

The African Health Workforce Project: Leveraging Information to Strengthen Health Systems

With funding from the U.S. government, Kenya has pioneered highly cost effective health information systems that have transformed the country's ability to manage its healthcare workforce effectively. These regulatory human resource information systems or rHRIS track the training, licensing, and certification requirements of different cadres of healthcare professionals. With these systems, Kenya's ministry of health can now better allocate healthcare workers to meet the health needs of the population and ensure that providers are maintaining their certification and training requirements. The rHRIS have dramatically increased revenue from licensing fees that has helped strengthen the regulatory agencies' abilities to enforce regulations that ensure quality care for Kenya's population. Kenya also has become a model for the development of rHRIS and is now sharing its expertise with Zambia and other countries in East Africa that are also working to strengthen management of their healthcare workforce.

The Challenge

The African Health Workforce Project (AHWP) started in 2002 with an initial focus on improving training programs for Kenya's nursing workforce. It soon became apparent that Kenya lacked comprehensive, accurate data about its entire healthcare workforce. Most personnel records were paper-based and officials could not ensure that healthcare professionals were maintaining their training, licensing, and certification requirements. The system also presented barriers to healthcare workers in renewing their licenses, especially those who worked in remote areas of the country and had to travel for days to the capital Nairobi to submit the required paperwork. Finally, the lack of accurate data constrained the ability of the ministry to health to allocate healthcare workers where they were needed.

The Opportunity

In 2006 at the height of the HIV/AIDS epidemic, Kenya received funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) to design and implement a rHRIS that could help the ministry of health decide how to ensure provision of HIV services around the country. AHWP recruited a team of Kenyans with expertise in informatics, a discipline that involves designing sophisticated information systems to manage data effectively. AHWP Director Dr. Martha Rogers drew on her own experience in developing HIV surveillance systems in the United States to help the Kenyans learn how to design and implement an rHRIS that met their country's needs. Experts in software/systems development from Georgia Institute of Technology were also involved initially in hiring Kenyan staff and evaluating the project.

The Strategy

The initial rHRIS was developed for the Nursing Council of Kenya and tracks more than 50,000 nurses. Similar rHRIS were later implemented for seven other cadres of healthcare workers, including doctors, dentists, clinical officers, laboratory technicians/technologists, nutritionists, pharmacists, radiologists, and public health officers. Collectively, these systems now track 80,000 healthcare workers in Kenya. In 2015, Kenya drew on the data from the Nursing Council to issue its first comprehensive report on the state of the country's nursing workforce. The ministry later published a comprehensive report on all the country's healthcare professionals using data from the rHRIS. The report determined that Kenya had only 13.8 doctors, nurses, and midwives per 10,000 people, far below the World Health Organization recommendation of 44.5 per 10,000 needed in order to provide universal health coverage. The ministry also found that

rural and hard-to-reach areas did not have enough qualified healthcare personnel to meet the needs of communities.

The Impact

Implementation of the rHRIS has helped the ministry of health ensure that providers meet their licensing and continuing education requirements. In 2008, only 2 percent of active doctors and dentists submitted the required documentation for renewing their licenses. That level rose to more than 60 percent in 2011 after the implementation of the first rHRIS. The system promotes compliance by prompting providers to complete their training requirements before their licenses lapse. In addition, license renewals can be handled entirely online, mitigating the need for providers to travel to Nairobi to submit the required documentation in person.

As a result of the rHRIS, regulatory agency revenue has increased significantly because more providers are now maintaining their licensing and continuing education requirements. This additional revenue has helped fund health regulatory system improvements including the construction of a new and modern office building that houses the Kenya Medical Practitioners and Dentists Board. Most importantly, with increased revenue, the regulatory agencies have been able to maintain and sustain the IT infrastructure and staff capacity needed to operate the data systems. Because of this sustained revenue stream, the AHWP has been able to hand over the operation of all rHRIS to the respective regulatory agencies.

Kenya's experience has attracted the interests of several countries in East Africa that are working to strengthen management of their healthcare workforce. The Kenya team is now working closely with colleagues in Zambia to help them develop a rHRIS. A major value of the existing Kenya rHRIS is that they can be easily replicated, which significantly reduces the cost of implementing these systems in other countries. This further increases the impact of the original U.S. investment in Kenya's health system.

Partners

AHWP is headquartered at the Atlanta-based Task Force for Global Health and collaborates with the Emory University School of Nursing, Kenya Ministry of Health and regulatory agencies, and Centers for Disease Control and Prevention/PEPFAR. Over the years, the project has benefitted from The Task Force's ability to move funding and contracts quickly to Kenya.

The Future

Kenya's development and implementation of rHRIS demonstrates how sustained U.S. investments in health systems can have lasting effects on developing countries. The country now has sustainable capacity to make stronger evidence-based decisions about the allocation of healthcare workers around the country. In addition to the ministry of health, county-level health departments now have access to the systems for addressing staff shortages, inadequate training, and other needs. The rHRIS has helped strengthen the quality of health services in the country by promoting providers' compliance with training, licensing, and certification requirements. The rHRIS have been sources of significant additional revenue for the regulatory agencies that has funded other health system improvements. Ultimately, a stronger, better-managed healthcare workforce will translate into improved health outcomes for Kenya's population. Finally, this investment in Kenya's health system has spawned a new South-to-South exchange of knowledge and expertise that will help drive health system improvements in other countries in East Africa.