NCDs, Injuries, and Extreme Poverty

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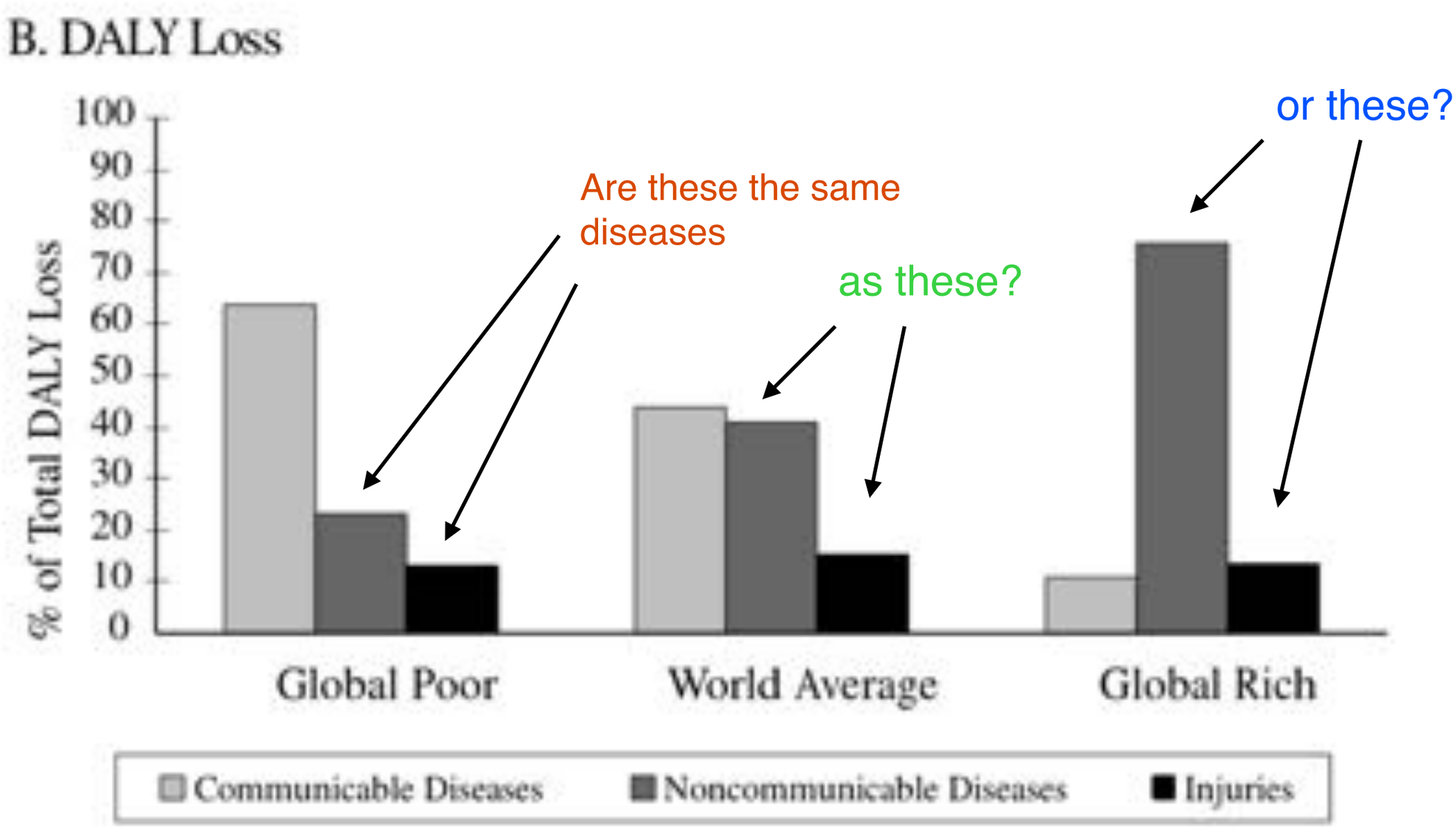
World Health Organization
Global Dialogue
Continued Inclusion of NCDs in Development Cooperation

WHO's reluctance to shift away from its focus on infectious diseases is a natural outgrowth of its concern for equity and health of the poor. This concern leads to quite a different perspective from that of [the Global Burden of Disease Study], whose approach attaches equal importance to the health of the middle and upper economic classes.

- Davidson Gwatkin in 1997

Gwatkin DR. Global burden of disease. Correspondence. The Lancet 1997; 350: 141–1.

Figure 1 Causes of Death and Disability, 1990



Gwatkin DR, Guillot M. The Burden of Disease among the Global Poor. Current Situation, Future Trends, and Implications for Strategy. Washington, DC: World Bank, Human Development Network, Global Forum for Health Research, 2000.

In high-income countries, rising health costs are a major threat to fiscal stability and long-term economic growth. Obesity is a growing problem. When people live longer, they face increased rates of cancer, heart disease, arthritis, diabetes and other chronic illness. On average, people lose 10 years of their lives to illness, mostly to non-communicable diseases.[31] These should be addressed, but the priorities will vary by country.

Who are the Bottom Billion?

- Predominantly in sub-Saharan Africa and South Asia
- > 80% under age 40
- > 50% under age 20
- > 80% rural subsistence farmers

Alkire S, Roche JM, Seth S. Identifying the 'Bottom Billion': Beyond National Averages. London: Oxford Poverty and Human Development Initiative (OPHI), 2013.

The Opportunity:

The 2011 UN High Level Meeting on NCDs has opened a window to address a set of neglected problems in global health.

The Problem:

Unlike many of the conditions targeted by the MDGs, NCDs are less common among those living in extreme poverty. As a result, the NCD agenda is largely focused elsewhere (in middle income populations), and the nature of the NCD burden among the bottom billion may be misunderstood.

This dialogue is part of the Solution:

We need a coalition of researchers, governments, implementing partners, and development partners focused on the NCDs (and Injuries) of Extreme Poverty.

Key Questions:

Are NCDs (and Injuries) an Important Problem among the Poorest Billion?

Are the NCDs of the poorest qualitatively different than in other populations?

Are the risk factors for these diseases different than in other populations?

Hypotheses:

1. The burden of NCDs and Injuries among the poorest is characterized by a long-tailed distribution, not dominated by the 4 major NCDs.

2. Collectively, these conditions among the poorest billion account for 30% of the avoidable disease burden in those under 40 years old.

3. Most of this burden is unexplained by the usual modifiable risk factors (e.g. tobacco, diet). Household air pollution and infectious diseases play an important causal role.

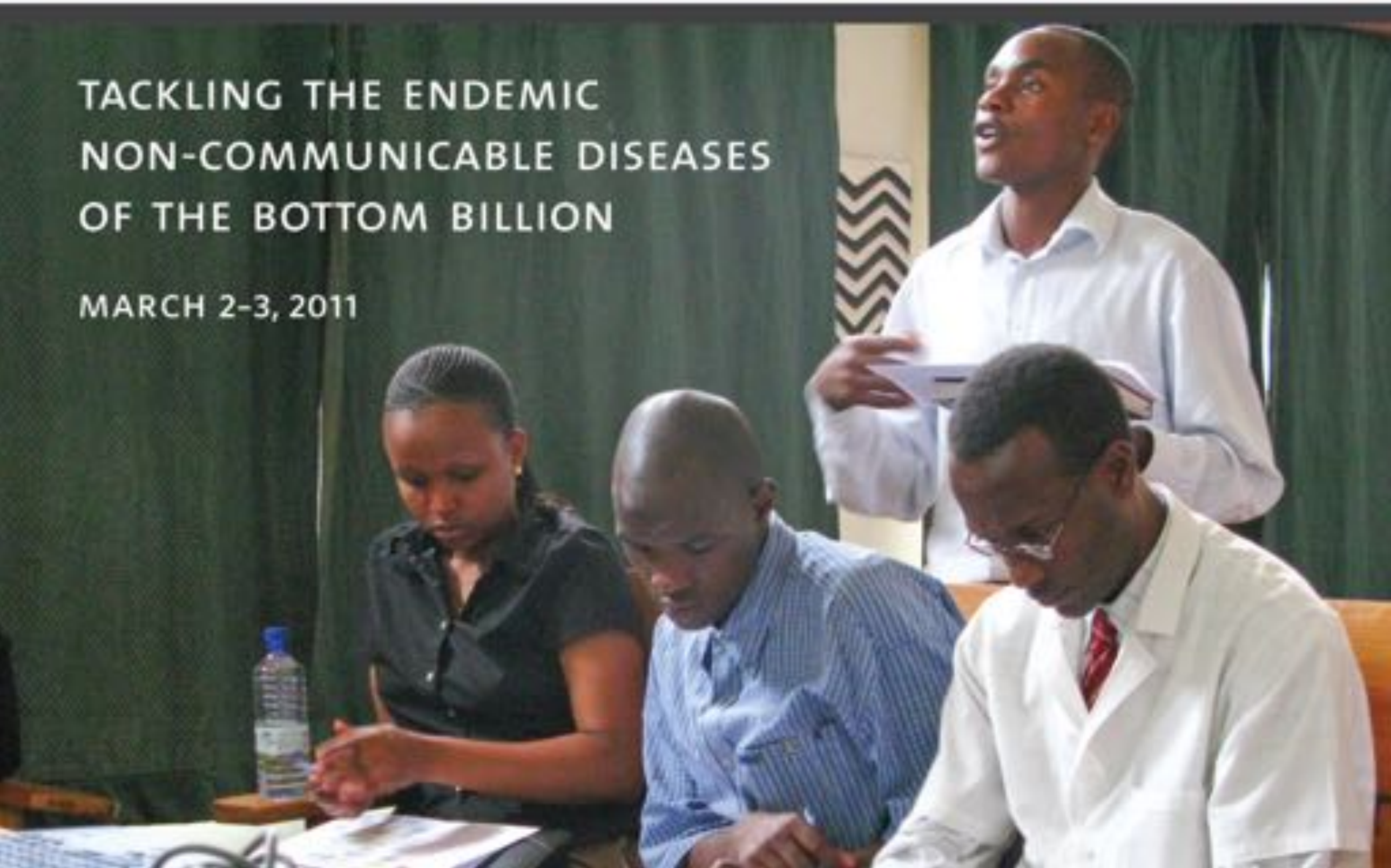
4. There is an opportunity to prevent around one million deaths per year due to NCDs and injuries under age 40 among those living in extreme poverty through policies and integrated health system strategies adapted to the needs of these populations.

TABLE 1.1 Burden of Non-Communicable Diseases Linked to Conditions of Poverty

	Condition	Risk factors related to poverty
Hematology and oncology[1,2]	Cervical cancer, gastric cancer, lymphomas, Karposi's sarcoma, hepatocellular carcinoma	HPV, H. Pylori, EBV, HIV, Hepatitis B
	Breast cancer, CML	Idiopathic, treatment gap
	Hyperreactive malarial splenomegaly, hemoglobinopathies	Malaria
Psychiatric[3]	Depression, psychosis, somatoform disorders	War, untreated chronic diseases, undernutrition
	Schizophrenia, bipolar disorder	Idiopathic, treatment gap
Neurological[4–6]	Epilepsy	Meningitis, malaria
	Stroke	Rheumatic mitral stenosis, endocarditis, malaria, HIV
Cardiovascular[7,8]	Hypertension	Idiopathic, treatment gap
	Pericardial disease	Tuberculosis
	Rheumatic valvular disease	Streptococcal diseases
	Cardiomyopathies	HIV, other viruses, pregnancy
	Congenital heart disease	Maternal rubella, micronutrient deficiency, idiopathic, treatment gap
Respiratory[9,10]	Chronic pulmonary disease	Indoor air pollution, tuberculosis, schistosomiasis, treatment gap
Renal[11]	Chronic kidney disease	Streptococcal disease
Endocrine[12]	Diabetes	Undernutrition
	Hyperthyroidism and hypothyroidism	Iodine deficiency
Musculoskeletal[13,14]	Chronic osteomyelitis	Bacterial infection, tuberculosis
	Musculoskeletal injury	Trauma
Vision[15]	Cataracts	Idiopathic, treatment gap
	Refractory error	Idiopathic, treatment gap
Dental[16]	Caries	Hygiene, treatment gap

Bukhman G, Kidder A, editors. The Partners In Health Guide to Chronic Care Integration for Endemic Non-Communicable Diseases. Rwanda Edition. Cardiac, Renal, Diabetes, Pulmonary, and Palliative Care. Boston: Partners In Health, 2011. CIted and Reproduced by Marquez PV, Farrington JL. The Challenge of Non-Communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa. Washington, DC: The World Bank, 2013.

The Long Tail of Global Health Equity



REPUBLIC OF RWANDA

MINISTRY OF HEALTH

Inaugural NCD Synergies Network Meeting
July 15-16, 2013

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

http://www.ghdonline.org/ncd-synergies-kigali2013

NCD Synergies

Partners In Health

www.ncdsynergies.org

Our Approach

Bring Attention to the Needs of the Poorest

Among the poorest, the greatest loss of life and health due to NCDs and injuries occurs before age 40. Our community works to better understand this disease burden and to develop integrated, practical solutions.

Assist Ministries with Planning and Implementation

Bottom-up solutions driven by local data are needed to address NCDs and injuries among the poorest. We place seconded staff within ministries of health to support creative design of policies and clinical services.

Develop a Catalog of Findings and Tools

Resources that address NCDs and injuries specifically among the poorest can be hard to identify. We develop a catalog of findings and best practices filtered for our community of implementers dedicated to equity.

Possible Data Sources

- Global Burden of Disease Study
- Global Health Estimates
- Demographic and Health Surveys
- STEPS surveys (disaggregated)
- Demographic and Health Surveillance Sites
- Disease-specific registries

Keynotes and Panel

- Malawi: Beatrice Mwagomba
- Rwanda: Marie Aimee Muhimpundu
- Mozambique: Ana Olga Mocumbi
- India, Chattisgarh State: Raman Kataria
- World Heart Federation: Johanna Ralston
- University of Lausanne: Silvia Stringhini