National Strategy Development for Telehealth: Learnings from eHealth

MedInfo 2013 Panel Session
eHealth II
eHealth and Telehealth Contexts

❖ eHealth
- Electronic health records and health information systems focus
- Systems/data interoperability and enterprise architecture issues

❖ Telehealth
- Remote human interaction and information gathering focus
- Interaction/sensor and telecommunications/connectivity issues

❖ Similarities
- Operational: reliance on infrastructure and standards
- Health services delivery impacts: workflow, decision making

❖ Differences
- Scope: whole of health system vs purpose specific/selective
- Deployment: cohort/population vs individual circumstances
Dimensions of Strategy Formulation

- **Scale:** local, national, regional, global
- **Level:** policy/directions, objectives/components, operational/plan
- **Timescale:** short, medium, long term
- **Maturity:** initial, incremental, transitional
- **Complexity:** self-standing, connected, integrated
Panel Contributors

- Anthony Maeder, Australia
- Richard Scott, Canada
- Maurice Mars, South Africa
- (Ramesh Krishnamurthy, USA)
Panel Discussion on Issues and Needs

- eHealth strategy
- Education/training, support/maintenance, capacity building
- Difficulties of scaleup and replication, with capacity building
- Augmentation and integration in clinical activities
- Understanding success factors and leveraging eHealth strategy
- Education/training, support/maintenance, capacity building
Contact Information

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Policy and Strategy

Maurice Mars

Dept of TeleHealth, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, South Africa
12 Key Principles

1. Get basics right
2. Incremental approach
3. Early wins
4. Advocacy of benefits
5. National co-ordination
6. Security, confidentiality, patient privacy
12 Key Principles

7. Consensus on information governance
8. Value for money
9. Open source solutions where appropriate
10. Single official source for health statistics
11. Adhere to NHIS/SA information management principles
12. Government IP ownership of public sector eHealth initiatives
10 Strategic Priorities

eHealth Strategy

10 strategic priorities addressed in order to leverage eHealth to strengthen healthcare transformation in South Africa.
10 Strategic Priorities

Strategy and Leadership

Stakeholder Engagement

Standards and Interoperability

Governance and Regulation

Investment, Affordability and Sustainability
10 Strategic Priorities

Benefits Realisation

Capacity and Workforce

eHealth Foundations

Applications and Tools to support Healthcare Delivery

M & E of the eHealth Strategy
ASSESSING THE DEVELOPMENT PROCESS OF THE EHEALTH STRATEGY FOR SOUTH AFRICA AGAINST THE RECOMMENDATIONS OF THE WHO/ITU NATIONAL EHEALTH STRATEGY TOOLKIT

Rosemary Foster PhD1,2

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2 Faculty of Engineering and the Built Environment and Information Technology, Nelson Mandela Metropolitan University
A Telemedicine Strategy for South Africa

2012 - 2016

A Long and Healthy Life for All South Africans

Draft for Consultation

National Department of Health

October 2012
Telemedicine

Used 29 times in 33 page eHealth Strategy

Used 5 times in eHealth’s contribution to NDOH’s strategic aims
Telemedicine

Strengthening Health System Effectiveness

Re-engineering Public healthcare

Use TM for improved patient care in rural areas
Telemedicine

Decreasing Maternal and Child Mortality

Use TM to make decisions to move patients to bigger facilities

Use TM in clinics with appropriate infrastructure

Mobile clinics with TM capability
Telemedicine

Strengthen research and development

Determine research areas especially in support of : TM etc
eHealth Policy - Issues

Legal and Ethical
General Ethical Guidelines for Good Practice in Telemedicine
(Discussion document)

HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA
Legislation and Global eHealth?

LAWS OF MALAYSIA
Act 564
TELEMEDICINE ACT 1997

Section 3
Requires Malaysian Licensure of all parties
Heavy Penalties – fine + 5 year jail term
Impediment to international telemedicine
Health Information And Telemedicine: Legal Framework

Mutual recognition
Reciprocity
Registration without licensure
Limited licensure
Phone doctors under fire

The service is unethical, says health council

ROWANA SHEIK UMAR
and LEE RONDANGER

Telemedicine service provider Hello Doctor is withholding its "phone-a-doctor service" after coming under fire from the Health Professions Council of South Africa (HPCSA).

The HPCSA labelled organisations which offer consultations with a doctor over the telephone as unethical. The Hello Doctor website offers phone calls, diagnoses and prescriptions for minor ailments for R200.

Such services are in breach of the general patient relationship, patient confidentiality and the principle of not being registered with the SA Medical Association and the HPCSA.

Townsend said yesterday: "In the interests of our consumers, clients and the doctor's patients, Hello Doctor will be withholding the tele-consultation services while we engage with the HPCSA."

Townsend said they were meeting with the council later this week.

Professor Maurice Matthews, head of Telehealth at the University of KwaZulu Natal, said the HPCSA's definition of telemedicine was "weak".

"Regulators feel that telemedicine is new and unproven, and must be regulated to protect the patient."

"However, regulation requires close and careful definition."

According to its website, Hello Doctor offers:
- Medical advice, information and diagnosis via the internet, telephone and television from qualified medical practitioners.
- A one-on-one consultation for R200 - an invoice to claim directly from medical aid.
- Online payment by credit card or a monthly subscription for unlimited access.

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R4.80 incl VAT
DURBAN, SOUTH AFRICA
DEADLINE EDITION

WIN WIN Daily News
A R45 000 luxury holiday
Page 16

FASHION
Unique show for local designers
Page 10

FOOTBALL
Magical Maxi hits three for Reds
Page 17

The final insult
Page 16

HONOURS
Ernie joins Hall of Fame
Page 18

BREEZ
BEAT THIS... IF YOU CAN
2595 Lifestyle

UNIVERSITY OF
KWAZULU-NATAL
Telemedicine 'unethical', says HPCSA

The Health Professions Council of SA (HPCSA) telemedicine as unethical.

Organisations offering the services of a doctor just a call away were in breach of patients' rights, including the practitioner-patient relationship, patient confidentiality and informed consent, said HPCSA spokeswoman Bertha Peters-Scheepers.

HPCSA condemns telemedicine

Sapa | 05 May, 2011 19:36

The Health Professions Council of SA (HPCSA) condemned telemedicine as unethical.

Organisations offering the services of a doctor just a call away were in breach of patients' rights, including the practitioner-patient relationship, patient confidentiality and informed consent, said HPCSA spokeswoman Bertha Peters-Scheepers.

Recent initiatives offering the service had been noted with concern by the regulator, she said in a statement.
HPCSA acting CEO ... said that any organisation "offering a doctor - just a call away" breached doctor-patient confidentiality and informed consent, to cite but a few examples.

... she said that 'as a general rule' healthcare practitioners were required to do a physical examination in order to make a correct and proper diagnosis.

Chairperson of the South African Medical Association (SAMA), Dr Norman Mabasa echoed O'Reilly about face-to-face examination being necessary for ethical management adding, "if there is a loophole in ethics or law being exploited here it must be closed."

O'Reilly conceded that her Council was still developing telemedicine guidelines (in addition to those already developed by the national department of health for underdeveloped communities.)

**Issues**

Face to face consultation

Physical examination

Separate guidelines - public and private

Doctor patient relationship protocols

Patient confidentiality

Informed consent
Medical Protection Society

“It is highly unlikely that MPS will assist a member who is registered with the HPCSA with any problems that arise from their participation in telemedicine in South Africa”
BOARD NOTICE 185 OF 2011

The Allied Health Professions Council of South Africa

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16 November 2011

UNPROFESSIONAL CONDUCT: TELEMEDICINE

Telemedicine is the exchange of information on health care at a distance by whatever means, whether privately or publicly, for the purpose of diagnosis and treatment of any person(s).
Guidelines – Who?
Guidelines – When?

Level of Maturity

- Innovators
- Early Adopters
- Early Majority
- Late Majority
- Laggards
Guidelines – How?
Practice guidelines for videoconference-based telepsychiatry in South Africa

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²Department of Psychiatry, University of KwaZulu-Natal, Durban, South Africa
Conclusion

“everyone has the right to have access to
... healthcare services”
Telehealth Strategic Plan Development in Australia

Anthony J. Maeder, PhD
Professor in Health Informatics
School of Computing, Engineering and Mathematics
University of Western Sydney, Australia
Outline

- Current Australian eHealth and Telehealth landscape
- Issues affecting Telehealth Strategy development
- Current Telehealth Strategic Planning directions
Australian eHealth Scene

- Strong leadership of national EHR programme with virtual distributed data and standards adoption

- Widespread use of eHealth in both public and private sector, across primary and acute care

- Some remaining pockets of poor uptake e.g. Aged care, community health
NEHTA - National E-Health Transition Authority

Personaily controlled electronic health records (PCEHR) for all Australians. From July 2012, all Australians can choose to register for an electronic health record.

The 'Learning Centre' will help you find out about the benefits of an eHealth record, how to get involved and how to use the eHealth record system. Register now for an eHealth record.

Latest Events

- Day Surgery Nurses Association Conference
  - August 25, 2012

- NATSIHWA Forum
  - August 28, 2012

- Triennial Conference of CWAA
  - August 28, 2012

- AAQHC Conference
  - September 03, 2012

View Full Calendar

eHealth Truck Roadshow

Specifications and Standards plan released

All my health info at my fingertips
Figure 10: PCEHR System components
Australian Telehealth Scene

- Major Telehealth systems in State hospital systems, and limited ad hoc adoption by GPs and clinics

- Reimbursement and incentives limited: only specified primary care items are funded

- Remote/indigenous needs and National Broadband Network are current drivers for service expansions
The NBN rollout has started in my area. What happens now?

Have you been notified that the NBN is being rolled out in your area? If so, you can use this guide to find more information about what to expect.

Show me more

Case studies

NBN to reduce the tyranny of distance

Jennifer Willcox – Community

NBN to make small businesses more competitive

How the NBN will benefit...

- HOUSEHOLDS
- BUSINESS AND NOT-FOR-PROFIT
- ENVIRONMENT
- HEALTH AND AGED CARE
- EDUCATION
- TELEWORK
- GOVERNMENT SERVICES
- REGIONAL AUSTRALIA
What is the current state of Aboriginal and Torres Strait Islander peoples’ health?

Indigenous Australians currently experience more illness, disability and injury than other Australians. They also die at younger ages compared with non-Indigenous Australians. The graph below shows estimates of life expectancy for Indigenous and non-Indigenous Australians. Indigenous females born between 2005 and 2007 may be expected to live around 9.7 years less than non-Indigenous females born during the same time period. For males this gap is even greater at around 11.5 years.¹

Figure 1: Life expectancy estimates for Indigenous and non-Indigenous Australians
Current Funded Scenarios

- Situation 1: Supported session

- Situation 2: Unsupported session
Future Funded Scenarios?

- **GP-Patient**

- **GP-Patient-Consultant**

- **Multi-party**
Connection Models

- Direct vs Indirect interconnect
**Topology Issues**

- Providers A, B, C... with solutions X, Y, Z...

A: X, Y

B: X, Z

C: X, Y, Z
System Development Issues

- **Maturity of technical standards** underlying video conferencing and telecommunications
- **Lack of universal interoperability** of commercially available video conferencing products
- Inadequacy or inapplicability of existing **general and clinical guidance** for many specialist areas
- **Requirement for information/education/support** processes to assist with adoption
Videoconferencing Components

- **Information layer**: handling information streams of information including video, audio, data and link control components (e.g. H.26X video coding, G.72X audio coding)

- **Session layer**: managing video conferencing sessions (e.g. H.32X video conferencing, SIP for internet-based video and audio)

- **System layer**: Providing suitable environment including interoperability, directories, records
Videoconferencing Business Models

- **Enterprise solutions** - commercial grade VC using specialised, sophisticated equipment (e.g. Polycom)

- **Consumer centric solutions** - VC as an internet or cloud-based value-added service (e.g. Skype)

- **Event management solutions** - VC management platforms supporting booked events for multiple parties to attend (e.g. Webex).
Telehealth Standards - Australia

• TR 2961-2007 “Telehealth standards scoping study” defines two distinct perspectives in standards space:
  – **Telecommunications / Data** (requiring technical standards and vendor compliance in implementations)
  – **Health / Usage** (desiring practice and operational guidelines or policy and legislation instruments)

• Some applications-specific aspects also considered:
  – data handling **sequence** (i.e. workflow)
  – **participants** and their relationships ("actors")
  – technical constraints of **environment** (e.g. performance)
Telehealth Standards - Australia

• **Tele (Data or Systems) Domain**
  – Function e.g. physical device characteristics
  – Storage e.g. compression content coding
  – Transmission e.g. telecommunication protocols
  – Processing e.g. transformations and enhancements
  – Quality e.g. display and interaction
Telehealth Standards - Australia

• Health (Usage or Service) Domain
  – Assessment e.g. clinical guidelines
  – Diagnosis e.g. reporting guidelines
  – Treatment e.g. care planning
  – Management e.g. care coordination
  – Monitoring e.g. device recordings
Upcoming ISO DTS 13131 “Health Informatics – Quality criteria for services and systems for telehealth”

Describes quality criteria in two categories to be considered by the health care provider (including organisations) when defining telehealth services:

- Care consumer (i.e. subject of care or patient)
- Equipment selection (i.e. devices and telecomms)
Quality Criteria Examples

• **Care consumer related processes:**
  – Intake for telehealth
  – Orientation on telehealth
  – Care delivery by telehealth

• **Care consumer related quality aspects:**
  – Freedom of choice
  – Transparency
  – Continuity and timeliness of the care delivery
  – Appropriate care
  – Accountable care
  – Expertise, skills and motivation
  – Privacy
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<th>Infrastructure Aspects</th>
<th>Video-conferencing Aspects</th>
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<td>Clinical guidelines, Clinical evidence</td>
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National E-Health and Information Principal Committee

National E-Health Strategy
30th September, 2008
Government Policy Approach

- Discussion/position papers developed by major consulting firms or government agencies for comment

- Committees of Governments and Health Ministers (including CIO and other subcommittees) consider

- Policy development linked with safety/quality and financial operational considerations
Australian National Consultative Committee on eHealth – align strategy with industry trends

Medical Technology Association of Australia – structured, integrated inclusion of telehealth and monitoring devices in new/adapted models of care

Australasian Telehealth Society – three key areas:
- Focus on national priority groups in healthcare (eg aged)
- Apply fit for purpose business and clinical models
- Optimise the locus for telehealth implementations
A National Telehealth Strategy For Australia – For Discussion
Michael Gill
## System Design Elements Table

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**A telehealth strategy for Australia: supporting patients in the community**

May 2012
Next Steps in Australia

- Recent funding of large scale telehealth projects leveraging broadband connectivity, and requiring cooperation between multiple health providers
- Workshops and discussion panel activities at many national events, and representations from multiple professional bodies to encourage government action
- Industry enthusiasm for large scale demonstrators inspired by UK Whole Systems Demonstrator project
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