

Handheld computers go for sh200,000 and are charged like mobile phones

# Uganda gets new technology to disseminate health data

By David Muwanga

**U**GANDA has become the first country in the world to develop and test the functional information processing network, a project aimed at addressing the information needs of the health sector.

It is due to the new technology that the Uganda Chartered HealthNet (UCH) won the Public Sector Excellence Award given by the World Information Technology and Service Alliance (WITSA) at the World Congress on Information Technology (WCIT) in Austin, Texas, USA recently.

Uganda Chartered HealthNet, a non-governmental organisation, emerged the best out of the 37 contestants from the 75 WITSA member countries.

UCH won the award for its Uganda Health Information Network (UHIN) – a pilot project, started in October 2003, in which healthworkers in three remote health centres in Rakai, Mbale and Manafwa districts were provided with personal digital assistants (PDAs) with which they receive health content that would ordinarily be collected by paper and transported by road to the district headquarters for collation and analysis.

“With the use of the PDAs, data is collected electronically and transmitted within seconds to the district headquarters over the cellular-based global system for mobile (GSM) communication network, established by UHIN,” says UCH board chairman, Prof. Nelson



INNOVATIVE: Sewankambo (left) shows off the award. Right is Patric Mwesigwa

Sewankambo.

In this network, healthworkers point their PDAs to Wireless Access Points that are self-contained stand-alone GSM-integrated data-catching and transmitting computers that make scheduled connections over the Internet to the district computer and thus transfer data from the healthcentre to the district office for further processing.

By pointing their PDAs to an access point,

healthworkers are able to download content targeting the main health problems such as malaria, HIV/AIDS and other topics of interest, including extracts from newspapers.

The mechanism also allows a health worker in remote areas to be informed about new developments in disease prevention, health education, drug prescriptions and diagnosing and for the health managers to

receive and update data to enable them make informed decisions.

“A very small healthcare system can virtually be coordinated through handheld tools of information, thus bridging the gap between the urban-based healthcare expertise and the rural healthcentres,” Sewankambo says. He says the power problem is solved by use of solar systems that cost sh500,000 while the access point uses ordinary batteries that are replaceable. The cost of

the handheld computer is sh200,000 and is charged like a mobile phone.

“Increased functionality is possible due to continued improvement in technology and introduction of the general pocket radio service by the telecom providers allows faster access of online connectivity at monthly costs of sh20,000 down from sh200,000 per access point,” says the UHIN project director Dr. Patrick Okello.

Okello says the International Development Research Centre saw the potential development link for better health and contributed \$600,000 to customise the access points that were developed in the US.

A South African company, Thelamic, remodelled the access points to suit Uganda's conditions and each costs \$600.

“The government should take advantage of this success to leverage this local expertise to support service delivery in the entire country as the infrastructure and concept can be used in other sectors like agriculture, trade, tourism and education.”

Other countries that have adopted the UHIN model are Mozambique and the islands of Barbados, Dominican Republic and St. Lucia, in the Caribbean.

WCIT is bi-annual event attended by all stakeholders in ICTs who come together to talk about growth and impact of ICTs on the economic development of countries. The next congress will be held in Malaysia in 2008.

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