



Advancing Equitable Global Health Research



JESSICA HABERER MD, MS believes that strong global health research starts with equitable partnerships.

Dr. Haberer is the Director of Research at the Mass General's Center for Global Health (CGH). She is a leader in HIV/AIDS research—specifically around adherence to antiretrovirals and pre-exposure prophylaxis.

Her global health work began in the early 2000's when she found herself working for the Clinton Foundation in China. There she worked with the Ministry of Health and helped start a pediatrics program focused on HIV medication adherence.

"I got asked by some people, 'Why are you in China? Why aren't you helping your own people?'" she said about questions of this work.

Though proud of what she accomplished, she understood these questions and had asked herself similar ones about working globally: "Why am I working there as opposed to here?"

To answer this question, Dr. Haberer had to be honest about her own position in global health. That meant she had to account for her skills—as a grant writer, as a researcher, and as an internal medicine physician—and her privileges—as a white woman physician at Harvard Medical School. Ignoring one's own privileges makes researchers more likely to continue histories of harm and conduct research without care. Dr. Haberer believes acknowledging privilege is an important first step in global health research.

In order to best use her skills, Dr. Haberer committed to consciously leveraging her privilege and resources to address inequities in global health. She identified the incongruence between research questions and community needs as one consequence of unchecked privilege.

"A lot of questions are asked by the people with the money," Dr. Haberer said. "Those questions are not necessarily relevant to the people living their lives and dealing with the problem."

To respond to this issue, she currently works to establish research partnerships based on mutual respect, partnerships that listen to the community needs to co-create agendas.

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The Global Medicine Residency Program Prepares the Next Generation of Global Health Physicians

SINCE LATE 2019, the COVID-19 pandemic has taken the lives of nearly 2.5million individuals. Global healthcare leaders with the passion and expertise to help communities navigate the complex web of problems that COVID-19 has exacerbated are needed. The [MGH Global Medicine Residency Program](#) attempts to create leaders dedicated to advancing global health equity and strengthening health systems by combining strong medical training with the foundational belief that health, and healthcare, are human rights.

The Global Medicine Residency Program followed the MGH Department of Medicine's longstanding commitment to global health and launched in its current form in 2011. Under the direction of Geren Stone, MD, the program has equipped 12 physicians with the skills they need to become leaders in global health. Graduates of the program have gone on to several careers, including being awarded NIH research career development awards, positions with the CDC Epidemiologic Intelligence Service, and serving as a primary care physician among underserved populations domestically.

The Global Medicine Program has evolved since it launched a decade ago, but for current trainees it includes a three-year residency with the option to apply to a yearlong fellowship. The program uses this time to offer courses, mentorship, research support, global health training opportunities, and access to an expansive global network of researchers, physicians, and other clinicians in the US and through MGH's global partnerships.

Ingabire Grace Balinda, MD, MGH Global Medicine Fellow, Pooja Yerramilli, MD, MGH Global Medicine Resident and Brady Page, MD, MPHTM MGH Global Medicine Resident are three of the program's current trainees. Though each entered the residency with very different goals, they echoed a common reason for joining: the program's willingness to offer individualized career planning.

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Expanding the Role of Pharmacists in Global Health

HIGH INCOME COUNTRIES have nearly eight pharmacists for every 10,000 people. In many low-income countries, there is not a single pharmacist for 10,000 people. Instead, doctors, nurses, or other clinical staff shoulder the duties of pharmacists, while continuing to manage other clinical care. This lack of trained pharmacists' taxes health systems globally and prevents many from getting necessary care.

Carmela Berlin RPh, Christine Do, PharmD, BCPPS, and Thuyhong Do, PharmD are three MGH pharmacists working to reduce burdens and expand the role of pharmacists in global health. All three recognize the privilege associated with being in a stocked and well-staffed pharmacy in Massachusetts. By recognizing this privilege, they have identified ways to utilize their resources to advance pharmaceutical expertise globally.

Ms. Berlin is an Attending Pharmacist working at MGH's Northshore Cancer Center. Eight years ago, when Typhoon Haiyan devastated the Philippines, she saw a need for her clinical expertise and joined the MGH Center for Global Health's Global Disaster Response and Humanitarian Action program. She deployed with a team to the Philippines in 2013, and since then has deployed four more times with the disaster response team.

As a pharmacist working alongside international partners in post-disaster settings, Berlin has learned how important the knowledge and experience of pharmacists can be in a health crisis. On her first deployment the local logistics director, greeted her team with, "I heard you had a pharmacist."

"[After landing] I barely could even eat my dinner," she said. "I was working until four in the morning."

She spent that night—and many nights on future deployments—cataloguing medical supplies and drug inventories. Berlin said this task is just one among many that pharmacists can perform on global health deployments. In addition to helping create sustainable cataloguing infrastructures, she has also offered help identifying clinical drug substitutions and managing supply chains.

For Berlin, responding to disasters requires more than just sending medications and medical supplies to places. Through her deployments, she realized the importance of collaborating with local responders to determine medication needs and helping to appropriately and effectively use medications.

But the global work of MGH pharmacy includes more than disaster response.

Dr. Christine Do, PharmD, BCPPS and Dr. Thuyhong Do, PharmD, are clinical pediatric pharmacists at MGH. They also serve within the Global Program for Palliative Care, working with colleague Eric Krakauer, MD, PhD. The MGH Division of Palliative Care provides specialized, multidisciplinary medical care for people with serious illnesses and focuses on improving quality of life for both patient and family.



The goal of the Global Program for Palliative Care is to offer training and technical assistance in pain relief and palliative care to colleagues in low-resourced settings. Since 2006, the program has been assisting the Vietnam Ministry of Health to integrate palliative care into their healthcare system.

Before Dr. C. Do and Dr. T. Do joined the program, the curriculum was designed to train physicians in Vietnam to learn and apply the principles of palliative care. However, Dr. Krakauer hoped to reach more than just physicians.

"Dr. Krakauer felt that palliative care is something that really needs to be trained in doctors and pharmacists," Dr. T. Do said. "Both providers needed to feel more comfortable to treat patients suffering from pain or other symptoms."

To expand palliative care training to pharmacists, the pair traveled to Vietnam and visited the University of Medicine & Pharmacy at Ho Chi Minh City, Vietnam. There, they built relationships to better understand the role pharmacists could play in palliative care. These relationships coalesced into a curriculum to better equip students and working pharmacists to practice palliative care.

To expand this curriculum to a larger scale, Dr. C. Do and Dr. T. Do worked closely with the University of Medicine & Pharmacy at Ho Chi Minh City to plan a virtual symposium. In October 2019—right before COVID-19 would limit international travel—the team watched their work come together. Their four-day, virtual symposium pulled together hundreds of local Vietnamese practitioners; they were ushering in a new wave of pharmacy-involved palliative care in the region. The program in Vietnam is just one of the many partnerships supported by the MGH Global Palliative Care Program.

Dr. Berlin, Dr. T. Do, and Dr. C. Do realize pharmacists are not the first type of healthcare worker many people think of when they think about global health. Yet the disparity in pharmacist access between high- and low-income countries illustrates the need for more engagement. Together, they look forward to meeting this need and expanding the capacity of pharmacists globally. A goal that fits the MGH Center for Global Health's mission to support multidisciplinary engagement in global health across various areas of expertise.

"Pharmacists are the first person and the last person a patient sees," Berlin said. "Pharmacists are the face of medicine."

Center for Global Health Launches Program to Foster Diversity in HIV Research

THE HIV/AIDS EPIDEMIC in globally and in the United States is concentrated in Black communities, among men who have sex with men, and other minority groups. Yet the researchers that study the virus often do not come from these underrepresented groups, but come from more privileged backgrounds. To address this issue, Jessica Haberer, MD, MS, Wafaie W. Fawzi, PhD, MB, BS, and Sherri-Ann Burnett-Bowie, MD, launched the *Fostering Diversity in HIV Research Program* to provide mentoring and support for researchers from racial and ethnic backgrounds that are underrepresented in medicine.

With support from the National Institutes of Health, the program is built on two principles: mentoring and financial support. Faculty at Mass General Hospital and Harvard School of Public Health provide mentorship to program trainees, creating supporting environments where trainees' careers and rigorous research are promoted. The program offers formal didactics training, sponsors community of practice events, and has available funding to support research, travel, and securing publications.

The program is designed to help trainees build competency in every level of the HIV continuum: HIV testing and outreach; PrEP delivery and adherence; linkage, retention in care, and ART adherence; chronic care and complications of treated HIV; and maternal health and perinatal transmission.

Team Deploys to Matamoros, Mexico to Support Individuals Seeking Asylum

IN OCTOBER 2020, the Global Disaster Response and Humanitarian Action program partnered with the Global Nursing program and deployed a three-person team to Matamoros, Mexico.

Matamoros is a border city where individuals seeking asylum in the United States are received after being sent back to Mexico from the United States while they await an immigration hearing. Global Response Management, an international medical NGO, has been operating a clinic in the area since October 2019. The clinic focuses on providing care for acute and chronic medical conditions for the over 3,000 individuals seeking asylum in the nearby camp.

Supported by the Durant Fellowship for Refugee Medicine, Global Nursing Director, Mary Sebert, RN, MPH, Global Disaster Response and Humanitarian Action Director Lindsey Martin, NP, and Deputy Director Kristen Giambusso, MPH deployed to Matamoros to support GRM's clinic. This deployment was a first step in a long-term commitment to Global Response Management's work in Matamoros.



Center for Global Health hosts webinar: COVID-19 Vaccine & Global Health Equity: From Action to Impact

ON DECEMBER 8, 2020 the first COVID-19 vaccine was administered in the United Kingdom. However, before vaccine manufacturing had been completed, global powers had bought up a disproportionate number of doses, leaving low and middle-income countries scrambling to figure out how to purchase doses for their residents.

"We have to work, as Dr. King referred to in 1963, 'in the fierce urgency of now,'" said John Nkengasong, MSc, PhD, and Director of the Africa Centres for Disease Control and Prevention. "If we don't really use that fierce urgency of now, then we are in trouble. This virus will become endemic and it will spread out of control and the world will never be a safe place."

While the global north secures far more vaccines than necessary, it ignores the African continent which is struggling to find available doses to fill their 1.5 billion dose need.

On January 14, 2021 the MGH Center for Global Health convened an expert panel to discuss this glaring example of health inequity. The panel included Vanessa Kerry, MD, MSc, co-founder and CEO of Seed Global Health, Wanda McClain, MPA, Vice President of Community Health and Health Equity at Brigham Health, and Dr. John Nkengasong. Discussions included how inequity in the Covid-19 pandemic in the United States interplays with racism, the role of COVAX in global vaccine distribution, and the lessons that can be learned from past pandemics.

"This is not vaccination in normal times, it is vaccination in extraordinary times," said Dr. Nkengasong.

To watch the event in full: <https://youtu.be/PMbO7hgS3fA>

Awards & Honors



Global Health faculty member **Alexander Tsai, MD, PhD**, was inducted into the American Society for Clinical Investigation (ASCI), one of the oldest and most respected nonprofit medical honor societies in the United States. Dr. Tsai is the Director of the Program on Social Policy and Behavioral at the MGH Center for Global Health and the Mongan Institute, is the Associate Director for Trainee Development in the Chester M. Pierce, MD, Division of Global Psychiatry, is an Associate Professor of Psychiatry at Harvard Medical School, and is a faculty member of the Mongan Institute.



Global Health Research Collaborative member **Galit Alter, PhD**, was selected as a Bostonian of the Year by the Boston Globe for her response to the COVID-19 pandemic. She helped connect researchers in the Massachusetts Consortium on Pathogen Readiness that improved the city—and the world's—understanding and response to the virus. Dr. Alter is a Professor of Medicine at Harvard Medical School and a Group Leader at the Ragon Institute.



Venance Niyonzima, MNS, has been a lecturer in the Nursing Department of Mbarara University of Science and Technology (MUST) in a collaborative program with the support of the Center for Global Health since September 2017. In recognition of his leadership, the Ugandan Ministry of Health selected Niyonzima to join a team that will conduct Intensive Care training to 400 nurses to better prepare the country to respond to Covid-19. In December 2020, he was permanently hired by the Ministry of Health to serve as a senior lecturer at MUST.

— Equitable Global Health Research

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One of Dr. Haberer's first projects was conducted at Mbarara University of Science and Technology (MUST), in 2008. She found a shared concern about child adherence to ART between herself and local physicians in Mbarara. Together, they created programs to better understand patient experiences in ways that met the local community's needs.

Over the past decade, she has continued to work with MUST and watched the center grow into a research hub. And her role in MUST—while she still conducts research—shifted to supporting the researchers there. She now serves as a mentor, assists individuals with grant writing, advises researchers based on funding priorities, and collaborates on research methods and design.

This evolved role at MUST stemmed from Dr. Haberer's recognition that many global health decision-makers don't take the time to listen to local leaders, often overlooking their ideas and experiences.

Nelly Mugo, MBChB, MMED, MPH, Associate Research Professor in the Department of

Global Health, University of Washington and the Center for Clinical Research, Kenya Medical Research Institute was one of these local leaders. Described as a powerhouse and advocate for the communities she works in, Dr. Mugo seldom has time to lead her own projects due to working on others' research endeavors. Dr. Haberer greatly values her experience and ideas and hopes to support her in achieving her goal of independent funding.



later, after completing PhD work and looking to develop research programs regarding PrEP adherence in his native Uganda, Dr. Mujugira reached out to Dr. Haberer for mentorship.

"We worked very closely," Dr. Mujugira said. "I sent her my [grant] draft and she helped me to edit that and be a better researcher."

In that period, Dr. Mujugira was awarded the Fogarty Emerging Global Leader Award that gave

him the time, security, and freedom to conduct research for five years. With that newfound sense of freedom, he devoted himself to creating equitable partnerships and mentoring aspiring researchers.

"My desire here is that people get funding," he said. "Because once you get that funding you have the freedom to do what you want. If you work for other people you implement their ideas, but you don't really grow until you're implementing your own ideas and answering your own questions."

Throughout her career, Dr. Haberer has focused on leveraging resources to provide opportunities for her collaborators to ask and answer their own research questions and build their career paths. This vision aligns closely with the MGH Center for Global Health's approach to research in global health – to create, inspire and accelerate collaborative, equitable research partnerships, with bi-directional learning and mentorship across the globe.

"I bring my skills and then I identify the people I'm working with," Dr. Haberer said. "We ask, 'What are my goals, and your goals? What are our common goals? What skills do we have?' And then we pull it all together and we try to do something good."

— Global Medicine Residency Program

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Dr. Balinda always held a very specific goal: she wanted to be a doctor in Rwanda. Born in the Democratic Republic of Congo and raised in Rwanda, she attended college in the United States to study medicine, before choosing MGH for her residency.

"The Global Residency Program allowed me to be able to meaningfully contribute to the improvement of the health care system in Rwanda," she said about her decision to join.

Though the program did not originally have longstanding relationships in Rwanda, Dr. Stone helped leverage the program's network and resources to connect her with organizations working in Rwanda, such as Partners In Health. Once there, she took the time "to forge lasting relationships with people" while learning and contributing to local clinical care.

Dr. Yerramilli is a second-year resident in the program. The interest in global health that carried her to the Global Medicine Residency Program began early in her childhood.

"From a young age I was interested in poverty alleviation and international development," she said. "My parents are from India and we used to go there a lot and I used to engage in some community service projects. I was always bothered by inequities both locally and globally."

This awareness inspired her first real passion: global health policy. Dr. Yerramilli followed this passion to an undergraduate degree in global health. But after working in policy, she found herself seeking a more tangible impact in health.

"I really felt that I needed to see the individual impact, hear the individual stories, and learn about the practice of medicine in order to really understand what patients and physicians are facing," she said.

The global medicine residency program offered Dr. Yerramilli an "abundance of support and mentorship." Through the program, she developed a relationship with Seed Global Health and has worked to combine her policy experience and clinical medicine skills to focus on health

system strengthening.

Dr. Page, grew up in Northern California and spent time in Brazil, Australia, and Indonesia before medical school. Throughout his travel, he not only developed an interest in different cultures, but in the impact of infectious diseases.

"Infections are very much tied into other fields like the environment, the weather, cutting down trees and releasing different bugs but also what's going on socially, economically, and the history of a region," he said. "You get interested in all these different aspects of a place and learn a lot about them."

He carried this interest through medical school. When it came time for residency, he knew he didn't want his professional career to stop in the United States.

"Part of the allure of this program is that I didn't really have a clear vision of exactly where I wanted to be," Dr. Page said about his decision to join the program. "I knew things I wanted to get more exposure to, and I knew things I wanted to get more experience in, but because I didn't have a clear vision, I felt this program would let me explore a little bit and give me the best shot to say, 'Okay this is where I want to be.'"

As a resident, he utilized the program's international blocks to travel to a range of communities, including Papua New Guinea and Uganda, and offer support in local clinics.

Since 2011, the Global Medicine Residency and Fellowship Program has nurtured physicians from a myriad of backgrounds and perspectives like those of Dr. Balinda, Dr. Yerramilli, and Dr. Page. The program hopes to help them achieve their goals and become leaders within the global health equity community.

Beginning in 2021, the global medicine program offerings will be open to all internal medicine residents through the MGH Department of Medicine. This shift will integrate equity-centered global health practice into the core residency training and hopes to increase MGH's engagement in the global medical community.

"COVID-19 has shown us how interconnected we all are," Dr. Balinda said. "And global health should focus more on lifting up the countries that have been left behind. The medical community needs to be more involved."

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