



Empowering people through e-health

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SPIDER supports universal health care in Uganda

Soon, Denis Adongo, a rural resident of the Isingiro district, will have better access to health services without having to travel to the nearest city. Beginning in 2010, Mrs Shilongo, a community health worker, will be able to call the central Medical Call Center for advice and digitally refer Denis when she needs to. Denis' health records will be registered and updated each time he seeks medical attention.

Should Denis require tests that are not readily available at the health unit, he may leave blood and other samples, x-ray pictures and photographs of skin disorders. Some of those samples can be digitally transmitted for remote consultation and diagnostics by medical practitioner higher up in the health service chain.

By creating a unique patient ID, an all-encompassing electronic health record, and an online referral system, the ICT4MPOWER project aims to increase the effectiveness of the Ugandan health system and empower Community Health Workers. This Uganda e-health initiative will effectively relieve city hospitals, cut down on travelling and transport as well as improve planning and management.

E-health

Health is a fundamental human right indispensable for the exercise of other human rights. The right to health is not only an individual right, but a prerequisite for all human development. Without good health, individuals cannot develop to their fullest potential, or take an active part in public life.

Providing universal health care is a challenge for governments around the world. In developing countries, governments are severely limited by both financial and human resources. A lack of comprehensive health care plans, insufficient and poorly educated health care staff, and sometimes incompatible donor agendas are all factors that severely hamper the government's ability to effectively manage national and international funding. Simply providing more money is not the solution. In many places, an adequate and comprehensive Health Information Management System is conspicuously absent. Without sufficient compilation and analysis of epidemiologic data and disease surveillance, a health care system will not have the necessary information to launch appropriate responses.

Coordination and Information Management within the Health sector Information and Communication Technology (ICT) can assist in the collection, analysis and coordination of various health care related processes. E-health refers to health care practices supported by electronic processes and communication. There are a number of components comprising the e-health field. Knowledge management uses various data collection methods to streamline information and support a continuous cycle of learning in the health care sector.

Electronic Health Records enables patient data to be easily communicated between different health care professionals (GPs, specialists, care

team, pharmacy) as well as fast online referrals, easy follow up, and consistent and accurate reporting on health data.

The sub-field m-health includes the use of mobile devices in collecting aggregate and patient level health data, giving practitioners and researchers access to health care information in real-time. By monitoring a patient's vital signs, and enabling direct provision of care, m-health is also applicable in direct patient care.

E-health also includes Consumer Health Informatics whereby client-driven systems are put in place to cater to both healthy individuals' and patients' needs for gaining information about various medical and health related topics. Access to health related information and Netdoctor services may reduce the pressure on the health care system.

ICT can greatly facilitate drug management by supplying health care providers with updated information on when and where drugs are in demand and need to be resupplied, or moved from one location to another.

In addition, e-learning in the medical community enables continuing education and learning, while also reducing the costs associated with such learning. ICT facilitates medical research and multi-country collaboration within health re-

search. For example, the E-health Grid program offers powerful data management capabilities for processing large amounts of data in epidemiological management and research.

Expert medical advice even in rural areas

E-health can be a major contributing factor for bringing about changes in direct patient care in developing regions, especially in poor rural areas. The medical facilities in rural areas in many developing countries are notoriously understaffed, since living conditions for staff cannot match that of cities. By connecting peripheral rural health care units to better staffed, centrally located health care units, individuals can access expert care and services regardless of where they live.

Telemedicine

Telemedicine includes all types of physical and psychological examinations and care that do not require a patient to travel. This way, a specialist can provide expert advice to several rural communities without having to leave the city. Telemedicine also includes Virtual Healthcare Teams that consist of healthcare professionals who collaborate and share information on patients through digital equipment to support physicians in rural areas and hospitals.

The Swedish Program for ICT in Developing Regions, SPIDER, was constituted in 2004. The mission is to assist developing countries with promotion and deployment of ICTs for combating the digital divide and reducing poverty, in line with the UN Millennium Development Goals (MDGs). SPIDER is governed by a board with representatives from senior management of Swedish Universities and private companies.

Read more at www.spidercenter.org

 **SPIDER**

DSV, KTH Stockholm
Forum 100, SE-164 40 Kista, Sweden
T +46 (0)8 790 6000
F +46 (0)8 703 9025
info@spidercenter.org

Read more on e-health

United Nations mHealth for Development
<http://www.unfoundation.org/global-issues/technology/mhealth-report.html>

The International Society for Telemedicine & eHealth
<http://www.isft.net>

AED-SATELLIFE – center for health information technology
<http://www.satellife.org>

