# GENERAL HOSPITAL NEWSLETTER

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# A New Era in Global Psychiatric Care

WHEN THE WORLD HEALTH ORGANIZATION labeled COVID-19 a pandemic in March 2020, researchers within the mental health community quickly began sound the alarm about a concurring silent pandemic: mental health illness. In Boston, Greg Fricchione, MD, and Guiseppe "Bepi" Raviola, MD, leaders of the MGH Chester M. Pierce Division of Global Psychiatry, have actively worked to position the division in response to the ensuing mental health crisis.

Even before the first case of COVID-19 was reported, the global burden of mental health illness was rising. In 2019, the World Health Organization (WHO) reported that in 2017 approximately 379 million people suffered from a range of mental disorders including depression, bipolar disorder, schizophrenia, and dementia, a 13% rise from 2007. They also found between 76% and 85% of people with mental disorders living in low- and middle-income countries received no treatment. The COVID-19 pandemic made matters worse. The WHO reported a 25% increase in the worldwide prevalence of anxiety and depression, due to stress, social isolation, and disruption of mental health services.



Greg Fricchione, MD, (left) and Giuseppe Raviola, MD, (right)

The Chester M. Pierce Division of Global Psychiatry, founded in 2002 by Fricchione and the late Chester Pierce, MD, works to increase access to mental health services by expanding global psychiatric training and care through bi-directional partnerships. When the two initially became involved in this work, the WHO and other large health organizations did not consider mental health a priority relative to diseases such as tuberculosis, malaria, or HIV/AIDS. However, the advent of the disability-adjusted life years measure changed these priorities in the 1990s.

"The global burden of disease studies came along, and they had a measure called the disability-adjusted life years," Fricchione says. "That measure revolutionized how the World Health Organization and Center for Disease Control ranked diseases because—in addition to disease mortality-morbidity and impact on one's quality of life entered the metric."

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# In Memory of Paul Edward Farmer, MD, PhD

PAUL EDWARD FARMER, MD, PhD, passed away at the age of 62 in Butaro, Rwanda on February 21, 2022. He was the co-founder and chief strategist of Partners In Health, chair of the Department

of Global Health and Social Medicine at Harvard Medical School, chief of the Division of Global Health Equity at Brigham and Women's Hospital, and Kolokotrones University Professor at Harvard. Within the MGH Center for Global Health he was not only a colleague, but a mentor and friend to many. In the months since his passing, members of our community have shared their thoughts and reflections on Farmer's life and legacy.

"He was an inspiration, a transformative thinker, a friend, a health justice North Star" Louise Ivers, MD, MPH, executive director of the Center for Global Health and longtime mentee and colleague of Farmer, reflected. "He pushed us all to do better."

In his lifetime, Farmer authored and was profiled in several books, cared for hundreds of thousands of patients in countries such as Rwanda, Haiti, and Peru, and formed a network of peers, trainees, and

> mentees that spans the globe. Through his writing, clinical care, programmatic leadership, and mentorship, he left a profound impact on the field of global health.

"People underestimated his ability to be everywhere, talk to everyone, and build authentic personal connections," Ivers

In addition to forming personal relationships, Farmer demanded the best for his patients. He fundamentally refused to believe lifesaving resources could not be distributed equitably.

Paul Farmer, MD, PhD, in Butaro, Rwanda, Photo: Katherine Kralievits

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## Researching Antimicrobial Resistance in Bangladesh

**IN JANUARY 2022**, a published <u>Lancet study</u> found that in 2019, nearly 5 million deaths were due to antimicrobial resistant infections. *Klebsiella pneumoniae* is one bacterium that can develop antimicrobial resistance



Dr. Zannat Kawser (left), Dr. Sushmita Sridhar (center), and Sanchita Kar (left) in Bangladesh.

and as a result has become an increasing global threat. The bacteria, which is normally harmless in the gut, can cause a series of lifethreatening illnesses including pneumonia, sepsis, meningitis, and wound or surgical site infections when introduced to other parts of the body.

*K. pneumoniae* joins *Eschericia coli, Staphylococcus aureus*, and *Mycobacterium tuberculosis* as part of a group of bacteria microbiologists are actively monitoring for their potential to resist current antimicrobials. Sushmita Sridhar, PhD, member of the MGH Global Enterics Laboratory, is one microbiologist working in the global fight against antimicrobial resistant bacteria. Sridhar's work focuses on understanding these lifethreatening microbes and improving surveillance of them.

"There is a lot of missing data to have a coherent view of what the global antimicrobial resistance situation looks like," Sridhar says. "It takes a lot of infrastructure and funding to put together a surveillance system. The data is spotty because a lot of the world has not yet been able to set up and systematically measure antimicrobial resistance data."

In October 2021, the MGH Center for Global Health awarded Sridhar the first Research Development Award in recognition of her ongoing work. Her project: "Genomic and phenotypic characterization of invasive *Klebsiella pneumoniae* in Bangladesh" aims to understand the prevalence of antimicrobial resistant *K. pneumoniae*.

"K. pneumoniae is a bacterium that we know is an emerging threat," Sridhar says. "Yet in a place like Bangladesh, there is very little known about it. We do not know how similar or different it is to K. pneumoniae found in other parts of the world, which is important if we want to design vaccines against it."

In Bangladesh, Sridhar works with clinical microbiologists at the Institute for Developing Science and Health Initiatives to perform both phenotypic and genomic characterization of *K. pneumoniae*. Phenotypic characterization involves isolating, growing, and then testing a variety

of antimicrobials against a microbe. Genomic characterization, a newer and more expensive option, involves extracting the genetic material of a microbe, multiplying it, separating it into a readable sequence of genetic code, and examining that code for resistance genes. Both types of surveillance are necessary to fully understand antimicrobial resistance. Sridhar is helping to establish local surveillance by teaching local microbiologists to perform genomic sequencing of bacteria.

*K. pneumoniae* is just one bacterium that poses a threat because of antimicrobial resistance. However, as with other microbes, the bacterium's effects on the body are context specific. Sridhar's work is an attempt to ascertain whether *K. pneumoniae* has adapted to



Sridhar (second from left) with colleagues in Bangladesh

become more virulent in certain settings, like Bangladesh. Expanding surveillance systems helps better understand microbes, their prevalence in the community, and their potential to cause illness. It will also help set the stage for improved response to other outbreaks.

"When I was in Bangladesh [in April], they were having the largest cholera outbreak the country has had in the last sixty years," Sridhar says. "You do not hear about this outbreak here in Boston, but while I was there, I was stricken by how bacteria surveillance is an urgent need. In microbiology we can grapple with these needs and solve them."

In addition to supporting Sridhar's work, MGH Global Enterics Laboratory co-director Jason Harris, MD, MPH, has been working alongside MGH Global Health Research Collaborative colleagues Galit Alter, PhD, and Richelle Charles, MD, FIDSA, as well as colleagues at the International Centre for Diarrhoeal Disease Research, Bangladesh to study and respond to cholera outbreaks in Bangladesh.

#### CNN Africa Recognizes MobiCare Creator Nuriat Nambogo, MMS, DPPM, BDS

**NURIAT NAMBOGO, MMS, DPPM, BDS**, a Research and Grants Manager at the Consortium for Affordable Medical Technologies (CAMTech) Uganda was recognized by CNN Africa for her role in developing MobiCare, the company responsible for the <u>MobiCare app</u>.

Mobicare allows patients to search for and directly interact with local healthcare providers to schedule appointments and ask medical questions. Nambogo developed the app in response to difficulties in accessing medical care. By streamlining contact between patients and providers, the app closes access gaps and helps patients get much needed care.

Nambogo and her team created the app with support from CAMTech Uganda. CAMTech Uganda, supported by the MGH Center for Global Health, is a global network of academic, clinical, corporate, and implementation partners that works to accelerate high-quality affordable medical technology in low- and middle-income countries. The group works closely with our partners at Mbarara Regional Referral Hospital and Mbarara University of Science and Technology.

The CNN Africa video, which spotlights Nambogo along with three other innovators on the African continent can be found here.



Nuriat Nambogo, MMS, DPPM, BDS



# Global Disaster Response and Humantarian Action Responds to Crisis



Members of Global Disaster Response and Humanitarian Action team providing training in Fastern Furane

THROUGHOUT THE WINTER AND SPRING, the center's disaster response team continued to respond to the needs of displaced people across the globe by deploying teams to two crises: the migrant crisis at the U.S.-Mexico border and the migrant crisis stemming from the conflict in Ukraine. The ongoing work at the U.S.-Mexico border is in partnership with Global Response Management. The work in Eastern Europe has been in partnership with Global Response Management, International Medical Corps, and Medical Teams International. So far, two teams have been deployed to Eastern Europe and five teams have spent time at the U.S.-Mexico border this year. Read more about our Humanitarian Action work here.



Radhika Jain, MD, Global Medicine Fellow and Global Disaster Response and Humanitarian Action team member, sees patient in camp at Matamoros, Mexico.

#### **Global Health Service Awards**

IN JANUARY OF THIS YEAR, we announced the recipients of the 2021 Global Health Service Awards. The winners are as follows: The MGH Global Palliative Care Program—Bethany-Rose Daubman, MD; Khadidjatou Kane, MD; and Mark Stoltenberg, MD, MPH— and Damon Leader Charge received the Excellence in Clinical Education and Mentorship Award. Adeline Boatin, MD, received the Excellence in Research and Innovation Award. Catherine "Skeeter" Welder, RN, received the Excellence in Global Disaster Response and Humanitarian Action Award. More information about the awards and the recipients can be found <a href="https://linear.pubm.new.google.

### **AWARDS & HONORS**



Akwi Asombang, MD, MPH, member of the MGH Division of Gastroenterology and Director of Global Health Programs of the Interventional Endoscopy team, was awarded the first Center for Global Health Medical Education and Innovation Development Award. The award recognizes her work in expanding gastroenterology services on the African continent. You can read a recent interview with her here.



Peter Olds, MD, MPH, a Center for Global Health associate, was recently appointed as the Assistant Director for Uganda Programs. In this position Olds will work to advance the execution of the "First Mile" program based at partners sites Mbarara University of Science and Technology and Mbarara Regional Referral Hospital.



The MGH Rural Medicine Program, led by Matthew Tobey, MD, MPH, received the 2022 Outstanding Rural Health Program Award from the National Rural Health Association for their work partnering with the Sicangu Oyate and Rosebud Indian Health Service.

## 2022 MGH Global Health Virtual Expo



**THE GLOBAL HEALTH EXPO** returns on May 19! The MGH Center for Global Health is hosting the 2022 MGH Global Health Virtual Expo. The event displays the breadth of initiatives across MGH and beyond dedicated to addressing health inequities locally and globally. All employees and direct colleagues of the Mass General Brigham community are welcome. The virtual event is from 10am EST to 1pm EST on May 19. Register here!

#### —Global Psychiatric Care

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The division's early work capitalized on this changing science, pushing for greater urgency in increasing mental health programs worldwide. Over the past two decades, the division has helped launch programs in Brazil, Nepal, Albania, and South Africa. However, the pandemic highlighted another range of issues affecting mental health.



Raviola (front right) with colleauges in Peru.

"COVID-19 has clarified a lot of the issues we had prior to the pandemic," Raviola says. "Including the extent of health inequity, the extent of the impacts of political violence, and the oncoming threat of climate change."

Raviola described the wide network of converging crises as a syndemic, or overlapping pandemics of biological and social ills, to the Harvard School of Public Health. This term identifies the deeply traumatic effects of the pandemic by combining its biological effects illness, disability, and death—with preexisting political and social contexts—such as racism, sexism, and underfunded health services. Alexander Tsai, MD, PhD, associate director for Research and Trainee Development in the division and the director of the MGH Center for Global Health and Mongan Institute Program on Social Policy and Behavioral Health, has also been a key contributor to syndemics theory and how social policy can be used to address social determinants and shift the distribution of mental health outcomes. The combined expertise within the division shapes the next era of their COVID-19 response work.

Raviola cites a refined focus on service delivery and health systems strengthening as key features to guide the division in its response to COVID-19. As Fricchione steps away as the division's director and Raviola assumes the role, he plans to continue addressing syndemics by advancing partnerships with organizations like Partners In Health, building training and education programs, establishing new collaborations to build digital mental health programs, and working directly in the mental health response to COVID-19.

"The division will think about explicit ways to engage on the broader issues that COVID-19 has raised: the effects of structural racism, political extremism, climate change, and all of the other disruptions." Raviola says. "We will apply lessons from how global mental health can be brought to bear on these issues."

#### —In Memory of Paul Farmer

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"I believe in health care as a human right," he once said in an article for the National Public Radio. "I've worked as a doctor in many places, and I've seen where to be poor means to be bereft of rights."

This belief drove Farmer's response to the HIV/AIDS pandemic. He refused to accept that low- and middle-income countries did not deserve access to antiretroviral therapy because patients would not be able to adhere to the treatments, a belief held by many at the time.

In defiance of these beliefs, Farmer commissioned a network of community health workers in Haiti to distribute the medications to patients who needed them and connect patients to much needed care. The effort's success proved that patients could and would use lifesaving therapies if they had access to them and health care programs were designed to meet their needs.

"Paul's insistence on equity, treatment, and health care for everyone was a big part of the foundation of the world's insistence on treating HIV for everyone," Ken Freedberg, MD, co-chair of the center's global research collaborative reflects. "His effect was so profound on the individual level and across the world in ways we will only learn more about over time."

As the global health community continues to mourn Farmer's loss, the MGH Center for Global Health is committed to continuing

his legacy through our belief that everyone, everywhere has a right to good health.

"[Farmer's passing] is an opportunity to reflect on all of our paths and when we formulated our own personal missions," Amir Mohareb, MD, Center for Global Health associate faculty commented. "This is a chance to look back and ask: What have we done since then?"



Paul Farmer, MD, PhD

As we continue to mourn Dr. Farmer's passing we want to share words from the people he impacted. A memorial service was held for him on March 12 and is archived here. Partners In Health has also released a series of tributes for Farmer and his legacy here.

#### Share Your Work with the MGH Global Health Community