End-of-Year Report

to the Harvard Chan School Community

2019 2020

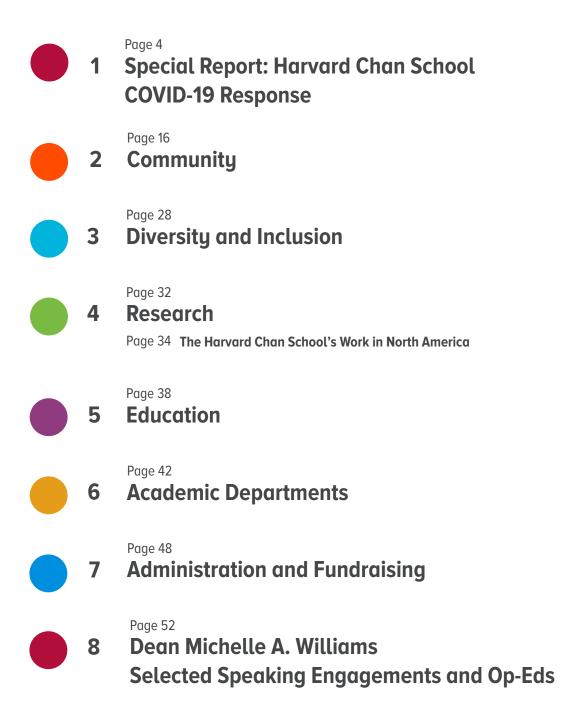
Michelle A. Williams, ScD Dean of the Faculty





HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

Dean's End-of-Year Report 2019–2020



DEAR MEMBERS OF THE HARVARD CHAN SCHOOL COMMUNITY,

The 2019–2020 academic year will undoubtedly be remembered as one of unprecedented challenges. As so many in the public health community have long feared, the world is engulfed in the worst public health crisis in a century—one that is claiming hundreds of thousands of lives and will forever alter our way of life. At the same time, we find ourselves in the throes of a long-overdue reckoning with the structural racism and discrimination that persist in every aspect of our daily lives— and nowhere more tangibly than in the realm of public health.

These past months have been nothing short of an awakening to the conditions that imperil health around the world. And together, we are meeting this extraordinary moment in ways that are a testament to the resilience and compassion of our School community. Harvard Chan faculty, researchers, alumni, and students are mining data to develop strategies to combat the novel coronavirus and other infectious diseases. Others are part of our frontline health care workforce, putting themselves in harm's way—day in and day out—to save lives. And countless more are part of the swelling movement crying out for an antiracist transformation of our society.

A commitment to equality, justice, and inclusion is a core tenet of public health. These are also the values that guide our School and the vast range of work underway across our nine academic departments and multiple research centers. The following report reflects our ongoing commitment to those values and our remarkable progress to create a healthier, more just world for all people. It is my honor to serve as your Dean and to continue that critical work alongside you.

Williams

Michelle A. Williams, ScD Dean of the Faculty, Harvard T.H. Chan School of Public Health Angelopoulos Professor in Public Health and International Development, Harvard T.H. Chan School of Public Health and Harvard Kennedy School



"By now, most of you have heard me say that public health is everywhere and nowhere. What I mean is that the work we do is critical—and yet so often invisible outside our own field. We all take the cleanliness of our water for granted until there's a contamination crisis. We don't give food supply chains much thought until the grocery store shelves are bare. We commute on the T without thinking about what pathogens might be along for the ride.

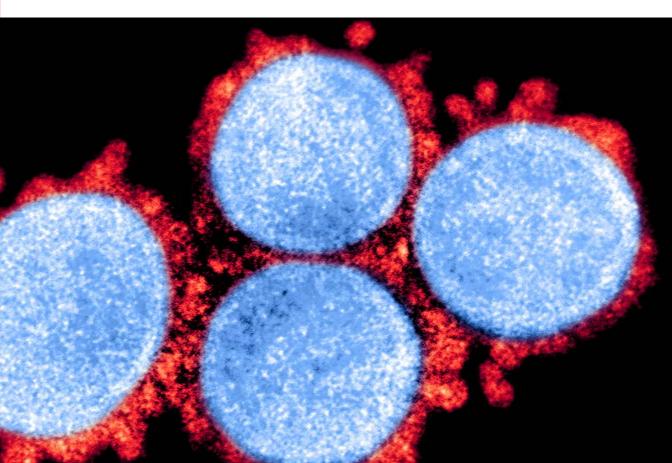
Well, no longer.

Today, public health is everywhere. It's top of mind for nearly every person in nearly every country."

—Excerpt from Dean Michelle A. Williams' Graduation Speech, Harvard T.H. Chan School of Public Health, May 28, 2020

Section 1: Special Report: Harvard Chan School COVID-19 Response

From the very beginning of the coronavirus pandemic, Harvard T.H. Chan School of Public Health faculty, staff, researchers, and students mounted a robust response, conducting vital epidemiological and basic science research, providing evidence-based information to policymakers and the public, and joining the public health workforce, among other activities designed to help the country and the world face the pandemic with facts and compassion. The following pages describe several aspects of the School's response to the COVID-19 crisis.



HARVARD CHAN EXPERTS SPEAK OUT: SELECTED HIGHLIGHTS FROM FACULTY OP-EDS





"Imagine you are in a small boat far, far from shore. A surprise storm capsizes the boat and tosses you into the sea. You try to tame your panic, somehow find the boat's flimsy but still floating life raft, and struggle into it. You catch your breath, look around, and try to think what to do next. Thinking clearly is hard to do after a near-drowning experience."

—Marc Lipsitch (top) and Yonatan Grad, "Navigating the COVID-19 pandemic: We're just clambering into a life raft. Dry land is far away," Stat News First Opinion, April 1

COVID-19 OP-EDS AND MEDIA HITS

The School's researchers have been among the most quoted experts on the outbreak of the novel coronavirus pandemic, becoming trusted voices on topics such as the projected course of the virus and guidelines for minimizing the risk of contracting it. Harvard Chan faculty members have spoken to hundreds of media outlets around the world, including through daily press conferences organized by the School's Office of Communications. Faculty members have also authored op-eds, participated in virtual public panel discussions, and built up large Twitter followings.

OP-EDS 99 MEDIA HITS 20,480 PRESS CONFERENCES **61**

COVID-19–RELATED RESEARCH

Harvard Chan faculty members sprang into action from the first days of the COVID-19 pandemic, conducting research in a range of areas, from epidemiology to infectious-disease biology to physical and mental health ramifications. They have also raised awareness around issues including a link between air pollution and COVID-19 deaths, the spread of misinformation, and protection of vulnerable populations.

A study by co-senior authors Yonatan Grad, Melvin J. and Geraldine L. Glimcher Assistant Professor of Immunology and Infectious Diseases, and Marc Lipsitch, professor of epidemiology and director of Harvard Chan's Center for Communicable Disease Dynamics (CCDD), found that intermittent social distancing for many months may be necessary to keep numbers of critically ill patients at a manageable level. Another CCDD study, released in April, projected transmission dynamics through the postpandemic period. A third study, led by researchers in the Departments of Environmental Health and Social and Behavioral Sciences, released in May, found that workplace transmission of the coronavirus that causes COVID-19 likely played a substantial role in the local spread of the disease during the early stages of the outbreak in six Asian countries.

Caroline Buckee, associate professor of epidemiology and CCDD associate director, and Satchit Balsari, assistant professor in the Department of Global Health and Population, are co-leading the COVID-19 Mobility Data Network, a team of infectious-disease epidemiologists located at universities around the world who are working in partnership with tech companies, including Facebook, to use aggregated mobility data in support of the COVID-19 response.

Selected COVID-19 Studies and Analyses

Scientists from Harvard, China to unite against coronavirus

Harvard Chan School faculty: Thomas Tsai, Assistant Professor in the Department of Health Policy and Management; Ashish Jha, K.T. Li Professor of Global Health and Director, Harvard Global Health Institute

Intermittent social distancing may be needed through 2022 to manage COVID-19

Harvard Chan School faculty: Yonatan Grad, Melvin J. and Geraldine L. Glimcher Assistant Professor of Immunology and Infectious Diseases; Marc Lipsitch, Professor of Epidemiology and Director, Center for Communicable Disease Dynamics

Air pollution linked with higher COVID-19 death rates

Harvard Chan School faculty: Francesca Dominici, Clarence James Gamble Professor of Biostatistics, Population, and Data Science and Co-Director, Harvard Data Science Initiative

COVID-19 transmission among workers considerable during early outbreaks

Harvard Chan School faculty: Stefanos Kales, Professor in the Department of Environmental Health

New study sheds light on the spread and control of COVID-19 in Wuhan, China

Harvard Chan School faculty: Xihong Lin, Professor of Biostatistics

New symptom tracker launched to fight COVID-19

Harvard Chan School faculty: Andrew Chan, Professor in the Department of Immunology and Infectious Diseases

Analysis: More than half of U.S. states aren't doing enough COVID-19 testing

Harvard Chan School faculty: Ashish Jha, K.T. Li Professor of Global Health and Director, Harvard Global Health Institute

COVID-19 and Health Inequities Study

Harvard Chan School faculty: Nancy Krieger, Professor of Social Epidemiology

HARVARD CHAN EXPERTS SPEAK OUT: SELECTED HIGHLIGHTS FROM FACULTY OP-EDS





"It is clear the battle against COVID-19 will look vastly different in the heartland than in our cities. The U.S. Navy won't be docking a floating hospital in Nuckolls County, Neb. But if what's happened in America's coastal cities can teach us anything, it's that the coming weeks will determine the trajectory of this virus. And we don't have a moment to waste."

—Michelle A. Williams, Bizu Gelaye, and Emily M. Broad Leib, "The COVID-19 crisis is going to get much worse when it hits rural areas," Washington Post op-ed, April 6

HARVARD CHAN EXPERTS SPEAK OUT: SELECTED HIGHLIGHTS FROM FACULTY OP-EDS



"We are moved when a disease is cured but not when that disease is prevented—because it's a plotline where nothing happens. We know when public health is successful from statistics, not from personal stories—and whether in newspapers or on social media, statistics do not make an emotionally compelling argument." —Michelle A. Williams, Boston Globe, March 3, 2020

Novel study reveals an unequal surge in COVID-19 mortality rates in Massachusetts by poverty level, race, and crowded housing Harvard Chan School faculty: Nancy Krieger, Professor of Social Epidemiology

Tracking COVID-19 with cell phone data while safeguarding privacy

Harvard Chan School faculty: Caroline Buckee, Associate Professor of Epidemiology and Associate Director, Center for Communicable Disease Dynamics

More ICU capacity still needed in U.S. for COVID-19 patients

Harvard Chan School faculty: Marc Lipsitch, Professor of Epidemiology and Director, Center for Communicable Disease Dynamics

How to better understand the reach of COVID-19 in India

Harvard Chan School faculty: S V Subramanian, Professor of Population Health and Geography

Impact of the COVID-19 Pandemic on Agriculture and Food Security in India Harvard Chan School faculty: Lindsay Jaacks, Assistant Professor of Global Health

HARVARD CHAN EXPERTS SPEAK OUT: SELECTED HIGHLIGHTS FROM FACULTY OP-EDS



"Cities will remain a destination for families wanting a better future, young people looking to start a new life, and migrants fleeing terror. Cities' density underlies their wonder—the people, the bustle, the democratic impulse born from the mixing of cultures and identities. They're also healthy places to live. Don't give up on them."

—Mary T. Bassett, "Just Because You Can Afford to Leave the City Doesn't Mean You Should," New York Times op-ed, May 15

Apps and Surveys

Harvard Chan School researchers and colleagues have developed a variety of online surveys and smartphone apps to learn more about the coronavirus—who has it, what symptoms they have, where the disease hot spots are, whether the disease is affecting particular groups more than others, and whether social distancing measures are working. A sampling of their work:



COVID Symptom Tracker

WHAT IT IS: Free app with daily short survey

WHAT IT DOES: Helps track the onset and progression of COVID-19 symptoms of millions across the U.S., with the goal of shedding light on the nature of the disease, identifying those at risk sooner, pinpointing virus hot spots, and helping slow the spread of disease

COLLABORATORS: Harvard T.H. Chan School of Public Health, Massachusetts General Hospital, King's College London, and Stanford University School of Medicine, in collaboration with the health science company ZOE

HARVARD CHAN SCHOOL RESEARCHERS INVOLVED: Andrew Chan, professor in the Department of Immunology and Infectious Diseases

HowWeFeel

WHAT IT IS: Free app with daily short survey

WHAT IT DOES: Pinpoints COVID-19 hot spots, predicts areas that could soon see spikes in COVID-19 cases, sheds light on pertinent risk factors and demographic information, and allows health agencies to better respond to the pandemic

COLLABORATORS: Harvard T.H. Chan School of Public Health, Harvard University, Massachusetts Institute of Technology, Broad Institute of MIT and Harvard, Weizmann Institute of Science, University of Pennsylvania, Stanford University, University of Maryland School of Medicine, Howard Hughes Medical Institute, Weill Cornell Medicine, and Pinterest

HARVARD CHAN SCHOOL RESEARCHERS INVOLVED: Xihong Lin, Professor of Biostatistics; Jukka-Pekka "JP" Onnela, Associate Professor of Biostatistics; Christine Tedijanto, Student, PhD Program in Population Health Sciences; Yonatan Grad, Melvin J. and Geraldine L. Glimcher Assistant Professor of Immunology and Infectious Diseases

HARVARD CHAN EXPERTS SPEAK OUT: SELECTED HIGHLIGHTS FROM FACULTY OP-EDS



"The sad reality is that Black people cannot count on the police to always protect them or the government to keep them safe from COVID-19. So, Black people must protect themselves."

—Sara Bleich, "Protest, demand change—but, please, put on your mask," The Hill op-ed, June 4



HARVARD CHAN EXPERTS SPEAK OUT: SELECTED HIGHLIGHTS FROM FACULTY OP-EDS



"We have a preemptive opportunity to save lives through the actions we take right now that we will not have in a few weeks. It is a public health imperative. It is also our responsibility as a community to act while we still have a choice and while our actions can have the greatest impact. -Asaf Bitton, "Social Distancing: This Is Not a Snow Day," Medium post, March 13

COVID-19 Symptoms & Social Distancing Web Survey

WHAT IT IS: Web survey

WHAT IT DOES: Gathers information on the prevalence of COVID-19 symptoms and social distancing behavior from the general U.S. population

COLLABORATORS: Program on the Global Demography of Aging, Harvard Chan School; and Global Development Policy Center, Boston University

HARVARD CHAN SCHOOL RESEARCHERS INVOLVED: David E. Bloom, Clarence James Gamble Professor of Economics and Demography; David Canning, Richard Saltonstall Professor of Population Sciences and Professor of Economics and International Health; Rashmi Dayalu, Research Manager

Global COVID-19 Survey

WHAT IT IS: Web survey

WHAT IT DOES: Analyzes sociobehavioral aspects of outbreak control, such as social distancing measures, to help inform national, regional, and global health communication strategies and response efforts

COLLABORATORS: Harvard Humanitarian Initiative (HHI), Brigham and Women's Hospital

HARVARD CHAN SCHOOL RESEARCHERS INVOLVED: Phuong Pham, Director of Evaluation and Implementation Science, HHI; Patrick Vinck, Research Director, HHI (both are assistant professors in the Department of Global Health and Population)

COVID-19 Signs and Symptoms Surveillance System–Behaviors and Inequities

WHAT IT IS: Short web survey in English, Spanish, and other languages

WHAT IT DOES: Identifies hot spots of signs and symptoms, vulnerable populations (including minority groups such as Hispanics/Latinos), and behavioral and psychosocial factors influenced during the pandemic

COLLABORATORS: Harvard Chan School; Puerto Rico Public Health Trust; Ponce Health Sciences University, Puerto Rico

HARVARD CHAN SCHOOL RESEARCHERS INVOLVED: Josiemer Mattei, Donald and Sue Pritzker Associate Professor of Nutrition; Sebastien Haneuse, Associate Professor of Biostatistics

Health and Wellbeing of Pregnant and Post-Partum Women During the COVID-19 Pandemic

WHAT IT IS: Web survey

WHAT IT DOES: Assesses well-being and mental health of pregnant and postpartum women during COVID-19

COLLABORATORS: Harvard Chan School; Pregistry

HARVARD CHAN SCHOOL RESEARCHERS INVOLVED: Karestan Koenen, Professor of Psychiatric Epidemiology; Sonia Hernández-Díaz, Professor of Epidemiology



TEACHING AND LEARNING ADJUSTMENTS

Beginning in early March, the Harvard Chan School faculty converted 127 Spring 1 and Spring 2 courses to remote instruction in less than two weeks, following the University's guidelines that all faculty, students, academic appointees, and staff vacate the campus immediately after spring break. Harvard Chan faculty members worked remotely with the School's Information Technology department—particularly the Media and Educational Technology Services team— as well as with student teaching assistants and program and department staff, to execute the transition. With students and their teachers located in cities and towns across the U.S. and in many other countries, one issue the School had to address was managing classes across various time zones. Lessons learned from the "emergency" conversion to remote teaching and learning were important, as the School announced that fall courses would be held online.

HARVARD CHAN EXPERTS SPEAK OUT: SELECTED HIGHLIGHTS FROM FACULTY OP-EDS



"The most fundamental function of a government is to keep its people safe. It is from this that it derives its authority, the confidence of the people and its legitimacy. Nobody should be under the illusion that this is something that can be dodged through somehow manipulating a virus that we are only beginning to understand. This will not pass you by; this is not a tornado, it is a hurricane."

—William Hanage, "I'm an epidemiologist. When I heard about Britain's 'herd immunity' coronavirus plan, I thought it was satire," The Guardian opinion, March 15

STUDENT COVID-19 RESPONSE

Hundreds of Harvard Chan students volunteered to assist with reaching out to people who may have come into contact with a person infected with the coronavirus. The students worked with both Harvard University Health Services and the Academic Health Department Consortium, a collaboration among 10 Massachusetts schools and universities and the Massachusetts Department of Public Health. In addition, students created Students Against COVID-19, designed to empower young people with information to tackle COVID-19 and to support communities, and Transcending COVID-19, a comprehensive visual guide for trans people during the pandemic.

COVID-19 WEBCASTS

When Public Health Means Business

In June, the Harvard Chan School and the New England Journal of Medicine came together to present "When Public Health Means Business," a multipart series hosted by The Forum at Harvard T.H. Chan School of Public Health. The series virtually convened luminaries from the realms of finance, industry, and health to map a new path forward through COVID-19 and determine how public health and business can forge ahead together to clear the runway for America's economy and society to thrive.

COVID-19 Mental Health Forum Series

In March, the School launched the COVID-19 Mental Health Forums, a weekly web series that introduces evidence-based skills to managing stress related to the COVID-19 pandemic and techniques for adapting and enhancing resilience. Each week, Karestan Koenen, professor of psychiatric epidemiology, and colleagues host experts in the fields of clinical psychology and trauma epidemiology research to address important emotional, psychological, and physical health issues related to daily life during a pandemic. These forums are open to the public and include a discussion and Q&A with attendees.

The Forum Facebook Live Q&As

A few days before the World Health Organization declared the coronavirus outbreak a pandemic, The Forum at Harvard T.H. Chan School of Public Health produced a full panel discussion focused on tracking COVID-19 with The World, a daily global public radio news program, and WGBH, Boston's local public television station, helping to fill an important early need for trusted, evidence-based information. The Forum then quickly pivoted to producing virtual COVID-19 content. The team worked with The World to produce frequent Facebook Live Q&As about the pandemic, covering aspects ranging from vaccine development, disproportionate impacts on vulnerable communities, and mental health and resiliency to antibody testing and safely reopening societies. These events, along with other programming content on the pandemic, have resulted in more than 4.2 million views and engagements globally as of June 2020.

COVID-19 Outbreak: On the Frontlines

This webinar series, co-hosted by the School's India Research Center, features subject experts and leading public health practitioners providing insight into the spread and control of the coronavirus, its impact on the health and well-being of communities, and India's policy and health-systems response to mitigate the crisis.



Voices in Leadership

During the COVID-19 pandemic, the School modified its Voices in Leadership series to create a special focus on leadership in crisis. Guest speakers have included Subramaniam Sathasivam, former minister of health of Malaysia; Stephanie Ferguson, facilitator for the World Health Organization and the International Council of Nurses; and Leana S. Wen, former president/CEO of Planned Parenthood Federation of America.



PARTNERSHIP

In March, the School joined with Thrive Global, a behavior-change technology company founded by Arianna Huffington, and the CAA Foundation, the philanthropic arm of entertainment and sports firm Creative Artists Agency, to launch #FirstRespondersFirst, an initiative to provide first-responder workers with physical and psychological resources as they serve on the front lines of the pandemic. #FirstRespondersFirst takes a whole human approach to supporting firstresponder health care workers, providing essential protective supplies and equipment in addition to online workshops, virtual training, coaching, and content aimed at helping improve their physical and mental well-being.



"There's a lot of uncertainty as you prepare to embark on your careers. But one thing is clear: As the leaders of this field, you have the potential to help the world find our way out of this pandemic. You will help us chart a path toward a healthier, more prosperous, more equitable world."

-Commencement Speaker Muhammad Ali Pate



"At this time of crisis, we realize that no matter how privileged we are or where we come from, we are exposed to the same risks that, only through helping each other, we will survive."

-Student Speaker Nadhira Nuraini Afifa



"You remained flexible, creative, and used your talents in the global efforts during this pandemic. You demonstrated the knowledge and skills that will serve you well in the evolving field of public health. The world is looking to you for the solutions, as we all face 'the new normal' together."

—Harvard Chan School Alumni Association President Carmon Davis



"Everything you've studied during your time here has made you capable public health leaders—but it's the way you've stepped up in the face of this crisis that will make you an exceptional class."

—Dean Michelle A. Williams



GRADUATION 2020

Because students, faculty, and staff were scattered across the country and the globe as a result of the COVID-19 pandemic, the School held its first-ever virtual graduation ceremony on May 28. The celebration acknowledged the accomplishments of 571 graduates; degrees granted included doctor of philosophy (37), doctor of public health (17), doctor of science (22), master in health care management (25), master of public health (351), and master of science (119). Dean Michelle A. Williams-in academic regalia, speaking from her home-acknowledged the students' impressive response to the pandemic, noting that in addition to abruptly moving off campus, finishing their degrees in isolation, and defending their dissertations remotely, the students went from pupils to practitioners "literally overnight." In addition to Williams, speakers at the ceremony included student speaker Nadhira Nuraini Afifa, MPH '20; commencement speaker Muhammad Ali Pate, global director of the Health, Nutrition and Population Global Practice at the World Bank, director of the Global Financing Facility for Women, Children, and Adolescents, and Julio Frenk Professor of the Practice of Public Health Leadership in the School's Department of Global Health and Population; and Carmon Davis, MPH '94, president of the Harvard T.H. Chan School of Public Health Alumni Association. Robin Glover, associate dean for student services, hosted the event.

PEAK LIVESTREAM VIEWS:

TOTAL MEDIA VIEWS (GRADUATION CEREMONY AND DEPARTMENT CHAIR VIDEOS):

SOCIAL MEDIA IMPRESSIONS:

67,144

601,684

2,215

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Section 2: Community

Community is the cornerstone of the Harvard T.H. Chan School of Public Health. Our own sense of community binds us together in a shared mission to improve the lives of others, in communities near and far. Harvard Chan School teachers and learners, staff and administrators, researchers, alumni, and volunteers are dedicated to seeking solutions to the world's most complex and challenging public health problems and communicating evidence-based findings to policymakers and the public. Nurturing and maintaining this sense of community throughout all facets of the School are among our most profound responsibilities.

To ensure that a full range of evidence-based communications reach the public, policymakers, and the wider Harvard Chan community, Todd Datz was named the School's chief communications officer in June 2020. Formerly the managing director for media relations and public affairs, Datz has been at the School for 14 years. He leads a communications team that oversees a robust news operation, media relations, social media, multimedia, Harvard Public Health magazine, marketing, a variety of internal and external newsletters, the School's website, and crisis communications.

Selected highlights from across the Harvard Chan community from the 2019–2020 academic year appear in the following pages. "Since the COVID-19 outbreak began, the Communications team has made extraordinary efforts to communicate timely, scientifically valid information to the public, fielding thousands of media requests, hosting a daily virtual press conference for reporters, and generating hundreds of news articles for the website and social media. *—Todd Datz, Chief Communications Officer*



EVENTS PROGRAMMING



From left: Dean Michelle A. Williams, Evelynn Hammonds, Linda Villarosa, and Mary Bassett at the 400 Years of Inequality event

Throughout the year, the Harvard Chan School produced a wide range of events focused on current issues of public health importance. Below are selected events that were open to the entire Harvard Chan community.

The Price of Free

On September 27, 2019, the School hosted a screening of The Price of Free, the award-winning documentary that follows Nobel Peace Laureate Kailash Satyarthi in his mission to end child labor, trafficking, and slavery in India. The screening was followed by a conversation with Satyarthi himself.

Opioids Summit

On October 10, the School hosted Stigma and Access to Treatment: The Harvard University and University of Michigan Summit on the Opioid Crisis. This event was the second half of a two-part summit on opioids that reflects the joint partnership between Harvard President Larry Bacow and University of Michigan President Mark Schlissel. This all-day conference in Boston brought together experts from the two host universities, additional academic institutions, law enforcement, and government, as well as individuals who had struggled with substance-use disorder. The first summit, Opioids: Policy to Practice, was held on May 10, 2019, in Ypsilanti, Michigan.

400 Years of Inequality

August 2019 marked 400 years since the first documented arrival of enslaved Africans on North American shores. On October 28, the School welcomed New York Times Magazine contributing writer Linda Villarosa—one of the contributors to the Times' 1619 Project on the history of slavery in the U.S.—and Evelynn Hammonds, chair of the Harvard University Department of the History



Jeffrey Sánchez, former Massachusetts state representative (left), speaks with Stephen Benjamin, mayor of Columbia, S.C., during a Voices in Leadership event.

SELECTED VOICES IN LEADERSHIP EVENTS 2019–2020

The School's Voices in Leadership series invites distinguished local, national, and international leaders to speak candidly about their experiences at the forefront of their area of expertise. A student interviews the guest during the second half of the program. The series is webcast live around the world and is available for future viewing.

Building a Better City: A Conversation with Mayor Steve Benjamin. Interviewer: Jeffrey Sánchez, former Massachusetts state representative

Leadership in Our Times: A Conversation with Ambassador Wendy R. Sherman. Interviewer: Meredith Rosenthal, C. Boyden Gray Professor of Health Economics and Policy

Medicine, Academia, and the Syrian Refugee Crisis: A Conversation with Dr. Fadlo Khuri. Interviewer: Howard Koh, Harvey V. Fineberg Professor of the Practice of Public Health Leadership

Improving the Public's Health: A Conversation about Leadership with Dr. Leana Wen. Interviewer: Leonard Marcus, lecturer on public health practice

Conversation with Subramaniam Sathasivam, Malaysian Minister of Health (2013–2018) and Minister of Human Resources of Malaysia (2008–2013). Interviewer: Rifat Atun, professor of global health systems

SELECTED FORUM EVENTS 2019–2020

The Forum at Harvard T.H. Chan School of Public Health is a live webcasting series that provides decision makers with a global platform to discuss policy choices and scientific controversies, allowing participants to leverage their collective knowledge.

The Coronavirus Outbreak: Tracking COVID-19. Featuring Anthony Fauci, director, National Institute of Allergy and Infectious Diseases

The Vaping Debate and Health: Evidence and Unknowns. Featuring Karen Hacker, director, National Center for Chronic Disease Prevention and Health Promotion, CDC

Curbing Gun Violence: Strategies for Change. Featuring Mike McLively, senior staff attorney and director, Urban Gun Violence Initiative, Giffords Law Center to Prevent Gun Violence; Chana Sacks, internist, Massachusetts General Hospital, instructor in medicine, Harvard Medical School, and co-founder, Mass General Gun Violence Prevention Coalition; and Ted Strickland, 68th Governor of Ohio

Life Experiences and Income Inequality in the U.S. Featuring Katherine Newman, interim chancellor, University of Massachusetts–Boston; and Ben Spoer, manager of metrics and analytics, City Health Dashboard Project

Drug-Resistant Infections: Confronting an Escalating Crisis. Featuring Helen Boucher, director, Tufts Center for Integrated Management of Antimicrobial Resistance and professor of medicine, Tufts Medical Center; Lauri Hicks, director, Office of Antibiotic Stewardship, Centers for Disease Control and Prevention; and Kevin Outterson, executive director, CARB-X (Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator) and professor of law, Boston University of Science, Barbara Gutmann Rosenkrantz Professor of the History of Science, professor of African and African American Studies, and former dean of Harvard College, for a roundtable discussion on the 400-year anniversary of U.S. slavery. This event was part of a broader movement across schools of public health to observe 400 Years of Inequality, acknowledging the systemic and persistent inequalities and injustices perpetuated by the slave trade in the United States.

Africa's Integration Agenda: Need for a New Public Health Order

On March 5, the School welcomed John Nkengasong, director of the Africa Centers for Disease Control and Prevention, for the inaugural Joseph S. Agyepong Distinguished Lecture on Public Health in Africa. The event was co-hosted with the Harvard Center for African Studies.

COVID-19: Where Do We Go from Here?

On April 21, the School presented a virtual symposium jointly sponsored with the New England Journal of Medicine, featuring Assistant Professor Caroline Buckee, Professor Arnold Epstein, Professor Eric Rubin, Former Dean Harvey Fineberg, and CBS News Chief Medical Correspondent Jonathan LaPook.



STUDENTS

The Office for Student Affairs works to enrich and support the student experience at the School through a wide range of educational, cultural, and social programming and resources, as well as wellness programs and financial and emotional support.

Student Organizations

This year, Harvard Chan's 33 recognized student organizations held more than 100 events. Below are some highlights.

CultureFest

Members of the Harvard Chan community and their families and friends gathered in Kresge Cafeteria on October 10, 2019, to celebrate CultureFest, an annual event organized by the Office for Student Affairs. Now in its fourth year, CultureFest celebrates the diversity of the School community with snacks, music, activities, and more. Participating student organizations included the Africa Health Student Forum, Native American Student Organization, Student Club of Japan, ASEAN Student Organization, Harvard Chan Student Organization for the Arts in Public Health, South Asia Students Association, Brazilian Student Association, and Chinese Students and Scholars Association.



Students at the 2020 Winter Ball

Harvard Chan Hikers Club Excursion

In October, the Harvard Chan Hikers Club organized a weekend outing to Mount Cardigan, in western New Hampshire. Thirty-two students and friends spent two nights either camping at a group campsite or sleeping comfortably in bunks at the Appalachian Mountain Club's Cardigan Lodge. Participants took advantage of the many activities in the area, including a variety of hikes and the annual posthike "polar plunge." Hiker experience levels ranged from beginner to advanced. Two full days of activities culminated in a bonfire with music at the group campsite, board games in the lodge, and homework in the dining hall. The trip was a huge success, with participants providing extremely positive feedback about both the Hikers Club leadership and the wonderful staff who cooked and supported the group at Cardigan Lodge.

Harvard Chan Winter Ball

Winter Ball is one of the Office for Student Affairs' signature events and is a highlight of the year for many students. The event was held in January at the Sheraton Commander Hotel in Cambridge, with more than 350 students attending. The Office for Student Affairs makes reasonable efforts to keep ticket prices for Winter Ball low, but recognizes that for some, any cost may cause financial hardship. To ensure the Winter Ball experience is available to all students, regardless of their financial circumstances, the Office created a faculty and staff gift fund to provide no-cost tickets to students who would otherwise be unable to attend. In 2020, in only its second year, the fund raised more than \$4,000 in gifts from the generous Harvard Chan community, enabling 115 students to attend at no cost.

Paint Night

In February, the Harvard T.H. Chan Student Association and the Harvard Chan Student Organization for the Arts in Public Health collaborated on Paint Night to offer students a mental health break from studying to enjoy a night of guided painting. At this free event, an instructor taught some 30 students to paint a colorful Boston skyline, step by step. The student organizations provided canvases, paints, and all other arts supplies, along with cookies, brownies, and hot chocolate to fuel creativity as students painted.



Chan Student Talks

In early March, the Harvard T.H. Chan Student Association and the Office for Student Affairs presented Chan Student Talks, an event designed to promote peer learning, sharing, and fun. Roughly 70 students gathered in Kresge Cafeteria over food and refreshments to listen to a dozen students share short pieces reflecting their personal journeys.

Student Support

The Office for Student Affairs provides several means of ensuring the well-being of individual students and the broader student body. Below are selected areas in which the office supported students in the 2019–2020 academic year.

Student Emergency Fund

The School has seen a growth in the need for discretionary funding to support students. To address these needs, in fall 2019 the School established the Student Emergency Fund to provide temporary, short-term financial assistance to students in degree programs who are managing demanding academic requirements while struggling with unanticipated or emergency financial situations. Unlike with a loan, students are not expected to repay awards from the Student Emergency Fund, which is managed by the Office for Student Affairs.

Care Team

The Care Team was established in 2018 to support the School's mission to foster an environment in which students are able to thrive in their pursuit of advancing the public's health. The Care Teamcomposed of administrators touching different facets of the student experience and working together to facilitate access to support services and University resources—works holistically to support students encountering challenges that affect their ability to effectively engage in their program of study. The team meets regularly throughout the year to collaboratively and thoughtfully consider each student case, systematically identifying and assessing them and recommending courses of action to provide a pathway to academic success. This work in turn informs revisions to policies and protocols. During the 2019-2020 academic year, the Care Team monitored and supported students, some for the short term and others for the entire academic year. In addition, the Care Team reviewed applications to the Student Emergency Fund on an as-needed basis, which became especially important during the spring semester because of the disruptions caused by the COVID-19 pandemic. Examples of Care Team interventions included working closely with a student experiencing food and housing insecurity and mental health distress that affected their academics and overall well-being, and supporting a student who needed extra help to complete all of their academic and practicum requirements during a time in which their partner faced a health crisis.

Shattuck International House

Resident Community Advisers continued to play an essential role in cultivating the supportive and engaged community that makes Shattuck International House feel like home for residents. In addition to planning annual social events such as the Welcome BBQ, Lunar New Year Celebration, and potlucks, these advisers developed new programming opportunities focused on student well-being. During Fall 2 semester finals, they piloted Shattuck's first Wellness Week, a curated schedule of events to help support students through the week of exams. Programming included study breaks and stress-relief activities, fortified with plenty of coffee and tea. During the spring semester, the advisers organized a community discussion on racial bias faced by Asian and Asian American individuals in response to the COVID-19 pandemic. This collaboration with the Harvard University Police Department and Harvard University Health Services' Counseling and Mental Health Services provided Shattuck residents an opportunity for open discussion, peer support, and practical tips for safety and self-care.

Graduate Student Learning Support

The Office for Student Affairs works to holistically support students who are experiencing difficulties and to ensure the general well-being of the student body. Students who have been successful in the past may find themselves unable to handle some of the particular academic demands of graduate school. The Graduate Student Learning Support program is designed to assist students who are struggling with academic and learning issues and for whom content-based tutoring has been ineffective. These issues may include difficulty in absorbing new material, completing academic work, or understanding reading materials; anxiety about quantitative skills, writing, or test taking; and reluctance to speak in class. Through strategic intervention, Graduate Student Learning Support helps students overcome academic hurdles before they become insurmountable. Individuals who benefited from the support during the past year include incoming students who were overwhelmed by unfamiliar courses such as biostatistics; students with learning disabilities such as attention deficit/hyperactivity disorder and mental health diagnoses; those struggling with time management and study skills; and those who had personal challenges such as family issues and COVID-19.



Professional Development Support Fund for Students

In fall 2019, the Office for Student Services was pleased to announce a new pilot fund, the Professional Development Support Fund. Harvard Chan students are eager to take advantage of opportunities to participate in cocurricular and academic experiences, such as attending or presenting at professional conferences or development seminars and organizing their own events, such as seminars, panels, and symposiums. The goal of the fund is to reduce individual students' costs to participate in or organize activities that contribute to their professional development. The fund also aims to ensure equity and to centralize and streamline the process for students though a single funding source administered by the Office for Student Services. Of the 27 student applications for support received through March 2020, 12 were approved and a total of \$4,272 in support was awarded.

Wellness Programs

The Office for Student Affairs develops and collaborates on programming to promote students' success and well-being. We consider the graduate student life cycle and current needs to determine the topics and timeline for these programs. During exams, we offer a stress-free-finals set of programs that includes daily coffee breaks, learning support drop-in hours, coloring and games in the Kresge Atrium, Countway Cuddles (time with therapy dogs), and reminders in Student News. Wellness programs offered in the 2019–2020 academic year included the following:

Time Management 101, October 2019

Description: Having difficulty keeping up with classes and outside responsibilities? Come learn some tips and tricks on strategically managing your time through an interactive workshop led by the Graduate Student Learning Support Specialist, Ginny Zanger, EdD, and panel of students.

Overcoming Imposter Syndrome, October 2019

Description: Do you ever feel like a fraud? Like you don't belong at Harvard? Are you sure that the admissions or search committee made a mistake? You're not alone! Learn to cope with these thoughts at Overcoming Imposter Syndrome: A Conversation with Dr. Monik Jiménez. Imposter syndrome can make it hard for you to believe in your own success, convincing you that you're a fraud that 'got lucky.' Feelings like this are incredibly common at all stages. This workshop will show you ways to combat these imposter thoughts and help you become more confident in your placement here at Harvard.

Creativity, Connection & Health: Exploring Loneliness at Harvard Chan, November 2019 Description: You are invited to join us as we screen powerful short films that explore loneliness and isolation, then engage in a discussion with Dr. Jeremy Nobel, Founder of The Foundation of Art and Healing; Matthew Lee, Director of Empirical Research, Human Flourishing Program; Murphy Brown, MPH-65; and Kelechi Okereke, MPH-65. Reception to follow.

Stress Less, Sleep More, February 2020

Description: This workshop focuses on stress and sleep, and the impact both have on our health and performance. You'll discover how to make lasting changes no matter what your life looks like or how busy you are. We'll discuss specific strategies including nutrition tips, technology usage hacks, breathing exercises, and more. With these simple but effective tools, you can get back to feeling like your best self.

Extinguishing Burnout (collaboration with Office of Career Advancement), March 2020

Description: Join presenters from the Office for Student Affairs and the Office for Career Advancement in this virtual workshop that will focus on distinguishing the difference between stress and burnout and ways to address it and stay motivated.

FACULTY



The 2019–2020 academic year brought two major faculty leadership changes. Eric Rubin, formerly the Irene Heinz Given Professor of Immunology and Infectious Diseases and chair of the Department of Immunology and Infectious Diseases, was named editor-in-chief of the New England Journal of Medicine and NEJM group. Sarah Fortune, the John LaPorte Given Professor of Immunology and Infectious Diseases, replaced Rubin as chair of the department.

Jane Kim, professor of health decision science in the Department of Health Policy and Management, was named Dean for Academic Affairs. She holds master of science and PhD degrees from the Harvard Chan School.

Appointments and Promotions

This past academic year, we were delighted to welcome the following new primary faculty members to the School:

- Andrew Beam, Assistant Professor of Epidemiology, Department of Epidemiology
- Douglas G. Brownfield, Mark and Catherine Winkler Assistant Professor of Cell and Developmental Biology, Department of Environmental Health
- Erin Driver-Linn, PhD '01, Lecturer on Social and Behavioral Sciences, Department of Social and Behavioral Sciences
- Jose Figueroa, MD '11, Assistant Professor of Health Policy and Management, Department of Health Policy and Management
- Smita Gopinath, Assistant Professor of Immunology and Infectious Diseases, Department of Immunology and Infectious Diseases
- Adam Haber, Assistant Professor of Computational Biology and Environmental Health, Department of Environmental Health
- Sheng (Tony) Hui, Assistant Professor of Molecular Metabolism, Department of Molecular Metabolism

- Kyu Ha Lee, Assistant Professor of Integrative Genomic Epidemiology, Department of Nutrition
- Ellen Meara, PhD '99, Professor of Health Economics and Policy, Department of Health Policy and Management
- Michael J. Mina, Assistant Professor of Epidemiology, Department of Epidemiology
- Rachel C. Nethery, Assistant Professor of Biostatistics, Department of Biostatistics
- Muhammad Ali Pate, Julio Frenk Professor of the Practice of Public Health Leadership, Department of Global Health and Population
- Shoba Ramanadhan, SD '08, Assistant Professor of Social and Behavioral Sciences, Department of Social and Behavioral Sciences
- Briana Joy Kennedy Stephenson, Assistant Professor of Biostatistics, Department of Biostatistics

We were also pleased to appoint the following faculty member, who will join us in the next academic year:

• Rui Duan, Assistant Professor of Biostatistics, Department of Biostatistics



In addition, we celebrated these well-deserved promotions:

- Delia Wolf Christiani, Senior Lecturer on Health Policy and Management, Department of Health Policy and Management
- Margaret Kruk, Professor of Health Systems, Department of Global Health and Population
- Lorelei Mucci, SD '03, Professor of Epidemiology, Department of Epidemiology
- Laurie Pascal, MPH '95, Senior Lecturer on Health Management, Department of Health Policy and Management
- Richard Siegrist, MBA '82, Senior Lecturer on Health Care Management, Department of Health Policy and Management

RESEARCH SCIENTISTS

The Harvard Chan School boasts a wealth of exceptional research scientists dedicated to addressing some of the world's most intractable public health problems.

Appointments and Promotions

This past academic year, we were delighted to welcome the following research scientists to the School:

- Victor Barrera Burgos, Research Scientist, Department of Biostatistics
- Mesfin Bekalu, Research Scientist, Department of Social and Behavioral Sciences
- James Billingsley, PhD '06, Research Scientist, Department of Biostatistics
- Kjetil Bjornevik, Research Scientist, Department of Nutrition
- Jonathan Buonocore, SD '13, Research Scientist, Department of Environmental Health
- Ethan Cerami, Principal Research Scientist, Department of Biostatistics
- Michael Chao, PhD '11, Research Scientist, Department of Immunology and Infectious Diseases
- Eunyoung Chun, Research Scientist, Department of Immunology and Infectious Diseases
- Austin Frakt, Senior Research Scientist, Department of Health Policy and Management
- Elisa Ghelfi, Research Scientist, Department of Environmental Health

- Leigh Graham, Research Scientist, Department of Health Policy and Management
- Rachel Grashow, Research Scientist, Department of Environmental Health
- Zon Weng Lai, Research Scientist, Department of Molecular Metabolism
- Anne Lanjuin, Research Scientist, Department of Molecular Metabolism
- Jun Li, Research Scientist, Department of Nutrition
- Jennifer Mitchel, Research Scientist, Department of Environmental Health
- Ronald Panganiban, Research Scientist, Department of Environmental Health
- Julia Rohr, Research Scientist, Harvard Center for Population and Development Studies
- Linda Vesel, Research Scientist, Department of Health Policy and Management
- Dorota Weziak-Bialowolska, Research Scientist, Department of Environmental Health
- Jeremy Wilkinson, Research Scientist, Department of Biostatistics
- Julia Wei Wu, SD '13, Research Scientist, Department of Epidemiology

In addition, we celebrated these well-deserved promotions:

- Jane Burns, SD '05, Senior Research Scientist, Department of Environmental Health
- Nicole Campos, PhD '11, Senior Research Scientist, Department of Health Policy and Management
- Eric Franzosa, Senior Research Scientist, Department of Biostatistics
- Yohann Grondin, Senior Research Scientist, Department of Environmental Health
- John Hutchinson, Senior Research Scientist, Department of Biostatistics
- Mehmet Samur, Senior Research Scientist, Department of Biostatistics
- Svitlana Tyekucheva, Senior Research Scientist, Department of Biostatistics

LANDMARK TASK FORCE

The first meeting of the Landmark Task Force convened in June 2019. Over the past year, members of the task force—including faculty, staff, and administrators—have been collecting input, identifying priority areas, and developing recommendations for solutions regarding space and administrative programs at Landmark.

ALUMNI COMMUNITY

The community of more than 14,000 alumni embodies the School's commitment to public health and passion for solving big problems and lifting lives. Many alumni returned to campus at the beginning of the 2019–2020 academic year for the annual Alumni Weekend, held in Cambridge and on the School's Boston campus in October. The theme, Misinfodemics: How the Spread of False Science Harms the Public's Health, brought together more than 130 alumni, students, and friends of the School for two days of networking and learning.

Throughout the academic year, more than 1,000 Harvard Chan School graduates attended alumni-focused events, including regional events hosted by the Alumni Association and a Career Boot Camp in Washington, D.C., designed to help alumni working in midlevel public health careers think about their broader vision for their professional future. The Harvard Chan School alumni chapter of Washington, D.C., elected new officers, and the Alumni Council president initiated two new volunteer-led committees, with the goals of strengthening alumni connections with one another and with the School and highlighting the work of alumni in every field of public health. The Alumni Association also created a new alumni volunteer opportunity—Global Connectors—to increase alumni engagement in smaller regions around the globe and launched a new virtual book club in May 2020.

VOLUNTEER ENGAGEMENT

The School continues to be grateful for the leadership and dedication of its volunteers, who have demonstrated steadfast commitment and admirable flexibility in their service as advisers. They quickly adopted remote technologies and continued to provide insight and strategic counsel to faculty and administrative leaders before and during the COVID-19 pandemic. Across the School, nearly 300 volunteers serve as ambassadors, advocates, donors, and partners.

While every volunteer plays an important role, the individuals who lead the respective committees and board are particularly critical partners for the School's academic leaders and the Office for External Relations, with responsibilities that include representing the vision and purpose of volunteerism for the School, planning and agenda development for meetings, ensuring strong participation and engagement, and advising on recruitment and onboarding of new members. Several Harvard Chan School volunteer committees have welcomed new chairs this year. Matthew McLennan and Lisa Schwartz, who served as inaugural co-chairs for the Board of Dean's Advisors, will be succeeded by Srivanas Sastry, MD, MPH '90, in July 2020. Jeannine Rivet, who had served as chair of the Health Policy and Management Executive Council since 2007, was succeeded by Benjamin Edmands in fall 2019. Stacey Bell had served as Nutrition Round Table chair since 2017 and was succeeded by Fred Foulkes in fall 2019.

The School's more than 200 alumni volunteers are among it's most dedicated and loyal friends. This year, the Alumni Giving Committee, chaired by Paula Ivey Henry, SM '95, and Nick Generous, MPH '17, took the lead in the planning and execution of the School's inaugural Giving Day, held on March 4, 2020. Together with the Alumni Council and other alumni donors, the 13-person Alumni Giving Committee helped secure partners for an Alumni Giving Challenge, which offered a funding match based on alumni participation on Giving Day. As a result of this effort, the School received gifts from a number of alumni who had not previously given or who reengaged in their giving, and from an impressive number of faculty, staff, and friends.

Section 3: Diversity and Inclusion

The School was delighted to welcome Amarildo "Lilu" Barbosa, who assumed the position of chief diversity, inclusion, and belonging officer on June 1, 2020. Barbosa holds a master of education degree in higher education and student affairs administration from the University of Vermont and is a PhD candidate in the Human Development and Leadership program at Lesley University, in Cambridge, Massachusetts, where his research focuses on strategic diversity leadership, professional development, and organizational learning and capacity building. Barbosa will lead the Office of Diversity and Inclusion as well as the Dean's Advisory Committee on Diversity and Inclusion and will play a pivotal role in ensuring a diverse, equitable, and inclusive environment for students, faculty, and staff.

Barbosa's responsibilities include vision development; strategic and resource planning, reporting, policy, and practice development; prioritization around efforts such as recruitment, retention, and development of staff, faculty, and students from underrepresented groups; and expanding and deepening discussions about diversity, inclusion, and related issues in the curriculum. He will also collaborate across the University to learn and share best practices, serving as an adviser to create a more vibrant and supportive campus climate for all members of the community.

The Harvard Chan School values the power that a diverse community contributes to shaping the culture and experiences of those on campus while protecting and promoting the health of vulnerable populations across the world. The School community includes students, staff, faculty, and academic appointees from more than 40 countries, and the Office of Diversity and Inclusion continues to provide advocacy, social education, and awareness to address systemic inequities surrounding race, ethnicity, gender, and sexuality to foster dialogue, growth, and understanding. The excellence of the School's academic research and public health practice depends on intentional and collective efforts to cultivate and foster a culture of belonging and inclusion in the classroom, on campus, and within scholarship.

Selected activities from the 2019–2020 academic year are described on the following pages.



"In working to build an anti-racist culture and systems, we must engage this work in multiple dimensions. This means examining our systems, practices, and spoken and unspoken norms, as well as deepening our selfawareness. We also must create spaces to process what we are feeling, experiencing, and having thoughts and questions about—particularly during this time of crisis

surrounding racist events, anti-Black racism specifically, and systemic racism in the United States." —*Amarildo "Lilu" Barbosa, Chief Diversity, Inclusion, and Belonging Officer*

SELF, SOCIAL, AND GLOBAL AWARENESS: PERSONAL CAPACITY BUILDING FOR PUBLIC HEALTH EDUCATION AND PRACTICE

During new-student orientation, the Office of Diversity and Inclusion (ODI) offers matriculating students an eight-hour series of structured workshops designed to discuss topics central to public health education and practice: culture, power, privilege, and social justice. These workshops allow incoming students the opportunity to explore the common bonds we share and engage in critically conscious dialogue about our racial and cultural differences, lived experiences, and beliefs and values we bring to our work. The facilitators of these sessions include returning students, staff, and faculty who guide the workshops with the intention of increasing participants' capacity for self-awareness and understanding of cross-cultural perspectives—a foundation the Harvard Chan School believes is essential to preparing leaders in the field of public health.

DIVERSITY RECRUITMENT INITIATIVES

Fostering Advancement and Careers through Enrichment Training in Science (Undergraduate Pipeline)

Two thousand nineteen marked the sixth year of Fostering Advancement and Careers through Enrichment Training in Science (FACETS), ODI's undergraduate pipeline to public health program. This six-week program provides academic and professional enrichment opportunities for undergraduate students from underrepresented minority groups across the country. FACETS fellows work on a research project with a Harvard Chan faculty member in a selected area of interest, which may include social and behavioral sciences, health policy and management, global health and population, epidemiology, nutrition, or environmental health. The goal of the program is to provide our fellows with opportunities to build their research skills while also engaging in academic sessions to increase their competitiveness for graduate school. In a testament to the program's success, several FACETS alumni have been accepted into and enrolled at the Harvard Chan School to continue their academic studies. The program has also created a strong pipeline into various competitive public health doctoral programs, with former FACETS fellows completing PhD programs at Harvard, Yale, and Columbia.

Donald Hopkins Predoctoral Scholars Program (Predoctoral Pipeline)

The Donald Hopkins Predoctoral Scholars Program was launched during the 2019–2020 academic year to enhance the pipeline of students interested in obtaining a doctoral degree at the Harvard Chan School. This initiative supports students from underrepresented minority groups and offers an opportunity for them to obtain a master's degree while also supporting their academic development and increasing their prospect of being accepted into a Harvard Chan doctoral program. Successful graduates of the Predoctoral Scholars program will be supported in their preparation to apply for doctoral programs in epidemiology, biostatistics, or



DrPH student Bryan Buckley snaps a selfie with colleagues at the February 2020 Doctoral Reception.

global health and population. These students thus have the possibility of earning Harvard Chan master's and doctoral degrees within five years. In addition, the program provides faculty and staff mentorship and monthly professional workshops and seminars intended to increase the probability of student success. This program will strengthen and diversify the public health field, as two students participated in the program in the 2019–2020 academic year, and four students are entering the program for the 2020–2021 academic year.

Yerby Fellowship Program (Faculty Pipeline)

The Yerby Fellowship Program is designed for postdoctoral scholars from historically underrepresented groups to advance and enhance their professional skills and research expertise as they pursue their academic careers. Our 2019–2020 Yerby fellow, Renee Salas, conducts research focused on the intersection of climate change, health, and health care and has served as the keynote speaker at several conferences, further advancing her national and international recognition in this important new frontier of study. She has published nine academic products, seven as first author, in high-impact journals such as the New England Journal of Medicine, The Lancet, and the British Medical Journal.

CULTURE AND CLIMATE

Faculty Development and Leadership Workshops

The academic excellence of the Harvard Chan School and its ability to fulfill our mission of critical inquiry and discovery depend on our success in recruiting and supporting a community of diverse faculty, thought, and experiences. Given their foundational role in our academic mission, faculty of color stand as a cornerstone for this effort. The workshops delivered this past year were designed for junior faculty from underrepresented groups and helped to develop a sense of community, collaboration, belonging, and inclusion. These workshops were facilitated by senior Harvard Chan faculty members across several academic departments. Workshop topics included disseminating project results and ideas; balancing teaching, research, and service; managing up and across; and overcoming publishing biases. These workshops are designed to support junior faculty of color to continue to refine their scholarly craft and to increase retention rates at the School.

Staff Diversity and Leadership

The Lunch 'n' Learn Series was launched in 2017 to create a more welcoming and inclusive environment for staff from underrepresented groups working at the Harvard Chan School. The monthly professional development and networking lunch series focuses on staff-identified issues, including organizational and campus climate, career development, bias-related bystander

interventions, and mentoring. The 2019–2020 theme was Standing up: Positioning Yourself for the Career You Deserve. The series convenes from September through May and includes more than 50 staff members from across the School.

Equity, Diversity, and Inclusion Fellowship

ODI is home to the Equity, Diversity, and Inclusion (EDI) fellows, a cohort of students who are deeply invested in addressing issues at the intersection of public health and social justice. During the past academic year, EDI fellows organized and delivered a wide range of student-facing programs, including panels, discussions, social-awareness campaigns, and community-building events. Our EDI fellows were proactive and responsive toward providing space for dialogue, education, and healing on topics including women's health, gender, sexuality, religion, racism, and community engagement. EDI fellows supported and collaborated with the following organizations during the 2019–2020 academic year: Black Student Health Organization, Latinx Students in Public Health Association, Countway Library, Harvard Medical School Office for Diversity Inclusion and Community Partnership, Women in Leadership, and Harvard Chan South Asia Students Association.

Unity

As part of its commitment to providing a safe and supportive environment for all members of our community, ODI serves as a home base for Unity, a School-wide resource group for LGBTQ+ students, faculty, and staff and their allies. In late February, ODI and Unity co-sponsored the inaugural Harvard Chan Pride Forum, an opportunity to gather and discuss interests and issues of concern to the LGBTQ+ community at the School. Topics included campus climate and culture, social and professional networking opportunities, and sexual and gender minority health in the curriculum.

EXTERNAL ENGAGEMENT AND PARTNERSHIPS

Leaders in Health Community Capacity-Building Program

ODI continues to partner with the Prevention Research Center on Nutrition and Physical Activity at the Harvard Chan School to build the capacity of local community-based organizations. The eight-week Leaders in Health Program at the Harvard Chan School aims to strengthen existing community health initiatives and empower individuals through introductory public health training. Discussion-based activities build the skills of community activists, local health department employees, and practitioners from community-based organizations. The program has trained more than 50 community practitioners across six cohorts, including eight practitioners this past academic year. Participants from organizations including the Boston Public Health Commission, Sociedad Latina, Fenway Community Center, and Roxbury Tenants of Harvard celebrated their accomplishments during a capstone event on November 7.

Public Schools Engagement

The Harvard Chan School is dedicated to building educational and public health career pipelines as we continue to develop and foster relationships with Boston Public Schools. Harvard Chan staff and students served as science fair judges, career coaches, tutors, educators, and mentors at the Edward M. Kennedy Academy for Health Careers, Fenway High School, Maurice J. Tobin K–8 School, and Roxbury Preparatory Charter School.

Environmental Health Education Program

ODI supports the Harvard Chan Department of Environmental Health in high school education programs in Harvard's host communities, including the city of Boston. In the 2019–2020 academic year, department members provided support to students through the delivery of after-school science clubs designed for middle-school students, teaching ninth graders how to check vital signs, and presenting workshops on nutrition and pediatrician career exploration. The program was cut short this spring, as schools closed in response to the COVID-19 pandemic.

Section 4: **Research**

The School's capacity to develop and fund an exceptionally wide range of cutting-edge research is an engine that drives the advancement of our public health mission.



NEXTGEN INITIATIVE

Through the NextGen Initiative, established in 2019, the School is embracing the technologies, collaborations, and innovations that will lead to solving the world's most complex public health problems and propel public health into the next century. A series of exciting new research projects, highlighted below, adds to the many collaborative projects already underway including the Delta Directions Consortium, an interdisciplinary network focused on improving public health and economic development in the Mississippi Delta region; the Biobank for Microbiome Research in Massachusetts, whose goal is to accelerate the discovery of diagnostic and therapeutic tools for health promotion; and the National Institute of Environmental Health Sciences (NIEHS) Center for Environmental Health, which studies the effects of complex environmental exposures on health. Below are examples of NextGen projects from the past year.

Apple Women's Health Study

In the first long-term research study of such scale and scope, the School teamed up with Apple Inc. and NIEHS to gain a deeper understanding of how certain demographic and lifestyle factors could have an impact on menstrual cycles and gynecologic conditions including infertility, menopause, and polycystic ovary syndrome. The study aims to advance the understanding of the relationship between menstrual cycles, health, behavior, and habits. The cycle-tracking data that women enter into their iPhone and/or Apple Watch through the Apple Research app, along with participants' survey responses, will help inform the development of innovative products for menstrual cycles, risk assessment, and screening of gynecologic conditions. Harvard Chan School faculty involved in the study are Brent Coull, professor of biostatistics; Russ Hauser, chair of the Department of Environmental Health, Frederick Lee Hisaw Professor of Reproductive Physiology, and professor of environmental and occupational epidemiology; Shruthi Mahalingaiah, assistant professor of environmental, reproductive, and women's health in the Department of Environmental Health; Jukka-Pekka "JP" Onnela, associate professor of biostatistics; and Dean Michelle Williams.

ChAMP

In November 2019, scientists across the School got a major upgrade to their toolbox: the Harvard Chan Advanced Multi-omics Platform, or ChAMP. Housed in the Department of Molecular Metabolism, ChAMP consists of state-of-the-art mass spectrometry instruments developed by Thermo Fisher Scientific. The platform can provide highly detailed analyses of small molecules, such as identifying novel proteins or lipids in a sample of blood. By helping researchers determine the composition of biological systems such as cells, it will allow the scientists to push the boundaries of proteomics, lipidomics, and metabolomics. Since Harvard Chan scientists are focused on promoting collaboration and supporting the advancement of research, ChAMP will be accessible to researchers from across Harvard and other research institutions, including those in Boston's Longwood medical community. ChAMP is committed to supporting platform users with ongoing projects, exploring early ideas and preliminary experiments, facilitating funding applications for research grants, and fostering interdisciplinary research.

Human Immunomics Initiative

The Harvard Chan School has joined forces with the Human Vaccines Project to launch the Human Immunomics Initiative (HII), a project that aims to revolutionize the understanding of the human immune system and accelerate the creation of effective vaccines, diagnostics, and treatments. HII will bring together Harvard Chan School experts in epidemiology, causal inference, immunology, and computational and systems biology with the resources and expertise of the Human Vaccines Project, a global, nonprofit, human immunology–based clinical research consortium. The initiative will develop artificial intelligence–powered models of immunity that can be used to accelerate the design and testing of vaccines and therapeutics for a wide range of diseases.

Research

The **US & GLOBAL/C-SUITE** 7 AUTO COMPANIES Eileen McNeely - EH Harvard A Culture of Health: A **Business Leadership** Imperative Chan School's Work in **North America**

EXECUTIVES FROM TOP

US AETNA EMPLOYEES Eileen McNeely - EH Well-Being Research Program

US AND CANADA

Eric Rimm - NUT Haptoalobin phenotype as a clinical predictor of incident cardiovascular disease within the Action to Control Cardiovascular Risk in Diabetes (ACCORD) randomized clinical trial

Eileen McNeely - EH Aduro Inc: Flourishing Measures

Eileen McNeely - EH

VF Corporation: Well-being in the

Supply Chain

US KOHLER

HEADQUARTERS

Work and in Life

Eileen McNeely - EH

Kohler: Flourishing at

US

US

US/CEOs AND SENIOR MANAGERS Eileen McNeely - EH

CEO Well-being Survey

ALASKA

Greenland (Dk.)

MEXICO, CHINA,

FACTORY WORKERS

Eileen McNeely - EH

Follow-up of well-being measures

CALIFORNIA/EILEEN FISHER FACTORY WORKERS Eileen McNeely - EH CAMBODIA, SRI LANKA/ LEVI STRAUSS

Evaluating social impact domestically and abroad and the leverage points to maximize it

NOVA SCOTIA; CANADA; USA Eric Rimm - NUT

Eating frequency and timing as a predictor of developing type 2 diabetes

150 US NPR STATIONS

Robert Blendon - HPM Robert Wood Johnson Foundation/Harvard T.H. Chan School of Public Health project on understanding Americans' health agenda

CANADA

Eric Rimm - NUT Eating frequency and timing as a predictor of incident coronary heart disease in a prospective longitudinal study of Canadians



MEXICO



А

BELIZE

COSTA RICA

NICARAGUA

GUATEMEL A

JAMAIC/

PANAMA

D



Version 1.1 / July 2019

CUBA

Ankur Pandya - GHP Access to medications in Cuban moderate to hiah cardiovascular risk hypertensive patients. A pilot study

JAMAICA

Trevor Ferguson, David Williams - GHP Cardiovascular Health in Urban Poor and Middle Income Communities in Jamaica: Impact of Psychosocial Stress, Social Networks, and Social Support

MEXICO CITY Doug Dockery - EH Mexico Project III b: Historical analysis of air quality-related health benefits in the population in Mexico Alberto Morales, Goodarz Danaei,

City from 1990 to 2012 MEXICO Dalia Stern, Donna Spiegelman, Josiemer Mattei - GHP

Acceptability, feasibility, and effectiveness of a worksite intervention to reduce cardiometabolic risk in Mexico MEXICO/LEVI STRAUSS

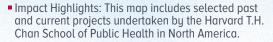
FACTORY WORKERS

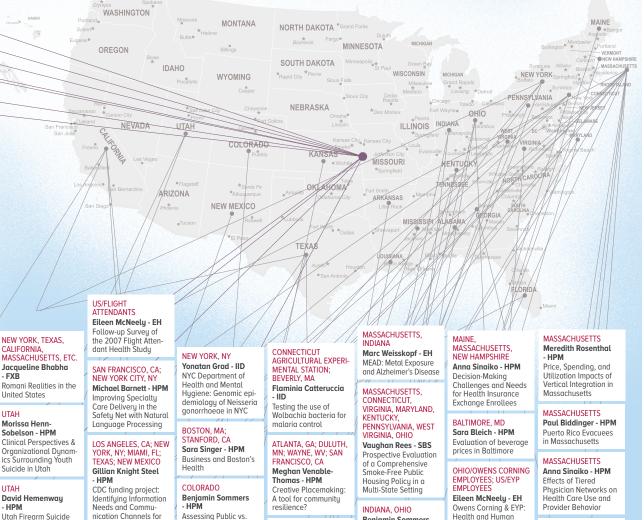
A blockchain-based

indexing system for

factories

Eileen McNeely - EH





Study MASSACHUSETTS Subu Subramanian

- SBS Proximity to Food Establishments and BMI in the Framingham Heart Study

BOSTON, MA Steve Gortmaker -SBS

Exploring student and school staff perceptions of drinking water access and quality: a aualitative studu

Assessing Public vs. Private Health Insurance for Low-Income Adults

SOUTH APPAI ACHIA TEXAS AND RURAL WEST/USA **Benjamin Sommers** Subu Subramanian - HPM Potential Economic and

Researching At Risk

Populations During

Opioid Prescribing

MASSACHUSETTS

Health Photovoice

Emergencies

- SBS

2016

Project

Health Effects of Texas Rates by Congressional Medicaid Expansion Districts, United States,

KANSAS **Benjamin Sommers** - HPM Bryn Austin - SBS Kansas Medicaid Mission Health: Public Study: Assessing Prospects for Medicaid Expansion in Kansas

MOUND BAYOU MS **BIRMINGHAM, AL:** INDIANOLA, MS; GREENWOOD, MS; ROSEDALE MS CLEVELAND MS Jane Kim - HPM Self-Sampling in the Mississippi Delta

ARKANSAS KENTUCKY LOUISIANA, TEXAS **Benjamin Sommers** - HPM

Waiver Programs CMWF: A Longitudinal Analysis of New Waiver Programs

Benjamin Sommers

- HÝM Examining Alternative Models of Medicaid Expansion: Assessing the Health Indiana and Health Michigan Programs

NYC HEALTH + HOSPITALS

Michael Barnett - HPM A one-year evaluation of the impact of the eConsult program in New York City's Health + Hospitals, the largest public health system in the U.S.

Health and Human Performance Index (HaPi)

VIRGINIA Benjamin Sommers - HPM The Virginia Work

Requirements Experiment

NORTH CAROLINA/ YMCA & ALLEGACY CREDIT UNION MEMBERS Eileen McNeely - EH Engaging business in broad impact community-based well-being programs

FAST FISHKILL NY BURLINGTON, VT; SAN JOSE, CA

Francine Laden - EH A nested case-control study of central nervous system cancer amona emplouees at three IBM facilities

DORCHESTER MA; CHELSEA, MA; ATLANTA, GA

Gary Adamkiewicz - EH Exposure Disparities Related to Resident Behavior and Housing Characteristics



Healthy Cities Initiative

The Healthy Cities Initiative is led by John Spengler, the Akira Yamaguchi Professor of Environmental Health and Human Habitation, and Patrick Whitney, professor in residence in the Department of Health Policy and Management and one of the world's leading design experts. One part of this initiative involves helping design a new city outside Bangkok, Thailand, that incorporates sustainable practices to help model healthy urban environments for the 21st century.

HOME PROGRAM

The HOME: Grant Concierge Program integrates the efforts of the Office of Research Strategy and Development (ORSD), Office of Faculty Affairs, and Research Administration with those of mentors and academic departments to provide an individualized research-development support system for each new faculty member. The guidance and resources provided through the program enable faculty to think strategically about building their research portfolios, help them understand the School's administrative infrastructure, and empower them to succeed as members of the Harvard Chan research community. Piloted during the 2019–2020 academic year, the program has reached 15 new faculty members, providing them with funding strategy development assistance and enhanced research administration supports to guide them through their first grant submissions at the School.

DEAN'S FUND FOR SCIENTIFIC ADVANCEMENT AND DEAN'S EMERGENCY RESPONSE RESEARCH FUND

Now in its third year, the Dean's Fund for Scientific Advancement continues to enable novel research and target investment in areas where the School's multidisciplinary expertise is of particular value. In the 2019–2020 funding cycle, ORSD received 55 applications from individuals and interdisciplinary teams across three award mechanisms: Activation, Incubation, and a Special COVID-19 Acceleration Award call. We expect more proposals in response to the general Acceleration Award application, whose deadline was June 2020.

In addition to the fund's internal grant pipeline program, in January 2020 the School launched the Dean's Emergency Response Research Fund, a new internal funding mechanism with the objective of ensuring that the Harvard Chan School can rapidly and reliably detect, respond to, and, when possible, prevent adverse outcomes in public health emergencies. The new program is designed to support research that is needed in "real time"-for example, in the wake of a natural disaster; in the face of an emergent health crisis, such as an infectious-disease outbreak; or to inform a time-sensitive policy debate in which there is a limited window to gather baseline and outcome data. The first Emergency Response Research Award was made in early March 2020, following the initial outbreak of the COVID-19 pandemic. The proposal, Advanced Immunological and Epidemiological Tools in Response to the Global Threat of SARS-CoV-19, is led by Michael Mina, assistant professor of epidemiology, with collaborators Marc Lipsitch, professor of epidemiology and director of the Center for Communicable Disease Dynamics, and Yonatan Grad, Melvin J. and Geraldine L. Glimcher Assistant Professor of Immunology and Infectious Diseases. The project will address the need for the development and use of modern diagnostic and immunological tools to advance our understanding of the epidemiology of and immunological responses to SARS-CoV-19 to better control, mitigate, and prevent transmission and treat clinical disease.

NONFEDERAL RESEARCH FUNDING DEVELOPMENT WORKSHOP SERIES

In response to recommendations from the School's Research Strategy Review and requests from faculty and department chairs, in the 2019–2020 academic year, ORSD launched a number of new programmatic resources designed to help faculty diversify their research portfolios. These new offerings included two new nonfederal funding informational panels focused on foundation funding and industry engagement. Each session was open to all faculty and featured faculty and



experts from the School, Harvard Office of Technology Development, Office of the Vice Provost for Research, peer institutions, and external funders (Pfizer, Robert Wood Johnson Foundation). In addition, as part of ORSD's larger efforts to support junior faculty in research funding diversification, ORSD partnered with the Department of Environmental Health to pilot a new two-part workshop focused on communicating with nonexpert audiences. The two sessions offered guidance in developing an "elevator pitch" and "one-pager for a nonexpert," designed to help junior faculty effectively communicate their research to industry representatives and foundation program officers.

RESEARCH-ENABLING PLATFORM INFRASTRUCTURE

In 2019, ORSD launched a new set of initiatives—born out of the School's research strategy aimed at ensuring a more strategic approach to developing, supporting, and operationalizing research-enabling platforms at the School. These efforts are advanced with the guidance of two new committees. The Research Platform Advisory Committee, composed of senior faculty and administrative leaders, focuses on providing overall strategic direction and guidance to increase access, improve efficiency, support resource generation, and enhance scientific advancement through the School's research-enabling platforms, cores, and core-like facilities. The Core Operations Group focuses on sharing best practices for running cores and core-like facilities and improving coordination, collaboration, and visibility. In 2019–2020, ORSD supported multiple research platforms, including research computing, the School's Hamilton BiOS automated biospecimen storage facility, microbiome research platforms, and a number of other departmentally based research platforms.

HARVARD HEALTH INNOVATION NETWORK

In 2019, ORSD joined the Harvard Health Innovation Network, an organization that spans Harvard University and affiliated hospitals and was formed to share novel ideas and promote an organizational culture that brings innovative ideas in health care to fruition. Its work involves promoting cross-fertilization of ideas in health care, developing a clear road map of resources across Harvard, creating strong communication channels, and hosting events that bring together Harvard-affiliated researchers, scientists, entrepreneurs, students, and others.

Section 5: Education

The Office of Education is dedicated to fostering an environment that supports students' personal, intellectual, and professional growth. Traditional teaching and learning took a detour beginning in March 2020 with the onset of the COVID-19 pandemic. Following the University's guidelines designed to ensure the health and safety of students, faculty, and staff, the School shifted all teaching and learning online beginning after spring break. Faculty quickly switched gears to prepare their courses to be held online, and students—most of whom had scattered to their hometowns across the country and around the globe adapted to learning remotely. Highlights from the Office of Education appear below.





"In my second year as Dean for Education, I have learned so much about Harvard Chan School students. They are resilient. They come to this School to be challenged by our renowned faculty and to immerse themselves in an academic experience that expands

beyond classroom walls. Our students push one another to be their best, and they instill that same resolution in School faculty, staff, and leadership—making this Harvard Chan community strong, motivated, and ready to face challenges as boundless as a global pandemic." —*Erin Driver-Linn, Dean for Education*

FOUNDATIONS FOR PUBLIC HEALTH

In fall 2019, all incoming Harvard Chan students began taking a new online course, Foundations for Public Health, developed and taught by Sue Goldie, the Roger Irving Lee Professor of Public Health in the Department of Health Policy and Management, director of the Global Health Education and Learning Incubator at Harvard University, and director of the Center for Health Decision Science. The course provided a conceptual basis for students to think critically about public health, including population health, health conditions and epidemiological trends, equity and social determinants of health, and public health responses from the health and nonhealth sectors. With the help of staff from the Global Health Education and Learning Incubator, Goldie provided the students with a website that they could use as a "resource portal" for the entire academic year.

ROSE SERVICE LEARNING FELLOWSHIP

Completing its second year of student fellowship awards, the Rose Service Learning Fellowship program supported 16 students in community-driven fieldwork around the world and across the U.S. Haley Barravecchia, SM '20, partnered with fisheries in the Pacific island of Kiribati to support healthy reefs through environmental testing, while Haitham Shoman, SM '20, worked in Pakistan to understand out-of-pocket expenditures for patients seeking surgical care. Another student, Kasley Killam, MPH '20, focused on intergenerational action plans to reduce loneliness among elderly individuals in California. The students' public health work not only benefits the communities they are serving but is also a source of critical reflection for the fellows, who are asked to shift from a solutions-based approach to becoming a learner in the field. In response to the positive feedback about the community of learning and reflection that the Rose Service Learning Fellowship offers, the School is exploring ways to expand this type of field education opportunity. In summer 2020, two Harvard Chan students from the new Mississippi Delta partnership, who will work with the Children's Foundation of Mississippi, joined the Rose Service Learning Fellow cohort.

TACKLING FOOD INSECURITY

In fall 2018, the Harvard Chan Student Association conducted a survey to evaluate the extent of food insecurity within the School's student community. Building on the survey results, the Committee on Educational Policy asked similar questions in the standard exit survey that is sent to all students near the end of their programs. Summarized results across three graduate exit surveys fielded between fall 2018 and early 2020 showed that 22 percent (out of 644) responded "Sometimes" or "Often true" to the question "During my time at the School, I worried about whether I would run out of food before I could buy more," and 9 percent responded "Sometimes" or "Often true" to the question "During my time at the School, I worried about whether I would run out of food before I could buy more," and 9 percent responded "Sometimes" or "Often true" to the question "During my time at the School, I worried about whether I would run out of food before I could buy more," and 9 percent responded "Sometimes" or "Often true" to the question "During my time at the School about whether I would run out of food before I could buy more," and 9 percent responded "Sometimes" or "Often true" to the question "During my time at the School about whether I would run out of food before I could buy more," and 9 percent responded "Sometimes" or "Often true" to the question "During my time at the School about whether I would run out of food before I could buy more," and 9 percent responded "Sometimes" or "Often true" to the question "During my time at the School about about whether I would run out of food before I could buy more."

Associate Dean for Student Services Robin Glover, together with the Harvard Chan Student Association, formed an ad hoc Food Insecurity Committee to identify resources and systems to address the issue. This work included the successful launch, in January 2020, of the Daily Dollar Meal program—spearheaded by Dean Michelle Williams—which offered two meals (one each at breakfast and lunch) every day in the Kresge cafeteria for just \$1 each. The committee included representatives from the student and postdoctoral associations and various offices across the School. Other ideas under consideration included increased financial counseling resources, an events series, and a special section for the School website and student handbook that lists resources to help prevent student food insecurity.



WINTER GRADUATION

On December 11, 2019, the Office for Student Affairs hosted the School's inaugural Winter Graduation for students completing their degree requirements in November and December. Dean Michelle Williams led a champagne toast to celebrate the graduates, who were joined by friends and family.

MARKETING AND RECRUITMENT COMMITTEE

In 2019, the Office of Education launched the Marketing and Recruitment Committee, a team of staff members from admissions and communications. The committee is tasked with assessing and improving recruitment tactics, including digital marketing, conference participation, and email outreach. The team's first major project was an email campaign to admitted students, which included messages from department chairs and program directors, leadership from the Office of Student Services, and alumnus Phillip Blanc, MPH '10, highlighting the advantages of a Harvard Chan School education.



EXECUTIVE AND CONTINUING PROFESSIONAL EDUCATION

The School's Executive and Continuing Professional Education (ECPE) programs continued to draw thousands of learners from around the world—estimated at more than 5,500 learners since 2018. Below are highlights from the 2019–2020 academic year.

In September, the Driving Business Performance: Culture of Health for Executive Teams program, supported by the Robert Wood Johnson Foundation, convened more than 50 participants in 12 teams from corporate, nonprofit, and public-sector organizations to develop culture-of-health implementation strategies within their organizations. The program was led by Laurie Pascal, senior lecturer in the Department of Health Policy and Management, and John McDonough, professor of the practice of public health in the Department of Health Policy and Management and director of Executive and Continuing Professional Education.

In October, in collaboration with Harvard Business School, ECPE designed and delivered the second phase of the Vaccine Business Model Innovation program for leaders from Merck Vaccines. The program was led by David Bloom, Clarence James Gamble Professor of Economics and Demography in the Department of Global Health and Population, in collaboration with Ramon Casadesus-Masanell of Harvard Business School.

In December, we designed and delivered a one-week program in Oman for health care clinicians and senior administrators from member-countries in the Middle East Gulf Health Council, including leaders from Bahrain, Kuwait, Oman, Saudi Arabia, and the United Arab Emirates. The program director was Rifat Atun, professor of global health systems in the Department of Global Health and Population. Pascal joined Atun in Oman to deliver the program.

The hybrid on-campus/online Principles and Practice of Clinical Research program, led by Felipe Fregni, associate professor of epidemiology, was on track to exceed last year's recordbreaking enrollment of 450 learners. Because of the COVID-19 pandemic, however, the program moved to a fully online format with more than 410 learners.

In fact, ECPE rescheduled or postponed all on-campus programs from March 2020 through June 2020 and is converting programs to online formats where possible. The first program converted to a synchronous online format was Leading in Health Systems: Navigating Crisis and Times of Change, which took place in June. This program is led by Leonard Marcus, lecturer on public health practice in the Department of Health Policy and Management and founding codirector of the National Preparedness Leadership Initiative (NPLI), and Eric McNulty, associate director and program faculty at NPLI.

Section 6: Academic Departments

The following pages include selected highlights from the wide array of extraordinary research and other accomplishments that have taken place in the School's nine departments this past academic year, as reported by each department.



BIOSTATISTICS

Advancing health science research, education, and practice by turning data into knowledge to address the greatest public health challenges of the 21st century

The 2019-2020 academic year brought several notable faculty changes and honors. Jeff Miller received a Prevention and Early Detection for Emerging Researchers (PEER) award from the Zhu Family Center for Global Cancer Prevention; Xiaole Shirley Liu received the 2020 Innovator Award from the International Society of Computational Biology; John Quackenbush gave a presentation at Chile's Congreso Futuro; Francesca Dominici was awarded the American Statistical Association's Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society; and Brent Coull was named president-elect of the Eastern North American Region of the International Biometric Society. Two new assistant professors, Rachel Nethery and Briana Stephenson, as well as several secondary and adjunct faculty members, joined the department. Brent Coull and Jukka-Pekka "JP" Onnela partnered with colleagues from across the School as investigators for the Apple Women's Health Study. Notable initiatives included the department's first student-led mental health survey and working group to improve well-being for students, and the inaugural year of the Donald Hopkins Predoctoral Scholars Program. The department also hosted several events, including the 13th annual Program in Quantitative Genomics conference Quantitative Challenges in Cancer Immunology and Immunotherapy; a virtual workshop, Advancing Quantitative Methods for Health in sub-Saharan Africa; and the Human Microbiome Bioactives Annual Symposium. In March 2020, Xihong Lin led webinars for the Harvard and MIT communities describing her research analyzing lab-confirmed COVID-19 cases in Wuhan, China, as outlined in her paper "Evolving Epidemiology and Impact of Non-Pharmaceutical Interventions on the Outbreak of Coronavirus Disease 2019 in Wuhan, China."

ENVIRONMENTAL HEALTH

Addressing critical environmental and public health challenges through national and global leadership in research and training

The Planetary Health Alliance—a global consortium of institutions from more than 40 countries, housed in the Department of Environmental Health-received grants to build a global planetary health community, train the next generation of planetary health leaders, and mainstream planetary health messages. The department was awarded a new Superfund Research Center grant aimed at evaluating how metals and metal mixtures contribute to cognitive decline and memory loss in older age, studying the associated biological mechanisms, and developing new ways to detect and remove metal contaminants in drinking water. The department also had a major role in the School's launch of the Apple Women's Health Study, a large-scale longitudinal study that will shed light on women's overall health needs across the lifespan. Separately, in conjunction with the Silent Spring Institute, researchers are investigating the deleterious health effects of hormone-disrupting ingredients in personal care products used primarily by Black women. In addition, researchers identified that the unjamming transition, as previously discovered in the asthmatic airway epithelium, is triggered by radiation and is associated with embryonic development and cancer. Some department researchers studied vaping's adverse effects on lung function, while others examined the ways indoor spaces affect workers' cognitive function and even their sleep. Faculty published several books, including "Healthy Buildings: How Indoor Spaces Drive Performance and Productivity," and "The Education of Alice Hamilton." Finally, several faculty members have been involved with many facets of COVID-19 research, detection, and mitigation using nanotechnology, biology, engineering, and epidemiological approaches.



EPIDEMIOLOGY

Examining the frequency, distribution, and determinants of disease in humans—a fundamental science of public health

The department had a remarkable 2019-2020 academic year, beginning with the addition of two new faculty members: Andrew Beam, whose research applies machine-learning methods to massive clinical and biological datasets, and Michael Mina, whose research centers on infectious diseases and vaccines, bridging biomedical and laboratory work with epidemiological or mathematical models. On December 6, the department hosted the 4th Cutter Symposium on Epidemiology, Etiology, and Big Data in conjunction with the 170th Cutter Lecture, which was presented by James Robins. Department faculty received multiple awards and grants, including from the Office of Naval Research, to study the high-dimensional causal model search; from the Bill & Melinda Gates Foundation, for a malaria molecular surveillance project in South America; from the National Institutes of Health, to study alcohol and breast cancer; from Janssen Research & Development, to study metabolic activity of the gut micobiome and cognitive decline in healthy individuals; and, from the Singer-Morris Foundation, a gift to the Center for Communicable Disease Dynamics, led by Marc Lipsitch, for its leading research on COVID-19. Department faculty worked tirelessly from the outbreak of the coronavirus pandemic on a variety of projects, including developing high-capacity testing, using aggregated mobility data to support the COVID-19 response, and setting up Massachusetts' surveillance of testing, as well as publishing in academic journals and numerous media outlets, including the New York Times, Washington Post, USA Today, STAT, and National Geographic.

GLOBAL HEALTH AND POPULATION

Improving global health through education, research, and service from a populationbased perspective

Over the past year, the department continued to expand its global footprint and is currently engaged in work in more than 60 countries, strategizing to improve the lives of people through capacity building and population science. Select areas of focus included childhood immunizations, framework and methodological approaches to health-system reform and quality, maternal health and maternity care, parenting and child development, interventions for infectious-disease control, randomized trials to assess behavior, and nutritional supplementation. The Africa Research Implementation Science and Education (ARISE) Network continues to contribute to our knowledge of global adolescent health through community-based interventions in



sub-Saharan Africa. The Harvard China Health Partnership assessed 10 years of health care reform in China and launched an executive education training course for Chinese policymakers. More than 55,000 workers participated in the Building a Better Response online training developed by the Harvard Humanitarian Initiative. Faculty served on the Lancet Global Health Commission on High-Quality Health Systems in the Sustainable Development Goals Era and on the Lancet– American University of Beirut Commission on Syria: Health in Conflict. In addition, one of our faculty was named a 2019 fellow of the American Association for the Advancement of Science. The rise of the COVID-19 pandemic was a call to arms for the department, with faculty engaged in COVID-19 work in the U.S., Europe, and Latin America. Department faculty appeared on a wide variety of media as subject experts, served as advisers to government agencies, published papers addressing the COVID-19 response in Europe, and hosted seminars to discuss national strategies for addressing the pandemic in early hot spots, among other responses.

HEALTH POLICY AND MANAGEMENT

Improving health care delivery systems and mitigating public health risks in the United States and abroad

The department engaged in a range of research and highly recognized work, with topics spanning from Medicaid expansion to obesity-prevention policy, quality of care, the impact of insurance coverage on patient spending, life expectancy, income inequality, care for high-risk populations, political debates, gun violence, health care systems across the globe, and more. At the request of the Bill & Melinda Gates Foundation, one research team developed guidelines for conducting a benefit-cost analysis of health and other policies in low- and middle-income countries, aimed at improving the evidence base for decision making. The Robert Wood Johnson Foundation funded Driving Business Performance: Culture of Health for Executive Teams, a program that convened teams from corporate, nonprofit, and public-sector organizations to develop culture-of-health implementation strategies within their organizations. Another team launched the Harvard Chan Initiative on Health and Homelessness, whose goal is to address the challenges of poor health in homeless individuals and families through education, research, dissemination of scientific findings, and translation of evidence-based information into real-world practices and policies. The Harvard Opinion Research Program conducted several public opinion polls on current health and related domestic policy issues in collaboration with the New York Times, POLITICO, and NPR. Several faculty participated in policy discussions related to COVID-19, including those focused on testing, personal protective equipment (PPE), telehealth, managing crises, increasing Supplemental Nutrition Assistance Program (SNAP) benefits, and reopening the economy.

IMMUNOLOGY AND INFECTIOUS DISEASES

Focusing on the biological, immunological, epidemiological, and ecological aspects of viral, bacterial, and protozoan diseases

The department is involved in a wide range of projects focusing largely on major global infections. Indeed, this year the COVID-19 pandemic has highlighted the threats that infectious diseases pose to both domestic and global welfare. While the novel coronavirus has been today's most acute threat, the department's work is strengthened by shared interests in questions that reach across pathogens. In the past year, we have made progress in our efforts to build the genomic and information tools to measure the prevalence of infection, and then to design strategies for acting on this information, for COVID-19 in the United States; for Zika, dengue, and chikungunya viruses in Nigeria; and for malaria in South America. In tuberculosis, malaria, gonorrhea, and Chagas disease, the department's recent studies have uncovered the importance of alterations in a pathogen's central metabolism in reducing susceptibility to drugs. Finally, we are developing new precision strategies for disease control, such as delivering molecules to mosquitoes that inhibit malaria development, testing novel broadly neutralizing antibodies to treat HIV in babies, and modulating the microbiome to prevent both infectious and noncommunicable diseases.

MOLECULAR METABOLISM

Discovering the root causes of major noncommunicable diseases that adversely affect public health, including neurodegenerative disorders, cancer, and chronic diseases of metabolism

The department welcomed Tony Hui, who joined the faculty in January. In new initiatives, Zon Weng Lai and Tobias Walther launched the Harvard Chan Advanced Multi-omics Platform, which provides mass spectrometry support and partnership to collaborators from Harvard schools and external institutions; and Walther started and directs the Harvard Chan Research Center on Causes and Prevention of Cardiovascular Disease. Departmental research highlights include publications on several topics. Over the past year, researchers discovered that inhibition of sphingolipid synthesis improves outcomes and survival in ALS-mutant mice; identified LDAF1 and seipin as a lipid droplet assembly complex; described the adverse metabolic effects and mechanisms of propionate, a common food ingredient, in mouse models and humans; discovered that short-chain fatty acid propionate increases glucagon and FABP4 production, impairing insulin action in mice and humans; showed that neuronal TORC1 modulates longevity via AMPK and cell nonautonomous regulation of mitochondrial dynamics in worms, and that Atf-6 regulates life span through ER-mitochondrial calcium homeostasis; finished a preclinical study on a promising new therapy for tuberous sclerosis complex that targets a metabolic vulnerability in tumors arising in this disease; showed that PI3K-AKT network is at the interface of oncogenic signaling and cancer metabolism; demonstrated that interleukin-13 drives metabolic conditioning of muscle to endurance exercise; and found that iron potentiates microglial interleukin-1b secretion induced by amyloid- β .

NUTRITION

Understanding the relationships between nutrition, genomics, food systems, and health

In July 2019, Kyu-Ha Lee joined the faculty as an assistant professor of integrative genetic epidemiology. The department's research accomplishments, highlighted here, offer important guidance for public health policies and practice. Long-term follow-up of our large cohort studies revealed that maintaining five healthy habits may increase by eight to 10 years a life lived free of type 2 diabetes, cardiovascular disease, and cancer. In addition, research showed that following a predominantly plant-based diet reduces a person's risk of type 2 diabetes, cardiovascular disease,



and premature death. In particular, regular consumption of nuts, soy products, and olive oil as a replacement for red meat and animal fats was associated with long-term cardiometabolic health. People without diabetes enjoyed better cognitive function than those with diabetes, but individuals with diabetes demonstrated larger gains in cognitive function when adhering to a Mediterranean-style diet. Dietary-record analysis showed that diet was associated with major changes in the alpha-diversity of the gut microbiome. In the area of planetary health, department researchers documented the role of protected areas in delivering human health benefits and proposed marine-based solutions to sustainable food systems. Globally, an improvement from current diets to the EAT-Lancet's planetary health diet could prevent 11 million, or 24 percent, of total premature deaths. In public health nutrition, department researchers conducted the first study to test whether the 2009 overhaul of nutrition standards for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program reduced childhood obesity. And in global health and nutrition.

SOCIAL AND BEHAVIORAL SCIENCES

Understanding and intervening on the social determinants of health and health equity across the life course

The department welcomed Shoba Ramadhan in summer 2019. Her research focuses on developing scientific models to build capacity among community-based organizations to address health disparities. The department's faculty have been successful in securing large research awards that will likely have a high impact on the field. These grants include a P-50 award to establish an Implementation Science Center for Cancer Control Equity and major funding from the Centers for Disease Control and Prevention to support ongoing collaborations with health departments across the nation to reduce childhood obesity. The department's faculty are leaders in providing the public and the scientific community with evidence-based public health information related to the COVID-19 pandemic. Faculty have contributed articles and interviews related to the intersection of health inequities and COVID-19 to the Journal of the American Medical Association, New York Times, NPR, CBS News, the New Yorker, WebMD, and many others. The Viswanath Labs and the India Research Center's COVID-19 websites provide the general public with factual information in multiple languages. Faculty honors and awards include induction into the National Academy of Sciences, the Stephen Smith Medal for Distinguished Contributions in Public Health from the New York Academy of Medicine, the Leon Eisenberg Award from Boston Children's Hospital, the Harvard Faculty Humanitarian Award, and an honorary doctorate from the Australian National University. Faculty members also hold leadership positions in multiple public health organizations and committees, including the Massachusetts Task Force on Vaping, board of directors of the Academy for Eating Disorders, and National Academy of Sciences Committee on the Future of Nursing 2020-2030.

Section 7: Administration and Fundraising



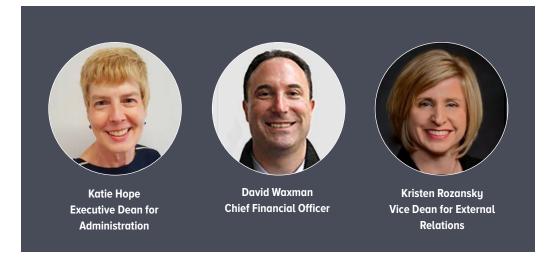
FISCAL YEAR 2019–2020 FINANCIAL HIGHLIGHTS JULY 1, 2019 – JUNE 30, 2020

The beginning of 2020 brought leadership changes in the School's administration. In February, Katie Hope was named the School's executive dean for administration. She had previously served as the School's chief financial officer since 2011. Hope holds a master's degree in public policy from Harvard Kennedy School and a PhD in political science from Massachusetts Institute of Technology. In April, David Waxman was named chief financial officer, after having served as the School's budget director for 19 years. Waxman holds an MBA from Boston College.

Once again, the Harvard T.H. Chan School of Public Health achieved a positive financial result in fiscal year 2019. Although revenue was flat compared to the prior year, the School was still able to advance priorities such as increasing salary support for faculty, providing more student financial aid, and funding critical research and educational initiatives.

Revenue for the fiscal year totaled \$388 million. Although nonfederal sponsored research revenue declined, federal sponsored research revenue remained steady. A decrease in currentuse gift revenue was more than offset by an 8 percent growth in endowment income, driven in large part by the Chan naming gift.

Given limited revenue growth, the Harvard Chan School has worked actively to manage expenses. This strategy enabled the School to fund key academic priorities while holding expense increases to 2 percent for the fiscal year.

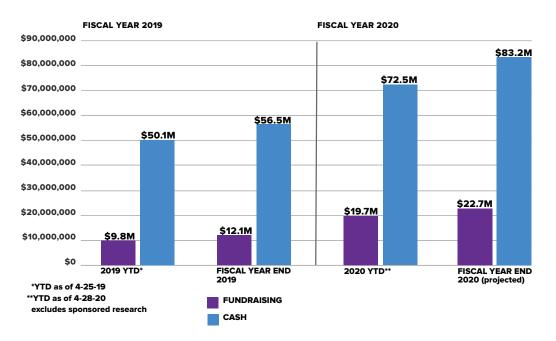


PHILANTHROPIC IMPACT

In August 2019, the School welcomed Kristen Rozansky as vice dean for external relations. Rozansky works with School and volunteer leadership, as well as the entire Office for External Relations team, to articulate a sustainable fundraising strategy and inspire an expansion of highquality engagement with alumni, donors, and key public health stakeholders.

Private philanthropy powers growth and innovation across the Harvard Chan School, expanding our capacity, increasing our impact, and driving deeper questioning and bolder solutions. Philanthropy makes it possible to translate research quickly into action and apply solutions on the ground, in real time. It is our competitive advantage.

In 2019–2020, private philanthropic support to the School increased by 87 percent over fiscal year 2018–2019. The chart below illustrates this growth.



PHILANTHROPIC SUPPORT

Thanks to the generosity of our donors in 2019–2020, the School will be able to substantially deepen its work related to all five Harvard Chan Frontiers: Reimagining Aging, Overcoming Violence, Confronting Climate Change, Cultivating Well-Being and Nutrition, and Conquering Epidemics. The Frontiers are the School's next targets for humanity's needed breakthroughs. We are dedicated to making advances in these key areas to lift lives on a world scale. Selected highlights of related support are listed below.



Reimagining Aging

As part of the School's commitment to continue discovering ways to ensure that aging people and societies can be stronger than ever, we announced the Human Immunomics Initiative (HII) in April 2020. HII, a partnership between the Harvard Chan School and the Human Vaccines Project, aims to revolutionize the understanding of the human immune system and accelerate the development of effective vaccines, diagnostics, and treatments. We have been heartened by the early positive response to this new initiative from our donor and alumni community and look forward to strengthening partnerships to accelerate this work.

Overcoming Violence



The Harvard Chan School is using scientific rigor to understand how damage to the body and spirit can be prevented and to develop ways to repair the effects of violence and build resilience in the future. A generous endowment from G. Barrie Landry and UNICEF USA will support child protection professional training at the François-Xavier Bagnoud (FXB) Center for Health and Human Rights. The training will enhance the expertise of practitioners working to improve the lives of millions of children around the world who are vulnerable to violence, abuse, and exploitation.

Support from Diana Barrett also helped to strengthen our Overcoming Violence Frontier with the launch of the Initiative on Health and Homelessness. The initiative is founded on the recognition that the profoundly inadequate state of public health education, research, and translational efforts regarding homelessness has hindered progress in solving health issues related to housing instability, and seeks to build an academic community dedicated to addressing the knowledge gaps in the area of health and homelessness.

Confronting Climate Change

From the air we breathe and the food we eat to the rising risk of natural disasters and epidemic threats, the Harvard Chan School is uncovering the human toll of our changing environment and crafting global solutions. Our work toward a healthy and sustainable climate received an additional boost from the Login5 Foundation, which expanded its support for the Co-Benefits of the Built Environment (CoBE) calculator, a tool that planners, developers, and other stakeholders can use to better understand the economic, climate, and health impacts of buildings' energy consumption. The foundation supported CoBE's development and launch and provided continued support with a new gift. This additional funding will enable greater specificity in the CoBE tool, allowing it to narrow its focus from country-level health and climate benefits of energy savings in buildings to a focus on regions, cities, and even individual buildings.



Cultivating Well-Being and Nutrition

The School is leading the way in understanding how genetics, lifestyles, and social forces interact to influence everything from metabolism to mental health. A generous gift from the John and Katie Hansen Family Foundation will help evaluate and implement solutions aligning with both our Confronting Climate Change and Cultivating Well-Being and Nutrition Frontiers. The foundation's gift will address one of the world's greatest challenges: feeding a growing global population within the limits of our planetary boundaries. The gift will support strategic partnerships with key players in conservation and planetary health, led by the Harvard Chan School and Conservation International, and will explore innovative ideas such as linking human health and food security to marine conservation efforts.

Conquering Epidemics

Strengthening our most urgent Frontier at this moment—Conquering Epidemics—Andrew and Corey Morris-Singer, MD '07, PhD '12, provided critical resources to two centers at the School with key roles in confronting COVID-19. A gift from the Morris-Singer Foundation will enable the Center for Communicable Disease Dynamics to continue its emergency work modeling and predicting the spread and impact of COVID-19 and the impact of nonpharmaceutical interventions, as well as COVID-19 surveillance work, including efforts to scale up and improve testing. An additional gift will allow Ariadne Labs to expand its current work around community mitigation strategies; partner with other countries facing this global pandemic; and create guidelines on practice and protective equipment for hospital systems, as well as for obstetrics, surgery, virtual ambulatory care, and caring for elderly individuals during the crisis.

We are tremendously grateful for the generosity of our committed donors and new friends who make our work stronger, faster, and more responsive.



CONFRONTING COVID-19

The vital importance of our work at the Harvard T.H. Chan School of Public Health has never been clearer. As the COVID-19 crisis took shape and the urgency of the School's global leadership became clear in March 2020, the Office for External Relations quickly pivoted to respond by informing and engaging our alumni and donors through a series of new communication vehicles and town hall events. Our weekly digest of Harvard Chan School news and resources,

Confronting COVID-19, reaches an audience of more than 55,000 with a consistently high rate of engagement and positive feedback. Registration for our virtual events has been over capacity and has brought alumni and donors together with faculty from the Harvard Chan School and across the University to explore urgent questions about the pandemic, how our School is responding, and our collective future.

In addition to the gift from Andrew and Corey Morris-Singer mentioned above, our community of donors has given generously to support COVID-19 activities across the School. We have seen strong support for the School's COVID-19 Response Fund, the Center for Communicable Disease Dynamics Fund, and our new Student Emergency Fund, as well as support for student and faculty work related to COVID-19. We are grateful for the partnership of donors who have responded to this crisis with thoughtfulness, generosity, a commitment to amplify and deepen our work, and a passion for supporting the next generation of public health leaders.



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Section 8:

Dean Michelle A. Williams Selected Speaking Engagements and Op-Eds

The Washington Post | LIVE



Coronavirus: Helping First Responders A Conversation with Arianna Huffington, Michelle Williams & Natalie Tran

SELECTED INVITED SPEAKING ENGAGEMENTS

PANELIST: "Coronavirus: Helping First Responders—A Conversation with Arianna Huffington, Michelle Williams & Natalie Tran," Washington Post Live, Online, June 2020

SPEAKER: Google Health Clinical Speakers Series Online, June 2020

PANELIST: "How COVID-19 Has Impacted the Global Psyche," BIO Digital Week, Online, June 2020

PANELIST: "Coronavirus Pandemic: The New Normal for Medical Communities and American Society," *Frontline Online, June 2020*

PANELIST: "Future Returns: Social Impact Investment for Population Health," JP Morgan Healthcare Conference 2020, San Francisco, January 2020

PANELIST AND MODERATOR: "Mental Wellbeing—The Fate of Our Communities" (panelist), "Mental Health & Suicide Prevention" (panelist), and "Decoding New Approaches for Health & Wellbeing" (moderator), Sages and Scientists Symposium, Bentonville, Arkansas, November 2019 "As James Baldwin wrote, 'Not everything that is faced can be changed, but nothing can be changed until it is faced.' It is time to face this immutable fact: Systemic racism has had its knee on the neck of the African American community since America began. And all of us have a responsibility to acknowledge it and address it."

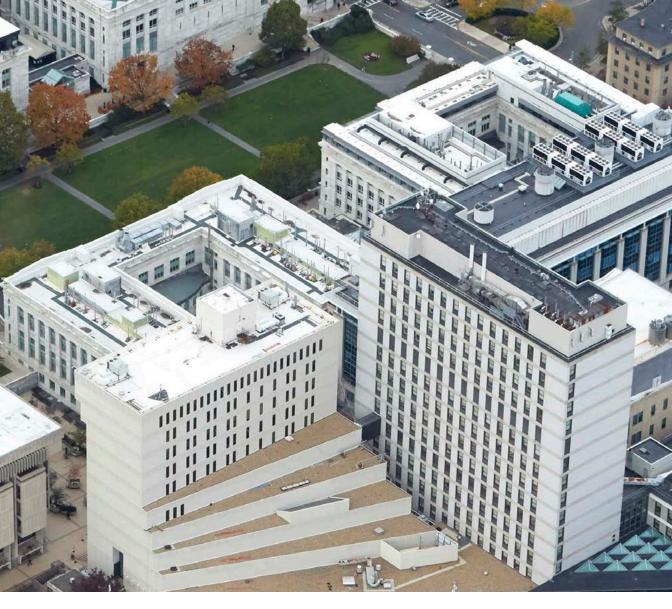
> *—Michelle A. Williams and Jeffrey Sánchez, Washington Post , June 4, 2020*

"When the history of this pandemic is written, health care workers from hospice and home-care staff to physician assistants and EMTs —will be remembered for meeting this moment with courage and compassion. We owe it to these heroes to show up for them the way they've shown up for us, through this crisis and beyond."

-Michelle A. Williams and Arianna Huffington,

SELECTED OP-EDS

- "Racism is killing Black people. It's sickening them, too." Washington Post, June 4, 2020
- "Huffington, Harvard dean: End stigma behind mental illness so front-line doctors can get help," USA Today, May 5, 2020
- "How the U.S. should invest in public health before reopening the economy," *Fortune, April 27, 2020*
- "**The COVID-19 crisis is going to get much worse when it hits rural areas**," *Washington Post, April 6, 2020*
- "Shrinking Public Health Budgets Shrink Public Health Responses," Boston Globe, March 3, 2020
- "How do we reduce gun violence? By treating it like a disease," Los Angeles Times, July 29, 2019
- "The Real-Time Cost of Climate Change and the Needed Real-Time Response," Economic Times, July 8, 2019
- "We can't despair about our antibiotic crisis," Washington Post, July 8, 2019



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brings together dedicated experts from many disciplines to educate new generations of global health leaders and produce powerful ideas that improve the lives and health of people everywhere. As a community of leading scientists, educators, and students, we work together to take innovative ideas from the laboratory to people's lives—not only making scientific breakthroughs but also working to change individual behaviors, public policies, and health care practices. Each year, more than 400 faculty members at the Harvard Chan School teach 1,000-plus full-time students from around the world and train thousands more through online and executive education courses. Founded in 1913 as the Harvard-MIT School for Health Officers, the School is recognized as America's oldest professional training program in public health.

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