Health Information Management Association of Australia (HIMAA)

Submission on the

Australian Digital Health Agency (ADHA)

National Digital Health Strategy Development

31 January 2017

Email: himaa@himaa.org.au Ph. +612 9887 5001

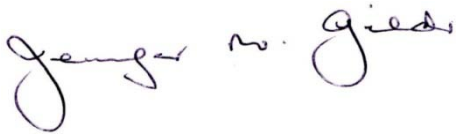
Document Information

This policy is a strategic document of the Board of Directors, Health Information Management Association of Australia (HIMAA) Pty Ltd and is controlled by the Chair of the Board, HIMAA's National President.

Version History:
The following outlines the high level changes that have been made to each version of this document and who made them:

1. The creation of this document was noted by the HIMAA Board at its meeting of 7 December 2016
2. The document was first viewed by the HIMAA Board Executive out of session over 27-30 January 2017 and feedback provided to the CEO.
3. A final version was endorsed by the HIMAA Board Executive on 31 January 2017, to become document version 1 (dv001).

SIGN OFF:
APPROVED: Jennifer Gilder
President
Health Information Management Association of Australia



Date: 31 January 2017

REVIEW DATE
This document will be reviewed upon feedback from the ADHA..

Contents

HIMAA Submission on ADHA National Digital Health Strategy Development

Executive Summary

The Health Information Management Association of Australia (HIMAA) welcomes the opportunity provided by the Australian Digital Health Agency (ADHA) to participate in the co-production of the development of a National Digital Health Strategy, as detailed in the Agency's "Your health. Your say." discussion paper of November 2016.

As the peak professional body for health information management (HIM) professionals in Australia, HIMAA has elected to make a formal submission to ADHA on this subject, based on a survey of its members conducted in December 2016. This decision reflects the importance HIMAA places on the development of a national strategy to ensure the quality of care as well as burden of cost improvements that can be achieved by the development of a national, digitised health information system.

In this submission, HIM professionals rank positions on subjects such as:

- the need for the effective management of an identifiable digital Health Information Systems (HIS) by qualified HIM professionals such as health information managers (HIMs) and Clinical Coders.
- HIM workforce supply based in a national Health Information Workforce (HIW) capability framework led by the HIW peak bodies
- interoperability of software
- clinical documentation
- understanding of the role of the HIM professional in digital health information management
- understanding of the dynamic interrelationship between data and information for a health information system to inform knowledge-based decision-making
- information governance
- interoperability of clinical classification to support integration of care across primary and tertiary health sectors
- the eHealth outcome benefits in quality of care as well as reduced cost burden with the involvement of HIM professionals at the centre of the management of the digitisation of and digitised health information

HIMAA members collectively urge the ADHA to actively engage with HIW peak professional bodies such as HIMAA, with industry and with HIW suppliers such as universities and the VET sector, to develop a national HIW capability framework able to adapt and respond to emerging eHealth needs.

The submission advocates on behalf of the HIM profession the following four immediate ADHA priorities to ensure the My Health Record delivers real value for healthcare professionals:

- Primary~tertiary care integration through the digitisation of health information
- Interoperability between health information software
- HIM workforce supply
- Clinical classification interoperability between hospital and general practice via the My Health Record

*

Scope

The Health Information Management Association of Australia Ltd (HIMAA) is the peak professional body for health information management (HIM) professionals in Australia. It has been serving the profession since 1949.

Health information management professionals contribute to the health outcomes and delivery of the healthcare system through best practice health information management. Recognised occupations include health information managers (HIMs) and clinical coders (CCs). They hold the information systems key to the quality integration of patient records and funding flow in efficiency as well as effectiveness improvements to patient care.

HIMAA provides competency standards for the delivery of education and training across the learning life of the HIM practitioner, and strives to promote and support our members as the universally recognised specialists in information management at all levels of the healthcare system. A member of the national advocacy body for not-for-profit professional associations, Professions Australia, HIMAA is committed to improving the health of all Australians through professional information management.

HIMAA's last submission on an Australian National Digital Health Strategy was made to the federal government in April 2016. This was in response to version 2 of the strategy, distributed in March 2016.

This submission to the Australian Digital Health Agency (ADHA) redevelopment of a National Digital Health Strategy is in response to the Agency's "Your health. Your say." discussion paper, published in November 2016. HIMAA's motivation to prepare a submission has been heightened by an email from Dr Monica Trujillo, ADHA's Executive General Manager Clinician and Consumer Engagement and Clinical Governance and Chief Clinical Information Officer, inviting HIMAA to participate in the co-production of the development of the National Digital Health Strategy. HIMAA members attending our national conference in Melbourne were further motivated by the Agency's General Manager Engagement, Teri Snowdon, who inspired us with a history of the ADHA's formation and issued the same invitation.

The submission is solely from a health information management perspective. HIMAA will not speak on behalf of other professions involved in the health information workforce (HIW), such as health informaticians or health librarians. HIMAA has memoranda of understanding with the peak professional bodies of these sister professions, and we respect that they will speak for themselves.

HIMAA is nevertheless committed to the need to address the chronic shortages in some occupations in the HIW, and to the need for a national effort to develop the future configuration of HIW so that it can adapt to the rapidly changing and emerging industry needs in the context of eHealth development, and the digitisation of health information. While the whole of the HIW is thus not in the scope of this submission, it certainly surrounds it.

Introduction

The formation of the Australian Digital Health Agency (ADHA) has provided health information management (HIM) professionals an opportunity to be recognised not extended to them in recent years. In 2014 HIMAA had occasion to write to the Australian Government's Chief Information Officer because not only did its 2014 Personally Controlled Electronic Health Record (PCEHR) Report use the term 'information' 235 times without ever once including it in the context of 'health' and 'management', but the Report also failed to

include the peak health information management association of Australia in its list of 86 contributors.

The formation of the ADHA as a result of the PCEHR Report led to successful joint advocacy by HIMAA with the Health Informatics Society of Australia (HISA) and the Australasian College of Health Informatics (ACHI) for the appointment of both health information management and health informatics expertise to the ADHA Board. The appointment of Professor Johanna Westbrook, originally a HIM graduate and practitioner, now an internationally esteemed health informatics academic, to the ADHA Board satisfied the call for both sets of expertise.

ADHA's "Your health. Your say." campaign to attract contribution from all stakeholders, including consumers, offers an opportunity for a radical revisit of the national Digital Health Strategy that has been emerging from federal government for a number of years now. HIMAA's last contact with the federal government on the subject was in response to their March 2016 discussion draft, and HIMAA is aware ADHA has reviewed our April submission of that year.

In order to develop a considered HIMAA response to the current ADHA campaign, the association developed a survey of HIMAA policy positions on digital health strategy and invited the membership to rate these positions, as well as provide positions or comment of their own.

These positions were organised under the four sample questions ADHA suggests for "Clinicians and other healthcare workers, and healthcare providers" in their "Your health. Your say." Discussion paper of November 2016 (p.6):

1. What gets in the way of health professionals being able to connect, communicate and coordinate with the right people?
2. What do health professionals need to be able to effectively connect, communicate and coordinate with the right people?
3. What should be the immediate priority initiative for the MyHealth Record to ensure it delivers real value for healthcare professionals?
4. How could data and technology be better used to improve health and well being?

In analysing the results to this survey, HIMAA translated these questions into the types of responses they seemed designed to elicit:

1. Barriers
2. Enablers
3. ADHA Priorities
4. Improvements

Survey Results

Survey online by: Survey Methods, dates: 1/12/16 – 18/12/16

Sample: 949 HIMAA Members

Response: 40 [R = statistically insignificant – 4.2%]

A low response rate does not diminish the value of input from 40 interested members of HIMAA. On the contrary, HIMAA urges ADHA analysts to consider the **one** HIMAA submission as equivalent to **40** individual submissions from dedicated members of the health information management profession.

The full results to the survey are appended for transparency in **Appendix 1.**

For reporting purposes, however, the results have been managed in the following ways:

- Priorities under a particular ADHA sample question heading were ranked by their average score in a Likert scale. The highest ranking under question 1 (Barriers), for instance, was an average of 90% and compared to an average 77.1% for the lowest ranked policy position (a drop of 12.9%).
- The gap between the highest value and the lowest under any one question might be taken to provide an indication of how closely as well as how highly the positions are valued by respondents. Top averages of 90% to 95%, for instance, are very high.
- As there were 13 positions to rank for questions 1 (Barriers) and 2 (Enablers), compared to 4 positions for question 3 (ADHA Priorities) and 6 for question 4 (Improvements), the gap between highest ranking and lowest ranking was not a realistic indicator of column (ADHA sample question) ranking.
- Similarly the 'bunching' value of higher averages as an indication of respondent valuation is not taken into account :
    - a drop from a high of 95% in Question 2 (Enablers) to 91.4% in the sixth highest of 13 positions (drop = 3.6%), represents a stronger bunching of positions in an overall 13 position drop of 13.2% (the greatest of all 4 questions);
    - compared to a drop from a high of 90% in Question 1 (Barriers) to 83.3% in the sixth position (drop =6.7%), which indicates not only a lower ranking average but a greater spread in position valuation by respondents;
    - so even though Question 1 had a slightly smaller overall drop (12.9%) than Question 2, using the 6th position cut-off, the results of Question 2 indicate it is of higher respondent value than the results of Question 1.
- The decision was thus made to use the following criteria to assess the ascendancy of positions for the purpose of this submission:
    - Grouping by ADHA sample question
    - Cut off at the 6th position ranking to establish "bunching" value by % drop from highest to 6th positions
    - Replication of position across question groupings and ranking comparison.
- In question 4 (Improvement) it was noted that three positions were in fact two subsets of one lead position. These ranking averages were thus themselves averaged to find a "default" position that could be used to determine the actual 4 position drop over the six positions ranked by respondents.

On this basis, the ranking of the ADHA sample questions on the basis of respondent valuation is:

1. Enablers
2. Improvement
3. Barriers
4. ADHA Priorities

Fortuitously, this management of the results reduces duplication of positions in reporting for this submission, at the same time as providing ranking comparison for those positions which did recur in the top six across questions.

It does mean that positions that, in their own right, achieve high ranking – such as Ownership of Health Information, ranked 13th in Question 1 at 77.1% and 10th in Question 2 (Barriers) at 85% - do not appear in the submission. Quality Standards also ranked 9th under Barriers at 81.3% and 8th under Enablers at 86%.

The inclusion of the full results in Appendix 1 will enable ADHA analysts to determine the value of these "lost" positions and perhaps seek further consultation with HIMAA to evaluate their inclusion in a National Digital Health Strategy.

The HIMAA Submission

General Policy

HIMAA's general policy on digital health focuses in the main to the digitisation of health information. The Association believes that the impact of the current eHealth transformation of Australian health services can have profound implications for the quality of care available to the patient on their health journey at the same time as containing the burgeoning cost of health care to the public.

This is because international studies consistently show a relationship between more or better primary care and improved health outcomes[1].In Australia, primary care is delivered predominantly through General Practice. GP clinics have been found to do as well as hospital specialist's clinics and, in systems in which the GPs were given additional educational support and had an organized system for recall, GPs' care is better than that of specialists in hospitals.

General practice has the capacity to contain rising health care costs and meet the care needs of the increasing proportion of elderly people in our nation. It offers fewer tests, higher patient satisfaction, less medication use, and lower care-related costs[23]. Adequately resourced general practice can take the pressure off our hospitals and emergency departments[456]. It can deliver high quality preventive care, health promotion[789] and chronic

[1]Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. The Millbank Quarterly, vol 83, no 3, 2005, pages 457-502.

[2]Greenfield S, Nelson EC, Zubkoff M, Manning W, Rogers W, Kravits RL, et al. Variations in resource utilization among medical specialties and systems of care. Results from the medical outcomes study. JAMA 1992;267:1624-30.

[3]Forrest CB, Starfield B. The effect of first-contact care with primary care clinicians on ambulatory health care expenditures.J Fam Pract 1996;43:40-8.

[4]Bindman AB, Grumbach K, Osmond D, Komaromy M, Vranizan K, Luri N, et al. Preventable hospitalizations and access to health care. JAMA 1995;274:305-11.

[5]Wasson JH, Sauvigne AE, Mogielnicki RP, Frey WG, Sox CH, Gaudette C, et al. Continuity of outpatient medical care in elderly men. A randomized trial. JAMA 1984;252:2413-7.

[6] Changing remuneration systems: effects on activity in general practice. Krasnik A, Groenewegen PP, Pedersen PA, von Scholten P, Mooney G, Gottschau A, Flierman HA, Damsgaard MT. Institute of Social Medicine, University of Copenhagen, Panum Institute, Denmark

[7]Ferrante JM, Gonzales EC, Pal N, Roetzheim RG. Effects of physician supply on early detection of breast cancer. J Am Board Fam Pract 2000;13:408-14.

[8]Campbell RJ, Ramirez AM, Perez K, Roetzheim RG. Cervical cancer rates and the supply of primary care physicians in Florida. Fam Med 2003;35:60-4.

[9]Roetzheim RG, Gonzalez EC, Ramirez A, Campbell R, van Durme DJ.Primary care physician supply and colorectal cancer. J Fam Pract 2001;50:1027-31

disease management[10]. General Practice reduces health disparities, particularly for areas with the highest income inequality.[11][12][13]

Since 2009, the Australian Government has understood the value of general practice in primary care in addressing issues of quality of care in the Australian health system[14], and the role of preventative care[15]. During the round of consultations as part of his Health and Hospitals Reform campaign in 2008, then Prime Minister Kevin Rudd articulated more than once the government's understanding that investment in general practice and the integration of primary and tertiary care would reduce the burden on the hospital system at the same time as improve the quality of care across the two sectors[16].

The digitisation of health information in primary and tertiary care sectors is the single most significant innovation in effecting the practical integration of patient care. The availability of reliable, accurate and timely digitised health information anywhere within a health institution increases the effectiveness of care at the same time as reducing the incidence of adverse events through errors in transcribing and transferring information. Access to digital information from primary care as part of this information system reduces duplication in tests and procedures, adverse medication outcomes, and improves continuity of care between general practice and the hospital. The cost of health care is thus materially reduced as well as risk-reduced, at the same time as the quality of care is improved.

It is in this context that HIMAA supports the digitisation of health care information in effecting improvements to care, and the positive impact these improvements will have on reducing the economic burden of care. For this reason, HIMAA advocates the digitisation of health care information as a, if not the major platform for a National Digital Health Strategy.

HIMAA offers the following criteria for success if such a strategy is to achieve these desired outcomes:

- Information Management – without this the dynamic relationship between data, information and knowledge within a health system, and governance of data, information risks resiling to the status of mere data or corrupt data, and a knowledge system is unachievable. Ultimately a disintegrated information-data result will ensue without this investment of knowledge and science.
- Clinical classification – clinical coding in the hospital system reduces health information from the health care delivery coal face to data that renders storage and transfer readily retrievable as information.
    - This data serves a hospital finance department in ABF as well as it supports clinicians in health and population planning, and ongoing clinical care.

[10]Macinko J, Starfield B, Shi L. The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970-1998. Health Serv Res 2003;38:831-65.

[11]21. Shi L, Starfield B, Politzer R, Regan J. Primary care, self-rated health, and reductions in social disparities in health. Health Serv Res 2002;37:529-50.

[12]Lohr KN, Brook RH, Kamberg CJ, Goldberg GA, Leibowitz A, Keesey J, et al. Use of medical care in the Rand Health Insurance Experiment. Diagnosis- and service-specific analyses in a randomized controlled trial. Med Care 1986;24(suppl 9):S1-87.

[13]Shi L, Starfield B. The effect of primary care physician supply and income inequality on mortality among blacks and whites in U.S. metropolitan areas. Am J Public Health 2001;91:1246-50.

[14]Primary Health Care Reform in Australia - Report to Support Australia's First National Primary Health Care Strategy; Commonwealth of Australia 2009

[15]Australia: The Healthiest Country by 2020 – National Preventative Health Strategy – Overview; Commonwealth of Australia 2009

[16]Personal experience

  - A digital terminology grammar alone, such as SNOMED CT, is insufficient for the complexity and depth of which health information is capable if properly managed and classified.
  - In Australia, ICD-10-AM is probably the most sophisticated version of the International Classification of Disease system available. In general practice its equivalent, ICPC2 Plus, is barely used.
  - Classification interoperability between the tertiary system, primary care, and the My Health Record is essential for the integration of care to achieve the full extent of its potential benefit. Indeed potentially the My Health Record will be severely impaired without the research and analytical power of clinical classification.
- Interoperability of IT software and hardware – without this, no matter how well managed the information, IT quality, accuracy and integrity will suffer in the collision of competing systems of electronic engineering and algorithmic incongruence. "Information in" becomes "rubbish out", and compounding data integrity error in storage is a liability.
- Workforce – without a frontline health information workforce equipped and resourced to manage the change involved in the successful digitisation of health information, the system will fail.

Specific Policy Positions

Specific HIMAA policy positions that may assist ADHA in developing a National Digital Health Strategy are detailed below as ranked by HIMAA members in an online membership survey in response to the four sample questions ADHA suggests for "Clinicians and other healthcare workers, and healthcare providers" in their "Your health. Your say." discussion paper of November 2016 (p.6):

1. What gets in the way of health professionals being able to connect, communicate and coordinate with the right people?
2. What do health professionals need to be able to effectively connect, communicate and coordinate with the right people?
3. What should be the immediate priority initiative for the My Health Record to ensure it delivers real value for healthcare professionals?
4. How could data and technology be better used to improve health and wellbeing?

These questions were also prioritised as a result of the membership survey results, and appear below in the following order:

1. Sample Question 2 - Enablers
2. Sample Question 4 - Improvements
3. Sample Question 1 - Barriers
4. Sample Question 3 – ADHA Priorities

Positions in response to each sample ADHA question are ranked in order of descending average rating.

Positions volunteered by members are included as the end of each Sample Question section.

1. Enablers - ADHA Sample Question 2. What do health professionals need to be able to effectively connect, communicate and coordinate with the right people?

From an HIM perspective, to be able to effectively connect, communicate and coordinate with the right people, health professionals need:

1. **HIS Availability -** A health information system in which information is managed such that it is available *as* information (accessible, accurate, meaningful, of quality and integrity) to the right health professionals with the right patient in the right place for the right procedure at the right time, with due regard for privacy, confidentiality, and patient-centredness, to minimise adverse health outcomes

2. **HIM Workforce Supply -** Adequate supply of health information management workforce to deliver the health information services to enable other health professionals to connect, communicate and coordinate with the right people

3. **Interoperability ~ software -** Interoperability of software programs, technical language standards, health data and security and information integrity in transmission from one program to another, such that inter-program transmission and storage will lead to the retrieval of quality information or data now and across time and place.

4. **Documentation** - Adequate documentation (digital or otherwise) to enable the capture by health professionals of accurate data from health service delivery such that it is meaningful to others in the health system as information.

5. **HIM Role -** Understanding of the role of health information management professionals in translating and interpreting data from patient contact with health care providers into information to communicate health outcomes to other health providers along the patient journey, linking data from the classification of health information with health service finance and population or regional health planning facilities, and enabling access to meaningful health information by the health consumer, with an eye at all points on the compliance and medico-legal requirements for that information.

6. **Primary ~ Tertiary Care Integration -** Adequate digital integration of health information between primary and tertiary care to mitigate risks of avoid duplication of tests, cross-diagnoses, prescription of contra-indicated medication, and other side effects of the discontinuity of care that lead to adverse patient outcomes, unnecessary costs, and loss of patient confidence in the health system.

Other HIMAA member comment:

A. Working for a state wide service the duplication of information, investigations or misrecording of information from one system can be the difference between life and death. Even staff working in one hospital find it difficult to find information in their own system to provide this information.

   State wide services should have easy access to hospital systems to see patient information necessary to do their job. Information needs to be shared electronically

and the continuance to print summary information from one hospital to be taken to another hospital with a patient is outdated and not acceptable in this era. A statewide eMR is necessary to stop the duplication of services and sharing of information between services should be a priority.

2. Improvements - ADHA Sample Question 4. How could data and technology be better used to improve health and wellbeing?

From a HIM perspective, data and technology could be better used to improve health and wellbeing in the following ways.

1. **ADHA~HIW Engagement -** An active engagement by ADHA with health information workforce (HIW) peak professional bodies, with industry, government and HIW suppliers (such as universities and the VET sector), to develop a national HIW capability framework able to adapt and respond to the emerging HIW needs of employers in a rapidly developing digital health environment.

2. **Information vs Data -** With an understanding that information and data are not the same, fixed, non-dynamic entity but rather the raw, perceived experience (data) translated into meaningful form for communication (information) that leads to informed decision-making capability (knowledge) within a system.
    a. **Knowledge-based Decisions** - With the further understanding that clinical and financial professionals both refer to information produced from data analysis as data, but in reality this data is information that can lead to knowledge-based decision-making.
    b. **Data ~ Information ~ Knowledge System -** With the further understanding that the translation of data into information, and the extraction of information from data, and the management of both in a health system such that it acts with knowledge, **requires the skills and application of frontline qualified health information management professionals.**

3. **eHealth Outcome Benefits -** To enable the provision of accurate and timely healthcare information, managed nationally by qualified health information management professionals, to support healthcare providers in the delivery of best practice care across the sectorial and digitally-interoperable divide between primary and tertiary care, such that the quality of care as well as economic benefits of an eHealth agenda can be realised.

4. **HIM Workforce Supply -** Through the provision of an adequate and well-resourced workforce of health information management professionals with qualifications accredited or approved to HIMAA competency standards, to manage the digitisation of health information such that it leads to the quality of care and economic benefits of which eHealth reform is capable.

Other HIMAA member comment:

A. There is a huge misunderstanding in health that Nurses are ideal to translate health information into data or be experts in Clinical Documentation (emerging Clinical Documentation Specialists). This is a complete misconception as the nursing education does not include the competencies required for Data Analysis or Clinical Documentation audit. HIM and HIMAA-competent clinical coders should be recognised as the experts by health authorities. It would seem that Jurisdictions do

not recognise the expertise of the health workforce outside those who "lay" hands on patients. This is a huge problem and needs future registration of HIMs and Clinical Coders to work in the Public Health system.

B. Implement one record from pregnancy to birth to childhood to adulthood such as in the UK with Badgernet. This would ensure a patients record from inutero to adulthood could be available to all health professionals that care for the patient in their lifetime including retrieval services.

3. Barriers - ADHA Sample Question 1. What gets in the way of health professionals being able to connect, communicate and coordinate with the right people?

From a HIM perspective, the following conditions get in the way of health professionals being able to connect, communicate and coordinate with the right people:

1. **HIM Role -** Poor understanding of the role of health information management professionals in translating and interrogating data from patient contact with health care providers into information to communicate health outcomes to other health providers along the patient journey, linking data from the classification of health information with health service finance and population or regional health planning facilities, and enabling access to meaningful health information by the health consumer, with an eye at all points on the compliance and medico-legal requirements for that information.

2. **HIM Workforce Supply -** Inadequate supply of health information management workforce to deliver the health information services to enable other health professionals to connect, communicate and coordinate with the right people.

3. **Effective Management -** Without the effective management of health information, leading to the reliable and accurate capture of quality outcomes of health care, with consideration to its security, privacy and confidentiality, capable of translation into information meaningful to health consumers, access is meaningless.

4. **Standards Confusion -**Multiple standards between jurisdictions on legislative and regulatory matters that should be uniform, such as privacy, confidentiality and access.

5. **Primary ~ Tertiary Care Integration -** Inadequate integration of health information between primary and tertiary care, leading to duplication of tests, cross-diagnoses and prescription of medication, and other side effects of the discontinuity of care that lead to adverse patient outcomes, unnecessary costs, and loss of patient confidence in the health system.

6. **a. Documentation -** Inadequate documentation (digital or otherwise) to enable the capture by health professionals of accurate data from health service delivery such that it is meaningful to others in the health system as information.

6. **b. Information Governance -** Lack of information governance over the flow of health information and data within the Australian health system and beyond it.

Other HIMAA member comment:

A. Lack of interoperable secure messaging across all parts of the health sector.

B. Unless Health Information Managers are up front and centre in discussions around interoperability, the flow of health information between the acute sector to the primary sector and consumers using My Health Record will continue to cause problems. GPs are just looking for simple solutions, not rocket science with enormously heavy costs attached. As one GP said of my local hospital "Why can't I just get an electronic discharge summary instead of the carbon copy which is impossible to read"? This is a hospital that will not invest in a scanned record, let alone inexpensive software that can produce an electronic discharge summary.

   Data and health information are different things and this is clearly understood by those with a HIM background, not Accountants, CEOs and IT people.

C. Not knowing who is responsible for any of the above and who to contact when you need to talk to someone. Unless you have worked with people external to your job you are often isolated from the people/departments/institutions you may need to talk to to assist you with a part of your job.

   People/departments/hospitals/Local Health Districts (LHDs)/Networks work in isolation at times unless you know someone who includes you in areas that matter. Also when the powers that be know that something is hindering any of the above, nothing is done to correct the inadequacies.

4. ADHA Priorities - ADHA Sample Question 3. What should be the immediate priority initiative for the My Health Record to ensure it delivers real value for healthcare professionals?

From a HIM perspective, the immediate priority initiatives for the My Health Record to ensure it delivers real value for healthcare professionals are:

1. **Primary ~ Tertiary Care Integration -**Adequate digital integration of health information between primary and tertiary care, through the management of health information by qualified health information professionals, to mitigate risk to avoid duplication of tests, cross-diagnoses, prescription of contra-indicated medication, and other side effects of the discontinuity of care that lead to adverse patient outcomes, unnecessary costs, and loss of patient confidence in the health system.

2. **Interoperability ~ software -** Interoperability of software programs to ensure health data and information integrity and security in transmission from one program to another, such that inter-program transmission and storage will lead to the retrieval of quality information or data now and across time and place.

3. **HIM Workforce Supply -** Adequate supply of health information management workforce to deliver the health information services to enable other health professionals to connect, communicate and coordinate with the right people

4. **Clinical Classification Interoperability -**Action to address the digital information divide between primary care and tertiary care caused by non-interoperable systems of health information classification – ICPC-2-PLUS in primary care, ICD-10-AM in the hospital system, and SNOMED-CT in between the two (My Health Record).

Other HIMAA Member comment

A. A statewide eMR viewable by any health professional in relation to caring for a patient.

5. Additional Member Advice for ADHA

Comment:

A. The peak body for HIMs and Clinical Coders, the Health Information Management Association of Australia, should be a major stakeholder in the development of a National Digital Health Strategy. The skills and body of knowledge within this workforce can inform good data management, health information interoperability (flow), governance, privacy, security, quality.

B. Stop hospital staff working in isolation of information that is available in other systems. Sharing of a patients information between health professionals in easily accessible systems is a must and will prevent repeat procedures, stop time wastage asking the same questions again, allow more accurate treatment in a more timely fashion, reducing errors, reducing cost, reducing morbidity and mortality.

C. There needs to be an understanding of the socio-technical perspective of the implementation of health information systems. Health information technologies are placed into complex organisations and used by many different health professionals and patients - the context of implementations is very important and different contexts present different challenges.

D. Interoperability - Patient care progressively requires clinicians to access detailed and timely health care records across health professionals, integrated health care is important (Kalra 2006). In order to achieve this, a complex health care system requires EHR interoperability, enabling improved workflows and data transfer among systems and other health care professionals (Abdelhak&Hanken 2016).

   Currently within QLD there is an ageing ICT infrastructure with large complex systems that are resistant to change, and the combination of both state-wide and local systems which have low levels of interoperability, means that the secure sharing of information across care settings and third party providers is difficult as information is not adequately standardised.

Discussion

Although few members elected to add or contribute comment of their own, all comment volunteered has been included in this submission as contributed. We feel the comment provides valuable insight into the 'voice' of the HIM profession.

Column Ranking vs Individual Unit Value

The ranking of positions across the sections – Barriers, Enablers, ADHA Priorities and Improvements – merits analysis. While an understanding of the HIM role is ranked most highly as a barrier, yet is ranked only 5th as an enabler, for instance, the Likert rating average for the two rankings is in fact higher in the enabler ranking (91.9%) than it is in the barrier ranking (90%). Thus while ranking within sections are valid in their own right, and accepted by HIMAA as the membership ranking, the ranking does not reflect the content value of the position.

The same is true for the effective management of health information: this ranks third as a barrier to health professional connectivity at a ranking value of average of 87.2%, but only seventh as an enabler at the higher 89.6%. Similarly, an understanding of the functional difference between data and information in the management of digital health information is ranked eighth as a barrier at an average of 82% and eleventh as an enabler at 84.9%

Conversely, HIM workforce as an enabler has the same ranking as it does as a barrier – second – but the ranking value of the position is higher as an enabler (93.6%) than it is as a barrier (90%).

These seeming contradictions show both how highly the membership rate the positions on which they were surveyed, and the extent to which the rankings of each section reflect member priorities within that section. Change in ranking across sections does not imply an equivalent change in the value of the position itself across sections.

HIW Workforce

As a professional association, based on other sources of membership opinion such as out triennial membership survey, other occasional and purposive membership surveys, and meetings of a plenary nature such as the 2015 Health Information Workforce (HIW) Summit HIMAA[17] conducted with the Australasian College of Health Informatics (ACHI) and Health Informatics Society of Australia (HISA), HIMAA itself would make additional comment to the positions surveyed.

There was substantial report and debate in the 2015 HIW Summit, for instance, on the propensity to role substitution as either a solution to the workforce shortage in HIMs or a product of employer ignorance. The prominence of HIM Workforce as barrier, enabler improvement and priority for ADHA can be taken not only as a very clear message from the HIM profession to ADHA analysts on the important of HIW to a national digital health strategy, but can also be assumed to imply the adverse impact of role substitution.

The erosion of professional standards at a time when standards are most needed – a time of high change and demand – is both undesirable and unnecessary.

Primary Care Role for HIM

In the 2015 HIW Summit and elsewhere[18] the value of health information management professionals – particularly Clinical Coders and HIMs – to primary care has received much attention. This avenue of development for improving the quality of information primary care can make available to the tertiary and secondary care sectors, particularly through the My Health Record, is virtually **unexplored** by primary care.

In general practice, the International Classification of Primary Care (ICPC), which has its own Australian modification (ICPC 2 PLUS), is **not used** by GPs to classify clinical records. Which explains why GPs prefer a terminology-based grammar for SNOMED CT, the information organisation software for the My Health Record; because their own medical records are language and terminology based.

In ranking the integration of health information across the divide between primary and tertiary care, through digitisation, as the **most immediate priority** for ADHA, HIMAA believes its membership shows a good understanding of the potential role for HIM professionals in bridging the divide between general practice and the hospital system.

In this context, even though HIMAA members ranked interoperability of clinical classification between ICD-10-AM and ICPC 2 PLUS via SNOMED CT lowest (4th) of its immediate priorities for ADHA, HIMAA would encourage ADHA analysts to include this position as a

[17] The HIW Summit 2015 Report can be found at http://www.himaa2.org.au/index.php?q=node/1417 or http://www.achi.org.au/Documents.htm

[18] Henderson J. Quality of EHR - the state of play in primary care. HIMAA 2014 Conference Proceedings, http://www.himaa.org.au/2014/Presentations/presentations_2014.htm

sub-set of the integration of primary and tertiary care. This is because for the brokerage of interactivity between the My Health Record and the eHealth Information Systems in primary and tertiary care sectors to effect the quality improvement as well as health care cost benefits of digital health information, classification provides a massive key to the quality packing and unpacking of meaningful health information and data, and classification is core business for the HIM profession.

In preparing a national digital health strategy, HIMAA would also recommend the ADHA consider **Medicare** as a factor in classification interoperability. Medicare data was the first to be uploaded into the My Health Record and will provide a mainstay of it. But Medicare's system of "classification" (the Medicare schedule) is based either on ICD-10-AM or ICPC, and has been expanded incrementally on a historical basis driven by micro-needs rather than macro-strategy. The call for an overhaul of Medicare is almost perennial, but in this specific area ADHA could take a lead role for a leading need: the classification interoperability of the My Health Record.

Finally, in terms of the integration of primary and tertiary care, HIMAA would put in a plea for **regional, rural and remote** communities. The speed and accuracy of health information transmission, not just between local health services and practitioners, but between major metro hospitals and specialists and non-metro health practitioners and their patients, will make massive inroads into the quality and timeliness of care in communities outside the cities.

Conclusion

The Health Information Management Association of Australia thanks the ADHA for this opportunity to submit policy advice on issues a National Digital Health Strategy should address from the perspective of the health information management profession.

Health Workforce Australia's *Health Information Workforce 2013* report[19] identifies roles grouped around the two occupations comprising much of the health information management profession, Health Information Manager (HIM) and Clinical Coder (CC), as representing 64% of the frontline HIW, so HIMAA positions on behalf of that profession are not inconsiderable.

In general, HIMAA is strongly in favour of the need for a practical and usable National Digital Health Strategy that recognises the important of the management of health information in a digitised health information system if that system is to be useful as a system of knowledge.

The benefits of such as system in improving health care in Australia as well as significantly moderating the burden of health care cost to the community have been clearly outlined in this submission, and are advocated by HIMAA.

But a national health information system that reduces information to data detached from meaning through inadequacies in software interoperability, classification interoperability, IT inadequacy in hardware and software, and operator ignorance of the need to manage the flow of information between data and information status within the system, lends itself all too readily to multiple failures which will cripple the system over time.

For this reason, HIMAA advocates the integration of health information management throughout a National Digital Health Strategy as a key and unifying strategic concept.

To this end, in this submission, HIM professionals have ranked positions on subjects such as:

[19] Health Workforce Australia [2013] Health Information Workforce Report, p.14

- the need for the effective management of an identifiable digital Health Information Systems (HIS) by qualified HIM professionals such as health information managers (HIMs) and Clinical Coders.
- HIM workforce supply based in a national Health Information Workforce (HIW) capability framework led by the HIW peak bodies
- interoperability of software
- clinical documentation
- understanding of the role of the HIM professional in digital health information management
- understanding of the dynamic interrelationship between data and information for a health information system to inform knowledge-based decision-making
- information governance
- interoperability of clinical classification to support integration of care across primary and tertiary health sectors
- the eHealth outcome benefits in quality of care as well as reduced cost burden with the involvement of HIM professionals at the centre of the management of the digitisation of and digitised health information

HIMAA members have collectively urged ADHA to actively engage with HIW peak professional bodies such as HIMAA, with industry and with HIW suppliers such as universities and the VET sector, to develop a national HIW capability framework able to adapt and respond to emerging eHealth needs.

This submission advocates on behalf of the HIM profession the following four immediate ADHA priorities to ensure the My Health Record delivers real value for healthcare professionals:

- Primary~tertiary care integration through the digitisation of health information
- Interoperability between health information software
- HIM workforce supply
- Clinical classification interoperability between hospital and general practice via the My Health Record

The prioritisation of similar positions across sections – such as HIM Workforce, software interoperability, and primary~tertiary care integration, indicates that these positions merit particular attention by ADHA analysts.

Other positions ranked highly by the HIMAA membership, such as quality standards for health information management, ownership of health information, and uniformity of compliance and medico-legal requirements for digitised health information, have been excluded from the submission by meaningful management of survey data to heighten as much as possible the rigour of an essentially qualitative process.

Their exclusion does not reflect a lack of importance, and HIMAA would welcome further discussion with ADHA on these and, indeed, all of the positions ranked in this submission for consideration in the development of a National Digital Health Strategy.

We welcome further opportunity for a co-production role in the development by the ADHA of a National Digital Health Strategy.

***

APPENDIX 1: HIMAA Survey on ADHA National Digital Health Strategy – Results

Introduction
ADHA's "Your health. Your say." campaign to attract contribution from all stakeholders, including consumers, offers an opportunity for a radical revisit of the national Digital Health Strategy that has been emerging from federal government for a number of years now. In order to develop a considered HIMAA response to this campaign, the association developed a survey of HIMAA policy positions on digital health strategy and invited the membership to rate these positions, as well as provide positions or comment of their own.

These positions are organised under the four sample questions ADHA suggest for "Clinicians and other healthcare workers, and healthcare providers" in their "Your health. Your say." discussion paper of November 2016 (p.6). This paper is available from: https://conversation.digitalhealth.gov.au/sites/default/files/PDF/Your%20health.%20Your%20say.%20Discussion%20Paper.pdf.

The results of the HIMAA survey are detailed in this document.

RESULTS

Survey by: Survey Methods, Dates: 1/12/16 – 18/12/16

Sample: 949 HIMAA Members

Response: 40 – 30 complete, 10 partial [R = statistically insignificant – 4.2%]

Response Attrition: There is a 25% decrease in completion rate by the respondent population over the course of the survey, with the largest incremental drop between sections 1 (R=99.6%) and 2 (R=79.4%) – a decrease in completion of 29.2%. The decreases thereafter continue incrementally downwards but at a far less drastic rate (Section 3's R = 77.5% of response total, and 4's R = 75%).

Results Summary by Theme

The themes numbered in the table below are HIMAA policy positions rated by HIMAA members as a result of a survey of 949 members in the first fortnight of December 2016. Policy positions are ranked according to the average rating they achieved. This average is expressed as a percentage in parentheses for each position. Positions are numbered in rank order. At the base of each column, the top ranked rating is cited along with the number of percentage points dropped to reach the lowest ranking. This comparison indicates **Enablers** has the most closely and highly ranked policy positions for the top 6 positions (Drop 3.6%), followed by **Improvement** (5.4%), **Barriers** (6.7%) and **Priorities** (12.8%)

ADHA Question 1 - Barriers	ADHA Question 2 – Enablers	ADHA Question 3 - Priorities	ADHA Question 4 – Improvement
1. HIM Role (Av.90%)	1. HIS Availability (Av. 95%)	1. Primary ~ Tertiary Care Integration (Av. 95.1%)	1. ADHA~HIW Engagement (Av. 95%)
2. HIM Workforce Supply (Av.90%)	2. HIM Workforce Supply (Av. 93.6%)	2. Interoperability ~ software (Av. 94.6%)	2. Data ~ Information ~ Knowledge System (Av. 92.2%)
3. Effective Management (Av. 87.2%)	3. Interoperability ~ software (Av. 93.6%)	3. HIM Workforce Supply (Av. 83.3%)	3. eHealth Outcome Benefits (Av. 92.2%)
4. Standards Confusion (Av. 85%)	4. Documentation (Av. 92.2%)	4. Clinical Classification Interoperability (Av. 82.3%)	4. HIM Workforce Supply (Av. 91.7%)
5. Primary ~ Tertiary Care Integration (Av. 83.8%)	5. HIM Role (Av. 91.9%)		5. Information vs Data (Av. 90%)
6. Documentation (Av. 83.3%)	6. Primary ~ Tertiary Care Integration (Av. 91.4%)	← **Drop 3.6%**	6. Knowledge-based Decisions (Av. 86.7%)
7. Information Governance (Av. 83.3%)**Drop 6.7%**	7. Effective Management (Av. 89.6%)		Positions 2 & 6 are really sub-sets of 5
8. Health Information Systems (Av.82%)	8. Quality Standards (Av. 86%)		Av. 2, 5 & 6 = 89.6% **Drop = 5.4%**
8. Data vs Information (Av. 82%)	9. Information Governance (Av. 85.9%)		
9. Quality Standards (Av. 81.3%)	10. Ownership (Av. 85%)		
10. Interoperability ~ software (Av. 81.2%)	11. Information vs Data (Av. 84.9%)		
12. Clinical Classification Interoperability (Av. 77.5%)	12. Compliance vs Uniformity (Av.83.9%)		
13. Ownership (Av. 77.1%)	13. Clinical Classification Interoperability (Av. 81.8%)		
Top = 90% Drop = 12.9%	**Top = 95% Drop = 13.2%**	**Top = 95.1% Drop = 12.8%**	**Top = 95% Drop = 8.3%**

Results in Full

ADHA Sample Question 1. What gets in the way of health professionals being able to connect, communicate and coordinate with the right people?

R = 39.85 (+0.15, -0.85) - 99.6% of total response population of 40.

From an HIM perspective, the following conditions get in the way of health professionals being able to connect, communicate and coordinate with the right people.

1. **HIM Role -** Poor understanding of the role of health information management professionals in translating data from patient contact with health care providers into information to communicate health outcomes to other health providers along the patient journey, linking data from the classification of health information with health service finance and population or regional health planning facilities, and enabling access to meaningful health information by the health consumer, with an eye at all points on the compliance and medico-legal requirements for that information.

   1 2 3 4 5 6 Av: 90%
   Low High

2. **HIM Workforce Supply -** Inadequate supply of health information management workforce to deliver the health information services to enable other health professionals to connect, communicate and coordinate with the right people.

   1 2 3 4 5 6
   Low High Av. 90%

3. **Effective Management -** Without the effective management of health information, leading to the reliable and accurate capture of quality outcomes of health care, with consideration to its security, privacy and confidentiality, capable of translation into information meaningful to health consumers, access is meaningless.

   1 2 3 4 5 6 Av. 87.2%
   Low High

4. **Standards Confusion -** Multiple standards between jurisdictions on legislative and regulatory matters that should be uniform, such as privacy, confidentiality and access.

   1 2 3 4 5 6
   Low High Av. 85%

5. **Primary ~ Tertiary Care Integration -** Inadequate integration of health information between primary and tertiary care, leading to duplication of tests, cross-diagnoses and prescription of medication, and other side effects of the discontinuity of care that lead to adverse patient outcomes, unnecessary costs, and loss of patient confidence in the health system.

   1 2 3 4 5 6 Av. 83.8%
   Low High

6. **Documentation -** Inadequate documentation (digital or otherwise) to enable the capture by health professionals of accurate data from health service delivery such that it is meaningful to others in the health system as information.

1	2	3	4	5	6	Av. 83.3%
Low					High	R=39/40

7. **Information Governance -** Lack of information governance over the flow of health information and data within the Australian health system and beyond it.

1	2	3	4	5	6	Av. 83.3%
Low					High	

8. **Health Information Systems -** Lack of a health information system in which information is managed such that it is available *as* information (accessible, accurate, meaningful, of quality and integrity) to the right health professionals with the right patient in the right place for the right procedure at the right time, with due regard for privacy, confidentiality, and patient-centredness, to minimise adverse health outcomes.

1	2	3	4	5	6	Av: 82%
Low					High	

9. **Information vs Data -** The assumption that information and data are the same thing, and in units of fixed, non-dynamic entity, instead of the raw, perceived experience (data) translated into meaningful form for communication (information) that leads to informed decision-making capability (knowledge) within a system.

1	2	3	4	5	6	Av: 82%
Low					High	

10. **Quality Standards -** Insufficient information quality standards to offer assurance of integrity and accuracy throughout the information life cycle, as the foundation for digital health capability.

1	2	3	4	5	6	Av. 81.3%
Low					High	R=39/40

11. **Interoperability ~ software -** Non-interoperability of software programs that alter rather than maintain the meaning of health information or the quality of health data in transmission from one program to another, such that inter-program storage will inevitably lead to information or data corruption and loss, and inter-program transmission will inevitably lead to adverse health events due to data or information corruption.

1	2	3	4	5	6	Av. 81.2%
Low					High	

12. **Clinical Classification Interoperability -** The digital informational divide between primary care and tertiary care caused by non-interoperable systems of health information classification – ICPC2PLUS in primary care, ICD-10-AM in the hospital system, and SNOMED-CT in between the two (MyHealth Record).

1	2	3	4	5	6	Av. 77.5%
Low					High	

13. **Ownership -** Lack of clarity about who owns health data and health information, particularly in relation to patient access, privacy and confidentiality.

1	2	3	4	5	6	Av. 77.1%
Low					High	

14. Other *please specify*: 4 responses

A. Lack of interoperable secure messaging across all parts of the health sector.

B. Unless Health Information Managers are up front and centre in discussions around interoperability, the flow of health information between the acute sector to the primary sector and consumers using MyHealth record will continue to cause problems. GPs are just looking for simple solutions, not the rocket science with enormously heavy costs attached. As one GP said of my local hospital "Why can't I just get an electronic discharge summary instead of the carbon copy which is impossible to read" This is a hospital that will not invest in a scanned record, let alone inexpensive software that can produce an electronic discharge summary. Data and health information are different things and this is clearly understood by those with a HIM background, not Accountants, CEOs and IT people.

C. Not knowing who is responsible for any of the above and who to contact when you need to talk to someone. Unless you have worked with people external to your job you are often isolated from the people/departments/institutions you may need to talk to to assist you with any part of your job.

People/departments/hospitals/LHDs/Networks work in isolation at times unless you know someone who includes you in areas that matter. Also when the powers that be know that something is hindering any of the above, nothing is done to correct the inadequacies.

ADHA Sample Question 2. What do health professionals need to be able to effectively connect, communicate and coordinate with the right people?

R = 31.8 (+1.2, -0.8) – 79.4% of the total response population of 40

From an HIM perspective, to be able to effectively connect, communicate and coordinate with the right people health professionals need:

1. **HIS Availability -** A health information system in which information is managed such that it is available *as* information (accessible, accurate, meaningful, of quality and integrity) to the right health professionals with the right patient in the right place for the right procedure at the right time, with due regard for privacy, confidentiality, and patient-centredness, to minimise adverse health outcomes.

   1 2 3 4 5 6 Av. 95%
   Low High (R=33/40)

2. **HIM Workforce Supply -** Adequate supply of health information management workforce to deliver the health information services to enable other health professionals to connect, communicate and coordinate with the right people.

   1 2 3 4 5 6 Av. 93.6%
   Low High R=31/40

3. **Interoperability ~ software -** Interoperability of software programs health data and security and information integrity in transmission from one program to another, such that inter-program transmission and storage will lead to the retrieval of quality information or data now and across time and place.

   1 2 3 4 5 6 Av. 93.6%
   Low High R=31/40

4. **Documentation** - Adequate documentation (digital or otherwise) to enable the capture by health professionals of accurate data from health service delivery such that it is meaningful to others in the health system as information.

   1 2 3 4 5 6 Av. 92.2%
   Low High R=32/40

5. **HIM Role -** Understanding of the role of health information management professionals in translating data from patient contact with health care providers into information to communicate health outcomes to other health providers along the patient journey, linking data from the classification of health information with health service finance and population or regional health planning facilities, and enabling access to meaningful health information by the health consumer, with an eye at all points on the compliance and medico-legal requirements for that information.

   1 2 3 4 5 6 Av. 91.9%
   Low High R=33/40

6. **Primary ~ Tertiary Care Integration -** Adequate digital integration of health information between primary and tertiary care to avoid duplication of tests, cross-diagnoses, prescription of contra-indicated medication, and other side effects of the discontinuity of care that lead to adverse patient outcomes, unnecessary costs, and loss of patient confidence in the health system.

1	2	3	4	5	6	Av. 91.4%
Low					High	R=31/40

7. **Effective Management** - The effective management of health information, leading to the reliable and accurate capture of quality outcomes of health care, with consideration to its security, privacy and confidentiality, capable of translation into information meaningful to health consumers, such that access leads to information rather than unintelligible data.

1	2	3	4	5	6	Av. 89.6%
Low					High	R=32/40

8. **Quality Standards -** Information quality standards to offer assurance of integrity and accuracy throughout the information life cycle, as the foundation for digital health capability.

1	2	3	4	5	6	Av. 86%
Low					High	R=31/40

9. **Information Governance -** Information governance over the flow of health information and data within the Australian health system and beyond it.

1	2	3	4	5	6	Av. 85.9%
Low					High	R=32/40

10. **Ownership** - Clarity about who owns health data and health information, particularly in relation to patient access, privacy and confidentiality.

1	2	3	4	5	6	Av. 85%
Low					High	R=31/40

11. **Information vs Data -** An understanding that information and data are not the same, fixed, non-dynamic entity but rather the raw, perceived experience (data) translated into meaningful form for communication (information) that leads to informed decision-making capability (knowledge) within a system.

1	2	3	4	5	6	Av. 84.9%
Low					High	R=33/40

12. **Compliance Uniformity -** Uniform legislation and regulation across jurisdictions and institutions on standards governing the effectiveness of digital health information management, such as privacy, confidentiality and security.

1	2	3	4	5	6	Av. 83.9%
Low					High	R=31/40

13. **Clinical Classification Interoperability -** Action to address the digital information divide between primary care and tertiary care caused by non-interoperable systems of health information classification – ICPC2PLUS in primary care, ICD-10-AM in the hospital system, and SNOMED-CT in between the two (MyHealth Record).

1	2	3	4	5	6	Av. 81.8%
Low					High	R=32/40

14. Other *please specify*:

    A. Working for a state wide service the duplication of information, investigations or misrecording of information from one system can be the difference between life and death. Even staff working in one hospital find it difficult to find information in their own system to provide this information. State wide services should have easy access to hospital systems to see patient information necessary to do their job. Information needs to be shared electronically and the continuance to print summary information from one hospital to be taken to another hospital with a patient is outdated and not acceptable in this era. A statewide eMR is necessary to stop the duplication of services and sharing of information between services should be a priority.

ADHA Sample Question 3. What should be the immediate priority initiative for the MyHealth Record to ensure it delivers real value for healthcare professionals?

R = 31 – 77.5% of total response sample of 40

From an HIM perspective, the immediate priority initiatives for the MyHealth Record to ensure it delivers real value for healthcare professionals are:

1. **Primary ~ Tertiary Care Integration -** Adequate digital integration of health information between primary and tertiary care, through the management of health information by qualified health information professionals, to avoid duplication of tests, cross-diagnoses, prescription of contra-indicated medication, and other side effects of the discontinuity of care that lead to adverse patient outcomes, unnecessary costs, and loss of patient confidence in the health system.

1	2	3	4	5	6	Av. 95.1%

2. **Interoperability ~ software -** Interoperability of software programs to ensure health data and information integrity and security in transmission from one program to another, such that inter-program transmission and storage will lead to the retrieval of quality information or data now and across time and place.

1	2	3	4	5	6	Av. 94.6%
Low					High	R=31/40

3. **HIM Workforce Supply -** Adequate supply of health information management workforce to deliver the health information services to enable other health professionals to connect, communicate and coordinate with the right people

1	2	3	4	5	6	Av. 83.3%
Low					High	R=31/40

4. **Clinical Classification Interoperability -** Action to address the digital information divide between primary care and tertiary care caused by non-interoperable systems of health information classification – ICPC2PLUS in primary care, ICD-10-AM in the hospital system, and SNOMED-CT in between the two (MyHealth Record).

1	2	3	4	5	6	Av. 82.3%
Low					High	R=31/40

5. Other *please specify*:

    A. A statewideeMR viewable by any health professional in relation to caring for a patient.

ADHA Sample Question 4. How could data and technology be better used to improve health and well being?

R = 30 – 75% of total response population of 40.

From an HIM perspective, data and technology could be better used to improve health and well being in the following ways.

1. **ADHA~HIW Engagement -** An active engagement by ADHA with health information workforce (HIW) peak professional bodies, with industry, government and HIW suppliers (such as universities and VET), to develop a national HIW capability framework able to adapt and respond to the emerging HIW needs of employers in a rapidly developing digital health environment.

1	2	3	4	5	6	Av. 95%
Low					High	R=30/40

2. **Data ~ Information ~ Knowledge System -** With the further (see 5 below) understanding that the translation of data into information, and the extraction of information from data, and the management of both in a health system such that it acts with knowledge, **requires the skills and application of frontline qualified health information management professionals.**

1	2	3	4	5	6	Av. 92.2%
Low					High	R=30/40

3. **eHealth Outcome Benefits -** To enable the provision of accurate and timely healthcare information, managed nationally by qualified health information management professionals, to support healthcare providers in the delivery of best practice care across the sectorial and digitally-interoperable divide between primary and tertiary care, such that the quality of care as well as economic benefits of an eHealth agenda can be realised.

1 2 3 4 5 6 Av. 92.2%
Low High R=30/40

4. **HIM Workforce Supply -** Through the provision of an adequate and well-resourced workforce of health information management professionals with qualifications accredited or approved to HIMAA competency standards, to manage the digitisation of health information such that it leads to the quality of care and economic benefits of which eHealth reform is capable.

1 2 3 4 5 6 Av. 91.7%
Low High R=30/40

5. **Information vs Data -** With an understanding that information and data are not the same, fixed, non-dynamic entity but rather the raw, perceived experience (data) translated into meaningful form for communication (information) that leads to informed decision-making capability (knowledge) within a system.

1 2 3 4 5 6 Av. 90%
Low High R=30/40

6. **Knowledge-based Decisions** - With the further (see 5 above) understanding that clinical and financial professionals both refer to information produced from data analysis as data, but in reality this data is information that can lead to knowledge-based decision-making.

1 2 3 4 5 6 Av. 86.7%
Low High R=30/40

7. Other *please specify*:

A. There is a huge misunderstanding in health that Nurses are ideal to interpret information into data or be experts in Clinical Documentation (emerging Clinical Documentation Specialists) This is a complete misconception as the nursing education does not include the competencies required for Data Analysis or Clinical Documentation audit. HIM and HIMAA competent clinical coders are to be recognised as the experts by health authorities. It would seem that Jurisdictions do not recognise the expertise of the health workforce outside those who "lay" hands on patients. This is a huge problem and needs future registration of HIMs and Clinical Coders to work in the Public Health system.

B. Implement a one record from pregnancy to birth to childhood to adulthood such as in the UK with Badgernet. This would ensure a patients record from inutero to adulthood could be available to all health professionals that care for the patient in their lifetime including retrieval services.

5. HIMAA Closing Question:Do you have any other advice about a national Digital Health Strategy for Australia that HIMAA should provide to the Australian Digital Health Agency on behalf of the health information management profession?

Comment:

A. The peak body for HIMs and Clinical Coders, the Health Information Management Association of Australia, should be a major stakeholder in the development of a National Digital Health Strategy. The skills and body of knowledge within this workforce can inform good data management, health information interoperability (flow), governance, privacy, quality.

B. Stop hospital staff working in isolation of information that is available in other systems. Sharing of a patients information between health professionals in easily accessible systems is a must and will prevent repeat procedures, stop wasting time asking the same questions again, allow more accurate treatment in a more timely fashion, reducing errors, reducing cost, reducing morbidity and mortality.

C. There needs to be an understanding of the socio-technical perspective of the implementation of health information systems. Health information technologies are placed into complex organisations and used by many different health professionals and patients - the context of implementations is very important and different contexts present different challenges.

D. Interoperability - Patient care progressively requires clinicians to access detailed and timely health care records across health professionals, integrated health care is important (Kalra 2006). In order to achieve this, a complex health care system requires EHR interoperability, enabling improved workflows and data transfer among systems and other health care professionals (Abdelhak&Hanken 2016). Currently within QLD there is an ageing ICT infrastructure with large complex systems that are resistant to change, and the combination of both state-wide and local systems which have low levels of interoperability, means that the secure sharing of information across care settings and third party providers is difficult as information is not adequately standardised.
