Improving health service delivery through telehealth expansion in Queensland

Andrew Bryett, Acting Director, Statewide Telehealth Services, Queensland Health, Australia
Queensland

- 22% of the land mass
- Population of 4.5 Million
- Idyllic one day not so the next
Queensland

Fairfield (Suburb of Brisbane) – January 13
Queensland

Fairfield (Suburb of Brisbane) – January 14
Queensland
Cairns – Cyclone Yasi (Cat 5) – February 2
Queensland

Hinchinbrook Marina – February 4
Queensland

- 22 M in Australia / 62 M UK
- Pop Density Qld 2.6 Sq km / UK 253
What is telehealth?

The Queensland Health definition of telehealth includes:

- Live, inter-active audio and/or video links
- Store and forward solutions
- Teleradiology
- Telehealth services and equipment to monitor people’s health in their home.
The potential benefits of telehealth

Include:

• improving access to care

• reducing travel cost and inconvenience for individuals, carers and health service providers

• Provide greater opportunity for support and education.
Problem being addressed

- Queensland faces a range of health service delivery challenges which include:
  - a growing, ageing, culturally diverse and geographically dispersed population
  - increasing prevalence of chronic conditions
  - access to services for Aboriginal and Torres Strait Islander peoples and for people in small communities
  - attracting and retaining skilled professionals, especially for specialist services in rural and remote areas
  - managing growing demand for health services within the economic and financial environment
  - healthcare infrastructure focused in areas of high population density.
Queensland Health Telehealth Infrastructure

- Predominantly Video Conferencing enabled
- Over 860 VC End Points
- Linking to over 260 facilities
- Primarily acute care for out and inpatient services
- Statewide Radiology systems / enterprise PACS at over 90 facilities
Key barriers for telehealth use

Need to address:

• Supportive clinical, strategic and operational policies
• Access to supporting clinical information
• Appropriate technology that is easy to use
• Network capacity
• Planning and coordination
• Adoption by clinicians and consumers
• Funding and incentives
• Governance
• Availability of activity data
• Research and evidence
In 2009/10, Queensland Health commissioned Deloitte to develop a telehealth strategy for Queensland Health. The strategy identified a vision:

VISION

To embed telehealth into everyday services as an accepted and supported enabler of health care for all Queenslanders
The Strategy also identified clinical priority areas and population groups:

- Mental health services
- Chronic disease management
- Cancer treatment services
- Emergency treatment services
- Maternity and child health services
- Aboriginal and Torres Strait Islanders
- Regional, rural and remote communities
The strategy articulated key objectives

- Policy and Standards
- Technology
- Organisation
- Adoption
- Governance
- Investment
An initial focus on:

- scope of practice and clinical credentialing
- medico-legal coverage
- operational policies
Investment in technology to:

- Improve telehealth availability
- Make telehealth easy to use
- Manage reliability
- Enable access to supporting info
- Enhance bandwidth capacity
Increased Organisational capacity to provide:
- enhanced technical support
- additional business support and coordination
- teleradiology support
Adoption

- Dedicated resources to:
  - Increase awareness and stakeholder/end user engagement with an emphasis on service planning and sustainability, training and support
Governance

- Establishment of a Statewide Telehealth Governance Committee
- Embedding this Committee into the existing governance framework of the Department
• Further Investment in resources to:
  - Improve reporting of telehealth activity
  - Develop new data items to capture inpatient activity
  - Develop new funding models to support telehealth services
Telehealth Services

Live video is used for administrative functions, case conferencing and clinical consultations including a wide variety of clinical services, ie:

- heart failure services
- cancer care/oncology
- diabetes
- ENT
- emergency care and retrieval services
- aged care
- intensive care unit
- interpreter services
- mental health
- neonatal care
- obstetrics
- foetal monitoring
- ophthalmology
- orthopaedic review
- paediatrics
- pathology
- radiology
- rehabilitation
- renal
- preadmission clinics.
## Clinical Services

15 HSD mapped to over 30 telehealth enabled clinical services they may receive

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<th>Children's Health Services</th>
<th>Gold Coast</th>
<th>Sunshine Coast-Wide Bay</th>
<th>Darling Downs - West Moreton</th>
<th>Central Queensland</th>
<th>Mackay</th>
<th>Townsville</th>
<th>Clarks and Hinterland</th>
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Note: The table above is a simplified representation and does not fully capture the complexity of the clinical services. For a more detailed and comprehensive view, please refer to the full document.
Video Conferencing Technologies

- Standard Trolley
- Able to be used in multiple rooms of a facility
- Now High Definition capable
Boardroom Systems
Wireless Mobile Systems
Custom Designs
Retrieval Services
Desk Top and PC Based
Progress to date

Increased activity and more accurate non admitted patient data

Non-Admitted patient Occasions of Service (OoS) delivered via Telehealth/Telemedicine
2008-09, 2009-10p. and 2010-11p. (Jul - Dec 10)
Public Acute Hospitals, Queensland
Source: Monthly Activity Collection QH
p. Preliminary data, subject to change

- 2008-09: 4223
- 2009-10p.: 6088
- 2010-11p.: 4945

No. required to meet June 2011 target
Occasion of Service
Progress to date

Increased activity and more accurate mental health activity data

Number of Mental Health Non Admitted patient Provisions of Service (PoS) delivered via videoconference, QH
p. Preliminary data, subject to change
Source: Consumer Integrated Mental Health Application
Progress to date

Growth in Video Conferencing end points and network infrastructure

Number of Videoconference Systems

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<tr>
<td>Number of VC Systems</td>
<td>662</td>
<td>828</td>
<td>867</td>
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- 662 systems as at 30 June 2009
- 828 systems as at 30 June 2010
- 867 systems as at 31 Dec 2010

- **No. required to meet June 2011 target**
- **No. of VC systems**

Growth in Video Conferencing end points and network infrastructure.
Progress to date

Growth in the number of facilities receiving online teleradiology reports

Facilities with radiology reports available online

- As at 30 June 2009: 15
- As at 30 June 2010: 74
- As at 31 Dec 2010: 93

Legend:
- No. required to meet June 2012 target
- No. of Facilities
Progress to date

Growth in the number of facilities that may receive emergency management support and coordination of aeromedical retrieval

Number of sites with Telehealth enabled Emergency / Trauma Management support

- **As at 30 June 2009**: 54
- **As at 30 June 2010**: 80
- **As at 31 Dec 2010**: 96

No. required to meet June 2011 target

No. of sites

As at 30 June 2009  |  As at 30 June 2010  |  As at 31 Dec 2010
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54                    |  80                    |  96

Growth in the number of facilities that may receive emergency management support and coordination of aeromedical retrieval.
OUR Enablers

- Supportive policy environment
- High level leadership
- Funding for service delivery
- Performance monitoring and reporting
- Governance
- Engaging with clinicians / stakeholders
- Leveraging existing infrastructure
Our Challenges

- Service planning – cross District
- Funding models and pricing
- Timeframes
- Technology – network capacity
- Dynamic health service environment
Future

• Culturally appropriate services for indigenous populations and equitable access to services
• Growing interest in homemonitoring
• Require a standardised and secure approach to Store and Forward beyond teleradiology
• Alignment with the eHealth agenda supported by an enterprise EMR
Future

• Inter sectoral cooperation between state and federal governments particularly at the interface between primary and secondary care
Future

Widespread Agreement - there are clear advantages in progressing telehealth to meet health care challenges, but telehealth must be embedded into existing, proven models of care.
The End

- Questions