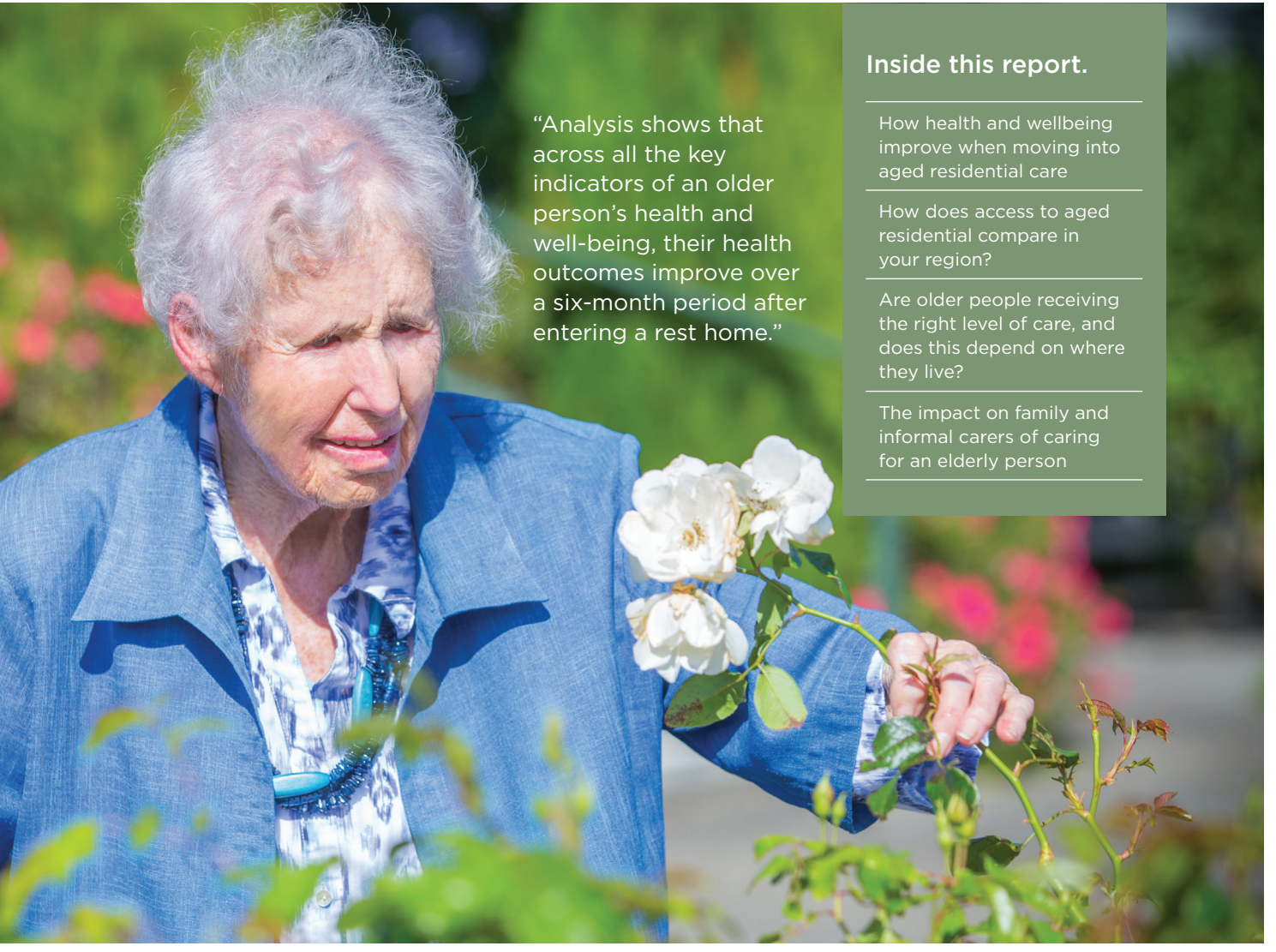
Caring for our older Kiwis.

THE RIGHT PLACE, AT THE RIGHT TIME

Contents.



"Analysis shows that across all the key indicators of an older person's health and well-being, their health outcomes improve over a six-month period after entering a rest home."

Inside this report.

- How health and wellbeing improve when moving into aged residential care
- How does access to aged residential compare in your region?
- Are older people receiving the right level of care, and does this depend on where they live?
- The impact on family and informal carers of caring for an elderly person

Foreword.

The New Zealand Aged Care Association is pleased to share its analysis of data collected through interRAI, a suite of clinical assessment tools that are used to assess the health and well-being needs of an older person both before and after moving into residential care.

The use of interRAI was made mandatory in the aged care sector in 2015 as a tool to ensure consistency and equity of access to care around the country.

The analysis was commissioned because the NZACA is concerned that too many elderly people are receiving inadequate and inconsistent care, and their health is being compromised as a result. Specifically, the NZACA has concerns that people who have been assessed as being at risk of needing aged residential care are facing barriers to moving into care, and are remaining at home longer than what is safe. The NZACA also has concerns that the decisions around both when a person can access residential care and the level of care they receive, vary depending on which region in New Zealand they live.

Aged care policy over many decades has evolved on the assumption that a person is better off “ageing in place” in their own home for as long as possible. The NZACA is supportive of people choosing to remain in their own home if it’s safe, if their health and wellbeing are not suffering, and they are well supported. However, even with home care support, an older person may no longer be safe at home, and may feel isolated and lonely, sacrificing better health. At the same time, family support may be under pressure or non-existent, and older carers may be struggling to cope, facing health issues themselves.

While we are encouraged by the results of the analysis around the benefits of moving into aged residential care, this report raises serious concerns about the ability of many elderly people to access that care when they need it. The results show that many elderly people are simply waiting too long to access aged residential care, and that both entry into care, and care at the right level, varies according to where a person lives. If an elderly person lives in the Bay of Plenty for example, and has been assessed at being at risk of needing aged residential care, on average they wait nearly 6 months longer than someone who lives in Waitemata to access an aged care facility.

"Our elderly New Zealanders are vulnerable members of our society, and we need to be vigilant to ensure they are properly cared for"

This is postcode healthcare and is not good enough. InterRAI was adopted and made mandatory to ensure adequate and consistent access to care for our elderly people through standardised assessments. The analysis and information collected by the NZACA under the Official Information Act from each DHB shows that in many regions interRAI is not being used how it was intended, and some DHBs are adopting their own policies and interpretation of interRAI outcome data, which is leading to inequity of access to care for our elderly around the country.[1]

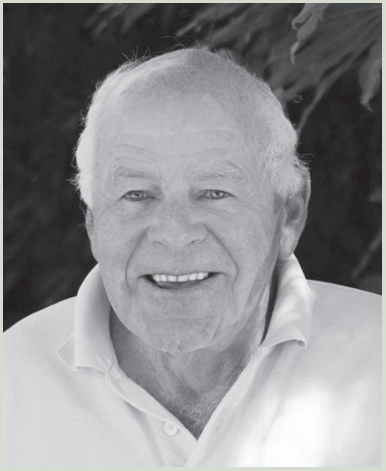
With a rapidly ageing population, and the sheer numbers of people projected to live into their 80s, 90s and beyond, the challenges we face as a country around how best to care for and support our older New Zealanders have never been more critical. The demand for care – both home-based support and residential care – will place enormous pressure on our community, to ensure older people are not simply medically treated, but are able to live comfortably, with dignity and positively for as long as they can.

Our elderly New Zealanders are vulnerable members of our society, and we need to be vigilant to ensure they are properly cared for. Denying or delaying equitable access to both aged residential care, and care at the right level, compromises an elderly person's health, and as a country we should not accept this.

The NZACA is calling for the interRAI assessment tools to be applied and interpreted in the way they were intended – in a consistent way across all the DHBs. When a person has been formally assessed as requiring aged residential care, where being in a rest home will enhance their health and well-being and where residents support this, then we must have consistent policies in place to enable elderly people to have equal access to aged residential care, at the right level, when they need it, regardless of where they live.

Simon Wallace
Chief Executive
NEW ZEALAND AGED CARE ASSOCIATION

Message from Greypower.



For many people moving into a rest home is the last choice they make about where they live, and it can feel a very overwhelming and difficult decision.

It is also tough for families who can feel that they are failing their elderly relative by not 'doing more', and more often than not it is a decision taken out of desperation – too many elderly people arrive in residential care in an ambulance after some catastrophic event.

The fact is, people can reach a stage where they are not capable of living well at home any more. Many older people live alone, they don't take their medication properly, they don't eat as well as they could, and their mobility is limited putting them at risk of falls or poor nutrition. Their carers may be struggling, and the older person may have very high needs which are not able to be fully met at home.

Moving into aged care can be a positive choice – it doesn't have to be a last resort. I am very encouraged by the interRAI analysis which clearly shows the benefits an older person can enjoy when getting the right level of care, personalised to their needs.

Aged care can also be a positive experience for family too, who are able to visit their elderly relative, and see their well-being stabilise or improve, and enjoying some of the social aspects of aged care.

However, the analysis highlighted in this report demonstrates that we need to do more to make the choices around care for elderly people easier for both them, and their families. With the population projections of the number of people expected to live past 85 years in the future, more and more people will need care, and carers, whether it be in an aged care facility, or in their own homes. The question is, will we be ready?

In my view, the interRAI analysis raises serious questions about how policy is being developed to support our elderly, and the decisions that flow from that.

A generation of policy makers have developed care for the elderly based on the assumption that we are 'better off' in our own homes.

While for some elderly people, home based support works well, particularly when combined with support from family or friends, but for others, they get to a point where their health and well-being can be compromised, and they are remaining at home longer than what they should.

We also need to be mindful that we cannot assume that elderly people have family or help nearby, as often, family members are living in other parts of the country or overseas. My nearest child for example, lives 7 hours away, and is not able to just pop in if there's a problem.

As a society, we need to talk more about ageing, and how to support older people to have the best health and well-being they can, for as long as they can. The interRAI analysis provides us with a powerful starting point. The suite of assessment tools means we can access standardised data about the health and well-being of older people, enabling us to have a conversation about the benefits of aged residential care.

The analysis also highlights the fact that we need to understand more about the barriers to accessing aged care, and why there are such significant variations in access to both care, and the right level of care, across the different DHBs.

I commend the NZACA for their leadership in starting this work.

Roy Reid
Chair Grey Power Federation
AGED CARE COMMITTEE

"Moving into aged care can be a positive choice – it doesn't have to be a last resort"

About this report and methodology.

ABOUT THE ANALYSIS

The NZACA engaged a senior data analyst in December 2016 to enhance the evidence base underpinning the aged residential care sector's discussions with the Government.

One of the goals of the analysis was to show what happens to the health and social outcomes of an older person when they enter aged residential care. Because of this data analysis, we now have evidence that health and social outcomes significantly improve.

The other goal was to evaluate the consistency of older people's access to aged residential care across the DHB regions. First, we looked at access to aged residential care i.e. all care levels combined. Next, we examined access of older individuals with very high support needs to hospital, dementia or psychogeriatric care levels within aged residential care. This analysis discussed in this report provides evidence of inconsistencies between DHBs in both.

The data provided to NZACA by interRAI New Zealand is anonymised, so neither the individuals nor their care facilities can be identified[2]. The analysis in the interRAI New Zealand National interRAI Data Analysis Annual Report[3] and interRAI New Zealand Data Visualisation Tool[4] consists of counts of assessments. In contrast, the NZACA's analysis is centred on individuals, and an individual can have as many as four interRAI assessments in a year. NZACA matched the assessments for a given (anonymised) individual and carried out longitudinal analysis of changes in their interRAI outcome scores.

Specifications of data sets supplied by interRAI Services are outlined in the references to this report.[5] The fields included in the data set are also included in the references to this report[6].

This report presents the results of the descriptive analysis of this data, and includes commentary and views from aged care providers, and others who work with or represent the interests of older New Zealanders.

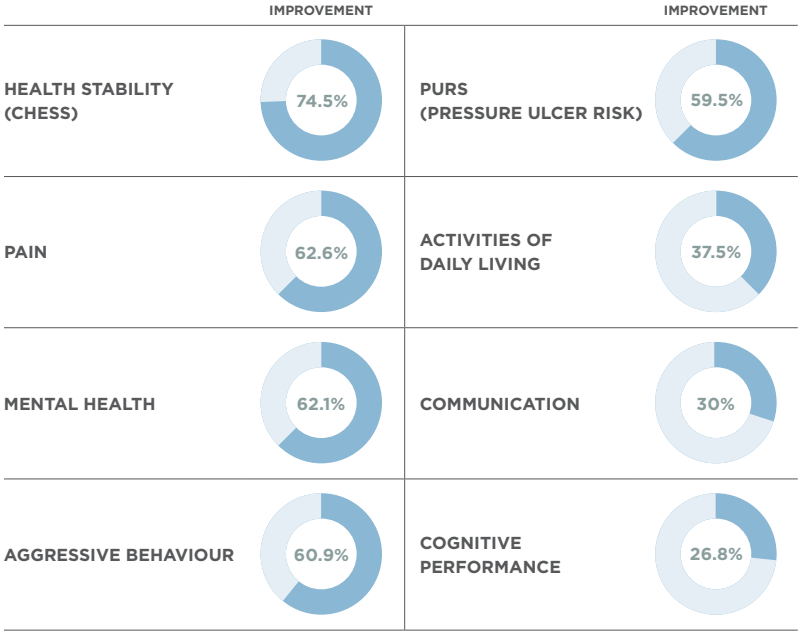
In addition, Official Information Act requests were sent in May-July 2017 to all DHBs for information on interRAI outcome scores, Clinical Assessment Protocols (CAPs), items (i.e. responses to particular questions) and non-interRAI criteria applied to determine eligibility for aged residential care at each care level. Responses were received from all 20 DHBs.[7]

Results of the analysis at a glance.

THE BENEFITS OF AGED RESIDENTIAL CARE

Older people's health improves once they move into aged residential care.

Across all the key indicators of an older person's health and well-being, their health and well-being improve over a six-month period after entering aged residential care.[8] Of those that report as feeling lonely at the time of their final home care assessment, some *82% no longer feel lonely after around six months of aged care*, and *only 18% continue to report feeling lonely*. Other key results for the July 2016-June 2017 period are:

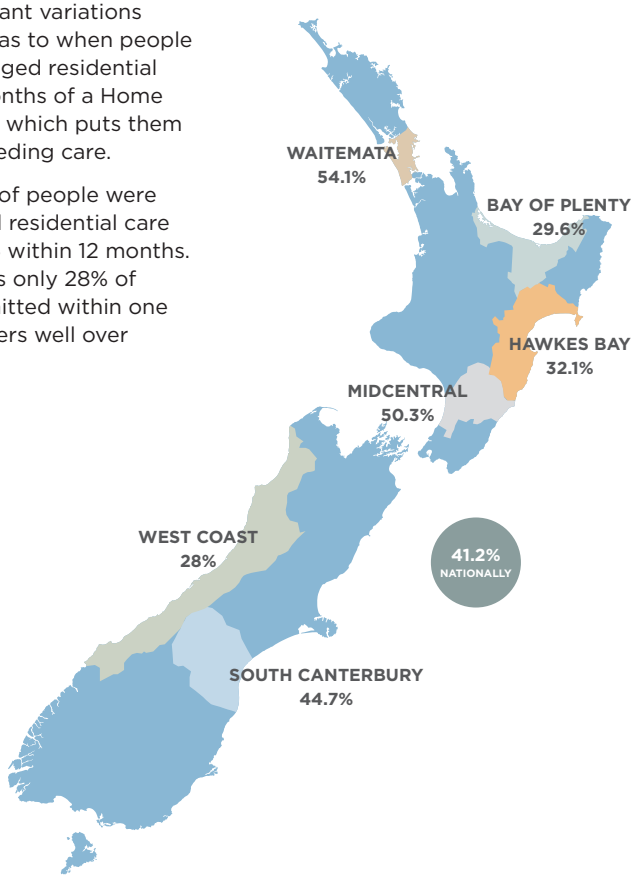


ACCESS TO AGED RESIDENTIAL CARE AROUND THE REGIONS

It takes longer to access aged residential care in some regions around the country than others – meaning many older people are waiting too long to get into aged care, putting their health and well-being at risk[9].

There are significant variations across the DHBs as to when people are admitted to aged residential care within 12 months of a Home Care Assessment which puts them at high risk of needing care.

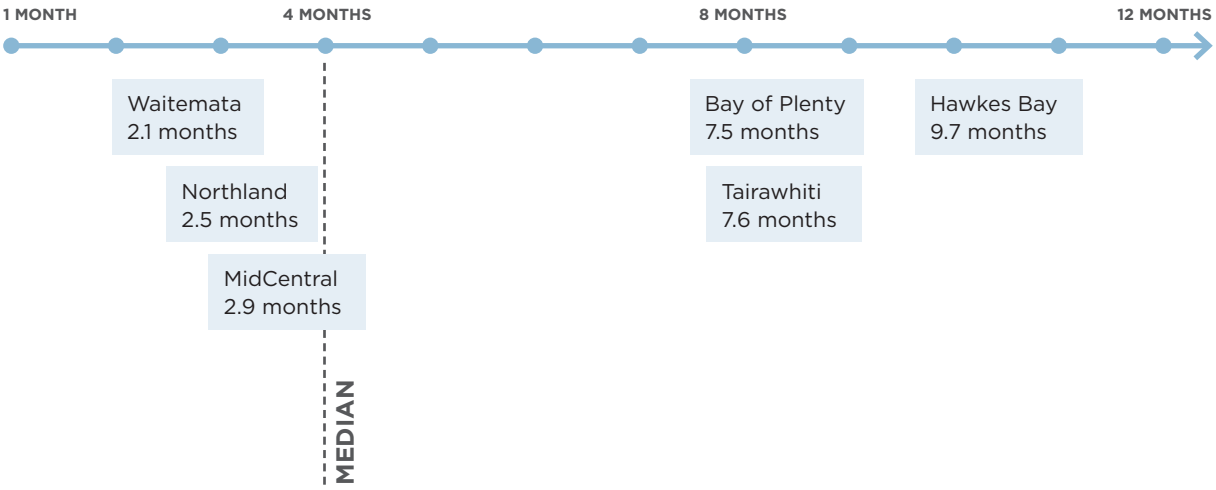
Nationally, 41.2% of people were admitted to aged residential care during 2015/2016 within 12 months. Yet in some DHBs only 28% of people were admitted within one year, while in others well over half were.



TIME TO ACCESS AGED RESIDENTIAL CARE VARIES DEPENDING ON WHERE YOU LIVE

Looking at the data another way – focusing only on those people who were admitted into aged residential care, the results show significant variations in the length of time it takes for a person to be admitted into care after first hitting a high MAPLe (Method of Assigning Priority Level) score (4+) in a Home Care Assessment.[10]

Nationally, for those people admitted into aged residential care during 2016/17, the median length of time it takes to be admitted into care after hitting a high MAPLe score is 4 months. The waiting times vary across the regions – residents in some regions are able to access care in a median time of less than 3 months, while in others the median waiting time is nearly 10 months.



ACCESS TO THE RIGHT LEVEL OF CARE

Many older people are not getting the right level of aged care they need.

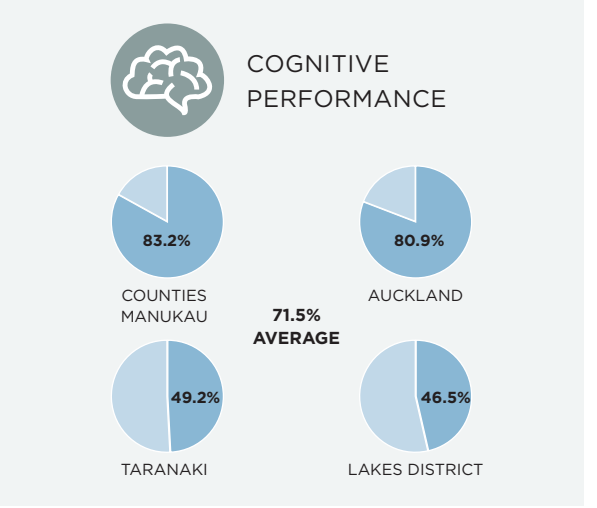
The results show significant variations around the country on the level of care that people are admitted to when they are assessed as being at risk of needing a higher level of care than rest home level. The analysis examined the key areas of cognitive performance, and overall health stability.[11]

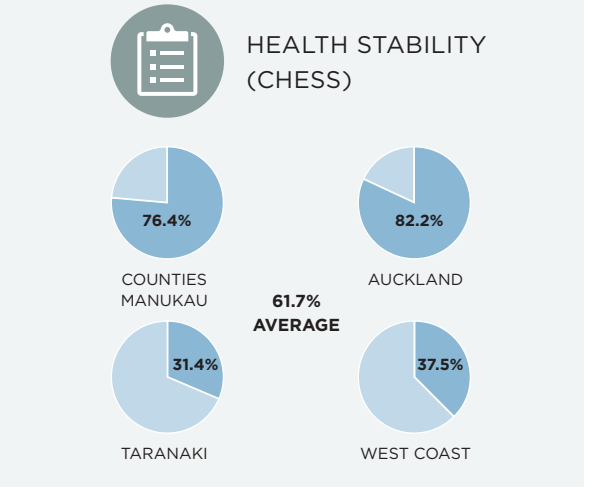
COGNITIVE PERFORMANCE

Nationally, 71.5% of residents with a cognitive performance score of 3+, who have had a 6-month assessment are in hospital, dementia, or psychogeriatric care. However, this varies widely across the country.

HEALTH STABILITY (CHESS)

Nationally, 61.7% of residents with a Change in Health, End-Stage Disease, Signs, and Symptoms Scale (CHESS) score of 3+ who have had a 6-month assessment are in the higher levels of care (hospital, dementia and psychogeriatric). But again, there's huge variation around the country.



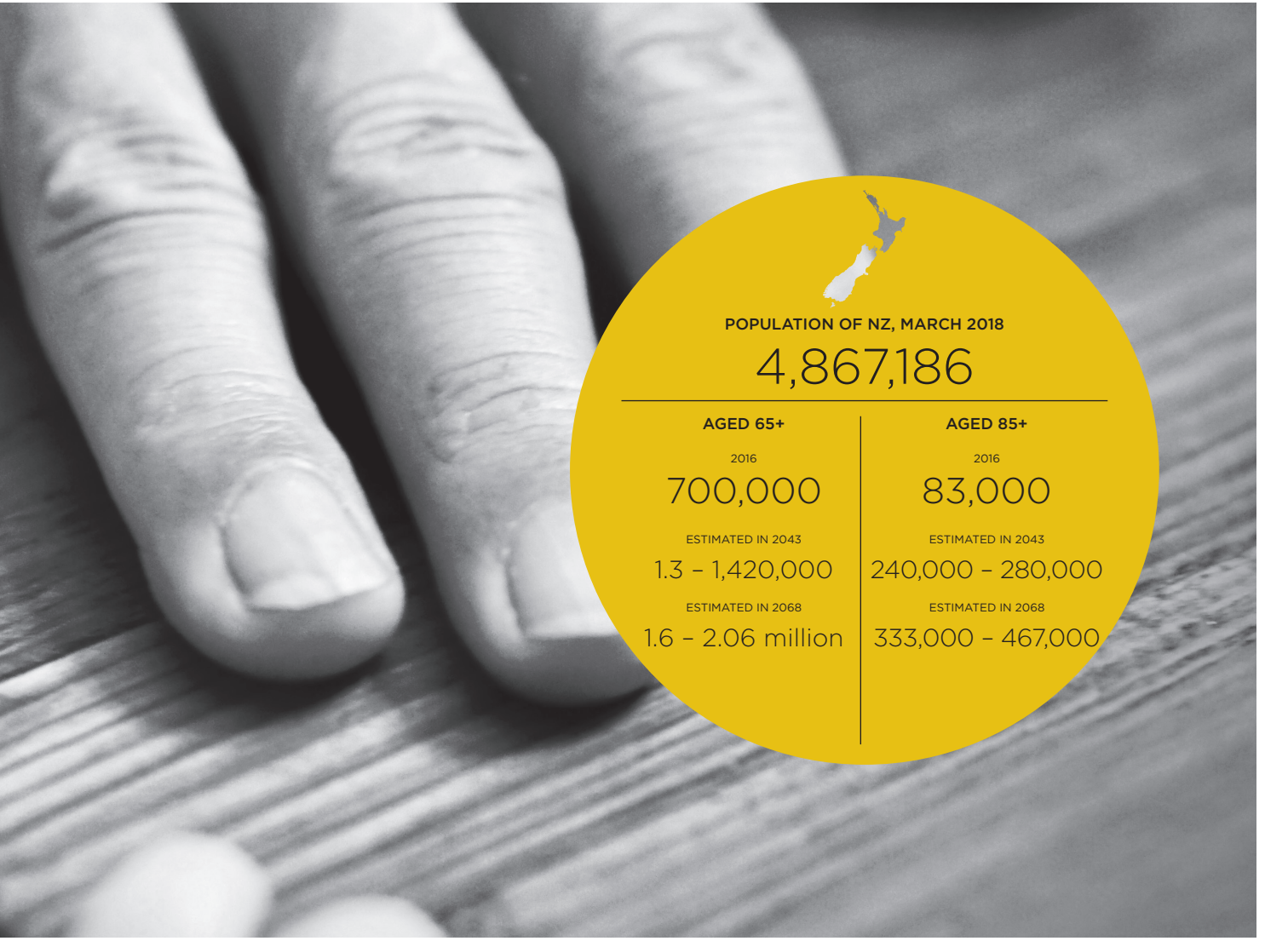


A growing population and the impact on family carers.

New Zealanders are living longer, and our older population is growing faster than our younger population, bringing many challenges to our health, disability and aged care sectors.

The number of people aged 65+ doubled between 1988 and 2016 to reach 700,000. This number is expected to double again by 2043 to between 1.3 – 1.42 million.[12]

The number of people living at aged 85+ is expected to grow significantly over the next 25 years, from 83,000 in 2016 to between 240-280,000 in 2043 – the fastest growing population group on the planet.[13]


POPULATION OF NZ, MARCH 2018
4,867,186
AGED 65+
2016
700,000
ESTIMATED IN 2043
1.3 – 1,420,000
ESTIMATED IN 2068
1.6 – 2.06 million
AGED 85+
2016
83,000
ESTIMATED IN 2043
240,000 – 280,000
ESTIMATED IN 2068
333,000 – 467,000

CARING FOR AN ELDERLY RELATIVE OR FRIEND

With the enormous projected population growth of older New Zealanders, there will be increasing pressure on family and the community to provide more care at home, often for people whose health is frail, and who are suffering from physical impairment, and struggle with many of the functions of independence, including toileting, and dressing.

We all know of elderly friends or relatives who are being cared for by their spouses or partners, who often have health issues themselves, or other family members who are juggling work and caring for young children. Informal caregivers are usually family or friends who support and care for people with disabilities or illness for anything up to 24 hours, 7 days a week. The care they provide supplements the home care support provided by an elderly person's local DHB.

The Ministry of Social Development estimate that almost 1 in 10 New Zealanders provides care for someone close to them who needs help with everyday living because of a health condition or disability.[14]

The New Zealand Longitudinal Study of Ageing shows that the number of caregivers is increasing in line with the ageing population, and the provision of family-based in-home care for frail, ill or disabled older people is becoming more prevalent. The study found that a significant percentage – 40% – of the sample of caregivers were looking after frail, ill or disabled older people in an in-home based setting, and a significant portion of those (28%) are caregiving for their parents or in-laws.[15]

Roy Reid, the Chair of Grey Power Federation says "Caregiving is an important role, however for many people who provide in-home care for an elderly person, it is stressful, exhausting, mentally challenging and has detrimental effects on their own health and well-being."

interRAI home care assessment data that measures informal carer stress, reveals that during the 2015/16 period, 22% of Home Care Assessments reported that the informal carer had feelings of distress, anger or depression.[16] "Often caregivers feel guilty – about not being there enough, about the decisions they need to make and about asking and not asking for help. Carers also struggle with the feeling that they are somehow letting down their elderly relative by looking at aged residential care as an option."

"Caregiver guilt is human, but it's important to remember that few older people would want their informal caregivers to entirely give up their own lives to take care of them. I believe that as a community we need to talk more about the choices available for our elderly, and entering an aged care facility can be a positive choice for both the elderly person and their family," says Roy Reid.

A project undertaken by Health Quality Ontario in Toronto looked at the reality of caring and the levels of stress among caregivers. Results found that informal caregivers who helped look after an elderly person in an at home setting were generally more distressed, the more cognitively impaired, functionally disabled and frail the elderly person was.[17]

According to a study of 300 caregivers in New Zealand in 2007/08, which looked at the unmet needs of informal caregivers, no caregiver thought they had been assessed for the support they felt they needed and argued that the focus of assessments for service provision was only on the needs of the care-recipient.[18]

NZACA Chief Executive Simon Wallace says,

"We are supportive of people remaining at home for as long as the home care support they receive from the DHBs can best meet their needs. However, there comes a point where home care, even combined with informal carer support where available, is insufficient to meet the full care needs of an increasingly frail or disabled older person."

"As our population continues to age, the demand for higher care for our elderly will continue to grow exponentially. Many people will be living with co-morbidities, and we need to make sure that if they would enjoy better health and well-being in an aged care facility that option is available to them, and we do not deny elderly people access to the care they need," he says.

1 in 10 New Zealanders

Provides care for someone close to them who needs help with everyday living because of a health condition or disability

40%

Of caregivers from the New Zealand Longitudinal Study of Ageing are looking after frail, ill or disabled people in an in-home based setting

28%

Of caregivers in the Longitudinal study are caregiving for their parents or in-laws.

22%

Of interRAI Home Care Assessments reported that the informal carer had feelings of distress, anger or depression

interRAI: Assessing the care needs of older Kiwis.

"interRAI[19] is a collaborative network of researchers in over 35 countries around the world who are committed to improving care for vulnerable people who are disabled or medically complex through a comprehensive clinical assessment system."[20]

Each tool in the interRAI assessment suite has been developed for a specific population – the tools are standardised assessments that are designed to work together to form an integrated health information system.[21]

interRAI New Zealand describes the interRAI tools as sharing a common language as they refer to the same clinical concepts in the same way across the various tools. "Using common measures enables clinicians and providers in different care settings to improve continuity of care, and to integrate the care and support needed for each individual.

The assessment software allows for information to be automatically aggregated to provide data at facility, regional and national level, and enables families, advocates, and payers to track a person's progress."[22]

Within the aged care sector, the interRAI assessment tools are used to assess an older person's overall health and well-being across several critical areas. New Zealand uses a number of interRAI instruments and in 2012 the Ministry of Health announced that interRAI would become the mandatory assessment tool for all aged residential care providers from July 2015. This followed on from the successful roll out of the system for Home Based Assessments.

New Zealand became the first country in the world to have use of these home and community, and residential care tools mandatory nationwide. Feedback from facility providers and nurses, who undertake the interRAI clinical assessments, has been mixed, with many finding the work load of a computer based, data entry system challenging.

Each rest home resident is assessed on arrival at an aged care facility, using a nurse-led international evaluation system. And while nurses are constantly monitoring residents, there are comprehensive assessments every six months or whenever there is a significant change in condition.

Zoe Berry, Chief Executive of the Kamo Home and Village Charitable Trust, says

"While the system can be time-consuming for facilities, interRAI provides a clinical assessment of needs and enables them to track a person's overall health and well-being and plan personalised care for the stage a person is at in their life journey.

"Sometimes it's hard, you don't always notice the small changes when you see someone on a daily basis, but interRAI provides us with a tool to actually track those changes over time and modify a person's care plan accordingly," she says.

The system uses screening questions that focus on 22 key aspects of a residents health such as nutrition, cognition, falls, and skin condition. It also incorporates the resident's strengths, preferences and needs, which provides a structured way to build a comprehensive picture of a person's overall health and well-being.

"It also really helps us when we are talking to families – by tracking the key areas of a person's health, we can actually have an informed conversation with families about whether we can improve some areas of health and independence, or whether the care plan should focus more on acceptance, management and comfort," she says.

The benefits of aged residential care on health and well-being.

"The analysis shows that across all the key indicators of an older person's health and well-being, health outcomes improve over a six-month period after entering a rest home,"

says NZACA Chief Executive Simon Wallace.

The data analysis undertaken by NZACA involved comparing a person's interRAI outcome scores from their Home Care assessment (HC), prior to entry into care, and their routine Long Term Care Facility (LTCF) interRAI reassessment once they have been in aged residential care for 6 months.

The outcome scales that were compared include activities of daily living (ADL Hierarchy), health stability (or CHESS), depression, pain, pressure sores, cognitive performance, aggressive behaviour and communication. For accuracy of reporting, only those whose scores could either deteriorate, or improve have been used.[23]

Some 9,868 individuals who had a routine reassessment in the period 1 July 2016 – 30 June 2017 following their first six months of residence in Aged Residential Care also had a HC assessment prior to admission.

Of these, some 8833 had a CHESS (for example) score in their final HC assessment in the range 1 to 4, i.e. that they had a score that could either go up (increased instability) or go down (reduced instability).[24]

Simon Wallace says "The results show the enormous benefits of entering aged care – 37.5% of people had improved independence, when looking at their ADL Hierarchy scores, and 74.5% had improved overall health stability or CHESS. 26.8% of people had improved cognitive performance, and for those who were showing signs of depression, 62.1% showed an improvement. These are areas that are critical in an older person's life, not just to their overall health, but their mental well-being too."

"The results are both exciting, and challenging. The standardised assessment tools through interRAI means we can far better track and monitor an older person's health and well-being. This enables us to demonstrate the improvement and benefits to an older person's overall health stability once they have entered aged care."

"However, we need to ensure that these assessment tools are being used and interpreted in a consistent way around the country, and that elderly people whose health would benefit from aged residential care, have timely access to that care when they need it.

"We need to engage as a community, and with our families, around the benefits of aged residential care to support our elderly New Zealanders to live as comfortably as possible, for as long as possible – access to the right care is critical to that," says Simon Wallace.

Christchurch GP Dr Tim Wilson, says

That in his 40-year medical career he has supported many of his patients into aged care facilities. “Many people are at a stage of life where they feel apprehensive about entering a care facility. I try to introduce the concept that it is an exciting new opportunity to meet new people, try new activities and be free of some of the burdens of daily living at home.”

“The quality and structure of aged care facilities which are available today means it is a missed opportunity for many people when they feel too apprehensive to move into care – I have seen numerous examples of the considerable benefits people receive when they enter a facility. I am very pleased that the NZACA is collecting and analysing the interRAI data to document this”, says Dr Wilson.

The results show the changes in scores between a person’s last HC assessment and their LTCF routine reassessment – for new aged care residents who were admitted between July 2016 and June 2017, whose scores could shift in either direction.

Health stability (CHESS)

A person's Changes in Health, End Stage Disease, Signs and Symptoms (CHESS) score is a summary measure which assesses changes in decision making, and activities of daily living status, vomiting, shortness of breath, peripheral edema (swelling), weight loss, and dehydration.[25]

The scale from 0-5 was designed to identify people at risk of serious decline.[26] Research regarding where a person sits on the CHESS scale states that the CHESS scale "has been shown to predict mortality, health service use, and caregiver distress in the overall populations of people receiving care in home care, post-acute, nursing home and palliative care settings.[27]

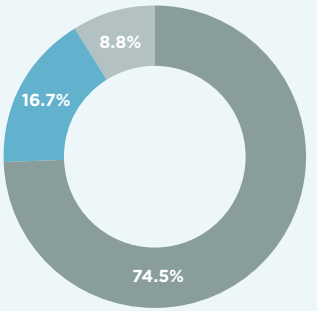
The results of the analysis show that 74.5% of people whose status could move in either direction (scores 1-4), will have improved health stability, between their last HC assessment, and their LTCF routine assessment.

"These results are very powerful. For rest home level care, health stability is really important to give a person more independence and to enable them to enjoy life, says Christchurch GP, Dr Tim Wilson.

"Often people are too exhausted to look after themselves properly at home, or their carer is elderly themselves, and facing health issues of their own. It can also be daunting for an older person to get to a Doctor's surgery, and one of the benefits of aged care is that residents have easy and regular access to medical care, which is targeted to their specific needs. This has a positive impact on health stability", he says.

"For those who are at the higher end of the scale, too often I see people who are simply remaining at home longer than what is safe, while their health deteriorates – they often arrive into aged care by ambulance, and they could have potentially enjoyed better health and well-being a lot sooner," says Dr Wilson.

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES: CHESS



Filter: HC scores could shift up or down.
N=8833 out of 9868

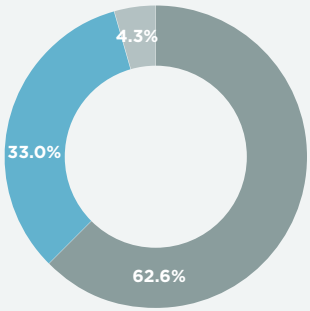
Pain

The Pain Scale is derived from assessments that attempt to define a person's level of pain. The Pain Hierarchy ranges from 0 (no pain) to 4 (daily excruciating pain).[28]

For those people whose scores could either improve or deteriorate, the results of the analysis of the interRAI data show that 62.6% of people have improved levels of pain management in the 6 months after entering ARC and for 95.6% of people, their pain either stabilised or improved.

Tina Mills at Jack Inglis Friendship Hospital in Motueka says that when residents come into aged care their needs are reviewed and assessed frequently and therefore any issues with pain management can be identified and addressed very quickly. "Because pain can be debilitating we get on top of managing a resident's pain and ensure their needs, which are often complex, are addressed when they first arrive. We undertake a review of their medicines and get a good understanding of their pain intensity, frequency, and the underlying cause of the pain, so that we can develop an effective pain management plan. Sometimes pain is unexplained and once a person starts receiving regular nurse contact, care and attention their pain can subside."

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES: PAIN



Filter: HC scores could shift up or down.
N=5441 out of 9868

Mental health and well-being

Reduced Social Isolation in Aged Residential Care

Many DHBs factor in an older person's loneliness when considering whether to offer residential care as a care option.[29] They are right to do this, when looking at the results of the interRAI assessments below as to whether an elderly person indicates that they feel lonely.

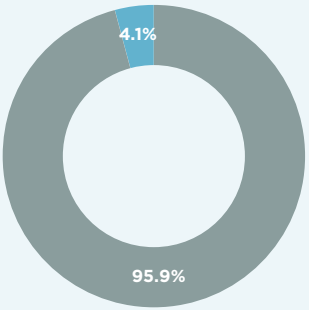
Looking first at those who are not lonely at the time of their final home care assessment, 95.9% continue to report not feeling lonely at the time of their routine reassessment after around six months of aged care. Some 4.1% report as feeling lonely at that time, although they were not lonely prior to admission to aged residential care.

Turning to those who report as being lonely at the time of their final home care assessment, some 82% improve to not feeling lonely after around six months of aged care, and 18% continue to report feeling lonely.

The interRAI system clinically screens for depression as part of the assessments. Many older people feel isolated and alone when they are at home – it is often difficult for a person to go out, and daily contact with other people can be limited. Key areas which are examined as part of this assessment, are crying and tearfulness, sad, pained and worried expressions, repetitive non-health related complaints, repetitive health complaints, showing persistent anger with themselves or others, and making negative comments.[30]

LONELINESS AT SIX MONTH LTCF ROUTINE REASSESSMENT AMONG THOSE WHO WERE NOT LONELY AT THEIR FINAL HC ASSESSMENT

Filter: those who say they are not lonely in the final HC assessment N=7209



LONELINESS AT SIX MONTH LTCF ROUTINE REASSESSMENT AMONG THOSE WHO WERE LONELY AT THEIR FINAL HC ASSESSMENT

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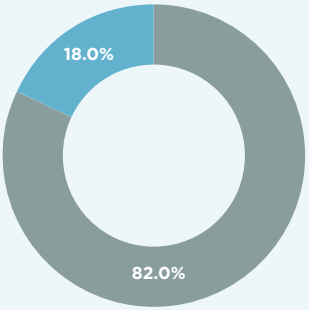


NOT LONELY

FEELS LONELY

The interRAI analysis showed that 62.1% of people whose depression rating scores could move in either direction from their last home care assessment had improved scores when they entered care, and a further 18.5% remained stable.

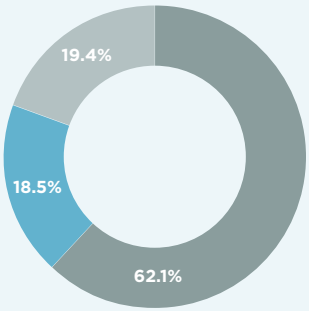
Mental health is a critical factor in people's overall health and well-being and it has an impact on physical health. According to the World Health Organisation, over 20% of adults aged 60+ will suffer from a mental health or neurological disorder.[31] Social isolation, lack of connectedness and loneliness are some of the biggest contributors to depression and arguably no other generation feels loneliness more intensely than the elderly.

People can become lonely for many reasons including bereavement, disability, illness, ageing and living alone. Regardless of the reason, it is easy to be left feeling socially isolated which can lead to depression and a decline in a person's health and wellbeing.

Margaret Brown, from Elizabeth Knox Home and Hospital in Auckland says "The social activity and supportive friendships that develop in aged care are important to helping residents overcome any feelings of loneliness and isolation that they may have felt before entering care."

"We have had residents that prior to coming into care, the only person they have seen on a regular basis is the person who delivers their meals on wheels. When a new resident comes into Elizabeth Knox we support them to form relationships– there is always someone to talk to, whether it's another resident, nurse, member of the maintenance team, or managers. While it can sometimes take time for a person to adjust – after a period, they have more confidence, they make friends, they want to be involved, and it doesn't take long for our team to see improvement in that person's overall health and wellbeing."

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES:
DEPRESSION



Filter: HC scores could shift up or down.
N=5214 out of 9868

Aggressive behaviour

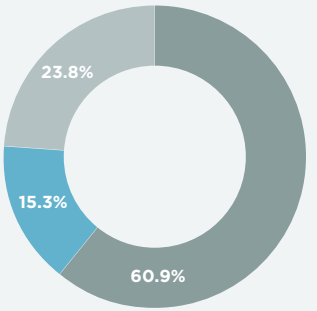
Aggressive behaviours are measured by the occurrence of verbal and physical abuse, socially disruptive behaviour, and resistance to care.

Scale scores range from 0-12 with higher scores indicative of greater frequency and diversity of aggressive behaviour. A score of 1 to 4 on the scale indicates mild to moderate aggressive behaviour, and scores of 5 + represents the presence of more severe aggression.[32]

While the overall occurrence of this was relatively low, (79.6% of ARC residents were 0 on the scale at their final home care assessment), 60.9% of those who showed some aggressive behaviours improved after six months of aged residential care.

Tina Mills says, "The personalised, constant care that a person receives in aged care is key to managing any aggressive behaviour. Our nurses and staff are constantly having contact with a person, and are able to determine why they are aggressive, what triggers the behaviour, and develop a plan to help address the underlying issues."

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES:
AGGRESSIVE BEHAVIOUR



Filter: HC scores could shift up or down.
N=1995 out of 9868

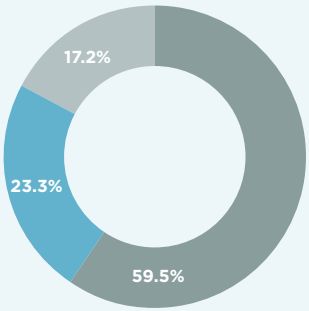
PURS (pressure ulcer risk)

The analysis showed 59.5% of people whose pressure ulcer risk score in their last home care assessment could go either way, had a reduction of pressure ulcer risk at their 6-month routine assessment in LTCF. Overall, 82.8% either improved, or remained at the same level.

Tina Mills of Jack Inglis Friendship Hospital says, "Pressure injuries are very painful, and we see a significant number of people who enter care with a pressure injury as they have had declined mobility, for example confined to their bed at home, or hospital for a period of time.

"In a rest home environment, pressure injuries are rare as on a practical level, our clinical team are in a position to turn a resident regularly, and we have appropriate equipment e.g. beds and specialized chairs specifically for pressure injuries. If pressure injuries are identified as a problem when a person enters care, part of their personalised care will be in their management plan to improve the areas, for example a 24/7 turning chart, skin integrity, nutrition, so that a person can start feeling better, and enjoying life."

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES: PRESSURE ULCER RISK



IMPROVEMENT
SUSTAINED
DETERIORATION

Filter: HC scores could shift up or down.
N=6490 out of 9868

Activities of daily living

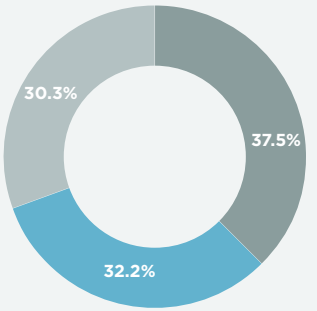
The ADL Hierarchy Scale groups activities of daily living according to the stage of disability that a person is at. Early loss ADLs such as dressing, are assigned lower scores than late loss ADLs such as eating. The ADL Hierarchy ranges from 0 (no impairment) to 6 (total dependence). Key areas used to score the scale are personal hygiene, toilet use, locomotion (mobility), and eating.[33]

For those people whose scores could either improve or deteriorate, the results of the analysis of the interRAI data show that 37.5% of people have improved ADL Hierarchy scores in the 6 months after entering aged care. The results show that nearly 70% (69.7%) have either improved ADL Hierarchy scores or have remained stable.

Tina Mills from Jack Inglis Friendship Hospital in Motueka says that ADL's are really important to help a person succeed in their older years, and live as independently as possible. "Assessing an older person's ability to dress themselves, and go to the toilet independently, are important triggers for determining whether a person needs more support. The improvement in key areas of independence when a person enters aged care is very encouraging, as we are able to provide 24/7 care and support to a person for those activities that are challenging, which they would not be able to access if they remained at home", she says.

"Often when a person has remained at home too long, and is admitted to aged care, they can be in pretty bad shape. They can be dehydrated, with poor nutrition, and feel lonely and isolated, lacking in confidence. Once a person comes into care, they get daily management of their needs, so nutrition, their medication, and initial issues are managed to help them feel better. Once a person is feeling better sociability grows, and so does the ability to do more things for themselves."

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES: ADL HIERARCHY



Filter: HC scores could shift up or down.
N=6844 out of 9868

Communication

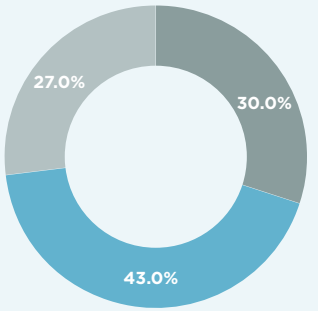
The assessment measures a person's receptive and expressive communication – a person's ability to make themselves understood, and their ability to understand others, considering any means by which this is achieved.[34]

A person is assessed on a scale between 0-8, with a core of 8 indicating very severe impairment in communication. For those people whose scores could move up or down, 30.0% of people's communication improves on entering aged care, and 73% of people either improve or stay the same.

Margaret Brown from Elizabeth Knox says that lack of engagement with others can be a big issue when a person enters aged care. "Often, when an elderly person is living alone, they have limited social contact. Even having a family member or friend popping in to see them once a day, still makes for a huge amount of time spent alone."

"Living in a rest home environment is by its very nature more sociable – whether it be someone coming to clean their rooms, the nurse coming by, or someone coming in to play music, there is much more activity than what they would normally get if they were at home. We frequently see people who enter care, who have had limited social contact and suffer from low self-confidence, slowly brighten up as they start to feel better. They then begin to join in the life of the home, and their communication skills naturally improve."

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES:
COMMUNICATION



Filter: HC scores could shift up or down.
N=6387 out of 9868

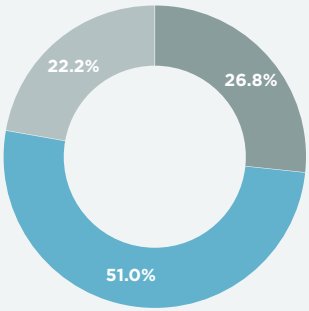
Cognitive performance

The cognitive performance scale assesses a person's memory impairment, level of consciousness, and executive function. A person is given a score ranging from 0 – 6, with the highest score of 6 indicating very severe impairment.[35]

For people whose scores could move either way, the analysis of the interRAI data showed that for 51.0% of the people assessed, they did not deteriorate any further, and 26.8% of people's cognitive performance improved.

"These results are encouraging" says Canterbury's Dr Tim Wilson. "The reality is, for many older people, their cognitive abilities naturally deteriorate over time, and for some the loneliness and isolation they can experience living at home means they have limited or infrequent social interaction, and stimulation. In my experience, moving into aged care means a person has more social stimulation, which can actually improve their cognitive performance."

SIX MONTH LTCF ROUTINE REASSESSMENT OUTCOMES SCORES IN 2016/17 COMPARED TO LAST HC SCORES:
COGNITIVE PERFORMANCE



Filter: HC scores could shift up or down.
N=8634 out of 9868

Access to the right level of care across the District Health Boards.

AT THE RIGHT TIME

The NZACA is concerned that many older people are missing out on improved health and well-being by staying at home longer than they should, simply because of the DHB area they live in.

interRAI was made mandatory in July 2015, and one of the benefits of the suite of assessment tools, is that people are assessed for eligibility to aged care using a standardised process, which should logically deliver consistent and equitable access to that care for all elderly people.

However, the analysis of the interRAI assessment data, and information received under the Official Information Act, shows that there are huge variations in access to care around New Zealand.

DHBs responses to NZACA's Official Information Act request for information on criteria applied when evaluating eligibility for aged residential care and change in care level referrals, showed that all DHBs use interRAI assessment data. However, there is wide variance in how DHBs use interRAI outcome scales and CAPs in their evaluations.

On the evidence provided in DHB's responses, it appears only half of the DHBs use interRAI Outcome Scores, or CAPs (Clinical Assessment Protocols) in a systematic way in their decision processes. Some DHB's appear to give little weight to interRAI scores in their evaluations of eligibility for residential care at each level of care. Those that do give a central role to interRAI data apply a range of threshold scores.[36] There is little consistency in how interRAI data is used by DHBs, despite the undertakings to NZACA on behalf of the DHBs during the introduction of interRAI, to aged residential care, that this would be the case.[37]

NZACA Chief Executive Simon Wallace says,

"The NZACA was very supportive over the introduction and roll out of interRAI, and has proactively encouraged facilities to adopt it – this has been time consuming and expensive, but from an aged care facility perspective, interRAI enables a person's health and well-being to be properly tracked, and a personalised care plan to be put in place."

"The NZACA is really disappointed, and concerned that some of the DHBs appear to be either simply not using the interRAI results, or using other assessment criteria to determine a person's eligibility for aged care.[38] This is leading to inequitable access to the right care for many people around the country, which is denying them better or stable health and well-being."

"It shouldn't matter if you live in Waitemata, the Hawkes Bay or South Canterbury – if an elderly person is assessed as needing aged care, then they must be able to have timely and equitable access to that care. Postcode healthcare should not be acceptable in a country like New Zealand."

"interRAI has been mandated as being the standardised assessment tool for determining the eligibility of elderly people to receive aged residential care. The NZACA is calling on all DHBs to fully adopt interRAI as mandated, and ensure that when a person is assessed as being eligible for care, that they can actually access that care," he said.

interRAI HOME BASED ASSESSMENTS – HOW IT WORKS

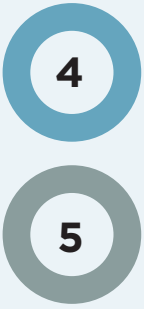
Older people are initially assessed using a Home-Based Assessment, and given a range of outcome scores, including a MAPLe (Method of Assigning Priority Level) score of between 0-5 to determine their level of priority or risk of needing support, including aged residential care. The MAPLe score is predictive of risk of admission to aged care, but it is not an absolute for admission.

However, information from the DHBs reveal that a high score on the MAPLe scale is the most widely used indicator of high support needs and potential eligibility for residential care. While MAPLe is used in conjunction with other assessment tools, the report by DHB Shared Services' interRAI Triggers for ARC Project Group identified MAPLe as the key indicator of need for residential care.[39]

MAPLe differentiates people into 5 priority levels, based on their risk of adverse outcomes. People in the lowest priority level (0) have no major functional, cognitive, behavioural, or environmental problems and are considered self-reliant. The highest priority level is based on the presence of ADL impairment, cognitive impairment, wandering, behaviour problems, and if the institutional risk CAP is triggered.[40]

Research has demonstrated that the five priority levels are predictive of risk - individuals in the highest priority level are nearly nine times more likely to be admitted to a long- term care facility than those at the lower levels.[41] The two highest scores on MAPLe are:

MAPLe SCORE[42]



4
High priority
Risk of adverse outcomes
Residential support

5
Very high priority
Admission to hospital care or in community with support, need for 24-hour supervision

A good indicator of the differing thresholds for eligibility for residential care between the DHBs is the time that elapses from when an older person first scores high on MAPLe (4 or 5) until they are admitted to aged residential care.

It would be expected that those DHBs which are more inclined to residential care options would have a greater percentage of high support needs individuals being admitted to aged residential care within, for example, a year of receiving a high MAPLe score for the first time than those who do not. If all DHBs applied similar thresholds for residential care, based on interRAI outcomes, we should see little variation in this percentage between the DHBs.

RESULTS OF THE ANALYSIS – INEQUITY OF ACCESS AROUND THE REGIONS

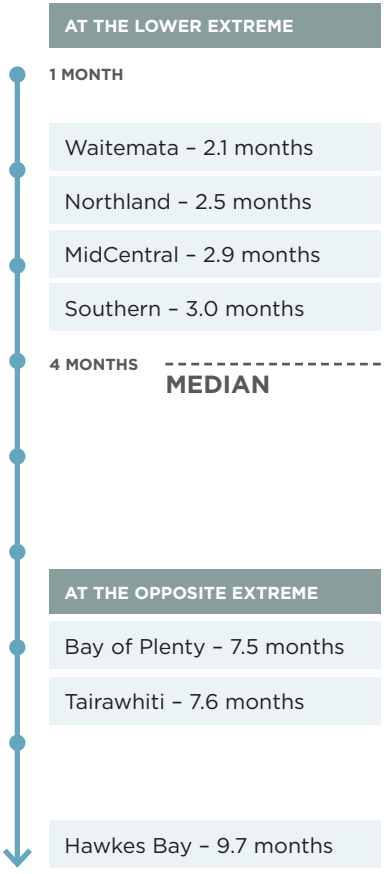
"In a country like New Zealand you would expect that the DHBs would apply similar thresholds to each other, and people would have equal access to aged residential care, regardless of location. Indeed, when DHBs apply different thresholds for surgery there is a public outcry", says Simon Wallace.

The results of the analysis in Figure 1 calculate the time from the HC assessment in which a person obtains a MAPLe score of 4 or 5 for the first time, until they are admitted to aged residential care (if ever). The results indicate significant variations between the DHBs' assessment of people with high support as being eligible for aged residential care, showing that in some regions around the country it takes longer to be admitted to aged care than other regions.

In Figure 1, 54.1% of people who lived in the Waitemata DHB area and achieved a score 4 or 5 on MAPLe were admitted to aged residential care within 12 months. However, only 29.6% of those who lived in the Bay of Plenty were admitted to aged residential care in the same time frame. The national average is 41.2%.

50.3% of those who lived in the MidCentral DHB were admitted to aged care within 12 months, but for those living close by in Hawkes Bay, only 32.1% of people who achieved a score of MAPLe were admitted to aged care within 12 months.

A consequence of the DHB's different approaches to assess high support needs individuals as eligible for aged residential care is that, among those that are admitted, the time elapsed between first being assessed at MAPLe 4 or 5 and admission to ARC will vary (Figure 2). At the national level, the median time from first hitting a MAPLe score of 4+ was 4.0 months but this median is very variable across the DHBs.



Simon Wallace says,

"Scoring 4 or 5 on the MAPLe scale indicates a person is at serious risk of adverse outcomes, and at level 5 in particular, the person is likely to need 24-hour care. There comes a time in an older person's life when aged residential care is the best place for them to be, to better manage their health and well-being.

"What these results show, is that access to aged residential care takes a lot longer in different regions around the country than others.

"This is really concerning – not only is this inequitable, but people are remaining in their own homes longer than they should be based on where they live, and as a result are missing out on improved or stabilised health and well-being," he said.

There is a body of research which looks at the risk of hospitalisations prior to entry into aged care, suggesting that if people are staying in their homes longer than what they should, they are at increased risk of hospitalisation than if they had been admitted to long term care.

Research shows that hospitalisation rates rise exponentially during the 6-month period prior to LTC entry. The Age and Ageing 2016 report by Boyd,[43] Broad et al states that "It is encouraging that mean rates decreased so dramatically immediately after LTC entry." The report went on to state "This reduction may occur as a result of a clearer understanding of the residents' chronic conditions and better monitoring of health status."

Similarly, the Boyd report states that increased hospitalisations a few months before LTC entry suggest functional and medical instability precipices LTC entry. The report found that new residents utilise hospital beds less frequently than when at home before that unstable period.

A European longitudinal cohort study, demonstrated a six-fold higher rate of hospitalisation in the 3 months prior to entry to long term care compared to 3 months after entry.[44] A Canadian study, also quoted in the Boyd report, found that hospitalisations for LTC residents were less than half of those receiving community care. The study compared hospitalisation rates over a 2-year period for LTC residents, community care recipients, and the elderly receiving neither residential or community care.[45]

FIGURE 1: Percentage of Individuals Scoring 4 or 5 on MAPLE Scale for the first time in 2015/16 who were admitted to ARC within the next 12 months

FILTER: Those admitted to ARC within 12 months of scoring 4+ for on MAPLE for the first time in 2015/16 N=5556

DHB	% ADMITTED TO ARC
WAITEMATA	54.1%
MIDCENTRAL	50.3%
SOUTHERN	45.5%
CANTERBURY	45.5%
WHANGANUI	45.2%
SOUTH CANTERBURY	44.7%
TARANAKI	44.5%
WAIKATO	42.3%
AUCKLAND	42.1%
NATIONAL	41.2%
TAIRAWHITI	39.2%
COUNTIES MANUKAU	38.2%
HUTT VALLEY	38.0%
WAIRARAPA	36.7%
CAPITAL AND COAST	36.1%
NELSON MARLBOROUGH	36.1%
LAKES	35.5%
NORTHLAND	34.2%
HAWKES BAY	32.1%
BAY OF PLENTY	29.6%
WEST COAST	28.0%

FIGURE 2: Those admitted to ARC in 2016/17 who hit MAPLe 4+ Preceding Admission: Median Months since first hitting MAPLe 4+

FILTER: Those admitted to ARC in 2016/17 following a HC with MAPLE score of 4+ N=8106

DHB	MEDIAN MONTHS
WAITEMATA	2.1 MONTHS
NORTHLAND	2.5 MONTHS
MIDCENTRAL	2.9 MONTHS
SOUTHERN	3.0 MONTHS
HUTT VALLEY	3.3 MONTHS
WAIKATO	3.3 MONTHS
WHANGANUI	3.5 MONTHS
WAIRARAPA	3.8 MONTHS
NATIONAL	4.0 MONTHS
AUCKLAND	4.1 MONTHS
COUNTIES MANUKAU	4.4 MONTHS
CANTERBURY	4.6 MONTHS
SOUTH CANTERBURY	5.1 MONTHS
TARANAKI	5.2 MONTHS
CAPITAL AND COAST	5.2 MONTHS
NELSON MARLBOROUGH	5.3 MONTHS
LAKES	5.9 MONTHS
WEST COAST	6.9 MONTHS
BAY OF PLENTY	7.5 MONTHS
TAIRAWHITI	7.6 MONTHS
HAWKES BAY	9.7 MONTHS

The NZACA's analysis examined whether people are receiving the right level of care, when admitted into aged residential care.

NZACA Chief Executive Simon Wallace says "People being cared for at the right level for their needs is hugely important, not only for the older person's health and well-being, but also for the care facilities and carers involved. Funding from the Government needs to cover the cost of providing the level of care that is required – otherwise the sustainability of care facilities is threatened."

Specifically, the NZACA wanted to know if some older people in aged residential care are being funded by their DHB for a lower level of care than what they need.

It also wanted to know whether there are inconsistencies across the DHBs as to what level residents are being funded at – people who have the same or similar support needs as indicated by their interRAI assessment scores, but are funded by their DHB into different levels of care depending on which region they live in. The levels of care are rest home, and then move up to higher levels including: hospital, dementia, and psychogeriatric.

LEVELS OF CARE	
Rest Home	Rest homes provide 24-hour care by trained staff. People in rest homes can do some daily tasks themselves, but struggle to live independently in their own home.
Hospital	Long-stay hospitals provide 24-hour health care for people with high clinical needs. Most residents cannot move without the help of another person, and need assistance to do most daily tasks.
Dementia Units	Dementia units provide care to elderly suffering dementia or other mental illness. Dementia units provide the same services as rest homes in a secure environment and have staff trained in specialist dementia care.
Psychogeriatric Care	Psychogeriatric care is a high level of care for people with a very high level of dementia or challenging behaviours.

NZACA Chief Executive Simon Wallace says,

"The results again show huge variations around the country as to the level of care that people are admitted to. It is very concerning that people who have the same score are being admitted to different levels of care depending on where they live. A person's health and well-being should not be compromised because of where they live in New Zealand – the results suggest that there are clearly many older people who live in areas such as the Hutt Valley and the Lakes District for example who could be enjoying better health stability if they were receiving the right level of care."

The NZACA's analysis compares access of older individuals with very high support needs to hospital, dementia or psychogeriatric care levels within aged residential care. This is to identify if, across the DHB regions, these people have equity of access to these higher care levels.

This analysis looked at the percentage of residents with very high support needs who are in hospital, dementia or psychogeriatric care after approximately six months in aged residential care. They could have been admitted directly to these higher levels of care on admission, or possibly were admitted at rest home level then transferred to a higher level of care based on the results of their admission interRAI assessment or a subsequent "significant change of status" assessment. The analysis does not include the score at the resident's six-month routine reassessment, as there may have been a deterioration since the preceding assessment which could not be expected to be reflected in the care level. The only information from the six-month reassessment that is used in the analysis is the care level at the time of that assessment.[46 47]

The two indicators of support need we consider in this analysis are the key areas of cognitive performance (CPS scale) and overall health stability (Change in Health, End-Stage Disease, Signs, and Symptoms Scale or CHESS scale). A score of 3+ on these scales indicates that people are at risk of needing a higher level of care than rest home level (MAPLe, the scale used in Figures 1 and 2, is only used in home care assessments).

COGNITIVE PERFORMANCE SCORE OF 3+

Nationally, 71.5% of all aged residential care residents who had their six-month routine reassessment in 2016/17 and had a cognitive performance score (CPS) of 3+, were in hospital, dementia or psychogeriatric care[46] prior to this assessment (Figure 3). However, only 46.5% of residents who live in Lakes DHB and who have a CPS score of 3+ are in higher levels of care at their 6-month routine reassessment. Other DHBs with a relatively low percentage of CPS score 3+ aged residential care residents in higher levels of care include Taranaki (49.2%), Wairarapa (50.0%) and Whanganui (52.1%).

In contrast, residents who live in Counties Manukau are well above the national average, with 83.2% of aged residential care residents with a score of 3+ living in higher levels of care. Other DHBs with a relative high percentage of CPS score 3+ aged residential care residents include West Coast (83.9%), Auckland (80.9%), Northland (80.1%), and Waitemata (79.3%)

"The results show that there are large numbers of people who are either needing, or at risk of needing, hospital or dementia level care for example, who are being cared for at rest home level. Keeping people at a lower level of care than what they need not only compromises their health, but is very distressing for the elderly person. It also places huge stress on the rest homes, carers, and family members", says Simon Wallace.

"Many rest homes struggle to provide a higher level of care, and are not funded sufficiently to do that. In addition, the huge variations around the country raise serious questions about equality of access to the right level of care," he says.

HEALTH STABILITY (CHESS) SCORE OF 3+

"Regional disparities in care levels of residents with high health instability as indicated by CHESS scores are equally concerning.[47] Nationally, 61.7% of aged residential care residents who had their six-month routine reassessment in 2016/17 and had a CHESS score of 3+ are in higher levels of care at the time of this reassessment (Figure 4). However, this drops to 31.4% for aged residential care residents in Taranaki DHB, 37.5% in West Coast DHB and 42.3% in Lakes DHB. By contrast, if a person lives in Auckland, 82.2% of those with the same score will be in higher levels of care and in Counties Manukau, 76.4% will be in higher levels of care" he said.

"Health stability is very important to an elderly person's ability to be as comfortable as they can. By the time a person's CHESS score reaches 3+ they are needing a higher level of care than rest home care, and they should not be denied access to that care because they live in the Hawkes Bay, instead of South Canterbury, or in Wellington"

says Simon Wallace

FIGURE 3: Percentage of ARC Residents with CPS Score 3+ prior to their First Routine Reassessment who are in Hospital, Dementia or Psychogeriatric care after Six Month's residence

FILTER: Residents with CPS score 3+ in admission assessment, or subsequent change of status assessment, prior to first routine reassessment 2016/17. N=1698

DHB	PERCENT
WEST COAST	83.9%
COUNTIES MANUKAU	83.2%
AUCKLAND	80.9%
NORTHLAND	80.1%
WAITEMATA	79.3%
BAY OF PLENTY	76.0%
CANTERBURY	75.3%
SOUTHERN	73.6%
CAPITAL AND COAST	73.1%
MIDCENTRAL	71.6%
NATIONAL	71.5%
SOUTH CANTERBURY	71.4%
TAIRAWHITI	71.1%
WAIKATO	64.5%
NELSON MARLBOROUGH	62.6%
HUTT VALLEY	62.0%
HAWKES BAY	61.9%
WHANGANUI	52.1%
WAIRARAPA	50.0%
TARANAKI	49.2%
LAKES	46.5%

FIGURE 4: Percentage of ARC Residents with CHESS Score 3+ prior to their First Routine Reassessment who are in Hospital, Dementia or Psychogeriatric care after Six Month's residence

FILTER: Residents with CHESS score 3+ in admission assessment, or subsequent change of status assessment, prior to first routine reassessment 2016/17. N=4614

DHB	PERCENT
AUCKLAND	82.2%
COUNTIES MANUKAU	76.4%
WAITEMATA	73.0%
CAPITAL AND COAST	67.6%
BAY OF PLENTY	67.0%
TAIRAWHITI	66.7%
CANTERBURY	64.6%
SOUTHERN	63.8%
NATIONAL	61.7%
SOUTH CANTERBURY	61.5%
MIDCENTRAL	57.1%
NELSON MARLBOROUGH	54.9%
WAIKATO	54.1%
NORTHLAND	53.8%
HAWKES BAY	52.7%
WHANGANUI	51.5%
HUTT VALLEY	43.5%
WAIRARAPA	42.3%
LAKES	42.3%
WEST COAST	37.5%
TARANAKI	31.4%

Our call to action.

The results of the analysis are challenging, but are consistent with feedback from aged care facilities, and have serious implications for an older person's health and well-being.

The benefits of aged residential care are powerful, and yet many elderly people are being denied both access to care, and care at the appropriate level to best meet their needs. How we treat our elderly and vulnerable New Zealanders defines us as a society, and we should not accept postcode healthcare.

With an ageing population, the issues highlighted by the analysis are not going away. The pressure on the health system, family members and carers will only increase as people live longer with co-morbidities, and the time is right to address how we best ensure our elderly are able to live comfortably and as well as possible, now and in the future.

Equity of access to appropriate care is fundamental to achieving that goal, and the NZACA is calling for the DHBs to fully adopt and implement interRAI as it was intended, in a consistent way, to enable those people who need aged residential care, to receive it. Put simply, our elderly New Zealanders deserve nothing less.

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- *Jack Inglis Friendship Hospital,* Motueka
- *Dr Tim Wilson,* Christchurch
- *Sprott House*, Karori, Wellington

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New Zealand Aged Care Association (2017a) *Report on OIA Request to DHBs on Eligibility Criteria for Aged Residential Care (2017)*. Available on request.

New Zealand Aged Care Association (2017b) *Review of National Thresholds for Aged Residential Care Initiative 2012-2015 (2017)*. Available on request.

1 NZACA (2017a)

2 The Health and Disability Ethics Committee found NZACA's proposed analysis using anonymised interRAI records to be "out of (its) scope". This decision meant interRAI New Zealand were able to provide NZACA with the requested anonymised records.

3 interRAI New Zealand, December 2017

4 Available at https://www.interrai.co.nz/data-and-reporting/

5 An initial data set, consisting of 37,566 assessments for 18,239 individuals was provided on 20 January 2017. The dates of the assessments ranged from 1 July 2014 to 31 Dec 2016. Data included Long-Term Care Facility (LTCF) assessment results for residents who had a six-month routine reassessment.

On 13 April 2017 interRAI Services provided an expanded dataset which included the final Home Care (HC) assessment data for aged residential care residents who had a first LTCF assessment between July 2014 and March 2017, in addition to their LTCF assessment results. Data for individuals who died prior to routine LTCF reassessment was included in the dataset. There were 165,381 records for 51,053 individuals

On 5 July 2017 interRAI Services provided a further expanded data file which included outcome scores, Clinical Assessment Protocols (CAPs) and disease diagnoses for HC and LTCF assessments over the period 5 July 2012 to 4 July 2017 but was incomplete for June Year 2017 assessment results. This included 304,520 HC and LTCF interRAI assessments, for 125,998 individuals.

On 18 October 2017 interRAI Services provided an updated data file which included all completed assessments for the year 1 July 2016 to 30 June 2017. This file included outputs from 334,460 HC and LTCF interRAI assessments from 5 July 2012 to 17 October 2017, for 132,304 individuals.

6 Fields in the datasets included: Outcome Scales; Clinical Assessment Protocols (CAPs); Disease Diagnoses; Age; Date of Death, if applicable; Dates of admission to ARC; Assessment dates; Care Level at time of assessment.

7 NZACA (2017a)

8 This analysis focuses on those whose health status and well-being, indicated by each interRAI scale in turn, could either improve or deteriorate after admission to residential care. If a person enters care with a score of 0 on a 0-5 interRAI scale, then ARC cannot make a measurable improvement to that aspect of a person's health. Similarly, a person already with a 5 on the scale cannot get measurably worse on that scale while in ARC. Therefore in our analysis using the scale we select individuals with scores in the range 1-4 inclusive in their last HC assessment because their scores could go either way (or stay the same) once they enter ARC.

9 This analysis is the percentage of those who first obtained a MAPLe score of 4 or 5 in 2015/16 (which indicates a person may benefit from residential care see NZACA (2017b)) who were admitted to aged residential care within 12 months of the date of the home care assessment in which they first hit such a score. See also Figure 1.

10 Further analysis focused only on those people who were admitted to aged residential care, and analysed the amount of time it takes to be admitted into care, from the time a person was first assessed as high needs (MAPLe 4 or 5).

11 A score of 3+ in the areas of cognitive performance and overall health stability indicates that people are at risk of needing a higher level of care than rest home level.

12 National Population Projections 2016 (Base) – 2068, Statistics New Zealand

13 National Population Projections 2016 (Base) – 2068, Statistics New Zealand

14 The New Zealand Carers' Strategy Action Plan for 2014 to 2018. Published February 2014 by Ministry of Social Development.

15 The New Zealand Longitudinal Study of Ageing, Summary Report, Caregiving. Fiona Alpass, Sally Keeling and Rachel Pond. 2014. A research collaboration between The Health and Ageing Research Team, School of Psychology, Massey University, The Family Centre Social Policy Research Unit and The Foundation for Research, Science and Technology.

16 National interRAI Data Analysis Annual Report 2015/16.

17 "The Reality of Caring: Distress among the caregivers of home care patients" Health Quality Ontario, Toronto, Queen's Printer for Ontario, 2016

18 "The New Zealand informal caregivers and their unmet needs" Diane Jorgensen, Matthew Parsons, Stephen Jacobs, Hilary Arksey, NZMJ 25 June 2010, Vol 123 No 1317; ISSN 1175 8716

19 interRAI stands for 'international Resident Assessment Instrument

20 interRAI New Zealand www.interrai.co.nz

21 interRAI New Zealand www.interrai.co.nz

22 interRAI New Zealand www.interrai.co.nz

23 This analysis focuses on those whose health status and well-being, indicated by each interRAI scale in turn, could either improve or deteriorate after admission to residential care. If a person enters care with a score of 0 on a 0-5 interRAI scale, then ARC cannot make a measurable improvement to that aspect of a person's health. Similarly, a person already with a 5 on the scale cannot get measurably worse on that scale while in ARC. Therefore in our analysis using the scale we select individuals with scores in the range 1-4 inclusive in their last HC assessment because their scores could go either way (or stay the same) once they enter ARC.

[24] A further 1006 had a CHESS score of 0 in the final HC assessment so could not improve, and 29 had a CHESS score of 5 so could not get worse.

[25] Source: Hirdes JP, Frijters D, Teare G. 2003. The MDS CHESS Scale: A New Measure to Predict Mortality in the Institutionalized Elderly. Journal of the American Geriatrics Society 51(1)

[26] Source of definitions is National-interRAI-Data-Analysis-Annual-Report-2015-16-Supplementary-Tables.xlsx, InterRAI NZ 3 May 2017

[27] Hirdes, John P. et al. "Use of the interRAI CHESS Scale to Predict Mortality among Persons with Neurological Conditions in Three Care Settings." Ed. Ulrich Thiem. PLoS ONE 9.6 (2014): e99066. PMC. Web. 2 Nov. 2017.

[28] National-interRAI-Data-Analysis-Annual-Report-2015-16-Supplementary-Tables.xlsx, InterRAI NZ 3 May 2017

[29] NZACA (2017a)

[30] InterRAI Long Term Care Facilities (LTCF) Facility Managers and Administration Workbook, InterRAI NZ December 2016, page 113

[31] World Health Organisation "Mental Health and Older Adults" Fact sheet, updated April 2016, www.who.int/mediacentre/factsheets/fs381/en/

[32] National-interRAI-Data-Analysis-Annual-Report-2015-16-Supplementary-Tables.xlsx, InterRAI NZ 3 May 2017

[33] National-interRAI-Data-Analysis-Annual-Report-2015-16-Supplementary-Tables.xlsx, interRAI NZ 3 May 2017

[34] InterRAI Long Term Care Facilities (LTCF) Facility Managers and Administration Workbook, InterRAI NZ December 2016, page 113

[35] National-interRAI-Data-Analysis-Annual-Report-2015-16-Supplementary-Tables.xlsx, InterRAI NZ 3 May 2017

[36] NZACA (2017a)

[37] NZACA (2017b)

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[39] Summary of the work of the interRAI Triggers for ARC Project Group, unpublished Briefing Paper to Joint ARC Steering Group, 27 May 2015

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[41] Hirdes, John P, Jeff W Poss and Nancy Curtin-Telegdi, The Method for Assigning Priority Levels (MAPLe): A new decision-support system for allocating home care resources BMC Medicine2008 6:9 https://bmcmedicine.biomedcentral.com/articles/10.1186/1741-7015-6-9

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[44] Hospitalisations before and after nursing home admission: a retrospective cohort study from Germany, Ramroth H, Sprecht-Leible N, Brenner H. Age Aging 2005; 34:291-4

[45] Wilson D, Truman C. Comparing the health services utilization of long-term-care residents, home-care recipients, and the well elderly. Can J Nurs Res 2005; 37: 138–54

[46] This analysis looks at the percentage of residents with a LTCF interRAI cognitive performance score of 3+ (moderate to very severe impairment) who are in hospital, dementia or psychogeriatric care after approximately six months in aged residential care. They could have been admitted directly to these higher levels of care on admission, or possibly were admitted at rest home level then transferred to a higher level of care based on the results of their admission interRAI assessment or a subsequent "significant change of status" assessment. The analysis does not include the score at the resident's six-month routine reassessment, as there may have been a deterioration since the preceding assessment which could not be expected to be reflected in the care level. The only information from the six-month reassessment that is used in the analysis is the care level at the time of the assessment.

[47] This analysis looked at the percentage of residents with a LTCF interRAI CHESS score of 3+, which indicates that a person needs extensive assistance or above, who are in hospital, dementia or psychogeriatric care after approximately six months in aged residential care. They could have been admitted directly to these higher levels of care on admission, or possibly were admitted at rest home level then transferred to a higher level of care based on the results of their admission interRAI assessment or a subsequent "significant change of status" assessment. The analysis does not include the score at the resident's six-month routine reassessment, as there may have been a deterioration since the preceding assessment which could not be expected to be reflected in the care level. The only information from the six-month reassessment that is used in the analysis is the care level at the time of that assessment.

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