



# WHITIA

WORLD HEALTH IMAGING, TELEMEDICINE  
& INFORMATICS ALLIANCE

One Digital Image Can Save A Life



## OUR MISSION

The World Health Imaging, Telemedicine and Informatics Alliance (WHITIA) is working to improve the health status and quality of health care received by people living in resource-limited areas worldwide. WHITIA does this by providing communities with access to:

- low-cost, digital X-ray and telemedicine systems;
- medical professionals who can remotely assist with diagnosis and the technology to facilitate that interaction; and
- the ability to track health information that can be used to monitor public health trends and improve health care delivery.

WHITIA builds and leverages relationships with key stakeholders such as local health authorities, global non-governmental organizations (NGOs), philanthropic organizations, academic institutions, civil society and the health technology industry in order to collaborate on the development, deployment and sustaining of affordable imaging and telemedicine solutions.



# Digital Imaging and Telemedicine

bring resource-limited areas access to medical expertise which they lack but need.

One X-ray system is  
needed for every **50,000**  
people.

**2/3** of the world currently  
lacks access to basic  
X-ray services.

**60%** of medical diagnoses  
require an X-ray.

## PROBLEM

X-ray services and access to medical specialists are critical to the effective delivery of primary health care. It is estimated that X-ray analysis is required to accurately diagnose 60% of medical conditions, and yet 4 billion people lack access to this basic medical service. Specialists are needed to read the diagnostic images and to provide consultation for diagnosis but many areas, even entire countries, lack medical specialists like radiologists.

Despite decades of efforts aimed at addressing this problem, little progress has been made. Many efforts to provide X-ray equipment to the developing world have lacked the coordination necessary to deploy and sustain these systems. Additionally, diagnostic imaging technology that is designed for developed countries may not be appropriate for use in the developing world.

Because of this, WHITIA's diagnostic imaging solution is based upon the imaging standards created by the World Health Organization (WHO) specifically for resource-limited settings. These specifications state that the X-ray equipment should be able to:

- produce high quality images;
- be operated by staff with minimal training;
- be designed such that there is minimal scattering of radiation;
- be able to be operated by generators in areas where power is unreliable; and
- should be simple to maintain.

These specifications are known as the World Health Imaging System for Radiology (WHIS-RAD).





## SOLUTION

WHITIA helps medical facilities acquire low-cost, sustainable, digital X-ray and telemedicine systems. These systems are configured according to the site's specific needs and include some or all of the following components:

- a WHIS-RAD compliant X-ray system and CR (computed radiography) unit which enables the X-ray system to generate digital images or a DR WHIS-RAD system;
- technology that enables telemedicine allowing the site to connect with medical specialists for consultations;
- network connectivity for the transmission of digital images, teleradiology, image/data storage and utilization tracking; and
- computer workstations, viewing stations and all required ancillary components.



## APPROACH

Ensuring that X-ray and telemedicine services are available on a sustainable basis in resource-limited communities requires collaboration and innovation. WHITIA's approach brings key stakeholders to the table to develop a comprehensive solution suitable to the needs of the individual clinical sites and the larger health care system.

We are committed to ensuring that we deploy health care technology in a way that enhances each clinical site's sustainability. We do this by facilitating the site's access to a range of services that begin with a site needs assessment and continues on after the health care technology has been installed. These services, provided by WHITIA or partners, include the following.





## **NEEDS ASSESSMENT**

We work with the medical facility to determine its imaging and telemedicine needs. We look at many factors during the assessment including: the daily/weekly volume of patients requiring an X-ray, the site's diagnostic and treatment capabilities, the state of basic infrastructure and the impact that may have on the system's functioning/capabilities. Through this thorough process, WHITIA identifies potential sustainability issues and helps the site devise a plan to address them.

## **FUNDRAISING ASSISTANCE**

If the site lacks the ability to purchase the system or any of the components, WHITIA can assist with its efforts to identify funding for the procurement and installation of the system as well as for ongoing maintenance and support. WHITIA works with a wide range of local and global non-governmental and philanthropic organizations as well as government agencies in its fundraising efforts on behalf of each site.

## **INSTALLATION & TRAINING**

WHITIA works with partners to arrange for professional installation of the system and for training on the use and maintenance of the system.

## **ONGOING SUPPORT: HEALTHCARE TECHNOLOGY MANAGEMENT PLAN**

WHITIA provides each site with a roadmap that it can use to manage, maintain and sustain its X-ray and telemedicine system and services. This plan covers topics such as how and where the site can access support, provides a list of resources for items such as training and maintenance, and establishes a regular pattern of communication through which WHITIA's staff reviews usage data from the site and provides assistance with connecting the site to local and global resources.

