

Global Disease Detectives in Kibera

[Dr. Breiman] It's actually very hard to imagine that there are people in the second decade of the 21st century that are living under these conditions. One of the other things you'd notice, as you walk around in Kibera, is that the people that are there are almost always smiling. They're within the moment and accepting the condition that they're in, and doing the best they can to live well within those conditions.

[Man] In Kibera, I think I'm okay, because I'm getting my day-to-day bread, so I'm fine.

[Dr. Breiman] Kibera is the largest continuous slum in Africa. And we have somewhere between 600,000 and 1.2 million people living in basically a river of informal huts and structures. We have a very unique project going on in Kibera. The point of the work is to understand what diseases are causing the most problems for the people living in this environment. And so the way we do this is, we have a group of what we call community interviewers -- they're basically field workers -- most of them actually come from Kibera. They're residents of Kibera.

[Beatrice Olack] We have a total of 25 field staff who go around into the villages, collecting household morbidity surveillance.

[Jane Alice Ouma speaking Kenyan language]

[Dr. Breiman] And they carry personal digital assistants, you know, PDAs. And they go to -- and these PDAs are programmed with the questions that we're trying to get answers for.

[Jane Alice Ouma] Like, we can talk of cholera. H1N1 was found in the community through the community interviewers visiting the households, the questionnaires they ask.

[Roselyn Atieno Odengo] Karen came to our house every week. She wanted to know how we are going on, anybody who has been sick, anybody who has been in hospital for two weeks, maybe.

[Dr. Breiman] And we're about to go into a home, where one of our community interviewers will be collecting data about illnesses in the home.

[Jane Alice Ouma] So, in this last one week, Wednesday last week until today...

[Dr. Breiman] This is an area of about 30,000 people, about 8,000 households. And they go to every single household every two weeks, and they collect information about who's sick in the household and what kind of illness they have. And if someone's very sick, they encourage them to go to the field clinic. It's right smack in the middle of the surveillance area. And so everyone in our surveillance area, the 30,000 people that we do surveillance on, lives within, oh, no more than a kilometer -- most, much, much closer -- to this clinic.

[Roselyn Atieno Odengo] Like one day, I fell sick of pneumonia. I couldn't walk. I couldn't do anything. So my neighbors carried me up to CDC.

[Dr. Breiman] When they go to that clinic, if they have a condition that we're surveying for, that we're concerned about -- let's say it's pneumonia, as an example -- then we collect information about that illness in the clinic by one of the well-trained clinicians that we have working there.

[Dr. Ojuguna] We have identified quite a number of bugs. Initially, diseases like flu were not considered to affect Third World countries, especially in Africa.

[Dr. Breiman] And now, we're preparing, over the next couple of months, to introduce influenza vaccine in the population that we're working in. The way we conduct our surveillance, we can extrapolate to much larger populations, and therefore influence policy that is not just limited to the population that we're doing the work in. Being able to identify that we have huge incidence rates of typhoid fever, for instance, enables us to go back to the ministry and say, you know, "If you use typhoid vaccine in similar environments, you can prevent a certain number of these severe infections per year at a certain cost." It's clear that, like it or not, we live in a global village these days. And, because of market practices, because of air traffic, it's very possible for a disease to move from one corner of the Earth to another within a day. And so diseases that emerge, for instance, in the urban slum of Kenya that might seem so remote and not relevant to someone living in North America, are actually quite relevant and quite important.

[Children speaking Kenyan language]

[Dr. Breiman] There is progress that will be made, and we have tools now that we can bring to bear that will make a difference. It is somewhat helpful to know that there are people, there are organizations, there are governments that are willing to focus on those problems.

[Beatrice Olack] There's nothing that motivates me as much as seeing somebody or a child who was sick getting back on his feet again.

[Jane Alice Ouma] They are positive, especially the women and children, because they know what they are getting from CDC.