

EDITORIAL

Global Health's Grand Challenge: A Healthy Planet and Healthy People



Keith Martin, MD, PC, Philip J. Landrigan, MD, MSc

We are living in a golden era of improvements to human health. Our average life expectancy globally has increased from 47 years in the 1950s to 69 years in 2010; maternal death rates, under-5 mortality, and poverty rates have plummeted. However, this has come at a great cost, one we are only beginning to appreciate. The price for these improvements has been the destruction of Earth's life-support systems. We have mortgaged the health of our planet to pay for our needs and wants.

Improving the health of people and our planet is the grand global health challenge of our time. In response to this, the *Lancet* created 2 commissions. The first, in collaboration with the Rockefeller Foundation, was on Planetary Health.¹ It released its findings in July 2015 and laid down, in unsparing words, how human activity is causing climate change, ocean acidification, land degradation, freshwater scarcity, the destruction of fisheries, and an era of mass extinctions that profoundly affects our security.

The other *Lancet* commission, on Pollution, Health, and the Environment, led by the Icahn School of Medicine at Mount Sinai, the Global Alliance on Health and Pollution, and the nongovernmental organization Pure Earth, will release its report in at the beginning of 2017. Tackling the “king of all risk factors,”² it will address pollution's impact on health, economics, poverty, social justice, and the sustainable development goals and will conclude with solutions to prevent and control this massive, neglected global threat.

These reports are clarion calls for action. The big question is: What will we do with this information? Perhaps our greatest opportunity will be to overcome our collective failure to implement what we already know will address these challenges.

Academia is in an ideal position to play a vital role in addressing these problems. Identifying good practices, creating curricula, effective advocacy, and building and retaining training capabilities in low-resource settings are opportunities for action.

Although we in global health tend to focus on the medical inputs necessary to improve human well-being, the nature of these challenges demand that we pay greater attention to a long list of non-medical skills and interdisciplinary structures. To bridge the knowledge—implementation gap, we must increase our understanding of politics, project management, finance, communications, and advocacy across our research, education and service activities. What programs are or are not implemented and funded is a matter of choice—decisions dependent on a mercurial mix of politics and financial and human resources. We ignore this reality at our peril.

Neglected challenges in global health abound: governance, many tropical diseases, protecting human rights, climate change, corruption, capacity building, public health strengthening, the social determinants of health, and much more. Although we live with an abundance of knowledge, many questions in global health remain unresolved and require our continued, vigorous support for research funding. If we do not maintain our advocacy, the hard-won efforts to create the remarkable research capabilities we have will wither.

We also must ask ourselves why, in those countries where the need is greatest, there remains persistent deficits: access to essential skilled human resources, materiel and infrastructure. These deficits are particularly important in the public service, which is essential to the delivery of the public goods needed for any nation's stability.

Many institutions in high-income countries have had relationships with their counterparts in low-resource settings where these deficits have persisted for decades. This must compel us to ask ourselves tough questions and take a hard look at our partnerships. How are they structured? What are the benefits and who accesses them?

The core of global health is improving the well-being of those who are least privileged. Our partnerships with our colleagues in developing nations must result in significant, sustained, and long-term improvements to their ability to train their skilled workers and implement the context-relevant initiatives they identify that will address their needs. All parties must benefit from collaborations, but our partners in low-resource settings must accrue the greatest benefits of all.

The Consortium of Universities for Global Health (CUGH) held its most successful conference to date in San Francisco, California, on April 9–11, 2016. The conference's theme was "Bridging to a Sustainable Future in Global Health." Approximately 1760 individuals from nearly 60 countries, including more than 600 students, attended the event.

Central to the meeting was Planetary Health—One health. Over 600 abstracts were presented, covering all of the conference's subthemes. This special edition of AOGH contains descriptions of the poster abstracts presented at the CUGH conference. They represent some of the cutting edge research taking place around the world in this broad

and dynamic field. The student abstracts that received the highest scores in the abstracts submissions vetting process were judged on site for the Lancet Global Health Poster Awards. Those poster abstracts are listed first. Richard Horton, Editor of the *Lancet*, opened the conference with an impassioned speech challenging all of us to be bold agents of change and address the twin challenges of improving the health of people and our planet. When distilled down to its core this is the essential definition of global health.

CUGH, with the support of the Rockefeller Foundation, also convened attendees and leaders involved in this burgeoning field. In the future, the Consortium will mobilize its membership, comprised largely of academic institutions, but also involving an increasing number of collaborators from government, nongovernmental organizations, the private sector, and think tanks, to address the health of our planet and people through education, research, service, and advocacy.

As our melting polar ice caps, massive loss of biodiversity, collapsed fish stocks, extreme weather events, changing disease patterns, areas of increasing food insecurity, and ballooning urban populations in the face of fractured infrastructures attest to, time is not on our side. Academia, collaborating across sectors to increase our knowledge base, build capacity, and scale up what we already know will improve the health of people and our planet, is facing an extraordinary challenge and a great opportunity of our times. It is one we must not fail to take up.

REFERENCES

1. Whitmee S, Haines A, Beyrer C, et al. Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation—Lancet Commission on planetary health. *Lancet* 2015;386:1973–2028.
2. Fuller R, Dimarco D. The Brown Agenda: My mission to clean up the world's most life-threatening pollution. Solana Beach, CA: Santa Monica Press; 2015.

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