

IMPLEMENTING A RATIONAL E-HEALTH SYSTEM IN AUSTRALIA

Workshop
19 September 2007

Parliament House, Canberra

Report by Global Access Partners







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EXECUTIVE SUMMARY

On 19 September 2007, Global Access Partners (GAP) held a strategic workshop discussing the challenge of implementing a rational e-health system in Australia in Parliament House, Canberra.

KEYNOTE SPEAKER

The workshop featured **Prof Michael** Georgeff, CEO of Precedence Health Care Pty Ltd and Director of e-Health Research at Monash University, as the keynote speaker.

SPONSORS & PARTNERS

The workshop was jointly hosted by GAP and the Australian National Consultative Committee on Electronic Health, and sponsored by a number of industry partners.

PARTICIPANTS

The event brought together 22 senior executives from government and private organisations in the health sector.

PRESENTATION

Prof Georgeff summarised the content and general thrust of his paper 'E-Health and the Transformation of Healthcare', released earlier in 2007, as a general discussion starter.

DISCUSSION

The roundtable discussion centred on possible solutions and actions to be taken to make progress in the area of widening acceptance and implementation of e-health. Participants considered the ways to encourage health care providers to connect with one another, how to track health events across the continuum of care and create a broadband network of health services.

DISCLAIMER: This Report represents a range of views and interests of the participating individuals. Statements made during discussions are the personal opinions of the speakers and do not necessarily reflect those of the organisers and sponsors of the workshop.



EXECUTIVE SUMMARY

A strategic workshop on the challenge of implementing a rational e-health system in Australia was held in Parliament House, Canberra on 19 September 2007. Convened by Global Access Partners (GAP), it featured a paper commissioned by the Australian Centre for Health Research and written by Professor Michael Georgeff, Director of E-health Research, Monash University.

The paper discussed the cost to the nation and the individual of continuing with Australia's current disjointed chronic health care system. It is estimated that improved knowledge sharing and better care plan management for patients with chronic diseases could generate direct savings to the health care system of \$1.5billion per annum. Savings to the community from associated nonhealthcare costs are of the same order.

Most of the participants endorsed the approach advocated in the paper. The following are key points and issues raised during the roundtable discussion.

- IT is under utilised in the health care system. The ongoing development of e-health could reap enormous financial and health benefits and revolutionise the field of chronic health care.
- Health care is highly heterogeneous, with thousands of autonomous entities delivering different services, and future IT systems should embrace this reality, rather than try to centralise it.

- Flexible self-managed structures handle complexity better than rigid codified hierarchies and attempts to foist a centralised, monolithic, 'Fordist' IT solution on the 'cottage industry' of health care are futile.
- When connectivity is established, and clinical participation encouraged with incentives, a plethora of innovative market solutions will emerge as small companies offering specific services spot value opportunities. The beneficiaries of e-health are not necessarily those who pay for its implementation and incentives should encourage its adoption and use.
- Much of the necessary technology, such as secure messaging systems, already exists. Most of the costs of e-health are incurred by changing business practices rather than purchasing new IT systems.
- Clinicians have proved their willingness to embrace IT solutions when these are shown to improve patient care, and will amend their care practises in line with new data revealed by e-health provision.
- The adoption of a simple 'unique identifier' for every patient would greatly simplify the problems of identity management.
- The creation of connectivity, rather than standards regarding content, is the key to unlocking the future of e-health provision.

For the full report of the proceedings, see pages 9-14.



KEYNOTE SPEAKER

The workshop featured **Prof Michael** Georgeff, Chief Executive Officer of Precedence Health Care, as the keynote speaker.

Professor Michael Georgeff is founder and CEO of Precedence Health Care Pty Ltd and Director of the e-Health Research Unit at Monash University. He is an advisor to government and industry in the US, Europe and Australia on information technology strategy in health care and e-business and serves on the boards of various companies. He has over 25 years experience in software innovation and bringing these technologies to market.

In the 1980s, Prof Georgeff was Program Director in the Artificial Intelligence Center at SRI International and a member of Stanford University's Center for the Study of Language and Information. During this period, he and his team created one of the first implementations of an intelligent software agent used to help control NASA's space shuttle during space missions.

In 1988, Prof Georgeff was invited back to Australia by the Prime Minister, Mr Robert Hawke, to set up the Australian Artificial Intelliaence Institute. As Foundina Director, he established AAII as a world leader in intelligent agent technology and its application to solving a wide range of commercial and social problems. In 1997, he founded Agentis International, a US software company.

Prof Georgeff is a Fellow of the American Association for Artificial Intelligence and a Fellow of the Australian Computer Society.

In 1990, the Bulletin proclaimed Prof Georgeff one of Australia's "national assets".

Prof Georgeff holds a PhD from Imperial College, London University, a B Eng degree from Sydney University and a B Sc degree from The University of Melbourne. He is currently leading a number of initiatives in Australia to establish a broadband health network focused on the management of chronic disease.



SPONSORS & PARTNERS

The workshop was coordinated by Global Access Partners (GAP) – an influential network that initiates high level discussions on global issues, encouraging the sharing of knowledge, progress and policy change. GAP structures each initiative around the desired business outcomes of its partners and sponsors.

GAP's co-host of the event was the **Australian National Consultative** Committee on Electronic Health - a powerful multidisciplinary group of senior Government and business executives and health professionals. The Committee aims to influence the jurisdictional public and private health agenda in Australia to promote, explore, define and realise better patient health outcomes through the application of information technology to improve efficiency, safety and productivity. The group also provides a forum for public-private partnerships in order to promote improved execution and industry development.

The workshop was sponsored by the Australian Centre for Health Research and Thales Australia.

The Australian Centre for Health **Research** is a Melbourne based notfor-profit company which commissions research into the most pressing health issues and topics as part of a move to create a better health system in Australia. The Centre aims to promote wide public discussion around health, influence health policy formation through the creation of an intellectually stimulating environment where alternative ideas are discussed and considered continually; and identify and promote causes that have the potential to improve health delivery in Australia.

Thales is an international electronics and systems group, addressing defence, aerospace and security markets worldwide. As one of Australia's leading software development houses, Thales offers large scale systems integration, project management and software engineering and development. Thales' e-Transactions business line, a provider of secure card payment solutions, is currently expanding its business in the healthcare sector.



PARTICIPANTS

The workshop brought together senior executives from government agencies and private organisations in the health sector, and was chaired by The Hon. Neil Batt AO, Executive Director of the Australian Centre for Health Research.

Prof Bruce Barraclough Medical Director e-Health Research Centre

The Hon. Neil Batt AO Executive Director, ACHR

Mr Peter Brockhoff Manager Government Business, Australia & New Zealand Citrix Systems Asia Pacific Ltd

Mr Patrick Callioni Division Manager, AGIMO

Mr Ian Carmody Chief Operating Officer, NEHTA

Ms Kate Carnell **CEO The Australian General** Practice Network

Ms Jaana Cassidy **Business Development Manager** Civil, Thales Australia

Mr Mathew Cherian Managina Director Working Systems Solutions

Mr Philip Davies Deputy Secretary, Department of Health & Ageing, Australian Government

Mr Ken Douglas General Manager Department of Veterans' Affairs Mr Peter Fritz AM Group Managing Director TCG Group & Global Access Partners

Dr Peter Garcia-Webb Chair AMA Expert Advisory Committee on Information Technology

Prof Michael Georgeff CEO Precedence Health Care

Dr Stan Goldstein Medical Advisor, Health and Benefit Management, MBF

Mr Chris Hayward Team Leader IM & ICT General Practice Divisions Victoria Ltd

Ms Megan Kennedy Marketing Manager, Health & Life Sciences, IBM Australia Ltd

Mr Robert Lippiatt SPC Consulting Group

Dr George Margelis Industry Development Manager Digital Health Group Intel Australia

Ms Robin McKenzie Principal Consultant Information Integrity Solutions

Mr Geoff Michels The Michels Group

Mr John Rashleigh Managing Director, Navy Health

Mr Daniel Rippingill General Manager, eBusiness Medibank Private



PRESENTATION

Prof Michael Georgeff summarised his paper "E-Health and the Transformation of Healthcare" commissioned by the Australian Centre for Health Research.

Prevention, management and cost of chronic disease are a major issue in contemporary health care. Its physical toll on patients, financial costs to the health care system and detrimental effects on economic production run into billions of dollars. Chronic disease care tends to be carried out in unconnected 'silos', but evidence based care plans managed by teams of providers have proved effective in minimising hospital stays and maximising patient quality of life.

The Federal Government provides financial incentives to general practitioners and others to create and maintain 'Extended Primary Care' plans, but only 14% of chronic patients are on such a scheme and only 1% are tracked and reviewed.

IT has revolutionised data tracking in most industries, but has had little impact in health care. Although medicine is a knowledge-based sector, its focus on acute care has seen IT concentrated on the management of physical **resources.** Sharing patient information within the care team and fully utilising the expertise and experience of the medical specialists involved can be most effectively promoted with new forms of IT.

Health care is highly heterogeneous, with thousands of autonomous entities delivering different services,

and future IT systems should be designed to cope with this reality, rather than try to centralise the system. Companies such as Amazon and P2P protocols offer examples of solutions in atomised, autonomous knowledge infrastructures. Conventional attempts to mould the traditional cottage industry of healthcare into an industrial, Fordist factory model are already outdated in today's IT attuned society.

The knowledge economy is characterised by small to medium enterprises competing through innovation and adaptability. Successful computer systems evolve quickly in response to the demands placed upon them, while planned, monolithic, centralised systems soon ossify into obsolescence.

Connectivity is vital. Businesses gained a competitive advantage in the early days of IT from large systems that could process more information than their competitors, but flexibility and **competitiveness** are now the keys to success. Skype, recently sold for \$3 billion, succeeded because it aimed to connect as many people as possible around the world for free. It was not the product of an investment calculation, but assumed that opportunities for profit would emerge when three quarters of the world was connected. When information. accessible to all, is flowing freely, innovative businesses will emerge to exploit the opportunities created.

The common insistence on centralised, well planned systems when introducing IT into health care fails to appreciate that the internet's success is due to, not despite, its lack of standardisation.

The Internet offered connectivity and access to information without concern for content. Its protocols allow interoperability and easy access for all, providing the "roads and standard gauge railways" and allowing users to generate their own traffic. Common standards evolved through use, rather than being agreed upon and imposed from the beginning.

Prof Georgeff believed e-health would thrive with the creation of **interconnectivity**, with both governments and the private sector providing the core infrastructure. This open framework would allow consumers, providers and private firms opportunities to create their own innovative solutions and incrementally offer value. The Internet allows multiple vendors to quickly connect to their markets, while the health industry's centralised 'siloed' structure hampers small and medium enterprises in their marketing.

The health system is unique in today's business environment in still handling most of its transactions on paper, rather than electronically. People accustomed to dealing with computer systems in every other facet of commerce still expect health documents to be hand delivered. Prof Georgeff argued that it was irrelevant whether a hospital's discharge summary initially met some arbitrary state or national standard when the imperative was for information to begin flowing electronically.

Connectivity would allow properly structured procedures for referrals, pathology reports and discharge summaries to develop as needed. Prof Georgeff saw no need to mandate content standards, insist on certain software applications or compile complete e-health records at the start, or to have a centralised data repository. Prescriptions and health assessments can also be tracked and carried out online. MBS and PBS information from Medicare has not yet been made available online, preventing individuals from electronically analyzing and sharing important health information. Such innovations create an opportunity for a company to produce the "MYOB" of healthcare - software that allows people to organise and track their health data, which could then be made available to a GP or hospital when needed.

The information generated by remote home monitoring (e.g. patients measuring their own status) is currently held in traditional 'silos', but smart systems could link this information with other data to help patients adhere to their care plans.

Once the information is flowing, companies can plug into the network and start offering useful services. A referrals management company could ensure that referrals were delivered to the specialist, see appointments were made and that the patient attended them and ensure a report was sent back to the GP. Other companies could offer chronic disease management or adherence support services.

This is an incremental, decentralised model envisioning the evolution of e-health through small companies offering specific services, rather than a centralised, state imposed 'big bang' solution. The costs of the Internet as a whole to the government were minor, the risk was taken by the private sector and e-health could follow a similar model.

Health care is not a conventional market due to the disconnect between who pays for services and who benefits from them. Incentives are therefore needed to encourage desired behaviour. Extended primary care payments will encourage best practice by providing an incentive to maintain patients on care plans. GPs could organise such plans themselves or outsource their organisation. Paying for a practice nurse may be less effective than offering an incentive for a service to be provided in a more flexible and efficient manner.



DISCUSSION

The key points made during the roundtable discussion by each workshop participant are outlined below.

Chairman Neil Batt agreed that the health industry remains primitive in terms of its IT development and that enormous financial and health benefits could be gained from improvements in the future.

Mr Philip Davies (Department of Health & Ageing) observed that, although many people advocate such development, there appears to be an inability to turn good intentions into reality. He said the Federal Government concurred with Prof. Georgeff's rejection of 'big bang' solutions in favour of offering incentives to encourage market based solutions. Since 1999 the Government has spent more than \$740 million to foster ehealth in the general practice base, an average of \$40,000 per full-time equivalent GP. As a result, 94% of GPs now have computers and 78% have broadband connectivity, a fivefold increase over 8 years. The focus has now switched to providing incentives, standards and tackling regulatory barriers.

Unlike the British National Health System, the Australian health sector is very diverse, with Canberra having comparatively little power to enforce centralised decision making. This diversity, and the creativity it offers, should be seen as empowering new solutions. The health system exhibits a mix of public and private payment and delivery. 70% of the funding comes from 'public funds', yet

the majority of services are delivered by independent businesses over which government has little authority. The Government regulates the sector, finances some of it, but has direct control and ownership of very little.

The Government is looking to invest in additional MBS items for tele-health services and the development of secure electronic health record repositories offering universal access. In the future tax-incentive payments or even Medicare benefit payments may be made dependent on the use of appropriate electronic support systems to encourage best practice.

Mr Davies noted that there is nothing to stop entrepreneurs creating a 'Medi-Skype' but that there is no demand for it. Skype is popular because it is free, convenient and offers a valuable service while health care providers have not yet been convinced that the adoption of e-health solutions is justified by the benefits that would accrue to them. E-health would undoubtedly improve the quality of the system, but its micro-economics depend on individual GPs and other stakeholders thinking it worth their while to transmit information electronically. The problem in encouraging such systems lies in economics, rather than computer technology.

MBS and PBS are developing online, but most MBS claims are 'clinically void' and so cannot form a basis for Electronic Health Records. The Northern Territories are developing EHR and 12,000 people now have comprehensive and widely accessible electronic health records there. The Government has given \$5 million to ensure that the child health checks currently underway are recorded electronically. Australia is ahead of the UK and the USA in some aspects of e-health provision.

The Internet grew 'spontaneously' only because it offered people value in return for the costs they incurred. Mr Davies believed that e-health would only take off when it offers similar returns. The Internet has protocols to ensure easy connectivity; NeHTA is developing standards in health to ensure a common language between professionals and effective identity management.

E-health requires thousands of independent GPs, pathology laboratories, pharmacists, radiologists to decide they want it to happen. It has to become something people want to use, rather than something they are compelled to employ. Mr Davies restated the problem of the benefits accruing in a different place to where the costs are incurred, noting that it is the patients who benefit from a computerised system, rather than the general practitioner who spends the money on creating it. The system must accordingly offer incentives by providing higher rebates for good service – or no rebate for poor service.

Dr Stan Goldstein (MBF) agreed that incremental solutions would emerge, but advocated the creation of a single **repository for data**, rather than every government, health fund and GP maintaining their own data store isolated from everyone else's.

Mr Ian Carmody (NeHTA) characterised the Australian health care system as "devoid of market and full of failure" and observed that providers of software solutions found it hard to identify where money could be made in e-health. The traditional impulse in the health system was to hoard knowledge rather than share it.

NeHTA's role in setting standards and building the 'rudimentary building blocks' of a national electronic health system should aim to facilitate the free flow of information between established 'silos'. NeHTA aims to build a bare minimum of infrastructure to allow secure medical information sharing. Secure messaging, user authentication and unique healthcare **identifiers** will ensure that information cannot leak to unauthorised users.

A speaker noted that individuals should have the right to access their own records and grant access to specified individuals.

The idea of patients having USB keys to hold their information, which could be updated by any healthcare provider, was raised. One speaker opined that e-health should increase connectivity between different health care providers, rather than merely offer a new technology for holding patient records.

It was observed that banks encouraged users to patronise electronic systems, rather than physical branches, by charging customers for over the counter transactions. Banking systems are fast, reliable and secure and, though different banks use different software, the systems are compatible and can communicate with each other. Financial information is not held in one central repository, but can be accessed as needed from any **point.** Banks did not wait to build a single perfect system, but developed their own methods which constantly evolved and improved in the light of feedback and practical experience.

Mr Patrick Callioni (AGIMO) believed it remained unclear who the e-health customer was - the consumer or the provider - and that the value proposition was much clearer in the banking industry.

Mr Daniel Rippingill (Medibank Private) emphasised the importance of member care in the private insurance sector. He said that much of the information in the current system was duplicated and that while the information participants needed and the technology required to handle it existed, the key to creating an effective system combining PBS, MBS and private health data lay in identity verification. Members of private funds could be asked to opt in or out of such a system.

Mr Rippingill said the industry wanted to see incentives to ensure that GPs and other providers would use such a system. The instant transfer of information, by offering transactional efficiency, a hook for customer loyalty and improvements in disease management all create a business case for e-health in the private insurance sector.

Dr Peter Garcia-Webb (AMA Expert Advisory Committee on Information Technology) noted that early banking systems were only compatible with certain versions of MS Windows and only gradually evolved to encompass other browsers and platforms. He concurred that the economics of e-health differed to those in manufacturing and that positive and negative incentives were required to encourage doctors to use it.

He said the AMA welcomed the introduction of e-health and recognise its potential benefits, but were concerned about who would pay for its **implementation.** An integrated system of private messaging would be particularly beneficial in pathology.

Mr Chris Hayward (General Practice Divisions, Victoria) said Victorian GPs were highly connected, but were hampered in their referrals and discharges by 'electronic islands' of incompatible platforms and standards. GPs tend to want systems which require "no time, no cost and no effort", and need a clear business and clinical value **proposition** to invest time and money in joining new schemes.

Dr George Margelis (Intel Digital Health) said major computer firms such as Intel, Cisco, Microsoft and IBM co-operated to set technical standards for new technology (e.g. USB or Wi-Fi) whereas in e-health smaller firms tended to create their own software in isolation and expect everyone else to adapt to it.

Mr Philip Davies agreed that Bluetooth or Wi-Fi had industry-wide standards, while in Australia the market had failed to set such parameters, forcing the Government though NeHTA to do it.

A speaker noted the lack of a 'single button solution' for the sharing of medical information.

Another participant revealed that many specialists lack computers and that, although GPs receive pathology reports electronically, they have to run numerous software packages to handle information from different providers. He advocated a secure messaging system to alleviate this problem, but noted that while banks brought millions of customers to the table when discussing IT compatibility, few health care providers had such a client base.

Another speaker said the problem should be seen from the perspective of the users and customers, rather than technologists. Doctors have full waiting rooms and patients are able to swipe their card and get service, therefore neither has an incentive to demand improvements to the system.

The Internet originated in the desire of a few academics at various universities to contact each other. Technology cannot be imposed on those who see no need for it in solving their personal problems. Clinicians tend to be bored by IT discussions and will only adopt them if they clearly solve clinical problems. Mr Peter Brockhoff (Citrix Systems) said much identifiable patient data, demographic information and details of the quality of care was gathered in New Zealand, although it was not always used effectively. He pointed to the success of local diabetes teams in extracting value from this aggregate information and communicating back to their local communities.

Such information, gathered during patient consultations, helps the Ministry of Health negotiate targets with New Zealand's 21 district health boards. It results in better quality advice to patients and ensures GPs and nurses can review their actions.

Mr Brockhoff outlined New Zealand Government's investment in health IT and enumerated the number of data points noted by district health boards (10), primary health care providers (30) and, including demographic and socioeconomic data, the government (80).

He acknowledged that merely because data was collected in primary care, it did not follow that the population's health was attributable to it, but discussed how the diabetes problems of Pacific Islanders and Maoris had been tackled through a more comprehensive system of data collection.

Mr Patrick Callioni said secure messaging systems were already operating and that perhaps 80% of the technology e-health needed already existed. He believed that if software vendors were given a fraction of the money already spent on HealthConnect and NeHTA, then a common standard would soon be developed. He too advocated abandoning the 'creationist' model and adopting an evolutionary approach to developing an effective ehealth system.

Mr Philip Davies favoured giving GPs money to spend on the software they preferred as he believed governments to be 'really bad at backing winners'.

Mr Ken Douglas (Department of Veterans' Affairs) believed that previous payments have failed to produce the desired value, and was prepared to consider funding medical software providers. He wondered why so little of the money given to health care practitioners for e-health schemes had actually been spent with software industry. He said the industry was too focused on cost, rather than value.

Mr John Rashleigh (Navy Health) cautioned that a decade-long push by health funds to actively pursue electronic billing has failed to eliminate payment by cheque, despite its obvious advantages. Regardless of incentives to abandon paper billing, many people prefer to have a paper bill and prove resistant to change.

Prof Bruce Barraclough (e-Health Research Centre) characterised the relationship between patient and doctor as one of hope and trust, but acknowledged this was driven by the business imperatives of time and money. He said the necessary software, hardware and secure messaging systems already existed and would be embraced when they answered the hope/trust and time/money equations.

He noted that, although healthcare is complex, most clinicians treat a fairly narrow range of disorders and, given their established expertise, relatively seldom consult outside sources of information.

Mr Robert Lippiatt (SPC Consulting Group) discussed clinicians' lack of interest in IT and the need to develop new business processes to handle changing demands in the health system. He outlined a coordinated care scheme in Brisbane North.

involving near time information sharing among care teams, which aim to reduce admissions and stays in hospitals and aged care institutions. The scheme suggested that clinicians accept such systems if they improve the quality of care; they also gain a sense of ownership if made responsible for the quality of information put into the system. They did not ask for extra payments as they saw improving patient care as their job.

Technology accounted for only 10-15% of the total cost of the project. The rest of the money was spent on changing management processes in the GP's practice and other 'communities of interest'.

Mr Lippiatt found that only four pieces of information were important to every clinical provider, with (for chronic care patients) the details of their care plans and identities of those responsible for them also being required. It was not necessary to share large volumes of data about individuals as a matter of course. Many GPs used 'Medical Director' on their desktops as an aid to memory without any intention of sharing that information.

He noted that studies were customarily given grant funding and abandoned when that funding ran out. The projects produced positive reports but no lasting progress. A sustainable funding model relies on the provision of a clinical service, rather than a particular delivery method or item of technology.

A further project has generated unprecedented cooperation between public and private hospitals and GPs in Tasmania. This experience will generate a 'user specification' to give software designers precise goals to attain. The market for such products will be sustainable because all parties share a business imperative to make it work. It will be a service model in which investors, be they governments or private individuals, will buy clinical services.

The imperative is to support clinical practise with technology being a means to an end, not the end in itself. Innovation around Australia needs to be recognised and encouraged and effective new solutions shared quickly and effectively.

Mr Lippiatt reiterated his belief that e-health. like the internet, would blossom from a small body of people creating solutions for themselves and that there was no silver bullet to provide simple solutions for all.

Prof Bruce Barraclough warned that delays were inevitable in developing IT systems. He said an aging population would demand innovative methods to access their GP and that an alternative method using call centres was underway in Sydney. He noted the high direct costs of EHR and agreed that a process by which the government 'picks winners' locks practise into a particular system that may not prove to be the best.

The previously inefficient Veteran's Health Administration in the USA responded to imminent shutdown by embracing e-health successfully. In Australia, problems with obtaining effective discharge summaries from hospitals have resulted in the Government effectively paying twice for a service which still disappoints. Prof Barraclough, too, favoured an organic, evolutionary approach, in which small projects grew and shared data, rather than a 'one size fits all' approach imposed from above by Government.

The Hon. Neil Batt concurred with the evolutionary, piecemeal market approach, pointing out that the experience of the biggest public system in the world – The CMS in the USA - showed that changes of just 2-3% could effectively generate reform.

He noted the Rand Report's finding that only half of acute care was appropriate due to problems of overuse, under-use and misuse. E-health data management could identify where the problems lay and therefore suggest strategies for tackling them.

Ms Kate Carnell (Australian General Practice Network) agreed that change management, rather than technology, was the core issue. She explained how the 'collaborative project' had shown GPs that better information management could improve patient care in a focussed manner. The Commonwealth has invested \$16 million into such 'collaborates' over the last three years, involving 600 doctors at present with another 800 coming on board.

GPs invariably assume they are following best practice, but studies show only 50% are doing so. GPs joining the collaboratives assumed they were correctly managing diabetes, for example, but data showing how many patients were on the diabetic register or had HBA 1C levels demonstrated this was not the case. GPs initially blamed mistakes in data handling for the discrepancy, but when showed it was reliable, promptly changed their patient management.

The sharing of patient records is vital and requires a single, unique patient identifier which can be used by all programmes. Ms Carnell lamented the lack of such an identifier in the new Access Card.

Neil Batt agreed that clinicians will amend their practice when faced with data proving the need for change. The Western Australian Audit of Surgical Mortality showed that 73% of surgeons did so after one year of receiving relevant information.

A speaker commented on funding models in Tasmania, noting that each partner in the collaborative project was required to fund their own changes, or apply for grants to do so themselves, rather than being given money to do so by the project.

In order to produce electronic discharge summaries, Calvary Hospital in Tasmania had to change not only their computer system, but the business practices of every ward on every campus. This change

management comprised 80% of the cost and was absorbed by the hospital, rather than the Department of Health and Aging. The speaker wondered where funding to make similar changes 'in the spaces between the parties' would come from.

Prof Michael Georgeff highlighted the importance of enablers to fund such activity and said Government incentives were vital in driving change. He acknowledged the role of NeHTA in creating the necessary technological 'roadways' and noted that individual projects still needed to be linked in the same manner as DARPA, the Defense Advanced Research Projects Agency in the USA, insisted that all its suppliers used a common system.

Change management was not insuperable as people are willing to change practice once its benefits are clearly demonstrated. The music industry is radically changing its distribution strategy in the face of new technology and consumer demands without any government input.

Dr Peter Garcia-Webb pointed out that identifying a person by a unique number was far more efficient than using a name which could be written in many different ways, would change over time and would be shared by others. Privacy concerns currently hamstring its adoption, but chronic disease sufferers would willingly adopt a unique number to ease their passage through the maze of health care provision, and it would quickly be accepted by the pathology sector. Prof Garcia-Webb advocated their early adoption.

Chairman Neil Batt concluded the session by appealing for suggestions for further action from participants via e-mail. The possibility of funding a study was raised, as existing American investigations, such as the Rand Study, focus on the particular needs of the American medical system. The report would focus on the incentives needed to encourage market based, demand led solutions to e-health provision. Mr Batt closed the workshop by thanking participants for their attendance and input.

