interRAI™
New Zealand

Annual Report 2018/19

TAS
Kahui tuitui tangata

interRAI™ New Zealand

interRAI is:

- The primary assessment instrument for older people receiving support to live at home or in aged residential care in New Zealand.
- Comprehensive and standardised.
- Internationally validated best practice.

In New Zealand:

572,000* completed assessments in the interRAI data warehouse.

73,000* assessments completed in aged residential care facilities in 2018/19.

36,000* Home Care assessments in 2018/19.

5,000* competent assessors.

667* aged residential care facilities.

20 District Health Boards.

5 assessment instruments.

* Approximately as at October 2019

- Developed by experts from over 30 countries.
- Funded by the Ministry of Health.
- Delivered by TAS interRAI Services.
- Governed by the interRAI New Zealand Governance Board.

Better assessment, better care, better outcomes

How interRAI works

Throughout New Zealand, health professionals in District Health Boards and aged residential care facilities use standardised interRAI assessment instruments to help determine which level of support clients and residents over 65 years old need.

interRAI data from all assessments is aggregated to provide information at provider, regional and national level.

Check out the interRAI data visualisation at www.interRAI.co.nz/data

Assessment instruments in New Zealand:

- Home Care assessment.
- Contact assessment – a screening assessment.
- Community Health Assessment – a modular assessment system.
- Palliative Care assessment – for adults with a palliative prognosis.
- Long Term Care Facilities assessment.

Seeing rewards of our work with interRAI

Increasingly older people are living at home for longer, often with the support of home care services. They enter aged residential care later in life when they are more frail and have complex comorbidities. Ensuring these vulnerable members of our society receive the best care starts with a comprehensive assessment.

When doing interRAI assessments we always remember that interRAI exists so we can understand the person, their needs, and how they can be supported to meet those needs. The person and their loved ones are the priorities.

During the past year 127,000 interRAI assessments, or about an average of 350 per day, were completed for older people in New Zealand. Their needs were assessed fairly and equitably by a competent health professional, generating an assessment fit for their situation.

Maintaining the high standard of support interRAI assessors receive from TAS is crucial for upholding the integrity of assessments and resulting data, so funding mechanisms are transparent and equitable.

The interRAI Board is particularly pleased that during the past year we approved work to introduce a Palliative Care assessment to aged residential care. This assessment is for those in aged residential care diagnosed with less than six months to live. If an older person is assessed with an end-of-life condition, there is an option to use the more appropriate Palliative Care assessment.

The Board is very proud a new Palliative Care offering in aged residential care is being added to the interRAI suite of tools. It is a breakthrough and we look forward to seeing the outcome and how it is being taken up.

interRAI data is a very rich source of information. Case studies on oral health and loneliness later in this report show how data can highlight key health issues. The correlation between poor oral health and general wellbeing, based on interRAI data, is striking. The loneliness case study data reveals very clearly how feeling lonely is linked to depression.

It has been very encouraging for the Board to see the interest, uptake, span, depth and breadth of research coming through using interRAI assessment data.

Moving forward we are making more research, education tools, webinars and visualisation tools available on our interRAI website.

We are seeing the rewards of our work, with more interest in the different ways interRAI assessments and interRAI data add value. I thank all those involved. I am looking forward to another year where we are working to maximise the value interRAI provides to the New Zealand health sector.

Catherine Cooney
Chair
interRAI New Zealand Governance Board

interRAI Educator Dave Sasis helps Registered Nurse Neethu Thomas Panthiruvelil learn interRAI software.

Contents

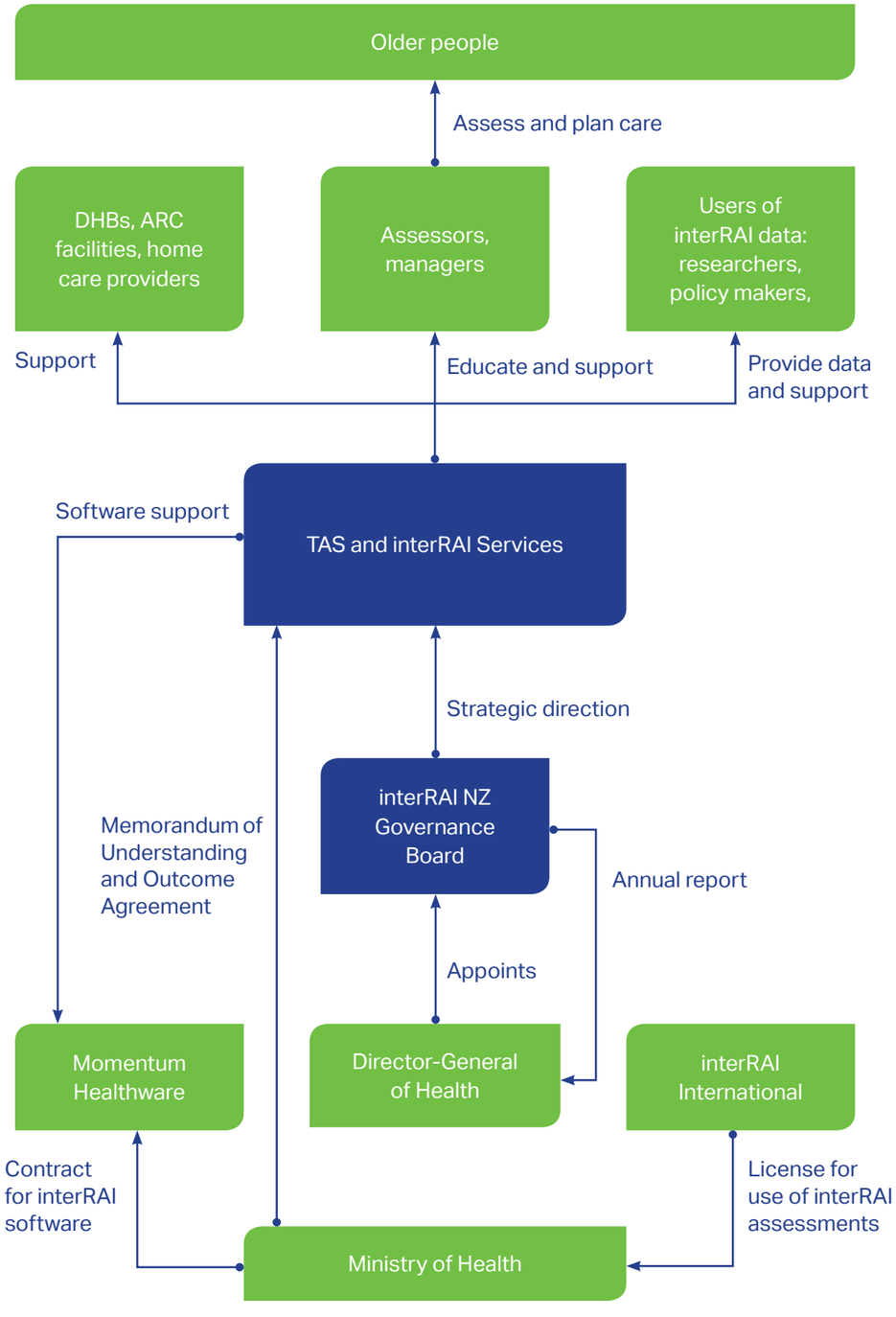
interRAI in New Zealand

In New Zealand, interRAI is the primary assessment in aged residential care and services for older people living in the community. Five interRAI assessments are used in New Zealand.

The term interRAI™ refers to both the international organisation responsible for developing comprehensive clinical assessment systems and the suite of clinical assessments available.

In New Zealand we use:

- Long Term Care Facilities assessment used in aged residential care
- Home Care assessment
- Contact assessment
- Community Health Assessment and
- Palliative Care assessment in the home care sector.



Governance

In New Zealand, interRAI is governed by the interRAI New Zealand Governance Board. interRAI Services is a business unit within TAS supporting the delivery of interRAI in New Zealand providing:

- **education and support**
- **insights and analytics**
- **governance secretariat**
- **software services.**

Members of the interRAI New Zealand Governance Board are appointed by the Director-General of Health. The Governance Board's purpose is 'to continuously improve health outcomes for New Zealanders as they age, and the effectiveness and efficiency of our health system, by guiding and leading the use of interRAI instruments and the dissemination and use of interRAI information'.

Jon Shapleski of TAS and Board members, Cathy Cooney and Stephanie Clare in a planning session.

Board members represent consumers, clinicians, health professionals, researchers, health informatics, aged residential care providers, home care providers and funders. They are leaders, with sector experience, who provide strategic oversight and they have the support of their interest group.

The Board is highly engaged in its strategic vision for the health, disability and aged care sectors.

interRAI Board members Roy Reid, Chair, Age Care Committee, Grey Power; and Janice Mueller, Chair, Physiotherapy Board of New Zealand.

Our purpose is to continuously improve health outcomes for New Zealanders as they age.

2018/19 year in review

The interRAI New Zealand Governance Board and the interRAI Services team at TAS worked hard in 2018/19 to support our community of practice, respond to changes in technology and maximise use of our assessment system.

We continued to build on our Informatics Strategy to make service and software improvements, further develop our education services and increase our focus on services for Māori.

interRAI data is now more accessible and available online to a wider spectrum of health professionals, clinicians, researchers and service users.

New collaborations with agencies such as ACC and Statistics New Zealand is seeing interRAI assessments and data more widely used across government agencies.

An upgrade to our software systems has made interRAI more user friendly, including a new look and feel.

A new efficient software tool now allows users to re-set their password themselves, saving time and resource.

Implemented a new e-learning management system enabling professionals to interact more easily with our education and support services.

interRAI Board member Karen Evison, of Lakes District Health Board

interRAI New Zealand Governance Board (left to right): Karen Evison, Carolyn Cooper, David Chrisp, Janice Mueller, Cathy Cooney (Chair), Max Robins, Professor Matthew Parsons, Roy Reid, Dr Nigel Miller, Dr Helen Kenealy, Stephanie Clare, Chris Fleming (Deputy-Chair). Not in photo: Dr Michelle Honey.

- **Cathy Cooney** (Chair), Director of Kowhai Health Associates Limited
- **Chris Fleming** (Deputy Chair), Chief Executive Officer, Southern District Health Board
- **Carolyn Cooper**, Chief Operating Officer and Lead Nurse, Bupa NZ
- **David Chrisp**, General Manager, IT Development and Transition, Access Home Health Ltd
- **Dr Helen Kenealy**, Geriatrician, Counties Manukau District Health Board
- **Janice Mueller**, Director at Waipiata Consulting Ltd and Chair, Physiotherapy Board of New Zealand
- **Karen Evison**, Director Strategy, Planning and Funding, Lakes District Health Board
- **Professor Matthew Parsons**, Professor, Gerontology, University of Waikato and Chair Gerontology Nursing, Waikato District Health Board
- **Max Robins**, Chief Executive Officer CHT and Deputy Chair New Zealand Aged Care Association
- **Dr Michelle Honey**, Senior Lecturer, University of Auckland
- **Dr Nigel Millar**, Chief Medical Officer, Southern DHB and interRAI Fellow
- **Roy Reid**, Chair, Age Care Committee, Grey Power
- **Stephanie Clare**, Chief Executive, Age Concern

Read about our Board members at www.interrai.co.nz/about/board

interRAI technology and software improvements

We aim to continually improve interRAI software and technology services for our customers by implementing our Informatics Strategy. We introduced a new learning management system in July 2019 – automating manual processes for our administration team and streamlining the way trainees sign up for interRAI education. We chose a software solution from New Zealand.

The new system is the engine behind our e-learning course for health professionals who wish to read and understand interRAI assessments and for future e-learning development.

Each year all interRAI assessors are evaluated online for their interRAI competency. These evaluations are now provided through Relias software after the previous solution was discontinued.

Terry Huntley (left), interRAI Software Services Manager and Dr Nigel Millar (centre), Chief Medical Officer, Southern DHB and New Zealand's first interRAI Fellow, with Board members working on our Informatics Strategy.

interRAI New Zealand Informatics Strategy

The Board's interRAI Informatics Strategy is aspirational and aligned to the Ministry of Health vision for health technology. We aim to enable interRAI assessors to interact easily and efficiently with interRAI technology in all settings when undertaking assessments.

Sharing our experience internationally

Health officials from Singapore representing Singapore's Ministry of Health, Agency for Integrated Care, Home Nursing Foundation, Woodlands Health Campus and social enterprise National Trades Union Congress Health Cooperative spent five days in Auckland and Wellington. They learned about interRAI Services and how interRAI is delivered in New Zealand.

Singaporean delegation join Graham Smith, TAS Chief Executive and interRAI staff.

Delivering on the promise of interRAI

interRAI Services strives to ensure our interRAI software meets the needs of users and promotes care for older people. We believe interRAI should:

- **Be life centred.** We are striving to ensure our technology empowers people to fully participate in their health care and connect with health services in a way that fits best with their lives.
- **Enable informed choice.** People should have full access to their own health information. They should have control over who else can access it. This means people and their families can make informed choices about the health and social services that work best for them.
- **Facilitate access to technology 'closer to me'.** Better access to technology helps remove isolation, as people and communities become more connected. This means care can be provided closer to where people and their families live, learn and work.
- **Offer value for New Zealand.** Our country's investment in interRAI is aimed at inequities in knowledge and education. interRAI is a valuable tool that enables access to services, technology and connectivity. With interRAI value in the aged care sector can be measured. Information can be used to drive learning and decision making leading to better digital service delivery, and better care for older people.
- **Enable collaborative care.** We are working to enable health and social support services, whānau, and communities to use interRAI technology to help them operate as effective teams in a high-trust system that puts the person at the centre of their care.
- **Be responsive, predictive and personalised.** This means that people should be able to participate as full partners in their own health and care. It means the Board and interRAI Services should ensure interRAI technology responds proactively to people's changing needs, and carers know a person's preferences, and can anticipate their needs.
- **Offer actionable insights.** interRAI data and technology should assist evidence-based decisions. Health data from individuals and communities gained through interRAI should inform health policy, and address inequities.
- **Be accessible and have trusted information.** A key driver for our Informatics Strategy is ensuring that interRAI information is secure. We continually work to make interRAI data reliable, accurate, accessible and in an appropriate form.

Hosting research presentations

A growing and committed group of researchers use interRAI data often linked with other health datasets for their research. We regularly host events with speakers presenting their work, including this year Professor Heather McLeod and Ulrich Bergler.

Professor McLeod discussed research commissioned by the Ministry of Health that linked data from interRAI assessments, the National Collections, aged residential care subsidies, and data from hospices and hospital palliative care. The research explored the use of services at end of life for all deaths in New Zealand during 2015. It projected the use of services for people nearing end of life for 20 years to 2038.

Ulrich Bergler is part of a group of researchers at Otago University who link interRAI data with other New Zealand health data. He presented on topics including drug burden and its association with falls and hip fractures, and how to determine frailty.

interRAI New Zealand Governance Board Deputy Chair Chris Fleming is also Chief Executive of Southern District Health Board.

Engaging with interRAI users

We engage with our community of practice and a wider audience through our participation in conferences and presentations to stakeholders.

Significantly, in 2018/19 we gave eight presentations at six conferences in New Zealand on various clinical and research topics. We hosted workshops and spoke at hospital grand rounds and sector events.

Extending quality indicator reports for aged residential care

Last year we introduced quality indicator reporting to large aged residential care providers and District Health Boards. We expanded our reporting this year to include small providers and individual facilities.

We are now providing more than 600 organisations with information showing patterns in service delivery over time. A big benefit is that facility managers can use quality indicators to reflect on their practice, identify potential problems in quality and showcase areas of excellence.

Definitions for each quality indicator and national quality indicator reports are on our interRAI website at www.interrai.co.nz/data-and-reporting

Our response to independent review

interRAI was first introduced to aged residential care in New Zealand through a project between 2011 and 2015. It became mandatory for aged residential care facilities in 2015.

When the project closed, on behalf of the interRAI New Zealand Governance Board, we commissioned an independent review of interRAI in aged residential care. In 2018/19 we published the final report on actions taken in response to recommendations from the review.

A major focus of our work since the review has been to implement the 10 recommendations. Eighteen months later, we published the final report with all issues addressed.

Asking home care providers about interRAI

We surveyed home and community care providers to better understand how providers and the people working for them experience interRAI Services.

95% of respondents rated the support they received as Great, Good, or OK.

Almost all people surveyed had used interRAI support in the past year:

58% read our email newsletters

48% visited the interRAI NZ website

41% had contacted an interRAI educator

39% attended a training course.

Accrediting an external educator

Two aged care providers have their own interRAI accredited educator, including Community Trusts in Care Aotearoa (CTCA).

CTCA is a group of eight small to middle-sized providers offering rural aged residential care facilities in Waikato. They share their own accredited interRAI educator. For CTCA this means that interRAI training can be scheduled as and where needed, reducing travel and time away from facilities for nurses. The facilities' main interest is in having their own internal person to support interRAI use daily and champion opportunities for using interRAI assessment information to support internal process and clinical practice.

The accredited interRAI educator at CTCA was trained by interRAI Services as an assessor and educator. The training she delivers is moderated once a year by interRAI Services as we do for other educators, and she participates in our regular education meetings. interRAI Services remains responsible for reviewing each trainee's final assessment and undertaking the final competency interview.

CHT Healthcare Trust also partners with interRAI and has its own interRAI educator supporting their organisation with in-house interRAI education.

Stephanie Clare of Age Concern, Max Robins of CHT and NZ Aged Care Association and Jim Nicolson from the Ministry of Health discuss Board strategy.

Extending into tertiary education

We have been offering interRAI training as an adjunct to more Competency Assessment Programme (CAP) courses across New Zealand.

CAP courses are for international and New Zealand nurses working to achieve or regain their New Zealand nursing registration.

Many international nurses coming to New Zealand initially work as health care assistants in aged residential care facilities. Once they gain their New Zealand registration, they often return to their facility as Registered Nurses.

interRAI training has been delivered as part of CAP courses at the Ara Institute of Canterbury, the Nelson Marlborough Institute of Technology and the Tertiary Institute of Technology Whitireia.

Developing an online interRAI course

We have developed online training for health professionals who read their clients' interRAI assessments. This course is also a great general introduction to interRAI and the interRAI software system.

The course is the first e-learning offering for interRAI users in New Zealand. It was developed to meet the growing demand from health professionals who use interRAI information to gain a better understanding of their clients' functional abilities.

Users learn about:

- How to access the interRAI software system
- How to read and interpret assessment information
- interRAI clinical decision-making support.

The course takes one hour to complete and is free of charge. Once the course is completed, health professionals can apply for access to the interRAI software system.

The interRAI Education Management Team.

Refreshing our Māori Strategy

Improving health outcomes for Māori remains a priority and interRAI assessments need to be culturally relevant for New Zealand. During the year we began refreshing our Māori strategy. We are continuing work to strengthen our focus on developing the cultural competence of interRAI educators and culturally relevant assessor practice.

interRAI Services Māori Strategy

Ngā Tohutohu Guiding principles

Te Tiriti o Waitangi

Partnership, Participation Protection

Aroha ki te rawa kore

interRAI improves the quality of life of those who are vulnerable

TAS Values

Aspiration
Courage
Professionalism
Integrity

Our journey begins with the advice of the Māori Strategy Working Group from the interRAI project 2008-2012

Action Plan

Ministry of Health Guiding Documents

Conceptual framework for the strategy

- Waka (canoe) – the interRAI comprehensive clinical assessment
- Urungi (rudder) – interRAI Governance Board
- Hoe (oars) – Partnership, Participation, Protection
- Komaru (sails) – guiding documents

Meihana Model of Clinical Assessment

Framework for interRAI Assessment

- Assessor competencies
- A cultural conversation
- National Standards
- Culturally appropriate assessment practices
- Culturally appropriate curriculum and delivery

VALUE

Guidance for Sector

Train educators to train assessors. Data awareness training for users

CUSTOMER

Improving connections

Broker opportunities for Māori input and feedback

BUSINESS PROCESS

Refresh training curriculum

Review training materials and educator induction

LEARNING & GROWTH

People and capability

Develop team members cultural capability

The power of interRAI data

interRAI assessors in New Zealand completed approximately 127,000 assessments for older people during the 2018/19 year. These assessments contribute a unique and rich body of data on the characteristics of older people receiving care in our communities or in aged residential care facilities.

interRAI Board member Carolyn Cooper at a strategy workshop.

interRAI offers a comprehensive data set because:

Every resident in aged residential care and every person receiving home care in New Zealand is assessed regularly using interRAI instruments.

All interRAI assessments in New Zealand are completed on a single national software platform and feed into a central data warehouse.

interRAI Services checks and confirms the quality of interRAI data and trains assessors to a consistent, high standard.

In 2018/19, **40%** of the New Zealand population over 85 years old received interRAI assessments.

interRAI data is increasingly used by researchers and policy makers. Data is publicly available online through an interactive visualisation tool allowing users to access interRAI data at national and regional level, for different demographics. Being an interactive tool, users are in control of the information and can select the detail they require.

The data visualisation tool was updated in June 2019 to include embedded definitions for diseases, outcome scales and Clinical Assessment Protocols (CAPs).

Organisations and individuals continue to request specific interRAI assessment data. Regular data reporting is provided for District Health Boards, aged residential care facilities and home care providers. These reports, including Quality Indicators, can form the basis for care improvements across facilities and organisations.

Visit our data visualisation at www.interrai.co.nz/data

interRAI New Zealand Board member Professor Matthew Parsons of Waikato University is a strong advocate for a people-centred approach.

TAS Data Analyst Michelle Liu leads a Board workshop.

59% of those receiving a Home Care assessment are female.

interRAI Assessments in 2018/19

interRAI data allows us to understand the characteristics of older people who are cared for in different settings.

How can we plan, allocate resources or evaluate effectively unless we know the need?

People living in Long Term Care Facilities (LTCF) who are assessed are slightly older than those receiving other assessment types, with a median age of 85 years (see Table 1). The median age for Home Care assessments and Contact assessments is 83 and 81 years respectively. For Palliative Care the median age is lower, at 78 years.

Table 1. Characteristics of older people in different care settings, based on interRAI assessments 2018/19

Characteristic	Contact Assessment	Home Care Assessment	LTCF Assessment	Palliative Care Assessment	65+ population
Median age	81	83	85	78	
% male	34%	41%	35%	50%	47%
% female	66%	59%	65%	50%	53%
% Māori	5%	8%	4%	9%	7%
% non-Māori	95%	92%	96%	91%	93%

Almost two out of three people receiving a LTCF or Contact assessment are women (65% and 66% respectively). Fifty-nine percent of those receiving a Home Care assessment are female. This is higher than the proportion of females in the wider population aged 65 and over (53%). The split for Palliative Care is even, with exactly half being females.

Some 7% of our population aged over 65 years are Māori. A slightly higher proportion of people receiving Palliative Care assessments and Home Care assessments were Māori (9% and 8% respectively). A slightly lower proportion of people receiving Contact assessments and LTCF assessments were Māori (5% and 4% respectively).

The Board's vision is to put the person at the centre of care.

Andrew Upton (rear), Ministry of Health and Roy Reid, Grey Power.

The 127,000 assessments completed this year make for an average of 350 assessments per day. More than half (57%) were Long Term Care Facilities (LTCF) assessments (72,757), see Figure 1. There were 671 more LTCF assessments completed in 2018/19 than in 2017/18. This increase of 0.9% is smaller than in previous years.

The 35,950 Home Care assessments completed during the year comprised 28% of total assessments, though this was 3.9% (1,445) fewer than in the preceding year. The slightly lower number may be attributed to more Palliative Care assessments being completed. In 2018/19, 1,213 Palliative Care assessments were undertaken, compared to 459 the year before in 2017/18.

Fewer Contact assessments were done in 2018/19 compared to 2017/18 – a drop of 992 (5.5%) but still more than in 2016/17. Contact assessments comprised 13% of all interRAI assessments in 2018/19 (17,023).

Figure 1. interRAI assessments by type (%), 2018/19

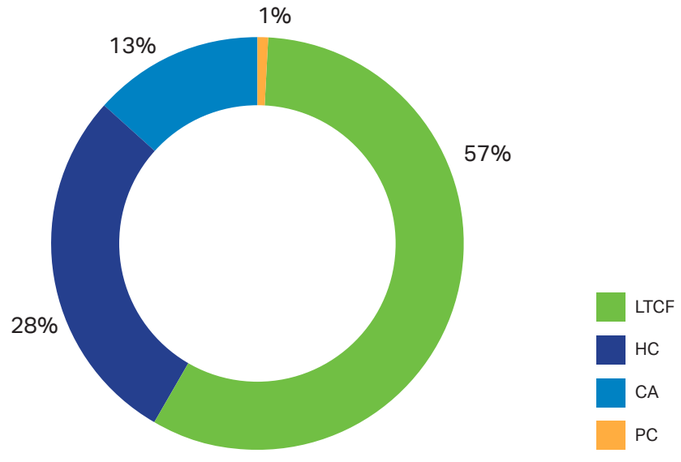
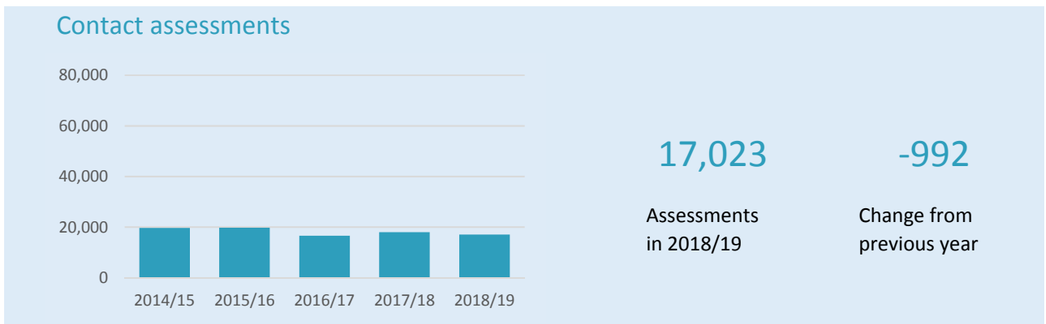
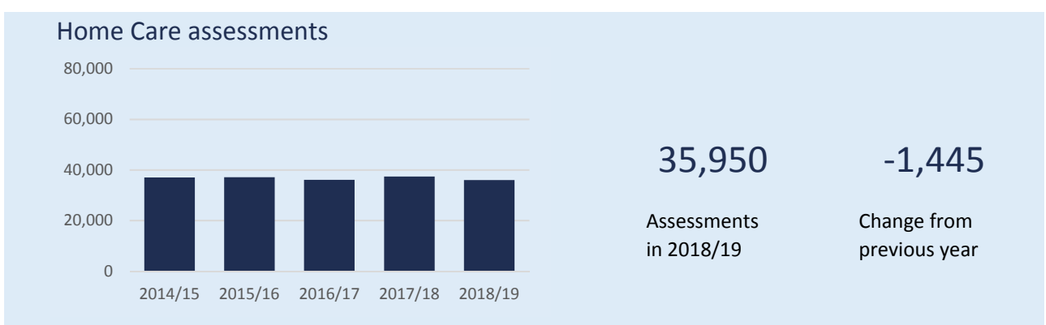
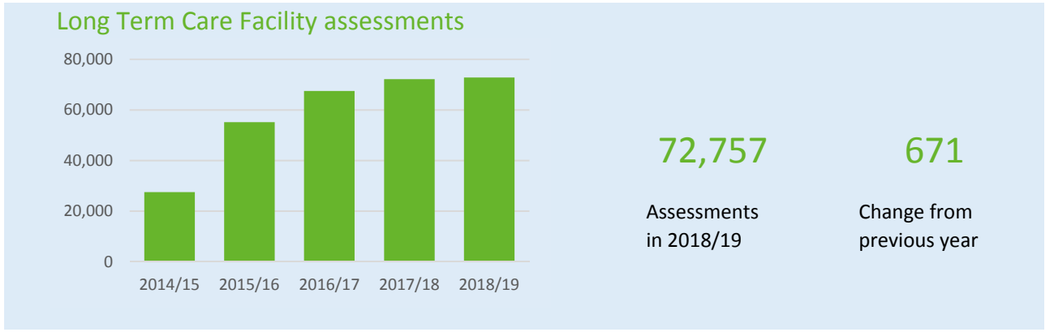
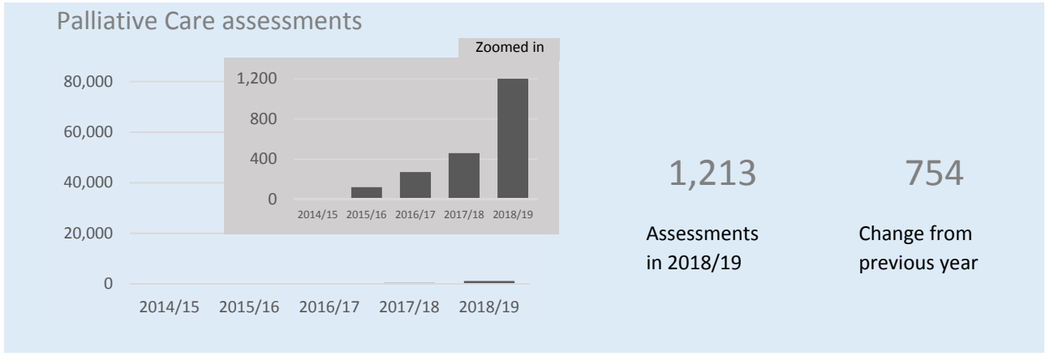


Figure 2. Number of assessments by year, as at October 2019









During the past year 127,000 interRAI assessments were completed for older people in New Zealand.

Home care

Of people assessed by the interRAI Home Care assessment in 2018/19 our data shows that:

33% of people had done one hour or more of exercise during the previous three days.

35% of people had done some exercise but for less than one hour.

73% of people were visited by or visited a long-standing social relation or family member within the previous three days. Another 12% were visited by or visited in the previous 4-7 days.

64% of people had been out at least once in the previous three days.

23% drove a vehicle in the last 90 days.

People living in aged residential care

Vulnerabilities

49% have a diagnosis of dementia including Alzheimer's disease.

44% have cognitive difficulties with everyday decisions such as what clothes to wear.

45% are incontinent or frequently incontinent.

73% use a walking stick, walking frame, wheelchair or scooter to move around.

20% have fallen in the last 30 days, and 8% have a high risk of a future fall.

9% have experienced weight loss.

Strengths

71% spend some or most of their time involved in activities.

61% rate their health as good or excellent (of those that are able to self rate).

92% have a strong and supportive relationship with family.

71% have a consistent positive outlook.

74% have an enduring power of attorney.

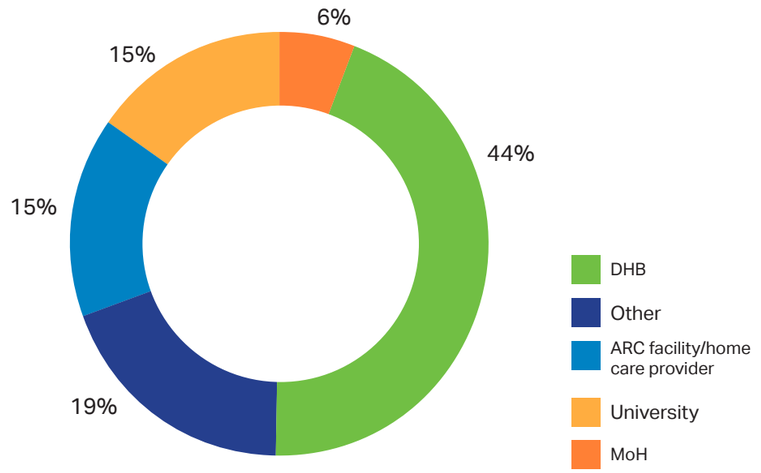
76% find meaning in day-to-day life.

Requests for data increasing

interRAI data analysts were asked to respond to an increasing number of requests for interRAI data. During 2018/19, we received more than 100 requests for interRAI data, information or support. In addition, during 2018/19 online visitors viewed the interRAI Data Visualisation tool 7,665 times.

interRAI data is increasingly used by researchers, health professionals, care providers and the Ministry of Health to better understand the health and social needs of older people. Other requests support operational needs.

Figure 3. interRAI data requests by requestor type (%), 2018/19



interRAI Board member Dr Helen Kenealy is a Geriatrician for Counties Manukau and clinical representative on the Board.

Examples of published research using interRAI data in 2018/19

Hamish Jamieson, Rebecca Abey-Nesbit, Ulrich Bergler, Sally Keeling, Philip J. Schluter, Richard Scrase, Cameron Lacey: **Evaluating the Influence of Social Factors on Aged Residential Care Admission in a National Home Care Assessment Database of Older Adults.** Journal of the American Medical Directors Association. 10.1016/j.jamda.2019.02.005.

Leonard C Gray, E Beattie, Veronique Boscart, Amanda Henderson, Yvonne Hornby-Turner, Ruth Hubbard, Susan Wood, Nancye Peel (2018). **Development and Testing of the interRAI Acute Care: A Standardized Assessment Administered by Nurses for Patients Admitted to Acute Care. Health Services Insights.** 11. 117863291881883. 10.1177/1178632918818836.

Sharon Leitch, Paul Glue, Andrew R. Gray, Philippa Greco, Yoram Barak (2018). **Comparison of Psychosocial Variables Associated With Loneliness in Centenarian vs Elderly Populations in New Zealand.** JAMA Network Open. 1. 10.1001/jamanetworkopen.2018.3880.

Hamish A Jamieson, Prasad Nishtala, Richard Scrase, Joanne Deely, Rebecca Abey-Nesbit, Sarah Hilmer, Darrell R Abernethy, Sarah Berry, Vincent Mor, Cameron Lacey, Philip Schluter (2018). **Drug Burden Index and Its Association With Hip Fracture Among Older Adults: A National Population-Based Study.** The Journals of Gerontology: Series A. 74. 10.1093/gerona/gly176.

Sharmin Bala, Hamish A Jamieson, Prasad Nishtala (2018). **Factors associated with inappropriate prescribing among older adults with complex care needs who have undergone the interRAI assessment.** Current Medical Research and Opinion. 35. 1-16. 10.1080/03007995.2018.1543185.

Mark Fisher and Janet Anderson-Bidois for the Human Rights Commission: **This is not my Home. A collection of perspectives on the provision of aged residential care without consent.** Download from the Human Rights Commission website at hrc.co.nz

Frailty

Frailty is of interest worldwide including in New Zealand. Several researchers have examined ways to measure the concept of frailty.

Morris et al.[1], who are part of the interRAI International collaborative, define frailty as a relative state of weakness reflecting multiple functional and health domains. They have developed and evaluated a Home Care Frailty Scale based on items from the interRAI Home Care assessment.

The scale comprises 29 assessment items that best correlate with a select group of dependent measures representing accumulating declines and clinical complications. The frailty scale items address the areas of function, movement, cognition and communication, social life, nutrition and clinical symptoms. It extends from scores of zero or no frailty markers to a high of 29.

The interRAI International Home Care Frailty Scale is expected to be introduced into New Zealand before the end of 2020.

Below we examine some measures from the Home Care assessment often associated with frailty.

Activities of daily living self-performance

The interRAI Home Care assessments explore what self-care activities a person can undertake, or what varying degrees of assistance they need.

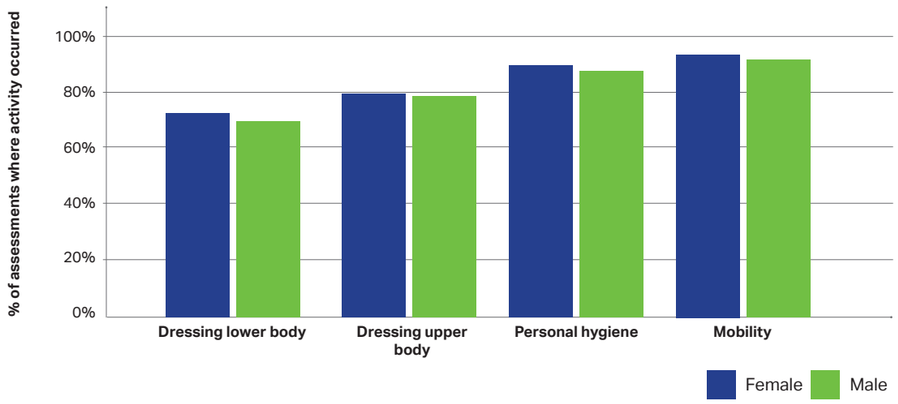
The four self-care activities presented below illustrate the progressive loss of function for dressing lower body, dressing upper body, personal hygiene and mobility. Here we look at the proportion of people who are fully independent and require no physical assistance, set-up or supervision, and those who require some help with set-up, supervision or limited physical assistance.

The remainder (not graphed) require extensive or maximal assistance or are totally dependent.

Of those assessed with the Home Care assessment in 2018/19 where the activity took place in the past three days, 93% were independent or required limited assistance with mobility, with personal hygiene (89%), with dressing upper body (80%) and with dressing lower body (72%).

For all four activities females were slightly more independent than males (Figure 4).

Figure 4. Percentage independent or require limited assistance with activities of daily living by gender, Home Care assessments, 2018/19



1. Morris, J. N., Howard, E. P., & Steel, K. R. (2016). Development of the interRAI home care frailty scale. BMC geriatrics, 16(1), 188.

A closer look at mobility

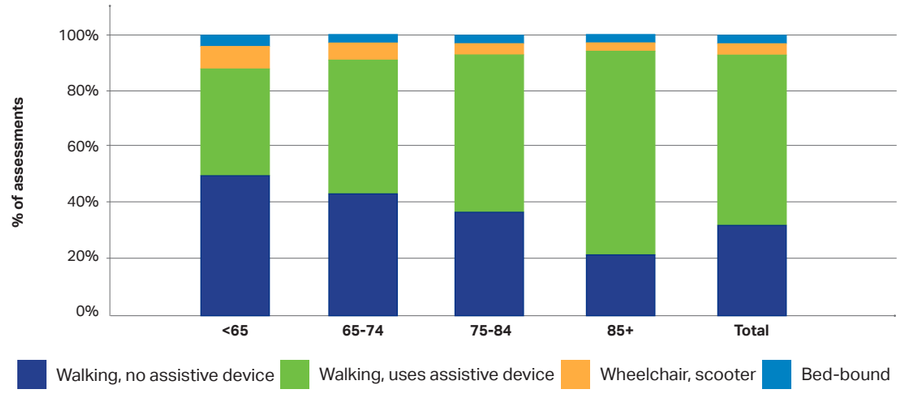
Mobility is important as one ages for physical and mental health. Moving freely and easily around the home and community is vital for wellbeing and independence. Ageing affects muscle strength, bone density and can make joints stiffer putting a person at risk of falls and being isolated at home.

Most people assessed with the Home Care assessment are aged 65+ years. The proportion of those assessed who can walk with no assistive device decreases as people age (Figure 5).

Of those aged 65 to 74 years in 2018/19, 43% can walk unaided, whereas by age 85+ only 22% of those assessed can walk unaided with 73% requiring an assistive device such as a walking stick or walker. A wheelchair or scooter was the primary mode of mobility for 4% of those assessed in 2018/19.

Of older people who can walk (either with or without an assistive device), 47% have a walking speed that limits their ability to cross roads, catch a bus or move around the house.

Figure 5. Primary mode of locomotion by age group, Home Care assessments, 2018/19

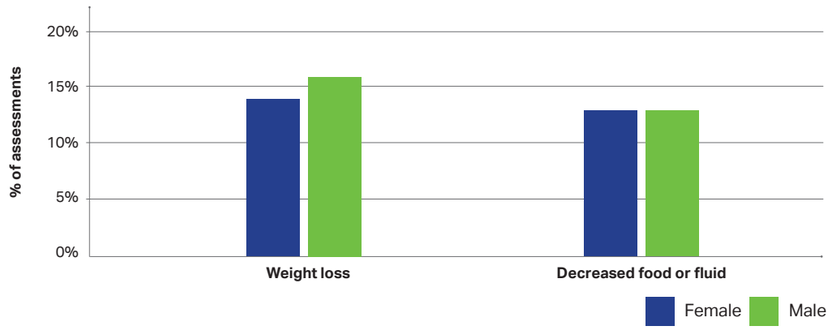


Nutritional status

Nutritional status is associated with frailty in older adults. The Home Care assessment contains nutritional status measures including weight loss of 5% or more in the last 30 days or 10% or more in the last 180 days, and decrease in amount of food or fluid usually consumed.

Of those assessed with the Home Care assessment in 2018/19, 15% had experienced weight loss and 13% had a decreased food or fluid intake (Figure 6). Weight loss was slightly higher in males (16%) than females (14%). There was no difference by gender for decreased food or fluid.

Figure 6. Nutritional status by gender, Home Care assessments, 2018/19



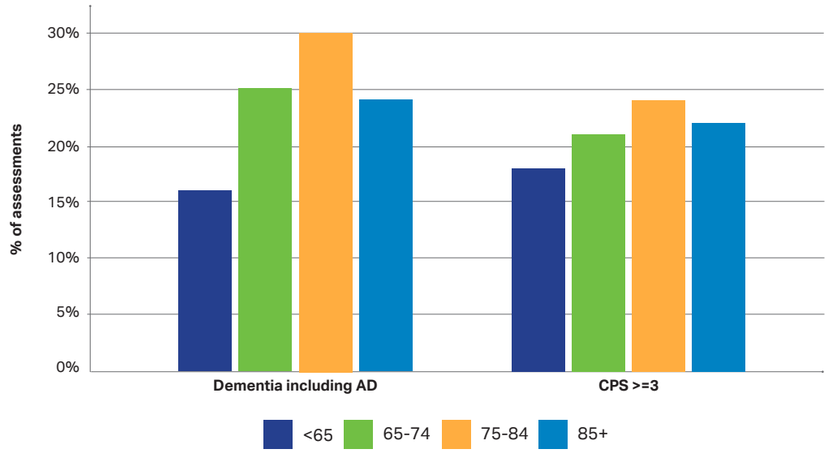
Cognition

The Home Care assessment allows cognition to be assessed in various ways. One way is recording clinical diagnoses of Alzheimer's disease and other forms of dementia. In 2018/19, 26% of those assessed with the Home Care assessment had some form of dementia, including Alzheimer's disease.

The Home Care assessment also assesses various aspects of cognition. The Cognitive Performance Scale (CPS) combines information on memory impairment, level of consciousness, and decision-making ability, with scores ranging from 0 (intact) to 6 (very severe impairment). A score of 3 or more indicates a person has cognitive difficulties with everyday decisions such as when to get up, remembering to take their medicines or what clothes to wear. Of those assessed with the interRAI Home Care assessment in 2018/19, 23% had a Cognitive Performance Scale score of 3+.

Trends by age for a clinical diagnosis of dementia including Alzheimer's disease and CPS 3+ are similar (Figure 7), with those aged 75-84 years having the highest proportion with the condition (30% and 24% respectively).

Figure 7. Cognition by age group, Home Care assessments, 2018/19



David Chrisp, General Manager at Access Home Health Ltd, is on the interRAI Board.

In 2018/19, 26% of those assessed with the Home Care assessment had some form of dementia, including Alzheimer's disease.

Oral health

New Zealand interRAI assessment data now features in publications and research projects here and overseas.

New Zealand interRAI Home Care data, along with interRAI data from Belgium and a combined sample from European countries (Finland, Iceland, Germany, Italy, and the Netherlands) was studied in a cross-country validation of the association between oral health and general health in community-dwelling older adults[2].

This international study examined associations between three oral health indicators (chewing difficulty, non-intact teeth, and dry mouth) and four aspects of general health (activities of daily living functioning, cognition, depression, and health instability).

The study found that:

- clients who had poorer oral health had a higher risk of suffering from poor general health
- chewing difficulty was associated with all general health indicators in all data sets
- dry mouth and non-intact teeth showed significant associations with almost all general health indicators.

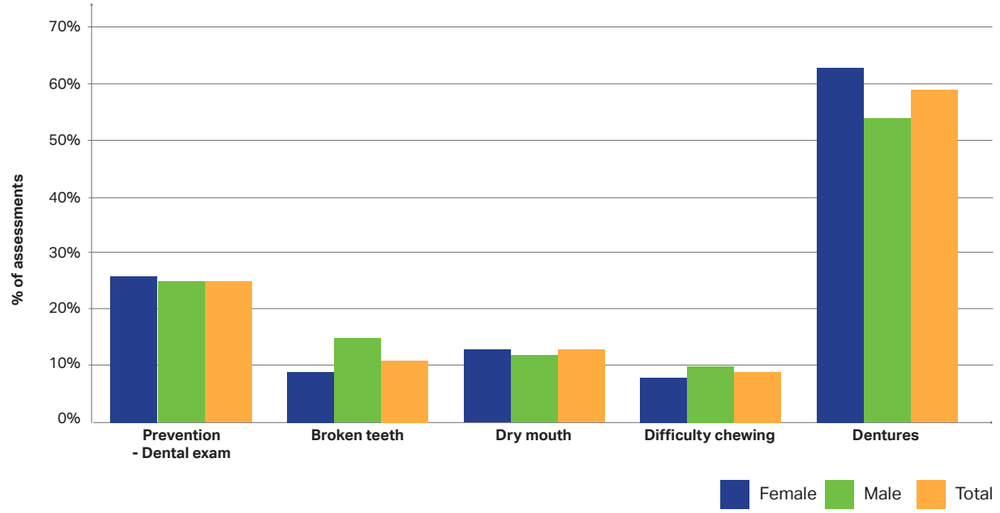
CASE STUDY

The study concluded that: 'The results point out the need of the inclusion of oral health assessment and advice from dentists or oral health practitioners into the multidisciplinary conversation. In addition, identifying older people with oral health problems is essential to provide treatment and monitoring. Raising awareness for oral health is important, and policy makers should foster oral health promotion and care for older adults to keep them in good health'.

interRAI Services Principal Advisor Dr Brigette Meehan, co-author of the study, says: 'It is relatively easy to understand the link between eating and quality of life, but this study shows the benefits of good oral health for a person's overall functioning and wellbeing. Because interRAI is a standardised assessment, it was straightforward to compare our population with other countries'.

Looking at interRAI Services' most recent data for New Zealand (Figure 8), only a quarter of people assessed with the Home Care assessment in 2018/19 had a dental exam in the past year. Between 9% and 15% of those assessed experienced an oral health condition such as broken teeth, difficulty chewing or dry mouth. Males (15%) were more likely to have broken teeth than females (9%). Females were more likely to have dentures (63%) than males (54%).

Figure 8. Oral health statues by gender, Home Care assessments, 2018/19



2. de Almeida Mello, J., Tran, T. D., Krausch-Hofmann, S., Meehan, B., van Hout, H., Turcotte, L., ... & Finne-Soveri, H. (2019). Cross-Country Validation of the Association Between Oral Health and General Health in Community-Dwelling Older Adults. Journal of the American Medical Directors Association.

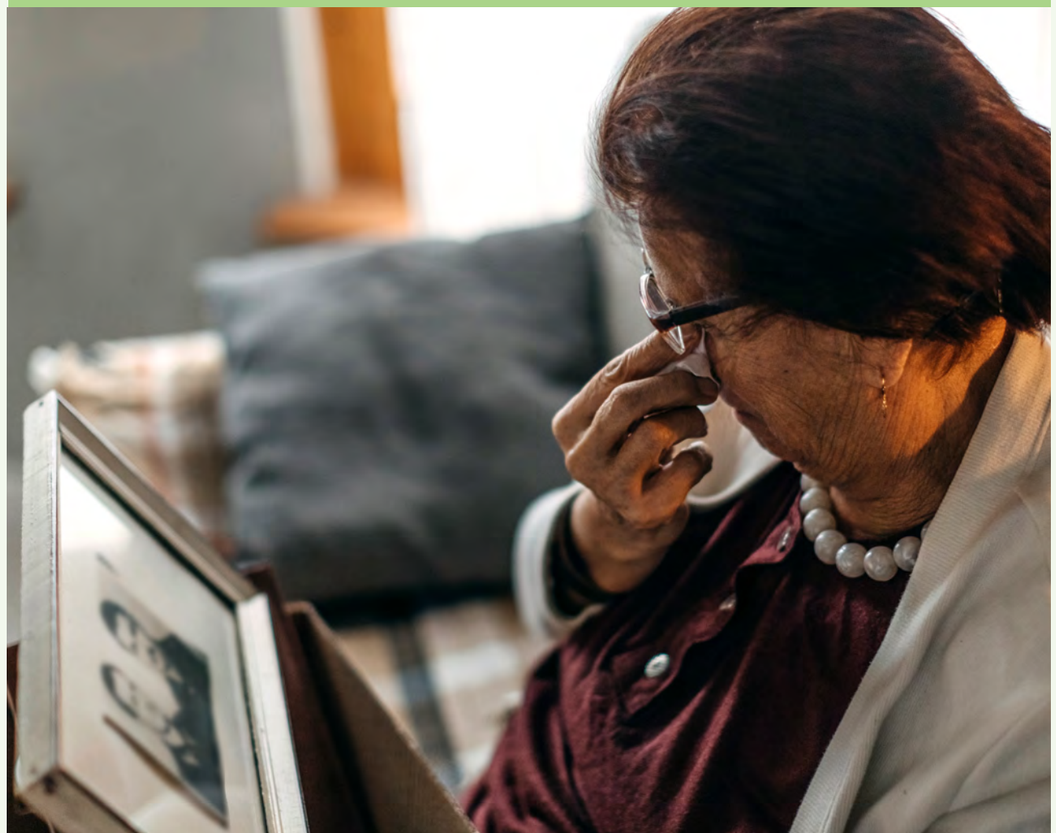
Loneliness

A New Zealand study titled *Financial difficulty and biopsychosocial predictors of loneliness: A cross-sectional study of community dwelling older adults*[3] used our interRAI Home Care assessment data.

The study investigated the 'interplay of sociodemographic, health, functional and psychosocial factors in predicting loneliness in community dwelling older adults'.

The factors with the strongest association with loneliness were:

- depression
- living alone
- being Asian
- financial difficulty
- not in a relationship.



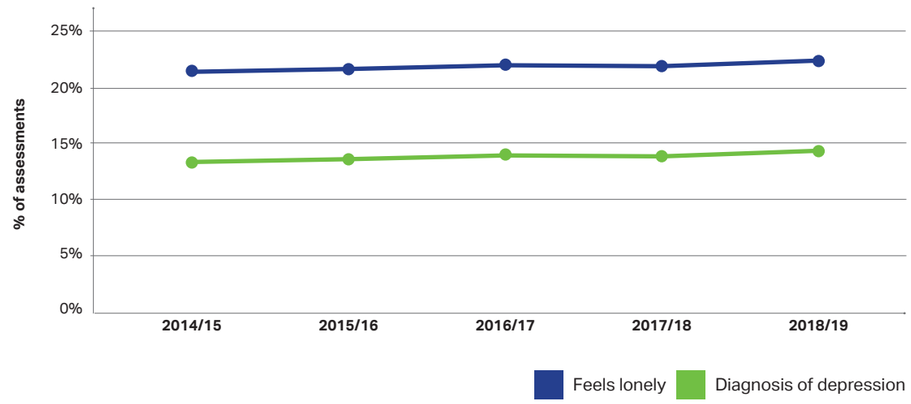
CASE STUDY

Functional impairment was negatively associated with loneliness.

The authors concluded: 'Determining the predictors of older adults' loneliness is complex, multi-factorial, with each factor having a small, additive effect on the development of loneliness. Depression, social factors and financial difficulty are the strongest predictors but much of the variance remains unexplained. These factors could be targeted as modifiable risk factors for addressing loneliness in older adults'.

interRAI Services looked at the latest interRAI Home Care data to show trends over time for loneliness and depression. The following graph (Figure 9) shows that the percentage of Home Care assessments where the person feels lonely has increased from 21% in 2014/15 to 23% in 2018/19. Over the same period, the percentage of Home Care assessments with a diagnosis of depression has increased from 13% to 15%.

Figure 9. Feels lonely and diagnosis of depression by year, Home Care assessments



3. Cheung, G., Wright-St Clair, V., Chacko, E., & Barak, Y. (2019). Financial difficulty and biopsychosocial predictors of loneliness: A cross-sectional study of community dwelling older adults. Archives of gerontology and geriatrics, 85, 103935.

interRAI Services Management Team, TAS

interRAI Services at TAS takes direction from the interRAI New Zealand Board to run the interRAI assessment service, gather data insights and deliver education and training.

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General Manager interRAI Services, TAS

Dr Brigette Meehan
Principal Advisor interRAI Services

Margaret Milne
Manager interRAI Education and Support Services

Terry Huntley
interRAI Software Services Manager

Ministry of Health

The government through the Ministry of Health funds interRAI and the Director-General of Health appoints the interRAI New Zealand Board.

Ministry of Health officials attend interRAI Board meetings to represent the Director-General of Health, and to gain insights into the value that interRAI adds to improving health outcomes for New Zealanders.

Jim Nicolson
Manager, Healthy Ageing Team, Health System Improvement and Innovation

Dr Phil Wood
Chief Advisor, Healthy Ageing

Carolyn Jones
Senior Portfolio Manager, Healthy Ageing Team

Andrew Upton
Senior Project Manager

Glossary

ARC	Aged Residential Care
Assessor	A person who uses the interRAI tools to undertake care needs assessments
CA	Contact Assessment – a short interRAI assessment for people living in their own homes
CAP	Competency Assessment Programme (CAP)
CAPs	Clinical Assessment Protocols (CAPs)
CMO	Chief Medical Officer
Competent	An assessor who has completed all elements of training required to fully utilise the interRAI assessment. Assessors are required to undertake certain tasks to retain their competency post initial training
CTCA	Community Trusts in Care Aotearoa
DAH	Director of Allied Health – member of the DHB executive management team, responsible for all clinical services excluding medical and nursing services
DHB	District Health Board
DON	Director of Nursing – some DHBs combine the role of Director of Nursing and Director of Midwifery, referred to as DONM
EN	Enrolled Nurse
Facility Manager	Manages an aged residential care facility
GM P&F	General Manager of Planning and Funding – a member of the DHB executive management team; responsibility for managing the funder arm of the DHB
HC	Home Care – an interRAI assessment used to assess people living in their own homes
HOP	Health of Older People
HOP PM	Health of Older People Portfolio Manager – all DHBs have someone in this role in their Planning and Funding directorate (the funder arm of the DHB)
interRAI	Suite of comprehensive clinical assessment instruments developed by an international collaborative to improve the quality of life of vulnerable people
interRAI Services	A business unit within TAS that runs the interRAI work programme, education and training in New Zealand for the Board

LTCF	Long Term Care Facility – an interRAI assessment tool used in aged residential care
MoH	Ministry of Health – leads New Zealand's health and disability system, and has overall responsibility for the management and development of that system
Momentum	Momentum Healthware Ltd – the interRAI software vendor, responsible for managing the software, the user interface
MoU	Memorandum of Understanding
NASC	Needs Assessment and Service Coordination – the DHB facility where the interRAI home care tool is used
NASC Manager	Responsible for operational aspects of the NASC, including management of interRAI assessors
PC	Palliative Care – an interRAI assessment for people with a palliative prognosis
Relias	The e-learning support platform for interRAI evaluations
RN	Registered Nurse
SC	Systems Clinician
SL	Service Leader – responsibility for managing a particular service within a DHB
SLA	Service Level Agreement
TAS	Owned by the six Central Region District Health Boards, TAS supports informed decision-making and improved service planning and delivery, through data analysis and health system insights.

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