The science of public health has never been more powerful, yet the problems we face have never loomed so large.
As the Johns Hopkins Bloomberg School of Public Health (JHSPH) enters its second century as the pacesetter in public health, the science of public health has never been more powerful—yet the problems we face have never loomed so large. The world’s population has surpassed seven billion. With an aging population, global rates of chronic disease are poised to skyrocket. Public health infrastructure in developing nations remains fragile or nonexistent, and the traditional governmental funding structure of medical and public health research is increasingly challenged in the United States and abroad.

Straining against the limits of what we can accomplish with last century’s weapons against disease, the Bloomberg School is devising more sophisticated ways to prevent infections, remedy environmental hazards, persuade billions of people to adopt healthier lifestyles, and channel an ocean of data to solve the riddles of chronic disease and genetic disorders. To deploy leadership and expertise that will empower public health worldwide, we seek to raise $600 million. With your support we will:

• produce a new generation of professionals to create lifesaving programs
• develop new faculty research initiatives to solve current and emerging problems
• expand and update our infrastructure to keep pace with the demands of our work and prepare for new opportunities
• broaden our base of supporters and reduce our reliance on government funding

With your help, we will expand our leadership role and alleviate suffering from disease and injury around the world. There is no better place than the Bloomberg School to invest in public health.
In a world without public health, respiratory infections kill one in every 250 people each year, and waterborne diseases kill one in every 500 people. Without family planning or reproductive health services, near-constant childbearing kills or cripples many mothers. In the absence of prenatal and postnatal care, nearly 20 percent of infants die before their first birthdays. Children with legs bowed from rickets and bodies stunted from parasitic infection are a common sight. Mosquitoes carrying malaria and yellow fever kill tens of thousands. At some point in their lives, more than one in 10 people contracts syphilis, a major cause of insanity. Without strong public health policy and infrastructure, people are unprotected from contaminated food, untested medicines, and dangerous pollutants. This was America in 1900. Fortunately, in 1916, the Rockefeller Foundation provided funding to establish the world’s first graduate school of public health at Johns Hopkins. A partnership between philanthropy and research, the Johns Hopkins School of Hygiene and Public Health would marry the best of biomedical inquiry with the population-based approach of public health. Today, Johns Hopkins has the largest global health research and practice footprint of any university, and for 20 years has ranked first among U.S. schools of public health.

For nearly a century, the world has come to Baltimore to learn the science and methods of public health. Here, visionaries imagine the possibilities of a world free from disease, injury, and needless death.

That investment continues to produce an arsenal of new diagnostic tests and improved vaccines. The latest is a DNA measles vaccine co-developed at the Bloomberg School, which has been proven safe and effective in infant primates. If it can be safely administered to human infants under six months, this vaccine will be pivotal for global measles control and eradication efforts. The vaccine will offer further proof that DNA vaccines are effective against human disease.

On the crucial global health front of malaria, a vaccine has long eluded scientists. The deadliest form of the malaria parasite, *Plasmodium falciparum*, still causes from 300 to 500 million clinical cases annually and approximately one million deaths, mostly children.

“Small investments in family planning pay huge dividends for women and their families and whole nations. I am advocating for the 215 million women who don’t want to have a child but can’t access modern contraceptives.”

—Melinda Gates, welcoming remarks at the 2011 International Conference on Family Planning in Dakar, Senegal

To build on the Bloomberg School’s world-renowned leadership in fighting malaria, a gift from Bloomberg Philanthropies in 2001 established the Johns Hopkins Malaria Research Institute to mount a multidisciplinary assault on all aspects of transmission, from the molecular to the environmental. The Institute’s current director, Peter C. Agre, shared the 2003 Nobel Prize in chemistry for his work on the biochemistry of red blood cells. One of the Institute’s most important innovations to date is the development of genetically engineered malaria-resistant mosquitoes that can outcompete their natural counterparts and reduce reservoirs of the parasite in malaria hot spots.

Philanthropic support was also essential in establishing the fundamental connection between malnutrition and disease—one of the most lifesaving scientific discoveries in history. With grants from firms and trade associations in the chemical, pharmaceutical, and commercial food industries, E. V. McCollum discovered vitamin D and its role in preventing rickets in the 1920s. JHSPH researchers went on to demonstrate the importance of protein in maternal diets to support healthy infant development and to establish effective dietary approaches to treat and prevent infant malnutrition.

To achieve the 21st-century breakthroughs that will become our next landmark discoveries, our faculty and students need your help.
Public health is powerless unless it can translate its research and best practices into a viable plan of action. But when that happens, the results are astonishing. Epidemiologist and ophthalmologist Alfred Sommer, an alumnus and dean emeritus, established the link between even mild vitamin A deficiency and pediatric mortality. In randomized controlled clinical trials among nearly 30,000 Indonesian children, Sommer’s team demonstrated that oral high-dose vitamin A supplementation not only prevented blindness but also reduced mortality by one-third. Robert E. Black, chair of the Department of International Health from 1985 to 2013, conducted mass-scale clinical trials in Bangladesh, India, Peru, and Zanzibar demonstrating that zinc supplements could both treat and prevent recurrence of diarrhea in children. Black also made major contributions to understanding the causes of pneumonia and childhood mortality, evaluating vaccine effectiveness, encouraging breastfeeding, and promoting handwashing to prevent diarrhea.

Yet Sommer, Black, and their Bloomberg School colleagues knew that research in itself was not enough. They needed to develop innovative methods to translate their research into practice that would inform evidence-based policy. By combining the highest scientific standards with effective practice, our faculty have worked with USAID, WHO, the World Bank, and UNICEF to adopt our research and interventions as global standards. The Copenhagen Consensus panel of Nobel laureate economists in 2008 named provision of vitamin A and zinc supplements to children in low-income countries the top-ranked interventions for their important health impact and very high benefit-to-cost ratio.

Today, the Bloomberg School has unmatched expertise in public health advocacy and implementation science. Every day, billions of people drink clean water safeguarded by the chlorination process developed here by Abel Wolman, who lobbied municipal governments across the U.S. to adopt his methods and consulted on the construction of modern water systems in 50 countries. Hundreds of thousands of injuries and deaths are averted every year because our faculty testified before Congress on behalf of legislation to require airbags, seatbelts, and car seats. Johns Hopkins has magnified the power of public health to transform the quality of life for millions worldwide.

To take on today’s most important public health challenges, the Bloomberg School must expand its base of support. We can confront that challenge only with your help.

Johns Hopkins is the foremost global health research and education center, with programs in 130 countries. Yet we must remain competitive to attract and retain the most talented faculty members and students. While our faculty excel at securing government grants, competition for this funding is at an all-time high. Overreliance on volatile federal budgets places our essential teaching and research activities at risk. Dollar for dollar, private support has a far greater impact, since it provides faculty with the time and freedom to innovate. Please help us focus on what matters most and what we do best—improving the health of populations from Baltimore to Bangalore.

COMMUNITY HEALTH WORKER FROM THE JOHNS HOPKINS URBAN HEALTH INSTITUTE IN BALTIMORE

NEARLY ONE BILLION PEOPLE WORLDWIDE LACK ACCESS TO CLEAN WATER

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

PEOPLE, RESEARCH, AND RESOURCES: HELP US SAFEGUARD HEALTH FOR MILLIONS

INFRASTRUCTURE IS ROCKET FUEL FOR RESEARCH

Hillary Clark, a doctoral student in Biochemistry and Molecular Biology, works in a lab in the 50-year-old North Wing of the Bloomberg School.

Now, thanks to a recent major renovation of the North Wing labs, her workspace is larger, healthier, more productive, and more energy-efficient. Open and flexible layouts promote collaboration among labs. In the new Tissue Culture Room, “the hood is huge, the lighting is great, and everything is organized… It’s a lot more efficient to get things set up and start my experiments.” Critical and necessary tools are at hand, such as an in-house mass spectrometer that allows scientists to coordinate highly sensitive measurements of substances at minute concentrations.

With additional support, more renovations and updated scientific equipment will continue to pave the way for a variety of cutting-edge research.
CENTERS AND PROFESSORSHIPS CREATE NEW LIFESAVING IDEAS

The Bloomberg School’s most transformative work has resulted from large-scale studies lasting many years, with intensive surveillance and follow-up to achieve the highest standards of scientific evidence. The scope and complexity of this research can no longer be supported by federal grants alone.

We seek private funding to allow greater research innovation and responsiveness. Our most important needs for faculty research support include endowments for centers, endowed professorships for department chairs, and faculty development funds for each department.

Centers foster cross-disciplinary collaboration and create synergy that enable the School to become greater than the sum of its parts. For example, the Wendy Klag Center for Autism and Developmental Disabilities is a newly established center that promotes research into the origins, detection, measurement, and prevention of conditions that affect behavioral, socioemotional, and/or cognitive development. The Center also facilitates evaluation of services and policies that support optimal development of affected children. An endowment for the Wendy Klag Center would enable the School to expand its efforts to define and characterize the interrelationships among genetic, behavioral, and environmental factors that influence the risk for autism and other developmental disabilities.

Another critical need is to establish endowments for department chairs and the deanship. By providing partial salary support, these endowments free up significant School resources for other critical activities and help recruit new faculty to anchor existing programs or build new ones.

Endowed professorships for emerging scholars provide junior faculty with three years of early career support to allow intensive research that generates preliminary data for subsequent grant applications. Finally, we seek current-use funding to provide each department with faculty development funds to help attract and retain the most talented scholars. This would include innovation funding to sustain continued productivity for promising investigators, giving them time to prepare new grant applications.

To enable our faculty to continue and expand their world-class research, please consider giving toward the following goals:

- $20 million to endow four proposed centers
- $70 million for endowing the deanship and professorships for senior faculty
- $235 million for faculty research initiatives
- $10 million for faculty development funds ($1 million for 10 departments)

SCHOLARSHIPS PUT EXPERTS WHERE THEY’RE NEEDED MOST

Outstanding JHSPH alumni—more than 50,000 over the past century—have built the world’s essential public health services, research, and training institutions. They have constructed the School’s unparalleled collaborative networks across national health ministries, federal health and international development agencies, research institutions, villages, and nonprofit organizations. But without new funding for endowed scholarships, our ability to train the next century’s leaders will be compromised.

Each academic year, about 800 new full-time students enter the Bloomberg School. Many promising students already have large student loans from previous degrees and cannot take on the burden of extra debt. Thus, we miss the opportunity to educate some of the world’s best and brightest minds. To increase the share of fully funded incoming students to 50 percent, we aspire to raise:

- $118 million to endow 80 more scholarships, along with $500,000 a year in current-use funding
- $20 million to fund 40 Master of Public Health students annually for 10 years

“Our faculty have an almost evangelical belief that educating people about public health is a good thing, that the more people who understand the principles of prevention and population health, the better the world will be.”

—Dean Michael J. Klag, MD, MPH ’87

For Crystal Shen, it’s personal. In Kampala, Uganda, Shen worked closely with children who suffered neurological injury due to malaria. “Seeing comatose child after comatose child reinforced my desire for improved prevention and control of the disease, and drove my career vision of reducing the global burden of infectious diseases,” she says.

Shen, a Sommer Scholar, wants to specialize in pediatric infectious diseases, combining clinical care, research, and health systems improvement. “I envision drawing upon my backgrounds in engineering, medicine, and public health to foster interdisciplinary efforts towards addressing infectious disease issues,” she says.

Please help us maintain our commitment to training such brilliant and compassionate women and men, so they may keep saving lives, millions at a time.
In this new century, it is within our reach to eradicate the ancient scourges of polio, malaria, and leprosy. By applying proven techniques developed at the Bloomberg School, we can also empower women in the developing world to manage their fertility or space their children, leading to dramatic improvements of polio, malaria, and leprosy. By applying the dynamic science of public health, we can extend the horizons of well-being of families and entire nations.

With your support, we can make this vision a reality.

BLOOMBERG SCHOOL AT A GLANCE
Founded: 1916 by William H. Welch and John D. Rockefeller
Current Dean: Michael J. Klag, MD, MPH ’87
Students: 2,164 from 87 nations
Faculty: 619 Full-time, 785 Part-time
Centers & Institutes: 60+
Research: Ongoing in more than 130 countries
Total Budget: Over $500 million
Alumni: Over 50,000 since 1919
Highlights:
• First institution of its kind worldwide
• Largest school of public health in the world
• Recipient of 20 percent of all grants and contracts awarded to the 50 ac-
ccredited U.S. schools of public health
• Ranked No. 1 by U.S. News & World Report since 1994
Signature Accomplishments:
• Chlorinated Water - Abel Wolman
• Vitamin D’s Role in Preventing Rickets - E.V. McCollum
• Chronic Disease Epidemiology - A. Lilienfeld & G. Comstock
• WHO Global Campaign to Eradicate Smallpox - D. A. Henderson
• Oral Rehydration Therapy for Cholera - Bradley Sack and Richard Carpenter
• Automobile Safety Legislation - Susan P. Baker
• Integrated Model of Primary Health and Reproductive Services - Carl Taylor
• Primary Health Care - Barbara Starfield
• Power of Vitamin A - Alfred Sommer
• Zinc’s Value against Diarrhea - Robert E. Black
• HPV’s Link with Cervical Cancer - Keesri V. Shah
• Male Circumcision’s Reduction of HIV Transmission - R. Gray and M. Wawer

Imagine a world transformed by public health

In this new century, it is within our reach to eradicate the ancient scourges of polio, malaria, and leprosy. By applying proven techniques developed at the Bloomberg School, we can also empower women in the developing world to manage their fertility or space their children, leading to dramatic improvements in the mental, physical, and financial well-being of families and entire nations. Employing the dynamic science of public health, we can extend the horizons of knowledge, prevent deaths now consid-
ered inevitable, and contribute toward safeguarding a healthy environment for future generations.

With your support, we can make this vision a reality.

RISING TO THE CHALLENGE: HOW YOU CAN TAKE THE NEXT STEP

There is no better place than the Johns Hopkins Bloomberg School of Public Health to invest in research, education, and training programs that save lives by the millions. Here’s how you can help:

LEARN AND SHARE
Visit jhsph.edu to learn more about the Bloomberg School, hear directly from faculty and students engaged in our vital work, and connect with others who are passionate about finding global health solutions. Share your thoughts with us and help spread the word through your professional and personal networks.

MAKE A GIFT
The Bloomberg School can succeed only through philanthropy. Please contact our development officers to guide you in exploring gift opportu-
nities to plan and structure gifts that answer your goals and ours.

For more information contact: Heath Elliott, Senior Director of Development and Alumni Relations 410-502-6275 heelliott@jhsph.edu

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VISIT JHSPH.EDU TO LEARN MORE ABOUT THE BLOOMBERG SCHOOL

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