



2003, IHV received the largest health care services grant in campus history (see related story on page 29). With federal funding from the President's Emergency Plan for AIDS Relief, IHV is now in the midst of comprehensive, long-term efforts to empower health care providers in Africa, Latin America, and the Caribbean with the skills they need to care for their own.

Long an international leader in AIDS research, clinical care, and prevention efforts, IHV turned to Guberski to provide the depth of real-life experience and expertise needed to spearhead and oversee training efforts directed to accomplished RNs—already bright, talented, and skilled practitioners whose own educational experiences simply did not provide a treatment overview of the disease ravaging their communities.

The philosophy had been: Why train nurses in HIV therapy when the developing countries had neither the financial resources nor the actual drugs needed for treatment? But when therapies became available through global funding initiatives, medical training became a critical component.

As a technical advisor for the project, Guberski now spends about five months a year in Uganda and leads the development of a global nursing curriculum that will help nurses become accustomed to providing a continuity of care—treating sick populations and helping to prevent illness in the healthy ones—in addition to learning about the side effects of HIV drugs and how to monitor those taking them.

“We concentrate a lot on how you run a clinic with patients now expected to come for a continuum of care, not episodic care,” she says.

Collaboration is the key to the success of the team's efforts, notes Guberski. Anthony Edozien, MD, assistant professor in the School of Medicine and IHV, is the senior technical advisor and team leader. Solomon Agbor, DRPH, specialist health care provider through IHV, promotes adherence to quality.

“Without these two professionals, I could not do my job,” says Guberski. “Each colleague brings a different expertise in terms of technical assistance.”

Guberski's first visit to Uganda and to a treatment clinic was eye-opening. “When I saw the number of patients, I thought, ‘What did I get myself into?’ I had never seen so many patients in one clinic at one time. To me, it looked like thousands. It was probably between 100 and 150.”

Guberski can recognize the symptoms of HIV patients suffering from opportunistic infections such as cryptococcal meningitis and quickly recommend the protocols necessary to restore health and vitality to patients. Previously the medical

The faculty members of the University of Maryland School of Nursing have different specialties, areas of expertise, and professional interests. But several have united around a single goal—to empower nurses in developing countries with the skills they need to treat HIV-positive patients.

Training nurses around the world to diagnose and treat patients living with the virus that causes AIDS takes time, energy, and personal commitment. The instructors bring unique vantage points from which they view the global epidemic and the nursing profession, and they have returned home after experiencing incredible events that have changed their perspectives forever.

NURSE EDUCATORS INTEGRAL TO UGANDA

Thomasine Guberski, PhD, RN, CRNP, was a registered nurse long before the discovery of AIDS, but like many nurses, she found herself face to face with the disease. She proactively enrolled in continuing education courses in an effort to stay current with the latest trends in care and treatment. Today, she empowers other nurses to do the same.

An associate professor at the School of Nursing, Guberski is a member of a multidisciplinary team immersed in global partnerships. Through international collaboration, School of Nursing faculty are helping to prepare the next generation of health care professionals in a critical arena of clinical care where the number of patients far surpasses the number of practitioners able to treat them.

Guberski was tapped by the Institute of Human Virology (IHV) in the School of Medicine for her expertise when, in



At the University of Zambia at Lusaka, health care workers enjoy the expansion of their facilities to protect nurses from occupational exposure to blood-borne pathogens.

New mothers visit an IHV-supported clinic in Uganda.



teams did not have the training, resources or experience to diagnose the condition or provide a life-saving remedy.

In addition to training the local health care providers, Guberski's team leaves behind textbooks and printed copies of the curriculum for reference. "We go to places with no electricity," Guberski explains. "They don't have access to the Internet or to online resources. Paper is very expensive, and textbooks are a resource that most don't have. We leave what we can."

Guberski has encountered many patients whose lives have been restored—patients who are feeling well and worry only about more commonplace illnesses.

PHYSIOLOGIST SEES RECOVERIES IN KENYA

On a recent visit to Kenya, Barbara Smith, PhD, RN, FAAN, associate dean of research at the School of Nursing, carried a snack bar inside one of her travel bags. Packed almost as an afterthought, the small amount of food proved comforting to a teen who had lost both her mother and aunt to AIDS. Living in isolation, the girl had gone several days without a meal and practically inhaled the treat.

"I pulled it out, and it just disappeared," Smith recalls of the exchange. The girl, estimated to be 15 years old, was "a head shorter than what she should have been" due to malnutrition.

Smith, an exercise physiologist, has long advocated that physical activity and proper nutrition can help to prevent and minimize the risk and severity of disease. She also has developed a professional niche, working with special populations such as the Amish, African-American children, and HIV patients.

For the last 12 years, Smith, a veteran nurse with expertise in AIDS treatment, has closely watched how food and exercise can affect the quality of life for persons living with HIV. In 2006 and 2007, Smith traveled to Kenya, where she was asked to help train nurses who for the first time have access to anti-retroviral drugs (ARVs) to treat the disease. "Our motto has been, 'Vital signs are vital,'" Smith explains. These specially trained nurses are now embracing both the day-to-day care of

their patients and the aggressive treatment plan.

Malnutrition and the lack of food are some of the bigger obstacles to providing HIV care in a country ravaged by the disease, Smith observes, adding that medical teams in Africa refer to food as the "fourth ARV," joining the three classes of antiretroviral drugs used to treat HIV. Food is so important because HIV drugs are ineffective and cause undesirable side effects when taken on an empty stomach; many residents of Africa consider treatment options futile without access to regular meals, notes Smith.

It's just one of the many barriers Smith has observed working with medical teams also confronted with staffing shortages, lack of equipment, and overwhelming patient loads. But Smith is encouraged by the progress she sees each time she returns, including the opening of new clinics and increased numbers of health care professionals undergoing intensive training efforts.

Smith says she is quick to share with her pupils and professional colleagues that, though she might be considered "the expert," she, too, once walked in their shoes in her professional development.

"I bring a certain amount of knowledge," Smith says to the student nurses she mentors, "but I also need your knowledge and expertise with how we apply that in Africa. We can then put our knowledge together and create something that works for Kenya. In doing so, you'll become the experts, and we'll become the spectators."

Smith encourages her students to adjust their treatment protocols based on evidence by scientifically gathering information from observing their patients, settings, and results. The impact can be profound. She recalls an older woman diagnosed and hospitalized with both HIV and tuberculosis. Too weak to sit upright, the patient had to be propped up by

nurses, Smith remembers, only to see her quickly slump to the side.

A few months later, Smith encountered the patient again; her condition had improved dramatically, thanks to treatment for her tuberculosis and HIV.

“Her daughter called to her and this woman came running down the lane. I was envisioning the woman so weak she had to be propped up in bed, and here she was running. She had enough energy to run, to literally run.”

RESEARCHER REACHES OUT IN TANZANIA

Several years ago, Keith Plowden, PhD, RN, ACRN, responded to a professional request for services and says his life was changed forever.

Plowden, an associate professor and assistant dean for baccalaureate studies in the School of Nursing who also teaches in the School of Medicine, specializes in urban health issues. He practices on a medical unit at the University of Maryland Medical Center and works on health care issues related to minority men, as well as factors such as drug use that put them at higher risk for HIV infection. The researcher/clinician also has extensive experience working with hard-to-reach populations and in developing culturally appropriate interventions to educate, promote consensus, raise awareness, effect change, and improve outcomes.

Plowden's work is funded through the National Institutes of Health, the U.S. Department of Defense, and the Substance Abuse and Mental Health Services Administration. He traveled to Tanzania to share his insight into the AIDS epidemic and to find ways to reach that particular community with its own cultural sensitivities and specific needs. For three weeks, Plowden visited community-based organizations and nongovernmental associations to assess, analyze, and make recommendations on what is needed to deliver and administer drugs and increase compliance and improve treatment outcomes.

He quickly learned that there are huge gaps in how the two

countries approach HIV care and in what the United States can advise based on the reality of resources.

“We have to be very careful when we make recommendations,” Plowden says, “because they may be doing all they can do with what they have.”

He says it is not uncommon to walk through a hospital ward where two patients share a single bed or for medical staff to be without critical resources or the drugs needed for care.

“When I am in a U.S. hospital, I can pick up a phone to report my assessments and have a drug delivered instantaneously. That may not be the case there,” Plowden says.

Plowden anticipated that as an African-American, he would have a connection with the culture. But he says he was surprised at the unexpected moments where he, too, learned so much. For example, despite the fact that almost everyone in Tanzania personally knows someone who is living with or who has died from AIDS, many have never bothered to get tested for the disease.

Plowden also explained that many people know that HIV drugs must be taken with food to work effectively and, because they can't guarantee meals on a consistent basis, see no benefit to knowing their HIV status. In some hospitals, the patient's family, and not the health care facility, must provide the patient's meals.

He was profoundly affected by the experience and came to the quick conclusion that, in addition to his insight as a researcher, the country needed the experience of hands-on practitioners to diagnose and treat patients based on evidence. He is now studying to become a certified nurse practitioner, a move he believes is crucial before he makes another visit.

Plowden summarizes the philosophy of all the School of Nursing faculty members who are empowering nurses to work with AIDS patients in Africa. “They need practitioners to work alongside them in providing care to the patients,” he says. “I look at my contribution now in terms of responding to a humanitarian need.” □

Presidential Grant Extends IHV Work in Africa

In 2003, the President's Emergency Plan for AIDS Relief (PEPFAR) awarded the University of Maryland School of Medicine the largest health care services grant in the history of the University of Maryland, Baltimore. The \$64 million grant for the School of Medicine's Institute of Human Virology (IHV) AIDSRelief Program provides high-quality medical care, treatment, and counseling to people living with AIDS in Guyana, Haiti, Kenya, Nigeria, Rwanda, South Africa, Tanzania, Uganda, and Zambia.

Robert Redfield, MD, director of clinical care and research at IHV and chief of the Division of Infectious

Diseases at the School of Medicine, directs the program, which benefited nearly 15,000 AIDS patients in its first year and is expected to reach approximately 140,000 patients within five years.

In July 2007, IHV received an additional \$43 million grant from PEPFAR to be used to further IHV's AIDS Care and Treatment in Nigeria project by providing immediate care and treatment to 48,000 patients and expanding HIV testing and counseling to an additional 100,000 Nigerians. Nigeria ranks third in the world for total number of persons infected with HIV.