



Dear Friends,

The Duke Global Health Institute (DGHI) was established in November 2006 to address one of the most important issues of our time-- reducing health disparities in vulnerable and underserved populations globally and locally. Through this mission, DGHI embodies Duke University's three signature themes: interdisciplinarity, internationalization, and knowledge in the service of society.

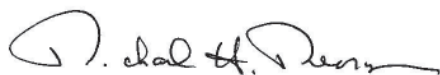
As one of Duke's seven signature Institutes, DGHI has brought together Duke's world class faculty, built collaborations with its nine renowned Schools, and partnered with its thriving health system to become a leading institution in the field of global health. We have made strides in initiating education programs for hundreds of students, and supported student and faculty research programs in 18 countries.

The current H1N1 pandemic reminds us that, in this time of globalization, diseases spread rapidly and that addressing health problems abroad helps protect our own health and security. A recent New York Times series about DGHI Member Dr. Jeff Wilkinson's work in Moshi, Tanzania has illustrated the unconscionable number of women and children dying every day from complications related to childbirth. And with more than 56,000 persons in the United States newly diagnosed with HIV each year, DGHI's work in this country and in North Carolina is also critical.

This report provides a brief update of the Institute's progress and our plans for the future. A more complete listing of our education, research, policy, and service projects can be found on our website at www.globalhealth.duke.edu

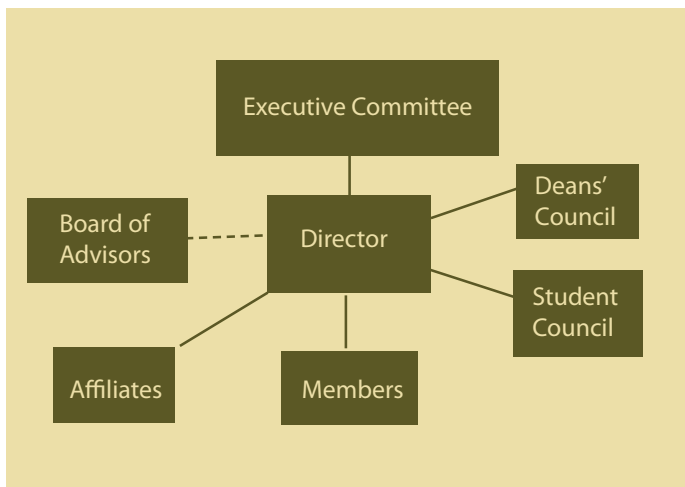
Even with the progress we've made, there are vast challenges ahead. I welcome your input, feedback, and advice as the Institute enters its next phase of growth. Most importantly, I welcome your participation to help us achieve the vision for which we have set out: a world where health is a right for all and not a luxury for few.

Sincerely,



Michael H. Merson, MD
Wolfgang Joklik Professor of Global Health
Director, Duke Global Health Institute





DGHI Governance Structure

Building a World Class Institute

In the Duke tradition, DGHI has built an interdisciplinary Institute with a participatory governance structure, active faculty involvement, and support for diverse projects that respond to current needs in global health.

Soon after its establishment, the Institute prepared bylaws that were approved by the Provost and the Chancellor for Health Affairs. The bylaws established DGHI's governance structure, which is made up of the directorship and a number of advisory bodies: an Executive Committee, Student Council, and Deans' Council. We plan for a Board of Advisors to be appointed this year. (see figure above)

DGHI has 26 Faculty Members (13 from Campus, 13 from the Medical Center) who have a vested interest in the Institute and view global health as their main professional focus area. DGHI Members vote on the appointment of non-tenure, regular rank faculty appointments in the Institute.

DGHI has also appointed 38 Faculty Affiliates (19 from Campus, 19 from the Medical Center) who participate in one or more global health projects associated with DGHI.

Over the past two years, the Institute has participated in the recruitment of 12 full-time faculty to lead and participate in its education programs, research initiatives, and service opportunities.

Training the Next Generation of Global Health Scholars

DGHI has established a broad foundation of interdisciplinary education and training programs, with a growing portfolio of 14 initiatives spanning from undergraduate to graduate and professional education. Students have been drivers, not just beneficiaries, of many of these programs and their interests have been influential in setting the Institute's curricular priorities. Programs currently administered by DGHI include:

Global Health Certificate for undergraduates and graduate students (122 students enrolled)

We have seen a rapid increase in the number of undergraduates enrolled in this Certificate program, which indicates their enormous interest in the field. The undergraduate majors most heavily represented, in order of representation, are biology, public policy, international comparative studies, evolutionary anthropology, psychology, and biomedical engineering.

Master of Science (MSc) in Global Health (16 students, begins in fall 2009)

DGHI has established one of the first MSc in global health programs in the country. We also have a dual MSc-GH/MD degree with the School of Medicine, are working on a similar dual MSc-GH/JD degree with the Law School, and plan to explore similar dual degree options with the Fuqua School of Business, Pratt School of Engineering, Sanford School of Public Policy, and the Nicholas School for the Environment.

Global Health Postdoctoral Fellowship (three fellows in 2009)

Postdoctoral fellows are an ideal mechanism for bringing together faculty and students from different disciplines and can serve as excellent mentors for undergraduates, masters, and doctoral students from across the University. We envision this program will grow substantially and will include fellows from abroad, including those from our global health sites.

Global Health Residency (nine residents from seven Departments)

This program is carried out in collaboration with the Hubert-Yeargan Center for Global Health, which also administers the program. Residents enroll in the MSc-GH program and conduct their training abroad.

Third Year Global Health Study Program for Duke medical students (15 students anticipated in 2009-10)

Housed within the School of Medicine, we anticipate continued growth of this popular program. In addition, we are working with the School of Medicine to incorporate global health content into the formal training of medical students and residents.

North Carolina Health Disparities Fellowship (four fellows enrolled)

Sponsored by the North Carolina Health and Wellness Trust Fund, this two-year fellowship for North Carolina health professionals was established in 2008. Fellows participate in on-campus seminars, engage in distance learning activities, and are matched with a Duke faculty mentor who advises them on the design and implementation of a research project that addresses a local health disparities challenge.

Global Health Diploma program with Peking University in Beijing, China (30 enrolled students in summer 2009)

DGHI has extended its educational reach to institutions abroad. In partnership with Peking University (PKU), DGHI has established a global health diploma. Four Duke faculty will travel to Beijing to co-teach four courses with PKU faculty in an intensive two-week program for Master of Public Health students and representatives from the Ministry of Health. A similar program is planned with Mahidol University in Bangkok and the Public Health Foundation of India.

In addition to these programs, we are leading the [Global Health Focus Program](#), and participating in the development of the [Provost's Undergraduate Team Teaching Initiative](#) and the new undergraduate, dual-country [Global Semester Abroad](#) program.

An Interdisciplinary Approach to Research

The health of the world's population will be driven by new discoveries and knowledge generated through research. DGHI aims to be at the cutting edge of global health research efforts, providing internationally-recognized leadership to find ways to prevent and treat disease today and in the future. A distinguishing quality of DGHI is its promotion of interdisciplinary research collaborations to comprehensively address some of the priority global health challenges.



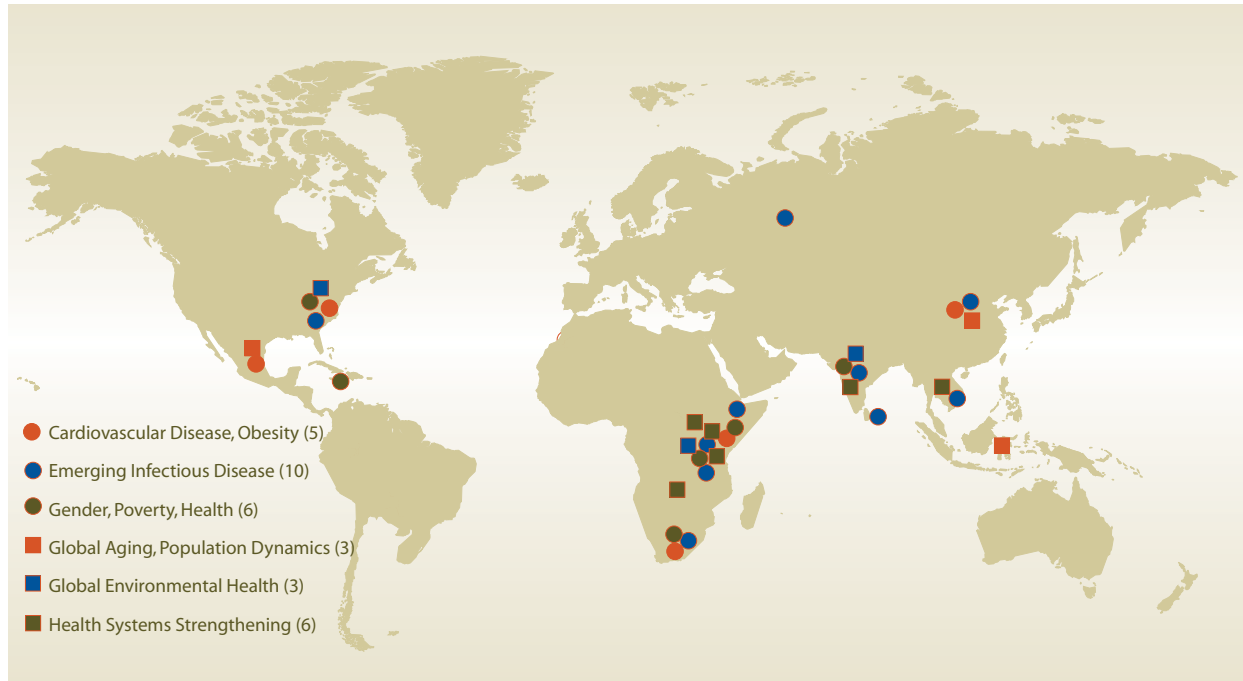
With support from the Duke Global Health Institute, Jeff Wilkinson, MD, trains midwives in Tanzania in child delivery techniques. Dr. Wilkinson is also performing surgery in women with obstetric fistula.

We have strategically prioritized our research into six major areas or signature research initiatives (SRIs): cardiovascular disease and obesity; emerging infectious diseases; gender, poverty, and health; global aging and population dynamics; global environmental health; and health systems strengthening. The selection of these major areas is driven by projections for the evolving global burden of disease over the next 20 years, the need for research to discover ways to decrease this burden, and the comparative strengths of Duke faculty across the Campus and Medical Center. Through these SRIs and with the advice of faculty working groups, DGHI is providing financial, technical, and/or administrative support to 65 research projects in 18 countries being undertaken by 36 faculty from 12 Departments and six (of nine) Schools. (see map on next page)

Here are a few examples of the innovative research being done in each area:

Cardiovascular Disease and Obesity

DGHI, in partnership with The George Institute of International Health in Beijing has received a grant from the National Heart, Lung, and Blood Institute (NHLBI) to establish a Center of Excellence in Cardiovascular and Pulmonary Disease Research in Beijing. DGHI Members have received a second NHLBI award to develop a similar Center of Excellence with Moi University in Eldoret, Kenya. DGHI also plans to launch studies of cardiovascular disease and diabetes prevalence and prevention in India next year. Our obesity research is designed to uncover the social and behavioral determinants of obesity in high risk populations, and to develop empirically-based interventions to help curb the worldwide obesity pandemic.



DGHI is supporting research in 18 countries

Emerging Infectious Diseases

HIV/AIDS has claimed more than 30 million lives, and DGHI Members are widely recognized as leaders in HIV/AIDS research. DGHI has supported 13 HIV-related research projects in four countries. DGHI Members are also investigating other emerging infections in a world where a new infectious agent is discovered every eight months. We have formed a collaboration with Duke-National University of Singapore (Duke-NUS) to establish a priority program in this area, especially important given the prominence of Asia as a hotbed for the birth of new pathogens. This research combines access to a surveillance network of robust laboratories and field sites in a number of Asian countries with the epidemiologic and scientific expertise in the discovery of new organisms causing human disease at Duke-NUS.

Gender, Poverty, and Health

The world's most vulnerable populations include the poor, especially women. Nine faculty from four Schools are conducting research aimed at addressing the profound inequalities in health. For example, DGHI is supporting research that brings together engineers and physicians to design, build, and field test a USB-powered hand-held optical device for cervical pre-cancer screening in low resource settings. This device will be used in Haiti to detect cervical pre-cancers for early

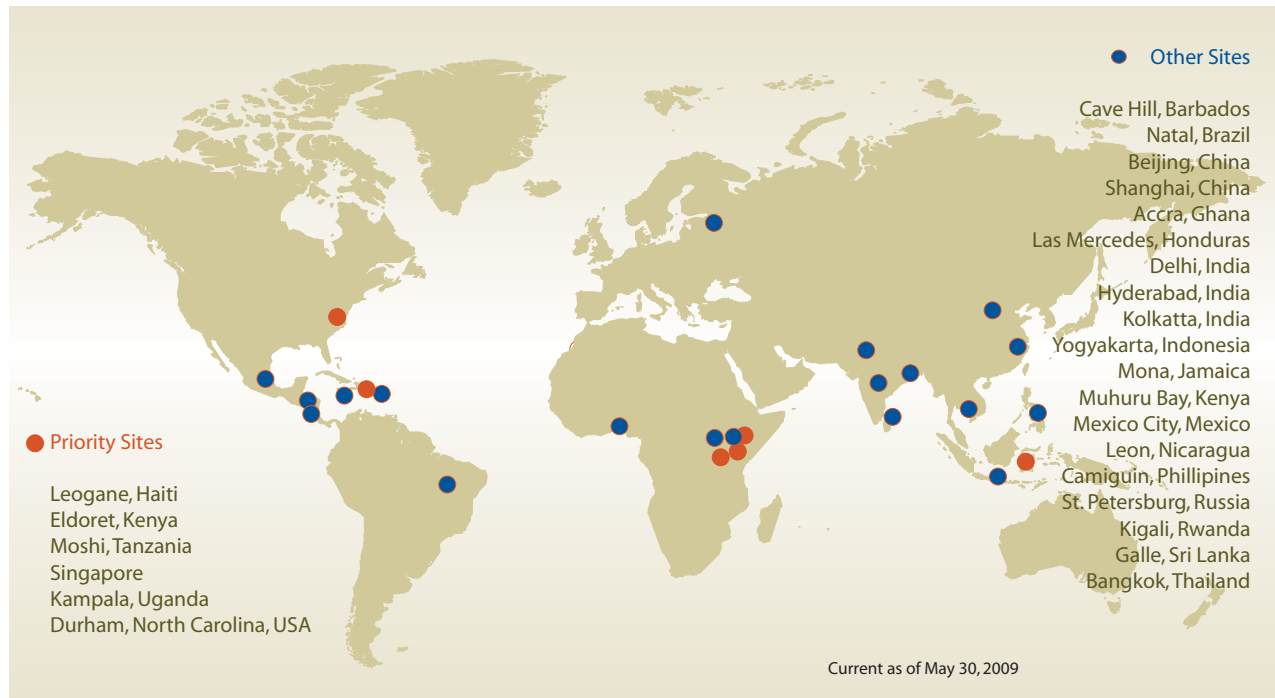
diagnosis and treatment. We are also undertaking studies to evaluate various approaches to providing care and support to orphans of HIV-infected parents.

Global Aging and Population Dynamics

Duke University has great expertise in aging, population dynamics, and demography. DGHI is harnessing this expertise in the global study of the human life cycle, especially on the sociocultural and health systems aspects of care for the aged. A new DGHI-supported research project is studying the physical activity patterns of the elderly in Shanghai. This research is evaluating patterns of disability and physical activity in a random sample of Shanghai elderly; and will conduct focus groups and feasibility assessments to plan collaborative community-based screening and physical activity promotion programs.

Global Environmental Health

This rapidly developing SRI is focused on identifying and modifying the impact of environmental change on human health. Currently, one faculty group is developing decision-support tools to determine the best approaches for controlling malaria in different settings, such as bed nets and spray programs, including an assessment of their costs and impacts on health and environmental quality. Other DGHI Members are evaluating the impact of water and



DGHI is building partnerships around the globe for its education and research projects

sanitation programs on childhood diarrhea in India, the changing distributions of disease vectors such as animals and insects in the context of global warming, and the consequences of heavy metal exposure on child health in Durham.

Health Systems Strengthening

With the Fuqua School of Business, we have undertaken a landscaping analysis of the needs and training opportunities for experts in health financing, policy, and management in low and middle income countries. We have also initiated a pilot study in partnership with Fuqua and the Divinity School to investigate various approaches to strengthening the public and private health workforce sector in Uganda.

In addition, Duke faculty have taken advantage of the Global Health PLUS Program (Placement of Life-changing Usable Surplus), which donates Duke's surplus medical equipment to faculty conducting research abroad. One faculty member brought 16 tons of medical equipment to establish a Neurosurgery unit at Mulago National Hospital in Kampala. This equipment, along with the training his team provided, increased the number of people receiving life-saving surgery by almost 200% over two years.

Developing Partnerships Around the World

Aligned with its strategic goals, DGHI has established partnerships with institutions in six countries: Tanzania (Moshi), Kenya (Eldoret), Uganda (Kampala), China (Beijing), Haiti (Leogane), and Singapore. Activities at these sites vary in scope. For example, DGHI is building upon Duke's decades-long partnership with Kilimanjaro Christian Medical Centre in Moshi to conduct cutting-edge research in HIV prevention and treatment, maternal health, and mental health.

These global health sites not only allow faculty to more easily conduct international research, but also open the door for greater interdisciplinary collaboration between faculty and across Schools. This increases the likelihood of innovative discoveries, and provides groundwork for faculty to transition toward longer-term, systematic, and strategic involvement in the international arena. To meet current and anticipated demands, DGHI intends to establish at least six more international sites over the next three years. *(see map above)*

Influencing Global Public Policy

Global health remains a priority of the United States government because of its importance to global security, diplomacy, poverty reduction, economic development, and the development of new technological advances in vaccines and pharmaceuticals. In May 2009, the Obama administration announced its intent to provide \$63 billion over six years to programs in AIDS, tuberculosis, malaria, maternal and child health, and neglected tropical diseases.

At present, there is no university providing leadership in global health policy in the United States. DGHI plans to capitalize on this void and establish an interdisciplinary Global Health Policy Initiative that takes a long-term view of important policy issues, integrates science with rigorous policy analysis, and addresses some of the more challenging and enduring issues facing global health policy today.

This Initiative will build upon Duke's strengths in various aspects of global health policy at the Sanford School of Public Policy, Law School, Fuqua School of Business, Nicholas School for the Environment, Nicholas Institute of Environmental Health Policy, and the Center for Health Policy based in DGHI. It will also leverage the research conducted through our Signature Research Initiatives and be a natural extension of DGHI's participation in important global health policy forums, such as *aids2031* and the Center for Strategic and International Studies' Commission on Smart Global Health Policy.



Duke Global Health Institute

235 Trent Hall, Trent Drive
Box 90519 Duke University
Durham, North Carolina 27708

Telephone: 919-681-7760
Fax: 919-681-7748
Email: globalhealth@duke.edu
www.globalhealth.duke.edu

Disseminating Global Health Information

DGHI is working collaboratively with Duke Schools, Departments, and Institutes to promote faculty and student research, service, and policy achievements. DGHI disseminates information weekly through an electronic newsletter which is received by more than 2,200 individuals. Recently, DGHI faculty have been featured in the New York Times, Vanity Fair, The Lancet, US News and World Report, CNN, and other national and international media.

DGHI has a track record of producing successful interdisciplinary conferences, seminar series, and special events. Over the past two years, we have co-sponsored conferences on topics such as the applications of biomedical engineering to global health with the Pratt School of Engineering; the health care workforce shortage in Africa with the Fuqua School of Business; and global blindness with the Duke Eye Center.

We are working to make the DGHI website (www.globalhealth.duke.edu) a dynamic source of information on the many ways Duke is contributing to global health. With more than 50,000 visitors each year, the website provides an important vehicle for describing and promoting Duke's global health research, education, service, and policy activities.

Sustaining DGHI for the Future

In addition to start-up funds provided by the University and Medical Center, DGHI is actively engaged in fund-raising to generate resources to support its mission. During 2008-09, we secured two major gift commitments to support the work of the Institute. The first is a multi-year pledge to support the Duke-Kilimanjaro Christian Medical Centre efforts in Moshi, Tanzania. The second will support three key programmatic areas of the Institute: faculty development, student support, and international site development. In addition, this gift includes a small fund to encourage collaborative research partnerships with other universities and non-profit organizations working in global health.

One of the greatest challenges we face over the next several years will be garnering the resources needed to sustain the Institute. ■