

ATTENDING

Ruminations on the medical life



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TWIN S

A PITT PARTNERSHIP HELPS TRAIN MOZAMBIQUE'S NEWEST DOCTORS

BY CASSANDRA ZINCHINI

When Aurelio Gomes graduated from Eduardo Mondlane University in Mozambique in 1980, the government sent the new MD to Catandica Health Center in Manica, a rural province of mountains and shining green vegetation. Anthropologists have often called East Africa the birthplace of humankind, and Manica province even has rock paintings on its cave walls. Manica was a place of beginnings for Gomes, too: the site of his first job as a doctor. That was an exciting time for Gomes—but also depressing.

It is difficult to imagine Gomes down. He has an easy sense of humor and laughs often. But for the first six months at the center, Gomes could not sleep.

He was terrified of making a mistake, and even simple diagnoses presented challenges. Not only did he grapple with cases of pneumonia and wonder whether antibiotics were working, but Gomes also had to contend with the civil war raging nearby. The rebel group, Renamo, conducted ambushes at night. Many wounded ended up at the rural clinic. Land mines exploded. Men missing legs would arrive in the wee hours of the morning, along with men and women with bullet wounds. The Catandica center had no surgical facilities, and Gomes would wait anxiously for the military convoy to arrive the next day so he could send patients to an OR.

Mozambique's medical education system didn't include hands-on training in the form of residencies. And because of the lack of doctors and resources typical of most Sub-Saharan African countries, the rookie doc had no mentors or even colleagues at the center.

Today the situation is even worse for young doctors in need of practical training. AIDS is claiming the lives of physicians and nurses. One of the teachers at the medical school at the Catholic University of Mozambique (UCM) in Beira, where Gomes holds an appointment as the director of the medical research center, died from AIDS a few months ago.

Mozambique, a country of 19 million, has about one doctor for every 33,500 people. In the United States, that ratio is 390 to 1. Until recently, Mozambique had only one medical school.

The Catholic Church had been part of the peace process that ended the civil war that

diseases team at the University of Pittsburgh in 2002 when applying for a grant from the National Institutes of Health called the Comprehensive International Program for Research on AIDS (CIPRA). To qualify for the CIPRA grant, which would fund research development for UCM, Gomes needed the collaboration of a U.S. institution. A colleague from West Virginia University pointed him toward Pitt. Mozambique already met the other criteria: It had a low gross national product (in 1999, the country's GNP broke down to U.S. \$230 per capita, making it one of the poorest countries in the world) and a serious HIV/AIDS problem, yet few existing programs.

Before the partnership, UCM health care workers went to didactic lectures but had no hands-on training.

lasted for almost two decades in Mozambique. During negotiations in 1992, the church promised Renamo it would open a university if the rebels would end hostilities. In 1994, UCM started a school of economics in Beira, a coastal city in the central province. In 2000, it opened the medical school.

Gomes connected UCM and the University of Pittsburgh in a partnership through the American International Health Alliance, which addresses public health challenges around the world. He now holds his primary appointment at Pitt as research assistant professor in the Division of Infectious Diseases; Gomes acts as a bridge between Mozambique and Pittsburgh, splitting his time between the United States and his home country.

The doctor first approached the infectious

The team at Pitt was interested in hearing about UCM's new medical program and further attracted to Mozambique when it visited to do an initial needs assessment. Although Margaret Palumbo, former administrator of Pitt's HIV/AIDS program, and Deborah McMahon, associate professor of medicine at Pitt and now medical director of the Pitt/UCM partnership, enjoyed the beauty of the country—the blue skies; the wild, green land; the quality of the light that made everything seem brighter—they were appalled by the health conditions. In the central province of Sofala, about 25 percent of the general population was infected with HIV. The one hospital often had no electricity or water. Palumbo and McMahon saw doctors who were frustrated and a hospital so overcrowded



PHOTOS COURTESY C. ZINCHINI



On Aug. 25, 2007, the first med student class of the Catholic University of Mozambique graduated. ABOVE: John Mellors, the University of Pittsburgh's chief of infectious diseases, handed each graduate a doctor's bag with instruments that he'd brought from Pittsburgh.

(sometimes three people shared one bed), that people were lying in the halls.

The CIPRA grant focused on enhancing UCM's research capacity, but Mozambique's need for patient care and trained doctors was immense.

"I thought, 'We need to get care here.' [The visit] reaffirmed our feeling that we needed to be involved in any way we could," Palumbo says.

So they could improve care and spur research, Pitt and UCM designed a twinning partnership. The partnership aims to increase personnel to provide HIV services and palliative care through the development of an HIV training center on the grounds of UCM's medical school. It also focuses on fostering UCM faculty development and building the school's research capacity. Through the partnership, Pitt med students will be able to learn about tropical diseases and global health issues at Beira.

Before UCM and Pitt faculty started working together, Beira's health care workers went to didactic lectures but had no hands-on training. At the new Beira training center, however, they will help care for 1,000 patients, under the watchful eyes of mentors. Students benefit, too.

"My best training comes from the time I spend working at the clinic," says one of Gomes' students.

Part of the inspiration for the training center came from a clinic in Mangunde that Gomes established. It was the first rural HIV clinic in Mozambique.

The four-hour drive from Beira to the Mangunde clinic in central Mozambique is mostly on orange dirt roads marked with

potholes that can swallow a tire. There are few cars. Most people walk on the side of the road. It is not uncommon to see men transporting live goats on bicycles.

Far from any organized town and 25 kilometers off the main road, the Mangunde clinic is a handsome, white-washed building with a red cross on the front.

When patients check in, a staff member enters their information into the electronic health records system powered by a generator. (There are no power lines in the area.) The clinic staff members know patient names, which ethnic groups they come from, whether there are issues in the family, when patients miss appointments. The clinic also provides food supplements to pregnant women and any patient who looks malnourished. The staff treats everything from crocodile bites to HIV.

Peter Veldkamp, assistant professor of medicine in the Division of Infectious Diseases at Pitt and educational director of the UCM/Pitt partnership, has visited the Mangunde clinic a number of times and is impressed. In many ways, care is comparable to the UPMC HIV clinic in Pittsburgh, he says.

"Professional satisfaction is essential for staff," says Gomes, who received a master's degree in public health at the University of Hawaii.

"They need electricity, supplies, and a working lab. They need a professional environment."

He's trying to combat Mozambique's "brain drain."

"I came back to Mozambique because I wanted to do something good for my country," Gomes says. He remembers particular cases, like the 3-year-old boy who

was brought in with severe convulsions from cerebral malaria. (Many poor children suffer from malaria because their parents can't afford bed nets.) Days after treatment, this boy ran down the hall to Gomes. His arms were outstretched, and he was giggling.

Gomes hopes his students will have many rewarding experiences like his—and he hopes they'll have them in Mozambique.

UCM's jubilant first med school class graduated this past August.

"For me, the practice of medicine is the best way to help others," says Filipe Vicente, now in his fourth year at UCM.

Vicente is the oldest of five children. His father and mother split up when he was young, and his mother had no income. She then sold fish, cakes, and drinks and worked on farms so that she could pay school fees for Vicente and his siblings. Vicente wondered how he could help his mother, but jobs are few and far between in the countryside.

Then Vicente's uncle took him in as well as one of his younger brothers. Vicente's aunt, a nurse, suggested he could go to medical school, and his uncle agreed to pay his fees, the equivalent of U.S. \$1,500 a year. When his uncle died, Vicente was no longer able to afford the tuition. Had it not been for a scholarship awarded to him, paid for by Pitt's infectious diseases faculty's holiday contributions, Vicente would have had to drop out.

His story is not an unusual one among UCM med students.

In a few years, Vicente will probably make his way on bumpy roads to an assigned area like Gomes did 20-some years ago.

But first, Vicente will train with experienced doctors. ■