PRINCE MAHIDOL AWARD CONFERENCE 2016

PMAC 2016

PRIORITY SETTING

FOR UNIVERSAL HEALTH COVERAGE

26 - 31 JAN 2016

CENTARA GRAND & BANGKOK CONVENTION CENTRE
AT CENTRALWORLD, BANGKOK, THAILAND

True success is not in the learning, but
in its application to the benefit of mankind

Sherrill Sprafka M.D.

Prince Mahidol Award

The Prince Mahidol Award was established in 1992 to commemorate the 100th 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 resource 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 King Bhumibol Adulyadej to bestow an international award - the Prince Mahidol Award, upon individuals or institutions that 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 selection of laureates whose nominations should be submitted to the Secretary-General of the Foundation before May 31st 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 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.

Prince Mahidol
Award Conference

The Prince Mahidol Award Conference was first organized in 1998 to celebrate the 5th anniversary of the Prince Mahidol Award, then again in 2002 to celebrate the 10th anniversary of the award. To celebrate the 15th anniversary of the award and the 115th Birthday Anniversary of His Royal Highness Prince Mahidol of Songkla, Her Royal Highness Princess Maha Chakri Sirindhorn, President of the Prince Mahidol Award Foundation under the Royal Patronage, requested the conference to be organized annually since 2007.

Since 2007, the Prince Mahidol Award Conference has been organized as an annual international conference focusing on policy-related public health issues of global significance. The conference is hosted by the Prince Mahidol Award Foundation, the Royal Thai Government and other global partners, for example the World Health Organization, the World Bank, the United States Agency for International Development, the Japan International Cooperation Agency, the Rockefeller Foundation and the China Medical Board .

The general objective of the annual Prince Mahidol Award Conference is to bring together leading public health leaders and stakeholders from around the world to discuss high priority global health issues, summarize findings and propose concrete solutions and recommendations. It aims at being an international forum that global health institutes, both public and private, can co-own and use for the advocacy and the seeking of international advices on important global health issues. Specific objectives of each year's conference will be discussed among key stakeholders and co-hosts of the conference.

The conference participants include ministers, senior government officials, intergovernmental organizations, international development partners, global health initiatives, health policy and health systems researchers and advocators, civil society organizations, and high-level stakeholders from developing and developed countries.

The past and upcoming conferences include:

1997 : The International Conference Science and Health
2002 : Medicine and Public Health in the Post-Genomic Era
2007 : Improving Access to Essential Health Technologies: Focusing on Neglected Diseases, Reaching Neglected Populations
2008 : Three Decades of Primary Health Care: Reviewing the Past and Defining the Future
2009 : Mainstreaming Health into Public Policies
2010 : Global Health Information Forum
2011 : 2nd Global Forum on Human Resources for Health
2012 : Moving towards Universal Health Coverage: Health Financing Matters
2013 : A World United against Infectious Diseases: Cross-Sectoral Solutions
2014 : Transformative Learning for Health Equity
2015 : Global Health Post 2015: Accelerating Equity
2016 : Priority Setting for Universal Health Coverage
2017 : Addressing the Health of Vulnerable Populations for an Inclusive Society

Message from the Chairs

of the International Organizing Committee

It is important to get decisions on public and donor spending on health right because they affect who receives what, when, and at what cost. These difficult decisions are about setting priorities. Given that demand for healthcare is infinite and resources are limited, all countries, health systems, health service payers and global funders must set priorities. Investing in one health care intervention inevitably means investing less or not investing at all somewhere else that might improve population health, financial protection or equity. Ad hoc or passive priority setting approaches disproportionately impact the poorest and most vulnerable, and distort a national health system's ability to progress towards Universal Health Coverage (UHC).

Priority setting is not just about deciding on whether to cover an expensive cancer drug or introducing the latest vaccine into a national immunisation programme. Trade-offs apply to all dimensions of UHC, not just what products and services to cover with public monies, but also how completely to cover, for whom, and under what circumstances. Thus Priority Setting is also about how to allocate public resources between primary care centres and training family doctors, and building hospitals and training specialists; deciding which population groups ought to receive subsidised care; as well as defining a cost-effective package of services for a disease or condition, through locally developed clinical guidelines and quality standards.

Better priority setting means that the decision makers and the process are made explicit and transparent, and priority-setting is conducted in a deliberative manner, involving relevant stakeholders, and in consideration of best available evidence about clinical and cost-effectiveness and social values. Nonetheless, there is no one-size-fits-all approach to carrying out explicit priority setting for UHC. The demography and epidemiology, and

the choices made and the funds available, together with the local costs of healthcare interventions are different for every country. Each country will find its own solution that will necessarily evolve over time, and design its essential drugs lists, health benefits plans and clinical guidelines based on its own values, ambitions and political economy.

With the success of incorporating UHC into the Sustainable Development Goals (Target 3.8), the arduous task of attaining UHC is now left for national governments and the global health community to achieve. In the global context of development assistance, the race towards fulfilling SDG commitments requires a massive shift from "billions to trillions" where resources will have to be earmarked across 17 Sustainable Development Goals and over 100 Targets. Accountability becomes a critical factor in ensuring that focus and support remain unwavering with regards to SDG 3.8. Hence, Priority Setting is akin to the compass of accountability in decision making that national policy makers can use to steer effective and wise "investments" towards UHC.

This year, the Prince Mahidol Award Conference joins forces with international partners including the World Health Organization, the World Bank, The Global Fund to Fight AIDS, Tuberculosis and Malaria, Japan International Cooperation Agency, U.S. Agency for International Development, China Medical Board, the Rockefeller Foundation, the UK National Institute for Health and Care Excellence, Bill & Melinda Gates Foundation, the National Evidence-based Healthcare Collaborating Agency with support from other key related partners, to host a Conference placing Priority Setting for Universal Health Coverage firmly on the global and national development agendas.

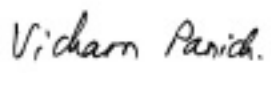
Making better decisions about priorities in the context of UHC, regardless of how rich or poor a country may be, or how much progress it has made in its UHC journey, is the focus of our Conference. It will serve as a trigger for a longer-term, collaborative international effort to articulate priority setting as a necessary (if not sufficient) condition for attaining and sustaining UHC.

As Chairs of the International Organizing Committee, we are delighted to welcome you to Bangkok, Thailand, to join more than 800 fellow health leaders, practitioners and reformers from around the world. We encourage your active participation in the plenary and parallel sessions to share experiences, challenges and ideas, and develop practical ways for supporting the journey to UHC through explicit Priority Setting processes. We hope you will take advantage of the varied range of side meetings organized by our partners, and that you are able to join the field trips that demonstrate Thailand's efforts in setting priorities for UHC.

We would like to thank the many committed individuals and organizations that have worked together to prepare and execute the plan for this conference, in particular our international partners, the Prince Mahidol Award Foundation, and the Royal Thai Government. We would also like to express our thanks to all speakers, moderators, discussants, and participants whose wealth of experience and knowledge will benefit us all this week.

By defining, explicitly, the "why", the "who" and the "what" of UHC, an obligation is placed on governments, citizens and global funders to hold health systems for greater levels of accountability and impact, and to address growing inequalities in many countries committed to UHC.

We look forward to welcoming you in Bangkok!



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Prince Mahidol
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The World Bank

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Ms. Kae YANAGISAWA
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Japan International
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Mr. Michael MYERS
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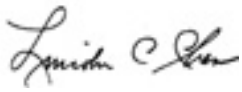
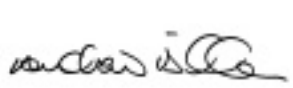
The Rockefeller Foundation

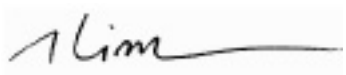


Dr. Lincoln C. CHEN
Co-Chair
China Medical Board



Sir Andrew DILLON
Co-Chair
National Institute for
Health and Care Excellence

Dr. Trevor MUNDEL
Co-Chair
Bill & Melinda Gates
Foundation



Dr. Tae-Hwan LIM
Co-Chair
National Evidence-Based
Healthcare Collaborating Agency

Prince Mahidol Award Conference 2016

International Organizing Committee

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Prof. Prasit Watanapa	Dean, Faculty of Medicine Siriraj Hospital	Mahidol University, Thailand	Member
Prof. Piyamitr Sritara	Dean, Faculty of Medicine Ramathibodi Hospital	Mahidol University, Thailand	Member
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Dr. Viroj Tangcharoensathien	Senior Advisor	International Health Policy Program, Thailand	Member

Dr. Yot Teerawattananon	Director	Health Intervention and Technology Assessment Program, Thailand	Member
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Dr. Toomas Palu	Sector Manager for Health, Nutrition and Population East Asia and Pacific Region	The World Bank, Thailand	Member & Joint Secretary
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Mr. Ikuo Takizawa	Deputy Director General	Japan International Cooperation Agency, Japan	Member & Joint Secretary
Mr. Anthony Boni	Health Management Analyst, Bureau for Global Health	United States Agency for International Development, USA	Member & Joint Secretary
Dr. Piya Hanvoravongchai	Southeast Asian Regional Coordinator	China Medical Board, Thailand	Member & Joint Secretary
Ms. Natalie Phaholyothin	Associate Director	The Rockefeller Foundation, Thailand	Member & Joint Secretary
Dr. Kalipso Chalkidou	Director	National Institute for Health and Care Excellence, United Kingdom	Member & Joint Secretary
Dr. Damian Walker	Senior Program Officer, Integrated Delivery	Bill & Melinda Gates Foundation, USA	Member & Joint Secretary
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Dr. Churnrurtai Kanchanachitra	Director	Mahidol University Global Health, Thailand	Member & Joint Secretary

PRINCE MAHIDOL
AWARD CONFERENCE 2016

PRIORITY SETTING

FOR UNIVERSAL HEALTH COVERAGE

PRIORITY SETTING
FOR UNIVERSAL HEALTH COVERAGE

Background

The Prince Mahidol Award Conference (PMAC) is an annual international conference focusing on policy-related health issues of global significance. The conference is hosted by the Prince Mahidol Award Foundation, the Thai Ministry of Public Health, Mahidol University and other global partners. It is an international policy forum that Global Health Institutes, both public and private, can co-own and use for advocacy and for seeking international perspectives on important global health issues. The Conference in 2016 will be co-hosted by the Prince Mahidol Award Foundation, the World Health Organization, the World Bank, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Japan International Cooperation Agency, the U.S. Agency for International Development, the China Medical Board, the Rockefeller Foundation, NICE International, the Bill & Melinda Gates Foundation, and the National Evidence-based Healthcare Collaborating Agency, South Korea with the support from other key related partners. The Conference will be held in Bangkok, Thailand, from 26 -31 January 2016.

Rationale

Universal health coverage (UHC) is high on the global agenda as a means to ensure population health, equity and social development. In most countries where current access to essential health care is limited, introducing UHC prompts serious concerns among government leaders on the growing expenditures and demands for public resources. As such, priority setting is indispensable and has been applied at various levels, to ensure that finite health resources can be used in the most cost-effective ways, to provide a high quality and appropriate package of healthcare for the population. At the macro level, priority setting can be used to set limits of the health budget and how much should be spent on health insurance; at the meso level, how much should be spent on infrastructure development and human resources; at the micro level, how much should be spent on particular drugs, technologies, intervention, and policies within a health problem.

Priority setting involves explicit and implicit approaches and the focus of the theme is explicit approaches, which encourages the use of evidence, transparency, and participation. Although priority setting cannot avoid politics, evidence should come first and politics are complementary to what evidence cannot address because evidence-based priority setting can make UHC acceptable and sustainable. It is noteworthy that since health-related decisions are driven by the Health in All Policy notion, priority setting is undertaken not only by policy makers in the Ministry of Health and Health Insurance Office, but also by stakeholders in non-health sectors such as the Ministry of Finance, development partners, and civil society organizations.

The role of health intervention and technology assessment (HITA), not only as a technical exercise but also as a deliberative process, is increasingly recognized as a tool for explicit priority setting, including in the development of the health benefits package, which is an integral part of UHC – what kind of services to provide and to whom. The concept of HITA and its contribution to UHC were endorsed in the resolutions of the WHO Regional Committees for the Americas in 2012 and Southeast Asia in 2013, the Executive Board in January 2014, and the World Health Assembly (WHA) resolution in May 2014. All these resolutions call for movements on capacity building for and introduction of HITA in all countries, especially in those resource-finite settings. It is anticipated that these movements will increase awareness and demand for HITA studies in the health sector. The WHA resolution also requests the WHO Director-General to report back to the WHA in May 2016. Thus the PMAC in January 2016 would be most timely to track the progresses and recommend further actions.

Objectives

- To advocate and build momentum on evidence-informed priority setting and policy decisions to achieve UHC goals;
- To advocate for the global movement and collaborations to strengthen the priority setting of health interventions and technology in the long-term;
- To share knowledge, experience, and viewpoints on health-related priority setting among organizations and countries; and
- To build capacity of policymakers and respective stakeholders for development and introduction of contextually-relevant priority setting mechanisms in support of UHC

Audiences

The target audience includes policymakers, senior officers, and staff of national bodies that are responsible for the decisions of resource allocation in UHC, including the Ministry of Finance, Ministry of Health and other relevant agencies, HTA agencies, civil society organizations, international organizations and development partners, academic institutes, and industry.

Conceptual Framework

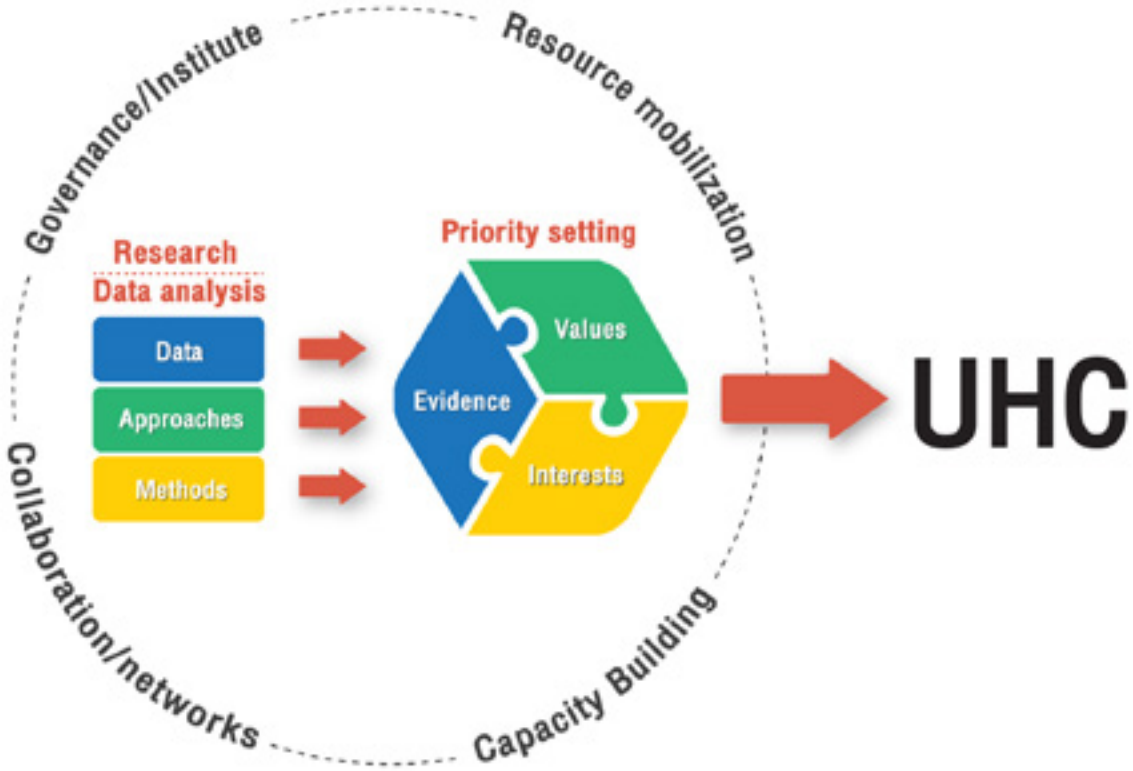
The PMAC 2016 sessions were developed on the conceptual framework illustrating essential elements of health priority setting that addresses the need for evidence-informed decision making in support of universal health coverage (UHC). (Figure) In this sense, priority setting of health problems and solutions involves two major steps of evidence generation (Subtheme 1) and use of evidence in resource allocation, program management and quality assurance in health delivery (Subtheme 2). Priority setting in particular health systems is implicated by a wide range of political, economic and sociocultural factors, through the following building blocks:

- Governing structure, functions and regulation of respective institutes and their interrelationship;
- Resource availability and mobilization to support priority setting activities;
- Capacity building programs for well understanding and knowledge concerning health priority setting among policymakers, researchers and other stakeholders including general public; and
- Collaboration and networks of local, international and global organizations those aim to strengthen UHC policy decisions.

Evidence generation, either from research studies or from relatively simpler analysis of information, requires not only capable human resources, but also reliable and up-to-date data/information, rigorous methods and practical approaches. Health technology assessment has been recognized as a useful tool for priority setting of biomedical interventions and public health measures. Other approaches for determining priority health interventions also exist. Meanwhile, connection between evidence, priority setting processes and policy decisions is politically-oriented, as it is shaped by social values (such as efficiency, equity, morality, and solidarity) and variety of interests, all of which are usually competing with each other.

In practice, health priority setting (Subtheme 3) in most low- and middle-income countries is imperfect, owing to constraints in the four building blocks. Importantly, the absence of good governance can result in inadequate resources, system capacity and support from different organizations. These allow powerful interests, with certain values, to dominate both the technical and political aspects of priority setting, and subsequently undermine quality of evidence as well as political commitment to using evidence to inform coverage decisions, disinvestment, program designs and guidelines formulation in the UHC context.

Figure:



Sub-themes

Topics to be discussed fall under three main sub-themes, with a focus on organizing priority setting, using priority setting in UHC decisions, and practical experiences of priority setting. The three sub-themes are interrelated and may somewhat overlap, thus, the issues in each sub-theme may be similar, but with different perspectives depending on the sub-theme.

Sub-theme 1
Organizing priority setting: what evidence is needed?

Various tools are available to support priority setting; some are well established and widely used, others are emerging and under development. Moreover, some analytical methods, such as economic evaluation, comprise different approaches, e.g. generalized cost-effectiveness analysis, extended cost-effectiveness analysis, etc. Notably, there is not a single tool that addresses all priority setting concerns among decision makers and stakeholders. The effectiveness of a tool depends on the objective and context of use. This sub-theme provides not only basic information to participants who are not familiar with priority setting and its technical terms, but also, in some sessions, offers in-depth dialogues on current challenges in order to call for collaborations in order to address these challenges in the future.

Objectives

- To overview techniques and approaches available for priority setting including their advantages and disadvantages
- To discuss what evidence is required in priority setting for the whole range of interventions from single technologies to complex interventions, health systems arrangements, and disinvestment of existing interventions/technologies
- To discuss the governance of priority setting

Sub-theme 2
Using priority setting evidence in making UHC decisions

The main objective of this sub-theme is to demonstrate political economy and options to link evidence to UHC policy. This sub-theme also addresses current challenges in this area, including the lack of integration of evidence in policy development, such as the revision of the benefits package, national formularies, standard practice guidelines, and designs of public health programs.

Objectives

- To discuss political economy of priority setting for UHC, including why decision makers do or do not use evidence in decision making
- To address how evidence is applied, transcendent across geographical boundaries, and communicated in UHC decisions in different country contexts

Sub-theme 3
Priority setting in action: learning and sharing country experiences

This sub-theme covers real world experiences by development partners and countries where priority setting mechanisms exist or HITA studies have been conducted, as well as countries without formal mechanisms. The sub-theme offers an opportunity for learning and sharing country experiences with different levels of development towards UHC and priority setting capacities, and the role of development partners in these countries. It will also discuss missed opportunities of countries without explicit health priority setting. The sub-theme will lead to policy and practical recommendations for the establishment or maintenance of priority setting mechanisms for the sustainability of UHC.

Objectives

- To learn and share experiences on priority setting for UHC in different country contexts
- To develop policy recommendations for establishing or maintaining priority setting mechanisms for UHC

Venue and Dates of the Conference

Centara Grand at Central World Hotel, Bangkok

Tuesday 26 – Wednesday 27 January 2016

Side Meetings

Thursday 28 January 2016

Field Trip

Friday 29 – Sunday 31 January 2016

Main Conference

Structure of the Conference

This is a closed, invitation only conference host by the Prince Mahidol Award Foundation, and the Royal Thai Government, together with other international co-hosts.
The conference consists of:

Pre-conference

- Side meetings
- Field trip

Main conference

- Keynote speeches
- Plenaries
- Interactive parallel sessions
- Conclusion and recommendations
- Poster or VDO presentation about case success stories

Pre-conference

SIDE MEETINGS

Tuesday 26 – Wednesday 27 January 2016

Side Meetings

TUESDAY 26 JANUARY 2016

SE001	PMA YOUTH PROGRAM ORGANIZER : Prince Mahidol Award Youth Program	Open to all participants
SE006	INTEGRATING DONOR-FINANCED HEALTH PROGRAMS WHILE BUILDING SUSTAINABLE HEALTH FINANCING SYSTEMS ORGANIZER : The World Bank	Closed meeting, by invitation only
SE010	HTA trends and future in HTAsiaLink ORGANIZER : National Evidence-based healthcare Collaborating Agency (NECA)	Open to all participants
SE015	People's Health Movement Steering Council: Challenges of growing a health movement –volunteerism and commitment ORGANIZER : People's Health Movement (PHM)	Closed meeting, by invitation only
SE024	Global Symposium on Financial Accountability and Sustainability ORGANIZER : Organisation for Economic Co-operation and Development (OECD), Paris	Open to all participants
SE026	Making decision makers accountable: Better journalism – better chances of getting to Universal Health Coverage ORGANIZER : NICE International; The Guardian, UK; HITAP, Thailand; The King's Fund, UK	Closed meeting, by invitation only
SE039	Harnessing and Aligning the Private Sector for Universal Health Coverage ORGANIZER : Asian Development Bank (ADB)	Open to all participants
SE012	Health Intervention and Technology Assessment (HITA): A Path to Universal Health Coverage (UHC) ORGANIZER : World Health Organization (WHO), Southeast Asia Regional Office (SEARO), Health Intervention and Technology Assessment Program (HITAP)	Open to all participants
SE028	What services should health systems provide? Health benefits plans in low- and middle-income countries ORGANIZER : Center for Global Development, NICE International	Closed meeting, by invitation only
SE030	Priority setting and public health security: leveraging UHC reform for disease surveillance systems in a globalized world ORGANIZER : World Health Organization (WHO), The World Bank	Open to all participants
SE033	Implications of the Trans Pacific Partnership (TPP) and Regional Comprehensive Economic Partnership (RCEP) on Universal Health Coverage ORGANIZER : Knowledge Ecology International (KEI)	Open to all participants

SE036	Achieving Universal Health Coverage (UHC) - The relevance of economic burden, cost and cost-effectiveness analysis to support policy makers in prioritizing vaccines ORGANIZER : World Health Organization (WHO), Southeast Asia Regional Office (SEARO), Health Intervention and Technology Assessment Program (HITAP)	Open to all participants
SE038	After the commission report and WHA resolution: What happened and what's next on Transformative Health Workforce Education and Training to support UHC? ORGANIZER : Health Professional Education Foundation in Thailand	Open to all participants
SE022	Intersectoral governance and financing to strengthen UHC ORGANIZER : United Nations Development Programme (UNDP)	Open to all participants
SE025	Asia Alliance on Global Health (AAGH) ORGANIZER : Mahidol University Global Health (MUGH)	Closed meeting, by invitation only
SE034	Prioritizing for UHC: Urban HEART as key tool for decision making and ensuring health equity ORGANIZER : World Health Organization (WHO)	Open to all participants
SE042	Innovative Financing for Health Promotion: Country and community practices that complement effectiveness of UHC ORGANIZER : Thai Health Promotion Foundation	Open to all participants
SE049	Domestic Resource Mobilization for UHC: Approaches for Sustainably Financing Priority Health Programs " ORGANIZER : U.S. agency for international development (USAID),	Open to all participants
SE050	Consultation on options to strengthen accountability for Universal Health Coverage ORGANIZER : Management Sciences for Health	Open to all participants

WEDNESDAY 27 JANUARY 2016

SE002	PMA YOUTH PROGRAM ORGANIZER : Prince Mahidol Award Youth Program	Closed meeting, by invitation only
SE007	INTEGRATING DONOR-FINANCED HEALTH PROGRAMS WHILE BUILDING SUSTAINABLE HEALTH FINANCING SYSTEMS ORGANIZER : The World Bank	Closed meeting, by invitation only
SE031	Projecting Implementation Priorities to advance Universal Health Coverage in the post-2015 agenda – Lessons Learned from the Go4Health Project ORGANIZER : The Rockefeller Foundation, Go4Health	Open to all participants
SE045	Antimicrobial Use and Antimicrobial Resistance" in Livestock in Asia ORGANIZER : U.S. agency for international development (USAID), FAO, OIE, WHO	Closed meeting, by invitation only
SE052	Equity Initiative Research Planning Consultation ORGANIZER : China Medical Board (CMB)	Closed meeting, by invitation only
SE026	Making decision makers accountable: Better journalism – better chances of getting to Universal Health Coverage ORGANIZER : NICE International; The Guardian, UK; HITAP, Thailand; The King's Fund, UK	Closed meeting, by invitation only
SE003	Taking the UHC agenda forward in Bangladesh: current scenario and road map for the future ORGANIZER : The Rockefeller Foundation, Centre of Excellence for UHC (icddr,b and JPGSPH/BRAC University)	Open to all participants
SE012	Health Intervention and Technology Assessment (HITA): A Path to Universal Health Coverage (UHC) ORGANIZER : World Health Organization (WHO), Southeast Asia Regional Office (SEARO), Health Intervention and Technology Assessment Program (HITAP)	Open to all participants
SE008	Building Financial Risk Protection into Essential Health Benefits Packages for Fair Universal Health Coverage (UHC) ORGANIZER : Disease Control Priorities (DCP3)	Open to all participants
SE011	HTA Evidence on Medical Devices ORGANIZER : National Evidence-based healthcare Collaborating Agency (NECA)	Open to all participants
SE013	Introduction to Health Intervention and Technology Assessment: HITA 101 ORGANIZER : Health Intervention and Technology Assessment Program (HITAP)	Open to all participants
SE016	People's Health Movement Steering Council: Challenges of growing a health movement –volunteerism and commitment (continued) ORGANIZER : People's Health Movement (PHM)	Closed meeting, by invitation only

SE019	Universal Health Coverage & Quality: Ensuring quality care for all! Part 2 ORGANIZER : World Health Organization (WHO) Service Delivery and Safety department, Health Systems & Innovation Cluster, The Healthcare Accreditation Institute (HAI Thailand)	Open to all participants
SE027	Proposed African Priority-Setting In Healthcare Network ORGANIZER : PRICELESS SA	Open to all participants
SE043	Role of WHO- Global Evaluation Tool (GET) in transforming health worker education ORGANIZER : World Health Organization (WHO), Department of Health Workforce	Open to all participants
SE044	Launch of the APO / OECD Comparative Country Study on Case Based Payments for Hospital Funding in Asia: An Investigation into Current Status and Future Directions ORGANIZER : Asia Pacific Observatory on Health Systems and Policies (APO)	Open to all participants
SE048	Evidence-based priority setting in India's Quest for Universal Health Coverage ORGANIZER : The World Bank	Open to all participants
SE051	Best Buy!! Mother and Child Health Handbook for Improving Continuum of Care through Women's Empowerment ORGANIZER : Japan International Cooperation Agency (JICA)	Open to all participants
SE009	DCP3 ACE meeting (Advisory Committee to the DCP3 Editors) ORGANIZER : Disease Control Priorities (DCP3)	Closed meeting, by invitation only
SE014	Advanced Workshop in Methods for HTA ORGANIZER : University of York, UK	Open to all participants
SE017	The evidence for a unified public funded health system to advance UHC ORGANIZER : People's Health Movement (PHM)	Open to all participants
SE018	The 2016 G7 Summit in Japan: Toward Resilient and Sustainable Universal Health Coverage (UHC) ORGANIZER : Japan Center for International Exchange (JCIE)	Open to all participants
SE023	Access and Delivery Partnership (ADP) Stakeholders' meeting: South-South exchange to support implementation ORGANIZER : United Nations Development Programme (UNDP)	Closed meeting, by invitation only
SE029	iDSI Board meeting (NI) ORGANIZER : NICE International	Closed meeting, by invitation only
SE032	SEA Constituency – the way forward in 2016 ORGANIZER : Ministry of Public Health, Thailand, Country Coordination Mechanism (CCM)	Closed meeting, by invitation only
SE035	From cost-effectiveness to fairness: Guidance and tools on the path to Universal Health Coverage ORGANIZER : World Health Organization (WHO), Health Systems Governance and Financing	Open to all participants

SE040	Community Health Workers (CHWs) for Achieving UHC: Experience in using evidence to guide decision-making for CHW programs ORGANIZER : U.S. agency for international development (USAID), Health Systems Global Technical Working Group	Open to all participants
SE047	National One Health Challenges: Prepare and Response for Emerging disease/Pandemic and Sustainable Development ORGANIZER : One Health Coordination Unit, (OHCU), Thailand	Semi-Closed Meeting - by invitation and open to all PMAC 2016 Participants

THURSDAY 28 JANUARY 2016

SE009	DCP3 ACE meeting (Advisory Committee to the DCP3 Editors) ORGANIZER : Disease Control Priorities (DCP3)	Closed meeting, by invitation only
SE041	AAAH Inter Session Activity Steering Committee Meeting ORGANIZER : Asia_pacific Action Alliance on Human Resources for Health(AAAH)	Closed meeting, by invitation only
SE046	Antimicrobial Use and Antimicrobial Resistance" in Livestock in Asia ORGANIZER : U.S. agency for international development (USAID)	Closed meeting, by invitation only
SE004	Sustainable Financing for Health through Domestic Resource Mobilization ORGANIZER : U.S. agency for international development (USAID)	Closed meeting, by invitation only
SE037	International Advisory Committees Meeting on Health Policy and Technology Assessment (HePTA) Program ORGANIZER : Mahidol University , Faculty of Pharmacy	Closed meeting, by invitation only
SE053	PMAC World Art Contest ORGANIZER : Prince Mahidol Award Conference	Open to all participants
SE005	Economic Evaluation of Health Promotion ORGANIZER : China Medical Board (CMB)	Closed meeting, by invitation only

Pre-conference

FIELD TRIP

Thursday 28 January 2016

Field Trip
Descriptions

The Prince Mahidol Award Conference (PMAC) 2016 is devoted to strengthening health priority setting in support of resource allocation and other policy development in the realm of universal health coverage (UHC). Every year a field trip program is arranged as a one-day visit to different sites, offering participants the opportunity to directly observe practice and activities of not only health personnel but also staff of local public agencies, civil society organizations, and lay people involved in service provision and supporting mechanisms. By interacting with persons in charge of policy decisions and implementation in real life, the participants will get an insight into Thailand's health systems including care delivery, financing and management.

For the PMAC 2016 field trips, evidence generation and its roles in policy decisions regarding the adoption and use of health interventions and technology in the context of UHC will be highlighted. The descriptions of 6 site visits are as follows:

SITE NO. 1

Saving our Children's Sight: Effective Eye Screening by School Teachers

Location: Mueang District, Samut Prakan Province

Refractive error is a main cause of visual impairment and blindness around the world. Thailand has faced this problem, especially in young school children. In the past, access to visual screening and treatment was limited, partly due to the shortage of ophthalmologists. A research study to determine the effectiveness and feasibility of providing eye screening by school teachers in pre-primary and primary schools, as well as referral system for treatment in hospitals was conducted by the Health Intervention and Technology Assessment Program (HITAP) in collaboration with the Royal College of Ophthalmologists. The researchers developed screening materials, training curriculum, and clinical protocol for diagnosis and treatment for children with refractive error. It was found that the screening and treatment initiative in four study provinces was effective and feasible, as it could improve visual acuity of 4% of Thai children with moderate to severe visual impairment. This evidence was considered by the Subcommittee for Development of the Benefit Package and Service Delivery (SCBP) — the coverage decision authority responsible for issuing the health benefit package of the Universal Coverage (UC) Scheme. Subsequently, the National Health Security Office (NHSO) has introduced a pilot program in 10 provinces since 2014.

The pilot provides screening of refractive error by teachers and treatment in provincial hospitals which includes spectacles for children diagnosed with refractive error. This is a good illustration of the knowledge transfer from research to policy and practice. PMAC participants will visit a school in Samutprakarn province where the process of the screening of refractive error in young school children will be demonstrated. In the afternoon, the participants will also visit Samutprakarn Hospital to observe diagnosis and treatment provided by pediatric ophthalmologist.

SITE NO. 2

Management of High-Cost, Essential Medicines in the UHC Context

Location: Faculty of Medicine Ramathibodi Hospital, Bangkok

To achieve UHC, a good system of management of health interventions and technologies is imperative. In particular, high-cost treatments can easily become a challenge to a restricted budget. In Thailand, the Sub-committee for the development of the National List of Essential Medicines (NLEM) is responsible for selecting medicines into the reimbursement list and developing the indications/conditions for prescription of these medicines. For high-cost medicines, most of them are assessed by the Health Economics Working Group (HEWG) for the cost-effectiveness and budget impact to assure a sustainable system of UHC. In addition, HTA evidence is effectively used for the price negotiation. Regarding this, the NLEM Sub-committee has announced the framework in incorporating health economic evidence into the pharmaceutical reimbursement list and explicit criteria for decision making.

Specifically, high-cost medicines for treatment of rare diseases are classified as the E2 category of NLEM in which the coverage decisions of these medicines are complex. It should not solely rely on the efficiency and budget requirement, but also how to promote equitable access. As a result, the NLEM Sub-committee develops the conditions for rational use of the prescription of these medicines. This can help to identify the appropriateness of prescribing and use of high-cost medicines. Also, the National Health Security Office (NHSO) has created a special management process to support the policy implementation. This includes central procurement, preauthorization system, as well as monitoring and evaluation of medicine utilization. The logistics and inventory of medicines in the E2 list are provided by the Government Pharmaceutical Organization (GPO) by introducing a vendor managed inventory through an electronic and computerized system. Therefore, it is a good opportunity to broaden participants' view of how these high-cost medicines are being used rationally and efficiently. This site would offer a clear picture of high-cost medicines management. Participants will visit a tertiary hospital to observe the comprehensive system of the management of medicines listed in the E2 category.

SITE NO. 3

Universal Access to High Cost Medicine: Off-label Use of Bevacizumab

Location: Mettapracharak (Wat Rai Khing) Hospital, Nakhon Pathom Province

Vision loss due to retinal diseases is one of the most important health problems in many countries. Bevacizumab and ranibizumab are the most commonly prescribed drugs that can prevent or slow down vision loss and blindness in patients with certain eye disorders. These two drugs are equivalent in terms of efficacy, with a slightly different safety profile. Ranibizumab is officially approved by US FDA to treat several retinal diseases but it is relatively expensive (approximately USD 1,700 per dose) and has impeded accessibility to the treatment in the majority of patients worldwide. Regarding the cheaper alternative, many studies revealed that bevacizumab which is FDA-approved anticancer drug has equivalent efficacy to ranibizumab when it is prescribed for off-label indication, i.e. in the treatment of eye diseases, with almost 40 times lower cost per dose.

In Thailand, bevacizumab was included in the National List of Essential Medicines (NLEM) in 2012, for use in neovascular age-related macular degeneration (neovascular AMD) and diabetic macular edema (DME). As a result, all patients have equitably access to the high-cost treatment; because bevacizumab can be reimbursed from the three major publicly-financed health benefit schemes. However, the NLEM Subcommittee suggested the need for rigorous evidence supporting the safety and effectiveness of bevacizumab in real-clinical settings in Thailand. In order to address the decision makers' suggestions, a multicenter prospective observational study has been conducted by gathering the data from over six-thousand patients in eight tertiary hospitals in different regions.

During this field trip to Mettapracharak Hospital – an eye-specialist hospital in Nakhon Pathom province, participants will be presented with the information on the process of this HTA-informed policy decision and the research to determine the safety and effectiveness of bevacizumab. Participants will also have an opportunity to discuss with the hospital director, ophthalmologists and pharmacists on their attitudes towards the off-label use of bevacizumab, reimbursement policy in Thailand, and experiences on preparing and prescribing bevacizumab injection. As Mettapracharak Hospital took part in the earlier-mentioned multicenter study, exchange of information and viewpoints with respective research personnel may be an element of interest among the participants who choose to visit this site.

SITE NO. 4

Priority Setting in University Hospital Toward Universal Health Coverage

Location: Faculty of Medicine Siriraj Hospital, Bangkok

Priority setting of solutions for health problems is an essential process in all levels of health services, especially in university hospitals that are tertiary care centers with high expenses and burdens. Siriraj Hospital, the first and largest university hospital in Thailand, has vowed to be the medical institute for all walks of life with international excellence in medical education, patient care and basic research with a lot of constraints. With 14,000 staff, this 2,200-bed hospital has about 80,000 inpatients and over 3 million outpatients, annually. The additional costs of more than 15 million USD in excess of normal operating expenses are under subsidies by Siriraj Hospital. Even though we have an enormous work-load, it is crucial that our facility maintains services to our best. Prioritization of health services for an optimal care and still maintaining health equity for everyone are a big challenge.

Siriraj Hospital adopted the process of utilization review to pick up the inefficient care. Utilization management and lean process were used to reach effective services and high quality care. A continuous quality improvement of all units was based on the evidence generated by the Routine to Research Project (R2R), which supported all studies in terms of funding, research assistance and methodology, so that the hospital staff would have the opportunity to transform their unique know-hows into scientifically validated practices. However, the assessment for cost-effectiveness of each health intervention technology is also crucial for policy makers to make the final decision on each technology. Therefore, in the beginning some economic studies were facilitated by R2R such as; a comparison study on the cost-effectiveness of radioiodine therapy for hyperthyroidism using big and small dose regimens or that on additional whole abdomen computerized tomography or PET/CT in routine staging of patients with locally advanced carcinoma of the cervix. Later, Siriraj Health Technology Assessment Committee (SiTA), run by a multidisciplinary team; health economists, anesthesiologists, ophthalmologist nurses, pharmacologists, has been in full operation since 2014 and has jointly worked with Siriraj Health Policy Unit (SiHP) for an economic evaluation of each technology mainly serving the health services. For example; economic evaluation of utilizing the automated blood transport system for the inpatient service of Siriraj Hospital has been successfully generated to shorten the patients' wait times at the Out-patient Department. A comparison on effectiveness of automated versus manual dispensing systems at Siriraj Hospital and an economic evaluation of utilizing the prefilled syringe preparation for the Inpatient Service Department was developed to improve the working process at the Department of Pharmacy.

In addition, academic work in terms of education and research areas is also an important mission at Siriraj Hospital. High cost technology procedures such as robotic surgery and fetal therapy were considered as a priority to achieve professional skill training in reaching the ultimate outcome of a high quality of life. Similarly, the "Simset Siriraj Medical Simulation Center for Education and Training" aiming to improve undergraduate and graduate's surgical and clinical skills and to enhance teaching staffs' skill was established concerning patient safety.

According to collective work in all process, implementation of proper health intervention and technology has been obtained. However, good system of palliative care to minimize the unnecessary treatments and very high cost cares are needed to reduce patients' suffering from prolong death as well as promote a good death. Traditional Thai Medicine was also proposed as alternative or adjunctive therapy for many conditions.

Visiting Siriraj Hospital Site in a hospitality environment, attendees will learn how the biggest university hospital serves a huge volume of services and will tremendously experience in the utilizing the automated blood transport system, the prefilled syringe preparation for the inpatient service department, the Simset Siriraj Medical Simulation Center for Education and Training and pleasantly be engaged in the Traditional Thai Medicine Department.

SITE NO. 5

Increasing Access to Essential Renal Dialysis through "PD First" Policy

Location: Ban Bhaeo Hospital, Ban Bhaeo District, Samut Sakhon Province

Access to renal replacement therapy (RRT) is expensive and kidney diseases afflict a relatively small percentage of the population and have never reached the national agenda. Although the UC scheme was launched in 2002 and its benefit package was comprehensive, some high technology and high cost services such as renal replacement therapy (RRT) were excluded. Studies had shown that neither peritoneal dialysis nor haemodialysis was shown to be cost effective, but peritoneal dialysis offered better value than haemodialysis. Although most nephrologists preferred haemodialysis to peritoneal dialysis, all the haemodialysis machines and people with the skills to use them were concentrated in greater Bangkok and big cities. This made haemodialysis inaccessible to patients in remote areas.

According to pressure from patients' network and supporting studies, "PD first" policy has been introduced for ESRD patients under the UC scheme since 2008. However, changing method of treatment to haemodialysis or kidney transplantation may be able to apply to patients according to their indication identified by doctors.

Once the patients have been diagnosed and indentified to meet requirements for RRT; preparation process for the patients and their families will be provided by the providers. The renal replacement therapy counseling team is a multidisciplinary health care team that includes a nephrologist, a PD nurse, a pharmacist and a nutritionist. The patients and their families will be educated about the disease, treatment options, reimbursement schemes, and self-care and life style modifications. Physical and psychological readiness of the patients will also be identified before starting a surgical procedure. A three day or more training course taught by a PD nurse will also be organized for caregivers.

PD therapy is a feasible RRT not only for the UC scheme but also for ESRD patients since it is a form of self-treatment that needs no machine; the patients can still work during dialysis process. Dialysis fluid management can be done through VMI system of the Government Pharmaceutical Office (GPO). The NHSO can have information not only to manage the stock of dialysis fluid but also to arrange delivery process of the fluid to the patients' house. In order to promote efficiency of the system, the fluid stock and delivery processes have been contracted to third parties, i.e., the GPO and Thailand Post Co., Ltd.

Through the "PD first" policy, a holistic participatory process among health and non-health sectors, government and private organizations, health providers and consumers and their community has been promoted.

From this field trip, participants will learn how the PD first policy has been implemented at national and local level. Service management in the hospital, logistic management of the GPO and Thailand Post Co., Ltd., and self-care at patient's home will be presented and discussed.

SITE NO. 6

Priority Setting for Health Promotion by Community

Location: Suan Luang Municipality, Mueang District, Samut Sakhon Province

The "Community Health Fund" (CHF) or "Sub-district Health Fund" was launched in FY2006. The fund is made up of matching contributions from the National Health Security Office (NHSO) and local government organization to promote community health activities. The activities are targeted to improve individual health of community members, especially risk groups, and to empower local governments. Local government organizations include the sub-district administration organization (SAO) in rural areas and the municipality in urban areas. Initially, NHSO allocated 37.5 Baht per capita to the fund, and the local government organizations provided a matching allocation of 10%, or 20%, or 50% of the NHSO contribution depending on its size of office. In FY2015, the UCS budget allocated for CHF has been increased to 45 Baht per capita; the sharing rate from local government organizations has been increased to 20%, 30%, or 50%, depending on its size of office.

The community health fund committee is comprised of representatives from the SAO/municipality, health volunteers and health personnel, and is chaired by the chief executive of the SAO/municipality. Community health problems and priorities have to be identified through community participatory process before related health activities supported by the CHF can be assigned. Health related issues can be health emergencies and epidemics issues, factors affecting health status such as the aging population or risk behaviors.

The Community Health Fund has been proved to be a key mechanism to promote community health and to strengthen civil society and community. Many communities have shown improvement not only in overall community health system but also in health participation of the community.

MAIN

Conference

Friday 29 - Sunday 31 January 2016

Main
CONFERENCE

FRIDAY 29 JANUARY 2016

09:00-10:30 hrs. **Opening Session & Keynote Address**
Opening Session by Her Royal Highness Princess Maha Chakri Sirindhorn

Keynote Address

Morton M. Mower
Prince Mahidol Award Laureate 2015
Professor of Medicine, Johns Hopkins University School of Medicine (Baltimore), Professor of Physiology and Biophysics, Howard University College of Medicine (Washington, D.C.), USA

Sir Michael Gideon Marmot
Prince Mahidol Award Laureate 2015
Director, UCL Institute of Health Equity, Professor of Epidemiology and Public Health, University College London, London University, United Kingdom

Michel Sidibé
Executive Director
The Joint United Nations Programme on HIV/AIDS, Switzerland

Mirai Chatterjee
Director
SEWA Social Security, Self-Employed Women's Association, India

10:30-11:00 hrs.	Break
11:00-12:30 hrs.	**Opening Plenary: The Primacy of Priority Setting: Global Advocates and Country Realities**
12:30-14:00 hrs.	Lunch
14:00-15:00 hrs.	**Plenary 1: Using Priority Setting Evidence in Making UHC Decisions**
15:00-15:30 hrs.	Break
15:30-17:30 hrs.	**PS1.1: Evidence for Health Benefits Package Choices: Is Cost-Effectiveness Analysis the Answer?**
	PS1.2: Accountability, Fairness and Good Governance in Priority-Setting for UHC
	PS1.3: Strengthening Capacity to Produce and Appraise HTA Evidence
	PS1.4: Human Rights - Entitlement to Health: What Does It Mean in Practice and How Can It Affect Priority Setting for UHC?
	PS1.5: Priority Setting and Public Health Security: Leveraging UHC Reform for Disease Surveillance Systems in a Globalized World

SATURDAY 30 JANUARY 2016

09:00-10:00	**Plenary 2: Is the Current Evidence Fit-for-Purpose? What Evidence Do Decision Makers Need to Set Priorities in the Future?**
10:00-10:30	Break
10:30-12:30	**PS2.1: Demonstrating the Relevance of Economic Evaluation to Multiple Objectives of UHC: What Are the Key Challenges?**
	PS2.2: Missed Opportunities and Opportunity Costs: Reprioritizing UHC Decisions in Light of Emergence of New Technologies, Continued Budget Constraints, and Incentives for Innovation
	PS2.3: Can You Handle the Truth? Accounting for Politics and Ethics in UHC Is Very Challenging
	PS2.4: Stakeholder Dynamics in UHC Priority Setting
	PS2.5: Enabling Better Decisions for Better Health: Embedding Fair and Systematic Processes into Priority-Setting for UHC
12:30-14:00	Lunch
14:00-16:00	**PS3.1: Defining the "What", "How" and "for Whom" of UHC: Country Experiences of Developing and Implementing Benefits Plans and Other Tools for Priority-Setting**
	PS3.2: Prioritising Research to Deliver Evidence for UHC: How Can Policy Makers Shape the Research Agenda to What They and Their Populations Need
	PS3.3: Aligning Local and Global Priorities for Health: The Roles of Governments, CSOs and Development Partners in Setting and Funding for The Priorities
	PS3.4: Coping with Budget Reductions & Economic Austerity: Implications for UHC Priority Setting
	PS3.5: Translating Priorities into Action
16:00-16:30	Break
16:30-17:45	**Plenary 3: Action Express Priorities: Progressing towards Sustainable UHC / Bangkok Statement**
18:00-20:30	**Welcome Dinner**

SUNDAY 31 JANUARY 2016

09.00-10.00	**Plenary 4: Better Decisions for Better Health: from Rhetoric to Reality**
10.00-11.00	**Synthesis: Summary, Conclusion & Recommendations**
11:00-12.00	**Closing Session**
12.00-13.30	Lunch

POSTERS

LIST OF POSTERS

Poster ID	Poster Title	Author
P1	Cambodia's health systems performance and the need for systems thinking approach	Erlyn Rachelle Macarayan
P2	Collaborative Public-Private Partnership in the efficient provisioning of health care insurance coverage to the informal sector	Maika Ros Bagunu
P3	Rural/urban access deficits: Evidence for extending coverage to vulnerable populations	Xenia Scheil-Adlung
P4	Health service utilization in Northern Ghana: Is the National Health Insurance scheme making any difference?	Philip Ayizem Dalinjong
P5	Functional measures: Are they appropriate to assist in prioritizing health care?	Meri Goehring
P6	Evaluation of the Tuberculosis Surveillance System in Magelang District — Indonesia, 2011	Lalu Hendi Hutomo
P7	Principal approaches to improve immunisation coverage: Strategies of CORE Group Polio Project (CGPP), India in addressing barriers to routine immunisation	Manojkumar Choudhary
P8	Immunization card holder boost immunization coverage in Uttar Pradesh, India	Rina Dey
P9	Prioritization of health promotion programs for consensus development between stake holders such as local government, NGOs and residents -health promotion planning in Nakai town, Kanagawa Prefecture, JAPAN	Yoshihisa Watanabe
P10	Introducing the concepts of health technology assessment to Sri Lanka: A cost utility evaluation of Beclomethasone metered dose inhaler	Sathira Perera
P11	Priority setting beyond health to fund universal health coverage	Natalie Sharples
P12	Stakeholder perspectives and Geographical Information Systems (GIS) for priority setting in achieving location efficiency in specialist care in North Western Province (NWP) of Sri Lanka	Dilantha Dharmagunawardene

Poster ID	Poster Title	Author
P13	Reaching the community - how strength in primary care systems can help with priority setting and inclusivity	Amanda Howe
P14	Cost- effectiveness of computer-assisted Clinical Decision Support System (CDSS) in improving maternal health services in Ghana	Maxwell Dalaba
P15	Analyzing the effect of government subsidies for rural health insurance on equity of benefits	Min Hu
P16	Prioritizing Investment for HIV response: Experiences of improving allocative efficiency in HIV programmes	Emiko Masaki
P17	The extent of health insurance coverage, health expenditure and health service utilization prior to national health insurance enforcement in Indonesia	Ade Suzana
P18	Rotavirus vaccines contribute towards universal health coverage: An extended cost-effectiveness analysis	Tharani Loganathan
P19	Quality health service delivery is the priority for realizing universal health coverage: Reducing neonatal mortality at a hospital by quality improvement interventions	Mohammad Islam
P20	Priority setting using Hanlon Method in Yogyakarta Province, Indonesia in 2014 - The double burden of health problems	Nur Aini Kusmayanti
P21	Health for all: Implementing UHC in Bangladesh	Tasfiyah Jalil
P22	A reform on medicine procurement system under universal health coverage in Indonesia	Yusi Anggriani
P23	Prioritising aboriginal people groups in the context of an advanced economy to achieve universal health coverage	Emily H. B. Brown
P24	Trends on pharmaceutical spending under JKN 2014	Yusi Anggriani
P25	Pitfall of health seeking: Catastrophic health expenditure and it's determinants in Bangladesh	Md Zabir Hasan
P26	Sustaining universal coverage: The contribution of NCDs to public health expenditures in Mongolia	Otgontuya Dugee
P27	Does the health system provides universal coverage? - the story of Republic of Macedonia	Stefan Vasilevski
P28	Coverage when resource constrained: Targeting benefits of Myanmar's hospital equity fund	Soe Htet
P29	Spending on cancer drugs in Kosovo: A formulary review to inform priority setting	Kate Mandeville
P30	A randomized controlled trial on Rehabilitation through Caregiver-Delivered Nurse-Organized Service Programs for Disabled Stroke Patients in Rural China (The RECOVER Trial): Design and rationale	Shu Chen

Poster ID	Poster Title	Author
P31	Reducing the financial burden of healthcare for TB patients in China	Weixi Jiang
P32	Developing the evidence base for priority setting for universal health coverage in fragile and conflict affected contexts	Sarah Ssali
P33	What role for district-led quality improvement approaches in priority setting for Universal Health Coverage: Learning from Bangladesh, Ethiopia, Indonesia, Kenya, Malawi, Mozambique	Lilian Otiso
P34	The role of capacity building in gender and ethics in health system priority setting: Making universal health coverage truly universal	Rosemary Morgan
P35	Priority setting with absence of evidences: experiences from Chagas disease control in Nicaragua	Kota Yoshioka
P36	Using evidence to design health benefit plans for stronger health systems: Lessons from 25 countries	Naz Todini
P37	Are health care resources allocated fairly according to health needs in Malaysia?	Saw Chien Gan
P38	Evaluation of dimensions of universal health coverage among patients undergoing cataract surgeries in Wijaya Kumaratunga Memorial Hospital (WKMH) – Sri Lanka	Dilantha Dharmagunawardene
P39	Factors affecting essential newborn care practices in Bangladesh: Evidence from a national survey	Mohammad Rifat Haider
P40	Using of generic medicines and independence of generic medicines in national health insurance (JKN) era in Indonesia	Raharni Raharni
P41	Impact of maternal and neonatal health initiatives on access to care: Evidence from Bangladesh	Mohammad Rifat Haider
P42	Evaluation of non-communicable disease risk factor identification in the integrated program for health in ageing, Gianyar District, Bali Indonesia 2014	I Nyoman Purnawan
P43	Policy choices for universal health coverage through assessing economic burden and economic evaluation of seasonal influenza infection in Nepal	Shiva Raj Adhikari
P44	Main health problems in Semarang District, Central Java Province, Indonesia -2014	Yudi Pradipta
P45	Modelling financial equilibrium: A pragmatic tool for governance of resource allocation policies	Genevieve David
P46	Combining national health accounts and social accounting matrices for a better decision making to achieve universal health coverage	Diafuka Saila-Ngita

Poster ID	Poster Title	Author
P47	The importance of local analyses in a priority-setting exercise for maternal and child health in South Africa	Aviva Tugendhaft
P48	Leveraging effects of priority setting in the field by knowledge management: A case of the neglected tropical disease, Chagas disease, in Central America	Ken Hashimoto
P49	Priorization of health problems In Yogyakarta, Indonesia, 2013	Defryana Rakebsa
P50	Dominant approaches to priority setting for uhc undermine the global policy of primary health care	David M Sanders
P51	Understanding client preferences for maternal and child health at NHSDP clinics: A discrete choice experiment	Nadia Alamgir
P52	Designing programme implementation plan for universal health coverage: Experiences from Odisha, India	Srinivas Nallala
P53	Development of a Global Health Cost-Effectiveness Analysis (GHCEA) Registry	Peter Neumann
P54	Medicines in health systems: advancing access, affordability and appropriate use. flagship report of the alliance for health policy and systems research	Goran Tomson
P55	The political drivers of priority setting: How can we achieve progressive universalism?	Olivia Tulloch
P56	An evaluation study on who pen implementation in rural place Western China	Jane Huang
P57	The role of universal insurance in achieving universal health coverage: the case of China 2003-2013	Zhang Yan
P58	A comparative study of equal access to rural essential health care between China and Thailand	Yang zhe
P59	The impact of China's national essential medicine system on improving rational drug use in primary health care facilities: an empirical study in four provinces	Zhang Shihua
P60	Effects of the national essential medicine system in reducing drug prices: an empirical study in four Chinese provinces	Xiu-Ping Gao
P61	Getting to the most difficult to reach with universal health coverage: A novel approach to national priority setting on Neglected Tropical Diseases	Louis-Albert Tchuem Tchuenté
P62	Country case study on enhancing universal health coverage by ensuring migrant friendly health policies and programs	Kolitha Wickramage

Poster ID	Poster Title	Author
P63	Using participatory governance methods in setting a citizen-driven UHC agenda	Jessica Gergen
P64	How the political economy and UHC priority setting is influencing scale-up of the performance-based financing pilot in Mozambique	Yogesh Rajkotia
P65	Development of health benefits packages for effective and sustained national HC	Theodor Mihai Trif
P66	Strengthening the availability and use of improved unit cost data to improve efficiency and resource allocation of HIV/AIDS, TB and Immunization programs	Carol Levin
P67	What evidence do we need to set priorities in complex health system for chronic patients in LMICs?	Wenxi Tang
P68	Evaluation of clinical practice guidelines using the AGREE instrument in Japan	Kanako Seto
P69	Supporting community VOICES? Implementation research on strengthening community participation through village health committees in India	Kabir Sheikh
P70	Strategic use of social and community prescription in universal health coverage in Japan	Toshiro Kumakawa
P71	Applying the Urban Health Equity Assessment and Response Tool (Urban HEART) to prioritize action on addressing health inequities in service coverage	Alex Ross
P72	Priority setting in the context of universal health care reforms in South Africa	Fillip Meheus

Thank you for the contribution from:

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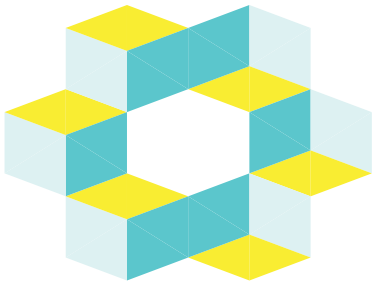

PRINCE MAHIDOL AWARD CONFERENCE 2016

PRIORITY SETTING

FOR UNIVERSAL HEALTH COVERAGE

OPENING SESSION
& KEYNOTE ADDRESS

Opening Session by Her Royal Highness Princess Maha Chakri Sirindhorn

OPENING SESSION
& KEYNOTE ADDRESS

Keynote Address

Morton M. Mower
Prince Mahidol Award Laureate 2015
Professor of Medicine, Johns Hopkins University School of Medicine (Baltimore),
Professor of Physiology and Biophysics, Howard University
College of Medicine (Washington, D.C.)
USA

Sir Michael Gideon Marmot
Prince Mahidol Award Laureate 2015
Director, UCL Institute of Health Equity, Professor of Epidemiology and Public Health, University College London, London University
United Kingdom

Michel Sidibé
Executive Director, The Joint United Nations Programme on HIV/AIDS
Switzerland

Mirai Chatterjee
Director, SEWA Social Security, Self-Employed Women's Association
India

Keynote
Address

Morton M. Mower

Prince Mahidol Award Laureate 2015
in the field of Medicine

Professor of Medicine
Johns Hopkins University School of Medicine (Baltimore)

USA

Dr. Morton Mower is Professor of Medicine at The Johns Hopkins University School of Medicine, and Professor of Physiology and Biophysics at Howard University College of Medicine. He is a graduate of The Johns Hopkins University and the University of Maryland Medical School. He is board certified in Internal Medicine and Cardiovascular Disease, and has served as Chief of Cardiology of Sinai Hospital of Baltimore, Captain Medical Corps, and Chief of Medicine at the United States Army Headquarters Bremerhaven, Germany, Vice-President of Medical Sciences at Cardiac Pacemakers Inc, St.Paul, Minnesota, and is at present Chairman and Chief Science Officer of MR3 Medical Inc of Minneapolis, Minnesota.

He has received the Space Technology Hall of Fame Recognition Award, the Michel Mirowski Award of Excellence in the Field of Clinical Cardiology and Electrophysiology, the Medical Alley Award for Outstanding Contribution in Research and Development, the President's Award of Heart Rhythm Society, the University of Maryland School of Medicine Alumni Association Honor Award and Gold Key For Outstanding Contributions to Medicine and Distinguished Service to Mankind, and has been inducted into the National Inventors Hall of Fame.

His research interests are Clinical and Cellular Electrophysiology, Implantable Devices, and effects of electrical currents on non-conducting and non-contracting tissues.

Keynote
Address

Michael Gideon MARMOT

Prince Mahidol Award Laureate 2015
in the field of Public Health

Director
UCL Institute of Health Equity
University College London

United Kingdom

Sir Michael Marmot is Professor of Epidemiology at University College London, and President of the World Medical Association. He is the author of The Health Gap: the challenge of an unequal world (2015) and Status Syndrome: how your place on the social gradient directly affects your health (2004). Professor Marmot holds the Harvard Lowns Professorship for 2014-2017 and is the recipient of the Prince Mahidol Award for Public Health 2015. He has been awarded honorary doctorates from 14 universities. Marmot has led research groups on health inequalities for 40 years. He was Chair of the Commission on Social Determinants of Health (CSDH), which was set up by the World Health Organization in 2005, and produced the report entitled: 'Closing the Gap in a Generation' in August 2008. At the request of the British Government, he conducted the Strategic Review of Health Inequalities in England post 2010, which published its report 'Fair Society, Healthy Lives' in February 2010. This was followed by the European Review of Social Determinants of Health and the Health Divide, for WHO Euro in 2014. He chaired the Breast Screening Review for the NHS National Cancer Action Team and was a member of The Lancet-University of Oslo Commission on Global Governance for Health. He set up the Whitehall II Studies of British Civil Servants, investigating explanations for the striking inverse social gradient in morbidity and mortality. He leads the English Longitudinal Study of Ageing (ELSA) and is engaged in several international research efforts on the social determinants of health. He served as President of the British Medical Association (BMA) in 2010-2011, and is President of the British Lung Foundation.

Keynote
Address

He is an Honorary Fellow of the American College of Epidemiology, a Fellow of the Academy of Medical Sciences, an Honorary Fellow of the British Academy, and an Honorary Fellow of the Faculty of Public Health of the Royal College of Physicians. He was a member of the Royal Commission on Environmental Pollution for six years and in 2000 he was knighted by Her Majesty The Queen, for services to epidemiology and the understanding of health inequalities. Internationally acclaimed, Professor Marmot is a Foreign Associate Member of the Institute of Medicine (IOM), and a former Vice President of the Academia Europaea. He won the Balzan Prize for Epidemiology in 2004, gave the Harveian Oration in 2006, and won the William B. Graham Prize for Health Services Research in 2008.

Keynote
Address

Michel SIDIBÉ

Executive Director
The Joint United Nations Programme on HIV/AIDS

Switzerland

Since his appointment as Executive Director of UNAIDS and Under Secretary-General of the United Nations by Secretary-General Ban Ki-moon in 2009, Michel Sidibé's vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths has echoed around the world.

Under his leadership UNAIDS works to ensure that no one is left behind in the response to HIV and that everyone in need has access to lifesaving HIV services. He initiated the global call to eliminate HIV infections among children and his global advocacy has firmly secured HIV at the top of political agendas. His idea of shared responsibility and global solidarity has been embraced by the international community and has encouraged increased ownership of their epidemics by countries most affected.

Mr Sidibé has spent more than 30 years in public service. His passion for advancing global health began in his native Mali, where he worked to improve the health and welfare of the nomadic Tuareg people. He later became Country Director for Terre des Hommes. In 1987, Mr Sidibé joined UNICEF in the Democratic Republic of the Congo and went on to serve with UNICEF for a further 14 years, overseeing programmes across 10 francophone African countries and serving as country representative in a number of countries.

Mr Sidibé has been awarded honorary doctorates from Tuskegee University, Clark University and the University of British Columbia, as well as an honorary professorship at Stellenbosch University. In 2012 he was named one of the 50 most influential Africans by the Africa Report and one of 50 personalities of the year by the French newspaper Le Monde in 2009. He received the Emerging Leader Award from

the UN Foundation and the United Nations Association of the USA; is a Knight of the National Order of the Legion of Honour of France; an Officer of the National Order of Mali; an Officer of the National Order of Benin; a Chancellor of the National Order of Chad and was awarded an Order of Saint-Charles by Monaco. He also serves on the Global Board of Directors of Grassroot Soccer.

He holds two Post-Master's Diplomas––Social Planning and Demography––and Development and Political Economy––from the University of Blaise Pascal, Clermont-Ferrand, France. He also holds a Masters degree in economics.

Mr Sidibé is fluent in English and French and speaks several African languages. He is married and has four children.

Keynote
Address

Mirai CHATTERJEE
Director
SEWA Social Security
Self-Employed Women's Association

India

Mirai Chatterjee is the Director of the Social Security Team at the Self-Employed Women's Association, (SEWA). She is responsible for SEWA's health care, child care and insurance programmes. She is currently Chairperson of the National Insurance VimoSEWA Cooperative Ltd and actively involved with the Lok Swasthya Health Cooperative, of which she is a founder. Both cooperatives are promoted by SEWA. She joined SEWA in 1984 and was its General Secretary after its Founder, Ela Bhatt.

Ms Chatterjee serves on the Boards of several organizations, including the Public Health Foundation of India (PHFI), Save the Children and the Health Action Partnership International (HAPI). She was advisor to the National Commission for Enterprises in the Unorganized Sector and is in the Advisory Group on Community Action of the National Health Mission. She was also a Commissioner in the World Health Organization's Commission on the Social Determinants of Health. She was a member of the National Advisory Council (NAC), appointed by the Prime Minister of India. She was recently conferred the Global Achievement award by the School of Public Health, Johns Hopkins University.

Ms. Chatterjee has a B.A. from Harvard University in History and Science and a Masters from Johns Hopkins University's School of Public Health, USA.

The Primacy of Priority Setting: Global Advocates and Country Realities

Opening Plenary

Priority setting is an important mechanism for evidence-informed policy especially in supporting of the Universal Health Coverage for efficient use of resources. The World Health Report 2010 indicated that 20-40% of health resources are wasted and improving in efficiency will greatly increase the resources for health services. Many factors related to inefficient use of resources including lack of awareness of countries to do the assessment for efficient use of resources and inadequate capacity especially in resource-limited countries leading to limited information to make rational policy. World Health Assembly resolution WHA67.23 in 2014 has called for the countries to establish national systems of health intervention and technology assessment and for capacity building to promote evidence-based policy decision. This resolution is one of the important global policies emphasizing the important of priority setting for universal health coverage.

This session will stress the importance of priority setting and tools to be used for technology assessment and necessity for countries to build capacity in order to conduct assessment at the national level. This session will also highlight the global policy movement and how regional and countries implement the policy.

Objectives

- To stress the important of evidence-informed priority setting and policy decisions to achieve UHC goals;
- To discuss on policy movement at the global level and implementation at regional and national level on priority setting and health intervention and technology assessment;
- To set the important questions for further discussion in sessions that follow

Opening
Plenary

Moderator

Amanda Glassman
VP for Programs, Director of Global Health Policy and Senior Fellow,
Center for Global Development, USA

Panelists

Tim Evans
Senior Director for Health, Nutrition and Population, The World Bank, USA

Lincoln Chen
President, China Medical Board, USA

Michael Rawlins
Prince Mahidol Award Laureate 2012, Former Chair, NICE, United Kingdom

Soonman Kwon
Professor and Dean of the School of Public Health,
Seoul National University, Republic of Korea

Untung Suseno Sutarjo
Secretary General, Ministry of Health, Indonesia

Alejandro Gaviria (TBC)
Minister of Health and Social Protection, Colombia

MODERATOR

Amanda GLASSMAN

VP for Programs
Director of Global Health Policy and Senior Fellow
Center for Global Development

USA

Amanda Glassman is vice president for programs and director for global health policy at the Center for Global Development, leading work on priority-setting, resource allocation and value for money in global health. She has 20 years of experience working on health and social protection policy and programs in Latin America and elsewhere in the developing world. Prior to her current position, Glassman was principal technical lead for health at the Inter-American Development Bank, where she led knowledge products and policy dialogue with member countries, designed the results-based grant program Salud Mesoamerica 2015 and served as team leader for conditional cash transfer programs such as Mexico's Oportunidades and Colombia's Familias en Accion. From 2005-2007, Glassman was deputy director of the Global Health Financing Initiative at Brookings and carried out policy research on aid effectiveness and domestic financing issues in the health sector in low-income countries. Before joining the Brookings Institution, Glassman designed, supervised and evaluated health and social protection loans at the Inter-American Development Bank and worked as a Population Reference Bureau Fellow at the US Agency for International Development. Glassman holds a MSc from the Harvard School of Public Health and a BA from Brown University, has published on a wide range of health and social protection finance and policy topics and is editor and co-author of the books Millions Saved (CGD and Brookings 2016), From Few to Many: A Decade of Health Insurance Expansion in Colombia (IDB and Brookings 2010) and The Health of Women in Latin America and the Caribbean(World Bank 2001).

Tim G. EVANS

Senior Director for Health
Nutrition and Population
The World Bank

USA

Tim Evans is the Senior Director of Health, Nutrition and Population at the World Bank Group.

From 2010 to 2013, Tim was Dean of the James P. Grant School of Public Health at BRAC University in Dhaka, Bangladesh, and Senior Advisor to the BRAC Health Program. From 2003 to 2010, he was Assistant Director General at the World Health Organization (WHO). Prior to this, he served as Director of the Health Equity Theme at the Rockefeller Foundation. Earlier in his career he was an attending physician of internal medicine at Brigham and Women's Hospital in Boston and was Assistant Professor in International Health Economics at the Harvard School of Public Health. He is a board member of a number of international health alliances.

Tim has been at the forefront of advancing global health equity and strengthening health systems delivery for more than 20 years. At WHO, he led the Commission on Social Determinants of Health and oversaw the production of the annual World Health Report. He has been a co-founder of many partnerships including the Global Alliance on Vaccines and Immunization (GAVI) as well as efforts to increase access to HIV treatment for mothers and innovative approaches to training community-based midwives in Bangladesh.

Tim received his Medical Degree from McMaster University in Canada and was a Research and internal Medicine Resident at Brigham and Women's Hospital. He earned a D.Phil. in Agricultural Economics from University of Oxford, where he was a Rhodes Scholar.

Lincoln CHEN

President
China Medical Board

USA

Lincoln Chen is President of the China Medical Board (CMB). Celebrating its 100th anniversary in 2014, the CMB was endowed by John D. Rockefeller as an independent American foundation dedicated to advancing health in China and neighboring Asian countries in an interdependent world. CMB's strategic philanthropy seeks to spark innovation and strengthen partnerships in building university capacity in health policy sciences, health professional education, and global health.

Dr. Chen was the Taro Takemi Professor of International Health at the Harvard School of Public Health (HSPH), Director of the University-wide Harvard Center for Population and Development Studies, and the founding Director of the Harvard Global Equity Initiative. He is currently a member of the HSPH Visiting Committee. Dr. Chen served as Executive Vice-President of the Rockefeller Foundation and Representative of the Ford Foundation in India and Bangladesh. He also served as Special-Envoy of the WHO Director-General on Human Resources for Health, founding board chair of the Global Health Workforce Alliance, and founding member of the Advisory Board to the UN Secretary-General of the United Nations Fund for International Partnerships (UNFIP).

Dr. Chen currently chairs the Board of Directors of BRAC USA, an affiliate of the world's largest anti-poverty NGO. He is also a board member of the Greentree Foundation, the Institute of Health Metrics and Evaluation of the University of Washington, Global Health Institute of Emory University, and the Public Health Foundation of India. He is a member of the National Academy of Medicine, the American Academy of Arts and Sciences, the World Academy of Arts and Sciences, and the Council of Foreign Relations. He graduated from Princeton University, Harvard Medical School, and the Johns Hopkins School of Hygiene and Public Health. Dr. Chen was trained in internal medicine as an intern and assistant resident at the Massachusetts General Hospital.

Michael RAWLINS

Prince Mahidol Award Laureate 2012
Former Chair
NICE

United Kingdom

Sir Michael is chairman of the Medicines and Healthcare products Regulatory Agency (since December 2014). He is a clinical phamacologist and specialist in internal medicine. He was professor of clinical pharmacology in Newcastle, and physician at the Newcastle Hospitals, from 1999-2006.

He was chairman of the Committee on Safety of Medicines (1992-1998), chairman of the Advisory Council on the Misuse of Drugs (1998-2008) and founding chairman of the National Institute for Clinical Excellence (1999-2013). He is recent past president of the Royal Society of Medicine (2012-2014).

Currently Sir Michael is Chairman of UK Biobank, honorary professor at the London School of Hygiene and Tropical Medicine, and emeritus professor at the University of Newcastle upon Tyne.

Sir Michael was appointed the Chairman of the Medicines and Healthcare products Regulatory Agency (MHRA), on the 1st December 2014.

Soonman KWON

Professor and Dean
of the School of Public Health
Seoul National University

Republic of Korea

Soonman Kwon is Professor and Former Dean of the School of Public Health, Seoul National University, South Korea. He is also adjunct professor at the China Center for Health and Development, Peking University. After he received his Ph.D. from the Wharton School of the University of Pennsylvania, he was assistant professor of public policy at the University of Southern California in 1993-1996. Prof. Kwon has held visiting positions at the Harvard School of Public Health, London School of Economics and Political Science, University of Toronto, University of Trier in Germany, and Hosei University in Japan. He was the president of the Korean Association of Schools of Public Health in 2013-2014 and is currently the president of Korea Gerontological Society. Prof. Kwon has been on the editorial boards of leading international journals such as Social Science and Medicine, Health Economics Policy and Law, BMC Health Services Research, and Ageing Research Reviews. He was the editor of the Korean Journal of Public Health in 2007-2009 and the editor of the Korean Journal of Health Economics and Policy in 2014-2015. Prof Kwon was a member of the Scientific and Technical Advisory Committee (STAC) of the WHO Alliance for Health Policy and Systems Research in 2009-2015 and is a member of the Advisory Committee of WHO Centre for Health Development in Kobe. He is also a member of the Independent Assessment Committee (IAC) of the Advance Market Commitment (AMC) of the GAVI (Global Alliance for Vaccines and Immunization). He has been a member of numerous government committees of Korea and occasionally worked as a short-term consultant of WHO, World Bank, GIZ, and ADB on health systems and financing in Algeria, Bhutan, Cambodia, China, Egypt, Ethiopia, Fiji, Ghana, Indonesia, Iran, Kenya, Lao PDR, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, South Africa, Uganda, and Vietnam.

Untung SUTARJO

Secretary General
Ministry of Health

Indonesia

Dr. Untung Suseno Sutarjo MHA, born in Jakarta, on 17 October 1958, a graduate of the Medical Faculty of University of Indonesia in 1983, and married to his classmate Dr. Lies Surahmiati (currently a dermatologist), is a general practitioner, public health specialist, administrator and public advocator. He later pursued his post graduate studies in Hospital Administration at the Gajah Mada University in 1998, after completing a compulsory national job assignment. He started his career in the Ministry of Health shortly after graduation, and has held several important positions since then.

He was the Director for Medical Support at Persahabatan Hospital, 2001-2004; Director for Basic Medical Services, 2004-2005; Head of the Utilization of Health Centre, 2005-2006; Direcor for Ocupational Service, 2006-2008; Head of the Utilization of Health Centre, 2005-2006; Director for Occupational Service, 2006-2008; Head of the Centre for Health Development Analysis, 2008-2009; Head of Bureau Planning and Budgeting, 2009-2011; Senior Advisor to the Minister on Financing and Community Empowerment, 2011-2012; Head of the National Board for the Development and Empowerement of Health Human Resources, 2011-2014; and currently the Secretray General of the Ministry of Health, Republic of Indonesia.

His main interest are health policy and planning, and global health. He has been extensively involved in many research and development in the areas of human resources for health economics, health care financing and universal health coverage international relations and health, health promotions health information and pharmaceuticals.

He participated in several important meetings, seminars, workshops, symposiums and trainings locally and abroad. He was in London in April 2002 for a medical management training. Prior to it, simultaneously he

joined the hospital management training at the Faculty of Medicine, CHU Montpellier, University of Montpelllier, and at the CHU Grenoble, University of Grenoble, France in 1995. He did a post-graduate course in Planning and Management of Primary Health care in Developing Countries, Andrija Stampar School of Public Health, University of Zagreb, Yugoslavia in 1991.

Dr Untung was involved in the development of the Regulation for National Social Security Managing Board in 2011. He also developed the standard for teaching hospital with ITHA. He did a feasibility study on international hospitals from 2003 to 2004.

At the international level, he led the Indonesian health delegation to the APEC Health Meeting in Beijing in March 2001. He was also the World Health Organization (WHO) consultant for the preparation of the 7th ASEAN Health Ministerial Meeting in Yogyakarta from April-June 2000. He was also WHO Advisor for GATS in January 2002. He joined the world conference on social determinants in Rio de Janeiro, Brazil in 2011. At the IMF meeting on health financing in financial crisis held in Tokyo in 2011, he was a member of the indonesian delegation. He participated in the 26th WHO Health Ministers' meeting in Bangkok 2008. Also in July 2003, he went to Canada for meeting on Trade in Health Services.

Using Priority Setting Evidence in Making UHC Decisions

Plenary

1

Governments are responsible for making policy decisions to improve the quality of life for individuals and the population. Using a scientific approach to investigate all available evidence can lead to health policy decisions that are more effective, efficient, equitable and feasible in achieving desired outcomes as decisions are based on accurate and meaningful information. Other aspects that are important to consider include affordability, acceptability, equity and ethical components. To this end, evidence based decision making requires a systematic and rational approach to researching and analysing available evidence to inform the policy making process and can produce more effective policy decisions and as a result better health for the community.

The conditions causing ill-health, and the financial capacity to protect people from ill-health, vary among countries. Consequently, given limited resources, each nation must determine its own priorities for public spending to improve health and move toward universal health coverage, the services that are needed and the appropriate mechanisms for financial risk protection.

While data, methods and evidence on the costs, effectiveness and equity of health interventions and technologies are becoming increasingly available, there is a persistent gap between this evidence and the decision making process to determine the uses of limited public resources for health in all countries. This is illustrated by low coverage of highly cost-effective health care interventions, dependency on donor finance for the most basic health care essentials, and even public subsidies for care sometimes considered ineffective in the world's wealthiest countries.

All too often countries lack the fair and robust processes needed to link evidence to decisions on public spending and to articulate the opportunity costs of one decision versus another, while managing the myriad of interest groups and ethical conundrums that revolve around new technologies and limited budgets. As countries increase their spending on health and population demands grow, there is a risk that public spending and prioritization will respond even more to interest groups and wealthy populations – those most vocal and influential rather than those most vulnerable. Cost-effective health interventions are often the opportunity cost of such a response when priorities are not explicitly set. In India, for example, only 44 percent of children 1-2 years old are fully vaccinated, but in 2011 the legal system ordered the use of public funds to subsidize treating breast cancer with a specific brand name medicine considered ineffective and unsafe for that purpose in the United States.[1]

People with the responsibility to decide on how to spend public health budgets hold the lives and livelihoods of countless other people in their hands, and they must literally make life-or-death decisions whether they fully understand that at the time or not. This is heightened in today's climate of economic crisis and periods of austerity and such decisions become dangerous when the decision maker takes little account of public need, equity, solid evidence and the cost-effectiveness of the interventions they choose to finance. Equally essential is the need for decision makers to consider the costs to humans and trade-offs implied by choosing to fund interventions that are more costly and less effective or appropriate.

A clear mandate for evidence based decision making at all levels is needed. However, given that each country must conduct their own prioritizing analysis to determine what is best for them, how can countries, particularly those with limited resources, develop mechanisms to ensure that before prioritization decisions for UHC are taken, appropriate and sufficient evidence is considered? There is no easy solution or one-size-fits-all approach.

[1]Institute of Medicine of the National Academies. 2011. Preparing for the Future of HIV/AIDS in Africa: A Shared Responsibility, Washington, DC: Institute of Medicine of the National Academies.

Objectives

- To discuss the political economy of priority setting for UHC, including why decision makers do or do not use evidence in decision making.
- To address how evidence is applied, reaches across political boundaries and is communicated in UHC decisions in different country contexts.

Moderator

Daniel Miller
Associate Director, PATH, Switzerland

Panelists

Sebastian Garcia Saiso
Director General, Quality and Education, Ministry of Health, Mexico

Karla Soares-Weiser
Deputy Editor-in-Chief, Cochrane Collaboration, United Kingdom

Robinah Kaitiritimba
Executive Director, Uganda National Health Consumers' Organization, Uganda

Brendan Shaw
Assistant Director General, The International Federation of Pharmaceutical Manufacturers & Associations, Switzerland

David Haslam
Chair, NICE, United Kingdom

Alex Ross
Director WHO Kobe Centre, World Health Organization, Japan

MODERATOR

Daniel MILLER

Associate Director
PATH

Switzerland

Dr. Miller has received: a BS in Bacteriology at the University of California-Davis; MD with an emphasis on Infectious Diseases at the University of California-San Diego; clinical training in Family Medicine with emphasis on maternal and child health at the University of California-San Francisco; and a Preventive Medicine residency/ fellowship and MPH at the University of Washington. He has served as Medical Director of a network of primary health care clinics in Seattle that provided comprehensive outpatient and in-hospital medical services to poor and minority communities.

Dr. Miller joined the US Centers for Disease Control and Prevention (CDC) in 1986 and served successively in scientific, management, policy, and leadership positions in cancer epidemiology/statistics, infectious diseases, disease surveillance, and global health. While at CDC he served as: Senior Technical and Policy Advisor to The World Bank; Liaison for Global Health to the US Congress; Senior Policy Advisor for Global Health at the US Department of State; and, Director of the Office of International Influenza in the Office of the Secretary (Minister of Health), US Department of Health and Human Services (HHS).

Dr. Miller joined PATH in 2013 and currently serves as Associate Director in the Vaccine Access and Delivery Global Program (VAD). Daniel provides technical and management oversight and strategic direction on policy & program development and coordination, advocacy & demand generation, vaccine & cold chain, data quality & use, as well as in-country technical assistance for vaccine introductions and sustainable implementation for PCV, Rotavirus, Men A, JE vaccine, and polio vaccines.

Sebastian GARCIA SAISO

Director General
Quality and Education
Ministry of Health

Mexico

Sebastián García Saisó obtained his medical degree by the National Autonomous University of Mexico, UNAM, and specialist degree awarded by the Public Health National Council. Has a master of science´s degree by the London School of Economics and Political Science and the London School of Hygiene and Tropical Medicine, University of London, UK, on Health Policy Planning and Financing. He is a PhD Candidate by the University of London and participates on research on health policy and economics with particular focus on the Mexican Health System.

In the public service he has served as Medical Director for Special Projects at the National Commission for Medical Arbitration of the Secretary of Health and chief of staff for the Under Secretariat of Health (Integration and Health Sector Development). He is currently in charge of the Directorate General of Quality of Health Care and Education. Has published several papers on public health, health systems and health policy, oriented to health systems organization and response to sanitary challenges.

Karla SOARES-WEISER

Deputy Editor-in-Chief
Cochrane Collaboration

United Kingdom

Karla has been active in the field of evidence-based healthcare for 20 years, and has extensive experience in preparing systematic reviews and critical appraisal of research evidence. She studied medicine in Brazil (1981-1987) and completed a residency in psychiatry (1987-1991). Between 1991-1993 she did a MA in Mental Health Epidemiology in University of Campinas (Brazil), and then between 1994-1997, she completed her PhD research in a programme supported jointly by the Universities of São Paulo (Brazil) and Oxford (England), her PhD was comprised of nine Cochrane Reviews on the treatment of antipsychotic-induced tardive dyskinesia. During that period Karla was also involved with the activities of the Centre for Evidence-Based Medicine in Oxford, and participated, first as a student and then as a teacher, in a series of methodological courses organised by the UK Cochrane Centre. After finishing her PhD Karla worked with the Brazilian Cochrane Centre and the Ibero-American Cochrane Centre, teaching and providing methodological support to systematic reviewers. In 2009, Karla developed and managed her company (Enhance Reviews) that provided services on the synthesis of evidence for the UK and Norwegian governments, not-for-profit organisations including the World Health Organization, and academic institutions including the Universities of Nottingham and Liverpool. In September 2015 left Enhance Reviews to work as Cochrane Deputy Editor-in-Chief, with the role of supporting the Editor-in-Chief to deliver Cochrane's objectives and targets, and leading the editorial development of new business products and services for Cochrane.

Over the years, Karla has accumulated broad, hands-on experience relevant to the preparation of systematic reviews. She is an author on more than 30 Cochrane Reviews, and has contributed to Cochrane in many other ways, including helping organising the Cochrane Colloquium in Sao Paulo in 2007, and more recently as part of the leadership team of the Targeted Updates project. Karla also acquired business, managerial and entrepreneurial skills through her work in building and developing her own company.

Brendan SHAW

Assistant Director General
The International Federation of Pharmaceutical Manufacturers & Associations

Switzerland

Brendan Shaw is Assistant Director General at the International Federation of Pharmaceutical Manufacturers and Associations in Geneva and was appointed in 2014. Brendan assists the Director General in leading on a range of functions for the global pharmaceutical industry especially innovation policy, intellectual property, trade, health technology assessment, ethics, compliance and vaccines. Prior to joining the IFPMA, Brendan was Chief Executive of the Australian pharmaceutical industry association, Medicines Australia, and before that was the senior executive at MA in charge of health policy and research. During his time at Medicines Australia Brendan served as the pharmaceutical industry representative on the Economic Subcommittee of the Australian Government's Pharmaceutical Benefits Advisory Committee and as the innovative industry's representative on the Australian Government's Pharmaceutical Benefits Pricing Authority. Brendan has also worked previously as an economist and policy adviser with the Australian Government, as an adviser in Australian politics, and worked in academia and consulting. Brendan holds an honours degree in economics and public administration from the University of Queensland and a PhD in management, business and economics from Monash University.

David HASLAM

Chair
NICE

United Kingdom

David Haslam is Chair of the National Institute for Health and Care Excellence. He is also past-President of the British Medical Association, past-President of the Royal College of General Practitioners, visiting Professor in Primary Health Care at de Montfort University, Leicester. and Professor of General Practice at the University of Nicosia, Cyprus. He was a family physician in Ramsey, Cambridgeshire, for many years and has been chair of the NHS Evidence Advisory Committee, co-chair of the NHS Future Forum Information subgroup, an expert member of the NHS National Quality Board, chair of the NQB Quality Information Committee, and National Clinical Adviser to both the Care Quality Commission and the Healthcare Commission.

He is a Fellow of the Royal College of GPs, a Fellow of the Faculty of Public Health, a Fellow of the Academy of Medical Educators, a Fellow of the Royal Society of Medicine, and a Fellow of the Royal College of Physicians. David was Chairman of Council of the Royal College of GPs from 2001 to 2004, and was also a member of the NHS Modernisation Board, vice chairman of the Academy of Medical Royal Colleges, a member of the Postgraduate Medical Education Training Board, a member of NHS Medical Education England, a member of the Royal College of Physicians Future Hospital Commission, and co-chair of the Modernising Medical Careers Programme Board from 2006-9.

He has written 13 books, mainly on health topics for the lay public and translated into 13 languages, and well over a thousand articles for the medical and lay press. In 2014 he was named by Debretts and the Sunday Times as one of the 500 most influential and inspirational people in the United Kingdom, and he was awarded CBE (Commander of the British Empire) by the Queen in 2004 for services to Medicine and Health Care.

Alex Ross

Director WHO Kobe Centre
World Health Organization

Japan

Mr. Alex Ross (MsPH) is the Director of the WHO Centre for Health Development in Kobe, Japan (WKC). A WHO global centre for excellence, the Centre focuses on research into health, social, and economic factors that contribute to health and development. For over a decade, WKC has led work on urbanization and health, emphasizing measurement of inequities, and development of practical approaches to redress them including intersectoral action for health. The Centre is transitioning to research directions focusing on universal health coverage, innovation and ageing. One ongoing initiative is encouraging more frugal technological and social innovations for ageing populations. A global centre, WKC leverages collaborations with Japanese and international universities.

An expert in public health policy and health systems, Mr Ross has developed domestic and global health policies, programmes, and innovative financing mechanisms over the past 25 years. These have focused on strengthening health systems, governance issues (such as decentralization), communicable and noncommunicable diseases, prevention programmes, and ageing populations. Prior to his current position, Mr Ross was Director for Partnerships and UN Reform in the Director-General's Office of WHO (Geneva) between 2007 and 2011, where he led development of WHO's partnerships policy, nurtured WHO's engagement with global health initiatives, UN agencies, non-governmental organizations and the private sector. Mr Ross was very involved in developing innovative health financing approaches, such as developing the Solidarity Tobacco Contribution concept, as well contributing to the creation of the Global Fund to Fight AIDS, TB and Malaria and UNITAID. Mr Ross held senior posts as Director in the Office of the Assistant Director-Generals for Communicable Diseases and for HIV/AIDS, TB and Malaria, WHO, between 2003-2007, where he was very involved in the WHO's "3x5 initiative", strategies to contain the H5N1 epidemic, and the development of the WHO Pandemic Influenza Preparedness framework.

Before joining WHO, Mr Ross served in senior domestic and international health positions: as a Senior Health Advisor for health systems, HIV/AIDS and integrated health policy for the UK Department for International Development (2001-2003); and as Deputy Chief for Health and Education in the USAID Bureau for Africa (1993-2001) He worked in the Office of the Assistant Secretary for Health, US Department of Health and Human Services (1990-93), the U.S. Congress House Energy and Commerce Committee as a health professional staff (1988), and the U.S. General Accounting Office (1987-89).

Mr Ross holds a B.S.P.H. and M.Sc. degrees from the University of California, Los Angeles (UCLA) School of Public Health, and has conducted doctoral level studies in public health at the Rand Graduate Institute.

Robinah KAITIRITIMBA

Executive Director
Uganda National Health
Consumers' Organization

Uganda

Robinah is the Executive Director of UNHCO, a seasoned expert on the right to health and an authority on the Rights Based Approach (RBA) in Uganda and has worked in the health sector for over 20 years. She is a WHO patient safety champion, a member of institutional review boards of Makerere University School of Public Health and Uganda National Council for Science and Technology. She represents civil society at the highest policy and decision making organ in the health sector – Health Policy Advisory Committee (HPAC). She has contributed to the development of various health policies including the VHT strategy and guidelines National Health Policy I and II. She is a member of various boards of organisations focused on the right to health. Robinah is skilled in research methodologies, Right to Health, Community Participation and Social Accountability with trainings supported by WHO and World Bank. She is a trainer under the global social accountability network – Communities of Practitioners in Social Accountability for Health (COPASAH). She has led studies funded by the World Bank and European Union. She Holds a Masters degree in Public Administration and Management and Bachelors in Social Sciences with a series of international trainings.

Evidence for Health Benefits Package Choices: Is Cost-Effectiveness Analysis the Answer?

Parallel Session

1.1

In the transition towards Universal Coverage, one of the most fundamental policy challenges is the choice of interventions to be included in the funded health benefits package. With the limited budget available, policymakers will usually want to specify the benefits package so as to maximize some concept of social benefit, often in the form of health gain. This principle has led to the widespread use and development of cost-effectiveness analysis as a tool for assessing medical technologies. CEA has proved immensely useful as a practical tool for technology assessment and determining the contents of the health benefits package. However its use has also demonstrated limitations that suggest a need for continuing development of methods, data resources and applications.

Objectives

This session will consider the types of evidence needed for governments and programmes to make decisions about the contents of a health benefits package:

- To share examples of country experiences of using economic evaluation evidence to establish a benefits package
- To identify some of the key analytical challenges that have arisen in this process, and potential extensions to CEA that could address its limitations

Moderator

John Cairns
Professor of Health Economics, London School of Hygiene and Tropical Medicine, United Kingdom

Speakers

Peter Smith
Emeritus Professor of Health Policy,
Imperial College Business School, United Kingdom

John Wong (A134)
Lecturer, Ateneo School of Medicine and Public Health
and School of Science and Engineering, Philippines

Li Lingui (A231)
Dean, School of Management, Ningxia Medical University, China

Rabson Kachala (A058)
Head of Sector Wide Approach Secretariat, Ministry of Health, Malawi

Cheryl Cashin
Senior Program Director, Results for Development Institute, USA

Ranjeeta Thomas
Research Associate in Health Economics, Imperial College, United Kingdom

Karl Klaxton
Professor, University of York, United Kingdom

MODERATOR

John CAIRNS

Professor of Health Economics
London School of Hygiene and Tropical Medicine

United Kingdom

John has degrees in Economics from the University of Aberdeen and the University of York. Following two years as a research fellow at the University of York, he returned to the University of Aberdeen where he spent eleven years as a lecturer in the Department of Economics. In 1989 he took up a post as senior research fellow in the Health Economics Research Unit and was appointed director in 1993. He has been Professor of Health Economics at the London School of Hygiene & Tropical Medicine since 2004.

He has been a member of the NICE technology appraisal committee since 2003 and a member of the advisory committee on the Safety of Blood, Tissues and Organs since 2008. He also spent six years as a member of the Scottish Medicines Consortium. He is currently chairing a Department of Health working group Cost Effectiveness Methodology for Immunisation Programmes and Procurements.

He has taught health economics at the Universities of Aberdeen and Bergen, City University, LSE and LSHTM.

Peter SMITH

Emeritus Professor of Health Policy
Imperial College Business School

United Kingdom

Peter C. Smith is Emeritus Professor of Health Policy at Imperial College Business School. He is a mathematics graduate from the University of Oxford, and started his academic career in the public health department at the University of Cambridge. He has worked and published in a number of disciplinary settings, including statistics, operational research and accountancy. However, his main work has been in the economics of health, and was a previous Director of the Centre for Health Economics at the University of York. Smith has acted in numerous UK governmental advisory capacities, and is currently chair of the NHS Advisory Committee on Resource Allocation. He has also advised many overseas governments and international agencies, including the World Health Organization, the International Monetary Fund, the World Bank, the European Commission and the Organization for Economic Cooperation and Development. He continues to research actively on economic aspects of global health. Current interests include: health system performance assessment, with a particular focus on international comparison; measuring and improving health system productivity; and universal health coverage. He has published widely on these and related topics, including over 150 peer-reviewed journal papers and twelve books.

John WONG

Lecturer
Ateneo School of Medicine and Public Health
School of Science and Engineering

Philippines

Dr. John Q. Wong obtained his degree in medicine from the University of the Philippines in 1985, and his Master Science in Epidemiology from the same institution in 1999. He has had over fifteen years of experience in epidemiology, biostatistics, health financing, community health, program management and evaluation, and Philippine health system management. He has worked with various local and international health organizations, including the Department of Health, The Philippine Health Insurance Corporation (PHIC), Management Sciences for Health, The Bill and Melinda Gates Foundation, USAID, World Bank, UNICEF, and ADB.

From 2000-2010, Dr. Wong was involved in various projects related to drug management, including a Procurement and Warehousing project in 2006, where he was Technical Specialist to the European Commission for Warehousing and Logistics. In 2009, he was a consultant to the European Commission for a study assessing Botika ng Barangay, a program of Community-Based Pharmacy Outlets. In 2011, He was a consultant to the World Bank for a project seeking to manage vaccine inventories using barcode equipment.

In 2011, Dr. Wong was also the National Consultant to the WHO for a study on the PHIC Out- Patient Benefit Package. In 2013, he was the Principal Investigator for a DOH project assessing compliance to the Philippine Generics Law. In 2014, Dr. Wong was UNICEF Team Leader, providing Technical Assistance to the PHIC Technical Working Group for the Development of the Primary Care Benefit Package (PCB).

Dr. Wong was the Principal Investigator for a formative evaluation of the DOH-Zuellig Family Foundation Health Leadership and Governance Program (HLGP). This study aimed to assess a capacity building program organized by ZFF in order to bridge leadership competencies, and improve of health systems and health outcomes (including maternal and child health indicators).

Currently, Dr. Wong is also Team Leader for two technical assistance projects on priority-setting: A Strategy for Identification of Priority Health Care Interventions for Catastrophic Conditions under PhilHealth's Z Benefits and Designing PhilHealth's Benefit Development Plan.

Li LINGUI

Dean
School of Management
Ningxia Medical University

China

Prof. Dr. Li Lingui is Chinese and is a specialist in health policy and management. His career has traversed government management, hospital management, and academic research. Broadly experienced in areas of health policy, health economic and medical insurance research and teaching, he has published more than 50 papers in domestic and international journals, translated 2 books <Health Service Methods>and <Health Care Human Resources Management>, published 10 academic books related China essential medical insurance, new medical reform, public hospital reform, and conducted research 5 projects funded by national natural science of China, WHO and CMB. During his research career, he works western China and most of his research is focusing on health, poverty, pro-poor policy including equity study on rural essential medical insurance, HR incentive study, hospital financing, appropriate recommendations are adopted by local government for further policy revising.

Prof. Dr. Li Lingui is now the dean of the School of Management of Ningxia Medical University.

Rabson KACHALA

Head of Sector Wide Approach Secretariat
Ministry of Health

Malawi

MSc in International Cooperation Policy Majoring in International Public Health and Global Health Diplomacy (Ritsumeikan Asia Pacific University, Japan); Bachelor of Medicine Bachelor of Surgery (MBBS), University of Malawi (College of Medicine); Bachelor of Education Sciences Majoring in Chemistry, Biology, Mathematics and Physiology, University of Malawi (Chancellor College); Certificate of Strategic Leadership Course in Global Health Diplomacy, University of Nairobi through East, Central and Southern African-Health Community (ECSA-HC); Certificate of Hospital Healthcare Service Administration and Management and International Cooperation Development Fund, Taiwan Government); Certificate of Professional Study in Recognition of the Successful Participation in the Workshop on "Value for Money, Sustainability and Accountability in Social Sectors", Pretoria, Republic of South Africa by the Human Development Department of African Development Bank Group; Certificate of Knowledge Exchange Workshop on Sustainable Health Financing for Universal Health Coverage in Anglophone Africa in Kenya through World Bank Institute; Certificate of Health System Strengthening (HSS) in Senegal by WHO; Certificate of Managing Corruption Risk in the Malawi Health Sector by U4, Norwegian Embassy; Certificate of Fundamentals of Research and Innovative Management by the Southern African Research and Innovation Management Association (SARIMA) and University of Malawi (College of Medicine); Certificate in validation of the Localization of the Sustainable Development Health Goals through UNDP Malawi; Certificate of Merit in Results-Based Financing and Management tailor-made for the Malawi Public Service Reforms, Mombasa, Kenya by SINA HEALTH & CORDAID; Certificate of Trauma Care in Australia; Certificate of HIV/AIDS Management with Nutrition in Maputo by DREAM Programme; Certificate of Malaria Drug Quantification in Mauritius by WHO; Certificate of Excellence and Award of the Virtual Employer of the Year at the Graduate School Human Resource Management Course, Ritsumeikan Asia Pacific University, Japan; Certificate of Asia Pacific Forum Course for Graduate Students Research in Medical Tourism, Ritsumeikan Asia Pacific University,

Japan; and Certificate of Philanthropy, Devotion and Contribution towards the Materialization Process of God's Vision, God's Way and God's Instrument (Habbakuk 2:14) through International Church of Greater Glory (Haggai 2:9) and Rivers of Faith Ministries International (Exodus 17: 1-7).

CURRENT POSITION

HEAD OF MALAWI HEALTH SECTOR WIDE APPROACH SECRETARIAT

Coordinating and Facilitating the Development of new Malawi Health Sector Strategic Plan (2017-2022) using both evidence-based and evidence-informed decisive methodologies; Coordinating and Facilitating the Implementation and Evaluation of the Malawi Health Sector Strategic Plan (HSSP) that is running from 2011-2016 by all the Health Sector Partners and Stakeholders (Multilateral, Bilateral, International, National and Local).

Cheryl CASHIN

Senior Program Director
Results for Development Institute

USA

Cheryl Cashin is a health economist specializing in the design, implementation and evaluation of health financing policy in low- and middle-income countries, with a particular focus on health purchasing and provider payment for universal health coverage. She has worked in more than 20 countries on health financing policy development and implementation. She has supported several countries on the design and implementation of provider payment reforms, particularly capitation payment models to strengthen primary health care and improve equity within sustainable financing for UHC. Cheryl is currently a Senior Program Director at Results for Development Institute (R4D) where she leads a number of health financing activities and is the lead technical facilitator for the Provider Payment Mechanisms technical initiative of the Joint Learning Network for Universal Health Coverage (JLN).

Cheryl has served as a health financing consultant for the World Bank, WHO, OECD and other international technical partners and is a regular on the faculty of the World Bank's Flagship Course on Health System Strengthening and WHO's Advanced Course on Health Financing for Universal Coverage. She has held academic positions at Boston University's School of Public Health and University of California, Berkeley's Nicholas C. Petris Center on Health Care Markets and Consumer Welfare. Cheryl is the lead author of the recent book Paying for performance in health care: implications for health system performance and accountability and is a co-author of several others, including Universal health coverage for inclusive and sustainable development: a synthesis of 11 country case studies; Implementing Health Financing Reform: Lessons from Countries in Transition; and Designing and implementing health care provider payment systems: a how-to manual.

Ranjeeta THOMAS

Research Associate in Health Economics
Imperial College

United Kingdom

Ranjeeta Thomas is a Research Associate in the Department of Infectious Disease Epidemiology at Imperial College London. Ranjeeta's research interests are in econometric analysis of health policy in low and middle income countries. Her research focuses on informing health policy through two research streams – impact and economic evaluations of health system interventions and economics of resource allocation. At Imperial she is working on the economic aspects of Population Effects of Antiretroviral Therapy to Reduce HIV Transmission in Zambia and South Africa. She holds a PhD in Economics from the University of York, UK.

Karl KLAXTON

Professor
University of York

United Kingdom

Karl Claxton is a Professor in the Department of Economics and the Centre for Health Economics at the University of York. He leads the economic evaluation component of the Health Economics MSc at the University of York. He is a past co-editor of the Journal of Health Economics and for many years held an adjunct appointment at the Harvard School of Public Health. His expertise spans economic evaluation, Bayesian decision theory and health policy and has authored textbooks on economic evaluation and decision modelling. He was a founding member of the NICE Technology Appraisal Committee and continues to contribute to the development of the NICE Guide to the Methods of Technology Appraisal. He has contributed in a number of ways to recent policy debates such as pharmaceutical pricing and innovation. A well as NICE he has also advised, Department of Health, HM Treasury, Department of Business Innovation and Skills and the Office of Life Sciences.

SHORT PAPER 1.1

Priority-setting for a primary care benefit package in the Philippines: the evidence needed

John Q. Wong[1], Leizel P. Lagrada[2], Katherine Ann V. Reyes[3], Rizza Majella L. Herrera[2], Raoul A. Bermejo III[4], Pura Angela W. Co[4], Beverly Lorraine C. Ho[3], Diana Beatriz S. Bayani[3], Willibald Zeck[4]

[1]Health Sciences Department, Ateneo de Manila University, Quezon City, [2]Quality Assurance Group, Philippine Health Insurance Corporation, Pasig City, [3]Alliance for Improving Health Outcomes (AIHO), Inc., Quezon City, [4]United Nations Children's Fund Philippine Country Office

Background: The Philippines is expanding its social health insurance program along two axes of the UHC cube: additional primary care services to more of its members. The objective of this paper is to describe the process of a priority-setting exercise for a primary care benefit package.

Methods: The criteria used to identify the target diseases were a mix of epidemiologic, political, and economic ones. The sources of data used included: 2010 Global Burden of Disease data, cost-effectiveness data, local epidemiologic data, and expert opinion. Burden of disease data was integrated with cost-effectiveness data while costing, actuarial analysis, and stakeholder analysis served as counterbalancing weights to the epidemiologic evidence and reduced the scope of the package.

Results: Global and local epidemiologic and clinical economic evidence is available for making coverage decisions for UHC. However, this evidence needs to be balanced by evidence on costs, actuarial analysis, contextual factors like local provider capacity, and politics. Where the data is insufficient, global burden of disease data is partially based on mathematical modeling. Reconciliation of local and global evidence is difficult since both datasets suffer from selection and information bias. The success of the application of this procedure may be measured, in the future, by the change in hospitalization rates for preventable diseases. The following recommendations are expected to improve the process: broaden the stakeholder base involved in setting criteria, conduct national burden of disease studies, and generate studies to determine impact of prioritization to health outcomes.

Conclusion: The social health insurance organization needs to create processes for benefit package development that consciously incorporates fair, ethical and responsive priority setting criteria. In addition, the government should encourage a transparent decision making process that will reduce the gap between evidence-guided prioritization and actual approved policy.

Keywords: primary care, priority-setting, benefit development, Philippines

Introduction

Priority-setting exercises in public health has gained traction and momentum over the last decade. Majority of health care systems in the world has shifted policy making from mere conjecture into having more explicit set of criteria in selecting priority interventions. This exercise has become easier to conduct due to the abundance of new information, evidence and technology available. The rationale of priority setting stems from a basic economic principle wherein systems, specifically publicly funded ones, aim to maximize utility in form of positive health outputs given the restrictions in budget. [1] In most cases, health systems have an unlimited number of programs they want to implement, yet very limited budget allocated for such. Despite the efforts to develop a standard framework for priority setting, there is no consensus among governing bodies and policy makers for fixed criteria making the process more variable each time.

The Center for Global Development identified several challenges faced by low and middle income countries in setting priorities in benefit plans for both tax funded and health insurance schemes. [2] Benefits remain to be poorly defined, unspecific and vague in terms of categorization. In the Philippines, services are fragmented due to the devolved setting; there is gap between services provided by the Department of Health (DOH) and covered services of the national insurer, PhilHealth. Currently, PhilHealth offers a wide range of benefits for outpatient, inpatient, and catastrophic illnesses. Outpatient services include care for tuberculosis (TB DOTS), maternal, a myriad of diagnostic tests and consultations for primary care conditions. DOH has parallel interventions that run simultaneously with PhilHealth such as mass immunization programs, free medicines access, and infectious disease control prevention programs, among many others. [3]

Another challenge identified was the lack of clear criteria on selection or expansion of existing benefits. PhilHealth does not have defined specific formulas for future expansions. Their policy-makers are also given very limited time to develop programs due to urgency of demand and other political factors. Consequently, creation of existing benefits relied on poor or lacking information leading to problematic benefits. Scarcity of local data on burden of disease and cost-effectiveness evidence is still a hurdle difficult to overcome. [4]

Monitoring and evaluation practices remain to be poor in lower middle-income countries such as the Philippines. In contrast, good priority setting exercise warrants continued re-evaluation and assessment. However, since there is limited literature on evaluation of such methods, post-activity appraisals are bypassed. Aside from the lack of defined methods and framework, there is also disagreement on the measures of effectiveness of a priority setting exercise. The unavailability of documentation of previous processes and methods in form of local academic papers is a challenge for policy makers as there is limited guidance for adaptation.

It was through constant recommendation of experts that PhilHealth decided to expand primary care benefits as an instrument to achieve universal health coverage. The program was envisioned to be a key element to financial risk protection and improved health outcomes and equity. The existing primary care benefit is exclusive to the underprivileged sector and was assessed to be ineffective in improving their health

manifested by low utilization and awareness of the program. [5] The main objective of this paper is to describe the priority setting exercise undertaken for the development of PhilHealth's enhanced primary care benefit, and discuss key issues faced in the process.

Methods

The firs step undertaken in developing the package was creating a technical working group (TWG), wherein PhilHealth served as the main convener. The TWG was composed of several teams, including technical experts, project managers, mid to top-level management, policy makers and implementers. Different teams were formed and tasks related to benefit scoping, costing, member and provider engagement were delegated. The TWG served as the mechanism that coordinated with all teams and stakeholders in the benefit development process, such that all information, proposals and decisions were attended to systematically. Meetings were convened once a month from May to December 2014. [4,6]

The heart of the priority setting exercise was scoping the benefits and their corresponding interventions. The initial plan was to develop two packages: a comprehensive package for all sectors, and a targeted package that is pro-poor. The initial step in benefit scoping was defining the inclusion criteria for the conditions that the package aims to address. The main criterion for selection was burden of disease as measured by disability-adjusted life years (DALYs), a superior estimate than morbidity and mortality data. DALYs were sourced from the database of the Institute of Health Metrics and Evaluation. [7] The next step was to identify cost-effective diagnostic and therapeutic interventions for each disease priority. Data source for cost-effectiveness measures was the publication Disease Control Priorities in Developing Countries, an output of the Disease Control Priorities Project (DCP2). [8] Diseases were ranked according to DALYs and cost-effectiveness of their interventions after validation with morbidity and mortality statistics from the Department of Health. [9] Another criterion used was feasibility of interventions to be delivered at full cycle of care in the primary care level. Clinical practice guidelines produced locally and abroad were also reviewed and served as supplement to limited cost-effectiveness data. Legacy packages traditionally delivered by PhilHealth were incorporated. The processes of defining a criteria and using burden of disease data integrated with cost-effectiveness was a first for Philhealth.

Results

Only 80% of the DALYs were included in the partial list of diseases, following the Pareto principle that only a few conditions contribute to the majority of DALYs. (Table 1)

Table 1 List of Diseases ranked by DALYs

Cause	Percent of total DALYs
A.2.3 Lower respiratory infections	7.20
B.2.3 Ischemic heart disease	6.24

Cause	Percent of total DALYs
B.9.3 Low back and neck pain	4.70
A.1.1 Tuberculosis	4.38
B.2.3 Cerebrovascular disease	4.33
A.5.1 Preterm birth complications	4.04
B.7.4 Unipolar depressive disorders	3.82
C.3.2 Interpersonal violence	2.96j
B.10.1 Congenital anomalies	2.81
B.3.1 Chronic obstructive pulmonary disease	2.60
B.8.1 Diabetes mellitus	2.44
A.6.4 Iron-deficiency anemia	2.21
C.1.1 Road injury	2.06
A.5.2 Neonatal encephalopathy (birth asphyxia and birth trauma)	1.92
A.2.1 Diarrheal diseases	1.89
B.3.3 Asthma	1.82
B.10.2 Skin and subcutaneous diseases	1.72
A.5.4 Other neonatal disorders	1.69
B.8.3 Chronic kidney diseases	1.49
B.10.3 Sense organ diseases	1.46
A.2.2 Typhoid and paratyphoid fevers	1.36
B.2.4 Hypertensive heart disease	1.32
A.3.7 Intestinal nematode infections	1.27
B.6.5 Migraine	1.24
B.7.6 Anxiety disorders	1.21
B.1.28 Other neoplasms	1.10
C.2.1 Falls	1.04
B.9.5 Other musculoskeletal disorders	1.00
B.1.5 Trachea, bronchus, and lung cancers	0.98
A.2.6 Meningitis	0.97
C.2.2 Drowning	0.91
B.6.3 Epilepsy	0.87
A.5.3 Sepsis and other infectious disorders of the newborn baby	0.81
B.7.3 Drug use disorders	0.79
B.1.3 Liver cancer	0.76
A.2.11 Measles	0.73
C.2.8 Unintentional injuries not classified elsewhere	0.72
B.1.6 Breast cancer	0.68
Categorized by nature of medical condition: A: communicable, B: non-communicable, C: injuries	

A map of diseases according to DALYs and interventions based on cost-effectiveness was formulated, arriving at a four-quadrant classification. (Table 2) A

detailed list of conditions and their corresponding interventions is also presented. (Table 3)

Table 2 Mapping of Disease Interventions by Burden and Cost-Effectiveness

	High DALY	Low DALY
High CER	Quadrant I	Quadrant III
Low CER	Quadrant II	Quadrant IV

Table 3 Categorization of interventions according to burden of disease and cost-effectiveness

Medical Condition	Intervention/Service	% DALY Sub-Totals	% DALY Totals
High DALY, High CER			
A.1.1 Tuberculosis	Traditional Expanded Program on Immunization (EPI)	7.00	4.38
	BCG Vaccine	68.00	
	Directly observed short-course chemotherapy	102.00	
	Isoniazid treatment	197.00	
	Management of drug resistance	207.00	
	Directly observed short-course chemotherapy	301.00	
	Management of drug resistance	318.00	
B.8.1 Diabetes mellitus	Lifestyle intervention (type 2, prevention)	*80.00*	2.40
	Influenza and pnuemococcal vaccinations	*220.00*	
B.2.3 Cerebrovascular disease	Aspirin and dypiridamole	81.00	4.33
	Aspirin	149.00	
A.2.3 Lower respiratory infections	Case management at community or facility level	129.00	7.20
A.5.1 Preterm birth complications	Family, community, or clinical neonatal package	349.00	4.04
Low DALY, High CER			
A.2.1 Diarrheal	Oral rehydration	4.00	1.89

diseases	therapy for package costing $5.50 per episode		
A.2.11 Measles	Second opportunity vaccination in a fixed facility	4.00	0.73
	Traditional Expanded Program on Immunization (EPI)	7.00	
A.6.4 Iron-deficiency anemia	School health and nutrition programs	37.00	2.21
	Sustained child health and nutrition program	225.00	
B.6.3 Epilepsy	First-line treatment with phenobarbital	89.00	0.87
A.5.2 Neonatal encephalopathy (birth asphyxia and birth trauma)	Increased primary care coverage	132.00	1.92
	Family, community, or clinical neonatal package	349.00	
High DALY, Low CER			
B.2.3 Cerebrovascular disease	Polypill	409.00	4.33
	Polypill by absolute risk approach	2,128.00	
B.8.1 Diabetes mellitus	Annual eye examination	*420.00*	2.40
	ACE inhibitor	*620.00*	
	Smoking cessation	*870.00*	
	Metformin intervention for preventing type 2 diabetes	*2,180.00*	
	Intensive glycemic control	*2,410.00*	
B.2.3 Ischemic heart disease	Aspirin, betablocker, and optional ACE inhibitor	688.00	6.24
	Statin, with aspirin and betablocker with ACE inhibitor	2,028.00	
	Polypill by absolute risk approach	2,128.00	
A.5.1 Preterm birth	Combined maternal	839.00	4.04

complications	and child health with neonatal packages		
	Maternal and child health package with no neonatal care after birth	1,060.00	
B.7.4 Unipolar depressive disorders	Drugs with optional episodic or maintenance psychosocial treatment	1,699.00	3.80
Low DALY, Low CER			
C.2.1 Falls	Limited care	633.00	1.04
.B.7.2 Alcohol use disorders	Brief advice to heavy drinkers by primary health care providers	642.00	0.66
B.7.6 Anxiety disorders	Drugs with optional psychosocial treatment	734.00	1.20
A.5.2 Neonatal encephalopathy (birth asphyxia and birth trauma)	Combined maternal and child health with neonatal packages	839.00	1.92
	Maternal and child health package with no neonatal care after birth	1,060.00	
A.2.1 Diarrheal diseases	Breastfeeding promotion	930.00	1.89
B.9.5 Other musculoskeletal disorders	Hormone replacement therapy	*1,948.33*	1.00
B.2.4 Hypertensive heart disease	Polypill by absolute risk approach	2,128.00	1.32

Two package scenarios were presented to PhilHealth: a targeted package and an expansion pathway. (Table 4, 5) The recommended package is the targeted package as it is more affordable.

Table 4 Targeted Package

% DALY Total	% DALY Sub-Total	Diseases	Packages
17.91	**Infectious**		
	7.20	Lower respiratory infections	

	4.38	Tuberculosis	
	1.89	Diarrheal Diseases	
	1.36	Typhoid and paratyphoid fever	
	1.27	Intestinal nematode infection	
	0.73	Measles	
	0.32	Dengue	
	0.18	Abscess, impetigo, and other bacterial skin diseases	
	0.17	Malaria	
	0.10	Rabies	
	0.10	Animal contact	
	0.10	Fungal skin diseases	
	0.07	HIV/AIDS	
	0.04	Scabies	
10.87	**Maternal, Newborn, Child Health, and Nutrition**		
	4.04	Pre-term birth complications	
	2.21	Iron-deficiency anemia	
	1.92	Neonatal encephalopathy	
	1.69	Other neonatal diseases: neonatal jaundice	
	0.81	Sepsis and other infectious disease of the newborn	
	0.12	Neural tube defects	
	0.04	Vitamin A deficiency	
	0.04	Cleft lip and cleft palate	
17.48	**Non-Communicable Disease**		
14.33	6.24	Ischemic heart disease	***Cardiovascular + DM***
	4.33	Cerebrovascular disease	
	2.44	Diabetes mellitus	
	1.32	Hypertensive heart disease	

	0.47	Other cardiovascular and circulatory diseases: dyslipidemia	
3.15	0.98	Lung cancer	***Cancer***
	0.76	Liver cancer	
	0.68	Breast cancer	
	0.44	Colon and rectal cancer	
	0.29	Cervical cancer	

Table 5 Expansion Pathways

% DALY Sub-total	% DALY	Diseases	Packages
46.26	**Targeted as above plus...**		
14.25	**Expanded Non-Communicable**		
9.54	3.48	Low back pain	***Injuries***
	2.96	Interpersonal violence	
	1.06	Road injury: acute whiplash injury & chronic whiplash injury	
	1.04	Falls	
	1.00	Other musculoskeletal disorders: osteoporosis	
7.14	3.82	Unipolar depressive disorder	***Mental and neurological health***
	1.24	Migraine	
	1.21	Anxiety disorders: Generalized Anxiety Disorder	
	0.87	Epilepsy	
4.42	2.60	Chronic obstructive pulmonary disease	***Pulmonary***
	1.82	Asthma	
1.75	1.49	Chronic kidney disease	***Renal***
	0.26	Urinary tract infection	
0.62	0.42	Other vision loss: trachoma and	***Sense Organ***

		childhood blindness	
	0.19	Cataract	
	0.01	Other sense organ diseases: conjunctivitis, otitis externa	
0.32	0.32	Dental caries	***Oral***

Discussion

The process identified two potential benefit packages for PhilHealth to deliver, both being pro-poor and based on evidence. However, PhilHealth's decision was still subjected to issues raised on costs, actuarial estimates, and provider feedback.

During the development process, several stakeholders were consulted and gave varying recommendations. Medical societies proposed to include dental services, epilepsy and pneumococcal vaccines in the benefit. The endorsement of medical societies was a basis previously used in developing package inclusions. For this process, proposals were not automatically adapted, however, they were also not ignored and were added to the expansion pathway, which contained a list of second priority diseases to address. Similarly, unique to the policy making process of PhilHealth was the conduct of a nationwide consultation with implementers and providers from both private and public sector. Several suggestions concerning implementation provisions and contents were raised yet only a few were approved and incorporated. The biggest factor that contributed to the decision making process was the cost of implementation of the program. The final approved version of the package covered less diseases and interventions, and lower percentage of DALYs averted. Alongside the cost, other external factors such as readiness of providers and limited fiscal space of PhilHealth balanced out the evidence. Providers were not capacitated enough to deliver all required services in the targeted package and PhilHealth cannot afford to sustain the program without increasing insurance premiums, an experience that stirred controversy in the past.

Government corporations like PhilHealth need to institutionalize priority-setting exercises in developing or expanding other benefits since accountability is high, being the only national health insurer of the country. However, it is still faced by several challenges internally and externally. First, it needs to build on its capacity to carry out methods in priority setting such as health technology assessments, cost-effectiveness analyses, and localizing global evidence data. [10] Majority of the senior managers and staff of PhilHealth are medical professionals with clinical backgrounds and lack the necessary training and experience. Second, due to dynamic agendas and priorities of the national government on health, time and resource constraint issues will always surface. This is a common characteristic among low and middle-income countries. [11] In developing the primary care benefit, the deadline set for implementation was January 2015. This was a difficult target to achieve since the TWG was faced to make tough decisions along the way.

In contrast, there were several advantages and disadvantages in having a stakeholder base that constantly oversaw the process. There was a wide range of opinion varying among implementers and top decision makers. The group was required to provide constant updates with PhilHealth's Board of Directors, making the decisions made transparent and sagacious. However, a disadvantage was the lack of adherence to a strict criterion in the selection process. Stakeholders could easily recommended additional services to be included, despite the lack of evidence. There is a constant struggle to compromise given the set of criteria and circumstances.

There has been recent evidence on guidelines for evaluation of priority-setting exercises. However, improving health outcomes is not part of the assessment criteria. The main objective that needs to be satisfied is the incorporation of relevant reasons for decision making, which is applicable in explicit priority setting practice. [12] For this process, the technical experts implicitly conducted the process of developing bases for selecting conditions and interventions. It is advised that succeeding priority setting exercises of PhilHealth be more explicit, documented, monitored and evaluated to ensure improvement of the process.

Another recommendation for research is to conduct national burden of diseases and cost-effectiveness evaluations to eliminate biases in relying on mathematical modeling and extrapolation of global sources.

Conclusions

The process of priority setting for a primary care benefit is an iterative rather than a linear one. Being guided by an academic approach to scoping of benefits proved to be beneficial yet insufficient in ensuring that objective of the program is achieved. PhilHealth needs to institutionalize this exercise in further benefit package developments that incorporates fair, ethical and responsive priority setting criteria. Furthermore, the government should make a conscious effort to make decision-making processes more transparent and available for continuous review. Finally, the causes of gaps between approved polices and evidence-guided recommendations must be identified to ensure effectiveness and responsiveness of the process.

Acknowledgements

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A Case Study --Equalization of Essential Medical Service in Under- Served Area of Ningxia Province Western China

Background: China is facing inequality in the UHC policy with its new medical reform especially more focusing on essential public health (BPH) and ignores or weakens the essential medical service (EMS); this is very typical in the under-served area in western China. How to balance EPH and EMS becomes a serious problem.

The new medical reform in China focuses on BPH rather than EMS, therefore the inequality of EMS remains a problem especially for under-served area in western China.

Objectives: This study aims to assess the equalization of EMS in terms of financing, compensation, resources allocation, health service utilization and health outcome, and design an EMS package including essential disease category, technology, medicine and expenditure.

Methods: Delphi expert consultation was used for the choosing of EMS indicators; Kakwani index was employed for measuring equalization of EMS financing; Gini Coefficient is used for measuring equalization of medical resource allocation; Atkinson index is used for measuring equalization of medical services.

Results:

1. An EMS equalization indicator system was established (Table 1)

Table 1. EMS equalization indicator system

First level indicators	Second level	Third level
Condition	Policy	EMS equalization policy
		Monitoring policy
	Finance	Personal finance
		Personal finance ratio
Structure	Compensation	Actual compensation ratio
		Nominal compensation ratio
Results	EMS resources allocation	Bed
		Instrument
		HR
Efficiency	Service utilization	Out (In) patient visits
		Operation visits
		Average hospitalization days
		Outpatient expenses
		Hospitalization expenses
	Health outcome	Success rate of critically ill patients
		Average life expectancy
		Curative ratio
		Improvement rate

		Mortality rate
Effectiveness	Responsiveness	Patient responsiveness
		Facility responsiveness

2. Overall assessment for EMS equalization

Overall analysis shows that: unequal degree of EMS in Ningxia rural areas is significant and the overall level of equalization is only 7.94% (standard is 100.00%). The most prominent is the health human resources and its equalization level is only 0.46%, indicating a relative shortage of human resources in township health care institutions. Meanwhile equalization level of other indicators is low as well, medical equipment in township health care institutions is weak, and the response to medical services demand is inferior. Table 2 shows the vertical and horizontal equalization in Ningxia province.

Table 2. Overall equalization assessments in Ningxia Province 2014

Indicators	**Results（%）**	
	Vertical	Horizontal
Medical equipment	4.20	5.90
HR	0.46	1.64
Service utilization	7.07	18.04
Availability	7.60	13.60
Responsiveness	6.92	5.67
Health outcome	22.42	12.79
Overall equalization level	7.94	17.23

3. Portfolio assessment

3.1 Assessment for EMS

3.1.1Assessment for finance equalization of medical insurance in regard to EMS

Kakwani index shows that the proportion of rural residents financing reduced when revenue increased, the overall progressivity index was -0.21, indicating that low-income rural residents contributes relatively more than high-income residents. We tend to conclude that financing is pro-rich and therefore problematic

Figure 1 and figure 2 indicate the Kakwani index calculated by Lorenz curve and Concentration curve.

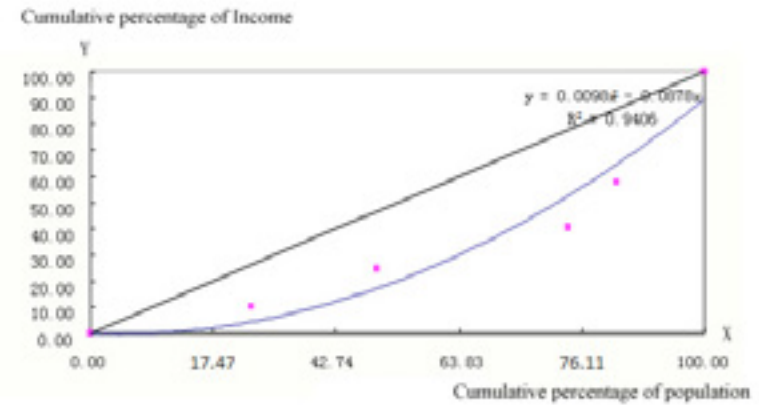

Figure 1 Lorenz curve of peasants' income of sampled county

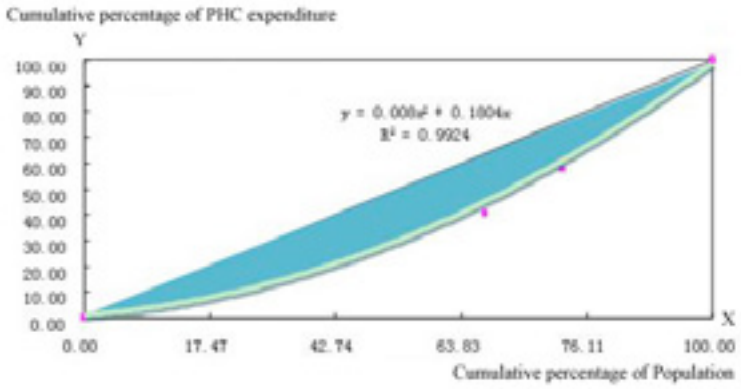

Figure 2 Concentration curve of PHC expenditure of sampled counties

3.1.2 Evaluation for compensation equalization of medical insurance

The ratio of actual compensation to the nominal compensation in all levels of medical institutions is less than 0.8 (0.8 as standard), actual compensation is relatively lower. For a certain disease and at the same level of medical institutions, participants ' compensation is lower than the urban residents, compensation amount ratio both differ tremendously.

3.2 Measurement for health resources allocation equalization of EMS

3.2.1Population-weighted essential medical distribution research（see table 3,table 4）

Table 3 The Theil index of essential medical resource allocation of rural and urban areas and its analysis in Ningxia in 2014

Item	T_u	T_r	$T_{within\ area}$	$T_{among\ areas}$	T
Medical cost per person	0.487229	0.570126	0.531927	0.105735	0.158928
Number of health care workers	0.344692	0.746942	0.530049	0.109163	0.162168
Number of licensed physicians	0.336625	0.767936	0.535373	0.110456	0.163993
Number of medical institutions	-0.05175	0.115167	0.025164	0.063414	0.088578
Number of beds	0.075949	0.141098	0.111077	0.217046	0.328123
Diagnosis and treatment person-time	0.060291	0.190505	0.130503	0.250797	0.381299

Inpatient number	0.042263	0.143255	0.096718	0.185518	0.282235
Hospital beds utilization rate	0.328619	0.596915	0.473284	0.925534	0.139882
Average inpatient length of stay	-0.72269	0.507091	-0.05959	-0.2156	-0.2752
Diagnosis and treatment person-time per Physician per day	-0.74366	-0.54021	-0.37181	-0.79768	-0.11695

T_u represents the Theil Index of urban areas and T_r is the Theil Index of rural areas.

For difference within an area, there is a distinct gap between rural and urban areas, which can be associated to economy and geographical position of the underserved areas.

For overall difference, the Theil Indexes of number of beds, diagnosis and treatment person-time，are relatively large, indicating a distinct disparity exists among rural areas.

Table 4 Contribution rate of internal difference and overall difference of resource allocation of rural and urban areas in Ningxia in 2014

Item	$G_{among\ areas}$	G_u	G_r
Medical cost per person	0.665304	0.141268	0.193428
Number of health workers	0.673149	0.114608	0.212243
Number of licensed physicians	0.67354	0.11068	0.21578
Number of medical institutions	0.715913	0.31503	0.599122
Number of beds	0.661478	0.106658	0.231864
Diagnosis and treatment person-time	0.657742	0.072862	0.269396
Inpatient number	0.657315	0.069002	0.273682
Hospital beds utilization rate	0.661654	0.108254	0.230092
Average inpatient length of stay	0.78345	0.121011	0.99356
Diagnosis and treatment person-time per physician per day	0.682077	0.024907	0.293016

From Table 4, among-area difference contribution rates of all the indicators are above 65%, the contribution of among-area difference to overall difference is prominent, that is to say, the inequality of essential medical resource allocation between rural and urban areas has severely affected that of the whole Ningxia area. The contribution rate of the rural difference to the overall difference is significantly higher than that of the urban difference, especially and obviously in diagnosis and treatment person-time, inpatient number, average inpatient length of stay, diagnosis and treatment person-time per physician per day. This illustrates urban areas have more advantages in essential medical resource allocation than suburban areas.

3.2.2 Distance-weighted Theil Index of medical resources and its analysis (table 5, table 6)

Table 5 The Theil Index of medical resource allocation of rural and urban areas and its analysis in Ningxia in 2014

Items	T_u	T_r	$T_{among\ areas}$	$T_{within\ area}$	T
Medical cost per person	0.010574	0.079302	0.089875	0.006053	0.095929
Number of health care workers	0.006393	0.121573	0.127965	0.009182	0.137147
Number of licensed physicians	0.006243	0.12499	0.131233	0.009437	0.140669
Number of medical institutions	0.00096	0.018745	0.017785	0.001396	0.019181
Number of beds	0.002617	0.012361	0.014978	0.000953	0.015931

From the perspective that the accessibility of EMS affects the allocation of medical services between urban and rural areas, the Theil Index of suburban areas is obviously higher than urban areas, namely the influence of availability to medical services to the equipment of medical resources in rural areas is higher than urban area. In addition, urban residents have better access to medical resources compared with rural residents; the utilization of medical services of rural population has been impeded by the long distance to township level hospitals when seeking care, leading to disparity. For overall difference, difference of health care workers and licensed physicians is relatively outstanding.

Table 6 Contribution rate of internal difference and overall difference of medical resource allocation of rural and urban areas in Ningxia in 2014

Item	$G_{among\ areas}$	G_r	G_u
Medical cost per person	0.936897	0.022993	0.003587
Number of health care workers	0.933051	0.034545	0.002126
Number of licensed physicians	0.932916	0.03512	0.002053
Number of medical institutions	0.927207	0.097513	0.00584
Number of beds	0.940164	0.01736	0.0043

For contribution rates, among-areas still stands out, with all the items exceeding 90%. The contribution rate of rural areas is significantly higher than cities, with all its indicators exceeding urban areas', namely there is inequality of medical resources per unit area in rural areas, among which the contribution rate difference of the medical institutions number is the most evident, illustrating that there is higher accessibility of services and more medical resources in urban areas. Above all, for population-weighted and distance-weighted Theil Index for EMS and its contribution rate, within urban areas and rural areas, the difference of medical resource allocation is relatively small, however cannot be ignored. Medical resource allocation differs significantly between urban and rural areas, contributing to the overall difference to a large extent and severe equalization problem exists between cities and rural areas.

3.3 Measurement for health service utilization equalization of EMS (table 7)

To measure the level of inequality more precisely, this article introduces γ, an inequality aversion parameter to reflect the aversion degree of inequality. γ ranges from 0 to +∞. The bigger γ is, the more medical service utilization would be slanted to rural residents.

Table 7 Atkinson index of inequality of EMS utilization

Indicator	**γ=0.5**		**γ=1**		**γ=1.5**		**γ=2**	
	urban	**rural**	**urban**	**rural**	**urban**	**rural**	**urban**	**rural**
Rate of occupied beds	0.0245	0.0767	0.0438	0.1426	0.0627	0.2011	0.0880	0.2507
Diagnosis and treatment Person-time per physician per day	0.0237	0.0662	0.0472	0.1247	0.0635	0.1769	0.0852	0.2219
Outpatient rate of primary medical institutions	0.0228	0.0589	0.0539	0.1131	0.0823	0.1628	0.1089	0.2078

As Table 7 illustrates, as the value of γ increases, Atkinson index goes up, indicating service utilization becomes more unequal. The increase of parameter γ depends on the allocation of medical resources, equity of health insurance system, etc., namely the less equal the system is, the more irrational medical resource allocation would get, leading to unreasonable utilization of medical service resources.

3.4 Health output assessment

This research measures health outcome indicators through health production ratio, namely the share of Health Life Year in Expected Life Year. Due to the fact that Health Life Year involves the calculation of several indicators, data collection would be difficult, accordingly, Health Life Year and Expected Life Year employs data are relatively simple, average Health Life Year of Ningxia, 64, represents the sample's Health Life Year approximately and average Expected Life Year, 73.54, stands for that of the sample's approximately and both data were collected in 2014. Through data above, health outcome ratio has been figured out as 0.87.

Finally, experts determine the weight of each part of the essential medical services, and scores on the specific results of each part and the weight plus the score makes the sum, which is 4.20 (less than 8.0), meaning a poor equalization.

The result of combined evaluation and overall assessment shows that essential medical service in rural areas is unequaled.

4. An EMS package was designed (Figure 3)

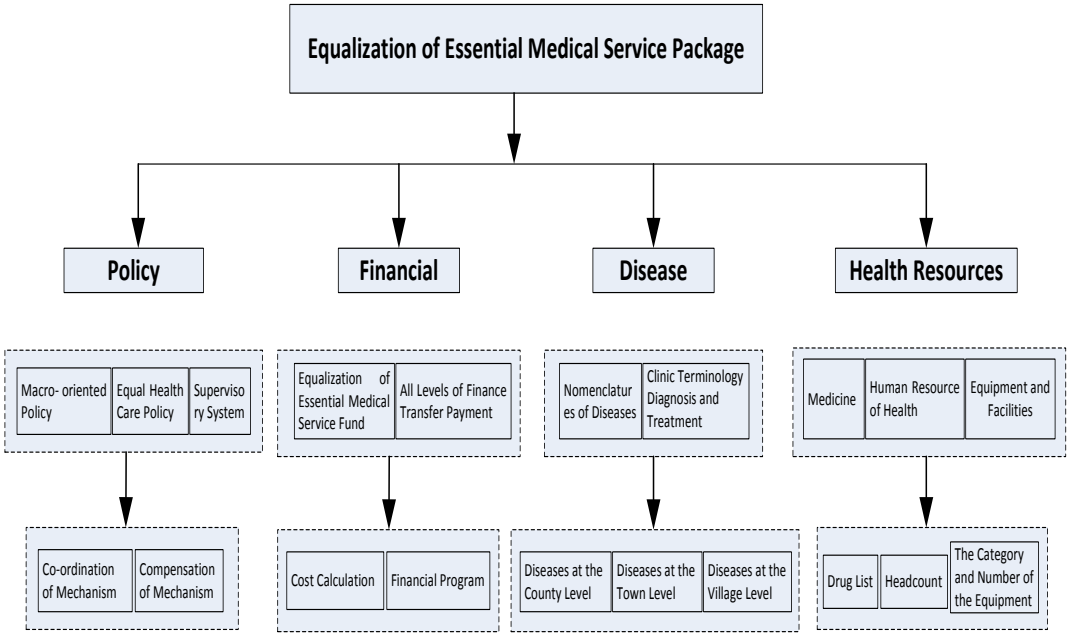

Figure 3. EMS package of Western China rural place

Recommendations:

1. Government should balance BPH and EMS and join them with one package of total payment;

2. Encourage EMS in rural areas, and increase the utilization of EMS.

Keywords: Essential Medical Service; Equalization; Under Served Area

SESSION: EVIDENCE FOR DECISIONS ABOUT BENEFIT PACKAGE DESIGN
TITLE: EVIDENCE FOR HEALTH BENEFITS PACKAGE CHOICES: IS COST-EFFECTIVENESS ANALYSIS THE ANSWER?

COORDINATOR(S):
Peter C. Smith, Imperial College Business School, peter.smith@imperial.ac.uk
Manuel Espinoza, Departamento de Salud Pública, Pontificia Universidad Católica de Chile, maespinoza@med.puc.cl
Emelie Heintz, SBU, Swedish Council on Health Technology Assessment, Emelie.Heintz@sbu.se

In the transition towards Universal Coverage, one of the most fundamental policy challenges is the choice of interventions to be included in the funded health benefits package. With the limited budget available, policymakers will usually want to specify the benefits package so as to maximize some concept of social benefit, often in the form of health gain. This principle has led to the widespread use and development of cost-effectiveness analysis (CEA) as a tool for assessing medical technologies. CEA has proved immensely useful as a practical tool for technology assessment and determining the contents of the health benefits package. However, even if the principles underlying CEA are accepted, its use has also demonstrated limitations that suggest a need for continuing development of methods, data resources and applications.

This session will consider the types of evidence needed for governments and programmes to make decisions about the contents of a health benefits package. The objectives of the session are

- To share examples of country experiences of using economic evaluation evidence to establish a benefits package
- To identify some of the key analytical challenges that have arisen in this process, and potential extensions to CEA that could address its limitations

The background to the session is discussed in a paper prepared for the conference and included in a special issue of *Health Systems and Reform* (Glassman and colleagues, 2016).

The health benefits package, describing the health services to be made available without user charges whenever needed, should play a central role in any transition towards universal health coverage. CEA can in principle play a central role in determining the contents of the package. However, even if the principles underlying CEA are accepted, the analytic processes of CEA must be embedded within a much more extensive decision-making framework. Glassman and colleagues describe ten processes that must be put in place in order to implement a sustainable health benefits package. In summary they are:

1. Setting goals and criteria for the selection of disease control priorities.
2. Operationalizing general criteria and defining methods for appraisal so that each disease and service is treated consistently from a methods perspective.
3. Choosing the “shape” of the HBP and selecting areas for further analysis in the light of analytic capacity constraints.
4. Collating existing and new evidence for high-priority topics.
5. Undertaking appraisals and budget impact assessment: this may involve new CEA studies, but is more likely to involve assessment of existing evidence from a variety of sources.
6. Deliberation on evidence and appraisals by relevant stakeholders.

7. Making recommendations and decisions by appropriate decision-makers.
8. Translating decisions into resource allocation and use, ensuring that resources are in place to implement decisions.
9. Managing and implementing the health benefits package.
10. Reviewing its operation, learning, revising the package in the light of experience and new evidence.

This framework underlines the fact that – although CEA can play an important role in setting the benefits package, it should be seen within a much broader process of priority setting.

The session will offer a number of perspectives on the institutional and analytic context within which CEA operates. This will include consideration of:

- the budget impact of the chosen package (case study from the Philippines);
- the allocation of resources to support the chosen package (case study from China);
- the role of broader evidence, such as the disease control priorities project (case study from Malawi);
- some of the challenges involved in costing services;
- how health system constraints, such as existing infrastructure, human resources and governance, might be addressed within a CEA framework;
- the role of the cost-effectiveness threshold in determining the health benefits package.

The intention is to offer experience and guidance on how CEA can be embedded within the broader decision making process when seeking to specify the health benefits package.

Reference

Glassman, A., Giedion, U., Sakuma, Y. and Smith, P., "Creating a health benefits package: what are the necessary processes?", *Health Systems and Reform*.

EVIDENCE FOR HEALTH BENEFITS PACKAGE CHOICES: IS COST-EFFECTIVENESS ANALYSIS THE ANSWER?

MALAWI'S COUNTRY EXPERIENCE

Rabson Kachala, Malawi Government, Ministry of Health, Malawi; E-mail: mbewekachala@gmail.com

Sangwani Phiri, Ministry of Environmental Affairs and Energy; E-mail: aviphiri2009@gmail.com

Abstract

Determinants of health in this study are described, from downstream to upstream, as biological, behavioral, societal, economic, political and structural determinants. On the other hand, the pathogenesis and patho-physiology of health burden are classified as either communicable or non-communicable conditions that mirror manifestation of epidemiological transition and demographic transition[1]. In epidemiological transition, there is a subdue shift towards non-communicable conditions burden with concurrent demographic shift from stark increase in population growth rates due to medical innovative in disease therapy and improvement in personal hygiene to a re-leveling of population growth due to subsequent declines in fertility rates. Developing countries like Malawi, are going through intense double health burden as evidenced from the MDGs End-line Survey Key Findings Report[2] with unfinished business in communicable diseases. Therefore, how do developing countries including Malawi are positioning themselves in the Post 2015 Sustainable Development Agenda?

The incidence and prevalence of all major diseases and disease-specific death rates, ranking the top ten conditions according to these rates was done in Malawi in 2006[3] which was revised through the "Setting strategic health sector priorities programme in Malawi" using the Disease Control Priorities in Developing Countries, (DCP3)[4]. Consequently, the Malawi Essential Health Package was revised to include Non-Communicable Diseases through the following steps[5]: assess the current disease burden incorporating new interventions about non-communicable diseases using STEPwise approach to surveillance[6]; listing the potential and existing interventions and assess their cost-effectiveness; setting priorities in terms of existing interventions that were cost effective and working well and interventions that were not currently being used cost effectively and not important in Malawi set up; revising and costing the new Essential Health Package; and estimating the cost-effectiveness of the whole programme under different funding scenarios. Top ten risk factors and diseases causing deaths in Malawi were prioritized[7]accordingly.

BACKGROUND INFORMATION

In the transition towards Universal Coverage, one of the most fundamental policy challenges is the choice of interventions to be included in the funded Health Benefits Package**.** With the limited budget available in most developing countries including Malawi, policymakers will usually want to specify the benefits package so as to maximize some concept of social benefit, often in the form of health gain measured by Disability Adjusted Life Years (DALY) or the number of deaths prevented. This principle has led to the widespread use and development of Cost-Effectiveness Analysis (CEA) as a tool for assessing medical technologies. This discourse expound on the lessons learnt from using CEA Tool in Malawi as a case study using Disease Control Priorities (DCP) modelling.

METHODOLOGY

In 2006, the Malawi Government through Ministry of Health did the population-based incidence and prevalence rates to rank commonest and major disease burden and specific-disease deaths using the Disease Control Priorities (DCP) in developing countries as methodology of "Setting Strategic Health Sector Priorities Programme in Malawi" that was revised in 2011.

Consequently, the Malawi Essential Health Package (EHP) was revised to include Non-Communicable Conditions through systematic steps including: assessing the current disease burden incorporating new interventions about non-communicable diseases using STEPwise survey approach to surveillance**;** listing the potential and existing interventions and assess their Cost-Effectiveness Analysis (CEA); setting priorities in terms of existing interventions that were cost effective and working well away from interventions that were not currently being used cost-efectively and not important in Malawian set up; revising and re-costing the new Essential Health Package; and estimating the cost-effectiveness of the whole programme under different funding scenarios. A deliverable of the top ten risk factors and diseases causing deaths in Malawi were prioritized accordingly.

SCIENTIFIC CRITERIA USED IN PRIORITIZING INTERVENTIONS

The Essential Health Package (EHP) Technical Working Group (TWG) experts used the following technical criteria for prioritising scientific interventions for inclusion and the setting of targets in the Malawi Health Sector Strategic Plan (HSSP) 2011-2016:

- Burden of disease conditions and their risk factors using health risk analysis;
- Cost effectiveness;
- Access to the poor (social and financial risk protection and security);
- MDG condition;
- Proven successful intervention; and
- Discrete earmarked funding through multilateral, bilateral and national joint agreements and commitments.

On the other hand, the following is the summary of reading and interpretation of the findings on interventions mapped log scale using cost per disability adjusted life years (DALY) and burden in 2011:

- The conditions with Disease Burdens ***above and below 10,000 DALYs per year***,
- Interventions ***above and below $150/DALY*** (the threshold below which interventions are particularly good value for money in developing countries);
- ***$1050/DALY*** (the threshold above which interventions are considered too expensive for the economy of the country (amounting to three times the GNP).

Consequently, the Malawi Essential Health Package (EHP) was revised to include Non-Communicable Disease (NCD) conditions through the following steps:

- ✓ Assessment of the current disease burden incorporating new interventions about non-communicable diseases using STEPwise survey approach to surveillance;
- ✓ listing the potential and existing interventions and assess their cost-effectiveness analysis (CEA);
- ✓ setting priorities in terms of existing interventions that were cost effective and working well away from interventions that were not currently being used cost effectively and therefore, not important in the Malawi set up;
- ✓ revising and re-costing the new Essential Health Package ((EHP); and
- ✓ estimating the cost-effectiveness of the whole programme under different funding scenarios.

And the top ten risk factors and diseases causing deaths in Malawi were prioritized accordingly.

RESULTS AND FINDINGS

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Departures from cost-effectiveness recommendations: The impact of health system constraints on priority setting

Katharina Hauck[1]*
Ranjeeta Thomas[1]
Peter C. Smith[3]

[1]: School of Public Health, Imperial College London, United Kingdom

[3]: Business School, Imperial College London, United Kingdom

*: corresponding author:
Katharina Hauck
Department of Infectious Disease Epidemiology
School of Public Health, Faculty of Medicine
Imperial College London
LG32B, Medical School Building, St Mary's Campus
Norfolk Place, London W2 1PG, UK
Phone: +44 (0)20 7594 9197
Email: k.hauck@imperial.ac.uk

Abstract: The methods and application of cost-effectiveness analysis have reached an advanced stage of development. Many decision makers consider cost-effectiveness analysis to be a valid and feasible approach towards setting health priorities, and it has been extensively applied in evaluating interventions and developing evidence based clinical guidelines. However, the recommendations arising from cost-effectiveness analysis are often not implemented as intended. A fundamental reason for the failure to implement is that CEA assumes a single constraint, in the form of the budget constraint, whilst in reality decision-makers may be faced with numerous other constraints. The objective of this paper is to develop a typology of constraints that may act as barriers to implementation of cost-effectiveness recommendations. Six categories of constraints are considered: the design of the health system; costs of implementing change; system interactions between interventions; uncertainty in estimates of costs and benefits; weak governance; and political constraints. Where possible -and if applicable- for each class of constraint, the paper discusses ways in which these constraints can be taken into account by a decision maker wishing to pursue the principles of cost-effectiveness.

Keywords: Cost-effectiveness Analysis, Health Technology Assessment, priority setting, decision making, implementation

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1. Introduction

Cost-effectiveness analysis (CEA) of health services has been extensively applied to evaluate interventions, and is a key input in developing evidence based clinical guidelines and care quality standards. These guidelines and standards offer systematic guidance on how healthcare professionals should care for individuals with specific conditions. The principle underlying conventional CEA is that it seeks to identify the set of health interventions that maximizes some social objective (usually improvements in aggregate health) subject to a single publicly funded budget constraint. Although there are still many methodological challenges that remain unresolved, great strides have been made in resolving key issues (1). CEA is becoming an important mechanism for strategic priority setting in health systems, and many countries have put in place agencies to advise on health system cost-effectiveness issues. International organizations are increasingly appealing to CEA as a basis for advising countries on priority setting, in particular to determine benefit packages included in universal health coverage in resource-constrained settings (2).

However, it remains the case that often the recommendations arising from CEA are not fully implemented, even when decision-makers agree with the underlying principle of CEA – of obtaining maximum value from a limited health service budget.[1] The failure to secure implementation of CEA recommendations does not necessarily indicate a weakness in the principles underlying the analytic approach or the institutional arrangements employed by the health system. It may be often the case that decision-makers invoke perfectly legitimate criteria that are not considered in the CEA methodology when coming to priority-setting decisions. Failure to implement in these circumstances may not negate the usefulness of the CEA, which has at the very least demonstrated what is sacrificed

[1] For the purpose of this paper, we sidestep the issue of what precisely should be considered 'value' or welfare. There is considerable discussion in the literature on this issue. For example, the extensive literature on equity weighting of health or recent research on 'happiness' suggests that measuring welfare in terms of health in CEA is too narrow a focus.

(often in the form of lost health improvement) by failing to implement. Nevertheless, the frequent widespread reports of CEA recommendations being ignored or modified does highlight the importance of understanding the motivations of decision-makers, and raises the issue of whether CEA ignores important elements of the priority-setting process.

One class of practical factors that may have a major influence on priority-setting is the potentially large set of constraints that inhibit change in the health system, in addition to the global budget constraint. For example, all systems have an existing configuration of institutions such as hospitals that cannot be altered in the short term; the present pool of skilled human resources may be strictly limited; many changes impose short-term costs (such as training) that detract from direct patient care; governance and information infrastructure may be inadequate to ensure that new services are delivered effectively; and powerful political forces of various sorts may inhibit change throughout the health system. The constraints that we discuss in this paper are the design of the health system; costs of implementing change; system interactions between interventions; uncertainty in estimates of costs and benefits; weak governance; and political constraints. Not all priority setting decisions face these constraints. For example, replacing therapeutic drugs may face hardly any barriers, whereas the implementation of complex public health interventions is faced with multiple constraints.

This narrative review assumes that decision-makers wish to maximize the societal value secured from their health services budget and are considering the use of CEA to guide that process. It then explores the role that constraints play in influencing priority-setting decisions, and assesses whether and how they can be accommodated within the CEA methodology. The review is inspired by various group discussions conducted as part of the International Decision Support Initiative. The objective of the paper is to develop a typology of constraints that may act as barriers to implementation of cost-effectiveness recommendations. Where possible and applicable, it sets out ways in which these constraints can be accommodated in CEA models.

2. The constraints

The cost-effectiveness model generally used for the evaluation of health technologies -and healthcare and public health interventions more widely- has become a central tool for public sector policy-makers in many health care systems (3). It was developed to help decision-makers with fixed public resources to compare (a) different interventions for the same health problem and (b) programmes in different disease areas. For a particular level of health care resources the goal is to choose from among all possible combination of programmes the set that maximises total health benefits produced. See Drummond (1) for an introduction to CEA.[2] The traditional CEA methods presume the existence of only one salient constraint – the public finance budget constraint. Yet all the evidence suggests that many other constraints impinge on decision-makers, at least in the short run. These limitations to traditional CEA gives rise to difficulties in interpreting CEA findings for implementation by local decision-makers. We consider six broad categories of constraints that are most commonly encountered in practical policy making, although we acknowledge that there are additional ones that are not discussed here.[3] They may explain why strategic decision-makers depart from national or international guidance.

[2] Conversely CEA can be formulated as seeking to minimize the costs needed to achieve a certain level of health benefit. The two formulations are mathematically equivalent.

[3] Additional constraints are for example the capacity of countries to produce high-quality CEAs, or governance arrangements that may affect the relation between the agency producing CEAs and decision makers. There are further important demand-side responses to the introduction of an intervention. Uptake and acceptance of an intervention by individuals are important behavioural responses that may greatly impact on the feasibility of implementing interventions. They may explain why strategic decision-makers depart from national or international guidance.

2.1. Design of the health system

System design constraints preclude certain flexibilities, and relate to the institutions of the health system (purchasers and providers), the financing mechanism, regulatory arrangements, and the role of external agencies such as donors. Important practical system constraints are the short-run availability of capital or labour. For example, a highly cost-effective new intervention may require substantial additional staffing, but if the existing workforce is already working at full capacity and existing interventions cannot be abandoned, implementation may be infeasible. With respect to financing mechanism constraints, CEA implicitly embraces an assumption that payment of providers is solely by a single national funder, who is able to specify which interventions are funded. In practice, however, private payments such as user charges make it difficult to ensure that designated services are always provided to the intended recipients (4). Constraints imposed by finance donors can often take the form of 'vertical' organization of services for specific programmes such as HIV/AIDS services (5). While this may optimize delivery for the chosen programme, it can also create serious rigidities in how resources are deployed, and prevent systems from realising the economies of scope[4] available by integrating services 'horizontally' for a wide range of conditions.

Provider reimbursement through capitation payments or global budgets can constitute another important financial constraint, because it may provide weak incentives for providers to deliver a recommended intervention as intended. Augmenting conventional provider payment methods with various forms of pay-for-performance (P4P) may address this constraint, and there is some evidence that P4P is leading to improved discipline in strategic purchasing of health services, including adherence to benefits packages (6). Regulatory constraints can arise from the way relations between

[4] Economies of scope are a proportionate saving gained by producing two or more distinct goods, when the cost of doing so is less than that of producing each separately.

the different institutions of a health system – such as hospitals, primary care organizations, local governments and insurers – are organized via legal arrangements and professional regulations (7). This implies that the autonomy of the institutions is usually limited by regulatory statutes that may preclude adoption of certain innovations. For example, efforts to move certain interventions out of a hospital setting may be frustrated by the organizational boundaries and funding mechanisms in place.

Many health system constraints can be eased in the medium to long term. However, in the short term decisions usually have to be taken subject to prevailing constraints. Recommendations from CEA could allow for the type of health system in place. System design constraints can be addressed technically by more careful analysis of supply side and demand side responses to the introduction of an intervention, and – where necessary – by extension of the optimization model to include multiple resource constraints (8, 9). In addition to yielding evidence that is more immediately relevant to priority-setters than crude CEA, such analysis offers a great deal of valuable additional information, for example on the effect of short-run constraints in reducing the potential longer-run achievements of the health system. It can therefore help point to the most urgent priorities for health system redesign.

2.2. Costs of implementing change

In its purest form, the rational cost-effectiveness model assumes that change is instantaneous. This often does not reflect realities of implementation. Any significant change to the health system is likely to require irreversible investment, for example in the form of capital (new clinics), personnel (training or redeployment), information resources (data capture), implementation (new guidelines), or administrative complexity. Such irreversible investments are transition costs. They can often act as a major decision-making barrier to implementation of programmes with long-term benefits, and even if the priority-setting process is functioning properly, it may take considerable managerial effort to

ensure that the technology is implemented (10). Therefore, an important consideration for any priority-setting endeavour is the transition costs of implementing a new intervention.

A more gradual reform may reduce transition costs substantially. It may not only be infeasible, but also inefficient for a government to reappraise continually the entire health system. Rather, a more realistic aspiration is that a government should progressively remove ineffective programmes and replace them with more effective actions. This suggests that an incremental 'threshold' formulation of CEA may be closer to political reality than a comprehensive 'zero-based' formulation. The 'zero-based' approach requires a ranking of the cost-effectiveness of *all* potential interventions, with only the most cost-effective being selected for inclusion in the publicly funded benefits package, as attempted in the famous Oregon experiment (11). The zero-based approach is likely to be especially important when fundamental reform of a system is needed, such as the introduction of universal coverage. As well as defining the package, CEA can be used to inform health system reforms necessary to maximize returns from expenditure.

The incremental model implies that governments may set priorities for action on the basis of criteria that are not considered in conventional cost-effectiveness models. These might include:

- the magnitude of the programme involved: greatest potential gains may be secured by first reconsidering programmes consuming a large part of health care expenditure;
- the existence of large differences between competing technologies such as in outcomes, externalities or equity considerations;
- practical considerations: programmes may have priority according to how feasible it is to change delivery patterns, and how high the transition costs are.

There are a number of approaches that have been developed to deal with the constraints imposed by transition costs, of which programme budgeting and marginal analysis (PBMA) is one of the most prominent. PBMA can be interpreted as an attempt to systemise the incremental budgeting approach.

A practical focus on the evaluation of relatively modest and manageable changes, as opposed to adherence to historical patterns, is the key contribution made by the PBMA approach (12). The PBMA approach can be interpreted as a complement to CEA, as cost-effectiveness often remains an important criterion for prioritizing (13). The WHO-CHOICE project has addressed the inclusion of implementation costs by proposing to assess mutual exclusive scenarios across a variety of disease areas, including non-communicable diseases, HIV/AIDS, malaria and tuberculosis in various low and middle income settings (14).

In summary, it is important that a recommended intervention should be implemented as intended, and substantial transition costs can often be an important requirement to ensure that is the case. Such costs should in principle be incorporated into the CEA, and written off over the expected lifetime of the programme. Cost could be disaggregated as far as possible to highlight major cost components that may arise. However, in practice short-term transition costs can act as an important decision-making barrier to implementation of programmes with long-term benefits. Certain aspects of system design can mitigate the rigidities caused by transition costs – for example the use of separate public sector budgets for covering such costs, or the use of donor funds. However, it may also be necessary to adapt CEA methodology to accommodate transition costs, either by explicitly including such costs in the optimization model, or by embedding CEA in a broader decision-making process.

2.3. System interdependencies between interventions

Most interventions rely on the existence of certain aspects of health system infrastructure without which delivery would be infeasible. This infrastructure might include physical capital, the workforce, various supply chains, and information technology. With a few exceptions, such resources are shared with many other interventions, often yielding the manifest economies of scope that can be observed in all health systems. From an accounting perspective, the costs of providing these resources should

be shared across the interventions that use them. Changes to the mix of services using the infrastructure may alter the costs and effectiveness of all interventions that rely on it.[5] And the absence of certain types of infrastructure may preclude – or at least seriously increase the costs – of adopting a new technology. Thus decisions cannot be made only on comparisons of average costs of individual services but must take into account bundles of the services being provided and the implications of shifting resources and redefining packages and the corresponding losses or gains due to changes in scale and scope of the packages. For example, a new intervention to be delivered by community based nurses may only be highly cost-effective if a network of such nurses is already in place, but not if major investments into such a network were required. Furthermore, the adoption (or absence) of certain interventions may have implications for other programmes of care. The most obvious example of this is the joint supply of a bundle of early-child interventions.

System interdependencies illustrate the limitation of examining interventions in isolation. Any significant reform of the health system design may affect not only the long run average costs of the intervention under immediate scrutiny, but also of many other interventions. System reform may require the comparison of two entirely different configurations of service delivery, with profound implications for different patient groups and system costs. It is possible that such 'zero-based' reforms can never be fully adopted as a basis for decision-making, but it can still be used to indicate where the scope for improved performance lies, and determine policy on more incremental changes to the system. The presence of system-wide effects, and the complexities they introduce, may explain why the greatest impact of CEA has been in the realm of pharmaceutical treatments. New drugs can often be adopted without major changes to the configuration and mix of human and physical resources. Proper modelling of system interdependencies is feasible in principle within a CEA framework (15),

[5] It is important to note that existing infrastructure may sometimes *reduce* costs (at least in the short run) relative to those assumed in the CEA, thus potentially making the service under scrutiny more cost-effective than indicated by the CEA.

but may be challenging in practice. The interactions between interventions must be modelled explicitly, perhaps by modelling an intervention under two mutually exclusive scenarios – with and without its complement. At the very least, where feasible, there may be an argument in CEA for presenting a range of cost-effectiveness ratios for interventions where costs (and benefits) are dependent on the prevailing system configuration.

2.4. Uncertainty in estimates of costs and benefits

Uncertainty is inherent to all priority setting. It can take numerous forms, including uncertainty in model parameters (costs and benefits of interventions, especially in the longer term, see (16)), uncertainty about the nature and performance of competing interventions (either now or in the future, see (17)), uncertainty about patient behavioural responses (such as uptake and compliance), and uncertainty about provider responses. The importance of uncertainty has long been recognized in cost-effectiveness analysis, and there has been lively academic debate about how to incorporate uncertainty into analytic models (18, 19). The role of uncertainty in constraining decisions is that – other things equal – greater levels of uncertainty inhibit decision-makers from implementing change. This may be due to natural risk-aversion, especially when political or managerial futures are at stake. However, uncertainty also puts at risk any irreversible investment costs associated with change.

Uncertainty can therefore act as a powerful barrier to any change. In some circumstances the conservatism it causes may be warranted, as a delayed decision may avoid unnecessary investments and keep options open for the future. However, a vague appeal to uncertainty may on the other hand inhibit timely adoption of cost-effective programmes. The key requirement then is to inform decision-makers about the true level and nature of uncertainty, so that they can make balanced judgements. Cost-effectiveness analysis can act as a powerful device for assessing and communicating uncertainty. A range of analytic methods have been developed to address and communicate parameter

uncertainty. These should be adopted wherever feasible. Accounting for parameter uncertainty by probabilistic sensitivity analysis (PSA), and the presentation of its result via cost-effectiveness acceptability curves, is well established and required for submission of CEAs to the English National Institute for Health and Care Excellence (NICE) (20, 21).

However, there is also a broader issue of 'structural' uncertainty, which reflects potential limitations in modelling, such as the inclusion/exclusion of relevant comparators, inclusion/exclusion of relevant events, the statistical models to estimate specific parameters, and clinical uncertainty or lack of clinical evidence (22). This structural uncertainty is the main source of concern in priority setting, because its magnitude is difficult to quantify, and risk-averse decision-makers will naturally be reluctant to act when there are concerns about the relevance and quality of the analytic evidence base. Sensitivity analysis is of course then an important instrument for assessing the robustness of estimates to alternative model specifications. Novel approaches such as model averaging are becoming more widely used to address problems related to model uncertainty, i.e. uncertainty related to the choice of explanatory variables (23).

The most obvious way to reduce any form of uncertainty is to commission relevant research, seek out high quality data, undertake relevant meta-analyses, improve the quality of modelling, and carry out 'value of information' analysis to identify priorities for generating new evidence (24). This will allow uncertainty to be incorporated in a systematic manner into the evidence base. Of course these endeavours are both costly and time-consuming, and will in themselves create new delays. Robustness analysis can be used as a practical means of handling uncertainty in decision making (25). It assesses the flexibility achieved or denied by particular acts of commitments, provided they can or must be staged sequentially. In the same vein, option pricing theory has been applied to economic evaluation by Palmer and Smith (26) as a means of assessing the value of deferring decisions pending the arrival of better information. Despite these methodological advances, uncertainty will always remain intrinsic to strategic priority setting. The key requirement is to inform decision-makers about

the true level and nature of uncertainty, so that they can make balanced judgements. A failure to convey uncertainty properly may give rise to 'uncertainty about the level of uncertainty' underlying a decision, and therefore inhibit warranted change. Therefore, for decision makers with little technical expertise, innovative ways of communicating uncertainty may be needed.

2.5. Weak governance

Whatever type of health system is under consideration, most tools of health policy assume the existence and effectiveness of certain instruments of good governance. In choosing to include an treatment in the benefits package on the basis of CEA, policymakers are presuming that it will be delivered in line with the CEA modelling assumptions. The governance requirements to underpin any priority setting task are likely to include:

- Clear mechanisms for promulgating guidelines and financing the required activity, possibly extending to contractual arrangements;
- Effective data collection mechanisms designed to audit delivery of care and adherence to quality standards;
- Functioning accountability mechanisms that enable providers and other relevant parties to be held to account for the performance they have secured (27).

The level of detail at which priorities can be set may be determined by the administrative capacity of the health system. At one extreme, the benefits package might be explicitly defined in terms of detailed interventions and eligibility criteria. International bodies such as the World Health Organization and the Global Fund could help in this task by providing generic resources that may be suitable for assessing the cost-effectiveness of specific interventions. At the other extreme, priorities might be set in very broad terms, such as emphasizing a larger role for primary care relative to

secondary and tertiary care. Of course, the risk of adopting a broad definition of priorities is that the prioritized sector may provide some services that are not cost-effective.

In many health systems, the limited capacity for audit and performance reporting inhibits the ability to set and monitor detailed priorities (28). The most poorly developed aspects of governance are the mechanisms to hold to account providers and other relevant agents for the levels of performance they have achieved, via mechanisms that include consumer markets, administrative procurement arrangements, democratic elections or professional regulation. The prime purpose of an accountability mechanism is to allow stakeholders to check on adherence to standards, and give them a means of offering rewards or sanctions depending on results.

An absence of good governance in any of these three key areas – priority setting, performance measurement or accountability mechanisms - seriously undermines the capacity for change, and may render the adoption of certain services infeasible or ineffective. It is difficult to offer generic guidance on how to confront or sidestep the constraints caused by weak governance. CEA may consider these realities by constraining the number of decisions that can be made in a given time period. In all health systems, there is likely to be a trade-off between the health gains secured by detailed priority setting and the governance costs of specifying and monitoring adherence to the package. Whatever approach is taken, it is important to note that CEA can play an important accountability role, by demonstrating the costs to the health system of continued shortcomings in governance capacity, and indicating where the priorities for improvement may lie.

2.6. Political constraints

The process of priority setting takes place in a profoundly political context, in which numerous influential political interest groups seek to participate (29). Hauck and Smith (30) present several

models of political economy that describe how decision makers react to political realities, and how priority-setting decisions may be influenced by them. Such models try to explain why the political decision-making process fails to generate apparently welfare-improving policy changes. Goddard et al (31) argue that there may be substantial benefits to seeking to understand the processes of priority setting using models based on political concepts. We consider five classes of political forces, and the influence they exert on decision makers: The median voter model, interest groups, bureaucratic decision making, decentralization, and equity.

The *median voter model* (32) asserts that political decision-makers will seek to develop policies that attract the median voter, in an effort to maximize political support. The implication of this insight for priority setting is that the size and contents of a public benefits package may be skewed towards the preferences of key voting groups. Gaining taxpayer support for health policies has high importance for policy makers, in particular in many low-income countries with high levels of informal employment where tax contributions are concentrated among a relatively small, urban elite. Models of competing *interest groups* are based on the assumption that powerful interest groups may seek to skew decisions in their own favour at the expense of less organized stakeholders (33). Within health care, small groups with a clearly defined common objective – for example, providers of health services, the pharmaceutical industry or patients with a specific disease – have low costs in organizing themselves, securing cohesion and effectively lobbying decision makers to their advantage, compared with the broader population, whose interests may be more diffuse and who experience higher costs of organizing.

The institutional theories of Tullock (34) and Niskanen (35) focus on the interests of *'bureaucrats'* in maximizing their influence and the effect of their behaviour on the level and nature of government output. The essence of this approach is the belief that such bureaucrats receive power and remuneration in proportion to the size of their enterprise, with the implication that bloated and inefficient public services emerge if there is a lack of effective control on the growth of government.

Many healthcare systems make extensive use of *subsidiary levels of government*, and such decentralization adds further complexities that affect variations in spending and benefits packages (36), although the direction and magnitude of effects is likely to depend on specific institutional arrangements for such policies. Decentralization may be associated with improved performance resulting from increased horizontal competition between different levels of governments, although empirical evidence is mixed, and the outcomes are likely to depend upon the institutional structure at each level. The promotion of *equity in health and health care* can in some respects be viewed as a political constraint. Equity concepts can readily be incorporated into conventional CEA, for example by placing greater weight on health gains for disadvantaged population groups. However, the nature of equity criteria adopted in health policy is likely to vary between health systems, and so it will be difficult to develop universal 'equity-weighted' measures of cost-effectiveness (37).

Public involvement in decision-making has been advocated as one approach to ameliorate potentially unwarranted impacts of political constraints. However, a scoping review found it difficult to assess the extent to which public involvement is more or less vulnerable to capture by interest groups because formal evaluations of public engagement efforts are rare (38). Priority setting is ultimately a political undertaking. To some extent, the health technology assessment agencies now being put in place across the world are an indication that politicians feel it is helpful and expedient to devolve some aspects of that process to agencies with politically legislated terms of reference. At its best, this approach can lead to better informed rankings of interventions, made on a consistent basis, aligned with social preferences. However, the technical recommendations of those agencies must almost always be viewed from a broader perspective than that of narrowly defined CEA. In some cases that broader scrutiny may be undertaken within the agency (as in NICE), in others it must be left to those who are ultimately accountable for choosing priorities. In either case, a key consideration will be the political context within which the decision is being made.

3. Discussion and Conclusion

This paper has assumed that a decision-maker accepts the general principles underlying CEA. It then considered six types of constraint under which such decision makers must operate when considering the implementation of CEA recommendations. See table 1 for an overview of constraints, and potential approaches to addressing them, either by incorporating them into CEA, or by introducing adjustments to institutional arrangements. There are frequently links between the classes of constraint, and none can be considered in isolation. For example, many of the constraints caused by uncertainty arise because of the irreversible costs of implementing a change. Health system design constraints may arise in part because of weaknesses in governance. The difficulty of assessing interdependencies within the health system may reflect limited analytic and decision-making capacity. This may change in future, as efforts are made to increase analytical capacity and international collaborations among modellers.

[Table 1 around here]

Where feasible, the paper has outlined possible ways of addressing the strategic constraints under consideration. A fundamental choice is often whether to accept and accommodate the constraint, or to seek to relax the constraint itself. It is important to recognize that some constraints may be in place for good regulatory reasons (such as a concern with equity), and that relaxation of other constraints may in any case not be feasible in the short run. For some of the constraints, in particular the ones related to costs of change, we make the implicit assumption that a new intervention is compared against current standard of care. We acknowledge that the discussion may need to be slightly more nuanced if two or more new interventions are compared.

Many of the constraints described can in principle be modelled by augmenting the simple CEA mathematical programming model to include additional considerations. For example, additional resource constraints, say in the form of workforce numbers, can be added; interdependencies

between interventions can be modelled by incorporating constraints that reflect economies of scope, and considering portfolios of interventions using integer programming; non-linearities, for example in the form of variable returns to scale, can be reflected in the model; limited decision-making capacity can be modelled by constraining the number of decisions that can be made in a given time period; the model can be formulated as an incremental priority-setting model, which assesses potential change from the current situation; uncertainty can be incorporated by adding variability to parameters and (for example) reformulating as a stochastic mathematical programme.

Whilst offering more realistic modelling of the decision setting, such innovations introduce serious drawbacks. First, the analytic complexity and information demands are increased considerably, and in many circumstances parameterization of the augmented model would be infeasible. Second, the model would have to be tailored to each individual setting, leading to a vast increase in the need for analytic capacity. And third, the simple transferability and clarity of the conventional CEA would be lost. In short, further tailored refinements of the mathematical decision model will be helpful in individual settings, but is less likely to be appropriate when seeking to offer generic advice to a wide range of countries. There are some classes of constraint, related to governance and politics, that cannot be managed analytically. Rather than trying to model the constraints, the role of CEA under such circumstances is to indicate the opportunity costs of not being able to adopt certain optimal courses of action. Thus, although it can be argued that the world is rarely as simple as that represented in the theory of CEA, undertaking such analysis can nevertheless still yield powerful benefits by identifying the key bottlenecks to reform, and indicating the priority areas for action. It may also help overseas aid organizations identify where their funds are best directed.

To conclude, we can put forward a number of principles for disseminating CEA that can be drawn out from the discussion of constraints. For example, cost could be explained and disaggregated in more detail, so that decision-makers can see more clearly the assumptions underlying the analysis, and where the major sources of costs arise. In this way, they can make adjustments if they feel that the

original setting or costs were inappropriate to their situation. The CEA could be accompanied by a narrative that sets out the significant interactions of the intervention under scrutiny with other interventions in the health system, and the circumstances in which they may be important. The strength of CEA recommendations could be varied depending on the robustness of the cost-effectiveness evidence. However, this must be accompanied by clear guidance on what is considered robust evidence. Uncertainty could be treated more systematically. Whilst great strides have been made in modelling certain types of uncertainty, further improvements could be made in helping decision-makers understand the implications for their system. Subgroup analysis could be encouraged in order to help decision-makers understand the implications for equity objectives, and the implications of heterogeneity in costs and benefits of an intervention across the population.

Progress has been made in some of these areas, and the main thrust of future work should be to consolidate and formalize existing methods. In other areas, there is a need for preliminary ground-clearing work before significant progress can be made. The complications introduced by system constraints in no way undermine the central role that can be played by CEA in the process of strategic priority setting in health services. Rather, the existence of such constraints underlines the importance of ensuring that the modelling process underlying CEA – so far as feasible – takes account of the constraints. Where it is not feasible, results should be presented so that decision-makers can properly understand the simplifying assumptions that have been made. Failure to implement the recommendations of CEA should offer an important indication of the opportunity costs (measured in terms of lost health) arising from system constraints and other considerations that may have affected the decision. Where necessary, by quantifying the opportunity cost of failing to implement, the CEA can then act as a powerful driver for health system reform designed to address particularly serious constraints to improvement. CEA methods can therefore help decision makers to tailor recommendations to local circumstances, to understand the most important constraints inhibiting

adoption or abandonment of technologies, and to assess whether and how to address those constraints.

Table 1: Six constraints and proposed solutions to incorporate them into CEA

Constraint	Solution
Health system design constraint	• Requires institutional adjustments, but can be incorporated into CEA analytically via: • Analyse supply- and demand side responses • Incorporate multiple resource constraints into the mathematical modelling
Implementation costs	• Incorporate transition costs into the mathematical modelling • Disaggregate costs to highlight major cost components
System interactions	• Model interactions between interventions by incorporating economies of scope • Model intervention under alternative scenarios (with and without complementary intervention) • Present rage of CE ratios dependant on prevailing system configuration
Uncertainty	• Conduct probabilistic sensitivity analysis • Present extent of uncertainty via cost-effectiveness acceptability curves • Address structural uncertainty with sensitivity analyses • Commission additional research • Evaluate robustness of decisions under alternative future scenarios
Governance constraints	• Requires institutional adjustments, and difficult to incorporate into CEA analytically, but possibly: • Constrain the number of decisions that can be made in a given time period
Political constraints	• Requires institutional adjustments, possibly: • Devolve process of priority setting to agencies with politically determined terms of reference • Public involvement in decision making

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Accountability, Fairness and Good Governance in Priority-Setting for UHC

Parallel Session

1.2

Evidence based policy decision making requires a systematic and rational approach to researching and analysing available evidence to inform the policy making process. However while data, methods and evidence on the costs, effectiveness and equity of health interventions and technologies are becoming increasingly available, there remains a persistent gap between the availability and the use of evidence in prioritisation decision making. Evidence on its own is never sufficient for a justifiable policy decision. It needs to be interpreted and made sense of in a local (social, ethical, legal and political) context. Key to this approach is understanding relevant social values eg. the balance between prolonging life and maintaining the quality of life will vary from one social setting to another. Systems capable of combining scientific and social values are emerging but have received much less attention than those geared to acquiring evidence. Developing ways of incorporating social values in the public deliberation on priorities is therefore an urgent task. This session will explore a number of dimensions of this problem, seeking to highlight some practical ways in which social values and evidence of cost-effectiveness can be brought together.

Objectives

- How can evidence be routinely used to inform priority setting in a transparent and accountable manner? With respect to deliberative processes, which one works best in a particular health system context?
- What systems can be put in place to ensure that media and public opinion inform and not distort priority setting for UHC.

Moderator

Peter Neumann
Director, Tufts Medical Center, USA

Speakers

Ole Norheim
Professor of Global Public Health, University of Bergen, Norway

Katharina Kieslich
Research Associate, King's College London, United Kingdom

Thomas Wilkinson
Health Economics Lead, iDSI Sub-Saharan Africa,
PRICELESS SA, South Africa

Panelists

Marianela Castillo-Riquelme
Health Economic Advisor, Coordinator,
National Commission on Health Technology Assessment, Chile

Supamit Chunsuttiwat
Senior Expert in Preventive Medicine,
Department of Disease Control of Ministry of Public Health, Thailand

MODERATOR

Peter NEUMANN

Director
Tufts Medical Center

USA

Peter J. Neumann, Sc.D., is Director of the Center for the Evaluation of Value and Risk in Health at the Institute for Clinical Research and Health Policy Studies at Tufts Medical Center, and Professor of Medicine at Tufts University School of Medicine. Prior to joining Tufts, he was on the faculty of the Harvard School of Public Health. His research focuses on the use of comparative effectiveness research and cost-effectiveness analysis in health care decision making. He is the founder and director of the Cost-Effectiveness Registry (www.cearegistry.org), a comprehensive database of cost-effectiveness analyses in health care. Dr. Neumann has written widely on the role of clinical and economic evidence in pharmaceutical decision making. He is the author or co-author of over 200 papers in the medical literature, and the author of Using Cost-Effectiveness Analysis to Improve Health Care (Oxford University Press, 2005). Dr. Neumann has served as President of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), and as a trustee of the Society for Medical Decision Making. He is a member of the editorial boards of Health Affairs and Value in Health. He has also held several policy positions in Washington, including Special Assistant to the Administrator at the Health Care Financing Administration. He received his doctorate in health policy and management from Harvard University.

Ole NORHEIM

Professor of Global Public Health
University of Bergen

Norway

Ole Frithjof Norheim is a physician and professor in medical ethics, Department of Global Public Health and Primary Care, University of Bergen, and adjunct Professor at the Department of Global Health and Population, Harvard TH Chan School of Public Health. Norheim's wide-ranging research interests include the ethics of priority setting in health systems and how to achieve Universal Health Coverage and the Sustainable Development Goal for health

He is currently heading the research project Priority Setting in Global Health (2012-2016, funded by a grant from the Norwegian Research Council/NORAD). Norheim has chaired the 2009 revision of Norwegian Guidelines for Primary Prevention of Cardiovascular Disease, the World Health Organization's Consultative Group on Equity and Universal Health Coverage (2012-2014), and the third Norwegian National Committee on Priority Setting in Health Care (2013-2014). He has published more than 100 peer-reviewed papers in journals such as Science, Lancet, BMJ, Bulletin of WHO, Health Policy and Planning, and Journal of Medical Ethics.

Marianela CASTILLO-RIQUELME

Health Economic Advisor
Coordinator
National Commission on Health Technology Assessment

Chile

Health Economist. Researcher and Consultant in Health Technology Assessment / Health Economics in the Chilean Ministry of Health.

MSc in International Health Technology Assessment, Pricing and Reimbursment (Univ. of Sheffield - 2014) and MSc in International Health Management (Imperial College, London - 2002)

She initiated a carreer in health economics in the London School of Hygiene and Tropical Medicine in 2002, where she developed cost-effectiveness analyses on infectious diseases. She also worked (2005-2008) as academic in the Health Economics Unit (HEU) at the University of Cape Town (South Africa).

In the Chilean Ministry of Health, where she works since 2009, she has implementted economic evaluations and is developing HTA methods at the national level.

Katharina KIESLICH
Research Associate
King's College London

United Kingdom

Dr Katharina Kieslich is a Research Associate at the Faculty of Life Sciences and Medicine at King's College London (KCL). Her research at KCL examines the decision-making of Clinical Commissioning Groups (CCG) in England. Specifically her research tests whether CCGs that adhere to accountability for reasonableness (A4R) criteria are perceived, by the public and by other stakeholders, to produce more legitimate and fairer priority setting decisions. The research is funded by the National Institute for Health Research (NIHR).

Katharina's additional areas of research include public and patient involvement in health priority setting, health coverage decision-making for high budget impact drugs such as the new class of hepatitis C medicines, and a range of health policy areas explored from a political science perspective.

Katharina is a member of the KCL and University College London (UCL) collaboration on social values and health priority setting. This interdisciplinary, international collaboration holds weekly seminars in London and regular workshops at international locations. It brings together researchers, practitioners and policymakers from all backgrounds to discuss, investigate and conduct research on the role of social values in health priority setting.

Katharina holds a PhD in Political Science from the University College London (UCL). In her PhD, Katharina conducted a comparative analysis of the decision-making processes, methods and outcomes of health technology assessments (HTA) in Germany and England.

Prior to her PhD studies, Katharina worked as a parliamentary researcher for a political party in Germany. Her research fields included health, social, labour, family and European policy matters.

Supamit CHUNSUTTIWAT

Senior Expert in Preventive Medicine
Department of Disease Control
Ministry of Public Health

Thailand

Dr Supamit Chunsuttiwat is a technical advisor to the Department of Disease Control (DDC), Ministry of Public Health (MOPH) of Thailand. He advises on management of communicable disease control with emphasis on national immunization and emerging infectious diseases programs. He had training in medicine, field epidemiology and public health. Since 1985, has been working in policy and strategy development and the coordination of national immunization program and the control programs of several communicable diseases including dengue, diarrheal diseases, zoonotic diseases and emerging infectious. For the national immunization program, he had a leading role in the introduction several new vaccines including hepatitis B, Japanese encephalitis and measles-mumps-rubella, combined DTP-HB, and influenza. He led the coordination of national poliomyelitis eradication campaign for a number of years. Currently, he is a member of the National Vaccine Committee that drives policy for national capacity in vaccine. For emerging infectious disease control, since 1994 he has been involved in the development and coordination of policy and strategies for preparedness and response to emerging infectious diseases. He was involved in the development of the current National Strategic Plan on Preparedness and Response to Emerging Infectious Diseases. He is the current Chair of WHO's South East Asia Regional Certification Commission for Poliomyelitis Eradication.

SHORT
PAPER

1.2

Priority setting: ethics, fairness and accountability

Ole F. Norheim, MD, PhD, Professor
Department of global public health and primary care
University of Bergen
Norway
ole.norheim@uib.no

Priority setting concerns the distribution of health benefits and burdens in society. That this is also an ethical issue was recognized early among ethicists who, inspired by theories of distributive justice, explored how to meet medical needs fairly.[1-3] Others emphasized the motivation for health maximization.[4, 5]

Principles for priority setting

Despite some disagreement between different theoretical frameworks, some consensus has emerged during the last decades over what kinds of ethical considerations are relevant (Box 1). First, everyone agrees that priority setting should be impartial, i.e. unprejudiced and unbiased. Every citizen should be treated with equal respect and dignity. Second, the formal principle of equality – treating equals as equals – always applies. This ethical principle is the standard any clinical or political decision could be measured against. If two patient groups are equal on all relevant criteria, they are treated unequally if one group is given priority over the other.[6] This often happens in practice, but is nevertheless ethically unacceptable. Third, there is broad agreement that priority setting should aim at both fair distribution and health maximization.[7] Finally, priority setting should satisfy conditions of fair process.[13]

Criteria for priority setting

There is, among ethical theories, overlapping consensus on a set of three relevant criteria (Box 1). If some service or policy is documented effective, the magnitude of the health effect is relevant under both a distributive and a maximizing principle. One widely accepted measure of effectiveness is healthy life years (QALYs or DALYs). The cost of the service in question is also always relevant. Decision makers need to know if an alternative use of resources could lead to a more fair, or a more efficient distribution. A third criterion, severity of disease – or simply: health without the service – is seen as necessary and relevant only under the principle of fair distribution. This is relevant because decision makers need information about who are worse off if a service is not given priority. The health maximization principle does not consider who are worse off than others, only aggregate benefit matters. However, most ethicists today agree that both fair distribution and health maximization matters, and therefore that all the three criteria are relevant.

It is also possible, and indeed obligatory to take non-health benefits and burdens into consideration when setting priorities. In the context of low- and middle-income countries, a fourth relevant criterion, financial risk protection, has been widely discussed and accepted.[8]

There is also agreement among ethical theories about irrelevant criteria for priority setting. Even if these are widely used in practice, it is not considered acceptable to treat people differently according to their gender, race, ethnicity, religion, sexual orientation, or social status. Finally, there is still substantial disagreement about the relevance of a set of contested criteria that includes age, responsibility for own health, area of living and personal income.[1]

Making ethical judgments

Evaluating priority setting against ethical standards requires information, analysis, judgment, and the use of public reason. In the case of so-called horizontal equity (see Box 1), this can be quite straightforward. If two patient groups are equal on all relevant criteria – they have the same health if not treated, the expected outcomes are the same, and service costs are the same – they are treated unequally if one group is given higher priority, say because of ethnicity. In cases of vertical equity, when people are unequal in a relevant sense, the judgments become more complex. But even here, the overlapping consensus offers advice. For example, if we consider a given case, where two groups have the same health status without the service, and the same expected outcomes, but alternative costs differ widely – most ethical theories of distributive justice in health will accept that the more cost-effective service is given priority. This is so because the two groups differ in one relevant sense and in no other. The two groups are treated differently for the right reason.[2] Similarly, if two groups are similar with respect to cost-effectiveness of the service they need, but differ in health without this service, say the first group has multiple sclerosis and average healthy life expectancy is lower than for a group with, say, influenza, vertical equity implies that the former service should have priority.

Conditions for fair and legitimate process

Many cases are even more complex than those discussed above. Reasonable people agree on much, but may also disagree over which criteria are relevant, how they should be interpreted and applied, and what weight they should have.[10]

Some therefore argue that substantive evaluation of priority setting decisions should be replaced by assessments according to criteria for fair and legitimate process.[11] Others argue that both process and substantive judgments are important.[12] Accountability for reasonableness is one widely accepted

framework that sets out conditions for legitimate process.[13] The core idea is that reasons for priority setting decisions should be publicly available. This means that those who provide and pay for services should make the range of services they offer public, and that the reasons for inclusion or exclusion are made clear to all key stakeholders, assuming that all seek reasonable justifications for such decisions. More specifically, accountability for reasonableness suggests four conditions that should be met: publicity, relevance, revision and appeals, and regulation. Priority setting should be publicly justified with reference to relevant reasons and evidence. A fair process should be inclusive with broad stakeholder involvement, and mechanisms for critical assessment and revision. The process itself should be institutionalized so that all key decisions meet these conditions. If satisfied, these quite reasonable four conditions can connect decisions about priority setting to broader educative and deliberative democratic processes.[14]

In summary, priority setting affects the distribution of health benefits and burdens in society. Even if there is some disagreement between ethical theories about specific issues, everyone agrees that priority setting should be impartial, treat people as equals, promote fair distribution and health maximization, and should follow from clearly relevant and agreed criteria. Both substantive and procedural criteria can be used to evaluate and criticize priority-setting decisions.

[1] For a more detailed discussion of these criteria, see: 9. Norheim OF, Baltussen R, Johri M, Chisholm D, Nord E, Brock DW, et al. Guidance on Priority Setting in Health Care (GPS Health): the inclusion of equity criteria not captured by cost-effectiveness analysis. Cost Effectiveness and Resource Allocation. 2014;12:18.

[2] Needless to say, not all ethical theories would agree here. Non-consequential theories would find differences in costs and consequences less relevant. But such theories are poorly developed for evaluation of priority setting.

Box 1 Ethical aspects of priority setting

Key principles

1. Priority setting should be impartial, unprejudiced, and unbiased

2. Priority setting should satisfy the formal principle of equal treatment
   - People who are equal in all relevant respects should be treated equally (horizontal equity), and
   - People who are unequal in the relevant respects should be treated unequally (vertical equity)

3. Priority setting should aim at both fair distribution and health maximization

4. A fair process is inclusive with broad stakeholder involvement and mechanisms for critical assessment and revision

Relevant criteria for priority setting

- Magnitude of health effect
- Cost
- Severity of disease (defined as health loss)
- Financial risk protection

Irrelevant criteria

- Gender
- Race
- Ethnicity
- Religion
- Sexual orientation
- Social status

Contested criteria

- Age
- Responsibility for own health
- Area of living
- Personal income

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Strengthening Capacity to Produce and Appraise HTA Evidence

Parallel Session

1.3

Capacity to conduct economic evaluation is unevenly distributed across countries, and making better decisions will require investments in strengthening capacity.

Objectives

- The objectives of this session will focus on approaches to strengthening capacity what types of capacity are needed? (drawing on broader frameworks for capacity development
- Where is capacity to undertake economic evaluation best located – universities, research units, government agencies

In different LMICs booth on economic evaluation and priority setting as well as networks for other purposes, how these have been applied, with what results? How can capacity be developed in a sustainable way

Monitoring and Evaluation Officer

Moderator

Richard Cookson
Reader, Center for Health Economics, University of York, United Kingdom

Tessa Tan-Torres Edejer
Coordinator, World Health Organization, Switzerland

Speakers

Catherine Pitt
Lecturer, Department of Global Health and Development,
London School of Hygiene & Tropical Medicine, United Kingdom

Sripen Tantivess
Senior Researcher,
Health Intervention and Technology Assessment Program, Thailand

Andres Pichon-Riviere
Executive Director, Health Technology Assessment and Economic Evaluations, Department of the Institute for Clinical Effectiveness and Health Policy, Argentina

Jasmine Pwu
National Taiwan University, Taiwan

Madeleine Valera (A320)
Director, Health and Wellness cluster, TAO Corporation, Philippines

Emily Carnahan (A255)
Monitoring and Evaluation Officer, PATH, USA

Panelist

Karen Hofman
Director / Associate Professor, Priority Cost Effective Lessons for Systems Strengthening (PRICELESS SA) / School of Public Health, University of Witwatersrand, South Africa

MODERATOR

Richard COOKSON

Reader, Center for Health Economics
University of York

United Kingdom

Richard Cookson is a Professor and NIHR Senior Research Fellow at the Centre for Health Economics, University of York, England. His research focuses on equity in health and health care, and he is conducting a five-year fellowship research programme on health equity impacts. He has helped develop methods of "distributional cost-effectiveness analysis" (DCEA) for incorporating health inequality impacts into economic evaluation (www.york.ac.uk/che/research/equity/d-c-e-a/phrc) and methods for incorporating equity into routine monitoring systems for national and local healthcare quality improvement.

Richard is a member of the NHS Outcomes Framework Technical Advisory Group. He served on the UK National Institute for Health and Clinical Excellence (NICE) Technology Appraisal Committee from 2002-7 and Public Health Interventions Advisory Committee from 2007-9, and was seconded to the UK Prime Minister's Delivery Unit in the Treasury in 2010. He helped set up the UK Health Equity Network in 1999 and co-chaired the economics sub-group for the Marmot review of social determinants and the health divide in the WHO European region from 2010-12. He edited the public health section of the Elsevier On-Line Encyclopedia of Health Economics from 2012-14.

Richard's academic training in economics was at the Universities of York and Oxford, and he has previously worked at the London School of Economics and the University of East Anglia.

MODERATOR

Tessa TAN-TORRES EDEJER

Coordinator
World Health Organization

Switzerland

Dr. Tessa Tan-Torres Edejer is the coordinator of the Unit on Costs, Effectiveness, Expenditure and Priority Setting (CEP) under the Department of Health systems governance and financing (HGF) in the Cluster of Health systems and Innovation in WHO. For the past 15 years, she has been primarily responsible for leading the work on defining the cost-effectiveness of health interventions (WHO-CHOICE)and the costs of scaling up and reaching health goals and targets. Ongoing work revolves around fair resource allocation, priority setting and explicit equity-efficiency trade-offs and the development of OneHealth Tool, a UN interagency health sector costing and planning tool. Another major area of work in the unit is on health accounts which includes the annual updating of the health expenditure estimates of WHO's 194 member states and assisting countries to institutionalize the routine production and use of health expenditure estimates. The reporting is guided by the global standard for reporting health expenditures, the System of Health Accounts 2011 and facilitated in-country with the use of the health accounts production and analysis tool.

Catherine PITT
Lecturer
Department of Global Health and Development
London School of Hygiene & Tropical Medicine

United Kingdom

Catherine Pitt is a Lecturer in Health Economics at the London School of Hygiene & Tropical Medicine. Her work concentrates on the economic evaluation of health interventions in low- and middle-income countries and the associated methodological challenges. She has conducted empirical studies in West Africa evaluating interventions to address malaria and maternal and newborn health and has examined donor funding flows to maternal, newborn, and child health. Prior to entering academia, Catherine worked in the humanitarian aid sector. She received a BA from Yale University and an MSc in Public health in developing countries from LSHTM.

Sripen TANTIVESS

Senior Researcher
Health Intervention and Technology Assessment Program

Thailand

Sripen Tantivess is a senior researcher at the Health Intervention and Technology Assessment Program (HITAP), Ministry of Public Health, Thailand. She is a pharmacist by training, and received a doctoral degree in Public Health and Health Policy from the London School of Hygiene and Tropical Medicine. Dr Tantivess joined Thailand's Food and Drug Administration in 1984, and had a fifteen-year experience in the areas of drug approval and pre-marketing regulation and national drug policy development. She started her research career in 1999, and has been working with HITAP since 2007. Her research focuses on public policy analysis and health technology assessment (HTA). She is interested in analyzing the role, values and power of stakeholders, influence of contextual factors, as well as the processes through which particular policies are pursued. Her publications cover a range of topics such as the introduction of antiretroviral treatment initiatives, implications of international trade agreements on access to medicines, and use of HTA in coverage decisions in the context of universal health coverage.

Andres PICHON-RIVIERE

Executive Director
Health Technology Assessment and Economic Evaluations
Department of the Institute for Clinical Effectiveness
and Health Policy

Argentina

Prof. Andres Pichon-Riviere MD Msc PhD, is a Physician, graduated from the University of Buenos Aires (UBA). He has a Master of Sciences in Clinical Epidemiology from Harvard University and a PhD in Public Health (UBA). He received training in disease modeling and economic evaluation methods at University or York and the London School of Hygiene and Tropical Medicine.

Andres is the Executive Director and Director of the Health Technology Assessment and Economic Evaluations Department of the Institute for Clinical Effectiveness and Health Policy (IECS) and Director of the WHO/PAHO collaborating center in HTA. The IECS is an independent, non-for-profit organization devoted to research, education and technical support with the main goal of improving efficiency, equity, and quality of health care systems and policies in Argentina and Latin America. IECS is one of the leading Latin American Health Technology Assessment (HTA) Agencies, with more than 400 HTA reports published in the last ten years and indexed in the Centre for Reviews and Dissemination Database. He is also Professor of Public Health at the University of Buenos Aires and Director of the courses of HTA for Decision Makers, HTA Postgraduate Course, and Economic Evaluation Modeling Introductory Course.

He has conducted several training, research and implementation projects in HTA and health economic evaluations in cooperation with government agencies, academic and private institutions in Argentina, Bolivia, Brazil, Chile, Colombia, Mexico, Panama, Peru, Uruguay, and Venezuela. In 2008 was awarded the Global Health Leadership Award from the Global Health Research Initiative to promote HTA in Latin America.

He was Vice-Chair of the International Network of Agencies for Health Technology Assessment (INAHTA) between 2011 and 2014, and currently he is member of the board of Directors of Health Technology Assessment International (HTAi).

His recent work has involved studies in cost-effectiveness of vaccines, public health interventions, and oncologic drugs, tobacco disease burden, priority setting mechanisms in developing countries and chronic diseases.

Jasmine PWU
Senior Investigator
Health Data Research Center
National Taiwan University

Taiwan

Dr. Jasmine (Raoh-Fang) Pwu works as Senior Investigator in Health Data Research Center (HDRC) of National Taiwan University. She also is adjunct Assistant Professor at the Taipei Medical University.

Trained as an epidemiologist, Dr. Pwu has been an expert in both observational research and large database analysis. She had been involved in several important tasks during the development of National Health Insurance Research Dataset. Her career started as a consultant in a consulting company, during which she provided services for clinical research/epidemiologic study design, large database analysis, and economic evaluation analyses. These experiences are extremely valuable for her current mission of building data science infrastructure and capacity in HDRC.

Dr. Pwu finds economic evaluations, especially modelling studies, very interesting and thus obtained her PhD degree with the subject of dissertation on the application of cost-effective analysis using examples from vaccine and anti-viral treatments. In this area, she has over 20 years of research experience. When Taiwan started to introduce Health Technology Assessment (HTA), she decided to contribute to this work and later became the Director of the Health Technology Assessment Division for the Center for Drug Evaluation in Taiwan since 2010. Her experiences has led to her participation in various reimbursement and listing decisions of various National Health Insurance services; as well as several research projects designed to aid health policy decision-making in areas such as anti-HBV treatment, cervical cancer screening and HPV vaccination. She teaches ‘decision analysis’ and ‘building decision-analytic models’ over 10 years.

Dr. Pwu is the current President of HTAsiaLink and also actively participates in international collaborations.

Madeleine VALERA

Director
Health and Wellness cluster
TAO Corporation

Philippines

Over 20 years of expertise on: Advocacy and Partnership Building, Health Policy Development, Social Health Insurance and Benefit Development, Pharmaceutical Management, Health Systems Strengthening, Public Health Administration, Public-Private Partnership and International and Regional Coordination, Health Technology Assessment, Disaster Prevention/ Preparedness and Risk Management, Primary Health Care, Patient Safety and Infection Control, Maternal and Child Health, Monitoring and Evaluation, Occupational Health and Safety. Public Health Financing.

Strong problem-solving, conceptualization and research skills. Effective in working with a team and collaborative environment where initiative and creativity are encouraged. Committed to consensus and evidence-based in policy decision. Imaginative in creating scenarios for social/developmental change, community involvement and participatory decision-making process. Effective leadership and organizational capacity as well as technical and financial support, networking and resource management. Able to communicate in an effective manner and willing to work in a challenging environment.

Emily CARNAHAN

Monitoring and Evaluation Officer
PATH

USA

Emily Carnahan, MPH, is a global health professional with a focus on monitoring and evaluation (M&E). As an M&E Officer at PATH, Ms. Carnahan provides short- and long-term technical support to multiple projects, including developing M&E frameworks, plans, and appropriate indicators; monitoring project implementation; overseeing survey instrument design and evaluation design; and managing data collection, storage, analysis, visualization, and reporting.

At PATH, Ms. Carnahan leads the monitoring and evaluation for the Better Immunization Data (BID) Initiative, a $19.5 million five-year grant from the Bill & Melinda Gates Foundation, that aims to empower countries to enhance immunization and overall health service delivery through improved data collection, quality, and use. She is also on the core team that leads a process evaluation of immunization programs and application and use of Gavi support in four countries as part of the Gavi Full Country Evaluation. In addition, Ms. Carnahan is actively engaged in capacity-building for M&E professionals across PATH offices and leads the M&E Department's efforts to engage with the external M&E community through learning, sharing, and collaboration.

Prior to working at PATH, Ms. Carnahan completed a fellowship at the Institute for Health Metrics and Evaluation (IHME) at the University of Washington where she developed and applied sophisticated analytical methods to big data. She managed a comprehensive analysis of the health burden attributable to 67 risk factors and risk factor clusters as part of the Global Burden of Disease (GBD) Study 2010 (published in the Lancet, December 2010). Ms. Carnahan also contributed to the study design and target-setting for the Salud Mesoamérica 2015 Initiative in collaboration with the Inter-American Development Bank and various country governments.

Ms. Carnahan earned an MPH in global health metrics and evaluation from the School of Public Health at the University of Washington, and a BA in economics with a minor in global health from Northwestern University.

Karen HOFMAN

Director / Associate Professor
Priority Cost Effective Lessons for Systems Strengthening (PRICELESS SA)
School of Public Health, University of Witwatersrand

South Africa

Professor Karen Hofman is the Director of PRICELESS SA (Priority Cost Effective Lessons for Systems Strengthening) based at the Wits School of Public Health. (www.pricelesssa.ac.za).

PRICELESS is research programme providing information on "Best Buys" for public health using SA data. Analyses show how scarce resources, can be used effectively and efficiently to have the most impact. PRICELESS also demonstrates how to achieve better health through the use of fiscal, legislative and regulatory levers.

A medical graduate of the University of the Witwatersrand and trained as paediatrician, Karen previously served as Director of Policy and Planning at the US NIH, Fogarty International Center and spent a decade on the faculty at the Johns Hopkins School of Medicine. She has consulted for WHO /PAHO and is published widely in international journals.

SHORT
PAPER

1.3

Prince Mahidol Award Conference 2016: Priority Setting for Universal Health Coverage Session subtheme 1.3.
Strengthening capacity to produce and appraise HTA evidence

Case Study/Background paper
Speaker:
Andres Pichon-Riviere MD MSc PhD

The Health Technology Assessment Network of the Americas (RedETSA in its Spanish acronym) is made up of 14 countries and 26 institutions throughout the Americas, with the Pan American Health Organization (PAHO) acting as its Secretariat. As one of its first activities RedETSA performed a mapping of HTA capacity in the region and opportunities for further development of human resources in HTA. One of the conclusions of this mapping was that there are very different needs among the members of the network. There are countries with more years of experience in HTA that require training in more specific areas (e.g. economic evaluations methods, network meta-analysis, budget impact) while other countries are at earlier levels of HTA development and still need introductory training in HTA methods and awareness activities aimed at decision-makers to promote HTA. With regard to training tools, countries value the opportunities offered by distance learning programs, but consider that the role of face to face activities remains critical.

The Pan American Health Organization (PAHO) launched in 2014 a virtual introductory course in HTA which aroused much interest, and in its first version had 352 applicants and finally 47 students from 18 countries, where priority was given to participants from lower income countries with fewer training options. Additionally, RedETSA holds annual meetings which have been organized to provide training activities on topics prioritized by the members.

The Institute for Clinical Effectiveness and Health Policy (IECS in its Spanish acronym) is member of RedETSA and has developed many training activities in the region. IECS is an academic, non-profit organization based in Argentina. It is a WHO Collaborating Centre in Health Technology Assessment (HTA) and one of the main HTA agencies in Latin America (LA). IECS provides information about the effectiveness, safety, cost-effectiveness, and budgetary impact of drugs, devices, programs, diagnostic methods, and other health technologies to a consortium made up of more than 40 public and private health institutions in Argentina and other Latin American countries. The IECS holds the Argentine Cochrane Center conducts systematic reviews, burden of disease studies, economic evaluations based on individual patients or using decision models, cost studies, health-related quality of life research, clinical guidelines, and other projects related to health systems and health economics.

In 2008, with growing interest in HTA across Latin America, but with scarce training materials available in Spanish, IECS developed a first HTA distance-learning course with a research grant from the Global Health Research Initiative. Later, also following the evolution of the needs of the region, this first course (HTA Diploma, 9 months duration oriented to doers) was accompanied by another course specifically aimed at decision makers (3 months duration oriented to users), and three other courses aimed at conducting systematic reviews and economic evaluations (introductory and advanced). Until now these courses were taken by almost 500 people from 15 different countries. Customization of these programs

has also proceeded where needed, usually for training government staff in countries such as Brazil, México and Colombia where the addition of a face to face component was necessary. This was especially necessary in the case of those courses in which one of the objectives was students to conduct a HTA document, a systematic review or an economic evaluation. In these cases it was necessary to schedule at least two or three face to face meetings, dedicated largely to tutoring the research projects. When these research projects aimed to develop a document that was relevant for the workplace of the students, and the result was useful for decision making, commitment of institutions and students was higher.

In the development of these activities the lessons learned have been:

- Learning by doing. The most successful courses were those in which students were required to produce a document (HTA document, systematic review or economic evaluation) with proper tutoring from teachers, and with support from their institutions to carry forward these documents (either individually or in groups).
- The distance education programs require many hours to students, often in a way similar to face to face programs. In many of our courses students must spend between 7 to 10 hours per week. And this is something that students often do not adequately foresee. Even when we are warned in the specifications of the course.
- Students need protected time from their institutions to devote to the education programs. It is difficult to keep pace with the course if an institution does not recognize the time required to complete the training.
- The tutoring of online courses is also a key factor. All our programs have personalized tutoring with a tutor every 8-15 students. Expensive from the point of view of course budget and this is something that has to be taken into account
- Second, not all goals can be achieved by distance learning alone. The opportunity to include a face-to-face component of the training can be expensive, but is a crucial factor to the success of the training program.
- To mix in the same course students with different backgrounds and interests can be problematic (eg researchers and decision makers). In the first cohort of our HTA diploma this was a serious problem. Many students were decision makers not interested in deepening their knowledge in methods. Their interest was primarily to understand the basic concepts of HTA and how they could apply this tool. But other students were researchers interested in learning how to make an HTA report. It was very difficult to handle such diverse interests in the same course. This was what motivated us next year to develop a new program, of just 10 weeks, more focused on decision makers. And this is one of our most successful courses we currently have available.
- In some cases institutions have well-defined training needs. In these cases is not a good idea to force them to adjust to programs already available. In many cases it is necessary to make customized programs.

Capacity building for HTA in Asia-Pacific region

Dr. Jasmine Pwu

It has been recognized that the health technology assessment (HTA) can play an important role in supporting decisions, especially for the policies for achieving Universal Health Coverage (UHC). However, HTA will not work if just some people performing economic evaluations. Instead, it requires common understanding about the concepts, the core values, the terms used, the roles, the objectives, the infrastructure needed, and importance of teamwork. In the Asia-Pacific regions, these are all very new - hence the first step to introduce HTA system is to build up capacity.

There are at various types of stakeholders that are in need of capacity building for HTA – HTA agencies, decision makers, industry, academia, patients and public. Different aspects and skill sets for capacity building are needed in these groups of people. Efforts and resources have to be spent to properly plan and provide the much needed capacity building.

With regard to workers in HTA agencies, there have been constant learning on the latest HTA methodologies, activities, etc. These usually are through information gathering and network sharing. Among all, the most pressed and prominent issue is the immediate need for new staff. There should be ongoing training and development of new talent, as well as a concerted effort to stay on top of new trends and developments. It would be preferably aligned efforts made from university and the HTA agencies.

Being the network of HTA workers in the Asia-Pacific region, HTAsiaLink has made it the central merit to collaborate on capacity building. Consequently a series of activities were designed to meet that goal – staff visiting, forums, symposiums, and the Annual Conferences. The Annual Conferences are for the junior staff – a ‘safe’ place to present their preliminary work, to learn from the international experts, and to network with the HTA peers in the region. Until today, there have been 4 HTAsiaLink Annual Conference, held in Bangkok, Penang, Beijing and Taipei. All these conferences have successfully achieved the goals of capacity building.

As mentioned, there are other sectors that need capacity building on HTA. There are a lot of activities in this region that are to this topic. “How can HTAsiaLink play a role in bringing them HTA, as well as we help each other in HTA workers?”, that would be the next important mission for us.

Abstract

***Patient Voices*: Experiences in Building National Capacity to Include the Patient Experience in Health Technology Assessments (HTA)**

Madeleine de Rosas-Valera

Should patients have a voice in health technology assessments in Asia? Patient involvement in health technology assessments is based on the premise that patients have a specific expertise derived from being patients, which is a valuable source of knowledge. While western countries have mechanisms in place to make sure that patient advocacy is a standard process, the situation is different in Asia. In Asia, the process of engaging patients in the HTA process is in its infancy.

The Patient and Citizen Involvement Sub-Group of Health Technology International (HTAi) surveyed and found that while Asian patient organizations want to be involved in the HTA process, they have limited skills and irregularly engage with public agencies. They are hindered by limited resources, time, knowledge of HTA, communication, non-transparent and bureaucratic processes, perceptions of hidden agendas and not being seen as equals during discussions. What they needed to participate was " training, education, well managed expectations, communication, acceptance of living knowledge, more meetings and a champion or advocate." (Wade, 2014)

Few Asian countries include the patient experience in their HTA reviews. In the Philippines, this was due to lack of policy and procedure, experience and limited capacity among both public and private agencies to engage and to professionally capture the patient experience. Since April 2015, the Philippines has initiated the involvement of patient groups as stakeholders in the HTA process. Its experience began by building technical capacity through training among patient advocacy groups, establishing standards to generate and organize evidence of the patient experience and aligning public and private research agendas for a synchronized HTA partnership. It is presented for study and replication.

Background paper on "Capacity Building for HTA in Asia" (part of PS 1.3: Strengthening capacity to produce and appraise HTA evidence)

Sripen Tantivess, Ph.D., Health Intervention and Technology Assessment Program, Thailand

During the past decade health technology assessment (HTA) institutes were established in many countries in Asia such as China, South Korea, Malaysia, Taiwan and Thailand (1). Meanwhile, policymakers in India, Indonesia, the Philippines, Vietnam and other settings pursuing universal health coverage (UHC) recognized the increasing need for appropriate resource allocation. Launched in 2013, the International Decision Support Initiative (iDSI) aims to facilitate evidence-informed policy making in low- and middle income countries (2). The initiative is led by the International Unit of the UK National Institute for Health and Care Excellence (NICE), and funded by the Bill & Melinda Gates Foundation, the UK Department for International Development and the Rockefeller Foundation. As a global partnership between government agencies, universities, and think tanks in the field of health priority-setting, it uniquely provides intellectual insights with hands-on experiences, and delivers peer-to-peer support to policymakers and international funders. The focus of this presentation is on iDSI's capacity building programs, managed by Thailand's Health Intervention and Technology Assessment Program (HITAP)[1], in Indonesia and Vietnam.

In each country, HITAP engages with policymakers and respective stakeholders to conduct an analysis of the health system context and key players; identify an institute as country's HTA focal point; and prioritize areas of policy demand for evidence. In further step, HITAP collaborates with the officially-appointed HTA focal point and other local partners to build technical and policy capacity relevant to evidence generation and connection between research and policy development. It is noteworthy that in some instances, external supports in terms of expertise and finance are mobilized from not-for-profit agencies such as the World Health Organization (WHO), PATH, the HTAsiaLink[2], and Mahidol and Silpakorn Universities, Thailand.

In Indonesia, the National Health Technology Assessment committee (HTAC) was established by the Ministry of Health (MOH) decree in 2014, in order to improve policy decision making and thereby population health (3). From 2014, HITAP has been working with Indonesian policymakers in the MOH and the social health insurer *Badan Penyelenggara Jaminan Sosial* (BPJS), researchers and the HTAC to build on HTA capacity at country level, as well as to formulate an HTA policy roadmap and guidelines for HTA processes and methods. Jointly organized by the iDSI and the Access and Delivery Project (led by PATH)[3], several workshops, visits, and study tours shared technical and process expertise with diverse groups of key stakeholders. Two priority HTA topics have been addressed; cost-utility studies of sildenafil as a treatment for pulmonary arterial hypertension, and renal dialysis for patients with end-stage renal disease were conducted by researchers in universities and the National Institute of Health Research and Development to inform clinical practice guidelines and insurance coverage. The two

[1] A research arm of Ministry of Public Health, Thailand (http://www.hitap.net/en/)
[2] A network of HTA institutes in Asia (http://www.htasialink.org/)
[3] http://adphealth.org/#

studies serve as a platform for HITAP staff to provide hands-on support to the Indonesian counterpart for the evidence generation and integration of HTA findings in decision making processes. Technical assistance will be continually provided to the implementation of the two interventions.

In Vietnam, HITAP has provided support for HTA institutionalization since 2013. A scoping study was conducted to gain understanding on the need and demand for HTA, existing technical capacity and broader context of the health systems (4). The Health System and Policy Institute (HSPI) was appointed by the Health Minister as the national HTA focal point to collaborate with stakeholders to develop HTA framework, roadmap, strategy and guidelines. Drawn on Thailand's experience for HTA topics selection, Vietnam's policy-relevant topics were prioritized in a consultation meeting in June 2014. HSPI staff and researchers in Hanoi School of Public Health conducted HTA studies on the priority topics, including economic evaluation of trastuzumab and pegylated interferon for treatment of HER-2+ breast cancer and chronic hepatitis C, respectively, and determination of the use of MRI in Vietnam. During 18 months of the studies, HITAP provided close supervision to the researchers, and also organized training workshops on the methodology, economic evaluation models, estimating the health state preference, and costing for the priority HTA topics. In order to enhance understandings on both technical and policy part of priority setting, study visits at HITAP and NICE were arranged for senior officers of Vietnam's MOH and national health insurance office along with researchers of the HSPI and academic institutes.

Indonesia and Vietnam have made progress in HTA introduction, as policymakers recognized the crucial role of HTA as a tool for priority setting, and requested for capacity building support. However, sustainable systems for evidence-informed decisions in both countries require continuous, strong commitments of executives in respective national policy authorities and HTA focal points; collaboration of local stakeholders especially research institutes; and long-term support from international initiatives. Importantly, capacity building should target not only individual researchers, but also policymakers, technical officers, as well as their organizations and networks. In the UHC context, common understandings on the need for health priority setting and HTA research should be created among health professionals, industry and lay people as they are tax payers and beneficiaries.

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Human Rights - Entitlement to Health: What Does It Mean in Practice and How Can It Affect Priority Setting for UHC?

Parallel Session

1.4

The “right to health” is enshrined in the WHO Constitution. It is required under international law, notably in the International Covenant of Social, Economic, and Cultural Rights (ICSECR). And the right to health is found in the constitutions of many states, notably in India, Asia, Africa and Latin America, where it is also justiciable (subject to protection by the judiciary). As a result, in a growing number of cases, individual patients denied access to high-cost medicines and technologies under UHC have challenged this through courts of law, which have often, but not always, ruled in favor of those patients. In many other situations, citizens resort to courts to request access for medicines, services, technologies already included in the benefit basket of their country. The former cases speak to challenges to priority setting processes whereas the latter to shortfalls on the service delivery mechanisms.

Objectives

The session will aim to discuss country experiences and examples of litigation over access to treatments in countries like India, Brazil, Mexico, Colombia, Uganda, South Africa, and the United Kingdom, with a view to reflecting on potential implications for emerging economies looking to introduce entitlements to services such as the Indian National Health Assurance Mission.

Moderator

Siri Gloppen
Research Director, CMR Michelsen Institute, Norway

Speakers

Leonardo Cubillos
Physician and Researcher, Dartmouth College, USA

Kola Odeku
Ford Foundation Scholar, University of Limpopo, South Africa

Mulumba Moses
Executive Director, Center for Health,
Human Rights and Development (CEHURD), Uganda Christian University, Uganda

Anand Grover
Senior Advocate, Supreme Court of India
Director, Lawyer's Collective, India

Panelists

Carleigh Krubiner
Senior Program Officer, Results for Development Institute, USA

Lawrence Gostin
Founding O'Neill Chair in Global Health Law, Georgetown University, USA

MODERATOR

Siri GLOPPEN

Research Director
CMR Michelsen Institute

Norway

Siri Gloppen is Director of the Centre on Law & Social Transformation; Professor of Comparative Politics at the University of Bergen in Norway and Senior Researcher at the Chr. Michelsen Institute. In her research, at the intersection between law and politics she explores the use of law as an instrument of social change. Particular focus is on the role of law, courts and legal mobilization based on the right to health and sexual and reproductive rights. She has led several cross-regional research projects comparing the social and political role of courts in Africa, Latin America, and India. Her current research projects include: “Operationalizing the Right to Health in Service Delivery” (2013-2016); “Sexual and Reproductive Rights Lawfare “ (2014-18); “Political determinants of sexual and reproductive health: Criminalisation, health impacts and game changers” (2015-2020) and “Land Rights and Inclusive Sustainable Development in India” (2013 - 2016) Recent (collaborative) books include Litigating Health Rights: Can Courts Bring More Justice to Health (Harvard 2011); Climate Change Discourses, Rights and the Poor (Juta 2013); Juridification and Social Citizenship (E.Elgar, 2014).

Lawrence GOSTIN

Founding O'Neill Chair in Global Health Law
Georgetown University

USA

Lawrence O. Gostin is University Professor, Georgetown University's highest academic rank conferred by the University President. Prof. Gostin directs the O'Neill Institute for National and Global Health Law and is the Founding O'Neill Chair in Global Health Law. He served as Associate Dean for Research at Georgetown Law from 2004 to 2008. He is Professor of Medicine at Georgetown University and Professor of Public Health at the Johns Hopkins University.

Prof. Gostin is the Director of the World Health Organization Collaborating Center on Public Health Law & Human Rights. The WHO Director-General has appointed Prof. Gostin to high-level positions, including the International Health Regulations (IHR) Roster of Experts and the Expert Advisory Panel on Mental Health. He served on the Director-General's Advisory Committee on Reforming the World Health Organization, as well as numerous WHO expert advisory committees on the Pandemic Influenza Preparedness Framework, smallpox, and genomic sequencing data. He is a member of the WHO/Global Fund Blue Ribbon Expert Panel entitled, The Equitable Access Initiative to develop a global health equity framework.

Professor Gostin serves on two global commissions to report on the lessons learned from the 2015 West Africa Ebola epidemic: Commission on a Global Health Risk Framework (National Academy of Sciences, supported by WHO, World Bank, Gates Foundation, and Rockefeller Foundation) and the Independent Panel on the Global Response to Ebola (Harvard University/London School of Hygiene and Tropical Medicine).

Prof. Gostin holds a number of international academic professorial appointments: Visiting Professor (Faculty of Medical Sciences) and Research Fellow (Centre for Socio-Legal Studies) at the University of Oxford, United Kingdom; the Claude Leon Foundation Distinguished Scholar and Visiting Professor at the University of Witwatersrand, Johannesburg, South Africa; and the Miegunyah Distinguished Visiting Fellow and Founding Fellow of the Centre for Advanced Studies (Trinity College), University of Melbourne. Prof. Gostin served as

Secretary and a member of the Governing Board of Directors of the Consortium of Universities for Global Health.

Prof. Gostin holds numerous editorial appointments in leading academic journals throughout the world. His principal position is the Health Law and Ethics Editor, Contributing Writer, and Columnist for the Journal of the American Medical Association. He is also Founding Editor-in-Chief of Laws (an international open access law journal). He was formally the Editor-in-Chief of the Journal of Law, Medicine & Ethics.

Prof. Gostin holds four honorary degrees. In 1994, the Chancellor of the State University of New York conferred an Honorary Doctor of Laws Degree. In 2006, Her Majesty Queen Elizabeth II and the Vice Chancellor awarded Cardiff University's (Wales) highest honor, an Honorary Fellow. In 2007, the Royal Institute of Public Health (United Kingdom) designated Prof. Gostin as a Fellow of the Royal Society of Public Health (FRSPH). In 2012, the Chancellor of the University of Sydney – on the nomination of the Deans of the Law and Medical Schools – conferred a Doctor of Laws (honoris causa) in the presence of two Justices of Australia's highest court—Justices Kirby and Haydon.

Prof. Gostin is an elected lifetime Member of the National Academy of Medicine (formerly Institute of Medicine), National Academy of Sciences. He has served on the National Academy's Board on Health Sciences Policy, the Board on Population Health and Public Health Practice, the Human Subjects Review Board, and the Committee on Science, Technology, and Law. He chaired the National Academy's Committee on Global Solutions to Falsified, Substandard, and Counterfeit Medicines. He has chaired National Academy Committees on national preparedness for mass disasters, health informational privacy, public health genomics, and human subject research on prisoners.

The National Academy of Medicine awarded Prof. Gostin the Adam Yarmolinsky Medal for distinguished service to further its mission of science and health. He received the Public Health Law Association's Distinguished Lifetime Achievement Award "in recognition of a career devoted to using law to improve the public's health" presented at the CDC. The New York Public Health Law Association conferred the Distinguished Lifetime Achievement Award for extraordinary service to improve the public's health.

Prof. Gostin is also a lifetime elected Member of the Council of Foreign Relations (providing independent advice to governments on foreign policy) and a Fellow of the Hastings Center (for bioethics and public policy).

Internationally, Prof. Gostin received the Rosemary Delbridge Memorial Award from the National Consumer Council (United Kingdom) for the person "who has most influenced Parliament and government to act for the welfare of society." He also received the Key to Tohoko University (Japan) for distinguished service for human rights in mental health.

Prof. Gostin has led major law reform initiatives in the U.S., including the drafting of the Model Emergency Health Powers Act (MEHPA) to combat bioterrorism and the "Turning Point" Model State Public Health Act. He is also leading a drafting team for the World Health Organization and International Development Law Organization, Advancing the Right to Health Through Public Health Law.

Prof. Gostin's proposal for a Framework Convention on Global Health – an international treaty ensuring the right to health – is now part of a global campaign, endorsed by the UN Secretary-General and Director of UNAIDS.

In the United Kingdom, Lawrence Gostin was the Legal Director of the National Association for Mental Health, Director of the National Council of Civil Liberties (the UK equivalent of the ACLU), and a Fellow at Oxford University. He strongly influenced the current Mental Health Act (England and Wales) and brought several landmark cases before the European Court of Human Rights.

Prof. Gostin's latest books are: Global Health Law (Harvard University Press, 2014; Chinese Translation Due in 2016)); Public Health Law: Power, Duty, Restraint (University of California Press, 3rd ed. Forthcoming 2016); Public Health Law and Ethics: A Reader (University of California Press, 2nd ed., 2010); Law and the Health System (Foundation Press, 2014); Principles of Mental Health Law & Practice (Oxford University Press, 2010).

Paul Farmer, Partners in Health, says of his latest book: Global Health Law is "more than the definitive book on a dynamic field. Gostin harnesses the power of international law and human rights as tools to close unconscionable health inequities — the injustices that burden marginalized populations throughout the world. Gostin presents a forceful vision, one that deserves a wide embrace."

In a 2012 systematic empirical analysis of legal scholarship, independent researchers ranked Prof. Gostin 1st in the nation in productivity among all law professors, and 11th in in impact and influence.

Anand GROVER

Senior Advocate, Supreme Court of India
Director, Lawyer's Collective

India

Anand Grover, is a designa ted Senior Advocate, practicing in the Supreme Court of India and the Director of the Lawyer's Collective (India), having offices in Mumbai, Delhi and Bangalore. He was the UN Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health (Right to Health) by the UN Human Rights Council from 1 August 2008 to 31 July 2014. Anand Grover is a well-known long-time advocate and activist on HIV and human rights.

He has argued many cases relating to the rights of people living with HIV, including the first HIV case in India relating to employment law, on sexual diversity, including the case which decriminalized same sex in the Delhi High Court, and the Supreme Court, (the Naz Foundation case) now pending decision, (the NALSA case relating to recognition of transgender identity), cases relating to women in respect of employment, sexual harassment at the workplace etc., patent cases to make medicines accessible in India, and the developing countries, including the Novartis (relating to patentability criteria and the cancer drug Gleevec) and the Natco case (relating to compulsory license of the cancer drug, Nexavar) cases relating rights of sex workers and persons who use drugs, on tobacco use and information relating to the same, death penalty for drug users.

He has recently been appointed as the Special Public Prosecutor to conduct the prosecution in the 2G case, one of the biggest anti corruption cases in India.

He has spoken and at the national, regional international conferences. He presented the Jonathan Memorial Lecture at Toronto Conference on HIV/AIDS.

Mr. Grover has worked closely with UNAIDS on HIV-related rights and law issues for many years and has been a valuable resource for it. In this regard, he has served on the UNAIDS Reference Group on HIV and Human Rights which advises UNAIDS Executive Director, Michele Sidibe, on how it can strengthen the commitment and capacity of governments, civil society and the private sector to protect and promote human rights in relation to HIV. At the request of the Government of India, Anand Grover and the Lawyers Collective drafted the HIV Bill, which is pending with the Government.

He was the member of the drafting group of the International Guidelines on Human Rights & HIV/AIDS and a member, National Board, AVAHAN, the India AIDS Initiative, Gates Foundation, Board Member of International AIDS Vaccine Initiative, the Reference Group on Human Rights to the Executive Director, UNAIDS, National Advisory a member of the World Care Council, a member of the Core Group of NGOs representatives in the National Human Rights Commission of India and the member of the National Advisory Board on HIV and AIDS set up the Prime Minister of India.

He is presently a member of Global Commission on Drug Policy and member of the Lancet-University of Oslo Panel on Global Governance of Health.

In August 2008, Mr. Grover took over from Paul Hunt, as the UN Special Rapporteur on the Right to Health for a period of six years. He has submitted eleven reports to the UN Human Rights Council (HRC) and the UN General Assembly on i) TRIPS, Patents, FTAs and the Right to Health; ii) Informed Consent and the Right to Health, iii) Criminalization of HIV transmission, same sex relations and sex work and the Right to Health iv) Criminalization of Drug use and the Right to Health; v) Development and Right to Health; vi) Elderly Persons and the Right to Health; vii) Right to Sexual and Reproductive Health and Criminalization; viii) Access to Medicines and the Right to Health; ix) Occupation Health; x) Health Financing and xi) Migration and Health; xii) Conflict and Health; xiii) Promotion of Unhealthy food and health and xiv) Evaluating the Right to Health. He has also undertaken nine countries missions, to Poland, Australia, Guatemala, Syria, Ghana, Vietnam, Azerbaijan, Tajikistan and Japan and submitted reports of his missions to the HRC.

Leonardo CUBILLOS-TURRIAGO

Physician and Researcher
Dartmouth College

USA

Leonardo is a Colombian medical doctor and policy maker with over 15 years of experience in medicine, health insurance and human rights in Latin America, India and Africa. He is currently employed as a clinical medical doctor in the Psychiatry Department at the Dartmouth Medical School, where he also supports wider teaching and service delivery research efforts.

Prior to joining Dartmouth College, he worked as senior health specialist at the World Bank where he focused on the operationalization of the right to health in Latin America and Africa. In Latin America, Leonardo developed a Multi Stakeholder Regional Collaborative (named SaluDerecho) where more than 2000 practitioners from 8 countries worked together to overcome complex ethical and practical challenges in health policies aiming at increasing coverage, access, and ultimately the realization of the right to health. In Africa, in the Republic of Congo and in the Democratic Republic of Congo, Leonardo developed innovative processes to engage citizens and communities in decision making and in the delivery of services related to mother and child health.

During his tenure at the Ministry of Health of Colombia Leonardo was Advisor to the Minister, and later Director General of the Health Insurance Scheme covering 43 million citizens. In this latter capacity he was responsible for the regulation of: (i) benefits plans; (ii) insurer payment mechanisms; and, (iii) provider payment mechanisms throughout the country.

Leonardo has authored a number of papers and policy documents on the abovementioned topics. He is a fellow from the Salzburg Global Seminar, and serves in the Editorial Advisory Board of the scientific journal of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR).

Leonardo is an MD with graduate studies in Business Administration & Marketing from Universidad del Rosario in Colombia, and holds a MPH from Harvard University. He is currently pursuing residency in Adult Psychiatry at the Dartmouth Medical School.

SHORT
PAPER

1.4

The International Right to Health: What does it mean in practice and how can it affect priority setting for Universal Health Coverage?

Leonardo Cubillos, Lawrence Gostin, Kalipso Cubillos, Ryan Li

Health Systems & Reform **supplement for PMAC2016: Abstract**

The international human right to health is enshrined in the World Health Organization Constitution. It is required under international law, notably in the International Covenant of Social, Economic, and Cultural Rights (ICSECR). The right to health is also found in the constitutions of many states, notably in India, Asia, Africa and Latin America. In many countries, the right to health (or to a safe environment or to life, which are also in national constitutions) is justiciable, meaning that national courts can interpret its provisions. As a result, in a growing number of cases, individual patients denied access to high-cost medicines and technologies under Universal Health Coverage (UHC) systems have challenged the denial of access. Often, but not always, the courts of law have ruled in favor of those patients. In many other situations, citizens resort to courts to request access for medicines, services, technologies already included in the benefit basket of their country. The former cases speak to challenges to priority setting processes whereas the latter to shortfalls on the service delivery mechanisms.

This article will examine judicial decisions that require access to products not currently on a government's list of essential medicines. It will explore the tension between an individual's claims to high-cost drugs as a human right against society's attempts to serve the whole population. Should the right to health be construed as an individual entitlement or a collective good? Under what circumstances should courts uphold the right of access to medical products and using what criteria? These questions highlight the challenges associated with growing demand for medical services and the finite budgets allocated for for UHC.

Many states have sought to introduce explicit and evidence-informed mechanisms of priority-setting such as health technology assessment. Should these evidence-based population-based tools supplant litigation over the right to health or can the two co-exist, and why? What is their potential going forward? Can a rights-based approach inform and potentially strengthen prioritization? Finally, what lessons can be offered to countries navigating these difficult waters of political economy and ethics, where health, finance and social security policymakers, courts of law, and interest groups (including the pharmaceutical industry as well as patient advocacy groups) intersect?

Prioritisation and Public Health Emergencies: First Things First – the Imperative of Disease Surveillance Systems in a Globalized World

Parallel Session

1.5

While there are multiple benefits from an ever interconnected world, there are also public health risks that are associated with demographic and economic pressures on ecosystems that facilitate the transmission of new pathogens from animals to humans. These zoonotic diseases account for 70% of emerging infectious diseases. As we have seen recently with Ebola, an infectious disease of animal origin, and before with SARS and Avian Influenza, viruses jump and spread across borders without passports, wreaking havoc in their wake among unsuspecting populations, countries, and continents. This situation is becoming more challenging as the increased movement of goods, services, and people across the world facilitates the rapid spread of infectious diseases.

At the same time, countries across the world – high, middle and low income – are all moving towards Universal Health Coverage (UHC) through multiple health system reform processes. This is well-articulated within the wider global development agenda setting forth in 2016. As these moves towards UHC gain momentum it is critical that the interface between health systems priority setting and public health security is strengthened. Indeed, in order to have strong surveillance and laboratory systems, and solid epidemiological intelligence with well trained human resources, that can

detect and respond to emerging and re-emerging pathogens effectively there is an urgent need to examine and strengthen health system underpinnings at the national and sub-national levels. Further, there is an increasing recognition that quality of service delivery is a key component of successful efforts at realizing UHC and at the same time enhancing health protection for populations vulnerable to multiple risks.

The Ebola epidemic in West Africa has made evident at a very high human, social, and economic cost the imperative of investing on and sustaining core public health systems (e.g., disease surveillance, laboratories, field epidemiologists) and essential health services as a priority "global public health good." Indeed, countries like the Ebola affected countries will not be able to manage an Ebola-like crisis for years to come, hence the case for global investment both internationally and in country. Also, in country investment completed by international assistance is required to build, strengthen and sustaining national institutions, including processes for making decisions and enacting those, and putting in place required infrastructure and developing, managing and retaining core human resources.

Perhaps the only good outcome of the Ebola epidemic that made the whole world "jittery" is that it may serve as a wake-up call to the world to invest in better disease surveillance, laboratory-testing capacity, and epidemiological intelligence capacity, for normal situations and for epidemics, as an overarching priority for country, regional and global level health investments in addition to priority setting based on clinical and cost-effectiveness of individual interventions and also public health/policy programs. The relative high importance of these investments is justified by the fact that the world needs to be prepared for future epidemics of disease that may spread more effectively than Ebola as occurred in the 20th century, including the Spanish influenza epidemic of 1918-1919, the ongoing pandemic of HIV/AIDS, and the most recent MERS outbreak in South Korea.

Objectives

This panel session will focus on how effective strong linkages between priority setting and public health security can be achieved with a specific focus on UHC driven processes. Key lessons emerging from Ebola affected countries, as well as from the SARS and Avian Influenza, and Bird Flu experience in China, as well as the different elements of the global health security agenda, are examined in detail. Multiple entry points to the subject are examined at the national, regional and global levels.

Health services must strive to be resilient. This means being prepared to promptly and effectively deal with a surge of patients in a way that contributes to control of an outbreak. Having response plans that are periodically exercised in simulations is a high-value investment. Veterinary workers, community health workers, and other health services are key to the early warning and vigilance on which prompt disease control and sustainability of UHC depend. Evidence and prioritization are just as relevant in emergencies and even more so--the amount of random no evidence action taken during Ebola was the cause of lots of wasted resources and risk to health workers and patients.

At the national level the focus of the panel discussion is on how communicable disease “shocks” to essential health services are seen within the context of a health system that is moving towards UHC. The emphasis here is to better link health services with the health security agenda in terms of prevention, preparedness, response and early recovery. The significant experience secured during the work in Ebola affected countries is examined. The convergence between strengthening surveillance, preparedness, disaster risk management and delivery of health services is explored within the context of UHC. Policy makers must not knowingly expose

UHC gains to the risk of setbacks caused by lack of preparedness for outbreaks and neglect of core public health functions of early detection, correct diagnosis, and effective disease control. Such neglect reflects poor governance and will wipe out years of health investments when the inevitable next outbreak occurs. The price that an underprepared health sector will pay then is simply much too high. In addition, an underprepared health sector will increase human, economic, and social costs instead of helping to reduce them. Without prompt and effective control of epidemics, progress toward UHC cannot be sustained. It will certainly slowdown in the most optimistic scenario, but more likely be reversed.

At the regional level the focus is on effective regional disease surveillance systems linked to national public health laboratories. Their main components and operational arrangements are explored alongside discussion on how these systems can be a critical element that contribute to the strength and resilience of health systems across the world by helping to detect early signs of an outbreak beyond their sentinel sites and be quickly scaled up during epidemics to enable robust monitoring and response. More specifically, the panel will focus on how a network of countries working collaboratively together on disease surveillance, health security and health systems strengthening can support effective preparedness to identify and address public emerging public health threats.

At the global level the focus is on how best to synergize regional efforts for the global public health good. The panel session will provide some examples of effective regional surveillance efforts, including core functions, core structures, and network components, and how the information derived from these systems has been used for maximal public health impact in preventing and controlling important public health threats around the world.

Chair

Ariel Pablos-Mendez
Assistant Administrator, Bureau for Global Health,
United States Agency for International Development, USA

Moderator

Patricio Marquez
Lead Health Specialist, The World Bank, USA

Panelists

Kalipso Chalkidou
Director, NICE International, United Kingdom

Abdulsalami Y Nasidi
Director, Nigeria Center of Disease Control, Nigeria

Xiaopeng Qi
Deputy Director, National Center for Public Health Surveillance and Information Services,
Chinese Center for Disease Control and Prevention, China

Rebecca Martin
Acting Director, Center for Global Health,
US Centers for Disease Control and Prevention, USA

Shams Syed
Strategic Advisor, UHC & Quality,Service Delivery and Safety Department,
World Health Organization, Switzerland

Olga Jonas
Economic Adviser, HNP Global Practice, The World Bank, USA

Yasuhide Yamada
Cabinet Counsellor, Canbinet Secretariat, Government of Japan, Japan

CHAIR

Ariel PABLOS-MENDEZ

Assistant Administrator
Bureau for Global Health
United States Agency for International Development

USA

Dr. Ariel Pablos-Méndez was appointed by President Barack Obama to lead the Global Health Bureau at USAID, the premier agency in international development. USAID's vision, guided by the US Global Health Initiative, aims to end preventable child and maternal deaths, catalyze an AIDS-free generation and protect communities from infectious threats with approaches such as fostering country ownership, women's empowerment and strengthening health systems in low-income countries.

Dr. Pablos-Méndez began his public health career at Columbia University working on the emergence of multi-drug resistant tuberculosis in New York City in 1991; in 1997 he led the Global Surveillance Project on Anti-Tuberculosis Drug Resistance at the World Health Organization (WHO). He also served as Director of Knowledge Management at WHO in Geneva from 2004 to 2007, working to bridge the know-do gap in public health and promoting e-Health in the developing world. In 2007, he returned to the Rockefeller Foundation as Managing Director, where he was a program officer from 1998 to 2004 spearheading public-private partnerships in research and development for diseases of poverty (e.g., the Global Alliance for TB Drug Development), the Foundation's strategy on AIDS treatment in Africa (2001), and the Joint Learning Initiative on Human Resources for Health. From 2007 to 2011, he developed and led the Foundation's initiative on the transformation of health systems toward universal health coverage.

Dr. Pablos-Méndez received his M.D. from the University of Guadalajara (Mexico) and his M.P.H from Columbia University (New York), where he became a Professor of Clinical Medicine and Public Health. He has over 100 publications and has served in various boards and international commissions

MODERATOR

Patricio MARQUEZ

Lead Health Specialist
The World Bank

USA

Patricio V. Marquez is a World Bank Lead Health Specialist, who is leading the Global Tobacco Control Initiative at the World Bank Group. He is also co-coordinate a WBG/WHO international, multi-institution, Working Group on Global Mental Health, and coordinating the preparation of country case studies on antibiotic availability, prescription and use in selected developing countries. He is a member of the Global Work Group of the Advisory Committee to the Director (ACD) of US CDC, providing recommendations and counsel to the ACD on global public health issues. He served as Public Health Focal Point at the Health, Nutrition and Population Global Practice of the World Bank over June 2014-June 2015, co-led the WBG team that designed the Ebola Emergency Response Program for West Africa and prepared the US$390 million Ebola Emergency Response Project for Guinea, Liberia and Sierra Leone, and was deployed to WHO Geneva to help coordinate the WB and WHO interface on the Global Response to Ebola over the September-December 2014 period. He co-led with WHO the Thematic Working Group on Health, Nutrition and Water and Sanitation for the preparation of the UN/WBG/EU/AfDB multi sector Ebola Recovery Assessment Report over January-March 2015. Over 2013-2014, he served as Human Development Sector Leader for Ghana, Liberia and Sierra Leone, as well as for Malawi, Zambia and Zimbabwe, based in Accra, Ghana. He has also worked in Angola, Botswana, Equatorial Guinea, and Namibia. Prior, he served as Health Cluster Leader for the countries in Southern Africa in 2011-12 and worked in the Europe and Central Asia (ECA) region over 2004-2011, particularly in the Russian Federation, Georgia, Azerbaijan, and the Central Asian Republics, managing implementation support for WBG-funded health system reform and disease-specific projects. Over 1988-2003, he worked on health systems development and science and technology projects funded by the WBG in Argentina, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Mexico, Paraguay, and Venezuela, and led the preparation and start up implementation of Multi Country HIV/AIDS Program in the Caribbean Region that covered 9 countries and Caricom. He has authored reports on non-communicable diseases and road traffic injuries in Sub-Saharan Africa, road safety

in ECA, the demographic and health crisis in Russia, health system challenges in Russia, blood transfusion systems and the spread of HIV in Central Asia, HIV/AIDS in the Caribbean, noncommunicable diseases and health systems in Chile, and health system assessments in several countries. He also co-authored a report on non-communicable diseases (NCDs) in China, and a policy note on NCDs and road traffic injuries in Cambodia. He was part of the teams that prepared the US$1.3 billion Global Avian Influenza Preparedness and Control Framework Program in 2006, and the US$1.2 billion Global Food Response Facility in 2008. He pursued his graduate studies at the Johns Hopkins University Bloomberg School of Public Health.

KALIPSO CHALKIDOU

Director
NICE International

United Kingdom

Kalipso Chalkidou is the founding director of NICE International, helping governments build technical and institutional capacity for improving the value for money of their healthcare investment. She is interested in how local information, local expertise and local institutions can drive scientific and legitimate healthcare resource allocation decisions whilst improving patient outcomes. She has been involved in the Chinese rural health reform and also in national health reform projects in the USA, India, Colombia, Turkey and the Middle East, working with the World Bank, PAHO, DFID and the Inter-American Development Bank as well as national governments. Kalipso led the establishment of the international Decision Support Initiative (iDSI), a multi-million multi-country network working towards better health around the world through evidence-informed spending in healthcare in low to middle income countries. IDSI is funded by the Bill and Melinda Gates Foundation, the UK's Department for International Development and the Rockefeller Foundation and is currently involved in national reforms in Vietnam, China, Myanmar, the Philippines, Indonesia and South Africa working together with key organisations such as the Thai Health Intervention and Technology Assessment Program (HITAP), the US Center for Global Development, Imperial College London and the University of York.

She holds a doctorate on the molecular biology of prostate cancer from the University of Newcastle (UK), an MD (Hons) from the University of Athens and is a visiting Professor at King's College London, a senior advisor on international policy at the Center for Medical Technology Policy (USA) and visiting faculty at the Johns Hopkins Berman Institute for Bioethics. Between 2007 and 2008, she spent a year at the Johns Hopkins School of Public Health, as a Harkness fellow in Health Policy and Practice, studying how comparative effectiveness research can inform policy and US government drug pricing policies.

Abdulsalami Y NASIDI

Director
Nigeria Center of Disease Control

Nigeria

A medical officer with over 36-years of experience in public health, virology and the biotechnology. He was born in the year 1952 in Garko, Kano State of Nigeria. He graduated in the year 1977 with an M.D. degree in medicine from Kalinin State Medical Institute, USSR; and acquired a Masters Degree (M.Sc) in Epidemiology in 1979 and a Ph.D (Virology), 1983. Was Senior Research Fellow at the National Institute for Medical Research, Yaba, Lagos and later became the head of the Federal Vaccine Production Laboratory, Yaba for a period of 7-years. In the year 1991 he was appointed the nation's Chief Epidemiologist and in 1996 he Director Special Duties in the Federal Ministry of Health and was appointed Director, Public Health at some Ministry in the year 2007. He was the first Chairman of the Country Coordinating Mechanism (CCM) of the Global Fund to Fight AIDS, TB and Malaria, in which position he oversaw the development of proposals that generated more than $680 million for Nigeria's HIV/AIDS, TB and Malaria programmes.

He was appointed as the Chairman of the Presidential Task Force for Polio Eradication in 2008 and his TF developed strategies that lead to the sharp reduction by more than 95% and virtual elimination of circulating wild poliovirus in Nigeria by the year 2010. His other achievements include the co-development of Hepatitis B vaccine and snake anti-venom against the carpet viper and two other Nigerian poisonous snakes. He coordinated the national response to the Ebola Viral Disease outbreak in Nigeria and was appointed by Mr. President to coordinated Nigeria's support to the EVD affected countries through the African Union Support to Ebola affected countries in West Africa (ASEOWA). He has more than 50 publications in national and international journals and was recognized by Nigerian Government with the award of a national honour of the Officer of the Order of the Niger (OON) in the year 2002. A Professor of Virology and Biotechnology. He currently serves as the Director/Chief Executive Officer for the Nigeria Centre for Disease Control (NCDC) and was also recognized by World Health Organization (African regional office) for championing the establishment of national public health institutions in the region.

Xiaopeng QI

Deputy Director
National Center for Public Health Surveillance
and Information Services
Chinese Center for Disease Control and Prevention

China

Ms Xiaopeng Qi is an associate professor, Deputy Director of National Center for Public Health Surveillance and Information Services, Chinese Center for Disease Control and Prevention (China CDC). She has an MD. from Harbin Medical University and China CDC and has a Ph.D from Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences. She has worked on system requirements analysis, GIS spatial analysis, and disease surveillance system implementation at the China CDC for more than 10 years and finished two-year public health informatics fellowship program in US CDC from 2009 to 2011. She has involved in several projects, such as WHO Micronutrients Intervention Indicator Inventory System design and requirements analysis, implementation of China Information System for Disease Control and Prevention, spatial pattern study on cancer mortality and environmental pollution. Her current interests are in GIS application in public health, disease surveillance system design, assessment and domain modeling.

Rebecca MARTIN

Acting Director
Center for Global Health
US Centers for Disease Control and Prevention

USA

Rebecca Martin, PhD, is the Acting Director of the Center for Global Health (CGH) at the US Centers for Disease Control and Prevention (CDC).

Since 2012, Dr. Martin has served as the Director for the Global Immunization Division, in CGH, which leads CDC's global polio eradication efforts, accelerated disease control for vaccine-preventable diseases, introduction of new and underutilized vaccines, and the strengthening of immunization systems.

Dr. Martin began her career with CDC in 1997 in the National Immunization Program, Epidemiology and Surveillance Division, and has held positions both domestically and globally in immunization and HIV/AIDS. Prior to joining CDC, Rebecca worked at the Maryland Department of Hygiene and Mental Health in Baltimore Maryland as the immunization program epidemiologist leading efforts to increase vaccination coverage, conducting outbreak investigations, coordinating the development and introduction of Maryland's immunization registry, and supporting the state's Vaccines for Children Program. She also has worked at the Montgomery County Health Department in Maryland in HIV/AIDS programs for high-risk populations.

Since 1991, Dr. Martin has worked in the global health arena in Haiti, and has had CDC assignments in Kenya, Tanzania, and Denmark (2002-2011). Over the past 15 years, she has collaborated with multilateral organizations, including the World Health Organization (WHO) and UNICEF, and development partners, and has worked closely with ministries of health and non-governmental organizations.

Prior to her position as director of GID, Rebecca was detailed to the WHO European Regional Office as the Regional Advisor for Immunization (2008-2011) for its 53 member states, where she spearheaded regional efforts to strengthen immunization and surveillance systems, provide evidence for the introduction of new vaccines, achieve the goal of measles and rubella elimination, and maintain the region's polio-free status. From

2006-2008, Dr. Martin served as Program Director for Strategic Information and Human Resources for Health with the CDC Country Office in Tanzania. She led and implemented studies, in partnership with the ministry of health, to measure and evaluate the HIV/AIDS epidemic and strengthen national capacity. Rebecca was detailed to the WHO African Regional Office from 2002-2006, based in Kenya as the senior epidemiologist in the inter-country immunization program office for the eight east African countries; she served as the team lead from 2005-2006.

She received her Doctorate of Philosophy from the Johns Hopkins Bloomberg School of Public Health in international health and infectious disease epidemiology, conducting her research in Haiti on high-titer measles vaccines. Dr. Martin serves as a technical advisor on global advisory groups to WHO and GAVI Alliance. She has co-authored manuscripts and global guidelines on immunization strategies, vaccine-preventable diseases and surveillance methods.

Shams SYED

Strategic Advisor
UHC & Quality, Service Delivery and Safety Department
World Health Organization

Switzerland

Dr Shams Syed currently coordinates the new WHO Unit on UHC & quality, within the WHO Department of Service Delivery & Safety at WHO Headquarters in Geneva. This new WHO Unit was formed in October 2015. Dr Syed oversaw the development of the architecture of this new WHO Unit as the Strategic Advisor for UHC & Quality.

Since the summer of 2014, Dr Syed has played a pivotal role in the work of WHO on health systems resilience in Ebola affected countries. He also oversees WHO African Partnerships for Patient Safety and has led the development of this innovative programme since its inception in 2008. He has a focused current academic interest in reverse innovation in global health systems.

Dr. Syed received his medical degree from St. George's, University of London, and practiced as a General Practitioner in the UK. He received postgraduate public health training at the University of Cambridge. Subsequently, he trained in Preventive Medicine at Johns Hopkins University, is US Board Certified in Public Health & Preventive Medicine and a Fellow of the American College of Preventive Medicine. His previous experiences include: involvement in a multi-country health systems research consortium; working at the Pan American Health Organization with seven Caribbean countries on strengthening health systems and specifically surveillance systems; and working as the Advisor on Family and Community Health at WHO Trinidad and Tobago.

Yasuhide YAMADA

Cabinet Counsellor
Cabinet Secretariat
Government of Japan

Japan

Yasuhide YAMADA, Cabinet Counsellor, Coordination office of Measures on Emerging Infectious Diseases, The Government of Japan

As the cabinet counsellor of the Coordination Office of Measures on Emerging Infectious Diseases (EIDs), Mr. Yasuhide Yamada oversees Japanese Government's policy and activities of the Government of Japan from the aspect of total coordination and national security.

Mr. Yamada has academic background of environmental science and policy administration. He has a Master of Science from Hokkaido University and a Master of Public Management from Carnegie Mellon University.

Mr. Yamada, as an officer of Ministry of Economy, Trade, and Industry (METI), has long and various policy-making careers: S&T and innovation policy from R&D through commercialization (including medical and pharmaceutical fields), national security policy including cyber security, energy and environment policy on climate change (e.g. COP), and negotiation of Economic Partnership Agreement (e.g. Japan-Thai EPA).

Currently, as the chairperson of the intergovernmental steering committee under the Ministerial Meeting on the Response to EIDs chaired by Prime Minister, Mr. Yamada is leading discussions of policy toward coming G7 Summit (Ise-Shima).

Olga JONAS

Economic Adviser
HNP Global Practice
The World Bank

USA

Ms. Jonas has been responsible for coordinating the World Bank Group's operational response to avian and pandemic flu threats and, together with the UN and others, for monitoring the overall global response since 2006. Among other assignments, she was the lead World Bank author of the joint UN-World Bank progress reports and presented on the global response to five ministerial conferences. She oversaw the World Bank's contributions to the global program, which provided $4 billion to developing countries, including for One Health approaches to improve veterinary and human public health systems. She has also addressed other meetings on managing pandemic risks.

Her prior assignments included lead economist work on two replenishments of the International Development Association (IDA), which is a part of the World Bank Group, lead economist of the World Bank/Commonwealth task force on small states, coordination of the World Bank's response to the 2004 Indian Ocean tsunami, emergency response policy, extractive industries review, and macroeconomic operational work with francophone African countries.

Ms Jonas joined the World Bank Group in 1983 through the Young Professionals Program. Prior to that she held positions at Princeton University, the Bank for International Settlements, and the OECD. She was educated at Williams College and Princeton.

Is the Current Evidence Fit-for-Purpose? What Evidence Do Decision Makers Need to Set Priorities in the Future?

Plenary

2

The focus of this session will be on what types of evidence policymakers want and need in order make the investment case for health in general, for setting priorities, and for monitoring how investment choices affect efficiency and equity of health service delivery. It will seek to better understand how the approaches and methods that we currently use for generating evidence can best be adapted to their needs. The session should elicit both evidence that Ministries of Finance seek in making decisions about investing in health (and the role that priority setting plays, if any); and that Ministries of Health and donor agencies need to set priorities and monitor their implementation. It will be a forward-looking session, in which the speakers will be challenged to propose areas of strengthening given their analysis of the shortcomings of the evidence that that is currently available to them (eg. DCP, WHO CHOICE, evidence from national and regional bodies). Examples of areas for methods development that might emerge from this session could include better guidance on thresholds, methods which incorporate health system constraints, better approaches for evaluating the costs and effects of public health intervention and other complex interventions; and could also touch on approaches to improve capacity at the national level to generate, appraise and use evidence.

Objectives

To capture decisionmaker perspectives on:

- What type of evidence influences them
  - From MOF perspective – to invest in health
  - From MOH perspective – what areas of health to prioritise
- Whether the current methods and approaches are appropriate and sufficient, what gaps exist and areas where new methods are needed
- Approaches to developing capacity to generate, appraise and use evidence

Moderator

Kara Hanson

Professor of Health System Economics

London School of Hygiene and Tropical Medicine, United Kingdom

Speakers

Jeanette Vega

Director, Fondo Nacional de Salud, Chile

Panelists

Mark Blecher

Senior Health Advisor, South Africa Treasury Department, South Africa

Somsak Chunharas

Vice President, National Health Foundation, Thailand

MODERATOR

Kara HANSON

Professor
Health System Economics,
London School of Hygiene and Tropical Medicine

United Kingdom

Kara Hanson is Professor of Health System Economics at the London School of Hygiene and Tropical Medicine. Her research focuses on the economics of health system financing and organisation in low-and middle-income countries and has included work on health financing arrangements, the role of the private sector in health systems, and the economics of delivering malaria interventions. She is co-Research Director of RESYST – Resilient and Responsive Health Systems, a health policy and systems research consortium.

Jeanette VEGA

Director
Fondo Nacional de Salud

Chile

Dr. Jeanette Vega is the Director of Fonasa, the National Chilean Public Health Insurance Agency (FONASA) since March 2014. Dr Vega, has over 20 years of experience in international health. Her areas of expertise include social determinants of healthy, health equity and health systems. Prior to being appointed as Director of Fonasa by President Michelle Bachelet, Dr. Vega served as Managing Director of Health at the Rockefeller Foundation. She was Vice Minister of health in Chile, between 2008 and 2010, leading the country's 13-step agenda for equity in health. Before that, Dr. Vega served as a Director at the World Health Organization in Geneva, where she led the equity in health agenda, looking at the social determinants of health and health systems. Dr. Vega started her career as a medical doctor in Chile specializing in Family Medicine. She has a master's degree in Public health from the Universidad de Chile and a Ph.D. in Public Health from the University of Illinois at Chicago

Somsak CHUNHARAS, M.D.

Vice President
National Health Foundation

Thailand

Dr Somsak Chunharas, M.D. was graduated from Royal Tropical Institute, Amsterdam in Medical of Public Health and also trained in medical education, health financing and project management. His professional skills not only working as a physician in community hospitals for many years but also broaden his experiences in the fields of health research management, health statistics, human resource development, and health policy and systems development. He was one of the founders and was the first Director of Health Systems Research Institute. His contribution to international arena by working with WHO, COHRD, ASPHR, and COMEST/UNESCO.

Mark BLECHER
Senior Health Advisor
South Africa Treasury Department

South Africa

Demonstrating the Relevance of Economic Evaluation to Multiple Objectives of UHC: What Are the Key Challenges?

Parallel Session

2.1

This session will look at how economic evaluation can address considerations for outcomes beyond cost-effectiveness, such as equity, affordability, and multiple objectives of health systems. While these issues are frequently highlighted in economic evaluation frameworks, in practice, producing analyses with these outcomes can be a challenge in LMICs. We will focus on intervention cost-effectiveness and take a broad approach to economic evaluation, understanding that multiple criteria and perspectives should be considered in both valuation and costing, and a broad range of types and sources of data should also be incorporated into analyses. The session will expose the audience to some important methodological issues and gaps in applying economic analysis to support health priority-setting.

Objectives

- Advance knowledge about economic evaluation tools that address neglected dimensions of health decision-making
- Place the discussion in context of UHC priority-setting needs, specifically how to inform decisions with quantitative measures of multiple outcomes.
- Assess economic methods and tools in light of specific country examples of needs and uses.

Moderator

Rachel Nugent

Professor, University of Washington, USA

Speakers

Solomon Memirie

Assistant Professor, Addis Ababa University, Ethiopia

Elliot Marseille

Consultant Economist, Health Strategies Intl, USA

Manuel Espinoza

Professor, Pontificia Universidad Católica de Chile, Chile

Panelists

Stéphane Verguet (A264)

Assistant Professor, Harvard University, USA

Melanie Bertram

World Health Organization, Switzerland

Anna Vassall

Senior Lecturere, London School of Hygiene and Tropical Medicine, United Kingdom

MODERATOR

Rachel NUGENT
Professor
University of Washington
USA

Clinical Associate Professor, Dept. of Global Health, University of Washington; Principle Investigator, DCP3 (Washington, DC, USA)

Rachel Nugent is a development economist with 30 years' experience in policy analysis of agricultural, environmental, and health conditions in developing countries. Dr. Nugent is currently Clinical Associate Professor in the Department of Global Health at the University of Washington and Principal Investigator for the Disease Control Priorities Network (DCP3). In February, she will assume a new position as Vice President for Global NCDs at RTI International. She has advised the World Health Organization, the U.S. Government, and non-profit organizations on the economics and policy environment of NCDs.

Dr. Nugent works on the economic evaluation of health interventions and fiscal policies to address non-communicable diseases. She was a member of the Institute of Medicine ad hoc Committee on Cardiovascular Disease in Developing Countries (2009-2010) and chair of the IOM Workshop on Developing a Toolkit for Managing NCDs in Developing Countries (2011.) She is currently a member of the International Expert Group for the Global Nutrition Report, the Lancet Commission on NCDIs of the Poorest Billion, and the Institute of Medicine Committee on Economic Evaluation, and works with the WHO GCM Working Group on NCD Financing. She was formerly Deputy Director of Global Health at the Center for Global Development, Director of Health and Economics at the Population Reference Bureau, Program Director of Health and Economics Programs at the Fogarty International Center of NIH, and senior economist at the Food and Agriculture Organization of the United Nations. Dr. Nugent was associate professor and chair of the Economics Department at Pacific Lutheran University from 1994-1997. She received her MPhil and PhD degrees in economics from the George Washington University in Washington, DC, USA.

Elliot MARSEILLE
Consultant Economist
Health Strategies Intl

USA

Elliot Marseille, DrPH, MPP is principal of the firm, Health Strategies International in Oakland, California that specializes in the economic evaluation of global health programs. Trained in health policy analysis, Dr. Marseille has 25 years of senior public health management and research experience with a focus on the empirical and modeled assessment of the cost, and cost-effectiveness of services, programs, and policies related to HIV/AIDS, and has completed 55 peer-reviewed publications, many concerned with the cost-effectiveness of HIV treatment and prevention interventions. He was Director of UCSF's "PANCEA" study of the unit costs of 8 HIV prevention strategies in 5 countries, the largest HIV prevention cost study to date. Among other projects, he is currently a consultant to the Center for Global Surgical Studies at UCSF where he also teaches decision analysis; consultant to the San Francisco Department of Public Health where he is assessing the cost-effectiveness of "4th generation" HIV tests to detect acute-phase infection; and is leading the HIV and school health modeling activities for a multi-institution, five-year cooperative agreement designed to extend CDC's modeling capacity for HIV, HCV, school health, STIs and TB.

Anna VASSALL
Senior Lecturer
London School of Hygiene and Tropical Medicine

United Kingdom

Anna Vassall has over twenty years of experience in the economics of global health. She first worked in the NHS supporting funding/contracting. She then took an MSc in Health Planning and Financing at the LSHTM, thereafter working for DFID as a health economist in the UK and Pakistan. This was followed by a period at Royal Tropical Institute (KIT) Amsterdam working on health planning and financing, aid effectiveness and the cost-effectiveness of tuberculosis and reproductive health in a wide range of low and middle income countries. Thereafter she directed and provided economic support to European Community and World Bank funded health sector reform and development projects in Yemen, East Timor, Syria and Sudan. Her PhD is in the economic evaluation of tuberculosis control. She has worked at the London School of Hygiene and Tropical Medicine since 2010 on the economics of HIV, tuberculosis, gender based violence and sexual reproductive health. She has a particular interest in incorporating health systems and infectious disease modelling in economic evaluations.

Stéphane VERGUET
Assistant Professor
Harvard University

USA

Stéphane Verguet is Assistant Professor of Global Health at the Harvard T.H. Chan School of Public Health. Dr. Verguet's multidisciplinary research focuses on health decision science and priority setting, particularly the development of mathematical and computational decision-making models to better design health policies. His research interests include health economics, cost-effectiveness analysis, equity, and health systems performance. Most recently, he has been working on the estimation of non-health benefits, particularly the poverty alleviation benefits, financial risk protection aspects and equity gains, of health policies and interventions.

Manuel ESPINOZA
Professor
Pontificia Universidad Católica de Chile

Chile

Manuel Espinoza is Assistant Professor in the Departament of Public Health and Head of the Health Technology Assessment Unit of the Centre for Clinical Research, both at Pontificia Universidad Católica de Chile. He is also member of the board of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), president elect of the ISPOR Latinamerican Consortium and President of the Chilean Society of Pharmacoeconomics and Health Technology Assessment (HTA). Manuel holds a medical doctor degree and Master in Epidemiology both from Pontificia Universidad Católica de Chile; a Master in Biostatistics from Universidad de Chile, and Master and PhD in Health Economics, both from University of York in the UK. Manuel´s work is focused on methods and processes for prioritization in health care. He has performed research on methods to explore heterogeneity in cost-effectiveness analysis and the value of individualized care. On the applied side, his research is focused on the development of economic evidence, in particular, cost-effectiveness analysis and budget impact of drugs, medical devices and screening programs. More recently, he has undertaken some practical application using Multicriteria Decision analysis in the context of the update of the health benefit plan in Dominican Republic. Manuel has served as a scientific advisor in the Institute of Public Health of Chile, and as consultant for the use of HTA in Chile, Ecuador and Dominican Republic.

Melanie BERTRAM
Technical Officer
World Health Organization

Switzerland

Melanie is a Health Economist working at the World Health Organization in the Department of Health Systems Governance and Financing. She specialises in cost-effectiveness analysis, costing and health technology assessment. In her role at WHO Melanie is responsible for maintaining the WHO-CHOICE costing database for programme costing, undertaking WHO-CHOICE analyses for reproductive, maternal, newborn and child health, and non-communicable diseases and the development of cost and impact modules in the OneHealth Tool for non-communicable disease. Through her previous work in Australia, Thailand and South Africa, she has been involved in many cost-effectiveness analysis, burden of disease calculations and costing studies. Melanie has a PhD from the University of Queensland, Australia evaluating the economics of diabetes prevention in the Australian and Indigenous Australian populations.

Solomon MEMIRIE
Assistant Professor
Addis Ababa University

Ethiopia

SHORT PAPER 2.1

SHORT PAPER

Thresholds for the cost–effectiveness of interventions: alternative approaches

Elliot Marseille,[a] Bruce Larson,[b] Dhruv S Kazi,[c] James G Kahn[d] & Sydney Rosen[b]

Abstract Many countries use the cost–effectiveness thresholds recommended by the World Health Organization's Choosing Interventions that are Cost–Effective project (WHO-CHOICE) when evaluating health interventions. This project sets the threshold for cost–effectiveness as the cost of the intervention per disability-adjusted life-year (DALY) averted less than three times the country's annual gross domestic product (GDP) per capita. Highly cost–effective interventions are defined as meeting a threshold per DALY averted of once the annual GDP per capita. We argue that reliance on these thresholds reduces the value of cost–effectiveness analyses and makes such analyses too blunt to be useful for most decision-making in the field of public health. Use of these thresholds has little theoretical justification, skirts the difficult but necessary ranking of the relative values of locally-applicable interventions and omits any consideration of what is truly affordable. The WHO-CHOICE thresholds set such a low bar for cost–effectiveness that very few interventions with evidence of efficacy can be ruled out. The thresholds have little value in assessing the trade-offs that decision-makers must confront. We present alternative approaches for applying cost–effectiveness criteria to choices in the allocation of health-care resources.

Abstracts in عربي, 中文, Français, Русский and Español **at the end of each article.**

Introduction

In public health, cost–effectiveness analyses compare the costs and effectiveness of two or more health interventions – with effectiveness measured in the same units. When comparing interventions, the incremental cost–effectiveness ratio (ICER) – i.e. the difference in costs divided by the difference in health effects – is often used to express the result.

Estimates of costs, health effects and ICERs provide clear guidance to policy-makers in three situations: (i) when the health-effect target is specified by policy-makers and the aim of the cost–effectiveness analysis is to minimize the expenditure needed to achieve that target; (ii) when a budget constraint is specified by policy-makers and the aim is to maximize the health benefits while keeping expenditure within budget; and (iii) when policy-makers have specified an explicit standard or threshold for what should be considered cost–effective. In all three cases, the analysts completing the cost–effectiveness analysis cannot objectively make a recommendation to policy-makers without prior decisions by policy-makers on health-effect or cost targets or thresholds. Without reference to such decisions, the cost–effectiveness analysis cannot fully orient policy-makers to the range of options that might be good investments.

For example, compared with no vaccination, routine quadrivalent human papillomavirus vaccination combined with catch-up vaccination – to protect against cervical diseases in Brazil – was found to have an ICER of 450 United States dollars (US$) per quality-adjusted life-year (QALY) gained.[1] In the United Republic of Tanzania, compared with no treatment, post-exposure prophylaxis for rabies was found to have an estimated ICER of US$ 27 per QALY gained.[2] However, how does one decide whether US$ 450 per QALY gained in Brazil or US$ 27 per QALY gained in the United Republic of Tanzania represents good use of money for the national health-care system?

Three general approaches have been used to solve this problem: (i) thresholds based on per capita national incomes; (ii) benchmark interventions and (iii) league tables. In recent years, the most common approach has involved the use of thresholds based on per capita gross domestic product (GDP). Under this approach – which has been promoted by the World Health Organization's Choosing Interventions that are Cost–Effective (WHO-CHOICE) project[3] – an intervention that, per disability-adjusted life-year (DALY) avoided, costs less than three times the national annual GDP per capita is considered cost–effective, whereas one that costs less than once the national annual GDP per capita is considered highly cost–effective.

In this article, we argue that the current thresholds based on per capita GDP have major shortcomings as guides for policy-makers, since each of the available approaches has substantial weaknesses. We then discuss that a new consensus should be reached on a process for evaluating the cost–effectiveness of health interventions that places ICERs in the context of other, local policy and programme options, including funding sources. We focus on cost–effectiveness and ignore other criteria for policy decisions, such as equity, ethics and political feasibility. We proceed from the premise that evidence-based economic evaluations are vital additions to public policy decisions – which would otherwise largely reflect political, ideological and/or bureaucratic concerns. We focus on the relative merits of different ways of distinguishing what constitutes an acceptable level of cost–effectiveness and on the limitations of the widely used national-income-based approach.

[a] Health Strategies International, 555 Fifty-ninth Street, Oakland, California, 94609, United States of America (USA).
[b] Center for Global Health and Development, Boston University, Boston, USA.
[c] Division of Cardiology, San Francisco General Hospital, San Francisco, USA.
[d] Institute for Health Policy Studies, University of California – San Francisco, San Francisco, USA.
Correspondence to Elliot Marseille (email: emarseille@comcast.net).
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Thresholds

The most pervasive threshold was initially promoted by the Commission on Macroeconomics and Health and adopted in *The world health report 2002* and by WHO-CHOICE. This threshold links per capita GDP with returns on investments in health to define the characteristics of a cost–effective and a very cost–effective intervention.[4–6] Many published cost–effectiveness analyses of health interventions in low resource countries now explicitly refer to these WHO criteria as the standards by which each intervention is considered cost–effective or not. However, use of these criteria has at least four major limitations.

The first limitation is that important comparisons are obscured. Cost–effectiveness analysis is useful only in the context of the choices available in a particular setting and context – e.g. the budget and technical capacity of a national malaria control programme or Ministry of Health. Even if an intervention is categorized as cost–effective based on its cost per DALY averted, that intervention may still not represent the best use of a country's health budget (Box 1). It is not enough to know that, per DALY avoided, an intervention costs less than three times the local annual per capita gross domestic product. We also need to know if it costs less – per DALY avoided – than other needed and feasible interventions. The current shift in some of the United States of America's global health funding – i.e. away from support for the treatment of human immunodeficiency virus (HIV) infections and towards malaria, maternal and child health and other programmes – tacitly recognizes that, even among activities with ICERs below a national-income threshold, trade-offs are real and consequential.

The second limitation is that thresholds are too easily attained. Beyond the virtue of availability, we are puzzled why per capita gross domestic products were chosen as the main units for cost–effectiveness thresholds. Too many health interventions are found to cost less, per DALY averted, than the relevant annual per capita gross domestic product. Box 2 illustrates this problem for diarrhoeal disease control. Making the threshold harder to meet – e.g. by only categorizing an intervention as highly cost–effective if, per DALY averted, it costs less than half of the annual per capita GDP – does not address the fundamental problem, which is that any threshold is arbitrary. More stringent thresholds would rule interventions out with as little justification as more lenient thresholds would rule them in.

The third limitation is the untested assumptions on which this approach is based. Social willingness to pay for health benefits is, conceptually, an appropriate way to define social value[17] that could be informed by the results of non-market valuations based on revealed- and stated-preference approaches.[18,19] In using a cost–effectiveness threshold that is based on a country's per capita GDP, analysts tacitly assume that the country is willing to pay up to that threshold for the health benefit – usually without any concrete evidence of that willingness to pay. While willingness to pay for health care is related to income, there is little evidence that the relationship is linear. Other factors are also important. If averted DALYs are more highly valued in high-income countries than in low-income ones,[20] use of cost–effectiveness thresholds based on per capita GDP per DALY averted will give a biased measure of the willingness to pay. Such thresholds will tend to be too stringent in high-income countries – thus ruling some efficient options out – and too lax in low-income countries – thus ruling some inefficient options in.

The fourth limitation is that affordability is not adequately appraised. Cost–effectiveness analyses are typically addressed to governments or international donors and aim to assist decision-making about how to spend finite budgets. Recent experience with international funding for HIV programmes may have fostered

Box 1. Widely differing cost–effectiveness ratios of programmes considered very cost–effective according to WHO-CHOICE criteria

In Zambia, three public health strategies have dramatically differing cost–effectiveness ratios compared with doing nothing:

- Expansion of access to insecticide-treated bednets for malaria prevention: this intervention has an estimated cost of 29 international dollars (I$) per disability-adjusted life-year (DALY) averted, so I$ 1 million spent on bednets could avert 34 483 DALYs.[6]
- Screening and treatment of syphilis in pregnancy: depending on the setting, the cost–effectiveness of this intervention ranges from saving money to a cost of I$ 127 per DALY averted.[7] I$ 1 million spent on this intervention could avert 7859 DALYs.
- Antiretroviral therapy (ART) for patients infected with human immunodeficiency virus: a recent study shows that – compared with cotrimoxazole prophylaxis – this would cost I$ 963 per DALY averted.[8] I$ 1 million spent on ART could thus avert 1038 DALYs.

All three of these interventions easily meet the WHO-CHOICE threshold for being highly cost–effective; the annual per capita GDP (about I$ 1684 in Zambia) per DALY averted. However, compared with investing I$ 1 million in ART, investing the same amount in syphilis screening and treatment in pregnancy or in bednets would avert 7.6- and 33-fold more DALYs, respectively. Thus simply stating that an intervention is cost–effective by WHO's standards masks the real trade-offs among competing strategies.

GDP: gross domestic product.

Box 2. Demonstrably effective interventions are almost certain to be cost–effective according to WHO-CHOICE: the example of diarrhoeal disease control.

In sub-Saharan Africa, most diarrhoea-related deaths occur in children, the annual risk of death from diarrhoea in a household is often 1% or more,[9] and 28 discounted life-years are lost per death.[10] Thus, ignoring morbidity, the anticipated annual burden of diarrhoea can be estimated at 0.3 (0.01 × 28) disability-adjusted life-years (DALYs) per household with one child. In Kenya, a clean water intervention to reduce such deaths – e.g. chlorine or filters – could annually cost about 37 international dollars (I$) per household.[11,12]

Well-funded trials are powered to detect risk reductions of 20% or more, and particularly large trials can detect a 10% reduction.[13–15] If we found that the clean water intervention had 20% effectiveness, implementing the intervention should avert 0.06 (0.2 × 0.3) of a DALY per household with one child. The incremental cost–effectiveness ratio, compared with doing nothing, is thus I$ 37 per 0.06 DALY averted – i.e. I$ 614 per DALY averted. At 10% effectiveness, this ratio rises to I$ 1228 per DALY averted. Both values given here for the ratio fall well below I$ 5211, which is the WHO-CHOICE threshold for a cost–effective intervention in Kenya – i.e. three times the annual per capita gross domestic product.[16] Even if its costs were twice as high or its effectiveness were only 5% – which is probably beyond trial precision – the intervention would still be deemed cost–effective according to WHO's criterion. Thus, if any benefit can be detected in a large trial, the intervention will be considered cost–effective.

the notion that budget constraints are illusory. However, even HIV funding is less secure now than it was a few years ago.[21–25] There is no evidence that, in the short term at least, the world will contribute the sums needed to implement all interventions that meet WHO's criteria for cost–effectiveness. Thus, in any timeframe relevant to policy-makers, trade-offs have to be considered.

Ignoring the overall budget assigned to a health programme may be just as problematic in a high-income country as in a lower-income one – particularly for conditions that are highly prevalent. Consider a drug that adds a year to everyone's life and costs the annual per capita GDP per person treated. Although such a drug would be categorized as highly cost–effective by WHO's thresholds, we would have to spend the entire GDP of the country each year to give the drug to every eligible individual – i.e. to the country's entire population.

Benchmark interventions

Originally proposed by Weinstein and Zeckhauser,[26] a second solution to the cost–effectiveness standard problem is to cite the cost–effectiveness of a benchmark intervention that has already been adopted in the relevant country and to use that as a threshold for acceptable cost–effectiveness. In this approach we are again using a threshold but – unlike the thresholds based on per capita GDP – this threshold is established by a retrospective analysis of existing practice.[27] In the USA, for example, a threshold still used in cost–effectiveness analyses – US$ 50 000 per QALY gained – was based on an estimate of the cost–effectiveness of dialysis for chronic renal disease.[19] This threshold has recently been updated to US$ 100 000 or US$ 150 000 per QALY gained.[28] Since there is already evidence of a willingness to pay US$ 150 000 per QALY gained, it should be possible to increase overall health benefits by transferring funds from activities that cost more than this sum to activities that cost less. Thus, this approach appears to justify the adoption of any option that has a lower ICER than the benchmark.

Although such an approach may have better local relevance than thresholds based on per capita GDP, it also has substantial shortcomings. The ICER of the benchmark intervention may be a high or low outlier. For example, it may have resulted from a political decision that does not reflect the current, true measure of societal willingness to pay for health benefits. In addition, benchmarks do not take affordability into account and are not regularly updated to reflect changes in opportunity costs resulting from new technologies or delivery models, or changes in the burden of disease.

Most importantly, using a single benchmark does not address the critical question of whether there might be available options that have a better cost–effectiveness ratio than either the benchmark intervention or the intervention under evaluation. In the USA, for example, an analysis might reveal that an intervention can add a QALY for US$ 80 000 – i.e. well under the US$ 150 000 benchmark cited above. Although this would indicate that the intervention is much more cost–effective than the current benchmark, it would not tell us anything about the set of possible interventions that might add a QALY for less than US$ 80 000. Other techniques for establishing thresholds, such as human capital, contingent valuation and revealed preference approaches[26] share the same basic strengths and weaknesses as the benchmark approach. An option to justify the one under study can almost always be found.[19,29] One way to mitigate this problem is to consider a range of interventions adopted by public health programmes in the setting of interest and the range of ICERs from these adopted interventions. This could be achieved via a research agenda that aims to aggregate more data on willingness to pay for a unit of health benefit in a wide range of countries. In high-income countries, progress has been made on such an agenda by the translation of the available data on lives saved to data on QALYs gained.[19]

League tables

A third approach side-steps the threshold question and focuses instead on getting the largest health impact for the budget. Conceptually, a complete set of relevant interventions would be chosen to maximize health effects. For example, if all of the interventions considered are at least somewhat scalable, they can be ranked into a so-called league table according to their ICERs.[30] The league-table approach is based on the principle that, for any budget, health outcomes are maximized if selection of the options for implementation begins at the top of the league table – i.e. with the option with the lowest ICER – and then moves down the list, to interventions with successively higher ratios, until the budget is exhausted.[31]

Several generic league tables have been developed. WHO-CHOICE has reported simple information on the ICERs for many interventions.[3] Separate regional league tables are available for several diseases or risk factors. For example, for the Africa D region there are tables for 60 different interventions (Table 1). Other league tables have been created for specific diseases or conditions. A 2005 article assessed the ICERs of several major HIV interventions and arranged these in a league table for sub-Saharan Africa and South-East Asia (Table 2).[33] Other league tables are large repositories of cost–effectiveness information that can be used to assess the ranking of many interventions for wide ranges of diseases and conditions. One of the largest of these is the cost–effectiveness analysis registry maintained by Tufts Medical Center, which provides over 3600 ICERs for over 2000 health interventions.[34]

A limitation of league tables is that ICERs may not be available for many relevant options or settings. Many low resource countries lack data on the costs and effectiveness of specific interventions. In these countries, the only recourse for local policy-makers is to use findings from similar countries. A bare league table omits much of the information that decision-makers might want to consider when choosing among options – e.g. the size of the affected population, whether the intervention is scalable, the health benefit per recipient and the degree of uncertainty around the ICERs.[35,36] Perhaps, given these, we need an extended league table approach in which a list of ICERs is complemented by information on context-sensitive costs and benefits of competing options.

Against these disadvantages must be weighed several virtues. A league table indicates graduated distinctions between ICERs. Since the length of the list of interventions deemed cost–effective varies according to the budget, league tables combine considerations of cost–effectiveness with affordability.[27] The last (least cost–effective) intervention in the table to be adopted is more likely to approximate society's willing-

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Table 1. **A cost–effectiveness league table for malaria interventions: Africa D region[a]**

Intervention (description)	Annual cost (million I$) per million people	Annual no. of DALYs averted per million people	Incremental no. of DALYs averted per million people	Incremental cost	
				Million I$ per million people	I$ per DALY averted
MAL-27 (case management with ACT, 80% coverage)[b]	0.25	26 426	26 426	0.25	9
MAL-7 (MAL-27 but 95% coverage)	0.33	31 470	5 044	0.08	16
MAL-17 (combination of ACT, IPTP and ITNs, 95% coverage)	1.07	44 115	12 645	0.74	59
MAL-20 (MAL-17 plus IRS)	1.59	49 518	5 403	0.52	96

ACT: artemisinin-based combination therapy; DALY: disability-adjusted life-year; I$: international dollars; IPTP: intermittent preventive therapy for pregnant women; IRS: indoor residual spraying; ITNs: insecticide-treated nets.
[a] A list of countries in the Africa D region is available from: http://www.who.int/choice/demography/african_region.
[b] The costs and DALYs averted by MAL-27 were compared with no intervention. Each of the other three options was compared with the next cheapest intervention, i.e. the intervention in the row above.
Data source: World Health Organization.[6]

Table 2. **Example of a cost–effectiveness league table for interventions against human immunodeficiency virus infection: Africa E region[a]**

Intervention (description)[b]	Annual cost, million I$	DALYs averted, millions per year	ICER, I$ per DALY averted
D1 (mass media campaign)	16	4.5	3
D2 (D1 plus peer education and treatment of sex workers for STI at 50% coverage)	57	15.6	4
D3 (D2 but 80% coverage)	79	21.3	4
D4 (D2 but 95% coverage)	89	23.8	4
D5 (D4 plus prevention, during antenatal care, of mother-to-child transmission)	249	27.3	46
D6 (D5 plus current, routine treatment of STI)	290	27.9	68
D7 (D5 plus treatment, during antenatal care, of STI)	357	28.7	80
D8 (D7 plus voluntary counselling and testing at 95% coverage)	742	30.5	220
D9 (D8 plus treatment of STI at 95% coverage)	859	30.9	290
D10 (D9 plus antiretroviral therapy with first-line drugs, without intensive monitoring)	2 125	33.2	547
D11 (D10 plus school-based education at 95% coverage)	2 202	33.3	631
D12 (D11 but with intensive monitoring)	2 350	33.4	1 144
D13 (D12 but with both first- and second-line drugs)	7 483	34.4	5 175

DALY: disability-adjusted life-year; I$: international dollars; ICER: incremental cost–effectiveness ratio; STI: sexually transmitted infections.
[a] A list of countries in the Africa E region is available from: http://www.who.int/choice/demography/african_region.
[b] Some packages of interventions that were more costly but less effective than those shown and those found to have higher incremental cost–effectiveness ratios than those shown were excluded from this table.
Data source: Hogan et al.[32]

ness to pay for health benefits than the open-ended set of commitments implied by global thresholds. Finally, league tables need not be comprehensive to support improved resource allocation. They can still indicate the potential health benefits of cancelling an existing programme and using the resources freed to fund another programme.[27,37]

Discussion

If one intervention is deemed more cost–effective than another in the context of a fixed budget, we can say that it will yield more health benefit per unit of expenditure than that other option. However, the results of a cost–effectiveness analysis cannot indicate if an intervention is a good use of the health budget because the comparator may itself be inefficient relative to other feasible options. In addition, the notion of a fixed budget depends on the level or authority of the decision-maker. In the context of HIV treatment, for example, ICERs might indicate that viral load testing is less cost–effective than adding patients to the caseload. Although the decision-makers responsible for an HIV programme's budgets might therefore recommend the latter approach, they might ignore – or be unaware of – the possibility that the same money spent on vaccines for childhood diseases might give greater health benefits. Funders can get a better idea of the policy relevance of the results of new cost–effectiveness analyses if they are given the ICERs for interventions that they already support. However, there is no substitute for careful reflection by policy-makers on the most efficient ways to maximize national welfare. WHO's current cost–effectiveness thresholds can short-circuit this task, by using annual per capita GDP as a proxy for social willingness to pay.

Part of the appeal of thresholds may be the perception that cost–effectiveness analysis does not allow for fine distinctions. Rather than pretending that unrealistic precision has been achieved, thresholds have the apparent virtue of simply distinguishing interventions that meet, from those that fail to meet, a fixed

criterion. It is widely acknowledged that certain aspects of cost–effectiveness theory are contentious.[31,38,39] Practice is also imperfect and inconsistent, often making it difficult to compare results from different studies. For example, between-study variation in the selection of analytic perspective, time horizons and criteria for including or excluding particular cost components can hamper comparisons of different investigations, even when sensitivity analyses document the impact of these choices. Transparency in the assumptions made and methods used is therefore essential, as suggested by the Consolidated Health Economic Evaluation Reporting Standards.[40] When cost–effectiveness analyses of an important policy question produce substantially different results, funders should sponsor efforts to document the source of the difference and to make appropriate adjustments, where possible.

Whether because of these uncertainties or merely for expediency, many individuals appear to believe that a statement about the ICER for an intervention – relative to a threshold based on the annual per capita GDP – is sufficient to determine cost–effectiveness. For researchers, a simple threshold removes the need to compare results to other locally relevant findings and to place their studies in context. For the editors and reviewers of journals, use of a globally accepted threshold provides reassurance that methods and results meet international norms. Use of such a threshold allows authors and reviewers to choose convenience over a more nuanced and context-specific interpretation of results. The widespread acceptance of global thresholds may thus undermine both the supply and demand for more policy-relevant analyses. On the demand side, decision-makers are offered the results of cost–effectiveness analyses that neither distinguish between programme options with widely divergent ICERs nor account for budget constraints. Decision-makers may therefore tend to dismiss cost–effectiveness analyses and revert to political or organizational interests as decision criteria. On the supply side, the availability of global cost–effectiveness thresholds undercuts the incentive of investigators to generate the nuanced, context-specific information that decision-makers need.

Conclusion

For cost–effectiveness analyses to contribute to sound resource allocation, we argue that the estimates of both costs and effectiveness must be situated firmly within the relevant context, which includes the disease burden and budget of the setting in question. Simple cost–effectiveness thresholds – whether based on per-capita incomes or benchmark interventions – fail to evaluate and rank interventions within countries and disregard budgetary constraints. By short-circuiting a more thorough assessment of policy-relevant alternatives, they contribute little to good decision-making and can actually mislead. While the currently available data will not support comprehensive off-the-shelf league tables for most settings, the results of cost–effectiveness analyses should be compared with as many relevant interventions as reasonable in a given situation. Decision-makers would then be in a far better position to interpret the results of cost–effectiveness analyses.

A consensus process should be convened, perhaps by WHO, to develop a new framework for articulating cost–effectiveness in global health policy – specifically focusing on low- and middle-income countries. Rather than referencing a uniform standard, this new consensus should place ICERs in the context of other public health options available or already adopted in the relevant country setting – and in the context of the relevant budgets. While not resolving all of the issues affecting cost–effectiveness analysis as a guide for resource allocation, a new framework could offer an improvement on the use of simple thresholds based on per-capita incomes. ■

Competing interests: None declared.

ملخص

عتبات مردودية التدخلات: نهج بديلة

تستخدم العديد من البلدان عتبات المردودية التي أوصى بها مشروع "اختيار التدخلات عالية المردود التابع لمنظمة الصحة العالمية" (WHO-CHOICE) عند تقدير التدخلات في مجال الصحة. ويحدد هذا المشروع عتبة المردودية على أنها تكلفة التدخل لكل سنة تم تفاديها من سنوات العمر المصححة باحتساب مدد العجز الأقل من ثلاث أضعاف الناتج الإجمالي المحلي السنوي للبلد لكل فرد. ويتم تعريف التدخلات عالية المردود على أنها تلبية العتبة لكل سنة تم تفاديها من سنوات العمر المصححة باحتساب مدد العجز لمرة واحدة من الناتج الإجمالي المحلي السنوي لكل فرد. ونرى أن الاعتماد على هذه العتبات يقلل من قيمة تحليلات المردودية ويجعل مثل هذه التحليلات عديمة الفائدة في معظم حالات اتخاذ القرار في مجال الصحة العمومية. ويستند استخدام هذه العتبات إلى مبرر نظري ضعيف ويتجنب الترتيب الصعب والضروري للقيم النسبية للتدخلات السارية على الصعيد المحلي ويغفل النظر عن النهج معقولة التكلفة بالفعل. وتحدد عتبات WHO-CHOICE عتبة دنيا للمردودية يمكن على أساسها استبعاد بضعة تدخلات ذات بيِّنات على الكفاءة. وتكون للعتبات قيمة قليلة في تقييم عمليات الموازنة التي يتعين على متخذي القرار مواجهتها. ونقدم نهجاً بديلة لتطبيق معايير المردودية على الاختيارات في تخصيص موارد الرعاية الصحية.

摘要

干预措施的成本效益阈值：替代方法

许多国家在评估卫生干预措施时使用世界卫生组织 WHO-CHOICE（选择具有成本效益的干预措施项目）推荐的成本效益阈值。该项目将成本效益阈值设定为避免单位残疾调整生命年（DALY）的干预措施的成本低于国家年度人均国内生产总值（GDP）三倍。将极具成本效益的干预措施定义为达到以单倍年度人均国内生产总值避免的单位 DALY 的成本的阈值。我们主张，对这些阈值的依赖减少了成本效益分析的价值，使这种分析太过生硬，以致于对大多数公共卫生领域的决策来说用处不大。使用这些阈值几乎没有理论依

据，绕开了做起来很难但又不得不去做的对当地适用干预措施相对价值排名，忽略了对任何有关什么才真正实惠的考虑。WHO-CHOICE 阈值为成本效益设定的门槛这样低，以至于为数不多具有效力证据的干预措施也会被排除在外。阈值在评估决策者必须面对的权衡上价值微乎其微。我们提出了医疗资源分配方面的选择上成本效益标准应用的替代方法。

Résumé

Seuils de rentabilité des interventions: approches alternatives

De nombreux pays utilisent les seuils de rentabilité recommandés par le projet WHO-CHOICE (Choosing Interventions that are Cost–Effective; en français: « choisir des interventions efficaces au meilleur coût ») de l'Organisation mondiale de la Santé lors de l'évaluation des interventions sanitaires. Ce projet définit le seuil de rentabilité comme étant égal au coût de l'intervention par espérance de vie corrigée de l'incapacité (EVCI) évitée moins trois fois le produit intérieur brut (PIB) annuel du pays par habitant. Les interventions très rentables sont définies comme celles satisfaisant un seuil par EVCI évitée égal à une fois le PIB annuel par habitant. Nous soutenons que le recours à ces seuils réduit la valeur des analyses de rentabilité et qu'il rend ces analyses trop grossières pour qu'elles soient utiles pour la prise de décision dans le domaine de la santé publique. L'utilisation de ces seuils est peu justifiée théoriquement, contourne le classement difficile mais nécessaire des valeurs relatives des interventions applicables localement et néglige l'examen de ce qui vraiment abordable. Les seuils de WHO-CHOICE fixent une limite de rentabilité si basse que très peu d'interventions présentant des preuves d'efficacité peuvent être exclues. Les seuils ont peu de valeur pour évaluer les compromis auxquels les décideurs doivent faire face. Nous présentons des approches alternatives pour l'application des critères de rentabilité aux choix liés à l'allocation des ressources de soins de santé.

Резюме

Пороговые значения для мероприятий, эффективных с точки зрения затрат: альтернативные подходы

Во многих странах используются пороговые значения эффективности затрат, рекомендованные рабочей программой ВОЗ «Выбор мероприятий, эффективных с точки зрения затрат» (WHO-CHOICE), при оценке проводимых мероприятий в области здравоохранения. Этот проект устанавливает пороговое значение эффективности затрат как стоимость мероприятия на количество предотвращенных лет жизни, утраченных в результате инвалидности (ДАЛИ), не превышающая три годовых валовых внутренних продукта (ВВП) страны на душу населения. При этом высокоэффективными мероприятиями считаются те, которые соответствуют пороговому значению на предотвращенное ДАЛИ в размере, не превышающем одного годового ВВП на душу населения. Мы утверждаем, что использование этих пороговых значений снижает стоимость анализа эффективности затрат и делает подобный анализ поверхностным для большинства случаев принятия решений в области общественного здравоохранения. Для использования этих пороговых значений не имеется достаточных теоретических обоснований, они упускают из виду трудоемкое, но необходимое ранжирование относительной стоимости применяемых локально мероприятий, а также не рассматривают доступность подобных мероприятий. Программой WHO-CHOICE устанавливается такая низкая планка для эффективности затрат, что лишь немногие мероприятия с признаками эффективности могут быть исключены. Эти пороговые значения не имеют большой ценности в процессе принятия компромиссных решений, с которыми приходится иметь дело ответственным лицам. Мы предлагаем альтернативные подходы для применения критериев эффективности затрат при выборе предпочтительных вариантов в процессе распределения ресурсов здравоохранения.

Resumen

Umbrales de la rentabilidad de las intervenciones: enfoques alternativos

Numerosos países utilizan los umbrales de rentabilidad recomendados por el proyecto Elección de intervenciones rentables de la Organización Mundial de la Salud – (WHO-CHOICE) al evaluar las intervenciones de salud. Este proyecto establece el umbral de rentabilidad como el coste de la intervención por año de vida ajustado por discapacidad (AVAD) evitado, que es tres veces inferior al producto interno bruto anual del país (PIB) per cápita. Las intervenciones de rentabilidad elevada se definen como el cumplimiento de un umbral por AVAD evitado equivalente a una vez el PIB per cápita anual. Se arguye que la dependencia de estos umbrales reduce el valor de los análisis de rentabilidad y hace que dichos análisis sean demasiado contundentes para que resulten útiles en la mayoría de las decisiones en el campo de la salud pública. El uso de estos umbrales tiene una justificación teórica insuficiente, elude la clasificación difícil pero necesaria de los valores relativos de las intervenciones aplicables a nivel local y omite cualquier consideración de lo que es realmente asequible. Los umbrales de WHO-CHOICE establecen un límite de rentabilidad tan bajo que son muy pocas las intervenciones de eficacia probada que pueden descartarse. Los umbrales tienen poco valor a la hora de evaluar las ventajas y desventajas a las que los responsables de la toma de decisiones deben enfrentarse. Presentamos enfoques alternativos para la aplicación de los criterios de rentabilidad en las decisiones acerca de la asignación de los recursos de salud.

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Universal public financing of priority interventions for pneumonia and diarrheal illnesses in Ethiopia: Health gain, poverty and equity impact assessment

Solomon Tessema Memirie
Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway

Introduction

Poverty eradication and equity have been at the forefront of global agenda. Core to the post-2015 development agenda (sustainable development goals) was ending poverty in all its forms everywhere.[1] At the center of the health sustainable development goals (SDG3) is implementation of universal health coverage (UHC) by countries. UHC is a significant health target as it ensures access to essential services and offers financial protection against catastrophic health expenditure (CHE) and medical impoverishment. UHC through expansion of Primary health care (PHC) is the major target of the health transformation plan for the next twenty years in Ethiopia.[2] PHC, through delivery of a complete package of needed priority services, can play a critical role for reducing health inequalities and improving health for all.[3] Even though the health sector transformation plan aims to expand pooling and purchasing mechanisms to accelerate progress towards UHC, health care financing in Ethiopia is heavily reliant on household out-of-pocket (OOP) payments at the point of care. Nearly 50% of total child health spending in Ethiopia in 2010/2011 was household OOP payments (5th NHA).[4] Evidence shows that high OOP payments are associated with CHE and can be a substantial hurdle to the attainment of universal access to basic health interventions.[5] Utilization of maternal and child health services in Ethiopia have remained low with marked inequality by area of residence and across wealth strata.[6] Experience elsewhere also shows that in countries where there is low utilization of health care service the relative inequalities tend to be larger.[7] Universal public finance (UPF) (full public finance irrespective of whether services are provided privately or publicly) of health interventions can improve health and protect households from impoverishment.[8]

Ethiopia has witnessed significant gains in reducing under five deaths but the disease burden due to pneumonia and diarrheal illnesses remain very high.[9,10] Diarrhea and respiratory infections are the most common causes of childhood illnesses and health care visits.[11] Similarly, severe cases of diarrhea and pneumonia are among the most common reasons for hospital admissions in children. Childhood pneumonia and diarrheal illnesses account for 24% of the total under five deaths in 2013 in Ethiopia.[10] A

recent study has shown that households incur substantial OOP payments for the treatment of pneumonia and diarrheal illnesses in Ethiopia.[12]

Despite a decade of rapid economic development, Ethiopia is one of the low-income sub-Saharan African countries where 31% of the population lives below the income poverty line of PPP $1.25 a day.[13] Therefore, we reexamined the potential impact of UPF of vaccines (pneumococcal conjugate vaccine and rotavirus vaccine) and curative interventions (pneumonia and diarrhea treatment) on poverty cases averted and health gains and associated distributional consequences using primary data on OOP payments for pneumonia and diarrhea treatment in 2013 in Ethiopia.

Methods

We used primary cost data on household OOP payment for the treatment of pneumonia and diarrheal illness and household consumption expenditure data[12] to assess financial implications and health gains of UPF of vaccines (pneumococcal conjugate vaccine and rotavirus vaccine) and curative interventions (diarrhea and pneumonia treatment) in children 0-4 years in Ethiopia. Diarrhea treatment includes oral rehydration solution and zinc treatment for outpatient cases and hospitalization for severe cases. Similarly, pneumonia treatment includes oral antibiotics for mild to moderate cases and hospitalization for severe cases. Ethiopia introduced pneumococcal conjugate vaccine (PCV) and rotavirus vaccine (RVV) in 2011 and 2013, respectively. Household OOP payment data for pneumonia and diarrheal illnesses in children 0-4 years of age was also available for the year 2013. Therefore we based our analyses using the cohort of children 0-4 years in 2013 in Ethiopia.

Poverty impact assessment

UPF of vaccines, through disease prevention, could protect households from incurring both direct medical[1] and direct nonmedical costs[2] (total medical expenditure). UPF of curative interventions only avoids household direct medical costs.

[1] Direct medical costs include consultation fee, laboratory/medical investigation, medication, hospital bed.

In order to assess poverty cases averted one has to first determine the percentage of households who fell below the poverty threshold of $1.25 due to OOP spending for health care. First, we constructed a poverty line (PL) =3180 ETB using a PPP in 2013 of 6.97.[14] Second, we calculated the percentage of households who fell below PL on the basis of per capita household expenditure. Thirdly, we deducted health care payments from per capita household expenditure to calculate the percentage of households who fell below PL. The difference between the second and the third is the percentage of households pushed into poverty due to OOP payments for health care (UPF protects households from medical payments, therefore averts poverty).[15] The percentage of poverty cases averted was computed across wealth quintiles to assess distributional consequences of UPF.

Poverty cases averted due to UPF of pneumonia and diarrhea treatment

Poverty cases averted are based on the probability of medical impoverishment due to OOP payment by individuals seeking treatment for pneumonia or diarrhea, number of disease episodes and percentage of population covered (either inpatient or outpatient). According to the 2011 Ethiopian demographic and health survey, care seeking for pneumonia and diarrheal illnesses were 27% and 32%, respectively.[6] We assumed the coverage to increase by 8% in 2013 from the baseline to reach a coverage of 35% and 40% for pneumonia and diarrheal illnesses, respectively.

Poverty cases averted due to UPF of RVV and PCV

Vaccines offer protection against a subset of pneumonia or diarrhea cases. RVV is effective against severe cases of diarrhea, therefore averts hospitalization cost for a subset of diarrheal episodes (27% of severe diarrhea episodes) (table 1). PCV can prevent mild to moderate and severe cases of pneumonia (7% of all pneumonia and 19% severe pneumonia cases are due to pneumococcal disease), therefore averts both hospitalization and outpatient costs related to pneumonia treatment in children. Poverty cases averted depends on the probability of medical impoverishment due to OOP payment (including transport costs) by individuals seeking treatment for pneumonia or diarrhea, number of disease episodes, vaccine coverage,

[2] Direct nonmedical costs are mainly transportation cost.

the effectiveness of the vaccine, the probability of seeking either inpatient or outpatient care in the absence of the vaccine. We used the WHO/UNICEF estimates of 63% for PCV immunization coverage in 2013 in Ethiopia.[16] We assumed a modest increase by 40 percentage points from the baseline for RVV.

Table 1 Epidemiologic, efficacy, coverage and cost inputs for the economic evaluation of UPF of selected interventions against pneumonia and diarrhea in 2013 in Ethiopia.

Parameter	*Value*	*Sources*
Epidemiology		
Population, 0-4 years in 2013 (millions)	14,3	UNPD[24]
Incidence of diarrhea episodes per child (0-4 years) per year	3.04	Walker et al[25]
Incidence severe diarrhea episodes per child (0-4 years) per year	0.07	Walker et al[25]
Proportion of under-5 severe diarrheal cases and deaths attributed to rotavirus	27 %	Walker et al[25]
Incidence of pneumonia episodes per child (0-4 years) per year	0.28	Walker et al[25]
Incidence severe pneumonia episodes per child (0-4 years) per year	0.03	Walker et al[25]
Proportion of under-5 pneumonia cases attributed to pneumococcal pneumonia	7 %	Walker et al[25]
Proportion of under-5 severe pneumonia cases attributed to pneumococcal pneumonia	19 %	Walker et al[25]
Proportion of under-5 pneumonia deaths attributed to pneumococcal pneumonia	33 %	Walker et al[25]
Interventions		
Rotavirus vaccine effectiveness (per 2-dose course)	0.49	Madhi et al[26]
Diarrhea treatment effectiveness	0.93	Munos et al[27]
Coverage target for rotavirus vaccine in 2013	40 %	Author's estimate
Coverage target for diarrhea treatment in 2013	52 %	Author's estimate
Pneumococcal conjugate vaccine effectiveness against pneumococcal pneumonia (per 3-dose course)	0.68	Cutts et al[28]
Pneumonia treatment effectiveness	0.7	Theodoratou et al[29]
Coverage target for pneumococcal conjugate vaccine in 2013	63 %	WHO/UNICEF[18]
Coverage target for pneumonia treatment in 2013	47 %	Author's estimate
Costs		
Hospitalization cost for diarrhea	US$76	Memirie et al[12], 5th NHA[4]
Outpatient clinic visit cost for diarrhea	US$10	Memirie et al[12], 5th NHA[4]
Hospitalization cost for pneumonia	US$104	Memirie et al[12], 5th NHA[4]
Outpatient clinic visit cost for pneumonia	US$17	Memirie et al[12], 5th NHA[4]
Transportation cost for outpatient clinic visit	US$2	Memirie et al[12]
Transportation cost for inpatient visit	US$15	Memirie et al[12]
Pneumococcal conjugate vaccine price (per dose, 3 doses needed)	US$3.5	GAVI[30]
Rotavirus vaccine price (per dose, 2 doses needed)	US$2.5	GAVI[31]

Vaccination system cost (per dose, 2 doses needed)	US$0.5	Griffiths et al[32]

*OOP stands for out-of-pocket; #Mainly transportation cost.

Deaths averted

PCV or RVV

Using the number of under-five deaths in Ethiopia, a distribution by wealth quintile was computed using a methodology outlined by Rheingans et al.[17] Then deaths averted by wealth quintile were computed as the product of the baseline number of pneumococcal pneumonia or rotavirus diarrheal deaths, the vaccine coverage, and the effectiveness of vaccine.[18] Interventions coverage specified above were used in the assessment of deaths averted. PCV prevents deaths not only from pneumonia but also from meningitis and sepsis; therefore all deaths prevented due to PCV were included.

Pneumonia or Diarrhea treatment

Deaths averted by wealth quintile are the product of the baseline number of pneumonia or diarrheal deaths, treatment coverage, and the effectiveness of treatment.

Government cost for UPF

PCV and RVV government cost

Costs for vaccine scale-up are based on the size of the vaccinated population, vaccine coverage, the costs of the vaccine, and the associated costs of delivery (table 1). Because vaccines also avert future costs of treatment, the averted treatment costs are subtracted from the cost of delivering the vaccine.

Pneumonia and diarrhea treatment government cost

We computed government cost for the treatment of pneumonia and diarrhea using data from two local sources. We used data on household direct medical costs for the treatment of pneumonia and diarrhea in 2013 in Ethiopia (described above) and data from the 5th NHA (2010/2011) study in Ethiopia on the share of OOP expenditure out of the total child health expenditure. We assumed that the OOP share (48%) will

remain the same in 2013. We converted household direct medical costs to government costs by adding the remaining 52% on household OOP payments.

Result

The annual government investment in millions for UPF of RVV, PCV, pneumonia treatment, and diarrhea treatment were US$7, US$22, US$46 and US$260, respectively. Details of poverty cases averted, deaths averted, and cost to the government are found in table 2. The annual diarrhea episodes were nearly 11 times more than pneumonia episodes contributing to the higher government cost of diarrheal illnesses treatment in Ethiopia.

Table 2 Number of deaths averted, poverty cases averted, and cost to the government with universal public financing of pneumococcal conjugate vaccine, rotavirus vaccine, and pneumonia and diarrhea treatment in Ethiopia[#].

Interventions	*Deaths averted*	*Poverty cases averted*	*Cost to government (millions US$)*
Pneumococcal conjugate vaccine (PCV)	5,840	1,193	22
Pneumonia treatment	8,092	7,620	35
Rotavirus vaccine	1,058	1,888	7
Diarrhea treatment	7,422	25,994	204

[#]Rotavirus vaccine, PCV, pneumonia treatment, and diarrhea treatment coverages were 40%, 63%, 47% and 52% respectively.

Per US$1 million spent, PCV results in the highest number of deaths averted and the least number of poverty cases averted as compared to the other three interventions. For the same investment, pneumonia treatment resulted in the highest number of poverty cases averted followed by treatment for diarrheal illnesses. In general, vaccines tend to prevent more deaths while curative interventions result in higher number of poverty cases averted (table 3).

Table 3 Number of deaths averted and poverty cases averted, per US$1 million spent, with universal public financing of pneumococcal conjugate vaccine, rotavirus vaccine and pneumonia and diarrhea treatment in Ethiopia.

Interventions	*Deaths averted*	*Poverty cases averted*	*Cost to government (millions US$)*
Pneumococcal conjugate vaccine (PCV)	260	53	1,0
Pneumonia treatment	231	218	1,0

Rotavirus vaccine (RVV)	150	268	1,0
Diarrhea treatment	36	128	1,0

The effect of UPF on poverty cases averted and deaths averted by wealth quintile are shown on figure 1 & 2. For all interventions in our analysis, the poorest quintile contributes to 87% of the poverty cases averted while the wealthiest quintile contributes to none of the poverty cases averted. A similar distribution is observed for health gains by wealth quintiles across all interventions. Even though the wealthy were more likely to incur higher costs for the treatment of an episode of pneumonia or diarrheal illness, households from lower quintiles were more likely to be pushed into poverty and therefore to be protected by UPF. The inability of households to absorb medical payments and the higher burden of diarrheal diseases among households from lower quintiles contribute to a larger number of poverty cases in this group.

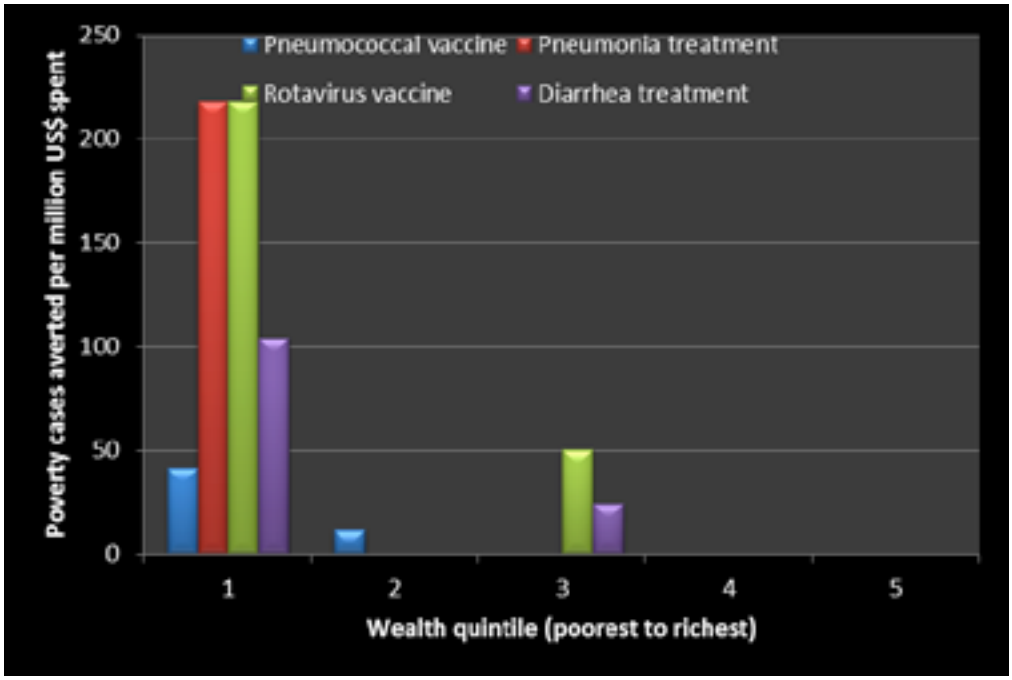

Figure 1: Distribution of poverty cases averted by wealth quintile per millions US$ spent.

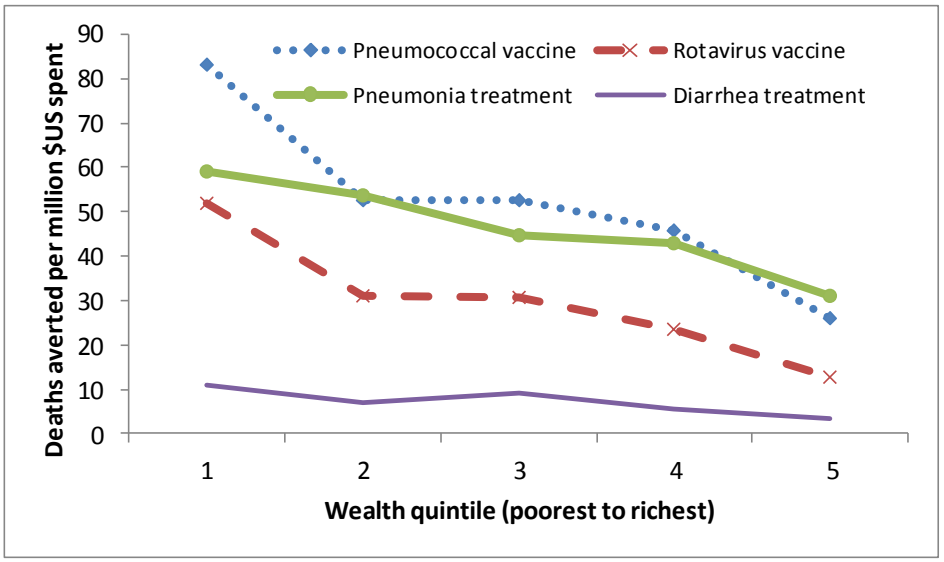

Figure 2: Distribution of deaths averted by wealth quintile per millions US$ spent.

Discussion and Conclusions

This study has demonstrated that UPF of top priority interventions against pneumonia and diarrheal illnesses in Ethiopia has significant health gains and will result in poverty reduction, both core issues of SDGs. So far, health care prioritization had been heavily reliant on the value of health gain per investment. Our approach brings into picture other dimensions that have important implications for policy decisions. It also emphasizes the importance of UHC through delivery of a package of essential health interventions to all population segments.

Ethiopia is making progress towards UHC primarily through expansion of PHC to provide access to health services for all, in particular for the rural and poorest segments of the population.[2,19] Despite remarkable expansion of PHC in Ethiopia, the utilization of services is very low.[6] There could be several factors for underutilization of available services. Distance to facilities, transportation problems, cultural and religious beliefs including low health literacy of the population had been barriers to access to health care services.[6] One important other aspect is the quality of care in health facilities. Health care delivery requires an adequate numbered, skilled, well-trained and motivated workforce with the necessary equipment and supplies. A study has shown the low quality of care in public facilities in Ethiopia.[20] The quality of care in

PHC facilities in Ethiopia is perceived as inferior and families prefer to go to private or higher level government facilities where they consider the quality of care to be superior but are likely to incur higher cost.[12,21] The other important impediment to access health care services is direct OOP payment at the point of care.

Increased utilization of quality services by the population requires a matching public spending otherwise will result in high OOP spending as is currently the case in Ethiopia. Prepayment and pooling through introduction of health insurance is an important aspect of complementing health care financing on the path to UHC. The government of Ethiopia has introduced community based health insurance and social health insurance shemes.[22] Scale-up of health insurance and government subsidies could facilitate the delivery of a comprehensive benefit package and offers high levels of financial risk protection, preventing non-poor households from becoming poor due to medical payments.

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Missed Opportunities and Opportunity Costs: Reprioritizing UHC Decisions in Light of Emergence of New Technologies, Continued Budget Constraints, and Incentives for Innovation

Parallel Session

2.2

The pace of technological growth in health care is quick; each year large numbers of new medicines and devices enter global markets. Some new technologies can be cost-saving or help patients live healthier lives; others may be effective but extremely costly; still others are just costly without being transformational for UHC goals. Further, many "old" cost-effective technologies may be "new" to a given LMIC health system, and represent missed opportunities to enhance value for money. Whatever the characteristics of new technologies, public resources available for health do not increase at the same pace as the availability of new technologies and, as a result, adoption of a new technology may imply disinvestment and reallocation away from other uses of public monies or crowding out of more cost-effective uses of spending for UHC goals.

How should UHC payers assess if the opportunity costs of new technology introduction are worth it for health system goals? Should UHC payers be concerned with keeping up with technological innovations? Since market access is generally achieved ahead of being considered for coverage or reimbursement with public

monies, how should UHC payers manage pressures to adopt or not, or under what conditions? How should UHC payers consider the dynamic aspects of price and scale for cost-effectiveness? How does limited capacity to assess new technologies affect value for money and spending? What are challenges associated with reallocation or disinvestment in favor of new technology adoption? What incentives for innovation are created by priority-setting? This session will examine the role of priority-setting processes and methods using health intervention and technology assessment (HTA/HITA) –as well as horizon scanning and related evidence- to inform decisions on new technology adoption and its opportunity costs in LMIC health systems. The session will not focus on methods as this is covered under sub-theme 1, but instead on how to use certain methods and evidence to inform decision-making on new technologies.

Objectives

The objective of the session is to: (i) understand the scope of challenge in terms of the number and diversity of attributes of new medical technologies, and potential opportunity costs; (ii) briefly describe policies, processes and methods of new technology assessment and horizon scanning in a couple of high- and middle-income countries; (iii) set out challenges and opportunities related to reallocation and disinvestment as a consequence of new technology adoption; (iv) discuss the challenges and opportunities related to new technology assessment and adoption in general in LMIC; and (v) discuss potential unintended consequences of priority-setting.

Moderator

Amanda Glassman

VP for Programs, Director of Global Health Policy and Senior Fellow,
Center for Global Development, USA

Panelists

Karl Claxton

Professor, University of York, United Kingdom

Amie Batson

Chief Strategy Officer, PATH, USA

Andreas Seiter

Senior Health Specialist – Pharmaceuticals, The World Bank, Germany

Rachel Melrose

Manager, Policy, PHARMAC, New Zealand

Alexandre Barna

Head of Unit, Scientific Secretariat, CEDIT, France

Kun Zhao

Director of HTA, CNHDRC, China

Sang Moo Lee

Senior Research Fellow,
National Evidence-based Healthcare Collaborating Agency, South Korea

MODERATOR

Amanda GLASSMAN

VP for Programs
Director of Global Health Policy and Senior Fellow
Center for Global Development

USA

Amanda Glassman is vice president for programs and director for global health policy at the Center for Global Development, leading work on priority-setting, resource allocation and value for money in global health. She has 20 years of experience working on health and social protection policy and programs in Latin America and elsewhere in the developing world. Prior to her current position, Glassman was principal technical lead for health at the Inter-American Development Bank, where she led knowledge products and policy dialogue with member countries, designed the results-based grant program Salud Mesoamerica 2015 and served as team leader for conditional cash transfer programs such as Mexico's Oportunidades and Colombia's Familias en Accion. From 2005-2007, Glassman was deputy director of the Global Health Financing Initiative at Brookings and carried out policy research on aid effectiveness and domestic financing issues in the health sector in low-income countries. Before joining the Brookings Institution, Glassman designed, supervised and evaluated health and social protection loans at the Inter-American Development Bank and worked as a Population Reference Bureau Fellow at the US Agency for International Development. Glassman holds a MSc from the Harvard School of Public Health and a BA from Brown University, has published on a wide range of health and social protection finance and policy topics and is editor and co-author of the books Millions Saved (CGD and Brookings 2016), From Few to Many: A Decade of Health Insurance Expansion in Colombia (IDB and Brookings 2010) and The Health of Women in Latin America and the Caribbean(World Bank 2001).

Karl KLAXTON

Professor
University of York

United Kingdom

Karl Claxton is a Professor in the Department of Economics and the Centre for Health Economics at the University of York. He leads the economic evaluation component of the Health Economics MSc at the University of York. He is a past co-editor of the Journal of Health Economics and for many years held an adjunct appointment at the Harvard School of Public Health. His expertise spans economic evaluation, Bayesian decision theory and health policy and has authored textbooks on economic evaluation and decision modelling. He was a founding member of the NICE Technology Appraisal Committee and continues to contribute to the development of the NICE Guide to the Methods of Technology Appraisal. He has contributed in a number of ways to recent policy debates such as pharmaceutical pricing and innovation. A well as NICE he has also advised, Department of Health, HM Treasury, Department of Business Innovation and Skills and the Office of Life Sciences.

Amie BATSON

Chief Strategy Officer
PATH

USA

Amie Batson, MBA, is responsible for guiding PATH's strategy, leading our learning, knowledge management and measurement work, and strengthening our partnerships and business relationships in the global health community.

Ms. Batson's 25-year career in global health includes positions with the World Health Organization, UNICEF, the World Bank, and most recently, the US Agency for International Development (USAID), where she served as senior deputy assistant administrator for global health.

During her three-year appointment with USAID, Ms. Batson led the agency's engagement in the President's Global Health Initiative, represented the US government on the board of GAVI, and led the US government team in co-convening the Child Survival Call to Action, which launched the global vision to end preventable child deaths.

Throughout her career in global health, Ms. Batson has been a leader in innovation. Her contributions to immunization and vaccine financing at the World Bank resulted in billions of dollars in new funding for global health and the vaccination of millions of children against polio, pneumonia, diarrhea, and other vaccine-preventable causes of death.

Ms. Batson earned a BA in economics from the University of Virginia and a MBA from the Yale University School of Management

Andreas SEITER

Senior Health Specialist – Pharmaceuticals
The World Bank

Germany

Andreas Seiter is a Senior Health Specialist and expert for pharmaceutical policy and management in the World Bank's Health, Nutrition and Population Global Practice. He has been with the Bank since January 2004 and works on all areas of pharmaceutical policy, such as regulation, governance, quality assurance, financing, pharmacy benefit management, supply chain and rational use. He has been working with Bank teams, policy makers and experts on the client side in more than 30 countries in all regions.

Rachel MELROSE

Manager, Policy
PHARMAC

New Zealand

Rachel Melrose manages the Policy Team at the Pharmaceutical Management Agency (PHARMAC) of New Zealand. PHARMAC is the Government agency that decides which medicines, medical devices and related products are subsidised by New Zealand's public healthcare system.

PHARMAC manages a Combined Pharmaceutical Budget (CPB), which is a fixed budget that is set each year by the Minister of Health, on the advice of District Health Boards and PHARMAC. The CPB includes funding for community medicines and some medical devices, hospital cancer medicines, haemophilia treatments and vaccines. Recently PHARMAC has also taken on responsibility for hospital medicines and medical devices. These are funded through DHB hospitals and are not included in the CPB.

PHARMAC decides which pharmaceuticals (medicines and some medical devices) to fund, negotiates prices, sets subsidy levels and conditions, and ensures spending stays within budget. PHARMAC's decision making processes include clinical assessment (which includes seeking advice from an independent panel of clinicians), economic assessment (including cost utility analysis) and commercial assessment.

Recently Rachel's team led a review of the nine decision criteria that PHARMAC has been using to make its funding decisions since its establishment, and developed a new decision making framework, which will take effect from 1 July 2016. The new framework includes sixteen factors, which are organised into four dimensions (need, health benefits, costs and savings, and suitability) and three levels (the person, the person's family and wider society, and the health system).

Rachel has been with PHARMAC since 2012. Before coming to PHARMAC, Rachel worked for the New Zealand Treasury, where she held several roles in the health and international sections. During her time at the Treasury she advised on the annual public health care budget, international trade agreements including the Trans-Pacific Partnership, international financial institutions, intellectual property, pharmaceuticals and tobacco related policy issues. In the past Rachel has worked for the Department of the Prime Minister and Cabinet, and the Accident Compensation Corporation, a government agency that provides personal injury cover for New Zealanders.

Rachel holds three degrees; a Bachelor of Commerce in economics and a Bachelor of Arts in Political Science, both from the University of Canterbury, and a Masters of Public Administration from the Maxwell School (Syracuse University) in the United States.

Kun ZHAO

Director of HTA
Center for Health Policy and Technology Assessment

China

Professor Kun Zhao is the director of division of health policy evaluation and technology assessment invChina National Health Development Research Center of MoH, and she got her MD from China Medical University and MHSc in Health Care and Epidemiology from the University of British Columbia (UBC) in Canada. Since 2007, Dr. Zhao plays the leading role in HTA training programs in China, and as the principle investigator undertakes a series of HTA projects for MoH such as the technology assessment of hemo and peritoneal dialysis in China for ESRD patients, the assessment of high tech of radiation treatment device, the assessment of Da Vinci robot surgical system, national wide clinical pathway evaluation, the cost-effectiveness analyses on models of stroke treatment, the disease control priority setting in China for increasing by 1 year life expectancy, the evaluation of "12.5" health planning implementation, prioritization of maternal and children care program by applying One Health Tool, the cost –effectiveness analysis of HBVand HCV treatment package, the cost-effectiveness analysis of the vaccination preventing COPD from acute exacerbation. Since 2010 Dr Zhao as a PI has bee working with NICE international to conduct a polite study of optimizing diagnosis and treatment technology accompanying to provider payment reform in rural China. Also Dr Zhao is a member of ACE of Disease Control Priorities, Third Edition, and core author of university textbook of China HTA, and Program Evaluation. From 2009 to 2013, she got over 20 papers published in peer-review journals.

Sang Moo LEE

Senior Research Fellow
National Evidence-based Healthcare
Collaborating Agency

South Korea

Sang Moo Lee is an executive director of office of research planning at the National Evidence-based healthcare Collaborating Agency (NECA), Seoul, Korea. His background is a clinician, and his major is internal medicine, and his sub-specialty is respiratory and critical medicine. He was an instructor of internal medicine, Soonchunhyang University and assistant professor of Eulji School of Medicine. He studied and worked in Harbor-UCLA Medical center in Torrance, California, USA as a clinical research fellow of pulmonary rehabilitation research center, supported by PAHO (Pan American Health Organization) for one year. He was a full time medical consultant of HIRA(Health Insurance Review and Assessment service) for six and half years from 2002. While working in HIRA, He took responsibility for establish new health technology assessment system in Korea and he also established evidence-based coverage decision system including establishing EBH(Evidence-based Healthcare) team in HIRA. He was a member of various committees including new drug evaluation, new health technology (doctor's intervention) evaluation and oncologic drugs appraisal committee in HIRA. He was the 5th Chairman of committee of New Health Technology Coverage Decision of the Ministry of Health and Welfare, Republic of Korea. He was a member of Advisory Committee of Advancement of Health Industry for Prime Minister of Korea from 2006 to 2007. He was one of the key members of establishment of NECA and first executive director of division of HTA and division of new health technology assessment, NECA.

Alexandre Barna

Head of Unit
Scientific Secretariat, CEDIT

France

Physician specialized in public health, Alexandre worked at the French Authority for Health (HAS) and then at the French Ministry of health in the field of reimbursement and pricing of drugs and medical devices. Alexandre is currently head of unit at CEDIT, the hospital based HTA agency of the University Hospitals of the Paris region (AP-HP).

Can You Handle the Truth? Accounting for Politics and Ethics in UHC Is Very Challenging

Parallel Session

2.3

The pursuit of Universal Health Coverage (UHC) has highlighted the importance of politics in health processes and its centrality in priority setting because these are fundamentally about the distribution of resources. Unlike vertical programs where objectives are narrow, UHC raises broad issues of what to do, how to do it, and how to adjudicate between nearly unlimited options and needs. These issues also raise difficult rationing questions with deep ethical implications. Nonetheless, most attention by researchers and policymakers has focused on technical approaches that typically do not reflect adequate attention to ethical issues or account for the complex political economic, cultural, and societal environment in which priorities are defined, policies are adopted, and programs are implemented.

This session brings to light both the importance of these ethical, cultural, and political-economic processes and some of the methods for understanding and managing them to promote more health services with equity for more people. It also addresses the challenges of including ethical considerations in priority setting.

Objectives

- Demonstrate the importance of political-economic forces to the priority setting process and illuminate some of the hurdles and underlying ethical and cultural issues.
  - What is the role of politicians in priority-setting?
  - At what level should politicians be engaged?
  - How do we balance expert opinion with popular or political preferences?
  - What are the roles for and problems with corporate actors?
  - What are the roles for and problems with patient advocacy groups?
- Provide frameworks for understanding and analyzing political economy forces and suggest ways to better integrate ethical considerations in decision making
- Discuss case studies from a mix of levels and settings together with strategies for better managing the politics and ethics of priority setting

Moderator

Jesse Bump
Lecturer on Global Health Policy, Harvard School of Public Health, USA
Will provide synthetic discussion and reflection on the low prominence of ethical considerations in priority setting

Speakers

Jesse Bump
Lecturer on Global Health Policy, Harvard School of Public Health, USA
Discuss priority setting at the global level through a case study of the political economy of the UHC movement and an analysis of how it triumphed over other possibilities

YLing Chi
Oxford University, United Kingdom
Examine priority setting by international institutions through a nine-agency comparison of allocation processes

Jan Liliemark
Program Manager,
Swedish Council on Health Technology Assessment, Sweden
Discuss the ethical framework for priority setting in Sweden

Angela Chang (A244)
Harvard School of Public Health, USA
Present a framework for analyzing the political economy of health benefit packages

Karen Grepin
Assistant Professor, New York University, USA
Discuss the politics of priority setting for health aid allocation

Hiiti Sillo
Director-General
Food and Drugs Authority, Tanzania
Reflections on the challenges of implementing technical ideas in the political and ethical context of Tanzania

MODERATOR

Jesse Bump
Lecturer on Global Health Policy
Harvard School of Public Health

USA

Jesse Bump is Lecturer on Global Health Policy in the Department of Global Health and Population, and Executive Director of the Takemi Program in International Health at the Harvard T.H. Chan School of Public Health. Dr. Bump's research focuses on the historical, political, and economic forces that are among the most fundamental determinants of ill health and the effectiveness of related institutions. His research addresses major themes in global health history, and in the political economy of global health to analyze these macro forces and develop strategies to navigate better solutions within them. Projects have investigated the history of child health problems such as diarrheal disease and congenital syphilis to explain how issues rise and fall on the global health agenda and to produce strategies to better align political visibility with health needs; the historical development of health systems and the implications for development assistance in that area; and the political economy of policy making and implementation in areas such as universal health coverage, humanitarian assistance, tobacco control, and nutrition governance.

Bump holds a Baccalaureate in Astronomy and History from Amherst College, a Master in Public Health from Harvard University and a PhD in the History of Science, Medicine, and Technology from the Johns Hopkins University. Previously he was a Takemi Fellow at the Harvard School of Public Health and then Assistant Professor in the Department of International Health at Georgetown University.

YLing Chi
Doctoral Candidate
Oxford University

United Kingdom

Y-Ling Chi is a PhD candidate at the University of Oxford, where she is conducting a research on the impact of health problems on earnings and labour force supply in rural China. Her research seeks to understand and estimate the costs of illness using alternative indicators to health care expenditure, and large-scale panel data. Prior to joining Oxford, Y-Ling worked as a policy analyst at the health division of the OECD for three years on a number of projects ranging from health care quality, provider payment, mental health care and long-term care policies. Y-Ling also co-edited and contributed several chapters to a book reviewing the international experience with performance based payment models in health care (with Cheryl Cashin, Peter C. Smith, Michael Borowitz and Sarah Thomson, published by McGrawHill).

Y-Ling's research interests mostly centers around health financing. She has worked with many other international organizations on this topic, including the WHO and the Global Fund to Fight Against AIDS, Tuberculosis and Malaria. Since October 2015, Y-Ling also works with the University of Geneva on the financing portfolio of the new WHO work on emergencies. In a recent project with Jesse Bump, she has worked with nine large multilateral organisations in global health to document the budgetary and resource allocation practices in place in these institutions.

Y-Ling has received a Bachelor and a Master's degree in Political Science and Economics from the Institute of Political Studies of Paris.

Jan LILIEMARK
Program Manager
Swedish Council on Health Technology Assessment

Sweden

Jan Liliemark is professor in pharmacotherapy and program manager at the Swedish Council of Health Technology Assessment (SBU). The SBU delivers HTA-rapports on various methods within the health area, comprehensive rapports on a full subject area, focussed alert rapports on new methods, commentary rapports on other agencies full rapports and finally, a service for decision makers delivering rapid focussed rapports on specific questions. Jan was also project manager within the Swedish Association for Local Authorities and Regions (SALAR) for managed introduction of new medicines in Sweden 2012-2014.

Jan Liliemark has a background in clinical practise, mainly clinical haematology and oncology between 1981 - 1998. The clinical experience is mainly within treatment of leukemia's and lymphomas. Jan Liliemark has also a research background since 1978, mainly within the field of clinical pharmacology and clinical trials. Jan has published more than 100 scientific, peer-reviewed papers on pharmacokinetics of anti-cancer drugs, fine needle aspiration cytology of lymphomas and clinical trials with nucleoside analogs.

After 3-4 years as medical affairs manager at Schering-Plough, Nordic Biotech, he was scientific director at the Medical Product Agency (MPA) in Sweden 2001 - 2010. The MPA is the national competent agency which controls medicinal products and medical devices. Jan Liliemark oversaw the clinical assessments of new applications and the overall scientific quality of regulatory activities. He was also a member of its management board.

Angela CHANG
Doctoral Candidate
Harvard School of Public Health

USA

Angela Y. Chang is a doctoral candidate and Bloom Fellow in the Department of Global Health and Population, Harvard T. H. Chan School of Public Health. With interests in decision theory and its application to optimize resource allocation at the national and international level, her recent work involves analyzing and developing cost-effectiveness thresholds, modeling of infectious and chronic diseases and interventions, and studying the political economy of health benefit package designs. Prior to Harvard, Angela was a Senior Consultant at Deloitte Consulting LLC. She received her Master in Health Administration from the Johns Hopkins School of Public Health and her BS in Pharmaceutical Sciences from National Taiwan University/Kyoto University. Angela is originally from Taiwan and Japan, is an avid photographer, and enjoys traveling to exotic locations for cultural and culinary adventures.

Karen GREPIN
Assistant Professor
New York University

USA

Karen A. Grépin is an Assistant Professor of Global Health Policy at New York University's Robert F. Wagner's Graduate School of Public Service. Her research analyzes why global health policymakers prioritize some policies over others and how the preferences of the people affected by these policies influence their effectiveness in practice. Her work has focused on three important policy areas: the role of international donors in shaping domestic health policy priorities, global efforts to improve maternal health outcomes, and initiatives to strengthen health systems. She has a PhD in Health Policy (economics) from Harvard University and an SM in Health Policy and Management from the Harvard School of Public Health.

Hiiti SILLO
Director-General
Food and Drugs Authority

Tanzania

Mr. Hiiti B. Sillo is the Director General of the Tanzania Food and Drugs Authority (TFDA) from June 2011 after acting in the same capacity since May 2010. Prior to his current position, he served the then Pharmacy Board and TFDA on several technical and managerial positions including being the TFDA Director of Medicines and Cosmetics between 2008 and 2011.

Mr. Sillo is one of the pioneers of the African Medicines Regulatory Harmonization (AMRH) Initiative, implemented through Regional Economic Communities. He is a member and current Chair of the East African Community Medicines Regulatory Harmonization (EAC MRH) Programme Steering Committee, launched in March 2012.

Mr. Sillo is a career Medicines Regulator and a registered Pharmacist with vast regional and international experience in medicines regulation and quality assurance of pharmaceuticals. He served WHO Prequalification of Medicines Programme as a Quality Assessor from 2003 to 2010 that included working as a Technical Officer at WHO HQ in Geneva in 2007.

He received his Master of Science in Pharmaceutical Services and Medicines Control from the University of Bradford, UK in 2002 and Bachelor of Pharmacy Degree from The Tamil Nadu M. G. R Medical University, India in 1998. He has co-authored peer reviewed scientific publications on medicines regulation.

SHORT
PAPER

2.3

A Political Economy Framework for Analyzing Health Benefit Package Decisions

Jesse B. Bump[a] and Angela Y. Chang[b]

[a] Lecturer on Global Health Policy, Department of Global Health and Population, Harvard T.H. Chan School of Public Health
[b] Doctoral Candidate, Department of Global Health and Population, Harvard T.H. Chan School of Public Health

I. Background and Motivation

The challenges surrounding health benefit package (HBP) decisions are increasingly important as more countries embrace the goal of Universal Health Coverage (UHC) and more low-income countries reach middle-income status. Designing HBPs is far from simple because doing so raises politically difficult and economically significant issues, such as what services will be provided, to whom, under what circumstances, and at what cost.

In the context of low- and middle-income countries (LMICs), international actors have proposed various priority setting methods and metrics to help facilitate these processes. Most analyses and assistance in this area has focused on technical issues. Receiving far more limited attention has been the political economy of HBP design—the processes, interests, institutions, and politics that characterize decisions on budgets, coverage of services and interventions, and costs for users. We contend that knowledge of the political economy of priority setting can help to structure more effective resource allocation institutions, processes and decisions, by recognizing and managing rather than ignoring competing political and economic interests.

Many observers will recognize the results of political economy conflicts in policies that do not make sense from a technical perspective. For instance, Costa Rica adopted a pneumococcal vaccine even though the main national technical agency recommended against it and the primary supporting evidence was written by a graduate student funded by the vaccine's manufacturer (Glassman et al. 2014). The national insurance schemes of both Ghana and Mexico have struggled to maintain financial viability, but both include coverage for very high-cost services for elite populations (Rajkotia 2007, Agyepong and Adjei 2007, Lakin and Daniels 2007). England has one of the most robust institutional mechanisms for assuring the cost-effectiveness of interventions offered by the National Health Service. But it also has the Cancer Drugs Fund, which was designed specifically to circumvent the cost-effectiveness requirement used by NICE (Duerden 2010). Whether these examples represents a legitimate expression of democratic choice or a subversion of good governance for the inequitable benefit of a few is secondary to the reality that political-economic forces are highly influential in government decisions in health—often at the expense of positions that are technically superior.

Political economy is a useful lens for analyzing the processes that underlie priority setting in health, because it is fundamentally concerned with conflicts of interest, which are central to policymaking in health for the following three reasons. First, demand for health services is unlimited but resources are finite, meaning that setting priorities is inescapably an exercise in rationing that determines what interventions and services will be available to whom, along with related questions of quality, timing, and price. In part, conflicts of interest reflect differences of opinion about the optimal distribution of resources. Second, as Arrow (1963) and others have observed, health is characterized by market failures, meaning that health policymaking is unavoidably redistributive. Conflicts arise over different

views of who should subsidize whom and to what extent. Third, government decisions are typically binding on many parties, which creates contests between different interest groups with different preferences, for instance between payers and providers, or between parties in power and minority groups, or between groups with different needs, wants, or perspectives.

In this paper we focus on the political economy of decision making about HBPs. Negotiating, adopting, and implementing HBPs is an intensely political activity because of its profound impact on entitlements and responsibilities. Even the more technical aspects of HBPs may have political economic dimensions because of their consequences. We develop a framework to help analysts and policymakers better understand, predict, and manage the political and economic forces that shape HBPs. We begin by explaining how we identified typical areas of contestation in the processes surrounding HBPs and a set of questions for investigating the political economy of HBPs. These questions are applied to two illustrative case studies to show what types of actors engage the HBP process, with what interests, and at what stage of the policy process (cases can be provided upon request).

II. Methods and Frameworks

Political economy is challenging to analyze because it concerns sensitive relationships between money and power, and reflects influences that are hard to specify precisely and in many cases are not publicly disclosed, either. These problems are well known features of the policymaking environment, but in a review of literature we found no adequate framework for characterizing them or applying them to HBPs. To construct our own framework we reviewed theories of political economy as a way of capturing a wide range of forces, circumstances, and actors that could be relevant to HBPs. To identify relevant theories, we reviewed syllabi related to health policy and political economy from leading graduate programs in health systems and political science. We consulted syllabi from the Harvard School of Public Health, the Johns Hopkins School of Public Health, the London School of Tropical Medicine and Hygiene, Princeton University's Department of Politics, and New York University's Department of Politics. We considered this approach reasonable because we believe the syllabi reflect the expert judgment of scholars working in this or related areas. We reviewed the syllabi and identified theories that we believed might have explanatory power for analyzing the design of HBPs. Table 1 shows a brief summary of each theory, a description of how it applies to HBP, and the categories of analysis we use to understand the cases.

III. Political Economy Framework for Analyzing HBP decisions

To help policymakers understand some of the common political economy conflicts that shape HBPs we developed a framework to show typical examples at each stage of the policy making process. We identify common actors and strategies, typical institutional and contextual factors, and also include our judgment of which theory or theories is most applicable at each step. Note that in reality, these steps do not always occur in order and some or all of them may overlap, but they help to clarify the different areas of contestation that shape policies and actions. We summarize our findings in Table 2, along with questions users of the framework should consider asking themselves at each stage.

The first stage of the policy cycle is **agenda setting**, in which the need for a HBP receives greater attention. Various actors compete for attention and resources as they attempt to advance or protect their interests in the political process. Theories such as historical institutionalism, the streams model,

and diffusion theories offer insights into how the institutional and contextual factors at this stage may evolve. For example, historical institutionalism literature suggests that actions of individuals are significantly affected by institutions, such as the formal or informal procedures and conventions of the political environment, and therefore explores how institutions affect individual behaviors. First, instead of starting from a blank sheet, governments often have to design policies around existing institutions, therefore they may consciously or unconsciously reinforce existing power structures or further fragment systems (Fox & Reich 2013). Second, sequencing is critical. Different sequences may produce different outcomes, and it is likely that earlier events will generate certain dynamics between stakeholders, which would later impact later events and decisions. Furthermore, one could hypothesize that certain critical events may reduce the power of potential opponents, such as the HIV/AIDS epidemic in the late 1990s provoked strong protests by civil societies against pharmaceutical companies in restricting access to essential medicines. Events that immediately follow would likely face less opposition by the pharmaceutical companies. Third, once a certain policy decision is implemented, networks of beneficiaries and stakeholders will emerge, and they will heavily resist any future proposals that may reduce their benefits. The process of retrenchment is unpopular and politically very difficult since the government is taking away privileges from well-organized groups and therefore will be met with strong opposition. Therefore, before introducing a new program, in addition to the technical considerations listed above, potential risks of retrenchment and the unintended consequences in the future should be considered.

The second stage of the policy cycle is **formulation**, which is the step for legislatures and other decision-making bodies to design and enact policies after it has gained its place on the political agenda. Compared to the first stage, the focus of the contention narrows down to specific issues, such as the definition of the issue, its framing, the groups affected, the assignment of responsibility, the solution, and its expected mechanisms. The theory of veto points and veto players offer valuable insights for this policy stage. Veto points are defined as "strategic opportunities stemming from the logic of political decision processes," in which interest groups can take advantage of to block legislations (Immergut 1992). Veto players are the actors who occupy the veto points, and whose agreements are required for a policy decision (Tsebelis 1995). Some hypothesize that policy stability increases with the number of veto players, the difference in their political positions, and the internal cohesion of each one of them. The greater the number of veto players, the higher the likelihood that the status quo will prevail. On the other hand, others state that with the increase in the number of veto points, interest groups will have higher likelihood of gaining access and control over the policy process (Immergut 1992). In the case of HBP, we hypothesize that the number of veto players increase the complexity of reaching an agreement on HBP, but this complexity is not necessarily linked to the quality of decisions produced by the process. Furthermore, different sets of veto players engage in different stages of the policy process, and their level of engagement and power should vary by stage. We also hypothesize that veto points (or the institution itself) are prone to interest captures if they are not stable and advanced enough. This is especially relevant in LMICs, where we often observe individual actors being more powerful than institutions that are too weak to counterbalance individual influences.

The third stage of the policy cycle, **implementation**, involves determining who or what groups will have the responsibility for carrying out the policy, the timing of activities, where actions will be taken, and the source and amount of funding required. At the implementation stage, challenges to the legality of the policy and/or its implementation plan are common. Another key factor at the implementation stage is the role of bureaucracy, which encompasses public sector actors within administrative institutions who are closely involved in the daily operations of policy implementation. Taking a rational choice approach, Tullock (1965) states that the behaviors and decisions taken by

bureaucrats can be explained by the incentives and information they perceive. One prominent global health scholar described that bureaucracy has been one of the biggest barriers in all of the many national-level health reforms with which he has been involved. Furthermore, the designers of the HBP often focus more on the design of the policy and fail to account for the implementation plans, leading to bureaucratic overload.

The final stage of the policy cycle, **evaluation**, involves assessing the impact of the policy and adjusting the formulation or implementation of the policy based on feedback and new data. Advocates and opponents contest the evaluation of policies by arguing over what counts as evidence, what constitutes a reasonable counterfactual, what mechanisms were engaged by the policy, and other issues related to what has happened under the policy and what can be expected under it in the future.

This political economy framework for analyzing HBP decisions allows users to manage the political economy of the policy proactively by systematically analyzing how different actors will behave at different stages of the policy cycle. Compared to existing stakeholder analysis tools, our framework offers a wider view of the complete policy cycle, rather than a static cross-sectional picture. It takes into account the institutional and contextual factors that shape policy outcomes. Based on insights from political economy theories, users will be able to gain insight on the rationales of the actors' behaviors and predict their strategies at different points of the policy cycle. Furthermore, while existing tools require users to input subjective analyses of the stakeholders into the tool, our framework relies on the objective insights from theories and past examples to map out a more accurate picture.

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Table 1. Political economy theories and their application to HBP analysis

PE theory	Important Elements	Major categories of analysis	Questions for HBP Analysis
Veto points (and players)	• Veto points are steps in the political process where decisions are made to advance or block a policy. Veto points define the spaces where interest groups can attempt to influence policy outcomes. • Veto players are groups or individuals empowered by institutional position with the authority to advance or block policy. • Some theorists have argued that as the number of veto points increases it can increase stability; others have argued that more veto points only gives interest groups more opportunities to influence the process.	• Structure of the political process	• Are veto points (or the institution itself) more powerful than individual actors? Are the institutions stable enough to counterbalance the power of individual actors? • Where are the key institutional constraints and veto points on developing new policies and passing into law related to HBP, and who are the veto powers that hold those positions? • What are the strategies of interest groups in interacting with key veto players?
Historical institutionalism	• Actions of individuals are significantly affected by institutions, and therefore pose questions in understanding how institutions affect individual behaviors • The concept of path dependency emphasizes the causal relevance of preceding stages in a temporal sequence	• Historical and current political-economic context	• What relevant context is there to describe the baseline expectation of different actors (policymakers, general population etc) • Are there potential risks of retrenchment and unintended consequences that may arise with the introduction of HBP? How to mitigate these risks?
Agenda setting	• Coupling of the three "streams"—problem, policy, and political—leads to a window of opportunity in which there is greater chance of proposals landing on the political agenda	• Conceptualization of the problem • The policy and its framing • Political context	• Does HBP resonate with a recognized problem? • Are there "invisible actors" developing alternative solutions and proposals? • How politically prominent is the issue? • Are the key ingredients in the three streams in place?
Interest groups	• Interest groups exercise their influence over the policy process to maximize benefits • Power differences between actors exist when some groups are better positioned than others to participate and influence priority setting processes	• Interest groups	• What have been the strategies and actions taken by interest groups in the past?
1) Bureaucracy	• Behaviors and decisions taken by bureaucrats can be explained by the incentives and information they perceive. Instead of performing acts to enhance public interest, bureaucrats, like any other people, will pursue their own interests and form actions based on personal incentives	• Incentives of bureaucrats	• What is the role of bureaucracy in current health service delivery (e.g., regulatory, administrative, payment to providers)? • How will the role of bureaucracy change with the introduction of HBP, if at all?
2) External	• External players may exert their	• Regional context	• Who are the existing international

players - diffusion theory	influence through one of the four models: external pressure, normative imitation, rational learning, and cognitive heuristics		agencies /donors involved in national health policy? • Has similar policy process/incidence taken place in neighboring countries or countries with similar historical background?
3) Legislatures/ politicians	• Politicians make careful calculations and engage in benefit-cost analysis for every political action they make • Politicians will design policies that will appeal the most to median voters. • There exists a relationship of exchanges in benefits between the patron and the client • Credit claiming and blame avoidance – policymakers act to make constituents believe that he/she was personally involved in achieving desired outcomes or avoid being blamed for negative policy outcomes when they are in conflict with constituents' interests	• Politicians' incentives and decisions	• Who are the median voters, and what health service demands do they have? • Politicians may endorse inclusion of health services that affect the demographics that belong to the median voters, for example, the middle class, urban, adult population. • Can politicians strategies be characterized as credit claiming or blame avoiding?

Table 2: Political economy of priority setting – Diagnostic and illustrative Framework

	Agenda setting	Formulation	Implementation	Evaluation
	The process in which the need for a HBP received greater attention	Legislatures and other decision making bodies design and enact policies	Carrying out the policy	Assessment of impact
Typical Contests of Interest	Advocates for different diseases or conditions compete for attention and resources as they attempt to advance in the political process. Includes attempts to define and quantify problems and solutions, frame debate, and assert the primacy of one issue over others.	The contest narrows to focus on the specific issue that has reached the policy agenda. Debate includes the definition of the issue, its framing, the groups affected, the assignment of responsibility, the solution, the goals of the policy, and its expected mechanisms.	Implementation contests include who or what groups will have responsibility for carrying out the policy, the timing of activities, where action will be taken, and the source and amount of funding. Challenges to the legality of the policy and/or its implementation plan are common.	Advocates and opponents contest the evaluation of policies by arguing over what counts as evidence, what constitutes a reasonable counterfactual, what mechanisms were engaged by the policy, and other issues related to what has happened under the policy and what can be expected under it in the future.
Insights from theories and country cases	• New policies may reinforce existing power structures or further fragment systems. • Sequencing is critical. Different sequences may produce different outcomes, and in the case of HBP, it is likely that earlier events will generate certain dynamics between stakeholders, which would later impact later events and decisions. • The dynamics that follow throughout the policy process will likely depend on how HBP was introduced at this stage • Retrenchment is politically unpopular and challenging. Once a certain policy decision is implemented, networks of beneficiaries and stakeholders will emerge, and they will heavily resist any future proposals that may reduce their benefits.	• External players may have direct and/or indirect effects on the policy outcomes through one of the four mechanisms – external pressure, normative imitation, rational learning, and cognitive heuristics. • Politicians may endorse inclusion of health services that affect the demographics that belong to the median voters, for example, the middle class, urban, adult population. • There exists a relationship of exchanges in benefits between the patron and the client • Credit claiming and blame avoidance – policymakers act to make constituents believe that he/she was personally involved in achieving desired outcomes or avoid being blamed for negative policy outcomes when they are in conflict with constituents'	• The legal system often acts as a strong veto point at this stage, and interests groups often aim to target this to progress their agendas. • Behaviors and decisions taken by bureaucrats can be explained by the incentives and information they perceive. Instead of performing acts to enhance public interest, bureaucrats, like any other people, will pursue their own interests and form actions based on personal incentives	• The contest to characterize what has been done is crucial to the maintenance, revision, or abandonment of a policy. • Evaluation is an opportunity for supporters to claim positive effects and a chance for critics to undermine the policy. • It can be challenging to establish the exact effects of a policy, particularly if technical evaluation criteria are in dispute or if evidence collection is not incorporated into the policy.

		interests		
Stage-specific questions for HBP Analysis	• What relevant institutional context is there to describe the baseline expectation of different actors (policymakers, general population etc)? • Are there potential risks of retrenchment and unintended consequences that may arise with the introduction of HBP? How can we mitigate these risks? • Who were the leading advocates and supporters? Why were they pushing for it, and how?	• Who are the existing international agencies /donors involved in national health policy? • Has similar policy process/incidence taken place in neighboring countries or countries with similar historical background? • Who are the median voters, and what health service demands do they have? • Can politicians' strategies be characterized as credit claiming or blame avoiding?	• What is the role of bureaucracy in current health service delivery (e.g., regulatory, administrative, payment to providers)? • How will the role of bureaucracy change with the introduction of the HBP, if at all? • How does the current payment system incentivize the providers?	• How can we design a strong evaluation system to mitigate opportunities for manipulation by external actors?
Questions relevant across 4 policy stages	• Where are the key institutional constraints and veto points at each stage, and who are the veto powers that hold those positions? • Are veto points (or the institution itself) more powerful than individual actors? Are the institutions stable enough to counterbalance the power of individual actors? • How can we design the process with appropriate number and type of veto points to ensure fairness and transparency? • What are the strategies of interest groups in interacting with key veto players? • What have been the strategies and actions taken by interest groups in the past?			
Sample country cases	• The Clinton health reform in the U.S. (Hacker, 1999)	• High cost inclusions in Mexico's Seguro Popular (Lakin & Daniels 2007) • Ghana and the design of the National HBP	• Herceptin in the U.K. • Costa Rica and the adoption of pneumococcal vaccine	

Can you handle the truth?

Jan Liliemark[1]

Background

In high-income and most middle income countries, the demographic changes has been dramatic during the recent decades; the "forth age", starting at 80 years, has expanded significantly. Parallel to this, medical technology has developed very rapidly and we can today treat and cure a number of major diseases where prospects used to be dismal. Unfortunately, economic growth in general has not kept pace with this development. Therefore, we see an increasing deficit between available resources and medical opportunities. This is true irrespective of economical standard although the difficulties might appear greater in low middle income countries. Thus, the truth we have to handle is that we cannot afford to utilise all available technologies, instead we have to prioritize. The problem is by all means not a new one but is becoming increasingly pronounced. When prioritising some individuals will have to stand back on behalf of others. The resources we chose to use for one purpose cannot be used again and if the alternate use of the resources is more effective we are losing health (health foregone) by sub optimal prioritization. Attempts have been made to calculate the threshold for this in a health system[2], but it is extremely complicated to calculate this taking all appropriate factors into account. Lack pf resources will inevitably give rise to discontent and conflicts. Some strong individuals or advocacy groups will put pressure on decision makers to achieve "their rights". It is therefore important that decisions on prioritization are founded in transparent and widely accepted ethical principles.

In Sweden a "platform for prioritization" was founded by the parliament 20 years ago. This consists of three bearing principles; human dignity, need and solidarity and cost-effectiveness. The principle of human dignity simply states that all humans have an equal value and that discrimination on the basis of sex, social status, religion or age, etc. is not accepted. The principle of need and solidarity states that those with the greatest need will have a relative precedence to the use of resources. The principle of cost-effectiveness basically means that the cost should be reasonable in relation to the effect of treatment taken into account the need as expressed in the second principle.

Despite a clear and ethically just framework with wide political acceptance in a society where the vast part of health care is publically funded, issues on prioritizations are still creating a lot of controversy. Patient organizations have a lot of influence, but it is not the organizations who represent the patients with the greatest needs that have the strongest voice, but those with relatively young members who are professionally active. Thus, the old and fragile, patients suffering from mental disorders including dementia, end stage cancer, or severe neurological disorders have a much weaker positon than patients with e.g. diabetes, rheumatoid arthritis, or cardiac disorders. Commercial interests also play an important role. If there is a company with a newly marketed drug or medical device, those patients' claims can be greatly boosted by

[1] Professor and head of department at the Swedish agency for health technology assessment and assessment of social services

[2] Claxton K, Martin S, Soares M, Rice N, Spackman E, Hinde S, Devlin N, Smith PC, Sculpher M. Methods for the estimation of the National Institute for Health and Care Excellence cost-effectiveness threshold. Health Technol Assess. 2015 (14):1-503

marketing activities from the companies. Public media is often letting themselves be used as "useful idiots" and a powerful tool for such commercial activities. Media is particularly important for marketing of drugs for rare diseases. The so called "rule of rescue" means that the fate of a single individual, who is not given access to an extremely expensive remedy, generates much more compassion than does a larger group of anonymous patients with equally (or worse) severe conditions. This reflects old instincts in the human nature, but creates problems when it comes to making just priorities in today's situation. To make a travesty from a famous quote; one single death is a tragedy, one thousand deaths are one thousand tragedies, not a statistic. Thus, when priorities boils down to defending the denial of a life-saving treatment to an identified individual on behalf of other anonymous individuals in need, most decision makers will find it very uncomfortable to defend the ethical principles which they have previously agreed to and are supposed to follow.

Likewise, a strong patient advocacy group representing a large number of individuals, together with a financially strong actor and support from influential mass media can put very strong pressure on decision makers to deviate from their ethical principles and favour such a group before others with equally strong claims, but less skills in making their case. In both these situations priorities are skewed and resources are used sub optimally.

There are a lot of examples of situations when decision makers have satisfied strong opinions and commercial interests to avoid difficult discussions. The cancer drug fund was created in England to finance the use of drugs which were found not to be cost effective. Likewise, an especially dedicated fund for orphan drugs was created through a governmental decision in Scotland after the Scottish Medicines Consortium's rejection to fund the use of an outrageously expensive orphan drug. There are also numerous examples of how pressure has been put decision makers to fund the use of eculizumab (Soliris™) despite a prizing that contradicts all reason.

How can ethical principles and equity be defended also in situations where we are up against strong vested interests and commercial interests? One key issue is how to make the anonymous group of elderly patients with severe conditions a weak voice emerge from their anonymity. After all, priorities are about discrimination between the needs of different groups. Media and the public must be made to realize that all the single individual patients with severe, life-threatening diseases but without advocates and voice will suffer when we chose to use our mutual resources in a suboptimal way. Also, media consists of individuals but often act as a collective. Therefore, one or two influential journalists can set the agenda and change the public discussion. Thus, informing and educating key opinion leaders of the media is of outmost importance to create a situation where a public discussion on just prioritizations can occur. Even if journalists are searching for a scoop, there is also an urge to build a reputation of seriousness and being able to find the truths and explain complex circumstances to their readers.

If politically elected decision makers are directly responsible for individual decisions they will inevitably be faced with a situation where it is very difficult to defend complicated ethical principles and at the same time remain popular in the eyes of the public (voters). Thus, a political system with independent agencies who are responsible for decisions based on politically decided principles and where politically elected decision makers are unable (forbidden) to involve themselves in individual cases, is more robust. It is also important that decision makers who take the responsibility to defend the ethical principles in public have a good understanding of not only the ethical principles but also have some knowledge of basic health economic principles and terminology.

In conclusion, to be able to handle the truth, we need communication strategies that allow us to provide to the public and media a fair and accurate picture of the results of prioritizations which points to the need of the many anonymous individuals. There must also be an institutional frame work and political regulations which prevents lobbing and the misuse of political decision maker's delicate situation for the purpose of skewing priorities in the favor of strong vested commercial interests.

EXAMINING PRIORITY SETTING BY INTERNATIONAL INSTITUTIONS THROUGH A NINE-AGENCY COMPARISON OF ALLOCATION PROCESSES

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Y-Ling Chi[a] and Jesse B. Bump[b]
[a] Nuffield Department of Population Health, University of Oxford, [b] Havard T.H. Chan School of Public Health, Harvard University

Correspondence: ling.chi@queens.ox.ac.uk, bump@hsph.harvard.edu
Disclaimer: some of the information contained in this document is currently under review. Please email authors if you have any queries

Rapid expansion of Development Assistance for Health (DAH) has fostered a long-running debate over allocation. The importance of this contested discussion has risen sharply over the past quarter century as the health sector has attracted more resources and come to occupy a central position in conversations about economic growth, human rights, and the role of the state. Between 2000 and 2010, DAH grew at an annual rate of 11.3%. In total, over the period 1990-2014, $458 billion were disbursed globally through DAH for the purpose of maintaining or improving health (Dieleman, et al., 2015). While the rise in DAH has been well documented, it is unclear whether it has been effectively deployed to assist programmes in settings (countries, activities or disease areas) that require the most support, and in turn contributed to better addressing health needs in developing countries (Piva and Dodd, 2008).

In this context, resource allocation systems have come under the scrutiny of policy makers and academic research. Allocation decisions have critical impacts on the operation of health programmes in countries, and ultimately on access to relevant health services for populations. Moreover, well-guided resource allocation processes are also central to aid effectiveness, as emphasized by the Paris Declaration on Aid Effectiveness (2005). Although the importance of these decisions is widely acknowledged, there is still limited evidence on what drives them, especially in the context of health. In general, existing studies have also followed an empirical approach to address this question but this approach suffers from problems of model misspecification, unobserved variables, and measurement (McGillivray, 2003; Hoeffler, 2008).

We seek to contribute to this research by describing resource allocation models currently in use in nine large multilateral organizations working on global health. To this aim, we selected nine organisations based on the prominence of their work in global health, both in terms of geographic coverage and size of programme budgets. The objective is twofold. First of all, we seek to provide descriptive information on the complete decision-making process from resource mobilization to allocation. In addition, by following a comparative approach, we also seek to identify common trends in allocation models in institutions.

Approach and data

We selected the following nine multilateral organizations for our analysis:

- Gavi, the Vaccine Alliance (hereafter Gavi)
- The Global Fund to fight against AIDS, Tuberculosis and Malaria (GFATM)

- UNAIDS[1]
- The United Nations Development Programme (UNDP)
- The United Nation Population Fund (UNFPA)
- The United Nations Children's Fund (UNICEF)
- UNITAID
- The World Bank - International Development Agency (IDA)
- The World Health Organization (WHO)

The analysis of each institution's resource allocation model follows a process-oriented approach, meaning that we systematically break down the allocation process in different phases that conduce to final allocation decisions. We took as granted that the first steps in the allocation process are the definition of the institutional and resource mobilization strategy. From there, we identified the sequence of decisions (inputs) that lead to final allocations (our output of interest).

Using this approach, we prepared an informal account of the allocation process in the selected institutions. These accounts helped us identify ordered categories that can be used to describe the allocation cycle across all institutions (see Figure 1).

Figure 1. Allocation cycle in multilateral organizations

The primary data sources for this review are board decisions, budget and financial reports, internally published documents, as well as published academic literature on allocation models. In addition, both authors personally conducted structured interviews with senior managers in each institution between April and November 2015. An extended summary of each institution's resource allocation model was also prepared and reviewed again by contacts within the institutions.

Results and conclusion

Strategy and resource mobilization
In all of the reviewed institutions, the definition and approval of the institutional strategy plays a crucial role in the resource allocation cycle. The strategy often explicitly sets out institutional goals, as well as goals in terms of population health or

[1] UNAIDS here refers to the UNAIDS Secretariat (not to the Joint Programme with the 11 Cosponsors).

programme implementation, estimated budgets, and in some cases performance targets for the institution as a whole. These elements are often used to estimate resource needs and as leverage for resource mobilization.

In three of the reviewed institutions (GFATM, Gavi, IDA), resource mobilization is organized through a large pledging conference and contributions are pooled into one unique envelope that institutions control almost entirely. In UNITAID and institutions of the UN system, resource mobilization is thought as a continuous process. Resources are mobilized through several sources: voluntary contributions (including from foundations, NGOs and the private sector), membership fee (WHO), innovative financing (UNITAID) or revenues from national committees from sales of products or individual private fund raising (UNICEF). Such contributions can be broadly categorised between (i) contributions to the general institution's budget and (ii) earmarked contributions (with spending requirements), for which there is little information. At UNDP, UNICEF and the WHO, the share of earmarked contributions is also notably higher than in other institutions (around 75% of all resources received by the institution). It is worth noting that the allocation of earmarked contributions does not follow the same resource allocation principles prevalent in the institution.

Eligibility
Eligibility of countries in all institutions is mainly based on health and financial needs. For this reason, GNI per capita plays a large role in defining eligibility in the reviewed institutions. Five institutions apply a 'hard' threshold based on GNI per capita. It is worth noting that the 'cut-off point' is not the same for all institutions: in principle, Gavi and IDA only work with low-income countries (for Gavi, countries with a GNI per capita below $1580). On the other hand, other institutions that have a more 'rights-based' approach apply a higher income eligibility threshold. UNICEF works with all countries where a need for work is identified through the general UN Development Assistance Framework (UNDAF). The GFATM works with all countries but high-income countries.

In addition to GNI per capita, other indicators are applied to reflect country's need for support. For instance, eligibility at the GFATM is defined using a combination of indicators reflecting country's disease burden and economic status. Interestingly, Gavi also only works with countries with a minimum coverage rate of 70% for DPT3 vaccination (for some vaccine programmes). Gavi uses this indicator to ensure that the country has sufficient capacity to support a large-scale vaccination programme.

Type of support
Institutions offer different methods to support countries. UNAIDS and UNITAID stand as exceptions, as a large share of their budget is dedicated to providing funding to other institutions. In the case of UNAIDS, its role is to coordinate its cosponsors and ensure that all needs in terms of prevention, detection, service delivery worldwide for HIV/AIDS are best fulfilled. UNAIDS works with countries, but mostly on advocacy, research and policy work. UNITAID intends to improve the prevention, detection and treatment of the three main infectious diseases by shaping markets towards delivering cheaper and more available drugs and equipment. For this reason, UNITAID only provides large grants to other partners to fund multi-country work.

Seven institutions provide grants or set up interventions directly or through country offices. UNDP, UNFPA, UNICEF and the WHO work with a complex network of country and regional offices; and in some instances, with other implementing partners. It is worth noting that these institutions have different levels of engagement with countries depending on their level of needs.

On the other hand, IDA and GFATM are financing institutions. IDA is a lending agency, and supports countries through loans with a concessional element depending on the country's level of credit distress. The GFATM supports countries by providing funding for specific disease programmes and activities, or for health systems strengthening interventions. Gavi organizes the delivery of vaccine programmes in the field, but also assists countries in the development of their health systems.

Country or programme allocation[2]

Increasingly, decisions on country or programme allocation are made more transparent and systematic. All reviewed institutions apply a resource allocation formula for the disbursement of at least a portion of the funds. On the other hand, it is worth highlighting here that no institution uses a formula as the sole tool for decision-making in terms of country allocations.

Resource allocation systems

Some institutions have different resource allocation processes depending on the type of support. For instance, the allocation process at Gavi for vaccine programmes and health systems strengthening are separate. By contrast, at GFATM and IDA, a unique resource allocation formula is applied to the bulk of the funding envelope, while a share of total funds is set-aside for other purposes (e.g. Incentive Fund at the GFATM).

In the case of UNDP, UNFPA, UNICEF and the WHO, the resource allocation formula only applies to core resources (between 25%-50% of the total resources of the institution). For these four institutions, the individual country programmes defined following the UNDAF and the Country Coordination strategy play an important role in defining the level of support and funding for the country.

Indicators used in main resource allocation process

Table 1 provides a short summary of the indicators used in each of the institution's raw resource allocation process (excluding adjustments). First of all, it is worth noting that while the type of indicators might seem similar between institutions, the types of allocation method or formulaic specification is very different from one institution to another. Gavi works on a rounds-based system and funding decisions are made for individual vaccines or health strengthening programmes. At GFATM, UNDP, UNFPA, UNICEF, IDA and WHO, indicators are used to calculate a country score and a country's allocation is calculated as a share of the total envelope by dividing the country score with the total country scores.

Table 1. Summary of indicators used in raw allocation decisions

[2] This section does not include UNITAID and UNAIDS

Institution	Types of indicators
Gavi	Size of the birth cohort, price of vaccine, GNI per capita (to calculate co-financing element)
GFATM	Disease burden (calculated separately for each disease), GNI per capita
UNDP	GNI per capita, population size
UNFPA	proportion of births attended by skilled health personnel for the poorest quintile of the population , proportion of demand for modern contraception satisfied, adolescent fertility rate, maternal mortality ratio, Gender Inequality Index, HIV prevalence in population aged 15-24 year old, GNI per capita
UNICEF	Under five mortality rate, GNI per capita and child population
WHO*	Life expectancy and GDP per capita
World Bank	CPIA, Country Portfolio Performance, Population size, GNI per capita

* applicable for the 2016-2017 budget period, but WHO is undergoing a reform of its resource allocation formula for core resources.

It is worth noting that while GNI per capita is used as an input to decisions in all institutions, it is used in a different manner. For instance, GFATM and UNICEF do not directly use GNI per capita, but a sliding scale based on GNI per capita designed to give more weight to low-income countries. In addition, all institutions use additional indicators to inform the decision-making process on resource allocation. Indicators used to reflect disease burden at the GFATM are fairly comprehensive and include incidence rate (per 100,000), mortality rates and rates of co-infection. At IDA, a very large emphasis is given to Country Performance Ratings (mainly the CPIA).

Types of adjustments and spending targets
A number of qualitative adjustments are then applied to determine the final allocation figures. These qualitative adjustments are not marginal, and are, in most instances, equally important as the raw indicators listed above.

Minimum and maximum allocations ceilings are often used to ensure that country programmes can be operationalized, or to ensure that countries with very large needs do not capture a disproportionate amount of funding. Another important adjustment is the existence of spending targets, which play a crucial role in some institutions. For instance, UNICEF has a target for programme allocations of 50% to Sub-Saharan Africa and 60% to countries with the LDC status. Qualitative adjustments are often applied to ensure that the allocation figures are in line with these decisions taken at the institutional level.

In addition, other types of adjustments are also made to account for exceptional situations, abrupt changes in allocation figures, past performance, emerging new situations or quality of projects. At the WHO, UNICEF, UNFPA and the GFATM, there was a real concern on the volatility of allocated resources and its impact on the operation of programmes. In these institutions, caps for changes in resource allocations between two periods have been defined to limit this problem.

Country involvement
In all seven institutions, allocated resources were transferred with explicit conditionality and spending requirements (and never as general budget support). Financial safeguards and, in some cases, a monitoring and results framework is developed with each funding decision. There is often a high degree of collaboration between the institution and recipient country in the definition of these elements. At Gavi and the GFATM, countries work very closely with the institution to apply for

funding support and produce good quality project proposals. At IDA, a systematic country diagnosis is undertaken for each country, which is then used to develop proposals that are relevant to local development needs. The process is similar in UN agencies.

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Stakeholder Dynamics in UHC Priority Setting

Parallel Session

2.4

Country level health systems are a product of epidemiology, culture and politics. It is important to consider UHC as a direction rather than a final destination and every country can choose to tackle any of the UHC range of choices at any stage of development. However, financial resources are finite, while demands for health service coverage are constantly expanding. As such, all health systems face a trade-off among the competing needs of increasing population coverage, expanding the breadth and/or depth of services to be covered by social health insurance, and improving financial protection for individuals. UHC is a condition of citizenship and the challenge will be for countries to overcome the fragmentation of health schemes and resources in the public and private sectors.

The debate on how to achieve UHC extends far beyond the health sector and requires meaningful, multi-sectoral engagement if success and sustainability are to be achieved. UHC is a complex, multi-faceted issue that needs to be addressed from a multi-disciplinary perspective, with equity at the core. This requires the commitment of all stakeholders to providing equal access to available care, addressing equal needs, ensuring equal utilization for the equal need, and equal quality of care for all. There is a fundamental tension between the ethical ideal of paying for all medically necessary treatment and the economic constraints of a limited public budget to pay

for health services. Determining who will be covered for what medical conditions involves making difficult decisions among multiple competing objectives. This decision-making process can be made more effective and inclusive if a variety of perspectives is taken into consideration in a transparent and objective manner.

To manage the many competing objectives, policies and programs need to target populations, settings and intervention selection; be continually adapted; and undergo routine monitoring and periodic evaluation. This requires efficient data systems and human capacity to generate and analyze information. Stakeholders have a wide variety of roles and responsibilities at various points along the path towards UHC and also in discussions related to priority setting for UHC. Key stakeholders in these discussions include professional associations, patients, citizens, industry, civil society, and others. While stakeholder groups will have different priorities and agenda, common topics of discussion include access to essential medicines and interventions, the Millennium Development Goals and the Post-2015 agenda, non-communicable diseases, pricing, appropriate use of medical commodities and treatment protocols, and innovation for new products and affordable pricing, among others. Relationships between stakeholders must also be considered, as well as actual and potential conflicts of interest. As an example, there are complex inter-linkages and potential tensions between pharmaceutical and national health insurance systems which need to be better understood and considered. Governments may be concerned that industry's commercial interests could distort their efforts to set healthcare priorities. Conversely, the pharmaceutical industry may fear that priority-setting will be used to restrict access to its innovative products on national formularies, favor local industry, and that decision-making processes are not sufficiently transparent.2

This parallel session is intended to foster discussion around the stakeholder dynamics in UHC priority setting. In practical terms, countries consider a broad range of stakeholder perspectives when conducting their UHC prioritization and making UHC decisions including government priorities, industry, patients, patient groups, insurance providers, civil society, health care providers, and others. This session will bring together a variety of perspectives and consider how they interact.

Objectives

- Consider the wide variety of stakeholders relevant to UHC priority setting and decision making, and the degree of participation and voice across different groups in priority setting processes;
- Understand better the role that evidence plays in decision making and stakeholder interaction – in particular, how do decision makers use evidence, and who / what evidence do they trust?;
- Consider potential, perceived and actual conflicts of interest and how to manage them;
- Consider how various stakeholders see themselves and others in the UHC priority setting and decision making process.
- Suggest ways to improve the working relationship among various stakeholders in the priority setting space, in particular drawing from experience from selected countries or groups.

Moderator

Daniel Miller
Associate Director, PATH, Switzerland

Panelists

Brendan Shaw
Assistant Director General, The International Federation of Pharmaceutical Manufacturers & Associations, Switzerland

Tessa Tan-Torres Edejer
Coordinator, World Health Organization, Switzerland

Amanda Howe
President Elect, World Organization of Family Doctors, Thailand

Sheila Sabune
Programme Manager, International Development Studies, St Augustine International University, Kampala, Uganda

Lawrence Sherman
CEO & Medical Director, Jackson Fiah Doe Memorial Hospital, Liberia

MODERATOR

Daniel MILLER

Associate Director
PATH

Switzerland

Dr. Miller has received: a BS in Bacteriology at the University of California-Davis; MD with an emphasis on Infectious Diseases at the University of California-San Diego; clinical training in Family Medicine with emphasis on maternal and child health at the University of California-San Francisco; and a Preventive Medicine residency/ fellowship and MPH at the University of Washington. He has served as Medical Director of a network of primary health care clinics in Seattle that provided comprehensive outpatient and in-hospital medical services to poor and minority communities.

Dr. Miller joined the US Centers for Disease Control and Prevention (CDC) in 1986 and served successively in scientific, management, policy, and leadership positions in cancer epidemiology/statistics, infectious diseases, disease surveillance, and global health. While at CDC he served as: Senior Technical and Policy Advisor to The World Bank; Liaison for Global Health to the US Congress; Senior Policy Advisor for Global Health at the US Department of State; and, Director of the Office of International Influenza in the Office of the Secretary (Minister of Health), US Department of Health and Human Services (HHS).

Dr. Miller joined PATH in 2013 and currently serves as Associate Director in the Vaccine Access and Delivery Global Program (VAD). Daniel provides technical and management oversight and strategic direction on policy & program development and coordination, advocacy & demand generation, vaccine & cold chain, data quality & use, as well as in-country technical assistance for vaccine introductions and sustainable implementation for PCV, Rotavirus, Men A, JE vaccine, and polio vaccines.

Brendan SHAW

Assistant Director General
The International Federation of Pharmaceutical Manufacturers & Associations

Switzerland

Brendan Shaw is Assistant Director General at the International Federation of Pharmaceutical Manufacturers and Associations in Geneva and was appointed in 2014. Brendan assists the Director General in leading on a range of functions for the global pharmaceutical industry especially innovation policy, intellectual property, trade, health technology assessment, ethics, compliance and vaccines. Prior to joining the IFPMA, Brendan was Chief Executive of the Australian pharmaceutical industry association, Medicines Australia, and before that was the senior executive at MA in charge of health policy and research. During his time at Medicines Australia Brendan served as the pharmaceutical industry representative on the Economic Subcommittee of the Australian Government's Pharmaceutical Benefits Advisory Committee and as the innovative industry's representative on the Australian Government's Pharmaceutical Benefits Pricing Authority. Brendan has also worked previously as an economist and policy adviser with the Australian Government, as an adviser in Australian politics, and worked in academia and consulting. Brendan holds an honours degree in economics and public administration from the University of Queensland and a PhD in management, business and economics from Monash University.

Tessa TAN-TORRES EDEJER
Coordinator
World Health Organization

Switzerland

Dr. Tessa Tan-Torres Edejer is the coordinator of the Unit on Costs, Effectiveness, Expenditure and Priority Setting (CEP) under the Department of Health systems governance and financing (HGF) in the Cluster of Health systems and Innovation in WHO. For the past 15 years, she has been primarily responsible for leading the work on defining the cost-effectiveness of health interventions (WHO-CHOICE)and the costs of scaling up and reaching health goals and targets. Ongoing work revolves around fair resource allocation, priority setting and explicit equity-efficiency trade-offs and the development of OneHealth Tool, a UN interagency health sector costing and planning tool. Another major area of work in the unit is on health accounts which includes the annual updating of the health expenditure estimates of WHO's 194 member states and assisting countries to institutionalize the routine production and use of health expenditure estimates. The reporting is guided by the global standard for reporting health expenditures, the System of Health Accounts 2011 and facilitated in-country with the use of the health accounts production and analysis tool.

Lawrence SHERMAN
CEO & Medical Director
Jackson Fiah Doe Memorial Hospital

Liberia

Lawrence M. Sherman, MD., is currently the CEO/Medical Director of the Jackson F. Doe Memorial Regional Referral Hospital in Northern Liberia, West Africa and is a graduate of the A. M. Dogliotti College of Medicine University of Liberia in 1994. He has serve as Assistant Professor of Surgery and Clinical Coordinator for the last 10 years at the same institution. He is a Foundation Fellow of the recently established Liberia College of Physicians & Surgeons and also a member of the Surgical Faculty working to provide homegrown Specialists to meet the needs of the country.

Dr. Sherman has serves on numerous committees and advisory boards of the Ministry of Health of Liberia and is Co-Chair of the National Ethics & Review at provides Board. He has participated in the development of programs to Up-grade the Surgical Skills of Physicians and Mid-Level Health Workers. He is a Surgeon with the Liberia Fistula Project and Executive Director of the Liberia Surgical Outreach Program (LISOP) that provides essential surgical care to remote areas.

He has co-author several papers relating to the availability of surgical care in developing countries and has served as a Guest Reviewer of the World Journal of Surgery in 2013 Disease Control Priorities 3: Essential Surgery, Chapter 20 - “Global Surgery & Poverty”; 2015. On several occasions he served as Temporary Advisor to the WHO. He has presented at several meetings locally and internationally of various aspects of the Liberia Health Care Sector, with the most recent been the “Lessons Learned from the Ebola Crisis”.

Dr. Sherman and his wife, Roseline, live in Liberia. They have three (3) daughters.

Amanda HOWE
President Elect
World Organization of Family Doctors

Professor Amanda Howe, President Elect of the World Organisation of Family Doctors (WONCA), has been qualified as a family medicine practitioner since 1983 (MRCGP), and is Foundation Professor of Primary Care at the University of East Anglia - which she joined in 2001 to set up the new Norwich Medical School. She was until end of 2015 the Vice Chair (Professional Development) for the Royal College of General Practitioners, previously holding posts as Chair of Research and Honorary Secretary where she led initiatives on medical generalism, skill mix for effective primary care, and workforce development.

Her involvement in academic practice was originally driven by a desire to give medical students the chance to meet patients in their own communities, and to see the full breadth of health and illness in the context of people's lives. She was also motivated by the need to bring a stronger patient and community perspective into medical practice. The theme of personal and professional enablement underpins her diverse research portfolio on mental health, resilience, professionalism, and the impacts of community based learning. Her work with students, residents, and colleagues across the world is based on similar values – championing the best of family medicine through an ambition to lead change, assist learning, and deliver relevant evidence that will help professional development and patient care.

Her ultimate belief is that family medicine is an essential part of any good health care system; that it is a great job: and that it is worth travelling round the world to encourage and collaborate with others to strengthen primary care and family medicine, because their work really matters.

Sheila SABUNE
Programme Manager
International Development Studies
St Augustine International University
Kampala

Uganda

Sheila Sabune earned a Masters in International Law & Economics from the World Trade Institute, Berne Switzerland, a Post Graduate Diploma in Legal Practice (Bar Course) from the Law Development Centre, Kampala, Uganda, and a Bachelor of Laws Degree (Hons) from Makerere University Kampala Uganda. She is currently working as Programme Manager, International Development Studies at St Augustine University in Kampala Uganda.

Previous employment: (i) Programme Officer, Polio Department, for the World Health Organisation in Geneva, Switzerland (ii) Economic Officer at the World Trade Organisation's Development Division in Geneva, Switzerland (ii) Programme Officer for the International Center for Trade and Sustainable Development - Services & Dispute Settlement programme in Geneva, Switzerland

Enabling Better Decisions for Better Health: Embedding Fair and Systematic Processes into Priority-Setting for UHC

Parallel Session

2.5

Institutions like NICE, PBAC, PHARMAC and CADTH did not happen overnight. They are the culmination of decades of initial academic interest on cost-effectiveness and priority-setting, political commitment from respective governments, and ongoing engagement with stakeholders over a number of years. In much less time, HITAP in Thailand developed as a successful priority-setting institution embedded within a most successful universal coverage scheme in Thailand. What were their key ingredients to success? How were early challenges overcome, and what are the relevant generalisable lessons for other countries developing priority-setting mechanisms or institutions to achieve and sustain UHC; from LICs that are beginning this journey, to MICs that are transitioning from aid with increasing need to set their own health spending priorities? How could countries more quickly reach the goals of embedding fair and systematic processes into priority-setting for UHC, under considerable resource constraints?

Objectives

To provide:

- Practical lessons for countries looking to embed more fair and systematic processes into their priority-setting for UHC (including those looking to develop NICE or HITAP-like agencies), through sharing of experiences by countries with different health financing and delivery systems, and at different stages of development in establishing such priority-setting mechanisms
- Lessons on investment needs (HR and funding), legal frameworks, governance, and other institutional pre-requisites for priority-setting
- Lessons on key principles for good priority-setting processes, including managing conflicts of interest and engaging positively with stakeholders
- Possible short- and long-term solutions for MICs and LICs, and recommendations for donors and development partners looking to support capacity building towards better priority-setting for UHC

Chair

Jaime Sepulveda
Executive Director, Global Health Sciences, University of California, San Francisco, USA

Moderator

Nick Timmins
Senior Fellow, The Kings Fund, United Kingdom

Speakers

Ioana Vlad (A219)
London School of Hygiene and Tropical Medicine, United Kingdom

Dale Huntington (A070)
Director, WHO Asia Pacific Observatory on Health Policy and Systems, Philippines

Abou Bakarr Kamara
Ex-Director of Planning, Ministry of Health and Sanitation,
International Growth Centre, Sierra Leone

Rakesh K Srivastava (A072)
Senior Policy Analyst, Indian Council for Medical Research,
Department for Health Research, India

Jeanette Vega
Director, Fondo Nacional de Salud, Chile

Kawaldip Sehmi
Chief Executive Offiicer,
International Alliance of Patients' Organizations, United Kingdom

Panelists

Michael Rawlins
Prince Mahidol Award Laureate 2012, Former Chair, NICE, United Kingdom

Somsak Chunharas
Vice President, National Health Foundation, Thailand

Raman Kataria
Rural Surgeon and Paediatric Surgeon, Jan Swasthya Sahayog, India

Anindita Gabriella
Lecturer, Atma Jaya Catholic University of Indonesia, Indonesia

CHAIR

Jaime SEPULVEDA
Executive Director
Global Health Sciences
University of California, San Francisco

USA

Dr. Jaime Sepulveda is the Executive Director of UCSF Global Health Sciences, Professor of Epidemiology, and the Haile T. Debas Distinguished Professor of Global Health at the University of California, San Francisco. A member of the Chancellor's Executive Cabinet, he leads a team of over 260 faculty and staff engaged in translating UCSF's scientific leadership into programs that positively impact health and reduce inequities globally.

Sepulveda's areas of research expertise include HIV/AIDS, vaccines, health surveillance and metrics, neglected infectious diseases, maternal & neonatal health, health policy, and global health initiatives.

From 2007 to 2011, Dr. Sepulveda was a member of the Foundation Leadership Team at the Bill & Melinda Gates Foundation. He served at the BMGF in various roles: as Director of Integrated Health Solutions, Director of Special Initiatives and Senior Fellow in the Global Health Program. Dr. Sepulveda worked closely with key foundation partners—including the GAVI Alliance, where he chaired the Executive Committee—to increase access to vaccines and other effective health solutions in developing countries.

Sepulveda worked for more than 20 years in a variety of senior health posts in the Mexican government. After graduating from Harvard University where he obtained his Doctorate, he became Mexico's Director-General of Epidemiology. At age 36, he was appointed Vice-Minister of Health. From 2003 to 2006, he served as Director of the National Institutes of Health of Mexico. He was for almost a decade Director-General of Mexico's National Institute of Public Health and Dean of the National School of Public Health.

In addition to his research credentials, Sepulveda is an experienced implementer of effective health programs. Sepulveda designed Mexico's Universal Vaccination Program, which eliminated polio, measles, and diphtheria by achieving universal childhood immunization coverage. He also modernized the national health surveillance system, created the National Health Surveys System and founded Mexico's National AIDS Council.

Sepulveda holds a medical degree from National Autonomous University of Mexico and two Masters and a Doctorate degree from Harvard University. In 1997, he was awarded the Harvard's Alumni Award of Merit. Dr. Sepulveda was elected to and served in the Harvard Board of Overseers (2002-2008). He is a member of the National Academy of Medicine, and of the American Academy of Arts and Sciences.

MODERATOR

Nick TIMMINS
Senior Fellow
The King's Fund

United Kingdom

Nicholas Timmins is a senior fellow at the King's Fund and at the Institute for Government in London.

He is a former journalist, turned chronicler. Between 1996 and 2012 he was the Public Policy Editor and commentator for the Financial Times, having worked previously for The Independent, The Times, the Press Association and the science journal Nature.

He is also a visiting professor at the London School of Economics and at King's College, London, in social policy and public management respectively, and is the author of a number of books and other publications including the award-winning The Five Giants: A biography of the Welfare State (Harper Collins 2001), an account of the British welfare state which is currently being updated. He is a past president of the Social Policy Association and an honorary fellow of the Royal College of Physicans.

Ioana VLAD
London School of Hygiene and Tropical Medicine

United Kingdom

I hold a MSc in Public Health, with a specialization in health policy, management and economics, from Karolinska Institutet, Sweden. Currently, I am a PhD candidate at London School of Hygiene and Tropical Medicine, United Kingdom. My PhD project looks at the political factors influencing the establishment and functioning of health technology assessment (HTA) bodies, with a focus on middle-income country context. My wider research interest is on health systems and policy, with a particular focus on the use of evidence in health policy-making.

Dale HUNTINGTON
Director
WHO Asia Pacific Observatory
on Health Policy and Systems

Philippines

Dale Huntington is currently Director, Asia Pacific Observatory on Health Policy and Systems, based in the WHO Western Pacific Regional Office, Philippines. Previously he was a Scientist with the World Health Organization's Department of Reproductive Health and Research, Geneva. His research interests includes bringing evidence to inform public policy towards the private health sector, advancing health equity, aid effectiveness issues, health financing systems, large scale-programme evaluation. He holds a Doctorate in Science degree from the Johns Hopkins University School of Hygiene and Public Health, specializing in health services research and evaluation. Prior to joining the World Health Organization he was a Senior Health Specialist at the World Bank, Washington, D.C. He has lived and worked in developing countries for over 20 years, including assignments as regional director for USAID supported operations research programmes in West Africa, the Middle East and South and East Asia regions. He has an extensive publication record and is proficient in French.

Michael RAWLINS
Prince Mahidol Award Laureate 2012
Former Chair
NICE

United Kingdom

Sir Michael is chairman of the Medicines and Healthcare products Regulatory Agency (since December 2014). He is a clinical phamacologist and specialist in internal medicine. He was professor of clinical pharmacology in Newcastle, and physician at the Newcastle Hospitals, from 1999-2006.

He was chairman of the Committee on Safety of Medicines (1992-1998), chairman of the Advisory Council on the Misuse of Drugs (1998-2008) and founding chairman of the National Institute for Clinical Excellence (1999-2013). He is recent past president of the Royal Society of Medicine (2012-2014).

Currently Sir Michael is Chairman of UK Biobank, honorary professor at the London School of Hygiene and Tropical Medicine, and emeritus professor at the University of Newcastle upon Tyne.

Sir Michael was appointed the Chairman of the Medicines and Healthcare products Regulatory Agency (MHRA), on the 1st December 2014.

Somsak CHUNHARAS, M.D.
Vice President
National Health Foundation

Thailand

Dr Somsak Chunharas, M.D. was graduated from Royal Tropical Institute, Amsterdam in Medical of Public Health and also trained in medical education, health financing and project management. His professional skills not only working as a physician in community hospitals for many years but also broaden his experiences in the fields of health research management, health statistics, human resource development, and health policy and systems development. He was one of the founders and was the first Director of Health Systems Research Institute. His contribution to international arena by working with WHO, COHRD, ASPHR, and COMEST/UNESCO.

Raman KATARIA
Rural Surgeon and Paediatric Surgeon
Jan Swasthya Sahayog

India

Graduated in 1987 (MBBS) from the All India Institute of Medical Sciences, New Delhi and then went on to complete his Post Graduation in General Surgery (MS) and sub-specialisation in Pediatric Surgery (MCh) from the same institute in 1994.

Dr Raman Kataria worked as Senior Research Associate at The AIIMS, New Delhi for three years and then took up teaching faculty position (Associate Professor) in the Himalayan Institute of Medical Sciences, Dehradun, Uttarakhand. In early 2000, he gave up this position to start community health work with a small team of like-minded health professionals in a remote part of central India in the state of Chhattisgarh. Cofounded Jan Swasthya Sahyog, a voluntary, non-profit organisation, providing healthcare to some of the most disadvantaged and needy sections of our society. The work of Jan Swasthya Sahyog (JSS) has evolved over the years from provision of quality clinical care at low cost, to being a strong advocate for the health, associated nutrition and equal opportunity rights of poor and indigenous people. Through service provision, developing a model of effective primary and responsive accessible secondary (and often tertiary) level care, lessons have been learnt and research and publications have focussed on issues of health and related under nutrition of these poorest sections. JSS has also tried to bring technology to the doorsteps of the poor to their advantage and at the same time demystifying it. Training has gone hand in hand, whether it be for village health workers, physician extenders, Nurses or doctors.

Currently the Secretary of Jan Swasthya Sahyog, his role has been as a team leader in the process of organisation building, service provision especially as a surgeon with the opportunity to treat newborn and pediatric surgical problems in resource constrained settings, training, especially of Nurses, doctors

and physician extenders. He was also Clinical program coordinator for a considerable duration at JSS. He has special interest in the area of child care and undernutrition, and has been actively involved in the implementation of crèche programmes for young children and in strongly advocating for them. He has several scientific publications in national and international journals.

Dr Kataria has been part of the Subcommittee on Non communicable diseases, established by the Planning commission, Govt of India. He is also an Executive committee member of the Council for Advancement of Peoples' Action and Rural Technology (CAPART) under the Rural Development Ministry, Govt of India, and an active member of the Sector Innovation Council, National Health Systems Resource Centre. He is also a member of the Institute Body of the Jawahar Lal Nehru Institute of Postgraduate Medical Education and Research, Puducherry, an Institute of national importance. He is also a member of the National ASHA Mentoring Group, constituted by the Ministry of Health and Family Welfare.

Abou BAKARR KAMARA
Ex-Director of Planning
Ministry of Health and Sanitation
International Growth Centre

Sierra Leone

I hold a Master of Arts in Economic Policy Management, Master of Science in Economics and a Bachelor of Social Science (Honours in Economics) with certificates in series of professional training. I have diverse experience ranging from the private to the public sectors. Currently working as Principal Investigator supporting the Sierra Leone International Growth Centre (IGC) Country Director with relevant background information and analysis as the IGC continues to advice and support the Ministry Finance and Economic development with the preparation of the Post Ebola Recovery Strategy and other development related issues. Additionally, supporting the National Ebola Response Center (NERC) with planning and coordinating the response effort with a view to achieving resilient zero. Prior to working with the IGC and NERC, I worked as the Director of Policy Planning and Information in the Ministry of Health and Sanitation with a primary responsibility of coordinating and facilitating the design/review of policies and strategic plans as well as monitoring and evaluating implementation. I have also worked as a Policy Analyst in the Office of the President with a mandate to drive the implementation of the Government Development Agenda. Additionally, I have worked as a Senior Researcher in a local think Tank, the Center for Economic and Social Policy Analysis (CESPA).

Rakesh K SRIVASTAVA
Senior Policy Analyst
Indian Council for Medical Research
Department for Health Research

India

Dr. R K Srivastava MBBS - (1967); MS (Ortho – 1975); DNB - PMR is an eminent expert in Orthopedics and Rehabilitation in India. During his career span of 44 years he has occupied different positions of eminence like Specialist in Safdarjung Hospital, Delhi; Professor in VMMC, Delhi; Medical Superintendent- Safdarjung Hospital; Director General Health Services in Ministry of Health & Family Welfare, GoI; Chairman- Board of Governor in Medical Council of India and Senior Policy Analyst in NIHFW. In addition he has also served as Advisor to DG, ICMR; Senior Advisor, WISH Foundation, Chairman of Specialty Board of National Board of Examination; Member – Medical Technology Assessment Board and various other national level advisory positions.

During his long career he was instrumental in advising Ministry of Health & Family Welfare, GoI on various issues pertaining to National Health Policy, plans, programs and other related items. He provided inspirational leadership in 500 + senior public health officer of GoI; lead 14 national programme on various communicable and non-communicable diseases; provided technical direction for training activity through 360 + medical collages of the country. He has also represented health ministry in all international technical meetings in WHO, UNICEF and various professional bodies both in India and abroad. He interacted with Global fund, World Bank, Bill& Melinda Gates foundation, DFID and USAID etc for mobilizing technical as well as financial support for the priority areas of public health in India. As a Director General he administered Directorate of Health Services with around 300 hospitals/ public health institution spread over the country and provided technical guidance for ensuring sustainable growth of these institutions. He was the chairperson for producing health sector proposal for communicable and non communicable diseases for 12th plan period (2012- 2017)

for the country. He had to interact regularly with secretaries, ministers, parliamentary committees, planning commission, foreign delegation, etc for planning and organization of responsible health care services and related R&D. During his tenure he handled difficult public health situations like, Avian influenza, H1N1 pandemic and various outbreaks of communicable diseases. During his career he was awarded with awards and honors and produced large number of research paper and policy document.

Jeanette VEGA
Director
Fondo Nacional de Salud

Chile

Dr. Jeanette Vega is the Director of Fonasa, the National Chilean Public Health Insurance Agency (FONASA) since March 2014. Dr Vega, has over 20 years of experience in international health. Her areas of expertise include social determinants of healthy, health equity and health systems. Prior to being appointed as Director of Fonasa by President Michelle Bachelet, Dr. Vega served as Managing Director of Health at the Rockefeller Foundation. She was Vice Minister of health in Chile, between 2008 and 2010, leading the country's 13-step agenda for equity in health. Before that, Dr. Vega served as a Director at the World Health Organization in Geneva, where she led the equity in health agenda, looking at the social determinants of health and health systems. Dr. Vega started her career as a medical doctor in Chile specializing in Family Medicine. She has a master's degree in Public health from the Universidad de Chile and a Ph.D. in Public Health from the University of Illinois at Chicago

Kawaldip SEHMI
Chief Executive Offiicer
International Alliance of Patients' Organizations

United Kingdom

Chief Executive Officer overseeing the strategy and direction of IAPO. Having extensive public health experience at national and international level, Kawaldip has been championing patients' rights advocating for strong legal and institutional frameworks for mental health and children's' rights as the CEO at Richmond Psychosocial Foundation International and worked as Managing Director of Coram Children's Legal Centre. He has European and international public health experience as Director of the Global Health Inequalities Programme and of the WHO FCTC negotiation period as the Chairman of the European Network of Quitlines.

Kawaldip's qualifications include an MSc in the Public Health International Programme from the London School of Hygiene and Tropical Medicine, an MBA in Business Administration from the London Business School and Open University, and an LLB (Hons) from the London College of Law.

Anindita GABRIELLA
Lecturer
Atma Jaya Catholic University of Indonesia

Indonesia

Anindita Gabriella Sudewo, M.Psi is currently a faculty member at Atma Jaya Catholic University (AJCU)'s Faculty of Psychology, and was assigned as the head of the Atma Jaya HIV-AIDS research center from 2013-2015. Her work since her undergraduate degree has focused on health and clinical psychology, related to health-seeking behavior and behavior change on health issues such as breast cancer and HIV. Recently, she has started to develop her work towards more health policy research. At the faculty, she is based in the Clinical Psychology Department. She also supervises undergraduate thesis projects, focusing on topics related to HIV, behavior change and marginalized populations.

SHORT
PAPER

2.5

Priority Setting for Universal Health Coverage: The Sierra Leone Experience

By: Abou Bakarr Kamara, International Growth Centre

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Introduction

Priority setting refers to the distribution of resources among competing programmes and patients or patient groups (McKneally *et al*. 1997 ; Baltussen and Niessen, 2006). It can also be referred to as a systematic approach to distributing the limited available resources among demands to fashion the best health care system. Given that healthcare demand outstrips available resources, the most prudent use of resources through appropriate priority setting has been considered a key determinant of health system performance (Martin 2007). It has been shown that a reallocation of 50% of the health budget from interventions that are less cost effective to those that are more cost effective could result in a 64% increase in years of life saved in the East African region (Bobadilla *et al.* 1994). In addition, the 'Tanzania Essential Health Intervention Project' suggested that targeted investments guided by proper prioritization resulted in a 40% reduction in child mortality in test districts (De Savigny *et al*. 2004).

Due to inadequate budget coupled with high demand for healthcare services, the health sector in most developing countries has implemented several reforms (Kapiriri and Martin, 2006;MOH, 2007). Consequently, decision makers in health must set priorities among competing interests because demand for healthcare exceeds available resources (Gibson et al., 2004). In theory, priority setting is a more or less systematic approach to distributing the limited resources to fashion the best healthcare system possible. In practice, however, priority setting in healthcare often takes place implicitly

Priority setting in resource-poor settings often tries to apply technical approaches using information derived from burden of disease statistics, cost-effectiveness analysis and published clinical trials and thus may not address other relevant values such as trust, equity, accountability and fairness, which are equally of concern (Martin et al., 2002; Kapiriri et al., 2003). Priority setting in developing countries is therefore fraught with uncertainty due to lack of credible information, unclear processes, the legitimacy of those who set priorities, the values and criteria used in the process and the capacity of the institutions that should set priorities (Kapiriri and Martin, 2007; Maluka et al., 2010). Addressing priority setting and ensuring legitimacy in the processes are thus necessary to developing fairer methods of allocation for scarce healthcare resources (Fleck, 2001; Alexander et al., 2004). This requires optimal processes that draw on the best local evidence and guide policymakers and governments to identify, prioritize and implement

evidence-based health interventions for scale-up and delivery. Such approaches should embrace ethical, sociological and political considerations, while acknowledging that setting priorities involves value choices of the stakeholders (Martin et al., 2002; Rudan et al., 2010; McDonald and Ollerenshaw, 2011).

Overview of the Socioeconomic Status of Sierra Leone

The Republic of Sierra Leone is situated on the west coast of Africa, sharing borders with Guinea and Liberia. It has approximately 71,740 sq. km land area. The climate is tropical, with a hot, humid, rainy season from May to October and a dry season from November to April. The estimated population of Sierra Leone is 6.3 million people, of which 40% reside in urban areas[1]. The country is home to about 20 distinct language groups, reflecting a diversity of cultural traditions.

Administratively, the country is divided into four major areas: Northern, Southern, Eastern regions and the Western area where the capital Freetown is located. The regions are divided into 14 Districts and 149 chiefdoms. There are District Councils consisting of a district chairman, administrators and councilors who administer the districts; while the chiefdoms are governed by locally elected paramount chiefs. With recent decentralization, the country has been divided into 19 local councils that have been further sub-divided into 392 wards. Each ward is headed by an elected councilor.

The country's Gross National Income (GNI) per capita (current dollar, purchasing power parity (PPP)) stood at $1,690 while the GDP growth rate was 6% in 2013. Just 43% of the population older than 15 years are literate, and life expectancy at birth is just 45 years (World-Bank 2015). The Human Development Index rank for Sierra Leone is 177 out of 187 countries[2].

Total health expenditure is approximately US$96 per capita – of which 31.6% comes from donors, 6.8% from government, and 61.6% from private out-of-pocket household contributions (Sierra Leone National Health Account, 2013). Government expenditure on health as a percentage of total government expenditure is just 11.2% less than the 15% target of the Abuja Declaration[3]. Major external supporters of the health sector include The Global Fund to Fight AIDS, TB and Malaria (The Global Fund), the UK Government (UKAid), European Union (EU), African Development Bank (ADB), and GAVI[4].

The core functions of the Ministry of Health and Sanitation at the **central level** are policy formulation; standards setting and quality assurance; resource mobilization;

[1] Statistics Sierra Leone Population Projection Monograh
[2] UNDP (2014). Human Development Report. New York, UNDP
[3] Sierra Leone National Health Accounts, 2013
[4] WHO (2014). "Sierra Leone Country Profile

capacity development and technical support; provision of nationally coordinated services; coordination of health services; monitoring and evaluation of the overall sector performance and trainings. The responsibilities of **District Health Management Teams** (DHMT) are to implement national health policies and manage health service delivery.

Sierra Leone's health system is comprised of public services, private services that operate on either profit or non-profit basis (e.g., non-governmental organizations (NGOs), including those that are faith-based) and traditional health care. Government run public services account for approximately 80% of health service utilization.

The country is served by a network of 1,264 public and private health facilities, including 40 hospitals (of which 23 is owned by government). The health system is organized into three tiers of care: Peripheral Health Units (PHU) with the extended Community Health Worker (CHW) programme; District Hospitals; and Referral Hospitals..

Prior to the onset of the Ebola outbreak in 2014, Sierra Leone had made significant progress towards a number of the Millennium Development Goal (MDG) targets for health and nutrition. Based on the results of the preceding two Demographic and Health Surveys (DHS 2008, 2013) there have been notable coverage gains in access to essential services – including modern contraception (7% to 16%), skilled birth attendance (42% to 62%), malaria bed net utilization (26% to 49%), malaria treatment (6% to 77%), diarrhea management (68% to 88%) and basic immunization (DPT3 54% to 78%). Despite the gains, levels of child and maternal mortality remain intractably high - 156/1,000 and 1165/100,000 live births respectively.

A Majority of the causes of illness and death in Sierra Leone are preventable, with most deaths attributable to nutritional deficiencies, pneumonia, anaemia, malaria and tuberculosis. Diarrhoeal diseases and acute respiratory infections are also major causes of out-patient attendance and illness in the country. The greatest burden of disease is on rural populations, and on females within the rural population. Malaria remains the most common cause of illness and death in the country.

Processes and Procedures for Priority Setting

Sierra Leone like many other countries, especially Sub Sahara African countries, face high demands on her health care system and has inadequate budget to meet the demand. Thus, the need for priority setting with the primary objective of improving health status and minimizing inequality in health.

Prior to the Ebola outbreak, the Sierra Leone's Ministry of health and Sanitation used the following criteria to select the interventions (See Basic Package of Essential Health Services, 2010):

1. High impact, cost effective, evidence based services that can be delivered successfully in Sierra Leone

2. Diseases that have a heavy burden on the Sierra Leonean population, considering the effect on individuals as well as the social impact of the disease (such as epidemics and adverse economic effects)
3. Sustainability of the services in the long term as donors reduce support in the years ahead, taking into consideration the government's ability to maintain a basic level of health service
4. The need for equity in ensuring that critical health services are provided to all, especially vulnerable populations (pregnant women, lactating mothers, children, the poorest households, and those living in remote and difficult-to-access communities).

During the Ebola Outbreak, the equity rule of rescue which demands that it is an ethical duty to do everything possible to help individuals in immediate life threatening situations. Accordingly, almost all resources including external support were reprogrammed to support the response.

Post Ebola, the above pre-Ebola criteria were maintained, with added attention to[5]:

- Services that improve surveillance, early reporting, control, and treatment of epidemic-prone diseases
- Promoting patient and health worker safety, including reducing the risk of occupational hazards to health workers
- Ensuring alignment between the services in the Basic Package of Essential Health Services and existing case management (testing and treatment) guidelines / protocols / policies that have been implemented in the intervening years
- Adding an emphasis on emerging importance of non-communicable diseases in the health of the population

It is also worth mentioning that in addition to the above, political consideration and correctness are considered in every stage of the process.

In Sierra Leone, a standardized and all inclusive priority setting process is being encouraged with a view to promoting effective and efficient use of limited resources. An all inclusive priority setting and reviewing mechanism will to a very large extent ensure proper functioning of the health system through well organized, managed and communicated development and implementation of policies and strategies. This will result to a well formulated plan that defines the methodology, process and the roles and responsibilities of the various stakeholders.

In an attempt to promote coordination in health service delivery, Sierra Leone in recent times has prepared the National Health Sector Strategic Plan (2010 – 2015), Joint Programme of Work and Funding (Financing strategy for the plan), Result and Accountability Framework, Compact (emphasizing the need to strengthen the "One Plan, One Budget and One Report" for better re-enforcing the five principles of harmonization and alignment – Ownership, Alignment, Harmonisation, Managing for

[5] (see Basic Package of Essential Health Services, 2015)

result and mutual accountability), and quite recently the Sierra Leone Health Sector Recovery Plan (2015 – 2020).

Generally, the process starts with a strategic direction/vision for the political leadership which is largely informed by prevailing circumstances (including data). A consultative process ensued culminating into a costed plan with specific strategies and targets to be achieved within a given period. The plan is cascaded and rolled out annually with regular review (twice in a year).

Challenges

1. Financing: Adequate finance is a major challenge to service delivery in Sierra Leone. Funds allocated are not only inadequate but also not fully disbursed and not received in time. Funds meant for the first quarter are sometimes released in quarter three.
2. Priority setting should be largely informed by data. The data collection mechanism and system in Sierra Leone is grossly underdeveloped with inadequate capacity (quality and quantity of staff, logistics – equipment, data collection tools, etc). Additionally, data is incomplete (as hospital data is not captured in the existing database) and untimely thereby impeding effective and evidence base priority setting.
3. Community participation in priority setting is at its embryonic stage. Most times instructions are given from the centre and community stakeholders are not consulted for their views and this undermines community ownership which ultimately affect service delivery.
4. Coordination with other government ministries and partners is inadequate
5. Reviews to track and monitor progress are not regularly done
6. Political intervention

Conclusion

Priority setting in health care is a complex task with theoretical, political and practical challenges. There is no one-size fit all model even with a country as the disease pattern and incidence vary from one district to the other. As a consequence, albeit it will be unduly pessimistic, one may be tempted to perhaps conclude that the task is insurmountable, rather than merely difficult.

As highlighted above, significant progress has been made in the planning process of the health system in Sierra Leone. However, the process is still fraught with challenges. Inadequate finance, data, community participation, coordination and political interference among others are a major barrier to effective priority setting.

Also, policy implementation are rolled out without proper evaluation.

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Political factors influencing the establishment of priority-setting bodies

Ioana Vlad, Justin Parkhurst

Session: Enabling better decisions for better health: embedding fair and systematic processes into priority-setting for UHC. *Comparative studies of priority-setting institutions*

Introduction

Priority-setting for publicly-financed healthcare remains a controversial mandate. Debates around setting priorities for resource allocation (and implicitly rationing) in healthcare are increasing in importance, especially in the context of recent calls and efforts for universal health coverage (UHC) (Chalkidou et al. 2013; World Health Organization 2013). Born from a push towards increasing scientific expertise in government, health technology assessment (HTA) has been promoted as a tool for priority-setting (Glassman & Chalkidou 2012) and evidence-informed health policy-making (Velasco Garrido et al. 2008) for health systems. The emergence of HTA and the establishment of HTA bodies can be seen as a phenomenon involving the institutionalisation of a particular tool of evidence-informed health policy-making, sometimes seen as being purely technical (Flitcroft et al. 2014). However, the decisions surrounding the creation of HTA bodies, including the choices made for their design and their functioning procedures, cannot be understood outside of their political context, and without reflection on the political nature of those choices. While the role of politics in the establishment of HTA infrastructure is often acknowledged as important, empirical analyses of country experiences in this regard are still rare, and the conceptual development of how to study these issues is still emerging.

The political nature of HTA bodies

The political nature of HTA bodies' establishment and functioning can be explored from multiple perspectives or lenses, each raising distinct issues. Firstly, the establishment of HTA bodies can be linked to the wider trend of delegation of governments' decision-making powers to bodies with varying degrees of independence and transparency or 'agencification'(Pollitt et al. 2001). This trend has been of interest for political scientists, who have studied agencies' role in delegating decision-making, limiting the control of politicians and professionalizing decision-making. In practice, agencies can play multiple other roles and lead to diverse outcomes, ranging from enhancing credibility of government decisions, increasing efficiency and ensuring good governance to shifting blame, blurring accountability lines and de-politicizing essentially political decisions by moving political debates into 'technical' realms (Wood & Flinders 2014).

Secondly, the emergence of HTA bodies in many settings can also be conceptualised as resulting from a process of policy transfer and learning, whereby policy instruments are 'translated' and adapted from one country to another, with gold standards and good practices being developed and promoted through this process. For example, guidelines for good practice of HTA (Drummond et al. 2012) and economic evaluations (see Gates Reference Case) (NICE International 2014) have been developed. The many international HTA networks functioning currently (e.g. HTAi, HTAsiaLink, International Network of Agencies

for Health Technology Assessment-INAHTA) seem to suggest that the harmonization of HTA methods will continue to be pursued. Indeed, it might be that an international model for HTA is emerging, although its full characteristics are yet to be clarified (iDSI 2015).

Yet HTA bodies' establishment and functioning will no doubt be highly influenced by the institutional structures and political rules of the game in each country where they are being used. Thus, even if international models are emerging, it is still expected that the establishment of HTA bodies be highly context-specific, where context refers to the health system (its organization, financing, governance) as well as the national political system (where health policy decisions are made) (Landwehr & Böhm, 2011). Most probably, the emergence of HTA or establishment of HTA agencies (or lack thereof) in a given context will be influenced by a range of political factors. This can include: the complicated and sometimes opaque technical/scientific aspects of HTA; the implications for established political interests of any change to resource allocation that HTA engenders; the variety of institutional arrangements possible to undertake HTA; and the governance implications (in terms of representation and accountability structures) of how selected arrangements fit (or do not fit) into their wider political context. Furthermore, the institutional structures through which HTA is undertaken will be fundamentally linked to the products they produce - in terms of *which assessments* are conducted and *which criteria* are used for assessment and appraisal. Such decisions can have implications as to when or how HTA decisions, or indeed, the entire practice of HTA itself, is contested. So for example, using HTA to guide resource allocation between competing health needs could be expected to be more contested than economic evaluations of single technologies or use to guide interventions within a disease-specific programme (Lehoux et al. 2005; Chinitz 2004). This is not universal, however, as HTAs involving single technologies have often been a source of contestation (e.g., HPV vaccine, cancer drugs) (Glassman & Chalkidou 2012).

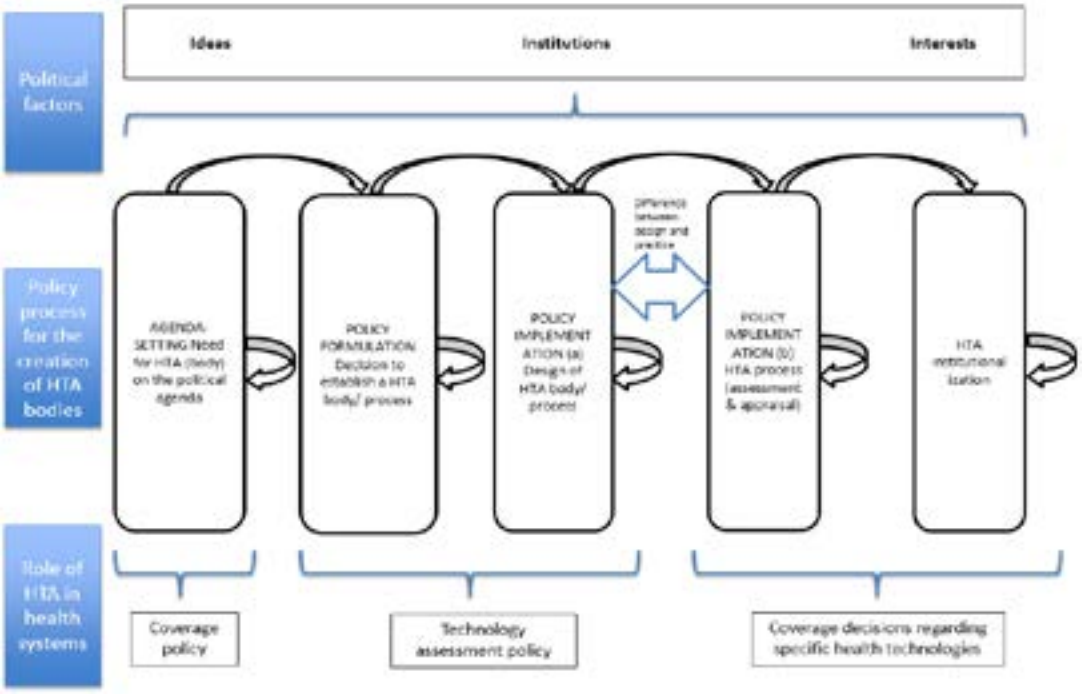
Unfortunately, these complexities are often overlooked in favour of studies which focus on factors such as the technical 'capacity' for HTA in country settings. Yet the link between the institutional arrangements (structures, rules, and placements) and the outputs of HTA decisions exemplifies the political nature of HTA. These processes further illustrate how HTA bodies function at the boundary between the science and policy, working to link, separate, or even define the limits of both science and policy in their goal to achieve better (i.e., evidence-informed) and legitimate policy decisions (Bijker et al. 2009).

Creation of HTA bodies: a policy process

Understanding the political aspects of HTA points to the idea that, rather than simply scaling up of a technical tool globally, HTA emergence will be the result of a complex and highly contextual policy process in each specific national context. The challenge is how to make sense of complexity in a way that is meaningful/helpful for initiatives aiming to advance the use of HTA in priority-setting, yet which wish to be cognizant of the political realities of doing so. Fig. 1 provides a schematic representation of the policy process of the creation of HTA bodies. It shows the creation of HTA agencies as a policy process that is constrained or framed by health system characteristics (role of HTA in the health system), on the one hand, and the existing rules of political decision-making (political context), on the other. Political

context is defined as the interplay of the so-called '3Is' of political systems: ideas, interests and institutions – said to be key political factors to consider in comprehensive policy analyses (Klein & Marmor 2008; John 2013). The 3Is model has been used elsewhere to explore political factors that influence the use of evidence-informed policy-making tools (Moat et al. 2013) and have also been argued for as a useful model to understand the political nature of priority-setting in healthcare (Smith et al. 2014).

Figure 1. Conceptualization of the policy process related to the establishment of HTA bodies. Adapted from Abelson et al. 2007; John 2013.



'Ideas' are a concept used by many political science models and can be defined in many diverse ways. A simple conceptualization separates between 'ideas' as policy paradigms (actors' ideologies), 'ideas' as different framings of policy problems, and 'ideas' as policy solutions (i.e., what policy solutions are preferred by different actors) (Smith 2013). An example of the role of ideas in the agenda-setting stage is the emergence of the National Institute for Health and Care Excellence (NICE) in the United Kingdom. NICE emerged in the context of a controversy around a so-called 'post-code lottery', whereby large geographical variations in quality and access to expensive technologies in the English National Health Service (NHS) became part of the public political discourse. At the same time, the newly formed Labour party Government under Tony Blair allocated considerable new funds to the health system, which contributed to the 'policy window' for investment of resources and political capital in a new body mandated with ensuring quality, access but also cost containment in the context of increasing burden for the NHS of new, expensive technologies (Ruiz & Breckon 2014).

One of the main early areas of contestation around the creation of NICE focused on the idea of 'rationing', which was assessed to be unacceptable to the English public (Littlejohns et al.

2012). Nevertheless, NICE survived the initial contestation at agenda-setting stage, and many subsequent challenges to its products and procedures, as its mandate gradually expanded. It can also be argued that the universal health coverage policy in Thailand created a policy window for the establishment and proven resilience of the Health Intervention and Technology Assessment Programme (HITAP). As in England, this policy window was characterized by increased spending for healthcare, as the same time as the need for cost containment was also on the political agenda and became increasingly important (Selway 2011). Unlike NICE, who commissions assessments to universities and conducts appraisal (i.e., makes binding decisions), HITAP conducts assessments in-house and does not have a mandate for decision-making. These differences cannot be explained simply by the predominance of specific 'ideas', but could be through an analysis of 'interests' and 'institutions'.

The pursuit of '*interests'* by policy actors will also be fundamental to shape policy outcomes, particularly reflecting the access and the power they, or their coalitions, have within the policy process. An example of interests highly relevant to HTA can be seen in patients' associations lobbying for public funding of highly-expensive drugs that have been deemed not to be cost-effective (e.g., the breast cancer drug Herceptin in the UK) (Goddard et al. 2006; Hauck & Smith, 2015). Interest group analysis can then explain how certain coalitions of actors are able to 'capture' the regulatory power of HTA bodies (i.e., some groups, particularly the pharmaceutical industry players, have more access and better understanding of the complicated methodologies of HTA, thus using the HTA process for their own benefits) (Davis & Abraham 2012), or how the interest of certain groups of the population can be invoked for political gain, undermining the HTA processes. The latter can explain the creation of the Cancer Drugs Fund in the United Kingdom, providing additional funding for end-of-life cancer treatments NICE has judged not to be cost-effective (Linley & Hughes 2013).

While ideas and interests arguably focus more on individual actors and their behaviours, analysis of *'institutions'* draws attention to the important role of political structures in place that direct or constrain actors' behaviours and options. Analyses of HTA institutionalisation in high-income countries have shown that governments routinely engage in selective design of their HTA bodies in ways that fit their existing political-institutional context. For instance, countries where independent agencies have traditionally played an important role in government (e.g., in the UK) tend to give their HTA agencies more independence (Landwehr, 2015). Existing institutional structures and political rules of conduct therefore must be engaged with in order to understand the final organisational forms and responsibilities allocated to HTA bodies, with any new organisation needing to be built within the existing historical institutional arrangements. For example, it has been suggested that HITAP in Thailand was established as the result of "developmental capture" by some members of the already strong bureaucracy, who used their power to create a new structure that embodied what was presented as the 'right' ideas about procedures for evidence-informed and legitimate policy-making, at the same time as having a deep understanding of how health policy-making happens in practice (Harris 2015). In contrast, global calls for priority-setting and UHC have been criticized for not engaging sufficiently with the existing coverage structures and policies, therefore with what institutional structures are already in place (Weale 2015). As institutionalists emphasise, when setting out to create new institutional

structures such as an HTA body or process, there is no 'institutional *tabula rasa*' on which to build new, completely neutral structures (Lowndes & Roberts 2013).

Conclusion

To date, the establishment of HTA processes in the health sector has widely been championed using depoliticised technical language of economic efficiency and evidence-informed policy making. Yet at the health system level, HTA emergence will lead to changes in how priority-setting decisions are made, with consequent shifts in patterns of resource allocation and political accountability alike. The emergence of HTA on the policy agenda needs to be considered within the existing coverage policies defining the scope for publicly-funded healthcare. In order to be implemented, this shift in ideas needs to be translated into eligibility criteria (as part of a new 'technology assessment' policy) and standards for the coverage of any given health technology (specific coverage decisions) (Abelson et al. 2007). Furthermore, HTA establishment is bound to create contestation with existing institutions or groups of actors at all policy stages, from agenda-setting to implementation and institutionalisation. This contestation can lead to difference in how HTA is institutionalised in different country contexts, but depending on the nature and results of this political contestation, it may also lead to discontinuities between what the HTA body is mandated to do and what it ends up doing in practice in a specific country as well. Over time an HTA body's focus might narrow down to specific areas of greatest impact or value, or alternatively it might expand if the use of HTA is perceived as useful and legitimate (as seen with NICE, and is increasingly being documented in HTA experiences in lower income settings as well (Glassman & Chalkidou 2012)). Ultimately, conceptualizing the creation of HTA agencies as the result of a policy process shows its consequences at the institutional level; thus, the emergence of HTA is in fact a process of institutional design and re-design - changing how specific decisions are made, and even changing the rules by which political decisions are made.

Global gold standards and best practices for HTA and priority-setting must adapt to the context-specific interplay between ideas, interest and institutions already in place. Programmatic calls for UHC and priority-setting procedures are important in providing vision and tools for the common goal of evidence-informed, legitimate policies. While such initiatives, of which this conference is one, are core to fulfilling this vision, this paper, as have others (Littlejohns & Chalkidou 2015), draws attention to the importance of exploring what happens in practice in terms of the political realities of the establishment and functioning of HTA bodies, so as to better understand how international transfer of this policy tool requires context-specific application.

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Patient groups embedment in fair and systematic process of priority-setting for UHC

Author: Kawaldip Sehmi LLB MBA MSc Public Health CEO International Alliance of Patients' Organizations

Session 2 : Is the Current Evidence Fit-for-Purpose? What Evidence Do Decision Makers Need to Set Priorities in the Future?

Parallel Session 2.5 Enabling better decisions for better health: embedding fair and systematic processes into priority-setting for UHC

Sustainable Development Goals and Universal Health Coverage

In September 2015, 193 member states of the United Nation's set the Sustainable Development Goals for 2030 (SDG2030). Under health goals SDG 3, the UN has set the target that each member state should achieve universal health coverage (UHC), including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all by 2030. [1]

Historically, the political economy behind the Bismarck (1883 Germany), Semaskho (1920 USSR) and Beveridge (1947 UK) universal health coverage financing decisions in Europe were driven by the great political and social upheavals of the Russian revolution and two world wars. Charismatic leaders and highly polarised and traumatized national moods ignored allocative and economic efficiencies, and let the heart rule the mind in setting up their UHCs.

Today investment in health over defence, industry, transport and education expenditure will always be a political choice in Europe. With many high-income countries (HIC) facing economic austerity measures in Western Europe and many low and middle income (LIMC) countries in Eastern Europe being buffeted by global economic downturns and conflict, health policy and decision-makers are facing challenging pressures to justify their health expenditure on the basis of allocative and economic efficiencies. [2]

As a footnote, the end of military dictatorships and democratisation of society, coupled with economic booms, may have been the political economy that fanned the sails of new UHCs in Brazil 's Sistema Único de Saúde (1988), Mexico's Seguro Popular (2003) and Rwanda's Mutuelle de Santé (2011); all happened post democratization and immense social upheavals.

Patient voice in UHC and the allocative and economic efficiency of health care expenditure

Patients' organizations have been advocating for over two decades now that in order to enable better decision-making in health, we must have whole-of-society and whole-of-government

[1] Sustainable Development Goals 2030 https://sustainabledevelopment.un.org/?menu=1300

[2] Health is a Political Choice - 17th European Health Forum Gastein

involved. Patient involvement and engagement in health policy and decision-making process is critical in better decision-making when prioritizing expenditure and achieving a sustainable universal health coverage that is effective, efficient and equitable, meeting appropriate global standards of quality and safety.

The WHO's global strategy on people-centred and integrated health services has recommended that people (patient) empowerment and engagement will improve decision making in health. The WHO has gone even further to say that UHC coverage is anchored to implementing the WHO's global strategy on people-centred and integrated health services, in particularly creating an enabling environment where decision-making and governance is participatory, transparent and accountable. [3]

No room for 'manual decision making' in health care in the digital age

The days of making judgements and decisions in isolation and silos without the help of high quality data and a robust quantitative analysis based on an appropriate mathematical model are over in health care. The "manual method of making decisions" has no room in modern health systems.

Most industries now adopt a multi-criteria decision analysis (MCDA) approach to address complex decision making. Most industries also engage their customers in decision making: design with customers and design by customers. MCDA and customer engagement is effective way in prioritising resource allocation. Patient engagement within the MCDA process is central to get a health service design with and by patients to optimise resource allocation in health care.

Patient groups in Europe, especially led by the International Alliance of Patients' Organizations and the European Patients' Academy on Therapeutic Innovation (EUPATI), are improving 'economic literacy' of patient advocates to empower them to understand economic evaluation and matters of allocative and economic efficiencies in their national health systems.

Patient groups and patient advocates must understand how cost-benefit, cost-effectiveness and cost utility analysis is undertaken in order to participate as full partners in decision-making.

Decision-makers' attitudes and the emergence of 'national guidance' bodies

Attitudes of health policy and decision-makers play a big part in how they use evidence to support decision-making. Despite large investments globally in the production, synthesis and dissemination of evidence on the effectiveness and cost-effectiveness of health-care interventions by organizations like Cochrane, health-care policy and decision-makers made limited use of this evidence in setting strategy and policy. [4] [5]

[3] WHO's global strategy on people-centred and integrated health services 2015

[4] Williams I, Bryan S. Understanding the limited impact of economic evaluation in health care resource allocation: a conceptual framework. Health Policy, 2007;80:13 –143.

[5] Williams I, Bryan S, McIver S. The use of economic evaluations in NHS decision-making: a review and empirical investigation. Health Technol Assess 2008;12(7): iii, ix–x, 1–175.

The emergence of 'national guidance' bodies on health and social care expenditure like the National Institute for Health and Care Excellence (NICE), and embedding them in national health policy and institutional frameworks to work with the public in setting priorities has begun the shift towards evidence-based decision making in health. [6] [7]

The way forward iDSI

In November 2013, NICE International launched the International Decision Support Initiative (iDSI) to support low and middle income governments in making resource allocation decisions for healthcare. The aim of the iDSI is to identify practical ways to scale peer-to-peer process and technical support for more systematic, fair and evidence informed priority setting in healthcare.

The innovative partnership model brings together NICE International, Health Intervention and Technology Assessment Program , the Center for Global Development, Imperial College London and the University of York as well as the Office of Health Economics and Meteos.

iDSI's involvement in supporting priority setting in UHC has the potential to optimise resource allocation in health care and make UHCs sustainable. [8]

Patient groups' involvement in the iDSI has been high and encouraged. Patient groups are being embedded within the decision making processes.

Conclusion and recommendations

Patients' organizations and advocates have been given a new opportunity to establish sustainable universal health coverage globally by 2030. In September 2015, 192 member states of the United Nations (UN) passed Resolution A/RES/70/1 Sustainable Development Goals 2030 and agreed to ensure healthy lives and promote well-being for all at all ages by 2030. Each member state has, by affirming Sustainable Development Goal 3.8 (SDG 3.8), agreed to establish sustainable universal health coverage nationally by 2030.

Currently, fewer than 80 countries out of the 193 UN member states have legislation mandating UHC. Out of these, fewer than 60 cover over 90% of their population. For patients' organizations and advocates in low and middle income countries without UHC, SDG3.8 offers us a policy advocacy window of 15 years to ensure that each UN member state establishes UHC by 2030.

For patients' organizations in high and middle income countries that already have UHC, their challenge is different over the next 15 years. Due to demographic, technological, social and political

[6] Iqbal Z, Pryce A, Afza M. Rationalizing rationing in health care: experience of two primary care trusts. J Public Health Med 2006;28(2):125 –32

[7] Watson V, Carnon A, Ryan M, Cox D. Involving the public in priority setting: a case study using discrete choice experiments. J Public Health Med 2011.

[8] International Decision Support Initiative (iDSI): Supporting Priority-Setting for Universal Health Coverage NICE 2013

changes their UHC may no longer be sustainable-the quality, safety or coverage of their UHC will deteriorate over the coming years.

World Health Organization in its *WHO Global Strategy People-Centred and Integrated Health Care* states that a sustainable UHC is only achievable if we innovatively restructure the organization, financing and delivery of health services, with particular focus on innovatively changing the role the main State and non-State actors (patients' organizations) play in the policy, control, governance and decision-making structures and processes in health systems.

Most patients' organizations are using innovative patient involvement and advocacy to boost their reach and impact to improve the availability, affordability, accessibility, acceptability, quality and safety of health care services and medicines, and to make their health system more sustainable, effective, efficient and equitable. They now need to up skill and improve 'economic literacy' of patient advocates to empower them to understand economic evaluation and matters of allocative and economic efficiencies in their national health systems.

Patient groups and patient advocates must understand how cost-benefit, cost-effectiveness and cost utility analysis is undertaken in order to participate as embedded full partners in the fair and systematic processes into priority-setting for UHC.

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Paper for PMAC 2016 (26-31, January 2015)

Sub-theme -3 - Priority setting in Action – *Learning & Sharing Experience*

Moving towards Universal Health Coverage-Indian experience in development of National Medical Technology Assessment Board

DR RAKESH KUMAR SRIVASTAVA*

With adoption of sustainable development goals (SDGs) by United Nations on 27th September after a meeting of heads of states on 25-27th, September, 2015 - the direction is set for countries for development of policies, programs and systems for attaining these goals. For health sector, Goal 3 and Target 3.7 and 3.8 are relevant as they describe universal access and universal coverage. " Ensure healthy lives and promote well-being" (G-3), "Universal access to healthcare services" (T-3.7) and "Universal Health Coverage including financial risk protection" are the goal/ targets for which member states have committed action.

Different countries have already initiated actions in this direction and India is not lagging behind. Factually, long before in 2012, the 12th five-year plan document of India (2012-17) emphasized on universal health coverage, financial risk protection and Medical Technology Assessment. Universal Health Coverage falls under the mandate of department of Health & Family Welfare while Medical Technology Assessment is the mandate of Department of Health Research. These two departments of Indian Health Ministry are complimentary and supplementary in achieving various goals/ targets of 12th FYP in health sector. A High Level Professional Group (HLPG) in Planning Commission in 2011 deliberated on Universal Health Coverage and suggested its implementation guidelines. Department of Health converted National Rural Health Mission into National Health Mission programme – a paradigm shift for inclusion of all citizens of the country for healthy lives and well-being. Indian Public Health Standards (IPHS) for assured services were revised for all public health posts for this purpose. Advisory Committee for Medical Technology Assessment Board was constituted by Health Research Department with an independent eminent Medical Expert as chairperson and various stakeholders from government, professional and private sector as members. This committee prepared action plans National Medical Technology Assessment Board after rigorous exercise of consultation with states and union territories, research organization, pharmaceutical groups, civil society organizations, professional bodies, other relevant stakeholders; the committee prepared a priority list of technologies for technology assessment. A draft outline of the national technology assessment board along with suggestive list of various committees like Technical Appraisal Committee, Medical Device Committee, Essential Drug Committee, Diagnostic Committee etc. was prepared by a drafting committee, which finally intended to develop a final technical proposal for development of National Medical Technology Assessment Board. Simultaneously parallel exercise of establishing partnership was also started. With this exercise the Department of Health Research was able to establish a MoU with NICE, London and similar exercise is going on for establishing partnerships with HITAB, Bangkok. National partnership was also developed with WHO Collaborating centre Health Technology Assessment in NHSRC.

Partnership development is in progress with other national organizations like DCGI, MvPI, and Health Insurance Agencies like IRDA, patient groups, health activists and civil society organizations so that a broad base consultative mechanism is established for National Medical Technology Assessment Board. These partnerships ensure collective decision making and its universal acceptance in India in Health System.

INDIAN SCENERIO OF HTA AGENCY

India belongs to the region of South-East Asia. In this region there are countries like Thailand, Vietnam which are using HTA & STGs in their healthcare system and there are countries like Maldives, Sri Lanka, Bangladesh and Nepal who are not using it. Indian Government is committed to medical technology assessment, universal health care and financial risk protection of poor in health sector as explained above. The new national health policy 2015(draft) and national health assurance scheme clearly show the political commitment to what has been adopted in G-3 /T-3.7 and 3.8, where it writes

"One important capacity with respect to introduction of new technologies and their uptake into public health programmes is health technology assessment. This new multi-disciplinary domain, modelled on the work of the National Institute of Clinical Excellence in the UK, is required to ensure that technology choice is participatory and is guided by considerations of scientific evidence, safety, cost effectiveness considerations and social values. This approach is extended also to technology choice involved in the development of standard treatment guidelines and in public health programmes. The National Health Policy commits to the development of capacity in this areas and the use of this approach for making technology choices that impact on public health."

ICMR had been working for last 3 years on development of HTA. A memorandum of understanding was signed by Secretary DHR & CEO and NICE London UK for technical support in hand holding in development of structure of NICE.

With this background, a technical draft for development of National MTA/ STG Agency was prepared. The salient features of this Agency are described below:

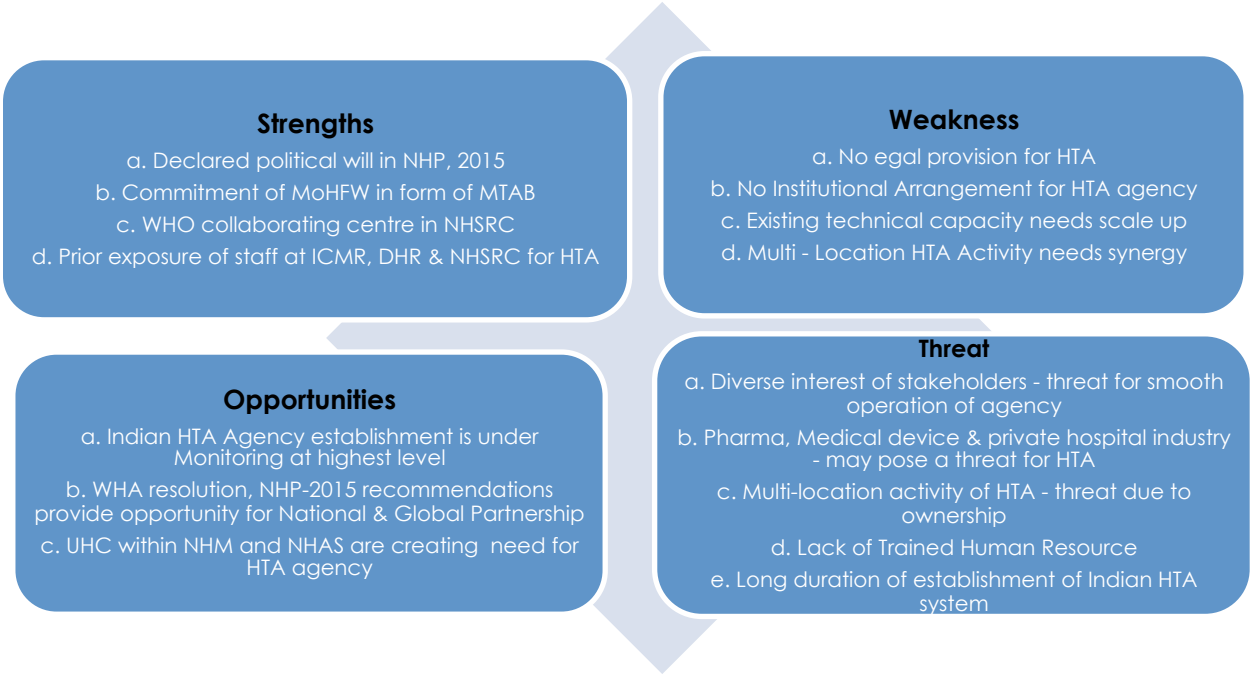
SALIENT FEATURES OF NATIONAL MTA/STG AGENCY IN INDIA

1. National Medical Technology Assessment and Standard Treatment Guideline Agency (MTA/STG Agency) shall be established as an autonomous arms-length body of MoHFW, which shall operate under Department of Health Research and draw its financial, administrative and logistic support from the budget, human resource and space available in DHR and ICMR, which is under control of Secretary DHR cum DG-ICMR. It is necessary because Secretary DHR cum DG ICMR is always a technical position and the proposed agency shall be a highly technical body. It must enjoy INDEPENDENCE,

because dependence on any officer /administrative and financial system outside this agency may influence and impact its decision making process. It should be AUTONOMOUS through an Act of parliament ultimately, so that it operates within the legal mandate only and its decisions are protected by law.

2. MTA/STG Agency shall have a Medical Technology Advisory Board (MTAB), which take final decision for inclusion or exclusion of drugs/medical device/diagnostic/ medical technologies for listing in appropriate approved sub-categories. This approved list will be a dynamic and shall be available on Agency website. For any purchaser/ provider of health care service, be it central or state health department or private health care establishment, or health insurance system, it shall be a fully scientific approved list, prepared after following validated processes in most transparent and consultative manner by a highly technical expert group. It will remain open to provider/purchaser/ insurer to follow it or deviate from it. However, it shall be only a RECOMMENDED LIST.

3. SWOT analysis Medical Technology Assessment in India - India is in preparatory phase of establishing Indian HTA Agency. It has identified DHR as the responsible department for its establishment, constituted a Advisory Committee, sensitized its members and DHR/ICMR staff about HTA through bilateral international collaboration/meetings/ workshops/visits, initiated the process for hiring professional consultants for preparing SOPs/ Guides/ Guidelines, and started preparing technical draft for a National Medical Technology Assessment/ Standard treatment guideline agency, henceforth named as NMTA/STG Agency. Priority areas/ diseases for MTA have been listed. A drafting committee is constituted to give final shape to technical proposal. A WHO collaborating centre is already functioning in NHSRC, New Delhi.



4. Its decisions should be acceptable to all stake holders as far as possible – Since key decision maker is MTAB, it needs to emit trust and confidence in medical fraternity and all other stakeholders of health care industry. Its composition should take care of honesty, integrity and technical competence, while selecting its members, at the time of its constitution. Members should encompass representation from all professional groups of stakeholder from public and private sector. The tenure of MTAB should be fixed for 5 years only. Its chairperson should be professional of highest integrity, upfront honesty and established technical competency. Till NMTA Agency Act comes in operation, MTAB should be constituted by Secretary DHR cum DG-ICMR. Already such board exists in DHR. When the Act comes in force, it will be constituted as per provision of Act

5. MTAB has to follow standard laid down procedures for decision making for its wider acceptance. Mandate of board incorporate drugs, medical devices, diagnostic and technologies. Therefore, it need to produce following consensus documents;

    i. Standard GUIDE for Technology Assessment Review (TAR) Centre
    ii. Standard GUIDE for Method of technology appraisal
    iii. Standard GUIDE for Process of technology appraisal
    iv. Standard GUIDE for Principle for Social Value judgment for technology appraisal
    v. Standard GUIDE for Chair and members of Technical appraisal committee (General)
    vi. Standard GUIDE for Chair and members of Technical committee
        a. (Medical Device & Surgical Diagnostics Committee)

vii. Standard GUIDE for Chair and members of Technical committee
   a. (Drug Committee)
viii. Standard GUIDE for Chair and members of Technical committee
   a. (Clinical Diagnostic Committee)
ix. Standard GUIDE for Chair and members of Technical committee
   a. (New Intervention Committee)
x. Chair and members of Technical Committee (Vaccines) *

These documents will GUIDE the NMTA/STG Agency to lay down the various procedures and demand MTAB to ensure compliance to these procedures during its decision making exercise. Hence these Documents will be named as GUIDES.

6. In addition, other set of consensus documents, on which MTAB is required to take decision, will provide technically validated guidance for standard treatment to various diseases of public health relevance, and benefit packages included in UHC. Hence they will be known as GUIDANCE document. They will include following
   - Guidance document for development of STG
   - Guidance document for diseases for development of STGs
   - Guidance document for disease-prioritization for development of Benefit packages for primary health care
   - Guidance document for development of protocols for medical technology assessment for Benefit packages for primary health care
   - Guidance document for CONSTITUTION AND OPERATION OF MTA/STG Agency

7. An standard framework of GUIDING PRINCIPLE OF CONSTITUTION AND OPERATION OF MTA/STG Agency, as prepared by National MTAB need to be strictly adhered by all state MTA/STG Agencies, no deviation should be allowed without prior consultation with NMTA/STG Agency, as such deviations are bound to create conflict in treatment guidance of different disease condition, which may have legal fall out.

8. In India, health is a state subject, it is therefore necessary to ensure enough flexibility to states for priority setting for medical technologies and standard treatment guidelines, so that it can serve best to the state health care system.

Abbreviations

CEO - Chief Executive Officer
DCGI – Drug Controller General of India
DG – Director General
DHR – Department of Health Research
FYP - Five Year Plan
GoI – Government of India
HTA – Health Technology Assessment
HITAP – Health Intervention and Technology Assessment Program
ICMR – Indian Council of Medical Research
IPHS – Indian Public Health Standards
IRDA – Insurance Regulatory and Development Agency
MoHFW - Ministry of Health & Family Welfare
MTAB - Medical Technology Assessment Board
MoU - Memorandum of Understanding
MvPI – Materio-vigilance Program of India
NHP – National Health policy
NHM – National Health Mission
NHSRC – National Health System Resource Centre
NICE – National Institute for Health and Care Excellence
SDG – Sustainable Development Goals
STG – Standard Treatment Guidelines
WHO – World Health Organization

* Member of drafting committee of Medical Technology Assessment Board, Member of Medical Technology Advisory Board, Former Director General of Health Services, GoI and Chairman of Medical Council of India

Action Express Priorities: Progressing towards Sustainable UHC

Plenary

3

This plenary will present and launch the Bangkok Statement (Call to Action), to drive global strategic directions on priority-setting for UHC, emphasising the importance of institutionalising or embedding of priority-setting processes for UHC. Senior leaders from national finance and health sectors, development agencies, multi-lateral finance institutions and industry outlining their commitment and intended actions to put better priority-setting into practice. In their interventions, each global leader will announce a significant and actionable pledge that they or their organisation/country will be implementing in support of the Call to Action; specify likely timescale, steps and impact; and identify constraints, obstacles and sources of pushback they could foresee, and how these various challenges might be managed and overcome by countries and/or global development partners.

Objectives

- To present and launch the Bangkok Statement (Call to Action), emphasising the importance of institutionalising or embedding of priority-setting processes for UHC, potentially including:
    - How ministries of health and finance can work together to maximise value for money in the public healthcare budget
    - What are the lessons from countries that have been successful in embedding evidence-informed priority-setting into UHC decisions; and what are the challenges and directions for emerging countries
    - What is the role of global agencies (including department partners) in supporting local institutional and technical capacity building, especially for countries undergoing transition from HIC aid
    - How academia can support governments in the translation of evidence into better policy decisions
    - What is the role of patients and the general public in influencing priority-setting
- To generate high-level buy-in towards embedding of priority-setting processes for UHC from national finance and health sectors, development agencies, multi-lateral finance institutions and industry, through expressed commitment of actionable pledges from senior leaders of these institutions/countries

Keynote Speaker

Keizo Takemi
Former Senior Vice Minister of Health, Labour and Welfare
Member, House of Councillors
Former State Secretary for Foreign Affairs, Japan

Moderator

Nick Timmins
Senior Fellow, The King's Fund, United Kingdom

Speakers

David Haslam
Chair, NICE, United Kingdom

Amy Khor
Senior Minister of State for Health, Ministry of the Environment and Water Resources & Ministry of Health, Singapore

Untung Suseno Sutarjo
Secretary General, Minister of Health, Indonesia

Soumya Swaminathan
Secretary, Ministry of Health and Family Welfare
Director General, Indian Council of Medical Research, India

Sinead Andersen
Senior Manager, Advocacy and Public Policy, Gavi, USA

Damian Walker
Deputy Director, Data & Analytics, Global Development,
Bill and Melinda Gates Foundation, USA

Kae Yanagisawa
Vice President, Japan International Cooperation Agency, Japan

KEYNOTE SPEAKER

Keizo TAKEMI

Member of House of Councillors, National Diet of Japan
Chair of Special Mission Committee on Global Health Strategy in the Liberal Democratic Party
Senior Fellow of Japan Center for International Exchange
Chair of Global Health Working Group for the 2016 G7 Summit

Japan

Keizo Takemi is a Liberal Democratic Party (Liberal Democratic Party) member of the Japanese House of Councillors. Mr. Takemi served in the House of Councillors from 1995 to 2007 and then returned to the Diet in December 2012. During his previous tenure in the Diet, he served in the Abe cabinet as senior vice minister for health, labour and welfare. He led the initiative to establish the UN Trust Fund for Human Security when he was state secretary for foreign affairs in 1999 and was subsequently named by former UN Secretary-General Kofi Annan to serve as a member of the High Level Panel on UN System-Wide Coherence in Areas of Development, Humanitarian Assistance and Environment.

Mr. Takemi was involved in various global initiatives, including the Commission on Information and Accountability for Women's and Children's Health, Global Health Workforce Alliance, WHO Expert Working Group on R&D Financing, and the International Organizing Committee of the Prince Mahidol Award Conference. He has also been serving as the Chair of the Parliamentary Caucus on Stop TB Partnership since March 2013, and the Chair of the Asian Forum of Parliamentarians on Population and Development (AFPPD) since October 2013.

Mr. Takemi also 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.

Within LDP, Mr. Takemi is serving as Chairman of the Special Mission Committee on Global Health Strategy of the Policy Research Council. He is widely acknowledged as having great expertise on ODA and the United

Nations system. 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 of ODA Reform Working Team in the LDP. He also serves as Chairman of the Special Committee on Ocean Matters.

Besides, Mr. Takemi has been a senior fellow with the Japan Center for International Exchange (JCIE) since 2007. Since September 2007, he has been serving as the chair of a policymaking platform of public and private partnership for global health, known as the study group on "Challenges in Global Health and Japan's Contributions" before it was restructured as the Executive Committee of JCIE's program on Global Health and Human Security in August 2009.

Mr. Takemi 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 research fellow at the Harvard School of Public Health from November

MODERATOR

Nick TIMMINS

Senior Fellow
The King's Fund

United Kingdom

Nicholas Timmins is a senior fellow at the King's Fund and at the Institute for Government in London.

He is a former journalist, turned chronicler. Between 1996 and 2012 he was the Public Policy Editor and commentator for the Financial Times, having worked previously for The Independent, The Times, the Press Association and the science journal Nature.

He is also a visiting professor at the London School of Economics and at King's College, London, in social policy and public management respectively, and is the author of a number of books and other publications including the award-winning The Five Giants: A biography of the Welfare State (Harper Collins 2001), an account of the British welfare state which is currently being updated. He is a past president of the Social Policy Association and an honorary fellow of the Royal College of Physicans.

David HASLAM

Chair
NICE

United Kingdom

David Haslam is Chair of the National Institute for Health and Care Excellence. He is also past-President of the British Medical Association, past-President of the Royal College of General Practitioners, visiting Professor in Primary Health Care at de Montfort University, Leicester. and Professor of General Practice at the University of Nicosia, Cyprus. He was a family physician in Ramsey, Cambridgeshire, for many years and has been chair of the NHS Evidence Advisory Committee, co-chair of the NHS Future Forum Information subgroup, an expert member of the NHS National Quality Board, chair of the NQB Quality Information Committee, and National Clinical Adviser to both the Care Quality Commission and the Healthcare Commission.

He is a Fellow of the Royal College of GPs, a Fellow of the Faculty of Public Health, a Fellow of the Academy of Medical Educators, a Fellow of the Royal Society of Medicine, and a Fellow of the Royal College of Physicians. David was Chairman of Council of the Royal College of GPs from 2001 to 2004, and was also a member of the NHS Modernisation Board, vice chairman of the Academy of Medical Royal Colleges, a member of the Postgraduate Medical Education Training Board, a member of NHS Medical Education England, a member of the Royal College of Physicians Future Hospital Commission, and co-chair of the Modernising Medical Careers Programme Board from 2006-9.

He has written 13 books, mainly on health topics for the lay public and translated into 13 languages, and well over a thousand articles for the medical and lay press. In 2014 he was named by Debretts and the Sunday Times as one of the 500 most influential and inspirational people in the United Kingdom, and he was awarded CBE (Commander of the British Empire) by the Queen in 2004 for services to Medicine and Health Care.

Damian WALKER

Deputy Director, Data & Analytics
Global Development
Bill and Melinda Gates Foundation

USA

Damian Walker is Deputy Director of Data & Analytics in the Global Development Division at the Bill & Melinda Gates Foundation. Damian is a health economist with more than 15 years' experience in international health economics, with a specific focus on the economic evaluation of health programs in low- and middle-income countries. Prior to joining the Bill & Melinda Gates Foundation in 2010, Damian was an Associate Professor in the Department of International Health, Bloomberg School of Public Health, Johns Hopkins University. Damian received his PhD in health economics from the London School of Hygiene & Tropical Medicine, and his MSc in health economics and BSc in economics from the University of York. Damian has published over 80 peer-reviewed journals, and more than a dozen book chapters.

Amy KHOR

Senior Minister of State for Health
Ministry of the Environment and Water Resources
Ministry of Health

Singapore

Dr Amy Khor was appointed Senior Minister of State for Health and Environment & Water Resources on 1 Oct 2015.

Prior to her current appointment, she was Senior Minister of State for Health and Manpower from 1 Sep 2013.

Before her promotion to Senior Minister of State, Dr Khor was Minister of State for Health from 21 May 2011 and concurrently appointed the Minister of State for Manpower from 1 Aug 2012.

Previous appointments she held included Senior Parliamentary Secretary for the Ministry of the Environment and Water Resources in May 2006 and subsequently, Minister of State for Environment and Water Resources in November 2010. She was also the Mayor of South West District from Aug 2004 to May 2014.

Dr Khor was first elected as a Member of Parliament in the 2001 General Elections and was re-elected for a fourth term as a Member of Parliament in the 2015 General Elections.

She holds a PhD in Land Management from the University of Reading, UK.

Untung SUTARJO

Secretary General
Ministry of Health

Indonesia

Dr. Untung Suseno Sutarjo MHA, born in Jakarta, on 17 October 1958, a graduate of the Medical Faculty of University of Indonesia in 1983, and married to his classmate Dr. Lies Surahmiati (currently a dermatologist), is a general practitioner, public health specialist, administrator and public advocator. He later pursued his post graduate studies in Hospital Administration at the Gajah Mada University in 1998, after completing a compulsory national job assignment. He started his career in the Ministry of Health shortly after graduation, and has held several important positions since then.

He was the Director for Medical Support at Persahabatan Hospital, 2001-2004; Director for Basic Medical Services, 2004-2005; Head of the Utilization of Health Centre, 2005-2006; Direcor for Ocupational Service, 2006-2008; Head of the Utilization of Health Centre, 2005-2006; Director for Occupational Service, 2006-2008; Head of the Centre for Health Development Analysis, 2008-2009; Head of Bureau Planning and Budgeting, 2009-2011; Senior Advisor to the Minister on Financing and Community Empowerment, 2011-2012; Head of the National Board for the Development and Empowerement of Health Human Resources, 2011-2014; and currently the Secretray General of the Ministry of Health, Republic of Indonesia.

His main interest are health policy and planning, and global health. He has been extensively involved in many research and development in the areas of human resources for health economics, health care financing and universal health coverage international relations and health, health promotions health information and pharmaceuticals.

He participated in several important meetings, seminars, workshops, symposiums and trainings locally and abroad. He was in London in April 2002 for a medical management training. Prior to it, simultaneously he

joined the hospital management training at the Faculty of Medicine, CHU Montpellier, University of Montpelllier, and at the CHU Grenoble, University of Grenoble, France in 1995. He did a post-graduate course in Planning and Management of Primary Health care in Developing Countries, Andrija Stampar School of Public Health, University of Zagreb, Yugoslavia in 1991.

Dr Untung was involved in the development of the Regulation for National Social Security Managing Board in 2011. He also developed the standard for teaching hospital with ITHA. He did a feasibility study on international hospitals from 2003 to 2004.

At the international level, he led the Indonesian health delegation to the APEC Health Meeting in Beijing in March 2001. He was also the World Health Organization (WHO) consultant for the preparation of the 7th ASEAN Health Ministerial Meeting in Yogyakarta from April-June 2000. He was also WHO Advisor for GATS in January 2002. He joined the world conference on social determinants in Rio de Janeiro, Brazil in 2011. At the IMF meeting on health financing in financial crisis held in Tokyo in 2011, he was a member of the indonesian delegation. He participated in the 26th WHO Health Ministers' meeting in Bangkok 2008. Also in July 2003, he went to Canada for meeting on Trade in Health Services.

Kae YANAGISAWA

Vice President
Japan International Cooperation Agency

Japan

Kae Yanagisawa is Vice President of Japan International Cooperation Agency. Her current responsibilities include overseeing JICA's global operations in health, education and social security sectors. She has more than 30 years of experience in international development. Before assuming current post, she experienced various assignments in JICA including Resident Representative of JICA's Office in Uzbekistan, Director-General of the Secretariat of Japan Disaster Relief Team, and Director-General of East, Central Asia and the Caucasus Department. She also served as Senior Advisor on South-South cooperation at UNDP.

Soumya SWAMINATHAN

Secretary (MOHFW)
Director General (ICMR)
Ministry of Health and Family Welfare
Indian Council of Medical Research
Department of Health Research

India

Dr. Soumya Swaminathan, Secretary, Department of Health Research and Director-General, Indian Council of Medical Research, New Delhi (joined on 17th August, 2015)

Dr. Soumya Swaminathan, MD, FIAP, FASc, FNASc, FAMS is a pediatrician by training, having completed her medical education at the Armed Forces Medical College and the All India Institute of Medical Sciences (India) followed by a fellowship in pediatric pulmonology at the Children's Hospital of Los Angeles (USA). She has spent over 24 years at the Tu¬berculosis Research Centre in Chennai, South India (now renamed National In¬stitute for Research in Tuberculosis) where she was the principal investigator for several clinical trials investi¬gating treatment and prevention of TB among HIV-infected patients and was also involved in operational, epidemiologic and behavioral research. Before joining as Secretary, DHR /DG, ICMR she was Director of the NIRT, Chennai and heads the NIH International Centre for Excellence in Research. She has over 190 peer-reviewed publications, serves on many national and international committees. Her major research interests are in pediatric and adult TB, their interaction with HIV and nutrition and management of co infections, as well as pharmacokinetics and pharmacogenetics.

Her research has expanded the knowledge base of TB/HIV co-infection in India, providing data about epidemiology, pathogenesis and best treatment and prevention strategies. Some of her research findings that had direct policy relevance include determination of composition and cost-effectiveness of TB treatment and prevention regimens in HIV-infected persons, dosages of TB drugs in children in relation to genotypic and phenotypic variables, nutritional supplementation to improve HIV survival, re- infection being a cause for TB

recurrence, pharmacokinetics and interactions of antiretroviral and anti-TB drugs and incidence and risk factors for both TB and HIV drug resistance. Her team has also undertaken socio-behavioural research in the areas of HIV-related stigma, gender issues, treatment adherence, and novel risk reduction strategies among men who have sex with men.

She is an elected Fellow of three of India's Science Academies and chaired the HIV section of the International Union against TB and Lung Diseases between 2011 and 2013. She also served as Coordinator for Neglected Priorities Research at WHO/TDR, Geneva from 2009-2011. She is the recipient of several awards for excellence in biomedical sciences. She serves on several technical advisory committees of Department of AIDS Control and Central TB Division, MoH, as well as ICMR, DBT, PHFI and other agencies. She has served as mentor and trainer for several batches of ART Medical officers at GHTM, Tambaram.

Sinead ANDERSEN

Senior Manager
Advocacy and Public Policy
Gavi

USA

Sinead Andersen has over 20 years' experience working in global health and development in Africa, the Middle East, Europe and the US. She is now the Senior Manager of Public Policy and Advocacy for Gavi, the Vaccine Alliance as well as being Gavi's representative to the United Nations in New York.

At Gavi, Sinead leads the Secretariat's engagement in a number of policy areas including the Sustainable Development Goals, Universal Health Coverage and Global Health Security.

Prior to joining Gavi, Sinead worked for the Global Fund to Fight AIDS, TB and Malaria where her role focused on building partnership at country level to support grant implementation, as well as high level political advocacy to build support for the Global Fund among donor and implementing countries.

Preceding her time at the Global Fund, Sinead spent over 10 years working with the United Nations Programme for HIV and AIDS. Initially, based in Ethiopia, Sinead worked with countries in Africa to build robust national and regional programs to respond to AIDS among in humanitarian settings. More recently Sinead was responsible for providing technical support on AIDS policies and programming issues to governmental and non-governmental bodies in countries in North Africa and the Middle East based in the UNAIDS regional office in Egypt.

Sinead is currently based in Washington DC.

Defining the "What", "How" and "for Whom" of UHC: Country Experiences of Developing and Implementing Benefits Plans and Other Tools for Priority-Setting

Parallel Session

3.1

Health benefits plans (HBP) are policy instruments used to set priorities for public spending on health. HBP are those services, activities and goods reimbursed or directly provided by publicly funded statutory/mandatory insurance schemes or by national health services. At core, benefits plans describe not only "what" is to be provided but also "to whom" and "in what circumstances", and is therefore at the core of all publicly funded health care, and ultimately progress towards universal health coverage (UHC). A number of LMIC have demonstrated considerable progress in applying the principles, processes and mechanisms for pro-active and systematic priority-setting using a HBP and related tools such as essential medicines lists, evidence based guidelines and quality standards, among others. This session will showcase real-life experiences and lessons learned in the establishment, design, adjustment and evaluation of HBP, and the extent to which more rigorous economic evaluation is applied in practice and connected to policies and purchasing.

Key issues to be covered:

- Use of health intervention and technology assessment (HTA/HITA) in the development and adjustment of HBP and related tools
- Experience, progress and challenges in the implementation and day-to-day management of EML and HBP
- Linking HITA-informed HBP and related tools to other health system functions such as procurement and payment
- Signaling EML and HBP from a list to implementation (guidelines, purchasing, oversight), including the topic of appropriateness (quality, payment, performance)
- Assessing opportunities and constraints with regard to incorporating prevention interventions into HBP using HITA

Objectives

The objective of the session is to showcase country government experiences, lessons learned and unanswered questions in the motivation for and use of health benefits plans and health intervention and technology assessment as a means to set priorities for public spending under UHC.

Moderator

Amanda Glassman

VP for Programs, Director of Global Health Policy and Senior Fellow, Center for Global Development, USA

Panelists

Somil Nagpal

Senior Health Specialist, The World Bank, India

Samrit Srithamrongsawat

Deputy Secretary General , National Health Security Office, Thailand

Manuel Espinoza

Assistant Professor, Pontificia Universidad Catolica de Chile, Chile

Pham Le Tuan

Vice Minister, Ministry of Health, Vietnam

Ali Ghufron Mukti

Former Vice Minister, Ministry of Health, Indonesia

Ruben John Basa

Vice President , Philippine Health Insurance Corporation, Philippines

MODERATOR

Amanda GLASSMAN
VP for Programs
Director of Global Health Policy and Senior Fellow
Center for Global Development

USA

Amanda Glassman is vice president for programs and director for global health policy at the Center for Global Development, leading work on priority-setting, resource allocation and value for money in global health. She has 20 years of experience working on health and social protection policy and programs in Latin America and elsewhere in the developing world. Prior to her current position, Glassman was principal technical lead for health at the Inter-American Development Bank, where she led knowledge products and policy dialogue with member countries, designed the results-based grant program Salud Mesoamerica 2015 and served as team leader for conditional cash transfer programs such as Mexico's Oportunidades and Colombia's Familias en Accion. From 2005-2007, Glassman was deputy director of the Global Health Financing Initiative at Brookings and carried out policy research on aid effectiveness and domestic financing issues in the health sector in low-income countries. Before joining the Brookings Institution, Glassman designed, supervised and evaluated health and social protection loans at the Inter-American Development Bank and worked as a Population Reference Bureau Fellow at the US Agency for International Development. Glassman holds a MSc from the Harvard School of Public Health and a BA from Brown University, has published on a wide range of health and social protection finance and policy topics and is editor and co-author of the books Millions Saved (CGD and Brookings 2016), From Few to Many: A Decade of Health Insurance Expansion in Colombia (IDB and Brookings 2010) and The Health of Women in Latin America and the Caribbean(World Bank 2001).

Samrit SRITHAMRONGSAWAT
Deputy Secretary General
National Health Security Office

Thailand

Dr. Samrit Srithamrongsawat is the Deputy Secretary-General of the National Health Security Office (NHSO), Thailand. He got his MD from Chulalongkorn University, Thailand, in 1984 then had been working in a district hospital as a director for 4 years before getting MPH from Mahidol University, Thailand, in 1989. He had been working in a provincial health office for 4 years before getting MSc. in Health Service Management from London School of Hygiene and Tropical Medicine (LSHTM) in 1995. He moved to the Health Insurance Office, MOPH, in 1997 as a senior expert then deputy director and got PhD in Health Policy and Financing from LSHTM in 2005. He had been the director of Health Insurance System Research Office (HISRO), Health System Research Institute (HSRI), Thailand, during 2006 - 2013 before moving to the present position at NHSO.

Pham LE TUAN
Vice Minister
Ministry of Health

Vietnam

Associate Professor Pham Le Tuan, MD., PhD. is currently the Vice Minister of Health of Vietnam. He had many years working at Hanoi Health Department as health planning official before promoting as Vice Director of Hanoi Health Department in 2002. He moved to the Ministry of Health as Vice Director of Planning and Finance in 2008 and the Director in 2009. He has been appointed as Vice Minister of Health in May 2013. He is responsible for issues related to budgeting for health, social health insurance, external aid, health systems and healthcare at grassroots level. He received MD. title from Hanoi Medical University in 1982, Master in Primary Health Care Management from Mahidol University, Thailand in 1995 and PhD degree from the Military Medical University, Vietnam in 2000. He is also head of Family Medicine Faculty, Hanoi Medical University since 2012. He has intensive and extensive knowledge and experience in health planning, health financing and primary health care. His areas of interest includes health system research, primary health care and health economics analysis. He is one of the key persons to strongly support and advocate for Universal Health Coverage in Vietnam. He takes the leading role at the Ministry of Health in developing basic health benefit packages, health technology assessment, payment mechanism (DRG, capitation payment) and health insurance expansion.

Ruben John BASA
Vice President
Philippine Health Insurance Corporation

Philippines

Ruben John Basa is the Senior Vice President of the Health Finance Policy Sector of the state-run Philippine Health Insurance Corporation (PhilHealth). His office is in charge of the development of policies in relation to benefits planning, standards development and monitoring, as well as the accreditation of providers. Previous assignments in the 19 years in PhilHealth included corporate planning, organizational development and human resources, IT and operations. Prior to PhilHealth, he was with the Department of Health and the Philippine Senate's Committee on Health and Demography. Mr. Basa holds a Bachelor's Degree major in Political Science and a Master's Degree in Development Studies.

Manuel ESPINOZA
Professor
Pontificia Universidad Católica de Chile

Chile

Manuel Espinoza is Assistant Professor in the Departament of Public Health and Head of the Health Technology Assessment Unit of the Centre for Clinical Research, both at Pontificia Universidad Católica de Chile. He is also member of the board of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), president elect of the ISPOR Latinamerican Consortium and President of the Chilean Society of Pharmacoeconomics and Health Technology Assessment (HTA). Manuel holds a medical doctor degree and Master in Epidemiology both from Pontificia Universidad Católica de Chile; a Master in Biostatistics from Universidad de Chile, and Master and PhD in Health Economics, both from University of York in the UK. Manuel´s work is focused on methods and processes for prioritization in health care. He has performed research on methods to explore heterogeneity in cost-effectiveness analysis and the value of individualized care. On the applied side, his research is focused on the development of economic evidence, in particular, cost-effectiveness analysis and budget impact of drugs, medical devices and screening programs. More recently, he has undertaken some practical application using Multicriteria Decision analysis in the context of the update of the health benefit plan in Dominican Republic. Manuel has served as a scientific advisor in the Institute of Public Health of Chile, and as consultant for the use of HTA in Chile, Ecuador and Dominican Republic.

Ali GHUFRON MUKTI
Former Vice Minister
Ministry of Health

Indonesia

Prioritising Research to Deliver Evidence for UHC: How Can Policy Makers Shape the Research Agenda to What They and Their Populations Need

Parallel Session

3.2

Priority setting in healthcare requires the evaluation of good evidence: but what is the evidence? Some of it exists in systematic reviews, but these depend on good primary evidence: this may be lacking – e.g. in the natural history of a disease, on the best current options for therapy, of the patient utilities associated a disease and its treatment, or on clinical trial conducted in optimized conditions rather than pragmatic. Are we to depend on what industry offer us, based on its own agenda for new drugs, or on what academic groups and research funders have found scientifically interesting? Or can the agendas of these bodies be influenced to deliver the kind of evidence essential to inform, not just clinical practice, but the independent evaluation of interventions (e.g. pragmatic clinical trials, or other rigorous study designs, with cost effectiveness).

Objectives

To give participants an insight into what engagement with primary research can offer to support their work and how they can directly influence the research agenda

Moderator

Suzanne Hill
Senior Advisor, Essential Medicines and Health Products,
World Health Organization, Switzerland

Speakers

Thomas Walley
Director NIHR Evaluations Trials and Studies,
University of Liverpool, United Kingdom

Siddhi Aryal
Asia Technical Director, Malaria Consortium, Thailand

Jittrakul Leartsakulpanitch
AP Market Access lead, Johnson & Johnson

Kanchan Mukherjee
Professor and Chairperson Centre for Health Policy,
Planning and Mangement School of Health Systems Studies, TISS India

Panelists

Hasbullah Thabrany
Chair, Centre for Health Economics and Policy Studies,
Indonesian National University, Jakarta, Indonesia

Tran Thi Mai Oanh
Director, Health Strategy and Policy Institute, Vietnam

Nelson Sewankambo
Former dean of the medical school and principal of the school of health sciences,
Makerere University, Uganda

Beibei Yuan
Lecturer, Peking University China
Center for Health Development Studies, China

Göran Tomson
Professor of International Health Systems Research
Karolinska Institute, Sweden

MODERATOR

Suzanne Hill

Senior Advisor
Essential Medicines and Health Products
World Health Organization

Switzerland

Dr Suzanne Hill is a clinical pharmacologist and public health physician, trained at the University of Newcastle, Australia. She has been Senior Advisor in Policy, Access and Use, in the Department of Essential Medicines and Health Technologies at the WHO, Geneva since April 2016. Prior to this appointment, she was Chair of the Australian Pharmaceutical Benefits Committee from September 2011-March 2015, as well as Visiting Professor at the University of Melbourne Medical School. Dr Hill worked at the World Health Organization in Geneva, Switzerland from 2005-2011, as Secretary to the WHO Expert Committee on Essential Medicines, responsible for the WHO Model List of Essential Medicines and its implementation in countries. She was principle investigator for the WHO project on Better Medicines for Children. She was the foundation chair of the WHO Guideline Review Committee, setting up standards for guideline development by WHO.

Before working for WHO, Dr Hill was Associate Professor in Clinical Pharmacology at the University of Newcastle, Australia, directing a group providing pharmacoeconomics advice to the PBAC. Her research interests are related to the public health and policy aspects of clinical pharmacology, including access to medicines and use of pharmacoeconomics and clinical evidence in decision-making.

Thomas WALLEY
Director
NIHR Evaluations Trials and Studies
University of Liverpool

United Kingdom

Birthdays often inspire refl ection, and so it is with the UK's National Institute for Health Research (NIHR) HealthTechnology Assessment (HTA) Programme as it reaches the milestone of 20 years. To mark the occasion, The Lancet took the opportunity to speak with a man who has not just stamped his personality on HTA, but has been a leading light in what has become a national movement to make the National Health Service (NHS) work better for patients.

Tom Walley, Professor of Clinical Pharmacology at Liverpool University, has been Director of the NIHR HTA Programme for almost a decade, during which time he has overseen a rapid expansion of its portfolio of research, all of which is commissioned specifi cally to fi ll important knowledge gaps for the NHS. Originally from Dublin, Walley came to the UK in the early 1980s after training as a general physician with the intention of doing research in clinical pharmacology. And perhaps uniquely for a clinical pharmacologist, he was inclined more towards the applied policy end of the spectrum than the molecular minutiae of drug therapy. "I've always wanted to work at the level of the patient, and the population; some people love the science for its own sake, but for me science serves the patient", he explains. "So as a clinical pharmacologist I guess I was very unusual in that my interest was less around the development of drugs but more around how drugs were used."

He trained as a clinical pharmacologist at Leicester University, alongside such luminaries as Sir Michael Rawlins,who went on to lead the National Institute for Health and Care Excellence, Sir Kent Woods, who Walley succeeded as Director of the NIHR HTA Programme in 2004, and Sir Alasdair Breckenridge, who tempted Walley to move to Liverpool University in 1988. There, his wideranging interests in HTA, cost-eff ectiveness research, pharmacoeconomics, patient-centred outcomes research, and everything in between found a perfect home, and he was able to found a nascent HTA group building on the evidence-based medicine movement in the UK at the time.

This early part of Walley's career as an academic clinical pharmacologist "should not be overlooked", says Ruairidh Milne, Professor of of Public Health at the University of Southampton. "He championed HTA and pharmacoeconomics research in Liverpool throughout the 1990s and into this century", says Milne. But it's Walley's work as Director of the NIHR HTA Programme that has garnered Walley most recognition, culminating in the award of a CBE in 2008, which he chose to have presented at the HTA support centre in Southampton to underline the fact, he says, that it was "an honour to the whole programme and the whole process, acknowledging that we are changing lives through our research".

When Walley took the helm at the NIHR HTA it was, he recalls, "a smallish programme whose role was to undertake research on behalf of the NHS to inform NHS practice". A lot of the work was systematic reviews, with a side line in instituting original research and clinical trials. Today the programme is the UK's leading funding stream for randomised controlled trials, funding researcherled as well as commissioned research, and was cited in Sir David Cooksey's 2006 report, A Review of UK Health Research Funding, as having a crucial role in changing the way the NHS implements research.

Keen to downplay his own part in the programme's success, Walley puts a lot down to being in the right place at the right time. "I've been enormously fortunate in my timing in that I've been in place at a time of expansion, when the role of clinical research became increasingly valued in the NHS, and I think I've taken advantage of that and I hope the programme has", he says. Milne, however, points to Walley's unique attributes as central to the programme's success. His unwavering focus on serving the needs of patients and the NHS is complemented by "very strong clinical knowledge", says Milne. Walley still works one day a week as a general physician, because the clinical contact "reminds me why I do everything else", he says. That grounding in clinical reality, allied with deft political skills, an encyclopaedic mastery of the details of individual research projects, and a constant eye on the big picture have made him an eff ective leader who has the complete confi dence of the UK's Chief Medical Offi cer, Dame Sally Davies. "Tom and I go back many years and I count him as friend, colleague, and adviser on all things to do with medical research", says Davies. "I always appreciate his warm wit and gentle humour."

Davies emphasises the international renown of the NIHR HTA Programme, and Walley has worked hard over the years to foster collaborations between the NIHR and research funders in other countries. He's an incredibly able

and articulate advocate for British research according to Sir Iain Chalmers, one of the founders of the Cochrane Collaboration and coordinator of the James Lind Initiative. “A couple of years ago Tom and I were participants in an international meeting in Amsterdam convened to discuss how developing and assessing the eff ects of drugs might be made more honest and effi cient”, Chalmers recalls. “I remember feeling immensely proud to be British as Tom gave an account of the principles, processes, and outputs of the HTA Programme. British research could not have had a more eff ective ambassador.”

David Holmes

Siddhi ARYAL

Asia Technical Director
Malaria Consortium

Thailand

Dr. Siddhi Aryal is the Asia Technical Director for Malaria Consortium, an international non-profit organization working towards improving disease control at global, regional and local levels. He is a senior public health professional with over fifteen years of experience in tropical and communicable disease control and health systems management. He has managed large scale programmes and provided technical leadership in HIV/AIDS, TB and Malaria sectors, engaging with civil society, government and private sector partners in Nepal, Thailand, Laos, Myanmar, China, Papua New Guinea, Indonesia, the Philippines and Uganda. As an international consultant, Siddhi has led strategic planning, M&E, programme implementation, networking and quality assurance and is adept in using coaching and mentoring approaches with national programmes, civil society networks and NGOs.

Established in 2003, Malaria Consortium is one of the world's leading non-profit organisations specialising in the prevention, control and treatment of malaria and other communicable diseases among vulnerable populations. Malaria Consortium works to improve lives in Africa and Asia through sustainable, evidence-based programmes that combat targeted diseases and promote child and maternal health by designing and implementing cutting edge research, surveillance and monitoring and evaluation and selectively scaling up and delivering sustainable evidence-based health programmes. In this process, they provide technical assistance and consulting services that shape and strengthen national and international health policies, strategies and systems and build local capacity.

Siddhi holds a PhD from Tulane University School of Public Health and Tropical Medicine and MSc degree in International Health from University College London.

Kanchan Mukherjee

Professor and Chairperson
Centre for Health Policy, Planning and Mangement
School of Health Systems Studies, TISS

India

Prof. Kanchan Mukherjee has been a faculty at the Tata Institute of Social Sciences (TISS) since 2001, and is the Chairperson of the Centre for Health Policy, Planning and Management in the School of Health Systems Studies at TISS.

Prof. Mukherjee completed his MBBS and MD from Mumbai University and a Masters in International Health Policy from The London School of Economics (LSE). He also completed a postdoctoral training from the University of California at Los Angeles (UCLA) under the prestigious NIH Fogarty Fellowship programme. He was a visiting faculty at the Karolinska Institute under the Linneaus Palme programme.

Prof. Mukherjee's main areas of research interest include health policy and system analysis, epidemiology and economics of non-communicable diseases, urban health and economic evaluation in healthcare. He is the programme convener of the two-year post graduate MPH programme in Health Policy, Economics and Finance at TISS, the first of its kind in South-East Asia.

Prof. Mukherjee has been the Principal Investigator in many national and international research and action projects, and has closely worked with several Indian and international agencies including WHO, FHI, BMGF, DFID, UNFPA, European Union, World Bank, Maharashtra State and the Central Government of India.

Prof. Mukherjee has guided numerous Masters, MPhil and PhD students. He has over 30 publications in prestigious Indian and international journals. He has participated as an expert/resource person/consultant on socially-inclusive financing, global adult tobacco survey, diabetes control, integrated management of childhood illness and universal healthcare in various states of India.

Hasbullah THABRANY

Chair
Centre for Health Economics and Policy Studies
Indonesian National University
Jakarta

Indonesia

Hasbullah Thabrany is a professor and former Dean of the School of Public Health, Universitas Indonesia, the largest and the best university in Indonesia with 50,000 students. He had a Medical Degree from Universitas Indonesia, a MPH and Dr.PH degrees from the University of California at Berkeley, USA. He worked with Rand Corporation, a leading research corporation in the USA while he was studying in the USA. After returning to Indonesia in 1995, he served as Director of Finance and Administration of the Graduate School at Universitas Indonesia. He was Secretary General of the Indonesian Medical Association (1997-2000). Realizing that there had been severe shortage of professionals in health insurance and social security, he established PAMJAKI (Association of Health Insurance Professionals of Indonesia) in 1998. Then he was the chairman of PAMJAKI until October 2010. Now, he is serving as the Chair of Examination Board of Health Insurance Education under PAMJAKI. He had been one of the few key persons in reforming health care and social security in Indonesia. He was a member of the Task Force for Social Security Reform, established by the President Megawati. During 2004-2008 he served as the Dean of the School of Public Health Universitas Indonesia. He was the President of SEAPHEIN (South East Asia Public Health Education Institutes Network) serving 14 countries and 54 institutions in Asia from 2008-2010. In addition to teaching he has been serving as a consultant in the field of health financing, health insurance, tobacco economics, and resources persons for various national and international events. He assisted the Government of Aceh to establish universal health coverage implemented since 2010. He has published five books, on health system reform, health financing, and the National Health Insurance of Indonesia. He had eddited three books in tobacco control. Hasbullah had also published papers at national and international journals. Currently he teaches health insurance, health financing, social security, and advance health policy. In 2015, he was a member of WHO Working Groups on Financing for Non-Communicable Diseases. He has been consultants for the Indonesian Government for the Universal Health Coverage and Health Technology Assessment. He is now serving as the Chairman of the Center for Health Economics and Policy Studies at the Universitas Indonesia.

Mai Oanh TRAN

Director
Health Strategy and Policy Institute

Viet Nam

Dr. Tran Thi Mai Oanh is the Director of Health Strategy and Policy Institute (HSPI). As being the Director of Vietnam's leading research institution, she has been officially tasked to provide evidence for policy development in health. She has experience in generating robust evidence for policy making and has worked extensively with policy makers to make most efficient use of evidence in policy making. Working at HSPI for over 24 years, she has been called upon to lead and support major transformational health initiatives including: organizational structure of the health service delivery network, health service provision, human resources development in health, provider payment methods, hospital autonomy, public hospital governance, public private partnership.

Dr. Oanh was trained as a General Practitioner at the Hanoi Medical University. She obtained her Master Degree in Public Health at Karolinska Institute, Sweden and her PhD degree in public health at National Institute of Hygiene and Epidemiology (NIHE), Viet Nam.

Nelson SEWANKAMBO

Former dean of the medical school
Principal of the school of health sciences
Makerere University

Uganda

Trained in internal medicine and clinical epidemiology/biostatistics. Professor of Medicine was Dean of Makerere University Medical School for 11 years and subsequently Principal (Head) of Makerere University College of Health Sciences. His leadership was characterized by a persistent desire and efforts to continuously improve Makerere University's research output. He devoted his last 16 years of professional life to the advancement of medical education, research and capacity development. He led teams of academicians composed of experts in Europe, North America and Africa to develop and manage a very successful model - the Infectious Diseases Institute at Makerere for strengthening a medical school in the developing world. He initiated a successful research capacity building consortium involving seven African institutions (4 universities and 3 research institutes) and two universities in the UK, Cambridge University and London School of Hygiene and Tropical Medicine. He is the Principle Investigator of a 5 university Consortium under the capacity building Medical Education Partnership Initiative (MEPI). He was founder Principal Investigator in Uganda for the internationally renown Rakai Health Sciences Program (formerly Rakai Project) where he continues to be an active researcher/investigator in HIV/AIDS and has contributed to the large volume of scientific publications in peer reviewed journals. He provided mentorship and development of many Ugandan junior and mid-level researchers. He is spearheading initiatives for research on knowledge translation in Africa to advance the use of evidence based policies and practice. He has participated in many national and international program reviews.

Beibei YUAN

Lecturer
Peking University
China Center for Health Development Studies

China

YUAN, Beibei MD, PhD, Lecturer in Peking University China Center for Health Development Studies. Previously, she was a postdoc at Peking University and also was part-time postdoc fellow in Karolinska Institute for one year. She holds a Ph.D. in Health Management from Shandong University, China and was jointly trained for Ph.D from Liverpool School of Tropical Medicine, UK.

She continued the research on evidence-based method in the areas of health system and policies, including research on appropriate methodology on evidence synthesis and systematic reviews for health system and policy researches; teaching the courses related to systematic review or evidence synthesis; and conducting of systematic reviews on specific health system and policy research topics. The topics of systematic reviews she conducted include strategies for expanding health insurance coverage for vulnerable populations, payment methods for ambulatory health facilities and health professionals, strategies for consolidation social health insurance schemes. The systematic reviews she conducted also cover the areas of equity in maternal health, including finding the disadvantaged populations in maternal health and synthesizing the inventions which are effective in reducing inequalities in maternal health. The projects she participated, including “Systematic review center for health financing in low and middle income countries” supported by Alliance for Health System and “Policy Research and Evidence for Policy and Implementation (EPI-4): Intensifying efforts to achieve the health-related MDGs in four countries with developing economies” supported by Swedish International Development Cooperation Agency, both worked on strengthening the communication between policy makers and researchers, improving the engagement of policy makers in priority setting for research topic selection and in the research process in order to increase the possibility of application of research evidence in practice.

Her research interests also include incentives, work behaviors and performance of health workers in primary health facilities. She has grants from Natural Science Foundation of China and China Postdoctoral Science Foundation to study the work motivation of rural health workers and its influences on work performance in order to improve the quality of public health services provided by rural health workers in China.

Göran TOMSON

Professor
International Health Systems Research
Karolinska Institute
Sweden

Senior Professor International Health Systems Research Karolinska Institutet, Honorary Guest Professor Shandong University, China, Board member China Centre for Health Development studies Peking University. Conducts research and policy dialogue for universal health coverage globally, major interest in capacity building. Member Swedish Research Council´s Committee for Development Research, Norwegian and Netherlands Research Council´s Global Health Committee respective GLOBVAC Board. Chair Scientific Advisory Committee Alliance Health Policy Systems Research WHO, EVIPNet advisor and member European Advisory Committee Health Research WHO Euro. Co-founder React - international network to contain antibiotic resistance.

Jittrakul LEARTSAKULPANITCH
AP Market Access lead
Johnson & Johnson

SHORT
PAPER

3.2

Research to Policy

Prof. Kanchan Mukherjee

Policy-making/change involves explicit and implicit approaches. While recognizing the importance of implicit approaches, this paper focuses on the explicit approaches. The explicit approach encourages the use of evidence, transparency, and participation. Although policy change cannot circumvent politics, evidence should come first and politics are complementary to what evidence cannot address. This is because evidence-based decisions are more acceptable and sustainable. This paper presents the author's views, challenges and experiences in prioritizing research to deliver evidence for policy-making. It also discusses the model adopted by the Centre for Health Policy, Planning and Management (CHPPM) at the Tata Institute of Social Sciences (TISS) towards research for policy as a case study.

In theory, one of the models of policy-making considers the process as rational, logical, sequential and cyclical steps, with research feeding into all steps of the cycle. The steps involved include problem definition/agenda setting, analysis of alternatives, decision, implementation and review. However, in practice, the process is obviously more complex.

There are at least four ways by which research can be used within the policy-making process (1):

1) Recognizing problems and identifying issues,
2) Understanding key issues,
3) Supporting a selected plan of action, and
4) Evaluating and monitoring progress

However, there are challenges in each of these ways. The challenges to policy-oriented research are many (2), of which some of the key challenges in my experience are as follows:

1. Poor policy comprehension by researchers.
2. Political culture and bureaucracy.
3. Lack/improper communication.
4. Non-engagement with local research institutes or universities.
5. Societal disconnect.
6. Poor governmental and research institute capacity.
7. Long duration of research versus need for immediate results.
8. Credibility and validity of research and role of media.
9. Impact of political economy on objective advice based on research.
10. Power relations, which generates concerns about issues of censorship and control, and the question of ideology.

Keeping the above issues in mind, an attempt was made by the CHPPM in the School of Health Systems Studies (SHSS) at TISS to address these challenges, which is described in the case study below.

Case study: The model developed by the CHPPM in SHSS, TISS is an example of a response from the research community to address the needs of individuals, organizations

and policy makers to perform research relevant to the policy-making process. The model called the 'Field Practicum' falls under the 'research to action' paradigm. The model was developed through a series of consultative workshops involving stakeholders like policy makers, programme managers, research institutions, academicians and researchers. The model envisaged using young researchers who were students of the Master of Public Health (Health Policy, Economics and Finance)-MPH (HPEF) course at TISS under the guidance of faculty of the SHSS to engage/study the problems relevant for decision makers. The duration of this field practicum was one full semester (16 weeks) and is a mandatory element of the academic curriculum of these students.
The process of engagement with policy makers began two months before the actual commencement of Field Practicum. The 'engagement process' involved discussions and meetings between faculty supervisors, students and respective state/national policy maker or programme manager to help develop an understanding of needs of the policy maker/programme manager. This engagement resulted in creation of a concept note by the student, which was approved by the faculty and most importantly the office of the decision maker under whom the student would be posted for the Field Practicum. The students had been previously trained in research methodology during their course work and also on writing a policy brief. This Field Practicum provided them with an opportunity to apply their theoretical knowledge in a real-life setting within the offices of the decision maker.
The Field Practicum was designed to apply research methods and collect primary data in the field on any issue of concern identified in consultation with and approved by the policy maker/programme manager. A mid-term review at TISS and close faculty mentoring during the field work provided the necessary guidance and course corrections, if required. The findings of the research constituted the situation and gap analysis of the identified public health issue. This analysis involved analysis of both primary data from stakeholders in the field as well as review of secondary data in the form of policy documents and programme action plans. Based on the gaps identified, the next step was to propose a set of practical and feasible recommendations, which could be implemented by the decision maker. This stage involved sharing of the research findings and brainstorming with the stakeholders in the decision maker's office. The output of the Field Practicum was a 'Policy Brief' created in consultation with all stakeholders providing clear and practical recommendations.

Conclusion: Multiple factors converge to create context-specific pathways through which research enters the policy-making environment (3). Good quality and timely research is essential. Equally important is the means of communication. Also, uptake of research is associated with the specific issue. For example, research related to medical technologies has a higher uptake than issues related to governance or human resources. Also, research suggesting incremental changes are more easily accepted than those recommending fundamental changes. However, perhaps the most important link between research and policy-making is the sense of 'ownership'. The gap between the 'data people' and 'action people' can be bridged by involving both in all stages of the research affecting policy. This creates a sense of ownership, which makes the findings of research more acceptable and perhaps easier to implement. This was one of the key features of the Field Practicum model discussed in this paper. While the challenges are huge, the Field Practicum model

of the CHPPM, TISS was an attempt to address some of these challenges. A follow-up over time will tell whether the recommendations that emerged from this Field Practicum exercise where converted into active decisions and implemented. While the impact of the policy brief in influencing decisions remains debatable (4), there is little doubt that research will play a major role in the policy-making process. Hence, greater emphasis should be placed on policy research to help make informed policy decisions in the future.

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Background Paper: Engaging Policymakers in shaping research agenda

Prince Mahidol Award Conference
Parallel Session- 3.2
30 Jan, 2016

Presenter: Dr Siddhi Aryal, Asia Technical Director, Malaria Consortium

Established in 2003, Malaria Consortium is one of the world's leading non-profit organizations specializing in the prevention, control and treatment of malaria and other communicable diseases among vulnerable populations. Malaria Consortium Strategic Approaches include designing and conducting cutting-edge implementation research, surveillance and monitoring and evaluation; selectively scaling up and delivering sustainable, evidence-based health programs. As part of the process, technical assistance and consulting services are provided that help shape and strengthen national and international health policies, strategies and systems and build local capacity.

Malaria Consortium conducts health research, which is the systematic development of knowledge with the aim of understanding health challenges and improving the responses to them. Most of Malaria Consortium's projects and programmes have a research component, and whilst some studies may be standalone, the majority of the organisation's research is linked to or embedded within its service delivery programmes.

There are three key research stakeholders we engage with in the process of setting up priority agenda and carrying out research, each with slightly different interests and motivations[i]. Policy makers, that include practitioners in public, private and not for profit organizations, see the benefit in setting research agendas for scientific inquiry that meets their information needs. Funders ideally like to support broad themes that suppliers and users of knowledge jointly identify as relevant. Researchers on their part tend to look for opportunities where they get to apply knowledge they help create and synthesize by learning the questions and issues that are considered to be most important by policy makers. The difference ways in which each stakeholder sees research prioritization stems from the significant differences in their working environments and needs. Academics, for example, are subject to pressures such as peer acknowledgement, while civil servants must work to tight time framesii. While academics need to know that decisions are taken by ministers on a balance of politics, delivery and evidence, policy makers also need to see the perspective from the side of the other stakeholders.

For Malaria Consortium, it is important to engaging policy makers in the process of prioritizing research in order to achieve our mission to 'improve lives through sustainable evidence based health programmes' and to ensure that best technical approaches are debated and considered. There are also the need to ensure value for money as well as being responsive to donors for information about how research evidence they funded is shared, used and attributed towards influencing policy and affecting implementation.

Malaria Consortium engages policymakers to identify priorities by employing various formal and informal channels. These include face-to-face consultation with policy makers and not relying on them having to read research documents, especially under tight time constraints. Malaria Consortium experts at the regional and country offices also serve on government committees, advisory groups and public

and stakeholder forums, conducting research in partnership with policymakers, and disseminating relevant research through existing policy networks. We maintain good interpersonal relationship with policymakers to facilitate research-informed policy development and understand that research requirements vary depending on what is needed and adapt accordingly for different policy activities.

In addition, we create and distribute letters, peer-reviewed manuscripts, policy briefs, fact sheets, one-pagers, or bullet points to policy makers and their staff regularly.

Malaria Consortium aspires to follow a key set of practices[iii] that make engagement with policy makers easy in the context of getting research that is needed to advance. Emphasis is placed on building trust by being competent in what we do and showcasing integrity. As much as possible, we invite policy makers to speak at our conferences and symposiums and share the results of our ongoing research studies, helping inform future research development and design. Our technical quality process ensure that research policy related communication is clarified through briefings that avoid dense, technical language and is to the point. We also regularly reach out to policy makers to get recommendations from the for their trusted colleagues, network contacts, and other researchers from academic and practice community for potential engagement if competent, technically qualified and suited to specific roles. While we do this, there is a strong emphasis on being independent so that our work and outputs are objective and our advice independent. It is ultimately our ability to think through from both program delivery as well as academic research perspective that helps Malaria Consortium engage with the real world situations and use flexible approaches that are responsive to the needs on the ground. This process of making research tailor made and ability to deal with complexities that ae part and parcel of applied and operational research are central to our ongoing and expanding research portfolio.

Figure 1 Key Steps in Engaging Policy Makers to set research agenda

Following prioritization, the next step is one where we engage with stakeholders towards research uptake. Research uptake is the use of research evidence by researchers, policy makers, implementers (e.g. NGOs) or practitioners (e.g. Doctors) to inform policy or practice. It can be both internal (within

Malaria Consortium) and external (e.g. with the Ministry of Health). Research uptake may result in a change to policy and practice but equally can result in maintaining the status quo, depending on the results of the research study.

Often, barriers are encountered in getting research implemented. In an intermittent preventive treatment of malaria in pregnancy (IPTp) study in Uganda that was funded by COMDIS-HSD and PPA, Malaria Consortium engaged with the Ministry of Health (MoH) from the earliest project stages to ensure that the research is aligned with decision makers' priorities. The study protocol specified an objective relating to research uptake. The team adopted the COMDIS-HSD 'embedded approach' to research uptake, which is based on the assumption that operational research is best prioritized, designed, conducted and replicated when it is embedded within Ministry of Health and national program structures. At project inception, the project team was trained in research uptake and a research uptake strategy was developed which analysed key stakeholders, and identified research uptake objectives and activities to be conducted throughout the duration of the project. Discussing the findings from the formative research stage led to the formation of a steering committee hosted by MoH and District Health Offices from intervention districts, which guides the development and implementation of a small-scale pilot intervention addressing the key barriers to IPTp provision identified. There were a number of challenges faced. The focus on research uptake meant that the study team had to make a number of concessions e.g. adjusted timeframes for the pilot to align the intervention with on-going discussions regarding adoption of latest WHO policy. Early successes from adopting this approach have included MoH's commitment to reconsider drug supply mechanisms and a pledge to adopt the current WHO policy recommendation for the provision of IPTp.

Ideally, all new research studies should develop a research uptake plan before project commencement, i.e., before submission of a bid (for projects that go through the bid process), to ensure sufficient funds are available for research uptake activities. Otherwise the principles of the research uptake plan should be discussed to ensure that key stakeholders are consulted in the preparation of the research study proposal and that research uptake activities are included in the budget. A minimum of 10% of the research budget need to be assigned to research uptake activities. It is iimportant to review the research uptake plan throughout the research study to ensure that it is still relevant and that all activities are being conducted with relevant stakeholders.

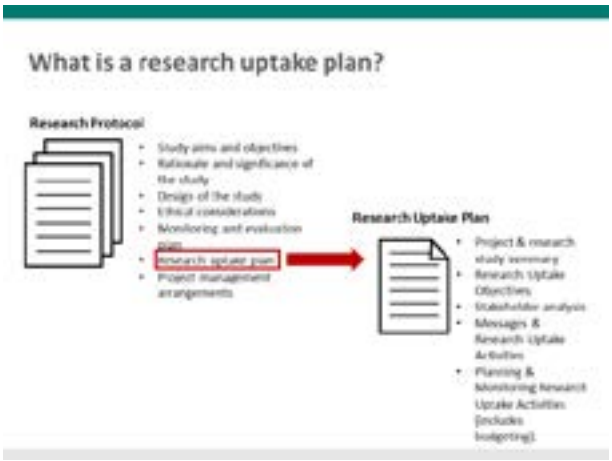


Figure 2 Example of a research uptake plan

A research uptake plan is useful in structuring the way to approach research. It is intended to assist thinking around the value of the research being conducted and the longer term influence on policy and practice the study is hoping to achieve. It helps identify policy stakeholders & donors and considers appropriate messages and activities, along with respective budgets and timelines, to ensure they are kept engaged and informed of progress throughout the research cycle, rather than just at the end. At Malaria Consortium, it also identifies how relevant staff within the organization are engaged on the research we conduct so that our research impacts on our own practice. The figure below shows research uptake practice at Malaria Consortium.

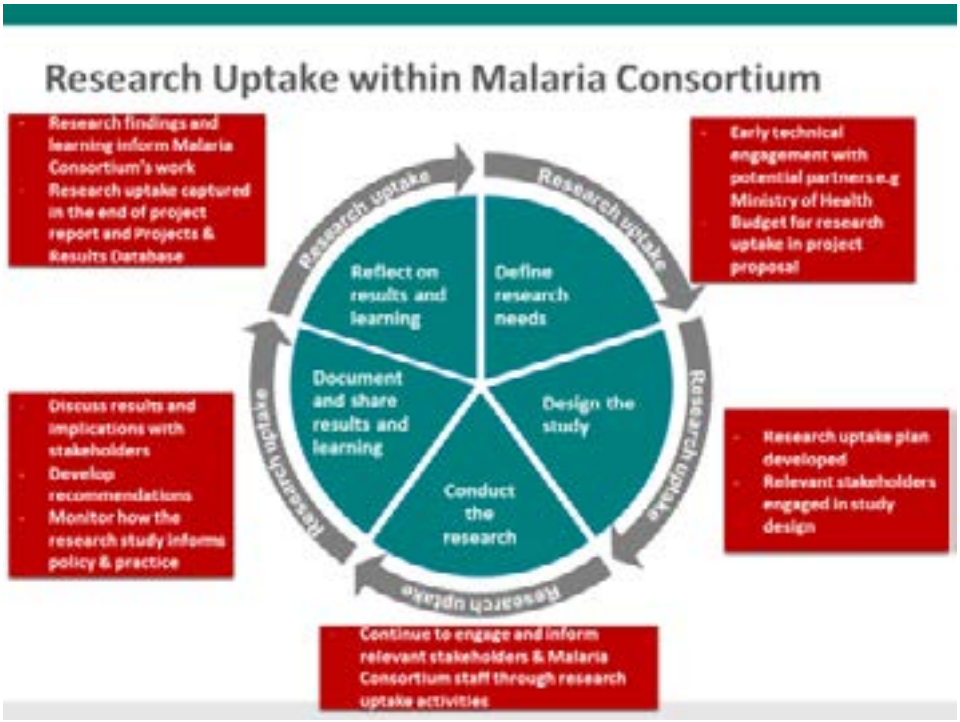


Figure 3 Malaria Consortium's research cycle (green diagram) and research uptake during the different stages of the research cycle (red boxes).

There are a number of challenges in increasing research uptake. Firstly, despite any given organization having a wide range of research uptake experiences, typically they not well documented. This prevents the learning from past experiences. On the whole, research uptake is thought of in terms of disseminating communications products, attending conferences or hosting events and is focused on end of project activities. Regular engagement with policy makers tends not to be thought of as research uptake, but is in fact conducted for most research studies.

[i] Bill Sutherland et al, Methods in Ecology and Evolution, 2011

[ii] Engaging with academics: how to further strengthen open policy making, Govt. office for science, 2013.

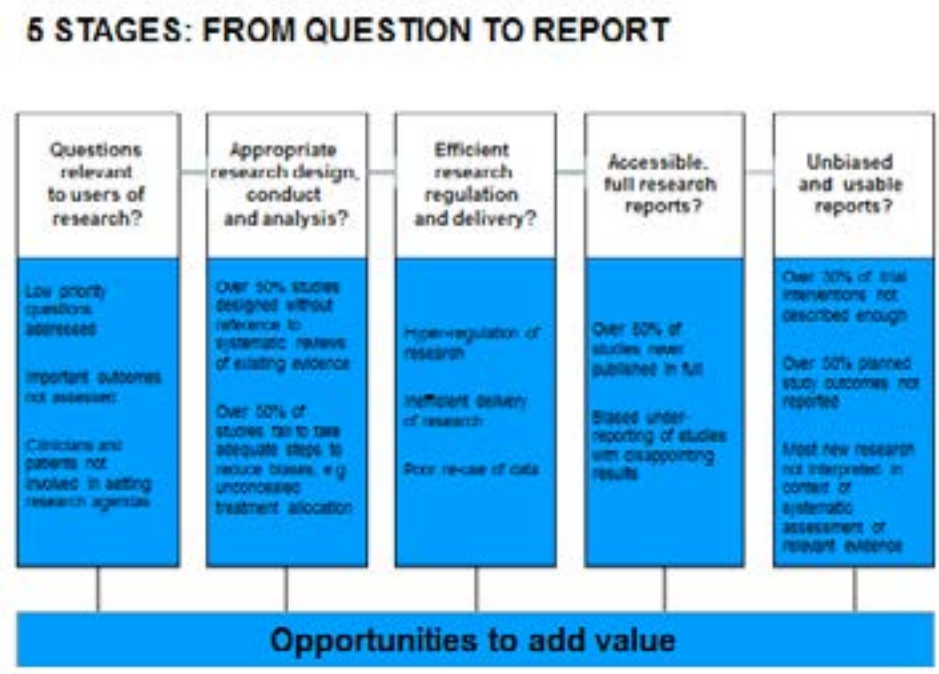
[iii] Abby S. Haynes et al, Identifying Trustworthy Experts: How Do Policymakers Find and Assess Public Health Researchers Worth Consulting or Collaborating With?

A view of the work of the NICE and the UK (NIHR) National Institute of Health Research, looking at alignment and collaboration between an evidence generating public research funder and an evidence reviewing agency

Tom Walley, CBE, MD, FRCP Director, NIHR Evaluation, Trials and Studies and Director of the HTA Programme, National Institute for Health Research

Introduction

Glasiou and Chalmers described how money and effort on research can be wasted because of failure to fulfil five key issues



The first of these is failure to research those issues which are important to decision makers such as clinicians, patients and policy makers, but rather to research issues that may be important to academic scientists, or to commercial backers. In the UK, research studies to address clinical questions important to decision-makers such research has been sponsored by government, and this informs the work of decision-makers, including local NHS commissioners and central decision making bodies such as the National Screening Committee and the National Institute of

Health and Clinical Excellence (NICE). In this paper I discuss the UK NHS example, where research-based evidence on clinical and cost-effectiveness (where available) informs demand-side decisions about service provision. A healthcare system which claims to use its resources to maximise the health benefit of its populations, will want to use evidence, especially that from high quality research; and how there is a moral imperative for research funders to meet this need.

A short history of placing research at the heart of the UK National Health Service

During the 1980s, health (mostly basic and clinical) research in the UK received public funding through the Medical Research Council (MRC) and, to a lesser extent, the Department of Health (DH); and was also supported by medical research charities. There was little coordination of effort between these different sources of funding.

The NHS's own research efforts were small and did not target the questions facing the Service and government. In the 1980s a seminal review of UK health research by Government emphasised the "public good" nature of health research and its relevance to decision making. This led to the creation of an NHS-owned R&D programme for the first time in 1991, which was important in supporting the developing evidence based medicine movement, specifically by funding the then forming Cochrane collaboration and the Health Technology Assessment Programme (HTAP); but due to fixed structures within the NHS and the power of traditional players such as large teaching hospitals and their associated universities, was unable to achieve its full potential.

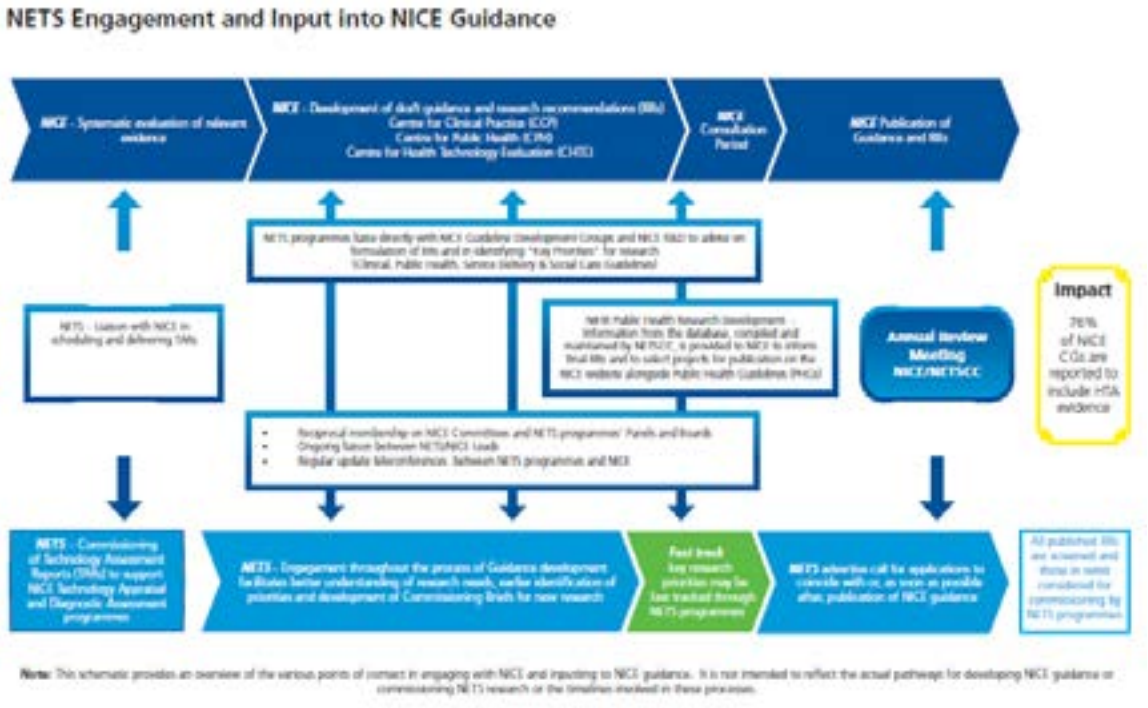
A new government strategy in 2006 reorganised NHS R&D into the National Institute for Health Research (NIHR), whose mission was to create a system in which the NHS supports leading-edge research, "*…focussed on the needs of patients and the public"* and the development of evidence *"…to inform and underpin health and social care policy"*[1]. This has had a dramatic effect in transforming the nature of health research, such that applied research is now considered at least equal to more basic research in finding and in esteem, and clinical research has expanded enormously.

[1] Department of Health, Research and Development, http://www.dh.gov.uk/en/Researchanddevelopment/index.htm

The HTA programme (www.hta.ac.uk), established in 1993, identifies areas of uncertainty about interventions used in the NHS and to evaluate them by directly commissioning research projects - either new primary research or evidence synthesis, in contrast to other research programmes such as those of the Medical Research Council or research charities which are largely responsive to submissions depending on researcher interest. The definition of HTA used by the programme dates back to a government review in 1990, and incudes the assessment of the health, economic social, ethical and policy issues arising from the implementation of any health technology within the NHS: a health technology being anything that the NHS might do to a patient, eg administer a drug, use a diagnostic or reconfigure services. This work is fundamentally comparative, eg comparing a new intervention to either Treatment as usual within the NHS or best recommended treatment: and so this programme is the main vehicle for comparative effectiveness research in the UK.

Identifying NHS priorities on which to commission research is not simple. The HTA programme seeks topics from the literature, healthcare professionals, managers and the public, and then uses panels of experts from similar backgrounds to select which of the 1600 topics reviewed each year are most important. "Policy" customers such as the Chief Medical Officer or National Screening Committee may also suggest topics: these almost by definition carry great NHS importance but will require work to convert an important topic into an answerable research question. The HTA programme then advertises the identified topics openly to the research community, and funds the best submissions. The research may be primary data generation (usually by randomised controlled trials but also other designs if appropriate, eg qualitative studies), or secondary analysis of existing data, i.e. systematic review usually with an economic evaluation.

The HTA programme laid some of the ground for the establishment of the National Institute for Health and Clinical Excellence (NICE). The HTA programme and NICE continue to work closely together. (see figure 2)



NICE as an originator and user of research: NHS R&D responding to decision-makers' needs

Supporting research into decision-makers' questions is difficult at times: converting vague wishes or major problems into tractable and researchable questions is not always successful. Merely generating and disseminating the evidence is not enough to change policies and impact on practice. In 1999, the UK government established NICE, to put a 'front end' to the evidence and support its uptake at the local level. NICE was to set best practice standards for the management of disease and to determine 'good buys' for the NHS, in transparent and consultative ways, providing research-based information for clinical practitioners and clinical managers. The initial emphasis was on technology appraisal and the creation of authoritative, evidence-informed clinical guidelines, both - a major developmental step for policy, if not for research-- were to explicitly take account of cost-effectiveness. Later, surgical and diagnostic procedures and public health were added. From the very beginning, policy makers appreciated the importance of CER for NICE in three ways.

Earmarked funding for evidence synthesis

First the HTA programme funds the assessment (i.e. a review of the scientific evidence by systematic reviews, meta-analyses, decision analytic modelling, and health economics) of technologies of importance, identified by NICE, in independent academic centres at a cost of approximately £8 million/year. This allows NICE to go on to undertake appraisal (i.e. the application of judgment to areas of uncertainty where evidence is conflicting or absent, and to consider important issues such as patient choice) before coming to recommendations for NHS practice. This applies to all of NICE's Technology Appraisals (see full list at http://www.nice.org.uk/guidance/published?type=ta) and some other areas.

In addition, NIHR studies inform at least 75% of all NICE guidelines (Turner et al 2015), and Cochrane over 80%.

Recommending the use of technologies only in the context of well designed studies

Second, policy makers may propose 'conditional coverage' when the evidence for a technology was too weak for a definitive 'yes' or 'no' decision: "*NICE [may] recommend that further research is carried out … and advise clinicians that, in the meantime, they should only use the new intervention as part of … research intended to answer these questions.*" (ie only in research – OIR). This option has been much less popular: so far, about 1 in 20 NICE decisions on health technologies have been OIR. These recommendations are aimed primarily at the manufacturers of the new technology, but are rarely taken up. A very small proportion of these have led to research being commissioned by the HTA programme, such as the evaluation of verteporphyrin in age related macular degeneration.

NICE Research Recommendations

Third, NICE guidance has included sections on research recommendations to highlight important evidence gaps whose closure would inform future updates. In response, the HTA programme established a process for reviewing and commissioning NICE research priorities. The questions range from health promotion programmes to surgical interventions and from disease management strategies to new drugs and devices (see Table). Over the last 10 years, around 50 projects have been commissioned from NICE research recommendations at a total cost of £37.6 million.

Other NIHR programmes also pick up similar issues which are outside the remit of the HTA programme: for instance, the NIHR Health Service and Delivery Research (HSDR) Programme will tackle issues involving service reconfiguration, patient views and values, or implementation.

So for NIHR programmes, NICE research recommendations are a valuable means of identifying topics which have to potential to have a major impact on the NHS, and which therefore deserve a high priority. However these are all research programmes with their own remit, which for instance do not cover audit, epidemiology or natural history of disease, or NHS utilisation data; they cannot therefore deliver all of NICE's information needs, eg basic volume data such as appropriately analysed prescription and uptake figures for pharmaceuticals, broken down by indication and patient subgroup, or audit of current and emerging practices. Nor can the programmes, committed to high quality research, deal with the volume, or in particular the rapidity with which NICE needs such information, even when it is in remit.

Misaligned objectives and other limitations

Despite the good intentions, NICE's and NIHR's aims are not always well aligned. NICE is under pressure to issue decisions, even when there is considerable uncertainty. However, new research is time consuming, and adoption decisions are often difficult to postpone. NICE's remit confines it to looking at some technologies in a limited way –for instance in relation to drug therapies, NICE can only consider these in terms of their licence, so that some uses of the technologies cannot be evaluated; eg the HTA funded IVAN study examines the licensed but very expensive ranibizumab (Lucentis) for age related macular degeneration (AMD) compared to the unlicensed but similar and less expensive bevacizumab (Avastin). This comparison was not of interest to the manufacturer (the same for both compounds), and led to the funding of the IVAN study and a very similar study in the USA (CATT). These have shown clinical equivalence at much lower cost, but NICE cannot use these results to recommend the less expensive but unlicensed drug because of legal and policy restrictions. A further example of lapse in coordination between NICE and NIHR was the approval of Lucentis for AMD during the trial, requiring that it be available to patients across England, hampering recruitment, or NICE's approval of drugs for Alzheimer's disease, undermining a major trial of donepezil, AD2000.

A key third partner that should be involved in evidence generation is the NHS itself and its commissioners: although they often express concerns that NIHR does not meet their research needs adequately, they have proven themselves poor at identifying such needs or in supporting

research which even they have requested, as middle managers do not see research as an important way to improve the service.

Conclusions:

The experience of NICE and the NIHR, in working synergistically for the good of patients and the public serviced by the NHS, can be a model of how a policy maker and a research funder can align their activities. Most research programmes however are more heavily influenced by the research community than by the policy maker, and few policy makers put such an emphasis on evidence as a key to developing practice. A common commitment to improve care of patients has been the key driver.

Table: High priority NICE research questions currently being considered or already advertised or commissioned by the National Institute for Health Research in the UK 2005-2015

NICE Priority Topics

Year	Research Recommendation	Topic No.	Current Status
2005	Pre-operative testing : evidence synthesis, cost effectiveness and value of information analysis	7728	Published project (06/84/01) http://www.journalslibrary.nihr.ac.uk/hta/volume-16/issue-50
2005	Psychological interventions for the treatment of moderate and severe depression in children and young people	6554	Commissioned ongoing project (06/05/01) http://www.nets.nihr.ac.uk/projects/hta/060501
2005	Interventions to help overweight and obese adults to maintain weight lost	7726	Commissioned ongoing project (08/44/04) http://www.nets.nihr.ac.uk/projects/hta/084404
2005	Obesity prevention or weight reduction in younger children	7727	Commissioned ongoing project (06/85/11) http://www.nets.nihr.ac.uk/projects/hta/068511
2005	What is the clinical and cost-effectiveness of domiciliary oxygen therapy compared to no oxygen for patients with chronic heart failure?	6546	Commissioned ongoing project (06/80/01) http://www.nets.nihr.ac.uk/projects/hta/068001
2006	Increasing physical activity levels and increasing smoking cessation	7940	Published project (07/78/02) http://www.journalslibrary.nihr.ac.uk/hta/volume-18/issue-4
2006	Drug treatment of obesity in primary care	7692	Published project (07/85/02) http://www.journalslibrary.nihr.ac.uk/hta/volume-16/issue-5
2006	Interferon gamma tests for the rapid identification of active tuberculosis disease	7941 (merged with 7960)	Commissioned ongoing project (08/106/02) http://www.nets.nihr.ac.uk/projects/hta/0810602

Year	Research Recommendation	Topic No.	Current Status
2006	A study of the prognostic value of interferon gamma and tuberculin skin tests for the development of active tuberculosis in people with suspected latent TB	9395 & 15883	Commissioned ongoing project (08/68/01) http://www.nets.nihr.ac.uk/projects/hta/086801
2007	Pill in the pocket treatment for AF	8982	Published project (08/46/01) http://www.journalslibrary.nihr.ac.uk/hta/volume-14/issue-31
2007	Spironolactone vs eplerenone for HF early after an MI	8898	Published project (08/48/01) http://www.journalslibrary.nihr.ac.uk/hta/volume-14/issue-24
2007	Anticoagulation with antiplatelet therapy in AF	8977	Published project (09/11/02) http://www.journalslibrary.nihr.ac.uk/hta/volume-17/issue-30
2007	Cost effectiveness of routine echocardiographic examination in all newly diagnosed AF patients	8984	Published project (08/45/01) http://www.journalslibrary.nihr.ac.uk/hta/volume-17/issue-36
2007	Prospective audits of bariatric surgery	8978	Commissioned ongoing project (10/42/02) http://www.nets.nihr.ac.uk/projects/hta/104202
2007	Family based interventions for young people who misuse alcohol	8980 (	Commissioned ongoing project (11/60/01) http://www.nets.nihr.ac.uk/projects/hta/116001
2009	Reducing differences in the uptake of immunisations	14438	Commissioned ongoing project (11/97/01) http://www.nets.nihr.ac.uk/projects/hta/119701
2009	Interventions to help those experiencing long-term sickness absence or recurring short- or long-term sickness absence return to work.	14537	Commissioned ongoing PHR project (12/3090/05) http://www.nets.nihr.ac.uk/projects/phr/12309005
2010	Brief interventions to reduce alcohol misuse in	11164	Commissioned **3 projects in PHR Programme:**

Year	Research Recommendation	Topic No.	Current Status
	those under 16 years old		Published project (10/3002/07) http://www.journalslibrary.nihr.ac.uk/phr/volume-2/issue-6 Project waiting to publish (10/3002/03) http://www.nets.nihr.ac.uk/projects/phr/10300203 Ongoing project (10/3002/09) http://www.nets.nihr.ac.uk/projects/phr/10300209
2010	Follow up mammography	14434	Commissioned ongoing project (11/25/03) £2,107,443 http://www.nets.nihr.ac.uk/projects/hta/112503
2010	Timing of birth in women with pre-eclampsia	14511	Commissioned ongoing project (12/25/03) http://www.nets.nihr.ac.uk/projects/hta/122503
2010	Early versus later pulmonary rehabilitation in chronic obstructive pulmonary disease (COPD).	14141/ 17497	Commissioned ongoing project (13/24/03) http://www.nets.nihr.ac.uk/projects/hta/132403
2010	What are the most effective and cost effective ways of increasing immunisation uptake among looked after children and young people and other population groups at risk of being only partially immunised or not immunised at all?	14436	Project in commissioning (13/16)
2011	HIV testing among black Africans in England	15867	Commissioned ongoing project (12/138/02) http://www.nets.nihr.ac.uk/projects/hta/1213802
2011	Risk of malignancy Index 1 threshold for women with suspected ovarian cancer	16058/ 16728	Commissioned ongoing project (13/13/01) http://www.nets.nihr.ac.uk/projects/hta/131301
2011	A comparison of the clinical and cost effectiveness of sertraline and CBT in people with GAD that has not responded to guided self-	15567	Commissioned ongoing project (13/28/02) http://www.nets.nihr.ac.uk/projects/hta/132802

Year	Research Recommendation	Topic No.	Current Status
	help and psychoeducation		
2012	Oral antibiotic therapy in patients with neutropenic sepsis	18557	Commissioned project waiting to start (13/140/05) http://www.nets.nihr.ac.uk/projects/hta/1314005
Under consideration			
2011	An assertive community treatment model for service users who are moderately or severely dependent on alcohol	15745	Topic on-hold
2013	Maintenance treatment for people with mild to moderate ulcerative colitis (regular maintenance versus rapid standard treatment if relapse occurs)	21035	Discussed by Advisory Panel Nov 14 and progressed to next stage (Mar/May 2015)
2013	MI –secondary prevention: treatment with an oral anticoagulant and combination antiplatelet drugs (aspirin and clopidogrel) compared with anticoagulant with clopidogrel.	20692	Discussed by Advisory Panel Nov 14 and progressed to next stage (Mar/May 2015)

NICE Database Topics

2005	Increasing uptake of smoking cessation services	2548	Commissioned ongoing project (08/58/02) £2,196,347 http://www.nets.nihr.ac.uk/projects/hta/085802
2008	Most effective way to manage otitis media with effusion (OME) in children with Downs syndrome and	10248 & 12647	Commissioned **2 projects** for Downs syndrome (10248) and cleft palate (12647): Published project for Downs syndrome

Year	Research Recommendation	Topic No.	Current Status
	children with cleft palate		(09/166/01) £140,385 http://www.journalslibrary.nihr.ac.uk/hta/volume-18/issue-60 Project waiting to publish cleft palate (09/167/02) £101,414 http://www.nets.nihr.ac.uk/projects/hta/0916702
2008	Long-term outcomes of NHS Stop Smoking Services, particularly among minority ethnic and disadvantaged communities	10292	Project waiting to publish (09/161/01) £819,952 http://www.nets.nihr.ac.uk/projects/hta/0916101
2008	Effectiveness of interventions to support women to breastfeed	10299	Completed update of Cochrane Review (10/106/01) £12,896 http://www.nets.nihr.ac.uk/projects/hta/1010601
2008	Economic evaluation:- [Research councils, national and local research commissioners and funders and research workers should] gather evidence on the costs and benefits of community engagement approaches.	10290 (11263)	Commissioned **3 projects in PHR Programme:** Project waiting to publish (09/3008/07) £358,962 http://www.nets.nihr.ac.uk/projects/phr/09300807 Published project (09/3008/11) £221,837 http://www.journalslibrary.nihr.ac.uk/phr/volume-1/issue-4 Published project (09/3008/04) £199,328 http://www.journalslibrary.nihr.ac.uk/phr/volume-3/issue-3
2009	Prevention of metastatic spinal cord compression	12176	Completed TAR Short report (10/91/01) Call-off contract, short report average cost £66,000 http://www.journalslibrary.nihr.ac.uk/hta/volume-

Year	Research Recommendation	Topic No.	Current Status
			17/issue-42
2009	Mental wellbeing of older people Home visits and telephone support for improving mental wellbeing	11172	Published PHR project (09/3004/01) http://www.journalslibrary.nihr.ac.uk/phr/volume-2/issue-7
2009	Facet-joint injections and radiofrequency lesioning for people with persistent non-specific low back pain	13277	Commissioned ongoing project (11/31/01) http://www.nets.nihr.ac.uk/projects/hta/113101 Second project (11/31) in commissioning
2010	Quitting smoking in pregnancy and following childbirth.	14153	Commissioned ongoing project (11/93/01) http://www.nets.nihr.ac.uk/projects/hta/119301
2010	Interventions for men with mild to moderate post prostatectomy urinary incontinence.	13991 (merged with 13826)	Commissioned ongoing project (11/106/01) http://www.nets.nihr.ac.uk/projects/hta/1110601
2010	The role of natriuretIc peptides in the management and prognosis of heart failure.	14520 (merged with 11962)	Commissioned ongoing project (11/102/03) http://www.nets.nihr.ac.uk/projects/hta/1110203
2010	Diagnosis and management of bladder outlet obstruction in men	13987	Commissioned ongoing project (12/140/01) http://www.nets.nihr.ac.uk/projects/hta/1214001
2010	Percutaneous radiofrequency ablation for renal cancer.	14498	Commissioned ongoing project (11/107/01) http://www.nets.nihr.ac.uk/projects/hta/1110701
2010	Weight management interventions after childbirth	20203	Project in commissioning (14/67)
2011	Treatments for people who have severe chronic hand eczema that is unresponsive to treatment with potent topical corticosteroids.	15546	Commissioned ongoing project (12/186/01) http://www.nets.nihr.ac.uk/projects/hta/1218601
2011	Imaging in the diagnostic pathway for women with ovarian cancer.	16059	Project in commissioning (12/193 and again as 14/31)

Year	Research Recommendation	Topic No.	Current Status
2011	Interventions after testing for HIV to reduce future risky sexual behaviour	18408	Project in commissioning (13/77/03) http://www.nets.nihr.ac.uk/projects/hta/137703
2012	Fenestrated endovascular repair of abdominal aortic aneurysms	17708 (merged with 17252)	Published project (13/09/01) http://www.journalslibrary.nihr.ac.uk/hta/volume-18/issue-70
2012	What is the optimal duration of treatment (course length) in babies who receive antibiotics for confirmed early-onset neonatal infection?	18297	Project in commissioning (13/145)
2012	Postural management programmes using a standing frame in children aged 1-3 years.	18142	Project in commissioning (13/144)
2012	Guided/Facilitated self-help for anxiety and depression in adults with autism.	18156	Project in commissioning (14/43)
2013	MI – secondary prevention: Secondary prevention in primary and secondary care for patients following a myocardial infarction	20691	To be progressed for consideration for TAR
In Prioritisation			
2014	Safe staffing for nursing in adult inpatient wards in acute hospitals	n/a	Project in commissioning in HS&DR Programme 14/194

Aligning Local and Global Priorities for Health: The Roles of Governments, CSOs and Development Partners in Setting and Funding for the Priorities

Parallel Session

3.3

Priority setting for health at the global level was instrumental in uplifting lives of people across the world in the past 15 years. Focus on infectious diseases in G8 Okinawa Summit in 2000 paved the way for the establishment of the Global Fund, creating substantial financial flow to control AIDS, TB and malaria. Global commitment on MDGs was followed by an increase in targeted funding for maternal, neonatal and child health, as well as for infectious diseases control. More recently, universal health coverage (UHC) is high on global health agenda as reflected in UN General Assembly resolution in 2012 and many other agreements and statements, and increasing number of countries are making efforts in that direction. Those priorities have guided global resource mobilization for health resulting in significant improvement in health status particularly of the people in LMICs, described as great convergence.

However, priority setting at the global level, despite the best intensions, has its shortcomings and may have negatively affected priority setting at the country level particularly by LMICs. In some cases, priority setting at the global level has led to the creation of targeted funding mechanisms for specific health issues and diseases, such as GAVI, the Global Fund (followed recently by GFF). But in many cases priorities were set without clear financial commitment. Even though each country is responsible for ensuring best attainable health to its population based on global commitment with available resources, this fragmentation of resource allocation at the global level seriously affects the decision making of many LMICs and their efforts toward achievement of UHC.

At one level, there is an issue of alignment. It is an issue of balancing targeted funding with broader health systems strengthening toward UHC. The alignment issue can be particularly pertinent in low income settings where external resources could contribute a larger proportion of the country's health budget. If left uncoordinated and unmanaged, such targeted funding may result in fragmentation of the health systems, concentration of health systems capacity in narrow programs; and crowding out of domestic investment and balanced capacity building efforts.

At another level, there is an issue of adjustment. It is an issue of transitioning from dependence on external resources to domestic resources. With the economic growth of many of LMICs, the tide of the momentum in global health and development is now shifting toward domestic resource mobilization and capacity building rather than external financing and execution of vertical programs. The adjustment issue can be more relevant to upper-middle income settings, as lower income countries are being more prioritized in terms of access to concessional funding and low cost commodities. These are the countries more pressed to achieve UHC, amidst reducing external resources, growing inequality and NCD burden.

Many governments of LMICs are now beginning to uphold UHC as a national goal on their part, and yet they face fiscal and institutional sustainability challenges, such as reprioritizing while integrating vertical programs, creating additional fiscal space, and building stronger health systems. This session is aiming first at highlighting the issues associated with alignment and adjustment, by looking at actual experiences of the countries going through those challenges. Secondly, it will explore the roles of governments, CSOs and development partners in priority setting for health both at the global and country levels, and their roles in funding for those priorities, as an effort to identify desirable interactions among diverse stakeholders to bring UHC forward in countries with different settings and challenges.

Key issues to be covered:

- What actors are involved in priority setting for health at the global level today? Are there actors who are under-represented? What are the desirable mechanisms for global health priority setting, e.g., WHA, UNGA, G8 and others?
- Are the global health priorities adequately funded, at global and country levels? Where are the priority-funding gaps? Who should be the ones to fill the gap?
- What are the positive and negative influences of priority setting for health at the global level to priority setting at the country level? Are there better ways and mechanisms to strengthen the link between them?
- What are the issues associated with alignment? How the governments, development partners and other stakeholders interact better to remedy the problems?
- What are the issues associated with adjustment? How the governments, development partners and other stakeholders interact better to remedy the problems?
- What kinds of capacities are needed on the part of LMICs to set priorities right toward UHC? How best can the development partners support sustainable capacity development of LMICs?

Objectives

To identify ways to best ensure links between priority setting for health at the global and country levels, and links between priority setting and resource mobilization at both levels, toward the achievement of UHC in LMICs. Expectation is to draw out key actions and interactions needed by various stakeholders (governments, CSOs, development partners) in priority setting.

Chair

Takao Toda

Director General, Human Development Department,
Japan International Cooperation Agency, Japan

Moderator

Walaiporn Patcharanarumol

Senior Researcher, International Health Policy Program, Thailand

Speakers

Toomas Palu

Sector Manager for Health, Nutrition and Population,
East Asia and Pacific Region, The World Bank, Thailand
Overview of the issues

Ashadul Islam

Director General, Health Economics Unit,
Ministry of Health and Family Welfare, Bangladesh
Bangladesh's experience in aligning local and global health priorities toward UHC

Omar Ahmed

Deputy Head, Department of Policy, Planning and Healthcare Financing/Head of Division,
Health Financing, Ministry of Health, Kenya
Kenya's experience in aligning local and global health priorities toward UHC

Ebenezer Appiah-Denkyira

Director General, Ghana Health Service, Ghana
Ghana's experience in adjustment in shifting from external to domestic resource mobilization toward UHC

Panelists

Francis Omaswa
Executive Director, African Center for Global Health and Social Transformation, Uganda
**written intervention to be read by the Moderator*

Amit Sengupta
Associate Global Co-ordinator, People's Health Movement, India (CSO)

Osamu Kunii
Head of Strategy and Impact DivisionThe Global Fund to Fight AIDS,
Tuberculosis and Malaria, Switzerland
(Multilateral, targeted)

Damian Walker
Deputy Director, Data & Analytics, Global Development,
Bill and Melinda Gates Foundation, Switzerland
(Private Foundation)

Ikuo Takizawa
Deputy Director General, Human Development Department,
Japan International Cooperation Agency, Japan
(Bilateral, systems-oriented)

CHAIR

Takao TODA

Director General
Human Development Department
Japan International Cooperation Agency

Japan

As the Director General of Human Development Department, Dr. Toda oversees and takes the leadership on establishing JICA's operational strategies and implementing activities on health, social welfare, and education. For more than 30 years, he has been playing various important roles such as Executive Advisor to the Director General of Human Development Department, Chief Representative of JICA's Office in Bangladesh, Senior Fellow in JICA Research Institute, Group Director (Higher Education / Social Security) of Human Development Department, Group Director on Human Security, Group Director on Peace Building and Senior Representative of JICA USA Office.

In parallel with his pursuit of professional career, Dr. Toda received Ph.D at the Graduate School of International Development, Nagoya University in 2009, master's degree at the Graduate School of Frontier Sciences, University of Tokyo in 2001, and LL.B at the Faculty of Law, Kyoto University in 1984. He has a wide range of knowledge and insight especially on the operationalization process of Human Security, which has been the core concept of Japan's diplomatic policy of international cooperation.

He is taking care of two daughters, good at cooking and enjoys playing saxophone.

MODERATOR

Walaiporn PATCHARANARUMOL

Senior Researcher
International Health Policy Program

Thailand

Dr. Walaiporn Patcharanarumol is a senior researcher for the International Health Policy Program (IHPP), Ministry of Public Health Thailand. A former hospital pharmacist, her main research areas include health financing, universal health coverage, health insurance and health policy and systems.

Since joining IHPP in 2001, her research perspective has broadened from the hospital level to the national and regional level. She won a scholarship of Joint-Japan World Bank for her master study in Social Protection Financing at Maastricht University, Netherlands in 2002-03. Subsequently, she got the Dorothy Hodgkin Postgraduate Award in 2004 for attending the London School of Hygiene and Tropical Medicine, University of London and received her PhD in Public Health and Policy 2008. She was seconded to serve as a WHO officer at Health System Financing Department, Health Service System Cluster, World Health Organization, Geneva, Switzerland, during Aug 2011 – April 2012. This post was the secondment by the Thai Government through the Prince Mahidol Award Foundation.

She worked extensively on the National Health Account, National Drug Account, National AIDS Spending Assessment, long-term projection of national health expenditure, health care financing for the poor and capitation rate estimation for the public health insurance scheme. Her work has been published in The Lancet, PLOS Medicine and BMC Public Health among other international and national journals. She also provides capacity strengthening to a number of countries in the region, such as Myanmar, Maldives, Vietnam and Lao PDR. She frequently represents IHPP as a speaker at international and national conferences.

Francis OMASWA

Executive Director
African Center for Global Health
and Social Transformation

Uganda

Dr Francis Omaswa is the founding Executive Director of the African Centre for Global Health and Social Transformation (CHEST). ACHEST is an independent "Think Tank and Network" that works to stimulate the growth of African rooted capacity for leadership and excellence in health and to make Africa a stronger player in global health. He is the Chancellor of Busitema University, a public Science University in Uganda, President of African Platform on Human Resources for Health (APHRH), Co-Chair of the Global Policy Council on Health Worker Migration and Principal Investigator of the Medical Education Partnership Initiative (MEPI).

He was a Special Adviser to the World Health Organization (WHO) Director General and founding Executive Director of the Global Health Workforce Alliance (GHWA). Prior to this he was the Director General of Health Services in the Ministry of Health in Uganda. He is the founding President of the College of Surgeons of East, Central and Southern Africa and has a keen interest in access of the poor to quality health services and spent five years in the rural Ngora hospital testing various approaches for this. He was founding Chair of the Global Stop TB Partnership, Chair of the Portfolio and Procurement Committee of the Global Fund Board, was the lead consultant in developing the African Union HIV Policy and strategy. He has been chair of the GAVI Independent Review Committee.

Dr. Omaswa is a graduate of Makerere Medical School, a Fellow of the Royal College of Surgeons of Edinburgh. He has qualifications in health services management and medical education.

Toomas PALU

Sector Manager for Health
Nutrition and Population
East Asia and Pacific Region
The World Bank

Thailand

Toomas Palu, MD, MPA, is the Manager of Global Health, Population and Nutrition Practice in the World Bank Group. He is currently managing the health programs in the East Asia and Pacific Region and a team of 35 health and development professionals. His key qualifications and experience include health policy and health sector reforms in middle-income transition economies and health systems strengthening in developing countries. He has also served as a Director in the Social Estonia Health Insurance Fund Management Board and as a Deputy Director of a tertiary care hospital. Toomas has a Medical Doctor degree from the Tartu University in Estonia and a Master of Public Administration degree from the Harvard University in the US. He has also studied Medical Anthropology and Social Policy in the Oxford University and health economics in the University of York in the UK.

Ashadul ISLAM

Director General
Health Economics Unit
Ministry of Health and Family Welfare

Bangladesh

Md. Ashadul Islam is a civil servant of the Government of Bangladesh with wide experience in planning and managing development programmes in health sector. His particular experience has been in the areas of need assessment, planning for development programmes, formulation of monitoring tools, facilitating the program implementation and review. Trained as a policy maker he is now working as Director General, Health Economics Unit with the following areas of responsibility:

- Facilitate and support research, studies and develop policy briefs and advices in the area of health economics, care financing, health care management, alternative health care financing etc.
- Provide information, analysis and other technical inputs to the Ministry in those areas.
- Networking and partnering with relevant national and international organizations, academic institutions, and counterparts for research, studies and building capacity.
- Organize and lead a team responsible for developing National Health Accounts and Public Expenditure Review and their analysis to feed to the policy decisions.

Ebenezer APPIAH-DENKYIRA

Director General
Ghana Health Service

Ghana

Dr Ebenezer Appiah-Denkyira was appointed the Director General of the Ghana Health Service on the 26th September 2012. Until his appointment, he was the Director of Human Resource for Health Development of the Ministry of Health Ghana since June 2008. He is a medical officer with Masters degree in Public Health (Leeds University) and an Executive Masters in Leadership and Governance (Ghana Institute of Management and Public Administration). He is also a Foundation Fellow of the Ghana College of Physicians and Surgeons and once the Secretary to the Public Health Faculty.

He had been a Regional Director of Health Services of the Ghana Health service for 17 years in three regions (Upper West, Ashanti and Eastern) and has wide experience in planning, piloting programmes and initiating systems for monitoring and evaluation. He is a national asset and had been involved in consultancies such as developing Human Resource policy, Transport policy, Health insurance, Strategic Plan, National Ambulance, Poverty Reduction plans, first because, he initiated them in his region and second because of his positive ideas. When he was the Regional Director of the Upper West Region, he was concurrently appointed the Project Manager of an $11.0million DANIDA Sponsored Primary Health Care Project in the region which he also helped in developing.

He had also held consultancies for the World Bank in Reviewing the Ghana Fee Exemption Policy, for DANIDA in appraising the Health System and For MOH for Reviewing Health Financing and Forecasting Financial Strategies all in Ghana. He had also undertaken an international consultancy as the team leader for the Jigawa State in Nigeria in Repositioning the State Ministry of Health, in 2007 sponsored by PATHS / DFID..

He was a field supervisor for the School of Public Health, University of Ghana for well over 10 years. As Director of Human Resource for the Ministry of Health, through innovative ways, he engaged the academia in developing new programmes for a lot of health professionals, reduced the North South distribution of doctors, supported establishment of Allied Health Regulatory Task force, internet Human Resource Information System, the scaling up of the production of Middle level health personnel and other neglected programmes in Ghana.

On a number of occasions he has represented the country at international conferences or in negotiating for support. He has served on many boards including academic institutions such as the University of Ghana, KNUST and University of cape Coast.

He is well travelled and has a number of publications to his credit.

On the global scene, he is a Board Member of the WHO Staff Pension Scheme and also the Advisory Committee of Global Alliance on Migration.

He married with three children. A football lover, a member and Local Preacher of the Methodist church of Ghana, also a Life member and Speaker of the Full Gospel Businessmen's fellowship international and a Local Field Representative overseeing four chapters.

Amit SENGUPTA

Associate Global Co-ordinator
People's Health Movement

India

Dr.Amit Sengupta has trained in medicine. His main interests include issues related to public health, pharmaceuticals policy, and other Science and Technology related policy issues like Intellectual Property Rights.

He has been associated with the Peoples Science Movement in India for the past 30 years, and the Peoples Health Movement in India and at the Global Level for the past 15 years.

Dr.Sengupta has been involved in implementation of a number of action research programmes and research studies in the areas of health, Intellectual Property Rights and on rural industrialization through the Peoples Health Movement and the Centre for Technology and Development, a New Delhi based non-governmental organisation.

He has published a number of papers in peer reviewed journals, including in the Economic and political Weekly, India, the Lancet, The British Medical Journal and the Indian Journal of Medical Ethics. He has also been a co-author and edited a number of books.

Currently Dr.Sengupta is the Associate Global Co-ordinator of the Peoples Health Movement (PHM). He has overall responsibility for co-ordination of the Global Health Watch Programme of the Peoples Health Movement. As part of this responsibility he has co-ordinated and also functioned as the Managing Editor of the two recent editions of the Global Health Watch – Global Health Watch 3 (published in 2011) and Global Health Watch 4 (published in 2014).

Inter alia, he is responsible for co-ordinating PHM's policy engagements and development of policy briefs and position papers and for co-ordinating PHM's engagement and networking with other social movements and networks, including the World Social Forum process.

He is associated with a number of other organisations and networks. He is a former All India General Secretary of the All India Peoples Science Network, is a member of the International Council of the World Social Forum and a member of the Co-ordination Committee of the World Forum on Science and Democracy.

Osamu KUNII

Head of Strategy and Impact Division
The Global Fund to Fight AIDS
Tuberculosis and Malaria

Switzerland

Osamu Kunii, M.D., M.P.H., Ph.D. has more than 25 years of experience in global health and development. He had worked for emergency response, infectious disease control, maternal and child health, and primary health care through NGOs, academia, bilateral and multilateral organizations. In particular, he served as Professor of global health at Nagasaki University Research Institute of Tropical Medicine; and as Senior Advisor of health strategy at UNICEF headquarters in New York and as Chief of Health and Nutrition programme in UNICEF Myanmar and Somalia Support Centre. Appointed as Deputy Director of Aid Planning Division in Japan Ministry of Foreign Affairs, he helped develop and implement the Japan's official development assistance policy and strategy for health. Currently he works as Head of Strategy, Investment and Impact Division (SIID) in The Global Fund to fight AIDS, Tuberculosis and Malaria.

Damian WALKER

Deputy Director, Data & Analytics
Global Development
Bill and Melinda Gates Foundation

USA

Damian Walker is Deputy Director of Data & Analytics in the Global Development Division at the Bill & Melinda Gates Foundation. Damian is a health economist with more than 15 years' experience in international health economics, with a specific focus on the economic evaluation of health programs in low- and middle-income countries. Prior to joining the Bill & Melinda Gates Foundation in 2010, Damian was an Associate Professor in the Department of International Health, Bloomberg School of Public Health, Johns Hopkins University. Damian received his PhD in health economics from the London School of Hygiene & Tropical Medicine, and his MSc in health economics and BSc in economics from the University of York. Damian has published over 80 peer-reviewed journals, and more than a dozen book chapters.

Ikuo TAKIZAWA

Deputy Director General
Human Development Department
Japan International Cooperation Agency

Japan

Mr Takizawa graduated from University of Tsukuba, Japan in March 1992 with BA in International Relations and then obtained MSc in Population and International Health from Harvard School of Public Health, USA in June 1998.

Throughout his carrier with the Japan International Cooperation Agency (JICA) since April 1992, he has been involved in JICA's health and health-related projects in Asia, Latin America and Africa. He worked in JICA Philippines between 2001 and 2005 as an Assistant Resident Representative in charge of health, education and local governance. He worked in JICA Kenya between 2008 and 2010 as a Regional Project Formulation Advisor for Health and he was involved in designing, monitoring and evaluation of JICA's health projects in many countries in the Africa region.

Currently he serves as Deputy Director General, Human Development Department and supervises JICA's health portfolio in Africa, Middle East and Europe, and Latin America. Thematically, he leads JICA's operations in infectious diseases control including pandemic response, and health systems strengthening (HSS) toward Universal Health Coverage (UHC). He represents JICA in various committees and conferences in global health.

SHORT
PAPER

3.3

Aligning Local and Global Priorities for Health towards UHC: The Bangladesh Experience

Mr. Md. Ashadul Islam
Director General
Health Economics Unit,
Ministry of Health and Family Welfare
Bangladesh

7 January, 2015

List of Abbreviations

ADP	Annual Development Programme
CIDA	Canadian International Development Agency
EPI	Expanded Program of Immunization
DFID	Department for International Development
DG	Director General
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
ESP	Essential Services Package
FD	Finance Division of Ministry of Finance
FFYP	Fifth Five Year Plan
GDP	Gross Domestic Product
GOB	Government of Bangladesh
HIV	Human immunodeficiency virus
HNP	Health, nutrition and population
HNPSP	Health, Nutrition and Population Sector Programme
HPSP	Health and Population Sector Programme
HPNSDP	Health, Population and Nutrition Sector Development Program
ICPD	International Conference on Population and Development
JCA	Joint Cooperation Arrangement
JICA	Japan International Cooperation Agency
LCG	Local Consultative Group
LMIC	Low and middle income country
MDG	Millennium Development Goal
MIS	Management Information Systems
MOF	Ministry of Finance
MOHFW	Ministry of Health and Family Welfare
MOLGRDC	Ministry of Local Government, Rural Development and Cooperatives
NGO	Non-Government Organisation
NSAPR	National Strategy for Accelerated Poverty Reduction
PHC	Primary Health Care
SDG	Sustainable Development Goal
SIDA	Swedish International Development Agency
STD	Sexually Transmitted Disease
SWAp	Sector Wide Approach
TB	Tuberculosis
THE	Total Health Expenditure
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organisation

Introduction

Bangladesh Health Sector has a proud history of responding to the daunting challenges and making impressive gains amidst many socio-economic constraints. The sector has overcome poverty and low healthcare-spending to make significant achievements over the last four decades, especially in reducing maternal mortality, improving child survival rates, increasing life expectancy, expanding immunization coverage and strengthening tuberculosis control etc. These results have been achieved by continued economic growth and by the efforts of the government to expand the coverage of essential health services to the people. In particular, this has been achieved as the Ministry of Health and Family Welfare has taken a strategic role as the sector leader for combining and coordinating the efforts of different players including other ministries, non-government organizations, civil society and development partners in order to meet these targets.

This concept note will describe the experience of Bangladesh in setting priorities and aligning its strategies with global agenda. Specifically, the country's experience in sector-wide approach (SWAp) implementation, the key issues and challenges encountered in the last 3 sector programs, and identify opportunities for strengthening capacities to move the country towards the goal of UHC.

Health sector development in an increasingly globalized world

The right to health and social equality is included in the Constitution of Bangladesh. Since independence, Bangladesh has been linked with the global health initiatives supported by different development partners in implementing the priority health and population programmes. The first five-year plan (1973-1978) was designed to address the problems of over-population and communicable diseases. It was targeted to create a rural health infrastructure for providing integrated and comprehensive health services. The Second five-year plan (1980-85) encouraged the private sector and NGOs to share responsibilities to deliver services to the people. Following the Alma Ata Declaration (1978), the country adopted a comprehensive community-based Primary Health Care (PHC) system with special focus on maternal and child health including oral rehydration, breastfeeding, and Expanded Programme on Immunization (EPI). From the first through fourth five year plan (1990-1995), health and population sector experienced and implemented a number of vertical and disease based projects. Many of the projects and vertical programmes were implemented with the World Bank led support under its four consecutive Population and Family Health Programs from 1975 to 1995. In the early 1980s, Bangladesh formulated the National Drug Policy (Drugs (Control) Ordinance, 1982) which became instrumental in making essential medicines available at low cost. However, there was no comprehensive national health policy for Bangladesh. Five Year plans were used to set medium and long term objectives for all the sectors, including health and family welfare sector.

During 1980 and early 90s, the overall development programme including health sector was supported and steered under the development assistance framework of the donor consortium and the support of the World Bank's Structural Adjustment Facilities. It triggered reforms like restructuring industrial sector, strengthening fiscal and monetary management, and encouraging private sector participation. A major

policy reform had also been initiated in the health sector in 1998 as an outcome of the growing realization of the inadequacies of the project-based vertical approach and shift in development assistance model of the global partners. The government started the first SWAp, Health and Population Sector Programme (HPSP) for five years to 'improve the health of women, children and the poor'. The core strategy of HPSP approach was to earmark about 60% of the national health budget for Essential Service Package (ESP) to be delivered through the PHC system. With a SWAp in health, partnerships were built around a number of technical elements, including: clear sector-wide policies and strategies; a medium-term expenditure framework that was founded in a broader public expenditure framework; and reliance on local management and implementation systems. SWAp was intended to reinforce national leadership, transparent decision-making processes, and institutional capacity building.

National priority-setting process

As usual, national priorities are derived from the imperatives of the country's constitution, national development policies (specially health and population), development planning and budgetary process, election mandates, and country commitment to the international targets and agreements (WHO FCTC, MDGs, SDGs etc). Like many other low- and middle-income countries (LMICs), Bangladesh has been trying to strengthen its rational process for setting health sector priorities. It has now moved substantially towards harmonizing the supports from diverse development partners and their varied interests. The priority-setting processes and the responsible national bodies are increasingly focusing on more integrated systems-level perspective (e.g. determining how the intervention might address one or more health-system building blocks) in addition to disease specific priorities.

While there seems to be some consensus around the need for national-level priority setting, there is still lack of coordination among stakeholders for priority setting at the national level and in collating national-level priority setting processes for a global agenda. Importantly, this interaction between the national and global levels used to receive little attention, with little consensus on how to align national and global agendas and priorities, nor how national priorities might increasingly influence the global one. As a result, programmes were not always national need-based or evidence-based, rather they tended to follow the fleeting and shifting priorities of global funders.

However, situation has been changed considerably, and moved towards increasing national ownership. Involvement in achieving MDGs and setting SDGs are examples of such shift. Presently, attempts have been made to link the articulation and implementation of the successive health sector plans to the global agendas. The country is committed to achieving the universally agreed goals in specific areas as set out in the declarations of various world summits. The recently approved Sustainable Development Goals (SDGs) and the National Strategy for Accelerated Poverty Reduction (NSAPR) are the policy guides for all sector programs in Bangladesh including health. Government prepared the 6th Five Year Plan (2011-2015) aligned with International Conference on Population and Development(ICPD) and MDG goals, and developed the 7th Five Year Plan (2016-2021) in line with the Sustainable Development Goals, particularly SDG 3, which is about ensuring healthy

lives and promoting well-being for all at all ages. The goal of UHC is at the center and key to the achievement of all the other goals and GoB has affirmed its commitment to achieving UHC by year 2032. To attain the over-all goal of Universal Health coverage, the next health sector programme (2016-2021) will be guided by the health system goals of improved access, equity and efficiency in the delivery of essential service package using the PHC approach.

On the other hand, countries like Bangladesh can influence in shaping the global health agenda through active participation in the discussions and debates organized by the research organizations, civil society and development organizations including UN Agencies and it might lead the process to form the county standing. The role of such organizations has helped determining country's position with regard to WHO FCTC, climate change and health, input for SDGs, gender and violence against women.

Funding for Health and challenges

The table below shows the progressive increase in government financing for the health sector over the years and the declining DP contribution.

Health SWAp in Bangladesh

- DPs played a key role in supporting GOB through financing a series of projects focused on Health, FP and Nutrition during 1975-1998.
- Since 1998, three successive SWAps have been implemented with the active support of DPs

Program name	Duration	Total Cost	Contribution
Health and Population Sector Program (HPSP)	1998-2003	US$ 2.2 billion	GOB-62% DP-38 %
Health, Nutrition and Population Sector Program (HNPSP)	2003-2011	US$ 5.4 billion	GOB-67% DP-33%
Health, Population and Nutrition Sector Development Program (HPNSDP)	2011-2016	US$ 6.5 billion	GOB-78% DP-22%

Source: Planning Wing, MOHFW, December 2015

Bangladesh is a recipient of targeted funding such as GAVI and GFATM as well as pooled funds from bilateral and multi-lateral agencies comprising about 8.4% of Total Health Expenditure (THE)[1].Public health spending comprises less than 1% of the Gross Domestic Product (GDP) and about 23% of total health expenditure. Thus, households bear most of the cost at 63.3% of total health expenditure, with the poor relatively affected more than the rich households.The proportionate budget of Ministry of Health and Family Welfare (MOHFW) as percentage of national budget is also on a continuous decline, even though there has been an absolute average increase of Tk. 460.65 crore (US $ 57.58 million) annually. The government cannot

[1] Bangladesh National Health Accounts, 2015, Health Economics Unit, Ministry of Health and Family Welfare

generate sufficient revenue to meet the resources required for service provision due to narrow tax base of the country. The existing health insurance initiatives in Bangladesh cover a very small share of the total population and accounts only 0.2% of total health expenditure (BNHA, 2015).

The next health sector plan of Bangladesh aims to both consolidate and sustain the achievements gained so far, and strive for more progress on health outcomes through further systems strengthening and ensuring continuous quality improvement. At the same time, the country has to prepare for addressing demographic and epidemiologic transition that will shape the need of the population during this sector programme and the subsequent ones.

Specifically, the focus in the next 5 years will be:

- Ensuring quality of care by reshaping service delivery, uptake of new technologies and removing variation in quality and safety of care
- Improving the health and well-being of the population by ensuring equality in health, financing for preventable illness from NCDs; and
- Increasing funding and efficiency through efficient use of resources for adequate staffing and equipping of the health system as well as partnership with a regulated private sector.

Even with SWAp in health, some donors continued to provide support outside the pooled fund. Moreover, a large number of projects and technical assistance are supported by donor as vertical projects. Such parallel projects implementation sometimes results in duplication in service delivery and wastage of resources. Several DPs also support health programs/ projects/ activities through non-state actors (e.g. NGOs, CSOs) which are complementing GOB's ongoing effort in achieving results of sector program. However, the details of DP off-budget funding to NGOs are not always available to the MOHFW and not possible to show properly in Health, Population and Nutrition Sector Development Program (HPNSDP). These activities need to be better linked to the sector program and coordinated at different levels.

Despite the challenges, a SWAp assessment conducted in 2015 showed that MOHFW has made substantial progress in health outcomes and health system strengthening. SWAp has facilitated the alignment of funding and technical support around national priorities, and improved the government's role in program design, implementation and development partner coordination. Likewise, systemic improvements in monitoring and evaluation, procurement and service provision, have improved the effective delivery of essential services. Thus, the health SWAp in Bangladesh offers a successful adaptation of the approach in a country with complex administrative structure (Ahsan, et al, Health Policy And Planning, 2015).

Coordination among stakeholders

The Ministry of Health and Family Welfare (MOHFW) of Bangladesh is responsible for the implementation, management, coordination and regulation of national health, family planning and nutrition related policies, programs and activities. A number of other ministries also work in HNP sector, and better coordination and functional relationship is required with these ministries for effective implementation of SWAp.

HPNSDP aimed at establishing a coordination mechanism between MOHFW and the Local Government Division of Ministry of Local Government, Rural Development and Cooperatives (MOLGRD). Inter-ministerial and Urban Primary Health Care Project Steering Committees exist with representation from MOHFW and MOLGRD. However, progress has been slow in establishing this mechanism. MOHFW has also increased its interaction with MOCHTA and in the process of establishing a coordination mechanism during the 4th sector program implementation period. The budget management committee of MOHFW chaired by the Secretary with members from DirectorateGeneral MOHFW, Planning Commission and Finance Division of Ministry of Finance (MOF).

The World Bank, UKAID, JICA, WHO, UNICEF, UNFPA, UNDP, USAID, KfW, GIZ, CIDA and SIDA are the major development partners in the HNP sector.. SWAp has brought the donors closer, and has created platform for information sharing and better coordination between DPs and government. Coordination among policy makers and development partners takes place at different levels through different forums. Nine Task Groups operate under the sector program though the system is variable in effectiveness.

The Local Consultative Group (LCG) on Health is a coordination mechanism where the senior management structures of the MOHFW (Honorable Minister, Secretary and his senior staff) meet with the representatives of the DP in the sector (being the HPN chair and some of its members). The DP Consortium for HNP sector provides opportunity for inter-DP coordination, strategic agreements among DPs of the sector program and common voice on policy / budget related issues. At the same time it allows the DPs to take up any issue with the GOB through the Consortium Chair.

The Joint Cooperation Arrangement (JCA) had been signed between GOB and the DPs recently, which is an effective coordination mechanism in enhancing future GOB-DP cooperation. It is expected that the GOB and the DPs will honor the JCA provisions and work hand in hand for strengthening GOB-DP working mechanisms and maintaining harmony in policy dialogue.

There is also an increasing emphasis on the complementary role of private sector through public private partnership and the critical importance of non-state actors. A clear strategy is required for working with private sector as well as with the NGOs who are contributing directly to HNP sector development. The strong civil society group in the country needs to be actively involved in health sector policy dialogues and benefit from their perspectives on what works well at the grass root level.

Strengthening capacities for better alignment

The following capacities at the individual and institutional levelare necessary to set priorities right and better alignment towards achieving UHC goals:

- Creation of platform for participation and inclusiveness (developing country friendly processes)
- Improvement of leadership and stewardship in the health sector that will promote transparency and accountability among stakeholders

- Strengthening health information system that makes available accurate and up to date data on disease burden, utilization, costs and availability of services
- Improvement of capacity to generate and use evidence on priority setting such as cost-effectiveness analysis of health care investment options; use of Health Intervention and Technology Assessment and costing methods
- Augmentation of capacity for resource mobilization in health
- Improved quality of medical education across all health professionals' institutions and modernization and transformation of the medical education system to meet the health workforce requirement for UHC.

Aligning local and global priorities for health: setting and funding priorities during post MDG-era

Toomas Palu, Manager, Global Practice for Health, Nutrition and Population, World Bank Group

Introduction

In 2014, Development Assistance in Health (DAH) globally amounted to US$36 billion. This was an increase of three times compared to 2000. International commitment to Millennium Development Goals (MDGs) with three of the eight MDGs focusing on health greatly facilitated this boost. Between 2000 and 2014, US$227.9 billion, or 61% of DAH, targeted the MDG health focus areas. In 2013, DAH in health experienced a decrease of 1.3% from its peak in 2013 (IHME). The decrease would have been higher if there were not the Ebola epidemic that mobilized estimated US$ 664 million of DAH, most of it additional to existing DAH financed programs.

Times are changing. The MDG era has come to close. Uncertain global economic headwinds, shifting overall priorities in global development and domestic priorities in donor countries (refugee crisis in Europe), put the issue of prioritization, alignment, integration and sustainability squarely on the agenda. In health, global burden of disease is shifting fast.

Priority setting and alignment

There are different dimensions for priority setting: (i) resource allocation between different components of disease burden; (ii) resource allocation within different components of disease burden based efficacy and cost-effectiveness of different interventions; (iii) resource allocation taking into account externalities and public good nature of disease burden components and interventions.

In 2000, 36% of DAH went to MDGs 4 and 5 (maternal and child health) compared to their share of 25% in DB in developing countries. By 2013, MDG4 share in disease burden had declined to 15% and DAH to 27%. The same for MDG6 (HIV/AIDS, tuberculosis and malaria) was 15% of DAH compared to 11% in DB in 2000 and 41% and 10% respectively in 2013. The same numbers for NCDs were 1% of DAH compared to 50% of DB in 2000, and 2% and 61% respectively in 2103.

Global priority setting was driven by MDGs and special channels were set up in the form of GAVI, Global Fund to fight AIDS, Tuberculosis and Malaria (GF) and PEPFAR. Maternal and child health are very much about equal opportunity agenda for healthy start of life; MDG6 agenda has public good and externality nature; many best public health best buys are in MDG agenda. But there is still relative neglect in recognizing the increasing and significant share of non-communicable disease in the disease burden, although between 2014 DAH allocation for NCDs increased 6.6%, relatively more than for MDG 4 and 6.

But when these significant DAH flows trickle down to national level, they often significantly augment expenditures on specific health programs and Disease Burden (DB) areas, increasing risk of distortions and raising sustainability concerns. Countries will have to respond to all disease burden that the population presents to the health system. In 2005-2007, the scale of DAH commitments to HIV/AIDS in Uganda and Ethiopia was as large as national health budget, relative values of 97% and 83% of respectively. DAH commonly flows through mechanisms developed in parallel to weak public financial management systems, thus bypassing national health systems. In mid-2000s, in 14 country case studies, of every DAH dollar disbursed, $0.30 was not recorded in balance of payment, $0.20 was recorded but not in government budget, $0.30 earmarked to specific projects recorded in the budget, and only $0.20 was provided through budget support, i.e. directly integrated into priority setting and resource

allocation processes. One could argue that as DAH funds flow in, they increase countries fiscal space to invest more in health, i.e. even if earmarked to specific causes, they would free up fiscal space for expenditures in other areas. In cross-country studies in mid-2000, the World Bank did not find consistent evidence of this happening, countries with significant DAH flows did not spend more than countries at the same income level but with less DAH. But there is some evidence that DAH does replace domestic funding - each additional dollar of development assistance for health diminishes domestic financing by approximately US$0.50. There is anecdotal evidence that distortions generated by DAH have had adverse impact to countries ability to respond to other DOB areas by pulling away scarce health human resources.

There has been significant international effort in determining the best buys. The challenge often is translating the global best buys into individual country context at particular socio-economic development level, for example in the case introducing new vaccines or drugs into essential drugs and services packages, introducing essential health interventions for NCDs at front line service delivery level (PEN package).

Where do we go from here?

Sustainable Development Goals (SDGs) have defined the development agenda for the next 15 years. The SDG3 embeds Universal Health Coverage (UHC) that is both a goal as well as means to make progress under the specific health areas. UHC -- the objective of which is for everyone to have access to quality health care when needed, without experiencing financial hardship as a result – is the focus of concerted push across the developing world towards attaining UHC. It certainly is now an explicit and prominent policy objective in most East Asia and Pacific countries. SDGs in general and SDG3 in particular, prompt a set of issues for discussion: (i) how to maintain the priority status of DAH in overall Development Assistance; (ii) how to set priorities under broader UHC agenda; (iii) how to manage transition from DAH to other sources of financing.

Priority of DAH in overall development assistance. It is unlikely that DAH will remain at the levels seen at the height of MDG era. The Chatham House 2014 report "Shared Responsibilities for Health: Coherent Global Framework for Health Financing" calls on rich donor countries to stick to long standing commitment of 0.7% of GNI to ODA and within that 0.15% for DAH but given the economic headwinds, domestic crises and other emerging priorities, notably the international agreement reached on climate change - will make achieving this goal unlikely. This is in-spite of strong arguments on economic returns on investing in health made in the "Global Health 2035," a report prepared by a Lancet commission chaired by Larry Summers who also led the preparation of the 1993 World Development Report on "Investing in Health." This report also calls for convergence of health outcomes across regions and countries, as well as addressing inequities within countries. The convergence is likely to figure in DAH allocation decisions prioritizing low income countries because of lagging outcomes: infant mortality rate in low income countries are 2 times higher than lower-middle income countries that in turn are 2 times higher than in upper-middle income countries and 6 times higher than in high income countries. Similar inequities present themselves across the board. While the international health community should and will continue to make a case for health, in this uncertain DAH context, the importance priority setting within the limited DAH envelope and transition strategies become ever more important.

Setting priorities under the UHC. The 2017 Prince Mahidol Award Conference is all about this question. But in addition to supporting evidence based decisions on what to include in the UHC benefit packages,

aligning DAH and country priority setting becomes increasingly important. That would simply mean revitalizing the Paris Declaration and Accra Agenda for Action that calls for ownership, results, alignment, harmonization and mutual accountability as well as reinvigorating International Health Partnership, the key initiative to promote aid effectiveness by building on these principles and harmonizing donor funding around a single country-led and country-owned health strategy.

Transition from DAH to domestic financing for sustainability. Transition agenda applies on a couple of situations. It is relevant to manage the risk of declining DAH over time. And, it is absolutely critical for the countries graduating from ODA and DAH eligibility. In-between there is an opportunity to integrate transition and sustainability issues in DAH programming as early as possible during the ODA eligibility cycle in countries' development. And, it goes hand in hand with discussions and need to increase domestic financing for health. Several targets have been set on how much Government should spend on health: US$34 per capita by the 2001 Commission on Macroeconomics and Health; US$52 per capita by 2011 Task Force on Innovative Financing; US$86 per capita and 5% of GDP by above mentioned Chatham House report; 15% of Government expenditure by the 2001 Abuja Declaration. These all have their rationale and represent stretch goals that the countries should aspire and make progress to.

Most countries in the world are experiencing a transition in health financing characterized by an increase in health expenditure and a rising share of government spending due to a combination of economic and political trends. This health financing transition, however, is often not a steady but bumpy process with particular challenges for economies in the transition from low-income to middle-income status. The main challenges facing these countries are threefold.

(i) At the onset of this transition - that is in the low-income status - countries tend to rely heavily on development assistance for health (DAH). For example approximately 36% of total health expenditure in Sub-Saharan Africa stems from DAH, mostly by-passing the Government systems. The heavy reliance on development assistance and the use of parallel systems also continues for some countries once they move into the lower middle income country status.

(ii) As countries attain lower middle income status, the link between income growth and increases in government expenditure on health is the weakest during the whole transition. For example, while every percentage point increase in economic growth translates into a 1.18 percentage points increase in government expenditure on health in low-income countries and 0.54 percentage points in upper middle-income countries, it is only 0.37 percentage points in lower middle income countries. This not only implies that government investments in health are not commensurate with economic development, but also makes it less likely that governments effectively compensate for potential shortfalls in development assistance. In turn, people face increasing pressures to meet their health care needs by paying out-of-pocket, making them vulnerable to catastrophic expenditure and impoverishment.

(iii) Given this backdrop, one of the key policy challenges facing countries is that of effectively managing the transition in financing from single-disease external financed programs in light of economic growth and the move towards UHC, especially in support of poor and vulnerable population sub-groups. This implies ensuring not just adequacy in terms of levels of domestic-sourced replacement financing but also that such financing is pooled and utilized efficiently, and that countries have both the financial and institutional capacity to do

so effectively. As countries become richer, there are restrictions on the extent of financing available and how it can be utilized. A key challenge for countries making this transition is that of sustaining progress on key related outputs and outcomes that contribute to attainment of UHC, especially among poor and vulnerable population sub-groups, in light of the declining reliance on DAH.

A significant proportion of DAH is often in the form of earmarked support for specific diseases or programs, such as from GF, GAVI or PEPFAR. For example, since 2002, GF has provided increasing levels of resources to become one of the largest external financiers of programs addressing HIV/AIDS, TB, and malaria across developing countries, and for many countries GF grants represent a significant portion of DAH overall. Loss of GF funding would be a significant amount of DAH in some countries. For instance, GF HIV funding is 98% of DAH in Mauritius, 87% for Russia, and 30% in Bhutan; GF TB funding is 60% of DAH in Kazakhstan, 87% in Turkmenistan, and 21% in Peru; and GF malaria funding is 21% of DAH in Bhutan, 18% in Gabon, and 13% in the Philippines. GF financing for specific diseases in countries as a percentage of public health financing for the respective disease represents even a much larger proportion. For example, GF HIV spending is 66% of Jamaica's total HIV funding (2010), 55% for Equatorial Guinea, and 37% for Ukraine (2010) (GF, 2013). GF TB funding is 30% of China's total TB funding (2011) and 13% for Romania (2011). GF malaria funding is 28% of China's total malaria funding (2010) and 55% of Thailand (2010). It is worth noting that a 2013 review by GF found that none of the 12 countries sampled for a sustainability review had a documented comprehensive sustainability plan, and that prior to the 2013 review, there were no deliberate steps taken by GF to prepare countries that have become ineligible to apply for GF funding to assume financial responsibility of the programs. Likewise, there was also no deliberate development of sustainability plans by countries to guide their transitioning from GF.

The picture is very similar when analyzing financial support from GAVI. Overall, in 2013, GAVI disbursed US$1.38 billion (GAVI, 2014). An estimate and comparison of the costs and financing of a sample of 54 national immunization programs as reflected in comprehensive multi-year plans submitted to GAVI, for the period 2004 to 2015, revealed that GAVI financing represents an increasing proportion of total routine immunization financing for the countries analyzed, growing from 26% to 46% between the baseline (xxx) and projection (baseline plus five) years. At a program cost category level, GAVI's share of vaccine costs (vaccines and injection supplies) is even larger at 48% (baseline year), which is noteworthy considering that these costs are immunization programs' major cost driver and represent the largest share (50%: 45% for vaccines plus 5% for injection supplies) of total routine immunization costs.

It is also critical to recognize that even in countries where GF or GAVI support is proportionally small as a share of DAH, it is often targeted to key populations that may not receive access or support through other means, especially in HIV programs. Many countries allocate a very large proportion of their GF support directly to NGOs/CBOs working with key populations and marginal groups, for example: Ukraine (98%); Russia (89%); China (71%); and Argentina (63%). Although minimal when compared to national public health funding levels, a loss of this type of targeted support can have dramatic and negative implications for these groups, particularly in countries where central and local government agencies are not accustomed to directly working with or channeling funds to NGOs.

In other words, the challenge in transitioning is not just with regard to replacing the externally-financed resource envelope with domestically-sourced financing but also one of ensuring institutional

sustainability of the programs, while ensuring continued support for poor and vulnerable groups. As noted above, although the amounts financed by GAVI and GF are often small relative to total or public expenditures on health in transition countries, they are often large relative the amounts spent by countries on the specific diseases of focus and are often used for targeting vulnerable population sub-groups. Implementation capacity and political prioritization are likely to be just as critical (if not more) than financial considerations in ensuring sustainability. Furthermore, with implementation of UHC in transitioning countries, there are additional challenges related to whether or not benefits packages adequately stipulate and deliver comparable interventions to those that were previously externally financed, and to what extent some of the programs continue to be managed separately from UHC implementation modalities. Fragmentation of planning, financing flows, reporting, monitoring, management of services and human resources are part of this challenge. But it also goes broader, including the political economy of how countries make allocations of their scarce resources as well as of governance and relative power structures of existing public administration and regulatory institutions.

A concerted and systematic approach is needed to take on the transitional finance challenges, including both financial and institutional. Questions that need to be asked include: Do UHC benefits include coverage for interventions that were or are externally financed? Does everyone have coverage under UHC programs? Are these interventions adequately financed from domestic sources in the foreseeable future? Are there mechanisms for updating benefits as new technologies become available? Are all providers within the health system empaneled to deliver such services? Are there mechanisms to ensure adequate supply-side readiness? Do countries have the capacity to procure and monitor implementation of interventions and of results? Are there challenges related to financial management? Are there equity considerations in managing the transition, especially in terms of sustaining access for vulnerable population sub-groups? To what extent might targeted technical assistance be needed in order to help overcome some of the transition challenges? In other terms, the fundamental question is: what are some of the key issues and challenges, in addition to the loss in financing that might have an inimical impact on the coverage and sustainability of externally-financed programs in transition countries as they strive to achieve UHC?

That takes us to an important question about DAH – to what extent it supports health system strengthening to better alignment of priorities, reducing fragmentation and increasing integration, strengthening country systems so that DAH could move towards directly co-financing country programs, as well as developing, supporting, as well as maintaining pre-payment and pooling mechanisms.

This paper is put together using the work by the World Bank Health, Nutrition and Global Practice team relying on World Bank Group data, public information available from IHME, Global Fund and GAVI, and from health systems research literature. Come and join the discussion at the Parallel Session 3.3. Aligning local and global priorities for health: The roles of governments, CSOs and development partners in setting and funding for the priorities.

Coping with Budget Reductions & Economic Austerity: Implications for UHC Priority Setting

Parallel Session

3.4

Macroeconomic volatility -- a key facet of the global economic landscape – can often significantly impact health system performance. Across countries, longer-term growth trends are often punctuated by downturns that can range in severity from slow-downs to recessions or longer-term sustained depressions in economic activity. These economic downturns can be country-specific, regional, and sometimes even global in scope. Both public and private expenditures on health are closely linked to the overall macro-fiscal country context; however, countries vary in the nature and extent of the responsiveness of health expenditures to economic downturns. And there are variation in what gets prioritized in light of tightening resources for health: one can cut back on volume and extend waiting lists for electives, for example; countries can cut supply of health services (as in Latvia); review and reprioritize the basic benefits package, in particular with regard to coverage of pharmaceuticals; renegotiate some costs of inputs such as for labor or drugs; countries can establish reserves during good times to cushion the impact of economic downturn (such as Estonia); or reexamine relative allocations decisions such as financing of primary health care versus hospitals, or prioritizing financial protection versus public health.

Objectives

The objectives of this session will be to discuss UHC priority setting in times of budget reductions and economic austerity. The session will: (i) provide a global overview of health expenditure trends, including a summary of empirical evidence on the links between economic growth and health spending; (ii) outline recent instances of countries facing reductions in health resources and other financial sustainability constraints; (iii) provide an overview of country policy responses to tightening of health resources; and (iv) outline key principles and assess "good practices" to help inform UHC policy priorities in light of budget reductions and economic austerity.

Moderators

Christoph Kurowski
Global Solutions Lead for Health Financing, The World Bank, USA

Ajay Tandon
Senior Economist, The World Bank, USA

Speakers

Triin Habicht
Department of Health System Development,
Ministry of Social Affairs, Estonia

Yongjun Lee
Deputy Director
Ministry of Strategy and Finance, Korea

Panelists

Untung Suseno Sutarjo
Secretary General, Ministry of Health, Indonesia

MODERATOR

Christoph KUROWSKI

Global Solutions Lead for Health Financing
The World Bank

USA

Christoph Kurowski is the World Bank Group's Global Lead for Health Financing. He has advised governments across four continents in the design and implementation of health financing and health system reforms. He researched and has written on health financing and system issues and contributed to the work of global health initiatives, among others, the Commission on Macroeconomics and Health. Prior to his career in international finance and development, he gained hands-on experience in the delivery of health services working as a pediatrician in both developing and developed countries.

Ajay TANDON

Senior Economist
The World Bank

USA

Ajay Tandon is a Washington, DC–based Senior Economist with the World Bank's Global Practice on Health, Nutrition, and Population where he works on a variety of issues related to health financing, fiscal space, service delivery, and universal health coverage. Before joining the World Bank in 2007, he worked with the Asian Development Bank in Manila and prior to that with the Evidence and Information for Policy department of the World Health Organization in Geneva. He holds a PhD in economics from Virginia Tech and has held visiting research appointments at both Harvard University and Oxford University.

Untung SUTARJO

Secretary General
Ministry of Health

Indonesia

Dr. Untung Suseno Sutarjo MHA, born in Jakarta, on 17 October 1958, a graduate of the Medical Faculty of University of Indonesia in 1983, and married to his classmate Dr. Lies Surahmiati (currently a dermatologist), is a general practitioner, public health specialist, administrator and public advocator. He later pursued his post graduate studies in Hospital Administration at the Gajah Mada University in 1998, after completing a compulsory national job assignment. He started his career in the Ministry of Health shortly after graduation, and has held several important positions since then.

He was the Director for Medical Support at Persahabatan Hospital, 2001-2004; Director for Basic Medical Services, 2004-2005; Head of the Utilization of Health Centre, 2005-2006; Direcor for Ocupational Service, 2006-2008; Head of the Utilization of Health Centre, 2005-2006; Director for Occupational Service, 2006-2008; Head of the Centre for Health Development Analysis, 2008-2009; Head of Bureau Planning and Budgeting, 2009-2011; Senior Advisor to the Minister on Financing and Community Empowerment, 2011-2012; Head of the National Board for the Development and Empowerement of Health Human Resources, 2011-2014; and currently the Secretray General of the Ministry of Health, Republic of Indonesia.

His main interest are health policy and planning, and global health. He has been extensively involved in many research and development in the areas of human resources for health economics, health care financing and universal health coverage international relations and health, health promotions health information and pharmaceuticals.

He participated in several important meetings, seminars, workshops, symposiums and trainings locally and abroad. He was in London in April 2002 for a medical management training. Prior to it, simultaneously he joined the hospital management training at the Faculty of Medicine, CHU Montpellier, University of Montpelllier, and at the CHU Grenoble, University of Grenoble, France in 1995. He did a post-graduate course in Planning and Management of Primary Health care in Developing Countries, Andrija Stampar School of Public Health, University of Zagreb, Yugoslavia in 1991.

Dr Untung was involved in the development of the Regulation for National Social Security Managing Board in 2011. He also developed the standard for teaching hospital with ITHA. He did a feasibility study on international hospitals from 2003 to 2004.

At the international level, he led the Indonesian health delegation to the APEC Health Meeting in Beijing in March 2001. He was also the World Health Organization (WHO) consultant for the preparation of the 7th ASEAN Health Ministerial Meeting in Yogyakarta from April-June 2000. He was also WHO Advisor for GATS in January 2002. He joined the world conference on social determinants in Rio de Janeiro, Brazil in 2011. At the IMF meeting on health financing in financial crisis held in Tokyo in 2011, he was a member of the indonesian delegation. He participated in the 26th WHO Health Ministers' meeting in Bangkok 2008. Also in July 2003, he went to Canada for meeting on Trade in Health Services.

Triin HABICHT

Head
Department of Health System Development
Ministry of Social Affairs

Estonia

Triin Habicht is currently working as a Head of Department of Health System Development in Ministry of Social Affairs. Until March 2015 she worked as a Head of Department of Health Care in Estonian Health Insurance Fund where she worked since 2006. Her work in health insurance fund was mainly focused on development of different reimbursement and contracting schemes for health care providers, assessment of new health technologies and enhancement of health care quality assurance system. Triin Habicht graduated as MA in economics from the University of Tartu (2002). She worked as the health economist in Estonian Health Insurance Fund (2001-2003). In 2004-2006 she moved to the Ministry of Social Affairs and held the position of Head of Health Policy Unit in the Public Health Department. She has been teaching health economics and health financing policy in the University of Tartu. Triin Habicht has been working with the World Health Organization and the World Bank in the areas of health systems, health financing policy and hospital governance.

Yongjun Lee

Deputy Director
Ministry of Strategy and Finance

Korea

Yongjun LEE works at the Ministry of Strategy and Finance. He works on public health care including analyzing relative issues and establishing policies. Regarding the National Health Insurance, he mainly deals with financial issues for the sustainability of the NHI, such as evaluating and establishing heath policy and long-term financial outlook. In addition, he has involved in responding current issues including improvements in managing infectious diseases, non-benefit medical care and levy system reform and in further developing the NHI.

SHORT
PAPER

3.4

3.4

The economic crisis impact on Estonian health system[1]

Triin Habicht

Estonia had one of the fastest growing economies in Europe with annual growth rates ranging between 6.7 and 10.3 per cent between 2001 and 2007. The economic crisis in 2008 hit the country hard, mainly due to a severe slump in investment and consumption following the near collapse of the country's real estate market. In 2008, the economy contracted by nearly 4 per cent and this negative growth continued in 2009 with a more drastic reduction of over 14 per cent. Since then, following large fiscal cuts and a surge in exports, the economic situation has improved markedly, with GDP returning to positive growth of 2.3% in 2010 and 8% in 2011. In the midst of this economic turmoil, the government's main goal was to fulfil the Eurozone criteria that were a precondition for Estonia adopting the Euro in January 2011.

In this context, the main decisions affecting the health sector in Estonia have been to restructure health expenditure in line with reduced budgets while simultaneously having the least possible effect on the financing of core health care services. At the beginning of the economic crisis, the national health insurance system was in a better position compared to other public sectors as the Estonian Health Insurance Fund (EHIF) had collected sufficient reserves during previous years of rapid growth.

EHIF has mandatory legal and risk reserves to ensure solvency. The legal reserve, 6 per cent of EHIF's budget, decreases risk from macroeconomic changes and may be used only after a government order. The risk reserve, 2 per cent of the budget, minimizes risks arising from health insurance obligations and can be used after a decision of the EHIF's supervisory board. In addition to the reserves, EHIF had retained about 150 million Euros (almost a quarter of the annual budget) as of the end of 2011, mostly the result of previous years' high actual revenues compared to those anticipated. In 2008, before the crisis hit, the EHIF had over 4 times more reserves as was the required level. These accumulated funds enabled to smooth the impact of decreased revenues in 2009 (EHIF revenues decreased by 11% in 2009 compared to 2008).

Even though there would have been enough reserves to fill the gap between revenues and expenditures in 2009 without making any changes to benefits, solution was not pursued, as in the longer term this would have resulted in debt for the health insurance system. Therefore, a number of expenditure cuts were introduced in parallel to the changes proposed for health system that had already been planned prior to the crisis.

The direct response to the economic crisis by the EHIF board was to target payments to health care providers. In 2009, they reduced the price of health services by 6 per cent. The objective was to balance the health insurance budget without diminishing access to care. Before the crises, health service expenditures (also prices) increased very rapidly and therefore the 6 per cent cut was not considered a big economic shock for providers. In 2011, the cut was reduced and the prices of health services were 5 per cent lower compared to pre-crisis period with the exception of primary care where the reduction was lower (3 per cent) to ensure relatively more funds to flow to family medicine based care. In the beginning of 2012 the price reduction was abolished and pre-crisis price level has been restored at all levels of care.

In 2010, a 15 per cent co-insurance rate for nursing inpatient care was introduced. This plan was proposed before the financial crisis as a means of including patients and municipalities in the co-

[1] Source: EUROPP, webpage http://bit.ly/Mmw0DL

financing of nursing care, but it was not possible to implement it until after the crisis because it was unpopular.

The scope of health benefits coverage has been the major area affected, with the EHIF reducing the benefits package in two ways. Firstly, the system for temporary sick leave benefits (due to historical reasons the health insurance in Estonia covers also the short term sick leave as open ended responsibility) was reformed and responsibilities shared with patients and employers. Starting July 2009, no benefit is paid during the first three days of sickness or injury (previously only the first day was excluded), the employer pays the benefit from the fourth to eighth day (this is a new cost-sharing mechanism as the employer did not participate previously) and the EHIF starts to pay the benefit from the ninth day (previously it paid from the second day). In addition, the rate of sickness benefit was reduced from 80 per cent to 70 per cent of the insured person's income. The total impact of this change on EHIF's budget is about 10 per cent savings and this enabled to avoid radical changes in health care delivery.

Secondly, before 2009 all insured persons aged 19 years and over could apply for the dental care benefit of €19.18, but from 2009, only insured persons over 63 years of age and persons eligible for a work incapacity pension or an old-age pension retained this right. This change had rather marginal effect on total budget compared to sick leave benefits reform.

Services also have been subject to some rationing through increases in official waiting times: maximum waiting times for outpatient specialists' visits increased in March 2009 from four to six weeks. At the same time all other types of waiting times were kept at pre-crisis level.

High out of pocket spending on drugs has been a big concern already before the crisis. Taking the opportunity to implement policies that already had been foreshadowed, in March 2010 Ministry of Social Affairs (MOSA) amended the ministerial decree on drug prescriptions to support active ingredient-based prescribing and dispensing. The amendment requires pharmacies to provide patients with the drug with the lowest level of cost sharing and to note if patients refuse cheaper alternatives. In September 2010 the EHIF launched an annual generic drug promotion campaign on television and billboards. In another initiative in 2010, a new e-prescription system was launched, which has been replacing paper prescribing. The new system makes active ingredient-based prescribing easier. As a result the patient out of pocket payment share of EHIF reimbursed drugs has been fallen from 38.5 per cent in 2008 to 34.5 per cent in 2011.

Now, in 2012, it can be said that the EHIF has been recovered from the crisis rather successfully using crisis as a window of opportunity to introduce reforms that had been planned for a long time. Most EHIF reserves have remained unused which enables it to cope with potential future relapses in economy in short term. In this regard, the reform of the Estonian health care system is a role model for Europe. However, the crisis highlighted clearly the limits of heavy reliance on payroll taxes to finance health care as the EHIF's revenues feel due to more people becoming economically inactive because of rising unemployment.

Financial Outlook for NHI and Government Response

Yongjun Lee

Korea's National Health Insurance (NHI) was introduced in 1977 for large corporations with more than five hundred workers. And then, in 1989, it took only 12 years for Korea to achieve universal coverage for the entire population. Korea had multiple insurance societies covering employees and the self-employed separately. But in 2000, all were merged into one single agency.

Financial balances of the NHI have kept in the black since 2011. In 2014, the NHI reached a 4.6 trillion Korean won(3.8 billion USD) surplus. And the accumulated reserves reached 12.8 trillion Korean won(10.7 billion USD), its largest ever. The recent balance surplus comes from expanding revenue-base of the NHI and decreasing national health expenditure.

However, in the mid and long-run, numerous challenges are likely to weaken financial sustainability of the NHI. The first challenge is falling working age population and low growth. Korea ranks the lowest fertility rate in OECD countries. When this low rate continues, working age population in Korea will rapidly drop off. Thus, the working aged are anticipated to be sharply decreased since 2016. In 2060, the population will be cut down at the level of the half. And potential growth is also projected to decline below 2% since 2030, due to falling productivity caused by lower working age population. About 80% of the NHI finance comes from contribution that the insured pay. And a majority of the contribution comes from wage income of the employee insured. So, when working age population declines and economic growth rate falls, revenue-base must be hurt. In addition to falling working age population and low growth, Ageing is another challenge. Ageing is a global trend, however, Korea is ageing faster than any other countries. Korea is now an ageing society but is expected to enter into a super-aged society in 2026. Therefore, it is inevitable to face an increase in health care costs caused by the ageing. The share of the population aged 65 and above of the insured is around 10%, but it accounts for more than 35% of national health expenditure in 2014.

Korea demonstrates the fastest growth of national health expenditure among OECD countries. Regarding annual average growth rate in per capita health expenditure from 2005 to 2013, it is at 7.2%, which is far above the OECD average of 2%. If this rapid increase in national health expenditure is combined with the challenges that above mentioned, the finance of the NHI may put Korea in a serious financial deficit.

The Korean government has made following efforts to secure the financial sustainability from mid and long term perspectives. First, the government has adjusted premium rate to a reasonable level. If the government did not support its subsidy, the NHI comes to be in a deficit now. When the government subsidy is excluded, the NHI annually has a deficit of at least 2 trillion Korean won(1.7 billion USD), reaching to 6 trillion won(5 billion USD) the highest (2008~2014). Compared to major economies including OECD members, the premium rate in Korea is relatively low. Despite the balance of the NHI in the black, Korea determines higher premium rate, considering that the current rate is too low to deal with growing national health expending in the mid and long-run. Actually, even though the accumulated balance of the NHI, in 2014, reached 12.8 trillion Korean won(10.7 billion USD) the highest ever, Korea raised the premium rate for 2015 by 1.34%.

Second, Korea has carried out reimbursement reform. The reimbursement of the NHI is based on Fee-For-Service. And DRG and Per-Diem are also applied in specific categories. The FFS system can control on pricing, but neither control on the volume of services nor forecast the amount of national health expenditure. In Korea, social discussion on reimbursement reform is now in progress. In the meanwhile, the Korean government introduced a new payment system integrating DRG and FFS and has conducted a pilot project. The government will improve and expand this system by analyzing its impact on quality of medical services and its effect of pricing control.

Third, Korea has improved claim review system. As the major payment system of the NHI is FFS, health care providers are more likely to mislead patients to getting unnecessary or excessive services. To reduce this adverse effect, it is regulated that the payment and service are formulated in cost-efficient manners in accordance with Benefit Guidelines. But, because 1.4 billion claims were filed annually and claims are electronically processed, there is an increase in improper claims for services that patients do not receive. To address this problem and improve the system, the government has carried out an in-depth evaluation, and will establish measures to increase the accuracy and quality of claim review.

In addition to these efforts, further action is required to address other issues. First, it is essential to gain a variety of revenue sources. The NHI is a social insurance system, financed by contribution revenue. However it is required to expand the revenue source including contribution. In fact, the government subsidy in Korea does not reach 20% which is set by the National Health Insurance Act. According to the Act, 20% of the estimated contribution revenue of the fiscal year shall be funded by government subsidy. Yet, due to the gap between

estimated and actual revenue, the share of government subsidy to actual premium is around 16%. And the NHI Act does not ensure where government subsidy shall be provided to, which could cause the government subsidy to be spent ineffectively.

It is also vital to consider that current contribution levy system is another potential risk to financial sustainability. Contribution levy system dominantly relies on wage income from the employee insured. In terms of falling working age population who will be more responsible for paying contribution, the existing system based on wage income from the employee insured threatens the sustainability of the NHI. Free riding of dependents with high income is also another problem.

Parallel Session

3.5

Translating Priorities into Action

Ultimately, it is the decisions of healthcare providers and their patients that determine resource use and influence how priorities are translated into action. Priority setting guidance will be aimed at encouraging providers to do more of certain things (eg. adopt effective and cost-effective interventions to prevent and manage ill-health; locate in underserved areas to improve equity) and less of others (such as using ineffective procedures or interventions for which more cost-effective alternatives exist). A range of financial and non-financial policy tools can be used to communicate priorities to providers and influence their choices. These include incentives (conveyed through provider payment mechanisms, including various forms of pay-for-performance, potentially combined with utilization review); information and accountability (eg. provision of information on drug costs to prescribers; standard treatment protocols; performance benchmarking; or patient information to alter demand for services); and compulsion (eg. through certificate of need regulation for costly diagnostic equipment). This session will present a framework for classifying different types of policy tool for influencing provider behavior, and showcase country experiences of using these tools to illustrate how they operate in practice.

Objectives

- To provide participants with a framework for considering what health system interventions can be used to translate priorities into action.
- To share country experience with using different approaches and draw out lessons about health system requirements for successful implementation.

Moderators

Anne Mills
Deputy Director and Provost,
London School of Hygiene & Tropical Medicine, United Kingdom

Kara Hanson
Professor of Health System Economics,
London School of Hygiene and Tropical Medicine, United Kingdom

Speakers

Kun Zhao
Director, Center for Health Policy and Technology Assessment,
China: Financial incentives

Damien de Walque
Senior Economist – DECRG, The World Bank,
USA: Information to patients / communities

John Appleby
Chief Economist, The King's Fund
United Kingdom: Commissioning and shared decision making using patient reported outcome data

Tamar Gabunia
Chief of Party, USAID Georgia Tuberculosis Prevention Project, University Research,
Georgia: Clinical guidelines

Boshoff Steenkamp
Head of Strategic Projects, Metropolitan Health Risk Management,
South Africa: Regulation

MODERATOR

Anne MILLS

Deputy Director and Provost
London School of Hygiene & Tropical Medicine

United Kingdom

Anne Mills is Deputy Director and Provost of the London School of Hygiene & Tropical Medicine, and Professor of Health Economics and Policy. She has researched and published widely in the fields of health economics and health systems in low and middle income countries and continues to be involved in research on health insurance developments in South Africa, Tanzania, India and Thailand. She has had continuing involvement in supporting capacity development in health economics in universities, research institutes and governments. She has been involved in numerous policy initiatives including WHO's Commission on Macroeconomics and Health and the 2009 High Level Taskforce on Innovative International Finance for Health Systems. She has a CBE for services to medicine, is a Foreign Associate of the US Institute of Medicine, and a Fellow of the UK Academy of Medical Sciences. In 2009 she received the Prince Mahidol Award in the field of medicine. In 2013, she was elected a Fellow of the Royal Society and in 2015, she was made a Dame in the Queen's New Year's Honours, for services to international health.

MODERATOR

Kara HANSON

Professor of Health System Economics
London School of Hygiene and Tropical Medicine

United Kingdom

Kara Hanson is Professor of Health System Economics at the London School of Hygiene and Tropical Medicine. Her research focuses on the economics of health system financing and organisation in low-and middle-income countries and has included work on health financing arrangements, the role of the private sector in health systems, and the economics of delivering malaria interventions. She is co-Research Director of RESYST – Resilient and Responsive Health Systems, a health policy and systems research consortium.

Kun ZHAO
Director of HTA
Center for Health Policy and Technology Assessment

China

Professor Kun Zhao is the director of division of health policy evaluation and technology assessment invChina National Health Development Research Center of MoH, and she got her MD from China Medical University and MHSc in Health Care and Epidemiology from the University of British Columbia (UBC) in Canada. Since 2007, Dr. Zhao plays the leading role in HTA training programs in China, and as the principle investigator undertakes a series of HTA projects for MoH such as the technology assessment of hemo and peritoneal dialysis in China for ESRD patients, the assessment of high tech of radiation treatment device, the assessment of Da Vinci robot surgical system, national wide clinical pathway evaluation, the cost-effectiveness analyses on models of stroke treatment, the disease control priority setting in China for increasing by 1 year life expectancy, the evaluation of "12.5" health planning implementation, prioritization of maternal and children care program by applying One Health Tool, the cost –effectiveness analysis of HBVand HCV treatment package, the cost-effectiveness analysis of the vaccination preventing COPD from acute exacerbation. Since 2010 Dr Zhao as a PI has bee working with NICE international to conduct a polite study of optimizing diagnosis and treatment technology accompanying to provider payment reform in rural China. Also Dr Zhao is a member of ACE of Disease Control Priorities, Third Edition, and core author of university textbook of China HTA, and Program Evaluation. From 2009 to 2013, she got over 20 papers published in peer-review journals.

Damien DE WALQUE
Senior Economist
DECRG
The World Bank

USA

Damien de Walque is a Senior Economist in the Development Research Group (Human Development and Public Services Team) at the World Bank. He received his Ph.D.in Economics from the University of Chicago in 2003. His research interests include health and education and the interactions between them. His current work is focused on evaluating the impact of financial incentives on health and education outcomes. He is currently evaluating the education and health outcomes of conditional cash transfers linked to school attendance and health center visits in Burkina Faso.

He is also working on evaluating the impact of HIV/AIDS interventions and policies in several African countries. He is leading two evaluations of the impact of short-term financial incentives on the prevention of HIV/AIDS and other sexually transmitted infections (STIs): individuals who test negatively for a set of STIs receive regular cash payment in Tanzania, while in Lesotho they receive lottery tickets. On the supply side of health services, he is managing a large portfolio of impact evaluations of results-based financing in the health sector. He has also edited a book on risky behaviors for health (smoking, drugs, alcohol, obesity, risky sex) in the developing world.

John APPLEBY

Chief Economist
The King's Fund

United Kingdom

John Appleby joined the King's Fund in December 1998 following senior lectureships in health economics at the Universities of East Anglia and Birmingham. After his masters in health economics at the University of York in 1980, he worked in the NHS for seven years in Birmingham and London. For five years he worked for the National Association of Health Authorities (now the NHS Confederation) as manager of the Association's Central Policy Unit.

John has published widely on a range of health care finance and economic issues in books, academic journals, reports, magazines and newspapers. He is a regular columnist for the British Medical Journal. Research include a major study of NHS performance since 2002 with Sir Derek Wanless, published by the King's Fund, an analysis of the public's attitudes to the NHS (the British Social Attitudes survey) and an analysis of future prospects for NHS funding written in partnership with the Institute for Fiscal Studies.

As well as his post at the King's Fund, John is a Visiting Professor at the Department of Economics, City University, London, and at the Institute of Global Innovations at Imperial College London.

John has also acted as an advisor to the UK government and Parliament in various capacities, for example, carrying out a review for Ministers of the future funding needs of Northern Ireland's health service, and as a task force member for the Marmot Commission on health inequalities; a special adviser to the House of Commons Health Select Committee, member of the National Quality Board's Priorities sub-committee and as a member of the Department of Health's Stakeholder Reference Group on patient reported outcome measures.

Tamar GABUNIA

Chief of Party
USAID Georgia Tuberculosis Prevention Project
University Research Co.,LLC

Georgia

Tamar Gabunia is a Public Health expert, with a background as a Family Medicine practitioner, and with the Master's degree in Public Health (Health Policy and Management) from the University of Georgia, Athens, Georgia, United States. She has extensive experience in leading and supporting public health initiatives across a wide range of health issues including primary and hospital sector reform, human resource capacity building and HIV.

Dr. Gabunia has more than 10 years of experience in public health policy and health systems reform. She has worked as a consultant for various donor supported health projects aimed at health systems strengthening and strategic planning. In 2007 she worked as a Director, Department of Sectoral Policy, Ministry of Labour, Health and Social Affairs, Georgia; responsibilities included policy analysis and strategic planning, coordination of donor assistance in the area of health and social policy, development of National health accounts and National health reports.

In 2002-2010 Dr. Gabunia has been involved in a number of projects related to elaboration of health sector reform policies and strategies; as well as development of Primary Health Care Clinical Practice Guidelines and Protocols, commissioned by various donors including European Commission, the World Health Organization and the World Bank. Dr. Gabunia is a member of the National Guideline Accreditation Board since 2006. The board acts as a clearinghouse for national guidelines and advises the Ministry of health on guidelines, which are in-line with the best available evidence. Dr. Gabunia worked as a systematic reviewer within Georgia Guideline Development Initiative supported jointly by the World Bank and EC and implemented in collaboration with NICE International, UK. She facilitated introduction of the guideline development manual for Georgia that significantly improved the quality of clinical practice guidelines elaborated by professional bodies.

Currently Dr. Gabunia is leading the USAID Georgia TB Prevention Project ($4.6 million 4-year project) since 2011. Besides this role, Dr. Gabunia is a Vice-Chair for Georgia Country Coordinating Mechanism for HIV/AIDS, Tuberculosis and Malaria since 2014.

Boshoff STEENKAMP

Head of Strategic Projects
Metropolitan Health Risk Management

South Africa

Dr Steenekamp works on strategic projects at Metropolitan Health Risk Management, a South African health insurance administrator and managed care provider, which is a subsidiary of Momentum holdings, a large South African Financial services provider.

He has previously worked at the Council for Medical Schemes, the South African health insurance regulator. He has gained experience as project specialist to prepare the CMS for the implementation of a system of risk adjustment. He has gained experience in priority setting as project manager of the team charged with reviewing the Mandatory Minimum Benefits prescribed in terms of the Medical Schemes Act. He has a keen interest in health economics and health systems.

Previously Dr Steenekamp gained experience in clinical medicine, pathology, healthcare information management, and healthcare administration. He has published epidemiological articles in internationally accredited journals and has made presentations at local and international conferences.

SHORT
PAPER

3.5

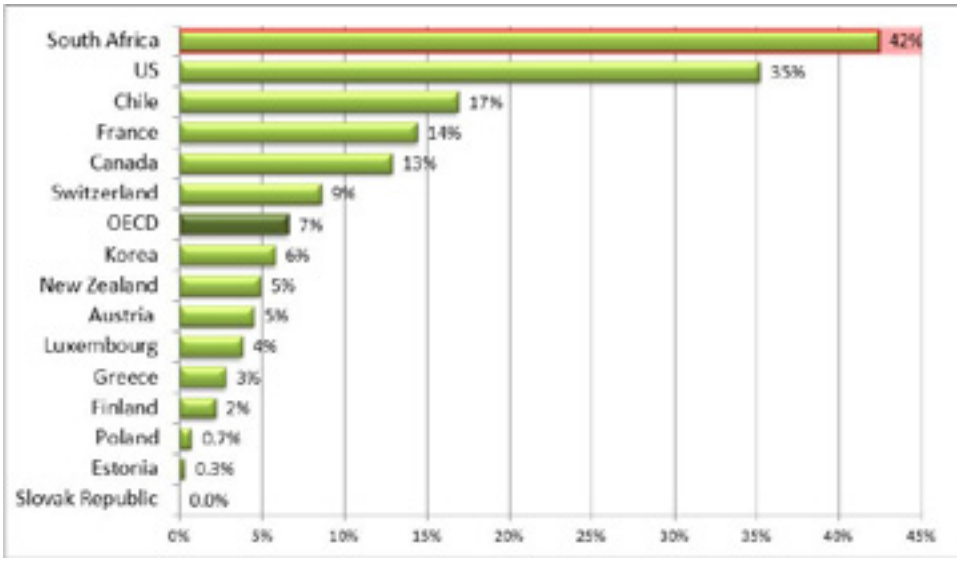
Regulation of priority setting in South African Medical Schemes

JHB Steenekamp

1 Context: Private health insurance funding in the South African Health system

The South African Health System has a large private sub-system operating side by side with the publicly funded and publicly provided sub-system. The private insurance-based funding system mostly uses private providers. Private health insurance is offered through "Medical Schemes," which are not-for-profit specialised insurance vehicles. Other private insurance such as "gap-cover" (indemnity cover), dread disease cover and health related income-protection non-indemnity products also operate in the environment. The Medical Schemes Act regulates governance structures, mandatory minimum benefits (MMBs), open enrolment, and community rating in medical schemes. There are no mandatory enrolment requirements and risk adjustment mechanisms are not in place. Brokers must be registered and the maximum remuneration is determined in legislation. Care is provided by independent private practitioners, including general practitioners, specialists, laboratories, radiology providers, and allied health professionals. Hospital- and other facility-based care are mostly provided by private companies, with a very small proportion of care in public facilities.

Figure 1: Private health insurance as a percentage of total health expenditures (2011), based on Kumar et al. (1)

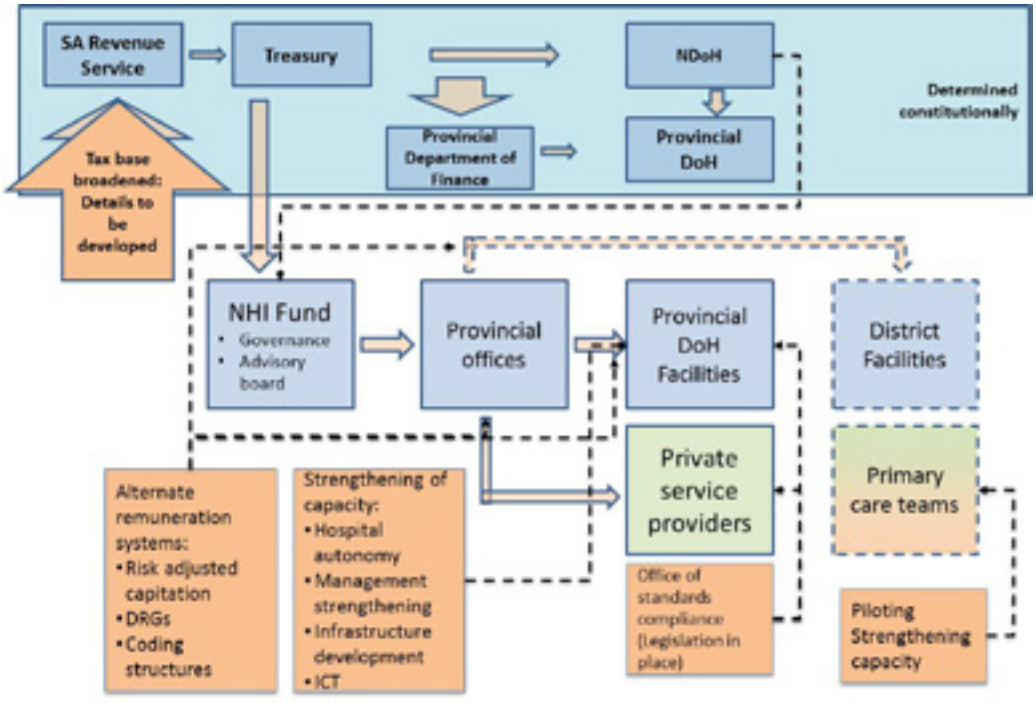


Even though Figure 1 shows that private funding represents 42% of South African health expenditure, only less than 17% of the population (8.8 Million (2)) are members of medical schemes. This indicates that a disproportionately smaller per capita amount is spent in the publicly funded and

provided part of the health system. This inequality is reflected by World Bank estimates which show that, when the progressive tax policy and social government spending programmes are accounted for, the country's Gini coefficient is 0.59 (c.f. unadjusted value of 0.77) (3).

In 2011 the Department of Health published a green paper on National Health Insurance (NHI). The benefits of NHI as outlined in the are paper to *"…ensure that all South African citizens and legal residents will benefit from healthcare financing on an equitable sustainable basis....NHI will therefore provide coverage to the whole population and minimise the burden of paying directly out-of-pocket payments for healthcare services..."* (4). The green paper proposes a mixed system which will be largely publicly funded and mostly publicly provided, with some private provisioning. The reformed system may introduce a purchaser-provider split with a much strengthened public provisioning system. The role of medical schemes might change from the current substitutive cover to supplementary cover only (5). The future role of voluntary private schemes may be different, and could take the form of complementary (to offer "top-up" for additional services, or cover possible co-payments), supplementary (to potentially buy faster access, or a larger choice of providers), or substitutive insurance (where the members will have access to NHI services or private services) (6).

Figure 2: Envisaged funding and provision arrangements proposed in NHI green paper (4)



The envisaged reformed arrangements proposed in the 2011 green paper is graphically presented in Figure 2, which shows the intention to broaden tax funding and the establishment of an NHI fund, which will purchase personal health services from accredited and contracted private and public service providers. The Department of Health is finalising a white paper on NHI and release of the paper is imminent. Implementation of the National Development plan will phase in NHI, with a focus on *upgrading public health facilities*, producing *more health professionals* and *reducing the relative cost of private* health care (7).

2 Regulation to support the application of priority setting in the private insurance environment

Even though the regulatory framework is aimed primarily at improved non-discriminatory access to private insurance funding, it does address some micro-level priority setting elements in CUA provisions and the initial determination of the benefit package. The sections below describe the role of MMBs in the private insurance environment and the legal framework regulating this aspect.

2.1 Regulation of mandatory minimum benefits (MMBs) in the insurance environment

A key role of MMBs in the insurance environment is to prevent cream skimming (and thereby improve risk cross-subsidisation), and is an important adjunct to community rating and open enrolment. Mandated minimum benefits thus play an important regulatory role in the medical scheme environment while minimum benefits in a publicly provided, publicly funded environment play an important role to manage quality and to address the burden of disease (8) (9). In the insurance environment, the key *social security objective* is to prevent unpredictable catastrophic financial expenditure by households, and therefore includes rarely occurring high cost events rather than lower cost, frequently occurring but more predictable events such as primary care and other day-to-day expenditure. Another important reason for MMBs is to protect the State against the dumping of patients in public facilities once medical scheme benefits have run out (10). It is important to recognise this social security objective of the MMBs to avoid confusion with other potential objectives of mandated minimum benefits, such as quality assurance or rationing (11).

In low income countries, severe resource constraints are associated with governments being the main providers of care, with publicly funded- and publicly provided systems. In these instances, essential packages provide guidance on public funding and provision. In middle income countries, the main role of essential packages is to regulate insurance arrangements (12).

2.2 Legal framework regulating MMBs in medical schemes

The Medical Schemes Act and the MMB regulations are manifestations of the constitutional requirement on government to take legislative and other measures to progressively realise the right to healthcare (13 p. Sec 27 (2)). In terms of the Medical schemes Act, the Minister of Health has prescribed the scope and level of MMBs. The MMBs are based on clinical conditions rather than financial limits, and therefore provides an opportunity for the application of priority setting instruments. Three categories of MMBs must be offered by all registered medical schemes. The first category is 270 diagnosis-treatment pairs (DTP) and is based on the Oregon list (14). The DTP conditions have been selected in relation to (i) the extent to which there was another appropriate responsible party who should pay for treatment; (ii) the degree of discretion in deciding whether or not to provide treatment (roughly equivalent to urgency); and (iii) the cost and effectiveness of treatment (15). Secondly, 25 of the most common chronic disease are included, but depression and many other mood disorders are excluded due to the high level of discretion in their management. Finally, any emergency medical condition which has severe consequences on life and limb if not treated, is included as an MMB condition.

The MMB regulations (10) require that payment for conditions must be in full and cover the diagnosis, treatment and care cost for these conditions. The payment-in-full requirement is subject

to the reasonable accessibility of a designated service provider (DSP); use of a non-DSP may attract co-payments or deductibles. Medical schemes are however encouraged to apply "*managed care interventions aimed at improving the efficiency and effectiveness of health care provision, including such techniques as requirements for pre-authorisation, the application of treatment protocols, and the use of formularies."* (10 p. Reg 8(4)). Managed care interventions must meet the criteria stipulated in the regulations, and a relevant requirement is that *"… managed health care programmes use documented clinical review criteria that are based upon evidence-based medicine, taking into account considerations of cost-effectiveness and affordability, and are evaluated periodically to ensure relevance for funding decisions"* (10 p. Reg 15D(b)). In addition to the economic considerations, the regulations refer to the predominant public hospital practice to determine the level of care members are entitled to in terms of the MMB regulations. Priority setting principles are limited to the regulations governing the application of managed care by medical schemes.

3 Experience with MMBs in the insurance environment

MMBs make up a significant portion of medical scheme benefit costs, amounting to 53% of benefits paid by medical schemes in 2014 (2 p. 31).

3.1 Tariffs and the cost of MMBs

When the MMB regulations were enacted in 2000, health care providers and medical schemes negotiated tariffs on an annual basis. In 2004, the Competition Tribunal made consent orders against BHF, SAMA (South African Medical Association) and HASA (Hospital Association of South Africa), and prohibited these entities to collectively engage and agree on a price (16) since the negotiation process allowed for collusion amongst providers and amongst purchasers. As an interim measure, the Council for Medical Schemes determined a National Health Reference price list, which was based on cost analysis for 2005 and 2006. Soon after this, the Health Professions Council of South Africa (HPCSA) set the maximum ethical rate which professionals may charge for a service at 300% of the NHRPL rate (17). From 2007 the National Department of Health published the reference price list, but the regulations enabling the publication of this list were set aside by the high court in July 2010. At the same time, the CMS received progressively more complaints about non-payment by medical schemes for MMB conditions, and a code of conduct guiding MMB benefits was developed between industry stakeholders and regulators (18).

The Department of Health published a discussion document in October 2010 (19), with the objective of establishing a negotiation chamber to determine prices in the private sector. Private hospitals resisted the initiative and the effort was abandoned, instead government amended the Competition Act to empower the Competition Commission to conduct market inquiries. In January 2014 a market inquiry into the state, nature and form of competition into the private healthcare sector started because the commission *"… has reason to believe that there are features of the sector that prevent, distort or restrict competition"* (20).

In the absence of wide-spread negotiations and contracts, some providers have billed higher fees for MMBs, and there is evidence of an increase in MMB conditions which may be the result of up coding. Figure 3 below shows the cost-trend for MMB and non-MMB conditions between 2007 and

2014, and indicates a sharp increase in MMB costs per beneficiary. Figure 4 below demonstrates a sharp increase in mood disorders in the MMB package, while mood disorders which are not included in the package increased at a much lower rate between 2007 and 2014.

Figure 3: Real trend for MMB and non-MMB specialist costs per beneficiary per month (Based on Raath (21))

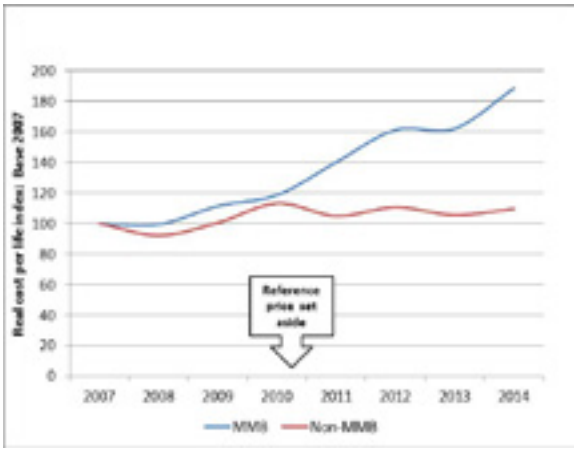
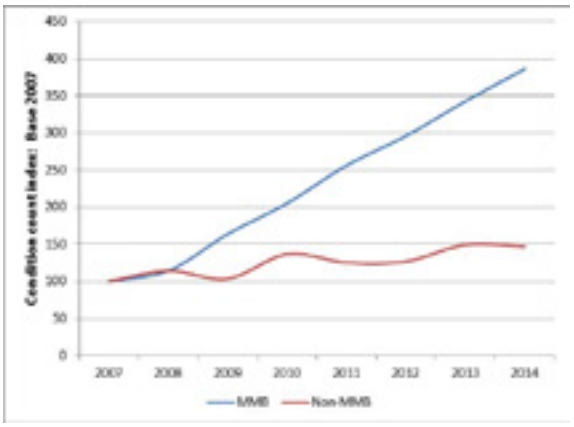


Figure 4: Incidence trend for MMB- and non-MMB mood disorder claims (Based on Raath (21))



3.2 Inequitable distribution of MMB benefits in large schemes

Another challenge experienced with MMBs lies therein that most large schemes have high end options with very high benefit packages. These options offer access to expensive biologicals and new technology with minimal limitations. These options attract the "wealthy worried" as well as lower income members with specific high-cost diseases. Due to the high risk profile of these options, the CMS has condoned[1] the cross subsidisation from lower cost options (with younger and healthier members, where rigorous health economic evaluation in compliance with managed care regulations are applied) to these high cost options.

[1] The Medical Schemes Act requires that each medical scheme option is financially independent from other options.

Medium cost options subsidise both the lowest and high cost options. Rigorous health economic evaluation is applied to determine benefits in low- and medium-cost options, while high market demand for new technology among the "wealthy worried" and diseased members dictates rich benefits for the high cost options. The cross subsidisation of high cost options from medium cost options may jeopardise the MMB objective preventing anti-selection by members and risk selection by schemes.

3.3 Consumer entitlements and medical schemes' liability

The entitlement of access to MMBs has in some instances led to unrealistic expectations by medical scheme members, thinking that their entitlement is unlimited because they suffer from MMB conditions. These expectations led to many complaints in this respect being raised with the CMS, which has often ruled that the MMB entitlement is limited and entitlements must be in accordance with the priority setting principles in the regulations. These rulings were upheld by the independent Appeal Board which has similarly ruled that priority setting principles must be upheld. On a case-by-case basis, these authorities have ruled that expensive biologicals such as Herceptin and Gleevec, or expensive new technologies such as trans aortic valvular insertion (TAVI) or cardiac resynchronisation therapy with defibrillation (CRTD) are not at the MMB level of care.

Due to legal technicalities, medical scheme organisations have been unsuccessful in challenging the MMB regulations in court, but a new case challenging the regulations are presently before the Western Cape High Court.

4 Considerations to improve the regulation of priority setting in relation to MMBs

Experience has shown that setting aside the reference price has had a massive impact on MMB costs, indicating that the considerations of cost effectiveness and affordability alone are inadequate to improve efficiencies in healthcare spending.

The current framework places an onerous burden on medical schemes to consider evidence, cost effectiveness and affordability. The 83 registered medical schemes have varying levels of Health economic assessment capacity, and the capacity is concentrated in three large third-party medical scheme administrators. The CMS adjudicates on complaints, and in dealing with claims has to consider the application of evidence, cost-effectiveness and affordability. Currently there is limited collaboration between the CMS and the Department of Health, who deals with priority setting in the public sector.

In addition, the current regulations present an onerous challenge to consumers. Priority setting activities are poorly coordinated, differ from scheme to scheme, and are not subject to a central priority setting authority. This results therein that medical scheme members often face large co-payments for MMB condition care that was rendered at a higher level than the mandatory minimum level.

In South Africa, much hope is vested in the current market inquiry into healthcare, with many proponents for tariff setting believing that this will curtail the increasing healthcare costs. It is however extremely unlikely that tariff determination alone will address cost escalations.

A more coordinated and comprehensive approach to priority setting is required, which may ultimately include the establishment of a government funded priority setting authority to support both the private and public sectors.

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Learning what works for better programs and policies

September, 2015

UGANDA: Does Information Matter?

In many poor countries, the quality of education, health care and other public services is low. Figuring out how to fix that is a key development goal. The World Bank and other donors often encourage community involvement as a way to improve the delivery of public services. This approach, known as Community Driven Development, seeks to create opportunities for people to participate in the planning, oversight, and implementation of public services such as health care and education. In practice, this often means encouraging meetings between community members and providers, and having them work together on a plan for improving delivery of services. How effective is this approach? It's not clear. Results have been mixed and even when there is a positive impact, there hasn't been a lot of follow-up work to measure whether gains are maintained over the long term.

The World Bank works closely with governments to improve the quality of services critical for reducing extreme poverty and improving shared prosperity. Understanding the impact of different initiatives is crucial for successful programs and policies. In Uganda, researchers supported by the World Bank evaluated a program that sought to boost the quality of healthcare by giving community members a voice in creating action plans with clinics for what needed to be done and how to do it. The evaluation found that when communities also received information about how well a clinic performed in areas such as wait time and provider absenteeism, there was more community involvement and an improvement in care. **The findings are important for governments and development groups looking to community involvement as a way to improve delivery of public services. As this evaluation shows, information is critical in order to make a difference.**

HEALTH

Context

Uganda has made important progress toward meeting the Millennium Development Goals, including halving its poverty rate to around 20 percent from more than 50 percent in the early 1990s. But healthcare, especially in the rural areas, is generally of poor quality. Small clinics, known as dispensaries, provide care to Uganda's rural residents. The clinics offer preventive, maternity, and outpatient care, as well as lab services. All services are supposed to be free. Six to 10 people staff most clinics, including a trained medical worker, nurses, nursing aides, and others. But roughly 50 percent of the staff are absent on a typical day and patients' average wait time exceeds two hours. Uganda's health sector is decentralized and Health Unit Management Committees are supposed to be the link between the community and the facility. In practice, there's little action on the part of the committees in terms of supervision or support.

In 2005, a World Bank supported team decided to test the impact of a program to encourage rural residents to get involved in local health care delivery. Community members and health staff were given report cards grading the quality of local clinics, including information about specific clinic operations, absences and the quality of care. Meetings were facilitated between community members and health facilities to allow them to draw up a shared vision of what was needed and make a plan to achieve this. A year later, the evaluation* found that the quality of healthcare improved, as reflected in lower child mortality and improved child weight. In 2007, the team expanded the project in order to test whether just bringing people together with health providers for meetings and encouraging community monitoring processes—without providing report cards—could be as effective.

*Björkman Nyqvist, Martina and Jakob Svensson, "Power to the People: Evidence from a Randomized Experiment on Community-Based Monitoring in Uganda," Quarterly Journal of Economics, 124:2 (2009): 735–769

HEALTH

Evaluation

The initial evaluation was implemented in 2005 in 50 rural communities in nine districts, covering all of Uganda's four regions. Twenty-five communities were randomly selected for the treatment group and the other 25 were assigned to a control group. The treatment group received report cards that contained detailed information about the quality of care and activities of their local health center, and then meetings were held between community members and health clinic staff to draw up a list of problems, goals and a plan of action. The control group didn't receive anything. In each treatment community, short follow up meetings were held between community members and health facilities in mid-2005, 2007 and 2008. Communities in the treatment and control groups were surveyed in 2006 and after four years to see whether the positive gains that had been reported in the treatment communities after the first year were sustained.

In the second phase, starting in 2007, a separate accountability program was put in place in a different set of communities and evaluated. This new program sought to mimic the earlier program but without giving people detailed information on health facility performance. Researchers wanted to understand whether the information, which had been expensive to collect, was necessary to improve quality of care or whether it was enough to bring the community together to meet with health clinic staff in order to create an effective community engagement program.

Twenty-five new communities were identified for this phase. Using the original study's procedures, researchers randomly assigned 13 to a treatment group and 12 to a control group. Communities in the treatment group were asked to attend meetings to identify the priorities for the local health clinic and how to improve quality. Separate meetings were held for community members and health facility staff, and then they were brought together in a third meeting to agree on a joint action plan. The communities in this second phase were surveyed at baseline in 2007 and then two years into the program, in 2009.

For the purposes of the evaluation, a community was defined as all households living within a five kilometer radius of the local health center. On average, there were 2,500 households per community. The communities were stratified by location and then population. In each location, half the communities were randomly assigned to the treatment group and the remaining to the control group. About 100 households were surveyed in each community. Researchers also reviewed health records. In order to measure how important the data was to changing quality of care, researchers reviewed health outcomes for households whose communities took part in the first participation-information evaluation and compared this with the control group. They then looked at health outcomes of households whose communities took part in the second, participation-only, phase, and compared the outcomes with those for the corresponding control group.

Findings

Giving people information specific to the performance of their local health facility led to better health outcomes, especially for young children.

Between the years 2006 and 2009, the mortality rate for children under age five dropped by 23 percent, when compared with communities where no program was put in place. Similarly, infant mortality dropped by about 28 percent and the neonatal death rate for infants under the age of one month dropped by almost 44 percent.

In terms of height-for-age, an important accumulative measure of proper nutrition and health care, children who had lived for at least three years in communities that had received and discussed score cards were 10 percent taller than children in the communities without the intervention.

In communities where report cards were distributed and discussed, health facilities were in better condition and health workers appeared to do more for pregnant women and infants.

This policy note is based on "Information is Power: Experimental Evidence on the Long-Run Impact of Community Based Monitoring," Martina Björkman Nyqvist, Damien de Walque, Jakob Svensson, World Bank, Policy Research Working Paper, 7014; August 2014 available at http://documents.worldbank.org/curated/en/2014/08/20144947/information-power-experimental-evidence-long-run-impact-community-based-monitoring

The general condition of the clinics—the floor, walls and furniture, as well as the clinic's smell—was much better even four years after the initial intervention. Health workers were more active when it came to running routine tests and doing check-ups and they followed clinical guidelines more closely. Midwives were more likely to examine pregnant women, check their weight, draw a blood sample, check the fetus and tell the women about potential pregnancy complications. Post-delivery, the rate at which newborns were checked in the first two months rose by 24 percent.

Not surprisingly, in these communities there was also increased use of health services.

Four years after the project began, participants in the treatment group that received report cards and discussed them in community meetings continued to make use of local health clinics more often than those in the control group. Depending on which measurement tool the researchers used, the increase in use of outpatient services rose between 16 percent to 27 percent and the increase in use of services after delivering a baby varied from 21 percent to 25 percent. The increase in pregnant women going to health facilities to deliver their babies rose by around 50 percent. Some of this increased use came from people who stopped going to traditional healers—or trying to heal themselves and instead turned to the health facility.

Giving local residents and health staff information up front about the functioning of the health clinics—and comparisons with other clinics, along with the national standard for care—led them to draft an effective, long-term plan to solve local problems and improve health care service.

The information in the report cards allowed residents and health staff to focus on problems that could be solved locally, including: absenteeism, opening hours, waiting time, and patient-clinician interactions. Residents and health workers also could address these issues themselves. In short, the report cards provided key information allowing the two sides to create an effective reform agenda. Steps that improved service included having a suggestion box, numbered waiting cards, a staff duty roster, and posters notifying patients about their rights and that services were free.

However, there was little improvement in health outcomes in communities where meetings were held but information wasn't first distributed on health facility quality and health indicators.

Efforts to spur more local participation in health care services had little impact on health workers' behavior and health care delivery when this wasn't combined with giving people information on the functioning of the local health facility. Two years after the communities in the second evaluation were brought together with health facilities to draw up a joint plan, there was no impact on local residents' use of clinics and little difference in health outcomes when compared with the communities where there were no facilitated meetings. The treatment group showed little difference from the control group in the following areas: under-5 mortality, infant mortality, neonatal mortality, the number of births, and the number of pregnancies.

Treatment and management practices in these health clinics didn't change, which accounts for the lack of improvement in health outcomes.

In communities where facilitated meetings were held, but report cards weren't distributed on the quality of care, there was no sign of increased exchange of information between residents and health staff. Similarly, there was no evidence that residents took a larger role monitoring health staff. Management of the clinics stayed the same, as did the degree of staff adherence to clinical guidelines.

Communities without report cards were less successful at drafting effective plans to solve local health care problems.

Health staff and residents in these communities identified issues that mainly required help from outside parties—such as more financial and other support from senior authorities and non-governmental organizations, as well as more timely delivery of medicine. They didn't come up with plans that focused on local issues that facility staff and users could possibly resolve on their own, such as long waiting times, opening hours and absenteeism (something that communities that received report cards did do).

Baseline data showed that there was a gap between what community members reported as being problems, and what the real problems were, and this gap may be why communities that received report cards were able to improve services.

Staff at health facilities, for example, would say the wait time was usually two minutes, when the survey showed it was closer to two hours. They wouldn't say there was a problem with absenteeism, although unannounced surveys put the absenteeism rate at around 50 percent. Staff also never mentioned other problems, such as mistreatment of patients or lack of adherence to clinical guidelines, as problems that could be harming health care quality and usage. Instead, staff would usually point to outside factors, like limited funding, as the main problem behind poor quality of care and health outcomes. When communities didn't have any other information, they ended up following what the health staff said was the problem; when they received the report cards with data, they were better able to pinpoint what needed to be fixed.

Conclusion

Information turns out to be a powerful tool in community-based monitoring programs aimed to fixing local service delivery problems. The findings of these two, related evaluations indicate that to ensure effective community participation, everyone needs to understand what the real service delivery problems are. Relying on anecdotal evidence isn't sufficient. While it's costly and time consuming to gather such data, it may be necessary to avoid trying to implement even costlier community-driven interventions that fail because people don't have information on what the real problems are.

HEALTH

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Series Editor and Writer: Aliza Marcus
Study researchers: Martina Björkman Nyqvist (Stockholm School of Economics)
Damien de Walque (World Bank's Development Research Group).
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Essential drugs policy in three rural counties in China: What does a complexity lens add?

Yue Xiao [a], Kun Zhao [a,*], David M. Bishai [b], David H. Peters [c]

[a] Center for Health Policy Evaluation and Health Technology Assessment, China National Health Development Research Center, P.O.B. 218, Xueyuan Rd., Haidian District, Beijing 100191, PR China
[b] Department of Population Family and Reproductive Health, Johns Hopkins University Bloomberg School of Public Health, United States
[c] Department of International Health, Johns Hopkins University Bloomberg School of Public Health, United States

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ABSTRACT

In 2009 the government of China identified an essential drugs policy as one of five priority areas for health system reform. Since then, a national essential drugs policy has been defined, along with plans to implement it. As a large scale social intervention, the policy will have a significant impact on various local health actors. This paper uses the lens of complex adaptive systems to examine how the policy has been implemented in three rural Chinese counties. Using material gathered from interviews with key actors in county health bureaus and township health centers, we illustrate how a single policy can lead to multiple unanticipated outcomes. The complexity lens applied to the material gathered in interviews helps to identify relevant actors, their different relationships and policy responses and a new framework to better understand heterogeneous pathways and outcomes. Decision-makers and policy implementers are advised to embrace the complex and dynamic realities of policy implementation. This involves developing mechanisms to monitor different behaviors of key actors as well as the intended outcomes and unintended consequences of the policy.

Introduction

In April 2009, the State Council of China released the guidance and plan for a new round of health reform (Xinhua, 2009). This was the launch of the most radical and comprehensive health reform in Chinese history. Chinese policy-makers regard the essential drugs policy as a leverage point for changing the whole health system. They hope that it will make essential drugs available, control drug costs and reduce the irrational overuse of drugs, such as steroids and antibiotics.

In 2009, a plan was issued defining key actors, their responsibilities, and targets for implementation of the essential drugs policy reform (Ministry of Health and Other Eight Ministries, 2009). It outlines that: 1) the National Joint Committee on Essential Drugs (composed of representatives from the nine ministries and coordinated by the Ministry of Health) will compile the essential drug list and issue policies regarding drug pricing, quality assurance, and compensation of health providers; 2) provincial governments will be in charge of centralized drug tendering, procurement and pricing; and 3) all basic public health facilities at or below county level should purchase and use essential drugs and implement a policy of zero markup of retail drug prices above cost.

According to Health Minister Chen Zhu, the policy framework of the national essential drugs system is like a piece of "complex system engineering", which is composed of seven interconnected parts (CCTV, 2009): 1) essential drug list selection and management of future adjustment; 2) production and supply of essential drugs; 3) pricing and sale with "zero markup"; 4) rational delivery and use; 5) proper compensation mechanism; 6) safety and quality assurance; and 7) performance evaluation of the operation of the system itself. Under each system part, a set of procedures need to be formed to guide proper implementation. The seven parts combine together to form the institutional framework for the essential drugs system in the country.

The World Health Organization (WHO, 2011) defines essential drugs as drugs that can meet the basic needs of the people. The selection of essential drugs must be based on public health relevance, evidence on efficacy and safety, and comparative cost-effectiveness. Essential drugs should be available and affordable to communities and their quality and safety must be assured. The Chinese health system has many actors at different levels, such as health providers, hospital managers, county and provincial officials,

* Corresponding author.
E-mail address: zk317@yahoo.com (K. Zhao).

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manufacturers, insurance agents, regulators, and patients. These actors may respond to the essential drugs policy by changing their behaviors in ways that produce positive or negative effects. The new policy adds complexity to the healthcare system by changing the rules and relationships between these actors, and emphasizing certain outcomes such as cost containment and proper drug use.

After initial implementation of the essential drugs policy, experiences and problems from local implementation need to be collected. A team of evaluators from the China National Health Development Research Center (CNHDRC) was commissioned by the Ministry of Health to do an initial evaluation of the implementation of the essential drugs policy. This paper documents their attempts to interpret findings from a study they conducted in three rural counties in the Western region of China.

The authors explored recurrent themes or problems in the different contexts of the three counties, to find out coping mechanisms of main actors and their potential impact on the policy implementation and come up with rapid feedback to policy makers and implementers. They found that conventional program evaluation designs were not applicable to the diverse and complex contexts. They applied complexity theory to better understand initial implementation of the policy in the Western rural settings, in the hope of framing the issues faced in policy design and implementation and preparing a model for evaluating policy implementation.

Conceptualizing implementation of the essential drugs policy as a complex adaptive system

Complex adaptive systems and its use in healthcare system analysis

Complexity science, or study of complex adaptive systems, originated from running agent-based models on computers which attempted to model complex natural or artificial behaviors, or more recently complex social phenomena such as health interventions and reforms (Paina & Peters, 2012; Rouse, 2008). In recent years, analysts have used complex adaptive systems to better understand health systems and their reforms (Atun & Menabde, 2008; Beverly, Glasgow, & Longstaff, 2004; McDaniel & Driebe, 2001; Plsek, 2003; Plsek & Greenhalgh, 2001; Paina & Peters, 2012; Rouse, 2008; Savigny & Adam, 2009). Many regard it as a helpful modeling framework to conceptualize complex health systems issues (Gatrell; 2005; Haggis, 2008, 2010; Lessard, 2007; McDaniel & Driebe, 2001; Plsek & Greenhalgh, 2001).

Complex adaptive systems consist of numerous interacting parts capable of self-organizing activities, adapting to outside environments and learning from experiences (McDaniel & Driebe, 2001; Paina & Peters, 2012; Plsek, 2003; Plsek & Greenhalgh, 2001; Rouse, 2008). In a health system, the interacting parts or agents can be comprised of individuals such as clinicians and patients or collectives of individuals such as clinics and hospitals, with agents fulfilling particular roles in the system, comprising processes such as the provision of medical services.

Complex adaptive systems are also nested and open, meaning that there are systems within systems, and that agents can exchange information and interact freely (Anderson & McDaniel, 2000; Gatrell, 2005). The self-revising movement of information, or feedback, may help the systems to change or stabilize (McDaniel & Driebe, 2001). A system may experience positive feedback loops that accentuate a change, or negative feedback loops that moderate a change (Gatrell, 2005). Co-evolution is also observed as systems not only change themselves but the world around them (Beverly et al., 2004).

With rich connections and interactions, agents are dynamic and produce nonlinear responses that often have system-wide impact (Gatrell, 2005; Paina & Peters, 2012; Plsek & Greenhalgh, 2001; Rouse, 2008). One agent's behavior may change environments of other agents, because boundaries between agents within or between systems are open and fuzzy (Gatrell, 2005; Plsek & Greenhalgh, 2001). Yet behaviors of apparently independent agents in social systems are based on internalized psychological and social rules, or by external policies and regulations (Rouse, 2008). Because agents' needs or desires reflected are not homogeneous, their behaviors may conflict with each other or with policy and system objectives.

Agents learn and adapt in response to behaviors of other agents or changes in rules, often in ways that produce self-organization (Gatrell, 2005; Plsek & Greenhalgh, 2001; Rouse, 2008). Self-organizing activities of agents enable the systems to change structures and adapt to changes in internal and external environments (Anderson & McDaniel, 2000; Gatrell, 2005). These behavior patterns emerge rather than being designed into the system. The nature of such emergent behaviors may range from valuable innovations to unfortunate accidents. Due to emergence, the whole system may be greater than the sum of the system parts (Lessard, 2007). As a result, one cannot predict system response by "summing" or "averaging" components (Gatrell, 2005). Outcomes of complex adaptive systems are shaped by adaptations and interactions of agents and components, rather than by central control or predetermined design (Anderson & McDaniel, 2000; Gatrell, 2005). Therefore, it is impossible to make exact predictions of system behavior.

Understanding complex adaptive systems provides us with a different perspective for analyzing complex healthcare organizations and systems in terms of the policy development, health management and evaluation (Beverly et al., 2004). Economic evaluation approaches have long dominated health policy evaluation (Lessard, 2007). Recently some authors suggest that complexity theory may help to conceptualize evaluation in healthcare, for notions such as self-organizing, emergence and nonlinearity may make up for what are missing from the current economic evaluation approaches (Gatrell, 2005; Lessard, 2007).

Some authors move one step further to use complexity theory in the evaluation of complex policy initiatives. In the past evaluation has mostly depended on linear logic models to examine a project's theory of change, while the recent decade has seen an emerging trend that use the complexity lens in evaluation (Barnes, Matka, & Sullivan, 2003; Patton, 2011; William & Iman, 2007). The new trend, named the developmental evaluation approach, shows some distinguished features. First, by looking at the system as a whole and exploring the interconnections or dividing lines (boundaries), the evaluator can have a more realistic view of the world in which his or her evaluation will take place. Second, a real-world policy or program is viewed as a complex adaptive system, with many systems entangled together and influencing each other. Third, the developmental evaluation method is more helpful in the context of social innovation where there exist no fixed models.

Local implementation of the essential drugs policy is a large-scale social intervention. We believe that a complexity lens can help to recognize uncertainty and the changing nature of policy implementation and discover recurrent issues or themes for further evaluation, which will be the key contribution of our study to health policy evaluation in China.

Implementation of the essential drugs policy as a complex adaptive system

In over three decades of health reforms in China, it has been observed that most reform is implemented incrementally (Liu & Bloom, 2010). Chinese policy makers appear to believe that

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reform cannot be achieved overnight. They anticipate a long and complex process requiring an incremental approach to try out new ideas and methods. Making positive changes and adapting to favorable changes occur together in this reform approach (Luo, 2011). This enables the government to reduce the risk of making big mistakes, and gives various stakeholders time to adapt to changes brought about by the reform (Liu & Bloom, 2010).

Given China's large size and big disparities between provinces, prefectures and counties, it is hard for the central government to require different localities to implement a health policy in a uniform way. After the decentralization reforms of the 1990s, local authorities acquired more power over economic and social development decisions, which increased the diversity across various localities. As observed by some health policy researchers, a general pattern of health policy implementation has emerged in the country, namely the "experiment, experience and expansion" approach (Liu & Bloom, 2010). Following broad policy statement and reform strategies, local provinces are supposed to develop their own implementation plans and experiment on respective models within their local context. As documented by Bloom, Lin, and Wu (2010), policy implementation in China is viewed as "an iterative process in which local experiences are rapidly fed back to policy-makers to revise designs continuously". Experiences and lessons are collected from time to time to enable rapid learning of key stakeholders and fed back to decision-making process. Finally good models are identified for promotion and scaling up.

The essential drugs policy, as part of a massive health system reform program, is meant to be implemented in this way. According to the national implementation strategy, no less than 30% of counties (cities and prefectures) in the country had to implement the policy in 2009 after the policy was issued. No less than 60% of counties had to be covered by the end of 2010, and all were expected to adopt the policy by 2011 (Ministry of Health and Other Eight Ministries, 2009). The early adopters of the reform were expected to set up local interventions with consideration of the local context, and their experiences were summarized to help the other sites and inform the adjustment of the national policy and strategy. This feature of the reform policy demonstrates an appreciation for continuous change and emergent properties.

Implementing new policies involves changing institutions, relationships, and attitudes, suggesting that policy implementation can be understood as a process of changing the behavior of key health sector actors (Edgar, Garrette, & Lin, 2001). By adopting the policy, different actors at various levels may change their behaviors in different ways that can produce positive or negative effects on the system. Meanwhile, national policy strategies may change with feedback from local experiences and local implementation plans, which also keep changing as a result of learning from pilot projects.

The central government guidance on implementation of the essential drug depicts a clear picture of the implementation process. As planned, the essential drugs system would flow linearly from definition of the essential drug list, production and tendering for drugs on the list, distribution and pricing of essential drugs, delivery and use of essential drugs, and monitoring and supervision of the implementation process. The ultimate purpose or outcome of the system is to deliver safe, effective, and affordable drugs to local communities, promote rational use of drugs, lower drug costs and improve the health status of the people (Ministry of Health and Other Eight Ministries, 2009).

According to the government model of how the policy will proceed, certain actors are engaged in each part of a linear process (Fig. 1). The policy is predicated on each unit in the flow chart behaving as prescribed. Clusters of government actors work on policy making, overseeing implementation, and monitoring and regulation. Commercial companies have signed framework contracts with local governments to produce and distribute essential drugs. Hospitals and providers deliver drugs to patients. Finally, local offices under the New Cooperative Medical Scheme (a publicly-funded rural health insurance scheme established in 2003 and scaled up nationwide by 2008) reimburse provider and hospital services and drug costs. As shown in Fig. 1, the relationship between these actors can be categorized into two types; a governance- and accountability-oriented relationship or a contract- and service-based relationship. If all actors perform their roles well, connections and relationships between them will contribute to the realization of the ultimate system goal as described above.

In practice, different actors may have their own objectives and roles that motivate their policy responses (Table 1). Even for actors sharing similar objectives, such as the central government actors,

Fig. 1. Key actors in implementation of the essential drug policy.

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Table 1
Main actors and their objectives, roles and policy responses.

Actors	Main objectives	Roles	Policy responses
Central governments (9 ministries)	Build up a national essential drug system, control drug costs, improve access and affordability of essential drugs, ensure satisfaction of other key actors	Policy making, defining the essential drug list, overseeing policy implementation	Different ministries have different options. E.g. Ministry of Health for essential drug list defining and overseeing implementation, Ministry of Finance for compensation plan, and National Development and Reform Commission for drug pricing
Provincial governments	Ensure supply, delivery and use of essential drugs	Organize implementation of essential drug policy	1) make implementation plan; 2) organize bidding and contracting with drug companies
Municipal/county governments	Supervise, deliver and use essential drugs	Provide compensation to hospitals, regulate essential drugs' use in hospitals	1) implement policies; 2) coordinate different government agencies at local levels; 3) some government agencies (not health authorities) may "pass the buck"
Drug producers	Win the bid and make profits	Produce safe and quality essential drugs	1) reduce drug prices to win a bid; 2) give up a bid if bidding prices are too low; 3) reduce production costs by lowering quality standard; 4) collude with other producers and purchasers on bidding
Drug distributors	Win the bid and make profits	Ensure timely, effective delivery ofessential drugs	1) ensure enough volume, 2) keep distribution costs down
Hospitals and village clinics	Maintain operation and income, provide quality care, improve patients' satisfaction	Procure and use essential drugs, advocate the policy	1) keep enough stock of essential drugs, 2) avoid financial loss; 3) find ways to compensate loss caused by "zero markup policy" when the government budget is not enough, such as buy sub-quality or fake drugs, charge more from patients for other goods/services, increase volume of other goods/services, and negotiate other subsidies from government
Providers	Maintain income level, provide quality service, ensure patients' satisfaction	Explain to patients about the policy and Prescribe essential drugs	1) avoid income loss; 2) lose incentives for providing services after the implementation of performance-based salary; 3) complain about unavailability of drugs; 4) find ways to compensate their financial loss (such as seeing patients privately or similar choices as hospitals)
Patients	Get quality drugs at low prices	Pay for services and get the drugs they need	1) no response because they do not know the policy; 2) complain about not getting the drugs they need; 3) go to private pharmacies or upper-level providers
Health insurance programs	Ensure safe use of insurance funds	Use the essential drugs list as pharmaceutical benefit package	1) advocate use of essential drugs; 2) inspect hospitals on use of essential drugs; 3) change the rules about whether or how to reimburse for non-essential drugs; 4) redefine rules on price limits and/or volumes of other goods/services

there are sets of actors within this larger group that have different interests and objectives and will respond differently to the essential drugs policy. For example, central government actors may be more concerned with their own budgets, wage considerations for health workers, sustainability of the health insurance scheme, the selection of drugs and quality of care, or seeking harmony among the other key actors. Table 1 tries to anticipate some of the known objectives of formal actors, and there may be more hidden objectives, as well. Actors and groups of actors interact at different levels and form small subsystems, and these subsystems will also interact together and adapt to changes of the outside environment. The interdependence and change over time between actors and subsystems contribute to the complexity of the implementation process (Fig. 2).

In Fig. 2, five circles are overlaid on the original mapping of actors in implementation of the essential drugs policy, dividing the system into five interdependent and interactive system parts. Circle 1 includes all the government actors who are mainly involved in policy making and the selection, procurement and regulation of drugs. Circle 2 includes drug producers and distributors responsible for production and distribution of essential drugs. In circle 3, local government agencies need to compensate hospitals for giving up drug markups, and also monitor and supervise the policy implementation at hospital level. Circle 4 includes the core functions of supply and use of services by health providers and patients, as well as their immediate supervision by hospitals management. In circle 5, local health insurance and patients pay for essential drugs delivered by providers. These are five functional groups of the essential drugs system. They are acting on different levels, but with overlaps and interactions. For instance, circle 1 and 2, and circle 2 and 4 form contract-based relationship through bidding and procurement processes, whereas circles1, 3 and 4 link to each other owing to the existence of governance and accountability between the actors.

In Fig. 2, formal links between actors as defined by the official document on the implementation of the essential drugs system have been depicted with thick arrows. There are informal links between these actors as well, as shown by the thin arrows. In China, as elsewhere around the world, there are other semi-formal or informal actors who are very active in the local health market, such as village clinics, private pharmacies, village clinicians and traditional healers (Bloom et al., 2011). The official document does not mention these actors, but they will be influenced by implementation of the essential drugs policy and respond to the changing

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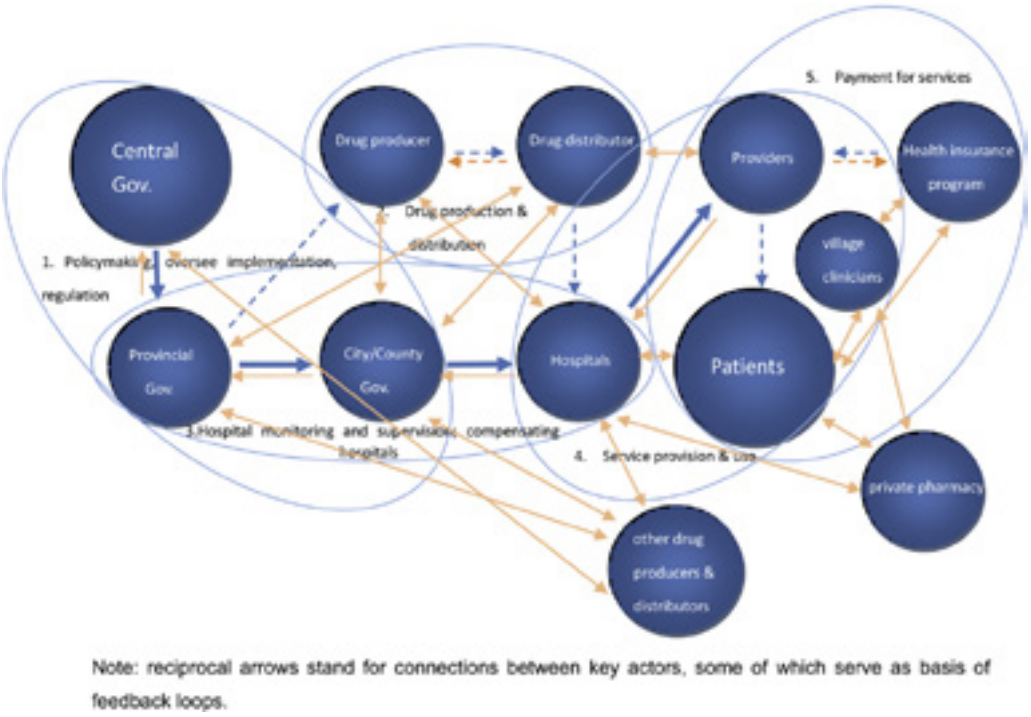

Fig. 2. Key actors and their interactions in the lens of complex adaptive systems.

environment in ways that can also influence the outcomes of the policy reforms. The existence of these "invisible" actors outside the formal institutional framework also contributes to a more complex health system. Meanwhile, the central government has decentralized the power of tendering to the local governments. Most localities have established new agencies to manage the tendering process, and the emergence of a new power organ and its links with drug manufacturers may nurture rent-seeking behavior at local level. In the past, hospitals purchased drugs from drug suppliers directly, but now the direct links between them are cut off. There are possibilities that new links driven by profit may be formed. Drug producers and distributors outside the essential drug supply system (named as "other drug producers and distributors" in Fig. 2) may try to exert pressure on governments agencies and continue to influence hospitals and providers' clinical decisions.

In Fig. 2, the reciprocal connections between formal and informal actors may form positive or negative feedback loops, which accentuate or moderate changes brought by policy implementation. For instance, changes of providers' prescription behaviors may influence patients' use of medicines. Patients' responses to the changes may influence hospitals' management rules, which further change providers' behaviors.

In the above narrative, it is apparent that policy implementation is a process of adaptive behaviors of various actors at multiple levels. Changes brought about by adaptation of actors may be followed by negative and positive results, which impact on implementation. Policy strategies and plans can be emergent and subject to continuous change rather than fixed and preset. As a result, predictability and control are low. Evaluation of the essential drugs policy is more of a dynamic learning process aiming at generating knowledge for further policy improvement than static judgments on a fixed model and making judgment. A complexity perspective is well-suited for such a dynamic policy.

Methods

As part of a national evaluation program, this scoping study has been positioned to observe and document key issues and experiences of the initial implementation of the essential drugs policy in rural China. Since the initial implementation process is full of adaptive changes and intriguing relationships between key local actors, qualitative methods have been selected. Compared with quantitative methods, qualitative methods are better suited to study new ideas and explore complex phenomena (Minichiello, Sullivan, Greenwood, & Axford, 2004). Case study methods are considered to be most helpful as the first step to generating knowledge about an unknown phenomenon (Yin, 1994). Anderson and colleagues argue that a case study can help knowledge development at any level, and it should be paired with complexity theory to study systems (Anderson et al., 2005). Therefore, a case study approach was adopted in the study. Semi-structured key informant interviews were chosen as the most suitable method for data collection.

Three rural counties in western China were identified as the study sites. They are among the 592 districts and counties on the list of national poor districts or counties entitled to national poverty relief funds. The current list was made in 2001. The three counties are no longer poverty-stricken. With development funds from the government and international agencies, the counties have become pioneers in experimenting with new models for national reform interventions. The essential drugs policy has been formally implemented in all three with two distinctive intervention approaches. The three counties have similar geographical and demographic features and are in the same economic range — middle and upper middle income counties (see Table 2 for details), so that comparison can be made. The site visit was conducted at the end of December 2010, when three counties had implemented the policy for at least

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Table 2
Basic facts about implementation of the essential drug policy in the three counties.

County	Geographic location	Per capita GDP[a]	Key demographic features	Population served by the THCs visited	When policy implemented	If non-essential drugs are used
County A	Remote mountainous area	22,500 Yuan ($3519)	Ethnic minorities mixed with majorities in communities	26,000	6 months	yes
County B	Mountainous area	13,130 Yuan ($2053)	Ethnic minorities mixed with majorities in communities	28,000	3 months	yes
County C	Remote mountainous area	13,346 Yuan ($2087)	Ethnic minorities mixed with majorities in communities	14,000	3 months	yes

All the GDP data come from the website of the National Bureau of Statistics of China http://www.stats.gov.cn/.
[a] Per capita GDP on a country level was 29,936 Yuan RMB ($4682) in 2010.

3 months. Ethical approval has been obtained from the Ethical Review Board of CNHDRC before the field trip. Altogether 24 people were interviewed, including heads of county health bureau, division chiefs in charge of the implementation of the essential drugs policy, central township health center chiefs, doctors (including village clinicians) and patients. Interview transcripts and extracted information from policy documents and reports provided us with rich data for analysis. The data were analyzed by using a theme analysis method (Bazeley, 2007). With perspectives provided by understanding of complex adaptive systems, data were interpreted and synthesized in the following section.

Implementation of the essential drugs policy in three rural counties

Divergent and unpredicted outcomes of policy implementation

Although the three counties have similar geographic, economic and institutional contexts and had just launched the policy implementation at the point of our visit (see Table 2), we observed different and unintended outcomes of policy implementation.

County A is located in a remote rural district of a comparatively developed municipality in southwestern China. The district has developed various social initiatives funded by the government and international agencies in the past 20 years. Coordinated by local health authorities, centralized bidding and procurement has been practiced by local township health centers since 2002 in a way that demonstrates prior self-organizing behavior at township health centers. Seven township health centers jointly formed a bidding and procurement group, with township health center chiefs overseeing the process and making final bidding decisions. This practice effectively controlled drug use and drug prices in the district.

As demonstrated by our interview of the director-general of the District Health Bureau, per capita out- and inpatient costs in the district were the lowest among 9 districts of the municipality. With the initiation of the new essential drugs policy, the township health centers can only choose drug producers and distributors from the list provided by the municipal government. Initial problems were high bidding prices for essential drugs and incompleteness of the essential drug list as perceived by doctors and patients. An increase in price was witnessed for 186 essential drugs as compared to the prices before policy implementation. About 1/3 of the drugs in common use by the local people cannot be found in the list, and 1/3 drugs on the list are rarely used.

"Separation of drug income and expenditure of township health centers" and "performance-based salary" were both implemented as complementary policies to the essential drugs policy, to compensate providers for giving up income generated from drug sales and encourage development of township health centers. The purpose was to provide more incentives for hospitals to develop themselves and for doctors to put more energy into improving service quality rather than increasing the volume of services. With direct financial compensation from the local public finance unit and regulatory efforts by local health authorities, drug prices to patients and availability have been kept almost the same as before implementing the policy, as shown in the interview with the township health center chief. As a result, the township health center did not have too many difficulties in adopting the policy. Outpatient visits in the hospital increased 20% as compared to the same period one year prior. However, the number of inpatients remained the same, although inpatient drugs were also covered by the local New Cooperative Medical Scheme. Providers' attention had moved to quality improvement and development of professional skills, as observed by the township health center chief.

Counties B and C are located in mountainous areas of a large agricultural province. Both have been pilots for various national reform and development programs. For a long time, local health development has relied on local finance from city and county governments. Due to lack of public funds, township health centers were on their own to maintain operation. Before implementation of the essential drugs policy, the two township health centers were selecting their drug suppliers and defining drug markups on their own and without external supervision. As a result, the centers reported that they have been influenced greatly by use of essential drugs in terms of hospital operation and income.

County B reported that drug prices paid by patients were on average 20% lower than before implementation of the new policy. Total hospital revenue in 2009 was 1,320,000 Yuan ($203,076), with drug revenue accounting for 70%. By the end of December of 2010 (3 months after the policy implementation) the total revenue was 1,900,000 Yuan ($292,307), with 57% coming from drug sales. The share of drug revenue decreased since adoption of the essential drugs policy in the province in May 2010. Since May 2010, the local government has decided to provide the hospital with about 147,000 Yuan ($22,615) annually as financial compensation for implementing "zero drug markups" policy. The compensation plan has been made on the basis of average drug profits of health facilities in the past three years. According to the old drug policy, township health centers were only allowed to mark the sale prices up by 15%. So the local government simply calculated the average drug income of the township health center as 15% of its average drug revenue in the past three years. However, the true drug markup in the township health center was much higher than 15%. Although the total hospital revenue increased, net gain decreased with decreasing drug revenue. As reported by the chief, the hospital suffered a substantial financial loss from implementing the new policy. Besides revenue loss, the hospital also saw an increase of dissatisfaction among patients, and growing resentment and lowering morale among doctors. As estimated by the township health center chief, about 10% of patients went to private pharmacies directly after they obtained prescriptions from the doctors, because they could not find the drug they normally use in the essential drug list. Doctors were often scolded by their patients for not meeting their needs.

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Apart from negative outcomes of the policy implementations, unintended consequences of policy implementation in county B led to impaired performance. For instance, before adopting the policy, the township health center in county B withheld payment to four drug suppliers it had contracted with in order to save funds for development of the institutional infrastructure. It announced to the drug supplier that the uncompensated drugs would be considered to be a "loan" that they would repay by purchasing drugs from the suppliers in the future. Subsequently these four companies were bumped off the provincial government's list of defined producers or distributors, so they could no longer provide drugs for the hospital to recoup the loan. Now the hospital must pay back over one million Yuan ($153,846) to the four suppliers.

County C had the same issues of outflow of patients and decreases of hospital revenue, only to a milder degree. The township health center also reported unavailability of common drugs in the essential drug list and stock-outs of the essential drugs. It is located in a mountainous area over 200 km away from the provincial capital, with scattered towns and villages. There are only 5 private pharmacies in the county. Many villagers need to travel by motorcycle or bus to get access to the nearest hospital, so unavailability of drugs will greatly affect their lives. The township health center chief thought the low bid price of a drug would either cause the contracted manufacturers to stop producing the drug or produce sub-quality drugs, leading to a stock-out and patient dissatisfaction with the efficacy of the cheap alternatives. Doctors in the hospital and village clinics had a rather dismal view of the current compensation scheme because their salaries were lowered after the policy implementation.

Adaptive and self-organizational behaviors of some key actors

We observed self-organizing adaptive behaviors to the essential drugs policy in the township health centers, even though they had just begun to implement the policy several months earlier. Due to incompleteness of the essential drug list, the township health centers were using some non-essential drugs to meet patients' demands. Health authorities in three counties had set up a buffer period for township health centers to use up or dispose of all non-essential drugs (drugs not on the essential drugs list), usually 2–3 months'. Meanwhile the government of the province where county B and C are located has expanded the national essential drug list to cover more drugs that reflect the local needs. Hospitals in the three counties also developed measures to assess doctors' performance as required by local governments. Some general measures were attendance rates, service volume and quality, and patients' satisfaction, etc. Performance-based salary usually accounts for 30% of the total income. Chiefs of these township health centers mentioned strained doctor patient relationships due to unavailability of certain drugs in the essential drug list. They also complained about doctors lowering the patient throughput after the switch to performance-based salary. Administrators of the township health centers worried about reduced outpatient visits and lower hospital income because patients in the townships were going to upper-level hospitals or private pharmacies to get a wider selection of drugs.

The hospitals were actively seeking ways to adapt to the situation. The chief of the indebted township health center in county B was actively figuring out new revenue sources. He set up policies providing incentives for doctors and nurses to admit more outpatients (20 Yuan per patient for doctors and 10 Yuan for nurses). The incentives scheme worked. The number of inpatients in quarter 3 of 2010 was already more than twice that of the previous year. This type of adaptive and self-organized behaviors may negate the hoped-for cost savings. Interviews of inpatients in the township health center showed that those patients who were given unnecessary inpatient care were happy about the fact that they got more attentive care inside the hospital, and faced a better financial picture because the insurance reimbursement from the new Cooperative Medical Scheme was more generous for inpatient stays (75% of costs are reimbursed for hospital stays compared to 50% for outpatient care).

Nonlinear and dynamic changes in the implementation process

Due to adaptive behavior by various key actors, the implementation process in the three counties is dynamic and not a simple linear response to the policy change as was implied by the formal institutional framework established for the essential drugs policy. This dynamism is demonstrated by the evolution of drug distribution in the three counties. The municipality where county A is located has defined prices of essential drugs and decided on potential distributors for all the nine districts under its jurisdiction. Distribution costs are included in prices of essential drugs. County A could select from over 60 producers/distributors listed on the webpage of the municipal government. It chose 13 producers/distributors within or near the district and ensured that there are two distributors for each specification of drug. With timely supply of essential drugs, the township health center in county A had a high use rate of essential drugs (about 80–90% of drugs distributed are from the essential drugs list).

The province where counties B and C are located has set up a coordinating office, in charge of "unified bidding, unified distribution, and unified pricing" of essential drugs. Under the highly centralized bidding, pricing and distribution policy, counties B and C were assigned only one distributor each. Distribution costs are set at 5% of drug prices. Although the distributor is a big enterprise with strong capability, covering hundreds of miles to send essential drugs to remote counties like B and C proved costly. Distribution costs exceeded revenue which discouraged the distributor from sending in small stocks demanded by township health centers located in mountainous towns. Stockouts lowered utilization rates of essential drugs. The township health center in county B was using around 60% of the drugs it distributed from outside of the essential drugs list, while the corresponding rate in county C was 40%. We found that county C entrusted the Township Inspector General, (a public watchdog in every township statutorily responsible for enforcing disciplinary regulations for all public servants, including township health center chiefs) as the main supervisor for implementing the essential drugs policy. This may explain why use rate of essential drugs in county C was higher than county B. The introduction of a new actor achieved better monitoring effects by putting pressure on township health center chiefs.

The above example shows the dynamic and nonlinear distribution processes in different counties. Instead of the orderly linear process of dominoes laid out in Fig. 1, new actors and processes arose over time. Provincial or municipal governments interpreted the essential drugs policy in different ways and made different implementation plans, which reinforced or moderated changes desired by the central policy makers. At the same time, other key actors like township health centers were not just adapting to the implementation process, but actively finding ways to change the system, which produced positive or negative feedback loops influencing the policy adoption and adaptation.

Implications for implementation of the essential drugs policy at local level

By conducting the scoping study, we hoped to inform future studies that assess the health reforms. We knew at this stage local

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and central level decision makers hope to quickly get a sense of what happened at county level and hospital level. As evaluators and researchers, we were fully aware of being part of the complex system, for the interviews may have impacted on implementation processes on the local level. The complexity lens helps frame several policy recommendations for policy makers and policy implementers.

Understanding local drug policy implementation as a complex process

Even with the same local institutional, social-economic environments, three counties witnessed different outcomes of the implementation. Unintended consequences arose. The implementation process was complex and unpredictable. Policy implementation involves a string of interactive and interdependent formal and informal actors and actor groups. They formed formal and informal links or relationships and made changes to adapt to the outside environment. Actions of these actors and interactions between them may decide the policy outcomes.

For policy makers and implementers, the main lesson is to apply complex adaptive systems thinking to how the policy should be designed and implemented. One way to do this effectively is to map out key actors in the health market, their objectives, links/relationship and possible policy responses, as was shown in Table 1. Expecting and recognizing unintended consequences is also critical, which emphasizes the importance of performing real-time monitoring and evaluation, with a focus on learning and adjusting policies rather than focusing on simply punishing failure or rewarding success. One must also be proactive in preparing for unintended consequences.

Capture nonlinearity and diversity of policy implementation

There is a strong temptation to depict policy implementation as a linear and predictable process. However, due to the complexity of the health system, various actors may change their role in the system through adaptive behaviors. For instance, due to differences in local policy interpretation, local governments may design different local implementation plans. Therefore, policy makers, implementers and regulators need to capture the nonlinearity and diversity of policy implementation by tracking paths of implementation at the local level and making timely observations of implementation effects. This might imply that an effective mechanism needs to be established to document variations and effects of implementation and feed the information back to those actors that can leverage changes in the system. In our research we learned that with encouragement from the central government, provincial governments in most places have customized their supplementary list for the national essential drug list based on local demands. Furthermore, some provinces have required local public finance at city and county level to readjust their compensation plans for township health centers, to help the hospitals deal with big financial losses. Our study demonstrates that policy makers have responded idiosyncratically and not as predicted.

Pay close attention to key actors' response and take proper approach to deal with them

Various actors in the system adapt to policy changes at the same time. Close attention should be paid to policy responses, especially by the key actors. Health facilities were the main responsible agents for policy implementation at the local level. Health facilities respond to the new policy by taking actions to try to optimize their environment, forcing reactions by other actors. These policy responses should be closely followed. Certain measures should be taken to deal with negative policy responses. Simply clamping down may not always be the best approach. For example, township health centers made patients their allies in driving up admission rates to compensate their loss in implementing the policy. Anticipating the range of behavioral responses with more complex models of reactions will improve policy.

Conclusion

The essential drugs policy is a new policy launched with the new round of reform of the Chinese health system. The implementation of the policy has encountered many challenges related to the complexity of the health system. The policy implementation process involves multiple actors. With diverse objectives and responses to changes, these actors have developed additional subsystems through interactions with each other and adaptive behaviors. Interdependence and adaptive behaviors of the various actors in a dynamic implementation process has produced a variety of outcomes that vary across settings, including some unintended consequences. Those outcomes feedback to the system to influence policy implementation and trigger more adaptive behaviors. Success in achieving the public objectives of the essential drugs policy is likely to come through close follow-up and better anticipation of the range of health system reactions. This approach involves understanding the objectives and responses of all the key actors in the system, using data for disclosure and learning, and taking advantage of positive adaptive behavior of the different actors. Using the lens that complex adaptive systems offer, policy makers and implementers will be able to grasp the nature of implementation of the essential drugs policy, and better cope with emergent changes and unexpected adaptations in such a dynamic and complex system.

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Development and implementation of Clinical Practice Guidelines for Health Care Providers in Georgia

Tamar Gabunia

1. Country Context

Georgia is a country in the Caucasus region of Eurasia. Located at the crossroads of Western Asia and Eastern Europe. The capital and largest city is Tbilisi. At the beginning of 2015, the population of Georgia was 3.73 million (1), with 57.4% of the total population residing in urban areas.(2) According to the World Bank, the country's economy registered an average 5.5% annual growth during the last five years; the estimated gross national income (GNI) was USD 3,560 per capita in 2013, while about 15% of the population live below national poverty line.(3)

Non communicable diseases are responsible for the major share of disease burden in Georgia. Communicable diseases including HIV/AIDS, Tuberculosis and Hepatitis C remain big public health challenges and are on top of health policy agenda.

Improving access to quality health services is a top priority declared by the Government of Georgia (GoG). In 2013, the political commitment to universal health coverage was translated into the universal health care program with the threefold increased budget. This development significantly reduced financial access barriers to health services for the entire population. Although important, unlimited access to health goods and services cannot guarantee improving health outcomes unless this is coupled with strong quality improvement measures.

As Government of Georgia has invested new funds to achieve universal health coverage, the need to address shortfalls in quality and efficiency of care became even more acute.

2. Development of Clinical practice Guidelines in the Georgian context

Georgia made improving quality of health services a top priority of the on-going health care reforms.(4) Ministry of Labour, Health and Social Affairs (MoLHSA) had been actively supporting the notion towards evidence-based practice since late 90th and later on clinical practice guidelines were formally introduced as an integral part of the quality improvement programs. The professional associations were elaborating the guidelines on different clinical topics. MoLHSA through the guideline accreditation board was responsible for validation of draft guidelines and their approval. Although guided by the MoLHSA handbook for the guideline development, the process was not unified and deliverables produced by various professional groups varied greatly and often lacked essential quality features. In 2009, supported by the World Bank and the European Commission, MoLHSA decided to revise the guideline development process in collaboration with National Institute for Health and Clinical

Excellence (NICE), United Kingdom. Therefore, Georgia chose to focus on already available, good quality guidelines and adapt those to the local health care settings.

Developing "de-novo" clinical practice guidelines is a very resource intensive process that countries like Georgia can ill afford. Some recent publications share examples of adaptation and contextualization of CPGs to local settings.(5)(6) (7) (8) (9) All recognize that the adaptation of existing, high quality guideline is an efficient way for producing best practice recommendations tailored to the local needs. This improves applicability and acceptability of the guidelines and promotes evidence-informed health care in resource-limited settings.

3. **What makes clinical practice guidelines (CPG) successful?**

Guidelines are designed to inform practitioners on what needs to be done to achieve good clinical outcomes. Involvement of end users in development of the guidelines contributes towards their successful implementation.(10) Moreover, guidelines should be based on best available evidence, be easily understandable, consider peculiarities of local settings, reflect value for money and offer tools for measuring improvements in practice.(11)

There have been more than 160 clinical practice guidelines elaborated in Georgia for the last ten years. A formal evaluation of available guidelines has never been conducted. However, it is obvious that quality of CPGs is Georgia has significantly improved after introducing the standard methodology and procedures for the guideline development in 2010. MoLHSA with support of the NICE International adopted the guidelines manual which then became the road map for the guidelines development in the country. The advice in the manual draws on international guideline development and adaptation methodology adopted by NICE.(12) It is based on internationally accepted criteria of quality, as detailed in the Appraisal of Guidelines Research and Evaluation (AGREE 2) instrument, and The ADAPTE Toolkit (ADAPTE). (13) (14) The stroke guideline was elaborated in collaboration with NICE International to test the new methodology and approaches for the guideline adaptation articulated in the manual. Table 1 summarize key features of the guideline development process before and after the above-mentioned initiative.

3. **How to elaborate high quality clinical practice guideline in resource limited settings**

Tens of guidelines were adapted for the last five years using the aforementioned methodology in Georgia. Local professional bodies well realized that there are legitimate reasons for utilising or adapting guidelines or parts of guidelines that have already been published by recognized international bodies on the topics of interest. The extent to which this can be achieved depends on the quality of the guidelines, their relevance and applicability to the local context.(15)

The guidelines development in Georgia is currently governed by the MoLHSA manual and is composed of several steps described below.

The initial step is establishment of the guideline development working group (GDG) which is chaired by a recognized field expert with extensive clinical, scientific and academic background. The GDG is multi-professional and includes patients or their family members. They contribute as full GDG members and help to ensure that the evidence addressed the views and preferences of patients. The GDG and technical experts go through a series of steps to achieve a final outcome.

Step 1-Reviewing the scope of the original guideline to be adapted/adopted : The GDG chair and the MoLHSA technical team review the scope of the original guideline to establish how relevant this is to Georgian settings. Technical experts evaluate the guideline of interest against international criteria. AGREE II instrument (http://www.agreetrust.org/) is used for this evaluation.

Step 2-Selecting the clinical questions from the original guideline: In the next step the technical team and the GDG chair review the clinical questions from the original guideline to judge their applicability to Georgia. The GDG develops the guideline scope document which includes the list of all clinical questions to be addressed.

Step 3-Developing recommendations: Once the scope is defined and agreed upon, the GDG starts discussions on clinical recommendations. This step lasts from 6 to 9 months period depending on the number and complexity of clinical questions and recommendations. The GDG may adopt recommendations of the source guideline with no changes. This usually happens when recommendations are based on strong and high quality evidence and are considered fully applicable to the Georgian context. The GDG adapts some recommendations. The reasons for adapting vary but changes are mostly limited to tweaking the wording in order to clarify the recommendation, or because parts of the recommendations are not relevant to Georgia.

The GDG may decide to conduct search and identify new evidence for questions which are important for Georgia but for some reasons were not included in the source guideline.

The new search is conducted according to the review protocols which are developed for new clinical questions. The protocols include the relevant clinical question(s), the search strategy, the criteria for assessing the eligibility of studies and any additional assessments. The GRADE approach is used to assess the quality of the evidence for each outcome in each study, and evidence summaries across all outcomes are produced. (16) A GRADE evidence profile is used to summarise both the quality of the evidence and the results of the evidence synthesis.

The GDG makes "De Novo" recommendations based on the evidence summary taking into account the quality of the evidence as well as other important factors, including values of the development group and society, and the group's awareness of practical issues for Georgia.

In areas where no substantial good quality evidence is identified, the GDG makes consensus statements and uses their collective experience and expertise to identify good practice.

Step 4-Identifying Key priorities for implementation: To help ensure that the most important recommendations from the guidelines are implemented in practice, the GDG identifies key priority recommendations for implementation in Georgia. These are the recommendations that the GDG think are likely to have the biggest impact on patient care and clinical outcomes and which could be implemented realistically in the present Georgian healthcare system. These recommendations form the basis for cost impact analysis and quality standards.

Step 5-Economic evaluation of intervention: Cost effectiveness analysis – which helps to answer the question "Is it worth it?" – is not a routine part of the guideline development process in Georgia. There are a few guidelines e.g. the stroke guideline elaborated in collaboration with NICE International that include budget-impact analysis aimed to give an indication of the likely financial impact of implementing these recommendations. This gap should be addressed in the near future for the sake of efficiency.

Step 6-Developing quality standards: Quality standards are developed for implementation priorities. Quality standards are an integral part of the guideline documents approved by MoLHSA. Health service providers are expected to conduct baseline assessment against quality indicators and then follow up closely to measure gaps and improvement in practice.

Step 7-Validating the guideline: Final versions of CPGs are externally reviewed by local and international experts. These reviews intend to assess the adequacy of the search strategy for each clinical question; the appropriateness of adapted recommendations, relevance and coverage of the evidence to update the recommendations and answer the new clinical questions, the analyses and interpretation of evidence.

Step 8-Approval of the guideline by MoLHSA: CPGs once finalized by the GDG and validated by external reviewers are submitted to the Ministry Guideline Accreditation Board for review. When applicable, the board (composed of 25 experts in various fields) recommends the guideline for approval. Guidelines are approved by the ministerial order and are published on MoLHSA web site for all audiences.

4. Lessons learned from guideline development and implementation in Georgia

Quality improvement (QI) initiatives have been a central part of the Georgia's Health Care Reform for the last five to ten years. The substantial QI interventions including those aimed at guidelines development have been implemented with external as well as domestic funding.

The guideline development experience showed that universities and professional associations are very enthusiastic about building their competencies in systematic reviewing and critical

appraisal of scientific literature. A high quality guideline can be developed through effective coordination of all interested parties. The guideline development process has to be guided by the sound methodology and supported by qualified technical personnel such as systematic reviewers, health economists and field experts.

Internationally-recognised guidelines can be successfully adapted and development processes produced to the needs of middle income countries (MICs) in an optimum time (6 to 9 months). The effective contextualization of the original guideline to other countries can successfully be achieved through the well planned adaptation process.

The Georgia experience shows that the guideline adaptation is a multistage and complex process that requires active involvement of national stakeholders which should inform the process. The guideline developers need to understand local organizational, institutional, cultural, political and social factors and environment that influence clinical decision making. At the same time, they have to be equipped with the rigorous methodology to ensure quality of the adapted guideline and keep the evidence-base intact for revised recommendations.

High quality clinical practice guidelines hold good promise for improving clinical outcomes. However, the implementation remains a big challenge. Many MIC countries lack advanced systems for performance monitoring and quality measurement in health care. The regulatory environment for setting and monitoring progress against quality standards in Georgia is limited. Neither there are adequate financial mechanisms in place to encourage evidence-based practice. Having the resources and a sound framework for the guideline development are critical preconditions for producing quality CPG with good potential to improve providers' performance. Committed leadership by MoLHSA and active involvement of professional and academic groups make this process successful. Continuous policy and institutional support is required for adequate planning of the guideline development and implementation.

Table 1. What has changed: Key features of the Guideline Development Process in Georgia before and after introducing the new methodology

Key features of the Guideline Development process	Established practice	What have changed
Topic Selection	Driven by availability of funding sources	Coordinated by MoLHSA in consultations with funding agencies and professional bodies
Who develops clinical	Professional Associations or	A multidisciplinary Guideline

practice guidelines	group of independent experts mainly representing one speciality	Development Group including health professionals, a patient and his/her carer
Methodology	Guided by the MoLHSA roadmap describing the main steps but not the process, tools and approaches. The work done through translation of international guidelines-the content not adapted to the local circumstances.	Guided by the newly elaborated guideline development manual, that provides advice on the technical aspects and the methods used to develop De Novo guidelines as well as to adapt existing guidelines to the Georgian context.
Patient preferences	Not taken into consideration	Patients are invited to sit in the guideline development group. Their preferences and concerned considered.
Cost considerations	Not done	Budget impact analysis is highly recommended and conducted for key recommendations; cost-effectiveness analysis desirable if resource availability allow
Quality standards	Not required to include quality standards or any progress monitoring tools	Each guideline should include a section with criteria for clinical audit. Quality standards should be developed for key recommendations.
Code of conduct and ethical standards	Conflict of interest not declared by involved parties	Declaration of conflict of interest becomes mandatory for the guideline development group members

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Better Decisions for Better Health: from Rhetoric to Reality

Plenary

4

This fourth and final high-level plenary will bring together national policy-makers, leading academics and civil society to discuss the moral imperative of making the "right" decisions for better population health. It will highlight some of the practical and political challenges of priority-setting in the health sectors and across sectors. The panelists will reflect on previous efforts to make better decisions such as the Commission on Macroeconomics and Health, and look forward to the future.

Moderator

Amanda Glassman
VP for Programs, Director of Global Health Policy and Senior Fellow,
Center for Global Development, USA

Speaker

Ala Alwan
Regional Director for the Eastern Mediterranean, World Health Organization, Egypt

Panelists

Piyasakol Sakolsatayadorn
Minister, Ministry of Public Health, Thailand

Maria Guevara
Regional Humanitarian Representative (ASEAN),
Médecins Sans Frontières, Hong Kong

Dean Jamison
Principal Investigator and Series Editor, Disease Control Priorities Network,
University of Washington Department of Global Health, USA

Paulin Basinga
Senior Technical Advisor, Rwanda Biomedical Centre, Rwanda

MODERATOR

Amanda GLASSMAN

VP for Programs
Director of Global Health Policy and Senior Fellow
Center for Global Development

USA

Amanda Glassman is vice president for programs and director for global health policy at the Center for Global Development, leading work on priority-setting, resource allocation and value for money in global health. She has 20 years of experience working on health and social protection policy and programs in Latin America and elsewhere in the developing world. Prior to her current position, Glassman was principal technical lead for health at the Inter-American Development Bank, where she led knowledge products and policy dialogue with member countries, designed the results-based grant program Salud Mesoamerica 2015 and served as team leader for conditional cash transfer programs such as Mexico's Oportunidades and Colombia's Familias en Accion. From 2005-2007, Glassman was deputy director of the Global Health Financing Initiative at Brookings and carried out policy research on aid effectiveness and domestic financing issues in the health sector in low-income countries. Before joining the Brookings Institution, Glassman designed, supervised and evaluated health and social protection loans at the Inter-American Development Bank and worked as a Population Reference Bureau Fellow at the US Agency for International Development. Glassman holds a MSc from the Harvard School of Public Health and a BA from Brown University, has published on a wide range of health and social protection finance and policy topics and is editor and co-author of the books Millions Saved (CGD and Brookings 2016), From Few to Many: A Decade of Health Insurance Expansion in Colombia (IDB and Brookings 2010) and The Health of Women in Latin America and the Caribbean(World Bank 2001).

Ala ALWAN

Regional Director for the Eastern Mediterranean
World Health Organization

Egypt

Dr Alwan graduated in Medicine from the University of Alexandria. He practiced medicine in Scotland and obtained his postgraduate training and qualifications in the United Kingdom. Following his return to Iraq, his home country, he held several positions in clinical and academic medicine and public health. He was Professor and Dean of the Faculty of Medicine, Mustansiriya University, Baghdad.

In 1992, he joined WHO as Regional Adviser for Noncommunicable Diseases in the Regional Office for the Eastern Mediterranean. He then served as WHO Representative in Oman, and Director, Division of Health Systems Development in the Eastern Mediterranean Region. In 1998, Dr Alwan was reassigned to WHO headquarters as Director for Noncommunicable Diseases Prevention and then Director of the Department of Noncommunicable Diseases Management. In 2001, he became WHO Representative in Jordan. From 2003 to 2005, he was Minister of Education and Minister of Health in the Government of Iraq. From 2005 to January 2008, he was Representative of the Director-General and Assistant Director-General for Health Action in Crises. Dr Ala Alwan was Assistant Director-General for Noncommunicable Diseases and Mental Health from1 February 2008 until the end of 2011.

The World Health Organization (WHO) Executive Board, in its 130th session held in January 2012, has appointed Dr Ala Alwan as the new WHO Regional Director for the Eastern Mediterranean. Dr Alwan's appointment for a five-year term started on 1 February 2012. He took over from Dr Hussein Abdel-Razzak Al Gezairy.

Piyasakol SAKOLSATAYADORN

Health Minister
Ministry of Public Health

Thailand

Clinical Professor Emeritus Dr. Piyasakol Sakolsatayadorn is the Minister of Public Health in 2015. He also be the second vice-president of administration board of Siriraj Foundation, advisory committee member of Prince of Songkla university council, chairman of Galyani Vadhana institute of music and committee member of Queen Savang Vadhana Foundation and committee member of Council of State, Office of the Council of State. He graduated from Faculty of Medicine Siriraj Hospital, Mahidol University in 1971 and continue postgraduate program in General surgery, and post-doctoral fellowship in Critical Care Medicine at Johns Hopkins University, and Injury Epidemiology at Centers for Disease Control and Prevention, Atlanta, Georgia, USA.

Dr. Piyasakol has experiences and works in many fields such as being Secretary – General of Trauma Association of Thailand, president of Board of Cancer Foundation, Siriraj Hospital, chairman of Auditor Committee of Government Pharmaceutical Organization, president of Mahidol University, committee member of Board of Trustees, Prince Mahidol Award Foundation, honorary advisor to the Second Vice-President of the Senate, the Senate Standing Committee on Public Health, and committee member of Council of State, Office of the Council of State

As the Minister of Public Health, Thailand, he announced the policy on develop public health system for all Thai to have good health and health personnel work with happiness. His policy gives priority to an integrated health development project in remote areas especially those under the initiation of His Majesty King Bhumibhol and other projects to celebrate special occasions of His Majesty and the Royal Family. His policy focused on health promotion and prevention of all age groups to reduce health risk and for consumer protection which need all parties' participation in the network and in the system, increasing efficiency of management of organizations

at all levels of MoPH, development of human resource on public health under social, economic and global changes, research and development of quality Thai traditional herb and local wisdom to create economic value to the country, and supporting re-regulation and law to facilitate public health works. In addition, his policy also emphasized on supporting mechanism to promote and create security and happiness of all Thai.

For the New Year 2016, he also announced the policy to be presents for all Thai. Those are long-term care for 100,000 elderly persons who are dependent, polio vaccination for all 700,000 children, eye-examination for all grade-one school children and provide eye glass for all children who have eye sight problem, health screening for 300,000 monks and provide special ward for sick monk at least one hospital in each health region, and providing prostheses to 1,500 disabled including training 1,000 personnel for disabled registration and taking care of disabled persons.

Maria GUEVARA

Regional Humanitarian Representative (ASEAN)
Médecins Sans Frontières

Hong Kong

Dr. Maria Guevara is currently the Regional Humanitarian Representative in Asia for MSF, based in Hong Kong since 2012. Although originally born in the Philippines, Dr. Guevara was raised in the US where she acquired her Medical Doctorate. After obtaining her medical degree from the University of Alabama, School of Medicine in 1993, she received training in Internal Medicine at the University of Nevada and specialized in Pulmonary and Critical Care at the University of Florida, College of Medicine. She was inducted as a Fellow of the American College of Chest Physicians in 2003 and was a recipient of the CHEST Foundation International Humanitarian Recognition Award in 2006. She also received training in tropical medicine at the Liverpool School of Tropical Medicine and Hygiene and is currently enrolled in the Masters of Global Health Policy program at the London School of Hygiene and Tropical Medicine.

After practicing in various emergency and intensive care units in the US and serving as faculty at the University of Florida, she joined MSF in 2004. She has done field work for MSF as field doctor, hospital director, project coordinator and medical coordinator in Liberia, Guatemala, Haiti, DRC, Nigeria, and Myanmar in both emergency and stable settings. She has also volunteered in different charities and associations aside from MSF and has participated in conferences as speaker/lecturer. She speaks English, French, Spanish and Tagalog.

Dean JAMISON

Principal Investigator and Series Editor
Disease Control Priorities Network
University of Washington, Department of Global Health

USA

Dean Jamison is Professor Emeritus of Global Health at the University of California, San Francisco. In 2006-2008 he served as the T. & G. Angelopoulos Visiting Professor of Public Health and International Development in the Harvard Kennedy School and the Harvard School of Public Health. Previously, Dean had been at University of California, Los Angeles (1988-2006) and at the World Bank (1976-1988). His last position at the World Bank was Director, World Development Report Office and lead author for the Bank's 1993 World Development Report, Investing in Health. His publications are in the areas of economic theory, public health and education.

Jamison studied at Stanford (M.S., Engineering Science) and at Harvard (Ph.D., Economics, under K.J. Arrow). In 1994 he was elected to membership in the National Academy of Medicine. Jamison was recently co-first author with Lawrence Summers of 'Global Health 2035', the report of the Lancet Commission on Investing in Health (The Lancet, December 2013). His publications are in the areas of economic theory, public health and education.

PRINCE MAHIDOL AWARD CONFERENCE SECRETARIAT
Institute for Population and Social Research
Mahidol University, Salaya, Phutthamonthon
Nakhon Pathom 73170, Thailand
Tel: (66) 2441-0202 ext. 627 or 628 Fax: (66) 2441-9333
E-mail: pmaconference@mahidol.ac.th

www.pmaconference.mahidol.ac.th