



Out-of-the-Box Solutions for HIV/AIDS Treatment

Massachusetts General Hospital's David Bangsberg, MD, MPH, knows providing medicine to HIV/AIDS patients in sub-Saharan Africa isn't nearly enough to keep them alive and healthy. So he's attacking the problem with a creative, multi-pronged approach — and witnessing real results.

In rural Uganda, chicken coops and lemongrass farms are saving the lives of HIV/AIDS patients. But it's no herbal remedy — it's an economic one, and a Massachusetts General Hospital physician is spearheading the initiative.

David Bangsberg, MD, MPH, director of the MGH Center for Global Health, has been working in Uganda for years, finding ways to better treat HIV/AIDS patients through improved clinical training, research and care delivery. More than 33 million people residing in sub-Saharan Africa are HIV-infected, representing 67 percent of the world's HIV pandemic. But while HIV/AIDS has become a chronic illness in the developed world thanks to antiretroviral therapy, it remains the leading cause of death in young adults in many sub-Saharan countries, including Uganda.

During his many years traveling to Uganda, where 1.2 million people are infected, Dr. Bangsberg developed a keen sense that

simply providing treatment to patients isn't nearly enough to keep them alive and healthy: so many infected Ugandans are simply too poor to pay for transportation to medical clinics to pick up medication, which also means taking a day off from work, causing lost income. That leads to lapses in treatment, and thus to drug resistance. And they are too poor to buy enough food.

So, several years ago, acting on the suggestion of an HIV/AIDS patient in Mbarara in rural southwestern Uganda — the focal point of Dr. Bangsberg's work — he put together an expert team of Americans and Ugandans who designed a unique microfinancing project to help patients generate the income necessary to pay for HIV treatment. The Sustainable Household Income Project (SHIP) is based on the premise that, if economic barriers can be breached, HIV-infected people will be able to purchase life-saving medication.

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Here’s how SHIP works: A philanthropic-minded American couple made a major gift to underwrite the cost of a lemongrass distillery on land provided by Mbarara University of Science and Technology (MUST), where Dr. Bangsberg is also a professor. The oil produced by organic lemongrass, which is used in the fragrance and flavor industries as well as for pesticides and preservatives, commands premium prices in Europe, Japan and the U.S. The distillery generates proceeds that are transferred to a handful of rural Ugandan families affected by HIV, so they could build and maintain their own chicken coops. The coops, in turn, generate income that allowed the families to get their medications. The financial model was developed by Massachusetts Institute of Technology economists.

The result, says Dr. Bangsberg: “These families can now cover the ancillary cost of care and don’t have to make a decision between paying for transportation to get their drugs and paying for food. And they are staying healthy.” As a result of the proven success of the pilot families, Dr. Bangsberg and his team is expanding the program to new families who will receive their own chicken coops as the next lemongrass crop is harvested in 2011.

Conquering the brain drain

Microfinancing is one way in which Dr. Bangsberg is approaching Uganda’s health challenges in relation to HIV/AIDS. Combating the medical brain drain out of the country is another. Over one-quarter of the healthcare workforce in resource-limited countries like Uganda are working outside of their country of origin, and countries are spending hundreds of millions of dollars per year to

train medical professionals who eventually leave to work in wealthier nations. It’s a problem that is at its most severe in rural places like Mbarara, a city of about 100,000, thereby straining the economy and stymieing efforts to improve health of populations.

“It’s critical to educate a new generation of Ugandan public health leaders so they have the tools to expand the country’s healthcare workforce to meet HIV/AIDS patients’ needs, especially in rural areas where there are so few doctors or others with medical training,” says Dr. Bangsberg, who is also director of International Programs at the Ragon Institute of MGH, Harvard, and MIT, and associate professor of Medicine at Harvard Medical School.

The MGH Global Health Scholar Program in Uganda, started by Dr. Bangsberg and funded partly through philanthropy, is an innovative training effort based on the belief that individual examples of successful leadership will encourage retention of students and faculty. The Ugandan program — the first of several Global Health Scholar programs in several African countries — is currently funding two medical faculty members at Mbarara University in pediatric medicine and public health, respectively.

“The program uses philanthropic support to provide competitive salaries for doctors and offer them world-class training by MGH and Harvard experts,” says Dr. Bangsberg. “And it thus simultaneously broadens the global health expertise of Mass General residents and physicians who are developing local capacity — a truly symbiotic relationship.”

The MGH Center for Global Health integrates research, education and front-line medical care to prevent avoidable deaths and alleviate the pain and mental anguish resulting from diseases, natural disasters, war and human rights violations throughout the world.

Its initiatives span dozens of countries in the developing world over many medical specialties. With its base at Mass General, an epicenter of medical research and health education and a world leader in clinical care, the center is able to leverage the hospital’s vast resources and talent in a variety of ways to advance its agenda.

The center needs a major infusion of philanthropic investment in order to fund its programs in care, research and medical training. We hope to partner with donors eager in advancing health and health training throughout the world, especially in the developing world.