**M-health — providing excellence in quality of care through wireless, telehealth and mobile technology integration: report on the IQPC conference, Sydney, 30 – 31 March 2004**

The health sector is moving at a pace on the development of the use of mobile technology and, from an information management perspective, it is crucial that decisions made regarding this form of technology are completed within an environment that is not only ready for the technology but that will also develop structures to support the technology.

The m-health conference was organised by the International Quality and Productivity Center (IQPC) at The Boulevard in Sydney in March 2004. It was designed to showcase the latest advances made in wireless technology in health care and provided participants with thought-provoking strategies for advancing the way in which clinical information and data are collected in the health sector. Now, more than ever, there is a need for improved quality of patient care; health outcomes are mirrored in the standard of data and the technology used to collect these data. Development, implementation and evaluation of an appropriate and effective infrastructure to support wireless, telehealth or mobile technology is crucial and must include an ability to feed and extract data from a centralised information system.

Clinician buy in of new technology is a challenge to the viability of a project; hence, clinician involvement is essential and must be coupled with a supportive executive committee or service leaders, and a demonstrated commitment to implementation and support from the information technology (IT) department.

Conference participants were exposed to a number of projects highlighting the work being carried out across Australia in the areas of aged care, emergency medicine, community nursing, allied and community care, neurology and stroke, telepsychiatry, paediatrics, general practice, pharmacy, surgery, pathology and orthopaedics. In most presentations, reference was made to the use of personal digital assistants (PDAs), tablet personal computers (PCs), and wireless laptops, as well as a number of more high tech hardware and software being trialled across the nation. The message was that the way forward has to include entering data regarding the care and services provided to patients at the point of care. This view was balanced by Ralph La Tella, from the Health Information Management Association of Australia, who provided an educative view on the range of choice of PDAs available and, more importantly, how best to use the PDA to support at point-of-care.

A presentation on the technological solution for 1000 district nurses in Victoria offered conference participants a view on successful use of tablet PCs, which connect remotely to the office system via General Packet Radio Services (GPRS) mobile data. This illuminating project has revolutionised the way in which district nurses at the Royal District Nursing Service provide care to their patients.

Ian Cash, from the Royal District Nursing Service, demonstrated how the tablet PC allows the district nurse to log on to the system remotely, update patient records, access a patient’s history whilst in the patient’s home, and also to manage their appointments.

Dr Pat Cregan gave a presentation on the application of ultra-broadband internet for use in the critical care environment and the use of the VICCU (Virtual Critical Care Unit) as trialled in the Wentworth Area Health Service in NSW. This project is creating a technology to alleviate the problems incurred by multiple, small isolated hospitals where the issue is a lack of both skilled staff and a critical mass of patients to maintain staff skills. The use of this telehealth package provides staff at Blue Mountains Hospital with a mechanism for care of critically ill patients by trained staff at Nepean Hospital via the use of a cart that has been designed to be used in the treatment room. The cart has been designed in conjunction with the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Laurie Wilson, from the CSIRO, described a home monitoring project, a way to alleviate the pressures of health care delivery in the future. The CSIRO is developing systems to provide home-based health care service delivery. A system called PERSiMON is a device worn by the patient; reports are fed back to the system, which utilises Bluetooth wireless protocols. The data are fed through the internet to a database that can be accessed by the authorised health professional.

The VOCERA system, as trialled by Blacktown Hospital Emergency Department, is a voice-activated device that has revolutionised the way in which staff work within the department. This wireless communication tool contacts staff by button activation followed by voice on a pendant worn on the lapel or around the neck. This device eliminates the need to pick up a telephone and transmits messages for assistance. This is especially useful in a hospital emergency department, where telephoning staff or services can mean delays in patient care.

Innovation in provision of telehealth services is occurring in most states, and the value of this technology is seen in its ability to enhance the delivery of clinical services rather than replicating them. Telehealth tends to be more useful in rural and remote areas, and is a proven method that saves time and money to both the patient and the health service.

The use of a contact centre in aged care services was the focus of a presentation by David Meldrum, from the Advanced Care Community Association in Adelaide. This centre aims at coordinating community services to provide safe alternatives to unnecessary hospitalisation of the elderly. The service highlights the need for networked services linked to a central database, developed on a stable platform.

Centrul data base development to support service delivery, as well as data collection and reporting, was also presented by Dr Ping Yu, from Wollongong University, and Deborah Oong, from the New South Wales
Health Department. This information strategy was coupled with the use of PDAs in the orthopaedic ward at Flinders Medical Centre in South Australia, as well as e-prescribing with pharmacy services at Peninsula Health in Victoria and pathology services in remote Queensland.

The challenge for the information management and information technology practitioner will be to keep in step with the advances where emerging technologies are improving health care delivery and practice.

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