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PUBLIC HEALTH EDUCATION: WHAT'S NEXT. AND WHAT'S AFTER THAT.

sph **this year** 2018

Boston University School of Public Health

BOSTON
UNIVERSITY



“Changing what and how we teach presents enormous opportunities to refresh and reinvigorate our curricula, and to innovate how we educate public health students.”

DEAR COLLEAGUES:

Welcome to our 2018 annual report, *SPH This Year*. Our core purpose—“Think. Teach. Do. For the health of all”—captures our aspirations. We aim to generate scholarship, transmit this knowledge to the next generation, and translate knowledge to those who can make change happen. Last year’s report focused on the “think” part of our purpose; this year’s report focuses on “teach,” our commitment to provide the best possible education for the next generation of thinkers and doers in public health.

This is an exciting time to be involved in teaching public health. The needs of the world are changing. Tomorrow’s public health practitioners will contend with challenges brought about by forces such as climate change, urbanization, and a rapidly aging population, all of which were only glimmers on the horizon a few decades ago. At the same time, our understanding of the best pedagogic methods is also changing. We now know that active classroom approaches can teach students how to learn so that they can engage in a lifetime of learning, and continue to develop their public health knowledge decades after they leave the formal classroom.

Changing what and how we teach presents enormous opportunities to refresh and reinvigorate our curricula, and to innovate how we educate public health students. We have been doing just that, starting from a brand-new MPH curriculum launched in 2016, moving to the creation of a lifelong learning platform that engages students digitally and through nontraditional approaches both while they are enrolled at the school and throughout the life-course, and through to rethinking our Master of Science offerings. Our goal is to meet the

needs of our students today and also prepare them for a lifetime of tomorrows.

This issue highlights what we have done at the school through the people who have done it: 25 students, faculty, staff, practicum leaders, and alumni whose work best reflects our forward-looking approach to teaching. As importantly, this issue also highlights the thoughts of 47 experts in teaching public health, many of whom we convened at the school on March 28, 2018, for a symposium on “Teaching Public Health,” where we discussed together how to best evolve our curricula for the coming decades. All symposium presentations will be forthcoming in a book titled *Teaching Public Health*, to be published early next year.

At heart, we are deeply encouraged by the potential of public health teaching. It is invigorating to be part of a field that is rapidly evolving; where tomorrow’s needs will be different than they are today. If we can collectively rise to the challenge—creating the best possible education for the next generation of public health thinkers and doers—we will all be better for it.

I hope that you will all find *SPH This Year* interesting, and that it encourages ideas about even better practices in education, pushing us to the next generation of teaching public health.

Warmly,

Sandro

Sandro Galea, MD, DrPH
Dean, Robert A. Knox Professor
Twitter: @sandrogalea

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5x5

25 students, faculty, staff, practicum leaders, and alumni, changing public health education.



STUDENTS
Tomorrow's leaders are talented, passionate, and driven.



FACULTY
Expert and inspiring, teachers remain at the heart of education.



STAFF
Meet the SPH engine, from student services to faculty support.



PRACTICUM LEADERS
Real-world experiences prepare students for real-world challenges.



ALUMNI
Applying the lessons of SPH. And writing the next chapters.

ILLUSTRATION JOHN JAY CABUAY

SPH BY THE NUMBERS **76**

BETTER

At the forefront of innovation, the School of Public Health already has well-established graduate programs that reflect the new Association of Schools and Programs of Public Health frameworks for preparing practitioners to solve tomorrow's public health challenges.

PROGRAMS FOR A BETTER WORLD

A NEW APPROACH FOR NEW STUDENTS IN A NEW WORLD.

“Students are coming in with different skills, and we hope that this gives them the training they need by meeting them where they are coming in, and taking them to where they want to go to be successful in the field,” Sullivan says.

The MPH, the school’s signature degree program, received a gut redesign down to its frame, with a new certificate-based structure building upon a foundation of integrated core courses. It was a necessary adaptation in response to a host of external factors, says Megan Healey, clinical assistant professor of epidemiology, who is the MPH director and also serves as co-director of the MPH Certificate in Epidemiology and Biostatistics.

“Other drivers are happening within the workforce, including the need to work collaboratively with diverse groups of people and to increasingly use systems-thinking approaches to address public health problems,” Healey says. “As the public health landscape changes, MPH programs have to evolve in order to deliver on our promise of training an effective public health workforce.”

On top of that, Healey says, MPH candidates have changed in terms of their demographics and expectations: “The mix of mid-career professionals with extensive experience and younger students with a passion for public health advocacy is energizing. It leads to this exciting exchange of ideas and skills.”

SKILLS, SKILLS, SKILLS. AND MORE SKILLS.

Jacey Greece (SPH’04, ’11), clinical assistant professor of community health sciences, has a background in program evaluation that has proven essential to the way she adapts and reconfigures her practice-based classes. Greece received both her MPH and DSc from SPH and says the current skills-based curriculum, with functional certificates designed to meet the interdisciplinary needs of today’s public health workforce, are a major change from her MPH student days.

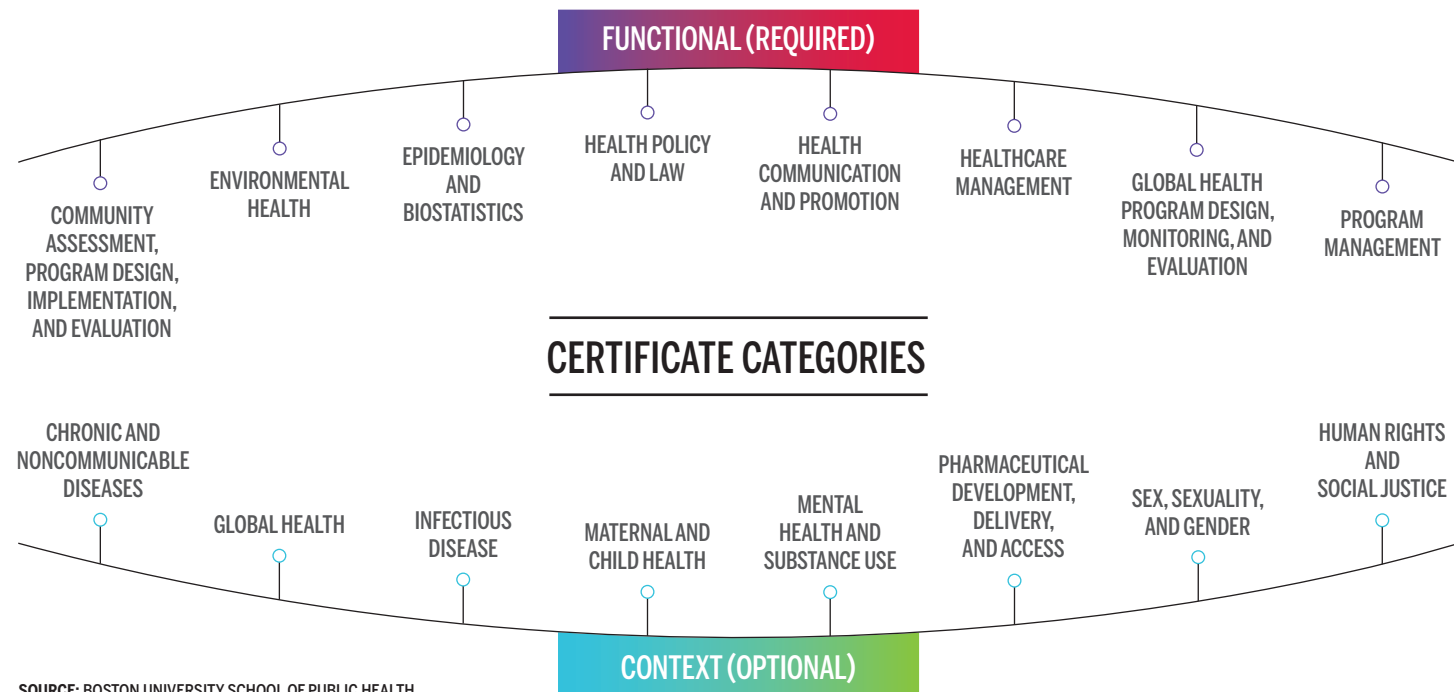
“There really is an emphasis on skills. For someone coming out now, the skills are so essential, because the content can be picked up in a lot of different ways,” Greece says. “Whether it’s online, through

different technologies, through different seminars—there’s a lot of content out there. But it’s the skills, the doing while learning, that I think is the real difference in our curriculum.”

As an instructor, Greece has tailored her classes to emphasize field-based consultancy and case-method teaching as tools to teach technical competencies and relevant skills. Her students form teams that each collaborate with a community partner to develop useable products by the end of a semester.

As an evaluator, Greece acknowledges that developing practice-based classes is inherently more time-consuming than delivering lectures or administering periodic tests in the classic teacher-to-class model of interaction.

“You need motivated faculty to do it, because it takes a good year to successfully teach one semester of that class,” she explains. “It’s really a very conscious effort to always say, ‘OK, I’m teaching next year. What kind of agencies should I be collaborating with? What are the hot topics right now? What communities are in need of services?’”



SOURCE: BOSTON UNIVERSITY SCHOOL OF PUBLIC HEALTH



Whether it’s online, through different technologies, through different seminars—there’s a lot of content out there. But it’s the skills, the doing while learning, that I think is the real difference in our curriculum.

JACEY GREECE (SPH’04, ’11), CLINICAL ASSISTANT PROFESSOR OF COMMUNITY HEALTH SCIENCES

NOT JUST IMPROVING. EXPANDING.

But the school didn’t just revamp its existing degree offerings—it also introduced several new programs entirely. The five new Master of Science degrees, in areas like environmental health data analytics and health services and systems research, “are really targeted to areas where there’s a lot of demand in the workforce,” Sullivan says. For current graduate students or professionals in other fields looking for entry points into public health, SPH also now offers three graduate certificate programs in Public Health, Modern Biostatistics in Clinical Trials, and Statistical Genetics. And as a foundation in the key areas of the field, the school’s new Graduate Certificate in Public Health serves as “a stepping stone to the MPH program.” Students who earn a 3.3 cumulative GPA or better in the certificate’s four courses are eligible to waive the GRE test requirement for admission into the MPH program.

At the end of 2017, SPH also introduced the new customizable Executive

MPH program for those with more than five years of experience in public health. Formally debuting in fall 2018, the program aims to help public health professionals “bring an evidence-based approach to addressing public health problems and to understand the interplay of the biological, social, economic, cultural, political, behavioral, and environmental factors that affect the health of populations,” wrote Dean Sandro Galea in introducing the program.

LIFELONG LEARNING, FOR STUDENTS AND EDUCATORS.

The Framing the Future report also recommended that “public health schools and programs should view their relationship with students as lifelong.” To that end, SPH introduced Population Health Exchange (PHX) in early 2017, with the goal of providing learning across the lifecourse in a variety of key competencies. PHX programs are brief and intensive to deliver maximum knowledge in minimal time,



says Leslie Tellalian, director of the Lifelong Learning Office.

“I would say a lot of people who come to us are looking for very specific skills that they can apply in their work immediately,” she notes.

Ultimately, both the redesigned MPH and the new SPH degrees and programs reflect the school’s governing philosophy: to prepare students to enter a changing field and meet the public health needs of the 21st century.

“We never aimed to change things just for the sake of it,” Sullivan stresses. “We want to make sure we’re doing the right things.”

“We should not ever be done—we must continue to evolve our program.”



'NOT CHANGING IS NOT ACCEPTABLE.'

BY MICHELLE SAMUELS

AS ISSUES SUCH AS CLIMATE CHANGE, GUN VIOLENCE, AND HEALTHCARE COSTS BECOME MORE URGENT, public health educators are increasingly recognizing the need to change teaching modalities to reflect the needs of an evolving world.

How to enact those changes was the subject of a daylong Dean's Symposium, "Teaching Public Health." Held on March 28 at the School of Public Health, the symposium featured nine sessions and 37 speakers and panelists, including deans, faculty, public health organization leaders, and academic journal editors.

"Higher education can either reinvent itself or become obsolete," said Laura Magaña Valladares, president and chief executive officer of the Association of Schools and Programs of Public Health. "The advances we are making are good, but they are not enough."

Donna J. Petersen, dean of the College of Public Health at the University of South Florida and senior associate vice president of USF Health, agreed. "We are in the midst of an incredible transformation," she said. "Not changing is not acceptable."

Evidence is vital to the work of reshaping public health education, said Marie Diener-West, chair of the Master of Public Health

program and inaugural Abbey-Merrell Professor of Biostatistics Education at the Johns Hopkins Bloomberg School of Public Health. "We need to teach the skills that are useful in the workplace, not what we think is useful in the workplace," she said.

Several speakers underscored the importance of active learning in public health, a teaching approach that "strives to more directly get students to participate in the learning process rather than to be passively learning," said David G. Kleinbaum, professor emeritus of epidemiology at the Rollins School of Public Health at Emory University.


Nancy Kane, professor of management and co-chair of the Task Force on Educational Quality at the Harvard T.H. Chan School of Public Health, argued for using a case- and discussion-based teaching method to "flip the classroom." Working something out for themselves also makes students retain much more, Kane said: "I get emails five years later saying, 'Remember that case? It was helpful to me today in my job.'"

Students also need to be challenged in fundamental and personal ways, said Yvette C. Cozier, assistant dean for diversity and

inclusion and associate professor of epidemiology, and Sophie Godley, director of undergraduate programs and clinical assistant professor of community health sciences. "Structural inequities are often reflected in our classrooms," Cozier noted during a panel on diversity and inclusion.

Georges Benjamin, executive director of the American Public Health Association, described the ways public health increasingly combines "the basic work that we still have to do" in essential services and preparedness with greater engagement with social justice and the new challenges of globalization and technology. That is the public health landscape students will be taking over soon, he said: "We all have to retire."

Dean Sandro Galea and Lisa Sullivan, associate dean for education and professor of biostatistics, convened the symposium around their forthcoming book, *Teaching Public Health*, which includes chapters written by many of the day's speakers.

"We have a tremendous opportunity to shape the future of public health education," Sullivan said. 

Deans, faculty, public health organization leaders, and academic journal editors gathered for a daylong symposium on the future of public health education. (A list of the day's participants can be found on the inside back cover.)

“The advances we are making are good, but they are not enough.”

PHOTO: JANE BELCHER; ILLUSTRATION: JOHN JAY CABUAY

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Meet 25 dedicated individuals.
Five groups of five—students, faculty, staff, practicum leaders, and alumni—who are shaping the future of public health. Because no one tells the story better than the people living it.

Despite early struggle and uncertainty, Alex Gitungano pursues his MPH—and his life—with a radiant smile and a selfless passion that remind faculty and staff why they were drawn to public health in the first place.

Alex Gitungano



ILLUSTRATION JOHN JAY CARNEY

Lorraine Conroy
University of Illinois
at Chicago

Susan Altfeld
University of Illinois
at Chicago

Jyotsna Jagai
University of Illinois
at Chicago

Jennifer Hebert-Beirne
University of Illinois
at Chicago

Uchechi Mitchell
University of Illinois
at Chicago

“Teaching in a Diverse
Classroom”

A culturally responsive and inclusive classroom links classroom content

to student experiences and requires cultural humility with respect to students' lived experiences. For students to succeed, the instructor must bring these experiences into the classroom and recognize the social capital and expertise students bring with them.

AS PART OF HIS GLOBAL HEALTH STUDIES, ALEX GITUNGANO took a course on managing disasters and complex humanitarian emergencies. During lectures, the professor often asked Gitungano to share his firsthand experience. “In the class, they talk about crises and political violence—how to manage that, how to help the refugees,” Gitungano says. “And I’ve experienced that. It’s my life.”

When he was 5 years old, Gitungano and his family fled the tribal massacres in their home country of Burundi and became refugees in neighboring Zaire (now the Democratic Republic of Congo). When war broke out in Zaire three years later, they risked their lives crossing Lake Tanganyika in a wooden boat to return to Burundi.

Now 29 and a part-time student at the School of Public Health, Gitungano is earning certificates in program management and global health and hopes to make a life and living for himself in the United States.

He describes his unusual path to this country as “a journey of hope, faith, and love.”

Despite an unstable childhood in war-torn East Africa, Gitungano managed to enroll in college, earning a degree in clinical and social psychology in 2013 from Burundi’s Hope Africa University. He planned to become a counselor, but he had difficulty finding a job after graduation and instead spent time volunteering in Christian schools. In 2014, Gitungano was introduced to a badly burned 3-year-old boy named Leo, whom he and a young Christian missionary couple from Idaho began helping to get the specialized medical care he needed. When Shriners Hospitals for Children–Boston accepted Leo’s case, Gitungano—who speaks English and Leo’s native Kirundi—volunteered to accompany the little boy to the United States for his six months of treatment.

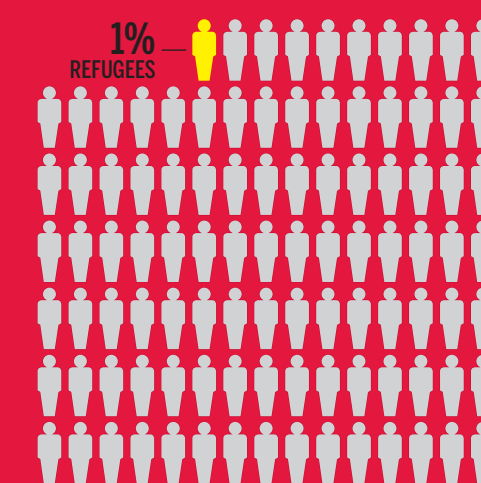
The pair arrived in Boston in June 2014, and it gradually became clear to Gitungano that they would not be

returning home any time soon. Leo’s doctors would need years—not months—to perform the many surgeries needed to reconstruct his eyelid, lips, and nose. And a resurgence of political violence made it unsafe for either of them to return to Burundi.

As he and Leo shifted from one temporary home to another, Gitungano decided that education would be the key to building a new life for himself and Leo in America. A friend’s Facebook fundraising campaign paid for his first two classes at SPH in fall 2016. Since then, the school’s Lamenstein Family/JSI Scholarship has covered his tuition.

Now Leo’s legal guardian, Gitungano juggles his commute and schoolwork with the responsibilities of parenting the spunky second grader, who continues to undergo surgeries at Shriners. While Gitungano loves the learning that comes with being a student—“I’m like a little sponge that wants to absorb all the water,” he says—he looks forward to completing his degree so that he can get a job (he’d like to help underserved communities gain healthcare access) and provide a more stable, predictable life for himself and Leo.

WORLDWIDE COLLEGE ENROLLMENT



SOURCE: UN REFUGEE AGENCY/UNREFUGEES.ORG

“In the class, they talk about crises and political violence—how to manage that, how to help the refugees. And I’ve experienced that. It’s my life.”

Wayne LaMorte
Boston University
Kathleen Ryan
Boston University
“Technology in
Teaching”

The Americans with Disabilities Act, enacted in 1990, prohibits discrimination

against individuals with disabilities in all areas of public life. The purpose of the law is to ensure that people with disabilities have the same rights, access, and opportunities as others, including in education.

Michael Argenyi MPH Candidate

STUDENT Michael Argenyi was diagnosed with profound deafness when he was 8 months old—which has in no way hindered his progress and achievements as he pursues dual degrees in public health and social work.

Argenyi, who uses cochlear implants, has relied primarily on lip-reading and Cued Speech, which uses hand signals to represent sounds. To facilitate his work, SPH covers classes with a mix of American Sign Language and Cued Speech interpreters as well as CART (computer-assisted real-time transcription) when necessary.

Argenyi has not always had this level of support. In July 2011, after his second year of classes, he took a three-year leave of absence from Creighton University School of Medicine in Omaha, Nebraska, due to a pending lawsuit filed in 2009 arguing for the right to finish his medical training with real-time captioning for classes and oral interpreters for clinics.

“It was humiliating to present only half of a history because I had missed so much of what was communicated,” he told the *New York Times*.

A jury verdict followed by a court ruling in 2013 held that Creighton violated Argenyi’s right to communication access under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. He eventually received his MD from Creighton in 2016.

He has embarked on a dual degree program at SPH to gain training that incorporates patient care with population-level work, both of which he sees as integral to his goal of creating health interventions for marginalized populations.

“Public health is key to identifying trends, appropriate conscientious responses, and meaningful outcome measurements to develop a just and healthy future,” he says.

“**Public health is key to identifying trends, appropriate conscientious responses, and meaningful outcome measurements to develop a just and healthy future.**”

Sandro Galea
Boston University

Lisa Sullivan
Boston University

“The Evolution of Public
Health Teaching”

Innovative pedagogic approaches require that we rethink pedagogy

as we update curricula and competencies to ensure that learners truly develop new competencies. Deeper learning occurs when classroom material is applied to real-world, authentic problems.



Having enough curiosity to study a problem is the first step to finding its solution.



Confidence Achilike
MPH Candidate

AS A MEDICAL STUDENT IN SOUTH-EASTERN NIGERIA, Confidence Achilike witnessed epidemics of Lassa fever—a viral hemorrhagic fever similar to Ebola—kill patients and caregivers alike in her college town.

“While I was in school,” she says, “one of my attendings became infected with Lassa fever.” He survived because he could afford to be flown abroad for treatment, “but other people weren’t that lucky.”

The recurrent Lassa fever epidemics are one of the reasons Achilike decided to put her medical career on hold to study epidemiology and biostatistics at the School of Public Health.

After gaining some US work experience, she plans to return to Nigeria and establish a nonprofit organization to fund research and combat infectious diseases, among other things. “Lassa is especially important to me, because I’ve seen firsthand its devastating impact on communities, and I do not think enough is being said or done to combat infectious diseases in general,” she stresses.

Achilike also hopes to teach public health at a Nigerian university and help improve the research culture to the standard she has experienced thus far at SPH, which she believes is important because—as she points out—having

enough curiosity to study a problem is the first step to finding its solution.

Outside the classroom, Achilike is active in the SPH Student Senate and the Activist Lab, and even played with the school’s softball team, the Inglorious Batters, despite never having picked up a bat before the first game.

“She has really grasped the experience of being a student here wholeheartedly,” says Associate Professor of Epidemiology Yvette Cozier, adding that she expects Achilike will tackle her professional goals with the same passion she’s brought to SPH: “She will be one of those people, I’m sure, who leaves her mark on the world.”

Linda Alexander
West Virginia University
“Teaching Cultural
Competency for
21st-Century Public
Health Practice”

Public health students typically enter the academy with an overwhelming desire to effect change.

While these students are likely to embrace the path forward to competence, they may have differential exposure to other cultures and population health needs via media sound bites, politically charged debates, and family influence. Therefore, those entering our classrooms may have a false sense of their comprehensive knowledge about what it means to be culturally competent and how to apply knowledge and skills toward solutions.

GROWING UP IN MARYLAND, Fatima Dainkeh assumed she would one day become either a doctor or a lawyer. “I come from an immigrant family, so the bar is really high,” she says.

But while Dainkeh was deeply interested in health care and issues of justice and equality, she ultimately decided that neither of these professions was the right fit. So she began looking for a career that focused on the intersection of her interests—and discovered public health.

To gain a better understanding of the field, she took a year off between college and graduate school for a fellowship with the Young Women’s Project, a nonprofit in Washington, DC, that works with underserved youth to improve the foster care system and the reproductive health of DC teens.

“I got an opportunity to really understand what ‘social determinants of health’ meant,” Dainkeh says.

Fatima Dainkeh
MPH Candidate



It’s hard for me to say I believe in equity and justice and freedom without talking to people or communities who have least of that—who have least access to society’s political, social, and civil liberties.



At SPH, Dainkeh studies community-based health interventions with an emphasis on maternal and child health; in addition to her formal classwork, she’s also completing an independent project on black women and storytelling. “It’s hard for me to say I believe in equity and justice and freedom without talking to people or communities who have least of that—who have least access to society’s political, social, and civil liberties,” she explains.

Dainkeh hopes the women will eventually give her permission to show the videos to public health practitioners. In a field that focuses on drawing conclusions from large sets of data, she says, “you often step away saying things that can be very generalizing—but there is a different story for every woman.”

Perry N. Halkitis
Rutgers University
“Activating Public Health
Learning for Adolescents
and Emerging Adults”

Students must be envisioned as more than vessels of learning, but rather as complex organisms whose learning is inter-related with their social and emotional lives.



If you can be in a position where you can intercept negative health consequences, to me that's an even greater calling for your life.



Marylyn Creer
MPH Candidate

THE CENTERS FOR DISEASE CONTROL AND PREVENTION estimates that 9.4 percent of Americans have diabetes, and the numbers are even higher in Marylyn Creer's home state of Alabama. For Creer, however, diabetes is about more than statistics.

"It's about people and the lives that are impacted," she says.

"In the last year, two persons very close to me have died of type 2 diabetes and its complications," says the MPH candidate, who drove more than 1,200 miles from her home state to attend the School of Public Health. The disease is growing at an alarming rate, she emphasizes, "and someone

has to try to help." She has also cared for a family member whose chronic illness led to a double amputation and eventually death.

Creer came to SPH to learn about community-based health interventions and chronic diseases, with the goal of earning a PhD and then working to fight the diabetes epidemic. "This disease affects so many people, and it needs an integrated approach," she explains.

Public health is her second career; she also worked at AT&T as a marketing and customer service representative for many years before her job was downsized. She began studying

nursing at a local community college after leaving AT&T but was drawn to the broader mission of public health. "If you can be in a position where you can intercept negative health consequences, to me that's an even greater calling for your life," she says.

She did so well in her undergraduate science courses that her professors encouraged her to pursue graduate studies in the general sciences, she says, but her heart told her it was important to remain focused on public health: "I decided that this is what I need to do, and what I must do."

Wendy Heiger-Bernays

As a molecular toxicologist, Wendy Heiger-Bernays is an expert at chemical analysis. But she's equally adept at translating her findings for lay audiences—an essential skill for advancing public health.



Greg Evans
Georgia Southern
University

“Teaching Support—
Training and Supporting
Teaching Assistants”

It is crucial to employ evidence-based, pedagogically sound methods designed to engage students on a variety of levels, to address issues of cultural diversity, and to develop a professional skill set.

A RSENIC IN GARDENING SOIL. Lead in cooking spices. Nitrates in drinking water. Clinical Professor of Environmental Health Wendy Heiger-Bernays teaches her students to identify and measure such hazards, but she doesn't stop there.

“Wendy tries to take that next step,” says Jonathan Levy, interim chair and professor of environmental health, “and makes sure that her students' work finds its way back out into the world, and that it makes a difference.”

When Heiger-Bernays teaches Methods in Environmental Health Sciences during fall semester, her students gather soil samples from plots in Boston-area community gardens and analyze them for the presence of lead and arsenic. They then report their findings back to the plot owners along with any necessary recommendations for amending the soil.

During spring semester, when the gardens are often covered with snow, her students collect and analyze water samples. Students recently sampled water from a local public housing complex at the request of Greater Boston Legal Services (GBLS), a nonprofit that provides free legal advice and representation for low-income populations. After analyzing the water, students wrote a technical report for GBLS attorneys and a data interpretation that GBLS could share with residents. Students in Heiger-Bernays's Water and Health class complete similar projects, collecting and analyzing water from faucets, rivers, and sewage outfalls and then reporting back to communities, NGOs, and legislators.

“It's one thing to work with a data set that somebody has cleaned and given to you,” Heiger-Bernays notes, “but there's nothing like going out and collecting the data yourself and then, more importantly, having that community engagement—providing meaningful and useful communication to the community, whatever it happens to be.”



We need to train the whole public health scientist. In these days where ‘fact’ is a dirty word, our trainees must be mentored in moving the science from the bench to the decision-makers.

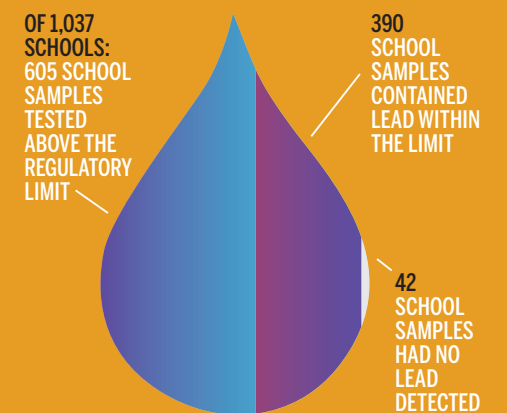


She encourages her master's-level students to publish their work, another way of making valuable findings available to people who can use them. “Ground Turmeric as a Source of Lead Exposure in the United States,” a paper that appeared in *Public Health Reports* in 2017, began as then-MPH student Whitney Cowell's (SPH'10) project for a risk-assessment course. When Cowell found high levels of lead in turmeric purchased from Boston-area markets and stores, Heiger-Bernays felt strongly that those findings should be shared beyond the classroom, and worked for years to help Cowell publish her work.

Heiger-Bernays was trained as a molecular toxicologist and worked in laboratory settings before turning her focus to public health. Early in her career, she studied the effects of various chemicals—including those found in tobacco smoke and industrial solvents—on the human body. Today, she focuses on translating such scientific findings into policies that can improve human health, and she teaches her students to make those same connections.

“We need to train the whole public health scientist,” she says. “In these days where ‘fact’ is a dirty word, our trainees must be mentored in moving the science from the bench to the decisionmakers.”

WATER LEAD LEVELS—MASS. SCHOOLS



SOURCE: BOSTON GLOBE, “HIGH LEAD LEVELS FOUND IN WATER AT HUNDREDS OF SCHOOLS,” MAY 2, 2017

Marie Diener-West
Johns Hopkins
University
“Master of Public
Health Education”

Advances in technology and global access to the internet have increased

the opportunities for public health education beyond the conventional walls of on-site instructional programs. Education through multiple modalities and increasing innovation is required and may range from intensive institute courses and online course offerings to tailored global education and open education initiatives.



Teaching students to do this well takes on new importance when the stakes are so high.



Matthew Fox

Professor of Epidemiology and Global Health

“Is watching hockey the same as exercising?”

“Early to bed, early to a healthy BMI?”

“A glass of wine a day keeps the doctor away?”

THE QUESTIONS sound like headlines from a pop culture magazine, but they’re actually topics from *Free Associations*, a public health journal club podcast from Population Health Exchange aimed at educating us on the ways popular studies go wrong. At a time when allegations of “fake news” are rampant, the program, co-hosted by Matthew Fox (SPH’02, ’07), professor of epidemiology and global health, demystifies and dissects public health news for a mainstream audience.

Fox—whose research focuses on HIV in South Africa, particularly finding ways to reduce attrition from HIV care—believes that students must develop the critical skill of questioning what they’ve been taught and what they’ve heard, in and out of the classroom. He teaches Advanced Epidemiology every year, focusing on novel analytic methods, simulation methods, and quantitative bias analysis—all of which are designed to ignite a passion for lifelong learning and a commitment to critical thinking.

“This leads to fantastic discussions with students as they learn how to be both critical and respectful, how

to learn to use what they’ve been taught—but not to assume that everything they’ve been taught is always correct,” Fox notes, adding that asking hard questions is more important to public health than ever before, since research findings can steer large swaths of the public towards better health: “Teaching students to do this well takes on new importance when the stakes are so high.”

Melissa D. Begg
Columbia University

Jessica S. Ancker
Columbia University

“Public Health
Course Design”

To remain current and relevant, all public health courses must be reviewed with a critical eye on a regular basis. Minor changes are required each and every time a course is offered; however, minor changes do not obviate the need for more significant change at wider intervals.

Nafisa Halim

Research Assistant Professor of Global Health

WHY IS PUBLIC HEALTH SO IMPORTANT RIGHT NOW? According to Nafisa Halim, research assistant professor of global health, it's because health—like education, skills, habits, and creativity—is a form of human capital.

Understanding health as human capital is critical to resource allocation, program design, and policy making, and School of Public Health courses pave the way to that understanding for the next generation of public health professionals, Halim explains. Courses are designed to teach students critical thinking; logical, methodical, and rigorous analysis; and management and communication skills. SPH also offers students opportunities to gain hands-on experience by participating in faculty research that, in turn, informs curriculum.

Halim's own interests lie in developing and testing theory-based

interventions to reduce barriers to reproductive and sexual health in HIV-affected and resource-poor settings. “We draw upon our experience as we develop SPH courses,” she says.

Halim, who received a 2016 Award for Excellence in Teaching at Boston University, also believes that students play an important role in producing and promoting quality evidence in an age of evidence-based decision-making.

“They bear the additional responsibility of mastering the science and art of effective cross-cultural collaboration, especially when finding solutions to public health challenges means challenging and changing existing, age-old community norms,” she points out.

Emphasizing that process as knowledge generation is essential. For

instance, how do we change community norms that are detrimental to women's maternal or child health? And how does politics influence public health?

“We need to start asking hard questions,” she says.

“

We need to start asking hard questions.

”

Nancy Kane
Harvard University
“Teaching Public Health
by the Case Method”

Discussion is a component of cooperative learning, where students work

to achieve a common goal. A case presents a complex problem for which no obvious or single answer exists. Students explore and debate concepts, ideas, and opinions among peers. Peer discussion has been found to enhance understanding and retention in part by facilitating the integration of new information with prior knowledge. Verbal discussion fosters persuasive speaking and critical-listening skills.

Chris Louis Assistant Professor of Health Law, Policy & Management

AT A SCHOOL WITH A “BOOTS ON THE GROUND” APPROACH to public health education, Chris Louis has students who are not only wearing boots, but are hitting the ground running.

“Our educational methods don’t just keep students in the classroom anymore,” Louis, an assistant professor of health law, policy & management, explains. “Almost from the first day of classes, we are exposing our students to experts in the field, engaging them in public health discussion, and encouraging them to be creative in their thinking. In fact, we demand it.”

Also director of the Healthcare Management Certificate program, Louis leads by example. With nearly a decade of healthcare industry experience in

strategy, operations, and project management, before joining SPH in 2015 he worked as an administrator in non-profit and for-profit health systems, consulting, and physician practices.

“As a hospital administrator turned academic, my research has to matter to those working in health care or those impacted by the healthcare system,” he says. “The good thing is that there seems to be agreement in our field that these two things matter a whole lot.”

Louis takes the lessons learned from his research and brings them into the classroom, using them as case studies and examples of what students may encounter in the field. Two of his courses also involve “live” projects with

local healthcare organizations that give students real-world experience as consultants working on operational or strategic issues.

“In the end, as an advisor and educator, I have only one goal,” he stresses. “To help students launch a successful career in something they enjoy.”



Almost from the first day of classes, we are exposing our students to experts in the field, engaging them in public health discussion, and encouraging them to be creative in their thinking.



Donna J. Petersen
USF Health and
University of
South Florida

“The Current State of
Public Health Education”

Education in public health should be as dynamic, innovative,

and demanding as the field itself. Persistent and emerging challenges to the public’s health increasingly call for skilled professionals who are creative and collaborative, nimble and trustworthy, and comfortable with uncertainty and ambiguity.



My biggest failure is if a student walks out of my class at the end of the semester and has no idea how the concepts they learned will apply to their future career as a public health practitioner.



Jacqueline Milton Hicks

Clinical Assistant Professor of Biostatistics

“**PUBLIC HEALTH AS A FIELD IS MULTI-DISCIPLINARY;**” says Jacqueline Milton Hicks, clinical assistant professor of biostatistics. “My biggest failure is if a student walks out of my class at the end of the semester and has no idea how the concepts they learned will apply to their future career as a public health practitioner.”

And Milton Hicks believes in reaching students even *before* they walk into her classroom. She co-directs the Summer Institute in Research Education in Biostatistics with Anita DeStefano, professor of biostatistics and associate director of the Genome Science Institute. Designed as a

pipeline for new biostatisticians, the six-week program introduces the field—and its applications in public health—to undergraduates from around the country. Milton Hicks also works with the Upward Bound Math Science summer program for low-income and first-generation, college-bound students.

Recently, she’s been examining new teaching methodologies, including team-based learning and “flipped classrooms” that deliver instructional content outside of the classroom, often online.

“With so many technological advances being incorporated into how

we teach students, there are a lot of opportunities for change in the public health curriculum,” she points out.

“It’s exciting to work with so many people who are willing to try new, innovative ideas in public education.”

Because public health touches every sphere of our lives, Milton Hicks believes innovation in the field is more important now than ever.

“The need for qualified public health practitioners to help utilize and understand how this growing field of technology can help to improve the health of the public is increasing rapidly,” she says.

Henry Wilder

An SPH admissions officer, Henry Wilder holds three degrees from BU, plus a strongly held conviction that finding the right students is critical to our goal of relevant, authentic, practical education.



ILLUSTRATION JOHN JAY CABUAN

Katherine Johnson
Elon University

Richard Riegelman
The George
Washington University

“Community Colleges
and Public Health:
Building the
Continuum of Public
Health Education”

It is important that public health becomes one of these career directions providing new opportunities for students and helping to diversify the public health workforce.

STUDENTS COME TO BU'S TOP 10 SCHOOL OF PUBLIC HEALTH THINKING THEY CAN CHANGE the world. Henry Wilder (CAS'11, Wheelock'14, Questrom'18), associate director of admissions, believes the most important thing to instill in them is this message: They're right.

“Our philosophy on education prepares students with a theoretical foundation as well as practical tools to positively affect our communities. This is what excites prospective and new students about SPH,” Wilder says. “They will be challenged to think outside the box and work outside of their comfort zones while they are here, and they will be prepared to change the world when they leave.”

Hailing from 43 countries and speaking more than 60 different languages—including Zulu, Russian, Khmer, Italian, Arabic, Bengali, Haitian Creole, and Punjabi—students mirror the diversity of a vast and interdisciplinary public health field that involves practitioners and researchers from a wide range of backgrounds.

Of nearly 1,300 students admitted last year, 63 percent were full time and more than 80 percent women. Last fall's incoming class included more than 70 different college majors embarking on an education combining foundational learning and practical training, in and out of the classroom, to address the social, economic, and cultural forces that affect health.

Wilder cites the redesigned MPH program, which offers students core classes enhanced by functional and context certificates that allow them to delve deeper into subjects and specialize their education. They also have opportunities to “learn in action” with practica around the world, receive ongoing career guidance, and are encouraged to be community activists along the way.

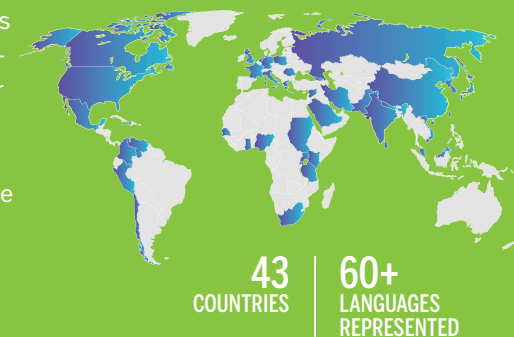
One of Wilder's favorite applicants was a woman who toured the campus in 2016. A non-traditional student, she

was completing her bachelor's degree after more than 30 years in public health and community advocacy. Wilder was touched by her warm heart and passion for the health of her community. She applied and got in.

“In my mind, she was the perfect fit for SPH,” he explains. “I know that she is a student who is making the most of the opportunities at our school. SPH will be a better place because of her as a student, and communities will be bettered by her work as a public health professional. She serves as a great example of why our work is important.”

Public health recognizes the need for many different voices in conversations of how evidence-based approaches can address issues that affect the health of populations, Wilder notes. Towards that end, the admissions goal is not only to attract the next generation of public health leaders, but also to make sure that students, faculty, and staff represent a diverse and inclusive body reflective of the populations they serve. “As a recruiter, I want to focus on increasing the number of underrepresented voices in our community because I believe this diversity is core to the operation of our school and the mission of public health.”

WHERE OUR STUDENTS COME FROM



SOURCE: BOSTON UNIVERSITY SCHOOL OF PUBLIC HEALTH

As a recruiter, I want to focus on increasing the number of underrepresented voices in our community because I believe this diversity is core to the operation of our school and the mission of public health.

Joel Lee
University of Georgia
“Lifelong Learning”

The consensus report, Who Will Keep the Public Healthy?

Educating Public Health Professionals for the 21st Century, states that assuring access to lifelong learning for the public health workforce is a responsibility of schools of public health. While there are practical, logistical, and financial challenges, there are also opportunities for alumni engagement, enhanced connections with community partners, and faculty research identifying factors that motivate practitioners to pursue lifelong learning as well as assessing the learning efficacy of different methods to generate best practices for lifelong learning.



We want to be a learning community that is available, responsive, and deep in content offerings and methods for delivering that content.



Leslie Tellalian Director, Lifelong Learning

LESLIE TELLALIAN LEADS PROGRAMS

that attest to the fact that learning at the School of Public Health doesn't stop when you earn a degree.

From webinars on story maps to on-campus workshops, livestreamed events, and training sessions, the Lifelong Learning Office and its digital portal, Population Health Exchange (PHX), offer resources and educational opportunities to those near and far who seek to gain or expand their public health knowledge and skills.

“We want to be a learning community that is available, responsive, and deep in content offerings and methods for delivering that content,” she says.

As director of lifelong learning, Tellalian works closely with faculty to develop and deliver programs on topics such as visualizing and communicating data, gaining new research skills and tools, and working with regulatory agencies.

Tellalian says that she finds it exciting to engage a broad audience in ways that can improve their work, whether they are alumni, public health practitioners, or individuals working in fields such as medicine and law. Summer and winter institutes, for instance, offer short, immersive programs led by faculty field experts from within and also outside of SPH.

Tellalian also helped launch *Free Associations*, a podcast hosted by global health faculty members Matthew Fox (SPH'02, '07) (see page 33), Christopher Gill, and Donald Thea that dissects popular public health studies.

“Helping people step back and determine what they really need for their work, how to best access it, and how best to share it is crucial as we all work to create healthier populations,” Tellalian says. “And this is where I feel PHX can provide the strongest support.”

Kathryn M. Cardarelli
University of Kentucky
Angela Carman
University of Kentucky
Robert Conatser
University of Kentucky
“Engaging the Public
Health Student
through Active and
Collaborative Learning”

Active and experiential education allows learners to engage in questioning,

solving problems, clarifying values, and developing skills to mutually benefit community partners. Experiences in the field are followed by reflection and discussion, resulting in learning that is personal and includes the importance of relationship building through an enhanced understanding of self, others, and the larger community.

Joe Anzalone Senior Global Practicum Manager

JOE ANZALONE (SPH'92) KNOWS A THING OR TWO ABOUT PLACING students in fieldwork around the world. As senior manager of academic programs in the Department of Global Health, Anzalone supported field practicum programs in Kenya, the Philippines, and Mexico. And before earning his MPH, he served in the Peace Corps in Liberia, volunteering in a community health department for more than two years.

Today, Anzalone puts his background and expertise to work as senior global practicum manager in the Careers & Practicum Office, where he supports MPH students searching for field opportunities (with an emphasis on international work in resource-poor locations). This year, roughly 40 SPH students interested in global health will do international practica in more than a dozen countries; these programs are

a key way students develop significant experience to build their skills, address public health needs, and set the stage for a global career path.

“I do my best to help students recognize what they’ve got, cultivate any missing gaps, and inspire them about the possibility of making things happen. Students are very resourceful at making things happen, so a little guidance can go a long way,” Anzalone explains. “Those caught by the proverbial bug to get global, put together incredible opportunities.”

He believes that students are eager to have a positive impact on the world and that public health has a lot to say about improving society: “Students are the most exciting part for me. They really want to do great things in the world, and public health is a natural vehicle for creating a career that matters.”

Public health is a natural vehicle for creating a career that matters.

Tanya Uden-Holman
The University of Iowa
“Interprofessional
Education”

Schools and programs need to provide students with multiple opportunities

across their time in the program. And although some of these opportunities will likely need to be required to ensure that students meet the competencies, electives, such as service learning, and co-curricular activities, such as student organizations, provide additional ways for students to interact and learn about, from, and with students in other disciplines.

AS THE ACTIVIST LAB COMMUNICATIONS SPECIALIST, Emily Barbo shares its story with the School of Public Health and beyond, highlighting its role in coordinating seminars and symposia, training more than 400 MPH students a year in effective advocacy skills, and engaging in direct advocacy at all levels. She helps people connect in new ways—across disciplines, departments, and organizations—and introduces a broader community to the next generation of big-picture thinkers and change-makers in public health.

In other words, she says, “I build bridges.”

“We help students build their advocacy toolbox with foundational knowledge, like how to create a coalition around an issue, how to frame messaging, and how to give testimony



to governing bodies like Congress,” Barbo explains.

The lab’s 2018 efforts included organizing the #ENOUGH student walkout and attendant community forum around gun violence; partnering with Santander Bank to launch Activist Bucks, which funds student advocacy projects that positively impact the local community; and organizing routine outings to bring water bottles to people living on the streets. Their current focus on homelessness and the opioid epidemic in Massachusetts offers both service activities and opportunities for students to participate on the institutional level in policy and program discussions.

Barbo says that one of her favorite parts of the job is helping students understand that the Activist Lab is a laboratory—“a place to take that thing, the idea or issue that keeps you up at night or gets you out of bed in the morning, and roll it around with the people who have been there until you see the path to change.”

Emily Barbo
Communications Specialist, Activist Lab



Luann White
Tulane University
Angela Breckenridge
Tulane University
“Effective Collaborative
Learning Experiences—
It’s All in the Design”

Public health graduates need to be prepared to contribute to teams and work

collaboratively to address the changing landscape of population health. Collaborative skills are not innate in most people and must be developed to produce high-performing and innovative public health professionals. Collaborative learning pedagogy is a means to produce highly competent professionals better prepared for solving the public health challenges in evolving roles and job responsibilities.



Employers really value the versatility of our MPH degree; it’s up to the students to share their specific skills and connect the dots to what those employers/their network need.



Gwenn Fairall
Career Advisor and Relationship Manager

AN INTERNATIONAL HEALTH STUDIES GRADUATE AND WORLD TRAVELER, Gwenn Fairall (SPH’12) understands that public health students are passionate and have great potential in the workforce.

Fairall has returned to the School of Public Health as a career advisor and relationship manager in the Careers & Practicum Office, where she focuses on building and maintaining global health organization partnerships and helping students and alumni secure competitive jobs by showcasing their diverse knowledge and skills.

“So many people come into my office overwhelmed with the job search process, often not knowing where to begin,” Fairall says. “It’s our job to give them the strategies and tools to market themselves effectively and help make it a little less painful.”

An important part of Fairall’s role is to teach students about the value of networking. “Our students tend to be modest, so they’re often uncomfortable with the prospect—they don’t want to appear like they’re tooting their own horn,” she says. “But it’s critical to a job search. Employers really value the

versatility of our MPH degree; it’s up to the students to share their specific skills and connect the dots to what those employers/their network need.” In other words, she believes success is “all about the hustle.”

Fairall’s reward comes when those graduates who were once anxious land a position with one of their top organizations: “It’s one of the highlights of my job.”

Whether it's HIV or medical marijuana, Marion McNabb works to take public health discussions beyond emotion and into the realm of scientific evidence, with SPH students along for the often-bumpy ride.

**Marion
McNabb**



Laura Magaña Valladares
Association of
Schools and Programs
of Public Health

Julian Fisher
Hannover Medical
School

Silvia Rabionet Sabater
University of
Puerto Rico and Nova
Southeastern University

Nelly Salgado de Snyder
Instituto Nacional de
Salud Pública

“Responding
Interprofessionally to a
Complex World—
The Impact on Public
Health Education and
Workforce”

Public health is dynamic and multifaceted; therefore, it calls for training

imaginative and creative professionals with a strong understanding of the political and economic processes worldwide. They may come from various disciplines and sectors, but public health professionals must be able to negotiate, create synergies, and think strategically and tactically to provide answers and solutions to the many challenges they will face.

MARION MCNABB (SPH'16) HAS WORKED IN GLOBAL HEALTH FOR 15 YEARS, primarily in Africa and Haiti on sexual and reproductive health programs. Now she is on the frontline of cannabis science in Massachusetts, taking School of Public Health students with her on a mission to advance the use and integration of cannabis into mainstream health care.

A public health doctor by training, McNabb is chief executive officer and cofounder of Cannabis Community Care and Research Network (C3RN), an advocacy, research, and educational services public benefit corporation. McNabb wants C3RN to make a “positive and productive” difference in the cannabis industry while addressing the widespread opioid crisis.

“It’s an epidemic that requires disruptive innovation and leadership to make change,” she asserts. “C3RN will continue to be bold, finding the right experts and innovators to address this real public health emergency in the commonwealth.”

C3RN launched in January 2017, two months after Massachusetts voters passed ballot Question 4 to legalize adult-use recreational cannabis. The group hopes to advance scientific evidence related to medical cannabis and develop public health protocols and programs while destigmatizing its use. It also intends to establish a virtual Center of Excellence for Cannabis Care and Research, a concept for which it won the 2017 Questrom School of Business BUzz Lab Cannabis Start-Up Competition.

McNabb’s public health education and experience in implementing HIV/AIDS programs in low-income settings taught her how to work at a clinical and health system level to integrate a new therapy and clinical model. Among other activities, C3RN develops socially

44

It was exciting to develop these policy memos and recommendations for the cannabis control commission. And engaging students in practical application of skills is a great interest of mine.

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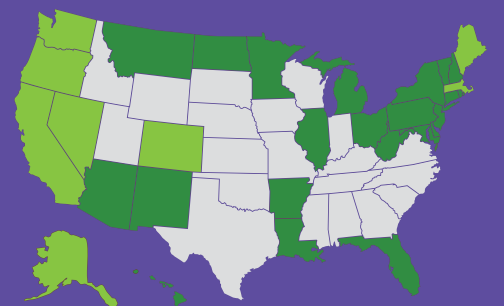
conscious cannabis license applications, writes evidence-based white papers, and designs programs that encourage medical cannabis referral programs. It also is developing a digital health suite of tools that serves cannabis patients, clinicians, and dispensaries.

From its start, C3RN has worked with SPH students, including alumna Meg D’Elia (SPH’17), who continued on post-graduation. As an intern, she helped coauthor evidence-based policy reviews published last year describing how legal adult-use cannabis will have a positive impact on health, social, and economic outcomes.

“It was exciting to develop these policy memos and recommendations for the cannabis control commission,” McNabb says, adding that her own public health training helped in the process. “And engaging students in practical application of skills is a great interest of mine.”

C3RN recently launched a student and diversity scholarship fund for students from other Massachusetts universities and community colleges and plans to offer free student admission to a C3RN event series.

MARIJUANA LEGALIZATION



■ RECREATIONAL ■ MEDICAL ■ NO BROAD LAWS

SOURCE: GOVERNING MAGAZINE/GOVERNING.COM

Delia L. Lang
Emory University
Elizabeth Reisinger Walker
Emory University
“Innovations in
Evaluating and Valuing
Public Health Teaching:
The Challenge of
Course Evaluations”

*As a discipline,
public health
draws students
from a broad
array of academic
and professional backgrounds and is tasked
with equipping them for an equally diverse and
dynamic workforce.*



**At the end of the day,
we are looking to make
the biggest and best
impact on improving
the lives of people
our products touch,
and the SPH students
contribute to this in
a big way.**



Jennifer Bartoshevich

Director of Clinical Affairs for Breast and Skeletal Health, Hologic

IN 2016, SIX SCHOOL OF PUBLIC HEALTH STUDENTS WERE INTERNING at Hologic, a Marlborough-based women's health and technology company, when they were tasked with reviewing a skeletal imaging device designed for early detection of juvenile diabetes. They found that the device was a hard sell—especially for parents reluctant to expose their children to radiation, even in small doses—so they took it upon themselves to gather new data as well as act on the evidence and shift the device's target population.

“It's that kind of thinking and ability to make a change and a new, better

proposal that we will need more of as the work in biotech continues to evolve,” says Jennifer Bartoshevich, Hologic's director of clinical affairs for breast and skeletal health.

Since 2016, Hologic—whose vice president of clinical affairs is alum Lori Fontaine (SPH'97)—has offered a summer internship to one SPH student and worked with course instructors to host six others working on specific projects during the school year. Bartoshevich says more and more companies like Hologic are relying on data to make the best decisions for the public, and it's critical that individuals understand

that information. She points out that a public health education helps students think more strategically, understand how to read and interpret data and biostatistics, and take a broader and more thoughtful approach when exploring health issues.

“At the end of the day, we are looking to make the biggest and best impact on improving the lives of people our products touch,” she says, “and the SPH students contribute to this in a big way.”

Jacey A. Greece
Boston University
James Wolff
Boston University
“Practice-Based
Teaching in
Public Health”

Public health agencies benefit from collaboration

by introducing an academic, evidenced-based perspective into their organization. They also receive high-quality and tailored deliverables at no cost and within a relatively short time frame and initiate and maintain relationships with trained academics and researchers, which may provide opportunities for access to current research or future collaborations.

Jonathan Tepe

Vice President, Global Revenue Operations, Novocure

JONATHAN TEPE has seen firsthand how School of Public Health students are tied into real public health issues that demand answers.

Five SPH students recently researched the opening of a new market in Asia for Tepe’s international oncology company, which pioneers a novel therapy for solid tumor cancers. From data collection to interviews, they acquired valuable professional experience and demonstrated important classroom skills—a combination that Tepe believes will make them effective leaders in the not-too-distant future.

“Their ability to understand key issues, find the resources to help solve them, and then drive organizational change are skills that will never be out of date,” he says. “Keeping in mind the bigger picture while solving issues

should almost always lead to more effective, complete solutions.”

Understanding how to care for and protect the most vulnerable patients is often the critical path to success for health systems and doctors. “This kind of focus on the here and now is what makes the students so attractive to employers. They don’t get lost in the theoretical or what-ifs, but focus on the issues of the day and teach concepts through that lens,” he explains.

He also sees how an SPH degree prepares students for the marketplace in other ways.

“It’s apparent that SPH students are tied into the real healthcare issues that need real solutions,” he says. “The school has a way of making the coursework tangible, with an expectation of community impact.”



It’s apparent that SPH students are tied into the real healthcare issues that need real solutions.



Laura Linnan
UNC Chapel Hill

Elizabeth French
UNC Chapel Hill

Megan Lanfried
UNC Chapel Hill

Beth Moracco
UNC Chapel Hill

“Group-Based, Service
Learning Teaching
Approaches”

Interprofessional projects allow students to demonstrate acquired knowledge, skills, and abilities within a professional context through collaborative work with practicing public health professionals and professionals from related fields such as medicine, nursing, pharmacy, social work, or private business.

“AN SPH EDUCATION gives students skills that are desirable to future employers and makes them successful,” says Taylor Napier-Earle, global health project manager at Texas Children’s Hospital.

For the past two years, the Baylor College of Medicine International Pediatric AIDS Initiative and Texas Children’s Hospital global health department have offered two summer internship positions at their Houston offices for students pursuing master’s degrees in public health, international development, and other related fields.

“Students with public health backgrounds bring different and needed perspectives to clinical organizations and help physicians understand

the broader picture of health and not merely treating a patient with a disease,” Napier-Earle explains. She points out that the critical thinking and writing skills demonstrated by SPH interns not only contributed in meaningful ways to the organization, but also showed they will be competitive candidates in the workforce.

As the program’s first intern from SPH, Catriona Gates (SPH’18) mentored high school summer interns on key public health topics, among her other responsibilities.

“Because of Catriona’s ability to analyze numbers and think critically, she was able to help us work on complex tasks such as helping to create and modify monitoring and evaluation

frameworks for our maternal and child health programs in South America,” Napier-Earle says.

She adds that public health is always important, particularly in clinical settings, because it is more than just a disease or an illness holding back a person or community: “We live in a global world, and diseases do not respect borders.”

**“
We live in
a global
world, and
diseases do
not respect
borders.”**

Taylor Napier-Earle

Global Health Project Manager, Texas Children’s Hospital

Daniel S. Gerber
UMass Amherst

Jen Dolan
UMass Amherst

“Public Health Education
and Service Learning”

Students retain information much longer if it is learned through an active experience such as a service learning project.



The ability to look around and see what can be done to impact people's lives and health outside of what would be the traditional medical setting allows for broader community-level change.



Meg von Lossnitzer

Director of Victory Programs Inc. Prevention Division

SARAH COLEMAN WAS ONE OF TWO STUDENTS who put their public health education into practice at Victory Programs Inc., a Boston nonprofit that helps individuals and families in crisis. And Meg von Lossnitzer, director of the nonprofit's prevention division, believes the students brought new perspectives to the organization they had come to help.

“For those of us who might have been out of school longer, it helps to bring things back to the theories,” she says, “and also have the new fresh ideas of students who have yet to experience the work.”

Working with individuals and families struggling with homelessness, addiction, and chronic health issues like HIV/AIDS and mental illness, SPH students participated in everything from evaluation and design to assisting in coordinating a statewide coalition. Coleman, in particular, made a lasting impact during her placement with the Mobile Prevention Team from June to December last year, von Lossnitzer stresses, calling her “amazing.” Participating in projects and attending trainings gave her valuable new skills, while practice-based courses at SPH taught her intervention mapping,

creating communications campaigns, and mHealth (mobile health application building).

According to von Lossnitzer, such hands-on experience gives graduates an advantage when they join the workforce: “The ability to look around and see what can be done to impact people's lives and health outside of what would be the traditional medical setting allows for broader community-level change.”

Diveena Cooppan

It isn't the kind of HIV screening Diveena Cooppan thought she'd be doing, but her film on HIV-positive women in South Africa represents an innovative use of art to advance public health.



ILLUSTRATION: JOHN AY CALAWAY

David G. Kleinbaum
Emory University
“Innovative Active
Learning in
Public Health”

What is taught is as important as how it is taught.

Doing and thinking are components of active learning. Introducing active approaches to learning can enhance the overall learning experience and can help make learning fun even for difficult subject material.

IN THE 2015 FILM *POSITIVELY BEAUTIFUL*, a group of five South African activists and public health workers living with HIV challenge what it means to have the disease. Together, they overcome the assumption that it will define their identities and destroy their lives.

“You can be HIV positive and cute,” says one of the women. “You can be HIV positive and successful in what you do.”

Released to international acclaim, *Positively Beautiful* explored the issue at a time when 5.7 million South Africans were HIV positive. It also highlighted the intersecting roles of HIV, gender, race, class, and education—a public health perspective that came naturally to Diveena Cooppan (MPH’07), who made her film debut as its director and coproducer.

“I had no background in film. I had never even used a video camera,” she says. “My only experience was watching films and a class at SPH where we made a three-minute PSA.”

Growing up in South Africa, Cooppan came of age during the epidemic’s peak. After completing her MPH and earning an Outstanding Achievement Award, she worked as a program manager on HIV/AIDS projects in her native country. By then, the disease no longer represented a death sentence, yet lingering beliefs to the contrary obstructed treatment and prevention.

Cooppan saw the potential to tell a personal story and respond to the stigma surrounding HIV. The film’s success affirmed her interest in the role and the value of media as a legitimate public health tool.

“Audiences appreciated that these were real stories and real people that they could identify with and relate to,” she notes.

Her SPH education—including epidemiology and biostatistics—was key to informing the public health side of the story, and that knowledge base continues to serve her as a public health consultant who must analyze journal articles and interpret and evaluate policy and news.

“

We have to adapt and communicate our knowledge, policies, and practices in a way that can effectively make public health a priority for everyone.

”

While many in the public health field balked at the film’s abstract concept, Cooppan’s SPH friends solidly supported the project. Faculty members/project advisors, including Jennifer Beard, clinical associate professor in the Department of Global Health, also encouraged her efforts. Beard is a founding member of the BU Program for Global Health Storytelling—a collaboration between SPH, the College of Communication, and the Pulitzer Center on Crisis Reporting—that explores the intersection of public health and journalism when confronting complex health challenges and the global response to them.

It’s essential that public health and media work together to communicate with the public, Cooppan stresses. Issues such as homelessness, poverty, and lack of education influence health as much as genetics and access to health care, and that requires a health equity approach.

“As members of the public health community, it’s our responsibility to make sure this happens—we can’t expect people across sectors to speak and understand our public health language,” she says. “We have to adapt and communicate our knowledge, policies, and practices in a way that can effectively make public health a priority for everyone.”



AS OF 2016,
7.1 MILLION
PEOPLE IN
SOUTH AFRICA
ARE LIVING
WITH HIV/AIDS

SOURCE: UN AIDS REPORT AT UNAIDS.ORG

Lauren D. Arnold
Saint Louis University
“Undergraduate
Education in
Public Health”

While career services staff can discuss career opportunities and provide training

in interviewing and résumé-writing, alumni and other local public health professionals can also serve to provide real-life examples and mentoring.



The more complicated the world gets, the more important public health practitioners are.



Ali Noorani

Executive Director, National Immigration Forum

WHILE POLITICIANS CONTINUE TO BATTLE OVER IMMIGRATION, nonprofit leader Ali Noorani (SPH'99) is taking an innovative approach informed by his public health background to build coalitions and advance policy reform.

Executive director of the National Immigration Forum, one of the nation's leading pro-immigration advocacy organizations, Noorani and his group work with business, law enforcement, and faith leaders to advocate for constructive changes to our nation's immigration system—including putting millions of undocumented immigrants on a legal path to US citizenship.

His message: “America’s immigration debate is not about politics, but about the cultures and values that shape and define America.”

That take on a politically charged debate is informed not only by his population-level approach to issues, but also by his public health emphasis on the combined power of analysis and effective communication.

“Ultimately, we’re coalition builders,” he explains. “We’re observing and listening. We really just try to take a step back and understand where people are coming from.”

A lifetime member of the Council on Foreign Relations since 2015, Noorani

also is the author of *There Goes the Neighborhood: How Communities Overcome Prejudice and Meet the Challenge of American Immigration* and hosts the podcast *Only in America*. In 2007, the Massachusetts Public Health Association honored him with the Alfred L. Frechette Award for his work as a public health pioneer. Three years later, the School of Public Health named him a distinguished alumnus.

Noorani credits his public health degree with giving him applicable career skills: “The more complicated the world gets, the more important public health practitioners are.”

Yvette C. Cozier
Boston University

Sophie Godley
Boston University

“Navigating Difficult
Conversations in Public
Health Classrooms”

Preparation for truly impactful public health work is the ‘seeing’ of privilege.

Many people believe that they achieved their status in life solely due to sacrifice and hard work. Privilege is enjoyed by the majority group, but it is often invisible to them.



My job is not to judge, but to support and provide quality, accessible health care to keep mothers and children safe.



Sera Bonds

Founder and Executive Director, Circle of Health International

IN NO SMALL FEAT, Sera Bonds (SPH'04) received her MPH degree in January 2004, the same month she founded an international nonprofit.

More than a decade later, Bonds says she uses her public health skills every day, from writing grants to developing programs. And her Texas-based nonprofit, Circle of Health International (COHI), is a thriving humanitarian organization providing reproductive, maternal, and newborn health care in crisis settings throughout the US and around the world.

Among other accomplishments, COHI has partnered with local women-led organizations to train nearly 9,000 health professionals, deliver \$1 million in supplies, and serve more than 3.5 million women. In 2016, COHI was awarded a United Nations Foundation grant for its innovative work.

“My job is not to judge,” Bonds has noted, “but to support and provide quality, accessible health care to keep mothers and children safe.”

Bonds' community organizing experience includes addressing issues such as reproductive rights, violence against women, welfare/poverty issues, and anti-war campaigns. A trained midwife, she pursued an MPH due to her belief that she needed a higher degree to be taken seriously in meetings. The midwife designation “just wasn't cutting it,” she recalls.

SPH offered her an ongoing community network along with the necessary and valuable tools and skills she needed. She also points out that having instructors in the classroom who were working in public health and understood the importance of real-life applications was especially critical,

as the experience helped her see herself in the field.

Today, all aspects of the work continue to excite her.

“I totally geek out on program design as we ensure that our responses are innovative and impactful, and I am deeply inspired by the partners who are leading the charge as we make change on the community level,” she says.

Robert Pack
East Tennessee
State University

Randy Wykoff
East Tennessee
State University

“A Conceptual
Orientation to Public
Health Teaching”

To assure that its graduates can function effectively across disciplinary areas

and in multiple work settings, public health educators must provide a wide range of applied skills and an equally broad knowledge base for their graduates. It is not enough, for example, for a graduate to simply have an understanding of a theory of adult behavior change—the graduate must also understand how to apply that theory in a range of professional settings and in a wide range of communities.

Mark Keroack

President and Chief Executive Officer, Baystate Health

WHEN MARK KEROACK (SPH'00) EMBARKED ON HIS PUBLIC HEALTH STUDIES more than two decades ago, he could not have foreseen the radical changes in store for the nation's healthcare landscape. But the future president and chief executive officer of Baystate Health would be prepared.

The son of a general practitioner and a nurse, Keroack received his MD from Harvard Medical School and trained in internal medicine and infectious diseases at Brigham and Women's Hospital before pursuing his MPH in the 1990s. The discipline of health outcomes measurement and management was emerging, and he set his sights on a biostatistics and

epidemiology career that would equip him to contribute to the new field.

Today, Keroack's public health background provides a unique lens for thinking about the values system—including what is important and how success is measured—of Baystate Health. He credits his public health education with giving him an important perspective on issues ranging from housing, transportation, and nutrition to economic inequality, climate change, and gun violence.

“Public health education leads one to look at issues in a holistic way and think about bottom-line results related to the health of those we are here to serve, rather than just the delivery of

medical services,” he points out. “People with public health training can seize the initiative in these areas and move us toward real improvements in health and well-being.”

His educational background informed Baystate's decision to participate in the commonwealth's Accountable Care Organization, launched last year to provide coordinated, high-quality care to underserved communities amid rising Medicaid costs. Partnering with social service agencies, Baystate committed to a three-year agreement for 40,000 patients with an annual budget of \$250 million.



Public health education leads one to look at issues in a holistic way and think about bottom-line results related to the health of those we are here to serve, rather than just the delivery of medical services.



Eugene Declercq
Boston University
“The DrPH Degree in
Contemporary Public
Health Education”

The demands of the field are calling for individuals with higher-level skills

to address increasingly complex problems that require training beyond the MPH. In training individuals to work in major leadership positions, there is an obligation to take global issues into account, even for those working domestically. This implementation is a matter of balance and specialization in trying to blend global content into the overall curriculum.



When I started, I soon realized public health had trained me in a very multisectoral way.



Mahesh Maskey

Chief Executive and Founding Chair, Nepal Public Health Foundation

AS NEPAL'S AMBASSADOR TO CHINA, Mahesh Maskey (SPH'01) wasn't sure at first if he was suited for the position. He had trained as a physician, epidemiologist, and international health and human rights activist, not as a diplomat.

As it turned out, it was precisely his public health roles that prepared Maskey to succeed as ambassador from 2012 to 2016, as the job demanded considerable expertise in considering how diverse spheres of interest could collaborate to achieve policy outcomes.

“When I started, I soon realized public health had trained me in a very multisectoral way to think about economics, politics, government efforts,

the nongovernment level, the level of the business community, the literary arts, and everything else,” Maskey says.

As an SPH doctoral student, Maskey developed and field-tested in Nepal a groundbreaking method of measuring and monitoring maternal, perinatal, infant, and neonatal mortality rates in developing countries where surveillance data may not be reliable or sufficient. He went on to play a key role in instituting free universal health care and strengthening Nepal's community health centers.

“Faculty members helped me to avoid conventional stereotypical epidemiological wisdom and provide

deeper insights into the common thread that runs through different research designs, from clinical trials to case-control studies, all based on sound epidemiological principles,” he notes.

Maskey received the 2013 SPH Distinguished Alumni and 2017 BU Distinguished Alumni awards; is chief executive and founding chair of the Nepal Public Health Foundation, a nonprofit public health advocacy, research, and policy organization; and serves as honorary chair of the Joint Asia Pacific Public Health Initiative.

SPH BY THE NUMBERS

SPH CAMPAIGN UPDATE

\$56 M TOTAL RAISED BY SPH SO FAR

93% OF GOAL

CAMPAIGN GOAL

\$60 M BY 2019

RANKING

10

U.S. NEWS & WORLD REPORT

BEST

GRADUATE SCHOOLS OF PUBLIC HEALTH

APPLICATION NUMBERS

2,691

TOTAL APPLICATIONS IN FALL 2017

STUDENTS

1,177

STUDENTS AT SPH IN FALL 2017



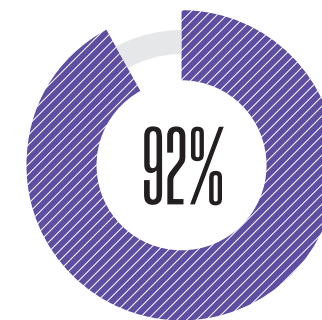
FACULTY

333

STAFF

225

2017 GRADUATE EMPLOYMENT



EMPLOYED FULL TIME OR PURSUING ADVANCED EDUCATION WITHIN 6 MONTHS OF GRADUATION

65% EMPLOYED IN DOMESTIC PUBLIC HEALTH POSITIONS

35% EMPLOYED IN GLOBAL HEALTH POSITIONS

SCHOLARSHIPS

\$8,057,500

SCHOLARSHIPS AWARDED IN 2017

RESEARCH AWARDS

\$48 M IN 2017

MEDIA MENTIONS

3 PER BUSINESS DAY IN 2017

PEER-REVIEW PUBLICATIONS

5 PER BUSINESS DAY IN 2017

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As the world changes, so must we.
To create a new type of public health professional with the knowledge and skills necessary to adapt to ever more dynamic public health and social conditions.

OF PUBLIC HEALTH EDUCATION

PUBLIC HEALTH EDUCATION: A 21ST-CENTURY CRITIQUE.

About a century after the release of the Welch-Rose report, the Association of Schools & Programs of Public Health (ASPPH) convened the Framing the Future Task Force to “re-vision the role of education for public health.” The task force was formed to address a number of challenges, including a growing interest in undergraduate courses, programs, and degrees; an increase in DrPH programs, which vary widely in terms of their focus and goals, calling for more explicit articulation with the MPH; a shift to competency-based educational models; an increase in the number of accredited schools and programs in public health with new and different concentrations and sub-specializations to address changes in the field and the demands of the workforce; an expansion of the sectors in which public health professionals work (the majority of public health professionals now work outside of local public health); changes in educational technology and pedagogy; and increased focus on continuous quality improvement in educational programs to define, evaluate, and update curricula.

The task force’s report made a number of suggestions for how the 21st-century MPH might be designed, including that “the common element of all MPH degrees should be a well-designed core that covers critical and interdisciplinary content in foundational areas of public health.” The report also called for in-depth, skills-based training in traditional and emerging specialty areas that meet the needs of employers, and the incorporation of population health into other professional degree programs.

Centrally then, the aim of a 21st-century school of public health is to produce professionals whose knowledge is broad, interdisciplinary, and grounded in deep, specialized study of the conditions

that shape the health of populations. We have written about a vision for graduate public health education built on three key principles: 1) public health education is relevant, authentic, and practical; 2) public health education is inclusive; and 3) public health education is ongoing.

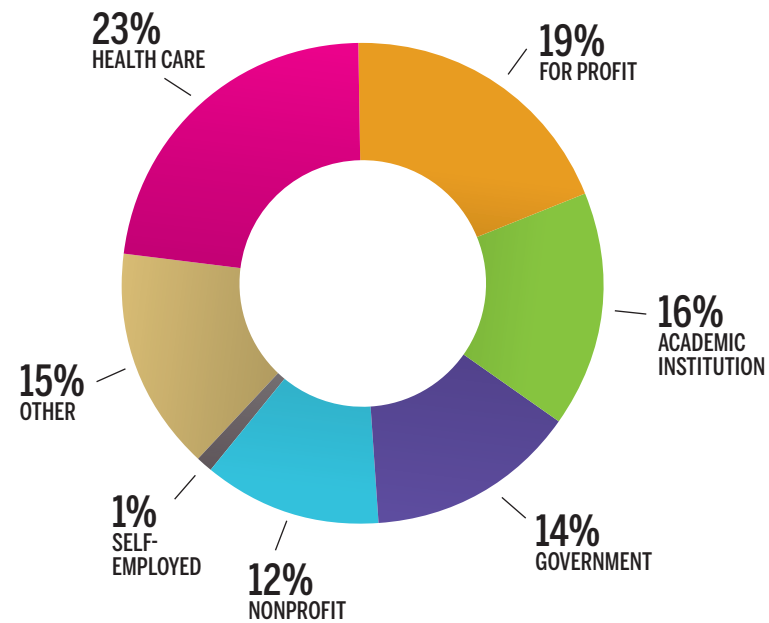
THE CURRICULUM GOES DIAGONAL.

Building on the work of the Framing the Future Task Force, this approach came together in SPH’s redesigned MPH in 2016, which is structured around a new Core Curriculum, Interdisciplinary Graduate Certificates to equip our students for professional practice (see page 8), and an Integrated Learning Experience that helps them marry core content about the foundations of public health with a preparation for practice in the field right from the first day of their education.

By combining breadth and depth in this way, our new curriculum could be described as “going diagonal,” to borrow a

phrase used to describe the combination of “horizontal” and “vertical” approaches to building health systems. Going diagonal blends the general with the specific and the broad foundation with rigorous specialization to create the best possible public health practitioners—who can, in turn, create the healthiest possible populations. We have since also introduced a lifelong learning initiative with our Population Health Exchange, allowing alumni and friends of the school to continue building their professional portfolios; and a new executive MPH program for public health professionals looking to bring an evidence-based approach to addressing population health concerns. All of these programs are meant to prepare students not only for how public health is currently practiced, but for how it will likely be practiced in the future based on emerging trends.

2015–16 GRADUATE EMPLOYMENT



SOURCE: ASSOCIATION OF SCHOOLS & PROGRAMS OF PUBLIC HEALTH (ASPPH)

PRACTICAL, INCLUSIVE, ONGOING.

This work of continually refining our programs to meet the demands of the moment is just one piece of the larger story of the future of public health education. As schools of public health are a relatively recent innovation in the US, public health training and curricula are still in a state of evolution as schools work to offer degrees that better suit the demands of the field. Substantial shifts in pedagogic focus, meantime—from teaching to learning, from discipline-specific courses to more integrated ones, from time in seats to mastery of competencies, and from memorization to application—have created an opportunity for the academic

public health community to create educational programs that are more dynamic and responsive to the world’s needs. And amid the uncertainties of our current political moment, academic public health is uniquely tasked with taking the steps necessary to make sure that our work is more clearly and widely accessible—to assert ourselves more directly into the broader political, cultural, and economic conversations.

THERE IS NO FINISH LINE.

But despite these shifting sands, more than 100 years on from the original convening around the role of academic public health, our collective goal as public health educators remains unchanged: to provide students with an education that positions them to thrive in, and shape, the changing world in which their careers will unfold. ∞



As academic schools of public health, it falls on us to ensure that we are preparing the public health workforce of the future, equipped both to handle the public health challenges of today and to adapt to the public health challenges of the coming decades.



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