10]. If the Millennium Goals are to be achieved, significant increases in finance and innovative mechanisms will be required to ensure that funds are delivered effectively. Performance based funding may be one important mechanism to provide focus, incentives, and risk management in health systems financing.

#### **4. Challenges to investing in health systems**

There are implementation risks to investing in health systems. Providing treatment to HIV infected individuals requires scale up of systems to support the treatment intervention, as evidenced by the 3 by 5 initiative which by the end of 2005 was able to reach less than half the target number of people on treatment. Limitations in systems capacity to deliver services take the form of human resources, training and service delivery constraints. The scale and scope of health systems make this a risky investment, there are no strict definitions for health systems and there is potential for a broad scope in absorbing financing for health systems. The outcomes of health systems spending are intangible, having an incremental effect on across health interventions but largely absorbed and spread thinly.

The Global Fund's partnership model relies on country allies working together to deliver results and impact jointly. Performance based funding brings the challenges of implementation to the surface, and allows countries and partners to respond to them in a transparent manner. Integrating civil society into programs in Honduras, Russia and Senegal, partnering with sectorwide approaches (SWAp) in Mozambique or responding to a human resources crisis in Malawi are examples of the continual challenges which provide lessons and joint response.

Partnering together for impact is a partnership in the widest sense. From the Global Fund Board to country partners implementing the programs, they involve a dynamic mix of recipient governments, donors, civil society, technical partners, the private sector, foundations, and communities living with the diseases. In Russia, China and Zambia, civil society and communities most affected have been brought to the center of the response alongside government. In Senegal, initial grants failed until civil society and government found a way to work better together. In Haiti, Sogebank, part of the country's largest private bank, provides management and financial expertise to coordinate all sub-recipients from government, non-governmental organizations (NGOs)

and international agencies despite a fragmented and fragile health system. In Malawi, the huge gaps in human resources for health, which the AIDS grant exposed, are being tackled with exceptional support from, among others, the United Kingdom's Department for International Development (DFID), the World Bank and the United States' Centers for Disease Control (CDC) and through increasing coordination with the SWAp.

Human resources for health are a significant constraint to scaling up. The lack of human resources is a key limiting factor in scaling up and plans to support human resources development in country [12]. The absence of country plans to support human resources means an uncoordinated approach in many countries where insufficient health workers are a serious constraint to providing services. For health financing to work, costed health sector plans for human resources and for the health sector require budget frameworks linked to measurable results, and linked to national development plans to ensure sustainability. Issues of salaries and recurrent costs require macro approaches that respond to financing from global initiatives. Fiduciary accountability also needs strengthening. Financing through targeted interventions that is fully fungible provides an opportunity to deliver across the health system. Financial management systems need to be strengthened to ensure financial and programmatic accountability and efficiency in the delivery of aid.

Measuring progress in health systems has not been prioritized or sufficiently included in planning. Success measures need to include outputs, service delivery, outcomes and impact. Health systems development plans need to be credibly costed and linked to disease specific plans. Targets need to be clearly set and linked to budgets and plans. Risk of large investments to health systems can be mitigated by tying financing to measurement of health outcomes. Applying support for the health system as a whole through targeted interventions that can be fully fungible need strong measurement of outcomes and impact.

## **5. Collective opportunities and the way forward**

Supporting health systems are a critical part of scaling up. To provide services and meet the Millennium goals, strengthened systems are required to deliver core services, outputs and impact. There is evidence to suggest that Global initiatives can contribute to strengthening broader health systems when accountability mechanisms are put in place. Performance based funding manages by results to provide examples of such accountability mechanisms.

Strengthening financial and procurement systems need to be prioritized. These are key systems that improve the effectiveness of development aid and promote accountability and transparency. Monitoring progress in strengthening health systems to delivery health services needs to be prioritized to facilitate scaling up and identify areas where additional investments are needed.

There remain challenges to improving coordination among donors, particularly in areas such as human resources. Common platforms for health systems strengthening such as the international health partnership (IHP) aim to promote efficiencies as donors work collectively to support health systems. Joint fiduciary responsibilities and promoting good governance are areas that could benefit from collective support.

Linkages between costed national health development plans and disease specific plans can ensure synergies in health financing and links to results and impact. Budgeted

health sector plans with monitorable outcomes, can provide an important platform for delivering financing to support health systems broadly.

On balance, the evidence suggests positive impacts of additional financing from Global initiatives. Advances in performance based funding provides tools to support broader health systems through disease need to be addressed collectively with partners to ensure sustainability of services in the broader health system.

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## **The Context and Implications of Global Health Initiatives with Particular Reference to Africa**

**David Sanders**

### **Introduction and Context of Global Health Initiatives in Africa**

At current rates of progress sub-Saharan Africa will not achieve any of the Millennium Development Goals. In health the situation is especially bleak, with little or no substantive progress since 1990. All key health indicators are at much worse levels than in any other low and middle income countries (LMICs) (with the exception of malnutrition in children under 5 in South Asia, but there the situation is improving).

Africa's health crisis starkly illustrates current global complex global public health challenges such as rapidly widening health inequalities, and unprecedented emergencies such as the pandemic of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), Tuberculosis, Malaria and other communicable diseases. In addition low and middle-income countries (LMICs) - and especially the poor - are experiencing emerging epidemics of chronic diseases and injuries, both earlier thought to be mainly confined to middle-class and urban populations. Public health systems have been considerably weakened in the past decades by a combination of conservative macro-economic policies - such as structural adjustment - and health policies that constitute "health sector reform". Chronic underfunding of health (and social) services has led to a serious weakening of the "delivery" infrastructure, and especially of the human resource component. Health personnel capacity has been severely undermined in many poor countries as a result of the above fiscal crisis and the impact of HIV/AIDS. In addition, active recruitment of personnel by those rich countries experiencing a health workforce shortage has aggravated the situation and further weakened health systems. This is being exacerbated by the current HIV/AIDS epidemic and almost certainly also by the new initiatives launched to address it, by diverting attention and resources away from the other - more common - health problems, and from their more fundamental, social determinants. There is also suggestive evidence that new "vertical" programmes and structures are being created, further delaying the long-term imperative of creating strong and sustainable "horizontal" health systems.

Global health initiatives (GHIs) have emerged over the last 8 years as an important new mechanism for channelling donor funds to improve the health of the world's poor, including those in Africa.

The bulk of development agency funding for health in LMICs up to the early 1990s was channelled chiefly in two ways, from the World Bank in the form of loans and credits; and ear-marked project and programme support to LMICs from wealthy countries, termed bilateral donors. Global development governance structures remained relatively stable up to the early 1990s, with the World Health Organization (WHO) as the normative technical and global development agency. In the context of the growing dominance of neoliberal economic policy the World Bank's 1993 World Development Report heralded a period of relative dominance of the Bank over WHO in global health development policy-making; and - crucially - challenged the accepted pre-eminence of the public sector, in that it recommended a much greater role for the private sector.

After the accession of Dr Brundtland to WHO leadership in 1998, new global development governance structures emerged, notably Global Health Partnerships (GHPs) Many GHPs, which are also termed Global Public Private Partnerships or GHIs, include representatives of philanthropic trusts, and for-profit and non-profit private sector actors on their governing boards, reflecting their growing role in globalised approaches to global health problems. At present over 100 GHPs exist. The three main categories reflect the main aims of GHPs: Product (drug or vaccine) Development; Improving Access to health products (e.g. the Mectizan Donation Program); and "Global Coordinating Mechanisms, Including Funding Vehicles".

GHIs are an attempt to address the obvious failure of the market to deliver services and goods where most required, i.e. to the poor, within a neoliberal economic policy paradigm. They address "market failures", but do not question the ability of the market to regulate the global flow of goods and services. An additional factor driving GHIs is the increasing inability of LMICs to raise and invest resources to address developmental needs, a trend which has clearly accelerated under neoliberal globalization. Finances flow increasingly away from the global South, to the global North and UN agencies, starved of funding (especially by rich) member states are unable to direct aid to poorer countries. Hence international agencies and countries seek out GHIs to address fiscal deficits and deliver services. The UN uses GHIs to obtain private support from the commercial sector where it has expertise. This helps sustain the legitimacy and authority of the UN, enabling it to fulfill its mandate.

GHIs reflect a radical shift in global governance away from multilateral (UN) agencies and member governments of the global development agenda. Two of the most important coordinating GHIs - the Global Alliance on Vaccines and Immunizations (GAVI), launched in 2000, and the Global Fund to Fight AIDS, TB and Malaria (GFATM), launched in 2002 - include representatives from industry, northern and southern NGOs and (in the case of GFATM) disease afflicted communities. However, bilateral donor and recipient country government representatives dominate their governing boards. Two other major coordinating GHIs, Roll Back Malaria (RBM) and Stop TB, are more closely aligned to existing WHO structures.

## Specific Issues and Concerns around GHIs

Based on several evaluations of GHIs several major concerns are emerging. Some are briefly noted below:

*Governance of GHIs:* GHI Secretariats are located in the North and there is gross under-representation of Southern stakeholders in the governance arrangements of PPPs. Also participating stakeholders have equal rights, thereby potentially undermining the legitimate political and legal positions of public bodies such as governments and parliaments. External evaluations have reported poor transparency and openness, a lack of accountability and a vague definition of roles and responsibilities of partners. Also recipient countries have been said to participate only minimally in the global decision-making structures.

*Impact on Health Systems:* GHIs are seldom integrated into the health systems of the recipient countries. This has major implications for the sustainability of programmes, after the funding from a particular GHI declines or ends. Also, there is very little co-ordination between different GHIs. Often GHIs focus on technical interventions for quick results (e.g. vaccination programmes) without sufficient attention to health system weaknesses and solutions to these. The focus of GHIs on products to address diseases has the effect of deflecting the focus from environmental and social determinants and from effective prevention activities. At the country level GHIs often entail significant transaction and opportunity costs during the initial stages, competing with other donor programmes and implementation of disease control more generally. There has often been pressure to establish parallel planning, management and M & E systems. GHIs may already be exacerbating existing problems with health human resources. There is anecdotal evidence of migration of scarce human resources out of general health services and into GHI-funded initiatives addressing specific problems. Additionally, associated training workshops may attract health personnel away from their duties as per diem payments constitute an incentive to attend.

*Influence of the Corporate Sector:* GHIs can increase the influence of transnational corporations over agenda setting and political decision-making by governments as well as distort competition. Product Development PPIs often depend critically on technical expertise from pharmaceutical companies; this is likely to reinforce the influence of large, established multinational companies. While some initiatives, (eg the Tuberculosis Global Drug Facility) have led to a reduction in prices for medicines, in others the prices have not gone down (e.g. vaccines provided through GAVI).

*Fragmentation of global governance:* The rapid growth in the number GHIs can lead to poorly coordinated isolated 'solutions' which contribute to the institutional weakening of the United Nations and its specialised agencies, and hinder comprehensive development strategies at a global level.

*Governments escape responsibility:* In many instances GHIs are often promoted as replacements for intergovernmental agreements.





**Conclusion:**

There is an urgent need for cross-country studies to systematically examine the many different impacts of GHIs on African countries and their needs so that GHIs can be better understood and their operations directed to achieve optimal results. This brief presentation will suggest some key areas for such research.



**Prerna Banati**

Strategic Information Officer, Performance Evaluation and Policy, The Global Fund to Fight AIDS, Tuberculosis & Malaria

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*D*r. Prerna Banati is a public health specialist with over ten years of experience in infectious disease epidemiology. Since 2004 she has been leading work on Program Effectiveness in the Performance Evaluation unit at the Global Fund to fight AIDS, TB and Malaria based in Geneva. Before joining the Global Fund, she worked for the World Health Organization in Evidence and Information for Policy for the Global Burden of Disease project. Her area of expertise is HIV epidemiology in Southern Africa and she has previously been based in South Africa leading research on community HIV prevention for an independent non-profit NGO. During this time, she participated in the analysis of one of the largest household survey on HIV/AIDS conducted in Africa. She has published in the fields of HIV prevention, reproductive health, migration and health, and environmental risk. Before her work in Africa, Prerna was primarily responsible for human health risk analyses for a multinational consulting company in Boston. She has a Ph.D. from the University of Cambridge Health and Population Evaluation Unit.



**Raj Kumar**  
Senior Programme Officer  
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*Dr.* Raj Kumar, an Indian national, has 25 years public health experience in health systems and disease control. Currently, he is working as a Senior Programme Officer in Country Support team at Global Alliance for Vaccines and Immunization (GAVI), located in Geneva. He is responsible for 12 countries in East Mediterranean and West African Regions, several of whom have been identified as 'Fragile states'. Previously he worked with WHO, the World Bank, PATH and UNICEF on several health system projects. He also led PATH's programme on introduction of two new vaccines and injection safety in India.



## **Badara Samb**

Advisor, Health Systems and Services  
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*B*adara Samb, MD, PhD, is the advisor of the WHO's Assistant Director General for Health Systems and Services. Before joining WHO in 2001 he worked with the Joint United Nations Programme on HIV/AIDS (UNAIDS) as care adviser for two years.

After beginning his career as a field assistant for UNICEF and a medical doctor in Senegal, Dr. Samb worked with WHO and the French Institute for Scientific Research and Development Cooperation (IRD, formerly ORSTORM) studying measles and measles vaccines. From there he moved to the French Institute for Medical Research (INSERM), working as a senior researcher and epidemiologist for much of the 1990s. During this period, he also served as an Associate Professor of Public Health at the University Pierre et Marie Curie in Paris.

Holding dual citizenships of Senegal and France, Dr. Samb received his medical degree from the University of Cheikh Anta Diop, in Dakar, and a PhD in Public Health from the Pierre and Marie Curie University in Paris.

Dr. Samb is fluent in French, English and Wolof. He was granted the 2003 International Health Professional of the Year award by the International Biographical Centre, Cambridge, United Kingdom. He is currently an associate professor of health and international relations at the Geneva School of Diplomacy and International Relations.



**David Sanders**  
Director of the School of Public Health  
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*David Sanders*, founding Professor and Director of the School of Public Health at the University of the Western Cape, (U.W.C.), South Africa, is a specialist paediatrician with postgraduate qualifications in Public Health. David Sanders has over 25 years experience of health policy and program development in Zimbabwe and South Africa, having advised both governments as well as OXFAM,WHO,UNICEF and FAO in the areas of primary health care, child health and nutrition, and health human resources as part of health systems development. He has published extensively in these fields as well as on the political economy of health, including on structural adjustment and development aid, having authored or co-authored three books, including “The Struggle for Health: Medicine and the Politics of Underdevelopment” and “Questioning the Solution: the Politics of Primary Health Care and Child Survival” as well as 30 chapters and monographs and approximately 70 articles in peer-reviewed journals. In 2004/5 he was Heath Clark visiting lecturer at the London School of Hygiene and Tropical Medicine where he is also an Honorary Professor.

He was on the Steering Committee of the United Nations Standing Committee on Nutrition from 2002 - 2006. He is on the Global Steering Group of the Peoples Health Movement and is a managing editor of Global Health Watch.



**Bernhard Schwartländer**

Country Coordinator  
UNAIDS China

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*D*r. Bernhard Schwartländer is currently the United Nations Country Coordinator on AIDS in Beijing, China. Dr Schwartländer joined UNAIDS China from the Global Fund to Fight AIDS, Tuberculosis and Malaria where he served as the Director for Performance Evaluation and Policy. Prior to the Global Fund he held a number of senior international positions including as the Director of the World Health Organization's HIV Department, and as the Director of Evaluation and Strategic Information with the Joint United Nations Programme on HIV/AIDS (UNAIDS).

In 2000, Dr Schwartländer undertook a special assignment to the World Bank to perform economic analyses on the cost and impact of the HIV/AIDS epidemic and the responses to it. Prior to joining the UN, Dr Schwartländer was the programme manager of the national AIDS programme in Germany and the Director of the Division of Infectious Disease Epidemiology at the Robert Koch-Institut in Berlin, the central biomedical and infectious disease research and reference laboratory of the federal Ministry of Health, Germany.

Dr. Schwartländer has published widely in scientific journals and books and was teaching applied epidemiology in Berlin. He brings extensive experience in development policies as well as infectious disease epidemiology and programming at global and country levels.

Dr. Schwartländer is a medical doctor and holds a doctorate in medical epidemiology. He received his education and professional training in Germany and the US at the Centers for Disease Control and Prevention.



**Julian Schweitzer**

Director, Health, Nutrition and Population, Human Development Network, The World Bank

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*J*ulian Schweitzer is the Director, Health Nutrition and Population in the Human Development Network of the World Bank.

Immediately prior to his current appointment, Julian was the Director of the Human Development Sector in the South Asia Region of the World Bank, responsible for the Bank's operations in health, nutrition, population, education and social protection. During his career in the Bank, he has also worked in the Middle East and North Africa, Latin America and the transition economies of Europe, managing operations in health, education, and social protection. He has also worked as the Operations Director in the Bank's East Asia and Pacific region and as the Bank's Country Director based in Russia.

While working in the South Asia Region, he focused on developing sector wide approaches to mobilize external financing effectively in support of a single country health strategy. He restructured and strengthened the Bank's regional HIV/AIDS engagement with clients and external partners, while also strengthening the Bank's advisory and financial role.

He has extensive operational and management experience of health and development issues in different parts of the world. His health sector interests include health finance and health systems strengthening.

Before joining the Bank, Mr. Schweitzer worked in the public and private sectors in the UK and India.

He holds a Ph.D. from the University of London and has authored numerous articles and essays on economic and human development.



**Manto Tshabalala-Msimang**  
Minister of Health, South Africa

The true greatness of a person is measured by the impact that person has on the lives of others. This statement rings true for the Minister of Health Dr Mantombazana Edmie Tshabalala-Msimang who has touched the lives of many in different ways.

In a country marked by a high burden of diseases, inequality and abject poverty, to succeed in ensuring that all people have access to quality health care requires nothing less than absolute devotion and loyalty to serve one's country. Such is the profound devotion that the Minister of Health has shown in her efforts to improve the lives of people.

Born in Emfume south coast of Durban on the 9th of October 1940, the young Manto completed her high school education at Inanda Seminary School in 1959.

In 1962, shortly after the African National Congress was banned, a young and eager Manto after completing her Bachelor of Arts degree at the University of Fort Hare was ordered with a group of 27 other spirited students to go into exile by the ANC leadership. She was in exile for 28 years.

These students - which also included Thabo Mbeki - had been identified as future leaders of South Africa who would one day return triumphantly to the country of their birth. With their fists in the air, they fled the country under the guise of being members of a football team!

The young Manto and her comrades were arrested several times and thrown in jail before being flown into Tanganyika (now Tanzania) where she spent most of her years in exile.

What makes her story very special is that when she told her mother, prior to her departure, that she was to leave her homeland and go into exile, her mother implored: "Please do something for me if I should never see you again - become a medical doctor." A promise Dr Tshabalala-Msimang fulfilled under difficult conditions.

As fate would have it, the young Manto ended up in Russia where she completed her medical studies, hopeful that one day she would return to her family and country of her birth, to bring about prosperity, equality and freedom. She graduated from the First Leningrad Medical Institute.

The Minister still speaks Russian and Swahili fluently.

She spent time practicing medicine in various African countries - an experience that put her in touch with the real victims of poverty. This experience spurred her to further her education by gaining, amongst other qualifications, a Masters degree in Public Health from the University of Antwerpen in Belgium. As Registrar in the Obstetrics



and Gynaecology Section of the Muhimbili Hospital in Dar-Es-Salaam. Tanzania and as Medical Superintendent of the Lobatse Hospital in Botswana.

She is one of the founder members of the ANC Health Department, which was established in 1977 and convened the First International Conference on Health and Apartheid - under the auspices of the World Health Organisation - in 1980.

She has been blessed with a stable and supportive family life - married to Mr. Mendi Msimang, ANC Treasurer-General and former South African High Commissioner in London, and has two daughters - Zuki and Pulane - and two grandchildren - Khaya and Khethiwe.

On her return to South Africa in 1990, the Minister contributed a lot towards the National Progressive Primary Health Care Network by developing policies on health and also serving on various committees promoting health and gender issues.

Becoming a Member of Parliament following the historic elections of 1994, she chaired the Portfolio Committee on Health in the National Assembly. Her appointment as Deputy Minister of Justice followed in 1996. This is where she made her mark during her many fights for the rights of women and children in the criminal justice system.

On the 17th of June 1999, she was appointed Minister of Health-the culmination of an interesting life spent in service of healing. This is where she was to fight the greatest fight of her life - having to endure a love-and-hate relationship with the media as she tried to reshape the unequal and fragmented South African health care system.

The Department of Health, led by the Minister, promulgated a number of progressive legislations aimed at providing a policy framework for a universal access to quality health care. This was also to end racial segregation in hospitals and address the shortage of skilled health professionals in rural areas.

Her mission was to give the public health care sector a complete face-lift. Through the Hospital Revitalisation Programme, 30 hospitals have been renovated and more than 1 300 clinics built to improve access to health care. Improvements in hospital management have also been facilitated.

In an effort to recruit and retain health workers in the public health sector, especially in rural and underserved areas, the Department has entered into a number of international agreements with overseas countries. The Department is finalising the Human Resources Plan. In the meantime, there are a number of interventions underway.

It is well documented that while trying to improve the lives of people, the Minister has won and lost some of these battles.

The Minister has experienced much resistance from the Pharmaceutical Industry with regard to the implementation of the Medicines Act, which seeks to increase access to affordable and quality medicine. However, compromise is not an option as the lives of millions of South Africans is dependant on improved access to affordable medicine. The much-contested issue has always been the response to HIV and AIDS. While the Department of Health and the Minister were busy addressing the inherent lack of capacity in the public sector and reducing the prices of drugs, her rivals insisted on the immediate implementation of anti-retroviral treatment.

She is currently leading the department on a massive public health awareness campaign aimed at addressing lifestyles that undermine health.

The healthy lifestyle campaign aims to reduce communicable and non-communicable diseases as well as non-natural causes of death. It encourages good nutrition, regular physical activity, safe sexual behaviour and tobacco control. It also addresses the challenge of alcohol and substance abuse.

While some lobby groups in South Africa agitate and do not care to take time to acknowledge the many efforts that the Minister and the Department of Health have made to transform the health care sector, the international community continues to sing her praises.

The Minister received an award from World Health Organisation (WHO) in 2004 for her commitment and delivery on Inter-country and Cross-Border collaboration on malaria.

In addition to all the accolades she has received thus far as Minister of Health, the Medical Education for South African Blacks honoured her in 2005 for her contribution to health care delivery in South Africa.

Much to the Treatment Action Campaign's anger, the Minister of Health was also honoured by the National AIDS Trust Fund on 01 October 2005 for the work she has done in the prevention, care and treatment of HIV and AIDS.

She drove the drafting of the Comprehensive Plan for the Management, Care and Treatment of HIV and AIDS. It is the most comprehensive response encompassing prevention and strengthening of health system.

For the first time people with HIV and AIDS have a right to choose from a number of services including nutrition support, food supplements, treatment of opportunistic infection, traditional medicine and anti-retroviral therapy.

Such is the essence of true greatness.

A greatness that comes from understanding the complexities of the human condition; a greatness that rests in the humility of touching a human being from the moment of birth to the final departing breath and a greatness that consistently strives to make quality of life possible for every one of her people.



**Marie-Odile Waty**

Head of the Health and Social Protection Division  
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## **Parallel Session 4**

*International Trade, Trade Agreements and Health :  
Implications on Primary Health Care*

## **MEDICAL TOURISM IN MALAYSIA AND IMPLICATIONS FOR PUBLIC HEALTHCARE**

PRESENTED BY

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This morning, I am tasked to share some thoughts on “Medical Tourism in Malaysia and Implications for Public Health Care”. In Malaysia, we have not conducted any study pertaining to this and therefore the implications if any, are just our predictions. We are only assessing data availability for trade in health services for now and hope to conduct proper impact studies later.

2. In general, the health care system in Malaysia like the rest of the world are facing increased pressure from multifaceted factors like natural increase of population, longer life expectancy at birth, aged population, burden of life style chronic diseases, new emerging diseases, more virulent re-emerging communicable diseases, affluent and higher dispensable income per capita, new ICT and medical technology, ease of travel, availability of health care financing mechanism, increasing costs of care and globalization.

3. Health care expenditure for Malaysia has been hovering at about 4% of national GDP. According to the statistics released by WHO, per capita health expenditure for Malaysia at international dollar rate is USD402 in 2004 and growing at annual average of 8.6% for the past 5 years. 59% of the total health care expenditure is by public sector and the remaining private. Malaysia has yet to introduce universal health insurance for its population but private insurance has been well accepted in recent years. The Central Bank of Malaysia has reported that about 15% of the population has some kind of health and medical insurance with total premiums of RM2.4billion for year 2005. At the moment, there are no health care insurance products in the market which allows Malaysian to seek healthcare abroad.

4. On the status of private health care resources in Malaysia, there are 233 private hospitals and maternity homes plus some 8,000 medical and dental clinics. Altogether they provide 23.2% of total hospital beds in the country. Fees are charged according to the fee schedules in the Private Health care Facilities and Services Act and regulations. The fees for local and foreign patients follow the same schedule. Due to the substantial subsidies in fees at public health care facilities, the general public often has the wrong impression that private health care services is costly and private sector providers have been profiteering. In actual fact, the fees are still the lowest in the region and affordable. Private health care services are preferred by middle and upper income group, health and medically insured (provided by their employers or on their own). 85 - 90% of the patients in private health care facilities are Malaysian and only about 10 - 15% are medical tourists and expatriates. Average bed occupancy rate of these hospitals are about 60%. Venturing in to medical tourism will allow private hospitals to use their remaining capacity to the fullest thus generating more revenue.

5. In 2006, our estimated doctor to population ratio is 1:1164. However, in the capital city of Kuala Lumpur, the ratio is 1:396, which is at par with most developed countries. 61% of the doctors are serving with the government while 39% are in the private sector. Remuneration, terms and conditions of service have been reviewed from time to time to further narrow the differences between public and private sector in order to reduce the migration from public to private sector. Malaysia invests a lot in sending doctors for sub specialty training and postgraduate qualifications in the United Kingdom, Australia, India and the United States of America. Continuous Professional Development and research opportunities are some incentives which the private sector does not provide. The government hope that these initiatives will be able to reduce brain drain in the public sector. Annually about 300 junior medical officers leave the public service after completing their 3 years compulsory service with the government. However this number has been reducing in recent years. The number of medical specialist resigning has been less than 20 per year.

6. Malaysian hospitals have also harness the usage of ICT in providing seamless care. Many large hospitals are equipped with Hospital Information Systems which have automated the procedures for making appointments, registration at arrivals, consultation and health records keeping, drug prescription and dispensing, ordering of diagnostic tests, storing of images and issuance of bills. Such services have also facilitated medical tourists who are referred here and for proper follow-up when they return to their home country. As medical tourist would be more willing to pay for such service as compared to insurers who do not compensate based on adoption of technology, medical technology and medical ICT will certainly benefit from this trend. The spill-over effect will then be better medical records for all patients allowing them to benefit from seamless care. Providers could also benefit from the same ICT infrastructure by applying telemedicine or outsourcing their services to more efficient suppliers for example in getting radiological images interpreted from afar. Payors, insurers and third party administrators would also have more complete health record and be able to assess cost and underwrite better. ICT applications

have also help in reducing professional isolation for professionals who are being posted to remote health care facilities and sparing medical staff of administrative work where it could be done through back office automation thus allow them to focus on providing medical care.

7. The healthcare industry in Malaysia is a well-regulated industry. There are adequate laws and regulations to regulate the medical, dental and pharmaceutical professions, healthcare facilities or establishments, to ensure health care providers provide quality services and patient safety. For example, the National Drug Control Authority checks on the safety, quality and efficacy of drugs before allowing product registration apart from issuing licenses to manufacturers, importers and wholesalers of drugs. It also monitors adverse drug reactions and conduct post market surveillance. The latest legislation, being the Private Healthcare Facilities and Services Act and Regulations which imposes standards on safety of facilities and obligations of care givers to patients. In Malaysia, all blood supply by the National Blood Bank also complies with standards by international accredited bodies like the World Health Organization, the Council of Europe, the American Association of Blood Banks and the Food and Drug Administration Regulations. With medical tourism, the regulatory framework would have to be in place as fundamental assurance of the existence of a credible health care system for the medical tourist. Medical tourists would want to have laws and regulations which will address medico legal claims at par to international norms. If so, medical liability insurance and claims would also increase. This issue will be of concern as defensive medicine can have a negative impact on the health care sector.

8. It was during the Asian financial crisis that private hospitals saw a decrease of local patients but an increase of foreign patients. An opportunity availed itself for private hospitals to tap into the potential of medical tourism. In order to ensure and establish a clear market positioning for health/medical tourism in Malaysia built on credible competent providers, quality care for peace of mind, giving value for money and making healthcare experience in Malaysia an enchanted one; only larger hospitals with full fledged secondary and tertiary medical services having quality assurance accreditations and standards were listed as Health Tourism hospitals. These hospitals will be assisted by the government to be marketed. Currently, there are 35 private hospitals listed for the promotion of health tourism. This list is not static and revision can be made as and when needed. Some of these hospitals have taken the initiative to partner or network with reputable overseas healthcare centres where cross referral and follow-up care are better managed.

9. It is unclear and perhaps not significant as yet of medical tourism's direct impact to the public health care system in our country. This is because the supply is now from the excess capacity of the private hospitals. Its extended impact beyond the private hospitals setting to the public sector has not been translated as in increased brain drain. Better services at private sector hospitals also have not caused reduction of patient load in public health care facilities. However as a whole, most evident are that private health care is showing a second wave of growth which happened in the late 80s till early 90s and at the same time public investment



into health projects are also increasing. In Malaysia where public health is heavily subsidized and health facilities operating from tax payers' money, it will never forsake its social responsibility. The government realize that its health care delivery system even though under pressure, has performed well for the amount of money allocated and it has been rewarded in many other ways for the good health outcome of the population. The current health care system is still the best. Until and unless there is another better way, this system will continue. For now, credible private hospitals with excess capacity will be mobilized to meet the demands of the health tourist and its potential will be leverage upon fully to benefit the people and the country's economy.

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*26 December, 2007.*

## **ASEAN COOPERATION ON TRADE IN HEALTH SERVICES**

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### **1. ASEAN Economic Community by 2015**

ASEAN, the Association of Southeast Asia Nations, enters its 40<sup>th</sup> year with an even greater commitment to its vision of the ASEAN Economic Community by 2015—a single, integrated, seamless market.

The ASEAN Economic Community has its roots in ASEAN vision 2020 and the Bali Concord II. The creation of a stable prosperous and highly competitive economic region is the goal of ASEAN economic integration.

To increase the pace of economic integration in Southeast Asia and better equip ASEAN to face the challenge of global competition, the ASEAN Leaders, at the 12<sup>th</sup> ASEAN Summit in the Philippines on 13 January 2007, have agreed that the target date for creating the ASEAN Economic Community be brought forward by five years to 2015.

With the realization of the ASEAN Economic Community, ASEAN will become a single market and production base. Tariffs will be eliminated and non-tariffs barriers will be gradually phased out. There will be a free movement of professionals. ASEAN investors will be permitted to invest in sectors formally closed to foreigners and the services sector will also be opened up. Customs clearance will be procedures will be streamlined and harmonised with the ASEAN Single Window.

The ASEAN market offers tremendous business potential with its increased opportunities for trade and investment, and serves as a prime production base for regional as well as global markets. At the same time, ASEAN's political will, natural resources, and young and talented workforce makes the region an even more attractive investment location.

## **2. Liberalisation of Trade in Services in ASEAN**

The service sector is a major and expanding component of the ASEAN Economy and a typical ASEAN Member State generates about 40-50 per cent of its GDP from the services sector.

In 1995, the ASEAN Economic Ministers, in recognition of the growing importance of trade in services and the need to improve the efficiency and competitiveness of ASEAN's services industries, signed the ASEAN Framework Agreement on Trade in Services aimed at substantially eliminating the barriers to trade in services within ASEAN.

## **3. ASEAN Framework Agreement on Trade in Services (AFAS)**

AFAS is consistent with International rules provided for in the General Agreement on Trade in Services (GATS) of the World Trade Organisation (WTO). In fact, integration of the services trade under AFAS is aimed at bringing the ASEAN Member Countries' commitments to a higher level than what they had agreed to under GATS (Otherwise known as the "GATS-Plus Principle").

The integration of the services trade in ASEAN is carried out through successive rounds of negotiations, resulting in packages of services liberalisation commitments from each ASEAN Member State.

## **4. What Has Been Achieved Under AFAS?**

ASEAN has concluded five packages of commitments under AFAS which cover various services sectors such as business services, construction, distribution, education, environmental services, healthcare, maritime transport, telecommunication and tourism.

## **5. Mutual Recognition Arrangements (MRA)**

ASEAN cooperation in trade in services also includes Mutual Recognition Arrangements which help facilitate the movement of professional services providers in the region. An MRA allows the qualification of professional services supplier to be recognized by the relevant authorities of any of the signatory Member Countries. To-date, two MRAs covering Engineering Services and Nursing Services have already concluded.

## **6. Facilitating Trade with The ASEAN Single Window**

ASEAN Agreement to establish and implement the ASEAN Single Window was signed in 2005. The ASEAN Single Window, when fully implemented in 2012, will speed up the clearance of shipments and the release of goods by customs authorities in the ASEAN region.

## 7. What is the ASEAN Single Window?

For the ASEAN Single Window to come into effect, all ASEAN Member States would first need to set up National Single Windows, guided by the ASEAN Single Window Implementation Technical Guide.

A National Single Window is a clearance system that enables (i) a single submission of information and data, (ii) a single and simultaneous processing of the data, and (iii) a single point of decision-making through close collaboration among the line Ministries and other parties involved in the customs clearance process.

The ASEAN Single Window will be in operation when all the ten National Single Windows are operating in an integrated manner.

Under the 2005 Agreement to establish and implement the ASEAN Single Window, and its 2006 Protocol, the ASEAN Single Window will be implemented by 2008 in Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand and by 2012 in Cambodia, Lao PDR, Myanmar and Viet Nam.

## 8. Priority Sectors for Economic Integration

In 2003 The ASEAN Economic Ministers identified 11 priority sectors in ASEAN for accelerated economic integration. A twelfth priority sector was added in 2006.

<b>Sector</b>	<b>Coordinator</b>
Agro-based products	Myanmar
Air travel	Thailand
Automotives	Indonesia
e-ASEAN	Singapore
Electronics	Philippines
Fisheries	Myanmar
<b>Healthcare</b>	<b>Singapore</b>
Logistics (added in 2006)	Viet Nam
Rubber-based products	Malaysia
Textiles and apparels	Malaysia
Tourism	Thailand
Wood-based products	Indonesia

These priority sectors were chosen based on their comparative advantage in natural resource endowments, labour skills and cost competitiveness, and value-added contribution to ASEAN's economy.

All priority sectors (apart from the logistics sector) have a roadmap, adopted in 2004, that charts the path to full integration 2010.

On 8 December 2006 (Cebu, Philippines) there was a signing of ASEAN Framework (Amendment) Agreement for the Integration of the Priority Sectors and the ASEAN Sectoral Integration (Amendment) Protocol for the Integration of the Priority Sectors. The ASEAN Economic Ministers launched Phase 2 of the priority sectors for integration initiative.

## **9. Vientiane Action Programme (2004-2010)**

The Vientiane Action Programme (VAP) also highlights this as a priority measure to be addressed under the ASEAN Socio-Cultural Community, in the context of addressing the social impact of economic integration. The VAP calls for addressing health development issues from liberalisation, through developing strategies to strengthen capacity and competitiveness in health-related products and services. Some key concerns are to (i) ensure coordination between policy-makers, practitioners and users in rationalising health delivery; and (ii) enhance human resources for health in the area of globalisation and trade regulation.

## **10. ASEAN Health Ministers Meeting (AHMM)**

In April 2000, a Declaration on Healthy ASEAN 2020 was endorsed by the 5<sup>th</sup> AHMM, held on 28-29 April 2000, Yogyakarta, Indonesia. One of the mission statements in the Declaration, related to GATS, was that in order to meet the challenges of the new millennium, ASEAN should strengthen the national and collective ASEAN capacity on the issues of “health implications from globalisation and trade liberalisation”.

The 3<sup>rd</sup> Senior Officials Meeting on Health Development (SOMHD) held in Jakarta on 7-8 December 2005, reiterated the importance of urgently addressing the health impact of trade liberalization. They asked for this to be given priority consideration for implementation in 2006, and to be highlighted to ASEAN’s Dialogue Partners, especially with regard to movement of individual service providers, and consultation with the ASEAN Coordinating Committee on Investment (CCI) and the ASEAN Coordinating Committee on Services (CCS).

## **11. Roadmap for Integration of Health Care Sector**

The main objectives of the Roadmap for Integration of Health Care Sector are (i) to strengthen regional integration through liberalisation and facilitation measures in the area of trade in goods, services and investments; and (ii) to promote private sector participation. The Roadmap covers 19 main areas, including tariff elimination, non-tariff measures, rules of origin, customs procedures, standards and conformance, logistics services, outsourcing and industrial complementation, ASEAN integration system of preferences, investments, trade and investment promotion, intra-ASEAN trade and investment statistics, intellectual property rights, trade in services, movement of business persons, experts, skilled labour, talents and professionals, facilitation of travel in ASEAN, human resource development, investments, standards and conformity, and capacity building.

## **12. Trade in Services**

With regard to trade in services, the Roadmap calls ASEAN Member States to accelerate the liberalisation of trade in priority services sectors by 2010, by :

- Eliminating all limitations in Mode 1 (cross-border supply) and Mode 2

- (consumption abroad);
- Achieving Mode 3 (commercial presence) foreign equity participation targets;
  - Setting clear targets for liberalising other Mode 3 limitations;
  - Improving Mode 4 commitments;
  - Applying ASEAN minus X formula;
  - Accelerating the development of Mutual Recognition Arrangements;
  - Promoting of joint ventures and cooperation, including in the third country markets; and
  - Accelerating the development of Mutual Recognition Arrangements

### **13. Movement of Business Persons, Experts, Skilled Labour, Talents and Professionals**

The roadmap also plans to develop an ASEAN Agreement to facilitate the movement of business persons, including the adoption of an ASEAN Business Travel Card.; identify and develop other mechanisms that will complement existing ASEAN Initiatives to further facilitate the movement of experts, professionals, skilled labour and talents.; and accelerate completion of MRAs to facilitate free movement of experts, professionals, skilled labour and talents, taking into account Member States domestic laws and regulations.

### **14. Conclusion**

Some ASEAN Member States have started to export medical transcription services or have become significant exporters of “health tourism” services. Philippines and Indonesia are two of the world’s largest exporters of healthcare workers. Foreign patients from ASEAN and other countries come to use the service in the ASEAN region. Competitiveness started to occur among several ASEAN Member States that provide services to foreigners. Foreign investment, foreign-owned health care facility cater mainly the middle and upper income population segments and are mostly found in urban areas.

However, this trade in health services occurs mainly outside the framework of existing trade agreements. It creates both opportunities and risks, especially opportunities for cost savings and access to better quality care. It raises challenges in promoting equitable and affordable access.

Even though, the governments of ASEAN Member States have initiated some agreements on trade in health services, but they are all in earlier stage. A lot of details still need to be consulted in the ASEAN Health Forum, especially health trade policy. Health system reform in most of ASEAN Member States need to be considered to cope with this regional trade in health services. Studies on implications of trade in health services on primary health care are highly recommended.

## TOWARDS A DIAGNOSTIC TOOL ON TRADE IN HEALTH SERVICES

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### **I. Background**

Trade in health services is a complex subject matter, involving as it does an understanding of numerous interconnected facets that concern a country's health system (and often that of its main trading partners), its domestic economy, health and trade policy and their formulation, as well as the conduct of international negotiations at both the regional and multilateral levels.

Although each country faces a unique set of policy circumstances, opportunities and constraints with regard to trade in health services as a result of its income level, its geography and climate, its supply of human capital and its broader development objectives, a number of common factors can be identified that underpin each of these specific contexts. Such factors include the state of the domestic health care system, the trade and sectoral policy framework in the health sector, the infrastructural and regulatory framework within which health services are supplied domestically and traded internationally, and the availability of data and qualitative information in this regard.

The WHO has in recent years been developing a diagnostic tool designed to capture a wide range of issues affecting trade in health services generally, as well as in the more confined context of trade and investment agreements covering the health sector. The discussion that follows is rooted in, synthesizes and offers some revisions to the framework on trade in health services and the WTO's General Agreement on Trade in Services (GATS) first developed by Chanda and Smith (2006).

A diagnostic tool on trade in health services aims to guide policy makers toward:

- (i) a comprehensive reading of the state of the domestic health policy system, reform priorities in the sector, and the role, if any, that is to be assigned to trade and investment policy in meeting such reform priorities;

- (ii) a comprehensive understanding of the state of trade in health services across all four modes of supplying services;
- (iii) relevant mode-specific aspects of trade in health services, by drawing out linkages between a country's general economic and health environment and the modal characteristics of trade in health services; and
- (iv) institutional, regulatory, infrastructural and other aspects in assessing trade in health services and preparedness for trade and investment negotiations in health-related services.

Such a tool seeks to achieve the above aims by helping health and trade policymakers better understand the nature and implications of international trade in the health sector, and thus assist them in formulating (if desired) trade policy objectives in the health sector and their pursuit in international negotiations.

A diagnostic tool will also aim to assist in the identification of information and data gaps, and thus help prioritize, streamline, and coordinate data collection in this area at both the domestic and international levels. A related aim of the framework is to help in the systematic collection of comprehensive qualitative and quantitative information on trade in health services for a wide range of countries across different regions and income levels, thereby encouraging and facilitating comparative policy analysis and the identification of best practices. A final aim of the diagnostic tool is to help countries identify and prioritize capacity building needs at the trade and health policy interface.

## II. Contextual considerations

Trade reforms in recent decades have extended beyond merchandise to incorporate services, including the promotion of new entry, commercialization and competition in health-related services such as health care, hospital management, health insurance services, the remote supply of medical services and the temporary movement of medical personnel.

The World Trade Organization's General Agreement on Trade in Services (GATS), the vast majority (and growing number) of preferential trade agreements (bilateral or regional) concluded in recent years as well as bilateral investment treaties (the numbers of which have also grown significantly over the past decade) allow countries to undertake, if they so desire, legally-binding commitments on trade and investment in health-related services and to formulate such commitments in accordance with domestic health policy objectives.

The commercialization of health-related services such as hospital care, health insurance or managed care (both the insurance and provision functions) and the emergence of a health-related tourism industry has to date been generally limited to middle-income developing countries. Such commercialization has in most instances not reached a pervasive level even in such countries (Mackintosh and Koivusalo, 2005).

Though limited, available evidence suggests generally reduced scope for commercialization of health-related services, and thus for significant cross-border trade and investment in the sector, in poorer countries. The combination of low incomes, acute resource constraints (including human resources) in health care, limited access to health services and poor health care infrastructure all significantly limit the scope supplying services on a commercial (i.e. for profit) basis in such environments.



The policy attention recently devoted to the trade and health interface has revealed how inadequacies in the quality and/or supply of health-related services may dampen labour productivity and act as a deterrent to inward FDI (in all sectors).

International trade in health-related services remains small, accounting for an estimated 0.4% of health spending in developed (OECD) countries (Lautier, 2005). However, cross-border trade and investment activity in health-related services is growing under the combined influence of rising incomes (spending on health-related services - including health-related tourism - is highly income-elastic) in developed and developing countries; demographic change, particularly population ageing in developed countries and the ensuing pressures to contain health budgets; technological applications that facilitate the remote supply of an increasing range of health-related services, including to isolated populations in developing countries; continued FDI liberalisation in services, including in health-related services; high and growing demand for skilled medical personnel and their cross-border mobility, etc.

A growing number of developing countries, particularly middle- and higher-income countries (many of which in South and South-East Asia), today regard health services, especially those that can be combined with tourism-related activities, as a potentially significant source of foreign exchange earnings, FDI attraction and skills upgrading. Such countries have been devoting increasing policy attention to building health-related export clusters, and some have developed targeted investment promotion strategies in the sector. Several health care enterprises originating in developing countries now manage hospitals and supply health care through a commercial presence in foreign markets, typically in other developing countries (i.e. South-South investment).

Despite the developments described above, few countries have to date assigned a central role to trade and investment rule-making in the pursuit of domestic health care reforms, including in respect of trade in health care services. Countries have for the most part pursued unilateral reforms and exhibited significant policy precaution whilst experimenting with various approaches to commercialization and trade and investment liberalization in the sector. The vast majority of such reforms have been undertaken outside of formal, legally-binding, trade and investment agreements, be they bilateral, regional or multilateral in nature.

Regulatory precaution in health services is also much in evidence within trade agreements. The health sector is that in which WTO Members scheduled the least commitments in the Uruguay Round and in subsequent accession negotiations. Moreover, it is notable that not a single negotiating proposal aimed at promoting the liberalization of trade and investment in health-related services was advanced in the WTO's Doha Development Agenda (DDA). Nor has a collective request been formulated in the sector following the decision taken at the December 2005 Hong Kong Ministerial to conduct the DDA's services negotiations along plurilateral lines. This does not, of course, preclude individual WTO Members from addressing bilateral market-opening requests to specific trading partners in the health sector, though a number of leading WTO Members, notably the EU and Canada, have made public their intention neither to make requests nor formulate offers in the sector.

### III. Thinking about the trade-health policy interface along modal lines<sup>1</sup>

Using the definition of trade in services common to most trade agreements, trade in health services can be supplied through four distinct channels, so-called modes of supply:

- 1) cross-border supply of health services through remote supply (i.e. by suppliers that are not present in the receiving economy), such as telemedicine or e-health services;
- 2) consumption abroad, when domestic consumers travel to a foreign country to receive health-related services;
- 3) commercial presence, when a foreign service provider (a juridical person) establishes a presence in a host country for purposes of supplying health-related services; and
- 4) movement of natural persons, when health care professionals (e.g. medical doctors, nurses) from one country supply their services abroad on a temporary basis.

The policy literature devoted to cross-border trade and investment in health-related services has drawn useful attention to the potential benefits and costs of each of the above four modes of transacting health-related services internationally (Chanda, 2002). Such benefits and costs constitute important elements to consider in approaching the policy interface between trade and health services and in deciding whether, how and to what extent the trade policy process - both trade and investment rule-making and market opening commitments - can or should be assigned a particular role alongside ongoing domestic reforms in the health care sector. Before turning to the diagnostic tool and its modus operandi, the potential benefits and downside risks of various means of transacting health-related services across borders are worth recalling.

Among the potential benefits of **Mode 1** trade in health-related services (e.g. telemedicine) are that it can allow services to reach geographically remote areas, thereby helping to alleviate domestic human resource constraints and providing cost-effective surveillance and treatment of certain diseases. Telemedicine may also provide new trading opportunities for countries able to insert themselves into the new international division of labour made possible by the application of information and communication technologies in a growing number of service activities, including health services. The potential costs or downside risks of remotely-supplied services include the possible reallocation of resources from rural and primary healthcare to specialized services which are more likely to cater to the affluent few, since they are better able to afford the necessary technology.

The principal potential benefit of **Mode 2** trade in health-related services (i.e., consumption of healthcare services abroad) lies in its potential to improve the healthcare system by generating additional resources for investment in healthcare (when foreigners travel to the host country to consume health-related services). Mode 2 trade

<sup>1</sup> This section is drawn from Chanda and Smith (2006).

can become an important source of foreign exchange earnings and add to the multiplier effects of tourism-related activities in the host economy. The potential downside risks of Mode 2 trade are similar to those noted above for Mode 1 activities: it may create a dual market structure with higher quality care being supplied to affluent consumers (domestic and foreign), to the detriment of the health care needs of poorer segments of the host country population. A related concern is the potential crowding out of the population from higher standard health facilities at the expense of the public healthcare system. The development of mode 2 trade activities geared towards foreign consumers of health care services may also attract scarce human resources away from public healthcare institutions. The import of health-related services through consumption abroad may also constitute a drain on a country's foreign exchange reserves.

The potential benefits of Mode 3 trade in health-related services (i.e. the establishment of foreign health care institutions in the host country) are that to generate additional investment in the health care sector, contribute to upgrading health care infrastructure, facilitate employment generation, and provide a broader array of specialized medical services than those available locally. Mode 3 trade may also provide a stimulus to the development of health insurance services domestically. The potential downside risks of Mode 3 trade once more include growing inequality in access and the emergence of a two-tiered health care system. This two-tiered system may result from an internal "brain drain," as foreign commercial ventures may encourage health professionals to migrate from the public to the private health care sector.

The potential benefits of **Mode 4** trade in health-related services (i.e. movement of healthcare professionals) are that it may promote the exchange of clinical knowledge among professionals and therefore contribute to upgrading their skills and medical standards. The potential downside risks of Mode 4 trade arise from the danger that such mobility may be of a more permanent nature, such that health care professionals often trained at considerable home country expense are forever lost, thus reducing the availability and quality of services on offer to home country consumers of health care services.

#### **IV. Structure of the diagnostic tool on trade in health-related services**

A diagnostic on trade in health services would aim to identify the principal issues requiring policy analysis at the trade and health services interface. It would serve as a policy checklist allowing countries to identify gaps that may need to be addressed if they choose to undertake autonomous or trade or investment agreement-brokered liberalization in health-related services, benefit from such liberalization, and address potential downside risks of such liberalization. By proposing a common format and a standard questionnaire, a diagnostic tool would encourage and facilitate the adoption of common data collection techniques, generate common data bases, allow for a greater sharing of experiences and data across countries, and enable cross-country learning and comparative assessment of the effects of autonomous or agreement-induced liberalization in health-related services.

The diagnostic tool is to be structured to provide a logical flow from general questions relating to the orientation of domestic health policies and the operation of services trade policy that are relevant across all possible modes of supplying health services to issues that are specific to each separate mode of supply. A further set of

questions focus taken up in such a tool concerns the availability and quality of data and related qualitative assessments of likely importance in informing policy choices on trade in health services.

Since the implications of trade in health services under any of the four modes of supply are shaped by prevailing conditions in the health sector and in related areas, it is important to start by collecting information on the state of the domestic health care system. This includes aspects such as the amount of investment in the health care sector, demand and supply conditions, the public-private balance in health care, the policy environment, infrastructure conditions and their adequacy, the regulatory framework and enforcement capacity, human resource capabilities as well as labor market conditions in the health sector. The aim here is to help identify those factors that may constrain or facilitate trade and investment in health services and how greater cross-border activity in health services may impact such factors.

A fuller understanding of the role that trade and investment policy - and thus trade and investment negotiations - can and should (or cannot and should not try to) play in pursuing domestic reforms in health services requires decision makers gain a better grasp of the broader environment within a country's services trade regime is framed. Accordingly, the diagnostic tool naturally devotes significant attention to the forces shaping countries' trade policies in services in general and trade and investment in health services in particular.

The diagnostic tool also aims to draw specific attention to the current status of trade and investment in the health sector and the recent direction of policies for each individual modes of supplying health services. Of considerable relevance in this context is the institutional capacity with regard to trade in health services, with questions needing to be directed towards the state of a country's regulatory, economic, analytic, and administrative capacity to assess trade in health services and to undertake domestic policy measures and initiatives at the bilateral, regional and multilateral levels. The aim is to help countries identify gaps in their institutional capabilities and structures and strengthen them accordingly so as to deal more effectively with the liberalization of trade in health services where such liberalization is deemed in the national interest.

A final set of questions to be addressed by the diagnostic tool concerns the state of data and qualitative information on the health sector in general and specifically with respect to trade and investment in health services. This includes questions on key sources and quality of data and other information on the health sector in general, and more specifically on trade and investment in health services, and the institutional framework at the national and international levels for data collection and dissemination. The aim is to help highlight gaps and ways to improve the state of information in this sector and thus enable more effective assessment of the desirability and likely impacts of trade and investment liberalization in health services.

The diagnostic tool's tiered structure is thus aimed at:

- (a) highlighting linkages between the broader economic and sectoral context within which trade in health services occurs and the mode-specific aspects of this trade;
- (b) helping policy makers prioritize across modes and steer them towards the most relevant modes for their respective countries; and

- (c) helping countries focus on specific policies, strategies, and issues within each mode and address their particular needs and concerns.

## V. Analysing results for policy analysis

The diagnostic tool on trade and health services aims to pull together, in a systematic manner, the most relevant items of information that policy makers will need to assist them in this respect and to work through the complex economic, sectoral, social, and international issues that surround trade liberalization in health services. It should be regarded as generating a policy checklist of sorts for those countries who wish to assign to trade and investment rule-making and market opening a specific role in undertaking domestic health services reforms. A number of the key elements of such a policy checklist are identified in Table 1 below.

The information that is generated through the application of the diagnostic tool can serve three broad purposes. First, it can help raise awareness and better sensitize relevant policy communities and the broader public on the interface between trade and investment policies and health care reforms. The process of completing the questionnaire embedded in the diagnostic tool should update countries on the current status and characteristics of trade and investment in health services, on their country's readiness, interests in and prospects for liberalization in this regard, and also sensitize them to the associated benefits and challenges of alternative policy and negotiating initiatives. Such awareness creation would help countries better understand their interests and concerns, the source of their comparative advantages (if any) in health-related trade, the adequacy of their human resource and infrastructural endowments in health services, as well as their regulatory and institutional strengths and weaknesses in this area.

A second purpose relates to policy identification and formulation at the national, bilateral, regional, and multilateral levels. The results emerging from the diagnostic tool should help countries identify issues on which to focus and prioritize in terms of policy measures and initiatives at various levels, with a view (if so desired) to promoting greater trade and investment in health services, ensuring that the potential gains from liberalization are properly realized and that associated downside risks are readily anticipated and mitigated. In addition, in helping guide policy decisions on whether countries should liberalise trade and investment in health services or not, and on whether or not they should assign a specific role to trade and investment negotiations in pursuing domestic health reforms, the results from the application of the diagnostic tool may also be of use, for instance by identifying those restrictive measures and the appropriate policy space that may need to be preserved in legally-binding trade and investment commitments, the best means of carving out, limiting or clarifying the precise scope of health services subject to international trade and investment disciplines, etc.

The third purpose of the diagnostic tool is to identify gaps in data and information, and in existing data collection systems and procedures. A clearer identification of such limitations can provide the basis for establishing appropriate procedural, organizational, and institutional structures and systems to improve the state of data and information relevant to better understanding and assessing the impacts of trade and investment in health services.

**Table 1. Towards a policy checklist on trade and health services**

<b>Elements of the diagnostic tool</b>	<b><i>Trade and Investment in Services</i></b>
Performance characteristics, approaches, and priorities in domestic health policy	<i>Determining what role, if any, to assign to trade and investment policy, and hence to trade and investment agreements, in the design and implementation of domestic health care reforms.</i>
What health-related services are being traded?	<i>Nature and trends in imports and exports of health-related services, including inward and outward investment flows in the sector; sources of comparative advantage in health services trade and investment.</i>
Identifying offensive and defensive negotiating interests in trade and investment in health-	<i>Strengthening in-country analytical capacities (within government and national policy research institutions; developing and adapting policy impact assessment methodologies at the trade and health policy interface; strengthening the negotiating capacity of policy officials in the trade and health ministries {see capacity building below).</i>
Ongoing negotiating issues related to trade and investment rules and agreements	<i>Identifying policies/measures/strategies to be pursued under GATS, Preferential Trade (and investment) Agreements, and Bilateral Investment Treaties; ensuring that needed policy space is protected, existing non-conforming measures preserved, exceptions properly drafted, the scope of health services subject to trade and investment treaties readily understood by all stakeholders.</i>
Health policy implications	<i>Access to quality services, equity, internal mobility of skilled medical personnel, cross-subsidization between public and private health care systems; risks of two-tiered health systems.</i>
Regulatory issues and flanking policies	<i>Adequacy of regulatory enforcement mechanisms; links between health services, health insurance, access to health equipment; procurement practices in health care; FDI promotion activities; temporary migration policies in health care; mutual recognition agreements in regulated health professions.</i>
Current mechanisms/capacity for policy coherence between trade and health policies	<i>Strengthening inter-agency coordination processes; promoting regular two-way dialogue between the trade and health policy communities at the national, regional and global levels.</i>
Capacity building needs	<i>Strengthening negotiating capacity/enhancing the quality of inter-agency coordination and external stakeholder consultation mechanisms; strengthening data collection capacities on trade in health services; strengthening national research capacities on trade and health issues (within relevant government agencies, universities and think tanks)</i>

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## **Government use provision and access to medicines and primary health care: the case of antiretrovirals in Thailand**

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Evidence suggests that medicine patents and associated high costs of treatment is a major barrier to essential health care in developing countries. Although the World Trade Organization's agreement on Trade-related aspects of Intellectual Property Rights (TRIPS) allows flexibilities such as compulsory licensing, parallel importation and government use of patents to protect public health, these safeguards are rarely introduced in resource-poor settings. Recently, the Thai administration decided to enforce government-use measure for 2 pharmaceutical products, mainly prescribed in primary health care facilities. This paper reviews the Thai experience on the use of public health safeguard, in accordance with TRIPS, to ensure access to medicines among population in need.

Thailand has been afflicted by HIV epidemic since early 1990s (Bureau of Epidemiology 2003). Until 2007, the total number of people who had got the virus was 1 million, out of which 580,000 were still alive. To meet the substantial health need, the national HIV/AIDS programme was expanded to provide antiretroviral therapy (ART) alongside other essential medical care and prevention services. Instigated in 2003, the publicly-financed, universal ART initiative currently covers over 100,000 eligible cases, or one third of the population in need, in different areas around the country. The wide geographical coverage is feasible as the antiretroviral (ARV)-based medication has been integrated into the existing health delivery system including its primary health care section (WHO Regional Office for South-East Asia 2007). Some 700 district hospitals, well-equipped with medical doctors, nurses, counsellors, pharmacists and laboratory scientists, are the major points of treatment provision.



In 2006, eighty percent of ART recipients received fixed-dose combination of first-line ARVs, namely lamivudine, stavudine and nevirapine, produced by a state enterprise the Government Pharmaceutical Organization (GPO), under the trade name GPO-Vir. Despite the effort to promote treatment adherence, as the service is continually scaled up, the increase in demand for second-line medicines is inevitable, because some patients do not respond to the basic regimen, and drug resistance has developed in other cases. According to a World Bank's study, most HIV patients will eventually need second-line therapy, and this is not possible without public support (Revenga et al. 2006). Moreover, around 20% of Thai people living with HIV/AIDS (PHA) on ART cannot tolerate hepato-toxicity of nevirapine, which indicates the needs for substitution by other ARVs with less-severe adverse effects. However, widening the access to these medicines was hampered by the high prices associated with pharmaceutical patents and monopolistic rights commanded by multinational drug companies.

To pursue sustainable ART, in November 2006 and January 2007 the Thai Ministry of Public Health (MOPH) announced the policy to override ARV patents by introducing government use for Merck's Storcrin(r) (EFZ) and Abbott Laboratories' Kaletra(r) (lopinavir and ritonavir combination, LPV/r) - the action that complied with the flexibilities of the WTO's framework (Disease Control Department 2006; Disease Control Department 2007). This policy decision was justified by the fact that HIV infection was a leading cause of morbidity and mortality among Thai people (International Health Policy Program 2007), and ART could halt the course of disease development and therefore prolong life of PHA (Steinbrook 2007). It was anticipated that generic substitution would broaden access to treatment, since Indian-made generic versions of the two medicines under government-use scheme were notably cheaper than their patented prototypes: 650 baht v.s. 1,300 baht per month for EFZ, and 22 baht v.s. 33 baht per tablet for LPV/r (Ministry of Public Health and National Health Security Office 2007). According to the MOPH, without additional budget, the use of generic EFZ would increase the number of ART recipients in the public sector by 20,000.

The use of TRIPS flexibilities for medicines is unusual in developing countries, in part owing to the fear of political pressures and sanctions from industrialized nations and multinational medicine companies (Centrale Sanitaire Suisse Romande 2006). Thailand's action to maintain its universal ART initiative was applauded by international health authorities including the World Health Organization (WHO) and Joint United Nations program on HIV/AIDS (UNAIDS), as well as non-governmental organisations (NGOs) and PHA networks around the world (Weisman quoted in Ashayagachat and Treerutkuarkul 2007; Chan 2007; Piot 2006). Meanwhile, the move to introduce this public health safeguard prompted strong protests from research drug industry including the patent-holding companies, as well as their national governments. The oppositions claimed that the use of ARV patents by the MOPH did not meet the conditions of public health crisis or emergency, and that there had been no prior discussion with the patent holders (Asia Net News 2007; Pharmaceutical Research & Manufacturers Association 2007). Rigorous pressures were put on this middle-income setting through different means such as threatening to withhold their investments and introducing other political and trade retaliations. For several times, representatives of developed nations and multinational drug producers visited Ministries of Public Health, Foreign Affairs and Commerce in Bangkok and Royal Thai Embassies in different cities to ask for clarification about the policy and its future development.

The Washington administration was the sole party implementing concrete sanction over the use of TRIPS flexibility. Although the United States Trade Representative (USTR) accepted that Thai policy did not violate any international laws and trade agreements (Schwab 2007), the American agency placed Thailand on its Special 301 Priority Watch List (PWL) according to the 2007 revision in April (Office of the United States Trade Representative 2007), and also removed some categories of Thai exports from its Generalised System of Preferences (GSP) in July (US Commercial Service 2007). Meanwhile, the EFZ patent holder, Merck, participated in price negotiations organised by the MOPH, and offered Storcrin(r) at significantly-lowered price for developing countries including Thailand (Merck & Co. 2007). On the other hand, Abbott employed relatively aggressive tactics: withdrawing registration dossiers of its seven new medicines including heat-stable LPV/r product from the Thai Food and Drug Administration (FDA) (Bangkok Post 2007a).

After seeking the most appropriate sources of quality generic EFZ and LPV/r, the Health Ministry decided to purchase the products, which met the standard of the WHO prequalification scheme for HIV medicines, from Indian companies. A fast track was established by the FDA to facilitate the approval of drugs under the government use plan. The first batch of EFZ was imported in February 2007. In addition to this, diverse strategies were implemented by the Thai government to promote access to affordable, safe and effective ART and also to alleviate the pressures implemented by the government-use opponents. These included, for instance, the GPO was urged to speed up its research to produce generic ARVs and other essential medicines (Gerhardsen 2007). The MOPH also sought collaborations on health and access to pharmaceuticals with developing countries in Latin America such as Argentina and Brazil (Bangkok Biz Online 2007; PharmaTimes 2007). The partnerships included those aimed at the transfer of technology concerning medicine development and manufacturing. Thailand joined other countries in the South in the network for bulk purchasing of HIV medicines organized by the Clinton Foundation (The Nation 2007a). Furthermore, the country worked closely with other low- and middle-income nations in many international and regional forums on intellectual property, innovation and public health, for example the World Health Assembly (WHA) and the WHO-sponsored Intergovernmental Working Group (IGWG) to develop global strategy and plan of action. The Thai government also created alliances with international and domestic NGOs and PHA networks - the strategy that was remarkably beneficial in dealing with the powerful nations and multinational medicine industry. At the same time, the MOPH appointed a committee to negotiate drug prices with the patent-holders (Ministry of Public Health 2007). If the companies offered their products at acceptable prices, according to pre-set criteria, the government would not override the patents, and purchase these original medicines instead of the generic version.

It was evident that civil society coalitions were among key players that shape the Thai government-use policy in a number of ways. First, NGOs and academics networks had an influential role in the policy agenda setting. It was the civic members of the National Health Security Board that raised the issue of public health safeguards under the TRIPS agreement to discuss in the meeting in early 2006. Second, the NGO alliances helped to legitimize the flexibility enforcement. Letters, statements, assertions and different forms of information campaigns contributed to better understanding of the justification of the policy among the public. Third, NGOs' movements provided direct

and indirect moral support to the government from the initial phase of the introduction of this public health safeguard and also when the oppositions' pressures considerably grew. Fourth, the NGOs including academics in fields of law, consumer protection, health and pharmaceutical science contributed their technical expertise to the strategy design and implementation. Finally, health activists and civil society networks organized demonstrations, public discussion and different sorts of campaigning activities at local and international level. These movements considerably contributed to the government use of ARV patents, as they were effective in fostering understanding of the difficult issues and mobilizing support from a broad range of stakeholders inside and outside the country. Worldwide protests against Abbott's cancellation of drug registration files in Thailand, which were convened in many cities in April 2007, were among obvious illustrations.

As of November 2007, there had been no empirical evidence on the health and health-related benefits Thailand could obtain from the enforcement of government use. However, the announcement of this policy generated immediate benefits for Thai citizens and also positive spill-over effects to people in other developing countries. After the intention to use this TRIPS flexibility was publicised, the patent-holding firms sought meetings with the MOPH's committee on price negotiations, where several rounds of discussion were continually undertaken (The Nation 2007b). In mid-February 2007, MSD cut the price of EFZ by 14.5%, to 65 cent per tablet, for Thailand and other developing countries with high HIV prevalence (Merck & Co. 2007). The company offered this new price to the MOPH, however, with several conditions so that the proposal was not accepted by the Thai authority. On 10 April, Abbott announced that the prices of Kaletra(r) and its heat-stable version Aluvia(r) would be cut by over 55%, to 1,000 USD per patient a year, in 40 developing countries including Thailand (Abbott Laboratories 2007). By offering this, the company hoped to reach a deal on price with the MOPH, and at the time could preserve its patent (Zamiska and Hookway 2007). Although this move could not set the dispute with Thailand as the government disagreed with the condition to cancel the government use for Kaletra(r), the price reduction would increase access to LPV/r in HIV-afflicted settings in the South.

Furthermore, the Thai action drew significant attention of global health community and key stakeholders to the issues of intellectual property, unaffordable drug costs, inadequate access to essential medications and the introduction of TRIPS flexibilities. Also, the policy was an important test not only to the WTO's agreement and Doha Declaration but also the WHO's position and leadership to provide support to developing countries those implemented the public health safeguards but got retaliated by greater powers (Bangkok Post 2007b). In many forums within the WHO's framework such as the meeting of IGWG on Public Health, Innovation and Intellectual Property and WHA, the enforcement of government-use measure by the Thai administration was raised to indicate the inefficient mechanisms of the current IP system and requirements for interventions to fulfil public health needs. The Thai's move was also highlighted by health activists to encourage other developing countries to follow suit. By November 2007, however, Brazil had been the sole developing country that introduced government-use of medicine patent after Thailand announced its policy to break patents for public health.

The use of TRIPS flexibility for EFZ and LPV/r by the Thai government provides many lessons which may be helpful for other developing countries and public and civic health advocate organisations as followed:

- (1) Despite several impediments, the use of TRIPS safeguard for public health in developing countries is feasible, and results in desirable outcomes such as drug price reduction and expanded access to essential, affordable medications.
- (2) In the government-use for medicines including ARVs, South-South partnerships and collaborations between governments and civil society organisations are critical factors of success. It is impossible for a single developing country to unilaterally push this policy forward, without support from others.
- (3) Although the adoption and implementation of this policy is difficult in resource-poor settings, the Thai case illustrates the key role of determination and perseverance of local and international civic alliances. It was their experience and expertise developed throughout the past decades that substantially benefited the current administration when window of opportunity opened.
- (4) The use of TRIPS safeguards requires strong leadership and commitment of governments to improve health of their people. Despite facing objections by greater powers, systematically learning and networking carried out by policy makers and health officials are helpful to achieve the policy objectives.
- (5) To ensure access to affordable medicines for the needy population, diverse strategies which complement to each other should be employed. It is noteworthy that although Thailand could obtain patented ARVs at significantly lowered prices through its government-use programme, in parallel, the Thai administration undertook negotiations with the patent-holding companies and also promoted research and development in order to foster local production of generic drugs.

In conclusion, international trade agreements may hamper essential medication provided at any levels of the health service delivery. Lessons drawn on the Thai government-use policy indicate that introducing TRIPS safeguards in resource-poor settings is difficult, so that such an action may require concerted support from not only other countries in the South and civil society organizations but also international authorities, especially the WHO and WTO.

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# IMPLICATIONS OF INTERNATIONAL TRADE AND TRADE AGREEMENTS FOR PRIMARY HEALTH CARE (PHC) : THE CASE OF SERVICES<sup>1</sup>

Mina Mashayekhi, Elisabeth Tuerk

## 1 Introduction

Global demand for services and international services trade have increased dramatically making the services economy and trade in services important engines for growth and development in developing countries (DCs).<sup>2</sup> Between 1990 and 2005, the share of services in gross domestic product (GDP) has grown continuously from 66% to 73% in industrialized countries (ICs) and from 49% to 52% in DCs. Services now account for about 72% of employment in ICs and 35% of employment in DCs. Moreover, over the past five years, world services exports have accelerated with annual average growth rates of 12 and 13 % for ICs and DCs respectively.<sup>3</sup> In parallel, rules for international trade and investment in services have proliferated both at the multilateral (General Agreement on Trade in Services, GATS) and at the regional levels (Regional Trade Agreements, RTAs).

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<sup>2</sup> Trade in Services and Development Implications, Note by the UNCTAD secretariat, TD/B/COM.1/85, 2 February 2007 (UNCTAD 2007).

<sup>3</sup> Among DCs, services exports are concentrated in a small number of DCs, with Asian DCs accounting for 75 % of all DCs' services trade and with over half of DC services exports originating in only six countries (UNCTAD 2007).

Against this background, also international trade and investment in health and health-related services are growing.<sup>4</sup> However, such trade remains small, accounting for only about 0.4 % of health spending in ICs (OECD).<sup>5</sup> More specifically for services related to primary health care (PHC), data are lacking, as is concrete evidence of the overall impact of international trade and international trade rules on PHC-related health services. Yet, numerous inter-linkages between PHC and international services trade (and the rules covering it) exist and governments may wish to carefully assess how to use international trade and trade rules to maximize the benefits, while minimizing the risks, of health services trade when seeking to deliver high quality and affordable PHC services at the national level.

This essay looks at international trade rules from a PHC perspective. It takes the GATS as an example and asks whether international trade agreements contain any PHC-specific provisions; touches on costs and benefits related to trade in PHC-related health services; stresses the need for regulation to complement liberalisation; and highlights co-operation as a central element of international trade rules covering PHC-related health services. *The essay focuses on health services related to PHC.*

There are different approaches to defining PHC. As set out in the 1978 WHO Alma Ata Declaration<sup>6</sup> PHC is “essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community”. The Declaration also mentions the cost<sup>7</sup> of such care and the fact that PHC is “an integral part both of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of the community”. It further defines PHC as “the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.” Along these lines, PHC would cover numerous personal care needs and different disciplines, including general practitioners, nurses, pharmacists, midwives, home helpers etc.<sup>8</sup> PHC is also the focus of many policies aiming to achieve universal access (UA) to basic health services. PHC and specific UA goals vary depending on countries’ levels of development.<sup>9</sup>

<sup>4</sup> Such growth is occurring because of e.g., demographic change, technological developments, pressures to contain health budgets, growing demand for skilled health personnel and its cross border mobility, and trade and investment liberalisation, WHO toolkit, draft, October 2007 (WHO forthcoming).

<sup>5</sup> Lautier, 2005, cited in WHO forthcoming.

<sup>6</sup> Declaration of Alma-Ata International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978, paragraph VI

<sup>7</sup> Cost should be at a level “that the community and country can afford to maintain at every stage of their development in the spirit of self reliance and self-determination”.

<sup>8</sup> For a discussion of primary care and PHC, see Primary Care in the Driver’s Seat, Saltman, Rico, Boerma, European Observatory on Health Systems and Policies series

Published by Open University Press, [http://www.euro.who.int/InformationSources/Publications/Catalogue/20060403\\_3](http://www.euro.who.int/InformationSources/Publications/Catalogue/20060403_3).

<sup>9</sup> Universal Access to Services, Note by the UNCTAD secretariat, TD/B/COM.1/EM.30/2, 18 September 2006 (UNCTAD 2006).



## 2 International Trade Rules and PHC: the Example of the GATS<sup>10</sup>

International trade and investment agreements - and the GATS<sup>11</sup> more specifically - cover all services<sup>12</sup> including health services generally, as well as PHC-related services. Taking the WTO's "W/120 sectoral classification list"<sup>13</sup> as an example, health services are included in two sectoral categories: sector 8, entitled "health related and social services", covers hospital services, other human health services, social services and other services; and sector 1, entitled "business services", contains the sub-sector of "professional services", which covers, amongst others, medical and dental services and services provided by midwives, nurses, physiotherapists and paramedical personnel. None of these sectors, however, makes any specific reference to PHC-related services. This would suggest that international trade rules do not distinguish, for example, between hospital services delivered in the context of PHC and in other contexts.

This is not to say, however, that GATS would stand in the way of governments wishing to differentiate - in their liberalisation commitments - between PHC-related and other health services. For example, with respect to the classification of the services sectors to be liberalised, each WTO Member can adapt the "W/120 list" to suit its individual preferences. Examples of such adaptations exist, amongst others, with respect to health services, where some WTO Members have opted for a classification much more detailed and disaggregated than the one suggested by the "W/120" list.<sup>14</sup>

For example,<sup>15</sup> Singapore, in its revised services offer, clarified its entry of "medical services", by adding "specifically general medical services (CPC 93121) and specialised medical services (CPC 93122)"<sup>16</sup>. Moreover, in its newly offered commitments under sector 8 (health related and social services), Singapore specifically included "acute care

<sup>10</sup>The following analysis focuses mainly on the GATS. Given the model character the WTO's services agreement has had on other RTAs covering services, many of the below considerations would also apply to RTAs and to some extent also to International Investment Agreements (IIAs).

<sup>11</sup>For a detailed description of the GATS, see Markus Krajewski, *National regulation and trade liberalization in services*, Kluwer Law International, 2003 and, from a health perspective, WHO, *Legal Review of the General Agreement on Trade in Services (GATS) from a Health Policy Perspective*, WHO, [http://www.who.int/trade/resource/GATS\\_Legal\\_Review\\_15\\_12\\_05\\_01.pdf](http://www.who.int/trade/resource/GATS_Legal_Review_15_12_05_01.pdf) and Mashayehki/Tuerk, *Strategic Considerations for Developing Countries: The Case of GATS And Health Services*, in Blouin, Drager, Smith, *International Trade in Health Services and the GATS: Current Issues and Debates*, The World Bank, Washington, 2006 (Mashayehki/Tuerk, 2006).

<sup>12</sup>GATS Article I para. 3 (a) "services" includes any service in any sector except services supplied in the exercise of governmental authority".

<sup>13</sup>Negotiators developed the W/120 list of services sectors during the Uruguay Round (UR) of trade negotiations for the purpose of negotiating commitments under the GATS.

<sup>14</sup>Additionally WTO Members clarify their sectoral entries with references to the UN-CPC, a more detailed list of sectoral classifications. Amongst others, division 93 on health and social services distinguishes between general medical services and specialized medical services, offering a detailed description of each of them. For a fuller list of health related services sectors, see United Nations Provisional Central Product Classification, ST/ESA/STATIS.FR.M/77.

<sup>15</sup>The following does not aim to provide an exhaustive list of examples.

<sup>16</sup>TN/S/O/SGP/Rev.1.

hospitals, nursing homes and convalescent hospitals as defined by the Private Hospitals and Medical Clinics Act, run on a commercial basis (CPCP 93193)”; “guidance and counselling services not elsewhere classified related to children (CPC 93322); and “welfare services not delivered through residential institutions (CPC 93323)”.

The EC revised offer, in its entry on “medical, dental and midwives services” qualifies in a footnote that for Slovenia social medicine, sanitary, epidemiological, medical/ecological services, the supply of blood, blood preparations and transplants, and autopsy are excluded.<sup>17</sup> For “services provided by nurses, physiotherapists and paramedical personal” the EC schedule clarifies, in the sectoral column, that for Austria, the activities covered are: nurses, physiotherapists, occupational therapists, logotherapists, dietician and nutritionists”. Governments wishing to distinguish between *PHC-related* and other health services could include similar disaggregations or specifications in their schedules.<sup>18</sup>

With respect to the rules and obligations created by the GATS, the Agreement’s national treatment obligation could also offer space for accommodating differences between *PHC-related* and other health services. According to the GATS’ national treatment provision, a WTO Member, once it has fully committed a particular sector under Article XVII, may not accord different treatment<sup>19</sup> to domestic and foreign “like” services and “like” services suppliers.<sup>20</sup> This turns the determination of what are “like” services or service providers into a central issue.<sup>21</sup> To date neither the legal text of the GATS nor WTO jurisprudence have provided clear guidance on which factors are relevant for the definition of “likeness”, leaving the question essentially open and to be decided in future WTO dispute settlement cases. Nevertheless, one could argue that surgical services provided in the context of *PHC* are “unlike” surgical services provided, for example, for plastic surgery - hence opening space for treating *PHC-related* health services differently from *other health* services.

Also GATS’ so-called “public services carve-out” and Members’ attempts to clarify its ambiguous meaning, are relevant for Members wishing to single out *PHC-related* services. According to Article I, the GATS covers all services, except those services “supplied in the exercise of governmental authority”. The latter are defined as services that are “supplied neither on a commercial basis nor in competition with one or more service suppliers”. In light of the ambiguity and uncertainty created by this language, particularly with respect to coverage of public services, several WTO Members use their individual country schedules to clarify the meaning and to carve-out all of - or parts of - public services.

<sup>17</sup> TN/S/O/EEC/Rev.1.

<sup>18</sup> Note that some countries also include specifications in the market access or national treatment columns.

<sup>19</sup> Article XVII refers to “treatment no less favourable than that it accords to its own like services and service suppliers”.

<sup>20</sup> See M. Cossy, Determining “likeness” under the GATS: Squaring the circle? in Panizzon/Pohl/ Savu\_ (eds), GATS and the Regulation of International Trade in Services, World Trade Forum 2006, Cambridge University Publishing (forthcoming) and staff working paper ERSD-2006-08 WTO, Sept. 2006.

<sup>21</sup> Mashayekhi/Tuerk (2006).

Different approaches have been used,<sup>22</sup> including the EC approach (inserting a horizontal limitation for “services considered as public utilities at a national or local levels”, and carving out certain regulatory tools);<sup>23</sup> the Nordic/Swiss approach (excluding the “public works function whether owned and operated by municipalities, state or federal governments or contracted out by these governments”); the approach used by Mexico and Malaysia (including specifications in the schedules’ sectoral columns, clarifying that for each sector listed, the schedule/commitment relates to “private” services only); or the US/Estonian approach (clarifying in the sectoral column that the commitment only covers services “contracted by private industry”).<sup>24</sup> More recently, Jamaica, in its initial offer included a technical clarification that “the commitments in this schedule do not apply to non-profit, public and publicly funded entities. These commitments cannot be construed as preventing the Government of Jamaica from regulating public and private services in order to meet national policy objectives”.<sup>25</sup>

Considerable legal and policy discussion and analyses have addressed questions relating to the breath of the GATS Art I carve-out and the utility of different individual countries’ additional carve-outs. Most of these discussions explore the interface between the GATS Article I language (supply on a commercial basis/in competition) and policy choices regarding the public and/or private provision of certain services. Less attention, however, has been given to the question of how different public services carve-outs would relate to *PHC-related* services. Both approaches - (a) differentiating between services supplied commercially/in competition and others and (b) differentiating between public and private service supply - differ from the delineation between *PHC-related* and other health-related services. In theory, however, what Members have done through individual public services carve-outs could also be done for *PHC-related* services.<sup>26</sup>

Finally, it has to be noted that the GATS, as well as RTAs, usually contain so-called “general exceptions”. In the case of GATS Article XIV, the provision specifies that subject to certain requirements, “nothing in this Agreement shall be construed to prevent the adoption or enforcement by any Member of measures: ... (b) necessary to protect human, animal or plant life or health.” Importantly, this provision grants leeway for health policies, including *PHC-related* policies.<sup>27</sup>

<sup>22</sup> While originally, so-called public services carve-outs have been viewed as a mainly developed country issue, more recently, also DCs consider taking such an approach: See, the example of Pakistan described in Mashayekhi/Tuerk, *Achieving Coherence between Trade and Health Policies: Selected Examples from Pakistan, the Philippines, Uganda and Peru*, in WHO, forthcoming, (Mashayekhi/Tuerk, forthcoming).

<sup>23</sup> Slovenia’s entry in the EC schedule additionally specifies, for hospital services that “entry into public Health network is subject to concession from Institute for Health Insurance of the Republic of Slovenia” TN/S/O/EEC/Rev.1.

<sup>24</sup> For a more detailed discussion of such approaches, their advantages and dis-advantages see Mashayekhi/Tuerk (2006).

<sup>25</sup> TN/S/O/JAM.

<sup>26</sup> It has to be noted, however, that a WTO Member aiming to include a *PHC-related* services carve-out in a UR schedule with existing health commitments might face questions related to the possible reversal of commitments and attendant requests for compensation. At the same time, examples of post-GATS RTAs show that negotiators are creatively approaching public services carve-outs (e.g., the US-Uruguay FTA (Free Trade Agreement) and the SADC draft Protocol on Trade in Services, version June 2007)).

<sup>27</sup> There are however, limitations to an approach relying on a “general exception” for pursuing legitimate policy objectives.

In sum it can be noted that at the conceptual level, the GATS stops short of specifically referring to PHC-related health services. At the same time, however, through its concepts of e.g., progressive liberalisation and positive listing for liberalisation commitment<sup>28</sup> the Agreement allows countries to a) determine the sectors to be subject to liberalisation commitments; b) define such sectors in light of individual country priorities; c) carve-out public (or PHC-related) services; and d) benefit from policy flexibility under the Agreement's general exception.<sup>29</sup> Governments' use of these various channels for flexibility manifests itself in the commitments Members have taken, and continue to assume under the GATS.

## 2 GATS Liberalisation Commitments and Offers in PHC-related Services

A review of WTO Members' Uruguay Round (UR) commitments and initial (and revised) offers submitted in the WTO's Doha Work Program (DWP) shows that the liberalisation of specific health-related services sectors remains limited.

UR schedules reveal that health services (covered under health and professional services) exhibit relatively few commitments, with medical and dental services having most commitments, followed by hospital and midwives/nursing services. The country-pattern of commitments remains diffuse with some Members refraining from undertaking commitments in all of the four core health-related sub-sectors.<sup>30</sup> This reluctance to schedule health-related commitments is also visible in the case of LDC Members. Amongst the organisation's 32 LDCs less than 10 have made commitments in the "W/120's" sector 8.

In the DWP, the US, EC and Canada have made clear that, for them, health services are not a focus area of negotiations. A few DCs included health services, notably in relation to the movement of natural persons in their requests.<sup>31</sup>

Some DCs, also included health services in their offers: Bahrain, Brazil, Hong Kong China, Korea, India and Trinidad and Tobago, for example, offered new health-related services commitments; India, amongst others, offered new commitments for medical and dental services and for services provided by midwives, nurses, physiotherapists and para-medical personnel.<sup>32</sup> Brazil's offer relates to veterinary services. Mexico, and on the IC side New Zealand and the EC made improvements to existing health-related services commitments. In the case of the EC, this includes, e.g.,

<sup>28</sup> Note that some international trade agreements follow the "NAFTA model" and adopt a so-called negative list approach.

<sup>29</sup> Also important is the GATS (re)affirmation of Members' right to regulate and to establish national policy objectives, which would also include PHC-related services.

<sup>30</sup> UNCTAD 2006; Adlung/Carzaniga, Update on GATS commitments and Negotiations, in Blouin, Drager, Smith (eds.).

<sup>31</sup> The Mode 4 plurilateral request and the LDCs' group requests on Mode 4 refer to health related services.

<sup>32</sup> Interestingly, India's Mode 1 offer covers the provision of the service on a provider to provider basis, with the transaction being between established medical institutions covering areas of second opinion to help in diagnosis of cases or in the field of research, TN/S/O/IND.

definitions for economic needs tests (ENTs).<sup>33</sup> Those countries making offers on health services are mostly Members who had previously undertaken health related services commitments. Some countries, e.g., Canada, neither have health-related services in their UR schedule nor do they include them in their offer, hence pointing to a certain sensitivity regarding the liberalisation of health services. South Africa has commitments in medical and dental services, veterinary services, services provided by midwives and nurses and physiotherapists and paramedical personnel, but no health-related offers. Also only one of the approximately 20 plurilateral requests specifically focuses on health services: the Mode 4 plurilateral request refers to medical and dental services (CPC 9312); veterinary services (CPC 932); and services provided by midwives, nurses, physiotherapists and paramedical personnel (CPC 93191).<sup>34</sup>

Importantly, however, neither WTO UR commitments nor DWP requests or offers make specific references to *PHC-related* health services.

### 3 Trading PHC-related Services: Evidence of Costs and Benefits

The above, quick review of commitments and offers regarding health and PHC-related health services suggests that governments are employing a fair degree of caution with respect to entering into legally binding commitments on international trade in PHC-related health services. Amongst others, such caution may be motivated by the fact that the implications which international trade in services and the respective international rules may have on PHC remain relatively unexplored. While general ideas about the relationship between international services trade and health are beginning to emerge, precise information based on the quantification of benefits and costs remains absent. This is the case for both, health and *PHC-related* health services sub-sectors.<sup>35</sup>

More broadly, it is recognised that international trade in health services can bring about important benefits for universal access (UA) to health services (e.g., by providing new technologies and increased capital, by reducing the burden on government resources and allowing for reallocation of resources). However, trade in health services can also pose certain challenges (e.g., brain drain and cream skinning) and important uncertainties remain regarding the benefits: in fact, the expected re-allocation of resources often fails to materialise.<sup>36</sup>

<sup>33</sup> TN/S/O/EEC/Rev.1.

<sup>34</sup> See also, Tuerk, Services Post Hong-Kong - Initial Experiences with Plurilaterals, in Panizzon/Pohl/ Savu\_ (eds), GATS and the Regulation of International Trade in Services, World Trade Forum 2006, Cambridge University Publishing (forthcoming), (Tuerk, forthcoming).

<sup>35</sup> This is a phenomenon cutting across services sectors in general, amongst others, due to the fact that data on services trade and services activities is limited. Trade in Services and Development Implications, Trade in Services and Development Implications, Note by the UNCTAD secretariat, TD/B/COM./77, 16 January 2006 (UNCTAD, 2006).

<sup>36</sup> UNCTAD, Universal Access to Services, Report of the Expert Meeting on Universal Access to Services, TD/B/COM.1/EM.30/3, 26 December 2006 (UNCTAD report, 2006).

While most theoretical and empirical literature on services trade highlights the positive economic impact of liberalising and eliminating trade barriers (reference is made to gains accruing from short-term allocative efficiency gains and long-term welfare gains), the health sector is usually considered distinct from other service sectors. Health services exhibit several market failures as well as strong equity considerations, therefore suggesting specific considerations.<sup>37</sup>

Any attempt to highlight the costs and benefits of trading health and health-related services has to differentiate between the four modes of trading services.<sup>38</sup> This would also have to be done for *PHC-related* health services. However, in the context of the more narrowly defined sector of *PHC-related* services, some additional questions arise. For example, given that PHC-related services do not always offer opportunities for making profit, there are questions about the extent to which commercially viable Mode 1 and Mode 2<sup>39</sup> trade would at all occur in these services; similarly, given that FDI is primarily expected to be commercially motivated, questions arise about the extent to which FDI will flow in PHC-related health services. Also, for those aspects of PHC which focuses on bringing health care as close as possible to where people live and work, certain aspects of trade (e.g., Mode 2 trade) would appear less relevant.<sup>40</sup> Finally, concerns about Mode 4 trade, particularly in the context of brain drain, appear to be particularly important for services activities which are not particularly commercially viable.<sup>41</sup>

Moreover, while conceptual understanding about the linkages between trade in health services and the quality of national health systems is growing<sup>42</sup> empirical evidence about the levels and the impact of trade in health services remains extremely limited.<sup>43</sup> Information is even more limited when the more narrowly defined category of *PHC-related* health services is considered. Moreover, some of the benefits expected with respect to trade in health and health related services more broadly, might remain absent when *PHC-related* services are more narrowly defined.

<sup>37</sup> Blouin, Economic Dimensions and Impact Assessment of GATS to Promote and Protect Health, in Blouin, Drager, Smith (eds.) (Blouin, 2006).

<sup>38</sup> For a more comprehensive description of potential costs and benefits arising from trade in health services across the 4 Modes, see Sauv\_, International Trade, Trade Agreements and Health: Implications on Primary Health Care, paper prepared for Parallel Session 4 of the Prince Mahidol Award Conference 2008, see also Blouin 2006.

<sup>39</sup> Particularly for the part of PHC which relates to the initial contact between patient and medical personnel, is it is questionable whether PHC-related health tourism occur on a major scale.

<sup>40</sup> Mode 1 or Mode 3 trade, however, could be particularly relevant in this context.

<sup>41</sup> How to turn brain drain into brain circulation is also addressed by the Global Migration Group (GMG), a collaboration between different inter-governmental organisations, including UNCTAD, aiming to make migration work for development, <http://www.un.int/iom/GMG.html>.

<sup>42</sup> See amongst others, the valuable work undertaken by WHO in the context of assessing health services trade, e.g., the WHO toolkit.

<sup>43</sup> WHO forthcoming.

## 4 The Need for Regulation to Complement Liberalisation

One issue that is becoming increasingly clear, is the recognition that in order for countries to reap full benefits from international services trade there is a need to put complementary policies in place alongside services trade liberalisation policies (in the context of brain drain, these would be policies ensuring repatriation of health professionals that leave the country on a temporary basis for work abroad (Mode 4). Along these lines it has been suggested that liberalisation per se is not at issue, but that instead, attention should be focused on creating an effective regulatory framework and designing of a robust health care strategy. Under a proper enabling environment the health services sector would develop, and offer not only employment and business opportunities, but also proper care, including for the poor and marginalised.<sup>44</sup>

More specifically with respect to UA to PHC-related health services, governments are putting in place numerous and different policies, ranging from public service provision and publicly funded service provision, to universal service obligations (USOs), subsidies, microfinance, community-based and other systems. Each of them offers benefits and challenges and interacts differently with trade-liberalization objectives. Effective public provision (and financing) of health services can be an important tool, with public money and public provision maybe most important for interventions, where treating one case may prevent many others from arising (e.g., communicable diseases control). However, the public sector faces challenges (e.g., changing needs of consumers, new medical technologies, expectations of health professionals) and is often seen as uncompetitive. Almost every country with a publicly funded health care system also has a parallel private system, which usually tends to serve private insurance holders. Private sector engagement and market-based policies can be an option for improving UA to PHC, particularly where financing from the public sector is lacking, but results of privatisation are mixed. Given the profit motivation of the private sector, privatisation of PHC-related services remains questionable from a UA-perspective. Subsidies are widely used for UA and PHC; they can target households (e.g., vouchers directly benefiting disadvantaged consumers), or service providers (e.g., cross-subsidies and UA funds). Subsidies also give rise to numerous challenges, e.g., the unavailability of financial resources for providing subsidies, or the difficulties related to the proper targeting of subsidies.<sup>45</sup>

Regulatory issues are also crucial regarding the concerns arising from increasing South-North movement of health personnel and the attendant tensions between the need for governments to regulate the health sector to achieve PHC on the one hand and trade-liberalisation objectives on the other. The International Council of Nurses (ICN) calls for the promotion of equity, sound regulation, ethical recruitment (including

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<sup>44</sup> The rationale for state-intervention to ensure universal access (UA) stems from different types of considerations including: addressing market failures (e.g., information asymmetry, monopolies and externalities) and providing merit goods (goods or services which are intrinsically desirable or socially valuable, with citizens being entitled to such goods and services, irrespective of whether they can afford them and of actual desires and preference).

<sup>45</sup> UNCTAD, 2006.

ensuring adequate supply at home and providing incentives for return) and discourages recruitment of nurses from countries without sound human resource planning.<sup>46</sup> More recently, the Global Forum on Migration and Development<sup>47</sup> looked at human capital development and labour mobility, particularly for health workers. Its recommendations included: working on best practices for retaining, retraining and re-covering health personnel; and evaluating ethical codes of recruitment practice with a view to making them more effective.<sup>48</sup>

In sum, while the case for regulating services is widely acknowledged, less agreement exists on a one-size-fits-all strategy for improving regulation. Instead, it is for each government to identify a “best-fit solution” in accordance with its particular needs that meets social equity and human development objectives. This policy suggestion applies to PHC-related health services, as well as for many other services sectors.

The policy discourse on regulation has also seen calls for generating benefits through regulatory reform and regulatory audits, with some of them addressing the impacts that regulatory policies have on trade and investment. Key questions suggested in such regulatory audits concern, amongst others, the economic impact of regulation, the potential economic and trade costs of regulatory measures; the need for an efficient, transparent and impartial design of regulation; and whether the policy objective could be achieved through other means or in a manner that might lessen its restrictive impact on trade or investment, hence encouraging - where feasible, the adoption of market access friendly regulation that is supportive of both trade liberalisation and privatisation.<sup>49</sup>

To date, however, results of liberalisation, privatisation, and regulatory reform more broadly, are mixed, generating a call for flexibility and for policy-space to allow countries the leeway needed to identify and implement their respective, best-fit regulation. Frequently, this call for policy space is combined with a call for regulation to be implemented before liberalisation is introduced. Once a proper regulatory and institutional system is established, countries are better placed to reap the benefits of international services trade, including health services and PHC-related health services.

SADC countries adopt such an approach. While SADC Members are currently negotiating a Protocol on Trade in Services, health services are not amongst the 6 sectors identified for priority liberalisation in the draft Protocol.<sup>50</sup> Much earlier, however, in 1999<sup>51</sup> SADC countries had signed a Protocol on Health which provides a

<sup>46</sup> Trade and Development Aspects of Professional Services and Regulatory Frameworks, Note by the UNCTAD secretariat, TD/B/COM.1/EM.25/2, 25 November 2004 (UNCTAD 2004).

<sup>47</sup> <http://www.gfmd-fmmd.org/>

<sup>48</sup> See also, Kategekwa, Liberalisation of Trade in Health Services: Balancing Mode 4 Interests with Obligations to Provide Universal Access to Basic Services, South Centre Research Paper Nr 15, December 2007.

<sup>49</sup> WHO (forthcoming).

<sup>50</sup> The six sectors in which initial liberalisation is to be undertaken are: transport, tourism, communication, construction, financial and energy related services.

<sup>51</sup> The Protocol came into force on 14 August 2004.



legal and policy framework for cooperation in addressing health problems and challenges facing the region.<sup>52</sup>

## **5 Co-operation as a Central Element at the Interface between Regulation and Liberalisation of PHC Services**

Objectives to strengthen PHC would benefit greatly from regional cooperative mechanisms. Cooperation is a prominent feature of regional approaches to services trade liberalisation and can take various forms. Examples include regulatory cooperation, financial cooperation, cooperation for human and institutional capacity-building, for trade-facilitation and infrastructure-building.

Highly relevant for both the trade and the health perspectives is cooperation regarding recognition and harmonisation of qualifications, including mutual recognition agreements (MRAs). Recognition figures prominently in the EU and also in South-South RTAs. ASEAN countries adopted MRAs, including, e.g., for nursing services. Also SADC promotes and co-ordinates regional efforts aimed at development, education, training and effective utilisation of health personnel and facilities. Along these lines, cooperation could include the negotiation of MRAs with DCs and LDCs as well as technical assistance for DC associations and government entities to participate in such negotiations; means to assist DC service suppliers to meet the standards in export markets (e.g., through technical assistance, capacity building and financial support for developing country services suppliers); and one-stop shops for the handling of administrative issues related to the provision of services through Mode 4 or accelerated procedures for verification of qualifications. All of these would be highly relevant for Mode 4 trade in health services, including PHC-related services.

As mentioned above, Mode 4 is also an area where health concerns about trade are relatively pronounced. Again, cooperation can help: in the SADC region, the SADC Project on Reversing Brain Drain in the Health Sector aims to address, the potentially negative implications of movement of health personnel at the national level. Under this project, the SADC Secretariat has mobilised resources for the development of policy guidelines to attract and retain health care professionals in the public sector.<sup>53</sup>

A type of cooperation essential from a development perspective is cooperation aimed at enhancing regulatory development and institution building (e.g., financing, technical assistance, regular information exchange and meetings, partnerships between institutions and other collaborative projects. Cooperation can also cover infrastructure services or support institution-building or supply capacity building, with improved infrastructure as a central requirement for efficient PHC services delivery.

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<sup>52</sup> For COMESA, the currently envisaged “regulations to liberalise regional trade in services” will adopt a positive list, but not focus on specific priority sectors. It remains to be seen, to what extent individual COMESA countries will decide to liberalize PHC-related services. On the regulatory side, COMESA relies on individual countries’ national health strategies.

<sup>53</sup> Khumalo, Implementation of SADC Protocols Affecting Trade in Services, UNCTAD Project on Support to the SADC Regional Integration and the Multilateral Trading System, on file with the author.

An example of specifically health-related cooperation can be found in the context of SADC regional integration. The SADC Protocol on Health, aims at: co-ordinating regional efforts on epidemic preparedness, mapping, prevention, control and where possible the eradication of communicable and non-communicable diseases; facilitating the establishment of a mechanism for the referral of patients for tertiary care; promoting and co-ordinating laboratory services; and collaborating with other relevant SADC Sectors.<sup>54</sup> Implementation of activities has started with Implementation Plans and several projects, including the development of the Health Implementation Plan or the Project on Reversing Brain Drain in the Health Sector in SADC (see above).

Also other RTAs, which increasingly cover services liberalisation, contain provisions for PHC-related health services and sometimes also provisions relevant for health-related cooperation. *MERCOSUR* countries, for example, adopted a staged positive list approach towards services trade liberalization.<sup>55</sup> While PHC related services are not within those sectors with special Annexes (financial, maritime and land transport, Mode 4), Mode 4/movement of natural persons is clearly relevant for health professionals. Overall, the *MERCOSUR* region is characterised by a low degree of regulatory harmonization. While national health systems differ considerably, selected regional cooperation initiatives have taken place (e.g., *tarjeta MERCOSUR*, allowing patients enrolled in the health cooperative of one country to receive health care in another country through the services of the associate cooperative).

In the Andean Community, the regime for the liberalization of trade in services adopts a negative list (together with a stand still obligation and an inventory of measures that could be maintain during the transition period). Hence, PHC-related services are also covered by this liberalization; respective cooperation is, however, less developed.

The European integration process offers an interesting example, with EU Members showing certain sensitivities regarding health and health-related services. While the EU's internal market - and its recently adopted Services Directive - serve as an example for deep and far-reaching liberalisation, health care and certain social services are excluded from this Directive. At the same time, European integration complements trade liberalisation (internal market) with a great array of cooperation across various areas of policy making, including regulatory and cooperation in health and social policy making.

Also Economic Partnership Agreements (EPAs)<sup>56</sup> might touch on health services. In the case of EU proposal to SADC (based on a common template drawing on existing EU RTAs), the proposed services provisions adopt a three-pillar structure with regard to

<sup>54</sup> <http://www.sadc.int/english/documents/legal/protocols/health.php>

<sup>55</sup> A more detailed analysis would be needed to determine the extent to which *MERCOSUR* countries made commitments in PHC-related services.

<sup>56</sup> Since September 2002, the Africa, Caribbean and Pacific (ACP) Group of States and the European Union negotiate EPAs, as mandated by the Cotonou Partnership Agreement (June 2000). By December 2007, a full regional EPA was initialled with the Caribbean and another EPA was initialled with Cameroon. Also several interim agreements were reached in Africa and the Pacific region. Some ACP countries (e.g., in the SADC region) continue be opposed to the inclusion of services into an EPA and instead, favor a cooperative approach.

supply of services (different from four modes of supply under GATS).<sup>57</sup> Regarding PHC-related issues, the elements of positive listing could allow for a careful scheduling of commitments and attendant exclusions of health services; provisions on regulatory frameworks and cooperation, e.g., mutual recognition, exist - albeit in hortatory manner; neither sector-specific provisions nor specific exclusions (e.g., from the establishment chapter) specifically mention health-related services. Some organizations voiced concerns that further liberalization of health services under EPAs might have negative consequences and suggest that EPAs should: delink negotiations of services liberalization from commitments in health and health-related services; provide for formal health impact assessments in any health-related sector where liberalization is being proposed; include commitments to ethical recruitment practices in relation to health workers and modalities for EU investment in public budgets to produce and retain health workers in source countries of migration.<sup>58</sup> There have also been calls to strengthen the language on cooperation in the issues specific EPA chapters (e.g. in the services chapter), rather than relegating cooperation issues to a different legal framework.

## 6 Conclusions

Evaluating the inter-linkages between PHC on the one hand, and international services trade and its respective rules on the other, remains difficult. The lack of international trade data, which is typical for services, is even more pronounced for PHC-related services. While at a conceptual level, current trade rules remain silent regarding the specificities of PHC-related services, they do - indeed - establish rules relevant for PHC-related services, including those provided by public authorities. They also grant leeway for governments to single out PHC related services. Moreover, there are questions as to what extent international services trade is occurring in PHC-related activities. Nevertheless, governments face the challenge of designing mutually supportive trade and health policies that can deliver optimal trade and health outcomes, including for PHC.

Enhanced information and understanding, generated for example by conducting in-depth trade and health assessment studies can help to identify such policies. Such assessments would evaluate trade and health policies at the national level (including by analysing regulatory reform and focussing on best practices for regulatory and institutional frameworks); and trade strategies and trade agreements (including potential trade deals) with a view to anticipating the costs and benefits emanating from them. By focussing on issues specifically relevant to PHC, such assessments would allow for informed decision making by policy-makers.

<sup>57</sup> These are: (i) cross-border supply of services that combines GATS Modes 1 and 2; (ii) “temporary presence of natural persons for business purpose in all economic sectors” (modeled on Mode 4); and (iii) “establishment” in services and non-services sectors (modeled after Mode 3 with extended scope).

<sup>58</sup> Protecting health in the proposed Economic Partnership Agreement (EPA) between East and Southern African (ESA) countries and the European Union, Equinet, Regional Network for Equity in Health in east and southern Africa, Policy Series No. 17, June 2007.

<sup>59</sup> UNCTAD, 2006 .

Additionally, governments would benefit from flexibility allowing for the proper sequencing of trade liberalisation and the development of regulatory frameworks. This would include flexibility in the design of trade rules, particularly those interfacing with domestic regulations in PHC-related services sectors; flexibility in the negotiation of commitments (e.g., through a positive list approach) and flexibility in the implementation of trade rules such as safeguards or general exceptions. For example, the possibility of combining GATS commitments with flexibility to review \_ and roll back \_ commitments in light of their impacts on UA and other PHC-related goals can offer a safety-valve, making it easier for Members to offer commitments.<sup>59</sup> Similarly, flexibility would be needed in the context of future GATS provisions on domestic regulation, where WTO Members are negotiating disciplines for, amongst others, qualification requirements and technical standards, both of them essential regulatory tools.<sup>60</sup> More broadly, trade deals could include provisions for a built-in review process, with a mandate to amend the agreement in light of unanticipated negative health and development impacts.<sup>61</sup>

Finally, from a PHC perspective, any discussion would need to go beyond health services per se, by addressing other basic services such as the provision of water, sanitation, education and insurance services.<sup>62</sup> From a trade perspective, a PHC-related approach to services would be an important step towards putting development at the core of international trade negotiations and trade policies.

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<sup>60</sup> Mashayekhi/Tuerk, *GATS Negotiations on Domestic Regulation*, in Kern et al. (eds.), Brill Publishing, forthcoming, forthcoming. (Mashayekhi/Tuerk, forthcoming).

<sup>61</sup> See, for example, the suggestion for a pro-development review of the WTO's disciplines on domestic regulation, (Mashayekhi/Tuerk, see above).

<sup>62</sup> Sector 7 of "W/120" covers on financial services, including all insurance and insurance related services, including life, accident and health insurance services. *Trade and Development Aspects of Insurance Services and Regulatory Frameworks*, UNCTAD 2007, United Nations, New York and Geneva; see also, *Trade and Development Implications of Financial Services*, Note by the UNCTAD secretariat, TD/B/COM.1/EM.33/3, 3 August 2007

## **INTELLECTUAL PROPERTY, PUBLIC HEALTH AND PRIMARY HEALTH CARE IN FTAs AND EPAs : A SHIFT IN POLICY?**

**By Pedro Roffe and David Vivas-Eugui with Gina Veal<sup>1</sup>**

### **INTRODUCTION**

Since the conclusion of the Uruguay Round negotiations and the adoption of the WTO's Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) in 1994, the US has pursued new and expanded commitments in the area of intellectual property (IP) with a number of its trading partners. The US has sought such deals in more than 15 free trade agreements (FTAs) containing TRIPS-plus provisions, standards that go beyond the minimum requirements of the TRIPS Agreement.<sup>2</sup> On these matters, the EU and the US share many common interests and they collaborate closely through continuous transatlantic dialogues and in their general positions in multilateral organizations. While the EU has persistently demanded from its partners in

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<sup>2</sup> See Pedro Roffe and David Vivas with Gina Veal "Maintaining policy space for development: a case study on ip technical assistance in FTAs", Issue paper No. 19 ( ICTSD: Geneva, 2007) and Fink, Carsten & Patrick Reichenmiller, "Tightening TRIPS: The Intellectual Property Provisions of Recent US Free Trade Agreements," Trade Note 20, (The World Bank Group: Geneva, 2005).

bilateral and regional negotiations the adoption of the highest international IP standards,<sup>3</sup> it has been inclined to rely on commitments of a more general nature by for example demanding that trading partners adhere to the minimum standards of the TRIPS Agreement, as well as to multilateral treaties administered by WIPO, such as the Patent Cooperation Treaty and the WIPO Internet treaties of 1996.<sup>4</sup> More recently, however, the EU has begun to pursue more ambitious levels of protection for intellectual property rights in FTAs.

Bilateral and regional agreements have been the subject of scholarly attention, and have drawn criticism from a number of civil society actors. One of the major critiques raised against FTAs has been that they impinge upon the flexibilities established in the TRIPS Agreement, which allow countries to tailor national policies according to their respective development needs. In this respect, the most sensitive and critical sector has been public health.<sup>5</sup> Specifically, critics have contended that FTAs “upset an important balance between innovation and access by elevating intellectual property at the expense of public health”. In doing so, it marginalises the Doha Ministerial Declaration on the TRIPS Agreement and Public Health of 2001, which reiterates the right of all countries to protect public health and promote access to health for all.<sup>6</sup>

In a substantial departure from past practices, the US recently relaxed several patent-related IP rules by revising its FTAs with Colombia, Panama and Peru. There have been questions about the scope and content of such changes, as well as their potential impact on countries, where older and more restrictive deals have already entered into force. Moreover, it raises questions for countries that are in the process of negotiating new trade agreements.

In the case of the EU, most observers consider that while the EU has maintained a consistent approach in relation to the multilateral IP system, it has pressed for the adoption of standards in addition to those included in the TRIPS by requesting, as pointed out, adherence to treaties such as the Patent Cooperation Treaty. This obligation generates further pressures on developing countries. More recently, the EU has taken a more aggressive stand in its IP negotiating strategy. In the negotiating framework of European Partnership Agreements (EPAs) with African, Caribbean and Pacific Countries (ACP), the EU has put forward draft chapters containing more precise, substantive and comprehensive provisions that incorporates several TRIPS plus provisions.

<sup>3</sup> Most Free Trade Agreements and/or accession by the EU require the adoption the highest standards of intellectual property protection such as in the case of agreements with Mediterranean countries, the Cotonou Agreement and the accession process to the EU of Croatia, Macedonia and Albania. See Maximiliano Santa Cruz, “Intellectual Property Provisions in European Union Agreements: Implications for Developing countries”. Issue paper No. 20 (ICTSD: Geneva, 2007).

<sup>4</sup> Ibid.

<sup>5</sup> See Pedro Roffe, Geoff Tansey, and David Vivas-Eugui, *Negotiating Health*. (UK and USA, 2006).

<sup>6</sup> Letter dated March 12, 2007 to the US Trade Representative signed by 12 US congressmen. See also GAO (2007, September) (United States Government Accountability Office), Intellectual Property: U.S. Trade Policy Guidance on WTO Declaration on Access to Medicines May Need Clarification, GAO-07-1198.

This note attempts briefly to identify the new IP standards in FTAs and EPAs and their implications for public health with focus on primary health care. It will explore the basic links between public health, primary health care and IP. It will also analyse recent US FTAs and EPA draft proposals and explain the parallel trend of demanding higher levels of IP protection, while at the same time showing some political restraint in the areas where IP standards can have a stronger impact over public health and primary health care.

## **IMPLICATIONS TO PUBLIC HEALTH AND PRIMARY HEALTH CARE**

While the impact of new IP standards on public health is a common feature in specialized literature, there is not much analysis on the specific impact to primary health care. According to WHO, primary health care is understood as “*essential health care based on practically, scientifically sound and socially acceptable measures and technology made universally available to individuals and family in the community through their full participation and at a cost that community and the country can afford to maintain at every stage of their development in the spirit of self reliance and self determination.*”<sup>7</sup> From a policy perspective, addressing primary health care is usually carried out through a comprehensive set of instruments that include, public and private health services (including prevention, diagnostic, treatment and rehabilitation), health education and awareness, nutrition and safety policies, medical and drug policy, drug and medical devices, direct intervention in pricing, research and development, and various regulations affecting prices, access and research in general, such as intellectual property. While all of these instruments can have a strong impact on the provision and facilitation of primary health care, this note focuses on the impact of intellectual property standards in recently adopted or negotiated trade agreements on public health and primary health care.

Today, it is widely recognized that IP standards can affect prices and ultimately impact access and affordability of technologies needed to develop and produce new drugs, diagnostic and medical devices and, in certain cases, therapeutical methods.<sup>8</sup> Drugs, diagnostic toolkits, medical devices and therapeutical methods are usually inputs needed to provide effective health care. They are obviously insufficient without the availability of food, water, and the existence of health systems, including doctors, infrastructure, education, and regulation and regulatory authorities.

The impact of IPRs, particularly patents and test data protection, on public health policies has been one of the most debated issues to surface in the WTO in recent years. Since the adoption of the Doha Declaration on the TRIPS Agreement and Public Health, the WTO General Council Decision for the implementation of Paragraph 6 of that Declaration<sup>9</sup> and the subsequent draft amendment of the TRIPS Agreement, the focus of

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<sup>7</sup> Declaration of Alma-Atta, International Conference on Primary Health Care, 1978. See [http://www.who.int/hpr/NPH/docs/declaration\\_almaata.pdf](http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf)

<sup>8</sup> Paragraph 3 of the Doha Declaration on the TRIPS Agreement and Public Health of 2001 recognizes that while intellectual property protection is important for the development of new medicines, it also acknowledges “the concerns about its effects on prices.”

<sup>9</sup> WT/L/540 of 2 September 2003.

the discussion has shifted away from the multilateral front to the regional and bilateral level, particularly with respect to the impact of recent FTAs signed with the US.

In the case of drugs and medical devices, recent work<sup>10</sup> has identified standards and provisions in recent US -FTAs that can have various levels of impact on access and affordability, depending on the specific case. They relate mainly to the following:

- Limitations to parallel imports;
- Incorporation of patent restoration terms;
- Low quality of patentability criteria and examination;
- Limitations to compulsory licenses;
- Introduction and expansion of the protection of test data for pharmaceutical products;
- The so-called linkage between existing patents and the regulatory procedures for the marketing of a pharmaceutical product.

In more general terms and according to several economic assessments undertaken by national governmental authorities and non-governmental institutions in Peru, Colombia, and Thailand, the incorporation of TRIPS-Plus provisions, through FTAs or other regional and bilateral agreements, can negatively affect prices, public and private spending, and lead to increased market concentration of drugs sales by the research-based industry. A jointly sponsored project by the International Centre for Trade and Sustainable Development (ICTSD), the World Health Organisation (WHO), the World Bank Institute (WBI), and the United Nations Development Programme (UNDP) aims to measure the impact of TRIPS-plus provisions on public health using a common methodological framework.<sup>11</sup> The methodology was developed in consultation with researchers who have been involved in previous impact assessment studies, economists, pharmaceutical experts and legal experts. It consists of an aggregated partial equilibrium model, which assesses the impact on the pharmaceutical market as a whole, as well as disaggregated models, which focus on therapeutical classes. With local partners, the project has applied the aggregated model to assess the impact of the US deal with the DR-CAFTA (Dominican Republic and Central American Countries). The findings of these assessments provide some preliminary data on the expected evolution of prices, public and private spending and market concentration levels in the cases of Dominican Republic and Costa Rica.<sup>12</sup> The following box contains a summary of best-case scenarios, in which the FTA provisions are implemented in a development friendly manner.

<sup>10</sup> See various works by Correa, Abbott, Roffe, Drahos, Duffield, Garrison, Vivas, and Spennemann as well as various reports by non-governmental organisations such as ICTSD, MFS, OXFAM, and KEI since 2000.

<sup>11</sup> Information on the model and its precedents can be found at: [http://www.iprsonline.org/unctadictsd/dialogue/2006-07-31/2006-07-31\\_desc.htm](http://www.iprsonline.org/unctadictsd/dialogue/2006-07-31/2006-07-31_desc.htm)

<sup>12</sup> The preliminary assessments undertaken can be provided at request for comment but not quotation until final assessment is presented.



### **Box 1: Examples of Impact Assessment of TRIPS plus-provisions in FTAs**

#### **The case of Dominican Republic**

Basic scenario<sup>13</sup>: 20 year period, based on 367 active ingredients, covering the total market (private and public), including all DR-CAFTA IP provisions and using essential data relating to price evolution, population growth and parameters, such as elasticity and level of exclusivity.

Main findings: An average increase in price of 33% in the covered active ingredients by 2027; an increase in total spending (public and private) from US\$124 million in 2007 to US\$534 million in 2027<sup>14</sup> of which the increase is foreseen to be 52% public and 48% private; over 20 years, a 5% increase in market concentration by the research based industry mostly due to test data protection, linkage and patent term compensation.

#### **The case of Costa Rica**

Basic scenario: 20 year period, based on 119 active ingredients, only covering institutional market (social security is universal in Costa Rica), including all DR-CAFTA IP provisions and using essential data relating to price evolution, population growth and some parameters, such as elasticity and level of exclusivity.

Main findings: An average increase in price of 28% over the covered active ingredients by 2020; an increase in total public spending from US\$89 million in 2007 to US\$185 million in 2020; over 13 years, a 15% an increase in market concentration by the research based industry mostly due to test data protection, linkage and patent term compensation.

The preliminary findings suggest that there will be increased pressure on the social security and drug procurement systems in terms of prices and spending. In both cases, additional measures and resources will be needed to mitigate negative impacts. The findings predict a reduction in consumption of medicines, including those procured by public and private sources if mitigation measures are not implemented soon. This situation is expected to be a challenge both for primary health care systems trying to make available the drugs needed at the first line of service, as well as consumers trying to acquire medicines. Findings also suggest a diversion of resources that could otherwise be used for improving prevention, creating infrastructure, health services and education.

<sup>13</sup> Basic scenario relates to the main scenario used for the purposes of evaluating impact. Other additional scenarios have also been requested by the local partners and stakeholders. In those additional scenarios other factors and situations are considered such as different time frame, number of active ingredients, public intervention, expansion of the social security systems, etc.

<sup>14</sup> This obviously include other price increase but also other factors as population growth, variations in levels of competition, increase in availability of public resources, etc.

In relation to diagnostic toolkits and medical devices, so far there is neither data available on the impact of TRIPS-plus provisions, nor has an impact assessment been undertaken. A first step towards improving understanding of the potential impact of TRIPS-Plus standards on the access and availability of diagnostic toolkits and medical devices would be to undertake a market structure and patent landscape analyses worldwide and in selected markets.

In the case of therapeutical methods, they are normally excluded from patentability in a number of developing countries because they are either not considered inventions or they are characterized as exceptions to patentability. Thus, the impact of TRIPS-Plus provisions on public health and primary health care in these cases would not be relevant except, no doubt, in those markets where their patentability is allowed.

### **NEW HEALTH-RELATED IP PROVISIONS IN US FTAS<sup>15</sup>**

In May 2007, US Congressional leaders reached a compromise with the Bush administration regarding the US' position on issues related to IP, labour standards and the environment in its trade pacts. As a result of the deal, which was intended to facilitate ratification of pending FTAs, negotiated trade agreements with Colombia, Panama and Peru were required to be amended to reflect the newly agreed guidelines. Except in the case of Peru, the FTAs with Colombia and Panama still are in the process of obtaining US congressional approval.

The original IP chapters of the FTAs with Colombia, Panama and Peru included similar provisions as those contained in the agreements that the US negotiated with Chile and DR-CAFTA including, as pointed out before, provisions dealing respectively with: limitations to parallel imports; incorporation of patent restoration terms; limitations to compulsory licenses; introduction and expansion of the protection of test data for pharmaceutical products; and the so-called linkage between existing patents and the regulatory procedures for the marketing of a pharmaceutical product.

With respect to IP and public health, the deal required changes in the following five areas: data exclusivity, patent extensions, linking drug approval to patent status, as well as special provisions on both public health and economic development.

*Data exclusivity.* The exclusive protection of data for "at least 5 years", included in the FTAs with Chile and DR-CAFTA, as well as in the original versions of the FTAs with Colombia, Peru and Panama, was not part of the TRIPS deal and has been one of the most controversial TRIPS-plus provisions. The stipulation relates mainly to the regulatory hurdles that generic competitors must overcome before their pharmaceutical products reach the market. More specifically, the protection of test data prevents producers of generic drugs from relying on information provided by the person that submitted the original data to sanitary authorities. This special protection is in addition to the regular protection provided by a patent. The rationale for this additional measure derives from the complexities of bringing a pharmaceutical product to market.<sup>16</sup>

<sup>15</sup> See Roffe & Vivas, Bridges 2007.

<sup>16</sup> See M. Perez Pugatch, "Intellectual Property, Data Exclusivity, Innovation and Market Access," *Negotiating Health* (Earth Scan; Geneva, 2006).

In the case of Peru, for example, the changes introduced include the notion that the protection of undisclosed test or other data should not exceed “a reasonable period of time.” The relevant provision clarifies that for this purpose, such a timeframe shall normally mean five years, taking into account the nature of the data and the degree of effort and expenditure required to produce the data. The provision further clarifies that parties shall be allowed to implement abbreviated approval procedures for such products on the basis of bioequivalence or bioavailability studies. The revised text of the Peru FTA is indeed much more flexible compared to its original negotiated version (before the intervention of the US Congress), which did not condition the five-year protection rule on the quality of the data and the economic investments made in producing them. Contrary to, for example, the DR-CAFTA, the revised text leaves room for a balanced domestic implementation of the norms. For example, it may be implemented in a way that provides protection for less than five years when the origination of data has not involved considerable efforts and expenditures.

In another important departure, the text of the revised Peru FTA provides that the reasonable period of exclusive use shall begin when the drug was first approved in the US (a so-called “concurrent period”), provided that Peru grant its approval of the compound within six months of an application. This new mechanism provides an incentive for rapid marketing approval in exchange for a period of protection that starts in the country where the drug was first approved, resulting in a shorter period of effective protection. This important change responds to a criticism of the original version of the FTA, which allowed for a priority period of five years within which the innovator could claim exclusivity in the other country. Such a priority right could generate a *de facto* extension of the period of protection up to 10 years.<sup>17</sup>

*Patent extensions.* In the revised version of the FTAs each party “may” extend the term of a patent for a pharmaceutical product to compensate for unreasonable delays in the patent- or marketing-approval process. In other words, the mandatory obligation to compensate for those delays laid out in the original version of the FTA, as is also the case with Chile and DR-CAFTA, becomes optional for the parties. The revised text gives parties the option to compensate for unreasonable delays in the issuance of a patent for a pharmaceutical product by restoring the patent term or patent rights. In all the above circumstances, however, the parties need to make a best effort to process patent and marketing approval applications expeditiously with a view to avoiding unreasonable delays.

*Linking drug approval to patent status.* Another controversial provision in existing FTAs is the obligation of the signatories not to grant marketing approval to any third party prior to the expiration of the patent term without the consent or acquiescence of the patent owner. This stipulation has been perceived as an unnecessary burden on sanitary authorities, as it would require them to determine whether a private right exists on a particular pharmaceutical product. Such a requirement would effectively transform the regulatory agencies into patent enforcement authorities. In the case of

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<sup>17</sup> See Carlos Correa, “Protecting Test Data for Pharmaceutical and Agrochemical Products under Free Trade Agreements,” *Negotiating Health* (Earth Scan: Geneva, 2006)

Colombia, Panama and Peru, the amended FTAs do not include any such 'linkage', and in particular do not require that sanitary authorities to withhold approval of a generic until they can certify that no patent would be violated if the generic were marketed.

Instead, the revised FTAs require parties to provide procedures and remedies (judicial or administrative proceedings, including injunctions or equivalent effective provisional measures) for adjudicating expeditiously any patent infringement of validity or dispute that arises with respect to a product for which marketing approval is sought. The revised texts also require greater transparency in these processes, calling on parties to the FTA to make available a) an expeditious procedure to challenge the validity or applicability of the patent (so as to break the 'link' in appropriate cases), and b) effective rewards for a successful challenge to the validity or applicability of the patent. In other words, the revised FTAs try to balance the rights of patent holders with opportunities for generic producers to challenge patented products that might prevent competing products from entering the market.

*Side letters on Public Health.* Most of the FTAs recently negotiated by the US, including the original agreements with Peru, Colombia and Panama, have contained side letters with reference to the health solution of paragraph 6 of the Doha Declaration of 2001, which allows countries with insufficient or no manufacturing capacity to make effective use of compulsory licenses. The revised FTAs, departing from the earlier ones, call on the parties to affirm their commitments to the Declaration, particularly emphasizing that the provisions on data exclusivity should be subordinated to the right of a party to take measures to protect public health. The revised texts further oblige the parties to respect existing waivers granted by WTO Members regarding provisions of the TRIPS Agreement. These changes put both the Doha Declaration and existing waivers at the same level as other provisions in the FTAs, thus encouraging pro-public health interpretation of the provisions on regulated products, as well as other sections of the FTA. This change may have a positive interpretative effect on certain TRIPS-plus standards in the FTA, such as those on patents, enforcement and dispute settlement.

*Economic Development.* An interesting new provision in the revised FTAs calls for a periodic review of the implementation and operation of the IP chapter, and gives parties an opportunity to conduct further negotiations. Such deliberations could serve to, among other things, incorporate modifications to the agreement in response to an improvement in a party's level of economic development.

## **THE EU APPROACH IN EPAS ON IP AND HEALTH**

As suggested, the EU has developed a new and more ambitious agenda for trade liberalisation at the regional level. Currently, this strategy focuses on six regional trade blocks of ACP countries through the negotiations of the EPAs. While these negotiations can provide opportunities for consolidating and expanding ACP market access to the EU and lock-in domestic reforms, they remain highly controversial, not least because of existing asymmetries in levels of development and negotiating capacities between the EU and ACP countries. So far a handful of ACP regions and individual countries have agreed on goods-only EPAs in December 2007 and early 2008, agreeing to open its market to EU imports in exchange for unobstructed access to the EU market.

The new EPAs being signed are interim deals only covering trade in goods including agriculture and industrial goods, but parties are committed to including other issues within a year. It is expected that parties will continue to negotiate a comprehensive deal to deepen these commitments in 2009. The second phase of negotiations is expected to focus on the so-called “trade-related issues” comprising intellectual property rights, services, investment and competition policy.

In the particular case of intellectual property, the EU is proposing that the ACP countries adopt comprehensive and detailed chapters that request, following the traditional EU approach, the fulfilment of the TRIPS Agreement and the subscription of several WIPO treaties. Under the new more ambitious agenda, the EU has outlined provisions containing TRIPS-plus standards in areas such as copyright, trademark protection, geographical indications, industrial designs and more significantly, enforcement. The incorporation in these deals of patent and test data protection provisions as part of EU demands to ACP countries has been controversial. Heated debates were held in the EU parliament in this regard. As result, the EU Parliament on 23 May 2007 adopted a Resolution giving the EU Commission guidance in the sense that EPAs “*should not include provisions on intellectual property rights, since they constitute an additional barrier to access to essential medicines*”. *In that sense the resolution indicated that “the EPA system must be used to help ACP countries implement the forms of flexibility provided for in the Doha Declaration”.* The Parliament also pointed out that, “*by virtue of the 2001 Doha Declaration on the TRIPS Agreement and Public Health, the EU has undertaken to place public health before its trading interests*”.<sup>18</sup> In a subsequent resolution of July 2007, the EU Parliament reiterated the need to place public health before its trading interests and not include IP provisions in EPAs.

It is foreseen that EU proposals to ACP countries in the second phase of EPA negotiations will not contain specific provisions on patents and test data protection. This would be more consistent with the Doha Declaration and subsequent WHO Resolutions on the matter. It has been argued that recent EU requests in EPA negotiations for adherence to the PCT will include an expansion of the priority period for patent filing from 12 months as required by the Paris Convention to 30 months, enhancing the opportunity to patent new pharmaceutical products in ACP markets. Nevertheless, this is a marginal aspect in term of flexibilities and it is not very clear to what extent such an extension would generate a big increase in patent filling. More serious criticisms are those related to the new demands on improved systems of enforcement, which might generate burdensome pressures on developing countries and strengthen the litigation capacity of patent holders. Such a scenario may cause a chilling effect on importers and generic producers.

## CONCLUSIONS

Recent developments in the US with respect to new FTAs and positions taken by the EU Parliament with respect to EPAs, may be viewed as acknowledgement that TRIPS-plus provisions can affect the availability of medicines and ultimately the availability of

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<sup>18</sup> See European Parliament observatory. EPA non legislative resolutions, 2007. See <http://www.europarl.europa.eu/oeil/file.jsp?id=5296412>

inputs needed to address primary health care. Criticism of some aspects of the FTAs and EPAs, particularly those related to the reduction of the flexibilities of TRIPS, have produced in these respects some concrete changes in policy. As indicated in this note, the adverse effects of TRIPS plus provisions on health appear to be confirmed also by recent impact assessment studies.

On the US front, the revised FTAs clarify a number of obscure aspects of the texts and leave space for innovative implementation of the agreements. Moreover, the amended deals emphasise these flexibilities much more clearly than the original texts as negotiated by Peru, Panama and Colombia. Interestingly, a recent report by the United States Government Accountability Office, states that Congress “may wish to specify more clearly its intentions for U.S. trade policy and input related to balancing public health concerns and the negotiation of IP protections in trade agreements”.<sup>19</sup> This recommendation might have a strong impact in future US trade negotiations and deals as well as in potential renewals of the trade promotion authority by the US Congress.

As noted, this shift is also taking place on the other side of the Atlantic. In the case of the EPAs, provisions on patent and test data protection have been omitted from the recent EU trade proposals to African, Caribbean and Pacific countries (ACPs). This situation leaves untouched most TRIPS obligations in these areas with the exception of some procedural aspects and enforcement measures. Furthermore, the European Parliament has recently adopted two resolutions on the matter, one calling for the EU to refrain from including excessive IP provisions in the EPAs, and the other expressing concern over the incorporation of TRIPS-plus provisions in those agreements over public health.

The first lesson that could be drawn here is that developing countries still occupy weak bargaining positions vis-à-vis their more powerful trading partners in FTAs and EPAs. Even competent and well-prepared negotiators were unable to obtain in the original agreements the more development-friendly provisions that were finally incorporated thanks to the intervention of US legislators.

A second lesson is that in case of unequal economic relations, the role of parliaments, civil society, and the public opinion are important to achieving more balance trade deals. Such deals may better reflect the interest of all parties involved in the negotiations and avoid the consolidation of standards that cannot be absorbed by the weaker parties. This has been particularly true in the case of IP, but could also be applicable to other trade areas that could impact public health and primary health care in areas such as trade in services, investment, government procurement and competition policy.

A third lesson is that developing countries continue to face important challenges in complex areas such as IP. In many instances, multilateral negotiations have proven to be better fora for striking deals that take into account broader considerations as illustrated by the Doha Declaration. In the past, free trade negotiations have typically been guided by an overly simplistic political and mercantilist rationale. This has been the case in the IP field, where the influence and focus of attention has been dominated by influential industrial sectors.

<sup>19</sup> United States Government Accountability Office (GAO). “U.S. Trade Policy Guidance on WTO Declaration on Access to Medicines May Need Clarification”. September 2007. See <http://oversight.house.gov/documents/20071030125409.pdf>

Finally, the recent shift suggests that consumers' and users' rights are now of greater consideration in the crafting of IP rules in trade agreements. At this point, reactions to these changes are mostly preliminary and have been mixed. Nevertheless, the new provisions will clearly generate adjustment and implementation costs for developing country partners, showing again that perhaps nothing in the trade world is free. Not even the primary and basic health care for those that need it most.

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He has extensive experience working with senior officials in developing countries worldwide and with major multilateral and bilateral development agencies in health policy development, health sector analysis, strategic planning and resource mobilization and allocation decisions and in providing advice on health development negotiations and in conflict resolution.

In addition to working on health system issues he has also worked in communicable disease control programmes. With a team of senior managers he contributed to the development of and implemented the strategy for national planning, resource mobilization and donor coordination for National HIV/AIDS Prevention and Control Programmes in over 80 countries which resulted in support to countries of US\$ 400 million for national HIV/AIDS programmes.

He has deep experience in global health diplomacy and negotiations on international health development issues. He represents WHO at international events and conferences, serves as chair, keynote speaker at numerous international conferences; lectures at Universities in Europe, North America and Asia; and is the author of numerous articles and editor of books in the area of health and development. He has an M.D. from McGill University and a Ph.D. in Economics from Hautes Etudes Internationales, University of Geneva.



### **Bounpheng Philavong**

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*Dr.* Bounpheng Philavong was born in Vientiane, Laos. He graduated Medical School from Charles University at Prague (Universita Karlova v Praze), Czech Republic in 1985, and received a Master of Public Health (MPH) degree in Epidemiology from School of Public Health, University of California at Berkeley in 1992 and a Doctor of Public Health (Dr.PH) degree in International Health (Disease Control and Prevention) from School of Hygiene and Public Health, The Johns Hopkins University in Baltimore, USA in 1998.

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He also gave lectures at School of Medicine, School of Public Health, School of Health Technology and Institute Francophone for Tropical Medicine in Vientiane in different subjects, including epidemiology, hygiene, infectious diseases, and HIV and AIDS. He conducted several studies in the area of Immunization and HIV and AIDS. Dr. Bounpheng has also extensive experiences in primary health care and health financing.

In June 2004, he joined the ASEAN Secretariat based in Jakarta, Indonesia, and is now Assistant Director of Bureau for Resources Development and Head of Health and Population Unit. He coordinates ASEAN regional programmes/projects in the areas of health and population, including communicable and emerging infectious diseases, HIV and AIDS, food safety, pharmaceuticals, and population (elderly, disability) among others.



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Dr. Siddiqi has worked extensively in health policy and systems development over the last ten years. He has contributed to establishing health policy and planning units in the ministries of health; establishing a Eastern Mediterranean Regional Health System Observatory; and has undertaken and coordinated health policy and systems research on some of the emerging aspects of health systems including governance of the health system, contracting out of health services and international trade in health services.

In the area of international trade in health services, Dr. Siddiqi has led the work in the Eastern Mediterranean Region by contributing to the development of a methodological approach to assessment of trade in health services and coordinating studies in nine countries of the region - these countries are Egypt, Jordan, Morocco, Pakistan, Oman, Syria, Tunisia, Sudan and Yemen. These studies were presented before national policymakers from ministries of health and trade from the respective countries in a regional meeting to achieve greater policy coherence in the area of trade and health in the region. This work was undertaken between 2004 and 2006. Several reports have been published on this work and can be down loaded from <http://gis.emro.who.int/HealthSystemObservatory/ResearchAndPublications/Forms/ResearchAndPublications.aspx?PID=1&PTitle=Research>

His current work is on the development of a framework for assessing the governance of the health system, which has been tested in several countries. He currently coordinates the work on the governance of the health system and aid effectiveness across the World Health Organization. He also represents WHO on the Board of the Alliance for Health Policy and Systems Research.

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Tantivess started her research career when she joined the Senior Research Scholar (SRS) Program on Health Economics and Financing, under the Health Ministry's Health Systems Research Institute in 1999. She has continued her work in the area of health policy analysis after the SRS was transformed to be the International Health Policy Program in 2002. In addition, she takes part in research and administration at the Health Intervention and Technology Assessment Program in its establishment phase since early 2007. Her current research focuses on the introduction of public policy theories and models to explain the processes, roles of stakeholders and outcomes of programs and strategies in the health sector.

Furthermore, she has practical policy experience at international and regional level. From 2006 she has been appointed as a member of Thailand's delegation to several health policy forums, for example the World Health Organization Executive Board meeting, first session of the Intergovernmental Working Group on Public Health, Innovation and Intellectual Property, the World Health Assembly and related regional consultations.



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Prior to joining TNCDB, Ms. Tuerk worked as a Legal Expert in UNCTAD's Division on Investment, Technology and Enterprise Development (DITE) in the Section on International Investment Agreements and as a staff attorney for the Trade and Investment Program of the Center for International Environmental Law (CIEL, Geneva). She holds a Magistra Degree in Law and a Magistra Degree in International Management from the Karl-Franzens University, Graz, Austria as well as a Masters Degree (MILE, Masters of International Law and Economics) from the World Trade Institute (WTI) in Bern, Switzerland.

Ms. Tuerk is author or co-author of numerous articles on trade in services and development, including on: processes for promoting trade and health coherence, strategic issues for developing countries in WTO GATS negotiation, plurilateral services negotiations, trade and development implications of insurance services, WTO jurisprudence and GATS negotiations on domestic regulation. She has participated as a speaker in numerous academic and policy events on issues related to the interface between trade liberalisation and development, and has extensive experience in university lecturing and training programmes for policy makers. Ms. Tuerk is a national of Austria.



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## **Parallel Session 5**

*Financing PHC :*

*Allocating Resources for Improved Effectiveness and Equity*

## **Primary Health Care Development in European Region and the Case of Estonia**

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### **Introduction**

The Declaration of Alma Ata in 1978<sup>1</sup> identified primary health care (PHC) as the vehicle for achieving the objective of 'health for all by the year 2000' and set the vision for providing universal access and coverage on the basis of need, emphasizing health equity, community participation and intersectoral approaches to health.<sup>2</sup> Strengthening health systems by developing PHC based on these principles remains a priority for World Health Organization (WHO).<sup>3</sup>

Four reviews (none of which were registered as systematic reviews with the Cochrane Collaboration<sup>4</sup>) reveal that health systems with strong PHC orientation (as opposed to those which emphasize hospital- or narrow-specialist-led care) have better population health outcomes (after controlling for determinants of population health at the macro- and micro-levels), tend to be more pro-poor, more accessible and have more equitable distribution of health outcomes. Increased availability of PHC services is associated with higher patient satisfaction, lower demand for specialist-led hospital care, less hospitalization and diminished level of inappropriate investigations or interventions.<sup>5-9</sup>

Primary health care is variously defined in different countries in terms of concept, level, content of services, process and team membership. As a concept, PHC (also referred to as primary care, and for the purposes of this paper used synonymously) is seen as essential, evidence-based health care that is inclusive (For a full discussion on the definitions of PHC see Atun RA, 2006<sup>8</sup> and Boerma WG, 2006<sup>10</sup>). In administrative terms, primary care is considered as the first level of care amongst a hierarchy of providers, ranging from secondary level (general hospitals), tertiary level (comprising

teaching hospitals with a range of specialties serving regional and national populations). In terms of content, PHC has been defined as an essential set of health interventions: in many developing countries these services comprise a bundle of vertical programmes (so called selective PHC), and in more developed countries a comprehensive and wide-ranging set of health education, promotion, prevention, curative and rehabilitative activities for emergency and elective conditions. PHC has also been defined as a set of key processes: as the point of first contact for the health system where the population come into contact with a health professional in times of need, PHC plays an important gate-keeping role to ensure that the personal health problems which can be managed by PHC staff are done so and those which need to be referred to narrow specialist at hospitals and elsewhere are appropriately referred. In turn, this requires co-ordination of services and workers at PHC level to ensure individuals access the services they need as well as co-ordination of referral and counter-referral to other specialist services patients may need. As the focus of PHC is on the individual, and through these individuals on the population, a key process for PHC is continuity - used to describe continued relationship between a patient and a particular provider, for example consisting of, but not limited to, personal continuity, managing an individual along the care continuum at different stages of the lifecycle, and temporal continuity, providing round the clock services to ensure individuals access the right staff who are best positioned to respond to their needs.

Globally, where health systems face increased demand due to a rising burden of chronic disease and new epidemics of communicable diseases against a backdrop of limited financial resources, primary health care is critical to achieving health system goals of improved level and distribution of health, fair financing and financial risk protection and responsiveness to population needs<sup>11</sup>, and provision of equitable access to effective health care, which is delivered in an efficient manner.<sup>12</sup>

## Primary Health Care Trends in Europe

In the last decade, health reforms in most European countries have included changes to PHC level. Although there is no comparative analysis of PHC systems in the European Region as defined by the World Health Organization, a number of studies, which have analysed one or a limited set of countries, show wide heterogeneity in PHC systems<sup>13</sup>, with some common reform trends (see Health System in Transition Reports<sup>14</sup> for a more detailed discussion).

While the countries of western Europe have introduced incremental reforms in their PHC system, with the exception of Malta and Cyprus, the changes in the majority of new Member States of European Union (Estonia, Hungary, Latvia, Lithuania, Czech Republic, Poland, Slovak Republic, Slovenia) and in the countries of eastern Europe, the Balkan states and Central Asia, the changes have generally been more transformational. These changes can be examined in relation to the four health system levers<sup>15</sup>, namely stewardship and organisational structure, financing, resource allocation and provider payment systems and service delivery.

In many countries major structural changes are observable, with purchaser-provider separation and decentralisation of decision making to PHC organisations, either through privatisation or by creation of autonomous public sector PHC organisations contracted by the ministries of health or Health Insurance Institutions. For example

while Croatia, Czech Republic, Georgia, Estonia, Hungary, Macedonia, Norway, Poland and Slovenia, have introduced varied levels of privatisation of their PHC services, to join countries like the UK, and the Netherlands where PHC is generally provided by independent family physicians which manage small businesses, while in Sweden management of some PHC centres were outsourced to private providers.<sup>16</sup> In Armenia, Bosnia and Herzegovina, Kyrgyz Republic<sup>17</sup>, Moldova<sup>18</sup> and Romania<sup>19</sup> quasi-autonomous PHC organisations have been created, with direct or indirect contracting with health insurance institutions.

In Europe health systems are financed predominantly from general tax (such as the UK, and Nordic countries of Sweden and Norway, Italy, Spain and Portugal), or through social- or health-insurance-the preferred mode in central, eastern and southern Europe. In the 1990s, most of the post-Soviet countries have gradually moved from tax-funded to insurance funded systems<sup>20</sup>, with the establishment of health insurance agencies and creation of contracting arrangements with PHC providers to deliver a “guaranteed” set of defined services to the beneficiaries. However, in these countries this shift was often accompanied by a reduction in coverage.

Limited studies show that PHC level typically receives less than 25% of the total healthcare funding<sup>10</sup>. The data from WHO Health for All Database shows that over the period 2000 to 2006, in Europe as a whole, the proportion of health system funds allocated to inpatient care has declined.<sup>21</sup> While it is not possible to draw an inference from this decline that PHC funding may have increased, in a number of eastern European and Central Asian countries the proportion of health expenditure allocated to PHC has risen substantially: for example, Bosnia and Herzegovina, Kyrgyzstan and Moldova where PHC financing increased to over 25% of the total health expenditure.<sup>17</sup> In most systems, per capita payment (with or without weights for risk adjustment) has become the preferred mode of financing PHC level. Resources are allocated either to the PHC unit, which then pays salaries to PHC team members, or to the family physician, for example in many of the countries where PHC is privatised, where PHC unit functions as a small business with the surplus (income less expenditure) used to remunerate the PHC team members. In some systems, such as the UK, Estonia, per capita payment is combined with performance related pay - linked to reaching targets or improving quality.

Although no systematic studies exist, a number of case studies with limited scope suggest that in almost all European health systems, the scope of services in PHC is expanding, with increased transfer of secondary care services to PHC level. However, the extent of the services provided vary, with comprehensive services with good coordination and strong continuity of care provided in the UK and the Nordic countries, with less comprehensive services predominating in others.<sup>13</sup> There is also evidence to suggest that there is increased provision of health promotion and disease prevention activities, and increased use of evidence-based guidelines.<sup>15;22</sup>

There is an apparent paradox for PHC<sup>8;19</sup>, in many of the transition countries in Europe in that while PHC appears attractive with much discussion of its benefits and repeated commitments by international agencies and governments to its strengthening there is poor translation of these commitments to action. There are exceptions, such as Estonia, which has fully scaled up family medicine centred health reforms with apparent success. Estonian experience is presented below as a case study.

## Primary Health Care Development in Estonia: A Case Study of Success

Estonia, a Baltic State with a population of 1.4 million, regained its independence from the Soviet Union in 1991 and in 2004 joined the European Union. Estonia is also the first country amongst those which has gained independence from the Soviet Union to fully scale-up and institutionalise family medicine-centred PHC reforms.

Prior to nineties, Estonian health system was based on the Soviet Semashko model (for a more detailed discussion on the Soviet Semashko Model see Borowitz M, Atun R<sup>23</sup>), characterised by a large network of secondary care institutions, and a fragmented PHC level with a tripartite system of adult, children and women's polyclinics and specialised dispensaries. The system had curative focus with excessive secondary care structures to be financially sustainable. In this model, family medicine specialty did not exist. Polyclinics were staffed by therapists (general physicians looking only after adults), paediatricians, gynaecologist, and other sub-specialists. PHC level exercised limited gate-keeping, a poorly performing function further compromised by the citizens who bypassed PHC level to access directly emergency and specialist services in dispensaries or hospitals. All hospitals and PHC units were publicly owned and health personnel were salaried public employees. Doctors who worked at PHC level had low status and pay as compared to specialist. Hence, there were no incentives to improve performance or quality of care delivered.

Shortly after independence, Estonia began transformational reform of its health system. Health system financing changed in 1991 from a general tax financed system where budgets were allocated to providers to a mixed system, where financing came mainly from earmarked payroll taxes (so called social tax), additional transfers from the state budget and official out-of-pocket payments to shift from a tax funded health system to a system predominantly financed from social insurance. In 1992, policy making, purchasing and provision were separated with the retention of policy making and strategic planning retained at the Ministry of Social Affairs, with operational planning decentralized to county level, and purchasing and funding devolved to the newly created sickness funds that later became one Estonia Health Insurance Fund (EHIF), with the provision delegated to PHC units owned family practitioners and to hospitals, which were established as autonomous legal entities which contracted with the EHIF. The Health Insurance Acts since early nineties have defined the eligibility criteria for health insurance. While PHC units were accountable to the local government, the hospitals, now with own boards became accountable to the State. The hospital sector was rationalised according to the Estonian Hospital Masterplan 2015 with the number of hospitals, hospital beds and the average length of hospital inpatient days halved between 1993 and 2015.

These reforms paved the way for Estonia to successfully introduce comprehensive and holistic family medicine centred PHC reforms with substantial changes in each of the health system function. Legislation was enacted to change the organization and ownership of services, including privatisation of PHC services coupled with investment to improve physical assets (buildings and equipment) in PHC. In 1993, family medicine was designated as a specialty - the first post-Soviet country to do so - while a three-year residency programme was established for new graduates and in-service training for specialists working in PHC. In 1997, changes in health service regulations required Estonian citizens to register with family physicians contracted by EHIF to provide

PHC services to their registered population. Ministerial regulations defined the responsibilities of family physicians and introduced a new per capita payment system mixed with fee-for-service and allowances, including a special payment for doctors trained and certified as FM specialists.

The first ministerial-level regulations for PHC were included in The Health Services Organization Act and subsequent regulations in 2002, which consolidated tripartite polyclinic structure (which separately provided services to women, children and adults) into unified family medicine centres provided care to all citizens irrespective of age and gender. This Act also specified requirements for PHC facilities and equipment for service delivery. The changes also established family physicians as private practitioners able to contract with the EHIF. PHC reforms were rolled out rapidly in all regions and by 2004 all of Estonia was covered by FM specialists with a patient list of around 1,600 and a contract with the EHIF.

Funding for PHC services comes predominantly from the EHIF, with additional funding from local government for those who are not insured or for the capital cost amounting to 14% of total EHIF expenditure on health services (excluding pharmaceuticals).

Family physicians are paid by the EHIF according to a mixed payment system comprising, age-adjusted capitation (three age groups 0-1; 2-70; 70+), fee-for-service, basic practice payment, additional allowances and cost-sharing for home visits payable by patients, except for the exempt groups such as children and the pensioners. Capitation payment accounts for the largest proportion (over 70%) of FP income, while FFS and basic allowances account for a further 14% each. This proportion has been generally maintained over the last five years. A mix of payment mechanisms created an incentive for FPs to improve the organisation and delivery of PHC services and effectively manage clinical and managerial aspects of the practice: for example avoiding unnecessary intervention and treatment and managing human resources in their practices. Evidence-based-guidelines for management of acute and chronic conditions, commonly encountered in PHC, introduced in the late 1990s, encouraged FPs to manage these conditions and reduce referrals to narrow-specialist. In 2006, additional performance related payment was introduced, linked to quality of services provided for managing chronic illnesses. Collectively, these changes have significantly broadened the scope and scale of services provide in primary care level. While the number of consultations has increased in primary care, the number of referrals and admissions to hospitals for key chronic illnesses such as ischaemic heart disease, heart failure, diabetes mellitus, asthma, and mental illness. In line with improved efficiency in managing key chronic conditions, the quality of prescribing has also increased (for a detailed discussion of these see Atun et al.<sup>15</sup>)

Estonia is the first and only post-Soviet country which has successfully implemented and scaled-up multifaceted family medicine centred PHC reforms, which has included new organisational structures, user choice of family physicians (FPs), new payment methods, specialist training for family medicine, service contracts for FPs, broadened scope of services and evidence-based guidelines. These changes have been institutionalised. PHC effectiveness has been enhanced, as evidenced by improved management of key chronic conditions by FPs in PHC setting and reduced hospital admissions for these conditions.

Introduction of PHC reforms in Estonia was enhanced by strong leadership, good co-ordination between policy and operational level, practical approach to implementation emphasizing simplicity of interventions easily understood by potential adopters, a roll-out approach which avoided direct confrontations with narrow specialists and opposing stakeholders, careful change-management strategy to avoid health reforms being politicized too early in the process, and early investment in training to establish a critical mass of health professionals to enable rapid operationalisation of policies. Most importantly, a multifaceted and coordinated approach to reform-with changes in laws; organisational restructuring; modifications to financing and provider payment systems; creation of incentives to enhance service innovations; and investment in human resource development—was critical to the reform success.<sup>15</sup>

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## **The Role of Conditional Cash Transfers in Improving Access to and Results from Primary Health Care : Experiences from Latin America and the Caribbean**

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Poor families worldwide face resource constraints and other disincentives to the use of primary health care. Distance to health facilities, lost wages associated with illness, care-taking and care-seeking, facility fees and other out of pocket costs all contribute to limit access to health care and information by those who need it most, particularly preventive care. These high direct and indirect costs can also have an impact on the financial security of poor households, as out of pocket spending combined with the economic costs of illness can drive poor families deeper into poverty. Counteracting these limitations and disincentives requires a multi-pronged strategy aimed at both the supply and demand sides of a health system.

Since 1997, seven countries in Latin America and the Caribbean have implemented and evaluated conditional cash transfer (CCT) programs. CCT transfer cash to poor households in exchange for use of primary health care services and attendance to health education talks. Although the central objective of CCT programs is to reduce poverty, the programs are rapidly becoming important health policy instruments that reduce economic barriers to access to health care. To understand the potential of CCT programs for primary health care access, this paper summarizes results to date on the impact of CCT on health and nutrition outcomes, drawing conclusions and recommendations. In general, difference-in-differences estimates of impacts are reported unless otherwise noted.

CCT evaluations have experimental (Honduras, Mexico, Nicaragua) or quasi-experimental (Colombia, Ecuador, Jamaica) designs, with repeated observations from large samples of households in treatment and control groups via specially

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designed surveys conducted before and after program implementation. School and health center surveys or administrative data on supply for program intervention areas are available for Colombia, Honduras and Mexico, and four countries included a qualitative evaluation on some aspects of the program's operation and effects.

**Outputs: Utilization.** Use of primary health care is thought to be an important input for overall better child health, and such facility use is often strongly correlated with family background indicators such as parental education. Thus a major expected output of CCT programs is to mitigate the advantage of socioeconomic background in determining the probability of use of services. All of the programs stipulated utilization of preventive health services as a condition for the receipt of transfers, and as such, these indicators were measured using both administrative and household surveys by all programs.

In the short-term the CCT programs are expected to increase preventive and curative health service utilization. Given the incentive to use public health care providers, a decrease in private health care service utilization might be expected. In addition, if access to preventive health care services improves and service provision is properly carried out, a reduction in the number and gravity of health episodes should be expected which, in turn, should reduce the number of days of hospitalization. Table 1 reports results on utilization.

**Table 1: Program Effects on Utilization of Health Services<sup>4</sup>**

Indicator/Country	Mexico (1998-2000) <sup>5,6,7</sup>	Honduras (2000-2002) <sup>8</sup>	Nicaragua (2000-2002) <sup>9</sup>	Colombia (2001-2003) <sup>10</sup>
Public clinic visits for children (reference period)	<i>Rural</i> 0-2 years old 1.5% decrease  3-5 yrs old No impact  (last 6 mos.)	0-3 yrs old 20.2% points increase from base of 44%  (proportion taken to health center in last 30 days)	0-3 yrs old 11% point increase from base of 69.8%  (last 6 mos.)	0-2 yrs old 30% increase  2-4 yrs old 50% increase  (completed age appropriate visits)  base of 29.2% for all children 0 - 6

<sup>4</sup> As is noted at the beginning of this section, each evaluation's sample design determined the type of analysis that could be conducted on the data. In general, difference-in-differences estimates are used to report the impacts.

<sup>5</sup> In Mexico, utilization was not included in the baseline survey, requiring first difference estimates of impact. Estimates of impact on utilization in Mexico were also conducted using difference-in-difference with clinic-level administrative data, available before and after the program. The administrative data confirmed an increase in utilization in program communities, but these utilization statistics were not disaggregated by age group.

<sup>6</sup> Public clinic utilization for children, Gertler and Boyce (2001)

<sup>7</sup> Prenatal care visits, Prado et al (2004).

<sup>8</sup> Impact refers to the household package only (i.e., demand-side subsidies only) as reported in Morris et al (2004b)

<sup>9</sup> Maluccio and Flores (2004)

<sup>10</sup> Unión Temporal IFS-Econometria S.A.-SEI (2004); baseline measures from Unión Temporal IFS-Econometria S.A.-SEI (2001b) were not reported separately for the two year age groups for which impacts were estimated.

Indicator/Country	Mexico (1998-2000) <sup>5,6,7</sup>	Honduras (2000-2002) <sup>8</sup>	Nicaragua (2000-2002) <sup>9</sup>	Colombia (2001-2003) <sup>10</sup>
Pre-natal care visits (number of visits; details)	<i>Rural</i> No impact  <i>Urban</i> <sup>11</sup> 6.12% point increase from base of 56%  (5 or more)	18.7% point increase from base of 37.9%  (5 or more; last pregnancy)	Not reported	Not reported

Gertler and Boyce (2001) investigate the impact of Progresa on visits to public clinics using administrative data, finding that after the introduction of the program in 1997, visit rates to clinics in Progresa localities are on average higher than in non-Progresa localities and the difference grows over time as more Progresa localities begin to provide benefits. About 2.09 more visits per day or about 18.2 percent more visits to clinics are recorded in Progresa areas versus non-Progresa areas (likely made up of both Progresa beneficiaries and spillover effects on non-Progresa beneficiaries - see Handa et al 2001). In addition, using evaluation survey data, Gertler and Boyce (2001) suggest that Progresa increased utilization in public clinics by 53 percent overall.

As expected, utilization of conditioned preventive health services increased significantly on average among the poor as a result of CCT programs. The extent of this increase varied in magnitude, generally larger in low use baseline settings such as rural areas and among the poorest households. There are some surprising findings regarding the age distribution of the utilization as well, with effects more pronounced in some programs outside of the youngest age group (0-3 years of age), attributed by analysts to pre-existing high rates of use among this population or reduction in need for curative care due to the transfers' positive impact on nutritional status of mothers.

Although utilization data for children in the Mexican program shows little effect, the use of general preventive care by households appears to have increased dramatically. Overall, Oportunidades increased the average number of preventive health care visits by members of beneficiary families by 20 percent. Qualitative research and administrative data confirms these patterns; Meneses et al (2005) reports that the main reason for the last visit to the clinic was the Oportunidades-conditioned appointment or health education talks (74%-86%), while illness only represented 17% to 22%.

The greater use of preventive care may also reflect increases in health knowledge and practices, but it is impossible to distinguish the effects of the conditionality from those related to greater knowledge levels. INSP and CIESAS (2003) used monthly clinic-level data from the administrative records of public clinics operated by IMSS-Solidaridad finding that the proportion of preventive consultations increased at a

<sup>11</sup> Reference period is 2002 - 2003 for urban areas.

greater rate in the incorporated communities and the proportion of visits by children with severe undernourishment diminished gradually with the length of incorporation of the community.

Progresa/Oportunidades also reduces the likelihood of hospitalization by 2.5 percent (Gutiérrez et al 2005, Gertler and Boyce 2001). The 2001 study shows that hospital inpatient stays of 0-2 year olds fell by more than half and visits to private doctors fell a third. Results were similar for the 18-50 age group, but mixed for 50+ year olds with Gertler and Boyce (2001) reporting large reductions and Gutierrez et al (2005) reporting an increase of 22 percent for the same age group.<sup>12</sup> When hospitalization occurs, Oportunidades beneficiaries are likely to stay for shorter periods; average length of stay is 1.35 days less than among non-beneficiaries. Although these analyses have not yet clarified whether decreases in hospitalization are a result of more or better utilization of preventive services or the effects of better knowledge, taken together with the overall increase in preventive care utilization, it appears that the program is successful in reducing the frequency and severity of morbidity (see morbidity section for more detail).

Handa et al (2001) examined an additional hypothesis that Progresa generated community or spillover effects on non-beneficiaries based on anecdotal reports from health workers in Progresa communities that indicated that overall service use had increased due to a demonstration effect (would not be relevant where individual household targeting is not applied). These authors did find that clinic attendance rates for non-beneficiary children living in Progresa communities were 5 percent higher than non-eligible children living in non-Progresa communities, thus indicating that the beneficiary-only impact assessments are an under-estimate of the full effects of the program.

Oportunidades had mixed effects with respect to the use of pre-natal care. The INSP and CIESAS (2003) study found no significant differences with respect to the proportion of pre-natal care initiated during the first trimester of pregnancy between the three groups of analyzed clinics were found nor an important increase in general in this proportion. Prado et al (2004) find that the percentage of births with appropriate pre-natal care defined as at least five visits during pregnancy increased by 6.12 percentage points between 2002 and 2003 among urban beneficiaries. Using the rural sample, however, the authors find no impact. The intervention groups were found to seek pre-natal care earlier during the pregnancy, to have a larger number of pre-natal care visits, and a higher proportion of this group have a satisfactory pre-natal care index compared to the control group. No significant effects were found on qualified delivery care (Prado et al 2004).

Beneficiary families in Oportunidades may have changed their health care seeking behavior by substituting public for private services; the mid-term rural evaluation reports that the use of public health services increased in the same proportion that private ones decreased (Gutiérrez et al 2005), possibly indicating substitution from private to public health providers.

<sup>12</sup> Nevertheless, the study notes that the statistical capacity to identify differences is limited since hospitalization is an infrequent episode. (Gutiérrez et al 2005)

For PRAF, IFPRI (2003) reported an increase in the percent of children under age 3 that visited a health clinic in the past 30 days by about 20 percentage points, that have had a growth check-up in the last 30 days by 20-22 percentage points and that have been weighed in the last 30 days by about 15 percentage points. PRAF evaluators also recorded an increase of about 20 percentage points in the percent of pregnant women who had at least five prenatal check-ups. Morris et al (2004b) evaluate the impact of PRAF on the use of pre-natal care, vaccination and growth monitoring. Significant effects are found only in the groups that received demand treatments (transfers) and not among households that only benefited from supply-side interventions. Morris et al (2004b) also report that utilization increases were concentrated among children ages 1-5 years old.

RPS produced a significant average increase of 11 percentage points in the percent of children under age 3 whose parents had taken them for a well child visit in the six months prior to the evaluation in 2002. An average effect of 17.5 additional percentage points was recorded with respect to those children who were taken to a health provider and weighed (Maluccio and Flores 2004). Average program effects are larger for poorer households. Effects were more pronounced for children ages 3-5 years old. Unlike the Mexican case, where beneficiary families substituted public for private care, the Nicaragua program provided services to beneficiary families through contracted NGO providers. In this setting, some beneficiary families may have substituted private/NGO care for public care, possibly resulting in an increase in utilization among control households as well given that control areas are geographically adjacent and beneficiary-related demand for services shifted.

FA beneficiary children also displayed pronounced increases in growth monitoring visits to health providers; an increase of about 30 percentage points among children under 24 months and 50 percentage points between 24 and 48 months, all highly significant differences (Unión Temporal IFS-Econometria S.A. SEI 2004). No differences among those older than 48 months were observed.

While the CCT evaluations allow for an assessment of changes in beneficiary care-seeking practices with respect to total number of visits, particularly well child visits, the analyses published to date provide limited information on a number of the assumptions and causal pathways described earlier that, in turn, limit the interpretation of the findings.

First, the underlying motivation for increased utilization may indeed be related to program conditionality, but it could also be the result of a combination of any number of the factors that the programs influence such as increased parental health knowledge, provision of nutritional supplements in public health centers, increased income, improved nutritional status and health practices which reduce need for service utilization, and/or improvements in supply quality. With the exception of the PRAF design that included four study groups (cash transfers, supply boosts and the combination of cash transfers and supply boosts along with a control group), there has been little effort to distinguish the role of each factor in the utilization changes observed. Unfortunately delays in the implementation and distribution of the supply-side interventions during the evaluation data collection period limited the usefulness of this prescient evaluation design in studying the role of various factors influencing utilization.

Second, net increases in utilization remain difficult to measure given that some programs, such as Colombia and Honduras, do not report on what happens to private sector utilization. In addition, the only experimental evaluation design - Oportunidades - yields no effects on utilization for the youngest age groups.

Third, the age patterns of utilization effects remain difficult to interpret. An intensification of effects is noted in the 2-5 year old group, in spite of the fact that 0-24 month olds are most vulnerable to morbidity and mortality and are thus considered the most critical target population for preventive health interventions. Some hypotheses on this phenomenon have been offered; higher baseline use exists among the youngest age group or better maternal nutritional status combined with increased duration of breastfeeding (not verified where this was reported) may lead to healthier babies and thus lower use of curative services. In general, better exploration of the relationship between age patterns of utilization effects and age patterns in terms of decreases in morbidity and mortality would help disentangle which parts of the CCT-health package influence impact and whether there is link between service utilization and health outcomes.

Finally, while the increases observed in preventive care visits are inherently positive, in particular when observed together with a decrease in curative care, it is also possible that above a certain amount of visits, crowding out of non-beneficiary clients may take place or the quality may drop to such levels that such increases are no longer desirable under the existing supply constraints. There could also be household welfare costs associated with excess utilization. For example, an average household at the start of Progresa faced 32 conditioned visits for health care and talks a year. Understanding what the social and individual optimal levels of utilization are will be helpful for future program design.

**Outputs: Health knowledge, attitudes and practice.** Direct measurement of health knowledge and attitudes has generally not been a component of the evaluations (or if included in questionnaires, has not been reported in evaluation reports or papers as in the case of Colombia), in spite of the inclusion of health education components in all programs. As knowledge, attitudes and practices are posited to be critical elements in health outcome changes, understanding the evolution of these factors is critical to explaining the health results observed.

There are a few exceptions to the lack of study of the impacts on health knowledge and behaviors. Progresa evaluators found an increase in dietary quality and calorie consumption. After controlling for the income effect associated with increased calorie consumption, the increase in consumption of more diverse, high nutritional quality foods, such as fruits, vegetables and animal products, indicates that there may be an effect of the nutritional education provided through health education talks known as "pláticas" (Hoddinott et al 2000). This effect did not vary systematically by socio-economic status of the beneficiary families. Duarte et al. (2004) attempts to isolate the effects of the Oportunidades health talks on smoking and alcohol consumption in rural areas, an analysis that is also interesting given that a potential income effect of the transfer is to increase consumption of these goods, finding that youth consumed less alcohol and more cigarettes than control groups. Moreover, Prado et al (2004) report an increased knowledge of family planning methods in both urban and rural areas. In addition, in rural areas use of modern family planning methods is higher in the

intervention than in the control group. Breastfeeding initiation and duration was included in many questionnaires, but few reported on results. Surprisingly then, the lecture-style health talks accompanied by peer to peer learning through the “community mothers” seem to have had positive effects in Mexico in some areas.

Evaluators found that the Colombia FA program increased the time that children are breastfed by 1.44 months in urban areas and 0.84 months in rural areas. The program also improved the quality of food consumed by children, increasing the average number of days per week in which various proteins (between 0.25 days and 1.09 days), grains (about 0.45 days) and fruits and vegetables (between 0.45 days and 1.23 days) are consumed. In addition, the program increased overall household consumption of high quality foods — proteins, tubers, cereals, fruits and vegetables and fats and oils in urban areas and proteins, cereals and fats and oils in rural areas. More evidence of CCT program impact on improving healthy practices comes from Maluccio and Flores (2004), who find that RPS had a beneficial effect on dietary diversity in terms of both the number and quality of foods purchased.

**Outputs: Supply of health services.** The CCT program effect model includes two main assumptions related to supply of health services; first, that current supply of health services is adequate or an increase will follow the increase in demand resulting from the program and, second, that utilization will improve health status. The latter further assumes that the quality of care available is sufficient to effect positive changes in health. While most of the programs have administrative data that could be tapped, there is currently little documentation on how the programs have affected the availability and quality of health care services and, of particular relevance, how supply-side program components have affected the observed outcomes.

As reported above, Gertler and Boyce (2001) record substantially increased numbers of visits in Progresa localities using administrative data, while qualitative studies also confirm increased workloads. In an urban setting, medical staff in beneficiary communities report 23 to 87 percent more visits (Escobar-Latapé et al 2005), while a focus group of health directors report staff shortages, saturation of services and lack of supplies (Meneses et al 2005). In response to these challenges, some medical staff report charging program beneficiaries when a medical visit is not related to the program. In some cases, medical staff diagnose illness during the program mandatory consultation, but beneficiaries are requested to make an additional appointment and are charged for this “extra consultation” (Escobar-Latapí et al 2005).

In terms of increases in physical facilities, Merino, Santiago and Székely (2006) report an increase in the number of health clinics in program localities and in public budgets for health. Escobar-Latapí et al (2005) report that urban clinics were built in program areas after the program’s introduction and include higher-salaried staff, both of which may indicate a supply response to the program.

As is noted elsewhere, the Nicaragua program directly financed scaled up health supply through NGO providers. Regalia and Castro (2006) discuss the increase in the number of health care facilities due to RPS, but do not discuss issues of quality or the effect of the health lectures on health-related behaviors and knowledge in beneficiary households. While the fact that dedicated funding for increases in health care facilities, staff, training, equipment and supplies should translate directly into improvements in these areas, in practice, delays in implementation (of training, hiring and resource transfers) could result in large deviations between planned and actual changes,



especially over the short periods of time common for impact evaluations. Thus, it is not a trivial exercise to evaluate how well and how quickly the planned supply-side resource transfers are executed. Up to this point researchers have been unable to fully separate the effects of the various components of the program, especially the differences between impacts due to the cash transfers versus supply-side improvements. However, without determining the changes that occur in the supply of services, it is impossible to conduct such analysis.

**Outputs: Quality of health services.** Quality of services gives content to the conditioned health center visits and, without adequate quality, expected effects will not occur. Most of the data on quality comes from small-scale and qualitative studies, so findings can not be generalized. The few existing studies are Mexican. In spite of these caveats, it is worth noting that while the number of procedures is higher amongst beneficiaries, the results of the interventions are not encouraging, suggesting that supply-side strengthening for quality of care must be a priority.

Availability and quality of medicines appears to be a major issue in Mexico. A small-scale facility survey by Escobar and Gonzalez (2002) found that public health clinics in a group of Oportunidades localities had insufficient supply of medicines available to treat the increased number of patients. Beneficiaries reported that the medicines provided by the public clinics were perceived to be of low quality and that many beneficiaries were choosing to purchase more expensive higher quality drugs at private pharmacies. Neufeld et al (2005) noted that delivery of nutritional supplements to program localities in Mexico was sometimes delayed, resulting in inadequate supply and potentially reducing the frequency of consumption.

A study on quality of care for Oportunidades diabetic beneficiaries in urban areas (Hernandez-Avila et al 2004) attempts to link quality of care to observed differences between treated and untreated households and individuals. Researchers collected blood samples from diabetic patients and recorded the extent of compliance with diabetes treatment protocols by both providers and patients. Findings indicate that diagnoses of diabetes have increased, but beneficiaries are no more likely to have the disease properly treated, suggesting that there is much room to improve the quality of health care that beneficiaries receive. Using the full sample, Fernald et al (2004) confirm that beneficiaries are more likely to be checked for diabetes, although no significant differences are observed in terms of the effects of treatment.

Another Mexican study on the rural Oportunidades sample (Prado et al 2004) examines the quality of pre-natal and delivery care and finds that beneficiary women in the intervention group received on average a larger number of the procedures stipulated in the protocol. However, the frequency with which the women were informed of their blood groups or were administered syphilis detection test was very low. No significant differences were observed between the groups with respect to births in a medical facility, although a smaller proportion of cesareans were recorded in the early intervention group than in the control groups.

The FA impact evaluation included a health facility survey which collected information about various characteristics related to access and quality of care. The health facility surveys collected information about the hours of operation, types of services offered, the number of various services provided in the past year, number and type of current staff, stocks of various medicines, interruptions in service due to labor problems, political unrest or natural disasters, the previous year's budget and revenue,

main sources of revenue, participation in and training received for the program and other details related to the program. However, the sampling method of facilities is not clear and this information was not studied or included in the impact evaluation.

**Output/Outcome: Vaccination rates.** Vaccination protocols differ slightly between countries, but a “full scheme for age” according to the Expanded Program on Immunization generally includes by exact age 1 - one dose of BCG, three doses of polio, three doses of pentavalent or DPT and one dose of MMR. Although vaccination was a condition for receipt of transfers in Honduras and Nicaragua, in practice, this condition was not monitored by the CCT program. Instead only the visit was recorded, rather than the immunization schedule completion progress, though it is frequently the practice of health centers to maintain immunization records as well. As a result, estimates of the impact on vaccination rates were done through the external evaluation of the programs. The evaluation of rates is complicated due to poor recording practices in family-held vaccination cards on the part of health providers. All of the evaluations report difficulties in establishing the date of vaccination. Some evaluations look at only one or two “tracer” vaccines, while others attempt to document full vaccination, although each evaluation uses a different definition.

The overall contribution of CCT *per se* to vaccination coverage appears marginal. In spite of apparent program-attributable increases during a pilot implemented during 2000-2001, the Nicaragua RPS produced an insignificant average net increase of 6.1 percentage points in up-to-date vaccination levels between 2000 and 2002 (Maluccio and Flores 2004).<sup>13</sup> PRAF children showed marginally higher rates of DTP/Pentavalent, though insignificant and small differences for MMR (Morris et al 2004b). IFPRI (2003) reported an increase of 8 percent in children under age 3 that received their first dose of DPT on time. The Colombia program measured DPT prevalence and found an insignificant difference between program participants versus controls (Unión Temporal IFS-Econometria S.A.-SEI 2004).

Vaccination is difficult to impose as a condition as it is a very supply-dependent service; unlike growth monitoring visits, if vaccines are not in stock, vaccination will not occur. The Honduras experience, where supply was variable, seems to be an example of this phenomenon and results may relate more to the availability of vaccines at health centers than a demand effect, although there is no way to assess this empirically. However, there may be an indirect effect of the program in that coordination with the MOH in program areas may in fact generate more vaccine supply (Maluccio and Flores 2004).

A recent study (Barham et al 2007) finds significant results in lower income households and among children of less educated mothers, suggesting that while CCT may not have an impact on vaccination in the aggregate, the programs can be useful in increasing vaccination coverage for less accessible population sub-groups.

<sup>13</sup> Maluccio and Flores (2004) include an interesting footnote regarding the quality of administrative data on vaccination that will be relevant to other payment for performance schemes; they find that survey reports are substantially lower than the 100 percent recorded in administrative data. The errors may go in both directions.

**Outcomes: Fertility.** While the literature on financial incentives in fertility suggests that fertility is in a secular decline throughout the developing world and that welfare programs and state policies have not been sufficient to generate a positive fertility response, there was a concern among some that fertility levels might be affected by CCT programs. Although Colombia, Mexico and Nicaragua data indicate that fertility rates decreased in the presence of the program, the Honduras program, which applied a different payment incentive structure, observed a fertility increase.

Stecklov et al (2006) have examined the unintended effects of CCT programs in Honduras, Mexico and Nicaragua on fertility levels, finding that unintentional incentives for childbearing in Honduras (a health/nutrition subsidy that is not lump sum and varied by number of children and pregnant women in a beneficiary household) may have contributed to a 2-4 percentage point increase in fertility. This effect, which was not observed in Mexico and Nicaragua where health/nutrition grants are lump sum, may be related to an increase in marriage rates, the effects of the program on the presence of the partner, or a tempo response to the program's unintended incentives.

Prado et al (2004) find that in rural areas, no difference was observed between Oportunidades intervention and control localities in terms of use of family planning methods, although the proportion of women using these methods decreased in both groups. Nevertheless, the average number of children per woman in reproductive age also decreased in both groups.

The Colombia FA evaluation reports a relatively large decline in fertility across the board (control and intervention groups) between baseline and follow up surveys, but the reasons behind these changes are not explored in the evaluation report.

## Conclusions and recommendations

CCT impact evaluations provide unambiguous evidence that financial incentives work to increase utilization of key primary health care services by the poor. Further, the evaluations indicate that cash transfers, accompanied by information, social support, weight monitoring and micronutrient supplementation, can stimulate healthier feeding practices and improve young children's nutritional status dramatically, particularly the incidence of stunting. The Mexican program suggests that adult health may also benefit.

The multi-dimensionality of CCT program benefits is an added attraction. Unlike specific demand-side incentives, such as incentives for HIV testing or compliance with a regimen of medication, CCT programs recognize that the barriers to better health and service use are part of a broader problem of household resource scarcity. Findings suggest that the poorest households must reach a minimum threshold of food consumption before they are able to make other investments in their well-being. Further, better nutritional status increases the effectiveness of health treatments. And because CCT programs are targeted to poor children, the cohort gains associated with preventive care and schooling are irreversible, even if a program must be halted. Moreover, cost information from Latin America indicates that the programs are affordable.

However, the mixed picture with respect to outcomes - vaccination and, where we have data, morbidity and mortality - suggest that encouraging utilization when services are of poor quality may not produce the expected effects. Moreover, the mixed

results suggest that assumptions about needs, household decision-making and causal relationships might not be entirely correct and thus our expectations for impacts, given the current program designs, may be incorrect.

Financial incentives are a blunt instrument that can also have many unintended effects, such as those observed on fertility in Honduras (Stecklov et al 2006). For this reason, it is important to design incentives carefully. This is particularly important with regard to the health and nutrition components as the evidence reviewed seems to indicate an under-design of these aspects of the CCT programs.

A key design question relates to identifying the marginal benefit of conditioned over unconditioned transfers. Monitoring conditionality is costly and thus it is important to determine whether conditions are necessarily and if so, whether enforcement is critical. In some cases, it is probable that only increased income was needed and that poverty was the entire problem, but this should be carefully considered in the design stage. Another important factor to consider in this regard is the baseline status of outcomes. A low baseline means better results; otherwise CCT programs may not have any impact and/or be cost-ineffective as a strategy to increase demand or provider productivity.

A second critical question relates to the relative cost effectiveness of investing on the supply versus the demand-side within the health system. Supply and demand are jointly determined and, while paying poor households to use primary health care services works at increasing utilization, it is still unclear what happens at the health post. If quality decreases, or non-beneficiaries are crowded out, the programs may pay too much for the care that beneficiaries receive. In other words, negative spillovers in service quality from demand-side programs may be greater than the net gain to beneficiaries. On the other hand, increased demand can encourage improvements in efficiency and quality.

Regardless, these questions stress the need for an assessment of the supply-side and ex ante modeling of the demand for health care. In addition, the ex ante effects on utilization, consumption and nutrition should be modeled to determine the burden of conditioned services for an average household. Alvarez et al (2006) show that even with the many conditions imposed on households, most households (especially the poorest) perceive a net gain as only the least poor among beneficiaries drop out voluntarily. However, perhaps welfare gains could be increased by reducing burdens with little loss in impacts.

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## Health Financing in Low and Middle Income Countries<sup>1</sup>

**Pablo Gottret and George Schieber**

Global health policy is higher on the international agenda than ever before—the result of the confluence of political, economic, and epidemiological factors. Health is now widely recognized as a basic human right. Globalization is increasing the flow of ideas, capital, and people across borders, with profound implications for the spread and treatment of disease. The international community is focusing on poverty and debt reduction. The epidemics of HIV/AIDS and SARS, the potential impact of avian flu, and the international public good dimensions of public health make global health policy both a national security issue and a foreign policy issue. And achieving the Millennium Development Goals will be possible only with massive infusions of new overseas development assistance, much of it targeted to health.

These developments have produced new global health policy dynamics among multilateral and bilateral donors, the new financiers (such as the Bill and Melinda Gates Foundation), the new global programs (such as the Global Fund to Fight AIDS, Tuberculosis and Malaria), and recipient countries. Multilateral and bilateral institutions and foundations, nongovernmental organizations (NGOs), and joint donor initiatives are helping countries to finance, rationalize, and operationalize health reforms.

The international community needs to live up to its promises to scale up development assistance and improve its predictability and longevity. Nevertheless, it ultimately is the developing countries that face the challenges of organizing their institutions and health financing systems to provide sufficient financial resources, ensure equitable access to effective health interventions, and protect their people against health and income shocks. Reforms need to be based on social and macroeconomic realities and increasingly on good governance.

There are various well-known models for implementing these basic functional health service systems, social health insurance funds, private voluntary health insurance, community-based health insurance, and direct purchases by consumers. More important than the models, however, are three basic principles of public finance:

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<sup>1</sup> This note is based on *Health Financing Revisited: A Practitioner's Guide* by Pablo Gottret and George Schieber. World Bank, Washington DC, 2006.

- Principle 1. Raise enough revenues to provide individuals with a basic package of essential services and financial protection against catastrophic medical expenses caused by illness and injury in an equitable, efficient, and sustainable manner.
- Principle 2. Manage these revenues to pool health risks equitably and efficiently.
- Principle 3. Ensure the purchase of health services in ways that are allocatively and technically efficient.

All health financing systems try to follow these principles, but the evidence reviewed here shows that there is no single road. Countries operate within highly different economic, cultural, demographic and epidemiological contexts, and the development of their health provision and financing systems-and the optimal solutions to the challenges they face-will continue to be heavily influenced by these and other historical factors as well as political economy considerations. Even so, countries can learn from both the successes and the failures of each other's health financing efforts. Main lessons are:

- *Underlying demographic, epidemiological, economic, and political constraints* establish both the needs base and the present and future economic circumstances to meet these needs. There is an enormous mismatch between the global disease burden and global health spending. The health transition-with its attendant changes in population size, structure, and epidemiology-will have significant consequences for health needs, labor forces, and economies.
- *Current health spending patterns* indicate the low level of spending relative to needs in low-income countries, the importance of private financing and out-of-pocket payments in low-income countries and many middle-income countries, the limited financial protection that is currently provided through risk pooling, and the differential importance of external assistance by region and income.
- *Basic health financing functions* of revenue collection, pooling, and purchasing can be carried out in a variety of ways, each very much dependent on country-specific circumstances. Coverage decisions about an essential services package, the universality of such a package, the modalities for risk pooling, and the arrangements for prepayment are critical elements in the design and implementation of financing policies.
- *Domestic resource mobilization*, limited by the structural features and institutional arrangements, expands as economies grow. Given current revenue-raising abilities in low-income countries, it is highly unlikely that expanded domestic revenue-raising efforts will provide sufficient financing to reach the Millennium Development Goals for health. In addition, low-income countries face difficult tradeoffs in financing the costs of basic services and in offering financial protection. An essential element of scaling up government health spending in low-income and some middle-income countries is to ensure that such expansions take place under macroeconomic conditions that provide adequate "fiscal space" for such increases.



- *The prominent risk pooling mechanisms* are national health service systems, social health insurance, voluntary health insurance, and community-based health insurance. Their effectiveness, affordability, and ability to be easily implemented, depend very much on individual country circumstances, but international experience provides important evidence on the enabling conditions.
- *External financial flows are growing in importance*, as are their impacts on economies and health sector financing. Resolving the many issues surrounding the availability, form, and impact of such flows is critical for developing countries and donors alike.
- *Government policy levers, institutions, and funding instruments* are keys to absorbing the \$25-70 billion needed annually for scaling up to meet the Millennium Development Goals for health. It is clear that developing countries, particularly low-income countries, will not be able to finance such costs within their domestic resource envelopes. They will need substantial increases in external assistance. They will also need to enhance their domestic resource mobilization efforts, improve the efficiency of current public spending, and reduce the transaction costs of dealing with multiple donors.
- *Low-income countries* are severely challenged in providing basic health services and financial protection, and therefore face difficult policy choices. Increased donor funding, debt relief, budget reallocations, and efficiency gains will all be critical.
- *Middle-income countries* are focusing more on improving risk pooling and ensuring universal coverage for their populations. Financing reforms in middle-income countries and high-income countries provide important lessons for improving the equity and efficiency of current risk pooling and health financing arrangements. More effective purchasing is a critical part of such reforms.

## Underlying demographics and epidemiology

Globally there is an enormous mismatch between countries' health financing needs and their current health spending. Developing countries account for 84 percent of global population and 90 percent of the global disease burden, but only 12 percent of global health spending. The poorest countries bear an even higher share of the burden of disease and injury but have the fewest resources for financing health services.

The underlying population and epidemiological dynamics will have profound effects on the economies and future health needs of these countries. The world's population is growing to a projected 7.5 billion by 2020 and 9 billion by 2050. Nearly all this growth is expected to occur in developing countries. Low-income countries face the highest rates of growth, and the populations in 50 of the poorest countries will double by 2050.

The ongoing health transition-high but declining rates of population growth, increased life expectancies, and the shifting burden of illness toward noncommunicable diseases and injuries-will have a profound effect on the needs and service delivery systems in low- and middle-income countries. The health transition will be slower in low-income countries because they have higher rates of population growth and lower

life expectancies. These trends will increase cost pressures in two ways: more individuals will need services and the composition of those services will need to shift to treat more expensive noncommunicable diseases and injuries.

Over the next 20 years changes in population size and structure alone will increase total health care spending “needs” by 14 percent in Europe and Central Asia, 37 percent in East Asia and the Pacific, 45 percent in South Asia, 47 percent in Latin America and the Caribbean, 52 percent in Sub-Saharan Africa, and 62 percent in the Middle East and North Africa. Excluding Europe and Central Asia, developing countries will face 2-3 percent annual increases in health care expenditure “needs” (or pressures) from demographics alone. High but declining rates of population growth coupled with longer life expectancy means that developing countries will face significant increases in population in all age ranges, particularly the elderly. Due to “population momentum” larger numbers of individuals will enter the working ages. Whether this will be a “demographic gift” of faster economic growth or a “demographic curse” of greater unemployment and social unrest will depend on government policies that foster economic and labor force growth. Industrial structures and employment patterns also have important implications for domestic resource mobilization and specific health financing efforts.

### **Patterns and effectiveness of current health spending**

Global health spending in 2002 was \$3.2 trillion, about 10 percent of global gross domestic product (GDP). Only some 12 percent of that, \$350 billion, was spent in low- and middle-income countries. Indeed, high-income countries spend about one hundred times more on health on a per capita basis (population-weighted) than low-income countries (30 times if one adjusts for cost of living differences). Worse still, more than half of the meager spending in poor countries comes from out-of-pocket payments by consumers of care—the most inequitable type of financing because it hits the poor hardest and denies all individuals financial protection from catastrophic illness that public and private insurance mechanisms provide.

As countries move up the income spectrum, the public share of total health expenditures increases. The public share was 29 percent in low-income countries, 42 percent in lower-middle-income countries, 56 percent in upper-middle-income countries, and 65 percent in high-income countries. This may be the result of the greater revenue raising capabilities of countries as they move up the income scale, deliberate policies by countries to publicly finance formal health coverage to improve financial protection as a result of private health insurance market failures, or strong cultural beliefs in social solidarity.

Social health insurance institutions are a very limited source of health care spending in low-income countries. They accounted for only some 2 percent of total spending on health in low-income countries, 15 percent in lower-middle-income countries, and 30 percent in upper-middle-income and high-income countries. In Sub-Saharan Africa only 2 percent of all public spending on health (less than 1 percent of total health spending) is through social insurance institutions and in South Asia 8 percent (less than 2 percent of total health spending).

For the private share of spending, the poorer the country the larger the amount that is out-of-pocket: 93 percent in low-income countries (more than 60 percent of the

total), some 85 percent in middle-income countries (40 percent of the total), and only 56 percent in high-income countries (20 percent of the total). Such figures in the low- and middle-income countries are troublesome.

External sources account for 8 percent of spending in low-income countries and less than 1 percent in middle-income countries (using population-weighted expenditure information). But on a country-weighted basis, external sources account for 20 percent of total low-income country spending. In 12 countries in Sub-Saharan Africa, external sources finance more than 30 percent of total health expenditures.

How effective is this spending for health outcomes? Various studies document a range of effects—from no impacts, to limited impacts, to impacts for only specific interventions. Greater improvements in health outcomes are associated with stronger institutions and higher investments in other health-related sectors, such as education and infrastructure.

Recent econometric analysis (Bokhari, Gai and Gottret, *Health Economics*, 2006) finds strong impacts of government health spending on maternal mortality and child mortality, with the direct health spending effects larger than those found for public investments in infrastructure, education, and sanitation. The analysis also shows that parallel investments in infrastructure and education further reduce infant and child mortality, supporting the need for a cross-sectoral approach to reach the Millennium Development Goals for health. Growth also has a large impact on health outcomes—both by directly improving outcomes and by generating increased resources that can be mobilized by governments for increased public spending.

Another important finding is that external donor assistance has a limited direct impact on health outcomes. Development assistance for health has a direct impact on under-five mortality, after controlling for volatility. But it does not affect maternal mortality directly—it does so only indirectly, through its effect on government health spending. This outcome is not surprising given the fungibility of aid, the off-budget nature of a significant amount of aid, the exclusion of much aid from the balance of payments, and the fact that much aid has gone to debt forgiveness and technical assistance.

## **Health financing functions and sources of revenues**

There are myriad ways for countries to design and implement policies to collect revenues, pool risks, and purchase services. Risk pooling refers to the collection and management of financial resources so that large unpredictable individual financial risks become predictable and are distributed among all members of the pool. Purchasing refers to the many arrangements for buyers of health care services to pay health care providers and suppliers.

The success of countries in carrying out these functions has important implications for:

- The funds available (now and in the future) and the concomitant levels of essential services and financial protection.
- The fairness (equity) of the revenue collection mechanisms to finance the system (basing financial access on need rather than ability to pay).
- The economic efficiency of revenue-raising, in not creating distortions or economic losses in the economy.

- The levels of pooling and prepayment (and the implications for risk and equity subsidization).
- The numbers and types of services purchased and consumed and their effects on health outcomes and costs (allocative efficiency).
- The technical efficiency of service production (producing each service at its minimum average cost).
- The financial and physical access to services (including equity in access).

### ***Collecting revenue***

Revenue collection in developing countries is the art of the possible, not the optimal.

While there are numerous public and private sources for raising revenues, the institutional realities of developing countries often preclude the use of the most equitable and efficient revenue-raising mechanisms. Low-income countries collect some 18 percent of their GDP as government revenues, severely limiting their ability to finance essential public services. For example, a country with a per capita GDP of \$300 can collect \$54 per capita (18 percent of total GDP) for all public expenditure needs—defense, roads, airports, electricity, sewage systems, pensions, education, health, and water. Middle-income countries raise some 23 percent of their GDP from government revenues, high-income countries 32 percent.

Revenue-raising capacities increase as country incomes increase due to greater formalization of the economy, greater ability of individuals and businesses to pay, and better tax administration. But the limited domestic revenue-raising abilities of low-income countries do not augur well for their ability to mobilize from domestic sources the funds necessary to scale up to meet the Millennium Development Goals. Also of interest are the very low social security contributions in low-income countries. These low contributions likely result from the low formal sector employment, weak tax administration, difficulties in implementing complex social health insurance mechanisms in these settings, and low incomes in the population. These factors suggest that low-income countries may face many challenges in attempting to implement social insurance as a primary source of health financing.

### ***Pooling risk***

Risk pooling and prepayment are critical for providing financial protection. High out-of-pocket payments are inequitable and deny individuals the benefits of insurance protection against unpredictable catastrophic medical expenses. Pooling health risks enables the establishment of “insurance” and improves welfare by allowing individuals to pay a predetermined amount to protect themselves against large unpredictable medical expenses. It also allows for the cross-subsidization from low-risk to high-risk individuals. Such subsidization can occur through private risk-rated insurance (premiums reflect the average pool risks) or through various public national health service and social health insurance arrangements financed through taxes or general government revenues.

There are various ways for governments to finance public health insurance programs, and each should be assessed on the basis of equity, efficiency, sustainability,

administrative feasibility, and administrative cost. Most low- and middle-income countries have multiple public and private pooling arrangements, and governments should strive to reduce fragmentation and thereby improve equity and efficiency, lower administrative costs, and provide the basis for more effective risk pooling and purchasing.

### ***Purchasing***

Resource allocation and purchasing mechanisms determine for whom to buy, what to buy, from whom, how to pay, and at what price. Efficient purchasing can also be considered as a revenue source since more services can be purchased for a given expenditure level.

Purchasing includes the numerous arrangements used by purchasers of health care services to pay medical care providers. A large variety of arrangements exists. Some national health services and social security organizations provide services in publicly owned facilities where staff members are salaried public employees. Sometimes individuals or organizations purchase services through either direct payments or contracting arrangements from public and private providers. Other arrangements combine these approaches.

Resource allocation and purchasing procedures have important implications for cost, access, quality, and consumer satisfaction. Efficiency gains (both technical and allocative) from purchasing arrangements provide better value for money and thus are a means of obtaining additional “financing” for the health system.

Purchasing has taken on increased importance because donors want to be assured that new funding to scale up services in low-income countries is being used efficiently. No one wants to pour money into inefficient health systems. Moreover, the efficiency of a system has important financial implications for long-term fiscal sustainability and for governments to find the “fiscal space” in highly constrained budget settings for large increases in public spending. Indeed, health financing policies (collection, pooling, and purchasing) must be developed in the context of a government’s available fiscal space.

### ***Fiscal space***

Large proposed increases in public spending on health must be considered in the context of the availability of fiscal space, the budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of its financial position. Fiscal space is at the center of the current debate over the purported negative impacts of International Monetary Fund (IMF) programs that preclude countries from using the increased grant funding for health investments and recurrent health expenditures (such as hiring additional health workers).

In principle, a government can create such fiscal space in several ways:

- Additional revenues can be raised through tax measures or by strengthening tax administration.
- Lower priority expenditures can be cut to make room for more desirable ones.
- Resources can be borrowed, either from domestic or from external sources.

- Governments can have the central bank print money in order to lend it to the government.
- Governments can receive grants from outside sources.

Fiscal space requires a judgment that the higher short-term expenditure, and any associated future expenditures, can be financed from current and future revenues. If financed by debt, the expenditure should be assessed for its impact on the underlying growth rate or its impact on a country's capacity to generate the revenue to service that debt.

### **Prominent risk pooling mechanisms**

Policy makers continually assess the most appropriate mechanisms to pool health risks and provide financial protection to their populations. The challenge for low- and middle-income countries is to somehow direct the high levels of out-of-pocket spending into either public or private pooling arrangements, so that individuals will have real financial protection. Four main health insurance mechanisms are used to pool health risks, promote prepayment, raise revenues, and purchase services.

- State-funded systems through ministries of health or national health services.
- Social health insurance.
- Voluntary or private health insurance.
- Community-based health insurance.

While the features of each financing mechanism differ significantly, no one method is inherently more desirable than another. So, policy makers must examine the context and determine which method constitutes the best means for developing a strong health financing system in terms of equity, efficiency, and sustainability. It is important to be pragmatic and to ensure that the system's development is aligned with country-specific economic, institutional, and cultural characteristics.

### ***Ministry of health/national health service systems***

Ministry of health or national health service-style systems generally have three main features. First, their primary funding comes from general revenues. Second, they provide medical coverage to the country's whole population. Third, their services are delivered through a network of public providers. In most low- and middle-income countries, ministries of health function as national health services and generally exist alongside other risk pooling arrangements. So they are not the sole source of coverage for the entire population.

The features of national health services give them the potential to be equitable and efficient. Their broad coverage means that risks are pooled broadly, without the dangers of risk selection inherent in more fragmented systems. And unlike other systems, they rely on a broad revenue base. National health service-style systems also have the potential for streamlined efficient operation. Most are integrated and under government control, with less potential for high transaction costs arising from multiple players. But when power is decentralized or shared with local authorities and decision-making authority is unclear, coordination problems can ensue.

Provision under the pure national health service model is through public facilities and personnel, but in practice there is much variability-with many governments contracting services from NGOs, faith-based organizations, and even private providers. Whether public provision is more efficient, equitable, and sustainable than private provision is a question not of ownership but of the underlying delivery structures and incentives facing providers and consumers.

While national health service systems have the theoretical benefit of providing health care to the entire population free of charge (except for any applicable user fees), the reality is less encouraging. Reliance on general government budgets is vulnerable to the vicissitudes of annual budget discussions and changes in political priorities. And in most low-income developing countries, public health spending as a share of the budget is generally far less than 15 percent.

Health services in many low- and middle-income countries are primarily used by middle- and high-income households in urban areas because of access problems for the rural poor. In addition, the poor tend to use less expensive local primary care facilities, while the rich disproportionately use more expensive hospital services. Public provision of health services may also face problems of corruption and inefficiencies caused by budgets that do not generate the appropriate incentives and accountability-which has led many governments to split financing from provision.

To exploit the potential strengths of national health service-style systems, it is important for developing countries to improve the capacity to raise revenue, the quality of governance and institutions, and the ability to maintain the universal coverage and reach of the system. It is also important to take specific measures to target spending to the poor, such as increasing the budget allocations for primary care. But the system must not neglect the needs of the middle- and high-income populations-in order to maintain political support and deter them from opting for privately financed providers at the expense of supporting the public system.

### ***Social health insurance systems***

Social health insurance systems are generally characterized by independent or quasi-independent insurance funds, a reliance on mandatory earmarked payroll contributions (usually from individuals and employers), and a clear link between these contributions and the right to a defined package of health benefits. In many countries, coverage has been progressively extended to subpopulations and then to the whole population.

The state generally defines the main attributes of the system, although funds are generally nonprofit and supervised by the government. The number of funds varies by country. Where there are multiple funds, mechanisms are often employed to compensate for different risk profiles across funds, and administrative costs are generally higher. Some countries are reducing the number of funds to maximize risk pooling and to benefit from economies of scale.

The payroll base of much of the funding of social health insurance systems insulates them from budgetary negotiations that may subject national health service systems to more variable funding. Yet social health insurance contributions alone may not be adequate to fully fund health care costs, especially if the system is intended to cover a broader population than those who contribute. Social health insurance systems

may thus require an infusion of resources from general tax revenues. Additional subsidies may come from external aid or other earmarked taxes.

The equity of social contribution financing depends on the presence or absence of contribution ceilings and other features, but some studies have concluded that it is less progressive than general revenue financing, or at best as progressive. Social contributions may also have a deleterious effect on employment and economic growth if they increase labor costs (as might happen if employers are unable to offset the added cost by reducing wages).

Social health insurance systems often cover only a limited population (for example, those in large formal sector enterprises), at least at their inception, and it is difficult to add informal sector workers to the covered population. When successfully implemented, they often have strong support from the population, which perceives them as private and stable in their management and finances.

Social health insurance systems sometimes are more difficult to manage because they involve more complex interactions among players. They can also confront cost escalation and difficulties in paring back benefits. And their less integrated nature does not lend itself to efficient treatment of chronic diseases and preventive care.

What preconditions might lead to the successful development of social health insurance systems in developing countries?

- *Level of income and economic growth.* The systems often began in lower-middle-income countries, and expansions to universal coverage generally occurred during periods of strong economic growth.
- *Dominance of formal sector vs. informal sector.* The systems are easier to administer in countries with a high proportion of industrial or formal sector workers, because employers will likely have a formal payroll system for contributions.
- *Population distribution.* The systems have been successful in countries with growing urban populations and increased population density but have faced slower implementation in countries with a large rural population.
- *Room to increase labor costs.* Countries where the economies can tolerate increased payroll contributions without negative effects on employment and growth are better candidates for such systems.
- *Strong administrative capacity.* The ability to implement a social health insurance system without excess administrative costs-and in a transparent, well-governed fashion-is critical for population support and for financial and political sustainability.
- *Quality health care infrastructure.* The systems can be successful only if the services they fund are available and of good quality, which will support membership in the scheme and avoid a system where the wealthier populations opt for a separate, privately financed system and do not provide needed political support.
- *Stakeholder consensus in favor of social health insurance, together with political stability and rights.* Societies that place a high value on equity and solidarity are likely to support the redistributive aspects of such systems. But significant differentials in contributions may not be tolerated in systems where solidarity plays a less prominent role.



- *Ability to extend the system.* Governments seeking to expand their social health insurance systems must design realistic and progressive goals that reflect the operating context. This includes the ability to encourage the affiliation of informal sector workers and the means to collect regular contributions from them. Transparent and participatory schemes are more likely to garner population support. And governments may need to subsidize the extension of social health insurance to the poor.

Countries aiming to implement social health insurance systems face formidable challenges but also have the potential to reap significant rewards. It is important to examine the specific socioeconomic, cultural, and political contexts and determine whether the setting and the timing are ripe for implementing such a system.

### ***Community-based health insurance***

Community-based health insurance schemes have existed throughout the world for centuries. They also were precursors to many current social health insurance systems, as in Germany, Japan, and the Republic of Korea. Found worldwide, they are particularly prevalent in Sub-Saharan Africa. The schemes can be broadly defined as not-for-profit prepayment plans for health care, controlled by a community, with voluntary membership. Most have community-based membership with strong community involvement in management. And most cover beneficiaries excluded from other health coverage, operating according to core social values.

There is evidence that such schemes reduce out-of-pocket spending, and one study found that such schemes contributed to greater use of health resources. They may also fill gaps in existing schemes (as for informal workers in Tanzania) and form part of a transition to a more universal health care coverage system.

But the protection and sustainability of most community-based health insurance schemes are questionable. They are often unable to raise significant resources because of the limited income of the community, and the pool is often small, making it difficult to serve a broad risk-spreading and financial protection function. The schemes' size and resource levels make them vulnerable to failure. They are also placed at risk by the limited management skills available in the community, and they have limited impact on the delivery of health care, because few negotiate with providers on quality or price. Nor do they cover the poorer parts of the population—even small premiums may be out of reach for the poor.

Government intervention could improve the efficiency and sustainability of such schemes through subsidies, technical assistance, and links to more formal financing arrangements. But community-based health insurance is not likely to be the “magic bullet” for solving the bulk of health financing problems in low-income countries. It should be regarded more as a complement to, than a substitute for, other forms of strong government involvement in health care financing.

### ***Private or voluntary health insurance***

Private or voluntary health insurance often supplements publicly funded coverage, especially in high-income countries. Private health insurance is paid for by

non-income-based premiums (not tax or social security contributions). Voluntary health insurance is defined as any health insurance paid for by voluntary contributions. Although the two types of coverage are distinct, most private health insurance markets are also voluntary, except in a few countries, including Switzerland and Uruguay, where the purchase of private coverage is mandatory for all or a part of the population.

Private/voluntary health insurance can play various roles in public or social coverage:

- Primary-as the main source of coverage for a population or subpopulation.
- Duplicate-covering the same services or benefits as public coverage, but differing in the providers, time of access, and quality and amenities.
- Complementary-covering cost-sharing under the public program.
- Supplementary-for services not covered by the public program.

Individual insurance products may perform one or more of these roles.

Private/voluntary health insurance markets have been somewhat controversial, partly because they often reach wealthier populations and have been the subject of market failures, such as adverse selection by covered individuals and “cream skimming” of better health risks by the insurers. Nonetheless, at least in countries of the Organisation for Economic Co-operation and Development (OECD), it has been found to promote risk pooling of resources that are often otherwise paid out-of-pocket, enhance access to services when public or mandatory financing is incomplete, and in some cases increase service capacity and promote innovation.

Yet private/voluntary health insurance has limits. A study of OECD countries found financial barriers to access because of affordability and premium volatility. Such insurance can contribute to differential access to health care services in some countries. It has done little to reduce cost pressures on public systems. Nor has it made significant contributions to quality improvements, except in a few countries.

The complexity of private/voluntary health insurance markets raises questions about their relevance and feasibility in low-income countries. They may be more plausible options in middle-income countries with large literate and mobile urban populations. Some of the challenges and market failures associated with these markets can be addressed through regulations that mandate certain insurer actions (on acceptance of applicants and premium calculations) and minimize or rectify market failures. Yet these regulations can be difficult to implement and enforce. And they presuppose regulatory resources, political backing, and well functioning financial and insurance markets. It can also be challenging to strike the most appropriate balance between access and equity concerns and desires to promote an efficient and competitive marketplace.

In sum, each of the pooling mechanisms discussed here raises challenges and must be considered in the country context. While national health services and social health insurance have different institutional eligibility and financing criteria, they both face the same issues of ensuring adequate and sustainable financing in an equitable and efficient manner. Future contingent liabilities are a concern for both systems even if national health services in theory have a wider revenue base than payroll contributions. Policy makers need to focus on underlying principles-maximizing risk pooling and assuring equitable, efficient, and sustainable financing-not on labels or generic models.

## Development assistance for health

Large increases in official development assistance and development assistance for health will be needed to assist poor countries in providing essential services to their populations and scaling up to meet the Millennium Development Goals. After almost a 25 percent decline in the 1990s, official development assistance has once again started to increase. In 2003 it was 0.25 percent of gross national income (some \$70 billion), still well short of the Monterrey target of 0.7 percent and the Millennium Project's estimated need of 0.54 percent. Much of the increase has been devoted to debt relief and technical assistance.

Development assistance for health has increased significantly over the past few years, to more than \$10 billion in 2003. Most of the recent increases have been focused on Africa for specific diseases and interventions. Given the renewed efforts for countries to meet their Monterrey commitments from the European Union and Group of Eight as well as the large amounts of assistance pledged to meet the Millennium Development Goals, issues concerning the impact, absorption, use, and sustainability of this external assistance have been receiving attention.

Increased assistance on the order of \$25-70 billion a year will be needed to achieve the Millennium Development Goals for health. While official development assistance is of critical importance, accounting for 55 percent of all external flows to Africa, it accounts for only 9 percent of such flows to other developing regions. In those regions foreign direct investment, workers remittances, and other private flows account for 91 percent of external flows. It is essential for policy makers to focus on these critically important external sources of funding as well as official development assistance.

Global programs, generally focused on specific diseases or interventions, have been responsible for the bulk of the recent increases in external health assistance, representing 15-20 percent of development assistance for health. Global partnerships and private funding are becoming a more important part of the picture, while the UN and development bank roles are relatively constant.

### *Aid effectiveness and absorption*

Large increases in donor funding for health, much of it for recurrent spending, raise important questions about the ability of countries to absorb these funds, the predictability and maturity of these funds, and the ability of countries to sustain such services once donor funding stops.

With most of the recent increases in development assistance for health focused on specific diseases and interventions, there is growing concern about the disease- and intervention-specific focus of aid. Such programs can be very effective in resource-scarce environments. But as health systems develop, waste and inefficiency can result from separate delivery silos for different diseases. And given the severe human resources constraints in many African countries, these programs compete with each other to hire away the few skilled professionals needed to run the public health system. It is important for the ongoing work on health systems to address this issue, with evidence-based policy recommendations as opposed to the conventional wisdom and conceptual arguments driving much of this debate.

A recent study of 14 poverty reduction strategy papers (PRSPs) found that 30 percent of external aid did not enter into the balance of payments and another 20 percent was entered into the balance of payments but not the government budget. Of the remaining 50 percent, only 20 percent was for general budget support. For governments to have the flexibility to effectively implement their “country-owned” programs, they need the flexibility to manage these funds. Donors and countries need to seek ways of funneling this increased external funding through general budget support, financing gaps in the recipient countries’ programs as much as possible.

Aid’s fungibility implies that governments may divert domestic resources to other uses given the presence of donor funding in priority areas (such as primary care). Once donor funding stops, governments may face difficulties in reallocating resources to these priority areas, leading to their underfunding. Donors must exercise care in analyzing the impact of their own resources, which may not actually attain the outcomes intended. They must also give serious consideration to supporting government budgets directly, through budget support for an agreed program, rather than directly financing projects that may crowd out the government’s own resources. Budget support for existing government programs must be predictable, committed over longer maturities to ensure continuity and facilitate planning.

Large increases in development assistance for health to low-income countries (promised and actual) raise questions about whether countries can make effective use of new aid flows. Absorptive capacity has macroeconomic, budgetary, management, and service delivery dimensions. It also rests on critical macro conditions: good governance, lack of corruption, and sound financial institutions. Also critical are human resources for public sector management and for service delivery. Both donors and countries need to develop a better understanding of these constraints and provide an evidence base for dealing with them.

*PG. December 28, 2007*

## Contracting for PHC - financing for results -

Admad Jan Naeem

### 1. Background

Over two decades of successive wars sparked by both domestic conflicts and foreign intervention and interference devastated hundreds of thousands Afghans. Arable land and pastures were strewn with mines. Schools and health facilities were burned down or converted into military bases, more than one generation lost the chance for education and health status, in particular, of mothers and children fell into an awful predicament. When the Taliban were suppressed in 2001-2, Afghanistan suffered from some of the worst health outcomes in the world, including a maternal mortality ratio of 1,600 per 100,000 live births and an infant mortality rate of 165 per 1,000 live births.<sup>1</sup> The limited health infrastructure provided so few services that a household survey in 2003 found that, in rural areas, Antenatal Care was only 5.5% and DPT3 coverage was only 19.5%.

Before 2002, at least 70% of the country's limited healthcare services were provided by about 20 NGOs, many of whom had been in the country for years.<sup>2</sup> The Government of Afghanistan committed itself to rapidly scaling up the PHC services to the population. With a support from the international community, the Afghan Ministry of Health in 2003 adopted contracting out the basic health care to both international and local NGOs for expanding services.<sup>3</sup>

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<sup>1</sup> *In one district of mountainous Badakhshan province, a maternal mortality ratio of 6,500 was found, the highest ever recorded.* Barlett L, Mawji S, Whitehead S, Crouse C, Dalil S, Ionete D, Salama P. Where giving birth is a forecast of death: maternal mortality in four districts in Afghanistan, 1999-2002. *Lancet* 2005;365:864-70.

<sup>2</sup> Sondorp E. et al.: *BMJ* 2006;332:718-721

<sup>3</sup> Joint donor mission to Afghanistan on the health, nutrition (2002), and population sector: aide-memoire. Washington: World Bank, 2006

## 2. Contracting out PHC in Afghanistan

The Ministry of Public Health (MoPH), the World Bank, the European Commission (EC) and the US Agency for International Development (USAID), Asian Development Bank are currently financing and managing contracts with NGOs, amounting to approximately US\$140 million.<sup>4</sup> These contracts cover all the 34 provinces in Afghanistan; 11 provinces under the World Bank funds, 10 provinces under the EC funds and 13 provinces under the USAID funds. The contracts cover either the full province or clusters of districts. The contracting coverage increased considerably from 5% in 2002 to 82% in 2007, leaving a few clusters and urban areas uncovered. The contracts are all based on a standardized package of healthcare, which is called the Basic Package of Health Services (BPHS) and established the government's priorities for addressing the horrifying health situation (see the Box1).

### Box 1: Components in BPHS

1. **Maternal and Newborn Care** (Antenatal care, Delivery care, Postpartum care, Family planning, Care of the newborn)
2. **Child Health and Immunization** (EPI, IMCI)
3. **Public Nutrition** (Prevention & Assessment of malnutrition)
4. **Communicable Disease Treatment and Control** (TB, Malaria, HIV/AIDS)
5. **Mental Health** (Mental health education and awareness, case detection)
6. **Disability Services** (Disability awareness, prevention and education)
7. **Regular Supply of Essential Drugs** (Listing of all essential drugs needed)

Contracts with NGOs are effective between 12 months to 36 months. The NGOs are paid according to their financial proposals which are submitted to the MoPH as part of the bidding process. Four provinces are managed under contracting out to the MoPH, known as the Strengthening Mechanism project, which is financially and technically supported by the World Bank, delivering the BPHS through the existing government system. 53 contracts or grants have been awarded to 26 NGOs since 2002. In addition, some contracts were awarded to consortia of national and international NGOs. National NGOs currently have 38% of the volume of grants awarded.

## 3. Pros and Cons in Afghan Contracting

Sondorp et al looked into contracting cases in post conflict countries including Afghanistan, casting out its pros and cons and this section relies on Sondorp's thoughts (see Box2).<sup>5</sup> Contracting the BPHS in Afghanistan has obvious advantages. For

<sup>4</sup> WHO, Afghanistan Role of contractual arrangements in improving health sector performance (Draft), 2007

<sup>5</sup> Sondorp Egbert. et al.: BMJ 2006;332:718-721

**Box 2: Arguments for and against contracting**  
***For***

- Allows a greater focus on measurable results
- Increases managerial autonomy
- Draws on private sector expertise
- Increases effectiveness and efficiency through competition.
- Allows governments to focus on other roles such as planning, standard setting, financing, and regulation
- Allows for rapid expansion of health service

***Against***

- Competition may not exist, especially in low income countries where there may be no alternative providers
- Contracts may be difficult to specify and monitor
- Management costs may wipe out efficiency gains
- Contracting may fragment the health system
- Governments with weak capacity to deliver services may also be weak in a stewardship role

*Source: Sondorp E. et al.: BMJ 2006;332;718-721*

instance, NGOs were already managing most facilities, and are experienced in the difficulties of delivering services in the country. It is felt that the bulk of public health expertise in Afghanistan currently resides in the NGO community. NGOs are often more flexible than government in their ability to recruit new staff with a better salary package and set up services rapidly. On the other hand, the MoPH has been facing cumbersome bureaucratic procedures for hiring new staff. Moreover, some NGOs have the financial and logistical backstop of large international organizations who can supplement the contract funds with their own resources.

Using contracts to achieve a rapid expansion of capacity in fragile states seems an effective short term strategy. However, it also raises questions for health planners over the longer time horizon for restructuring health systems as a whole.

Emerging market economy that is contestable or offers the threat of competition, is argued to encourage providers to maintain efficiency and quality. In Afghanistan, a review of bidding for the contracts suggested different levels of competition. More accessible and secure areas had relatively sufficient number of bids, but the competition for more remote and/or insecure areas was low in previous years. It is seen whether NGOs will bid for one another's contracts in these subsequent bidding rounds. They may settle into operating in certain areas and be reluctant to move. The desirability of replacing providers once they are in place is also questionable. In such difficult environments, local knowledge and networks may give the incumbent such an advantage that it would be better to accept that the type of contracting being used is more relational (meaning long term and based on trust or dependency) than competitive. The long-term effects of a competitive process in acting as a spur to efficient service delivery also cannot yet be assessed.

Average annual cost per capita for the BPHS was estimated at US\$55 in 2003, while the donors reported that their average per capita cost as of January 2006 was

\$4.88. (Individual donors' per capita costs are \$4.30, \$4.47, \$4.83, and \$5.12.).<sup>67</sup> If this variation in cost is reflected in differences in accessibility, quantity and quality of services, it is clearly undesirable but no statistical correlation between these variables has been reported so far. It should also be noted that costs of delivering services are likely to differ between areas.

### ***Measuring performance***

Contracts are meant to increase transparency and accountability. The quantity and quality of services should be both clearly specified and measurable with indicators that are agreed upon by the stakeholders. NGOs are contracted to deliver the BPHS but the terms of the contracts vary from donor to donor. Some donors are more focused on inputs, some on process indicators (such as utilization), and some on outputs (such as immunization rates). They also have different incentives. The World Bank contracts, for example, have a performance based element. Four NGOs have received bonuses amounting to 1% of their contract price for good performance, which is defined as an increase of at least 10 percentage points above baseline indicators. It will be important to continue to monitor how often payment is made or withheld and the effect that this has on providers' behavior.

Overall, issues of specification and monitoring of the BPHS are dealt with systematically. Performance is being taken seriously; one contract with an international NGO has already been terminated for poor performance. For all contracts, progress reports and site visits are required as part of the monitoring process. In addition, to ensure objective measurement of performance a third party has been contracted to monitor services using household surveys, inspections of facilities, and interviews. This gives detail of volume and processes of service delivery and some measure of access by the community. The biggest challenge is how to specify contracts to encourage delivery of services to the most remote parts of the population. Although the contracts nominally cover a high proportion of the population, 82% in 2007, many remain outside the catchment area of any facility. Another MoPH estimate say in 2007 that only 66% of the Afghan population are accessible by less than 2-hour walk to a health facility in Afghanistan, leaving over 8 million people out of the basic health services.

### ***Financial and Managerial Sustainability***

Costs relating to monitoring and managing the existing contracts are closely linked to issues of government capacity to carry out stewardship. Currently costs are increased by expatriate technical assistance both to help develop NGOs and government capacity and to strengthen contract management. The MoPH has established a specialized unit that is called Grant and Contract Management Unit (GCMU), manages the World Bank grants and is eventually to manage all contracts. The third party evaluator responsible

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<sup>6</sup> Newbrander et al., Costing of the Basic Package of Health Services for Afghanistan, 2003. Management sciences for Health (MSH)

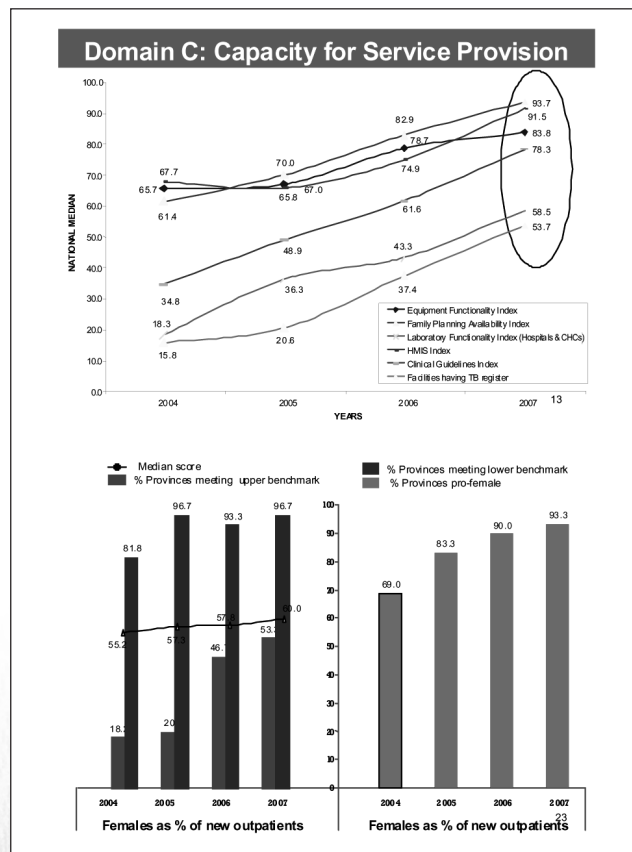
<sup>7</sup> Newbrander et al., Rebuilding health systems in post-conflict countries: estimating the costs of basic services, 2007.



for external monitoring by household survey and quality assessment visits to facilities is another expense. They raise issues both of their magnitude in comparison to a government hierarchy for service delivery, and more relevantly, how such costs could be met without continuing substantial donor inputs. Building local capacity to manage this system would reduce costs, but this requires a long term vision.

#### 4. Contracting for Results

The MoPH has adopted a stewardship role in the health sector since 2003 and thus it becomes imperative for the MoPH to know how well the health program is progressing. In order to track change and formulate future strategies, the MoPH together with the partners set up a tool to measure and manage performance in service delivery, which is called the Balanced Scorecard (BSC).<sup>8</sup> Since 2004, the BSC has been measuring trends in six major domains; Patients and Community, Health Staff, Capacity for Service Provision, Service Provision, Financial Systems and Equity by tracking the set indicators.



The trends over the years show that there is substantial progress across different domains and indicators. Although improvement is not consistent across all aspects of health service performance, for example, the Domain C looking at indices for patient counseling, ANC provision, delivery care and so forth has been consistently improving for the past four years (Graph top).

<sup>8</sup> “A multi-dimensional framework for describing, implementing and managing strategy at all levels of an enterprise by linking objectives, initiatives, and measures to an organization’s strategy.” Kaplan & Norton, 1996

It is also reported that the availability, accessibility, quality of health services and utilization by community has improved. The BSC indicates that patient's perception about health services is relatively high and the services are in line with the government's vision; friendly toward women and the poor (Graph bottom).

Household survey in 2006 also shows positive changes partly attributed to the rapid expansion of services through contracting out. The under-five mortality rate sees a 25% reduction over 2001 levels (see table below). These estimates provide evidence that infant and child mortality has decreased in Afghanistan in recent years. Childhood vaccination coverage has improved, especially for the most dangerous of vaccine-preventable diseases, measles. Impressive increases have been documented for reproductive health, with more women receiving pre-natal care, more deliveries being assisted by professional health care providers, and more families using modern contraceptive methods to determine the size of their families.

<b>Mortality Rate</b>	<b>2000*</b>	<b>2004/2005**</b>
<b>Infant Mortality Rate</b> (number of infants dying per 1000 live births)	165	129
<b>Under Five Mortality Rate</b> (number of children under five dying per 1000 live births)	257	191

\* Estimate for 2000 from 2002 State of the World's children, UNICEF

\*\* Estimate for 2004/05 from 2006 Afghanistan Household Survey, JHU and IHMR

In spite of the gains, there is a long way to go. Mortality rates for infant and children in Afghanistan are still among the highest in the world. Many communities still have poor access to health services due to physical, cultural and security reasons. The MoPH is planning to expand the contracting to reach the hard-to-reach by deploying mobile health clinics and sub-centers. It is also found that where health services are available, many people are not using them. To increase utilization of services besides creating awareness, MoPH is piloting innovative schemes such as, conditional cash transfer, incentives to clients for using services and incentives for the Community Health Workers.

## 5. Discussions

Although the overall Afghan contracting for PHC has seen remarkable successes in achieving rapid increase in the service coverage of the population, there will be a need to look into what contract really works better for the Afghan's health status (e.g. service delivery contract v/s management contract, contract-in v/s contract-out etc). The MoPH should carefully define measure to monitor and assess the performance and build up its capacity to play the stewardship role. The increased managerial burden for the MoPH to handle contracts should also be looked into in a way that will not necessarily jeopardize current MoPH contract management but tries to integrate, where and when appropriate, various similar transactions such as finance, accounting, procurement, logistics into one MoPH system. Contracting the hospital care services, especially national hospital care and/or specialist inpatient care, is a new phenomenon for Afghanistan and seems hard to measure the outputs and outcomes. To begin with, the

MoPH has introduced a standardized monitoring and assessment tool for the provincial hospitals with a minimum package of hospital services, called Essential Package of Hospital Services (EPHS). Lastly but not the least, contracts for insecure areas have to be extremely innovative to assure of the availability and quality of services. Demand Side Financing is a new scheme to expand the people's access to the BPHS by creating incentives for both service providers and clients.

Discussions around sustainability of contracting should be deepened by having common understanding of the stage that the government in question stands at. Newbrander provides us with insights as to how these stages could embed sustainability in due course of development.<sup>9</sup> Certainly, the contracting for PHC in relatively stable areas focuses on rehabilitation of the health services and long-term planning capacity, whereas contracting in areas with insecurity or devastated by natural disasters such as drought and flood need emergency relief and should consider sustainability accordingly.

Looking at forecasts of the Government of Afghanistan (GoA) resource envelope, the BPHS will have to rely hugely on the external finance in the foreseeable future and most of the services will be provided by contracting.<sup>10</sup> The MoPH will explore ways to satisfy both domestic and international interests in terms of quality, accessibility and sustainability of the services.

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<sup>9</sup> Newbrander, *Rebuilding Health Systems and Providing Health Services in Fragile States*, 2007 (MSH)

<sup>10</sup> GoA, *Afghanistan National Development Strategy Summary Report*, 2005



## **Rifat Atun**

**Professor of International Health Management  
Director of the Centre for Health Management  
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*R*ifat Atun is Professor of International Health Management and Director of the Centre for Health Management at Imperial College London, where he leads a multidisciplinary group of researchers.

His research focuses on (i) health systems; (ii) analysis of how contextual and health systems factors influence the implementation of complex health innovations (such as primary care reforms or communicable disease programmes to control tuberculosis and HIV) and technology-enabled healthcare services, and (iii) innovation in the life sciences sector. He has published widely in these areas in leading journals such as the *Lancet*, *British Medical Journal* and the *Bulletin of the World Health Organization*. He is the author of books on *Health Systems and Communicable Disease Control*, *The European Medical Technology Sector*, and *Innovation in the Biopharmaceutical Sector*.

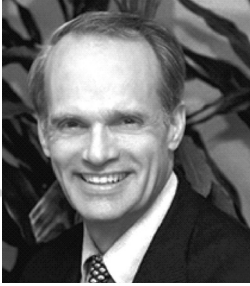
He works closely with the World Health Organization, the World Bank and governments in a number of countries in Europe, Central Asia, Latin America and the Middle East to design, implement and evaluate health systems and primary care strengthening programmes.

Professor Atun is a Member of the Strategic Advisory Technical Group at WHO Headquarters with a brief on health systems and chairs the WHO Task Force on Health Systems and Tuberculosis Control. He is a Member of the Advisory Committee of the WHO Health Research Centre in Kobe, Japan.

Professor Atun is a founding director of Visbion Ltd an imaging solutions company spun out of Imperial College London. He is also a board member of Medixine Oy, a Finnish company which offers multimodal information and communication solutions for healthcare and wellness.

Professor Atun studied medicine as a Commonwealth Scholar at University of London and undertook his postgraduate medical studies in London. He completed the Executive MBA programme at Imperial College and was awarded the Director's Prize. He practiced clinical medicine for 14 years in London and also worked as Associate Dean of Postgraduate Medical Education for General Practice at University of London before moving to a full time academic career at Imperial College. He was the founding director of the Masters Programme in International Health Management, and is currently the Co-Director of the Masters in Public Health at Imperial

Professor Atun is a Fellow of the Faculty of Public Health of the Royal College of Physicians and a Fellow the Royal College of General Practitioners UK.



**David de Ferranti**  
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*D*avid de Ferranti directs the Global Health Financing Initiative at the Brookings Institution in Washington, DC, and is a Senior Fellow there. He also is Chair of the Health Financing Task Force and heads several other groups focusing on global health issues.

Previously, he was the World Bank's Vice-President overseeing its health, education, nutrition, and other social services work in developing countries, including initiatives on health policy, financing, systems, and services delivery issues.

Also, he headed up, as the World Bank's Regional Vice-President, its activities in Latin America and the Caribbean across all sectors, with responsibility for a \$25 billion loan portfolio, 700 professionals in 14 locations, and a \$160 million budget.

Prior to that, he held management positions at Rand, the original think tank, and in the U.S. government.

His research, writing, and management experience have included concentrations on Africa and Asia, as well as Latin America. In addition to a primary focus on health, he has also spearheaded work on economic policy, education, nutrition, population, finance, poverty reduction, urban and rural development, transport, environmental protection, and water supply and sanitation.

He holds a Ph.D. in Economics from Princeton University, with Outstanding Dissertation Award honors, and a Bachelors degree from Yale University, with Phi Beta Kappa and Magna cum Laude honors.

His Board memberships have included: The Rockefeller Foundation (where he chaired the Finance Committee overseeing the investment of the Foundation's \$3 billion endowment); The Center on Budget and Policy Priorities (where he is the current Chair of the Board); Transparency International - USA; Technoserve, Inc.; The Inter-American Dialogue; The Pew Memorial Trust International Health Advisory Panel; The Center for Global Development Advisory Panel; The Lewis T. Preston Education Program; The Escuela Nueva Foundation; and The Partnership for Educational Revitalization in the Americas. He is an adjunct professor at Georgetown University.

He is a US citizen by birth, with Australian, Belgian, Italian, South African, British, and Dutch roots. He has lived in nine U.S. states, plus Britain, the Netherlands, and Belgium, and has worked for extensive periods in Latin America, Africa, Asia, and Europe.



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*A*manda Glassman is a fellow and deputy director of the Global Health Financing Initiative at the Brookings Institution. She is currently on leave from the Inter-American Development Bank (IDB) where she was a Senior Social Development Specialist. In that capacity, over an eight year period, she led teams in the approval and execution of more than \$3 billion in lending, technical assistance and evaluation in health and social protection, primarily in Colombia, Peru, Suriname and Ecuador. Prior to the IDB, she worked as a research specialist for the Harvard Health Financing Group and as a Population Reference Bureau fellow at the US Agency for International Development.

She is the author of a number of book chapters and papers in the areas of health financing, political economy of health reform, poverty and social protection. Amanda Glassman received a MSc from the Harvard School of Public Health in 1996 and a BA from Brown University in 1992.



### **Pablo Gottret**

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*Dr.* Pablo Gottret is the Lead Economist of Health Nutrition and Population in the Human Development Network of the World Bank. His responsibilities include overseeing Bank's work on Health Financing and Health Systems including public sector financing, social security and public/private insurance. Before joining the World Bank in 2002, Dr. Gottret was Viceminister of Budgeting in his native Bolivia between 1987 and 1990 and Chief Executive of the Regulatory Body for Private Pensions, Private Insurance and Securities between 1998 and June 2002. Dr. Gottret led the technical teams that developed Bolivia's Capital Markets Law, Insurance Law and reforms to the Pension's System Law approved by the Bolivian Congress between 1997 and 1998. Between 1990 and 1998, Dr. Gottret worked extensively in health financing reform programs in different countries of Latin America including Argentina, Mexico and Colombia. Dr. Gottret has published in different journals and acted as speaker in several international conferences.

Dr. Gottret has Ph.D. in Economics from Texas A&M University with fields in Econometrics, Natural Resource Economics and Finance. His publications include:

- **Financing Global Health: Mission Unaccomplished**. Co-authored with George Schieber, Lisa Fleisher and Adam Leive. *Health Affairs*. July/August 2007
- **Governing Mandatory Health Insurance: Learning from Experience**. Co-edited with William Salvedoff. World Bank publication. Forthcoming.
- **Good Practice in Health Financing: Lessons From Reforms in Low and Middle Income Countries**. Co-Edited with George Schieber and Hugh Waters. World bank Publication. Forthcoming.
- **Getting Real on Health Financing**. Jointly written with George Schieber and Lisa Fleisher. *Finance and Development*. The International Monetary Fund. December 2006.
- **Health Financing Revisited: A Practitioner s' Guide**. TTL and one of the main authors of this ESW which reviews major health financing issues facing LIC and MIC. World Bank Publication, May 2007.
- **Government Health Expenditures and Health Outcomes**. Jointly written with Farasat Bokhari and Yunwei Gai. Econometric model to evaluate the impact of GHE and donor funding on the health MDG. *Health Economics*, 2007, volume 16.

- The Health MDG: Rising to the Challenge. Co-authored Chapter 4: “Extra Government Health Spending is Not Sufficient-Health Sector Strengthening is also Required , and Spending Needs to be Targeted” and Chapter 9: “Financing Additional Spending for the MDG-In a Sustainable Way”. ESW: World Bank, June 2004
- Numeaire Choice in Normalized Quadratic Functional Forms. Jointly written with Dr. Richard Shumway. *Journal of Applied Economics.* October 1991.
- Multiproduct Supply and Input Demand in U.S. Agriculture. Jointly written with Dr. Richard Shumway. *American Journal of Agricultural Economics.* May 1988.





## **Emmanuel Jimenez**

**Director, Human Development, East Asia and Pacific Region, The World Bank**

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Emmanuel Jimenez, from the Philippines, has held a variety of positions as an economist and manager in the policy, research and operational units of the World Bank. Since early 2002, he has been Sector Director, Human Development, in the World Bank's East Asia Region, where he is responsible for managing operational staff working on education, health and social protection issues. Prior to this position, he held a similar positions in the Bank's South Asia Region. Before that he served for many years in the Bank's Development Economics Staff, where he managed staff and also engaged in research on a variety of topics, including education and health finance, the private provision of social services, the economics of transfer programs and urban development. He recently took time off from his operational duties to lead the team that prepared Bank's flagship publication, the *World Development Report 2007: Development and the Next Generation*. He also serves as the current editor of the journal, *The World Bank Research Observer*. Before joining the World Bank, Mr. Jimenez was on the faculty of the economics department at the University of Western Ontario in London, Canada.



**Professor Anne Mills**  
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*A*nne Mills is Professor of Health Economics and Policy at the London School of Hygiene and Tropical Medicine and Head of the Department of Public Health and Policy. She holds an MA from the University of Oxford, a diploma in health services administration from the University of Leeds, and a PhD from the University of London. She has over 30 years' experience in health-economics related research in low and middle income countries, and has published widely in the fields of health economics and health systems. Her most recent research interests have been in two main areas: the organisation and financing of health systems including evaluation of contractual relationships between public and private sectors, evaluation of community-based insurance, and the appropriate roles of public and private sectors especially for malaria control; and economic analysis of disease control activities including cost-effectiveness modelling of choice of malaria drugs and diagnostics.

Professor Mills has had extensive involvement in supporting capacity development in health economics in low and middle income countries at both global and national levels. She has supported the health economics research funding activities of the WHO Tropical Disease Research Programme and guided the creation of the Alliance for Health Policy and Systems Research, including chairing its Board. She founded, and is Head of, the Health Economics and Financing Programme, which together with its many research partners, has an extensive programme of research focused on increasing knowledge of how best to improve the equity and efficiency of health systems in low and middle income countries. She has provided long term capacity development support in the area of health economics, policy and systems research to a number of countries, including Thailand. She has supervised many research degree students who are now active researchers in their own countries.

Professor Mills has advised a number of multilateral and bilateral agencies, notably the UK Department for International Development, the World Health Organisation, and the World Bank. She acted as specialist advisor to the House of Commons Select Committee on Science and Technology's enquiry into the use of science in UK international development policy. She was a member of the Commission on Macro-economics and Health, and co-chair of its working group 'Improving the health outcomes of the poor'. She wrote the communicable disease paper for the Copenhagen Consensus and was a member of the US Institutes of Medicine Committee on the economics of anti-malarial drugs. In 2006 she was awarded a CBE for services to medicine and elected Foreign Associate of the Institute of Medicine.



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During his 24 year career, he has worked for both national and international public health organizations that include IbSina, Avicen, International Medical Corps (IMC) and the Afghan Ministry of Public Health. From 1993-1996, he led the formulation of the IMC projects in Kabul and other provinces, focusing upon primary health care activities. The projects were funded by the international donors that benefited more than 3 million people in the target areas. Serving for IbnSina for 7 years, he in collaboration with the partners uplifted roles and responsibility of NGOs in Afghanistan to a completely new stage, by setting up an umbrella organization of both international and national NGOs working in the country and creating venues for the NGOs and the Government to have policy dialogue in public health management. He was invited to the International Conference on the Reconstruction of Afghanistan in Japan in 2002 as a representative of the NGOs in Afghanistan and contributed to development of the reconstruction plans.

When he started his endeavor in the public health administration in 2003, he and his department headed the contracting for primary health care services with the NGOs, under which over 80% of the population is being served at present. Since November 2007, he has been appointed as Acting General Director of Policy and Planning of the Ministry of Public Health. Currently, he heads major MoPH initiatives including contracting for the Basic Package of Health Services, public health financial management reforms, public private policy formulation, provincial health planning and



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1977 Commander (Third Class) of the Most Noble Order of the Crown of Thailand

1991 Knight Commander (Second Class) of the Most Exalted Order of the White Elephant

2003 Companion (Fourth Class) of the Most Admirable Order of the Direkgunabhorn

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**HONORS AND AWARDS:**

2003 Honorary Doctoral Degree in Economics, Chulalongkorn University

1999 Honorary Doctoral Degree in Economics, Thammasat University

1999 Honorary Doctoral Degree in Development Economics, National Institute Development Administration (NIDA)

1995 Award for Best Research Work (in economics) by National Research Council (NRC), Thailand for Compendium on Rice. (with Viroj Na Ranong)

1986 Distinguished Researcher Award (in economics) by NRC

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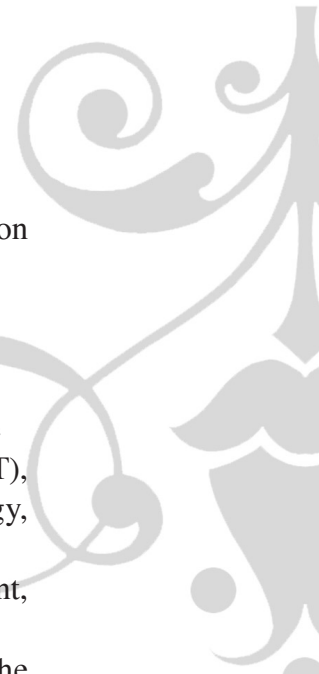
Mar.2007-present	Acting President, TDRI
1996 - Mar.2007	Distinguished Scholar, Thailand Development Research Institute (TDRI)
1990 - 1995	President, TDRI
1984 - 1990	Program Director for Agriculture and Rural Development, TDRI
1978 - 1984	Research Fellow, International Food Policy Research Institute, Washington, D.C.
1972 - 1978	Lecturer, Faculty of Economics, Thammasat University, Bangkok
1966 - 1972	Asst. Prof. and Research Staff Economist, Department of Economics, Yale Univ.

**VISITING FELLOWSHIP:**

1975 - 1976	Visiting Professor, Food Research Institute, Stanford University
1970 - 1971	Rockefeller Foundation Visiting Prof., Faculty of Economics, Thammasat Univ.

**COMMITTEES:**

Present:	Member, Law Reform Commission, Office of the Council of State Board Member, Sanya Thammasak Institute of Democracy Honorary Member, Board of the Health Insurance System Research Office (HISRO) Advisory Board Member, Transparency Thailand Advisory Board Member, the Press Council of Thailand Member, the National Legislative Assembly Senior Advisory Board Member, the Minister of Public Health
2005-2006	Member, National Reconciliation Commission (NRC)
2005-2006	Chairman of the Sub-Committee to Study Appropriate Development Directions for Human Security, NRC
2002-2005	Pridi Bhanomyong Distinguished Professor, Dhurakijpundit University
2001-2005	Member, Evaluation Committee, Thai Health Promotion Foundation
2000-2005	Board of Directors, Bank of Asia
2000-2003	Member, Appellate Committee, Department of Internal Trade, Ministry of Commerce
2000-2003	Board Member, National Health System Reform, Ministry of Public Health
1999-2002	Board Member, Health Systems Research Institute, Ministry of Public Health
1998-2002	Chairman, Social Investment Fund (SIF)
1999-2000	Steering Committee on the Study of Thailand Legal Development Project
1999-2000	Sub-committee on Evaluation of the Energy Conservation Plan, National Energy Policy Office (NEPO)
1998	Nukul Commission Tasked with Making Recommendations to Improve the Efficiency and Management of Thailand's Financial System (Sor Por Ror)



1997-2000	Economic Advisory Board, Thailand Management Association (TMA)
1995-2000	Board Member, Thai Tapioca Development Institute
1996-99	Board Member, National Statistical Office
1995-99	Board Member, Government Savings Bank
1995-96	Board Member (Economics), the Thai Chamber of Commerce
1995-99	Policy Board, Biodiversity Research and Training Program (BRT), National Centre for Genetic Engineering and Biotechnology, National Science and Technology Development Agency
1994-98	Chairman, Committee on Credit Program for Rural Development, Government Savings Bank
1994	Chairman, Public Enquiry Committee on the Benefits of the Collector/ Distributor Road for the Second Stage Expressway
1993	Member, Public Enquiry Committee on the Benefits of the Collector/Distributor Road for the Second Stage Expressway
1993-97	Member, Technical Advisory Committee, Consultative Group on International Agricultural Research
1993-96	Member, National Agricultural Credit Policy Committee
1992-94	Member, Board of Investment, Bangkok, Thailand
1992	Member, Review Committee for the International Rice Research Institute, Los Banos, the Philippines
1988	Member, Review Committee for the Department of Economics and the National Centre for Development Studies in the Research School of Pacific Studies, the Australian National Univ.
1975-78	Member, Economics Section, National Research Council
1974	Member, Economic Advisory Council to the Prime Minister

**Adam Wagstaff**

Lead Economist, Development Research Group  
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*A*dam Wagstaff is a Lead Economist in the Development Research Group (Human Development & Public Services Team). He holds a DPhil in Economics from the University of York (U.K.). Before joining the Bank in 1998, he was a Professor of Economics at the University of Sussex (U.K.). He has been an associate editor of the *Journal of Health Economics* since 1989 and has published extensively on a variety of aspects of the field, including the valuation of health, the demand for and production of health, efficiency measurement, and illicit drugs and drug enforcement. Much of his recent work has involved conceptual and empirical studies of equity, poverty and health. His current health research includes work on health risks and shocks, and on the impacts of insurance programs. He coauthored “The Millennium Development Goals for Health: Rising to the Challenges” and “Analyzing Health Equity Using Household Survey Data”. He is lead author of a forthcoming study of China’s rural health sector. Outside health economics, he has published on efficiency measurement in the public sector, the measurement of trade union power, the redistributive effect and sources of progressivity of the personal income tax, and the redistributive effect of economic growth.

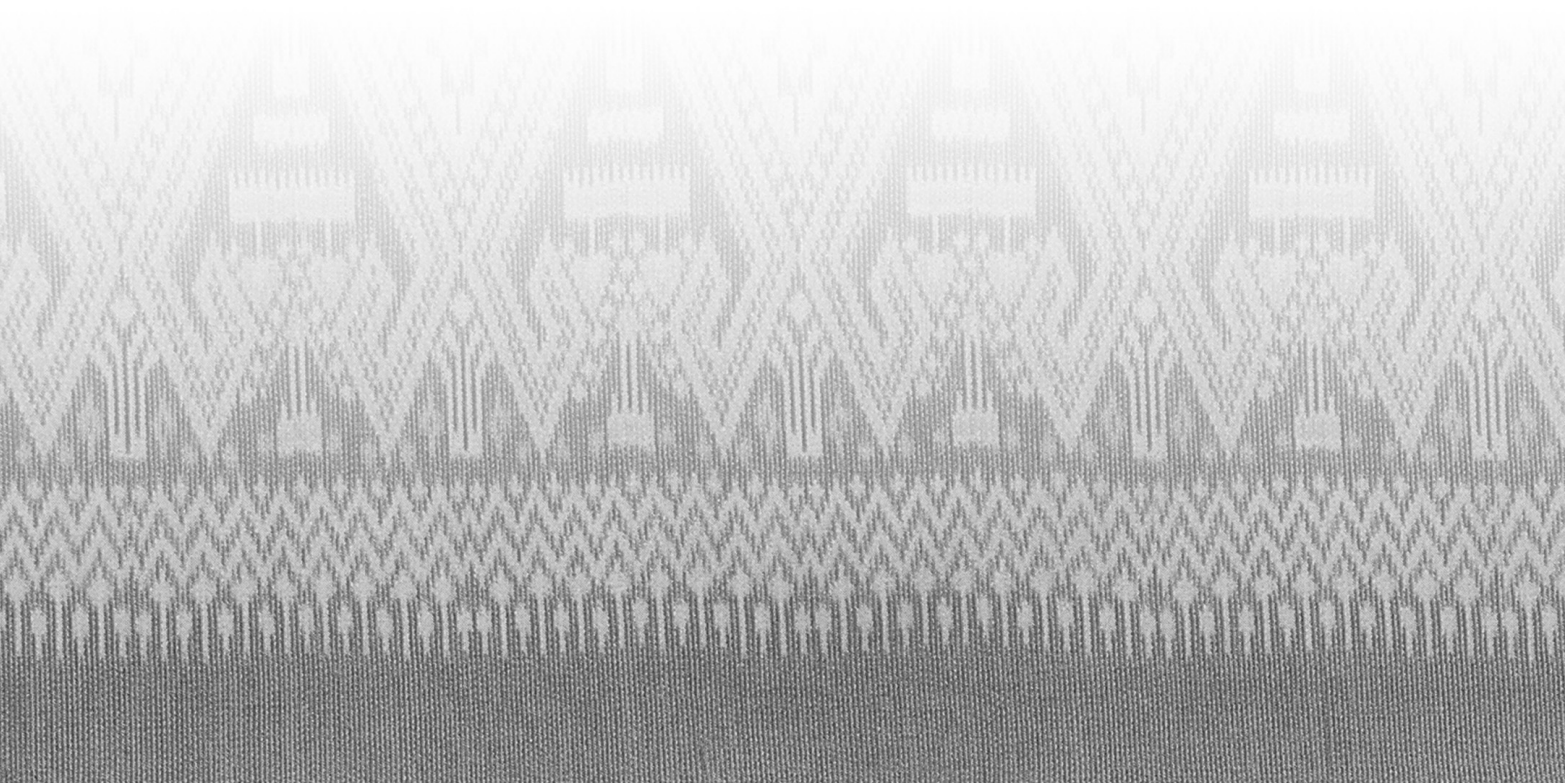






## **Parallel Session 6**

*Evidence, Information for Health Systems  
Strengthening in Support of PHC*



## **Using district level indicators to track the performance of the health system : Evidence from Africa : preliminary results of a research analysis**

**Carla AbouZahr and Ties Boerma**

### **Introduction**

Does providing better health services result in increased use and thereby improve health outcomes? This is an underlying assumption in many health programmes (see Figure 1). However, in practice, there is little by way of supportive data on inputs to the health system, such as availability of infrastructure and services, that enable us to verify the hypothesis. In this paper we report on efforts currently under way to analyze data from selected African countries to assess whether indicators of health service provision are a good predictor of coverage of maternal and child health interventions coverage and child survival, using on provincial and regional level data in each of the participating countries.

### **Methods**

This analytic research focuses on five African countries, all of which have carried out a mapping of the availability of services and which also have provincial level information on utilization of key maternal and child health interventions, mainly through Demographic and Health Surveys (DHS). Provinces or regions are the basic unit of analysis, as districts are too small for this type of analysis. For instance, Tanzania has 21 regions and Zanzibar which will be used as one regional input; Zambia nine provinces; Kenya; 10 provinces; Burkina Faso 13 health zones; and Uganda six health zones.

Data on service inputs are obtained from country information systems and recent data collection efforts such as service availability mapping, censuses and surveys. The service input indicators include availability and density of in-patient beds, health workers, and health facilities by province or region. Financial input data will be used if available. Special attention is paid to assess the quality of data, and, if possible, trends

obtained from older data sets. Figures 2-4 show initial findings on the availability of inputs such as health care facilities (public and private), human resources such as laboratory technicians, and key interventions such as IMCI.

Completed DHS and MICS household surveys are used to estimate service coverage and health outcomes by province or region. The focus will be on immunization coverage, coverage of skilled birth attendance, and a composite index that includes immunization, maternal and neonatal care, family planning and treatment of common childhood illnesses. Mortality and stunting among children under five years are used as indicators of health outcomes and risk respectively. In addition, the survey data will be used to provide data on level of socio-economic development - levels of female education and proportion of population in lowest wealth quintiles - which may confound the association health services inputs - outputs.

Multi-variate models will be used to assess the effect of health services on intervention coverage, risk and health outcomes in children. Multi-collinearity between the different health service input variables will be taken into account. The association of health service inputs is expected to be stronger with interventions than with outcomes such as mortality and nutritional status.

## **Results**

The first part of the analysis describes subnational levels and trends in the supply of services, socio-economic development, coverage of services and health outcomes.

The second part focuses on the association between health service inputs, risks and outcomes, while controlling for other factors. Initial analyses from the Tanzania indicate a strong association between the health worker density and in-patient beds density and intervention coverage, which is larger than the effects of levels of education and is barely attenuated by controlling for level of socio-economic development in multi-variate analysis. The effect of density of health facilities is much smaller than the other health input variables.

## **Discussion/Conclusions**

The discussion summarizes the general patterns of within-country distribution of levels and trends in health system inputs, service coverage and health outcomes in the five countries, aiming to discern generalizable findings. The focus will be on the extent to which health service inputs affect coverage and child mortality independent of level of socio-economic development. The implications of these findings for the enhancement of geographic equity within countries will be discussed.

Figure 1

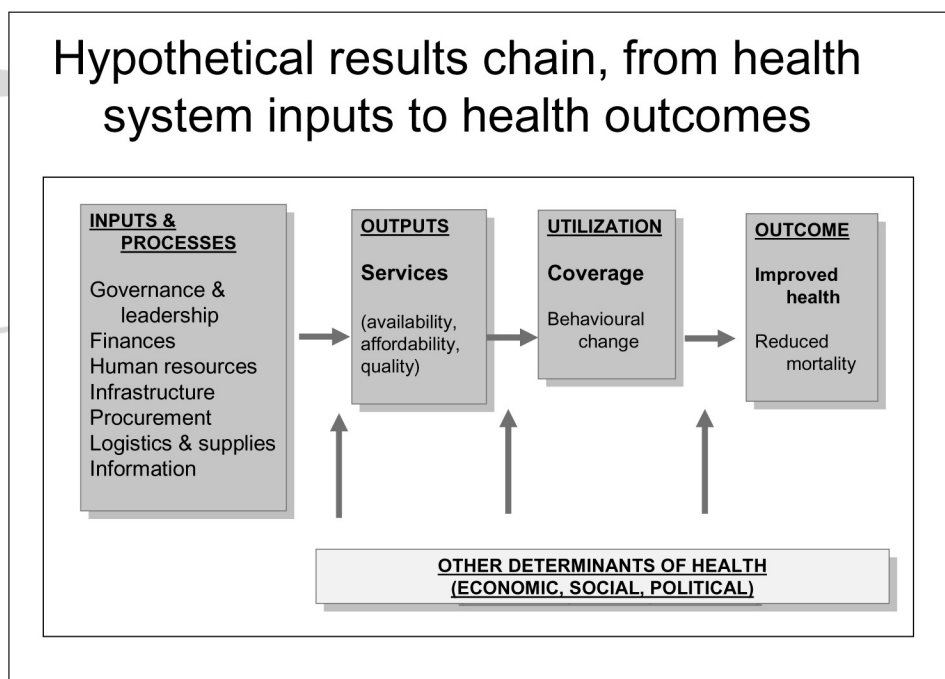
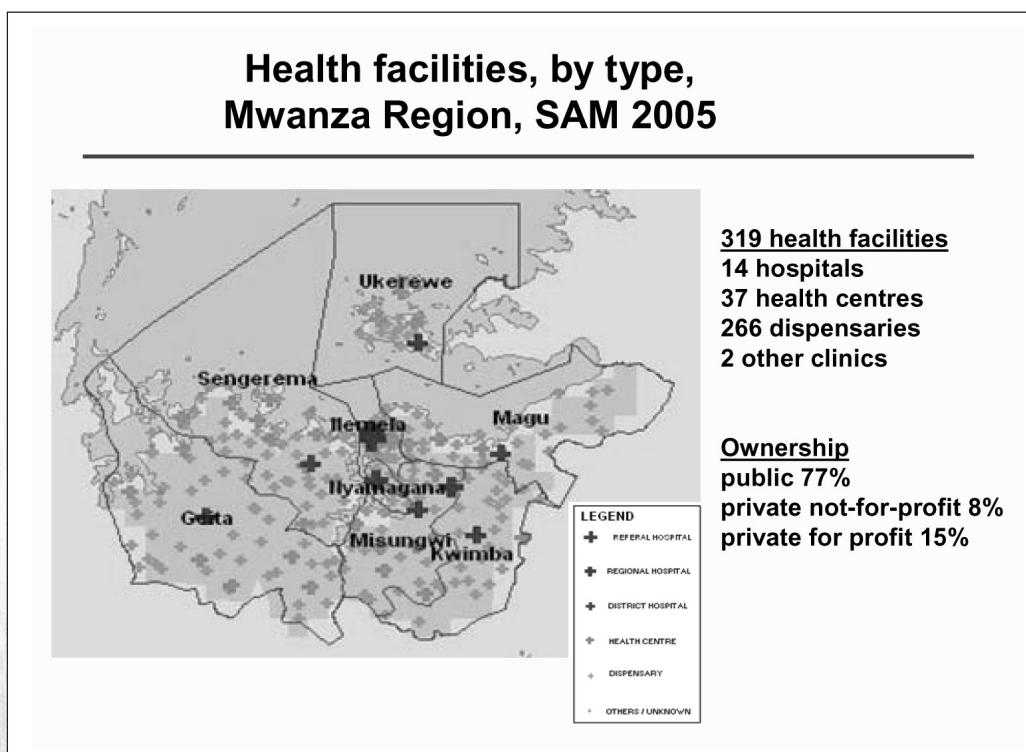


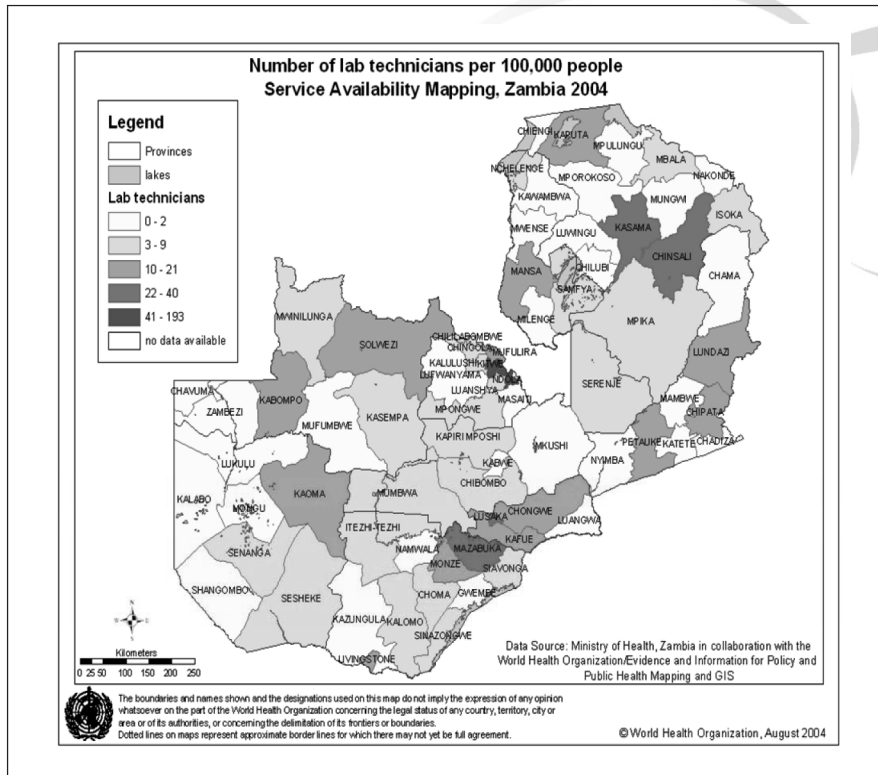
Figure 2 Distribution of health facilities by type, Mwanza, Tanzania 2005

Source: Tanzania Service Availability Mapping, Ministry of Health 2007



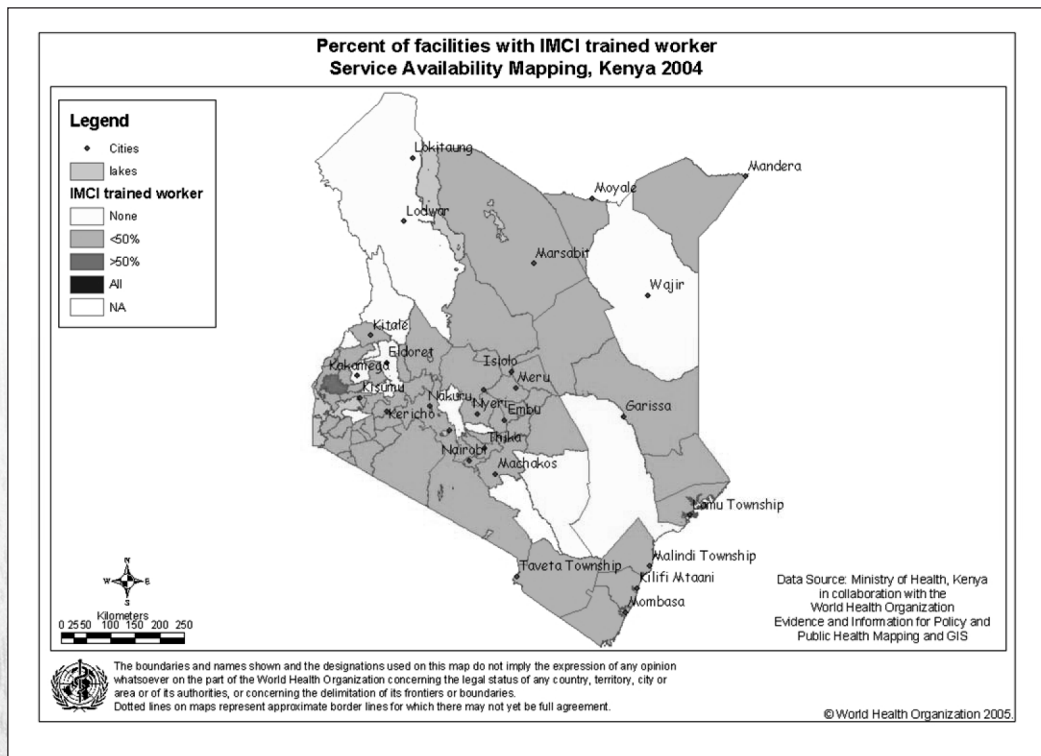
**Figure 3 Distribution of laboratory technicians in Zambia, 2004**

Source: Zambia Service Availability Mapping, Ministry of Health, 2005



**Figure 4 Distribution of health care workers with IMCI training, Kenya, 2004**

Source: Kenya, Service Availability Mapping, Ministry of Health 2005



## **“Informatics, Health Information, and Primary Health Care”.**

**Thomas S. Inui,**  
ScM, MD, Regenstrief Institute,  
Indianapolis, Indiana, USA

In all national settings, effective health care, public health functions, and health care policy making require timely access to clinical information. In the era of electronic medical records, the EMR is increasingly a critical source of this information. EMRs may be particularly important to primary care delivery, since such records can ‘follow’ a patient across sites and systems, supporting some of the defining qualities of primary care: continuity of care (particularly for chronic conditions), comprehensiveness (for prevention and treatment), and patient-centeredness.

While the EMR is important in the care of the individual patient, data flows from EMRs, if suitably managed, can also support a wide variety of other functions, including:

- public health reporting and surveillance
- health care delivery system performance monitoring
- health care organizational management
- quality of care improvement
- utilization, resource and supply-chain tracking
- health data archiving and data exchange
- health research

To support such a wide array of uses, EMR data need to be sufficiently detailed to support clinical care, algorithms, and guidelines, while also lending themselves to aggregation into broader categories for higher-level activities. EMR data models need to minimize the use of non-searchable free text, employ widely used standard terminology, be accommodated in scalable infrastructure, and emphasize interoperability. Order entry systems within EMRs, while complex and difficult to maintain, promote integration of the electronic record system into clinical work flow, maximizing the usefulness of decision support technology and minimizing the need for data entry outside the clinical environment with its attendant costs and errors.

The principal barriers to widespread implementation of EMRs are cost, availability of technology, provider acceptance and the need for user training. A number of trends are lowering these barriers, including the reduced cost of computers, internet access, cellular systems, wide-area wireless, and PDAs. Examples of sustainable EMR implementations in resource-scarce environments include developments in Kenya, Peru, Haiti, Uganda, Malawi, and Brazil. OpenMRS, a particularly attractive, adaptable, open-source EMR is being developed and implemented in a rapidly growing global network of informaticians, users, and trainers. Developed for care of patients with HIV, OpenMRS may also be useful in general primary care. Successful primary health care for some critical conditions of global significance, such as HIV/AIDS and multi-drug resistant tuberculosis, will only be possible with the use of EMRs that support close tracking of patients, primary care teamwork, patient adherence, outreach support, and strategic management of health care systems. In the long run, EMRs will be an essential infrastructure for all these activities.

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# REBUILDING THE HEALTH SYSTEM ON A FOUNDATION OF BETTER DATA - SIERRA LEONE

Clifford W. Kamara

## BACKGROUND

Sierra Leone is a small country in West Africa sharing boundaries with Liberia, Guinea and the Atlantic Ocean. The estimated population from the last census in 2004 was 5 million. The GDP is US\$560, and the country is considered one of the poorest in the world. The maternal and child health indicators are amongst the worst world-wide, contributing to the fact that the country is ranked last in the latest Human Development Index.

MAP OF SIERRA LEONE





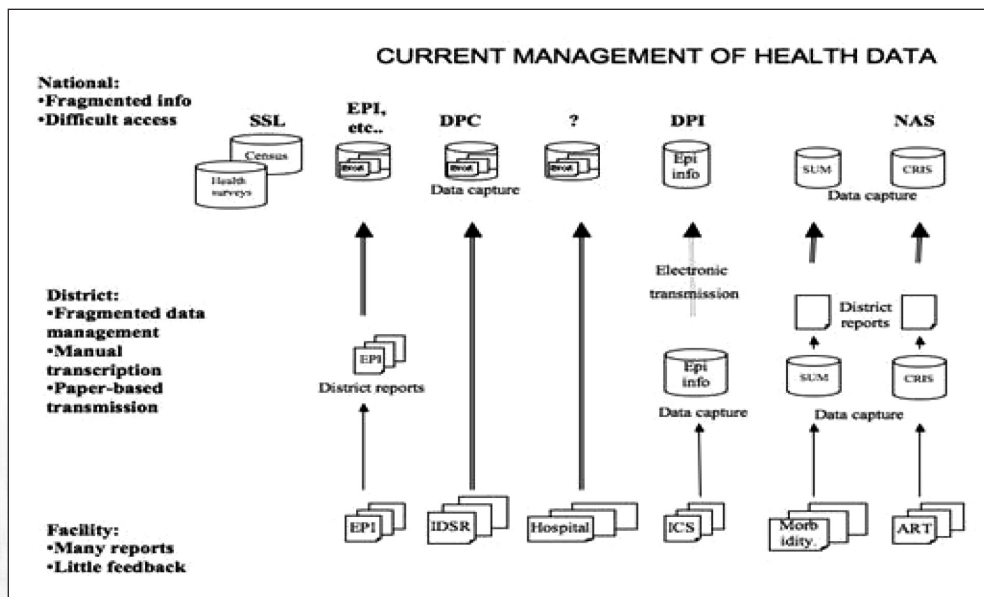
The civil conflict between 1991 and 2001 resulted in a “collapsed state syndrome”, and the health sector and HIS were not spared in the carnage. At the end of the war, there was an urgent need to rehabilitate the devastated health care system, and it was recognized that resuscitating and strengthening the HIS should form a vital part of these efforts.

The quest to collect, store, analyze, and use data for decision-making was intensified with the introduction of the Primary Health Care strategy in 1978. Pilot Primary Health Care programs in Bombali, Bo and Pujehun districts succeeded in establishing monitoring and evaluation systems that provided information to support PHC delivery. Unfortunately, the remaining 10 districts in the country had no system at all. This was compounded by the fact that Hospital Medical Records were in disarray, and there was a paucity of data needed for the formulation and implementation of “projects”.

Senior Civil Servants were generally of the opinion that the resources spent on establishing these systems were simply wasted. -

Eventually, however, the need to address these problems led to the establishment of the Planning, Management Information and Statistics Unit (PMISU) in the Ministry of Health in 1986, with primary responsibility for the development of a National Health Information System. Notable achievements soon thereafter included the establishment of District Monitoring and Evaluation offices, and 75% regular reporting from all districts to the national level.

The following diagram illustrates some of the numerous problems in the current management of health data. These include multiple reports at facility level with minimal feedback, fragmented data management at district level, and difficult access at national level.



## HMN SUPPORT

HMN support to the Directorate of Planning and Information of the Ministry of Health and Sanitation was very timely, coinciding with the post-conflict need to strengthen the HIS with the limited resources then available. The comprehensive approach introduced under the HMN Framework was particularly relevant, especially since it involved consensus among a wider group of stakeholders not previously involved in

HIS, e.g., Statistics Sierra Leone, Law Officers' Department, Civil Society Representatives, District Councils and Parliamentarians. The underlying premises are that the strengthened health information and statistical systems will lead to better measurements, which will ultimately lead to improved health through use of data for evidence-based decision - making, i.e., better data will lead to better decisions, resulting in better health.

HMN financial and technical support assisted in establishing the HIS Development Coordinating Group. An HIS assessment was conducted, and a comprehensive HIS plan was developed involving, a 10-year plan for community-based surveys, and a proposal for a national Demographic and Health Survey. A national HMN office is being established, and a National HMN Adviser has already been recruited to assist with IT needs and the establishment of a data warehouse.

## **ACHIEVEMENTS**

There has been significant progress since the end of the war and the start of HMN support. Achievements include revival of District Monitoring and Evaluation offices, and galvanization of support for HIS from other partners, notably the World Bank, DfID, WHO, UNFPA and UNICEF. International and Local Consultants have been recruited, and various studies have been funded, including the first National Health Accounts in Sierra Leone. Support was also provided for the development of the M&E component of the Reproductive and Child Health program being designed. The UN Foundation funded the development and introduction of Integrated Data Collection tools, provision of hand-held Personal Data Assistants (PDAs), and the training of staff on their use.

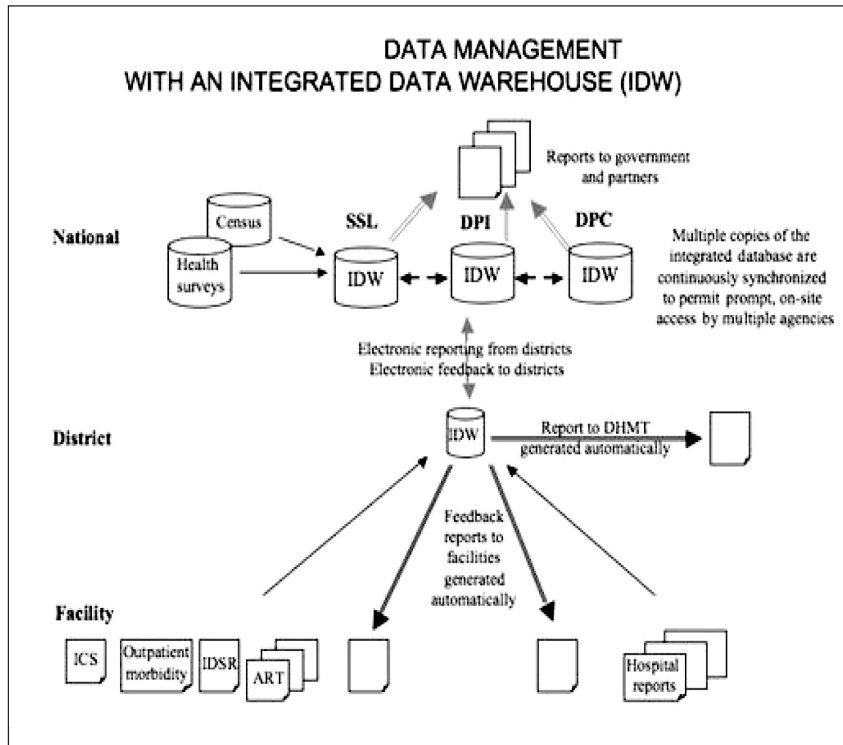
Another major achievement is the introduction of District League Tables for monitoring district performance and comparison between districts.

## **INTEGRATED DATA WAREHOUSE**

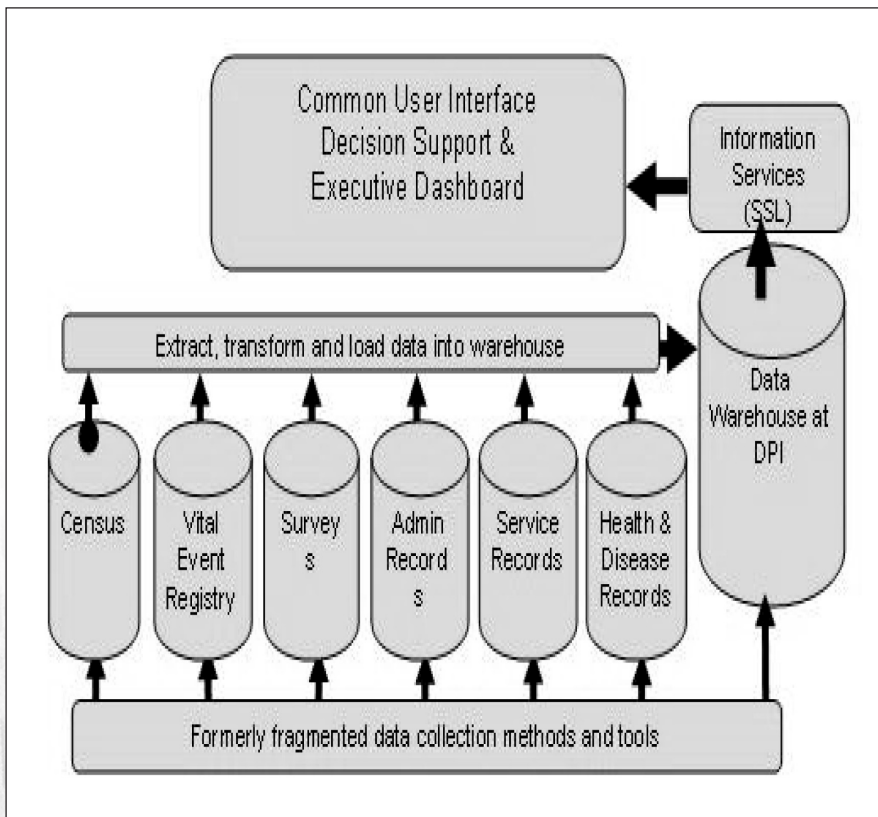
The establishment of an Integrated Data Warehouse (IDW) is one of the most important activities planned for the immediate future. The goals of the IDW are:

- Improve data quality
- Provide capability for data sharing
- Integrate data from multiple sources
- Merge historical and current data appropriately
- Improve speed and performance of all reporting needs
- Reconcile varying areas of data
- Create a central point for accessing and sharing technical data
- Develop an enterprise approach to health data collection, analysis, and reporting

The following diagrams outline the integrated approach to data management and the vision of the future Integrated Data Warehouse.



**VISION OF FUTURE INTEGRATED DATA WAREHOUSE**



The ultimate goal is to integrate the fragmented data collection methods and establish a Data Warehouse at the Directorate of Planning and Information, with a common user interface, Decision Support and Executive Dashboard through the information services of Statistics Sierra Leone.

## EXPECTED FUTURE ROLES

The Directorate of Planning and Information in the Ministry of Health and Sanitation will continue to play a leading role in efforts to further strengthen the HIS. This will involve the coordination of the various stakeholders and the mobilization of needed resources.

**HMN's** role is primarily catalytic, with provision of Technical Assistance and some funding; partners are expected to provide additional funds as needed. However, HMN is expected to continue to play a pivotal role. The HMN framework is considered to be very relevant to the situation in Sierra Leone. HMN will continue to build on stakeholder consensus for the long-term support of HIS strengthening, and will support the coordinating role of the Directorate of Planning and Information/ Ministry of Health and Sanitation, as well as the advocacy for additional resources. HMN is currently assisting in developing a monitoring and evaluation system for the Reproductive and child Health Strategic Plan, and is expected to continue providing needed Technical Assistance and support for the Health Facility Survey and the Demographic and Health Survey.

**PARTNERS** will be expected to understand that a strengthened integrated HIS will be beneficial for all programs, and coordination of efforts will result in more efficient delivery of services. They should participate in joint planning, monitoring and evaluation. Finally, donor partners will be expected to contribute resources to the common basket funding of HIS, and desist from continuing the funding of parallel, vertical, program-specific monitoring and evaluation systems.

## CONCLUDING REMARKS

- The Directorate of Planning and Information in the Ministry of Health and Sanitation must continue to play the leading role in efforts to strengthen the national HIS. This will include the elaboration of plans, mobilization of resources, and advocacy for the “use of data for decision-making” at all levels of the health care delivery system. Increased demand for improved data will enhance efforts to further strengthen the HIS by service providers and decision-makers.
- HMN contributed significantly to the achievements in the HIS so far, and is expected to continue this role in view of its comprehensive nature and its catalytic role in drawing cross-sector stakeholders into a collaborative process.
- Need for closer cooperation with all partners and buy-in from senior officials across government ministries.

The above recommendations will definitely contribute significantly towards achieving our goal of rehabilitating the devastated health care delivery system. Even at this relatively early stage, there are indications that there is an increased demand for improved data from key decision-makers in the health sector. Planning is now evidence-based, and available information guides the planning, monitoring and evaluation of the health care delivery system at all levels. The important role of an efficient HIS is now acknowledged by all stakeholders. As the system is further strengthened, it is expected that this chain of events will eventually lead to significant improvements in the health care delivery system, which should definitely lead to better health.



## **Involving Policy Makers in Evidence-Based Decision Making through the Provision of Better Information: The Case of Cambodia Prepared for the Prince Mahidol Award Conference 2008**

**by Dr. Lo Veasnakiry, Director**

Dept. of Planning and Health Information, Ministry of Health, Cambodia

### **Introduction**

Evidence-based decision making may be described as “the systematic application of the best available evidence to the evaluation of options and to decision-making in clinical, management and policy settings.” (Canadian National Forum on Health, 1997). It is crucial to decision making in the policy environment because it allows for a consideration of all of the available options, and enhances the efficiency and effectiveness of policy and program interventions. Involving policy makers in evidence based decision making is especially important obviously because their decisions are likely to be of strategic import, and have long term consequences. Yet involving them is easier said than done. The critical constraints under which policy makers function in most policy environments imply that the information must be tailored to their needs, and must be available precisely when it is needed for the evidence to play a role in the decision reached. Policy makers are used to decision making in the face of uncertainty, and will proceed with making the decision if the relevant evidence is not readily available. It is therefore, incumbent on information managers in the health system to ensure that the available data are processed into meaningful information, and that this is done in a timely manner so as to serve policy makers’ needs. A second crucial point to realize about evidence-based decision making is that evidence by itself can never play the only role in producing that decision. That decision requires political commitment and resource allocation in addition to the relevant evidence, so that the evidence can play a role in decision making.

The following paragraphs provide a snapshot of evidence-based decision making in Cambodia, some of the critical constraints faced, and proposed plans to strengthen the use of information at the highest levels of decision making in the health sector.

### **Evidence-based Policy Making in Cambodia**

Given the ravages of both internal and external conflict in Cambodia over a period of three decades and the resulting need to build the economy and political system largely from scratch, the basis for evidence-based decision making largely begins with the national Census in 1998. This was only the second census conducted in Cambodia after a gap of more than 30 years, but it provided a true picture of the total population with appropriate breakdowns for age, sex, urban-rural residence, etc. and precise population estimates down through provincial and district levels to the communes - all of it vital information for developing the Health Coverage Plan, as well as for estimating the coverage of health interventions and programs. This was followed by the Cambodia Demographic and Health Survey (CDHS) in 2000, the Cambodia Socio-Economic Survey (CSES) in 2004, and a second CDHS in 2005. These nationally representative surveys have allowed for trend data in the health sector to be established, and for laying the foundations for the preparation of the first Health Sector Strategic Plan (HSP), 2003-2007, the sectoral Annual Operational Plans (AOPs), and the launching of the National Strategic Development Plan (NSDP), 2006-2010. Currently, the MOH is in the process of finalizing the second HSP for the period 2008-2015 that will coincide with final years of the current NSDP, as well as with the entire period of the second NSDP. The year 2015 will also mark the final year for the achievement of the Cambodia Millennium Development Goals. Currently, the Ministry of Planning on behalf of the Royal Government of Cambodia issues an annual update of the CMDGs for the purposes of tracking progress. This is all the more important since the CMDGs themselves have been adopted by RGC as the key indicators in the NSDP. These annual updates form the basis for the periodic revision of the NSDP, since it is the Royal Government's understanding that the NSDP is a living document that should reflect the changing priorities of Government.

### **MOH's Approach**

The MOH has long recognized the need for better information so as to serve as the basis for improved decision making. One of the key ways in which this is achieved is through the combined National Health Congress (NHC) and Joint Annual Performance Review (JAPR) that is conducted each year, typically in March. This is a gathering of all of the key stakeholders in the Cambodian health sector, including MOH officials from all levels, other ministry officials, key officials from local authorities such as provinces, districts and communes, other members of the community including pagodas and civil society representatives, health partners and NGO staff. The NHC/JAPR meetings which span three days provide an excellent opportunity to review sector progress in the past year based on a review of the annual operational plan, identify constraints, and set targets and benchmarks for the coming year. Currently, over 120 separate indicators are reviewed including outcome and output, during the event. This has now been recognized as being excessive, and a restricted set has been identified that can serve as a tool for improved decision making for the next series of meetings.

The way in which the review of information occurs at the NHC/JAPR is also instructive. Typically, working groups are formed to cover one program area, such as maternal and child health, drawing together representatives from each of the groups mentioned above. Over the course of a day and a half, these groups convene to review performance and identify constraints, and then identify priorities for the coming year. The output from these groups is then consolidated and presented to the Leadership Group (Ministry of Health and Health Partner representatives) which is the apex body in the sector, and is chaired by Minister for Health.

While the NHC/JAPR represents an annual event where evidence plays a key role as the basis for policy making, the Technical Working Group for Health (TWGH) meets on a monthly basis and serves as a forum for information sharing and joint decision making. The TWGH is chaired by Secretary of State, and comprises senior health officials from the MOH's departments, national programs and institutes, NGO representatives, and the MOH's health development partners. National programs and institutes are invited on a rotation basis to provide updates on implementation progress, and this sharing of information enables appropriate decisions to be reached. The structure is mirrored at provincial levels where each province conducts its own Provincial TWGH on a monthly basis as well.

An example of the use of evidence to influence decision making at the highest level is provided by Cambodia's use of NGO contracting of primary health care services at the operational district level. Initially, NGO contracting was introduced in a few remote districts as a pilot with two models: contracting-in, and contracting-out. Subsequently, a midterm evaluation was conducted in 1997. This provided clear evidence to the MOH that the models has substantially improved health utilization and coverage in these districts, especially as compared to control districts where government provided services continued to operate. And the achievements were also proved to be cost-effective. Based on the evidence, the MOH took a policy decision to expand NGO contracting to other remote districts, and a total of 11 operational districts out of a total of 77 in the country were eventually contracted to NGOs based on a competitive bidding process. In 2007, the MOH then conducted a Strategic Review of NGO contracting and based on the data analyzed and presented in the report, took the decision to transform NGO contracting into an "internal contracting" model. This internal contracting model will involve the central MOH executing performance based contracts with provincial health departments so that payment of incentives and bonuses will be predicated on achievement of contract targets, similar to the NGO contracting model.

## **Limitations of information in Cambodia**

Despite the vast improvement in the use of accurate and reliable information for policy making in recent years, there are critical gaps that still need to be filled. First, there are almost no data available from private practitioners and facilities. This means that data generated from the MOH's routine health information system (HIS) can only be used to assess the public sector's performance, but cannot be used as reliable indicators of overall health status and utilization of services in the country. Given the limited picture provided by the routine HIS, decision makers are forced to rely on the quinquennial CDHSs for their information needs. However, the gap between these at about 5 years is far too long; additionally, since these are national representative

surveys, sample size is of the order of 15,000 households or more, with literally hundreds of variables in the dataset. This often leads to a considerable lag between collection of data and their availability for decision making. Again, while a significant amount of data are now being produced through the routine HIS and national and local surveys, very little of the data are analyzed in a meaningful way. Sector capacity to carry out these functions is still limited at all levels. This means that preparing medium and long term scenarios based on appropriate forecasting models is also a critical constraint at the current time.

### **Future Plans**

A number of different initiatives are now being planned to strengthen the evidence base for decision making. The MOH is collaborating with the Health Metrics Network/World Health Organization to develop a Health Information Strategic Plan, 2008-2015. This is based on a sector wide assessment of information needs and required system improvements, and involved a consensual process with all stakeholders. The Plan takes a broad view of health information and includes initiatives to strengthen the vital registration system, improve use of census and survey data, and build capacity for information analysis and use in the health system. With funding and technical assistance from the Health Sector Support Project, the MOH is also launching a phased introduction of a computerized HIS down to the operational district level. Over time, this will enable more timely processing of data and their availability for decision making. The use of small survey methods to provide evidence for monitoring has now been introduced in regard to the operation of health equity funds that channel health resources to the poor, and with the introduction of internal contracting and block grants to provincial health departments pegged to achievement of performance targets, the use of small survey methods to improve on data collected through the routine HIS will be expanded.



## **USING FEEDBACK OF INFORMATION ON CARE SEEKING BEHAVIOUR AND COVERAGE TO COMMUNITIES TO IMPROVE COVERAGE AND OUTCOME INDICATORS IN KENYA**

by: PEPELA WANJALA- MOH/SPMD/HMIS, KENYA

### **INTRODUCTION**

Kenya is located in East Africa, latitudes 4.2 degrees North and 4.28 degrees South of the equator, and between longitudes 34 degrees East and 42 degrees East. It is bounded by Tanzania to the south, Uganda to the west, Sudan to the northwest, Ethiopia to the north, Somalia to the northeast and the Indian Ocean to the east. The country is approximately 582,646 square KM. Over 70% of the country is arid and semi arid with population projection of 35 million people. Kenya has a mean household size of 5.1 persons and Growth rate of 2.92% per annum. Nationally, 79.5 per cent of the population aged 15 years and above can both read and write. The Gross National Income (GNI) per capita (year) is \$US390. IMR 77 deaths per 1000 Live births, MMR 414 deaths per 100,000 live births, Contraceptive Prevalence Rate 40% of married women, HIV/AIDS prevalence Rate 6.7% KDHS and Sentinel surveillance 5.7%. Under 5-mortality rate 110 deaths per 1000 Live births and most leading causes of morbidity include malaria, respiratory diseases, skin infections, diarrhoeal Diseases, and intestinal worms.

### **Health Information System (HIS) in Kenya**

The Kenya Government is committed to the principle of evidence-based policy making. In 1972, a committee (including representatives from the Ministry of Health, WHO, the Central Bureau of Statistics and the Attorney General Chambers) was formed to design a health information system for Kenya. In 1976 HIS tools standardized, revised in 1982, and 2007. In 1984, decentralization of services to District Focus for Rural Development and HIS to districts to respond to district needs.

### **Use of Health Information**

Data collection is mainly by routine reporting from health facilities monthly using standardized forms. Other sources are KDHS, DSS, and HFAs. Routine data is generated from community or health facility, submitted to District for consolidation, and then transmitted to national level through the provincial/regional level. Data have no value in themselves but value and relevance is realised when they are analysed, transformed into meaningful information, and used. In Kenya, comparative health information feedback is done at the health facility level to the communities through organized “Barazas”, community meetings, community dialogue, established resource centres, committees, chalk and Board, development of local contents, procures, puppetry, songs, folk media and local FM radios. Occasionally, district, regional and national level comparatively gives statistical bulletins that are finally used for planning for health services, individual patient care, management of specific health programmes, resource allocation, and influence policy decision making at all levels.

### **Impact of use of Health information**

Utilization of information has influenced communities to actively use bed nets. The national immunization coverage is steadily increasing from 59% to 80%. The sensitization of communities by the TB ambassadors and TBAs has increased service utilization by TB patients and Antenatal clients for the last 2 years since 2005 and reduced disease outbreaks. Clinics offering VCT services have increased from 600 in 2005 to over 1600 with an uptake 298,698 from 1,010,016. While over 160,000 patients are now on ART. Through use of ICT, Groups have created audio and video recordings of drama, songs, poetry and puppetry. Group discussions in local languages that challenge cultural practices that spread HIV/AIDS and documented local traditions. School children in rural communities and poor urban informal settlements are now using computers to access, create and store materials for dissemination in the form of play-scripts, poems and songs. Community leaders collect health and development information in their community and print out pie charts and bar graphs to illustrate the problems facing them and success of their interventions. This has given a voice to rural communities and is contributing to reducing the digital divide. The programme has resulted in increased community discussion of sensitive issues on HIV/AIDS, increase in use of VCT and condom uptakes and demand for information. For example: “The knowledge I got here has helped me in many ways about life outside school and how to avoid problems like drugs and diseases like HIV/AIDS. I have educated my brother and my father. I have even made my father stop smoking. I put pressure on him using the information I learnt about the dangers posed by smoking. We also asked questions on how to handle parents with AIDS”. (Willy Mwangi, *Mukamaka community resource centre*).

### **Lessons learnt:**

- Involvement and empowerment of individuals and communities with timely and understandable health-related information has significantly changed the health seeking behaviour and increased access to health delivery services.
- The use of feedback information has increased community demand for services and coverage which has necessitated members of parliament using Community Development Fund (CDF) to put up more health units to increase health access and wider coverage.

- That the feedback information is being used for Planning and budget allocations.
- The use of feedback information is linking to sector performance.

**Conclusion :**

Empowering people with regular health information will partly influence there health seeking behaviour thus increasing coverage and improving outcome indicators.



**Carla AbouZahr**  
Deputy Executive Secretary  
Health Metrics Network

I am currently the Deputy Executive Secretary for the Health Metrics Network (HMN), a global collaboration for improved health information systems. Before joining HMN in 2005 I was coordinator for Country Health Information Systems in the Department of Measurement and Health Information Systems, Information, Evidence and Research Cluster at the World Health Organization in Geneva.

I have academic qualifications from the London School of Economics and Political Science in statistics and social sciences and from the London School of Hygiene and Tropical Medicine in health systems management. I have been a staff member of WHO since 1989. Prior to that, I worked at EUROSTAT (Statistical offices of the European Union) and for the United Kingdom civil service. During my time with the UK civil service, I worked on energy statistics, and at EUROSTAT was involved with labour force statistics and purchasing power parities. It was not until I joined WHO that I became involved in the complex and fascinating area of health statistics. Thanks to my experiences in WHO I have been able to write and contribute to numerous papers on reproductive health, maternal mortality and morbidity and on health information systems. During 2007, I had the privilege of working with a gifted and committed group of people to prepare a series of papers in the *Lancet* on the critical need for improved monitoring of vital statistics, in particular births, deaths and causes of death and how to overcome current constraints and challenges in this area. This group of writers included people from countries around the world and from diverse disciplines, including biostatistics, demography, economics, history, journalism, social sciences and statistics. This diversity contributed greatly to the richness of the discussions. It is one of the many privileges of working in the international systems that one has opportunities like these to collaborate with many different kinds of people.

My work has enabled me to specialize in health strategy development, monitoring and evaluation with a focus on population, health and development. I have worked with international, national, public and non-profit agencies, including national level health service providers and community-based NGOs in Asia, Africa, and the Middle East. I have collaborated in developing strategic frameworks and operational approaches in the area of reproductive health; formulating research protocols, evaluating research results, elaborating programme monitoring and evaluation strategies, identifying indicators, and enhancing national capacity to plan, implement, monitor and evaluate programmes.

I live in Geneva with my husband who works at the United Nations. We have three children and one grandchild.



**Virasakdi Chongsuvivatwong**  
Professor of Epidemiology  
Prince of Songkla University, Thailand

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**Gender:** Male.

**Year of birth:** 1950

**Nationality:** Thai

**Affiliation:** Epidemiology Unit, Faculty of Medicine, Prince of Songkla University, Hatyai, Thailand 90110

**Academic title:** Professor of Epidemiology

**Education background:**

BA in Economic from Sukothaithammathirat

BSc and MD from Mahidol University, Thailand,

DTM & H from Mahidol University,

MSc and PhD from University of Newcastle Australia

**Current job:**

- 1) Director of an International Programme for Graduate Study for Asian students since 1992 at Prince of Songkla University
- 2) Director of Institute of Research and Development for Health of Southern Thailand since 2004, supporting field research and human resource development with an emphasis on deep south where people are suffering from ethnic violence.

**Accomplishment:**

Principal investigator of over 30 research grants funded by various Thai and international agencies such as WHO, UNICEF, DANDIDA, Rockefeller Foundation, National Research Council, Thailand Research Fund etc.

Supervisor of over 50 Master and Doctoral students

Author of a tutorial book and a statistical package for analysis of epidemiological data, "Epicalc" under an open-source software "R". Both the book and the package are downloadable from <http://www.CRAN.r-project.org>, mirrored by over 70 websites worldwide

Running a free Internet course "Do-It-Yourself: Essential Epidemiological Data Analysis" at <http://medipe.psu.ac.th/elearning> twice yearly since 2006 supported by WHO-TDR.

Serving as a WHO consultant visiting various research centres in developing countries in Asia such as Myanmar, Nepal, Bangladesh, Sri Lanka, Maldives, Bhutan, Vietnam, Laos, Cambodia, Indonesia, China, Mongolia and North Korea, altogether over 30 times

Special awards received include:

- Outstanding Epidemiologist of the Year 1995,
- Prince of Songkla University Exemplary Researcher 1996,
- Senior Research Scholar Award from Thailand Research Fund 1996 to 2002.
- Exemplary Alumnus Award, Ramathibodi Medical School 2002
- Best research and development award for southern Thailand 2003
- Author of Exemplary Book Award from Prince of Songkla University 2003
- Exemplary Innovation Award for the software package and the training module from Prince of Songkla University 2007

Over 100 research publications in Medline, 13 were published in the last one year (PubMed search date 31 December 2007).



**Phillip Hay**  
Communications Adviser, Human Development  
Network, The World Bank

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*P*hillip Hay is Communications Adviser for the World Bank's Human Development Network, helping to raise the profile of human development issues such as health, nutrition and population, HIV/AIDS, education, etc, within the global media and other influential constituencies to help advance better development outcomes.

A New Zealand national, he has chaired numerous international health and development conferences and panels on behalf of the World Bank.

A former journalist, Mr. Hay joined the World Bank after a distinguished career as a Special Correspondent with the British Broadcasting Corporation (BBC) in London, and later the United States.

As a writer, Mr. Hay's essays and articles have also been extensively published in newspapers and journals, including the *Christian Science Monitor*, the *London Evening Standard*, *Outlook*, the *New Statesmen*, *Social Development Review*, the *New Zealand Journal of International Relations*, and the *Journal of the International Political Science Association*.



**Thomas Inui**  
President and CEO  
Regenstrief Institute, USA

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*T*homas S. Inui is President and CEO of the Regenstrief Institute, the Sam Regenstrief Professor of Health Services Research, and Associate Dean for Health Care Research at Indiana University School of Medicine. A primary care physician, educator, and researcher, he previously held positions as head of general internal medicine at the University of Washington School of Medicine and as the Paul C. Cabot professor and founding chair of the Department of Ambulatory Care and Prevention at Harvard Medical School.

Dr. Inui's special emphases in teaching and research have included physician/patient communication, health promotion and disease prevention, the social context of medicine, and medical humanities. His honors include elected membership in Phi Beta Kappa, Alpha Omega Alpha, the Johns Hopkins University Society of Scholars, the Institute of Medicine, a USPHS Medal of Commendation, serving as a member of the Council and President of the Society of General Internal Medicine, receipt of SGIM's Robert Glaser Award (for generalism), and election to the Institute of Medicine (and subsequently the IOM Council). He has participated in the publication of more than 270 scientific papers on a broad variety of topics.





**Clifford W. Kamara**  
Director of Planning and Information  
Ministry of Health and Sanitation, Sierra Leone

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Graduate of the Kharkov State Medical Institute, Republic of Ukraine, USSR, where the MD degree was received in 1972, and of the Royal Tropical Institute, Amsterdam, Netherlands, where the MPH degree was earned in 1987.

Post-graduate working experience in Sierra Leone includes internships in Surgery, Pediatrics, Internal Medicine, Obstetrics and Gynecology, and managing the Out-Patients' Department of Connaught Hospital, which is the largest hospital in Sierra Leone. Managed the first District Primary Health Care Program in Sierra Leone between 1980 and 1986, after which was appointed Head of a newly-formed Planning, Management Information, and Statistics Unit (PMISU), a position held to date under the re-designated name of Director, Planning and Information in the Ministry of Health and Sanitation. Achievements as Director for Planning and Information include the establishment of the first National Health Management Information System, and the design of numerous projects and programs with major Donors like the World Bank, the African Development Bank, the EU, UN agencies and other Development Partners. Other positions held include membership of the WHO Country Team as Medical Officer for Disease Prevention and Control (1992-1995) and Lecturer at the Community Health Care Department of the College of Medicine and Allied Health Sciences, University of Sierra Leone (1989 - to date). Managed the first World Bank funded project in the health sector, the Health and Population Project (1992 - 1996), and responsible for the development and management of all other World Bank funded health projects to date. Experience outside Sierra Leone includes a two year internship in General and Orthopedic Surgery in West Germany (1976-1977), and consultancies in AFTH2 (Analysis of the health sector in Sierra Leone and health project formulation for Guinea and Mauritania) and AFTDH (Evaluation of the 'Better Health in Africa' strategy), the World Bank, Washington DC (1997 - 1999). Member of the Independent Review Committee (IRC) of GAVI since 2003.

Post-graduate study experience includes a German language/ General and Orthopedic Surgery course in West Germany (1976 - 1977), numerous local, regional, and international courses in Health Administration and Management, Health Planning, Primary Health Care, Health Information Systems, and GIS for health. Familiar with common software programs including WORDPERFECT, WORD, Dbase, EXCEL, and Lotus 123.

Member of the Research and Ethics Committee of the Ministry of Health and Sanitation, Sierra Leone. Conducted health related studies as Consultant for UNICEF, WHO, PLAN International, UNDP, and World Bank. These included Primary Health Care District Baseline surveys, Hospital Management Studies, Family Planning Knowledge, Attitude and Practice surveys, Health Economics Surveys, and Nutrition Surveys.

Current focus on rehabilitating and strengthening the National Health Management Information System that was devastated as a result of a decade-long war between 1991 and 2001.

Languages include Krio - mother tongue, English - fluent spoken and written, Russian - fluent spoken and written, and German - fair spoken, weak written.



**Hani Serag**  
Global Secretariat Coordinator  
People's Health Movement

Hani Serag, MD is currently the Global Secretariat Coordinator of the People's Health Movement (PHM) since the beginning of June 2006.

The PHM is a world-wide network among people's organizations, civil society organizations / networks on national, regional and international levels; academic institutions; and health activists. The PHM has been launched in December 2000 at the end of the first People's Health Assembly that was held in Bangladesh December 4<sup>th</sup>-8<sup>th</sup>, 2000). At present it has solid bases in around 50 countries all over the world.

**Background:** an Egyptian physician completed the medical training in Ain Shams Faculty of Medicine (Cairo, Egypt) and studied public health and epidemiology in Erasmus University (Rotterdam, The Netherlands).

**Work Experience:** he has a long experience in health activism and public health through coordinating and participating in the design and the implementation of health system researches, training programs and community health models.

Of the wide range of activities he coordinated, may be the most significant were a national survey for measuring the satisfaction of beneficiaries of the health insurance system in Egypt (published in 2006), a regional training program on health system research (2003-6), health surveillance systems in both rural and urban localities (2002-5).

He worked for an Egyptian non-governmental organization called the Association for Health and Environmental Development (AHED), which is currently the host of the PHM global secretariat. He worked as a director of its Health Policies and Systems Program (HPSP/AHED) from January 2004 till May 2006. The main focus of the program within the entire period was given to: the development of health policy alternatives that better respond to people's needs; building the capacity of the local and regional civil society organizations working in health development; and providing technical assistance to health care personnel.

**Publications:** Among his recent publications are:

- 1) W Susan, Siddiqi S, Shukrullah A, Karim K and Serag H. Social Determinants of Health in Countries in Conflict and Crises - The Eastern Mediterranean Perspective (WHO/WMRO published in 2007);
- 2) McCoy D, Narayan R, Baum F, Sanders S, Serag H, Salvage J, Rowson M, Schrecker T, Woodward D, Labonte R, Sen Gupta A, Quizphe A, Schuftan C, on behalf of the People's Health Movement. A new Director General for WHO - an opportunity for bold and inspirational leadership. *The Lancet*, October 24, 2006;

- 3) Misriky A, Serag H, Ebeid H (2006). Satisfaction of Beneficiaries of the Health Insurance System in Egypt. A national Survey. The Association for Health and Environmental Development (AHED), 2006;
- 4) Hassan A., Mishriky A. Serag H. Ebeid Y. Towards a Health Surveillance System on the Community Level - A base line Survey. A report of a base line survey in two Egyptian local communities. Association for Health and Environmental Development (AHED), 2003; and
- 5) Shukrallah A. Hassan A. Waheeb Y. Serag H. Ebeid Y. Services for Children with Disabilities in Egypt. A survey report on the availability and utilization of health, educational and social services for children wit disability in selected communities in Egypt. Association for Health and Environmental Development (AHED) with INSRM - France (2000);



**Lo Veasnakiry**  
Director, Department of Planning &  
Health Information, Ministry of Health, Cambodia

Born	11 October 1963, Cambodia
Sex	Male
Nationality	Cambodian
Marital Status	Married, 3 children

**Professional Experiences**

Dr. Lo Veasnakiry was qualified as a Medical Doctor from the University of Health Sciences in Cambodia in 1989 and earned a Master of Arts in Health Management, Planning and Policy from the University of Leeds, United Kingdom in 1996. Since his graduation from the University of Health Sciences, he had worked at a National Hospital in Phnom Penh (the capital City) as an assistant-surgeon until 1993, and then has moved to work at the Ministry of Health as a Planning Officer. He has held the current position, Director of Department of Planning & Health information since 2005. Dr. Kiry has broad knowledge of global health policy and health sector reform and gained experiences in health system development, strategic planning, health financing and sector coordination.

Dr. Kiry is a public health planner and policy analyst. His main responsibility is to exercise executive management and direct the development and maintenance of national health policy and strategic framework for sector wide planning, financing including social health insurance, monitoring and evaluation; advise the development of sub-sector strategic plans and resources allocation for health; and to develop technical guidelines to support implementation of sector policy and plans.

Dr. Kiry has a long time experience of working in multi-sectoral environment and cross-cutting challenges at both national and sectoral level in Cambodia. He has been a member of the Cambodian National Social Security Funds Board and joint many inter-ministerial taskforces and working groups. He also has strong working relationship with international agencies and multi/bilateral donors, as well as internal and national NGOs active in health.

Furthermore, Dr. Kiry has experienced in academic teaching as a visiting lecturer on health policy and planning at the Royal School of Administration and the National Institute of Public Health and Research. He also has extensively experienced in attending regional and international conferences and other high level official meetings.



### **Pepela Wanjala**

**Deputy Head, Health Management Information  
Ministry of Health, Kenya**

*P*epela Wanjala born 1970, Bungoma district, works with Ministry of Health, Kenya since 1994. He is a Health Records and Information Officer and a Higher National Diploma in Epidemiology both from Kenya Medical training college. He has worked as the District Health Information Officer and Surveillance officer (1994 - 2001) Homa-bay, Provincial Disease Surveillance Officer and Health Information Officer (2001 - 2004) Nyanza province and Deputy Head Health Management Information System Ministry of Health Headquarters, Kenya 2004 to date.

Wanjala, collects, collates, processes, analyse, interprets health reports and disseminate information to stakeholders. He works as a focal person to various Technical Working Groups (TWGs); Design and review of data collection and reporting instruments (tools); National Health Services Mapping and Geographic Information System (GIS) for health sector; Health Information System Working group; Technical planning of the health sector and compilation and production of health sector performance reports. Wanjala is also secretary to East Africa Integrated Disease Surveillance Network (EAIDSNet) data management and GIS working group.

He has successfully developed and implemented Community Based Rehabilitation (CBR) programme funded by ADRA Canada in two districts. Developed a drug revolving fund proposal funded by MSF France and most successful model in Kenya. Written various annual reports (4 district, 3 CBR programme, 2 Health centre, 2 provincial and 3 national reports and one mid term review reports for the National Health Sector Strategic Plan II). He has also made presentations in various international forums; WISS conference Tunis Tunisia 2005, on e-health connections in Kenya, factors influencing hospital delivery among women of childbearing age Bungoma district, Nairobi, Kenya 2007, Kenya's success on use of Service Availability Mapping (SAM) results and lessons learnt, Washington DC 2007, Best practices in Health Information System, Country experience, Bangkok Thailand 2007 and various local presentations in various for a to represent Ministry of Health.

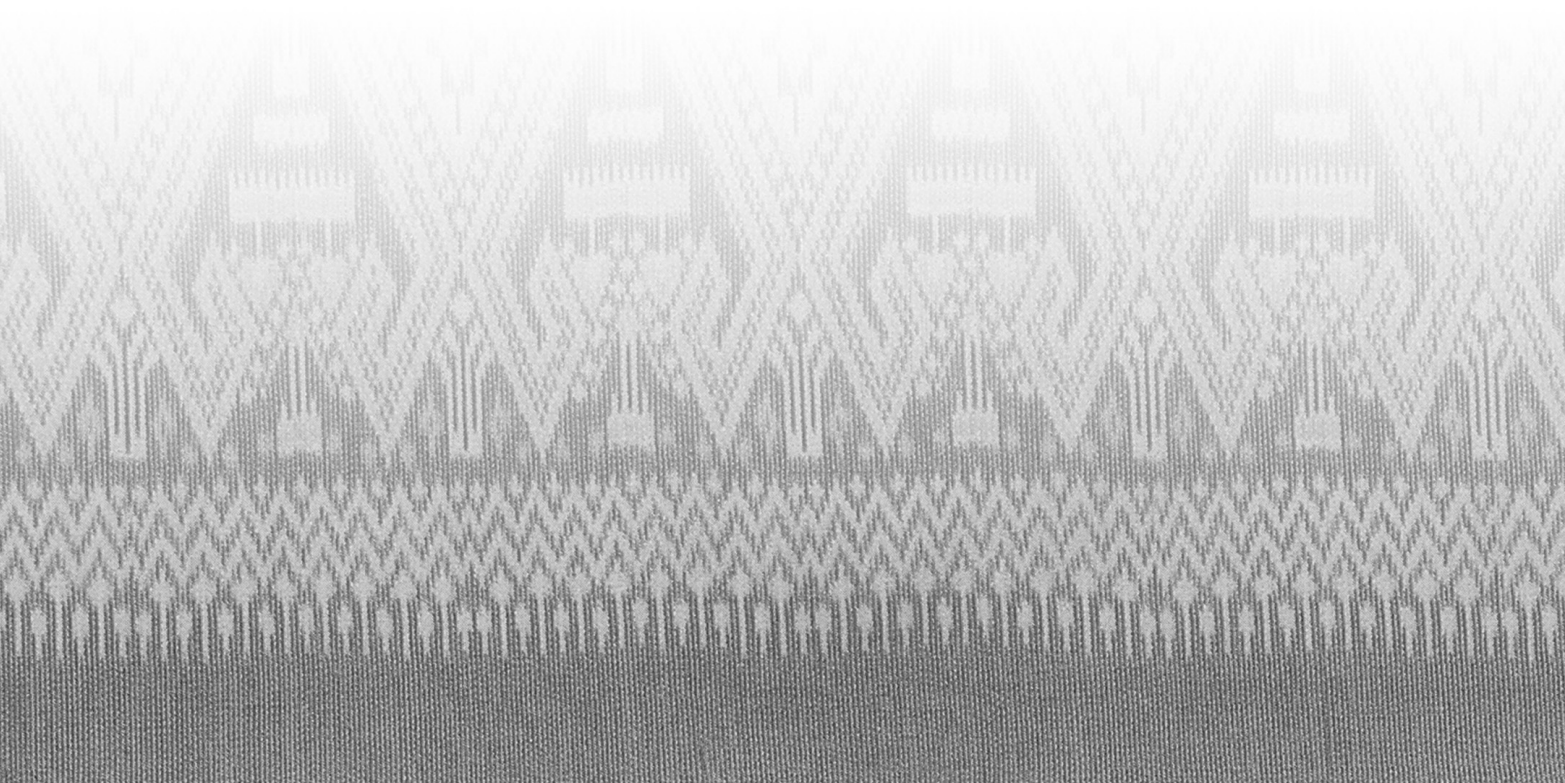
Wanjala has obtained merits; UNICEF commendation letter for writing a Technically competent proposal for Child Survival programme, MSF France for good work, fine qualities which would be an asset to any prospective employer or institution, ADRA Canada for writing the Best report in 140 ADRA projects in the world, Moi University for contributing to the development of District Health Services Community Oriented Doctors (COBES V) programme 2000, commendation letter for improving Disease surveillance in the region and volunteering in teaching medical students. Wanjala yans to progress in serving the community and advancing in epidemiology or medical demography or Biostatistics.





# **Conference Synthesis Session**

*Summary, Conclusion and Policy Recommendations*

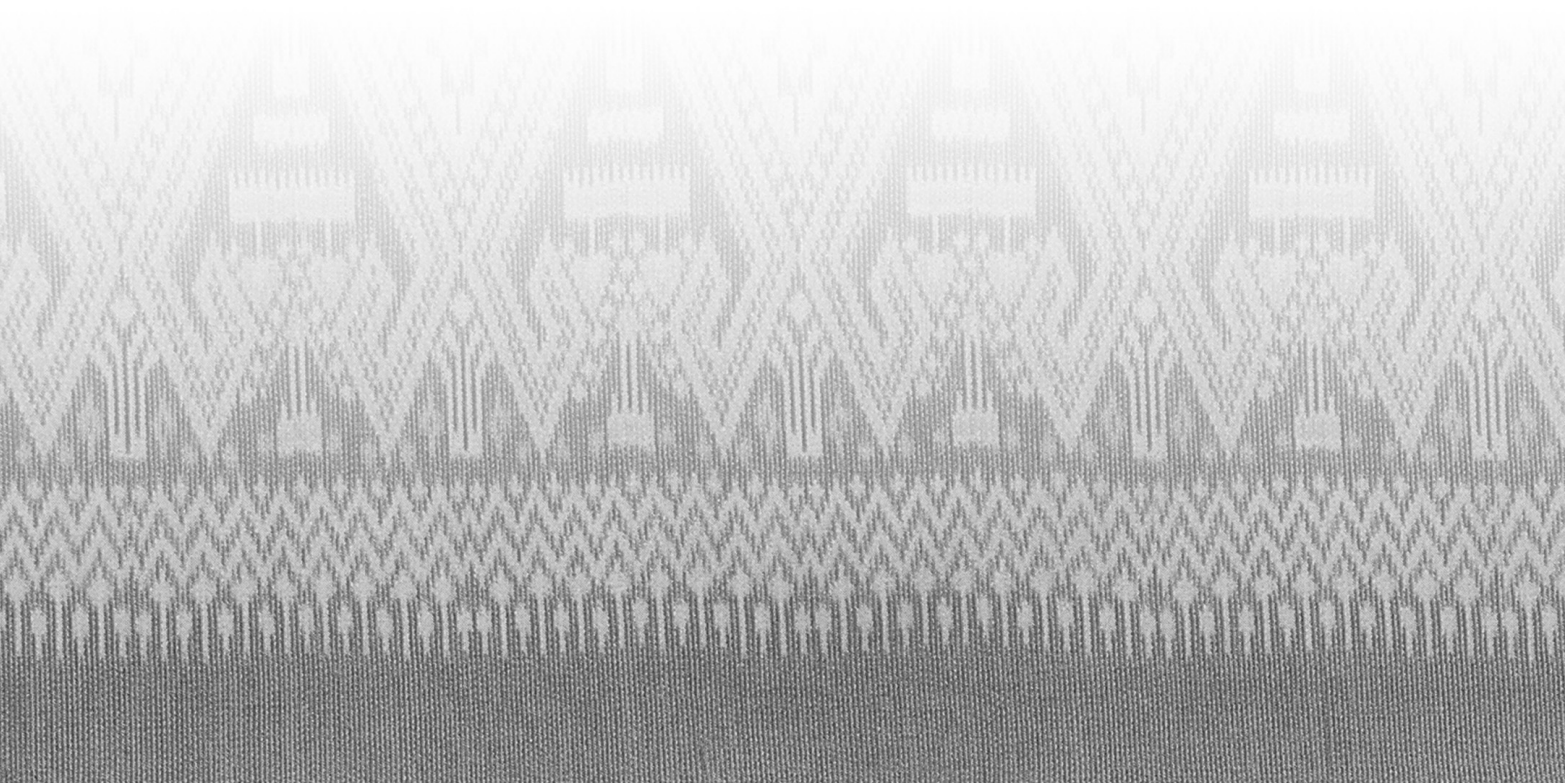






**Commemoration  
Ceremony of 30 Years of Primary Health Care**

*Health in the Next Three Decades  
and the Role of Primary Health Care*





**Mongkol Na Songkhla**  
Minister of Public Health, Thailand

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After 5 years of his retirement from the Permanent Secretary of the Ministry of Public Health in 2001, His Excellency Dr. Mongkol Na Songkhla was appointed Minister of Public Health of Thailand and has returned to the Ministry again since October 2006.

With more than 20-year experience with poor people in rural areas, as well as with his keen mind and willingness to help out, H.E. Dr. Na Songkhla decided to implement the Compulsory Licensing (CL) on three medicines for public non-commercial purposes to ensure that the poor could have access to patented medicines and would not left with nothing or in a desperate situation. Also, he has involved in the benefit extension provided for patients with chronic renal failure under the Universal Health Coverage Scheme.

In addition, as the Minister of Public Health, H.E. Dr. Na Songkhla has actively involved in pushing many important Bills that have been approved by the Cabinet and are currently in the process of consideration in the Parliament, such as Alcohol Control Bill, Drug Bill, Food Bill, Medical Devices Bill, National Food Committee Bill, Emergency Medical Services System Bill, and Establishment of Hospital Accreditation Institute Decree. Among the approved Bills, the National Health Act has been enacted by the Parliament and has finally become the first health law of this Government.

H.E. Dr. Na Songkhla has contributed many important health policies at both national and international levels such as the Universal Coverage for all Thais under the National Health Security Act (2002), as well as sharing for avian influenza (AI) virus and preparing for AI vaccine. He is currently the Chairman of the Joint United Nations Programme on HIV/AIDS (UNAIDS).

H.E. Dr. Na Songkhla received his M.D. from Siriraj Hospital Medical School, Mahidol University, Thailand, and M.P.H. from the Institute of Tropical Medicine, Amsterdam, the Netherlands. In 1976, H.E. Dr. Na Songkhla was awarded for Outstanding Rural Doctor from Siriraj Hospital. He also received Mahidol Tayakorn Award for Outstanding Alumni of Mahidol University, Thailand, in 2006.



**Supachai Panitchpakdi**  
Secretary-General  
UNCTAD

*Dr.* Supachai Panitchpakdi is currently the Secretary-General of United Nations Conference on Trade and Development (UNCTAD) since 1 September 2005.

In September 1999, he was elected Director General of the World Trade Organization (WTO), taking office on 1 September 2002.

Dr. Supachai began his professional career at the Bank of Thailand in 1974, working in the Research Department, the International Finance Division and the Financial Institutions Supervision Department.

In 1986, Dr. Supachai was elected a member of the Thai Parliament and was appointed Deputy Minister of Finance.

In 1988, he was appointed Director and Advisor, and subsequently President, of the Thai Military Bank.

In 1992, Dr. Supachai was appointed Senator, and that same year he became Deputy Prime Minister entrusted with oversight of the country's economic and trade policy making. In this role, he was actively involved in international trade policy and represented Thailand at the signing ceremony in Marrakech of the Uruguay Round Agreement in 1994. He was also active in shaping regional agreements, including Asia Pacific Economic Cooperation (APEC), the Association of Southeast Asian Nations (ASEAN) and the Asia Europe Meeting (ASEM).

In 2001, he was appointed Visiting Professor of the International Institute for Management Development in Lausanne. He has published a number of books, including *Globalization and Trade in the New Millennium* (2001) and *China and WTO: Changing China, Changing World Trade* (2002, co-authored with Mark Clifford).

Dr. Supachai attended school there at St. Gabriel's College and Triam Udom School. Dr. Supachai received his Master's Degree in Econometrics, Development Planning and his Ph.D. in Economic Planning and Development at the Netherlands School of Economics (now known as Erasmus University) in Rotterdam.

In 1973, Dr. Supachai completed his doctoral dissertation on Human Resource Planning and Development under the supervision of Prof. Jan Tinbergen, the first Nobel laureate in economics.



**Samlee Plianbangchang**  
Regional Director  
WHO/SEARO

*Dr.* Samlee Plianbangchang joined as Regional Director of WHO South-East Asia Region, New Delhi, India, on 1 March 2004. Formerly Dean, College of Public Health of Chulalongkorn University, Bangkok, Thailand and Adviser to Minister of Public Health, the Royal Thai Government; Dr Samlee Plianbangchang had been Deputy Regional Director and Director, Programme Management (DRD/DPM) of the World Health Organization Regional Office for South-East Asia, New Delhi, India (WHO/SEARO).

He joined WHO in January 1984 and departed in June 2000. During this period, he had also held other positions, i.e. Consultant in Primary Health Care; Senior Regional Planning Officer; and Director, Disease Prevention and Control. After departure from WHO, he was invited to be Senior Analyst / Special Adviser to the WHO Director-General in Budget and Management Reform at the World Health Organization Headquarters in Geneva, Switzerland.

Before joining the World Health Organization, Dr Samlee Plianbangchang had been working with the Ministry of Public Health, Thailand. He started his career in 1965 as a medical officer assigned in various capacities, i.e. medical intern at one of the provincial hospitals in the Northeast; acting medical officer at the first class health centers in one of the Northeast districts; medical officer of a special unit to counter insurgency in the same region; medical officer at Infections Disease Hospital in a province near Bangkok; a teacher at Health Training Center for the Central Region; second and then first grade medical officer of Health Training Division of Department of Health; Director, Technical Division of Department of Medical Services; and Director, Office of the National Advisory Board for Disease Prevention and Control.

Dr Samlee Plianbangchang graduated with the degree equivalent to M.D. (Medical Doctor) from the University of Medical Sciences in Bangkok; obtained Master of Public Health and Tropical Medicine (M.P.H. & T.M.) and Doctor of Public Health (Dr. P.H.) from Tulane University, and Certificate of Comprehensive Health Planning for Senior Health Administrators from Johns Hopkins University School of Hygiene and Public Health, both in U.S.A. He was certified by the American Board of Preventive Medicine to be specialist in international public health, and by the Thai Medical Council to be specialist in preventive and social medicine; recognized by American Medical Association to be an outstanding physician in 1970; awarded a gold medal by Tulane University for the best doctoral dissertation in 1972; and selected to be member of Delta Omega (ETA Chapter) which is one of the prestigious American public health professional societies.

In 2004, Dr Samlee received a degree of Doctor of Public Health, Honoris Causa, from Mahidol University, Bangkok, Thailand, for his academic achievements and outstanding professional services. Also, in 2007 he received honorary doctoral degree in public health from Chulalongkorn University, Bangkok, Thailand.

On returning from WHO to his own country in 2000, he was appointed to be Senior Adviser on International Health by Ministry of Public health, and Senior Adviser on Human Resource Development by the College of Public Health, Chulalongkorn University and by the same university to be Senior Specialist in Public Health. Then he become Dean of the College in 2001 until end-February 2004.

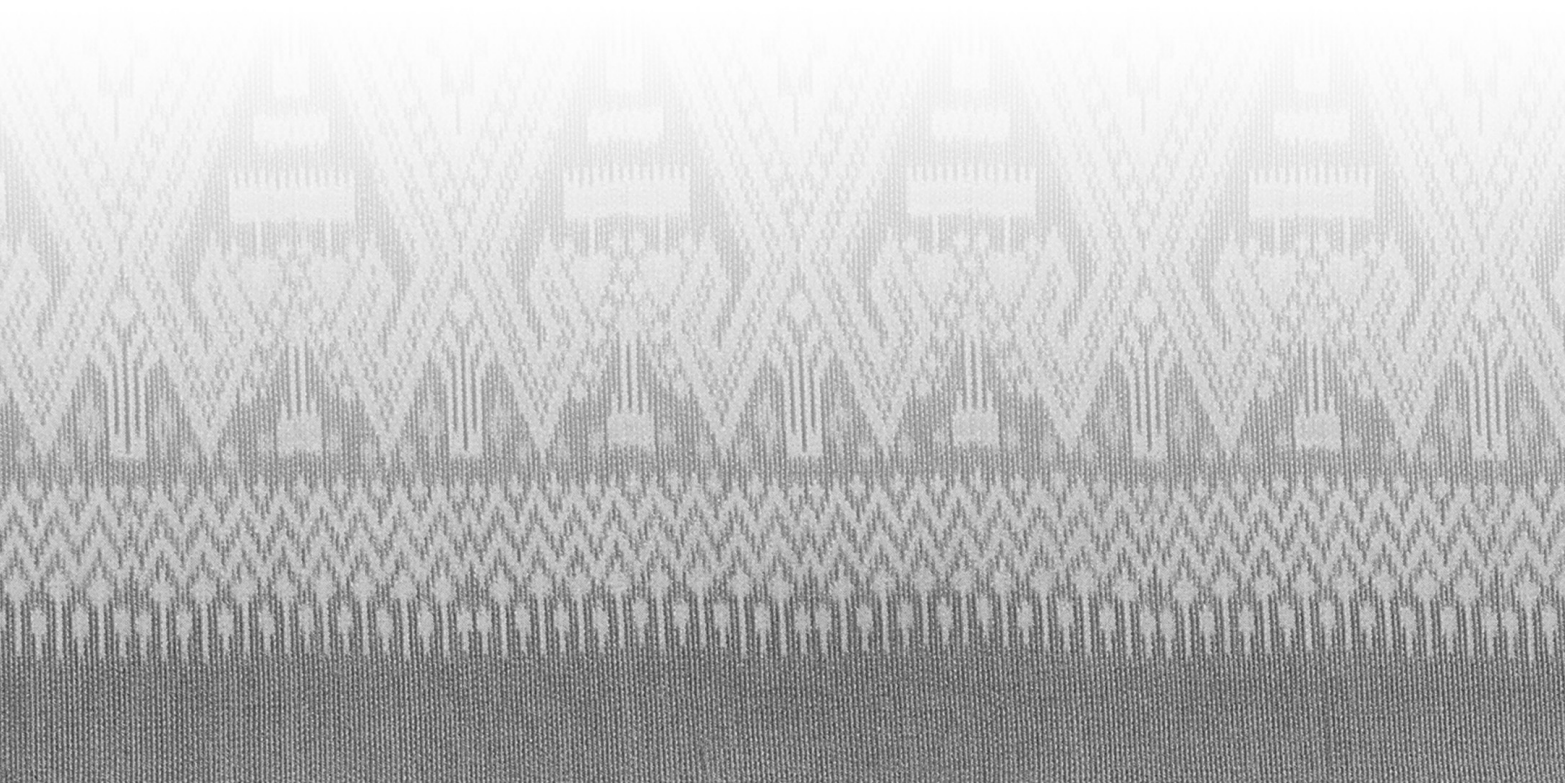
Before joining WHO, Dr Samlee Plianbangchang had been regularly attending meetings for 10 years of the WHO Governing Bodies, especially the Regional Committee for South-East Asia and World Health Assembly as standing member of the Thai delegation. He was member and secretary of the National Organizing Committee for the 30th session of the WHO South-East Asia Regional Committee held in Bangkok in 1977; Thailand delegate on the Joint Coordinating Board (JCB) of WHO/World Bank/United Nations Development Programme Special Programme for Research and Training in Tropical Diseases (TDR) from 1980 to 1984; member and secretary of the Royal Thai Government and WHO Coordination Committee during the same period.

He had been member and secretary of the National Organizing Committee for World Health Day between 1974 and 1984; Chairman National Organizing Committee for the 3rd Regional Meeting of the Directors of Medical Research Councils and Analogous Bodies of the Countries in WHO South-East Asia Region hosted by the Royal Thai Government in 1982; and General Secretary of the National Organizing Committee of the 4<sup>th</sup> meeting of the Joint Coordination Board of WHO/WB/UNDP Special Programme for Research and Training in Tropical Disease (TDR) held in Bangkok in 1984.

Dr. Samlee Plianbangchang has always been recognized nationally as an outstanding public health professional and administrator; and in the international health community as an outstanding health expert, administrator and manager, especially in health planning and management and programme development and management. While being Deputy Regional Director and Director, Programme Management at WHO Regional Office for South-East Asia he had always been admired by the Member States in South-East Asia for his efficient and effective handling of the development and management of the WHO Programme Budget to support health development in the Region.

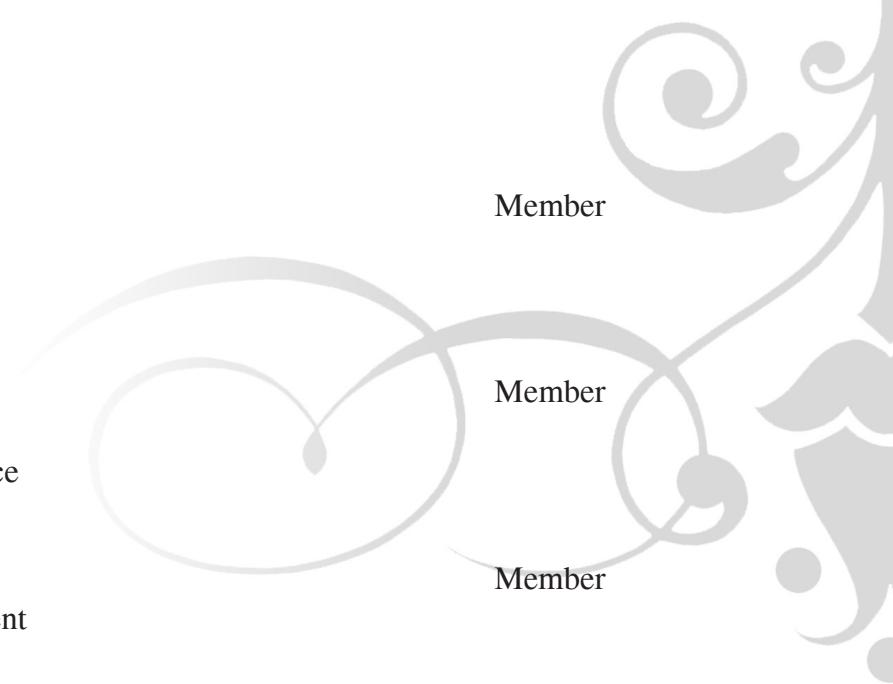


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Health Financing Task Force  
Washington, D.C., USA  
Member



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