Response from interRAI NZ Governance Board

Lessons learned from the introduction of interRAI into Aged Residential Care
Recommendation 10 – bi-directional information flows

The independent review of the introduction of interRAI into ARC recommended that interRAI Services investigate the feasibility of bi-directional interoperability between interRAI and other systems. The investigation is complete. An initial response from the interRAI NZ Governance Board was published in October 2017, the response was updated in April 2018.

What is software interoperability

'Interoperability' between software systems can broadly be described as the ability for two software systems to allow for information exchange.

In general there are two types of interoperability between software systems:

- Systems that push data to other systems
- Systems that pull data from another system

Both of these types of system require enabling technology and interoperability standards to be published and managed. interRAI interoperability standards are in place and all software vendors who seek interoperability are required to meet them.

The current interoperability approach for interRAI is that external systems are able to **pull** information from interRAI using one of the two mechanisms described below but are **not able to push** information to interRAI.

Previous decisions

In 2011-12, as part of the introduction of interRAI into Aged Residential Care (ARC) project, discussion took place about the interoperability of ARC resident management and care planning systems with interRAI. At that time it was agreed to remain with a single direction interface between interRAI and other systems where information is able to flow (be pulled) from interRAI into other systems. It was also agreed that the option of a bi-directional interface with data flowing in two directions would be reviewed in 2015.

In March 2015, the interRAI New Zealand Governance Board reviewed the decision and confirmed the interRAI approach to interoperability with other systems, as described below:

The National interRAI Software Service has two interoperability offerings.

1. *The ability for an external application to retrieve pdf reports, assessment, care plan reports with a web service call (using the internet) based on a clients' NHI – available since 2012.*

2. *The ability for an external application to retrieve structured clinical data (CDA) for completed interRAI assessments with a web service call (using the internet) based on a clients' NHI – available since 2014.*

Since 2015, an increasing number of ARC providers have introduced electronic resident management and care planning systems. They expressed interest in the bi-directional flow of information.

Independent review of the introduction of interRAI into ARC

In June 2016, Evaluate Consult, a Wellington based consultancy, carried out an independent review of the introduction of interRAI into ARC. The independent review report 'Lessons learned from the introduction of Comprehensive Clinical Assessment (interRAI) in Aged Residential Care (2011-2015) – a post project review' was published 1 March 2017. The report provided a range of general comment and made ten specific recommendations.

Recommendation 10 asked interRAI Services:

'to investigate the feasibility of allowing bidirectional information flows between the LTCF clinical assessment tool and the number of resident management and care plan options available'.

The Board acknowledged that it was important to respond to the recommendation. The Board asked interRAI Services to seek the views of ARC providers on '*what they are looking for from bi-directional interoperability with interRAI'* and report back on the findings.

Conversations with ARC providers took place alongside discussions with the main vendors of ARC resident management and care planning software.

Summary of views

The main point raised, was the need to input demographic and assessment information multiple times into different systems. The effort was described as time consuming with the potential for mistakes due to human error. As the input was primarily done by Registered Nurses (RNs) it reduced RN availability to provide or support resident care.

Many ARC providers have introduced electronic resident management or care planning systems which are the primary source of resident information and would like to be able to enter information about the resident once into the resident management system and then pull that information into interRAI.

Another frequently raised point was the lack of interoperability between medication management systems such as MediMap or 1 Chart and interRAI and the need to input complex medication information into two systems which again was time consuming with a risk of error.

To summarise, ARC providers and their software vendors asked the Board to review the decision taken in March 2015.

Points to note

- Enabling bi-directional interoperability for interRAI will add an additional level of complexity to the systems in ARC and is likely to add costs for both the national interRAI software

platform and the other software systems. An ongoing central support service would be required to support and manage the methodology.

- The additional costs would need to be balanced by the benefits from improved efficiency and use of expensive clinical staff time.

- Each additional layer of technology can add complexity and additional security requirements to systems.

- Additional technology can also lead to increased points of failure and require additional resource to support it.

- Bi-directional interoperability may lead to more than one active record across multiple systems. A mechanism would be required to ensure an assessment can only be updated in one place by one person.

- Revised interRAI interoperability standards and a compliance process would need to be developed, published and managed.

Other ways to address the issues

National Assessment Standards

A comprehensive review of the guidance supporting interRAI assessments has been completed. The revised standards for the long term care facilities (LTCF) assessment were launched at the NZACA conference in September 2017, published on the interRAI New Zealand website and are the basis of interRAI competency training.

www.interrai.co.nz

The revised standards take a more streamlined approach to the level and detail of the information collected in an interRAI assessment. They also reduce the need for demographic and assessment information to be input multiple times into different systems, for example if the information is stored in another system where appropriate the interRAI assessment can simply note where to find that information.

Integrating interRAI – how to make interRAI work for you in your facility

In conjunction with the New Zealand Aged Care Association (NZACA) interRAI Services have developed a programme of workshops to assist ARC facilities to integrate interRAI into their day to day processes. The workshops have been rolled out to small and medium providers across New Zealand. A roadmap of 'How to integrate interRAI into your facility' was published in April 2018.

Alternative technology

Other technology is now available such as a pop up window in interRAI providing a snapshot of information from another system. This type of technology does not require the complexity of bi-directional interoperability.

Board response

The interRAI NZ Governance Board received a paper describing the investigation undertaken by interRAI services into the feasibility of allowing bidirectional information flows between the LTCF clinical assessment tool and the number of resident management and care plan options available at their meeting on 8 August 2017.

The Governance Board was pleased to receive a clear picture of the views of ARC providers and software vendors. Following discussion, the Governance Board asked interRAI Services to develop an informatics strategy and roadmap for interRAI aligned to the three year strategic plan 'interRAI Future Direction 2017-2020' and reflecting the New Zealand Digital Health Strategy (www.health.govt.nz/our-work/ehealth/new-zealand-digital-health-strategy)

The interRAI NZ Informatics Strategy 2018-21 was published in April 2018 (www.interrai.co.nz/about/board/board-key-documents) as part of the strategy development the Board reviewed their previous decisions re interRAI interoperability. At their meeting on 8 February 2018 the Board agreed to remain with the previous decision confirmed in March 2015, which is:

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