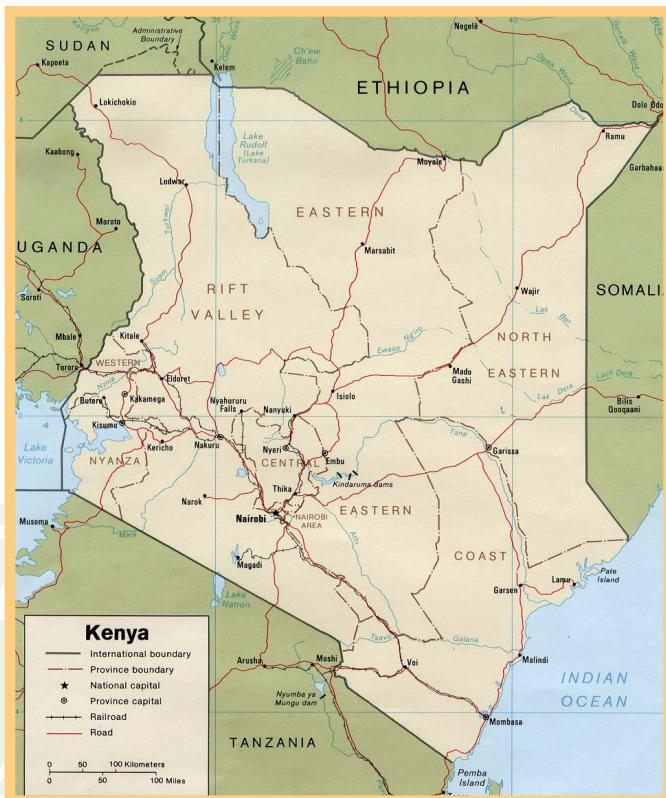


An Emory-CDC project to capture data on Kenya's nurses holds promise as a model of change for nursing policy in Africa

By Robin
Tricoles

Transforming a Nation's



Bouncing along in a 4x4 on a dirt road, mud splashing up on the vehicles' tires from the deep, rain-filled potholes, Martha Rogers thought she probably would never again take for granted the paved roads in the United States. Getting around anywhere outside of Kenya's capital city was trying—just in the time it took to drive anywhere. But important work is never easy, she reminded herself. She was there to help Kenya modernize its nursing workforce.

Rogers, a clinical professor in the School of Nursing, is helping Kenya's nurses develop a computerized system to collect data on themselves to transform a shrinking nursing workforce into a highly effective and efficient one. Patricia Riley, a certified nurse-midwife in the CDC's Global AIDS Program, works with Rogers as the project's technical adviser.

Several factors are contributing to Kenya's ever-dwindling nursing workforce at a time when nurses are needed most, says Rogers. Chief among them is that because of the global nursing shortage, demand for Kenya's well-trained nurses has increased worldwide. Better working condi-

Nursing Workforce

Clinical professor Dr. Martha Rogers (second from left), the project's principal investigator, and the Kenya workforce team, including Agnes Waudo (far right, holding pen), the in-country project coordinator, review the data entry program at the Nyanza Provincial Nurse's Office.



tions and better pay for nurses in other countries make emigrating highly attractive, especially given Kenya's early mandatory retirement age for nurses. Second, the nurses themselves have been hit hard by AIDS-related deaths and disease, just as the country's general population has.

In December 2001, two professors from Nairobi's Kenyatta University were visiting the CDC to discuss malaria and parasitic diseases, Riley recounts. During the last hours of their visit, the professors asked for an impromptu meeting with a nurse to discuss the possibility of a new nursing baccalaureate program in Kenya. They hoped such a program would address the nursing shortage there. The person the professors spoke with was Riley, also an adjunct professor with the School of Nursing, who then quickly arranged for them to meet with her and two of her colleagues, Kathy Kite, administrative director of the Lillian Carter Center for International Nursing (LCCIN), and Judith Wold, 81MN, an academic fellow with the LCCIN.

"I wasn't sure whether something would come out of that meeting. But I was intrigued with their request," says Riley. "All of us felt it was worth pursuing. This was the first time I could ever recall someone from an African academic institution requesting CDC's technical assistance in advancing the practice of nursing." Immediately after the meeting with Riley, the

two officials returned to Kenya. Not long after that, a team from Emory and the CDC followed.

Where have all the nurses gone?

The Emory-CDC team conducted a month-long assessment of Kenya's nursing workforce and concluded the country did not need another baccalaureate program just yet. Rather, Kenya first needed to determine the number of nurses employed in the country, their education and training levels, and their workplace locations. Even this basic information was unknown.

Because Kenya's communications infrastructure is fractured, it took months to gather that information, and much of it was outdated. For example, the Nursing Council of Kenya (NCK) collects all data relating to nurses' licensing, training, and outmigrating. But the chief nursing officer collects data concerning nurses' work history, continuing education, promotions, and deaths. This information is collected from various districts and then faxed or mailed to a province, where it is compiled. But the data are often lost or incomplete.

"Every nurse who went to school, took their exams, or got their certifications all got a paper filed in a chart," says Riley. "If they went back to school for a specialization, such as psychiatry

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or midwifery, they got another paper in another chart. So, if the minister of health ever wanted to know how many nurses were in the country, the staff had to go through each chart and count one by one. Not only would that take months, but the result would be wrong.”

The Emory-CDC team’s proposal: Kenya needed a centralized, real-time, electronic database to track nurses so they could quickly be relocated to areas where they were needed most. Officials in Kenya agreed. Through a collaborative effort involving the CDC, School of Nursing Dean Marla Salmon, an expert in health workforce issues, and Emory’s Rollins School of Public Health, the team secured seed funding from the CDC to launch the program.

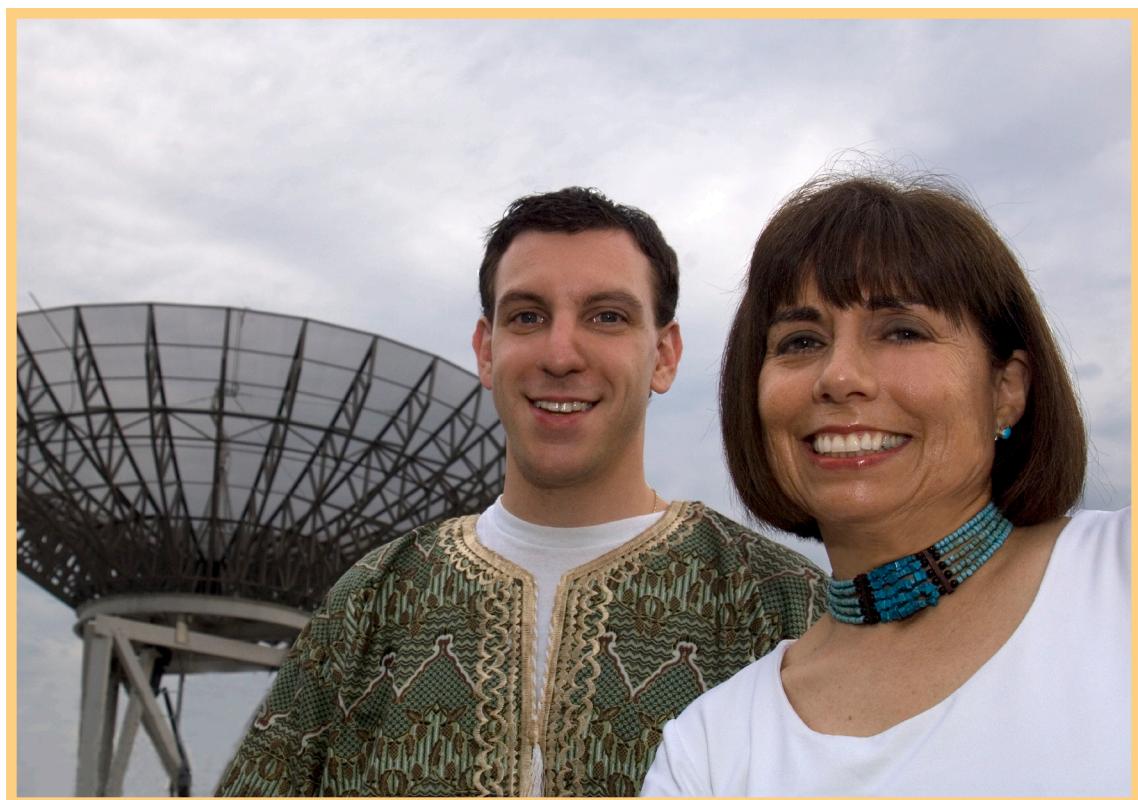
From her home base at the Centers for Disease Control and Prevention, Patricia Riley works to improve Kenya’s nursing workforce. Stephen Vindigni, who has since left the project for medical school, helped the NCK start inputting nursing data.

Building the database

About this time, Riley became acquainted with Stephen Vindigni, then an Emerging Leader Fellow in the CDC’s National Center for Environmental Health, while he was serving in Riley’s office as part of his fellowship rotation. In July 2006, Vindigni, who has since left the project to attend medical school, returned from his fourth trip to Kenya, where the project has progressed markedly since it was funded in 2002. “The first two years were spent going through 44,000 files that were in a large metal trailer at the Nursing Council of Kenya, the licensing body for nurses,” he says.

Since then initial data-collection sites are being set up—two down and six more to go in order to cover the country. Rogers is overseeing development of these sites. Kenyan IT professionals have been hired to write software, set up the hardware, and train other Kenyans to operate their new equipment, which many Kenyans have never seen before.

“I expected a little bit of computer phobia,” Rogers says. “But the nurses were eager to learn the technology. To work in Kenya means to overcome a challenging communication system. Kenya doesn’t have a strong IT system, as most everyone uses only wireless connections. People





Peggy Vidot, an adviser to the Kenya nursing workforce project from the United Kingdom, inspects one of several file collections being entered into the new database.

use cell phones because the land lines are unreliable, especially in the outlying rural areas.”

“We told people who had little or no experience with computers that we were going to take them into the future with computers, just like with telephones 10 years ago,” Riley adds. “The thought was that if we could pilot this project in a far-flung province and make it work, then the ministry would see immediately the benefit and want to continue in other areas.”

It appears the ministry and others have seen the benefit of the nursing workforce project and embraced it. NCK has assumed some of the costs of the project, such as paying for its own e-mail domain. Furthermore, the council recognizes that maintaining accurate records is inherently important and that licensing nurses is a revenue-generating process. One goal is for the project to become self-sustainable.

“When you have an in-country party willing to put aside their resources to support this common goal, that means they don’t see it as your project, they see it as their project,” Rogers says. “This project has many owners, and that’s exactly what we want.”

Rogers says she knew the project had turned a corner when the chief nursing officer of Kenya saw the potential uses of the data. The data not only provided him a look at nurses’ education and salary levels but also helped in placements of new hires. Using the nursing data in conjunction with HIV infection rates among the public, he could place nurses in areas that were particularly hard hit with the disease.

After data collection is complete, Rogers says, the project will tackle cleaning up the data—making sure figures and names are accurate. Because personal information will be entered

into the database, the Ministry of Health has come up with ways to protect workers’ confidentiality. There also are plans to implement workforce databases in all eight provinces in Kenya and then expand the databases to include other types of health care professionals.

Collaboration and a dose of determination

Because of the project’s promise, the CDC’s Global AIDS Program has decided to invest in the project, says Riley. The program would use this project as a model for other workforce cadres, such as physicians and laboratory workers. Officials from other countries, such as Uganda, Zambia, and Malawi, have also expressed interest in using the model. Peggy Vidot, a health adviser for the United Kingdom and collaborator with Emory’s School of Nursing, supports the creation of nurse workforce databases for various countries throughout Africa, Asia, and the Caribbean. Early last year, Vidot attended a meeting involving 14 African countries and spoke to the group about the importance of creating nursing workforce databases. A few months, later, Vidot visited Kenya and got to see the workforce project in action and was impressed.

Both Rogers and Riley are thrilled that other countries are now recognizing the importance of the nursing workforce and acting on it. They know from experience that collaboration is the best way to get the most out of this project, both ideologically and monetarily. “You’re never going to have enough money to do all that you want to do,” Riley says. “So it’s important to leverage your resources with those of others and build collaborations. The success of this project is the result of the collaborations we’ve had with the School of Nursing, the Rollins School of Public Health and its Center for Global Safe Water, CARE International, CARE Kenya, and CDC Kenya.”

Determination and persistence also played a big part in the realization of the nursing workforce project. “The Kenyans had this blind faith in us, a faith that we were going to make this work,” says Riley. “I thought there’s no way we can’t deliver on this. There’s so much riding on the project: Emory’s credibility, my credibility, the credibility of the Ministry of Health, but most of all, the credibility of our stakeholders in Kenya.” EN

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