

Peter Kilmarx, M.D., '90: Working upstream

By Valerie Gregg

Peter Kilmarx acquired his first and most intimate insight into the occupational hazards of public health work as a young Peace Corps volunteer fresh out of Dartmouth College in 1983.

By day, he helped to build fish ponds in the remote village of Bakwa Tombe, in the heart of Zaire (now the Democratic Republic of the Congo). But by night, he would lie under his mosquito net, scratching at bumps on his skin.

Soon enough, Kilmarx learned all he wanted to know about the local insect population, including the African botfly. Its eggs are laid on clothing, and the larvae burrow under the skin, unbeknownst to their host. Once mature, the full-grown

botflies, wings and all, erupt from the skin with great force and fly away. Kilmarx only had to deal with botflies on himself once, he says. A fish farmer “extracted the three larvae from my back at his pond-side out in the bush by simply squeezing as hard as he could.”

The young Peace Corps worker also put up with malaria, giardia, filariasis (a blood infection caused by an insect-borne parasitic worm), and several other infectious diseases in an area where “there were no doctors or hospitals for miles around,” Kilmarx says. “They were just impossible to get to.”

Today, Kilmarx is an international public health officer at the Centers for Disease Control and Prevention (CDC) in Atlanta. As chief of the Epidemiology Branch of the Division of HIV/AIDS Prevention, he oversees the work of 60 staff members in the United States and more than 300 in Cameroon, Botswana, Thailand, and Kenya. He is also a captain in the Commissioned Corps of the U.S. Public Health Service (USPHS) and proudly dons the uniform associated with that rank every Wednesday—a day designated for the purpose by Dr. C. Everett Koop, a 1937 Dartmouth College graduate, when he served as U.S. Surgeon General in the 1980s.

Kilmarx had made up his mind to become a doctor even before going to Zaire, but it was his Peace Corps experience that led him to the public health side of medicine. The first Westerner in Bakwa Tombe, the only one for miles around, he lived in a mud hut and worked side by side with the villagers. It is a testament to his integration into the community that half a dozen children born there were named Pierre in his honor. “When one of my namesakes died of measles, I was dev-

Valerie Gregg is a freelance writer who lives in Lilburn, Ga.

Grew up: Barrington, R.I.**Education:** Dartmouth College '83 (B.A. in biology); Brown-Dartmouth Program '90 (M.D.)**Training:** Johns Hopkins (residency in internal medicine, fellowship in infectious diseases); CDC Epidemic Intelligence Service**Favorite activities:** Travel, sailing, yoga, squash, volleyball, mountain biking, snowboarding, church, volunteer work, and fatherhood (he has two sons, age 10 and 14)**Fondest DMS memory:** His black lab, Sparky, attended class with him, so when Kilmarx graduated Associate Dean Joe O'Donnell gave Sparky a certificate and a bone

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to work in a missionary hospital. “I saw patients, assisted in surgery, and got to deliver some babies,” he says. That visit was relatively early in the AIDS epidemic, and many remote areas of Africa were still untouched by the disease. Kilmarx decided to visit Bakwa Tombe to warn the fish farmers he'd worked with of the burgeoning threat. “I interviewed them about their knowledge and practices regarding HIV, and I found that, surprisingly, they did know of this deadly new disease,” recalls Kilmarx. “We talked about how it's transmitted and I asked them for advice on prevention. They had some very good ideas about HIV/AIDS education.”

He learned that a popular 1987 song about the new scourge had played a role in the villagers' understanding of the disease. “The chief said he had extramarital partners before the song came out, but the song taught him about HIV transmission, so he changed his behavior,” says Kilmarx. “He said this is the kind of AIDS education that would work.” Such an approach—using popular music and dramatic performances to spread AIDS-prevention precepts—has proven very effective in many parts of Africa and has been well documented in the medical literature.

Since then, Kilmarx has spent much of his career on the front lines of the HIV/AIDS epidemic in hot spots around the world, including Thailand and Africa. From 2002 to 2005, he directed the BOTUSA Project, a collaboration between the government of Botswana and the CDC in the U.S. His team provided technical assistance, consultation, and funding and conducted research in preventing and treating HIV/AIDS. In 2005, he returned to the CDC in Atlanta and soon assumed his current role as head of the AIDS unit's

astated,” Kilmarx says. “It amazed me that kids were dying from something so easily preventable. I wondered how this was possible when we have such a widely available and effective vaccine.”

By the time he entered DMS, he knew he wanted to go into something other than clinical practice. “I felt I could have a greater impact working at a population level rather than patient by patient,” he says. “Public health is about working upstream, preventing people from falling into the river, rather than downstream trying to rescue people who are drowning.”

In 1987, during the summer between his first and second years of medical school, he returned to Zaire

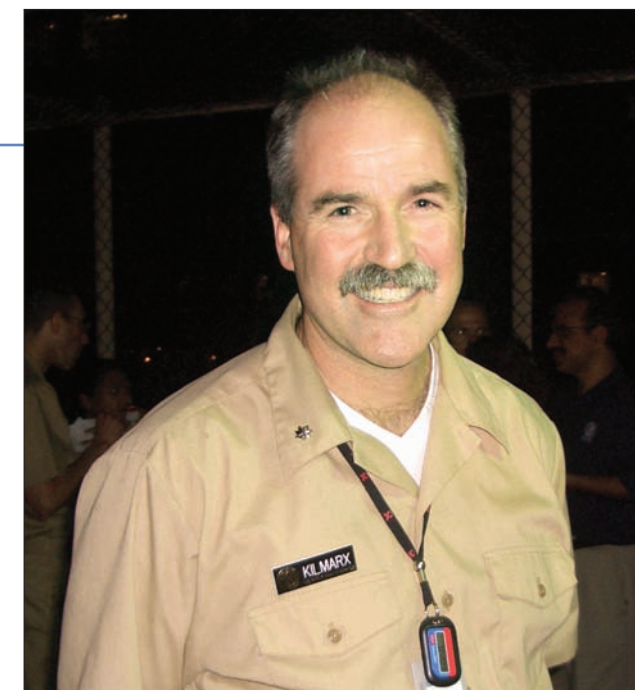
epidemiology arm. He oversees research conducted in the U.S. and abroad to develop new biomedical interventions—such as vaccines, microbicides, and oral chemoprophylaxis agents—to prevent infection in HIV-negative people.

“Public health is about the big picture,” says Kilmarx. “I was attracted to this role because I enjoy the management aspects. Listening to people and helping them grow professionally—helping good people do good work—is my focus now, rather than focusing on one particular area and doing the work myself. I can be more effective,” he adds, “and have a broader reach.”

The ability to integrate himself into new situations, which stood Kilmarx in such good stead in Bakwa Tombe, still helps him as he guides large teams of public health workers. He's a natural leader, says Dr. Tracy Creek, a member of the BOTUSA Project team. “Peter taught me pretty much everything I know about how to survive working for two governments.” Creek was stationed with a colleague in a remote Botswana town where 40% of the pregnant women are HIV-positive. “I was responsible for setting up a research station in the northern part of the country, far from the main CDC office, trying to figure out how to effectively prevent pregnant women from transmitting HIV to their babies.” Advanced molecular HIV testing was conducted at the station laboratory, based in an old maternity hospital. “The roof leaked into the \$100,000 lab machines the first time it rained,” Creek recalls, “and there were shortages of every possible thing needed to run a lab. As is usual in international public health, we took one step forward and five steps backward most days.”

But Kilmarx telephoned his remote teams on a regular basis. He would listen to Creek and her colleague, as she puts it, “rant and rave and occasionally cry” in frustration over the “hurdles to bringing high technology to the middle of the Kalahari Desert.” Yet by the end of each call, Creek and her colleague “agreed that we were doing just fine, things were about to get better, and we were going to work even harder, start new projects, train new people, and hold big problem-solving meetings.”

Another colleague, Dr. William Wester, a 1991 graduate of DMS, calls Kilmarx not only “an exceptional leader . . . one who is able to build a very capable team and inspire them with great vision, hope, and purpose,” but a good team player, too. “Peter was always communicating with other large partners—which is how he continually re-



Kilmarx, pictured here in his U.S. Public Health Service uniform in post-Katrina New Orleans, has also worked all around the world, including Botswana.

ferred to other government stakeholders, [nongovernmental organizations], research institutions, et cetera,” says Wester, who worked closely with Kilmarx as a senior research associate for one of those partner organizations—a Botswana-Harvard AIDS initiative. “He truly did treat everyone as equal partners and collaborators,” adds Wester, “and was respected by all in the community and nation as a whole because he was so collaborative and inclusive.”

Not long after returning stateside in 2005, Kilmarx was called upon to help respond to one of the biggest natural disasters in U.S. history—Hurricane Katrina, which devastat-

ed New Orleans. “After Katrina, everything fell apart, including the public health system,” he says. “Everything was so dispersed.”

Arriving on the scene about a month after the hurricane hit, he oversaw 40 CDC staff who were divided into seven teams to deal with various aspects of Katrina's aftermath—from mental health issues to violence prevention to emerging mold problems.

As much as he enjoys leading others, Kilmarx still gets satisfaction out of putting his own fingerprints on a project. He has conducted research internationally on the prevention of HIV/AIDS and other sexually transmitted diseases. In Thailand, one of his studies focused on the safety and acceptability of vaginal microbicides to prevent HIV transmission from men to women. He wrote a CDC fact sheet summarizing research by others showing that male circumcision is effective in preventing female-to-male transmission of HIV. And he returns to Botswana a few weeks a year to provide medical care to AIDS patients.

Kilmarx has come a long way from his days at Dartmouth. “When I graduated, I was young and idealistic, and I wanted to contribute to the world in a grand way,” he says. He's certainly done that, receiving numerous awards for his international public health work. He was even nominated recently for the USPHS Outstanding Service Medal for his “continuous leadership in the prevention of HIV transmission as director of the BOTUSA Project.”

But he hasn't forgotten the individuals that such work is ultimately designed to benefit. He still corresponds with the village chief in Bakwa Tombe, to check on his namesakes and on the community's welfare. He learned recently that several of the ponds he helped to build more than 20 years ago are still intact and teeming with fish. ■