

## **WIRELESS COMMUNICATION TECHNOLOGY TO SUPPORT PHC MANAGEMENT IN THE NORTH WEST PROVINCE**

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The aim of this study is to investigate the potential of wireless communication technology (WCT) to improve communication between sub-district management, rural primary health care clinics and home-based carers (HBC).

A cell-phone-based patient tracking system for use by home-based carers and a basic electronic clinic patient record system are being implemented in two sites. Data from the systems is combined in a clinic database, using the patient clinic number as the key. Data for the routine monthly clinic report is transmitted to the sub-district office via the cell-phone network. System design therefore takes account of the poor communication infrastructure.

To date (September 2006) the first phase of project implementation has been completed at one pilot site, and the home-based care system has been implemented at the second site. Pre-test assessment has been completed, and there is ongoing monitoring of the implementation.

Some of the lessons learned to date are:

- Organisational processes and practices must be understood to ensure that the systems support the health service activities
- Buy-in from key personnel is essential
- Processes to ensure data quality and completeness are essential
- Sustainability is a challenge; ongoing training and support are required and will have to be planned for with local personnel.

Preliminary results indicate that electronic information systems have the potential to improve communication between clinic staff, home-based carers and sub-district managers, despite the poor communication infrastructure.

Keywords: home-based care, clinic information system, wireless communication technology, rural health services