

## **Assistive Technologies and IT for managing health and disease in ageing communities - Socio-economic, public health and policy implications**

**Forum held at the Australian War Memorial in Canberra on 26 October 2006**

### **Welcome address by the Conference Convenors**

Professor Branko Celler thanked all for coming to the forum and noted that the initiative had developed from the Building Ageing Research Capacity Policy and Practice Colloquium in July. Professor Celler thanked the sponsors for their support of the forum and Forum Management Committee and the ARC/NHMRC Research Network in Ageing Well for organising the day.

### **Official opening of the forum**

#### **David de Carvalho, Chief of Staff, Office of Senator the Hon Santo Santoro, Federal Minister for Ageing**

David de Carvalho acknowledged the participants including Deidre Sorenson from the UK and Senator the Hon Jan McLucas, Shadow Minister for Ageing, Disabilities and Carers. David passed on Minister Santoro's apologies for being unable to attend and noted that he was looking forwards to the outcomes of the day.

David outlined the need to recognise and be prepared for demographic change and noted that technology has a natural convergence with health and ageing as the demographic and technological revolutions are happening in parallel.

David reported on a recent address by Minister Santoro where he noted that innovative clinical IT approaches were being assessed and that they had the potential to improve care and decision making and reduce errors. The Minister's address also noted that the focus on home and community based care was increasing with possibilities such as assistive self-care which offers better care and outcomes at a lower cost.

David noted that there were two caveats on the use of assistive technology:

- a) The technology should fit the user and not vice versa so we need to consider the psychosocial and spiritual factors that facilitate human connection
- b) We need to ensure that the benefits are not limited to those able to afford them and therefore prevent a digital divide

### **Setting the healthcare agenda – The need for change**

#### **Associate Professor Marc Budge, Australian National University**

Associate Professor Budge noted that health care is complex and split across sectors and that the rate of change of the ageing of the population is accelerating and will peak in 2012 so change is required now to meet this need.

Paradigm Shifts: Marc outlined a number of paradigm shifts that have taken place in the use of assistive technology:

- a) Connecting health to living with information technology (IT) and information management (IM) giving a platform to connect health care provision, housing, security, transport.
- b) The move from a medical approach to health to an assessment/protection based approach

c) The shift from use in the university/hospital setting to the home

The eventual outcome of these paradigm shifts in terms of the merging of technology and medicine and how acceptable it will be to the public needs to be considered.

**Challenges:** In addition to these changes, Marc also outlined a number of challenges to be addressed:

- Health care is split across sectors (preventative, acute, chronic), domains (clinical, research, education) and location (home, community, institutions)
- Tension between desire to age in place and provision of quality care
- The outcomes of the health system are visible but the infrastructure, standards, evaluative procedures, stakeholder engagement etc are not. Integrated models of care incorporating business, consumer and financial aspects are need.

**Responses:** This is the object of the discussion today and key potential partners from aged care, IT/IM, research, policy and non-government organisations have been invited to participate in the discussion.

**Way Forward:** We need to work on how to connect health, ageing and technology and act now to develop solutions for today that will address the needs of the future.

### **Health Care service delivery models – Economic and HR Implications**

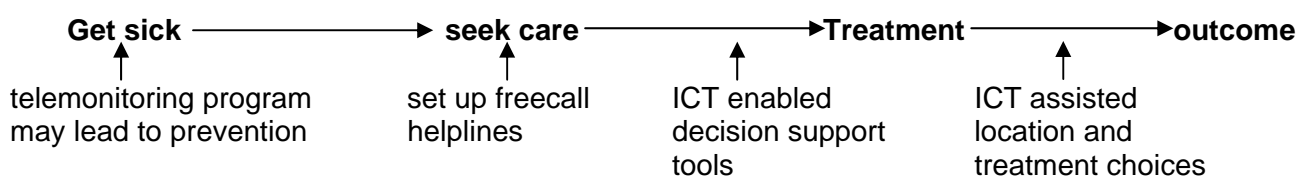
**Dr Stephen Duckett, Executive Director, Reform and Development Division, Queensland Health**

Dr Stephen Duckett provided the following arguments against the impending “ageing crisis:

- Demographic ageing is slow so there is time to adapt services and policy
- Policy makers are aware of the issues and can respond accordingly
- Most economic studies to date ignore the net benefit of the contribution of older people to our community

Stephen argued that ageing should not be seen as an impending crisis but something we can prepare for. We need to keep in perspective the fact that the entire population is changing and that future 75 year olds may be healthier than current ones and therefore require fewer services.

Arguments of impending crisis aside, there will be a greater proportion of older people, an increase in demand for services and a reduction in the tax base so there are issues that need to be addressed. Technology can provide solutions at multiple points across the spectrum of care, as depicted below:



In particular, some of the possible technological improvements include:

- ICT supported self-managements
- Telemedicine can change the site of care and help avoid local monopolies e.g. by allowing outsourcing of radiological reporting in rural areas where lack of competition leads to increases in pricing
- Telecoaching services – including monitoring and prevention
- Length of stay can be reduced by online geriatric assessment and better discharge planning
- Home support can be improved

So there are issues that we need to address and technology can play a role in this.

### **Collaborative Services Networks – A new paradigm for managing and using health data?**

**Tim Hibberd – Smart Internet CRC**

Tim Hibberd outlined the search to create mass-scale IM solutions to deal with increasing levels of information that are beyond the human capacity to integrate and use. Health care data has been selected as the test case for a new generic service-centred architecture that will be applicable to other areas in the future. Five key problems have been identified:

- 1) Demand for collaborative decision making and for privacy
- 2) Disconnected applications (between different service providers etc)
- 3) Disconnected voice and data – recording only the text can lead to information loss
- 4) Information flow – who to send to? whether there should be a central data repository, ethical issues etc
- 5) Health practitioner overload – the system must be simple with the exceptions flagged for review rather than expecting the user to monitor the entire flow of information.

A Collaborative Services Network that addresses these issues is now being built with a test centre expected to go live in June 2007. It will be piloted on homebased chronic aged care.

### **Telecare and assistive aged care technologies in Australia – An overview** **Prof. Branko Celler, University of New South Wales**

Professor Celler outlined the huge range of products considered to be assistive technologies including orthotic frames, assistive devices, smart wheelchairs, dialysis etc. The discussion today will focus on IT intensive devices incorporated into clinical models of care.

There aren't many centres focused directly on this area in Australia with key centres at UNSW, UTS, Monash and Flinders and many other centres looking at the specific components including software, IT, human factors etc.

Branko outlined developments at the Biomedical Systems Laboratory (BSL) which in 1992 began to focus on aged care and chronic disease. BSL combines medicine, IT and engineering and in 2003 was the first to receive significant ARC funding. The projects undertaken by the BSL were discussed including smart homes, home-based telecare, ambulatory falls monitors etc. The value of the person having access to their own data as a motivator for behaviour change was highlighted.

The UK has identified the preventative role of technology in health care and has invested 80 million pounds over 20 years. In Australia, the funding is currently less than that in the US and UK and the technological systems being trialed are at the lower end of the spectrum (e.g. based on alarm components). Australia does, however, have a more advanced community care system than overseas.

There is now a move away from research to commercialization and deployment with Medicare Pty Ltd emerging as the commercial deployment of BSL and has been approved by the Therapeutic Goods Administration and been the recipient of several grants.

### **Facilitated discussion with panel of morning speakers**

**Hal Kendig - Question**– NSW Health is looking at how to support people at home. What are the technological options for this?

**Stephen Duckett** – this will be consumer-driven – as the market grows so will the solutions.

**Branko Celler** – knowledge and awareness is patchy so we need education on available options. The US is more market based than Australia as 75% of healthcare costs here are covered by the government. However, consumers will increasingly drive the market in Australia.

**Tim Hibberd** – users prefer to learn as little as possible so any changes should be invisible.

**Stephen Duckett** – should follow a policy design principle where the costs and benefits fall in the same place. Need to consider priorities and who pays rather than pumping more money into existing systems.

**Marc Budge** – there can be tension between commercially driven priorities and the fact that care is deployed by the health sector.

**Judith Healy (Australian National University) - Question** – what incentives are there to get health professionals to use new systems?

**Branko Celler** – hospitals are complicated environments. Uptake will be easier in the homes. A generational change will be needed for full uptake of technological solutions driven by well thought out strategy

**Marc Budge - Question** – Are there any other ideas on levers to encourage uptake of technology?

**Jane Bringolf ILC NSW** – people often don't see the value until after an event e.g. a patient won't use a walking frame until after they fall and break hip. Equipment loan schemes can be a barrier as government is the major customer and drives the market.

In addition, the term “assistive technology” goes much wider than is used in this forum and the “assistive” label may marginalise technological solutions which can have wider uses.

**Comment from the floor** – we need to be careful of negative connotations, e.g. pedometers are now well taken up as are personal blood pressure monitors. Can take advantage of health conscious consumers to drive the market rather than focusing on chronic disease.

**Tim Hibberd** – Invisibility is the key. We could put the recorders in the shoes, watches etc so that the recording is duplicated. The focus is currently on chronic disease in order to build the model but once developed it will be widened so that the possible uses increase and the costs decrease.

**Branko Celler** – data is useless by itself. What is important is knowledge and its implication for services.

**Audience Comment** – instead of think tanks on what we can and can't do we need to do something now. The technology is here so we need funding to deploy it

**Allan Taylor (Queensland Health) - Comment** – We are focusing on the wrong end by focusing on health care provision. We should look at the individual and identify the key contact points like chemists who are the intermediaries for a lot of assistive technologies. To increase uptake the technology needs to be at each contact point with the health care system.

**Tim Hibberd** – the technology needs to be ubiquitous. The difficulty is that it isn't always obvious that a solution will work (e.g. the internet was seen as not viable) so need to identify the tipping point that all agree on.

**Stephen Duckett** – the popularity of natural remedies in the pharmaceutical market shows that non-subsidised products can be very popular with the market. Can also see what gaps there are in the government-funded system that technology can fill e.g. Queensland Health is underfunded by %15 per head compared to the rest of the country so any cost savings that technology can make will be well received.

**Audience Comment** – we are falling for common myths about technology in believing that it will save money and time. There are also many technologies that aren't accessible by those that need them and there are service delivery issues re rolling out the technology. Technological progress has led to an increase in the healthcare budget and resultant cuts in other areas (e.g. increased use of scans in order to minimise legal liability). In addition, there is a barrage of data that we can't deal with.

**Stephen Duckett** – the litigation crisis is created by the insurance industry and relates to a small percentage of all adverse events. It is the adverse events themselves which are the real problem and if we could address them using technological means we could save \$2,000,000 per year.

**Tim Hibberd** – Networked Healthcare has the issue of accrued liability. If the IT system fails to identify the trigger then the vendor will be liable and, as a bi technology company, will have the means to absorb the cost.

**Locally Managed Care – IT tools and issues.**

**Prof. Anthony Maeder, Research Director, and Mr. Gary Morgan, CEO  
e-Health Research Centre, CSIRO ICT Centre**

Professor Maeder noted that there is no accepted definition of e-Health however any definition should incorporate state of mind and way of thinking. The CSIRO ICT Centre has three domains: 1) health data; 2) locally managed care; and 3) medical imaging. The research is directed by the needs of the health system user and by policy directives.

Locally Managed Care maps readily onto assistive technologies and is part of the move to decentralise care. There are ongoing projects to do with aged care at home, surgical recovery and cohort effects. The ICT Centre is attempting to systematise the provision of care with broad flexible patient-centred ICT platforms with three stages:

Data gathering	“Input” stage
Data aggregation	“process” stage
Data interaction and feedback	“output” stage

The CSIRO ICT centre is looking at different modes of service delivery including the community mode where solutions for the individual are rolled out to the community to allow the monitoring of care plans automatically. This approach could be used to promote healthy ageing across the life stages. They are also looking at the clinician mode via techniques such as remote interaction through telepresence/immersion such as the virtual critical care unit in Katoomba which is connected to the Nepean Hospital or the tactile glove which gives the practitioner tactile cues during a remote assessment of a patient.

### **The USA perspective - from the Center for Aging Services Technologies (CAST) Russell Bodoff, Executive Director, CAST - Presented by Dr George Margellis, Intel**

CAST is a US collaboration between health care, IT and universities which is now looking to extend internationally. They are looking to create a united voice to generate legislative change and increase awareness and have been successful in getting the last Whitehouse conference to focus on ageing as well as driving legislation to require the proper evaluation of technologies.

They are looking to develop a new caregiver model incorporating new technologies in the home in order to detect disease and monitor behaviour etc including setting up a data infrastructure.

### **Creating international interoperability in telecare – the Continua Alliance David Whitlinger, Executive Director, Continua Alliance - Presented by Dr George Margellis, Intel**

In June 2006 key health and IT companies agreed to create an industry alliance to deal with the rise of chronic conditions and the rapid ageing of the population. The aim is to set up a system of interoperable telehealth systems to empower individuals. The following three uses cases have been set up: 1) health and wellness; 2) disease management; and 3) elderly monitoring. These three systems use the same devices (scales, mobile phones, pedometers etc).

The alliance is working to set up collaboration guidelines, certification standards for interoperability, working with the regulatory authorities, and developing a payment model.

### **The UK perspective – Closer to home – Shifting care in England Ms. Deidre Sorensen, Head Health Insight, Policy and Strategy Directorate, Department of Health, UK**

Deidre Sorensen reported that there are 15 million people in the UK with long term conditions (LTCs) resulting in chronic care needs which equates to 60% of bed days and two thirds of all admissions. LTCs are unevenly distributed by gender, SES and age and 25% of sufferers have 3 or more LTCs. 50% of all admissions relate to just 2.7% of conditions. This is driving the need to shift away from the reactive acute care system to a predictive care approach.

Assistive technologies are part of the NHS's vision in the 2005 white paper and there has been an £80 million grant for telecare to help promote independent living at home. This funding has been provided to local councils to work on infrastructure, sensors, hiring of support staff etc. The Integrative Care and Assistive Technology (ICAT) scheme is also funding pilots looking at telehealth and telecare.

Deidre reiterated the comments of earlier speakers that a generational change may be required before technology is fully taken up within the healthcare system and that the focus needs to be on developing sophisticated devices that are simple for the end user to use.

### **Facilitated discussion with panel of morning speakers**

**Ray Jarvis (Monash) - Comment** – Australia was involved in intelligent manufacturing systems with collaboration between competitors and participants tended to take what they didn't want and scavenge what they did so these sorts of collaborations can be problematic

**George Margellis** – is a major issue that CAST and Continua are working on. Needs the more powerful companies to drive it.

**Branko Celler** – large companies are good at technology but little depth of knowledge on how to embed into the health system so the collaboration helps to develop solutions rather than just technology.

**Lloyd Walker (NovitaTech) - Question** – many people want a hand in the policy pie at the government level. What prompted the UK to take a holistic view and provide funding without ringfencing it and will it be evaluated?

**Deidre Sorensen** – they recognised that it is not possible to prescribe local solutions at the national level. All councils are at different points in their development so can't prescribe it. There will be evaluation of the outcomes this year and next.

**Hal Kendig - Question** – the Network is here because it is interested in useful research that can make a difference. Can each of you say something about the research dimension and the evaluation?

**Deidre Sorensen** – there is a lot of research and evaluation. There are many relationships between departments and with universities. Every pilot will be evaluated independently in terms of the objectives and metrics. Challenge is to set the right metrics, ask the right questions e.g. measuring patient experience as an outcome measure.

**George Margellis** – Intel collaborates with Oregon Health and Science University, Berkeley on the clinical care model and others that is rigidly evaluated. In addition there is internal blue sky research that isn't well evaluated as it is pure R&D.

**Andrew Stuart (Department of Health and Ageing) Question - Question** – I am struck by the comparison between the US model of joining up private enterprise versus the UK model on what the NHS can do. Australia stands in the middle of this continuum. What are your comments on this?

**George Margellis** – US is private enterprise driven but 60% of care is paid for by the government. The private sector primes the pump and gets government interested as seen in the 200 pieces of legislation that have been introduced on technology in the last year.

**Deidre Sorensen** – the white paper looks at new methods of delivery. The government sets the outcome but the delivery is up to the local areas and will include the private sector. Still a challenge to maintain equity as is a national service.

**Branko Celler** – the £80 million grant clearly included industry development as a theme. There is also PASA.

**Deidre Sorensen** – The Purchasing and Supply Agency (PASA) is the procurement arm that provides a national system of pre-approved tenders for the local councils to select from.

**Jeffrey Soar (University of Southern Queensland) - Comment** – community consultation is usually problematic as the communities often provide judgmental feedback.

**Deidre Sorensen** – use many different methodologies. On the white paper did background research to provide an evidence base and develop the questions to be asked and engage the participants on the proper issue. Recorded the voting but also the dialogue and interpretations. Also consulted key stakeholders.

**Hung Nguyen (University of NSW) - Question** – is promoting better health possible? A 10 year plan on diabetes was set up 10 years ago and millions of dollars was spent and obesity is still rising? Also, there are many wonderful devices but the uptake is low because we need culture change and we need the technology to be more reliable (e.g. blue tooth etc).

**Deidre Sorensen** – we need everything to line up at the same time so need to work on the foundations as is being done in the NHS pilots so that the system is ready to make use of the technology. With regards to whether improving health is possible? Need to consider what the individual sees as health compared to health system or the government. Need to focus on improving their overall lives.

**George Margellis** – I agree, quality of life is the key factor as health profiles have changed over time. We are in the infancy re health technology. We need to do the R&D now. It will take iterations before we reach the solutions.

## **Research-Informed Policy and Industry Actions (Chair, Prof Hal Kendig, National Convenor, ARC/NHMRC Research Network in Ageing Well)**

**Hal Kendig** – we now turn to a research agenda to produce knowledge and can carry this action agenda forward. Speakers will provide their number one research priority and the audience will be given an opportunity to do the same.

**Stephen Duckett** – I am an economist with a warm and fluffy side. My soft question is “with what patients and for what interventions is the incremental cost effectiveness ratio of implementation the highest”? My hard line question would be solely on the perspective of Queensland Health.

**Branko Celler** – we need to consider how to get the most bang for your buck and organise the social and cultural structures to achieve success. Need to solve a real problem in a real environment. We know it works but need to prove it in our local patch.

**Marc Budge** – chronic disease management is largely centred in the community but there are boundaries of acceptability and take up. Need to look at what is more effective – total local care management or focusing on disease/care types. Need a cost effectiveness strategy.

**George Margellis** – the priority is exploring what this means to the life experience of the individual rather than bed days etc.

**Deidre Sorensen** – my focus at the department is on the end-user. Any new solution can't be superimposed and must be tailored to local area and the individual.

**Hal Kendig** - Now, we have two more brief statements starting with Brian Richards from DoHa with a policy perspective. That will be followed by a presentation by Katy Bridge on Social Factors

**Brian Richards** – Assistive Technologies can generate data that creates information that feeds into the decision making process and changes behaviour and outcomes. We need research on the environmental factors relating to sustainable behaviour change.

**Katy Bridge** – at the beginning of today David de Carvalho spoke about no digital divide and focusing on more than efficiency so we need to include social factors, i.e. relating this to the user. We know that the following issues are a problem: costs; dependability; usability, lack of knowledge; denial of need; aesthetics; stigmatisation etc.

Possible social factor research topics include: social and environment responses and requirements; impact on informal support and social networks; social influences and social cognition; impact on productivity and well being; vulnerability and resilience; attention, learning and memory; sensation and perception including physical layout of the device; emotion and motivation.

**Hal Kendig** – I will add one more point – what is the impact of the older person's identity, their sense of who they are, want to be, how they want to live their daily lives etc.

### **Floor opened for suggestions, comments and questions from the audience:**

**Ray Jarvis (Monash) - Comment** – there has been a massive amount of misinformation on healthy behaviours so we need clear, agreed and proven information.

**Hal Kendig** – the NHMRC has released guidelines on this.

**Katy Bridge** – information clearinghouses with academic review processes are critical as they provide ongoing sources of credible information of multiple types.

**Deidre Sorensen** – could have type marking of approved recommendations. The challenge is not to overload people and give them the right amount of information in the right form to get them to make own decision.

**Brian Richards** – Health Insite website provides validated information to the public.

**Greg Mundy (ACSA) - Comment** – there is a set of arguments to do with national productivity that are useful to a different audience. Technological advances that improve health will not reduce healthcare costs as there are always other people to replace them in the system. But improving health will release people or their carers back to the workforce and research on this sort of argument would pay off. An example is the CAST video of children being able to monitor ageing parents via videolinks etc.

**Branko Celler** – Good point. If you invest in health and safety you do get productivity returns.

**George Margellis** – the cost of health insurance and the possible uses of technology to improve this was a keynote at a recent conference.

**Brian Richards** – the statistics on demographic change focus on the increased chronic disease costs. Needs to acknowledge that the aged sector needs to continue to be productive and pay tax if we can sustain our standard of living. So productivity is a central argument.

**Hal Kendig** – half of all older people leaving the workforce do so because of health reasons – so a real priority area. The cost to productivity is greater than the cost to the health system

**Desleigh de Jong** – a lot of older people contribute in many ways and low tech solutions (ramps etc) can facilitate this.

**Hal Kendig - Question** – this raises the question of what is technology? As well as high tech there are adjustments to the physical environment, aids etc. Is this part of our technology agendas?

**George Margellis** – certainly hope so. Even the IT is often low tech like sensors etc.

**Branko Celler** – need a combination of low and high tech. Today the focus is on chronic disease management where a more high tech solution is required as they have complex comorbidities so need to be managed clinically, socially, culturally and physically. Whatever it takes.

**Jane Bringolf (ILC NSW) - Comment** – Desleigh de Jong's comment brings up the issue of paid and unpaid care work. The contribution of unpaid (care or volunteer work) is not measured. We need more unpaid carers to return to the workforce so something will need to take their place. Also, we have been talking about assistive technology and ageing but not disability which is another huge area that is funded by the state as compared to federal funding for aged care. Assistive technology has the possibility of bringing these two sides together. ILCs are working with NovitaTech and UWS and a social economist to develop research questions on monetary benefits to the individual and the economy of using assistive technology.

**Hal Kendig** – there is a whole research agenda on what enables a good idea to happen in a policy and service context and what enables it to be sustainable?

**Tanya Higgins (Department of Health and Ageing) - Question** – how do we encourage uptake? We need to look at the attitudes of older people who may not like these devices and may try to trick the sensors. There may be a generational change but we need to look at the barriers for the existing older people.

**Hal Kendig** – good discussion today on terminology and what words like patient, management, monitoring mean to different people, especially frail older people on the edge of further decline.

**Branko Celler** – when they commenced work on this in 1998 told that the older people wouldn't accept the technology but it turned out to be the doctors and nurses that resisted it. Technology can't be imposed on them and can't be onerous. If they engage with the technology and use it every day it can empower them and provide an educational benefit that motivates them. Found at the end of the trials they didn't want to give the device back as it gave them information on the effects of the medication, exercise etc.

**Hal Kendig** – would be good to have systematic research identifying what promotes uptake?

**Branko Celler** – hard to fund this type of research

**George Margellis** – need to view the technology as part of a complete collaborative healthcare solution. Let people know the possible outcomes e.g. "this could keep you out of the nursing home".

**Allan Taylor (Queensland Health) - Question** – I am working on assessing the value of IT projects so want to know if we can define a minimum dataset of health benefits that a technology project can provide. How do we evaluate the worth to the person and to the nation?

**Hal Kendig** – not evaluating the technology but its effectiveness as a tool to enable particular objectives of the project. There is no simple set of measures. Need understanding of the impacts based on the objectives of the intervention.

**Deidre Sorenson** – no universal measure but a clear definition of the outcomes for the health care system and across government (e.g. independence, control, health) is a good start and then can target the technology to meet these goals.

**Katy Bridge** – if we are paying \$105 for every EACH package and the addition of technology costs no more and has additional outcomes then it is a win.

**Branko Celler** – outcome measures are essential and it is unfortunate that there is never funding for adequate evaluation. The onus of proof for new health technologies is always higher than other procedures that are already generating huge costs within government. We do need more larger-scale research on outcomes and social factors but there is already a significant body of evidence of reductions in Emergency Department admissions and length of stay.

**Hal Kendig** – good government should recognise that any funding for a research program should incorporate evaluation as a research component.

**Lloyd Walker (NovitaTech) - Question** – there is little representation today from the people that will be effected by it. Can we involve older people and disabled people in the research process from the beginning?

**Hal Kendig** – hard to fund qualitative research

**George Margellis** – Intel Research Lab sent engineers to live in the homes of Alzheimer's patients for 2-3 weeks to see the real effects. Very expensive but valuable.

**Lloyd Walker** – colleagues in the US now have scholarships for people with disabilities and this should have positive outcomes

**Branko Celler** – opinion forums often include very naïve people so need to educate them first in order to get sensible answers.

**Deidre Sorensen** – the importance of individual input is growing within government but can't just ask them what they want. Get their input but also understand the underlying needs.

**Janet Laverick (Department of Human Services Victoria) - Comment** – research is needed on why uptake can be harder for the medical staff and what can be done to facilitate this.

**Katy Bridge** – there is recent on the internet suggesting you need a tipping point of 35% before something takes off and this can sometimes require generational change before the tipping point is reached.

**Deidre Sorenson** – we talk about the danger of seeing the end users as an homogenous group. The same can be said regarding dealing with medical professionals as they don't all behave the same way so we need to factor this in.

**Brian Richards** – this is all about human relationships – the wetware. Technology is value neutral. What needs evaluation is how it is employed.

**Nick Marlow (Northern Sydney and Central Coast Area Health Service) - Question** – How do we evaluate the ability to use AT and IT to move acute care dollar into the community?

**Branko Celler** – complex question – hard to identify where the benefit will go e.g. may reduce admissions per patient but not reduce number of beds so the patients improve but the bottom line doesn't. Need to identify the best bang for your buck through risk stratification and identify those that need it the most

**George Margellis** – hard to put a dollar value on improving quality of life.

**Hal Kendig** – was at a Chronic Aged and Community Health taskforce meeting this morning looking at older people living alone at risk. Contact with the healthcare system often starts at the Emergency department admission but there are always precursors where something preventative could have been done. Need to do it right in the local area.

**Derene Anderson (Greater Newcastle Cluster) Comment** – I am interested in going from research and policy into practice. In particular, there is poor integration between GP, community health, hospitals, and social support services. Need integration between these systems along the lines of the CAST video presentation.

**George Margellis** – issue of interoperability and a totally distributed system. Working towards this on a regional level in the US. Tim Hibberd looking at the same sort of concept. It is being done with banking etc so need political pressure to make it happen in the health setting.

**Marc Budge** – to influence clinicians need exposure, support and time. Local project on IT and Aged Care project it was found that 1/3 took up the web interface straight away, 1/3 skeptical but changed mind, final 1/3 very begrudgingly and took months to fully use it. So there is a gradual take up. Need to remember they need access to clinical information in seconds so needs to be timely and simple and a single system.

**Branko Celler** – automatic, super quick and nothing redundant.

**Lisa Hudson (Statewide Health Qld) - Comment** – I manage a team embedding telehealth across Queensland. To get clinician and consumer uptake is labour intensive and there is never money for evaluation so researchers won't come on board. Need a commitment from this forum to move forward on evaluation.

**Barbara Horner (Curtin University) Comment** – if theme of today is assistive and information technology and the intention is to build a research network then we need clarification on what we mean by AT and IT as the focus today has been mostly IT initiated and diagnostic and treatment focused and misses lots of other possibilities. We also need to clarify what we mean by ageing in the community as we have only talked about some communities. We have also possible confusion about what we mean by health and disease. In addition to set research questions we also need to focus on:

- 1) health professionals attitudes and practice
- 2) consumer attitudes and confidence and education in terms of uptake
- 3) healthcare models
- 4) social connection and community

So the Network has some points of clarification that they could help with.

**Suzanne Northcott (NHMRC) Comment** – The day has been fabulous and the Network is going extremely well. The general assumption of no money for evaluation is not correct. The last reviews of the NHMRC have pushed the idea of policy and practice focused research and the latest Health Services Research Program has funded a lot of research collaborations at the local level. The National Research Priorities have pushed the ARC and NHMRC together, and the Network is a product of this as well as the Ageing Well, Ageing Productively. The NHMRC is also funding the Social and Economic Fabric Program Grants that have just been announced looking at factors outside the health system that have an impact on the health status of people. So don't think of NHMRC as an organisation that only funds basic medical research. The National Institute of Clinical Studies has also been incorporated into the NHMRC and they will focus on how to make things happen at the clinician level.

Finally, the emphasis today on consumer involvement in research design is incredibly important. Indigenous health research has seen a lot of funding with little effect. Around 3.5 years ago the decision was made to double research funding for indigenous health and to set up the following assessment criteria for all research involving indigenous people:

- Involvement of the community in the research project (includes funding for this)
- Sustainable beyond the intervention
- Transferable between settings
- Involves feedback to the community afterwards.

If it is possible to do this with indigenous research it must be possible to do so here.

**Hal Kendig** – That is very encouraging. We invite the NHMRC to work with the Network to provide more information on these initiatives.

#### **Future Directions and closing of forum**

#### **Prof Hal Kendig, National Convenor, ARC/NHMRC Research Network in Ageing Well**

The ARC/NHMRC Network will continue with our partners in the funding agencies in government on initiatives like the recent Policy and Practice Colloquium where we joined in with key departments, lead by the Office for an Ageing Australia, which where the idea for today started to develop. This development will continue with the Building Ageing Research Capacity initiative. The Network now has an Ageing and Technology Special Interest Group, lead by Branko and Marc, which will further develop a research agenda in close collaboration with a range of interests including continued consumer-involvement, which is a topic we will be also taking up with the Network's Advisory Group. The Network does not do research, it facilitates and enables research, so we will advocate to funding agencies for more resources and to researchers to build better quality proposals connected to the people that make use of the information. Larger scale, multidisciplinary, internationally connected research that wouldn't happen otherwise.

Thank you to all of you for your input and you are invited to send in any suggestions to us now or when you receive the summary of today. We will look into setting up an email discussion forum.

Thank you to the speakers, especially Deidre who made the trip from the UK. Thanks also to the Management Committee. In addition to Branko and Marc there is Katy Bridge, Matthew Carroll, Elizabeth Ozanne, Jeffrey Soar and Kevin Vassarotti for the Office for an Ageing Australia. They have done the work to set up today and the great mix of people we have here. Finally, I would particularly like to thank Branko and Marc for their leadership in making this happen.