

Summary report

Leveraging learnings from infectious disease control and maternal and child health programs for non-communicable disease management in low- and middle-income countries

Basel dialogue – December 12, 2014



Four out of five deaths from non-communicable diseases (NCDs) worldwide occur in low- and middle-income countries (LMICs). Spearheaded by the Novartis Foundation, the Basel dialogue was a call to action on the need for the global health community to address this growing health issue. Moderated by Prof. Peter Piot, known for his pioneering research in Ebola and for his role as the first director of UNAIDS, the event addressed how people in LMICs increasingly suffer premature death and disability from cardiovascular disease, cancer, diabetes and chronic respiratory diseases.

The dialogue emphasized how public-private partnerships can leverage learnings from infectious diseases and maternal child health (MCH) to improve care for NCDs and better manage the dual burden of both NCDs and infectious diseases.

Participants made clear that to address the dual burden, healthcare systems must be strengthened overall, and highlighted the need to innovate the *delivery of care and prevention* rather than delivering *innovation*. Generating and disseminating more information on the results of interventions, increasing local ownership, and expanding the awareness of NCDs are key factors to successfully delivering solutions that have the potential to become scalable and sustainable.

Stronger healthcare systems not only create better outcomes for people and communities facing epidemics of chronic disease, but are also better prepared to manage unanticipated healthcare crises, such as a potential Ebola outbreak.

Leveraging infectious disease learnings to combat non-communicable diseases

Nearly 80 % of NCD deaths – 29 million – occur in LMICs and these rates are forecast to grow over the next decade with the expected increase in urbanization and changes in demography (source: [WHO Fact sheet](#)). Based on the considerable commitment to and the large-scale successes in managing infectious diseases and MCH during the past decade, the Basel dialogue discussed which learnings and insights from these programs can be leveraged to combat NCDs.

Non-communicable diseases not just for rich countries



Dr. Ann Aerts, Head of the Novartis Foundation, spoke about the importance of public-private partnerships in expanding access to and increasing the quality of care in LMICs. She explained, “At the Novartis Foundation, we try to be a catalyzer for innovative healthcare solutions. We use our expertise to design such innovative solutions and work closely with global and local partners to scale successful delivery models and make them sustainable.”

She stressed the urgency of dealing with NCDs in LMICs: “Health problems, such as cardiovascular disease, are killing people prematurely and unnecessarily, as we have efficient therapies for most of them. The time to act is now and the Novartis Foundation is determined to collaborate and co-create solutions with key stakeholders to address

the growing dual burden of disease. Our ultimate goal is to improve health outcomes for populations living below the poverty line.”

Prof. Peter Piot, Director of the London School of Hygiene & Tropical Medicine (LSHTM), set the stage on discussing the expanding burden of NCDs in LMICs. He said, “It is a myth that NCDs are only for the rich. South African women suffer from obesity as much as American women. Diabetes has almost doubled over the past decade and led to an estimated 5.1 million deaths last year, making diabetes three times more deadly than HIV/AIDS.”



“Tobacco is the biggest killer,” he explained, but went on to point out, “We have a fantastic opportunity in sub-Saharan Africa, as it has the lowest prevalence of smokers worldwide. Let’s keep it that way.”

Speaking about NCDs, he said, “There is no magic bullet, and that’s why dialogues like this are important. We can learn lessons from HIV/AIDS and other diseases to go beyond traditional healthcare actors and find innovative solutions for the treatment and prevention of NCDs.”

Research platforms from infectious disease garnering evidence for NCDs

Prof. Moffat Nyirenda, Director of the Malawi Epidemiology and Intervention Research Unit (MEIRU), specifically highlighted the correlation between countries with high burdens of HIV/AIDS also facing high NCD mortality rates, and HIV/AIDS potentially increasing cardiovascular risk. All of this must be considered within healthcare systems with a limited capacity to diagnose and manage chronic diseases. For example, in Malawi, the doctor -patient ratio is 1/5,000 people.



However, he also emphasized the opportunities that arise when the two health issues intersect. “A common approach can overcome these limitations, and existing infectious disease infrastructure can be used to develop NCD research. For example, we screened 16,675 patients for hypertension from May 2013 – July 2014 through MEIRU,” he said. After the screening, the study found that approximately 20 % of those screened had high blood pressure and only 763 were on medication. More research based on these infectious disease platforms is needed to gain evidence and awareness on the prevalence of these diseases.

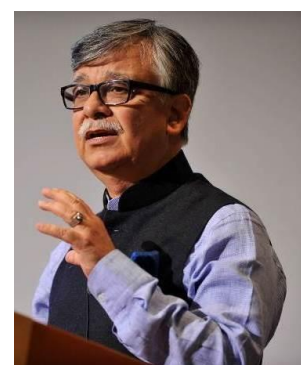


Kathy Cahill, Interim VP of Public Health Impact at PATH, highlighted the feasibility of integrating diabetes into TB/HIV platforms using an example from Ethiopia. PATH set out to assess laboratory and clinical service provision for diabetes within the context of TB and HIV programs to identify system strengthening priorities. “We found that the quality assurance mechanisms for technologies and care were strong for TB and HIV, but there were many barriers for diabetes such as ” absence of screening or diagnostic protocols, recurrent stock outs of consumables and reagents, poor maintenance and calibration of glucometers, long turnaround time for results, and poor

record systems. Several recommendations resulted on methods to leverage the HIV/TB system to improve access and quality of care for diabetes. PATH is now doing a more in depth study in Kenya and Senegal assessing supply chains price and availability for essential medicines and technologies for diabetes. She concluded by saying, “By leveraging infectious disease platforms, programs and technical expertise that already exist, we can build NCD capacity.”

Raising awareness and empowering the community

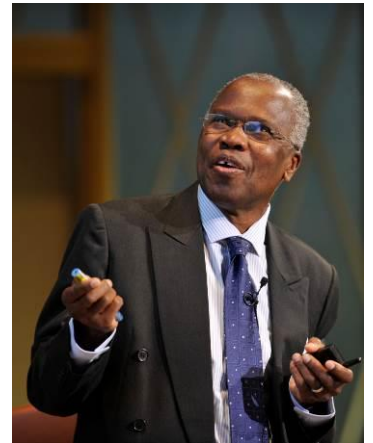
Dr. Sunil Mehra, Executive Director of the MAMTA Health Institute for Mother and Child in India, spoke about the Indian government’s policy shift from focusing on infectious diseases and MCH to addressing NCDs after having recognized their growing burden in India. Dr. Mehra inspired hope, noting that a large percentage of NCDs are preventable through raising awareness of common behavioral risk factors. “It’s critical to invest in behavior modification to improve health outcomes,” he stressed. “Starting with adolescent clinics, we can educate the community about NCDs and related issues, such as a healthy lifestyle, early signs and symptoms of diseases, prevention and long-term management of diseases.” MAMTA has been able to do this using their Arogya Kiran model, targeting both school teachers and community volunteers to raise awareness of diabetes and hypertension among over 600,000 people.





The rheumatic heart disease (RHD) program in Zambia supported by Novartis is a multi-partner effort to increase awareness, generate data on the disease burden and strengthen health services relating to this disease. **Dr. Brigitta Tadmor**, VP and Global Head, Education and Health Policy of the Novartis Institutes for BioMedical Research (NIBR), stressed that although RHD is a preventable disease it is associated with great morbidity and mortality, particularly in children and young adults. Since patients in low-income countries often do not seek or receive help until it is too late, a key aspect of the program involves screening children at school as a step towards better prevention of the disease.

Dr. Peter Lamprey, Distinguished Scientist and President Emeritus at Family Health International (FHI) 360 and professor of NCDs at LSHTM, further emphasized the current impact of NCDs, noting that 36 million people had died in 2010 as a result of the poor awareness, prevention and treatment of these conditions. Drawing on his experience integrating NCDs into HIV/AIDS programs in Kenya, Nigeria and Zambia, he underlined that “We are now examining which lessons to integrate and which to avoid from infectious disease programs in order to tackle NCDs successfully”. A positive example of that integration was described in a new hypertension control program in Ghana being launched in partnership with the Novartis Foundation. The public-private partnership is leveraging a HIV/AIDS management model for diagnosing and managing hypertension with the help of digital technology to empower patients to take more responsibility in the management of their own disease.



He concluded that, despite the benefits of integrating lessons from programs such as those for HIV/AIDS, there was an urgent need for a broader and evidence-based strategy to fight NCDs and for improvements in healthcare systems overall.



Panel discussion

Prof. Peter Piot moderated the panel with participation from **Prof. Marcel Tanner**, Director of the Swiss Tropical and Public Health Institute (Swiss TPH). Prof. Tanner spoke on the need for effective partnerships and stronger healthcare systems. He stressed the need for more surveillance, but also broader collaboration across stakeholders. Three key messages from the panel included:

Innovation in ‘delivery’

Innovation is needed to deliver preventative, therapeutic and palliative solutions that we already know can save lives. Rather than developing a new widget, there needs to be greater emphasis on getting the right person to the right place to receive the right services. Innovation needs to occur in delivery (e.g. task-shifting) as the world cannot afford to wait for the decades it will take to train the number of healthcare providers needed to manage the burgeoning dual burden.

Country-led responses

LMICs need to take the initiative to lead and develop policies (e.g. tobacco regulation) and allocate adequate resources to combatting NCDs. India, for example, shifted its strategic policy to controlling the NCD burden, integrating not only treatment, but also prevention and promotion. Furthermore, despite the lack of funds for NCDs, there are relatively inexpensive and proven interventions that countries can implement to slow the epidemic. For example, implementation of policies such as the WHO Framework Convention on Tobacco Control (taxation, packaging, public smoking bans), as well as regulating the content of fast foods. By having countries set the agenda for the management of NCDs, other stakeholders such as non-governmental organizations and donors can then work within the established priorities. This will also avoid the multiplicity of players and agendas, as well as avoid the creation of parallel systems.

Awareness and evidence are needed

NCDs have a branding problem. Most people have a general association with, for example, malaria and a mosquito; however, with NCDs the correlations are opaque and multi-faceted. Drawing from the HIV/AIDS movement, patient involvement and existing civil society organizations must be brought into the NCDs agenda. In addition, there is a pressing need to generate more evidence in understanding the epidemiology and links with different diseases.



For more information on the Novartis Foundation:

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