JOHNS HOPKINS
BLOOMBERG SCHOOL
OF PUBLIC HEALTH

INTERNATIONAL HEALTH

THE CAMPAIGN FOR JOHNS HOPKINS

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RISING TO THE CHALLENGE: A CALL TO ACTION

Rising to the Challenge: The Campaign for Johns Hopkins will raise unprecedented levels of support to attract, sustain, and empower the students and faculty of Johns Hopkins, who through their work improve the lives of millions around the world. Together with our philanthropic partners we will:

ADVANCE DISCOVERY AND CREATIVITY through support of our exceptional faculty. Their innovative work drives the development of new knowledge, new forms of expression, and new ways to save lives and improve health across our core disciplines in science and technology, the humanities and arts, and public health and medicine.

ENRICH THE STUDENT EXPERIENCE by investing in scholarships and fellowships, inspirational spaces for collaborative learning and social opportunities, and new programs that will enhance student-faculty interactions, ensure diversity on campus, link learning in the classroom to life after graduation, and strengthen connections between our students and our communities.

SOLVE GLOBAL PROBLEMS AS ONE UNIVERSITY by creating new cross-disciplinary solutions in crucial areas such as sustaining global water resources, revitalizing America’s cities, advancing the health of individuals and populations, and understanding how we learn and teach.

With your help, the Bloomberg School will play a key role in the success of the campaign.
DEPARTMENT AT A GLANCE

Chair: David Peters, MD, MPH '89, DrPH '93

History: First and largest academic department of international health in the world, founded in 1961 as an educational and research base for USAID health programs.

Size and scope: Over 150 full-time faculty and 300 graduate students. Master of science in public health (MSPH) and doctoral (PhD) degrees in four major program areas: Global Disease Epidemiology and Control, Health Systems, Human Nutrition, Social and Behavioral Interventions. Master of health science in health economics (MHS) and doctoral training in public health practice (DrPH).

PIVOTAL INFLUENCE AND WORLD-CLASS LEADERSHIP

The Department of International Health (IH) includes faculty from the fields of anthropology, biostatistics, clinical medicine, communications, demography, economics, engineering, epidemiology, immunology, infectious disease, nursing, management, nutrition, and sociology. Their practical expertise and disciplinary diversity are without equal.

For more than half a century, IH has been in the vanguard of developing and testing new ways to improve health, deliver low-cost, high-quality services, and maximize existing health assets in low-resource environments and among disadvantaged and otherwise marginalized populations. The Department has helped scores of low- and middle-income countries to make the best possible policies and investments to prevent disease and promote health among all their citizens. Today, Johns Hopkins has the largest global health research and practice footprint of any U.S. university.

LASTING PARTNERSHIPS FOR GLOBAL HEALTH SOLUTIONS

Since 1961, IH has established field sites around the world to conduct studies that benefit populations most in need. This relationship helps researchers better understand the full set of social, environmental, and disease conditions faced by communities, and engages them in protecting their own health. Here are a few examples.

Nepal: A model relationship for global health research

For 25 years, our students, staff, and faculty—along with local colleagues in Nepal—have conducted groundbreaking research in newborn and child survival. The site was first selected to test Al Sommer and Keith West’s vitamin A interventions showing that supplements in children could reduce mortality by about a third. Their work confirmed earlier tests and set in motion the vitamin A revolution that has saved hundreds of thousands of children’s lives. The site now includes tens of thousands of participants and an infrastructure that supports a wide range of projects on topics from indoor air pollution to the long-term effects of micronutrient supplements on development and cognition.

As a doctoral student in Nepal, Luke Mullany launched a study to test the effectiveness of chlorhexidine for umbilical cord care to reduce infections in infants. The results were remarkable: a 24 percent reduction in mortality. After several studies confirmed these findings, the World Health Organization now includes chlorhexidine in its Model List of Essential Medicines for Children, and over a dozen countries have adopted umbilical cord cleaning in their national policy recommendations. This public health success story has already saved thousands of children’s lives, and could potentially save approximately half a million babies per year.
Bangladesh: Breaking new ground in nutrition research
For more than 10 years, the Department has conducted research in Bangladesh under the name JiViT, based on the local word for “alive.” The goal is to guide and inform policies by identifying low-cost, effective nutrition interventions that can improve the health and survival of mothers, infants, and children across rural South Asia, where undernutrition, infectious disease, and mortality remain high.

Peru: Training and innovation
For over 20 years, Robert Gilman has conducted infectious disease research and training based at the Universidad Peruana Cayetano Heredia in Peru. Over the years, a unique relationship has developed between Hopkins and Cayetano University that has strengthened local research capacity in Peru. It has also created a research network and infrastructure that offer many opportunities for Hopkins faculty and students. Moreover, Gilman’s team’s groundbreaking work in the development of MODS—a rapid TB diagnostic technique—has made them an internationally known training resource with projects based in Asia, Africa, and the Americas.

U.S.: Renewed health and well-being for American Indians
The Center for American Indian Health, led by Mathu Santosham, has become a national leader in partnering with tribes to pursue strengths-based approaches that foster tribes’ rich physical, cultural, and intellectual heritage, and increase their health leadership through training, employment, and professional education. All the Center’s programs are designed with local community advisory boards to ensure cultural competency and community acceptance.

ROLLING OUT COST-EFFECTIVE LIFESAVING PROGRAMS
The miracle of vaccines
Many vaccines that U.S. children receive are unavailable in poorer regions of the world. The Department works on several fronts to address this disparity. IH is a leader in all phases of vaccine development, from preclinical to financing and implementation. IH has also achieved international recognition for its capacity to train other research professionals to develop the skills and infrastructure needed to design and conduct clinical vaccine trials.

Targeting the two killers of children
Pneumonia is the No. 1 killer of children worldwide, taking 1.5 million lives each year. Diarrhea kills nearly 1 million more children annually. Our faculty have dedicated their careers to developing, refining, and making available vaccines to stop the two top killers of children.

One of our leading pneumonia vaccine researchers is Kate O’Brien, who was recently named the executive director of the International Vaccine Access Center. The Center accelerates global access to lifesaving vaccines through development and implementation of evidence-based policies.

Researchers in the Department’s Center for Immunization Research have also been working on many other infectious diseases, including HPV, bird flu, West Nile virus, HIV, and dengue. Anna Durbin was honored recently by the Butantan Institute in Brazil for her contributions to the field of biomedical research and to the Institute, which distributes free vaccines to patients in São Paulo. Durbin’s team developed a dengue vaccine that is now moving through clinical trials and, if proved safe and effective, could help as many as 100 million people infected yearly.

The Institute for Vaccine Safety was established in 1997 to provide independent assessments of vaccines to help guide decision makers, and to educate physicians, the public, and the media about key issues surrounding vaccine safety. The media regularly rely on Neal Halsey for expert advice, as, for example, when fears surrounding vaccines and autism were at their highest. Dan Salmon appeared on several networks, including CBS Evening News, to discuss studies on recent US outbreaks of whooping cough found to be linked to lower vaccination rates.

INJURY PREVENTION
Injuries cause more than 5 million deaths every year, resulting in high economic and social costs for communities around the globe. Adnan Hyder directs the Health Systems program and the International Injury Research Unit. His Injury group received the largest injury grant ever from Bloomberg Philanthropies to look at traffic-related injuries in 10 countries, including China, Kenya, Mexico, and Brazil. In 2010 the group was named a WHO Collaborating Center for Injuries, Violence and Accident Prevention in recognition of its work—one of only three such centers in the U.S. In 2011, Hyder was presented with the Aron Sobel Guardian Award by the Association for Safe International Road Travel, which fights for global road safety through education, advocacy,
and road safety projects in low- and middle-income countries. These countries account for 90 percent of road traffic deaths, even though they contain less than 50 percent of the world’s registered automobiles.

**Saving 1,000 Children a Day**
Each year, nearly 900,000 children die from preventable injuries such as burns or drowning. Millions more are injured and permanently disabled. By implementing low-cost injury prevention interventions that have already been proved effective, it is estimated that between 8,000 and 80,000 children’s lives can be saved for each type of injury. That translates to approximately 1,000 lives per day.

**UNLEASHING LOCAL CAPACITY**
Since the Department’s inception, working with local populations has been an integral approach to our work. In fact, our first chair, Carl Taylor, led the revolutionary Narangwal study in India—the first ever to use an experimental design to test the feasibility and cost-effectiveness of integrating primary health care at the community level.

In Bangladesh, where nearly half of all childhood mortality occurs during the first 30 days, Abdullah Baqui found that mobilizing low-skilled workers in a poor and rural region of the country could reduce newborn mortality by nearly a third. The Lancet named his study a “Paper of the Year 2008.”

Peter Winch, director of the Social and Behavioral Interventions program, studies individual motivations and behavior to help governments and organizations better design health systems. His work in areas with few medical resources has been instrumental in the successful implementation of projects such as Baqui’s in Bangladesh, which will help the Government of Tanzania roll out a similar community-based health system. Both Winch and Baqui have received the Dory Storms Child Survival Award from the CORE Group for giving communities a voice and role in the planning and development of health care systems.

**Healthy children today = Healthy communities tomorrow**

Our former chair, Robert Black, was recently presented with the Sight and Life Nutrition Leadership Award for his seminal Lancet studies showing the adverse effects of undernutrition—not just on mothers and newborns but also on adults who were malnourished as children. Black’s first Nutrition Series in 2008 launched a global effort to use simple and effective interventions that have contributed to the reduction of childhood deaths worldwide in the millions. The latest 2013 series documents how undernutrition can significantly impede a country’s economic growth by lowering educational achievement and cognitive abilities.

Joanne Katz and Parul Christian are investigating the link between early childhood and maternal micronutrient supplementation and cognition and development later in life. As newborn and childhood mortality decreases, childhood development is increasingly important. Functional outcomes contribute to a country’s human resources, promoting both health and economic development.

Joel Gittelsohn has devoted much of his research to nutritional issues among low-income urban areas and American Indian populations in the U.S. His work engages local community to develop solutions for improving
healthy food options in areas often described as “food deserts.” As part of the Navajo Healthy Stores program, his work has shown how increases in the promotion and availability of healthy foods reduce body mass and improve food consumption behaviors.

INFLUENCING GLOBAL AND NATIONAL HEALTH POLICY
IH is a leader in the science of using research to implement successful, cost-effective programs on a large scale. In fact, our senior faculty advise major global health funding and policymaking organizations such as WHO, Nestle Foundation, Wellcome Trust, Canadian Institutes of Health Research, GAVI Alliance, CDC, FDA, and National Institute of Child Health and Human Development.

One example is the comprehensive efforts in Afghanistan led by David Peters. After the fall of the Taliban, the country’s health sector was in ruins. The Ministry of Public Health engaged our faculty to help build a sustainable, transparent, and equitable health system. Working with local organizations and health professionals, our faculty developed a national framework for monitoring and evaluation, called the Balanced Scorecard. As a result, Afghanistan has made great strides in primary health care, despite the ongoing security issues that exist throughout the country.

In India, Sara Bennett is leading the evaluation of a $350 million program to serve the populations most at risk for HIV. This program will eventually reach 5 million people, and results will continue to help inform the Bill and Melinda Gates Foundation’s many HIV prevention programs in India.

In Ethiopia, Andy Ruff, head of our Global Disease Epidemiology and Control Program, has led a nationwide multimillion dollar HIV treatment and prevention program. In a country where few women give birth in hospitals, it was particularly urgent to devise a system to effectively prevent HIV infection from mother to child. Ruff’s leadership and research findings have helped the government of Ethiopia navigate the operational hurdles inevitable in such a large-scale undertaking. Her work has saved tens of thousands of lives and left in place a network of facilities and trained physicians that will remain long after the project concludes.

ECONOMIC ANALYSIS OF OBESITY AND CHRONIC DISEASE
Jessica Jones-Smith’s research focuses on the socioeconomic effects of obesity and chronic disease. The obesity epidemic is particularly acute in Native American populations, which are often also low-income. Jones-Smith is conducting a study among more than 100 Native American tribes to compare outcomes for tribes who receive increased income from casino revenues versus those who do not. Recent results show that an increase in economic resources is linked to a reduced risk of obesity among Native American women and children.

As many low-income countries become wealthier, they too face the health concerns of industrialized countries. The NIH established the Johns Hopkins Global Obesity Prevention Center, which is using systems science to look at the multiple and interrelated causes of obesity in the U.S. and abroad.

Antonio Trujillo investigates the economic impact of chronic health conditions. His findings have broad implications for dealing with long-term health care issues such as diabetes, hypertension, and elder care. For example, long-term care puts a heavier economic
Courtland Robinson has been a leader in refugee research and policy analysis for over 30 years. His 1999 book, *Terms of Refuge: The Indochinese Exodus and the International Response*, was selected by the *Humanitarian Times* as one of the 10 best books of the year.

**OPPORTUNITIES TO SUPPORT INTERNATIONAL HEALTH**

The Department continues to pursue the unfinished agendas for micronutrients, maternal and child health, and infectious disease. The emerging major global health threats of cardiovascular disease, cancer, obesity, and injury also require the intense focus of IH faculty and students. Funding needs and opportunities are many.

To remain competitive in recruiting the most promising students, the Department requires at least six new doctoral scholarships as well as funds for master’s student internships and doctoral dissertation grants. A faculty recruitment and research fund will help attract and retain the most talented scholars. With career start up funds from emerging scholar professorships, selected junior faculty can do innovative research not supported by traditional government funding. To stabilize and expand major program areas, the Department seeks four endowed chairs and funds to support short-term fellowships for visiting senior policymakers and scientists. Strategic investment is needed to boost the primary IH Centers, which are the heart of our outreach to empower public health professionals and communities with essential knowledge and training.

The Department of International Health helped launch the field of mHealth, yet we have only begun to address the gaping health inequities among more than half the world’s population, especially the 2.7 billion adults and children who live on less than $2 per day. There is no better place to invest in the people and interventions that will transform global health in the 21st century.
On the cover: Lacrosse at NativeVision’s Summer Camp (upper left); a pregnant woman learns about birth preparedness in Afghanistan (upper right); a girl receives a life- and sight-saving dose of vitamin A (lower right); an overcrowded street vehicle in rural Bangladesh illustrates the importance of injury prevention (lower left); immunizing an infant in Mali (inside cover).