



FOGARTY INTERNATIONAL CENTER • NATIONAL INSTITUTES OF HEALTH • DEPARTMENT OF HEALTH AND HUMAN SERVICES

NIH unveils framework for climate change initiative

NIH has announced the strategic framework for its new \$100 million climate change and health initiative. The project is intended to reduce health threats from climate change across the lifespan and build health resilience in individuals, communities and nations around the world, especially those at the highest risk.

The NIH-wide effort is being co-chaired by Fogarty and the National Institute of Environmental Health Sciences (NIEHS), in collaboration with 23 Institutes, Centers and Offices. The concept was endorsed by the NIEHS advisory council in November 2021.

“It is clear that climate change greatly elevates threats to human health across a wide range of illnesses and injuries that are being studied throughout NIH,” NIEHS Director Dr. Rick Woychik said during a presentation to council members. Woychik chairs the climate change initiative’s

executive committee, which includes six peers from participating I/Cs, including Fogarty.

“There is no other issue that is as global as climate change,” stressed Fogarty Director Dr. Roger I. Glass. “It affects absolutely everyone, everywhere.”

Echoing the sentiment, Fogarty advisory board member Dr. Judith Wasserheit suggested climate change is the poster child for global health. “Done right, this could be one of the most impactful initiatives that NIH has ever launched,” she said. The University of Washington professor noted there has been little intervention research related to climate change to date and applauded the team for incorporating implementation science and capacity building into the initiative. “If we’re really committed to addressing equity issues, we have to acknowledge that the impacts are already

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Grantees share methods to reduce sexual harassment

Fogarty recently convened the recipients of awards designed to help low- and middle-income country (LMIC) scientists develop or strengthen policies and procedures to reduce sexual harassment at their institutions. Participants shared lessons learned and different approaches used to address the common problem. One-year funding was provided to 10 LMIC recipients, supported by the NIH Office of AIDS Research.

“I am incredibly impressed by what this program has accomplished,” observed Fogarty Director Dr. Roger I. Glass. “The measures you are putting into place will create a safe environment for science, help women advance into leadership positions and ensure we don’t lose some of the best and brightest minds in science.”

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Photo courtesy of IDI/Makerere University



Fogarty provided supplemental funding for grantees to develop or strengthen sexual harassment policies and practices.

FOCUS



Focus on the importance of including men in research

- Targeting male refugees for mental health support interventions
- Studying differences in immunity, behavior that impact men’s health
- Examining masculine norms to prevent intimate partner violence

Read more on pages 6 – 9

NIH unveils framework for climate change initiative

. . . continued from p.1



Fogarty board member Dr. Judy Wasserheit made the case for a strong global health focus in the new NIH climate change initiative and said she will be cheering for its success.

hitting populations in low- and middle-income countries disproportionately,” Wasserheit said. “Indeed, there is little recognition that soon climate change is likely to start undoing decades of progress in global health in many of these countries.”

Funding for the plan is included in the President’s Fiscal Year 2022 budget request for the agency. The initiative’s first aim will be to leverage existing grant programs, cohorts and networks to support projects that can be implemented effectively in the near term, while leaving substantial flexibility for subsequent years. The framework reflects extensive input and coordination with organizations and

academic scientists to collect, analyze and synthesize diverse views, needs and opportunities. Core elements include health effects research, health equity, intervention research, and training and capacity building.

The research plan is based on the following objectives:

- Identify risks and optimize benefits to the health of individuals, communities and populations from actions to mitigate or adapt to climate change.
- Develop the necessary research infrastructure and workforce to enable the generation of timely and relevant knowledge, drawing from the full spectrum of biomedical disciplines.
- Leverage partnerships with other scientific and social disciplines and organizations to achieve the most impactful results.
- Innovate across the research translation continuum to ensure findings are credible, accessible and actionable for achieving these goals.

Fogarty is represented on the initiative’s steering committee by Drs. Flora Katz and Joshua Rosenthal.

www.nih.gov/climateandhealth

Grantees share methods to reduce sexual harassment

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Many of the LMIC grantee institutions had existing sexual harassment policies but a number of participants reported that the policies were not widely promoted nor were there clear procedures for reporting and investigation. Speakers shared how their institutions approached policy development, staff training and publicity for their efforts. A number conducted surveys to help inform the process. For example, the Infectious Diseases Institute (IDI) at Makerere University in Uganda found in a baseline survey that only 32% of their community said they were aware of IDI’s sexual harassment policy. After IDI’s program of training and promotion, a second poll found about 90% were familiar with the policy, said Dr. Barbara Castelnovo. She also reported respondents said their likelihood of reporting sexual harassment incidents went from 8% initially to nearly 80% after the program’s completion. Promotional efforts included “zero tolerance” sweatshirts.

At the University of Lagos (UL) in Nigeria, the supplement

helped to create awareness of sexual harassment guidelines and establish the Equity and Women’s Center. The funding catalyzed efforts across the three UL campuses and serves as a model for regional universities, said Dr. Folasade Ogunsola. Students were included in the project and were responsible for developing slogans as part of the promotional campaign, such as “The fight is ours! The struggle is ours!” and “Don’t be ashamed of your story...it will help inspire others.”

The supplemental funding program is one way NIH and Fogarty are working to ensure grantees and their institutions—wherever in the world they are located—meet the agency’s requirements for providing a workplace that is free from sexual harassment, bullying and racial discrimination. Since 2018, NIH has investigated 215 individuals and removed 75 principal investigators due to instances of misconduct. Issues can be reported through the hotline at 1-833-224-3829 or via the NIH website <https://hr.nih.gov/working-nih/civil/intake-form>

Former Fogarty trainees enlisted for COVID-19 trials

By Mariah Felipe

As scientists watched the SARS-CoV-2 outbreak spread globally in late 2019, it became evident this pathogen had the potential to become the next pandemic. NIH quickly enlisted the expertise of infectious disease researchers worldwide, forming the COVID-19 prevention network (CoVPN) and tasking it with conducting Phase 3 efficacy trials for COVID-19 vaccines and monoclonal antibodies.

Many CoVPN investigators based in the U.S. and in low- and middle-income countries (LMICs) have received significant training through Fogarty programs over the last three decades and had gained expertise in infectious disease research with a particular focus on ending the HIV/AIDS epidemic. CoVPN is made up of longstanding research organizations including the HIV Prevention Trial Network (HPTN), HIV Vaccine Trial Network (HVTN), the AIDS Clinical Trials Group (ACTG) and the Infectious Diseases Clinical Research Consortium (IDCRC). CoVPN was established and is funded by the NIH's National Institute of Allergy and Infectious Diseases (NIAID).

"The shovel-ready sites with infrastructure and investigators that were well-trained and knew how to conduct clinical research, all sprung from these relationships with the networks built with Fogarty over decades," said Dr. Myron Cohen, HPTN principal investigator and director of global health at the University of North Carolina.

CoVPN investigators initially examined the effectiveness of face masks and social distancing in reducing the spread of SARS-CoV-2. The network also studied Novavax, AstraZeneca and Moderna vaccines, as well as the Lilly and Regeneron monoclonal antibody combinations. CoVPN recently launched the first U.S. government-supported trial measuring the efficacy of the Moderna mRNA vaccine in adults living with HIV. The scientists expect to enroll about 14,000 volunteers at 54 clinical research sites in East and Southern Africa.

"Vaccination and treatment are critical for those who face the dual threat of HIV and COVID-19, as they remain at high risk of acquisition and transmission and potentially can be the origin of future variants," according to Dr. Larry Corey, a CoVPN principal investigator. Although researchers stress they must not further stigmatize HIV, there are some important questions that merit study. How well do people with HIV respond to vaccination? Are monoclonal antibodies required for prevention of COVID among people living with HIV?



Numerous former Fogarty trainees have been using their expertise to study the effectiveness of COVID-19 vaccines and monoclonal antibody treatments at low- and middle-income country trial sites.

Photo courtesy of UNC

It's important for NIH to support global research projects like those conducted by CoVPN for a number of reasons, according to Cohen. Increasing the number of research subjects being studied speeds discovery and allows scientists to study diseases that are prevalent elsewhere. "We see that when COVID-19 strikes, we can't predict where it's going," Cohen said. "I think SARS-CoV-2 shines a light on the absolutely essential nature of having a global research network."

One Fogarty alum playing a leadership role in CoVPN is its director of operations—Dr. Jim Kublin—who received a Fogarty career development award to advance his malaria research in 2000. Now a principal investigator at the Fred Hutchinson Cancer Research Center, Kublin said the grant was "instrumental" in enabling him to progress in his career and that his early studies of the molecular evolution and epidemiology of malaria have applications to COVID-19 today. "I think Fogarty and NIH are among the least-appreciated national resources we have," he said. "Both have a critical role to play in pandemic preparedness."

CoVPN leaders agree that the SARS-COV-2 pandemic has highlighted the impact of Fogarty's research capacity building programs and the need to expand the pipeline of global health researchers.

"The sites, the infrastructure, and the investigators that were well-trained and knew how to conduct clinical research are all a result of the networks built with Fogarty support. It would have been impossible to have this without the investments that were made over decades," said Cohen. "It could not have happened."

PROFILE

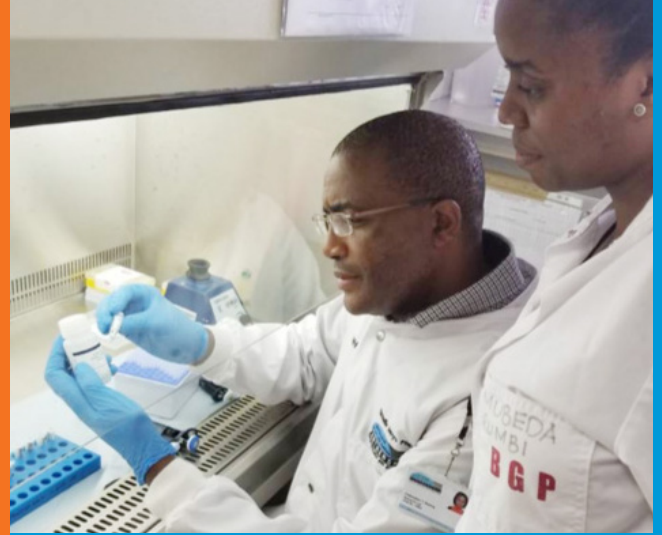
Fogarty Fellow recognized for omicron discovery

After decades spent using genomic sequencing to study HIV/AIDS and other diseases, former Fogarty Fellow Dr. Sikhulile Moyo was well-prepared to pivot to COVID-19 when it struck Botswana. Invited to join his country's presidential pandemic task force, Moyo helped establish national guidelines for testing and genomic surveillance. Adhering to a policy of daily sampling and weekly sequencing, Moyo's Botswana Harvard AIDS Institute lab team found an intriguing pattern of mutations among the SARS-CoV-2 samples collected in mid-November 2021. "So many mutations!," he noted. "We checked the international databases and realized they had not been seen anywhere before."

He immediately alerted Botswana's health department, which sent him more information. Sifting through this data, Moyo discovered that the four individuals who'd provided samples with the mutations had traveled and entered the country together. Moyo's team quickly deposited the sequences into the international GISAID database. Later that same day, South African scientists reported their own six sequences while a Hong Kong team posted a single sequence. Within a week, the WHO's virus working group had classified Moyo's discovery as a "variant of concern."

Moyo said he leveraged his skills in next-generation sequencing and bioinformatics that he acquired with support from Fogarty HIV research training grants. "I was able to establish—from ground zero—sequencing of SARS-CoV-2 here in Botswana using the same technology I'd used for HIV." Previously, Moyo translated his HIV knowledge to tackle diseases such as hepatitis, human papillomavirus, noroviruses and tuberculosis. He also mentors students, helping them use sequence data to better understand pathogens. Indirectly, Fogarty played an important role in his omicron discovery story, said Moyo. He serves as a mentor on a Fogarty COVID-19 supplemental grant that is supporting two of the scientists who helped with the discovery.

Some of Moyo's Ph.D. work took place at the Harvard School of Public Health, where he designed a research study from scratch, and learned about the project submission process, the intricacies of informed consent, methods for storing biological specimens and how to design



Sikhulile Moyo, Ph.D., MPH

Fogarty Fellow: 2017-18

US Institution: Harvard T.H. Chan School of Public Health

Foreign Institution: Stellenbosch University, South Africa

Research interest: Evolutionary trends of HIV in Botswana

his own protocols. This work, which was supported by the NIH's National Institute of Mental Health, led to six publications and new research collaborations.

As a participant in Fogarty's Fellows and Scholars program, Moyo came to the NIH campus in 2017 for orientation, where he presented his elevator pitch to the NIH Director and attended a lecture by Dr. Anthony Fauci, head of NIH's National Institute of Allergy and Infectious Diseases. It's these kind of informal learning opportunities facilitated by Fogarty that prove invaluable, said Moyo. Through presentations and by networking with his peers, Moyo said he gained a new perspective. "You meet people who have few resources, yet they do quite impactful translational research. That changed my mindset. Everything I do now, I ask myself: What is in it for public health? What is in it for the ordinary person? Is it contributing or changing lives and making things better?"

The omicron discovery led to a "roller coaster" of negative and positive effects, said Moyo. "We were transparent, we alerted the world to a useful signal. But, within days, a few hours really, some borders were closed, flights were canceled and our countries were blacklisted." Such a negative response encourages dishonesty, Moyo suggested. "There is great value in scientific transparency. For example, the ability to immediately design a new vaccine or new therapy is based on sharing sequences." Besides, closing a border may incorrectly assume that the virus has not already begun to circulate within other regions. Still, the discovery also led to positive effects, including more PCR kits for his lab. Moyo believes that this bittersweet experience, in the end, will spur increased scientific collaboration with global partners.

<https://bit.ly/SikhulileMoyo>

MICHELLE GROOME, MBBCH, MSC, PHD

Dr. Michelle Groome is head of the Division of Public Health Surveillance and Response at the National Institute for Communicable Diseases (NICD) in South Africa and a senior clinical researcher at the University of Witwatersrand. She began her career as a medical doctor in 1997 and moved into research in 2005. Groome received a career development award from Fogarty in 2016 to study rotavirus vaccination in South Africa, specifically, the safety of the vaccine and factors influencing immune response. Her research results may inform vaccine policy decisions and rotavirus vaccine development.



Why did you choose to study rotavirus?

Rotavirus is one of the most common causes of morbidity and mortality amongst children under five in South Africa and can cause severe diarrhea, vomiting and fever. Other than pneumonia, it is one of the most important causes of infections and hospitalizations in young children here.

My Ph.D. work involved looking at the effectiveness and impact of the oral rotavirus vaccine and how it reduced diarrheal hospitalizations in South Africa. My Fogarty grant allowed me to look closer at those findings and expand on them. One of the issues is that oral rotavirus vaccines had a significantly lower efficacy in low- and middle-income countries (LMICs) compared to high-income countries (HICs). My project allowed me to unpack some of the factors surrounding this lower efficacy to try to improve immune responses to oral vaccines. There were also safety issues as the first licensed rotavirus vaccine was associated with a rare condition called intussusception, a cause of bowel obstruction in young children. My project found that the vaccine's health benefits outweighed the risks, alleviating some of those concerns. We also looked at how genetic factors may influence immune response.

What inspired your work?

On a personal level, my first daughter was born in 2001 and contracted rotavirus as a small child. I remember thinking she would not survive the night if we did not get her to a hospital. Thankfully, we had access to a hospital nearby and she recovered. That's something that's always been very close to my heart. There are so many people in the world today who do not have access to a hospital nearby. With that level of severe dehydration, young children can deteriorate so quickly. I went on to have two more daughters. My youngest had the rotavirus vaccine, and it really hit home for me. Something as simple as a vaccine and the prevention of severe diarrhea can significantly impact regions without easy access to hospitals.

There's a lot more work to be done in understanding the role of rotavirus vaccines, developing new vaccines

and studying combination schedules with the oral vaccines and the newer vaccines. I am currently involved in a rotavirus clinical trial, assessing a new injectable rotavirus vaccine, which some arms of the study are receiving in conjunction with an oral vaccine. If we're able to expand and improve the vaccine effectiveness, especially in LMICs, that would be very beneficial in terms of further reducing mortality from diarrheal disease. These research findings could provide guidance to countries that haven't yet introduced the vaccine.

How did you benefit from the Fogarty award?

When I applied for the Emerging Global Leader Award, I didn't realize the impact it would have on my career. Having the funding to develop my research was pivotal to helping me progress in my career as a rotavirus researcher and getting to where I am today. The award allowed me to gain basic science skills, learn about immunology, and study research methodologies and statistical analysis. I'm a clinician and had done a master's in epidemiology but I didn't have many insights into the lab side of research. I was able to become more familiar with assays and how they worked.

The grant also enabled me to collaborate with international partners that were critical to the project. As part of this award, I had mentors in South Africa and the U.S. I had the opportunity to visit the CDC each year of the project and build relationships there. Being able to collaborate with the CDC team and to access their analytical and lab resources was highly beneficial to the project. These relationships have been instrumental in my career advancement and rotavirus research.

Today, I have a much more far-reaching public health influence in South Africa with my current position at the NICD. My award from Fogarty played a substantial role in helping me achieve that.

RESOURCES

<https://bit.ly/MichelleGroome>

Men left behind by global health research

Despite significant achievements in global health over the past few decades, men have not benefited equally and have a life expectancy that is about five years less than women's, according to WHO data. That gap is widening in Africa and South-East Asia. Work commitments and stigma prevent many men from visiting health clinics. They're less likely to be tested and treated for HIV, less likely to adhere to treatment and more likely to die from AIDS. In many parts of the world, men tend to smoke and consume alcohol more often than women, which creates additional health risks. Also, men are less often included in interventions to address depression, mental health issues or intimate partner violence.

Historically, men's health concerns have often been sidelined by global health programs in low- and middle-income countries (LMICs) to prioritize studies aimed at reducing maternal and child mortality, said Dr. Kathryn Dovel of UCLA. For the last decade, she's done HIV research in Malawi where women may have hundreds of health care appointments during their reproductive years, more than 10 times the number of visits a man might make. "Men lack a systematic exposure to the health system," said Dovel. This has created an "uncomfortable and unexpected paradox," she said. "There is so much inequity for women in society generally, but there's a very clear gap, and inequity, regarding engaging men in health services."

Yet men play a critical role in ending the HIV epidemic and must be included in scientific research for progress to be made. For example, only 63% of west and central African men had tested for HIV compared to 77% of women, according to 2019 data published in *The Lancet*. In Malawi, Dovel said men want to be involved in health services and to be seen as individuals whose health matters, yet they are often approached in suboptimal ways. For example, home-based surveys usually happen

in the daytime when men are at work.

Dovel's project to study a home-based intervention for men living with HIV is supported by a five-year Fogarty International Research Scientist Development Award (IRSDA), which provides an intensive, mentored LMIC research experience for U.S. early-stage investigators. Dovel and the larger team are exploring how best to reach men who are living with HIV but not engaged in care. Those randomized to the intervention arm will receive home-based treatment and one-on-one counseling. The team expects to see an improvement in treatment retention and viral suppression.



Courtesy of Partners in Hope/Malawi

A Fogarty-funded project is targeting men with a home-based intervention to encourage them to continue treatment for HIV.

In Peru, the HIV epidemic is concentrated among men who have sex with men (MSM), where there is a 12.2% prevalence rate compared to 0.4% among the general population. All too often MSM living with HIV discontinue treatment, said Dr. Luis Menacho of Universidad Peruana Cayetano Heredia. Menacho is testing an mHealth intervention that delivers interactive text messages to help increase care retention, with funding

from a Fogarty Emerging Global Leader Award. Menacho's team has completed the pre-developmental phase and will now launch the six-month intervention. Many participants will adhere to treatment and attend appointments on their own but up to a quarter may require assistance from nurses. Some participants have said they worry the medicine won't work to lower their viral load and that hearing a bad result would be traumatic, said Menacho. As he attempts to address these concerns, Menacho is hopeful the intervention will improve retention.

Dovel—a social scientist by training—said she is excited by the progress being made to include men in global health research. "If we develop a better understanding of men's experiences, and how men perceive their own health and health systems, we can make adjustments to address their needs and improve men's health."

Scientists study refugee families' mental health needs

Researchers investigating how best to provide mental health services to Syrian refugees wanted to ensure entire families were targeted in their approach. That meant including men, who can be difficult to reach since they spend much of their time working at low-wage jobs to provide for their families.

About 3.6 million Syrian refugees now live in Turkey, many of them in Istanbul. Dr. Stevan Weine of the University of Illinois is conducting research in several urban neighborhoods there to determine how best to provide services to refugees who may be at risk of post-traumatic stress disorder, anxiety and depression.

“Most have been displaced as families and Syrian culture is very family-oriented. So why not deliver mental health services that try to help the entire family?” Men are integral to his research because of the power they wield within patriarchal family structures, said Weine. “If you want to be able to impact the family, you have to go through the person in power.” Cultural sensitivities which prohibit men or even women from talking to wives and daughters also necessitate a father’s participation. Weine’s exploratory research grant was awarded through Fogarty’s global brain disorders program, with funding from the NIH’s National Institute of Mental Health.

Weine said his project aims to strengthen family members’ ability to communicate with each other, help them discuss difficult subjects, and improve their capacity to support each other’s emotional and mental health needs. “These are issues around which there’s a lot of stigma, a lot of shame, a sense of personal failure and weakness, so it helps to be able to have those discussions with the whole family,” Weine noted.

Applying lessons learned in previous work with Bosnian refugees, the research team developed a multi-family group model intervention to provide a safe space for families living in similar circumstances to interact. “Imagine a room with six or eight families together, eating pastries, drinking coffee or tea, like they would be in a cafe in their village or city,” said Weine. “It’s a comfortable atmosphere that we’re trying to create, instead of the feeling of a clinic or hospital, which has negative associations.”



Fogarty grantees are developing family-focused interventions—that include men—designed to reduce post-traumatic stress disorder, anxiety and depression among Syrian refugees.

Photo by Adam Patterson/Fanos/DFID

Working with groups of families instead of just one also increases potential positive effects. “Frequently refugee families are isolated and don’t want other families to know their troubles. In these meetings they overcome their fears and end up becoming friends,” Weine observed. They learn to listen to one other and sometimes offer advice. “It’s empowering when you have the ability to help somebody else. This becomes an important part of their own recovery.” In the pilot study, Weine collaborated with the Turkish Red Crescent and other organizations to recruit 72 families that attended four gatherings each, usually on weekends. To run the sessions, Weine enlisted Syrian refugees with the “people” skills necessary to lead conversations on painful topics, engage children in the discussion and create an atmosphere where everyone felt able to participate. He provided the hosts with 30 hours of training, including how to teach breathing exercises and other stress-reduction techniques.

Nearly 90% of families attended all four meetings, while fathers, “under pressure to work all the time,” came to half, said Weine. “We specifically spoke to the fathers at the beginning—we told them we wanted and needed them here because they’re important in the family.” Fathers who could not make the sessions, watched with their families videos recorded in Arabic that conveyed key lessons. At the program’s conclusion, Weine’s research team recorded significant decreases in emotional distress and post-traumatic stress disorder, as well as increases in mental health literacy.

Looking ahead, Weine believes adapting this intervention for others would not be difficult. Having worked with refugees in different countries for 30 years, he noted that “their experiences are more similar than different.”

Projects examine sex, behavior differences that impact men's health

Certain infectious diseases prevalent in low- and middle-income countries affect men in greater numbers than women. Such is the case with tuberculosis (TB), a public health concern in West Africa where incidence among men averages two to three times higher than among women.

“The field of sex-based biology is rapidly expanding with strong evidence showing that men and women respond differently to microbial challenges, therapeutics and vaccines,” observed Dr. Djeneba Dabitaio of the University of Sciences, Techniques and Technologies of Bamako. Dabitaio’s Global Emerging Leader Award from Fogarty is enabling her to examine the sex differences of TB in Mali.

Dabitaio hypothesizes that sex hormones influence immune responses to TB. “When you look at immune cells, most, if not all, have a receptor for hormones and we think that there is crosstalk between hormonal responses and immune responses.” Sex hormones can play a protective role in some contexts yet a pathogenic role in certain diseases. “Teasing out those different effects will provide new strategies to develop sex-specific therapies to treat or prevent infectious diseases. This means that doses of vaccines and drugs could become sex-specific in the near future,” said Dabitaio.

In Mali, the rate of TB is 52 per 100,000 people, according to the WHO. Dabitaio and her team have screened more than 300 people for TB and have enrolled 120 in the study. More than half have completed the protocol, which consists of a baseline visit, a check at two months after beginning treatment and a final examination at six months corresponding to the end of TB treatment. Dabitaio also think that hormonal responses may not be the only explanation of the observed male bias in TB. “There could be a genetic component, too. Some immune genes located on the sex chromosomes have been involved in the pathogenesis of TB and we do not know whether they could be influencing disease outcomes in a sex-specific manner,” said Dabitaio. She believes her study is proof of concept that can be used to examine pathogenesis of other major infectious diseases, such as HIV and COVID-19.

Across the globe in Vietnam, gender is a huge determining factor for tobacco consumption, behavior that poses health risks. About half of men in the country



In Mali, Dr. Djeneba Dabitaio is using a Fogarty career development award to study the role sex hormones play in immune responses to TB.

Photo courtesy of Ibrahimia Dja/UICRC

smoke, compared with only 2% of women. In the Red River Delta region, Dr. Rajani Sadasivam of the University of Massachusetts has conducted a randomized control trial of an mHealth intervention that provided smokers with counseling, Quitline phone support and nicotine replacement therapy (NRT). Imbalanced smoking rates rendered men’s participation essential to this research funded through Fogarty’s tobacco research program, with additional support from the NIH’s Office of the Director and the National Cancer Institute.

Enlisting men to participate in the study was easy, said Jessica Wijesundara, project director. “There was a lot of interest being able to access NRT.” Co-investigator Dr. Hoa Nguyen said volunteers believe their participation helps themselves and their community. Recruitment efforts relied on trusted community health workers. “They are also helpful in terms of follow-up, which reached 99%,” she said.

The intervention included six months of text messaging. “Texting is attractive to us because it’s low tech and most people can access it,” explained Sadasivam. Messages are written by both experts and peers. “Peers talk about their own experiences and are direct: ‘You will die from this.’ ‘You will get seriously ill.’ Experts cannot say things that way.”

To build capacity, the team developed a program for the Vietnamese Quitline counselors that included training with their U.S. counterparts. “We were lucky that Vietnam did a great job managing COVID-19 in their alpha period. Thus, we only had to pause for brief periods before we could resume our data collection,” said Sadasivam. Having completed data collection and qualitative interviews, the team is working on analysis and preparing results for publication. They’ve also begun another Vietnamese mHealth intervention for people living with HIV who smoke. “We will try to address not only smoking-cessation but also stigma related to HIV,” said Nguyen.

Grantees study masculine norms to reduce violence

In India, one in three married women has experienced intimate partner violence (IPV), which is escalating in newly settled rural areas nearest the cities. A U.S.-Indian collaboration funded by Fogarty is developing male-focused strategies to reduce IPV in Bangalore's peri-urban neighborhoods. "Instead of seeing men as perpetrators, they must be included in the conversation and become part of the solution," said Dr. Nancy Angelina Gnanaselvam of Saint John's Medical College, co-Principal Investigator (PI) of the project.

To create an intervention that will shift masculine norms, especially among youth, the researchers are first gathering information about the underlying concepts of masculinity and how they are formed. This is done by interviewing youth and adults and holding group discussions about who they look up to and how they learned to behave as a husband or wife. In patriarchal societies, men often have greater power in marital relationships, something their male children observe and may model, the researchers noted.

"Both men and women uphold masculine norms. Men have an idea of what a man should be, but women also have an idea. And those ideas are embedded within every culture," said Co-PI Dr. William Story of the University of Iowa. Swift urbanization in the neighborhoods they are studying has led to substantial income disparities, a threat for many men. "We're wondering if this challenge to masculine identity is causing some men to act out in ways that may be harmful to women?" said Story. "This is why peri-urban areas interest us. Bangalore is not the only place seeing rapid urbanization—it's happening everywhere."

Engaging men in research involves recruiting them, a difficult task in India, said Gnanaselvam. "They ask so many questions: Why are you doing this study? Who is funding the study? Why should I take part?" Each man is aware that others may criticize him for participating so researchers are careful to conduct interviews in privacy, she added.

Beyond recruitment, there's the broader issue of health professionals becoming involved in IPV, a hot-button issue. In a busy practice, rarely, if ever, do doctors or nurses address couples whose relationships are marked by violence to try and prevent it, said Gnanaselvam.

"It's the need of the hour for health care professionals to come into the picture. In the spectrum of gender-based violence, there are multiple outcomes including homicide and suicide. The legal system penalizes and criminalizes

the act, however the health care system should focus on provision of mental health support to both the husbands and wives."

An important prerequisite to the research is capacity building, said Gnanaselvam. "Health care workers in India don't have adequate knowledge of preventive measures or the necessary skills to address IPV." The team from Iowa has taught faculty and staff at St. John's about different aspects of intimate partner violence, including gender norms, masculine identity and mental health factors. During interaction with couples, the research team also learned about emotional, psychological and economic violence—"milder" mistreatment some see as acceptable within marriage.

"A workshop gave us a practical step-by-step approach when addressing a sensitive topic or approaching individuals who have experienced IPV or abuse," said Gnanaselvam. They also explored ethical issues. "Both our knowledge and our research skills improved."

While the pandemic has slowed progress, a COVID-19 supplement is enabling them to examine how the pandemic is impacting IPV. The team looks forward to coming up with community-accepted strategies that can actually prevent IPV, said Gnanaselvam. "Ultimately, we want to make sure men advocate and promote women's health and children's health as much as possible because around the globe where we see women and children thriving, we usually see communities that are really thriving," said Story.

The project is funded through an exploratory research grant from Fogarty's Global Noncommunicable Diseases and Injuries Across the Lifespan program.

Researchers in India are examining the cultural norms of masculinity—especially among male youths—to see if they can find ways to reduce intimate partner violence.



OPINION

By Dr. Roger I. Glass, Director, Fogarty International Center

Pandemic truths: “none are safe until all are safe”



In the hundred years since the great influenza pandemic of 1918, little has changed in terms of basic control measures—masking and social distancing. Yet the introduction of new science has been momentous for diagnostics, global tracking and modeling, new drugs and of course, vaccines. During the current SARS-

CoV-2 pandemic, more than 9 billion doses of COVID-19 vaccine have been manufactured and administered in little over a year, a remarkable achievement.

Yet, the distribution of these vaccines highlights the troubling issue of global inequities. Only 8% of vaccines have gone to Africa, the second most populous continent on earth. The 55 constituent countries of the African Union not only depend on the international community for vaccines but also diagnostics, drugs and PPE. Last April, the African Union, the African CDC and the Coalition for Epidemic Preparedness Innovations (CEPI) launched Partnerships for Vaccine Manufacturing in Africa, which, among other goals, aims to locally produce 60% of vaccines by 2040, while developing African universities as R&D hubs.

Undoubtedly, the pandemic has been a wake-up call. Still, there are many reasons for hope. I recently visited Rwanda, where I was heartened to see lower rates of COVID in Kigali than in many places in the U.S. People wore masks everywhere and free screening was widespread. This country of just under 13 million had vaccinated more than 90% of its Kigali population, and 70% nationwide.

Another reason for optimism: international collaboration has characterized this pandemic from the start. The open science spirit began with the Chinese publishing in January 2020 the first SARS-CoV-2 sequence, which served as the blueprint for most vaccines. Since then, scientists have posted more than three million genomic sequences on open international databases.

Only three African sites had the ability to sequence strains in the earliest weeks of the pandemic, yet training—some of which was provided by Fogarty and its partners—has helped enable sequencing of more than 60,000 African strains to date. Just as international data

sharing is currently possible, global surveillance can soon become a reality.

One positive lesson from COVID has been the importance of investing in people. Many foreign scientists trained by NIH and Fogarty programs are leaders in their country's pandemic response: Dr. John Nkengasong, who leads the African CDC; Dr. Christian Happi, who sequenced the first SARS-CoV-2 strain identified in Nigeria; and Dr. Sikhulile Moyo, who discovered the omicron variant in Botswana. We never anticipated their training, which has enabled them to adapt and address the pandemic, would be so valuable. Developing leaders in Africa, incubating their talents and building on them will be essential activities going forward.

Throughout the pandemic, global partners—including WHO, CEPI and GAVI—have demonstrated best practices in fostering a global response. Free exchange of ideas helped us all conclude that new vaccines, to be most effective, need to be distributed worldwide within 100 days. If we accelerate research on the 20-plus major virus groups, we can develop prototype vaccines and drugs for each class well in advance of future outbreaks. We also need regional centers for local production of vaccines, drugs, supplies and devices; this necessitates establishing supply chains with multiple providers for key ingredients.

The past two years have revealed to every person—and every world leader—the shortcomings of global outbreak preparation and response. Each of us now sees that “none are safe until all are safe.” Our global society can seize this moment by establishing more effective governance and improving partnerships between industry, universities, financial institutions and philanthropic foundations. Most importantly, we must address inequities within existing and proposed systems.

These goals are not fantasies. Another tragic pandemic, HIV/AIDS, also provided lessons—lessons we studied and learned. No longer an automatic death sentence, HIV is now a chronic disease thanks to the many collaborative scientific discoveries funded by global partnerships. With sufficient investment and a concerted global effort, we can ensure we are better prepared when the next pandemic strikes.

RESOURCES

<https://bit.ly/PandemicTruths>



Dr. Paul Farmer dies suddenly in Rwanda

Humanitarian, physician and global health advocate Dr. Paul Farmer has died. Farmer was co-founder of Partners in Health, professor at Harvard and chief of global health equity at Brigham and Women's Hospital. Farmer brought his message of health equity to NIH in 2016, when he delivered the David E. Barnes Global Health Lecture.



Former Fogarty grantee and advisor dies unexpectedly

Longtime NIH grantee Dr. Bonnie Stanton died suddenly in January. An early experience in Bangladesh informed the rest of her career, which was devoted to improving health in underserved communities. Since 2016, she was founding dean of the Seton-Hall Hackensack Meridian School of Medicine. Stanton authored 350 peer-reviewed publications and edited several books.



Renowned "disease detective," Dr. Sherif Zaki dies

CDC Pathologist Dr. Sherif Zaki died recently after suffering a fall in his home. Zaki founded and had led the CDC's infectious diseases pathology branch since the early 1990s. The Egyptian-born scientist and his team successfully identified the culprits of infectious disease outbreaks worldwide, including Ebola, Zika, leptospirosis and many others.



Califf confirmed as FDA Commissioner

Former FDA Commissioner Dr. Robert Califf has been confirmed again to lead the agency—a role he previously held from 2016-2017. Califf has served on advisory boards and committees at several NIH institutes. Previously, he was a practicing cardiologist and professor of medicine at Duke University.



Gawande confirmed as USAID's global health chief

Renowned surgeon, public health expert and former NIH grantee Dr. Atul Gawande has been confirmed as the Assistant Administrator for Global Health at USAID. Previously, Gawande was a surgeon at Brigham and Women's Hospital, and professor at Harvard Medical School and Harvard T.H. Chan School of Public Health.



Mubuuze receives inaugural James Hakim award

Former Fogarty Fellow Dr. Roy Mubuuze Gonzaga was named recipient of the inaugural James G. Hakim Global Health Award for having submitted the highest ranked abstract to the 2022 Consortium of Universities for Global Health (CUGH) annual meeting. The award—established by Fogarty, CUGH and AFREhealth—will provide travel support to CUGH meetings.



Webster-Cyriaque named NIDCR's Deputy Director

Dr. Jennifer Webster-Cyriaque has joined the NIH's National Institute of Dental and Craniofacial Research (NIDCR) as deputy director. Webster-Cyriaque previously was on faculty at the University of North Carolina's schools of dentistry and medicine, where she led the UNC Malawi project and aided in founding Malawi's first dental school in 2019.

US benefits from foreign STEM talent

A White House-commissioned study to quantify the economic costs and benefits of international science, technology, engineering and mathematics (STEM) talent in the U.S. found that foreign workers contribute nearly 2% to the country's gross domestic product, adding as much as \$409 billion annually to the economy.

Full report: https://bit.ly/STEM_benefits

NIH releases pandemic preparedness plan

The NIH's National Institute of Allergy and Infectious Diseases has announced it will direct its preparedness efforts on two fronts. Researchers will identify "prototype pathogens"—viruses within viral families that have the potential to cause significant human disease—and use these to build a framework for a rapid research and product development response.

Website: https://bit.ly/NIH_preparedness

Scientific integrity should be strengthened

The White House has released a report identifying ways to strengthen policies and practices to restore public trust in government through scientific integrity and evidence-based policymaking. The assessment is intended to ensure government-funded science is conducted, managed, communicated, and used in ways that preserve accuracy and objectivity and prevent political interference.

News release: https://bit.ly/Scientific_integrity

Academy calls for global science focus

The U.S. should take bold and meaningful steps to strengthen connections in an increasingly global network of science and technology, according to a report from the American Academy of Arts and Sciences. To fully participate in this new landscape, the U.S. must support additional talent pipelines and foster sustainable, equitable partnerships.

Full report: https://bit.ly/Academy_global

GHTC celebrates 15th anniversary

The Global Health Technology Coalition is marking 15 years of advocacy to advance policies that support innovations to improve the health of the world's poorest people. GHTC has produced a website that reviews its history, impact and some of the breakthrough innovations its members have brought to market.

Website: https://bit.ly/GHTC_15

Funding Opportunity Announcement	Deadline	Details
International Research Scientist Development Award K01 Independent Clinical Trials Required K01 Independent Clinical Trials Not Allowed	Mar 9, 2022	https://bit.ly/IRSDAK01
Chronic, Noncommunicable Diseases and Disorders Research Training D43 Clinical Trials Optional	Jul 13, 2022	https://bit.ly/NCD_ResearchTraining
Global Infectious Diseases (GID) Research Training Program D43 Clinical Trials Optional	Aug 3, 2022	https://bit.ly/InfectiousDiseasesResearch
Emerging Global Leader K43 Independent Clinical Trials Required K43 Independent Clinical Trials Not Allowed	Nov 3, 2022	http://bit.ly/E_Lead

For more information, visit www.fic.nih.gov/funding

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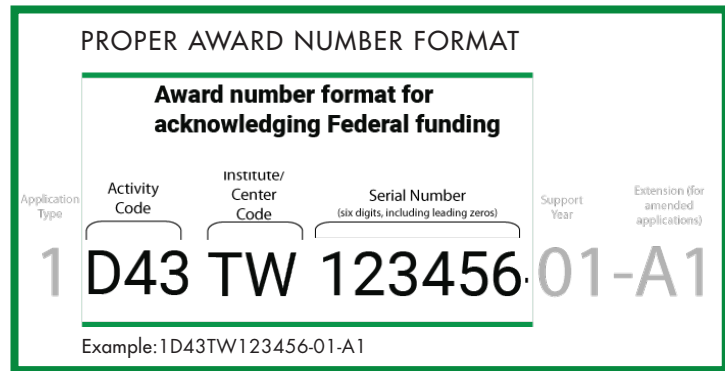
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Communicating Fogarty's support of research results contributes to the public's understanding of how Fogarty, and the NIH as a whole, support biomedical research. Publicizing research grants creates transparency of funding sources and promotes scientific discoveries made with U.S. government support.

Prior to issuing a press release concerning the outcome of Fogarty-funded research, grantees are asked to notify the Fogarty Communications Office at ficinfo@nih.gov in advance to allow for coordination.

Detailed instructions on how to acknowledge Fogarty-supported research can be found on the link below.

RESOURCE

<https://bit.ly/AcknowledgeFogartyFunding>