Information Management

AHHA Think Tank

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Introduction

- There is a problem with sustaining the health system
- Better health information management is required to leverage the work of health care professionals and allow partnership with consumers in their care
- This is recognised, and has been acted on, now by the leaders of the US, UK, Canada, and much of Europe
- Australia was once a leader and is now lagging
- The Australian Government has an important role

Better Health Information Management is needed for

- Engaging consumers
- Transforming care delivery at the point of care
- Improving population health
- Aligning financial and other incentives
- Managing privacy security and confidentiality
- Policy and implementation

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Engaging consumers

- Patients are fully engaged in their own healthcare, supported by information and tools that enable informed consumer action and decision making, working hand-in hand with healthcare providers. Tools that support consumer engagement are well designed and customised to the diversity of consumers. These tools are integrated into the delivery of care, and are conveniently available outside healthcare settings as well.

Transforming care delivery at the point of care

- Australian patient care is high quality, patient centred, for a lifetime, and reflects a coordinated and collaborative approach. Complete, timely and relevant patient-focused information and clinical decision support tools are available as part of the provider's workflow at the point of care.

Transforming care delivery at the point of care (2)

- High quality and efficient patient care is supported by the deployment and use of interoperable health IT and secure data exchange between and across all relevant stakeholders.

Improving population health

- Electronic healthcare data and secure health information exchange are utilised to facilitate the flow of reliable health information among population health and clinical care systems to improve the health status of populations as a whole

Improving population health (2)

- Information is utilised to enhance healthcare experiences for individuals, eliminate health disparities, measure and improve healthcare quality and value, expand knowledge about effective improvements in care delivery and access, support public health surveillance, and assist researchers in developing evidence-based advances in areas such as diagnostic testing, illness and injury treatment, and disease prevention.

Aligning financial and other incentives

- Healthcare providers are rewarded appropriately for managing the health of patients in a holistic manner. Meaningful incentives help accelerate improvements in quality, safety, efficiency and effectiveness. Quality of care delivery and outcomes are the engines that power the payment of providers.

Managing privacy security and confidentiality

- In Australia's fully-enabled electronic information environment designed to engage consumers, transform care delivery and improve population health, consumers have confidence that their personal health information is private, secure and used with their consent in appropriate, beneficial ways.

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Managing privacy security and confidentiality (2)

- Technological developments have been adopted in harmony with policies and business rules that foster trust and transparency. Organisations that store, transmit or use personal health information have internal policies and procedures in place that protect the integrity, security and confidentiality of personal health information.

Managing privacy security and confidentiality (3)

- Policies and procedures are monitored for compliance, and consumers are informed of existing remedies available to them if they are adversely affected by a breach of security. Consumers trust and rely upon the secure sharing of healthcare information as a critical component of high quality, safe and efficient healthcare.

Policy and implementation

- Policy development and implementation bodies, both government and private deliver clear and insightful leadership of e-health programs within the health sector. They have a deep understanding of the cultural and operational complexities of the area and ensure that programs are appropriately structured and funded to be successful.

Basis of the Recommendations

- Discrete projects that can be readily implemented in the short to medium term
- However this must be seen as a prelude to a major set of undertakings that will require comprehensive planning and strong stakeholder engagement to succeed
- This is the plan referred to in Recommendation 5

The Recommendations

- IM-1 Infrastructure
- IM-2 Standardised Messaging
- IM-3 Common Registry Services
- IM-4 National Library for Health
- IM-5 National Consensus Plan
- IM-6 Personal Health Record
- IM-7 Medication Management

IM-1 Infrastructure

- Accelerate the current health information infrastructure work program
- establish clear program milestones and
- provide routine open reporting on progress

IM-1 Infrastructure - Milestones

- Person identifier
  - Specifications for web-service available by end 2008
  - Identity Web-service available by mid 2009
  - Tokens (possibly chosen by consumers) by mid 2010
- Provider identifier
  - Identity Web-service available by mid 2009

IM-1 Infrastructure - Milestones

- Infrastructure to support interoperability between health messaging providers
  - Approach agreed by end 2008
  - Implemented by mid 2009
- Infrastructure for secure exchange of clinical documents
  - Specification by 2008 and implementation by 2009

IM-1 Infrastructure - Milestones

- Broadband
  - Universal health sector coverage including remote areas by mid 2010
- Conformance testing of standards-based systems interoperability:
  - A practical Australian approach cognisant of international work is identified and accepted by the relevant stakeholder communities by mid 2009

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IM-1 Infrastructure - Cost

- NEHTA elements appear to be adequately funded with NEHTA reporting under-budget expenditure.
- Additional funds may be required to extend coverage of broadband - while 98% probably addresses all substantial points of healthcare delivery, $20 million pa may be required to handle outliers.
- We calculate a one off payment of $10 million should also be budgeted to fund the development of interoperation between present health communication providers.

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IM-1 Infrastructure – Pros

- The fundamental information building blocks get the attention they deserve
- Greatly improves the buy-in required for successful implementation
- Modest amounts of additional funding are required
- An opportunity to show tangible results from State-Commonwealth co-operation and collaboration with private sector interests after a slow start

IM-1 Infrastructure – Cons

- May be seen as duplication of a review already undertaken
- May be a problem with States if Commonwealth is seen to become too dominant
- NEHTA has an acting CEO and the timing may be considered inappropriate

IM-2 Standardised Messaging

- Fund the standardisation of messaging for diagnostic services (pathology and radiology) for both the public and private sector
- Use this as a communication backbone across health for subsequent upgrading and expansion
- Develop an agreed profile and business framework that allows messaging providers to interact with one another.
- There should not be different systems for different elements of the communications – this includes for medications management

IM-2 Standardised Messaging - Cost

- $20 million to establish
- $10 million per annum recurrent
- It is proposed that the recurrent funding be paid on an outcomes basis (ie per conformant message
- These arrangements be integrated into the current governance arrangements for regulation and funding of pathology and radiology services.

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IM-2 Standardised Messaging - Pros

- Delivers standardised messaging very quickly
- Leverages existing skills and infrastructure
- Mirrors what is happening in other countries – countries from which we draw software, standards and skills
- Buys some time to work on newer approaches to communications
- Conformance testing and standards are in place

IM-2 Standardised Messaging - Pros

- Is supported by pathology and radiology service providers
- Addresses a problem that GPs are currently experiencing
- Addresses public-private hospital-community interface
- Great value for money compared with the alternatives thus far

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IM-2 Standardised Messaging - Cons

- Such a program unless carefully managed could be anti competitive for messaging service vendors
- Requires significant buy-in from participants to be successful but there is every indication that if handled properly that buy-in would be forthcoming
- Seen to be supporting profiting commercial organisations at the expense of public health system

IM-3 Registry Services

- Co-ordinate and fund the development of common registry services for
  - clinical,
  - public health and
  - biosurveillance purposes
- that can be used
  - locally, and
  - at the state and
  - national levels

IM-3 Registry Services

- Data collection – feeder systems allowing for efficient standards-based data collection incidental to clinical work
- Data transfer – common to other clinical messaging
- Data storage – addressing privacy and security; and
- Analysis and presentation – making it easy to get knowledge from the information and add value

IM-3 Registry Services - Cost

- $200 million
- But with subsequent savings against current and future expenditure this may reduce considerably.
- Clear benefits, in both direct costs and indirectly in areas such as reduced patient suffering and re-operation, have already been demonstrated with the Joint Replacement Registry among others

IM-3 Registry Services - Pros

- There would be immediate benefit by extending current registries to include clinically relevant data
- Opportunity for stepwise implementation
- Shown to be a very strong driver for standardisation (US experience)
- Likely to be not unduly costly in the end
- Meets needs as enunciated by Clinicians, Consumers and Researchers

IM-3 Registry Services - Cons

- Probably better done as an extract from a standardised shared EHR but this remains a long way off when the depth of detail required in such a shared EHR is taken into account
- Considerable effort will be required to obtain a satisfactory level of data quality for registries
- Would have to be integrated with the current Australian Cancer Grid

IM-4 National Library for Health

- Fund the development of a National Library for Health that provides to all Australians quality-assured timely knowledge in electronic form.
- This would involve researching the value and need for information provision for consumers and providers; identifying optimal information providers; developing procuring and implementing strategies; and implementing a nationwide knowledge service that would be the National Library for Health.

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IM-4 National Library for Health

- The virtual library objectives would be to provide quality, easily identified, consumer relevant health information. This would help to:
  - Improve treatment compliance
  - Improve consumer capability to assist with their care - Partnering
  - Reduce consumer anxiety
  - Reduce dangerous unsafe consumer actions
  - Reduce consumer confusion - Who is caring? - Who is paying?

IM-4 National Library for Health

- Health practitioner relevant information, decision support and guidelines. This would assist to:
  - Reduce clinical errors
  - Improve provider treatment consistency
  - Reduce provider litigation costs
  - Improve provider work life quality
- In short it is aimed at improved patient safety, clinical outcomes, patient/carer satisfaction and use of resources

IM-4 National Library - Cost

- We estimate there would be an initial project definition and procurement project cost of $2 million
- Followed by ongoing knowledge delivery estimated at $20 million p.a.

IM-4 National Library - Pros

- Proven to work
- Quickly implementable with benefits increasing over time
- Provides a national good for the health sector
- Very good value for money
- Complements and should integrate with national/State health call centre strategies – (we appear on the path for wasteful duplication)

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IM-4 National Library - Cons

- It takes too long to do it nationally and slows other initiatives down

IM-5 National Consensus Plan

- Support and where necessary fund the development of a national consensus plan for effective management of health information, which is
- resourced and
- has governance arrangements that are widely supported by both the private and public sectors

IM-5 National Consensus Plan

- AHHA is a member of the Coalition for e-Health which is comprised of most of the organisations currently involved in e-health in Australia.
- The Coalition believes that it is important that the plan:

IM-5 National Consensus Plan

- Be a partnership between healthcare providers and the broader Australian community
- Encompasses services provided by both the private and public sectors
- Covers the services required in each phase of a person's life
- Has a 10 year horizon with 3 year and 6 year views
- Clearly identifies all of the elements needed for the success of the plan including cultural, organisational, technical & financial aspects

IM-5 National Consensus Plan (2)

- Is a living document which is periodically monitored and evaluated
- Supports sustainability of the health system
- Has formal provision for the ongoing involvement of all key stakeholders
- Has sufficient independence and appropriate governance such that changes of administration do not delay or impede its implementation

IM-5 National Consensus Plan

- Undertake a governance review.
- Undertake a health informatics (HI) capability and workforce review.
- Undertake Public E-Health Education and Awareness Program

IM-5 Consensus Plan - Cost

- Both the governance and workforce reviews we estimate would cost less than $1 million and be completed in 6-9 months.
- The Public Awareness Program needs to be planned after the strategy and business case defined.

IM-5 Consensus Plan - Pros

- Much enhanced quality of final national strategy and improved implementability of strategy
- Improved confidence e-Health can be successfully implemented
- Reduced e-Health implementation risk

IM-6 Personal Health Record

- Personal Health Records (PHRs) are electronic health records that are held by or for a consumer, can be shared with the consumer's health care providers and which can have information provided by health care provider recorded within the electronic record).

IM-6 Personal Health Record

- In order to secure a satisfactory and harmonised regulatory environment for PHRs nationwide it will be necessary to develop a National PHR Management, Access and Control Framework.
- Framework implementation by mid 2009

IM-6 Personal Health Record

- With successful design procurement and implementation of a National PHR Management, Access and Control Framework the following outcomes will be achieved.
  - Development of public confidence that personal health information can be safely stored and accessed as needed to improve care
  - PHR providers would have clear guidance as to their responsibilities and consumer expectations
  - PHR adoption and use, with associated benefits, would be accelerated

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IM-6 Personal Health Record - Cost

- This is an inexpensive proposal which will yield substantial beneficial outcomes.
- The maximum cost would be $1 Million for a national framework consultancy and there would be some internal governmental implementation costs depending on the final approach adopted.

IM-6 PHR – Pros

- This is a small proactive initiative with small costs that can make a major contribution to improving the way consumers manage their personal health information.
- Development of public confidence that personal health information can be safely stored and accessed as needed to improve care
- PHR providers would have clear guidance as to their responsibilities and consumer expectations
- PHR adoption and use, with associated benefits, would be accelerated

IM-6 PHR – Cons

- None are apparent

IM-7 Medication Management

- Establish a fund to promote the uptake of electronic medication management in the acute care sector

  - This recommendation is a reiteration of previous AHHA proposals contained in its federal budget submission for 2008 and was not considered by the Roundtable

IM-7 Medication Management

- Provide seed funding to encourage faster uptake of this technology by the states; and
- Require that any system to be installed under the program:
  - Can provide both electronic prescribing and administration of medications;
  - Has the capacity to deliver decision support at all phases of the medication management process;
  - Is able to export fully atomised data for electronic discharge summaries; and
  - Is and remains compliant with evolving standards.

IM-7 Medication Mgt - Costs

- For implementation in every public hospital this project would cost $50 million per annum ongoing plus funding for change management. The cost includes hardware which can also be used for many other purposes (such as clinical guideline tools and pathology results).

IM-7 Medication Mgt - Pros

- It has been proven to work in Australian hospitals;
- A fundamental building block for other processes;
- Improve quality and safety;
- Implement best practice;
- Improve patient outcomes;
- Reduce cost; and
- Improve workforce efficiency.

IM-7 Medication Mgt - Cons

- Some states or hospitals may not be “ready”. Indications from the coal face suggest there are many that are. Many clinicians are particularly frustrated by a lack of progress in this area.

Health IT Bibliography

healthit.ahrq.gov

- Organizational Strategy
  - Adoption Strategies
  - Business Case
- Technology
  - Clinical Decision Support Systems (CDSS)
  - Computerized Provider Order Entry (CPOE) Systems
  - Electronic Health Record (EHR) Systems
  - Electronic Prescribing (eRx)
  - Health Information Exchange (HIE)
  - Standards and Interoperability
- Evaluation
  - Evaluation Studies in Health IT
  - Patient Safety
  - Workflow Analysis

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