

# Aged Care IT in Australia – the Past, Present and Future

*Ping Yu*

*e-Health Research Centre, Faculty of Informatics, University of Wollongong*

## *Abstract*

*This paper reviews the development of aged care IT innovations in Australia in the past decade. It starts with a brief description of the establishment of the Aged Care eConnect project by the Commonwealth Department of Health and Ageing to promote aged care IT. This is followed by a snapshot of the aged care associations' and research groups' promotional activities. The roles of government, industry peak bodies, aged care providers, aged care IT application providers and researchers for the diffusion of aged care IT innovations are analysed.*

**Keywords:** *Aged care; IT development; electronic health record; past; present; future*

## **1 The past**

The development of e-health innovations in aged care in Australia suggests that transforming aged care services with the use of information technology (IT) requires the commitment of governmental policy, a demand from aged care providers for the technology and market incentives for the software vendors to supply the IT applications.

Aged Care eConnect is the original initiative by the Australian Government Commonwealth Department of Health and Ageing to develop eBusiness and the use of IT in the aged care sector. It was initiated in 2002. The projects included in this initiative are eBusiness and Clinical IT in Aged Care. They are designed to 'create an enabling environment to leverage the use of IT to improve efficiency, quality of services and care delivered to older Australians' [1].

In the eBusiness project, the department collaborated with Medicare Australia to deliver eBusiness capabilities that allow aged care services and the Aged Care Assessment Team to submit aged care forms for government reimbursement purpose electronically. The project has been continuously evolving with the most recent announcement published by Medicare Australia on its web site on 5 October 2010. A useful tool produced by the project for aged care organizations who are consider-

ing introducing IT is the Aged Care IT Implementation Kit.

The aim of the Clinical IT in Aged Care project is to examine ways to improve the quality of aged care delivery through the use of IT. The project was conducted in two phases. During the first phase, preliminary research was undertaken to identify a range of IT applications or tools used in aged care homes, as well as clinical IT applications or tools used in acute, primary and community-based settings that may be adapted for use in Australian aged care homes [1]. An interim report was published in July 2003 detailing the research findings.

During the second phase of the project, the department funded five product trial projects to examine the potential benefits of clinical IT applications in residential aged care. The purpose of the trials was to demonstrate the benefits and lessons learned in developing and introducing Clinical IT systems in Aged Care, not as an endorsement of the specific products.

The five funded projects provided various IT solutions for certain common healthcare and medical challenges facing the clients in aged care homes. The trial results were published by the department on its web site. A series of case studies was also published there. All of the projects claimed certain benefits in comparison with previous practice. They also revealed the challenges for

IT implementation in aged care settings.

Unfortunately that none of the selected projects trialled the implementation of an electronic health record system in aged care, which has become the predominant health IT application introduced and sustained in the majority of aged care provider organisations which have adopted IT innovation for care purposes. It appears that the government interpreted the 'quality of aged care delivery' to be more relevant to the management of health and medical challenges in residential aged care, rather than to the priority concern of aged care providers, which is to improve the processes of daily aged care and business efficiency. This means that there was a mismatch of the goal of the government clinical IT initiative and the needs of the aged care providers for IT support relevant to the level of their organisational IT development, thus undermines the impact of the government clinical trial on the fast adoption of electronic health record systems that has followed.

It also appears that the impartiality of the product evaluation report may not have been as rigorous as it should have been. Some of the case studies were submitted by the vendors in conjunction with the trial sites for the purpose of promoting their products. The claimed benefits were not evidence-based. 'Word of mouth' is a powerful communication channel in the aged care sector in Australia. When the negative results were portrayed as success, they undermined the credibility of the research evidence provided by the government.

Another important government initiative that has contributed significantly to the adoption of health IT in residential aged care is the one-off payment of \$1000 per resident by the Minister for the Ageing to help aged care providers take advantage of new technology, improve their business practices and increase staff training. Some big aged care organisations have centralised the resources to create economy of scale that has enabled them to introduce various IT initiatives. Given the disparity of economic status and capacity for IT in aged care organisations, the action of letting each provider organisation decide how to best use the money for the benefits of their business appears to be a sensible approach. A similar strategy has been taken by the Japanese government in promoting Health IT in the country [2].

The government has never endorsed any specific vendor product. The aged care sector has seen quite a number of aged care IT companies prosper since 2004. Aged Care Online is a company which provides directory services to consumers to help them search for and choose relevant community and residential aged care services. Their product provides an effective link between consumers and aged care provider organisations.

## 2 The present

The major driving force for IT adoption by aged care organisations in Australia is improving business efficiency and complying with funding and accreditation requirements. This has led to the successful penetration of electronic health record systems into more than half of the Commonwealth-funded residential aged care facilities, with the major development period being since 2005. In line with the fast growing ageing population, many aged care organisations have expanded their business. With increased economy of scale and the need for intra-organisational information sharing and communication, the adoption of aged care electronic record systems has been continuously growing. It is estimated that more than half of the residential aged care beds in Australia are managed by electronic record systems now. The three major electronic record provider companies are iCare, Leecare and Autumn Care.

Several community based special interest groups and the events they organize have contributed to the promotion of aged care IT in Australia. Examples include the Aged Care IT Conference organized by the Aged Care Special Interest Group in Health Informatics Society Australia and the Aged Care Association Australia's IT Road Show, which has evolved into the annual the ITAC Information Technology in Aged Care Conference since 2007. The latter has become the annual venue for IT vendors and aged care clients to meet and discuss business opportunities.

The funding model of aged care services in Australia contributes to the aged care providers' active uptake of IT innovations. The major financial funding of residential aged care services is from the Commonwealth Department of Health and Ageing. The amount to be funded needs to be justified by written evidence, accreditation agency also has specific standards for record keeping. As aged care organisations have to meet these funding and accreditation requirements, establishing systems and practices which do this and which facilitate the payment process is the biggest incentive for a residential aged care provider to introduce an electronic record system.

Despite many failed experiences in introducing IT innovations in the public health sector, the introduction of organisational IT systems in aged care has in general been more successful. As aged care organisations have to balance their books in order to remain viable, the accountability for return on investment has seen a strong organisational push for success in IT introduction. Many aged care organisations are experienced in providing hands-on training to the work force as a counter strategy to the high staff turnover in the sector. Nursing aids and

personal carers are used to taking job request from the managers. A culture of team work has contributed to the successful introduction of electronic record systems in many aged care organisations.

Abraham et al. [2] suggest that for the optimal use of IT to transforming health care, there is a need for leadership and IT knowledge in the medical communities. Incentives for providers; legislation regarding accountability, security, privacy and confidentiality; and the inclusion of stakeholders in solution development, and the creation of sustainable business models are also necessary. The current development of aged care IT in Australia supports their view.

Once the decision to introduce an IT system is made, leadership in the introduction of the system as well as in change management has been shown to be strong in aged care organisations. The successful introduction of electronic health record systems in aged care organisations suggests that only when an IT application fits with core business needs will it give adequate incentive for an aged care organisation to introduce the system. Currently the legislation in Australia in regard to accountability, security, privacy and confidentiality is yet to be developed. This is a big barrier for the integration of health records from different organisations. The aged care EHR systems were developed by vendors in close consultation with the aged care organizations so there is always stakeholder involvement in shaping the software. As mentioned, aged care EHR systems are an effective way to manage information and communication in the core business of aged care services. For this reason, the business model for continuing to use them is solid. All these favorable attributes contribute to the success of electronic records in aged care.

### 3 The future

The barrier to the further advancement of aged care IT remains the lack of organizational knowledge and experience in managing IT in the aged care sector together with a lack of solid evidence to prove the benefits of aged care IT applications. Small, stand-alone and rural facilities lack adequate resources and the capacity to initiate and set up IT systems.

After the introduction of basic electronic record systems, many aged care organisations are now starting or are in the process of introducing medication management systems. The vendor product that integrates both electronic record and medication management systems is highly sought after for its advantage of interchangeable data on the same platform, which facilitates usage of information and aged care workflow.

The next stage of development for many aged care organisations is the establishment of electronic clinical and care management systems in community care. In July 2011 Medicare Australia introduced telehealth in an initiative to address barriers for older people in nursing homes to access specialist medical services. The initiative includes payment based on telehealth consultations. This regulatory change will encourage health and aged care organisations to integrate telehealth into their healthcare services.

It is hoped that the Australian government initiative – developing Person-controlled Electronic Health Record Systems - will bring the next wave of IT innovation into the aged care sector and accelerate the sector's IT adoption rate.

### References

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### Correspondence

Dr Ping Yu  
e-Health Research Centre  
Faculty of Informatics  
University of Wollongong  
ping@uow.edu.au