FACT SHEET

NATIONAL INSTITUTES OF HEALTH

Building Global Health Research Capacity

Yesterday

- Traditionally, global health research focused on the crippling burden of infectious disease in developing countries. Infectious diseases led to high rates of childhood mortality and morbidity, as well as low life expectancy rates. In addition, the health research expertise needed to confront these challenges was primarily concentrated in high-income countries. Past scientific advances have played a critical role in combating the infectious disease burden; for example, smallpox eradication and the use of oral rehydration therapy contributed to significant reductions in morbidity and mortality around the globe.

Today

- Emerging economies like India, Brazil, Mexico and China have seen life expectancies grow for the past 40 years. Fatty diets, less physical activity, and tobacco use are all on the rise in developing countries as a result of industrialization, urbanization and global marketing of goods and products. Increasing longevity and convergence of risk factors and diseases calls for a common research agenda for developing and developed countries.
- Chronic diseases - such as heart disease, stroke, diabetes, and cancer - are the leading cause of mortality worldwide, representing 60% of all deaths. Eighty percent of these deaths occur in low- and middle-income countries (LMICs).
- Infectious diseases continue to exact an enormous toll on the world's poorest populations. Over 33 million people are living with HIV/AIDS and approximately two million people die every year – the vast majority in LMICs. There are roughly 250 million cases of malaria every year and nearly one million deaths – mostly among children living in Africa. About one billion people are affected by one or more neglected tropical diseases, such as leprosy, dengue, and trachoma.
- Unprecedented resources are being invested in the development of new health technologies to address global health challenges; however, although many interventions have been proven safe and effective, many have not been implemented on a wide scale due to logistical, cultural, financial, and other barriers. Therefore, there is an urgent need to ensure that trained researchers can identify the most effective ways to translate research findings into practice.
- International scientific collaborations must be developed and strengthened to effectively confront complex health issues that transcend national boundaries. Research advances will more likely occur when local and outside investigators can study diseases onsite to develop health interventions that are responsive to local and international needs and priorities. This requires trained, in-country scientists and institutions that are uniquely positioned to address local study populations and collaborate with U.S. and other investigators.
- NIH supports international research and research training programs to tackle global health challenges using the best science and the best minds from around the world. NIH has supported the training of over 5,000 researchers from LMICs .
- Upon completion of their training, most return to their home countries to conduct research and help to train the next generation of in-country scientists.
- Every year, NIH welcomes more than 2,500 foreign scientists into its intramural laboratories to work on the full spectrum of health and health issues.

Tomorrow

NIH will continue to promote international collaboration between investigators in the United States and scientists in other countries to conduct research, train researchers, and create a network that facilitates exchange of information and a way for scientists to share best practices, strategies and lessons learned across borders. For example:

- In partnership with several African institutions, researchers at the University of Michigan are building regional research capacity in Southern Africa to address the challenges of chronic respiratory diseases associated with environmental and occupational

exposures. In an effort to help ensure successful implementation of research results, this project also includes strengthening an alliance of academic institutions with government organizations responsible for implementation of health policies.

- A collaboration between Tufts University School of Medicine and the Christian Medical College (CMC) in Vellore, India is supporting research training activities in enteric infectious diseases with the goals of better understanding, controlling and preventing diarrheal disease in South India, and strengthening CMC as a center of excellence for infectious disease research training. This collaboration also aims to translate research into evidence-based medicine and public health practice related to infectious diseases through building a translational research program in partnership with the Indian government.
- The University of California at Davis is partnering with the International Center for Diarrheal Disease Research, Bangladesh to strengthen the capability of scientists to conduct research on the design, implementation and evaluation of nutrition intervention programs to enhance maternal and child health outcomes. In addition to training and research, faculty and students are also providing technical assistance in this area to the government of Bangladesh, international agencies, and non-governmental organizations.

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