

The Partnership for Eritrea Graduate Medical Education in Pediatrics, Surgery and OB/GYN

In a country where five pediatricians and seven surgeons serve 4.9 million people, a remarkable change is taking place. Eritrea, a nation slightly larger than the state of Pennsylvania, is a place of extraordinary beauty in North East Africa on the coast of the Red Sea. Here, where nine ethnic groups, three working languages and two dominant religious groups coexist in harmony, and where few feel the need to lock the doors to their homes, five physicians serve 100,000 citizens, compared to the United States' average of 293.

Globally, there is an urgent need for more than four million additional doctors, nurses, midwives, managers and public health workers in 57 countries, 36 of which are in sub-Saharan Africa, according to the World Health Organization. As the participants of the Global Forum on Human Resources for Health recently stated in their Kampala Declaration and Agenda for Global Action, there is a need for "immediate action to resolve the accelerating crisis in the global health workforce." Recognizing that the lack of adequately trained healthcare workers is one of the most pressing concerns in global health, the participants of the Forum called upon governments, multilateral institutions and private funders around the world to take steps to address the growing need for more highly trained and specialized medical staff.

In this spirit, a partnership of the Eritrean Ministry of Health, nonprofit medical education and training organization Physicians for Peace, and The George Washington University Medical Center have launched a unique initiative to establish sustainable post graduate medical education programs in Eritrea's capital, Asmara, in order to combat the shortage of physicians in this severely impacted African nation. Their project, *The Partnership for Eritrea*, aims to reverse these trends by working alongside the Eritrean people to build effective, sustainable healthcare infrastructure.

The Partnership hopes to allow Eritrea to break free from its human resources for health (HRH) shortage by bringing training programs catered to Eritrea's healthcare needs to its native physicians. Rather than import residency curricula from the U.S. or another developed country, the Partnership's Eritrean and American physicians have



collaboratively designed curricula that address Eritrea's specific healthcare needs. Ultimately, the Partnership aims to build a sustainable healthcare infrastructure in Eritrea's capital, Asmara, and beyond.

"I am determined to help children so that they can lead socially, mentally, and physically healthy lifestyles." - Dr. Fitsum Gebremichael, Partnership for Eritrea Pediatric Resident

Eritrea's location, size and dedication to the advancement of healthcare for its citizens are optimal conditions for reaching the Partnership's goals. Already Minister of Health Saleh Meky has shown he is capable of producing lasting change in his country by making significant advances in public health. The youngest country on the African continent, Eritrea gained independence in 1993. Since then, it has expanded its healthcare infrastructure by creating more than 130 new hospitals, health centers and health stations. Eritrea now boasts one of the highest child vaccination rates in all of Africa. HIV/AIDS prevalence has remained level at 2.4%. The infant mortality rate has been reduced to 46.3 per 1,000 births, a true achievement when compared to some areas in Western Sub-Saharan Africa where the rate is as high as 104 per 1,000. Moreover, malaria rates have been reduced by 75%, making Eritrea a success story in the control of communicable diseases. Furthermore, the Eritrean Ministry of Health opened the Orotta School of Medicine in Asmara in 2003. Its first class will be graduating in the summer of 2009. With equal zeal, the Partnership has taken on reducing Eritrea's HRH shortage as its next priority.

The first stage of the Partnership's program has established surgical and pediatric residency training programs for indigenous physicians. The two-year pediatric and three-year surgical residency programs began in January of 2008 with a class of eight pediatric and five surgical residents. The first residents were selected from the existing pool of general practitioners in Eritrea who were trained elsewhere in Africa and have many years of clinical experience. An onsite leadership team was deployed in October, 2007 after a Letter of Agreement was signed and the Partnership for Eritrea was officially inaugurated in 2006. The Asmara team currently includes Dr. Haile Mezghebe, a surgeon of Eritrean descent who serves as medical director of the program, and pediatric program director Dr. Margot Anderson, who followed Dr. Jennifer Egelseer. The initial surgical program director was Dr. Fatima Khambaty. The residency program directors provide full time, onsite teaching and supervision to the residents in Asmara. The second cohort



of four pediatric residents began in February of 2009.

The Partnership's second phase will expand post-graduate medical education programs to include several additional specialties. Collaborating with Columbia University Medical Center, the Partnership is set to launch the OB/GYN residency in the summer of 2009 with a class of five residents. Collaboration is



underway with Yale University for the Internal Medicine residency, and with Johns Hopkins University Medical Center for the start of an Anesthesiology residency. These programs will launch in the summers of 2010 and 2011 respectively.

The residency program directors' teaching and supervision is supplemented by faculty from The George Washington

University Medical Center and other U.S. medical schools who visit Asmara to teach the Partnership's unique curricula. These visiting faculty provide instruction and hands-on training in neonatology, HIV/AIDS care, vascular surgery, neurosurgery, urology, emergency surgery, head and neck surgery, orthopedics, and other subspecialties.

Some of the participating Eritrean residents will additionally be trained to teach future residents after the initial program development phase has ended. Thus, with continued support, these residency programs will become self-sustaining over time, managed and administered by Eritrean healthcare workers residing in Asmara.

Several new initiatives are also underway. The Partnership has begun to develop nursing education projects including Doctor of Nursing Practice (DNP), Family Nurse Practitioner (FNP) and Nursing Management and Leadership programs. The Himmelfarb Health Sciences Library was recently awarded a grant from the Elsevier Foundation through their *Innovative Libraries in Developing Countries* program to conduct a needs assessment for the development of comprehensive medical education information and technology for the Partnership onsite in Asmara. With help from the Partnership's faculty and staff, a Neonatal Intensive Care Unit (NICU) has been established at the Orotta hospital.

The excitement of the Partnership's impact is already felt across this small nation, where in 2012, the first 25 residents will graduate, tripling the number of pediatricians and

doubling the number of surgeons in the country. Both access to and quality of care have already substantially improved in Asmara. In comparing general statistics since the start of the initiative from the years 2006 to 2008, the utilization of services at the children's hospital has increased by 17 percent, while admissions to the Emergency Room and to the wards, as well as overall bed occupancy, have greatly decreased. The number of pediatric deaths has decreased by 28 percent in raw numbers.



The surgical program has also shown positive tangible results. There was a 16 percent increase in number of cases operated comparing 2007 to 2008 at Asmara's two main hospitals. This is likely due to regular rounding, expedient patient care, and faster turnover and discharges, which has allowed for more efficiency.

In both programs, weekly academic sessions and the emphasis and usage of current concepts of evidence-based medicine have helped phase out older methods of patient care, including a once-abusive environment of antibiotic use. Antibiotic use per patient has decrease by 42 percent at Orotta Children's hospital since the start of the residency program, consequently lowering patient costs and the risk of drug resistance.

In summary, the Partnership for Eritrea's long term goal is to work collaboratively to develop a fully functional and sustainable healthcare system from the bottom up. By building HRH capacity, the Partnership is able to make lasting change which will not only increase the capacity of Eritrea's healthcare workers to provide self-sufficient, high quality care, but will also serve as a model for in-country medical training in other countries throughout Africa.

"We have a unique opportunity to make a profound impact in this country," said Dr. Jim Scott, Dean of The George Washington University School of Medicine. "And, we have an opportunity to broaden the breadth of our capacity as practitioners, leaders and individuals."

If you are willing to join the partnership and donate to this outstanding cause, please contact the Partnership for Eritrea by email at <u>partnershipforeritrea@gwumc.edu</u> or by phone at 202-994-2796.

