Conference: ***A World United Against Infectious Diseases: cross sectional solutions.***

Keynote Speech

Your Royal Highness, distinguished colleagues, ladies and gentlemen.

It is a distinct honour and privilege to be asked to give the keynote address at this gathering. And especially so, as we are at a time of unprecedented change and promise in the global fight against infectious diseases.

It also gives me great personal pleasure to be able to talk, no matter how briefly, on something to which I am extremely dedicated. Namely, the need to identify - and exploit to the fullest - multisectoral solutions to improve the health of all sectors of society. In particular, the health of populations that, for whatever reasons, are ignored by, or underserved by, national health services.

I should like to take this opportunity to congratulate the Prince Mahidol Foundation on its 20-year anniversary. I am in Thailand today because I have been greatly honoured and extremely fortunate to have been awarded this year's Prince Mahidol Prize in Public Health, primarily for my work on combatting Onchocerciasis. To borrow the words of a famous British scientist, I have been recognised because I have been lucky enough to have been "standing on the shoulders of giants". In my case, the sturdy shoulders include those of a wiry 19-year-old Nigerian mother -Agnes, standing hand-in-hand with brilliant African and international scientists, donors, WHO, The World Bank, committed politicians, dedicated NGDOs and millions of ordinary Africans who have to cope with the disease on a daily basis. Without the cooperation of the young Agnes and her willingness to express the sheer desperation of her plight, the horrors that she endured and her sense of hopelessness, my work, the discovery of the importance of onchocercal skin lesions, and my contributions through WHO/TDR research highlighting the burden of incessant itching from skin lesions and the associated devastating social stigma, may have gone unrecognised by the international community and external experts. And the world would not be looking at the possible elimination of Onchocerciasis in the not too distant future. A disease that has plagued my fellow Africans for centuries.

Most of you here will already know that there is a need for the world to rethink a fundamental approach to global health. As a distinguished colleague so succinctly put it in a recent article in the Lancet "despite billions of dollars of aid pouring into countries, delivery systems for health have to be re-thought."

The African Programme for Onchocerciasis Control (APOC), which I was privileged enough to help set up, direct, and be part of for almost 20 years, is based on a singular, simple tool, mass distribution of the safe and effective drug

ivermectin. APOC's unique distribution system, Community-Directed Treatment, which I was instrumental in the promotion and scaling up, has demonstrated beyond measure the value of empowering communities and engaging a diverse multidisciplinary, multinational partnership toward a common goal. Disease-affected communities, through this partnership, manage what is viewed by many as Africa's most successful of all public health interventions.

The Community-Directed system is a novel, innovative mechanism that can perhaps be adapted and exploited to advance PHC in Thailand, Asia and throughout the world, especially among poor, remote communities.

It is an approach in which the distribution and administration of Ivermectin to the community is undertaken by the community itself. Communities understand the nature and importance of the intervention, and determine the appropriate time and method of drug distribution that ensures accessibility and maximum coverage in locations underserved by the health services. The approach is implemented by community-directed distributors (CDDs), individuals chosen by the community from among their peers – a bottom-up empowerment model.

In the words of a famous public health expert, " the idea that communities should be involved in their own health, arranging to take and have their neighbours take this drug; that has been a kind of revolution in international Public health."

In 2011, the CDT approach helped disease-endemic countries to treat 98 million people with Ivermectin (Mectizan®) in 179,000 rural communities in 24 sub-Saharan Africa countries; this is in comparison to 1.5 million in 1997.

The effectiveness of this approach has increasingly made it a vehicle for the concomitant distribution of multiple health interventions. For example in 2011, 5.8 million people benefitted from home-based treatment of malaria and insecticide treated mosquito nets distributed by community-directed distributors and 42 million people were reached with treatment for the elimination of Lymphatic filariasis. With 650,000 trained CDDs delivering ivermectin and a high number of them involved in delivering other interventions, this approach has effectively demonstrated the potential of empowering communities.

The strategy has driven a reduction in onchocerciasis infections to less than 20% of pre-APOC levels; a 75% decrease in blindness; and over 50% drop in prevalence of itching, one of the most debilitating effects of the disease. So why has this initiative succeeded where others have failed? The secret is uniting with the rural poor; giving responsibility for the distribution of the drug to communities themselves, thus enabling them to be true partners in the health system.

The Community-Directed approach requires commitment, investment, time and care to make it work properly. It works well in remote villages in sub-Saharan Africa but not necessarily in peri-urban or urban areas. And it doesn't work in the

Indian culture. When it comes to public health interventions, one phrase leaps to mind - "One size does not fit all". What works perfectly well in one country and one culture, does not work elsewhere. And why should it?

Public health interventions such as community based initiatives to tackle dengue and delivery of micronutrients have worked well in Thailand but would they work elsewhere? Ideal solutions are tailor-made for the target, as are the best clothes. To promote the ideology of One Health and a united fight against Infectious diseases, a re-thinking of delivery systems for health - a comprehensive investigation -, needs to be done to discover what works best, and where. And establishing a global data base with universal access, would be a sensible global initiative, perhaps starting with Africa?

In Africa, and elsewhere, health systems need good and effective delivery systems in which the end users are inclusively engaged. And engaged in determining as well as operating those systems. That is the fundamental basis for the success of the Onchocerciasis /Mectizan donation programme – a bottom up revolution.

I would like therefore to seize the opportunity of this platform to call for a reform - or a profound rethinking - of our policies and how we create them. Why, despite the enormous progress made over the last 30 years, does Africa not have sustainable delivery methods for health interventions? Take the polio campaign in Nigeria and elsewhere in Africa. Every year, there are new foci with re-emerging or new outbreaks. In Nigeria, one hundred cases (100) were reported in 2012, significantly higher than the 62 in 2011. Why? When the solutions to polio and many such infectious diseases already exist and are readily available? This is a clear signal that Nigerian communities are poorly engaged or not committed as partners in the fight against polio.

I strongly believe that global health providers and countries will be walking in circles for ever unless there is a serious rethinking of delivery systems. What is even more frightening is the fact that, if we do not introduce and fully implement delivery systems, systems that are sustainable in the long-term, all our investments and advances in controlling – or even eliminating - diseases will be lost. Onchocerciasis, Guinea worm, Polio, Leprosy, Yaws. We are at a tipping point with respect to many diseases. Close to elimination, but running the risk of a lot of the gains we have made being reversed.

With today's unmatched opportunities, especially given the London Declaration pledge to guarantee provision of many curative drugs for infectious diseases free of charge, we have to seize and exploit this precious moment.

African villagers are incredibly resourceful and innovative. We have seen this in the health field, as well as agriculture and animal husbandry. To paraphrase an old saying, these villagers "may know less, but they understand more". Provided with access to the tools and specialized knowledge that they lack, they often exceed our

expectations of them. Today, there is evidence of elimination of onchocerciasis, made possible because of community involvement and the keeping of reliable treatment records.

With respect to health metrics, the records of household data compiled by CDDs have proved to be an important asset to districts and frontline health personnel and the Ministry of Education in many countries. Communities' role in harmonization of the distribution period of ivermectin and immunization across borders has been useful to co-ordinate trans-frontier polio, measles and onchocerciasis programmes.

Health intervention mechanisms have met with very limited success when they have failed to achieve universal participation. Or when they have not been customised to meet the real needs of the end-users. We also know that problems do exist, such as whether or not to give community volunteers external monetary incentive. CDDs lose not just time and money, a handful have, tragically, lost their lives because of their unwavering commitment.

To our great cost, we have learnt that, in Africa at least, a 'quick fix' imposed from outside simply does not work - and usually represents a wasted investment. Even where it does work, it simply does not strengthen any community health system in a cost-effective or sustainable manner. However, the Community-Directed system builds infrastructure guaranteed for the long-term. That is what Africa - our children's generation, and beyond – still desperately needs.

I am sure that your deliberations will focus on this topic and I trust that important positive developments - and actions - will arise from this conference.

Your Royal Highness, distinguished participants

I thank you for your kind attention.