

REPUBLIC OF RWANDA



MINISTRY OF HEALTH

INAUGURAL NCD SYNERGIES NETWORK MEETING

*South - South Collaboration for Integrated Health
Systems to Fight Non-Communicable
Diseases of Poverty*

Kigali Serena Hotel, 15th-16th July 2013



A Healthy People. A Wealthy Nation



SUMMARY CONFERENCE AGENDA

SOUTH - SOUTH COLLABORATION FOR INTEGRATED HEALTH SYSTEMS TO FIGHT NON-COMMUNICABLE DISEASES OF POVERTY

KIGALI, RWANDA, 15TH AND 16TH JULY 2013

Day 1: The Design of Health Service Delivery for NCDs of Poverty

Time	Event
8:00 - 08:30 am	Welcome and Introduction to the Synergies Initiative, Hon. Minister of Health, Republic of Rwanda, Dr. Agnes Binagwaho
8:30 - 9:00 am	Keynote Address: "NCDs, Technical Collaboration Between Countries, and the Struggle for Development," Sir George Alleyne, Director Emeritus, PAHO
9:00 - 9:30 am	<i>Coffee Break (Foyer) and Press Conference (Auditorium)</i>
9:30 - 11:00 am	Session I: "Understanding the Need: Data Sources for Planning"
11:00 - 12:30 am	Session II: "NCDs and the Design of Health Service Delivery"
12:30 - 1:30 pm	Lunch (TBD)
1:30 - 3:00 pm	Session III: "Intervention Impact and Cost"
3:00 - 3:30 pm	Coffee Break
3:30 - 5:00 pm	Session IV: "Lessons of Experience: NSP development for NCDs"
5:00 - 5:30 pm	Day 1 Summation and Closing Remarks, Wendy Bennett, Medtronic Foundation
5:30 - 7:00 pm	Exhibition (Foyer) and Working Sessions
7:00 pm Onward	Reception at Serena Hotel (Traditional Dress encouraged)

Day 2: From Planning to Implementation	
Time	Event
8:30 - 9:00 am	Keynote Address: "From 3 by 5 to 2030: NCDs and the Fight Against Poverty," Prof. K. Srinath Reddy, President, Public Health Foundation of India
9:00 - 10:30 am	Session V: "Case Study: NCDs and Human Resources for Health"
10:30 - 11:00 am	Coffee Break (Foyer)
11:00 - 12:30 pm	Session VI: "Monitoring and Evaluation: Exploring the Science of Integration"
12:30 - 1:30 pm	Lunch (TBD)
1:30 - 3:00 pm	Session VII: "Knowledge Hubs and South-South Collaboration"
3:00 - 3:30 pm	Coffee Break (Foyer)
3:30 - 5:00 pm	Session VIII: "Advocacy and Resource Mobilization for Planning and Implementation"
5:00 - 5:30 pm	Day 2 Summation and Closing Remarks, Hon. Minister of Health, Republic of Rwanda, Dr. Agnes Binagwaho
5:30 - 7:00 pm	Exhibition (Foyer)

SESSION I: “UNDERSTANDING THE NEED: DATA SOURCES FOR PLANNING”

Abstract:

Good data is prerequisite to understanding the need for NCD care. Data on prevalence and health system resources must be complete, up to date, and well connected to be useful in strategic planning and prioritization of NCD interventions. Myriad data sources exist for NCD planning, from population surveys such as STEPS and DHS to disease-specific surveys, HMIS data, sentinel facility data, and one-time assessments of a given condition or type of equipment. Valid information about several things will be required to assess needs for health system strengthening and integrated NCD services: (a) prevalence of non-communicable diseases in target populations, (b) the gaps between existing health system resources and population needs, and (c) the connection between prevalence and risk factors, including the differing needs of the rising middle class versus each nation’s most vulnerable. This panel will explore available sources of data and tools for data gathering, monitoring prevalence, and health system readiness. It will also investigate the circumstances under which data can be extrapolated from one country to another, and the essential challenge of updating data sources as new evidence presents and as health systems change.

Key questions to be considered will include

- Which sources of data have been most suited to quantifying the need for integrated NCD treatment? What are the challenges of using existing data sources?
- What equipment and human resource inventory tools have been most useful?
- How have different population surveys been integrated into surveillance? How can they be better integrated with burden of disease data and sentinel facility data?
- What can be done when risk factor surveys do not correlate very strongly with prevalence of related conditions?
- What was the experience of using the GBD database for malaria planning in Rwanda? What lessons learned from data analysis for malaria may transfer to NCDs?

- What is the vision of the GBD as a resource for national planning? Are there any plans to quantify or integrate health system strength? To incorporate country-level data?
- How is HMIS data used today in policy, planning, and implementation? How will it change in the future? What is the role of sentinel facilities?
- Are there times when we do not need prevalence data to act?
- How can the Synergies Network support members to improve and better use data?

After the July meeting, the NCD Synergies Initiative will be a vehicle to advance a shared understanding of how to quantify needs and develop a current NCD planning dataset for each country. Ongoing discussion will include topics such as how to use each data existing data source, and what changes to data collection tools and databases would make planning, policy, and implementation easier for network members.

•SESSION II: “NCDS AND THE DESIGN OF HEALTH SERVICE DELIVERY”

Abstract:

Once the need for services is understood, there are myriad potential services to address that need, particularly for NCDs. A framework for how health systems can efficiently package NCD services will be paramount to sustainable health system strengthening efforts for NCDs. That framework must be responsive to increasing scale and scope of services. Current models outline strategic elements of health systems – financing, information systems, and supply chain – but often lack methodology to integrate services into modular platforms that can evolve efficiently. For example, strengthening women’s health care could require investments across family planning, infectious diseases, cancer screening and treatment, and prenatal services. Funders and implementers alike may need to take strides toward conceptualizing the right health service delivery platforms to efficiently expand care for the “long tail” of NCDs in low-income countries.

Key questions to be considered will include:

- What “building blocks” – packages of services delivered for NCDs and staffing model for each – have countries used for NCD services?
- How have those building blocks transferred to larger scale projects and new levels of the health system?
- What are our experiences with disease-specific funders and integrated health systems? Have funding streams impacted the design of health service delivery?
- What tools or frameworks would be helpful in making the case for more scalable, integrated packages of services for NCDs?

The Synergies Network offers a comparative perspective on what the right, scalable, fungible building block is for integrated health systems for NCDs in resource limited settings. Network members can collaborate to understand which types of integrated platforms, across which conditions are most scalable at each level of the health system.

SESSION III: “INTERVENTION IMPACT AND COST”

Abstract:

Understanding the impact of interventions as well as their cost is essential to health sector planning. There are a large number of tools designed to account for the cost of interventions to address priority infectious diseases and to model their impact on population health in low and middle-income countries. Recently, there has been an effort to unify quantitative infectious disease and maternal and child health planning approaches through the OneHealth tool. Interventions for NCDs would be a great addition to this unified approach, but there are challenges. The timeline for tool development is unclear and tools for NCDs will probably focus initially on global best buys that may not be a priority in all settings. In particular, endemic NCDs of poverty tend to involve many conditions that are not dominant epidemiologically and thus may require more resources to model. How are planners – who must plan immediately – responding to the challenge of modeling costs of health system strengthening for NCD treatment? This panel draws on the experience of the developers and users of costing tools for NCD planning to understand the circumstances under which existing tools are most effective and the challenges that remain related to costing in the context of strategic planning.

Key questions to be considered will include:

- What efforts are underway to improve quantification of NCD intervention impact and cost in low-income countries?
- How have available tools contributed to each country’s strategic planning effort?
- Which tools did planners and implementers select for costing and impact evaluation exercises? Why?
- What were the challenges of learning to use each tool? What support was most effective in training staff on each tool?
- How are tools and underlying data updated over time?
- What assumptions do various tools make about the quality of country-level incidence and prevalence data? Were they appropriate?
- For what conditions and interventions have panelists developed their own costing tools to represent existing programs? How were those developed?

- How was the output of tools received? How were assumptions explained?
- How helpful have tools been in policy and advocacy? In implementation?
- What suggestions do planners and implementers have for tool developers?
- What guidance would panelists give to countries in the process of selecting or using existing tools for NCD planning?

The Synergies Network provides a unique collaboration space for NCD planners and tool developers to continue this important dialogue toward the end of stronger capacity for intervention impact assessment and costing and the development of more appropriate tools over time.

SESSION IV: “LESSONS OF EXPERIENCE: NSP DEVELOPMENT FOR NCDs”

Abstract:

Strategic planning for NCDs is the process of assessing the burden of disease, prioritizing conditions and interventions for treatment, developing a plan for expansion of NCD treatment systems on an annual basis, and forecasting and validating impact. In resource limited settings, it is as much a process of deciding what to treat as it is a process of deciding what cannot be treated immediately to integrate NCD services into existing health systems. Disparate data sources, variable health system strength at all levels, and significant training needs are among the many hurdles for planners and implementers. This panel draws on the experience of a number of practitioners at various stages of the national NCD planning process in resource limited settings to distill practical lessons learned about managing the NSP development process.

Key questions to be considered will include:

- At what stage of development or implementation is each country’s strategic plan?
- What are the intended uses of each plan? Who are the most important audiences?
- How are the plans structured? What content has been included?
- How have country-specific priorities for NCD planning compared to global priorities in the NCD movement?
- Who has been responsible for plan development? Who are the key stakeholders for approval? Implementation?
- What have been the greatest technical challenges in NSP development? How were they overcome? What outside support has been helpful?
- How have funding prospects – or barriers to finding funding - impacted motivation for NCD planning?
- If plans have been shared externally, how have they been received, particularly in the context of advocacy and fundraising?
- What lessons have been learned that can be shared with other low-income countries embarking on plan development?

This conversation is the first of several between developers of national strategic plans for NCDs. Out of the bilateral collaborations of the next 18 – 24 months, the Synergies Network aspires to develop work planning resources, practical guidance on the usage of data and costing tools, and generalizable frameworks for the construction of effective NSPs. Those materials will be shared with the Network and tested in future planning, implementation, and advocacy efforts.

SESSION V: “CASE STUDY: NCDs AND HUMAN RESOURCES FOR HEALTH”

Abstract:

In low and middle-income countries, the supply of qualified health professionals is often reported to be a limiting factor in non-communicable disease management, despite much effort to build strong health systems. Human resource development is an important aspect of health system strengthening. NCDs present a unique challenge particularly in the setting of poverty. Despite their significant aggregate burden, each individual NCD tends to be a relatively low prevalence condition (e.g. rheumatic heart disease or breast cancer). Many of the acute interventions required to address NCDs are best provided at the referral and district hospital levels and require health workers with advanced training (e.g. surgery). At the same time, regular and long-term follow up with patients who have NCDs such as diabetes or hypertension to prevent complications poses a burden to financial and human resources at all levels of a health system.

The challenge of NCDs in the context of limited formal academic training and clinical mentorship opportunities for specialists must be addressed, and the Human Resources for Health (HRH) Consortium is one model for the development of a dramatically larger, more skilled, clinical workforce. The HRH program is a seven-year effort that links the Government of Rwanda with a consortium of US teaching hospitals and academic institutions, intended "to build the healthcare education infrastructure and workforce necessary to create a high quality, sustainable healthcare system in Rwanda." This session explores how the HRH project is a model of addressing this bottleneck in NCD service delivery while at the same time highlighting the essential role of community-based chronic care and case recognition.

Key questions to be considered will include:

- What are specific examples of the benefit of the HRH program for NCD treatment?
- How are physicians who participate in the international academic partnership integrated into ongoing clinical training programs in Rwanda?

- What is the financing model for HRH? How is this included as part of the US Government's support to Rwanda? What is innovative about the financing model?
- What programs (within and beyond the HRH model) focus on increasing human resourcing for adherence support for chronic care at the community level?
- What lessons learned from the HRH model could assist others launching human resource planning for integrated NCD care?

The Synergies Network will continue to address human resource planning for health at all levels of the health system because decentralization and integration of chronic interventions is essential for higher levels of the health system to function efficiently. Synergies Network members can expect to continue to share human resources planning techniques, and to benefit from multiple approaches to human resource strategy.

SESSION VI: “MONITORING AND EVALUATION: EXPLORING THE SCIENCE OF INTEGRATION”

Abstract:

Strengthening the capacity of health systems in low-income countries to deliver services for non-communicable diseases (NCDs) will demand innovative strategies for forecasting impact, monitoring progress and evaluating effectiveness. The model of NCD service integration involves planning and implementing many interventions at once in complex environments. To facilitate it we must (a) identify appropriate short- and long-term health and systems objectives, (b) apply and, where needed, develop measures that accurately reflect the target outcomes at the level of both patient outcomes and the system response, and (c) design ongoing monitoring of programs for continuous quality improvement and periodic evaluation. Integrated delivery models both make it more difficult to attribute causality and increase the importance of accurately understanding causal contributions (since their success depends on an interaction between different program elements). This panel will discuss the practicalities of M&E for integrated NCD services, as well as exploring how NCDs can illuminate deeper questions about the structure and function of health systems.

Key questions to be considered will include:

- What are the likely benefits of integration? What are the potential unintended and possibly negative outcomes? How can countries evaluate whether integration of NCD services is a health systems innovation that will add value, in terms of cost, workforce burden, and health outcomes?
- What can we learn from previous experience with multi-country evaluation of integrated health systems and services? What can we learn from pilot programs for integration of NCD services with other service delivery platforms?
- What is the logic chain of service integration for NCD interventions?

- How does the roll-out of M&E for integrated NCD services interact with “native” data categories currently being collected in service delivery systems? How can existing data sources and health system infrastructure be leveraged by national bodies for planning, roll-out, and monitoring of NCD service integration? What new process and outcome measures are needed to understand the effects of integration?
- What are the potential complexities of economic analysis for integrated NCD services? What is the institutional framework for cost assessments, cost benefit analysis, and other methodologies?
- What would implementation research look like in the context of integrated NCD services? What would impact evaluation mean? How can methodology be conceptualized in ways that have reasonable expectations for data quality? What are the different meaningful validation processes?
- Where will all this go? How can an active program of service delivery integration emerge from the Synergies Initiative, and what will its M&E needs be? How can it begin to elaborate a “science of integration”?

The July network meeting will be the opportunity to plan a long-term collaboration to apply a “science of integration” to improve NCD service delivery. External to the existing proposal and funded by external grants, the project will develop and apply a common framework for M&E in multiple countries. In the first year it will focus narrowly on evaluation of district-level health systems that are already expanding to integrate and implement increased NCD services: identifying gaps in both services and surveillance data, how can they be filled and developing a rigorous yet feasible and flexible evaluation design across countries, including appropriate measures and indicators, sampling procedures, and analytical approaches.

SESSION VII: “KNOWLEDGE HUBS AND SOUTH-SOUTH COLLABORATION”

Abstract:

A year ago in Bali, major development institutions and national stakeholders met to discuss the establishment of “Country-Led Knowledge Hubs,” mechanisms of electronic communication that can drive the latest, horizontal, phase of global development. Recognizing that practitioners must be connected to each other across political and geographical boundaries if they are to learn from the practical development experiences of their peers, the participants called for collaboration by governments, development partners, civil society, academia and the private sector on instruments and institutions to facilitate this process. Knowledge exchange plays a key role, they wrote, in the “dynamic process of learning,” fostering “demand-led and country-owned development pathways.”

Historically, technical support for health systems planning and implementation has tended to ignore local context and avoid collaborative learning in favor of one-size-fits-all templates. Such templates can be hard to adapt and implement, particularly in settings whose structural constraints differ radically from those of the original context. Identifying sound interventions against the NCDs of poverty and integrating them within health systems will require “horizontal” knowledge sharing guided by the experience of planners, decision-makers, and practitioners in many resource-limited settings. Knowledge hubs may offer a complement to traditional modes of technical collaboration, facilitating information exchange essential to a future “science of integration.”

Key questions to be considered will include:

- What is the functional definition of a “Knowledge Hub?”
- What key data and documents must be shared to support the processes of planning, implementation, and integration?
- How can knowledge hubs facilitate help to promote more standardized reporting?
- What electronic communications build effective communities of practice?

One potential ongoing service of the NCD Synergies Initiative is a Knowledge Hub to facilitate NCD Planning efforts. This discussion will shape the Knowledge Hub, but also be the beginning of collaborative refinement of knowledge resources for ongoing technical collaboration.

SESSION VIII: “ADVOCACY AND RESOURCE MOBILIZATION FOR PLANNING AND IMPLEMENTATION”

Abstract:

Resource mobilization is the crucial link between national NCD planning and successful implementation. There is a clear body of evidence that NCDs are worthy of additional resources, but there are limited funding streams for NCD treatment in low-income countries. We have an opportunity to develop new, integrated models for NCD treatment that complement existing infectious disease programs and enable shared learning for all NCD implementers and funders. The scientific challenges surrounding NCD planning suggest the need for targeted service research models to develop an evidence base for future investments.

Through collaborative funding, piloting, and learning, we can seed a number of models of integrated care delivery, we can address the pressing need to build a body of evidence about NCDs in resource-limited settings. Critical tasks such as the development of effectively integrated delivery systems and monitoring and evaluation models to support integrated care, or the use of impact evaluation in NCD policy development, could all be candidates for near-term funding. This panel will provide funders’ perspectives on how to bridge the gap between today’s need to build better models for NCD treatment in resource limited settings, and sustainable, scalable funding for NCDs of poverty.

Key questions to be considered will include:

- What are the most pressing needs for funding for NCDs in low income countries today?
- What would we need to know to fund integrated NCD treatment at scale? How do we finance the development of that evidence base?
- Who are the near-term vs. long-term funders?
- Under what conditions can countries sustainably fund their own NCD programs?
- What advocacy must accompany the mobilization of financial resources?
- What is the right vehicle through which the Synergies Network as a whole – and individual Network members – should request funds?

Drawing on this panel and ongoing collaborations, the NCD Synergies Initiative will develop an “Innovation Space” to promote and resource innovative approaches to health systems strengthening through integrated NCD services.

Short Biographies of Conference Speakers

Sir George ALLEYNE, MD, Director Emeritus, Pan-American Health Organization

Sir George Alleyne, a native of Barbados, became Director of the Pan American Sanitary Bureau (PASB), Regional Office of the World Health Organization (WHO) on 1 February 1995 and completed a second four-year term on 31 January 2003. In 2003 he was elected Director Emeritus of the PASB. From February 2003 until December 2010 he was the UN Secretary General's Special Envoy for HIV/AIDS in the Caribbean. In October 2003 he was appointed Chancellor of the University of the West Indies. He currently holds an Adjunct professorship on the Bloomberg School of Public Health, Johns Hopkins University.

Dr. Alleyne has received numerous awards in recognition of his work, including prestigious decorations and national honors from many countries of the Americas. In 1990, he was made Knight Bachelor by Her Majesty Queen Elizabeth II for his services to Medicine. In 2001, he was awarded the Order of the Caribbean Community, the highest honor that can be conferred on a Caribbean national.

Hon. Anita ASIIMWE, MD MPH, Minister of State for Health in Charge of Public Health and Primary Healthcare

Dr. Anita ASIIMWE specializes in Public Health Strategies tackling the HIV AIDS epidemic and other diseases' conditions. A Medical Doctor by profession, she holds a Masters degree in Public Health from Dundee University (UK). She's currently the Minister of State for Health in charge of Public Health and Primary Health Care. Under her docket, she's mandated to promote the health of the Rwandan population through delivery of preventive, curative and rehabilitative health services. Starting from July 2013 to June 2015, she is the board member for the Global fund representing the Eastern and Southern Africa constituency.

Prior to this, Dr ASIIMWE was the Deputy Director General of Rwanda Biomedical Center and Head of the Institute of HIV, Disease Prevention and Control (IHDPCC) where she was the overall coordinator of the national response to all diseases.

While the Executive Secretary of the Rwanda National AIDS Control Commission (CNLS), Dr ASIIMWE where she oversaw the implementation of government's national response to HIV/AIDS as well as the Global Fund-Projects Monitoring Unit. Prior to joining the CNLS, Dr. Asimwe served as the Deputy Director General of TRACPlus, the Director of HIV AIDS and IST's Unit at TRACPlus, the Director General of TRAC, and the advisor to the State Minister in charge of HIV AIDS and other epidemics in the Ministry of Health.

She is presently member of the Eastern and Southern Africa region's high level task force for women, girls, gender equality and HIV. For the period when Rwanda held the Chairmanship of GLIA (Great Lakes Initiative on AIDS), she chaired GLIA Executive Committee composed of the Heads of National AIDS Control Commissions of Burundi, Democratic Republic of Congo, Kenya, Rwanda, Tanzania & Uganda. Dr. ASIIMWE also practiced medicine as a general practitioner attached to the pediatric ward in CHUK (Centre Hospitalier Universitaire de Kigali). She has played the role of being a principal investigator for a number of studies studying the Rwandan HIV AIDS program for example the INTERACT (NACCAP) PhD program which was conducting studies and researches in HIV AIDS, Malaria & TB in Rwanda.

Currently, she is the Chair of the Project Ubuzima Governing Council, an international NGO that brings together researchers with the common goal of reducing the spread of HIV and reducing the burden of other reproductive tract infections in Rwanda and other resource-poor countries by conducting clinical trials and studies on microbicides for HIV prevention. In this role, Dr. Asimwe has conducted several Phase II safety studies and is scheduled to conduct a Phase II efficacy study. She has played the role of being a principal investigator for different research studies especially on the Rwandan HIV AIDS program.

Jean Paul BALINDA, MPH, Advisor in Disease Prevention, Control and Treatment (Non-Communicable Diseases) and Laboratory, Rwanda Biomedical Center / Institute of HIV / AIDS, Disease Prevention and Control.

Jean-Paul Balinda holds a Master's degree in Public Health from National University of Rwanda School of Public Health and Bachelor's degree in Population studies from Kigali Independent University. He has a background in General Nursing.

Before joining RBC, Mr. Balinda worked for FHI-360 Rwanda as Technical Officer in charge of community based HIV prevention for 2 years and was research coordinator of a 4-year cohort study on Side Effects and Reproductive Health in a Cohort on HAART in Rwanda in TRAC Plus Clinic 2007-2011.

He is co-author of a publication on Antiretroviral therapy drug adherence in Rwanda: Perspectives from patients and healthcare workers using a mixed-methods approach/ AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV.

Wendy BENNETT, MA, Consultant, Medtronic Foundation

Wendy Bennett is a consultant to foundations, advising on the development of grantmaking strategies and evaluating grant requests for corporations and private foundations. She has most recently consulted for the Medtronic Foundation on the development of its international grantmaking in health. She has worked in philanthropy and development for thirty years for both US based and international organizations. Her consulting clients included the Archibald Bush Foundation, McKnight Foundation and Dayton Hudson Foundation. Previously, Wendy was a program officer at the Bush Foundation, a development officer at Stanford University, and development director at the Saint Paul Chamber Orchestra.

Wendy lived in Europe (Switzerland and the U.K.) for 11 years and has enjoyed extensive travel internationally. She has a BA from Harvard College, and a Masters in Music from the University of Minnesota. Wendy has served on numerous nonprofit boards.

Hon. Agnes BINAGWAHO, MD (MPed), Minister of Health, Republic of Rwanda

Dr. Agnes Binagwaho is a Rwandan pediatrician and serves as Minister of Health of Rwanda. From October 2008 to May 2011, she served as the Permanent Secretary of the Ministry of Health of Rwanda. Dr. Binagwaho currently resides in Kigali, Rwanda.

Dr. Binagwaho is currently Senior Lecturer in the Department of Global Health and Social Medicine in Harvard Medical School. She chairs the Rwanda Country Coordinating Mechanism of The Global Fund to fight AIDS, tuberculosis, and malaria.

Dr. Binagwaho is the co-chair of the Salzburg Global Seminar “Innovating for Value in Health Care Delivery: better cross-border learning, smarter adaptation and adoption.” She is a member of the Global Task Force on Expanded Access to Cancer Care and Control in Developing Countries. Dr. Binagwaho also serves on the Health Advisory Board for Time Magazine; and on the International Strategic Advisory Board for the Institute of Global Health Innovation at Imperial College London.

From 2002-2008, Dr. Binagwaho was Executive Secretary of Rwanda's National AIDS Control Commission. During that period she has served as the Chair of the Rwandan Steering Committee for the United States President's Emergency Plan for AIDS Relief was responsible for the management of the World Bank MAP Project in Rwanda; served on the country's High Commission on Aid Policy; co-coordinated the United Nations Task Force of Millennium Development Goals Project for HIV/AIDS and Access to Essential Medicines under the leadership of Jeffrey Sachs, for the Secretary General of the United Nations ; and, from 2006–2009, co-chaired the Joint Learning Initiative on Children and HIV/AIDS, an independent alliance of researchers, implementers, policy makers, activists, and people living with HIV.

Dr. Binagwaho obtained her medical training in Belgium and France and specialized in emergency pediatrics, neonatology, and the treatment of HIV/AIDS in children and adults. She serves as a member of several boards, foundations, and journals combating AIDS and infant mortality, including the African Advisory Board of the Steven Lewis Foundation, the advisory board of the Friends of the Global Fund Africa and the advisory committee of the International AIDS Vaccine Initiative, the editorial board of Journal of Health and Human Rights, the editorial board for the Public Library of Science. Dr. Binagwaho served as member of the steering committee for the Multi-Country Support Program on SSR/HIV/AIDS, an advisory body of the Royal Tropical Institute of Amsterdam, Netherlands. She is also a founding board member of the Tropical Institute of the Community Health and Development in Africa, based in Kismu, Kenya.

In October 2011, Dr. Binagwaho launched a series of online discussions through Twitter around topics related to global health policy and Rwanda's national health sector. Twitter users from around Rwanda and around the world have joined Dr.

Dr. Binagwaho in three discussions (as of December 2011) about family planning policy in Africa, building a national health sector, and malnutrition in Rwanda. In December 2011, Dr. Binagwaho partnered with the Rwandan-American ICT company Nyaruka to allow Rwandans to contribute questions and comments to Mondays with the Minister discussions via SMS.

Dr. Binagwaho is focused on research in the intersection of health and social and political sciences. Her studies and publications aim to improve access to prevention, care and treatment for HIV/AIDS and other diseases. She actively fights for children's rights and promotes gender equity in Rwanda and around the world. She is at the vanguard in the fight against HIV/AIDS, striving to find effective methodologies to advance interventions to diminish and eliminate the burden of the disease.

Dr. Binagwaho has written numerous articles and presentations for international conferences and journals on pediatrics, HIV/AIDS and program management.

Charlotte BAVUMA, MD, Academic Head of Internal Medicine Department, National University of Rwanda

Dr Charlotte M. Bavuma received her master degree in Internal Medicine in 2005 and she finished Endocrinology fellowship in 2007 in Belgium. She is a PhD candidate working on diabetes in rural Sub-Saharan Africa. She has been involved in pilot implementation of non-communicable diseases clinics in some district hospitals in Rwanda and she has a particular interest in Non-communicable diseases. She is a member of National NCD Committee and Chair of the Diabetes, Renal, and Metabolic Cluster.

Gene BUKHMAN, MD PhD, Assistant Professor of Medicine and Assistant Professor of Global Health and Social Medicine, Harvard Medical School

Dr. Bukhman is a cardiologist in the Division of Global Health Equity at Brigham and Hospital and in the VA Boston Healthcare System. By training, Dr. Bukhman is a medical anthropologist, an internal medicine physician, and a cardiologist with special competence in echocardiography. Between 2007 and 2011, Dr. Bukhman was the Director of Non-Communicable Disease for Partners In Health in Rwanda. In 2010,

Dr. Bukhman was appointed as the founding Director of the Program in Global Health and Non-Communicable Disease at Harvard Medical School and Partners In Health. He is a Senior Technical Advisor on Non-Communicable Disease to the Ministry of Health in Rwanda and the Rwanda Biomedical Center.

Dr. Jeanine CONDO, MD MSc PhD, Deputy Director for Research and Consultancy, National University of Rwanda School of Public Health

Condo Jeanine, MD, MSc, PhD, is a Lecturer at the School of Public Health (Rwanda) working for more than 9 years in the Department of community health. She is involved in different activities: teaching, research and community activities. Her areas of interest include maternal and child health and more specially nutrition where she conducted her thesis entitled: "Assessment of infant feeding practices using a summary index and nutritional status among HIV - exposed infants in Rwanda". She was involved in different activities for the past 4 years in designing policies for the Ministry of Health in Rwanda including Family Planning and nutrition. She is involved in research conducted by the School and the World Bank on the socioeconomic impact of ARVs treatment on patient's household. Recent researches that she is being involved in are data collection of patients enrolled under ART services in control and intervention PBF phase at health facilities as well as exploring the feasibility and acceptability of implementing micronutrient powders in Rwanda. She was involved in developing Health financing tool for planning organized by the World Bank "Marginal Budgeting for Bottleneck", nutrition planning tools using Profiles. Moreover, Condo Jeanine in collaboration with EGPAF and other USG partners has adapted a new nutrition training manual developed by WHO for health counselors and health providers at the health facility level. She has developed and taught different modules in Rwandan School of Public Health that includes operation research, monitoring and evaluation of programs (Inwent), monitoring and evaluation of nutrition programs, impact evaluation, scientific writing and communication just to cite few. Some other academic tasks have been conducted by Condo Jeanine such as supervision of undergraduate students in Medical and education faculty as well as Master program in public Health in Rwanda and abroad including PhD in Rwanda. She fluently speaks English, French, Kinyarwanda and Swahili.

Peter DROBAC, MD MPH, Country Director, Inshuti Mu Buzima / Partners In Health Rwanda, Chair of Board of Directors of Rwanda Biomedical Center

As Director of Inshuti Mu Buzima / PIH Rwanda, Dr. Drobac works closely with the Government of Rwanda to provide high quality health care and social services to nearly 1 million people in three rural districts, and to drive health system innovations to scale. In 2011, Dr. Drobac was appointed Chairperson of the Board of Directors of the Rwanda Biomedical Center, the implementation agency of Rwanda's national health sector. Dr. Drobac is an Associate Physician in the Division of Global Health Equity at Brigham and Women's Hospital and an Instructor at Harvard Medical School. He divides his time between Rwanda and Boston, where maintains clinical activities at BWH and teaches global health and social medicine. Dr. Drobac's academic interests center on the design and implementation of comprehensive health systems in resource-limited settings, as well as HIV and tuberculosis care delivery. He currently serves as co-Principal Investigator of a major health systems research initiative, the Rwanda Population Health Implementation and Training Partnership.

Dr. Drobac received his MD from the Medical College of Wisconsin, and MPH from the Harvard School of Public Health. He completed residency in Internal Medicine and Pediatrics in the Harvard Combined Program at BWH, Massachusetts General Hospital (MGH) and Children's Hospital Boston, followed by Infectious Disease fellowship at BWH and MGH.

Theophile DUSHIME, MD, Director General of Clinical Services, Ministry of Health, Rwanda, Chair of National Conference Steering Committee

Dr Théophile DUSHIME is a Medical Doctor and currently Msc Epidemiology candidate at School of Public Health of National University of Rwanda.

Before joining the General Directorate of Clinical Services he worked in the Single Project Implementation Unit of the Ministry of Health in planning and M&E where he worked as a program officer on various programs like SSF Malaria, GAVI and Institutional support to the Ministry of Health program Phase 4 financed by BTC.

Prior to that Dr Théophile worked in District hospital since 2005 where he served as a general practitioner then promoted to be director of District hospital since Dec 2006 to November 2011.

He has a combined background of clinic and management of health facilities, planning, implementation and M&E of health programs

Prof. Melvyn FREEMAN, Chief Director for Non-Communicable Diseases, South African National Department of Health

Prof. Freeman has been involved in public health policy and legislation for over 25 years as researcher, developer and implementer. He holds a position of visiting adjunct professor at the University of the Witwatersrand.

Delanyo DOVLO, MB ChB MPH MWACP FGCPs, WHO Representative to Rwanda

Before his current post, Dr. Dovlo was Health Systems Adviser in the Department of Health System Governance and Service Delivery at WHO-HQ. Dr. Dovlo trained as a physician and a public health specialist in Ghana, UK and USA, and has had over 30 years work experience, initially in rural and urban clinical practice, and then as a Regional and a National Director at Ghana's Ministry of Health. He also consulted extensively on Human Resources for Health, Health Planning, District Health Systems, and on Health Sector Reforms for WHO, World Bank, DFID, UNICEF, Commonwealth Secretariat., covering countries in West, East and Southern Africa; in Asia, the former USSR republics; the Caribbean etc;. He began his current role in Rwanda on 30th September 2011.

Sandy GOVE, MD MPH, Technical Director, IMAI-IMCI Alliance, Former Director IMAI

After training in internal medicine and clinical epidemiology at UCSF and UC Berkeley, Sandy spent 3 year in Somalia working on maternal and child health and tuberculosis control. She joined the WHO Control of Diarrhoeal Diseases program in 1990 to develop the first Acute Respiratory Infection/childhood pneumonia program, then was the technical lead for its expansion to Integrated Management of Childhood Illness, a strategy adapted for use in more than 100 countries. From 1996 to 2000 she worked on the development of the Integrated Management of Pregnancy and Childbirth (through the WHO RHR Department) and the Practical Approach to Lung Health, which incorporated the management of adult pneumonia, asthma and COPD with that for TB (through the WHO TB Department). From 2000 to the present, she led the development and implementation of Integrated Management of Adolescent and Adult Illness, including the first-level health centre tools, and the development of the recently published IMAI District Clinician Manual. The first level tools were used extensively in Africa to support the scale up of antiretroviral therapy and HIV care.

IMAI has been housed in the WHO Stop TB program, then the Department for Neglected Tropical Diseases, then the HIV Department. IMAI now receives substantial WHO support from the Pandemic and Epidemic Diseases Department, given its relevance to surveillance and case management of notifiable diseases. The IMAI District Clinician Manual incorporates the management of asthma and COPD as well as the acute management of chronic disease problems including diabetic ketoacidosis and pulmonary edema. Throughout the manual, both communicable and non-communicable diseases are included in the differential diagnosis tables.

Sandy retired from WHO in 2011 and continues to work on IMAI as Technical Director of the IMAI-IMCI Alliance. She is currently providing technical support to the Ugandan Ministry of Health for the adaptation of the district clinician manual in Uganda, which will incorporate all relevant communicable and non-communicable diseases of adolescents and adults. She continues to advocate for an integrated approach to the district management of adult illness in limited- resource countries- with an integrated approach to caring for each patient, as well as functional integration between the community, health centre and hospital levels of care- and the relevance of these integrated tools for multiple global health programs.

Anjali GUPTA, MBA, Senior Management Consultant, Partners In Health, seconded to NCD Division, Rwanda Biomedical Center

Anjali Gupta is the first full-time staff member of the NCD Synergies Initiative. Her responsibilities are to support NCD planning and implementation in Rwanda and also the technical collaboration and capacity-building efforts of the Network. Anjali comes to Partners In Health from Innosight, an innovation consulting firm where she led an access to medicine project for a specialty pharmaceutical company and consumer-focused projects on diabetes and weight management. Before Innosight, Anjali focused on healthcare at the Boston Consulting Group, supported fundraising for a major hospital, and worked for NGOs focused on environmental health, environmental justice, and climate justice. She holds an MBA from MIT Sloan School of Management and a B.A. and B.S. from the University of California, Berkeley.

Marc HERANT, PhD MD, Director General, Rwanda Biomedical Center

Marc Herant is the Director General of the Rwanda Biomedical Center since May 2013. His initial background is in the physical sciences, receiving a PhD in theoretical astrophysics from Harvard University. Moving on to the life sciences, he did his MD at Washington University in St. Louis and trained in internal medicine. He then joined the faculty at Boston University in the Department Biomedical Engineering where he still retains a visiting appointment and continues to pursue research interests in the mechanics of animal cells.

Six years ago, Marc transitioned from academia to the business world by joining the Boston Consulting Group (BCG). There he worked on a number of strategic projects involving senior executive leadership of the client companies, mostly but not always with large companies in the health care/biopharma space. Typical engagements included development of R&D strategies, post-merger integration, negotiation of strategic partnerships with key suppliers, etc. After promotion to the role of Principal, Marc left BCG to pursue a long-standing desire to be involved in global health endeavors.

Marc joined the Rwanda Biomedical Center, first as a volunteer in November 2012, then as a Pacific Health Institute Global Health Fellow (supported by USAID) in an advisory position, and finally being nominated by the Cabinet as Director General of RBC in May 2013.

Marc's key interests in the NCD synergies conference are (1) Given the breadth of NCDs, how to develop a strategy that allocates limited resources in a way that will make the biggest impact for the people of Rwanda (2) Given a strategy, how to shape the implementing organization(s) for maximum effectiveness to drive benefits on the ground as quickly as possible.

Lisa HIRSCHHORN, MD MPH, Assistant Clinical Professor of Medicine at Harvard Medical School and Director of Monitoring, Evaluation, and Quality at Partners In Health

Dr. Hirschhorn's work focuses on developing and implementing effective and innovative approaches to program monitoring integrated into quality improvement and evaluation in resource constrained settings.

Her current areas of interest including improving access, quality, and outcomes of HIV and other chronic diseases in resource limited settings, integrating QI into primary care delivery, and building capacity for MEQ in a number of countries in Sub-Saharan Africa, Vietnam and Haiti.

Steffen Souljeman JANUS, MBA, Lead, Corporate Secretariat Team, World Bank Institute's Knowledge Exchange Unit

Mr. Janus's team is in charge of the World Bank's support to institutional strengthening of knowledge sharing capacity. He currently works with Knowledge Hubs in Indonesia, Colombia and Nigeria and leads the World Bank's engagement in the Knowledge Hubs Community of Practice. Mr. Janus furthermore is a member of the Global Board of the Global Development Learning Network (GDLN). Prior to his current position he led the World Bank Institute's team responsible for e-learning, learning design, and pedagogy.

Mr. Janus works on a variety of engagements on youth employment, recently on a livelihoods creation project in Cote d'Ivoire. Prior to this he was in charge of a knowledge exchange program on youth employment in fragile Francophone Africa. Before joining the World Bank, Mr. Janus worked for over 10 years in the private sector, as a co-founder and manager of a digital media and communications design consulting company in Europe.

Mr. Janus holds an MBA from Columbia University, New York.

Jean Baptiste KAKOMA, MD, MMed, PhD, AESM, Dean, National University of Rwanda School of Public Health, Chair of Conference Scientific Committee

As an experienced university teacher, researcher, and administrator, Professor Jean-Baptiste KAKOMA (MD Kinshasa, MMed Kisangani, PhD Louvain, and AESM Antwerp) has a combination of leadership, research, and management skills. He started his scientific and academic career in 1975 and has held increasingly responsible academic and management positions in health science programs at university level in two out of the 3 DR Congo public universities, i.e. Kisangani and Lubumbashi (ordinary professor, head of department, academic secretary, vice dean, director of teaching hospital, school director, faculty dean, director of research center, cooperation coordinator, and university rector).

He has been professor of obstetrics and gynecology, demography, parasitology, epidemiology, and has supervised many dissertations (BSc, MD, MPH, MSc, DES / DEA) and theses (MMed, PhD) relating to different medical fields (public health / epidemiology, obstetrics and gynecology, internal medicine, pediatrics, medical biology, ophthalmology, medical imaging, human nutrition). He has written many scientific articles and books, and he is member of many scientific associations (DR Congolese Society of Obstetrics and Gynecology, DR Congolese Society of Surgery, Belgian Society of Tropical Medicine, Belgian Society of Parasitology, Francophone Society of Protozoology, European Academy of Sciences and Letters, Rwandan Society of Obstetrics and Gynecology, Rwandan Association of Public Health). He has been vice dean for postgraduate studies and research at National University of Rwanda (2005 – 2008) and organized in this position the two first PhD presentations in Rwanda (PhD in Medical and Biomedical Sciences in partnership with Gent University and “Université Libre de Belgique” respectively), and two international conferences on cancers and diabetes (Butare Medical Conferences 2007 and 2008). At that time he supervised research on cervix and breast cancers, trophoblastic cancer and diabetes in pregnancy.

He is now Dean of the Rwandan School of Public Health, Professor of Quality Assurance in Healthcare Services, Introduction to Public Health, and Scientific Writing. He is WHO / Africa expert within the Task Force on Immunization (TFI), Rwanda Co-

Faith Tina KAMARA, MPH, National Program Coordinator for the NCDs Program, Ministry of Health and Social Welfare, Liberia

Ms. Kamara manages all the affairs for the NCDs Program, including monitoring and supervising all NCD activities. Prior to her current position Ms. Kamara worked as the Assistant Coordinator for the Division of Environmental and Occupational Health in the MoHSW. Ms. Kamara acquired her Master Degree in Public Health from Cuttington University Graduate School in Liberia, and her Bachelor's in Science in Biology from Cuttington University. Ms. Kamara has also received several certifications relevant to NCDs and public health, including for trainings on diabetes and related cardiovascular diseases, community-led total sanitation, integrated disease surveillance, and the WHO Stepwise Training on NCDs.

Corine KAREMA, MD, MSc Epid, Head of Malaria Division, Rwanda Biomedical Center

Corine Karema is a MD, MSc Epid who joined the National Malaria Control Program (NMCP) in 2001 as head of the epidemiological surveillance/operational research until 2006 when she became the NMCP Director. She has been trained in Malariology, Biosafety Laboratory, Good Clinical and Laboratory Practices, Clinical Trials, on planning and management of tropical diseases control programs control as well as Epidemiology. From 2009-2011, she was at the acting Director General of the Treatment and Research Center of HIV/AIDs, TB, Malaria and other epidemic infectious diseases (with NTDs control program). She has been involved in developing malaria control strategies and policies as well as all research studies which has guided most of the evidence-based malaria control interventions in Rwanda. She has designed and led the impact evaluation of malaria control interventions which shown important reduction on malaria morbidity and mortality in Rwanda. Since 2011, she has been appointed the head of Malaria & Other Parasitic Diseases Division which also includes NTD Control program in the Rwanda Biomedical Center, an agency for the Ministry of Health in the Republic of Rwanda. Corine is the vice-chair of the East African RBM Network Coordination committee and member of the Global Malaria Control and Elimination technical working group as well as of the Scientific Advisory Committee (SAC) for malaria policy and access of TDR/WHO Special Program. She is also a member of the WHO Drug Resistance and Containment Technical Expert Group and an observer of the WHO Malaria Policy Advisory Committee (MPAC). She has published and co-authored many articles on malaria and health in Rwanda. She is also a graduate and faculty member of the Global Health Delivery Course in Rwanda.

Leonard KAYONDE, MD, Director of Cancer Diseases Unit, NCD Division, Rwanda Biomedical Center

Dr. Kayonde leads implementation of the national cancer program action plan. He coordinates all cancer stakeholders and the setting of high level policies and strategies, protocols, guidelines and standards for diagnosis, prevention, treatment and rehabilitation for cancer – toward the end of proper management. Dr. Kayonde also ensures the availability of services in integrated manner for diagnosis, prevention, treatment and rehabilitation for cancer diseases.

He also oversees the systematic development and coordination of specific cancer control activities, such as cancer prevention, early detection, treatment, and palliative care, so as to ensure the best use of available resources for the whole population. As part of his role in directing cancer management, he plays a significant role in the ongoing development and implementation of an integrated palliative care program. He also leads the development of the National Cancer registry program.

Dr. Kayonde conducts and supports research studies and builds the capacity of staff to conduct cancer screening for early detection and treatment. Currently, Dr. Kayonde is PI of the Rwanda Breast Health Initiative: Benign and Malignant Breast Disease at Two Rural Rwandan Hospitals.

Dr. Kayonde holds an MD from National University of Rwanda in General Medicine and is an MSc candidate in Clinical Epidemiology at National University of Rwanda School of Public Health.

Bridget KELLY, MD PhD, Senior Program Officer, Board on Global Health, U.S. Institute of Medicine

Most recently Dr. Kelly served as the study co-director for the Evaluation of PEPFAR, an evaluation of U.S. global HIV/AIDS programs. Previously she was the study director for the report, Promoting Cardiovascular Health in the Developing World: A Critical Challenge to Achieve Global Health, and continues to direct a series of related follow-up activities, including the workshop Country-Level Decision Making for Control of Chronic Diseases. She currently serves on the Senior Advisory Council for the journal Global Heart and the advisory working group for the National Forum for Heart Disease and Stroke Prevention's Policy Depot. Prior to joining the Board on Global Health, she worked in the Board on Children, Youth, and Families for projects on prevention of mental, emotional, and behavioral disorders among children, youth, and young adults; on depression, parenting practices, and child development; and on strengthening benefit-cost methodology for the

evaluation of early childhood interventions. Preceding that she was a 2007 Christine Mirzayan Science and Technology Policy Graduate Fellow at the U.S. National Academies. She holds both an MD and a PhD in neurobiology, which she completed as part of the Medical Scientist Training Program at Duke University. She received her BA in biology and neuroscience from Williams College, where she was also the recipient of the Hubbard Hutchinson Fellowship in fine arts. In addition to her background in science and health, she has over ten years of experience in grassroots arts administration and production.

Jean Baptiste KOAMA, HMIS Advisor, CDC Country Office, Rwanda

Dr. Koama has more than 17 years public health experience. He currently serves as Health Management Information System (HMIS) Advisor and Strategic Information Team Lead for the CDC, Division of Global HIV/AIDS in Kigali, Rwanda. Dr. Koama provides oversight of existing HMIS-related interventions in the USG/PEPFAR Rwanda portfolio, including TRACnet, EMR, e-IDSR and other systems.

Dr. Koama provides technical assistance to the 2012 Rwanda NCD risk factors Survey. Dr. Koama also collaborates with CDC headquarters and the Office of the Global AIDS Coordinator on the use and implementation of IT-related standards for hardware and software and the adoption of systems for HIV/AIDS prevention, care and treatment.

He graduated from the University of Ouagadougou /Burkina Faso (M.D.); Tulane University (M.P.H). and from Walden University (Masters in Health Informatics).

Dr Koama's publication record includes topics related to Meningitis, Influenza, HIV AIDS, Disease surveillance and health information systems."

K. Karsor KOLLIE, MPH, Programme Director, Neglected Tropical and Non-Communicable Diseases Program, Ministry of Health and Social Welfare, Liberia

In his role Mr. Kollie is responsible for leading the establishment of a strong integrated disease program, and advocating for governmental priority for NTDs and NCDs nationally. This advocacy has resulted in changes to national policies such as the National Health Policy and Plan, and the nationwide Essential Package of Health Services. Mr. Kollie also has significant professional experience in Emergency Response, serving as the Emergency Preparedness and Response Unit Program Manager and NTDs Focal Person at the MoHSW from 2005-2008 and 2009-2011, and with the WHO as a Disease Surveillance Officer for complex emergencies.

Mr. Kollie received his Bachelor's of Science in Economics with a Minor in Demography from the University of Liberia, and has an MPH from Cuttington University in Liberia, and an MPH from BRAC University, Bangladesh.

Margaret KRUK, MD, Assistant Professor of Health Policy and Management, Columbia University Mailman School of Public Health

Dr. Kruk focuses her research on health system effectiveness and population preferences for healthcare in sub-Saharan Africa. Dr. Kruk is particularly interested in the application of new methods, such as discrete choice experiments and systems dynamic modeling, in studying the interactions between health systems and populations in low-income countries. She works with governments and academic colleagues in several African countries, including Tanzania, Ethiopia, Liberia, and Ghana. She has published on women's preferences for maternal health care, policy options for human resource shortages, health care financing, and evaluation of large-scale health programs in low-income countries. Prior to coming to Columbia, Dr. Kruk was an assistant professor in Health Management and Policy at the University of Michigan School of Public Health and policy advisor for Health at the Millennium Project, an advisory body to the UN Secretary-General on the Millennium Development Goals. She has also practiced family and emergency medicine in northern Ontario, Canada.

Marie Aimee MUHIMPUNDU, MD MSc Epi, Head of NCD Division, Rwanda Biomedical Center

Dr. Muhimpundu joined the Ministry of Health/ Center for Treatment and Research on HIV, Malaria, TB and Other epidemic diseases (TRAC Plus) in 2008 as senior surveillance officer of epidemic prone diseases. In December 2011, she was appointed to be the Director of Outbreak Preparedness and Response Unit in Rwanda Biomedical Center, where she coordinated outbreak response activities country wide and participated in designing and implementation of epidemiological surveillance systems. From May 2013, she was appointed to be the Head of Non Communicable Diseases within RBC. She has published/ co-authored articles on epidemiological surveillance and response in Rwanda.

Richard B Mark MUNYANEZA, MD, In Charge of Monitoring and Evaluation in Community Health, Community Health Desk, Rwanda Ministry of Health

Dr Munyaneza who hails from Rwanda, is a medical doctor with multidisciplinary training in Cancer care, neonatology and general pediatrics at work. Inspired to become a physician to help address the human resources in health crisis at home, He went to National University of Rwanda on an academic scholarship in 2001. He earned a degree in Human medicine and general surgery from NUR in 2008.

His current responsibilities include the elaboration of strategic plans and other policy documents for the Ministry of Health, facilitation of development and use of Monitoring and Evaluation tools for the Community Health Desk. He also has significant management responsibility, including facilitation of essential meetings, compilation and analysis of all Community Health activity reports, and review of periodical reports, consolidation of quarterly, mid-annual and annual reports for the Community Health Desk. He regularly follows up on community health interventions and reports on progress. Together with the Community Health Desk staff, he organizes impact evaluation studies on community health interventions, including those implemented by development partners.

Since 2008 he worked with Rwinkwavu hospital and Partners in Health. He worked full time at Rwinkwavu hospitals and health centers in rural Rwanda. He responsible for the clinical and programmatic management of pediatric programs, including HIV, TB, cancer and malnutrition. He oversaw the technical supervision that Rwinkwavu provided to the Rwandan Ministry of Health in clinical programs, including those, non-communicable diseases, HIV, TB and others. He provided direct mentorship to a clinical team of nurses and new doctors and conducted clinical research in his area of interest.

He was involved in a PMTCT (prevention of mother to child transmission) program providing ART (anti-retroviral therapy) and other interventions to pregnant women and newborns, a child survival program including replacement feeding for HIV-exposed infants, programs for active case-finding and early diagnosis of children with HIV and TB, programs for management of non-communicable chronic diseases including epilepsy and heart disease and a neonatology program and cancer where we had more than 15 successful cases of cancer cases (pediatrics)

Eléazar Ndabarora, Cardiovascular and Chronic Respiratory Disease Specialist, NCD Division, Rwanda Biomedical Center

Mr. Ndabarora is a Community Health Nurse working in the NCDs Division, Rwanda Biomedical Centre. He has been serving at different levels of care in the Rwanda Ministry of Health since more than 10 years as a health care provider, supervisor, and Monitoring and Evaluation Specialist. He holds Masters Degree in Community Health-Nursing and a PhD candidate from the University of KwaZulu-Natal, South Africa. His area of research has been health services delivery and Health Information Systems Management particularly in data quality management at community and district levels. Most recently, he has made significant contributions to the Rwanda National Strategic Plan for NCDs, including costing, writing, and overall document coordination and facilitation for all inputs and outputs.

Fidele NGABO, MD MPH, Director of Maternal and Child Health Department, Ministry of Health, Rwanda

Dr. Ngabo is in charge of developing MCH strategic plan, following implementation at the decentralised level, and monitoring of related activities and coordination of partners.

He is a Medical Doctor with Masters in Public Health and currently PhD candidate at ULB in Belgium. Before joining Maternal and Child Health Department, Dr Fidele Ngabo was Coordinator of Expanded Program of Immunization in the Ministry of Health. Prior to that appointment Dr Fidele was the head of training and development of guideline in HIV/AIDS department in the Treatment and Research on AIDS Center in the Ministry of Health with overall conception, development and adaptation of tools for the training and monitoring of the HIV/AIDS program responsibility.

He is chair of Maternal and Child health Working Group in the Health Sector.

Jean de Dieu NGIRABEGA, MD MPH, Deputy Director General, Rwanda Biomedical Center, Conference Chair

Dr. Ngirabega is Head of the Institute of HIV/AIDS, Disease Prevention and Control (IHDP). Dr Ngirabega is also a Lecturer at the School of Public Health, National University of Rwanda and teaches management of health services and resources, and health services organization courses.

From July 2011 to May 2013, he was the Director General of Clinical Services in the Ministry of Health of Rwanda, coordinating different units including public and private health facilities, quality care improvement, medical education and research, nursing practice and education, pharmacy and emergency care.

He has extensive experience conducting health systems evaluations, developing work plans and implementing strategies. Dr. Ngirabega earned a doctorate in Medical Sciences and Master's Degree in Public Health from the Free University of Brussels in Belgium. He earned his MD degree at the National University of Rwanda.

Gedeon NGOGA, NCD Program Manager, Inshuti Mu Buzima / Partners In Health Rwanda

Mr. Ngoga is an experienced NCD nurse who supervises, teaches and trains NCD nurses at the three Partners In Health hospitals. As NCD Program Manager, Mr. Ngoga has a range of programmatic and clinical responsibilities that range from budget management to direct patient care for diabetes, heart failure, hypertension, chronic respiratory diseases, cancer, and palliative care. He has also taught nurses at referral hospitals in collaboration with nurses from visiting international teams to build surgical capacity in Rwanda. He coordinates cardiac surgical care at district hospitals, and maintains the registry of pre- and post-operative patients in the three districts of the PIH catchment area, including managing warfarin in post cardiac surgery patients. He has also worked with the Ministry of Health on the NCD risk factors survey.

Prior to his current role, Mr. Ngoga was a Nurse Manager of the operating and surgical ward of Rwinkwavu Hospital and was a nurse at the Medical Center of HVP Gatagara, South Province. He is trained in multiple NCD clinical areas including basic echocardiography, diabetes, heart failure, cancer, malaria, and chronic respiratory disease. He has also participated in trainings by Harvard Business School in principles of management, has completed the 6-week palliative care course of the African Palliative Care Association and Hospice Africa Uganda, and is trained in analytical software and monitoring and evaluation. Mr. Ngoga holds a Bachelors Degree of Health Sciences from University of the West of Scotland, UK, an Advanced Diploma in General Nursing from Kigali Health Institute.

Evariste NTAGANDA, MD MPH, Director of Cardiovascular and Chronic Obstructive Pulmonary Disease Unit, NCD Division, Rwanda Biomedical Center

Dr. Ntaganda is a medical doctor and holds masters in public health. Before joining NCDs, he worked with HIV/AIDS, STI and other Blood born infections. First he had been hired as a medical supervisor, later on he was appointed as coordinator of clinical mentor ship and after that he was assigned a position of pediatric HIV desk in charge. Dr Ntaganda has also worked as a clinician in one of Rwandan district hospitals. He is currently working with NCDs Division in Rwanda Biomedical center as Director of Cardiovascular and Chronic respiratory disease and he spearheaded the development of NCDs strategic plan, including plan writing and costing, development of packages of services and the M&E framework, facilitation of the Technical Working Group for review of the plan, and management of other stakeholder inputs.

Rachel NUGENT, PhD, Director of Disease Control Priorities Network

Rachel Nugent is a development economist with 30 years experience in policy analysis of agricultural, environmental, and health conditions in developing countries. Since 2000, she has worked on global health policy with particular emphasis on nutrition-related diseases. Dr. Nugent was a senior economist at the United Nations Food and Agriculture Organization from 1997-2000 where she led a multi-department team to study and provide technical support for urban and peri-urban agriculture. She also worked in multiple countries on agricultural and nutrition policies.

In 2000, Dr. Nugent joined the Fogarty International Center of the NIH as a program officer where she developed and managed research and research training programs in health and economic development, K-1 Career Awards, and population and reproductive health research training. Dr. Nugent served as the Fogarty International Center liaison to the trans-NIH obesity task force, and was co-chair of the trans-NIH international nutrition subcommittee. Dr. Nugent served as a technical expert to the World Health Organization as a member of the international reference group for the Global Strategy on Diet, Physical Activity, and Health. Dr. Nugent subsequently was Director of Health and Economic Development at the Population Reference Bureau and Deputy Director of Global Health at the Center for Global Development. Dr. Nugent was associate professor and chair of the Economics Department at Pacific Lutheran University from 1994-1997.

In recent years, Dr. Nugent has worked 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 a member of the Lancet NCD Action Group, the NCD Alliance Advisory Team, and is often called upon by the World Economic Forum and other organizations to advise on NCD strategies. She is director of the Disease Control Priorities Network at the UW Department of Global Health, and editor of the vascular disease volume of that enterprise.

K. Srinath REDDY, MD, President, Public Health Foundation of India

A medical doctor with specializations in cardiology and epidemiology, Reddy headed the Department of Cardiology at All India Institute of Medical Sciences (AIIMS) until recently. He has served on many WHO expert panels and is on the Board of the World Heart Federation. He edited the National Medical Journal of India for 10 years and is on the editorial board of several international and national journals. Prof. Reddy was awarded the WHO Director General's Award for Global Leadership in Tobacco Control at the 56th World Health Assembly in May 2003. He was conferred the prestigious national award PADMA BHUSHAN by the President of India on the occasion of the 57th Republic Day of India, in 2005. The Royal Society for the Promotion of Health, UK, awarded him the Queen Elizabeth Medal in 2005

He was elected Foreign Associate Member of the Institute of Medicine (US National Academies) in 2004. He has been recipient of research grants from the Indian Council of Medical Research, NIH (Fogarty), Wellcome Trust, WHO, British Heart Foundation and the Global Forum for Health Research.

Emmanuel RUSINGIZA, MD, Lecturer at National University of Rwanda and Clinician at Kigali University Teaching Hospital

Dr. Emmanuel Rusingiza has done his undergraduate and postgraduate studies at the National University of Rwanda and Catholic University of Louvain. He pursued his studies in pediatric cardiology in Belgium and France. Since 3 years and half, Dr. Emmanuel actively participates in teaching of medical students and postgraduates in pediatrics and child Health.

The clinical area of interest of Dr. Emmanuel is pediatric cardiology. He is in the Head unit of pediatric cardiology at KUTH and Coordinator of cardiovascular program. He is involved in the outreach program aiming to supervise the NCD clinics in 3 district hospitals of Rwanda, particularly for cardiovascular diseases.

He is strongly committed to train medical students, manage pediatric population with congenital and acquired cardiovascular diseases and conduct cardiology medical research.

Aaron SHAKOW, PhD, Associate Director, Program on Non-Communicable Disease, Partners In Health, Lecturer, Harvard Medical School

Dr Shakow has played a key role in the organization's advocacy for the treatment of HIV/AIDS, tuberculosis and other diseases of the poor. A past editor of the journal Health and Human Rights, Dr. Shakow has taught the history of science at Harvard College and the Massachusetts Institute of Technology, and is presently a lecturer in global health and social medicine at Harvard Medical School. During the rollout of the World Health Organization's "3 by 5" initiative to expand global access to antiretroviral treatment in the mid-2000s, he was a strategic adviser to the director of HIV/AIDS; he currently serves as an advisor in the Office of the President of the World Bank

Dr. Shakow's research interests include state planning in low-income countries, international governance in global health, case-based learning, and the history of development, with a particular focus on the impact of public health interventions on economic relations and knowledge exchange. He received his PhD in 2009 from Harvard University, where he studied the impact of infectious disease control and state regulation on international commerce and diplomacy.

Neo TAPELA, MD MPH, Director of NCD Program at Partners In Health, Rwanda and Special Advisor to Rwanda Director General of Clinical Services on NCDs

Dr Tapela is an Internal Medicine specialist with multidisciplinary training in Global Health and Public Health, and professional interest in health systems strengthening and expanded equitable delivery of non-communicable diseases (NCDs) services in resource-limited settings.

She earned a B.A. in Biological Sciences and African Studies from Wellesley College, M.D. from Harvard Medical School, M.P.H from Harvard School of Public Health and graduated from the Howard Hiatt Residency in Internal Medicine and Global Health Equity at Brigham and Women's Hospital.

Dr Tapela has worked in various countries including South Africa, Lesotho, Haiti and her home country Botswana. Since September 2011, she has been based in Rwanda as Director of NCDs Program with Partners In Health-Rwanda where her duties include programmatic development and oversight of integrated comprehensive NCD services at PIH-supported MOH facilities, located in 3 districts and with a catchment area of 800,000 people. She also serves as Special Advisor on NCDs to the Rwanda MOH, and sits on the National NCD Technical Working Group as co-chair of the Cancer Cluster where she contributes to the development of national policy and strategy to address NCDs.

Jon Eric TONGREN, PhD MSPH, Rwanda CDC PMI Resident Advisor, USAID

Dr. Tongren started his Public Health experience as a Peace Corps volunteer in Cote D'Ivoire. He then got his Masters in Public Health from Tulane in Parasitology and Tropical Medicine from Tulane School of Public Health. He got a fellowship at the Centers of Disease Control where he worked on malaria pathogenesis and malaria vaccine candidates.

Dr. Tongren got his PhD from the London School of Hygiene and Tropical Medicine in Epidemiology and Immunology working on malaria at the Moshi, TZ field site. His post-doc was conducted back at CDC where he worked on malaria and HIV coinfection in Kisumu, Kenya. He then worked as the Epidemic Intelligence Service (EIS) Officer at the Maine Health Department where he worked on communicable, non-communicable diseases, and injury prevention. After EIS, Dr. Tongren joined the President Malaria's Initiative (PMI) as the CDC liaison in Washington DC. He is currently the Rwanda CDC PMI resident advisor.

Albert TUYISHIME, MD, Director of Planning, Rwanda Biomedical Center

Dr. Tuyashime leads all strategic planning related processes across different Programs within RBC. He is a Member of the National Planners Network and has been Speaker in different planning Seminar and Conferences. He also worked on National Elimination of Mother to Child HIV transmission strategic plan development. Before joining Rwanda Biomedical center, He was the Coordinator of HIV Program in KICUKIRO Health Center (2008-2011), the first Health Center to start the care and treatment of HIV positive Patients in Rwanda. Much of his work consisted of Program planning and Medical follow up of Adults and Children on Antiretrovirals.

Dr Albert received his Medical Degree from National University of Rwanda and is now enrolled in Epidemiology Master's Program in School of Public Health / National University of Rwanda.

Parfait UWALIRAYE, MD MPH, Director General of Planning, Ministry of Health, Rwanda

Dr. Parfait Uwaliraye serves currently as the Director General of Planning, Monitoring & Evaluation and Health Information System in the Ministry of Health in Rwanda. He took up his post as Director General of Planning, Monitoring & Evaluation and Health Information system at the Ministry of Health in November 2012, leading the Ministry's work on Planning, Monitoring & Evaluation, partners' coordination and health systems strengthening through policy development, education and research.

Prior to his appointment at the Ministry of Health, Dr. Parfait Uwaliraye was the Director of a district Hospital in the Eastern Province.

Dr. Parfait Uwaliraye is qualified as a medical doctor by background with a Masters degree in Public Health (Health Workforce Development) from the University of Western Cape in South Africa. After completing his undergraduate studies, he went to work as medical officer in a district hospital of Kigali City. He had a particular focus on Health Information System, Health Management and Evidence-based Planning in which he has received several certificates in those fields both in-country and abroad.

He currently lives in Kigali with his wife and their daughter.

Theo VOS, Professor of Global Health, Institute for Health Metrics and Evaluation (IHME), University of Washington

Theo Vos is Professor of Global Health at the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. He is a key member of the Global Burden of Disease (GBD) research team, and is working to improve the GBD methods, update sources of data, and develop partnerships with countries to produce GBD estimates that are most relevant to policy decision-making. He is also focused on linking the epidemiological estimates from GBD to information on health expenditure and cost effectiveness.

Prior to joining IHME, Dr. Vos was Director of the Centre for Burden of Disease and Cost-Effectiveness at the School of Population Health of the University of Queensland. While there, he led burden of disease studies in Australia and contributed to studies in Malaysia, South Africa, Singapore, Thailand, Vietnam, and Zimbabwe.

Previously, Dr. Vos led two large economic evaluation projects. The Assessing Cost-Effectiveness in Prevention project, or ACE Prevention, was conducted in Australia and was the most comprehensive evaluation of disease prevention measures ever conducted in a country. A similar project, Setting Priorities Using Information on Cost-Effectiveness (SPICE), examined intervention options for tuberculosis, mental disorders, lifestyle risk factors, and road traffic injuries in Thailand.

Dr. Vos received his PhD in epidemiology and health economics from Erasmus University and his medical degree from State University Groningen, both in the Netherlands. He also studied at the London School of Hygiene and Tropical Medicine where he obtained an MSc in Public Health in Developing Countries.

**Patrick WAIHENYA, MBChB MPH, Acting Head of Non-Communicable Diseases,
Ministry of Health, Kenya**

Dr. Waihenya has served as National Cancer Prevention and Control program officer for one year before heading the division. During this period, he spearheaded development of National Cancer Control strategy 2011-2016 in Kenya. Currently, he is coordinating the robust diabetes comprehensive care project in the country among other programs.

He is also leading a team that is now finalizing the National NCD Strategy 2013-2018 in Kenya.

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