



Information and communication technology to improve quality of healthcare

The Novartis Foundation for Sustainable Development (NFSD) aims at contributing to the achievement of the health-related Millennium Development Goals (MDGs). To strengthen human resources and improve access to healthcare for patients in remote areas, NFSD uses information and communication technology (ICT) such as e-health or m-health applications in several of its projects.

E-learning in maternal and child health

Every year, 6.9 million children worldwide die before reaching their fifth birthday. The majority of these deaths could be prevented through simple, low-cost interventions such as pre-, ante- and postnatal care, vaccinations and antibiotics. The crucial factor is the development of skilled human resources for health. To strengthen the skills of healthcare personnel working with sick children, the Novartis Foundation supported the World Health Organization (WHO) in the development of an e-learning tool for the Integrated Management of Childhood Illness (IMCI).

Called ICATT (IMCI Computerized Adaptation and Training Tool), the program facilitates the management, with minimal personnel intervention, of the most common childhood diseases, such as pneumonia, diarrhea and malaria. ICATT can be easily adapted to country-specific features such as treatment guidelines and the tool facilitates faster and more flexible scale up of IMCI training. Training time and costs are reduced and consequently more people can be trained in the management of childhood illnesses. The quality of training is enhanced through interactive modules and audiovisual content. ICATT is currently being rolled out globally by WHO.

Maternal and newborn health also remain a challenge; therefore, the Novartis Foundation and WHO decided to continue their collaboration and work with the Swiss Tropical and Public Health Institute (Swiss TPH) to develop an e-learning tool called IMPACTt (Integrated Management of Pregnancy and Childbirth training tool). The first module of IMPACTt on Essential Newborn Care has been developed and was tested in Tanzania and the Philippines. Other modules on antenatal, childbirth and postnatal care are under development.

The Novartis Foundation is also working with the Tanzanian Training Centre for International Health (TTCIH) in Ifakara, Tanzania, and the Swiss TPH to build an e-learning center of excellence at TTCIH. eLearning@ttcih aims at implementing existing tools such as ICATT and IMPACTt into the training curricula of health workers and to build capacity so that TTCIH can develop its own tailored e-learning courses in maternal and child health.

Telemedicine in Ghana

To strengthen human resources in rural areas, the Novartis Foundation, in cooperation with the Millennium Villages Project (MVP), the Ministries of Health and Communications and the District Hospital, started a telemedicine project in the Bonsaaso cluster in Ghana. The goal is to provide

quality primary healthcare services that are affordable, sustainable and meet the needs of patients, specifically by overcoming geographical barriers using ICT solutions.

As a result, a teleconsultation center has been established to provide diagnosis and treatment support to health workers in rural areas using structured decision-making protocols. Therefore, the teleconsultation center helps build the capacity of the field health staff, both in immediate procedures and in the long term. Best practices will inform the development of the project and demonstrate results to the Ministry of Health in Ghana as it looks to scale up telemedicine services across the country.

ICT-based solution to assess the quality of healthcare services

By intervening on both the supply (healthcare provider) and demand side (patient), access to quality healthcare can be comprehensively improved. To improve quality and affordability of healthcare services in rural Tanzania, NFSD, Swiss TPH and Ifakara Health Institute are collaborating on the Initiative to Strengthen Affordability and Quality of Healthcare (ISAQH). To assess the quality of health services, the project supported the development of a questionnaire-based assessment tool.

With the help of e-TIQH (electronic Tool to Improve Quality of Healthcare), district-based health management teams assess infrastructure and equipment of the health services, job expectations, motivation and clinical skills of healthcare staff, facility management and patient satisfaction. Compared to the previous paper-based version, e-TIQH makes the quality assessment approach more manageable, efficient in terms of time, financial and human resources and also scalable.

SMS technology to reduce stock-outs

Since 2000, Novartis donates multidrug therapy (MDT) to all leprosy patients worldwide through WHO. Nevertheless, access to the drugs is not guaranteed and health facilities often face stock-outs due to supply chain challenges. To identify and reduce stock outs of leprosy and tuberculosis (TB) drugs at health facilities in Tanzania, the Novartis Foundation is piloting an m-health initiative based on the Novartis-led SMS for Life technology. The project uses a combination of mobile phones, SMS messages and electronic mapping technology to track stock levels of drugs in health facilities.

SMS for Life Tuberculosis and Leprosy (TL) aims at establishing solid reporting on both available and required drugs for the treatment of TB and leprosy patients. In collaboration with the Tanzanian Ministry of Health and Social Welfare, NFSD tested an initial version of SMS for Life TL in five districts, before a more advanced version was piloted in all districts across the Mwanza region.

For more information please visit:

www.novartisfoundation.org/projects

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