

UC San Diego Partners with Mozambique University to Deliver Quality Health Care

\$12.5 million linked grants will help double the number of physicians graduating from Mozambique medical schools in next decade, and improve surgical care in rural areas

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Aimed at enhancing the capacity of Mozambique's flagship medical school, Universidade Eduardo Modlane (UEM), in pre- and postgraduate medical education, the University of California, San Diego School of Medicine and UEM entered into a partnership in 2007 to address both short and long-term medical human resource needs in Mozambique.

Officials at both universities announced today that UEM is expected to receive \$12.5 million over five years under the Medical Education Partnership Initiative (MEPI) - a collaboration between the Office of the Global AIDS Coordinator, the National Institutes of Health (NIH), and the Health Resources and Services Administration (HRSA) - to fund this program. The funding to the UEM is part of \$130 million MEPI initiative.

"The biggest challenge to our country's ability to deliver quality health care to our people is a critical shortage of well-trained physicians and other health care workers," said Dr. Emilia Noormahomed, Principal Investigator of the new partnership and a member of the faculties of both UEM and UC San Diego School of Medicine. "We are extremely excited to work with the outstanding School of Medicine at UC San Diego in training additional faculty here and for two new medical schools in Nampula and Tete."

Robert T. Schooley, MD, professor of medicine and chief of UCSD's Division of Infectious Diseases, who helped spearhead the grant added, "This remarkable partnership will expand collaboration between UEM and UCSD that has been in development for the past several years."

Schooley said that the partnership has become a model program for the U.S. Department of State's President's Emergency Plan for AIDS Relief (PEPFAR) program as it intensifies its emphasis on increasing local ownership of the healthcare system. "UEM has a fantastic group of faculty, and the resources provided by this grant will allow them to focus on doing what they want most to do - train the next generation of physicians for a rapidly developing nation that is critically short of physicians."

Mozambique was under Portuguese rule - when native Mozambicans were not admitted to medical school - until it gained independence in 1975. At the time of independence, all but 50 physicians had left the country. During an ensuing 20 years of conflict, few resources were devoted to higher education, and because of faculty shortages at the country's only medical school, UEM, fewer than 25 physicians graduated each year. While conditions have steadily improved, today only 500 of the country's 800 physicians actively practice medicine and most reside in the southern third of the country, most in its capital city of Maputo.

"Infectious diseases, including HIV, TB and malaria, are among the major causes of death in Mozambique," said Sam Patel, MD, professor of medicine at UEM and UC San Diego School of Medicine. "Malaria accounts for

26 percent of deaths in hospital, and TB or HIV account for nearly 60 percent of admissions at Maputo Central Hospital."

Mozambique's life expectancy at birth of 42 years is 220 out of 223 countries around the globe. However, since the peace accord in 1994, the country has experienced stability and steady growth with one of the most rapidly growing Gross National Products in Africa. The UCSD component of the medical education component of the program will be led by Schooley and two colleagues in UCSD's Division of Infectious Diseases, Constance Benson, MD, and Davey Smith, MD. Elaine Muchmore, MD, professor of medicine and Jess Mandel, MD, associate dean for undergraduate education-both at UC San Diego School of Medicine - also play key roles in this aspect of the program. The medical education component of the plan has four specific aims:

- to expand the bilateral research partnership with UC San Diego School of Medicine, initially focusing on communicable diseases, including HIV/AIDS, tuberculosis, malaria and related infectious diseases

- enhance research capacity at UEM through a mentoring relationship with UC San Diego, designed to expand local, sustainable research; formal training in clinical and translational research; developing a laboratory to support local translational research opportunities; and further the administrative capacity to conduct human subjects research

- enhance electronic connectivity and information technology at UEM and Maputo Central Hospital and train Mozambican professionals to sustain this infrastructure, by collaborating with colleagues from UEM School of Engineering and UCSD Biomedical Informatics

- to partner with UEM Faculty of Medicine, the Mozambique Ministries of Health and Education, the Mozambique Medical Council and the two new medical schools to efficiently plan health care education to meet the country's longer-term needs

In addition, a linked MEPI grant will focus on improving surgical care in rural areas of Mozambique and building surgical research capacity within UEM. "Surgical conditions, especially injuries and obstetrical emergencies, are an important yet unaddressed public health problem in Mozambique," said David C. Chang, PhD, MPH, MBA, director of outcomes research for UCSD's Department of Surgery. "For example, the maternal mortality ratio in the country is 520 for every 100,000 live births, compared to 4 in 100,000 in most developed nations. Yet, nearly half of births have no skilled attendant present."

The UEM-UCSD Surgery Partnership will utilize resources from the World Health Organization, Canadian Network for International Surgery and American College of Surgeons to determine how best to deliver surgical services in settings with limited resources. Chang, along with Stephen W. Bickler, MD, UCSD professor and chief of pediatric surgery, will head the surgical component of the project.

"This research and training partnership is directed at developing scientifically based strategies for improving surgical care at the primary referral hospital level in Mozambique," said Dr. Fernando Vaz from UEM. Vaz served as Mozambique's Minister of Health during the conflict years of the 1980s and 90s. During this period, he pioneered the cross training of medical officers and nurses to perform surgery in rural areas of the country where surgical care was not available. This approach has subsequently been adopted in a number of other resource-limited settings. "We expect that the lessons learned from this research will be applicable to other low-income countries, and will establish UEM and its affiliates as leaders in surgical research in sub-Saharan Africa," said Vaz.

Benson summarized the "big picture" aspects of the program: "The overarching goal of our collaboration is to help train the medical and scientific leadership required for Mozambique to lead its medical schools and its Ministry of Health for the next 30 years. We believe this collaboration will be a major success and will pave the way to a major change in the approach to foreign aid in disciplines well beyond medicine."

This initiative will be administered by Fogarty International Center of the NIH and the HIV/AIDS Bureau of the Health Resources and Services Administration (HRSA), and is part of \$130 million in funding to African institutions in a dozen countries. The program is designed to support PEPFAR's goals to train and retain 140,000 new health care workers and improve the capacity of partner countries to deliver primary health care.

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