President’s Welcome

This is the second newsletter in the series to bring the latest update in the field of Telemedicine in Australasia and also about ATHS. Our society is growing slowly but steadily with 35 individual and industry members registered at present. We would very much like to get the support of all members to promote the society and its activities.

We are planning to hold the first Annual General Meeting in Perth on 28th Nov. 2008. This will be held in conjunction with the International e-Health and Telemedicine Workshop in Perth. I would like to invite all to attend the meeting and give your feedback and comments to promote telemedicine in Australasia. We are also planning to setup a database for active telemedicine projects in Australasia. We would very much welcome any ideas or support with regards to setting such server and database.

Once again I would like to request all members to actively participate and contribute to the advancement of telemedicine in Australasia.

Statewide Telehealth Services, Queensland

Statewide Telehealth Services is the provider of infrastructure, support and development for telehealth services in Queensland’s Department of Health. In a health service spanning an area of more than 1.7 million kilometres, telehealth is providing an innovative response to challenges caused by distance and the diverse spread of health facilities, resources and patients. Within Queensland Health, Statewide Telehealth Services works in partnership across two areas: Clinical and Statewide Services Division and the Information Division.

In 2007/08, about 4,320 separate videoconferences were undertaken with three or more geographically dispersed groups coming together simultaneously for training, education, workshops, and meetings. In addition, there were approximately 13,421 videoconferences involving two sites for patient consultation and diagnosis, and peer supervision. Approximately 41,500 hours were clocked by clinicians and support staff to deliver health education seminars to diverse facilities, workplaces and communities, and professional development videoconferences on medical and administrative business.

The usage of the service by clinicians and patients has increased substantially by 30 per cent, with more than 4,300 episodes of care (patient appointments) and an estimated 8,500 case conferences across Queensland. It is the clinicians and patients that are the real champions of telehealth.

Following are key examples of how telehealth is being harnessed for innovative approaches to health care delivery:

Continued over page....
- Multiple emergency departments are now linked to a clinical coordination centre in Townsville and Brisbane so that decisions are more informed about emergency retrievals, and unnecessary retrievals are avoided. This service is being provided in 34 emergency departments in rural and regional communities across Queensland, and will be installed in over 50 by the end of the year.

- Ear, nose and throat outpatient sessions are being provided from Weipa and Cooktown to Cairns as follow up post surgery. Similarly, Preadmission Assessment outpatient sessions are provided to patients that would need to travel to Toowoomba and Rockhampton for surgery.

- Wound management services in the patient’s home via real time videoconferencing using mobile phones with community nurses are currently being piloted.

- Retinal (eye) screening using digital fundus cameras is being provided in Cherbourg, Eidsvold, Palm Island and rural towns west of Longreach.

- Visiting medical teams that would normally travel to regional areas are now able to use telehealth technology to communicate with regional health care facilities and professionals, saving a substantial amount of travel time and associated costs (e.g mental health, aged care, and paediatrics).

- Townsville to Mount Isa Intensive Care Unit (ICU) is using a tailored combination of videoconferencing, remote vital signs monitoring, delivery of pathology and digital x-ray images to allow experienced ICU specialists in Townsville to support clinicians and patients in Mount Isa ICU.

- Development of a mobile wireless videoconferencing solution has been developed and is currently being used in the Cairns and Mackay Districts, to allow outreach pharmacy consultations at the patient’s bedside.

- Tele-rehabilitation services are provided from Cairns and Toowoomba to other facilities and to patient’s homes, using real time videoconferencing, video recording and capture of still images over the Next G wireless network so that patients can receive specialist rehabilitation services in their local community.

- Supporting and training radiographers in the use of computed radiography software and hardware.

- Collaboration is being undertaken with the University of Queensland, Queensland University of Technology, and Griffith University in an ARC Linkage Grant to develop a real-time digital stethoscope.

- Collaboration with the ‘Clever Networks Program’ is taking place, involving Queensland Health (Statewide Telehealth Services, Breast Screen Queensland, and Radiology Support), Department of Emergency Services, and CSIRO.

- Cabling infrastructure has been established on islands in the Torres Strait to enable videoconferencing to be used by the local community and health services.

- Statewide Telehealth Services is also collaborating with universities on the evaluation of telehealth outcomes for: intensive care; emergency retrieval; and preadmission assessments.

- Border control infrastructure is being implemented to allow patients and staff at home the ability to access telehealth services from their desktop / laptop.

The uptake of this telehealth by clinicians would not have occurred without the recent upgrades to the infrastructure which delivers videoconferencing services. Queensland Health now has one of the biggest supported videoconferencing networks in the world.

In 2007/08, Queensland Health upgraded its 507 videoconferencing sites by replacing 115 videoconferencing systems, and upgraded bandwidth and networks at more than 300 hospitals and community health centres. There was also a significant migration of 53 per cent of sites from ISDN to IP videoconferencing, to take advantage of upgrades to bandwidth, thus providing a more cost effective service to many facilities and increased return on investment due to negligible costs for use of the technology.

Dr Craig Kennedy, Director, Statewide Telehealth Services said “that having improved quality of videoconferencing equipment across the organisation, through a programme of equipment replacement and upgrades, has resulted in more reliable and positive communication exchanges”.

This work ensures Statewide Telehealth Services can meet the increasing demand on the service now and into the future. These upgrades have guaranteed that patients and clinicians have:
Dr Craig Kennedy, Director, Statewide Telehealth Services said "that having improved quality of videoconferencing equipment across the organisation, through a programme of equipment replacement and upgrades, has resulted in more reliable and positive communication exchanges".

This work ensures Statewide Telehealth Services can meet the increasing demand on the service now and into the future. These upgrades have guaranteed that patients and clinicians have:

- increased, reliable and proven video and image quality for clinical consultations
- improved capability for patients and staff to communicate from home
- ability to have their video-conferences remotely managed and monitored to maintain systems performance in remote areas such as the islands in the Torres Strait.

Our collaboration with other agencies to provide bridging services also reduces their need for travel. There are over 150 conferences organised for sites outside Queensland Health per month. This means at least 450 people per month are reducing their carbon footprint by not travelling for meetings.

Statewide Telehealth Services prides itself on maintaining technical standards and on the adoption of the Information Technology Infrastructure Library (ITIL) methodology for best practice IT Service Delivery, as well as ensuring legal advice is obtained on all policies, operating procedures, and work instructions. Later this year, Statewide Telehealth Services will be audited against the International Organisation for Standardisation (ISO) framework for certification.

Dr Craig Kennedy
Director, Statewide Telehealth Services
Queensland Health

Towards A National Health Network

The Australian Academic and Research Network (AARNet) is a new member of ATHS. Owned by Australia’s Universities and the CSIRO, it operates one of the world’s most advanced and extensive national education and research networks with 30,000kms of fibre assets and 23 international points of presence. Its interest in the area of tele-health has arisen because of its increasing contact with the health sector brought about by such things as the need for its members to have connectivity to their staff and students located on health campuses and the increasing number of health research organisations that are seeking connectivity to the national research and education network.

Over past number of years AARNet has been working with the Health sector on a number fronts. One front involves enabling health researchers to interact with their colleagues across the sectoral divide between health and education and the other front has been bringing AARNet’s considerable experience and infrastructure to bear on the activities of leading edge practitioners in the tele-health field.

On the latter front AARNet has been instrumental in enabling Australian surgeons to participate in the work of the Asia Pacific Advanced Networking (APAN) community, and in particular the APAN Medical Working Group. The APAN Medical Working Group has been generating great interest in e-health on an international scale by facilitating demonstrations by preeminent international surgeons to other practitioners in the APAN member countries. APAN meetings are held bi-annually with the host country rotated between the members.
Video Screen of the APAN Tele-Surgery Presentation

Australian Participants in APAN Tele-Surgery Presentation

Doctors and students at Kyushu University Hospital, Fukuoka, Japan and at the National University of Singapore watch a live broadcast-quality video of a bariatric surgical procedure conducted at Flinders University Medical School

On the former front, connections between Australian health campuses and the R & E network are surprisingly extensive with virtually all major teaching hospitals and health research campuses having access to the national R & E backbone. The concern remains that access to these connection points are limited to research and teaching and learning activities and are not being leveraged to service the needs of the broader health community. The extent of connectivity between health campuses and the R & E network infrastructure is currently the subject of a mapping exercise within the AARNet community.

Given that the connections between the R & E network and health sector campuses are increasingly taking the form of dark fibre, increasingly there exists physical fibre that could be leveraged with appropriate funding to create a separate, secure, national health network.

AARNet recently joined many others in making a submission to the Deloitte’s consultancy developing the National e-Health Strategy. In its submission it pointed out that the Research and Education sector and the Health sectors in Australia have many things in common. They both consist of numerous jurisdictions located on multiple sites with a multiplicity of authorities, responsibilities, governance and physical and virtual infrastructures. Each have shared and individual collaborations and each have shared and individual clients. Each of them have local, regional and national responsibilities and each of them are significantly publicly funded. Notwithstanding these similarities the success of the R & E sector in achieving national electronic collaboration contrasts strongly with the relative lack of progress in the health sector.

The submission went on to point out that R & E sector, through the AARNet has extensive privately owned fibre assets, numerous national international points of presence and a world class, very high capacity national network. The sector set out with a vision to create a truly national network and enabled that vision through a deliberate strategy of building a very high bandwidth network on its own infrastructure. The existence of this high bandwidth network has led to the emergence of new sector wide collaborations with shared courses and shared virtual infrastructure increasingly becoming the norm.
absence of a secure, readily accessible, national network.

Amongst other things, the submission recommended that Australia’s e-Health Strategy include:

- The immediate establishment of a secure, national, high capacity, broadband backbone capable of enabling the effective collaboration of all elements of the Australian health sector; and
- The establishment of the health sector national backbone as a collaboration with the Australian research and education sector through an independent and isolated overlay of Australia’s existing national research and education network infrastructure.

The submission stressed the need for the implementation of a national health network to leverage off existing national R & E infrastructure, allowing security control to remain in the hands of those people who currently oversee access in the health sector, to allow an “opt in” approach to network connectivity and to recognise complexities of devolved firewall management while not demanding an immediate change in the “modus operandi” of the various players within the health sector.

A copy of the AARNet submission is available to ATHS members from Mike.Rebbechi@aarnet.edu.au

AARNet
MR October 2008

---

Coming Events

**eHT WORKSHOP 2008**

The Centre for e-Health is holding the 3rd International e-Health and Telemedicine workshop.

This year we have put together a new and exciting format as suggested by previous participants. Experts from around the globe will be ready to discuss successfully implemented telemedicine and e-Health projects. Be prepared to take home a new knowledge and understanding of how to implement and successfully run telemedicine projects.

**Topics of discussion include:**

- Digital Homecare
- Tele-Emergency Medicine
- Electronic Health Records
- e-Health Systems
- **Round Table Discussions on e-Health and Telehealth** - Discussion on Implementation, success, failures and issues.
- **Hands-On Courses** on Teleotology, Telepaediatrics, and Telemedicine Project Management (for Vendors and Industry)

Visit [www.centreforehealth.org.au](http://www.centreforehealth.org.au) for more information

For all events supported by the Australasian Telehealth Society visit the website [www.aths.org.au](http://www.aths.org.au) and click on ‘Events’.

Have an event that you would like advertised on the ATHS website or in the ATHS newsletter? Contact one of the Committee Members at [www.aths.org.au](http://www.aths.org.au)