



**“Disease detectives are essential to improve global health security.
They are public health heroes.”**

TOM FRIEDEN, MD, MPH

CDC DIRECTOR MENTORS FETP RESIDENTS

CDC Director Tom Frieden believes in getting guidance from mentors. “I’ve sought out people who can teach me,” he says. “The goal is to climb a mountain, and so you get all the good advice you can about the best routes to take, not to take, and what to carry with you.”

To illustrate his own commitment to mentorship, he began last year to provide direct, one-on-one mentorship to FETP fellows who are engaged in challenging projects all over the world. To date, there have been five of these monthly sessions – some in person and some conducted over the phone. Regardless of the method, the conversations always prove inspiring.



Photo: Tom Frieden, MD, MPH (CDC Director)

TANZANIA

FETP resident Witness Mchwampaka is studying malaria prevention efforts during pregnancy in two clinics in the Mwanza region of Tanzania, near Lake Victoria. Malaria rates there are at 19% — nearly double the country’s 9.9% average. In Tanzania alone, malaria causes between 60,000 and 80,000 deaths per year, mostly affecting children under five and pregnant women.

To address this, Tanzania’s began recommending in 2012 that pregnant women receive as many doses of sulfadoxine-pyrimethamine (SP) as possible during their pregnancies, beginning in the second trimester. Studies have shown that women and their babies see a significant benefit from three or more doses. Mchwampaka aims to find out why some women receive the recommended number of doses while others do not.

Dr. Frieden sat with the resident and helped her discover additional ways to use her data. Throughout the mentoring session, he returned to the key concept of taking both the close view and the wide view. “It’s very important to think about the big picture,” he stressed. “That is extremely key. We don’t do it enough in public health.”



Photo: Dr. Witness Mchwampaka (center)

FETP RESIDENT PROFILE

WITNESS MCHWAMPAKA, MD

Problem: Malaria rates in the Mwanza region of Tanzania are nearly double the country’s 9.9% average, with pregnant women and children under 5 most affected.

Project: Find out why some pregnant women do not receive the recommended number of SP doses during pregnancy.

CDC DIRECTOR MENTORS FETP RESIDENTS

INDONESIA

Indonesia FETP resident Nyoman Purnawan spent six months in Bali conducting a cross-sectional study of 242 hypertension patients to determine how many stay on their medication and take it correctly, as well as what factors influence medication adherence.

During their mentoring session, Dr. Frieden praised Purnawan's efforts. "I think the topic you've taken is very important, because high blood pressure kills more people than anything else in the world. It kills 9 million people every year, and only 15% of people who have high blood pressure have it under control."

Throughout the session, Dr. Frieden asked probing questions, inquiring about methodology and getting to the root of the study's design. He pointed out some possible issues, noting specifically that the study relies on patients to be truthful, which is not always accurate. Over the course of the conversation, Dr. Frieden shared useful articles and resources with the resident and helped him frame his interest in noncommunicable diseases in a wider context, connecting it to other urgent issues like tobacco control.



Photo: FETP resident Nyoman Purnawan chatting with CDC Director Tom Frieden late at night in Indonesia

FETP RESIDENT PROFILE

NYOMAN PURNAWAN

Problem: Hypertension kills 9 million people each year, but only 15% of have their disease under control.

Project: Determine how many hypertension patients stay on their medication and the factors that influence medication adherence.

UGANDA

Uganda FETP resident Lilian Bulage is investigating an outbreak of measles that occurred last July in a refugee settlement in western Uganda. She found connection during her mentorship session with Dr. Frieden: "I found out that Dr. Frieden and I both did our first investigations on measles, we both worked in TB, and both of us started our epidemiology careers as 'disease detectives,'" she said.

During their discussion, Dr. Frieden described his first EIS project, which was also a measles outbreak investigation, and mentored Bulage on ways to deal with different groups within communities. He advised her to work within the refugee settlement's established communication channels—however informal—to promote information sharing among various groups, noting that "communication is key."

He also urged her to assess current vaccination practices, including ensuring measles vaccination of all entering refugees, and working to initiate a second dose of measles vaccine for the general population. Perhaps most importantly, he urged her to remember that every outbreak scenario is different and requires different investigative approaches and public health interventions.



Photo: Lilian Bulage, a Uganda FETP fellow

FETP RESIDENT PROFILE

LILIAN BULAGE, MHSR

Problem: Outbreaks spread easily in refugee settlements. In a settlement in western Uganda, measles was taking hold.

Project: Investigate the outbreak and find ways to stop transmission.

CDC DIRECTOR MENTORS FETP RESIDENTS

INDIA

Dr. Mohan Papaana is an officer with the India Epidemic Intelligence Service (EIS), a field epidemiology program modeled and named after the CDC's own EIS in Atlanta. Dr. Papaana is in his second year of the program and has spent the past year tracking drug-resistant TB patients in Tamil Nadu.

Dr. Frieden knows first-hand the challenges Dr. Papaana is up against: earlier in his career, he spent five years in India helping to implement the Revised National Tuberculosis Control Program, which has since treated more than 10 million patients and has saved more than three million lives. But India accounts for a quarter of TB cases across the globe, and has the highest burden of drug-resistant TB.

Dr. Frieden discussed methodological issues related to the study, and recommended analyzing the data in different ways as well as conducting more outbreak investigations. Dr. Papaana was impressed with how much he was covered in just 15 minutes, from disease dynamics to study design and data analysis. "This session has provided me many new ideas to plan further studies," he said.



Photo: CDC Director Dr. Frieden meeting with EIS officer Dr. Mohan Papaana

FETP RESIDENT PROFILE

MOHAN PAPAANA, MD

Problem: India has 25% of all global TB cases and the highest burden of drug-resistant TB.

Project: Track drug-resistant TB patients in Tamil Nadu to learn ways to improve medication adherence and patient outcomes.

IRAQ

In Iraq, amid security concerns and a complex political climate, FETP resident Dr. Rana Khalid is taking on a challenge Dr. Frieden calls "huge": finding and documenting cases of pertussis, also known as whooping cough.

Khalid, who previously spent time investigating a cholera outbreak in internal displacement camps in Iraq, is focused on getting doctors across the country to report suspected cases of pertussis and confirm the diagnoses with laboratory testing.

Dr. Frieden helped Dr. Khalid lay out some potential strategies, rapid-firing ideas. His main points were to prioritize quality information and to think about how she might use existing resources to her advantage.

"The challenges are substantial," he said. "Pertussis is so hard to do good surveillance on that we don't try to do intensive surveillance everywhere. Do it well enough nationally, and then find a couple of local areas to do it really well. That would be my recommendation."

Read the full versions of these stories and more at <http://www.cdc.gov/globalhealth/healthprotection/fetp/stories/index.html>



Photo: Dr. Rana Khalid in Iraq

FETP RESIDENT PROFILE

RANA KHALID, MD

Problem: Implementing routine surveillance for pertussis, or whooping cough, in a fragile political climate is difficult.

Project: Get doctors across Iraq to report suspected cases of pertussis and confirm the diagnoses with laboratory testing.