Delft Imaging Systems TB project in Ghana

Introduction to the project

In line with the WHO strategy, Ghana aims at the target to reduce the TB incidence rate 90% by 2035 compared with 2015. Our project in Ghana is the largest e-Health project in Africa with the aim to accelerate tuberculosis case detection and to strengthen the Ghanaian health system with the installation of X-ray systems nationwide, as well as to provide an e-Health platform for the exchange of X-ray images, patient records and e.g. lab results between hospitals and clinics across Ghana.

For this project, X-ray systems using the innovative CAD4TB software will be installed in 52 hospitals and mobile clinics. Within one minute, the CAD4TB software marks suspected regions in the lungs and calculates a probability score for TB. Clinics can screen up to 200 images per day. These Mobile One-Stop TB clinics have easy-DR X-ray systems, and are self-supporting in terms of electrical power and water. This makes it possible to provide healthcare even in the remotest areas. Together with the low cost, this makes it a very effective way to find TB at an early stage in poor communities in Ghana.

Latest activities concerning this project

This November, 35 X-ray system installations were completed. Presumably all of the systems will be installed by the end of the year. Out of all the 52 X-ray systems, 30 will be in Delft mobile One-Stop TB Clinics, 18 in rooms of health facilities, as well as four portable ones, of which two would be in vans and the remaining two on board pick-ups. Friday 27th October, two TB-screening vans with X-ray equipment for the national TB control program were officially received by the Minister of Health, Hon. Kwaku Agyemang-Manu. He promised to take good care of the vehicles with their equipment to reduce the TB incidence rate.

During this project, Ghanaian clinicians will be trained in reading and reporting on chest X-rays and TB, radiation safety and protection. At the end of October, 35 participants attended the 4th chest X-ray reading training, 26 doctors and 9 physician assistants. After the current courses, two more chest X-ray seminars will be held this year in Accra and Kumasi. To maximize the impact, the distance learning chest X-ray course will be rolled out in 2018. Secondly, IT officers receive ‘learning by doing’ training to learn about the soft- and hardware within the project. All kinds of IT-disturbances and even breakdowns of the equipment were simulated, and participants had to solve the problems hands-on.