AIDS responses can and must continue to transform societies—but this task requires increased, not decreased, investment. A priority for UNAIDS in 2010 is to support UN Secretary-General Ban Ki-moon's leadership in the third voluntary replenishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria. Without it, the AIDS response will be severely challenged even to sustain the gains we have made.

As we approach the deadline for universal access to HIV prevention, treatment, care, and support, we are convinced that UNAIDS is on the right path—the path of prevention and the path that links the transformative AIDS response to health and development.

*Michel Sidibé, *Kent Buse*
Joint United Nations Programme on HIV/AIDS (UNAIDS), 1211 Geneva 27, Switzerland
busek@unaids.org

We declare that we have no conflicts of interest.

1 UN General Assembly. Declaration of commitment on HIV/AIDS. June 25–27, 2001. http://data.unaids.org/publications/irc-pub03/aidsdeclaration_en.pdf (accessed Jan 25, 2010).
2 Ottosson D. State-sponsored homophobia: a world survey of laws prohibiting same sex activity between consenting adults. May, 2009. http://ilga.org/statehomophobia/ILGA_State_Sponsored_Homophobia_2009.pdf (accessed Jan 25, 2010).
3 UNAIDS. Mapping of restrictions on the entry, stay and residence of people living with HIV. June, 2009. http://data.unaids.org/pub/Report/2009/jc1727_mapping_en.pdf (accessed Jan 25, 2010).
4 US Department of Health and Human Services. Immigration regulations and HIV/AIDS. Jan 4, 2010. http://www.aids.gov/federal-resources/policies/immigration/#short-term-travel (accessed Jan 25, 2010).
5 Starrs AM. Lessons and myths in the HIV/AIDS response. *Lancet* 2009; **374:** 1674–75.
6 England E. Lessons and myths in the HIV/AIDS response. *Lancet* 2009; **374:** 1674.
7 Kaoma K. Globalizing the culture wars: U.S. conservatives, African churches, and homophobia. 2009. http://www.publiceye.org/publications/globalizing-the-culture-wars/pdf/africa-full-report.pdf (accessed Jan 25, 2010).
8 UNAIDS, WHO. AIDS epidemic update. November, 2009. http://data.unaids.org/pub/Report/2009/JC1700_Epi_Update_2009_en.pdf (accessed Jan 25, 2010).
9 The Lancet Infectious Diseases. Does HIV/AIDS still require an exceptional response? *Lancet Infect Dis* 2008; **8:** 457.
10 WHO. Report on the expert consultation on positive synergies between health systems and Global Health Initiatives. May 29–30, 2008. http://www.who.int/healthsystems/hs_&_ghi.pdf (accessed Jan 25, 2010).
11 Jaffar S, Amuron B, Foster S, et al, on behalf of the Jinja trial team. Rates of virological failure in patients treated in a home-based versus a facility-based HIV-care model in Jinja, southeast Uganda: a cluster-randomised equivalence trial. *Lancet* 2009; **374:** 2080–89.
12 UNAIDS. Joint action for results: UNAIDS outcome framework 2009–2011. May, 2009. http://data.unaids.org/pub/Report/2009/jc1713_joint_action_en.pdf (accessed Jan 25, 2010).
13 Sidibé M. Mobilizing prevention as a movement for universal access. Speech to the 2009 Programme Coordinating Board. December, 2009. http://data.unaids.org/pub/SpeechEXD/2009/20091208_pcb_exd_speech_en.pdf (accessed Jan 25, 2010).
14 Global Network of People living with HIV. http://www.gnpplus.net (accessed Jan 25, 2010).
15 Piot P, Bartos M, Larson H, Zewdie D, Mane P. Coming to terms with complexity: a call to action for HIV prevention. *Lancet* 2008; **372:** 845–59.
16 Rerks-Ngarm S, Pitisuttithum P, Nitayaphan S, et al, for the MOPH–TAVEG Investigators. Vaccination with ALVAC and AIDSVAX to prevent HIV-1 infection in Thailand. *N Engl J Med* 2009; **361:** 2209–20.
17 Feuer C, Fisher K, Harmon T, et al. Adapting to realities: trends in HIV vaccine research funding 2000–2008. 2009. http://www.iavi.org/Lists/IAVIPublications/attachments/212dc3d7-f753-4b58-b2a6-d04323cc8b98/HVMRTWG_adapting_to_realities_VaxSummary_2009_ENG.pdf (accessed Jan 25, 2010).
18 WHO, UNAIDS, UNICEF. Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress report 2009. September, 2009. http://www.who.int/hiv/pub/tuapr_2009_c1_en.pdf (accessed Jan 25, 2010).

Global health is public health

Last year, in *The Lancet*, Jeffrey Koplan and colleagues[1] provided a new definition for global health and proposed several distinctions between global health, international health, and public health. This attempt to distinguish differences between global health and public health conflicts with the key tenets of a global public health strategy (panel). These tenets offer the foundation of a redesigned global health system that could accomplish the optimum level of health for populations. This approach has profound implications for training, scholarship, and practice necessary to improve human health.

Global health and public health are indistinguishable. Both view health in terms of physical, mental, and social wellbeing, rather than merely the absence of disease. Both emphasise population-level policies, as well as individual approaches to health promotion. And both address the root causes of ill-health through a broad array of scientific, social, cultural, and economic strategies.

In 1915, the Welch–Rose report established a blueprint for US public health schools that emphasised training in discrete interventions, targeted at reducing infectious diseases.[2] Since then, the world's health needs have grown more complex, the scientific opportunities for prevention and treatment more sophisticated, and the need for coordinated approaches more urgent. In 2003, the US Institute of Medicine laid out a much broader vision that recognised the need for a multisectoral systems-based approach to sustainable population health.[3]

***Panel:* Key tenets of global public health**

- Belief that global health is public health. Public health is global health for the public good.
- Dedication to better health for all, with particular attention to the needs of the most vulnerable populations, and a basic commitment to health as a human right.
- Belief in a global perspective on scientific inquiry and on the translation of knowledge into practice, not limited by political boundaries, but sensitive to contextual issues that might influence illness, the design or choice of interventions, or health systems.
- A scientific approach to health promotion and disease prevention that examines broad determinants of health including, but not limited to, delivery of medical care, and creates integrated approaches in clinic, community, and government.
- Commitment to an interdisciplinary approach and collaborative team work to analyse problems of populations. Global concerns, such as climate change, and cross-disciplinary issues, such as zoonotic diseases and human health, involve close collaborations between medicine, public health, veterinary medicine, and many other disciplines.
- Multilevel systems-based interventions deployed to address the interactive contributions of societal and health-governance issues, corporate responsibility, and environmental, behavioural, and biological risk factors are key.
- Comprehensive frameworks for financing and structuring health policies and services that support community-based and clinical prevention integrated with health-care delivery and deployment of a balanced workforce of physicians, nurses, and other providers.

Yet global health is still often perceived as international aid, technologies, and interventions flowing from the wealthier countries of the global north to the poorer countries of the global south. A more nuanced and contemporary perspective emphasises interdependence and recognises the many contributions of both resource-rich and resource-scarce nations.[4] With the new understanding that many health problems have a linked aetiology and a common impact, and that innovative solutions can come from all sectors, collaborative relationships become, at a minimum, bidirectional—and optimally, multilateral.

The importance of a global perspective is highlighted by these observations. First, pandemic infectious diseases, such as AIDS and influenza, and the health challenges associated with climate change, are not confined by sovereignty or the extent of nations' resources. Second, chronic diseases, which already contribute a major share of the global burden of disease, will grow with our ageing population. Increasing evidence suggests that the diet and lifestyle of high-income nations have "communicable" characteristics. In China, 20% of men are hypertensive, while nearly 80 million people in India will have diabetes by 2030.[5] Similarly, tobacco-related diseases began in the global north but have become commonplace in the global south.

Third, cross-national comparisons of health systems can yield useful insights. For example, the US health-care system has higher costs yet unimpressive population-health outcomes compared with many other nations, suggesting that the US system might be an inappropriate export to developing countries. Fourth, the health workforce is becoming globalised. The traditional model of health professionals from the wealthy north providing care in the poor south is outmoded. Instead, the dominant model is the migration of the health workforce from south to north, with major resource implications worldwide.

The tenets of global public health (panel) highlight public health as a public good, benefiting all members of every society. While local applications must be contextually appropriate, a domestic focus on population health need not compete for attention with an international focus—in a global health system, strengthening one strengthens the other.

Medicine and clinical care remain essential pillars of that system, but the greater payoff comes with an integrated, multidisciplinary, prevention-oriented approach in the community as well as in the clinic. In the USA, human behaviour accounts for 40% of the risk of premature death, while the social and working environments account for 20%. Health care, by contrast, contributes 10% of health outcomes (with genetics explaining the rest).[6] At the same time, every dollar invested in prevention produces a sixfold return on investment.[7]

Public health schools remain at the forefront of efforts to educate global health experts who are prepared to confront the global burden of disease. They bring systems approaches and a focus on prevention science and evidence-based interventions to that effort, along

with a multidisciplinary faculty and ties to communities, public sector agencies, non-governmental organisations, and government ministries.

New university structures to support synergies in global health education, research, and service are welcome. Links with graduate programmes in medicine, law, international affairs, and a host of bench and social science programmes can only strengthen the capacity of future global public health leaders. Opportunities abound for research collaborations, dual degrees, and jointly designed interventions at the clinical, community, and population levels.

The foundation of those partnerships, however, recognises that global health and public health represent a single field with a long tradition of bringing scientifically validated approaches, technologies, and systems to bear on the world's most pressing health needs. Improving the lives of vulnerable populations depends on continuing advances in this field.

*Linda P Fried, Margaret E Bentley, Pierre Buekens, Donald S Burke, Julio J Frenk, Michael J Klag, *Harrison C Spencer*

Mailman School of Public Health, Columbia University, New York, NY, USA (LPF); Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC, USA (MEB); School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA, USA (PB); Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, USA (DSB); School of Public Health, Harvard University, Boston, MA, USA (JJF); Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, USA (MJK); and Association of Schools of Public Health, Washington, DC 20005, USA (HCS)

hspencer@asph.org

We represent a working group of the Association of Schools of Public Health Global Health Committee. We thank Karen L Helsing for her contributions to this Comment. We declare that we have no conflicts of interest.

1 Koplan JP, Bond TC, Merson MH, et al, for the Consortium of Universities for Global Health Executive Board. Towards a common definition of global health. *Lancet* 2009; **373:** 1993–95.

2 Rockefeller Foundation. Welch-Rose report on schools of public health. 1915. http://www.deltaomega.org/WelchRose.pdf (accessed Jan 28, 2010).

3 Institute of Medicine. The future of public health. 1988. http://books.nap.edu/openbook.php?record_id=10548 (accessed Feb 3, 2010).

4 Colgrove J, Fried, LP, Northridge, ME, Rosner, D. Schools of public health: essential infrastructure of a responsibly society and a 21st-century health system. *Public Health Rep* 2010; **125:** 8–14.

5 WHO. WHO global infobase. https://apps.who.int/infobase/report.aspx (accessed Sept 17, 2009).

6 Schroeder SA. We can do better—improving the health of the American people. *N Engl J Med* 2007; **357:** 1221–28.

7 Trust for America's Health. Prevention for a healthier America: Investments in disease prevention yield significant savings, stronger communities. July, 2008. http://healthyamericans.org/reports/prevention08 (accessed Feb 3, 2010).

Stroke—a call for papers

Stroke accounts for about 10% of deaths worldwide each year. Although the incidence of stroke in high-income countries has fallen by about 40% over the past four decades, the incidence in low-income and middle-income countries has more than doubled during this timeframe, and 85% of all strokes now occur in developing countries.[1,2] Advances in the management of stroke during the past decade have improved outcomes for patients who have had a stroke.[3] However, stroke continues to present many challenges, not least of which is the gross underfunding of stroke research compared with coronary heart disease and cancer.[4]

To coincide with the 19th European Stroke Conference, which will be held in Barcelona, Spain, from May 25 to May 28, 2010, *The Lancet* and *The Lancet Neurology* are issuing a call for papers. We are particularly interested in original research papers that report the results of randomised trials, but we will also consider any other high-quality research that will inform clinical practice. We are especially interested in papers that will be presented at the meeting, but we also welcome other submissions.

Original research should be submitted via *The Lancet's* or *The Lancet Neurology's* online submission sites by April 12. If your paper is being presented at the conference, please let us know in your covering letter the date, time, and manner of presentation (oral or poster). Please also state that you are submitting your paper in response to this call for papers.

Helen Frankish, Richard Turner

The Lancet Neurology, London NW1 7BY, UK (HF); and *The Lancet*, London NW1 7BY, UK (RT)

1 Feigin VL, Lawes CM, Bennett DA, Barker-Collo SL, Parag V. Worldwide stroke incidence and early case fatality reported in 56 population-based studies: a systematic review. *Lancet Neurol* 2009; **8:** 355–69.

2 Johnston SC, Mendis S, Mathers CD. Global variation in stroke burden and mortality: estimates from monitoring, surveillance, and modelling. *Lancet Neurol* 2009; **8:** 345–54.

3 Donnan GA, Fisher M, Macleod M, Davis SM. Stroke. *Lancet* 2008; **371:** 1612–23.

4 Rothwell PM. The high cost of not funding stroke research: a comparison with heart disease and cancer. *Lancet* 2001; **357:** 1612–16.

Published **Online** February 5, 2010 DOI:10.1016/S0140-6736(10)60170-5