THE TRUCK STOPPED AT 2 A.M. SOMEWHERE IN THE SUDANESE DESERT.

MERHAWIT’S JOURNEY WAS JUST BEGINNING.

IN THE SINAI, THINGS WOULD GET MUCH WORSE.
Protecting health, saving lives—millions at a time eloquently describes the Bloomberg School’s mission. Now, however, we may need an equivalent motto for our recent accomplishments in online teaching.

On March 31, 2014, we reached a remarkable milestone: One million people had enrolled in one of our 23 massive online open courses (MOOCs) offered on the Coursera website.

Imagine: In less than two years, a million people across the world explored biostatistics, the U.S. food system, global disease control and other topics near and dear to our collective heart. For faculty dedicated to the transmission of knowledge to protect health, it’s pretty heady stuff.

Let me put it into perspective. Since the Bloomberg School was founded almost a century ago in 1916, we have educated 64,931 degree and nondegree students. Of course, there’s a huge difference between MOOCs and our regular courses—more on that in a minute. Still, that stark comparison is what drives our faculty who are dedicated to MOOCs. They relish the opportunity to transmit essential knowledge about public health to millions of people.

MOOCs do have their limitations. Most do not offer college credits or count toward a degree. Course completion rates are low—less than 10 percent. Lectures are pre-recorded, and faculty interaction is minimal. Grading is done by machine or peers. And it takes additional effort to verify that the work is being done by the actual registrants.

Critics who focus on these issues, however, don’t understand the nature of MOOCs or the people who enroll in them. Most MOOC learners are “browsers.” They are trying out a new field: learning a new vocabulary and gathering some big picture concepts in an area that interests them. For a small percentage, their MOOC experience will lead them into more concentrated academic study.

As we see it, our MOOCs do two things. One, they spread public health knowledge to persons outside of our field, which we believe is an inherently good thing. Second, they provide a gateway for some to a university education. This powerful technology is able to reach millions, find the relative few who want a more in-depth experience and bring them to the traditional model of university education.

Where is all of this headed? What does it mean for the future of the Bloomberg School and for public health? I don’t know—my desk isn’t outfitted with a crystal ball—but I can offer a few insights.

In less than two years, a million people explored topics near and dear to our collective heart. For faculty dedicated to the transmission of knowledge to protect health, it’s pretty heady stuff.

Our incredibly innovative Biostatistics faculty have taken the MOOC ball and are running with it. They love having 50,000 students in a class with study groups in Russia, Africa and Asia.

Brian Caffo, Jeff Leek and Roger Peng have created a series of nine MOOCs called the Data Science Specialization. These MOOCs will give learners an introduction to data science, which involves the management, analysis and visualization of large-scale and complex data. People can earn an identity-verified certificate by paying a fee, finishing all nine MOOCs in the specialization and completing a project-based course. Learners will have a wide range of skills to enable them to start answering questions by using data. Certificate earners are then eligible for a partial tuition scholarship on the first for-credit course they take at the Bloomberg School.

This is the kind of experiment that the MOOC platform makes possible, and I am sure that it is only the first of many. Such offerings will give basic public health training to legions of committed, hungry minds around the world.

Although MOOCs offer unparalleled reach, they are no substitute for our School’s degree programs. Through intensive interaction and mentorship with faculty, our students adopt the ethos of public health and the Bloomberg School. Our faculty inspire our students to take on big problems, to go out and change the world—and teach them how to do it. That core interaction is irreplaceable. It happens through the day-in, day-out sharing of ideas, through feedback and conversations over coffee in the Daily Grind or via an online chat. I hear about the impact of these interactions from our students all the time. They love our great teachers and the opportunity to learn from them and be inspired by them.

Because of the high quality of our 120 online courses, our online students enjoy the same transformational experience as those in our face-to-face classes. The School pioneered online education, offering for-credit online courses since 1997 and an online, part-time MPH degree program since 1999. Almost two decades of innovation and experimentation have made our online education experience so rich that most online courses are taken by our full-time students here at the School.

So, what’s the future? Online or face to face? Massively open or degree-based?

The answer is yes.
Frontiers of Public Health

THE GOVERNOR

AS THE NEW SENIOR POLICY SCHOLAR AT THE BLOOMBERG SCHOOL, RONNIE MUSGROVE ADVISES RESEARCHERS ON HOW TO TRANSFORM EVIDENCE INTO LIFESAVING POLICIES

As the Department of Health Policy and Management, it’s a huge value-added to bring in someone with real policy experience whom we can learn from, and use that knowledge to inform our research.
—Sara Bleich, PhD, associate professor, HPM (left)

I’ve met with [Gov. Musgrove] several times—it’s a great opportunity to understand how policymakers use and consume research. He’s been really helpful to us as we seek to translate our research into policy.
—Beth McGinty, PhD ’13, assistant professor, HPM
When Ronnie Musgrove became governor of Mississippi in 2000, the federal Children's Health Insurance Program (CHIP) had been in place for more than a year, yet fewer than 1,000 children were enrolled. The Democratic governor and his team expanded outreach through public schools and increased their marketing and communications efforts. Within a year, 60,000 children were added to CHIP. It’s both a commendable achievement and a handy instructional tool for Musgrove, who joined the Bloomberg School in November 2013 as a senior policy scholar.

Musgrove’s experience as governor, lieutenant governor and state senator made him a natural for the first policy scholar in the Department of Health Policy and Management (HPM), according to Ellen MacKenzie, PhD ’79, MSc ’75, Fred and Julie Soper Professor and chair of the Department. “He’s inspirational [and] so committed. He’s already beginning to open doors for us,” says MacKenzie.

Musgrove does public affairs communications consulting work and splits his time between Washington, D.C., and Jackson, Miss., spending an average of four days a month in Baltimore. He’s met with faculty, spoken to classes about policy issues, is advising HPM on specific policy initiatives and will be connecting faculty with policymakers and agency officials. In late March, he met with Johns Hopkins Public Health editor Brian W. Simpson to talk about how policymakers think, how to advance public health in a conservative era and how to maximize advocacy.

What's the next step for faculty who have evidence that they think should drive policy change?

One, I’m getting the faculty to understand why an issue is front-and-center for policymakers, and then to understand the questions that a policymaker has, what drives his or her decision making, and what kind of solutions will actually give the answers they seek. And to me, that’s the area that most researchers don’t deal with. That’s what I wanted to make sure that they can see, how does the policymaker think?

Policymakers connect with real life stories. Research is made of numbers, cold data and information that do not have connections to real life and how policies can make a difference in people’s lives. Making that connection is an important goal of mine here at Hopkins.

In an era that seems to be dominated by distrust of government, how do you advance public health?

It goes back to what’s important. Education is important, and just because government doesn’t work as well as you would like it to, you don’t abandon educating our people. Likewise, now is not the time to abandon ensuring that our people are healthier, more productive and, in fact, are less costly because they are well.

It’s no secret that many in public health are progressive, left of center. What should they understand about those who are in power on the right?

All the officials that I’ve had an opportunity to work with want to see improvements in education, in job opportunities, in health care. So it’s important to understand there are different points of view. But that’s the thing about good research. It doesn’t matter what the point of view is, the research stands on its own. And it creates and states facts irrespective of philosophy.

Many in public health see the city or state level as proving grounds for programs that can be adopted by other states, and maybe nationally.

Having solutions that work is persuasive. When you see the bottom line reduced, when you see the quality increase, or you see access to quality health care increase, those things get your attention. If they do all three, they really get your attention.

Mississippi and a lot of Southern states have some of the nation’s most serious health issues like obesity and hypertension. What will it take to turn things around?

I’ve said enacting more policies from Johns Hopkins research would be one. (Laughs.) Access is a problem sometimes in the South. Lifestyle is a problem, and I think we have some uniqueness in terms of our diets, etc. So those are all variables and factors in improving quality of life. But those are things that are part of any policy initiative that need to be considered.

How does one make those kinds of big, population-level gains without being accused of being the “nanny state”?

Going back to the example about the children’s health insurance policy, all we did was change the implementation procedure, and then we had 60,000 more children with health care. We didn’t change the law, we just changed the implementation. And so those things are important in the way you carry out policies. Sometimes, they can be broad to cover and help more people, or sometimes they can be narrow and restrictive, and fewer people are helped. I think that’s a matter of leadership.

How do you advise researchers who want to not only generate evidence but also advocate for change based on it?

Make sure of the credibility of the data before you say anything. And, from everyone that I’ve talked to here, to a person, they all agree that that’s the most important. And then, you can look at the various policy issues that could be derived from the research. What would be solutions, as a result of the research? And then, I think most researchers advocate, in some shape, form or fashion, for solutions that come out of the research.

Any plans to return to elected office?

One of my law partners once said this about being in public office: You’re never cured, you’re just in remission. But no, I enjoy doing what I’m doing right now. It gives me an opportunity to focus on some policy issues like here at Johns Hopkins. To open a dialogue with researchers, academic people, and connect them with policymakers—it’s outstanding. It’s a great time in my life.
**Transformational Take on Kidney Disease**

Chronic kidney failure, or end-stage renal disease (ESRD), is about three times more common in African Americans than whites even though the prevalence of mild kidney disease is similar in these groups. Most research to understand why has focused on differences in risk factors, such as high blood pressure and diabetes. Linda Kao, PhD ’99, MHS ’97, and colleagues have a different take. Previously they have shown that an area on chromosome 22 explains much of the higher prevalence of ESRD in African Americans compared to whites. In a study published in the *New England Journal of Medicine* in December 2013, Kao, a professor of Epidemiology at the Bloomberg School, and her team have now shown that mutations in a gene in this region, *APOL1*, are associated with a faster progression of kidney disease in African Americans. The mutation in *APOL1* is relatively common in African Americans, but nearly absent in whites.

David B. Abrams, PhD, professor, Health, Behavior and Society (HBS), and executive director, the Schroeder Institute for Tobacco Research and Policy Studies, was awarded the 2014 American Academy of Health Behavior (AAHB) Research Laureate Award, which honors an individual who has made a significant and enduring contribution to health behavior research.

Robert Black, MD, MPH, professor, International Health (IH), was awarded the Dr. C. Gopalan Oration Gold Medal from the Nutrition Society of India for outstanding contributions in the field of nutritional sciences. Sight and Life also presented him with its Annual Nutrition Leadership Award for two landmark Lancet nutrition series he led.

Patrick N. Breysse, PhD ’80, ’85, professor, Environmental Health Sciences (EHS), was appointed to the Children’s Health Protection Advisory Committee of the U.S. EPA.

Parul Christian, DrPH ’96, MPH ’92, professor, IH, was accepted into the Dannon 2014 International Academic Mid-Career Nutrition Leadership Institute for outstanding nutritional scientists of global stature.

Valeria Culotta, PhD, professor, Biochemistry and Molecular Biology, received the 2014 David Danks Award for Copper in Biology and Medicine.

Karen Davis, PhD, the Eugene and Mildred Lipitz Professor in Health Policy and Management (HPM), has been asked to serve on U.S. Senator Ben Cardin’s Health Advisory Group.

Lilly Engineer, MD, DrPH ’08, MHA, associate director, DrPH program in Health Care Management and Leadership, and Certificate in Quality, Patient Safety and Outcomes Research, HPM, and assistant professor, ACCM, JHSOM and HPM, was selected as a Baldrige Performance Excellence Award examiner by the Maryland Performance Excellence Foundation.

Fannie Fonseca-Becker, DrPH ’00, associate scientist, HBS, received the Henry Montes Presidential Award for leadership in improving the health of Latinos in the U.S., from the Latino Caucus for Public Health of the American Public Health Association.

Debra Furr-Holden, PhD ’99, associate professor, Mental Health (MH), received the Joseph Cochin award.

Andrea Gielen, ScD ’89, ScM ’79, professor, HBS, and director of the Johns Hopkins Center for Injury Research and Policy, received the 2013 American Public Health Association Award for Excellence.

Diane Griffin, MD, PhD, professor and chair, Molecular Microbiology and Immunology (MMI), received the Rudolf Virchow Medal and delivered an honorary lecture at the University of Würzburg, Germany.

The Center for Communication Programs was among a group of partners honored when United Against Malaria was named Global Campaign of the Year at the 2014 PRWeek Awards ceremony. CCP received the 2013 Community Partners Award from the Family League for its role in the B’more for Healthy Babies Initiative. Tanzania Capacity and Communication Project (TCCP) received the Mobile Health at Scale award from the USAID/Tanzania Health Team.

David Jernigan, PhD, associate professor (HBS) and director of the Center on Alcohol Marketing and Youth, was selected to deliver the Basil Hetzel Oration at the Public Health Association of Australia’s 43rd Annual Conference in Perth, Western Australia, in September 2014.

Philip Jordan, PhD, assistant professor, BMB, received the Ho-Ching Yang Memorial Fund award.

Alain Labrique, PhD ’07, MHS ’99, MS, associate professor, IH, was appointed to the WHO eHealth Technical Advisory Group.

Thomas A. LaVeist, PhD, the William C. and Nancy F. Richardson Professor in HPM and founding director of the Hopkins Center for Health Disparities Solutions, will receive the 2014 ICON Award from Associated Black Charities in June.
Kao’s study provided such transformational insights that she found herself being toasted recently by the Clinical Research Forum, which awarded her one of its Top 10 Clinical Research Awards for 2013 and said Kao’s study was “an important contribution that should lead to changes in approaches to evaluating and classifying end-stage kidney disease.”

In the study, patients already had evidence of chronic kidney disease. More than one in five African Americans had two copies of these particular variations in APOL1, which were associated with faster kidney disease progression, leading to a substantially increased risk of kidney failure. African Americans with two copies of the mutations had the highest risk of progression of kidney disease and ESRD compared to whites while African Americans with one copy of the mutation had an intermediate risk.

And yet, as promising as the study is, back in 2000 when Kao; Joseph Coresh, MD, PHD ’92, MHS ’92, an Epidemiology professor; and Michael J. Klag, MD, MPH ’87, dean of the Bloomberg School, first wrote a grant to explore the genetic aspects of kidney disease, the concept generated some controversy in the scientific community.

“Many of the reviewers worried the study had racist overtones, but we pressed ahead looking at both the genetic and social components of the disease,” Kao says.

“Linda’s work is important in that it not only identifies a specific gene associated with more rapid progression of kidney disease in African Americans compared to whites, but shows that the mutation appears to act independently of glucose level, protein in the urine and other risk factors for disease progression,” says Lawrence Appel, MD, MPH ’89, a professor at the Bloomberg School and senior author of the study. “The award is well deserved.”

—Andrew Myers

Robert S. Lawrence, MD, Center for a Livable Future Professor in EHS, received a 2014 Johns Hopkins Alumni Association Heritage Award.

Philip Leaf, PhD, professor, MH, was voted the Baltimorphosis Adult Nominee Winner.

Elizabeth J. Letourneau, PhD, associate professor, MH, has been elected president of the Association for the Treatment of Sexual Abusers.

Paul A. Locke, DrPH ’98, MPH, JD, associate professor, EHS, was appointed by Lewis & Clark’s Northwestern School of Law as its first Distinguished Visiting Professor of Animal Law and Science.

Kunihiro Matsushita, MD, PhD, assistant scientist, Epidemiology, received the Sandra A. Daugherty Award for Excellence in Cardiovascular Disease or Hypertension Epidemiology from the American Heart Association, and the Early Career Best Science Award for Abstract Poster Presentation from the American Heart Association.

Ana Navas-Acien, MD, PhD ’05, associate professor, EHS, was invited to be editor-in-chief of the new journal *Current Environmental Health Reports.*

Kate O’Brien, MD, MPH ’94, professor, IH, was selected as the Robert Austrian Lecturer at the next International Symposium on Pneumococci and Pneumococcal Diseases in Hyderabad, India.

Henry Perry, MD, PhD ’76, MPH ’71, senior associate, IH, received the Ronald McDonald House Charities 2013 Medical Awards of Excellence, which carries with it a gift of $100,000 to the nonprofit group Perry founded Curamericas Global.

Elizabeth Selvin, PhD ’04, MPH, associate professor, Epidemiology, received the Harry Keen Memorial Award from the International Diabetes Epidemiology Group of the International Diabetes Federation and delivered the Harry Keen Memorial Award lecture in Melbourne, Australia.

A. Richey Sharrett, MD, DrPH ’79, adjunct professor, Epidemiology, received the Council on Lifestyle and Cardiometabolic Health’s Epidemiology and Prevention Mentoring Award.

Donald Steinwachs, PhD ’73, professor, HPM, was appointed to serve on the Department of Veterans Affairs National Research Advisory Council.

Elizabeth Stuart, PhD, associate professor, MH, was named to a new National Academy of Sciences panel, Research Methodologies and Statistical Approaches to Understanding Driver Fatigue Factors in Motor Carrier Safety and Driver Health.

Moyes Szklo, MD, MPH ’73, DrPH ’74, professor, Epidemiology, received the Robert S. Gordon lectureship award from NIH for his contributions to cardiovascular research and for training a generation of epidemiologists.

Wietse Tol, PhD, assistant professor, MH, was named program director of the Peter C. Alderman Foundation.

A SABIN FOR SANTOSHAM

Mathuram Santosham, MD, MPH ’75, professor, International Health, was awarded the 2014 Sabin Gold Medal award for his pioneering role in the prevention of deadly Haemophilus influenzae type b (Hib) diseases, including pediatric bacterial meningitis and pneumonia. Santosham’s leadership in conducting groundbreaking research, vaccine efficacy trials and advocacy to prioritize Hib vaccines spans more than 40 years and has saved millions of children’s lives worldwide.
The Public Health Narrative

On November 5, 2013, I welcomed a young doctoral student into my office. Students occasionally find their way to me to talk about a project or their desire to write about public health issues. All are smart, driven and committed to public health.

Tsega Gebreyesus is all of the above—and persistent as well. She had written me months previously asking to meet. The delay was my fault. She politely sent along requests until we finally met. That November afternoon, she told me about African asylum seekers and the human trafficking chain of misery and death that entrap so many in the Sinai. She told me about the survivors and their stories of unimaginable cruelty and unimaginable resilience. She said she had to tell the world about these horrors.

Tsega is soft-spoken, and she is fierce. I told her magazine writing is different from scholarly writing. She said she understood. I told her the article would likely go through a lot of edits and rewriting. She said, no problem. Convinced of the story’s importance and her dedication, I told her I was committed to publishing the story. She said thanks and asked when could she get started.

Twenty drafts later, the result of that conversation is Tsega’s cover story in this issue, “Bodies in the Desert,” on page 20.

Tsega’s unwavering commitment to a public health narrative reminded me strongly of another student, Varsha Ramakrishnan. She also had a story to tell. As the inaugural Johns Hopkins-Pulitzer Center Global Health Reporting Fellow last year, Varsha penned a remarkable piece about dowry violence in our Fall 2013 magazine. She exposed the plight of young brides in India who are beaten, immolated or even killed when their dowry gifts do not satisfy their husbands and in-laws. After training with journalists at the Pulitzer Center on Crisis Reporting, Varsha went to India to document this issue firsthand.

We learned recently that her story, “A Broken Promise,” won the 2014 Robert F. Kennedy College Journalism Award. Days later, the Society of Professional Journalists bestowed on her its 2013 Mark of Excellence national award for student journalism.

Tsega and Varsha demonstrate the importance of storytelling to the public health enterprise. They both witnessed an injustice, an affront to human rights—to health and dignity—and they both responded. The tools they chose were not vaccines or mosquito nets but words. Words carefully crafted into a story that can move readers and make a difference.

Brian W. Simpson, MPH ’13
Editor, Johns Hopkins Public Health
bsimpso1@jhu.edu

Letters to the Editor

All About Food
BRAVO on a splendid issue of Johns Hopkins Public Health! The fact that the whole issue is devoted to food is a wonderful achievement and the content is excellent. The essay by Terry Spence [“Paradise Lost,” Winter 2014] was perfect.

I am grateful for this needed attention to a looming public health crisis.

Polly Walker
Senior Fellow and former Associate Director
Center for a Livable Future

Battling CAFOs
Great article [“Paradise Lost”]! We are starting the battle too. A CAFO (concentrated animal feeding operation) was just built across the street from my home, less than a half mile from a small town. When will people wake up and realize how it hurts our environment and the people?

Roxanne via Magazine Comments

I agree totally with Mr. Spence [“Paradise Lost”]. I was raised on a ranch in North Dakota and when I moved to the big city it was quite a shock. I wholeheartedly believe in organic farming and humane practices for animals raised for food. If not for clean air, clean water and healthy food, we have nothing. Thank you so much for your efforts and for your standing up for all of us like minds.

Rebecca via Magazine Comments

Missouri is great. I loved that article [“Paradise Lost”].

I started an organic farm in 2001 and turned it over to some young farmers 5 years ago. I remain involved in farming as a volunteer, managing 140 acres at a job training program for at-risk teens in Brookeville, Maryland.

Edwin Gould
Brookeville, Maryland

An End in Sight?
A recent report by the USDA reveals that 141 trillion calories worth of edible food is thrown away in the U.S. each year. Among the mind-boggling quantity of wasted food are foods discarded by restaurants and retailers, including spoiled and perishable food.

The annual total is enough to add about 1,200 extra calories to every American’s daily calorie intake.

Lack of food security and access in the U.S is a multifaceted problem with no silver bullet. But if we can focus just a bit more attention and effort on reducing wasted food, we may see significant progress.

Marjorie Phan
Los Angeles, California