interRAI Submission: Department of Health and Ageing for the Aged Care Data and Digital Strategy

interRAI Australia, which represents interRAI international in Australia, believes that the adoption of the interRAI Suite of Assessment Systems across the Australian aged care program will address many of the challenges presented in the Aged Care Data and Digital Health Strategy.

Here we provide a brief overview of the interRAI Suite of Assessment Systems and describe how it will offer an effective response to each of the Aged Care Data and Digital Strategy's Six **Guiding Principles**: Person-centred; Trusted; Tell us once; Diverse; Integrated; and Care focussed, and how interRAI Systems will respond to the four key **Outcomes** delineated in the strategy.

Summary

interRAI international is a not-for-profit research collaboration established in 1992 to develop and maintain robust assessment systems that support the care of vulnerable individuals.
(see interRAI.org)

The interRAI Australia coordinating centre advocates for, and supports the use of, the interRAI Suite in Australia.
(see interRAI-au.org)

interRAI Systems are the most widely used structured assessment systems in aged care world-wide. They are person-centred with an extensive range of decision support tools.
(see About interRAI Video)

Independent head-to-head reviews of similar systems consistently place interRAI at the pinnacle of performance when assessed across a wide range of technical and practical criteria.
(see interRAI Published Papers)

The interRAI Suite is built on a vast program of research that ensures accuracy and relevance to the people it serves (see interRAI Research)

Once implemented into Australia's aged care programs, the interRAI Suite would solve many of the problems identified in the Aged Care Data and Digital Strategy. Most importantly, the Suite can be applied to all stages of a person's interaction with the aged care program, including self-report on MyAgedCare, Aged Care Assessment Teams, Community and Residential Care, AN-ACC assessment and the Quality Indicator program.
(see interRAI for Australia White Paper)

interRAI Systems are the international gold standard for aged care. They adhere to the six **Guiding Principles** and significantly support the four principle **Outcomes** presented in the Strategy. They should be carefully considered for implementation in Australia.

About interRAI

interRAI is a not-for-profit research collaboration that comprises over 100 volunteer researchers and clinicians (Fellows) from over 40 nations. interRAI is committed to improving the lives of vulnerable individuals through the agency of robust, comprehensive assessment and care planning.

interRAI Fellows work together to design and improve Systems. Over 25 interRAI Systems form the interRAI Suite of Assessment Systems that provides coverage of a wide range of individuals across all health and welfare settings, from paediatrics to palliative care, from hospitals to nursing homes. The suite is constructed from an extensive battery of clinical observations and derivative applications that ensure that clinical and care phenomena are recorded in precisely the same manner regardless of the setting.

Initially designed for use in residential aged care, interRAI Systems have evolved to provide coverage of a wide range of care types and environments. All Systems make use of a common structure, utilise a standard item design, draw on a common pool of clinical observations and share many decision support applications including scales and quality measures.

Because of the breadth of each System and the robust nature of the data items, interRAI Systems can act effectively as a Minimum Data Set (MDS), supporting local and system level administration. Internationally, interRAI Systems fulfil this role, informing planning, quality improvement and payment.

Systems are regularly reviewed in line with contemporary research and care guidelines.

A comprehensive overview of the interRAI suite can be found at www.interrai.org

Structured assessment systems

The Data and Digital Health Strategy refers to standardised assessment as a key component of digital reform. We support this notion strongly and suggest that interRAI Systems should be utilised to meet this requirement, as they are best of breed internationally for aged care.

Structured, standardised assessment systems ensure that:

- each person is appraised in a comprehensive manner, taking into account health, functional and psychosocial issues;
- clinical and care related information is recorded in a manner that ensures reliability and consistency;
- reliable information enables reuse for clinical and administrative decision support at the person, local program and whole of System levels;
- software solutions can be constructed based on known clinical items with confidence that they will be suitably configured for regulatory reporting;
- training can be systematised across facilities; and
- a common language enables communication among care providers, and ensures that when personnel move among care settings, they can easily review and understand assessments.

interRAI Systems for aged care have been designed with these considerations in mind.

interRAI Systems are unique among structured solutions in aged care

interRAI Systems have unique features that distinguish them from other standardised Systems available locally and internationally, namely:

- They form part of a suite of Systems, that cover the entire life journey, and which have versions adjusted for use in community and institutional settings.
- Many systems have companion 'self-report' versions, that enable the person to self-assess, thus providing a unique perspective and also reduce demand on professional assessors.
- Ancillary Systems provide a voice for the person around quality (Self-Reported Quality of Life) and for their carers (Self-Reported Carer Needs).
- All Systems share a 'core' set of clinical observations and scalar measures, thus facilitating training, communication and continuity of care.
- Systems are reviewed and updated regularly in line with changes in contemporary practice and research evidence.
- interRAI works with regulatory agencies, providers and software suppliers to ensure that Systems are implemented efficiently and accurately.
- There is an ongoing international research effort that both informs and exploits the features of interRAI Systems. There are over 1500 peer-review publications associated with interRAI Systems.
- interRAI has been adopted by governments in many nations, including Belgium, Canada, Finland, Italy, New Zealand, Singapore, Switzerland and the USA. Australia would join a community of interRAI nations that share a similar vision, and the capacity to make meaningful comparisons of System performance.

The Aged Care Data and Digital Strategy six guiding principles: the interRAI advantage

The interRAI suite of assessment Systems was designed with the **guiding principles** referred to in the Data and Digital Health Strategy in mind.

Person-centred

interRAI Systems are designed primarily to support assessment of individuals who are in need of care and support. While attending to health issues, they focus primarily on the needs of an individual regarding their physical and emotional well-being. Assessments consider physical and cognitive function, as well as the psycho-social context in which they live. They acknowledge the important roles that family members and care providers play.

interRAI has developed ancillary Systems that focus specifically on the needs of carers, ensuring that their health and well-being is supported while in a caring role (see the Self-Reported Carers Needs (SCaN) System at Click Here: SCaN Manual.

There are also interRAI Systems that enable individuals to report their quality of life and experiences in receiving care (see the Self-Reported Quality of Life Systems at Click Here: interRAI QoL Surveys.

Trusted

interRAI Systems have been tested extensively among both assessors and the persons who experience assessment, with high levels of acceptability. interRAI holds extensive anonymised data for development and research purposes in secure repositories within universities in several countries. In thirty years, there have been no data breaches.

Tell us once

interRAI Systems are built using the 'collect once use many times' principle.

Unfortunately, in Australia, the development of clinical information Systems (ACAT, home care and residential care, and multiple software providers), payment/casemix and quality indicators have occurred independently, and are not based on any standardised clinical data Systems. This results in a 'collect multiple times, use once' arrangement that is both burdensome for clinicians, and may be inconsistent across the various use functions. There is pressure to upscore care needs to secure greater payment, and to downscore to avoid triggering quality indicators. A single data source neutralises these incentives.

The 'collect once use many times' principle means that the data collected to support clinical care, care planning and communication among care providers is 're-used' for administrative functions such as service and System planning, quality monitoring (quality indicators) and payment (casemix). interRAI Systems utilise robust reliable information that is suited for both clinical / care and administrative functions. All clinical data that is required for administrative functions is sourced from the clinical data set. Many nations use interRAI Systems as a reportable MDS.

Diverse

interRAI Systems have been tested in multiple nations, with multiple translations. Structured Systems have largely been the province of developed countries in Europe and North America, where interRAI is the pre-eminent System. Only minor adaptations have been required to meet the needs of first nations people in Canada and New Zealand. Belgium utilises three translations simultaneously: Flemish, French and German. Pilots are now occurring in multiple African nations.

Integrated

Older people often move across care settings (home to hospital, transition care to home). Responsibility for their care is shared among multiple providers (GPs, home care agencies, RACFs, specialist clinics). Clinical information is usually recorded de novo in each setting, using a different format. This is wasteful and unsafe.

Even within the aged care program, people are reassessed multiple times as they enter and progress through the system (Entry, eligibility assessment (ACAT), home care, transition care, residential aged care, casemix assessment (AN-ACC), and quality indicator assessment). We examined the manner in which a vital care need (need for 'assistance in walking') across this spectrum of assessments and identified that 6 different observations were utilised to record this same phenomenon (Click Here: How interRAI Solves Data Inefficiencies).

The interRAI Suite is designed to solve this problem. There is one single observation for assistance in walking in all interRAI Systems. For example, the interRAI Contact Assessment, the interRAI Checkup (community care with light needs), the interRAI Home Care and interRAI Long Term Care Facility all include this same item (See **Figure 1**). These Systems share many items, thus facilitating communication, simplifying training and enabling accurate comparison (See **Table 1** below).

More broadly, the interRAI Systems are constructed using a standard design: 'Core items' appear in every System. Similarly, many scales that are calculated from multiple items are considered 'core' and appear in every System e.g., ADL and pain.

Care focussed

interRAI Systems are designed by clinicians and scientists for clinicians. Their intent is to provide robust documentation of the care needs of vulnerable persons, with associated applications to support care planning and ongoing care. Administrative functions such as planning, quality monitoring and resource allocation are effectively a bonus built off the clinical / care functions.

interRAI Systems comprise clinical observations, and 'applications' derived from them. Observations are completed by drawing on information offered by care recipients and family members, direct observation of the person, and service records. The needs of the person are the primary focus of assessments. The applications guide clinicians and care providers to target those problems that are amenable to prevention of adverse events and decline, or to improvement through modern management and treatment.

Addressing the four key outcomes of the Data and Digital Health Strategy.

The introduction of interRAI Systems to the Aged Care program will contribute to all key outcomes articulated in the Strategy, as follows:

Outcome 1: Older people and their support networks can navigate and actively participate in their care and well-being, safe in the knowledge that their story follows them

- Promote healthy ageing, independence and choice
- Create simplified, user-friendly experiences

At the front door to my aged care, the interRAI Self-Report Checkup could be completed by the older person, assisted if required by a family member. Because this assessment closely aligns with the interRAI Checkup and interRAI Home Care assessments that we propose are utilised by the ACAT and service providers, their story is highly transparent to these critical care providers. Their information could easily be integrated into the assessor-based assessments that follow.

Because all interRAI assessments share the same framework and many of the data elements, the data can travel with the person across the continuum of care, in the knowledge that all providers understand the 'language' and 'applications' of each assessment.

Outcome 2: Aged care workers, service providers and health professionals are digitally empowered to provide higher quality, and better-connected, care.

- Maximise time for direct care
- Strengthen care connections

interRAI Systems remove the burden of regulatory reporting. Prior assessments can be utilised to minimise data entry when reviews are conducted. The use of compatible Systems from the interRAI Suite ensures that all providers understand and interpret all previous assessments. They enable monitoring of progress over time, from the initial touch point at entry to *MyAgedCare* to residential care or end of life care at home.

Outcome 3: Data is shared and reused securely to deliver a sustainable and continually improving aged care system

- Improve security and access control
- Enhance data collection and use

interRAI Systems tightly adhere to the collect once use many times principle. Introduction of the interRAI suite, with clinical care, local administration and regulatory reporting all sourcing key information from the same reliable source, will have an immediate and profound effect on data efficiency.

Data will be reliable, relevant and meet international standards.

Simplification of the data inventory will facilitate tighter security and improve access by using interRAI's 'common language' across care settings.

Outcome 4: Modern data and digital foundations strengthen a collaborative, standards-based care system that is safe and secure

- Build data and digital maturity
- Provide guidance and stewardship

interRAI data elements are the product of over 30 years of research, field testing and real-world utilisation. They will provide a platform for future development in Australia.

Standardisation of data systems within the interRAI Suite will simplify and standardise training. Training can begin BEFORE entry into the aged care workforce. In some jurisdictions where interRAI Systems are mandated, the interRAI language is taught in under-graduate programs.

Reference to the SNOMED CT terminology system is made in the strategy. SNOMED CT has enjoyed wide uptake in the hospital context but use in aged care is limited internationally. SNOMED CT constructs work well for diagnoses and symptoms but are not designed to characterise functional and psychosocial phenomena that are central to the rationale for, and operation of, aged care.

SNOMED CT is a terminology system. It is left to others to make use of the terminology for decision support. On the other hand, interRAI Systems offer a framework for assessment, robust data elements and applications for clinical and administrative support.

Internationally, interRAI is currently working with SNOMED CT to harmonise their roles across the health spectrum. There is mutual understanding that each system has an important role in each health care setting.

There is also reference to the use of HL7 / FHIR for data exchange. interRAI Australia supports this solution. There are several international examples of interRAI data exchanges using FHIR infrastructure. The University of Queensland is conducting a demonstration project, funded by the Digital Health Collaborative Research Centre (and the Department of Health and Aged Care), that is utilising FHIR solutions to share data from a large aged care provider.

Implementing interRAI in Australia

Preparation

Implementation of significant knowledge systems like interRAI require careful planning and effort over a sustained period to generate success. It is not simply a matter of asking clinicians / providers to fill out a form and submit to the regulator every 3-6 months. Rather, the System should be embedded within the day-to-day assessment and care planning infrastructure of a provider organisation. Procedures for collecting information should be integral to the usual processes for appraising and updating the needs of the care recipient. Where regulatory reporting is involved, the assessment should be reviewed and verified before submission.

Software

This then requires modification of software solutions to support the above aspiration. Software suppliers must provide toolsets to enable clinicians and local administrators to view the assessments in formats the encourage best practice and constant review. Summary views of assessments are required to exploit the wealth of decision support tools that are integral to an interRAI System. This will include the capacity to monitor change over time and to alert clinicians to attend to new or emerging problems. Clinicians should also be able to visualise Quality Indicators that are triggered for each care recipient, that then encourages a response in the care plan.

Software must also have an export capability to enable efficient reporting to government, and to enable real-time sharing of data with other organisations that are involved in the care of an individual. We advocate for the HL7 – FHIR standards to share interRAI data.

Training

Furthermore, a substantial training strategy is required. This is required regardless of the selection of a system. Currently ACAT, AN-ACC and Quality Indicator recording uses different data. Therefore. each has its own unique training requirement. By adopting the interRAI Suite, training becomes standard for all activities across the program.

Licensing

interRAI provides solutions to governments, software vendors and providers under licence. Licence agreements with governments usually require some negotiation but have been successfully secured with many national and state governments around the world e.g., New Zealand and Singapore in our corner of the world.

interRAI provides support to licensees, particularly governments and government agencies, and often forms partnerships that lead to successful long-term collaborations.

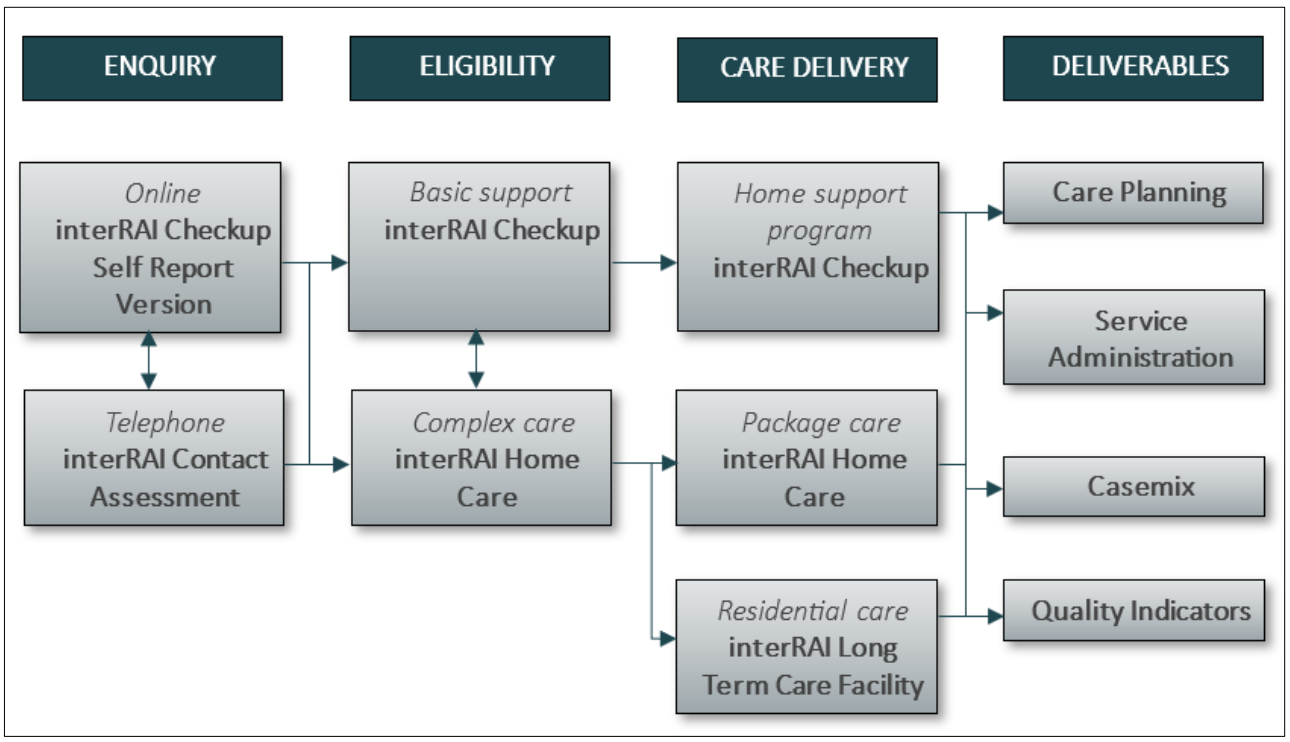

Figure 1. A potential framework for application of interRAI Systems to the Australian aged care program

Selection of Systems

In terms of selection of interRAI Systems, this again requires careful discussions, but here we suggest a schema that might be applied in Australia.

This solution involves a Self-Report tool that would be client-facing on the MyAgedCare website. The interRAI Contact Assessment is a brief screening System that helps direct further decisions about assessment. The Checkup Self-Reported System corresponds to the assessor administered interRAI Contact Assessment and interRAI Checkup System with tight correlation between the versions.

The interRAI Home Care and interRAI Long Term Care Facility are companion Systems that support people with complex needs in community and residential aged care facilities, respectively.

Collect once use many times

This basic framework ensures that the use of data items is consistent across all events and settings. This would enable assessments to be compared, and any changes in status over time easily identified.

In residential care, it is recommended that the interRAI Long Term Care Facility assessment be reviewed and updated at least 3 monthly. This would facilitate regular review of the care plan and would also correspond with reporting of the Australian mandatory quality indicators, most of which can be calculated from the interRAI System.

We are confident that the AN-ACC categories can be accurately calculated from the interRAI LTCF. With access to a much richer data set, there is opportunity to improve the AN-ACC classification over time. With 3 monthly reporting of an MDS derived from the interRAI LTCF, casemix could be reviewed by providers continuously, with alerts available to suggest change of category.

The assessor-based Systems would involve a total of 375 clinical observations across the 4 Systems as displayed in Table 1. For example, the interRAI CA comprises 61 clinical items, all of which are present in at least one other System. About 2/3 of the items are found in the three other Systems. The largest System, the interRAI LTCF, comprises 285 items of which 190 are shared with the interRAI HC.

System	CA	CU	HC	LTCF	Unique items	Total
interRAI Contact Assessment (CA)	-	40	43	42	0	61
interRAI Checkup (CU)	40	-	68	65	19	87
interRAI Home Care (HC)	43	68	-	190	62	265
interRAI Long Term Care Facility (LTCF)	42	65	190	-	90	285

Total item count all Systems = 375

Table 1. A summary of data items that might apply in an Australian interRAI solution

While the number of observations may seem large, our examination of contemporary clinical software solutions indicate that a much larger volume of data is currently being collected. More importantly, much of this data is duplicated. The interRAI solution will REDUCE data burden.

Partnership with government

All successful interRAI implementations, world-wide, involve an active continuing relationship between interRAI and government. This enables interRAI to advise and inform on implementation, and improvement over time. In all national implementations, interRAI utilises local and international data to develop new features in its Systems. This ensures that Systems are continually reviewed and updated in line with contemporary practice and research.

Conclusion

The interRAI Suite of Assessment Systems is the undisputed best of breed structured assessment system for aged care. It is built on a vast legacy of research and practical experience across many nations and cultures. It has attributes that align with the aspirations and outcomes delineated in the *Aged Care Data and Digital Health Strategy*.

interRAI International and interRAI Australia have a strong desire to partner with government to improve the lives of vulnerable older citizens through the agency of robust, sophisticated assessment and care planning Systems.

Contact

For further information contact:

Prof. Len Gray

interRAI Fellow

len.gray@uq.edu.au

07 31765667

interRAI-au.org | interRAI.org