A review of aged care funding and service models

A strategic assessment of aged residential care and home and community support services

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Glossary

Abbreviation	Stands for
ADLH	Activities of Daily Living Hierarchy
ARC	Aged residential care
CAPs	Clinical Assessment Protocols
CCCI	Cordell Construction Cost Index
CCPS	Clients Claims Processing System
CHESS	Change in Health End-Stage Disease, Signs and Symptoms
CPI	Consumer Price Index
CPS	Cognitive Performance Score
DGRG	Director-General's Reference Group
ED	Emergency Department
HCSS	Home and community support services
IBT	In-between travel
IRR	Internal rate of return
LTCF	Long Term Care Facilities
MAPLe	Method for Assigning Priority Levels
NASC	National Assessment Service Co-ordinator
NASC	National Assessment Service Co-ordinator
NHI	National Health Index
NMDS	National Minimum Dataset
NPV	Net present value
ORA	Occupational right agreement
R&M	Repair and maintenance
RN	Registered Nurse
RUG	Resource Utilisation Group
SPAG	Settlement Party Action Group
TLA	Territorial local authority
WACC	Weighted average cost of capital

Executive summary

This is a strategic assessment of the current settings for aged residential care (ARC) and home and community support services (HCSS). This is the first output of a two-part review, comprising:

1. a strategic assessment of current settings: an analysis of demand and supply to assess the suitability and sustainability of current policy settings, to identify key issues and pressure points, and to provide an indication of possible solutions (this document).
2. service and funding model redesign: the next phase of the review is a programme business case that makes recommendations on the optimal service and funding models for the health of older persons (to be completed by June 2024).

It is outside of the scope of this review to examine policy settings on the appropriate asset thresholds for means testing for ARC services or to make recommendations on workforce pay disparities.

The first phase of two phases

This strategic assessment is the first of two phases. We have undertaken largely descriptive analysis of the current system and have engaged with the sector through a Te Whatu Ora run process. The second phase will extend the analysis including contact assessment rates and the full picture of ethnic variation in the utilisation of HCSS. We will extend and refine the issues currently facing the sector in this strategic assessment. Workstream Two, the second phase, involves a full service and funding model redesign and considers a move to a more integrated care model, improved efficiency in the application of resources, and regulatory and funding regimes that are more fit for purpose.

Context: an ageing population will exacerbate existing challenges in the aged care sector

The aged care sector is facing well-documented challenges, including financial pressures, workforce shortages and in delivering equitable access to services. Without policy reform, it is likely these challenges will be exacerbated by New Zealand's rapidly ageing population. The number of New Zealanders aged 65+ will increase by 33 per cent in the next decade (+280,000), while the cohort aged 85+ will increase by 60 per cent (+58,000).

There are currently around 32,000 older persons in ARC facilities. Most are in rest home (13,500) or hospital level care (13,200), with dementia and psychogeriatric units accommodating 5,500 residents. Te Whatu Ora funded approximately $1,352 million towards ARC services in 2022/23, with residents paying $1,010 million as a result of means testing (including superannuation deductions).

Around 80,000 older people receive services in their home through Te Whatu Ora funded HCSS. Those services include household management services (e.g. cleaning, cooking) and personal care (e.g. bathing, dressing and medicine management). Informal carers are also allocated respite care. Te Whatu Ora funded $732 million of HCSS (including travel) in 2022/23.

Aged care services are under stress and current policy settings cannot be sustained

<u>The aged residential care sector is struggling to meet the needs of older New Zealanders</u>

The ARC sector is under pressure and providers are not building new facilities at the rate New Zealand requires. Beds and facilities are closing in some regions, leaving geographic pockets where older

people are having to travel further from family and support systems. We heard unequivocally from the sector that the problem is a lack of funding – regulated care prices are too low to incentivise investment in new facilities or to secure the workforce needed to staff current beds.

Our analysis has identified several areas of concern for policy makers regarding ARC:

- If historic build rates continue, there could be a shortage of almost 12,000 ARC beds by 2032. Policy settings will need to significantly increase ARC investment and/or support a step-change in caring for older New Zealanders in their homes.
- There is significant regional variation, which is indicative of residents in some regions experiencing barriers accessing ARC and potential unmet need in the community:
    - The number of ARC beds per 1,000 population aged 85+ ranges from 149 beds in Northland to 272 beds in Canterbury.
    - The waiting time for high-priority individuals being admitted to an ARC facility varies significantly, from 82 days in MidCentral to 219 days on the West Coast.1
    - The proportion of high-priority individuals admitted to an ARC facility within 12 months of being identified by a Home Care assessment has steadily fallen since 2016/17.
- The nature and service mix of ARC services are changing with an ageing population. The proportion of older people utilising ARC is declining, but the acuity of those who enter an ARC facility is likely increasing. The proportion of ARC residents receiving rest home level care has fallen from 54 per cent to 49 per cent since 2016/17, with significant increases in dementia care beds in particular.
- Access to an ARC facility has increasingly become linked to a resident's ability to pay, which will be creating financial barriers for many older persons. There has been a marked shift by ARC providers to supplying premium rooms (which have unregulated prices), with 43 per cent of ARC residents now paying additional fees for premium rooms. This confirms what we heard that there is effectively priority access for those individuals who can afford to pay a premium or those who reside in an integrated retirement village.
- High-priority Māori, Pacific and Asian individuals are much less likely than other ethnicities to be promptly admitted to an ARC facility. New Zealand European individuals who have been assessed as a high priority for moving out of a home environment are twice as likely to be admitted to an ARC facility within 12 months than Māori individuals with a similar high priority assessment.[2]
- High-needs dementia and psychogeriatric care residents are waiting, on average, nearly six months to be admitted to an ARC facility after being assessed as high priority for moving out of a home setting. With an ageing population we can expect demand for these care beds to increase. We heard from the sector that the lack of beds and staffing, as well as low bed

[1] Waiting times in 2021/22 for individuals who were admitted to an ARC facility after a homecare assessment where their MAPLe score was a 4 or 5. The MAPLe score indicates an individual's level of risk and need of support. If an individual attains a score of 4 or 5, it means that ARC should be considered as a care option and they are likely to need 24-hour care support.

[2] 49% of New Zealand European / Other ethnicities who were scored as a 4 or 5 on the Method for Assigning Priority Levels (MAPLe) scale for the first time were admitted to an ARC facility within 12 months in 2021/22, compared to 25% of Māori who were also scored a 4 or 5.

turnover for these high-needs patients, are causing significant issues, with clients in the community finding it increasingly difficult to access care.

Our analysis of resident outcomes also highlighted the public value generated from ARC facilities. Residents in an ARC facility are typically more unstable and have more complex comorbidities than older individuals not in care. Yet ARC residents are significantly less likely to present at ED and have short-stay hospital admissions than individuals who receive HCSS (250 fewer presentations per 1,000 population 85+) and older individuals who receive no care support (22 fewer presentations per 1,000 population 85+). The support ARC residents receive from staff at those facilities is keeping them out of hospital and freeing up substantial secondary care capacity.

Home and community support services will play an increasingly important role

There is evidence that HCSS has been helping older New Zealanders to age in place. The numbers of older New Zealanders in rest home beds has declined, with sharply rising numbers in hospital level, dementia level and psychogeriatric level care – which is supported by evidence showing that New Zealanders are delaying entry to ARC and, when they do, they enter residential care with higher acuity.

Non-travel public expenditure in HCSS has increased by 57 per cent from 2017/18 to 2022/23, while at the same time the total number of HCSS clients has declined by 7 per cent. Part of this is due to pay equity adjustments. However, the declining volume of HCSS clients within an ageing population is also indicative of a conscious decision to provide more intensive support to more complex clients in a home environment.

Our analysis has identified several areas of concern for policy makers regarding HCSS:

- The proportion of 80+ year old New Zealanders who received an in-home assessment of their health needs in the preceding 12 months has continued a steady rate of decline, from 13.6 per cent in 2016/17 to 10.4 per cent today.
- There is substantial regional variation in the hours and levels of care being received in the home across the country:
    - The proportion of 80+ year old New Zealanders who received an in-home assessment of their health needs in the preceding 12 months varies from a low of 6 per cent in MidCentral to a high of 22 per cent in the Lakes region.
    - The average number of weekly hours or care received by clients varies from a low of 1.5 hours per week in the Wairarapa to a high of 3.9 hours per week in Whanganui.[3]
- Public expenditure on in-between travel (IBT) has continued to grow rapidly, from $80 million in 2018/19 to $134 million in 2022/23. Travel costs now consume 18 per cent of public expenditure on HCSS services.
- As with the ARC sector, we heard very clearly that HCSS providers are struggling to attract and retain staff, with travel data showing an 8 per cent decline in HCSS employees over the past two years. The recent pay increases for Te Whatu Ora nurses has widened the pay gap with aged care nurses, exacerbating difficulties that providers are having in servicing their

[3] Fee-for-service clients only.

population groups. The lack of staff in the sector has contributed to exceptional travel[4] increasing by 87 per cent since July 2018, at the same time as the number of clients has reduced by 10 per cent.

- While Māori, Pacific and Asian populations are much less likely to utilise ARC, it is not clear that their higher homecare needs are currently being met. For example, even after adjusting for life expectancy, we know Māori enter ARC at approximately 60 per cent of the rate of the NZ European population, but currently receive 3.9 more hours of HCSS services per week. It is an open question whether this level of HCSS is sufficient to meet the much higher needs of an older Māori population.

We identified five pressing issues where policy and service delivery reform is required

1. Funding levels for ARC and HCSS need to be increased

There is clear evidence that the ARC sector is underfunded, with providers building smaller care centres, facilities closing, and a clear shift to providers extracting more revenue from residents through more premium beds and selling occupational rights agreements (ORAs) for care beds. Previous reviews by Grant Thornton (2010) and EY (2019) have critiqued historic funding levels.

Our cost model confirms a substantial increase in the regulated care prices is required. Current care prices only enable ARC providers to cover their operating costs and are not sufficient to cover capital charges or to support significant new investment.

The shortfall in funding is particularly acute when we model what prices are needed to incentivise large-scale new investments. The extent to which an ARC provider has appropriate incentives to invest in building a new facility depends on a number of factors including the location of the facility, size, service type and bed mix, occupancy rates, number of facilities, and ability to generate additional revenue from residents. We have concluded:[5]

- The lack of funding in the sector at current prices depends on a wide range of variables and providers are facing significant shortfalls.
- When considering the case for new investment, rest home level care is the most underfunded at current prices.
- The funding gap is larger for rural and provincial locations due to providers' inability to charge premium accommodation charges to residents.

A failure to increase regulated prices will see fewer beds being built and smaller facilities continuing to close, with service quality in existing facilities potentially being impacted. We would expect to see a continuation of current trends towards the development of premium facilities and additional charges.

We also heard from HCSS providers that they are struggling at current funding levels to provide adequate care levels to clients. One provider acknowledged that under their current bulk-funded arrangements the only way they could manage cost pressures was to reduce client care time. We also

[4] Exceptional travel is paid when staff are required to travel a distance more than 15km one way to a client and there is no other employee available who can meet the specific needs for the client.

[5] This is our estimate of levels of underfunding at current care prices and current wage levels. It would not, for example, address pay disparity claims in the sector.

heard that margins are "paper thin" at present and HCSS providers could not justify making large-scale investments needed in new technology, to work as part of wraparound services with other providers, or to support restorative care for clients.

Our cost model for the HCSS sector confirmed that the sector is also not being funded at an adequate level with sufficient margins to operate sustainably. Unlike the ARC sector, there are fewer opportunities for providers to generate premium fees from clients.

2. The funding models used to distribute funding to the sector are no longer fit for purpose

Putting aside the adequacy of current funding levels and care prices, we do not consider the current funding models for ARC and HCSS are delivering value for money or likely to be delivering the best results for both providers and older New Zealanders.

The ARC funding model

The ARC funding model, with different prices for four care categories, relies too heavily on a broad-based average price to incentivise providers to proactively manage residents' needs. In addition to becoming de-linked from underlying costs, the pricing model also lacks transparency and exposes smaller providers to greater financial risks – which impacts the provision of ARC services in regional and rural locations.

Even if a more sophisticated funding model is developed, we acknowledge that it is unlikely that market conditions alone will ensure the appropriate number beds are built in the right locations. New contracting and funding arrangements may also be necessary to address pressing issues within the sector such as supporting smaller facilities in rural locations, the provision of increased numbers of dementia and psychogeriatric beds, and better incentivising providers to accept short-term stays (potentially including respite care, hospital discharges, and assessment, treatment and rehabilitation services).

The HCSS funding model

The current model for funding HCSS reflects the legacy of decentralised contracting, with half of clients being supported by providers who are compensated on a fee-for-service basis and half on a bulk-funded case-mix basis. A lack of national standardisation has created significant differences in funding rates, has contributed to limiting the scope for a more regular workforce, and has resulted in a lack of transparency and a disconnect about how prices are set.

The fee-for-service model in particular promotes inefficiencies and may not be suitably linked to patient outcomes. There is likely to be a strong case for moving nationally to a case-mix model, which will be explored in the next phase of the review alongside the case of individualised funding and broadening service delivery eligibility.

The IBT funding model

The IBT funding model of reimbursing HCSS providers' travel costs needs urgent reform. IBT represents an uncapped liability to the government and the model has contributed to rapidly spiralling costs (with travel costs up by 68 per cent since July 2018).

The growth in IBT costs is indicative of major workforce shortages, with carers now making much longer trips to see fewer clients. The current model is also costly to administer and does not support cost-effective decisions on when alternative care services should be supported.

3. There are material ethnic inequities in accessing aged care services

Of particular concern for this review is that there may be population groups that are more likely to have older people falling through the cracks – individuals who are less likely to receive a home care assessment, HCSS services in their home, or to move into an ARC facility when they cannot be safely cared for at home.

The data tells us that Māori, Pacific and Asian populations are much less likely to be admitted to an ARC facility than NZ Europeans, with Māori and Pacific populations more likely to receive in-home care and support. Of particular concern is current health services may not be accommodating older Asian populations, which are much less likely than any other ethnic group to receive ARC or HCSS – potentially indicating there may be language barriers and social and cultural isolation issues.

Table 1: Utilisation of ARC and HCSS by ethnicity 2022/23[6]

	Number of ARC residents per 1,000 of relative ethnic population aged 65+	Number of HCSS clients per 1,000 of relative ethnic population aged 65+
Māori	23.8	21.5
Pacific	16.4	19.4
Asian	8.7	7.9
NZ European / Other	37.6	15.8

What we heard from stakeholders is that there are cultural barriers for many ethnic populations accessing healthcare for older persons. Many older Māori, Pacific and Asian families would perceive a loss of mana if they were unable to care for older members of the whānau, while many are concerned about a lack of autonomy over healthcare decisions, the distances family would need to travel, the financial barriers to accessing ARC, and the lack of inclusivity or cultural tailoring of the facility to their cultural needs.

We also heard from iwi and whānau voices that many older Māori would be more receptive to receiving care and support if the care workforce was more diverse and included more Māori. We heard that the restrictions on who can provide in-home care and support was unnecessarily restrictive and that such services should not have a narrow clinical focus – that if the objective was to help older people remain at home, then there were a range of Māori community workers who could provide valuable support if they were eligible for funding. For example, despite the challenges in removing barriers to older Māori accessing care, we heard that traditional Māori healers are not eligible to provide home support.

[6] HCSS ethnicity figures are for fee-for-service clients only.

The average Te Whatu Ora spend on a subsidised client in a rest home in 2022/23 was $65,000 per annum, whereas the average cost per client for HCSS service delivery including IBT was approximately $7,400. Given that Māori, Pacific and Asian population do not utilise ARC at the same rate as NZ Europeans, a case could be made that a more equitable funding arrangement would involve a significant increase in HCSS expenditure.

4. The aged care sector continues to face significant workforce pressures

The aged care sector's inability to attract and retain skilled workers is a major – and longstanding – issue. At a time that New Zealand's population is rapidly ageing, the HCSS workforce has been shrinking, with HCSS employees falling by 8 per cent in the past two years.[7] ARC providers have also confirmed the facilities that are closing are those that cannot secure sufficient workforce numbers to staff the beds.

The difficulties faced by providers are inextricably linked to inadequate funding and regulated prices. The workforce challenges have been exacerbated by the 2023 pay settlement for Te Whatu Ora nurses, which widened the pay difference between HCSS and ARC nurses and those in publicly-funded hospital roles. The Government injected $40m in 2022/23 and $200m in 2023/24 to reduce the pay disparity for nurses. However this funding was not enough to achieve full pay parity between Te Whatu Ora and nurses in the wider sector. It is outside the scope of this review to examine pay disparities; however, we understand Te Whatu Ora is aware of this issue and is examining it further.

The aged care sector has been historically reliant on immigrant workers, with estimates that 40 per cent of care and support workers in the sector are on visas. Stakeholders noted that competition with Australia for workers has become more difficult, particularly since a recent Australian legislative change that grants experienced aged care workers a pathway to residency.

5. Issues with aged care are exacerbated in regional and rural New Zealand

Many of the issues we have identified with aged care services (funding levels, funding incentives to provide high-quality and efficient care, ethnic inequities and workforce shortages) are heighted in regional and rural areas.

We are already seeing capacity constraints in regional and rural facilities, particularly for dementia and psychogeriatric facilities. These more specialist services are likely to come under increased pressure from an ageing population, particularly as the trend for younger workforce to move to urban areas continues.

From a provider perspective, there is a direct relationship between scale and financial performance, and scale is difficult to achieve in rural areas due to lower population numbers. As our paper outlines, the costs to deliver aged-care services are higher in rural areas and the current funding models may not be appropriate for regional ARC and HCSS providers, who are less likely to have benefits from scale and are more exposed to resourcing risks from having clients with higher-needs.

[7] Count of employees making IBT claims from 2021 and 2023.

Conclusion and next steps

We do not have confidence that current policy settings will enable the delivery of appropriate levels of care for New Zealand's older population in the medium term.

The ARC and HCSS sectors are both under extreme pressure at the moment. In our view the situation will continue to deteriorate as New Zealand's population rapidly ages. The situation will be particularly acute for ARC providers, who require a significant increase in the regulated price to cover their costs. A failure to increase ARC prices will result in continuing facility closures, particularly within the charitable and small owner group. This will increase the burden on HCSS, which is already struggling in attracting and retaining nurses and is operating on very low margins. Ultimately, the costs of inaction will be borne by hospital services, which will affect the health of all New Zealanders.

The primary problem is a lack of funding. But a funding increase alone is not sufficient to generate improved outcomes. New funding models are required for both ARC and HCSS to incentivise the efficient delivery of services, with supporting contracts and adjustors to encourage new innovative models that can address inequities, support provision of rural services, better ensure ARC facilities are built in locations that match demand, and address known problem issues (e.g. support hospital discharges and respite care).

We think there is a compelling case for wholesale reform. A new integrated model of care is needed that specifies the outcomes the HCSS and ARC sectors should be looking to achieve, with sufficient flexibility for providers to tailor their services according to the best interests of older New Zealanders.

Out initial view is that the model of care should:

- Improve the primary aim of helping people age well in their homes, while ensuring there are sufficient ARC beds available when individuals can no longer be safely cared for in a home environment
- encourage innovation by providers, extend the scopes of practice for staff, and encourage more to be done in the community with technology
- be whānau and person-centric
- be based on sustainable and predictable funding models that support long-term planning and investment by providers
- be attractive for workers and support a regularised workforce.

The next phase of this review will focus on identifying possible options and assessing the costs and benefits of changing current arrangements.

1. Introduction and context

This strategic assessment has been developed for Te Whatu Ora as part of its review of the funding and service models for aged care. It sets out our assessment of the current state of ARC and HCSS and will help shape the direction of the second half of the review – service and funding model redesign.

1.1 Scope of the review

Te Whatu Ora has initiated a review of aged care services, with the aim of improving the sustainability of services and to ensure equity of access and outcomes. The review was broken into two sequential workstreams:

- Workstream One – demand and supply analysis
- Workstream Two – service and funding model redesign

This strategic assessment represents the main deliverable for Workstream One. The purpose of Workstream One is to:

- provide a detailed understanding of the current state
- identify pressure points, including insights on core issues such as regional variability, workforce, equity, and financial viability
- examine the adequacy of current funding arrangements, including ensuring providers have appropriate incentives to invest in developing and maintaining facilities
- provide advice to Ministers, including options analysis to address key pressure points and to stabilise services under current funding mechanisms.

1.1.1 Our approach

A programme Advisory Group has been established to provide a collaborative forum for a range of voices to inform and enhance the analysis and review work, and to enable a better understanding of the challenges and opportunities. This Advisory Group has approximately 30 members, including community and whānau, employee representatives, providers, non-governmental organisations and funders.

A programme steering group has been established to monitor progress and provide advice and support to help the programme remain on course.

Our approach to developing this strategic assessment has included:

- Data analysis, including demand forecasting and service analysis. We received NHI-linked datasets that enabled us to track patient journeys, from initial home assessment to HCSS and ARC activity levels, through to interactions with secondary care services.
- Cost modelling, through which we have been able to assess the adequacy of current pricing and funding levels.
- Consultation through the Advisory Group, seeking views on key issues facing the sector and suggestions on what could be done differently. We also sought to ensure we had adequate

insights into views of Māori by engaging with the Māori Women's Welfare League and the Home and Community Health Association's network of Māori providers.

- One-to-one meetings with key stakeholders, where we engaged on key issues, tested what we were seeing in the data, and sought views on our cost models.

1.1.2 The next phase of the review

Following the completion of this strategic assessment the review will pivot to Workstream Two, with a focus on making recommendations for the optimal service and funding models for the health of older persons. This work is anticipated to begin in January 2024 and conclude in June 2024.

1.2 Background and reasons for the review

The aged care sector represents nearly 10 per cent of Te Whatu Ora's commissioning budget. At current levels of funding there are well-documented pressures on the aged care system, including from an ageing population, financial pressures, workforce shortages and pressures, variable access to services, inequitable outcomes, lack of culturally appropriate services and more people choosing to stay living at home as they age (*Aged Care Funding and Service Models Review – Te Whatu Ora - Health New Zealand*, n.d.)

The pressures on the aged care system in the short, medium and long term are significant. Progress is required to address immediate system instability, better serve the older people of Aotearoa New Zealand and prepare the health system for our ageing population.

The sector needs to be supported to respond to such challenges to be fit for purpose for the future and well-positioned to deliver efficient, high-quality services that respond to people's varied and changing needs.

1.2.1 Aged residential care services

There are currently around 32,000 older persons in 676 ARC facilities across the country. Most are in rest home (13,500) or hospital level care (13,200), with dementia and psychogeriatric units accommodating 5,500 residents. Te Whatu Ora funded approximately $1,352 million of ARC in 2022/23, with residents paying $1,010 million because of means testing.

Residents almost always enter an ARC facility after having been independently assessed by a National Assessment Service Co-ordinator (NASC) as being unable to safely live within the community. Such an assessment considers the individual's needs, clinical conditions, cognitive impairment, and informal support networks.

Older persons are allocated to one of four care categories based on their needs assessment:

- **Rest home care:** Rest homes offer care for older people who can manage some daily tasks, but need help with personal care and who would find it difficult to live safely in their own homes.

- **Hospital level care:** Long-stay hospital level care offers care for people who have significant medical problems or disability. They need healthcare from registered nurses and support from others to move about.
- **Dementia level care:** Dementia units offer care for people suffering from dementia or other mental illnesses, and who could be a risk to themselves or others.
- **Psychogeriatric care:** Psychogeriatric units are secure, and care for people who have difficult behavioural problems, including severe dementia or addictions, and need a high level of specialist nursing care.

ARC funding and contractual obligations

Residential care providers must be certified under the Health and Disability Services (Safety Act) 2001 by the Ministry of Health. To be eligible for public funding they must be a signatory to one of two national funding agreements, the Aged-Related Residential Care Services Agreement (covering rest home, hospital and dementia care) and the Aged Residential hospital Specialised Services Agreement (which covers psychogeriatric care) (collectively the 'ARRC agreements'). Signatories to the ARRC agreements must:[8]

- meet defined service standards, including the Ngā Paerewa Health and Disability Services Standard NZS 8134:2021. In addition, signatories have obligations relating to, but not limited to:
    - accommodation standard (rooms, beds, access to toilets etc)
    - needs assessment, care planning and care delivery (including the use of interRAI assessment tools)
    - minimum staffing levels
    - ancillary services such as provision of food and laundry services
    - amenities and equipment
    - ensuring access to a range of medical services.
- if a resident requests a standard room but only a premium room is available then the ARC provider must, under certain conditions, admit the resident and charge only standard rates.[9]
- abide by pricing restrictions (examined below).

Under the Residential Care and Disability Support Services Act 2018, an individual who is assessed as requiring ARC level care is only liable to pay for their care costs up to a maximum contribution amount, which varies by region. A resident's care costs are capped at the maximum contribution amount unless they agree to pay for additional services that are not covered by the ARRC agreements (e.g. for a premium room).

[8] To opt out of the ARRC agreements, the entire ARC facility must opt out. This will compromise the ability of the facility to provide higher levels of care (for which Te Whatu Ora fully covers residents' costs above the maximum contribution price) and to receive fully subsidised means-tested resident.

[9] If an ARC facility has no standard rooms it must accept the resident and cannot charge additional fees if the facility has occupancy above 90 per cent and there is no other vacancy within 10km.

The Ministry of Social Development carries out a means test of prospective residents. Individuals aged 65 or older entering ARC can receive a residential care subsidy if they and their partner's total assets are $273,628 or less (Work and Income, 2023a). Residents with assets above the threshold will pay the cost of care up to the maximum contribution (set at the Rest Home price) but are eligible to receive an interest-free loan from the Ministry of Health secured against their home (which must be paid back within 12 months after death).

1.2.2 Home and community support services

Around 80,000 older people receive services in their home through Te Whatu Ora funded HCSS. Those services range from household management (cleaning, cooking) to personal care (bathing, dressing and medicine management). Informal carers are also allocated respite care. Te Whatu Ora funded approximately $732 million of HCSS (including travel) in 2022/23.

To be eligible for HCSS a client first requires a needs assessment. Once eligible they can typically receive two main categories of service:

- **personal care:** meeting personal hygiene and dressing needs, feeding, mobilisation, medications, socialisation and integration in the community, and observing and reporting changes
- **household management:** cleaning, laundry, meal preparation and other activities that support people to remain in their homes.

Te Whatu Ora's HCSS funding model is district-based – depending on the district, a provider will either be on a fee-for-service contract or a bulk-funded (case-mix) contract (clients are roughly split equally under the two funding models). This distinction is a legacy of the former decentralised DHB model, whereby each district had discretion in how to fund HCSS providers and made a binary decision on whether providers in their region would be funded on a fee-for-service or bulk-funded case-mix model.

Under a fee-for-service model, the funder allocates hours of specific tasks to each client (e.g. dressing, showering, feeding), based on the number of hours that the needs assessment specified should be delivered. HCSS providers are paid in blocks of time for services delivered at agreed hourly rates. Any increase in hours of care requires prior approval through the needs assessment agency.

Under a bulk-funded case-mix model, HCSS providers are allocated a fixed amount of funding based on an estimate of the volume and complexity of the clients that they will manage and reflecting that they will have responsibility for their client's assessments and care planning. It is then up to HCSS providers to determine how to allocate their resources across their clients. This is typically supported through more rigorous reporting and monitoring of service delivery and patient outcomes. Some districts also incorporate a wash-up mechanism, whereby funding is adjusted based on actual client numbers or complexity.

1.3 A recap of previous reviews

The aged care sector has been subject to several high-profile reviews in recent years. While those reviews have not led to wholesale reform of funding or service models they still provide valuable

analysis and insights that we have drawn on for this review. We briefly summarise three major reviews below.

1.3.1 ARC: Grant Thornton's 2010 review of services

Grant Thornton analysed the projected demand, supply, workforce and models of care of ARC in 2010, and at the time was the most extensive review of the sector (Grant Thornton, 2010). The review had significant provider participation and developed a comprehensive cost model to inform pricing and policy decisions. The conclusions were that if the sector continued to operate under existing parameters, the following factors would emerge:

- **Demand for facilities**: Grant Thornton estimated that from 2010 to 2026, between 12,000 and 20,000 extra residents would require aged residential care as the older population grows rapidly. Note, this now appears to have been a significant overestimation of likely ARC demand.
- **Costs and investment:** Financial returns being generated for subsidised aged residential care operations were deemed insufficient to support building new capacity and replacing ageing stock.
- **Workforce implications:** The workforce employed in the aged residential care sector has doubled from 1990 to 2010 to 33,000. Workforce demand was expected to increase between 50 per cent and 75 per cent (on a full-time equivalent basis) from 2010 to 2026. The workforce is expected to adjust to demand through mechanisms such as remuneration and population growth.
- **Models of care:** Four alternative service configuration scenarios were considered worthy of further consideration: improvement in the current approach, an enhancement of professional services in the community, an individualised funding approach, and the development of low-income community housing for the elderly.

1.3.2 ARC: EY's 2019 review of the funding model

EY conducted an extensive review on the ARC funding model in 2019 and provided several recommendations to the sector (EY, 2019a). The following issues guided the review and were developed through a workshop with the Review's Steering Group:

- Sensitivity – the funding model could be more sensitive to the needs of residents.
- Alignment – there is potential to better align policy and funding settings that impact on ARC.
- Variation – there is variation in access and models of care across the country.
- Capacity – there has been patchy investment in workforce and bed capacity.

The review resulted in several recommendations to the funding model and highlighted the following key trends in the sector:

- Rest home bed-days have been decreasing, while hospital and dementia bed-days have been increasing.
- The length of stay in ARC is decreasing, which is partially due to a higher proportion of hospital-level clients.

- Facilities have increased in size (number of beds).
- Nearly all new investment is by group providers, with most charging premiums.
- Bed-days are expected to increase significantly over the next decade.
- The existing funding model is no longer sensitive enough to the range of needs in ARC – there are potential disincentives for providers to admit more costly residents, which increases financial risk for both funders and providers.

1.3.3 HCSS: the Director-General's Reference Group investigation

In September 2014, a Settlement Agreement was signed between all HCSS providers and workers, unions, all 20 DHBs and the Crown to resolve issues facing the community health sector. Part of the settlement required that a Director-General's Reference Group (DGRG) be established to conduct an investigation into health-funded HCSS. The DGRG comprised a mix of funders, providers, union representatives and staff from the Ministry of Health (Director-General of Health's Reference Group, 2015).

In 2015 the DGRG identified a number of challenges facing the HCSS sector including:

- increasing demand for HCSS in terms of both actual numbers and complexity of care
- fragmented service provision
- workforce-related issues due to high turnover of home and community support workers
- the increasing skill and competency levels required of support workers, to cover areas such as quality and safety requirements
- wide variation in current contract agreement
- insufficient funding to increase supply to a level that will meet the growing demand.

1.3.4 HCSS: EY's 2019 examination of the contribution of the HCSS to New Zealand

EY explored the HCSS sector and recommended a case for further investment to support the wider health system (EY, 2019b). It described how the delivery of person-centred and coordinated care was important to support people to stay in their homes, and that building collaborative relationships between key system stakeholders would be increasingly important as part of health system strategies. EY found:

- Most people are still interacting with the health system through a traditional episodic model of care. This approach will not provide the care needed for the rapidly ageing population.
- Age-related health conditions are challenging the health system. In response, policy makers and HCSS providers need to redesign service delivery models to improve responsiveness to need and the quality of care, reduce the reliance of hospital care and ensure that the health system is financially sustainable.
- HCSS providers are delivering more complex care in the community.

Growing HCSS' role in care delivery will require a focus on digital technology, such as point-of-care testing and remote monitoring, as well as training to further equip the workforce.

2. Our assessment of the current state of aged care

Our key observations:

- New Zealand's ageing population will add significant demand on healthcare services. The sector is already under pressure and significant reform is required.
- The rate at which older people are having their needs assessed has continued to decline, and regional inconsistencies have worsened.
- There are significant inequities in access to care by region, care level and ethnicity. High-acuity individuals face longer admission times into ARC and there are ethnic disparities in the utilisation and preference of aged care services.
- The proportion of individuals entering ARC at rest home level is decreasing, while the proportion entering at hospital, dementia and psychogeriatric level is increasing. This highlights a rising level of acuity upon admission into ARC.
- The supply, occupancy, and utilisation of ARC varies quite significantly at the regional level.
- An increasing prevalence of premium accommodation charges, occupation rights agreements and a greater proportion of residents paying the maximum price all highlight potential growing financial barriers to accessing ARC.
- ARC has a valuable role to play and there is evidence that it frees up hospital resources through fewer short-stay inpatient admissions. However, ARC providers are not investing at the levels needed to ensure appropriate bed numbers.

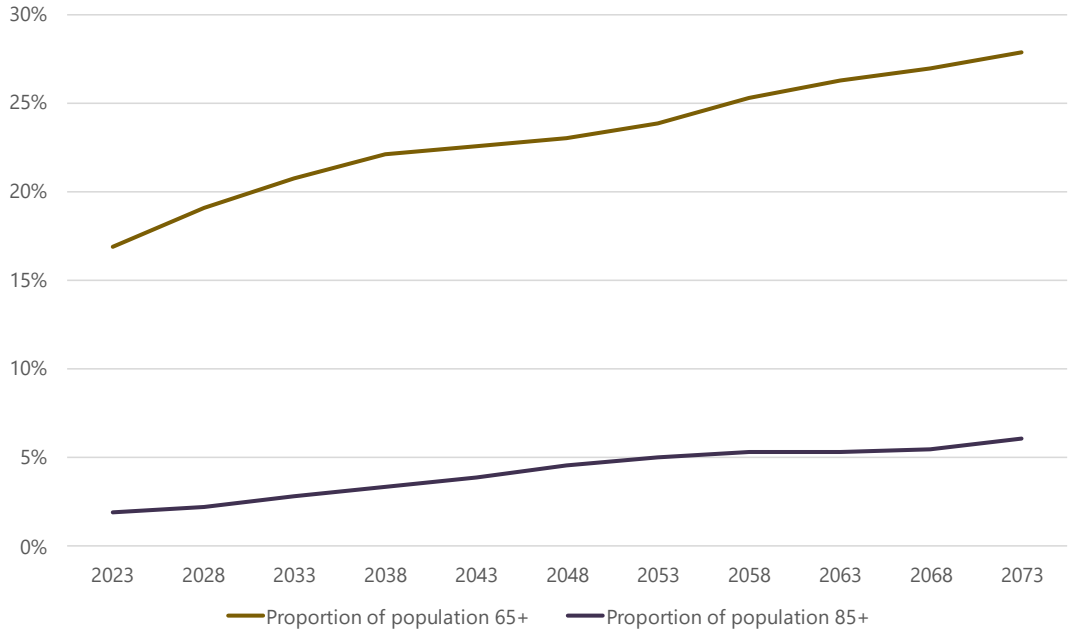
We have identified five priority issues that we explore in more detail in subsequent chapters: funding levels, funding models, equity, workforce and rural variation.

2.1 New Zealand's health system needs to prepare for the consequences of an ageing population

The ageing population in New Zealand poses significant implications to the aged care sector, necessitating careful planning and adaptation to meet the evolving needs of this demographic shift. Demand for aged care services is expected to increase significantly as the population ages, which highlights the need to expand the capacity of aged care services. The changing demographic landscape also comes with a higher prevalence of age-related health conditions and chronic diseases, and we explore the acuity of individuals entering care and the increasing proportion of individuals entering at more complex care types.

Figure 1 shows the projected increase in the proportion of populations 65+ and 85+. According to Statistics NZ, 17 per cent of New Zealanders were over 65 in 2023, comparing to 14 per cent in 2013 (Statistics NZ, 2022). This proportion is expected to reach 21 per cent in 2033, which will have significant implications for the aged care sector. As we set out in this paper, a rapidly ageing population will require a step-change in ARC investment, large-scale investment in HCSS, or a mixture of both.

Figure 1: Projected increase in the proportion of populations 65+ and 85+

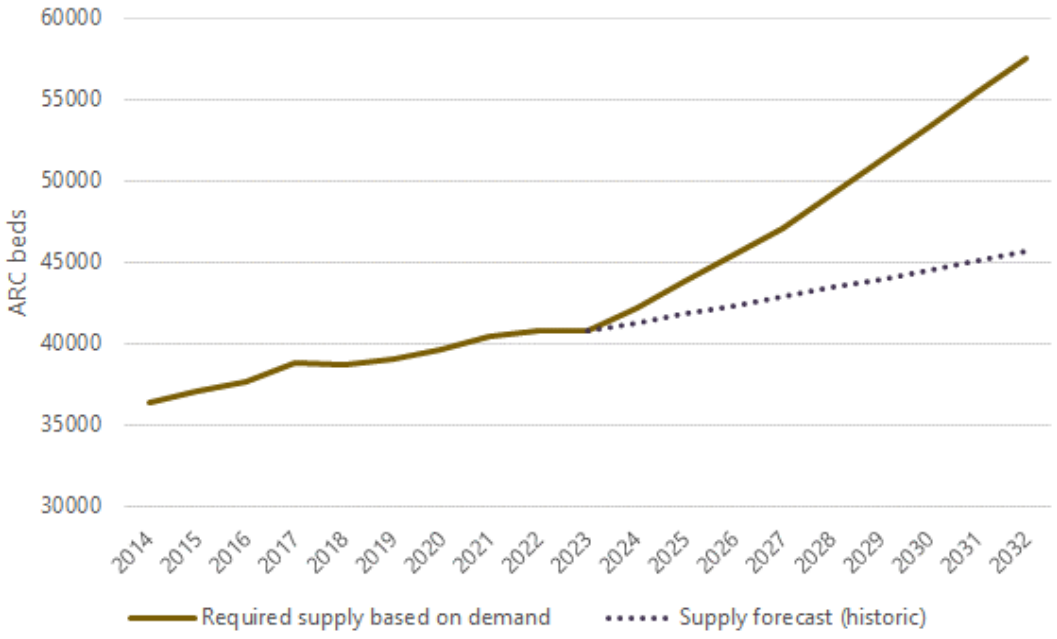


Source: Stats NZ

2.1.1 Historic trends in new ARC beds will not be sufficient to keep up with demand

Figure 2 plots the supply forecast based on historic trends, and the required supply increase based on expected demand if utilisation rates are constant.

Figure 2: Aged residential care bed supply scenarios



Source: NZACA 2023 Survey; EY Aged Residential Care Demand Planner 2022

This shows that by 2032, if new ARC beds are built at the historic rate, we may see a shortage of almost 12,000 beds by 2032. We explore the existing funding inadequacies in section 4, and the consequences if the sector does not have sufficient incentives to invest in new facilities and beds.

2.1.2 The HCSS sector is already struggling to support increasingly complex clients in their homes

With it unlikely there will be sufficient ARC beds built to meet the needs of a growing cohort of older New Zealanders, HCSS will need to play a much bigger role in supporting older New Zealanders to age in their homes.

As the growth rate in the number of ARC beds has stabilised, total public expenditure on HCSS (and associated travel costs) has steadily increased, up from $421 million in 2016/17 to $732 million in 2022/23. While funding has increased by 47 per cent over this period (largely due to pay equity changes and increased travel costs), the number of HCSS clients receiving support has decreased by 7 per cent.[10]

The HCSS sector is clearly under pressure and, as the rest of this report examines, there are serious questions as to whether it will be able to support a rapid increase in the number of older and frailer people who will need to stay at home for longer. Of particular concern are the sector's struggles to attract and retain a skilled workforce at current pay rates – over the past two years, the number of HCSS employees has fallen by 8 per cent.[11]

2.2 Our analysis of aged care services identifies variation in care, indicators of unmet need and service pressures

We know that ARC and HCSS is under increasing pressure, so our starting point is to assess the adequacy of the current delivery of aged care services. In this section, we analyse access to ARC and HCSS across regions and the clinical profile of individuals awaiting entry into ARC to determine the extent of unmet need among older people. Our analysis aims to answer the following questions:

- Are the national and regional home care assessment rates for the population aged 80 and older declining prior to entering ARC?
- How do the patterns of accessing ARC vary by region and care level?
- Are there ethnic inequities in access and utilisation of care?
- Has a lack of timely access into ARC caused residents to substitute towards HCSS?
- Is the level of acuity and age upon admission into ARC changing substantially over time?
- Are there regional differences in the supply, occupancy and utilisation of aged care services?
- Are there increasing financial barriers to care?

[10] Our calculation of HCSS clients includes unique NHIs in Te Whatu Ora's CCPS system for fee-for-service and figures provided by each region where bulk-funding is used. A separate analysis of in-between travel claims shows that the number of clients requiring travel has decreased by 10% over the same period.

[11] Count of employees making IBT claims from 2021 and 2023.

- Are aged care services reducing demand on hospitals?

Our key takeaway is that the aged care system is under significant pressure. There are not enough beds being built to cater for future demand, and there are equity concerns for high-needs individuals and priority populations. There is significant variation between regions in the availability and use of aged care services, which potentially exacerbates inconsistencies in the delivery of care and health outcomes of older people. The following results highlight the extent of the issues facing older people throughout New Zealand.

2.2.1 Our methodology

Our main datasets consist of output from the interRAI Home Care and Long Term Care Facilities (LTCF) assessments from 1 July 2013 to 30 June 2023. The Home Care dataset comprises of 385,948 assessments from 226,660 anonymised individuals, and the LTCF dataset comprises of 608,145 assessments from 131,031 anonymised individuals. These assessments provide Clinical Assessment Protocols (CAPs) and outcome scales that evaluate an individual's clinical status. Individuals are required to undergo a Home Care assessment before entering ARC, as well as subsequent LTCF assessments during their stay at an ARC facility. Our NHI-linked data allows us to analyse the clinical outcomes of ARC residents over time by region and ethnicity. Furthermore, we analyse the utilisation of HCSS by ethnicity using data extracted from Te Whatu Ora's Clients Claims Processing System (CCPS).[12]

The interRAI assessments record 25 CAPs which inform risks to be managed for care planning, and 21 outcome scales which measure an individual's current physical, clinical, cognitive, psychological, behavioural, social and environmental wellbeing. The main outputs of interest are summarised in Table 2 below.

Table 2: HC and LTCF assessment outputs

Output	Description
CHESS (Change in Health End-Stage Disease, Signs and Symptoms)	The CHESS score measures health stability and ranges from 0 to 5. A higher score predicts adverse outcomes such as hospitalisation, mortality, and carer stress.
CPS (Cognitive Performance Score)	The CPS score ranges from 0 to 6 and is an important risk indicator to manage day-to-day care. A higher score indicates worsening cognitive function.
MAPLe (Method for Assigning Priority Levels)	The MAPLe score ranges from 0 to 5 and determines an individual's level of risk and need of support. A score of 4 or 5 indicates that admission into a residential facility should be considered.

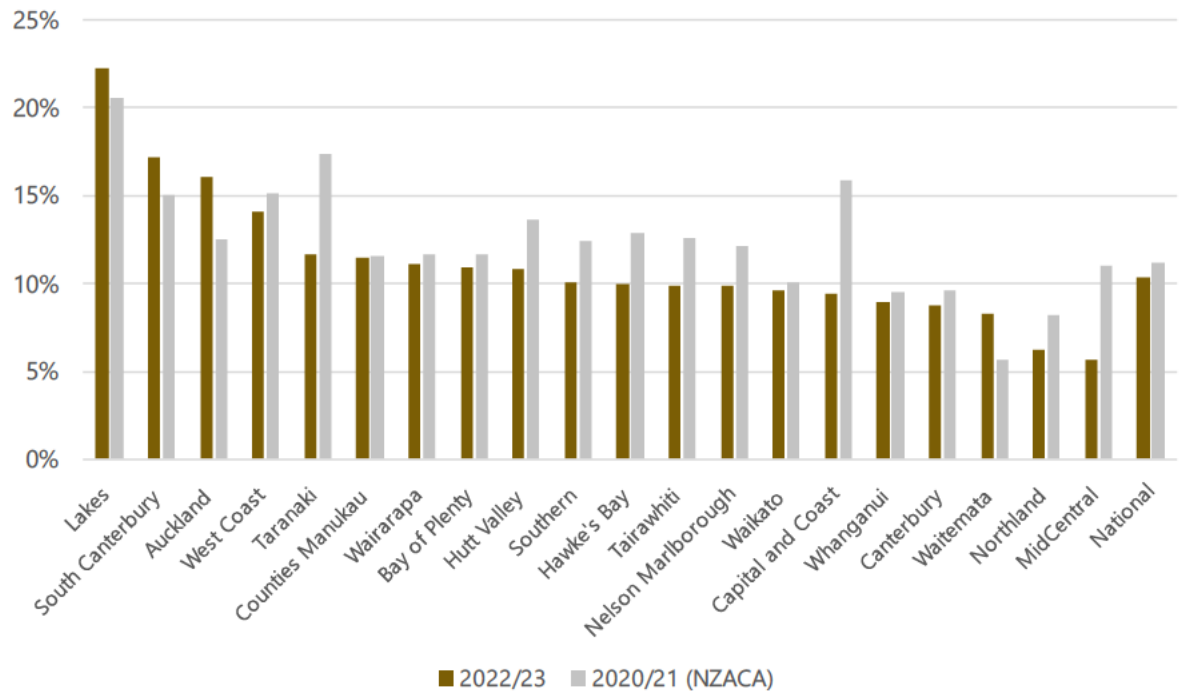
[12] This data has limitations, as the CCPS only includes HCSS recipients who reside in regions which operate under a fee-for-service (FFS) model. Some regions are bulk funded, meaning client-specific service utilisation is not captured in the CCPS.

Output	Description
ADLH (Activities of Daily Living Hierarchy)	The ADLH scale ranges from a score of 0 (no impairment) to 6 (total dependence). A score of 3 or above indicates that an individual needs assistance for several daily activities.
ADLS (ADL short form)	The ADLS scale ranges from 0 to 16 and measures an individual's self-performance status based on items that reflect stages of loss. A higher score indicates greater impaired self-sufficiency in various activities.

2.2.2 There appears to be material variation in the frequency at which older persons have their needs assessed

The New Zealand Aged Care Association (NZACA) explored the use of interRAI across regions for the population aged 80+ based on 2016/17 and 2020/21 Home Care assessment data (New Zealand Aged Care Association, 2022b). We updated this analysis based on 2022/23 data. Figure 3 depicts the proportion of population aged 80+ who received at least one Home Care assessment in 2022/23 in comparison with the 2020/21 data explored by NZACA.

Figure 3: Proportion of population 80+ receiving at least one Home Care assessment (2022/23)



Source: Home Care and LTCF assessment data; NZACA (2022b)

The proportion of New Zealanders aged 80+ who had received an independent Home Care assessment in the preceding 12 months has continued to steadily decline: from 13.6 per cent in 2016/17 to 11.2 per cent in 2020/21 (New Zealand Aged Care Association, 2022b), to 10.4 per cent in

our 2022/23 data. This trend is concerning. It indicates a sizeable population group is not being assessed within a home setting, and the downward trend could potentially be indicative of workforce or resource scarcity.

Four regions had small increases in their assessment rates since 2020/21 (Lakes, South Canterbury, Auckland and Waitematā), and the remaining 16 areas saw a decline; most notably Taranaki (17.4 per cent to 11.6 per cent) and Capital and Coast (15.9 per cent to 9.4 per cent). Declining assessment rates and significant variation between regions continues to highlight the issues outlined by NZACA in that interRAI assessments are not being used as intended and some DHBs are using non-standardised tools to assess residents.

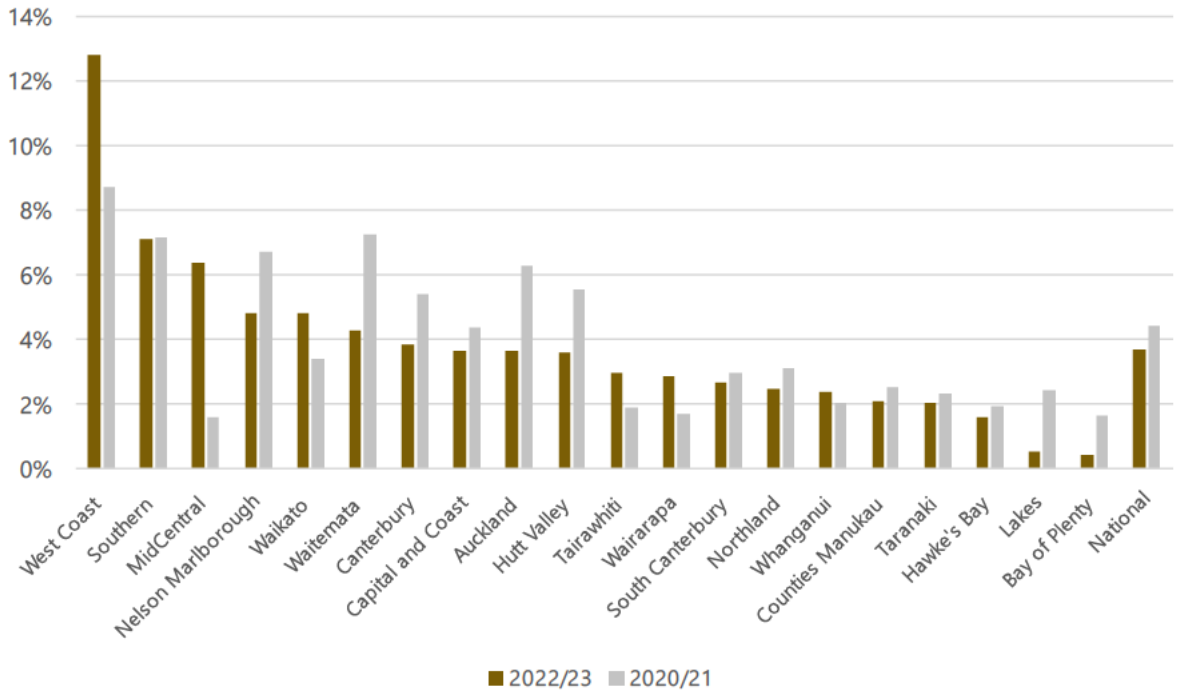
> "The lack of use of standardised tools to assess the needs of our older people, is not only compromising their health and wellbeing but it is inequitable and unsustainable for providers as the annual bed-day rate increases simply do not take into account the higher needs of residents when they enter care.
>
> We simply can't have post code healthcare in New Zealand for our older people. We absolutely need a standardised way of assessing older people from home care right throughout an older person's journey, to ensure we deliver seamless care, matching the needs of residents equitably around the country. Achieving consistency of assessment across every region will also give more credibility to the assessment processes."
>
> – Rhonda Sheriff, Clinical Advisor (New Zealand Aged Care Association, 2022b)

A decline in HC assessment rates could be a result of an increase in the use of Contact Assessments in some regions. Contact Assessments are intended to be used for non-complex patients, although we have heard concerns that they are being used to assess high-acuity individuals, which has been addressed by InterRAI:

> The Contact Assessment is not a substitute for a Home Care Assessment, because it does not provide an integrated view of the impact that multiple comorbidities have on a person's functioning which is essential for informing a comprehensive care plan. Once a person's condition is sufficiently complex to require a Home Care Assessment, a Contact Assessment is insufficient to identify opportunities for intervention to improve the person's condition, or to identify opportunities to prevent decline (InterRAI, n.d.).

Figure 4 shows the proportion of population aged 80+ who received at least one Contact Assessment in 2022/23 and 2020/21.

Figure 4. Proportion of population 80+ receiving at least one Contact Assessment

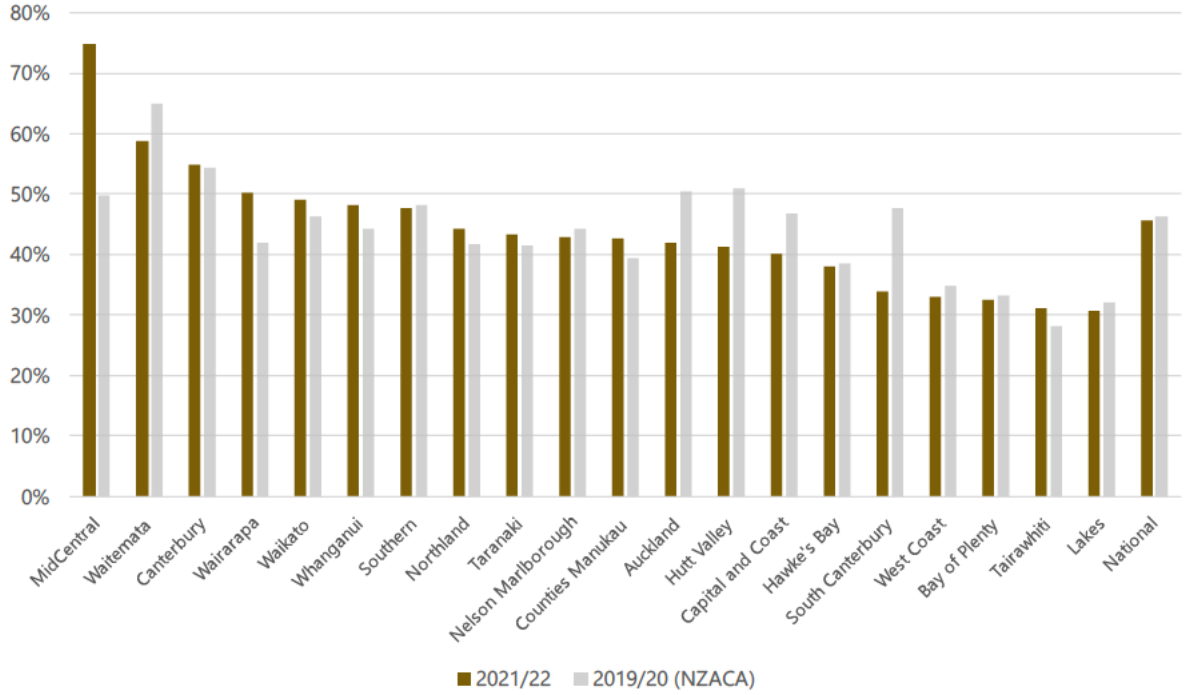


The national assessment rate for the population 80+ has declined from 4.4% in 2020/21 to 3.7% in 2022/23.

2.2.3 Equity and access to ARC varies by region and care level

The MAPLe score is informed by the HC assessment and indicates an individual's level of risk and need of support. If an individual attains a score of 4 or 5, it means that ARC should be considered as a care option and they are likely to need 24-hour care support (New Zealand Aged Care Association, 2022b). Figure 5 shows the regional variation in the proportion of individuals being admitted into ARC within 12 months of attaining a MAPLe score of 4 or 5.

Figure 5: Proportion of individuals scoring 4 or 5 on MAPLe scale for the first time in year who were admitted to ARC within the next 12 months (2021/22)



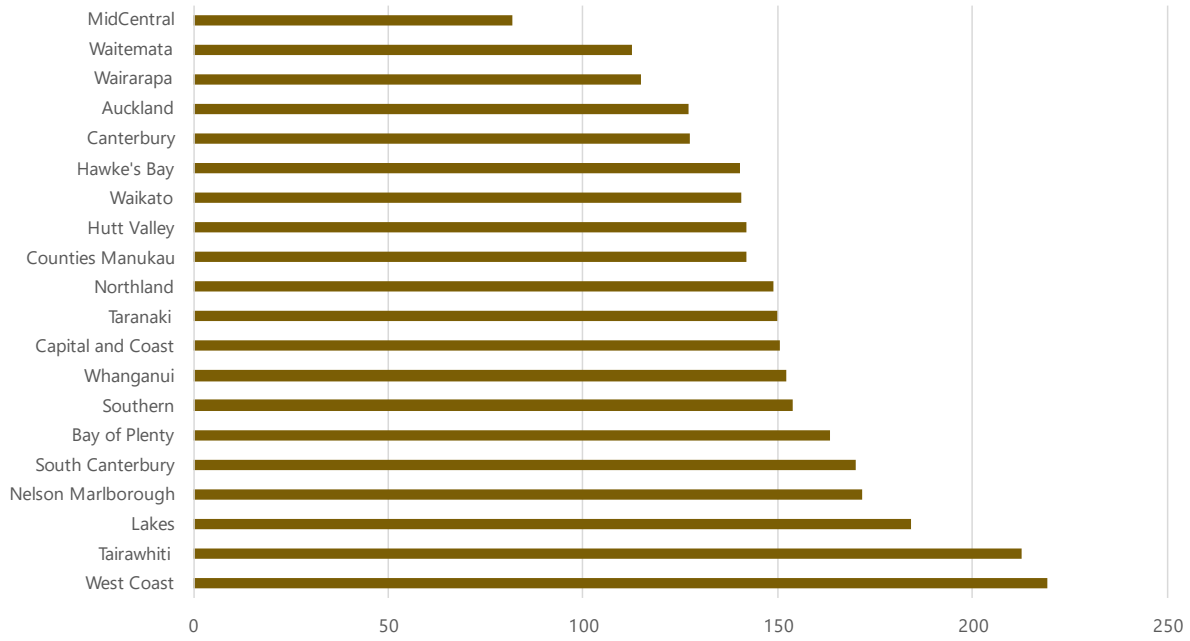
Source: HC and LTCF assessment data; NZACA (2022)

We compared our results with the 2019/20 data analysed by NZACA and observed a similar level of regional variation. The national proportion of high-acuity individuals being admitted to ARC within 12 months declined slightly from 46.5 per cent in 2016/17 to 46.3 per cent in 2019/20, but has declined even further to 45.7 per cent in our 2021/22 data.

We observed significant decreases in South Canterbury (47.7 per cent to 34 per cent), Hutt Valley (51 per cent to 41.1 per cent) and Auckland (50.5 per cent to 42 per cent), but significant increases in MidCentral (49.7 per cent to 74.9 per cent) and Wairarapa (41.9 per cent to 50.3 per cent). A net decrease in 12-month admittance rates for high-acuity individuals could be due to several factors. The notable variation is evidence of inequities in access to ARC between regions, but it is also potentially a result of substitution towards HCSS and increasing preferences to stay at home longer.

We observed a similar regional trend when looking at the average number of days taken for high priority older persons to be admitted into ARC (Figure 6 below).

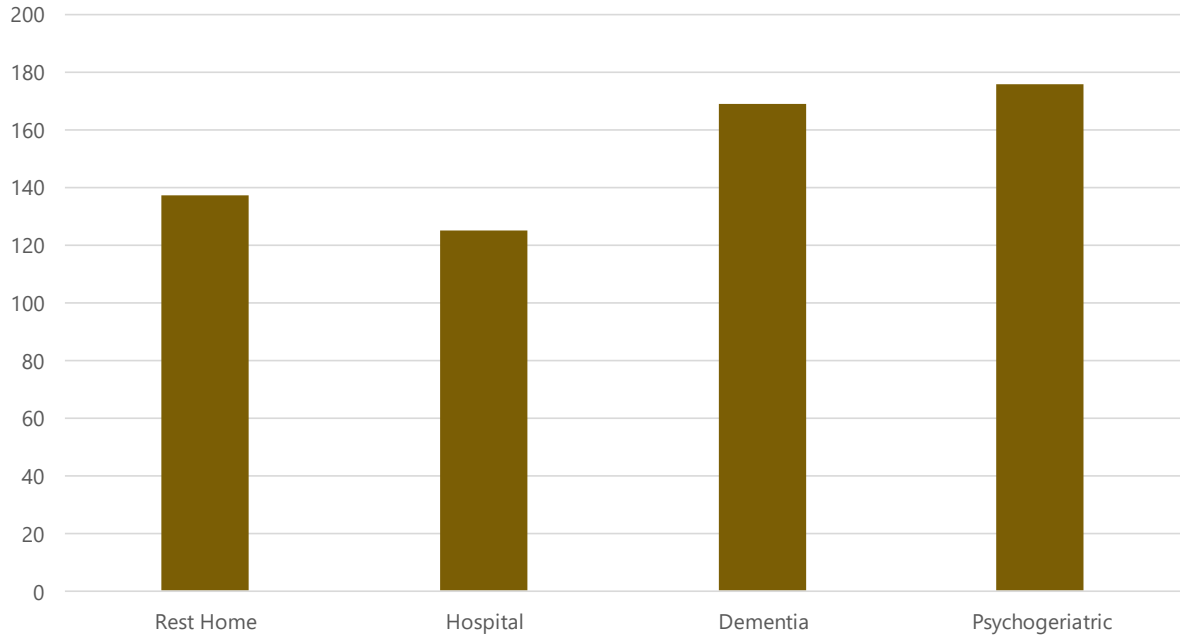
Figure 6: Average number of days to be admitted into ARC after scoring 4 or 5 on the MAPLe scale by region (2021/22)



Source: HC and LTCF assessment data

These results highlight a significant range in access to ARC, as high-acuity individuals in MidCentral experience an average admission time of 82 days, while those in the West Coast face a considerably longer wait of 219 days. We also see variation in average admission times between care types, with Figure 7 showing that high priority individuals entering at dementia and psychogeriatric level face materially longer wait times on average.

Figure 7: Average number of days to be admitted into ARC after scoring 4 or 5 on the MAPLe scale by care type (2021/22)



Source: HC and LTCF assessment data

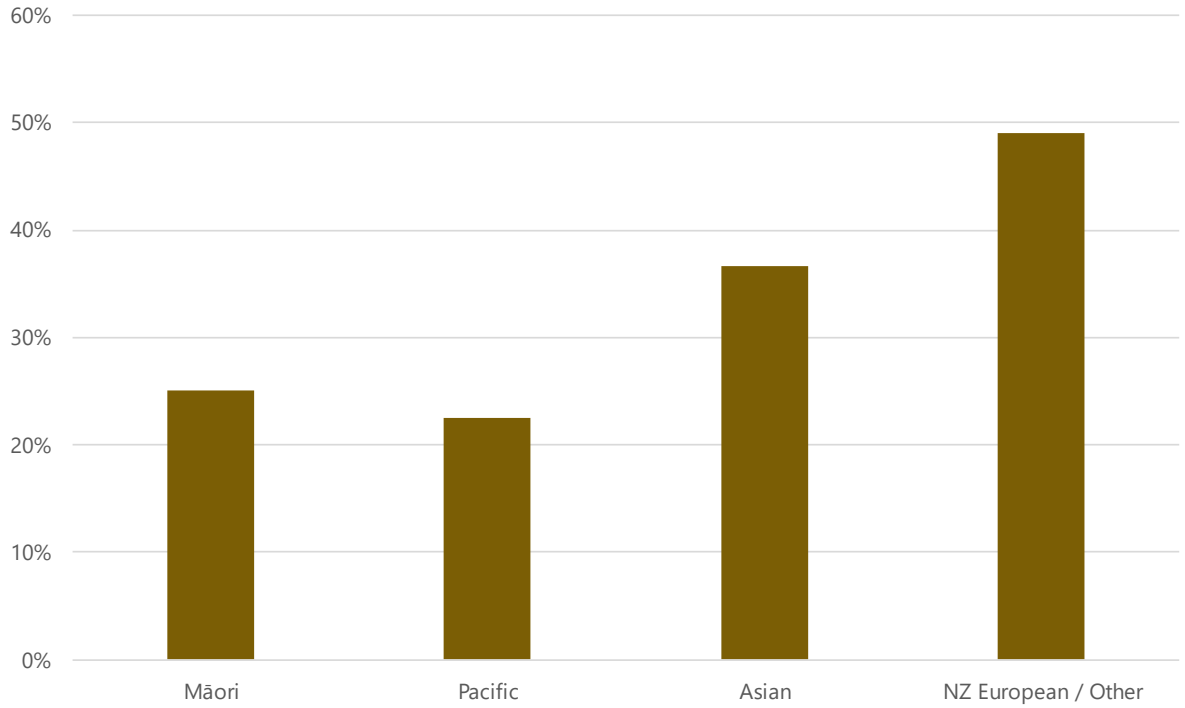
Individuals entering care at rest home and hospital level face an average wait of 137 and 125 days respectively after being identified as a priority for moving out of the home. Those entering at the more complex levels of dementia and psychogeriatric face higher average wait times of 169 and 176 days, respectively.

2.2.4 There is ethnic variation in access and utilisation of ARC, potentially driven by differences in service preferences

Older Māori and Pacific individuals utilise ARC significantly less than NZ European / Other on average, and this is explored further in section 6, where we examine the ethnic makeup of ARC residents relative to the ethnic makeup of the total older population. Previous research has highlighted how Māori and Pacific enter ARC younger than other ethnicities, and as a result are overrepresented in the younger demographic but underrepresented as a whole (Hikaka & Kerse, 2021).

Figure 8 shows the ethnic variation in the proportion of individuals being admitted into ARC within 12 months of attaining a MAPLe score of 4 or 5.

Figure 8: Proportion of individuals scoring 4 or 5 on MAPLe scale for the first time in year who were admitted to ARC within the next 12 months by ethnicity (2021/22)

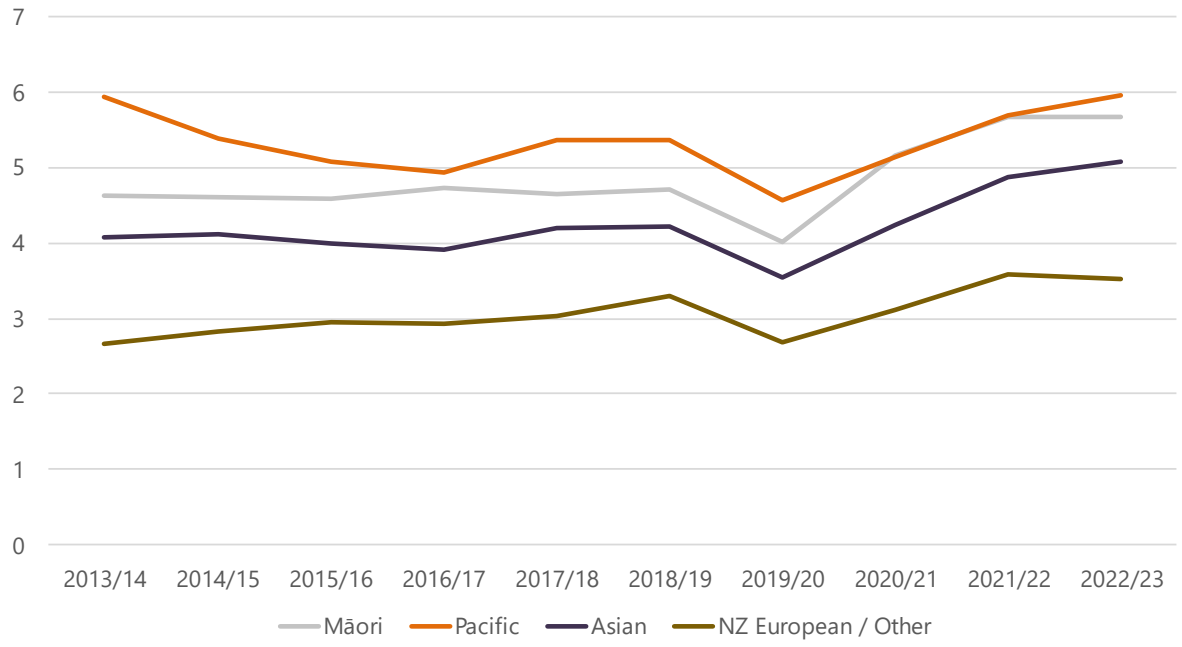


Source: HC and LTCF assessment data

These results show significant underutilisation for high-acuity Māori and Pacific individuals in accessing ARC. Only 25.1 per cent of Māori and 22.6 per cent of Pacific individuals who attained a MAPLe score of 4 or 5 in 2021/22 were admitted to ARC within 12 months. These figures are materially lower than those observed for Asian (36.6 per cent) and NZ European / Other (49 per cent) populations.

Part of this disparity is likely due to the ethnic differences in aged care service preferences, as Figure 9 shows that Māori and Pacific individuals utilise more HCSS services on average.

Figure 9: Average hours per week of HCSS utilisation by ethnicity[13]



Source: CCPS data

The average hours of HCSS received for all ethnicities remained relatively constant from 2013/14 until it dropped during COVID-19 in 2019/20, but since then it has increased significantly). In 2022/23, Māori and Pacific individuals received an average of 5.7 and 6 hours per week of home care, respectively, while Asian and NZ European / Other received 5.1 and 3.5 hours, respectively[14]. As we explore in section 6, the higher utilisation of home care services by Māori and Pacific populations is influenced by a number of factors. While there may be cultural preferences to stay at home longer to be cared by whānau, we also heard about the barriers many face in accessing ARC services.

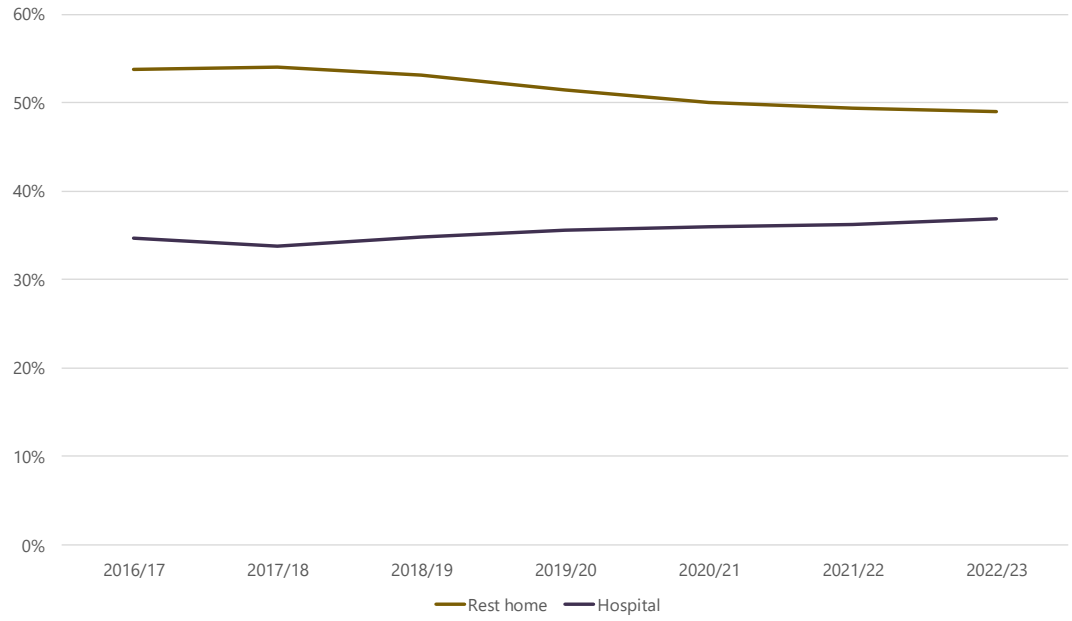
2.2.5 Acuity upon admission into ARC may be increasing

There are several data points that suggest a trend of older people staying at home for longer and entering an ARC facility with more complex conditions. In particular there has been a steady decline in residents utilising rest home care beds, with a commensurate increase in the more complex care levels, as shown below in Figure 10 and Figure 11.

[13] This only includes fee-for-service (FFS) clients. Individuals in bulk-funded regions are unaccounted for in this analysis.

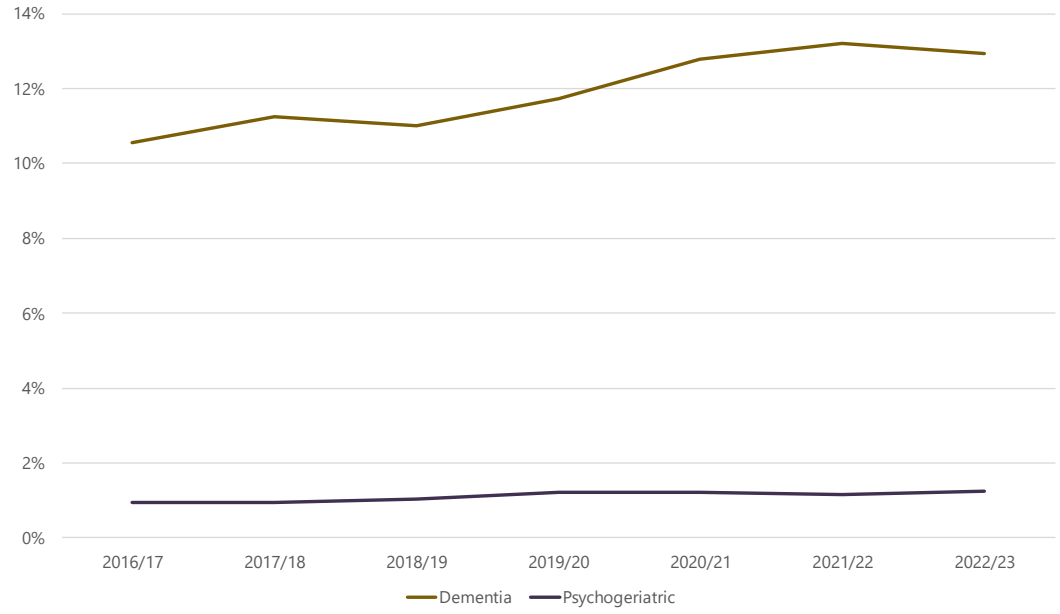
[14] It is important to note that approximately 26% of individuals have 'NAs' recorded as ethnicity. The NHI-level FFS data was linked with the interRAI assessment data to attain ethnicity, and some individuals may have chosen to not state their ethnicity. The national average HCSS utilisation per week is around 2.6 hours in our cost model, and the ethnicity data may appear inflated due to a large proportion of low-hour individuals not stating their ethnicity. However, it is still useful to observe the relative differences in utilisation between ethnicities.

Figure 10: Proportion of individuals entering ARC at rest home or hospital level



Source: LTCF assessment data

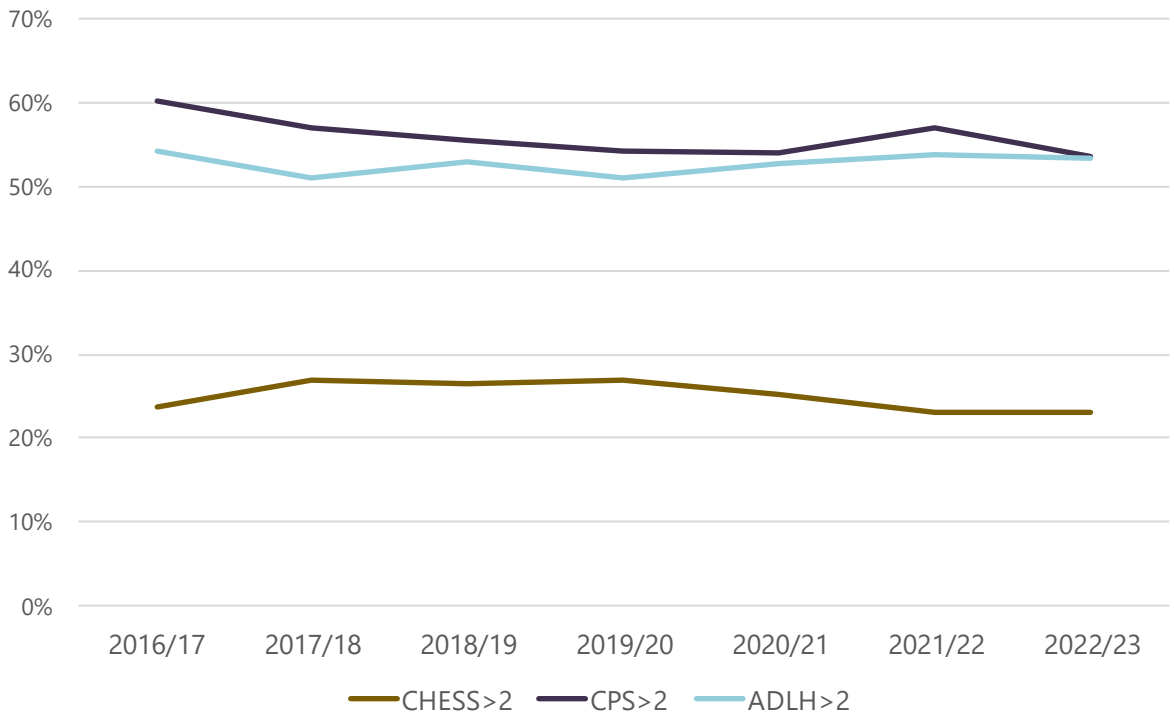
Figure 11: Proportion of individuals entering ARC at dementia or psychogeriatric level



Source: LTCF assessment data

The figures above show that from 2016/17 to 2022/23, the proportion of new ARC entrants receiving rest home level care has decreased from 54 per cent to 49 per cent. The prevalence of hospital level care for new residents has increased from 35 per cent to 37 per cent, dementia care from 11 per cent to 13 per cent, and psychogeriatric care from 0.9 per cent to 1.3 per cent. Figure 12 below shows trends in the clinical characteristics of individuals entering ARC using the CHESS, CPS and ADLH scores from each new resident's LTCF assessment.

Figure 12: Proportion of individuals with high levels of acuity upon admission into ARC

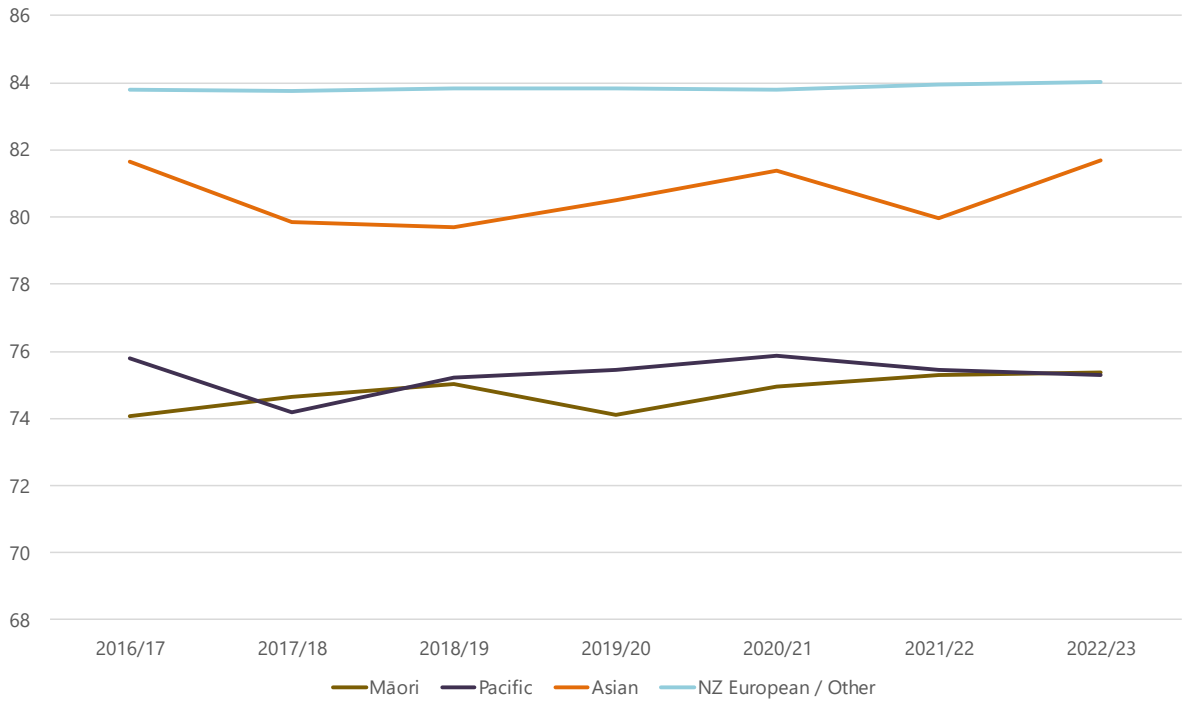


Source: LTCF assessment data

The CHESS, CPS and ADLH thresholds above indicate high levels of health instability, cognitive impairment and dependence. As depicted, the proportion of high acuity individuals entering care has remained relatively constant over the last 6-7 years.

The average age on entry into ARC has remained relatively constant through time. Figure 13 depicts the average age of entry into ARC through time, sorted by ethnicity. Although the age at which individuals of different ethnic groups enter ARC has remained relatively constant through time, there are still significant discrepancies, as Māori and Pacific individuals enter care almost nine years younger than NZ European / Other. We explore this further in section 6.

Figure 13: Average age upon entry into ARC by ethnicity



Source: LTCF assessment data

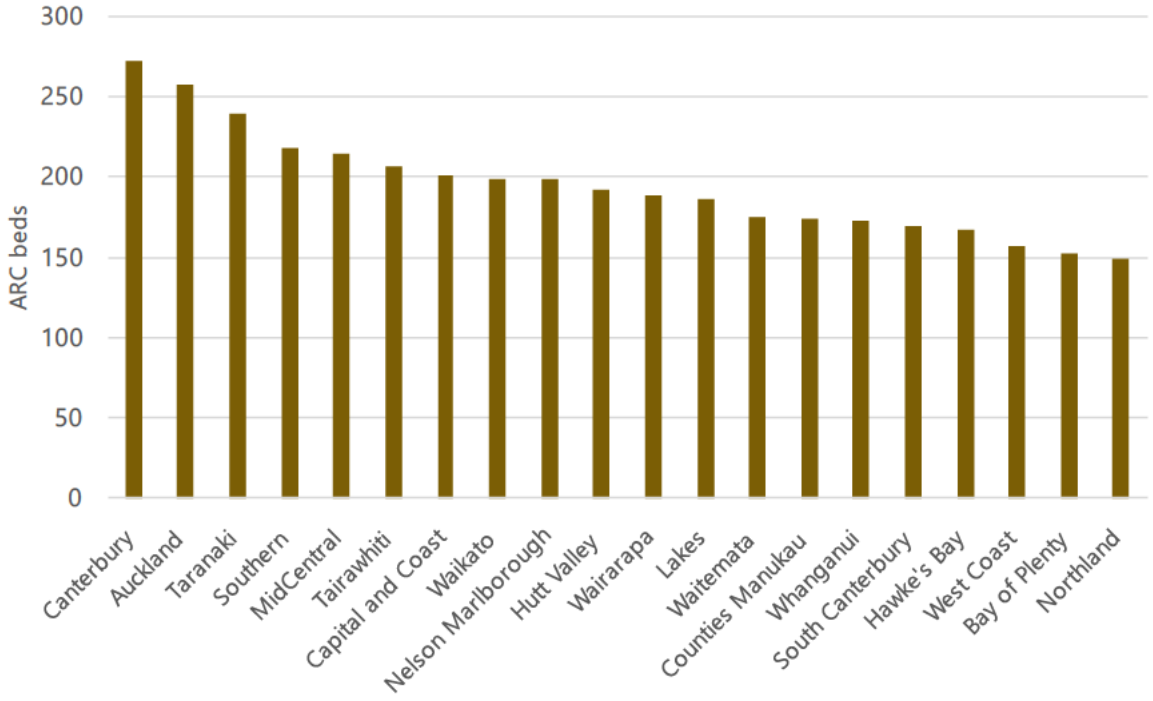
Despite our contention that residents are likely entering ARC with slightly higher needs over time, there are indications that service quality within ARC facilties has improved. The average life expectancy across all care categories has improved from 2006/07 to 2021/22, with the national average increasing from 1.4 years from entry into care to 1.9 years.[15]

2.2.6 There is significant regional variation in the supply, occupancy and utilisation of ARC

Figure 14 shows the number of ARC beds by DHB per 1,000 population aged 80 years and over. The supply and accessibility of aged residential care varies significantly between regions in NZ, ranging from 272 beds in Canterbury to 149 in Northland.

[15] Calculated from CCPS data only, based on the difference between date of death and date of first residential care. The increase in life expectancy also increased across all four care categories to 2018/19 (indicating the increase was not caused by ARC facilities taking preventative measures in response to COVID-19).

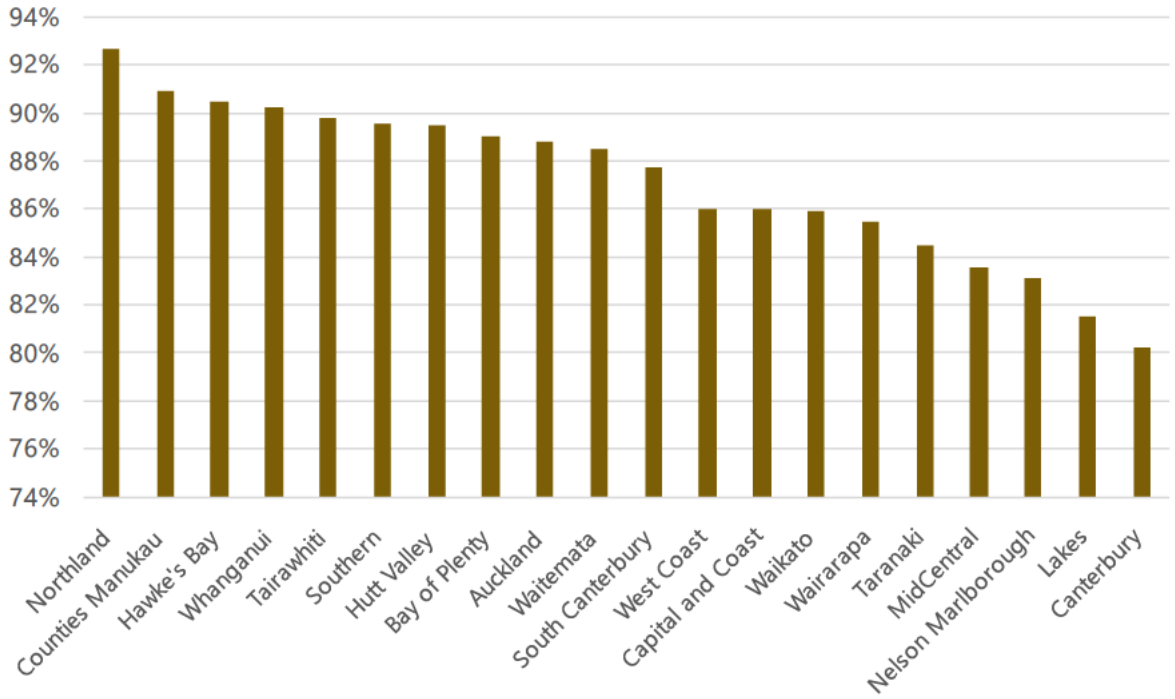
Figure 14: Number of ARC beds by region per 1,000 population 80+ (2022/23)



Source: NZACA 2023 Survey; Stats NZ

All other things being equal, such significant regional variation would be a cause for concern, potentially showing that older populations in certain regions (e.g. Northland, Bay of Plenty and the West Coast) may be more likely to experience barriers in accessing ARC when they need to. However, this data cannot be read in isolation, as it may be that some regions do not need as many beds as there are more effective primary and community support services needed to keep people out of ARC. Unsurprisingly, the regions with a large supply of beds typically have lower occupancy rates than regions with a smaller number of beds relative to their older population. Figure 15 shows the ARC bed occupancy rates by region, which range from 80 per cent in Canterbury to 93 per cent in Northland.

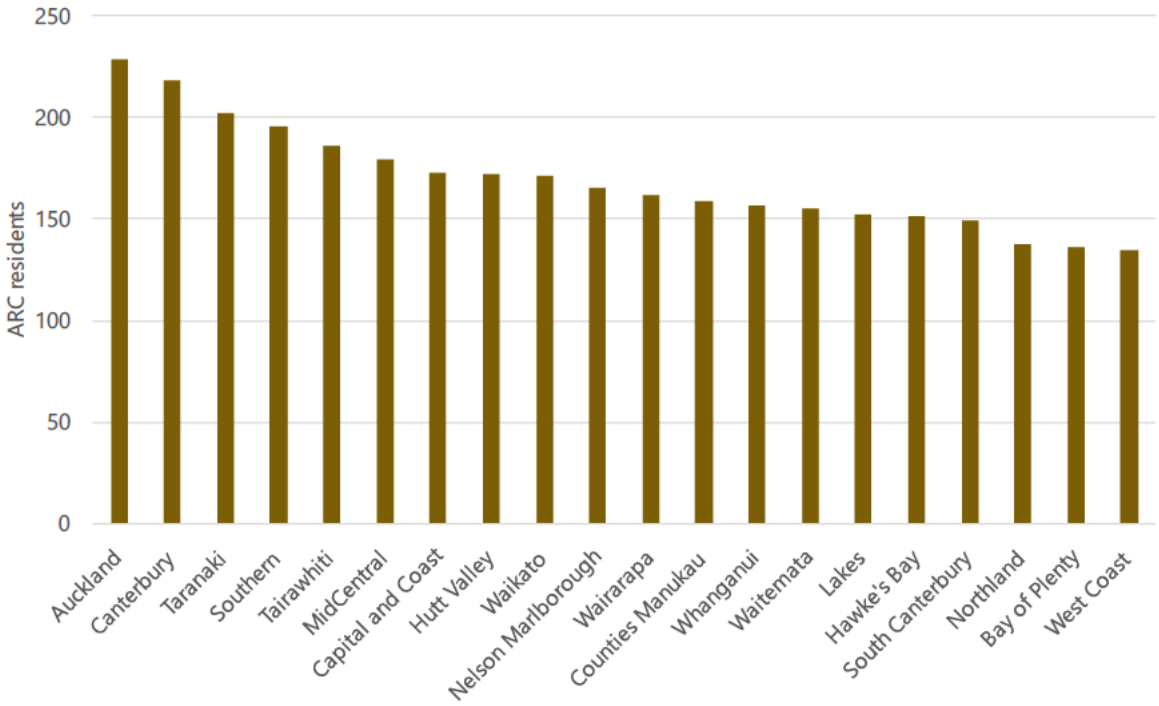
Figure 15: ARC bed occupancy rates by region (2022/23)



Source: NZACA 2023 Survey

The utilisation of ARC also varies significantly by region, as shown in Figure 16. In Auckland, approximately 23 per cent of individuals aged 80 years or over are in ARC, but in the West Coast, the proportion is only 14 per cent.

Figure 16: Number of ARC residents by region per 1,000 population 80+



Source: NZACA 2023 Survey; Stats NZ

2.2.7 There is an increasing trend towards premium accommodation charges

ARC providers are increasingly applying premium charges to residents, which refer to any charges above the standard maximum contribution. Typical additions for premium rooms are ensuites or larger spaces. The increasing prevalence of these charges is likely attributed not only to a shift in consumer preferences, but also inadequacies in the existing funding model. Premium charges act as a way for providers to recoup capital shortfalls and are, as the sector suggested to us, a natural response to not being able to recover costs through the current maximum regulated prices. The growing 'premiumisation' of the ARC sector will, however, create increasing financial barriers to accessing residential care.

NZACA reported that 92 per cent of its member facilities offered premium room services in 2021, an increase from 87 per cent in 2019 (New Zealand Aged Care Association, 2022a). We've heard from the sector that this has increased even more, and now almost all providers offer premium rooms. Table 3 shows the proportion of ARC residents paying premium charges for each of the four care levels.

Table 3: Proportion of ARC residents paying premium charges by care level (2022/23)

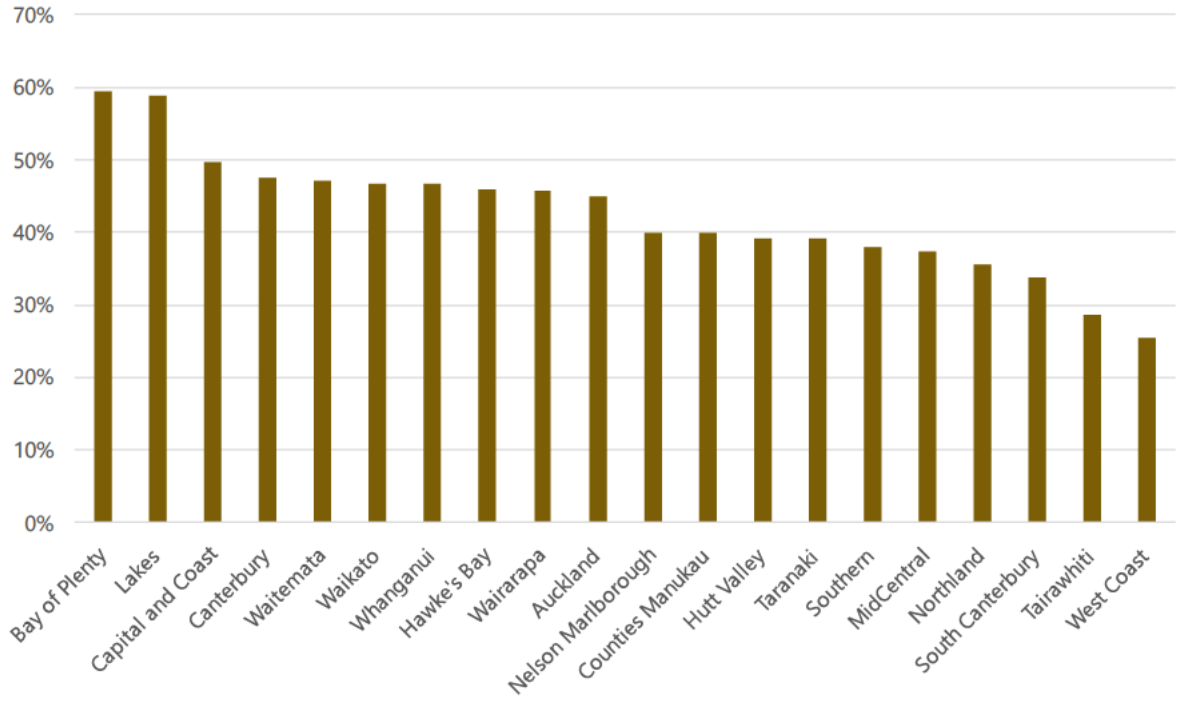
Care level	Proportion of residents paying premium charges
Rest home	42%
Hospital	46%
Dementia	38%
Psychogeriatric	16%
Total	**43%**

Source: NZACA 2023 Survey

NZACA reported that 43 per cent of ARC residents pay premium charges in 2023, the highest at hospital level (46 per cent) and the lowest at psychogeriatric level (16 per cent). The median premium charge for the most common premium room (a larger room with an ensuite and standard view) was $21,000 in 2021 (New Zealand Aged Care Association, 2022a).

There is also material regional variation in the proportion of ARC residents that pay premium accommodation supplements, as shown in Figure 17.

Figure 17: Proportion of ARC residents paying premium charges by region (2022/23)



Source: NZACA 2023 Survey

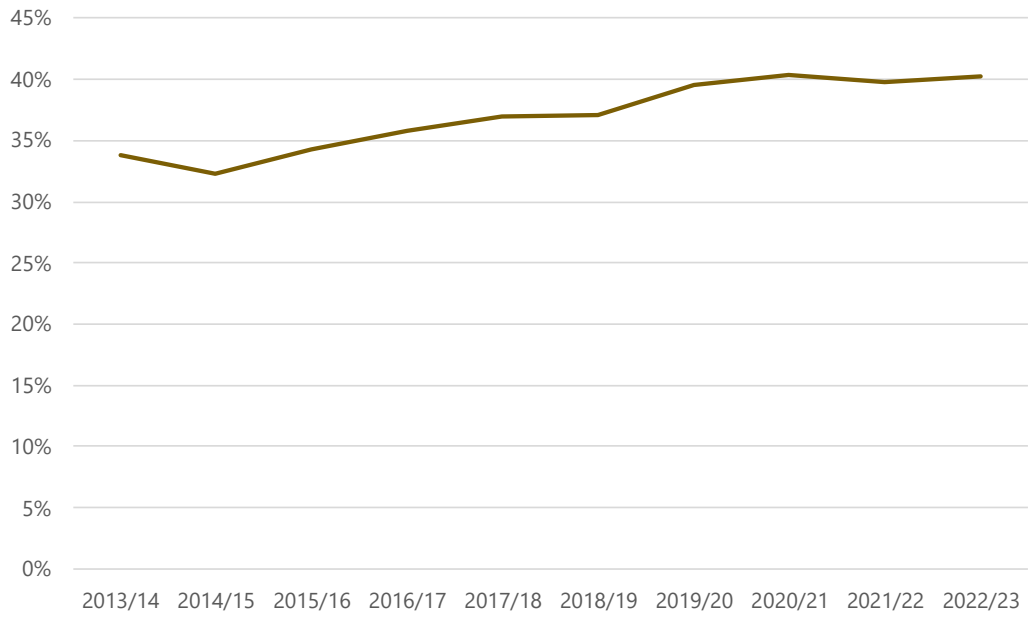
The proportion of ARC residents paying premium charges ranges from 25 per cent in the West Coast to 59 per cent in the Bay of Plenty. These figures highlight potential financial barriers to care in several regions, or the differences in supply through the composition of standard and premium rooms between providers and facilities.

There has also been a growing trend towards ARC providers selling occupation right agreements (ORAs) for care suites, whereby residents make upfront cash payments to secure their care suite that is partially refunded on their death/transfer. The New Zealand Aged Care Association reported that ORA beds constituted 12.3 per cent of total rest home, hospital, and dual service beds in September 2021, up from 7.4 per cent of these beds in 2014 (New Zealand Aged Care Association, 2022a). The growing use of ORAs was particularly marked in some regions, with 31.8 per cent of all rest home, hospital and dual service beds in Nelson Marlborough now requiring residents to purchase ORAs.

2.2.8 A growing proportion of ARC residents are required to self-fund their care

Individuals aged 65 or older entering ARC can receive a residential care subsidy if they and their partner's total assets are $273,628 or less (Work and Income, 2023a). The threshold varies depending on partner arrangements, and Figure 18 shows that an increasing number of rest home residents are above the asset threshold and are required to self-fund their care.

Figure 18: Proportion of rest home maximum-paying ARC residents



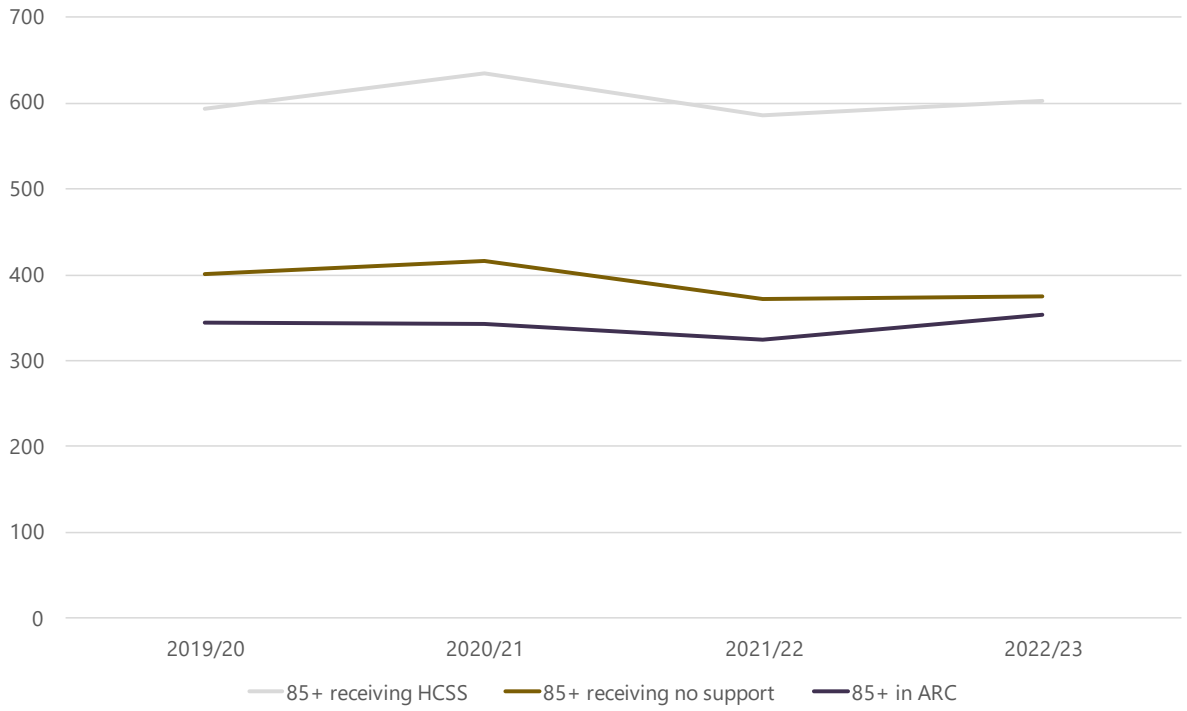
Source: CCPS data

The proportion of rest home residents paying the maximum price has increased from 34 per cent in 2013/14 to 40 per cent in 2022/23, likely as a result of increasing house prices. These results indicate that the asset threshold has not kept up with rising house prices, leading to a growing proportion of residents paying the maximum price. This increase in asset wealth among older New Zealanders has likely insulated the government from a significant increase in public expenditure on ARC services.

2.2.9 Aged care services are likely to reduce demand and pressure on hospitals

There is evidence that aged care services provide external benefits in preventing hospital admissions and freeing up capacity. In combining inpatient event data from the National Minimum Dataset (NMDS) with LTCF and fee-for-service HCSS data, we observed the rates at which individuals aged 85 and over enter hospitals based on the service and level of support they receive. Figure 19 shows the short-stay inpatient event rates for individuals aged 85 and over who are either in an ARC facility, receiving HCSS or receiving no support.

Figure 19: Short-stay inpatient events (<2 days) per 1,000 population 85+



Individuals aged 85 and over in ARC have a lower likelihood of entering hospitals for inpatient events of less than two days compared to those receiving HCSS[16] or no support at all.[17] In 2022/23, individuals in an ARC facility had 353 short-stay inpatient events per 1,000 population 85 years and over, as compared to 603 events for those who were receiving HCSS and 375 events for those who were receiving no support.

We would have expected there to be mitigating effects as individuals in ARC are of a naturally higher acuity than those healthier individuals not requiring support, so it is quite compelling that we still observe these results. Residents in ARC are provided with continual assistance, and some health incidences can be managed within the facility. Those receiving HCSS would be of higher acuity than those receiving no support but are not managed or supported 24/7 like those in ARC, meaning there is a lower likelihood of this service reducing hospital admissions.

The ability of investments in ARC to free up hospital capacity will be explored more in phase two of this review. We are aware of claims that some patients can occupy hospital beds for significant periods while awaiting discharge into an ARC facility, but as yet we have not received data to be able to interrogate this matter.

[16] Individuals in the HCSS category only include those in fee-for-service regions, as we were not provided with NHI-level data for bulk funded regions.

[17] To calculate the proportion of inpatient events for those receiving no support, we counted the number of events that related to individuals that did not appear in our ARC and HCSS datasets and subtracted the number of ARC and HCSS recipients from 85+ population estimates.

3. What we heard from stakeholders

The review's Advisory Group was asked to provide feedback on the key issues and limitations faced by the aged care sector and potential solutions. The underlying theme of much of the feedback we received was the view that more needs to be done to understand the factors that drive older people into ARC facilities and use this as the basis of forming ideas for new models of aged care. The Advisory Group highlighted that such factors include housing insecurity, poor acuity, and carer stress. The following suggestions and ideas were also put forward.

3.1 Making better use of HCSS

Many ARC recipients have received home-based care prior to being in ARC. However, Advisory Group respondents submitted that home-based care often does not meet the needs of older people who may move into ARC – often as a last resort – for non-clinical reasons, including for personal safety, as well as practical and economic reasons.

There are several issues involved with home-based support:

- Home-based services are often facilitated by family members/informal carers who do not have adequate expertise or resources to sustainably ensure proper care.
- Where home-based services are provided by formal carers, wage disparities coupled with staff shortages have led to home support workers becoming overwhelmed, particularly when the person has a high level of needs.
- Many domestic homes cannot sustain the furniture/equipment required by people with a high level of needs.

In this sense, respondents feel a practical alternative is to reduce demand of ARC by enabling people to live at home for longer with improved HCSS support. This would enable older people to remain in their local communities and could serve as a more cost-effective model of care.

3.1.1 Appropriately shifting demand to HCSS

Utilising HCSS can be a feasible substitute to ARC in some instances (though is typically seen as a component of a continuum of aged care), and many Advisory Group respondents called for a flexible funding model, similar to the individualised funding model utilised by Whaikaha Ministry of Disabled People. This would allow some people to remain at home with similar funding as if they were in ARC, with easier and more reliable access to HCSS.

Some of the Advisory Group submitted that a flexible funding model between ARC and HCSS would result in an increasing number of older people, particularly Māori and Pacific, utilising care services. The risks associated with flexible funding models are acknowledged, with further suggestions of strong oversight from relevant agencies such as NASCs and strong clarification on the types of services that can be funded with a flexible funding model or individualised funding. However, other members of the Advisory Group opposed the idea of individualised funding, particularly as a strategy to address care workforce shortages in home support.

Other suggestions of flexible funding models contend that looking at a funding model that separates room costs from care costs could potentially aid in extending community care models, with submitters noting the current model incentivises the use of ARC. Many support the idea of trying to keep people at home longer, to reduce rest home level care in exchange with utilising in-home support and assisting family carers as a solution to the growing demand for aged care.

3.1.2 Access to respite care

Offering more support for informal carers is widely acknowledged as an important aspect of aged care, although the respite options available vary across the country. At present, there exists a Carer Support subsidy if the person one is caring for has an age-related disability that is expected to last for more than six months, and the carer provides more than four hours of unpaid care per day.

In the past, very few rooms were maintained as respite rooms, which the DHBs attempted to solve by bulk funding rooms. However, many of the Advisory Group acknowledge that respite care can still be difficult to access due to the seasonality in the use of respite services, i.e., there are periods of supply excesses and supply shortages (such as during school holidays). Unused respite rooms will still have to be maintained during off-peak seasons, but there are not enough respite beds available during peak seasons.

Anecdotally, one of the Advisory Group members currently operates day programmes to look after older people, especially with dementia, and allow their carers to continue work during the day. They also operate a visitor dementia programme that utilises volunteers to support dementia patients and their carers. They see this to be a cost-effective means of respite due to the volunteer-based nature of the additional care, and it has been funded by Te Whatu Ora and the Ministry for Social Development in recent years. There are questions whether there is regional variation in the accessibility of day programmes that are operated above, and if so, whether this is a major issue.

3.1.3 Flexible funding

We heard from HCSS providers that there would be value in moving to a national case-mix model and removing some of the variability they face in hourly rates paid by Te Whatu Ora. Submitters made clear that they thought the current HCSS funding model required significant reform, with there being considerable opportunity for standardisation.

As detailed in 3.1.1, there was a theme in submissions of having a flexible funding model between ARC and HCSS, though the idea of the potentially ideal flexible funding model varied considerably. Some called for individualised funding, which may allow for more sovereignty in the services that older people can choose to access, although this is acknowledged to have some risks, while some of the Advisory Group oppose this. Other stakeholders believed that HCSS recipients having access to the same funding as they would in ARC would be sufficient to address the supply shortage of ARC facilities.

Other members of the group stated that the current funding model and the contract mechanism make it too difficult to support changes in service delivery to cater to changing needs. This is despite it being simple to identify changes in needs with interRAI assessment data.

3.2 Addressing pressing issues in the ARC sector

Members of the Advisory Group raised concerns that the maximum contribution price was not sufficient to allow providers to cover their costs, resulting in a growing trend to build premium rooms and charge premium fees.

3.2.1 Pricing

Negotiated prices

A key issue for the review to examine to be addressed is the potential for constrained supply of ARC facilities due to a lack of funding. We also heard this message clearly through our one-on-one meetings with Advisory Group members, urging the review to ensure maximum prices for ARC were sufficient for providers to earn a return on invested capital.

Under the current prices, Advisory Group members submit that ARC facilities need to be near capacity to be financially sustainable. To prevent closures and ensure capacity for aged care residents, ARC providers will require support and increases in the maximum care price.

Much of the Advisory Group feedback contended that the current prices do not cover the cost of care and should be higher. One respondent shared similar views in that imposing a maximum rate is not a viable approach to ensuring equitable yet affordable access to aged care without adequate funding that truly meets the cost pressures faced in the aged care sector.

There were concerns that ARC price is not sufficiently linked to input costs – specifically capital costs faced by ARC providers. ARC providers submitted that there should be more transparency about how prices are set, the make-up of the various cost components and how they change over time.

Premium charges

It was submitted that premium rooms and their associated charges are becoming prevalent, which could be concerning as an unregulated area. Under the current system, ARC providers have the ability to discriminate in favour of those who can afford premium rooms and cost little to support. It is currently possible for ARC providers to charge a premium for every ARC bed.

A question was raised on the proportion of the type of ARC closures and new builds of ARC facilities (e.g., premium rooms, non-premium rooms, ORAs, etc.).

3.2.2 Viable housing

One operator noted that older homes are not viable and have become increasingly difficult to maintain. To make these homes viable for aged care, elderly support services have converted rooms into ensuites, which has naturally led to a reduction in the number of rooms available in one building. This strategy, in addition to increasing the size of and improving the quality of non-premium rooms in general, continues to be perceived as an innovative idea for new models of aged care.

3.2.3 Rural and small area facilities

The disparity in access to aged care for older people in rural areas relative to urban areas was a key theme in Advisory Group feedback. It was claimed that aged care facilities are not being built in rural areas or smaller provinces, despite there being a need for such facilities in these areas.

A number of potential solutions have been suggested by the Advisory Group in this space. The group suggested considering having a targeted funding model that better incentivises the building of facilities in rural localities. It was also suggested that it may be viable for funding for small area developments to allow providers to break even with potential low demand in the initial stages, until demand meets supply in the longer-term.

3.2.4 Accountability requirements

There were calls from some Advisory Group members for mandatory reporting requirements and oversight from Te Whatu Ora on how public funding is spent on ARC provider operations. This could also potentially aid in addressing workforce shortages; section 3.3.1 details a response that suggests separating operational and workforce funding to ensure this is passed on to workers. Some of the Advisory Group suggest tying ARC funding to client needs and workforce requirements, as well as external factors such as inflation.

The Advisory Group also suggested exploring options on making funding for non-residential aged care a more feasible option, as outlined in 3.1.1.

3.3 Workforce shortages

A priority issue that came through in our Advisory Group engagement was that ARC and HCSS providers were struggling to hire skilled care and support workers. While there were many suggestions on how to address this, for most it came down to a question of needing more funding.

3.3.1 Pay equity

Despite being out of the scope of this workstream, many of the Advisory Group support and strongly encouraged the pay equity claim between care and support workers and Te Whatu Ora nurses with urgency to ensure workers are not financially pressured to leave the sector. This is seen to have substantial impacts across the board for care and support workers in HCSS and ARC in terms of attracting more workers, retaining skilled workers, and developing skills. There were also concerns that any potential increases in ARC or HCSS funding are not passed through to workers, with calls for a separating mechanism between workforce and other operational funding.

In addition to financial pressures, there was also the concern that continued understaffing will lead to inadequate rationing of care and support workers' time and effort, thereby creating safety risks for ARC and HCSS recipients.

3.3.2 Recruitment

Some of the group suggested more could be done to market the aged care sector as a potential career, such as a presence at school expos. One of the group members engaged with gateway programmes at the college level has had success in recruitment through these methods. Targeting Māori and Pacific aged care workers for ARC and HCSS recipients is further outlined in section 3.5.

There are also many healthcare assistants who would like to train to become aged care registered nurses but do not receive the necessary support for development. Additional funding would a boon for healthcare assistants who have the passion and skills for aged care to become registered nurses.

3.3.3 Immigration

There has been recent legislative change in Australia that grants experienced aged care workers a pathway to residency. There were calls for similar immigration considerations in a New Zealand context by freeing up visa entry for lower-paid jobs in the aged care workforce and removing other immigration barriers and transition pathways. The group suggested an orientation programme in the context of aged care in New Zealand, once immigrants arrive into the country.

3.3.4 Training

The Advisory Group strongly supported an increase in the provision of training opportunities available for all aged care workers. These training pathways should consider the scope of demand by aged care facilities and HCSS services accordingly so care workers are appropriately qualified for the scope of their services. The group also called for training services for care and support workers to be able to provide triaging for clients and direct them to relevant services.

Some of the Advisory Group claimed that, due to staffing shortages, healthcare assistants often operate outside of their scope, doing work of registered nurses. They also claimed that many of these healthcare assistants would like to train to become registered nurses but cannot afford to take time to study, therefore, additional funding in this area could mean more qualified aged care workers who are able to provide safe services.

3.3.5 Staff/client ratios

There currently exist minimum safe hour indicators for registered nurses and healthcare assistants per ARC resident, however these are not mandated. Some Advisory Group members suggested staff/resident ratios either by time per resident or number of staff per resident.

It was suggested that minimum care minutes follow the Australian model of ARC, which was enforced in October 2023. There was additional funding that ensures older people in Australian ARC facilities receive a mix of care from registered nurses, enrolled nurses, personal care workers and nursing assistants. The minimum minute targets would vary by the ARC recipient's needs. With workforce shortages and increasing complexity of ARC residents, this will evidently be a challenge without an incentive to recruit more people into care work as well as retain existing trained care workers.

There were also suggestions to implement case-mix bulk funding to optimise the level of services required by older people, particularly in high-need areas, and ensure more sustainable workforce ratios over time.

3.4 Dementia

Older people with dementia often receive late diagnoses, which means their preferences for care cannot be accurately communicated. Late diagnoses can also trigger stress on whānau carers who have not had advice or education on appropriate care. It was submitted that dementia care in Aotearoa New Zealand only considers a medical model of care for people living with dementia, and a suggestion was made to shift towards an integrated model of care that also considers the social needs of people living with dementia to meet their mental health needs.

3.5 Māori and Pacific

Another key theme that came through our engagements was concern that the current system is not adequately meeting the needs of older Māori and Pacific populations. Given these population groups are much less likely to utilise ARC (which receives high per-person subsidies), we were asked whether it was equitable for older Māori and Pacific populations to receive much less support (and lower per-person funding) in the home.

3.5.1 Whānau and kaumātua want more options

Submitters highlighted that kaumātua can associate thoughts of aged care with a lack of autonomy, and a burden on family and social services. Kaumātua do not value aged care facilities highly as it potentially distances them from and limits their access to whānau and wider support networks. It is paramount to be able to provide access to various options of care with clear communication while simultaneously allowing kaumātua to be in control of their environment.

When the need for aged care does arise for Māori and Pacific, it is difficult to access services given the shortage of dementia, respite, or residential beds. This also puts more pressure on whānau carers who lack support and information to safely care for their elders.

The Advisory Group proposed various opportunities to improve the options available to whānau and kaumātua. One was to improve access to affordable or free transport, particularly as this is a substantial cost to rural communities. This would help reduce social isolation and allow older people to participate in communities, while also providing easier access to health and social services.

Developing and implementing a kaiāwhina workforce plan that results in culturally competent services closer to home would provide better access to aged care services for kaumātua as well as aid in addressing workforce problems.

It is also crucial to gather an understanding of the services currently available to tangata whaikaha and kaumātua to avoid duplicating services that are not desired, and identify areas that require improvement.

3.5.2 Workforce

Improving Māori and Pacific participation in the aged workforce would also be heavily beneficial to kaumātua/mātua. According to Pacific representatives on the panel, it is seen as honorary to care for mātua, and utilising relevant stakeholders to deliver this message of care would lead to an improvement in the participation of Māori and Pacific in the care workforce and the delivery of culturally sensitive services that reflect the needs and desires of Māori and Pacific elders.

Whānau and community voice also call for skills development for nurses, allied roles and kaiāwhina roles, particularly in rural communities. There is also the need for cross-sectoral case management to help older people through their social, economic and cultural aspirations as this has a large impact on mental health.

3.5.3 Culturally sensitive aged care

Removing barriers to ARC and HCSS is complex, but we heard more could be done to ensure ARC facilities were seen as welcoming and responsive to a wider range of ethnicities.

There were calls for the involvement of Māori and Pacific worker representative groups such as Te Poari o Te Rūnanga o Aotearoa, NZ Nurses Organisation to understand the conditions and solutions of unmet need for Māori and Pacific. This would be followed by models of care that incorporate training surrounding Te Tiriti principles, cultural safety, Māori health and anti-racism to address the shortfalls of cultural safety and equity approaches that the Advisory Group claim are often not present in ARC and HCSS. It was suggested these models would be developed by Māori for the benefit of Māori.

A more welcoming ARC model for Māori and Pacific populations would also require more extensive recruitment and training of Māori and Pacific nurses to implement culturally sensitive approaches to aged care, with cultural recognition of customs that may be practised in clinical expertise – for example, appropriate tikanga around death. Kaumātua want to be confident that they have control over their symptoms and ensure that their cultural and spiritual needs are taken into consideration in the later years of their life. Māori health literacy and awareness of what services are offered should be a priority for an uptake of home care.

For Pacific peoples, were heard it is important to use Pacific providers and community groups as advocates for aged care, as well as to provide education about aged care for Pacific mātua. The aged Pacific community could also be more willing to engage with aged care if they were operated by Pacific-relevant stakeholders, such as Pacific provider partners, and church and community groups.

There was also a request for community groups to have more authority and support in linking primary aged care and home- and community-based care to family units who need to access such resources. Resources should also be simplified or translated to remove administrative barriers for Māori Pacific in accessing aged care resources. We heard that the funding for providing home-based support through HCSS was too restrictive and often too focused on clinical needs. It was submitted that if the objective is to help older populations live independently at home then a wider range of community and social organisations should be eligible for HCSS funding.

Stakeholders wanted changes to the HCSS funding model to a tiered approach that benefits low-income aged people and priority populations. Such a tiered approach would be informed by understanding population demographics and health needs by region to inform where the need for resources towards low-income Māori and Pacific exists.

3.6 Integrating technology

The use of technology in aged care work as well as for administrative and bureaucratic purposes was featured in the responses of Advisory Group members. For instance, there is the argument that using technologies such as artificial intelligence or robots would be beneficial in enabling older people. Investing in technology would streamline assessments and triaging, and help communicate information such as shared care planning, medication management, hospital in the home type services and patient tracking. While IT solutions could potentially work for some older people to connect with their families, there may be some that struggle with technology and will need a more hands-on approach.

4. Key issue: funding levels

ARC and HCSS providers are unlikely to be covering their efficient costs at present. There is a strong case to increase the regulated care prices for ARC services and to increase funding levels for HCSS.

- A substantial increase in the regulated care prices is required. Current care prices only enable ARC providers to cover their operating costs and are not sufficient to cover capital charges or to support significant new investment.
- The shortfall in funding is particularly acute when we model what prices are needed to incentivise large-scale new investments. The extent to which an ARC provider has appropriate incentives to invest in building a new facility depends on a number of factors including the location of the facility, size, service type and bed mix, occupancy rates, number of facilities, and ability to generate additional revenue from residents.
    - The lack of funding in the sector at current prices depends on a wide range of variables.
    - When considering the case for new investment, dementia and rest home level care is the most underfunded at current prices.
    - The funding gap is larger for rural and provincial locations due to providers' inability to extract premium accommodation charges from residents.
- The HCSS sector is also under financial pressure at current funding levels and providers are struggling to attract and retain staff. The providers financial pressure varies depending on the nature of their workforce, scale and funding model.

This section sets out our analysis on whether current pricing and funding levels are appropriate. The cost modelling is dependent on a number of assumptions that will be continue to be assessed and refined over the course of the review. As such, the cost modelling presented here should not be considered as final.

4.1 Funding levels for ARC

The cost of providing ARC services has increased significantly over the last few years, which has been attributed to causing bed and facility closures in many regions. The ARC sector has submitted the current funding parameters do not incentivise new investment in the sector, as the current regulated price is below the efficient price and what is affordable for them to operate sustainably.

4.1.1 Current ARC funding arrangements

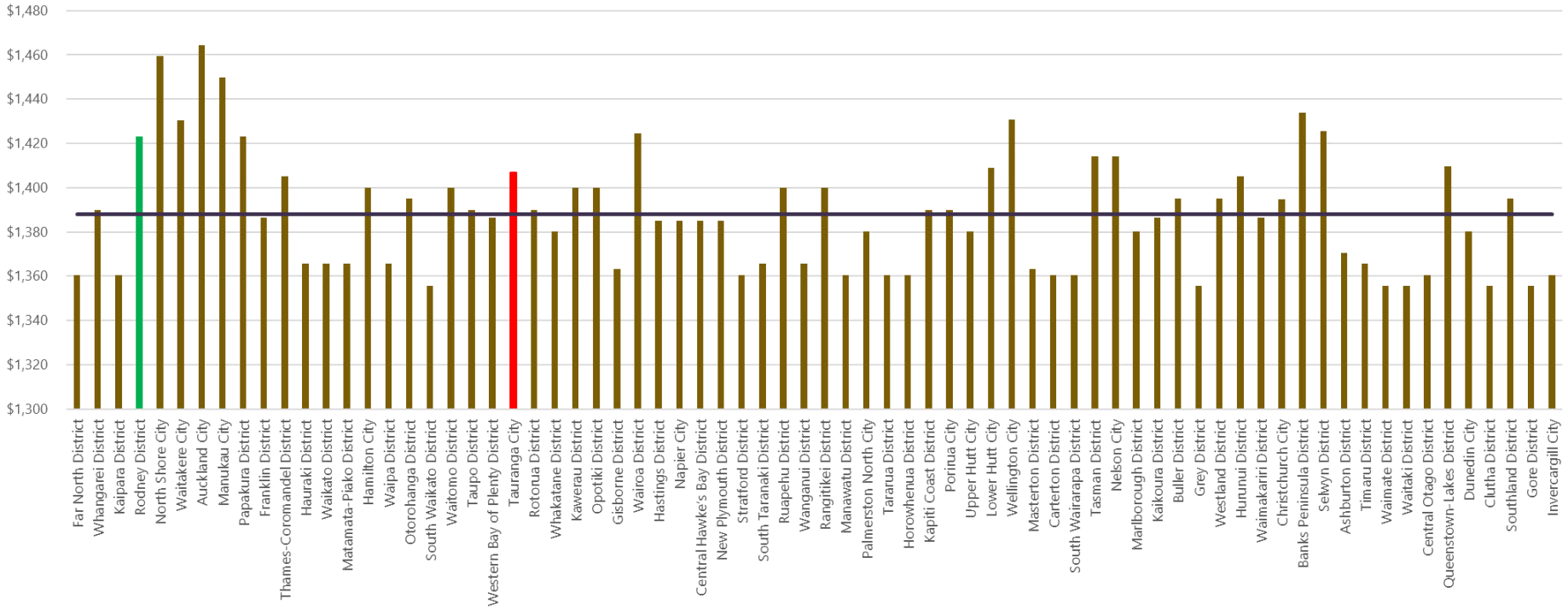
The regulated price varies by care category and territorial local authority (TLA) area and is negotiated annually. The regional variation only reflects estimated differences in capital costs associated with land and is intended to compensate providers for the differences in capital costs they face in different regions – specifically, land value. Operational expenditure is assumed to be constant across providers and regions.

The TLA pricing was initially established in the year 2000 based on assessed land values. The estimates in 2000 covered a range from a quarter to a third of the total rest home care price, with a spread of a third between the minimum and maximum capital charge incorporated into the indicative prices, according to information from EY (2019). However, the annual adjustments made to the care price have not reflected changes to input costs and were instead subject to negotiation between DHBs and ARC providers.

Figure 20 compares these weekly rates across the country with the national average rate, $1,388 (blue line). All of the cities and districts within Auckland region receive higher rate (up to 5 percent for Auckland City) than the average rate except Franklin district. Some of the other geographic areas receiving higher rates than the average are Wairoa District, Wellington City, Banks Peninsula District and Selwyn District.

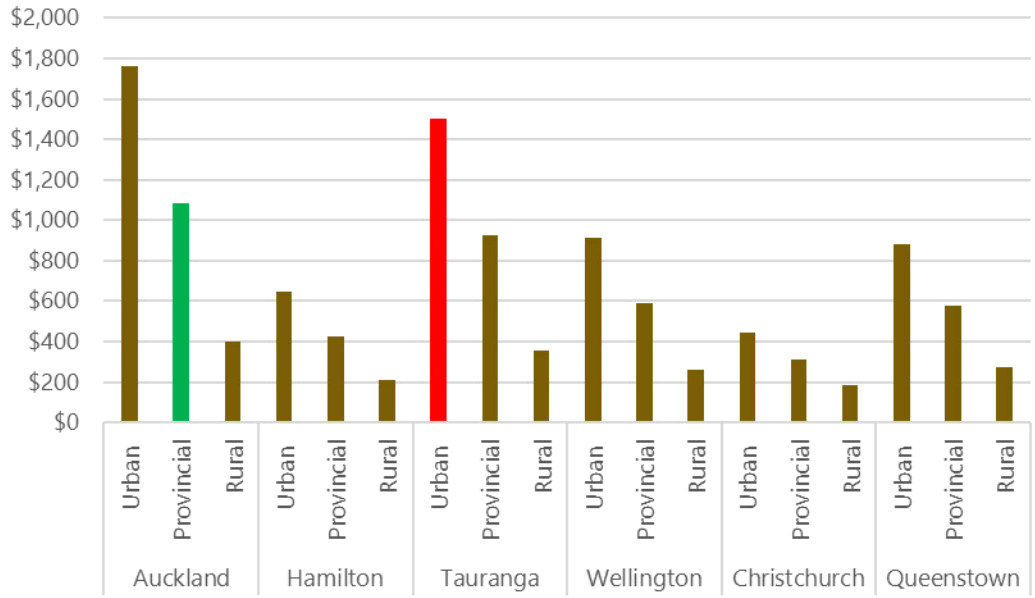
Figure 21 presents an estimate of land cost per square metre for some sample locations. A comparison of the two graphs shows that ARC providers in some locations, for example Tauranga City, will receive lower funding despite having higher land prices than providers in other regions, for example Rodney, a provincial area in Auckland (chart values highlighted in red and green for ease of comparison between the charts).

Figure 20: Rest homes' weekly maximum contribution by territorial local authority compared with national average (2023)



Source: (New Zealand Gazette, 2023)

Figure 21: Estimated land value per square metre, by a sample of locations (2023)



Source: New Zealand Infrastructure Commission (2023) and Sapere's calculations

The average occupied bed day prices set by Te Whatu Ora for the four care categories in 2022/23 are summarised in Table 4 below.

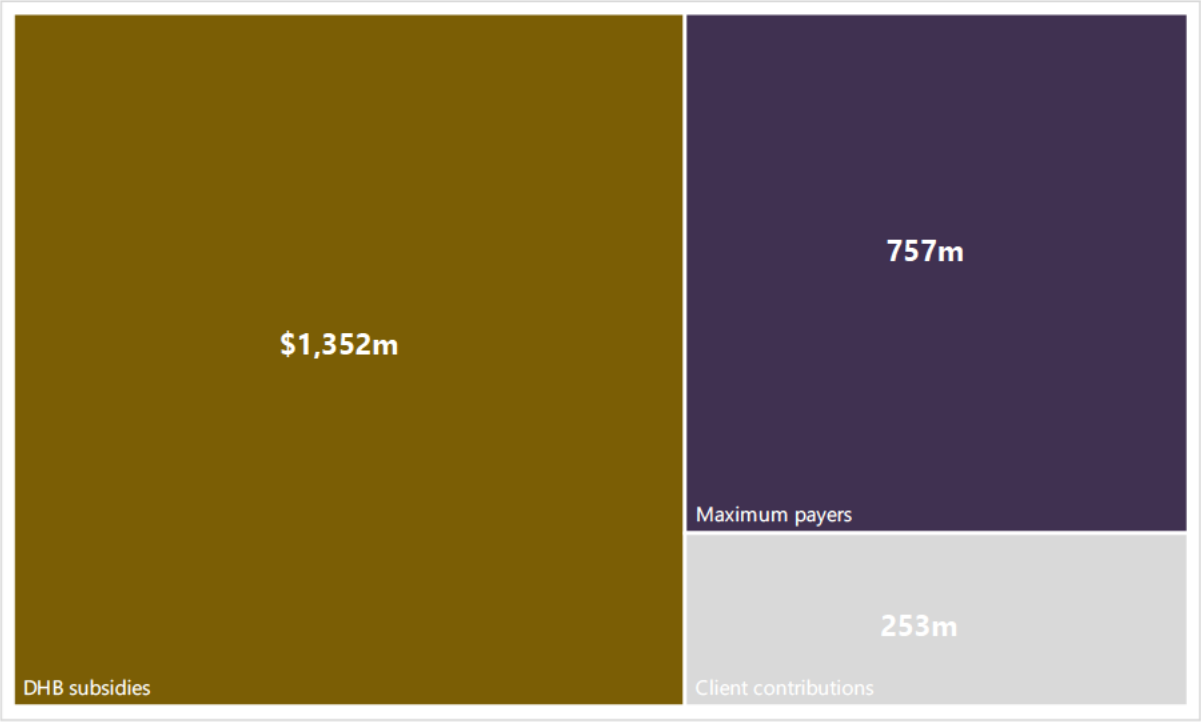
Table 4: Average bed day prices in 2022/23

Rest home	Dementia	Hospital	Psychogeriatric
$176.45	$232.67	$279.14	$311.16

Source: CCPS data

These values are extracted from CCPS payments data, and are the average daily prices paid to providers per occupied bed day. This price reflects a composition of funding from DHB subsidies and client contributions. Residents who are above the means-tested threshold pay the full maximum contribution but receive a subsidy for the additional amount above the rest home price if they are in dementia, hospital or psychogeriatric level care. The total allocation of funding for ARC services in 2022/23 is summarised in Figure 22 below.

Figure 22: Total funding for ARC services in 2022/23



The total funding for ARC services in 2022/23 was approximately $2,362 million, comprising of:

- $1,352 million of Te Whatu Ora payments to providers, which includes:
  - $1,125 million of subsidising care costs for residents who own assets less than the threshold and pay from their income[18]
  - $227 million of additional payments made for those residents in higher levels of care (residents pay no more than the maximum contribution regardless of their care level)
- $757 million of estimated resident contributions from those paying the maximum price (so called 'maximum payers')
- $253 million of means-tested resident contributions, with a portion coming from NZ Superannuation.

The average price was increased by 9.4 per cent in 2023 and has historically increased by around 3 to 10 per cent annually. There is consensus throughout the sector that funders are failing to account for rising capital costs, which has resulted in providers recouping shortfalls through premium accommodation charges. In 2022/23 Q4, 43 per cent of ARC residents paid premium charges (NZACA, 2023). This may partially reflect a shift in consumer preferences, but it is quite likely a result of the insufficient funding model.

[18] Residents who are between 50-64 and are single with no dependent children are automatically eligible for the subsidy. If 65 or older a resident will be eligible for the subsidy if their assets (and their partner's) are valued at $273,628 or less. If the resident's partner is not in long-term care they can exclude the value of their home and car and be eligible for a subsidy if their combined assets are valued at $149,845 (Work and Income, 2023b).

EY conducted an extensive review of the ARC sector in 2019 and reported that additional revenue of between $64 and $84 per occupied bed day would be required for rest homes to breakeven at a 9 per cent rate of return (EY, 2019a). Since then, the funding gap has worsened as highlighted by our analysis of the current input costs associated with ARC services.

4.1.2 Regulated ARC prices do not cover efficient costs

The TLA pricing framework serves as a moderate incentive for providers to expand capacity in areas that promise optimal returns on both capital investment and operational efficiency. However, the model lacks a robust incentive for capacity development in potentially underserved, less affluent areas where demand may be more uncertain. This imbalance may lead to insufficient supply to meet the population's needs and potentially impact the quality of capital stock in certain instances (EY, 2019a).

The prices are calculated on a per bed-day basis, representing a day occupied by a resident in a facility. Providers receive payment based on the number of days in a two-week period that their available beds are occupied by residents. This revenue structure ties directly to the occupancy of the facility, meaning that providers' income is influenced by how many beds are filled and the mix of residents.

The maximum contribution for residents is established at the rest home price for the TLA. Te Whatu Ora covers the difference between the rest home level price and the cost of higher levels of care (dementia, hospital and psychogeriatric) for all residents, regardless of a resident's assets or income.

Table 5 shows the contract price across selected TLAs by care category as at 1 July 2023. The table shows that the dementia price is approximately 35 per cent higher than the rest home care price, hospital 62 per cent higher and psychogeriatric about 79 per cent higher.

Table 5: TLA daily rate exclusive of GST[19] (2023/2024)

Geographic area		Rest home	Dementia	Hospital	Psychogeriatric
Auckland	Urban	$186.27	$292.11	$249.63	$317.29
	Provincial	$181.03	$291.06	$243.42	$317.29
	Rural	$176.35	$285.77	$237.97	$317.29
Waikato	Urban	$178.09	$287.72	$240.06	$317.29
	Provincial	$173.74	$282.82	$234.95	$317.29
	Rural	$173.74	$282.82	$234.95	$317.29
Bay of Plenty	Urban	$178.96	$288.79	$241.16	$317.29
	Provincial	$176.35	$285.77	$237.97	$317.29

[19] A sample of urban, provincial and rural rates were selected for each region. For example, for the Auckland Region, the rates for Auckland City, Rodney and Franklin were used for urban, provincial and rural areas in this region, respectively.

Geographic area		Rest home	Dementia	Hospital	Psychogeriatric
	Rural	$175.57	$284.91	$237.13	$317.29
Wellington	Urban	$182.02	$292.20	$244.68	$317.29
	Provincial	$179.24	$289.10	$241.42	$317.29
	Rural	$173.43	$282.47	$234.59	$317.29
Christchurch	Urban	$177.42	$287.01	$239.36	$317.29
	Provincial	$176.35	$285.78	$237.97	$317.29
	Rural	$173.74	$284.14	$234.95	$317.29
Queenstown	Urban	$179.32	$289.13	$244.48	$317.29
	Provincial	$173.08	$282.06	$239.23	$317.29
	Rural	$172.47	$286.38	$238.49	$317.29

Source: New Zealand Gazette (2023) and data provided by Te Whatu Ora

Our cost model indicates required price increase varies between services and TLAs

We developed a cost model to test whether ARC providers could cover their costs at current care prices. We have concluded it is highly likely that current prices do not permit ARC providers to cover their costs. It is important to note that, although we have applied a 'stress test' to whether current prices are appropriate, we have not been asked to make recommendations as to new care prices.

The literature on the cost profile of ARC services suggests that the cost varies by a number of features of ARC provision and does not follow normal distribution (EY, 2019a; Grant Thornton, 2010). The variations are relevant to both operating and capital components of the costs. The main variables that affect the operating costs per resident day are identified as:

- geographic location of a facility
- the size of the facility (number of beds)
- the service type and mix of care categories provided by a facility
- the reported occupancy rate
- number of facilities owned by a provider
- premium charging arrangements and ORA (since providing 'premium' services may alter operating costs).

ARC providers also make significant capital investment in the development and maintenance of their facilities that is a distinguishing feature of these services compared to other health services.

The result of our analysis shows that ARC pricing, depending on the care level, location and service mix, would need to increase to cover efficient ARC costs even with premium charges.

The funding gap is larger for rural and provincial locations due to lower proportion of premium rooms compared to urban locations and lower average daily premium accommodation charges. For example,

the results of a NZACA survey shows that on average 35 per cent of ARC facilities with mixed rest home and hospital beds in provincial and rural areas receive premium charges, compared to the average urban rate of 56 per cent. The average daily premium accommodation charge for rural and provincial areas ($23.81) is also almost half of the average urban charge ($47.13).

In developing our cost model, we relied on data and information from various sources, including Ansell Strategic (2023), EY (2019), Grant Thornton (2010), a recent unpublished NZACA survey (2023), Te Whatu Ora Quarterly Reporting Survey 30 June 2023 and New Zealand Infrastructure Commission (2023). Our assumptions are set out below in Table 6 and Appendix A.

Table 6: Our ARC cost modelling assumptions

Parameter	Our modelling assumptions
Land costs	Land costs were sourced from the Infrastructure Commission's (2023) report, incorporating land values per square metre for selected urban areas and relative rural land values. Sapere estimated land values for provincial locations based on EY report values (EY, 2019a).
Construction costs	Assumptions for construction costs align with EY (2019a) including: demolition cost is zero or the facility is built on bare land; single level facilities are constructed everywhere except Auckland and Christchurch; costs are net of taxes and legal fees and costs are assumed not to be lower for larger facilities.
Weighted Average Cost of Capital (WACC)	The expected rate of return for ARC facility investments was estimated through three scenarios. The main analysis used the lowest WACC rate (9.31 per cent).
Capital charge per annum	The capital charge per annum was estimated based on EY (2019a), using land yield at 5 per cent of its value, depreciation and WACC charge on opening book value. We assumed 50 per cent residual value for building.
Construction inflation	The latest Cordell Construction Cost Index (CCCI) five year average of 5 per cent) was used to inflate the construction charge from 2024 forward (CoreLogic NZ, 2022).
Operating costs	The operating costs per resident day, adapted from EY (2019a) were updated using CPI rates from 2018 2019 to 2023. An average CPI rate of 2.54 per cent was applied for the years following 2023. The main component of the operating cost is the care wage. We included a margin of 6 per cent per annum from 2019 to 2023 to account for minimum wage increase in this period. The care wage is circa 90 per cent higher for psychogeriatric, 76 per cent for hospital level care and 38 per cent higher for dementia compared with the rest home base cost wage cost of $111 per resident per day (see Table 7).
Internal rate of return (IRR)	The IRR was estimated for investment in an ARC facility to assess its attractiveness. A funding gap is indicated if the IRR is lower than the WACC. The break-even maximum contribution, representing financial feasibility, was also calculated.

The operating costs incurred by ARC providers vary based on a number of factors, including the nature of the residents' needs at each facility. For our model we have adopted EY's cost inputs, whereby key operating costs were calculated for each of the four care levels. Our assumed operating costs are set out below in Table 7.

Table 7: Operating costs per resident per day by service type (2023 values)

	Rest home	Hospital	Dementia	Psychogeriatric
Care wage	$111.42	$195.84	$154.20	$210.90
Other care costs	$2.48	$6.01	$3.04	$6.02
Catering	$18.53	$24.32	$20.99	$24.34
Cleaning	$4.18	$5.35	$4.36	$5.35
Laundry	$5.39	$7.12	$5.06	$7.13
Property & maintenance	$15.13	$16.35	$15.29	$16.36
Administration	$12.24	$14.40	$16.94	$14.41
Other care costs	$1.77	$3.50	$2.20	$3.50
Total	$171.14	$272.88	$222.07	$288.01

Source: EY (2019) and Sapere calculations

4.1.3 Occupation Rights Agreements

ARC providers can use ORAs / Licence To Occupy arrangements, whereby residents make upfront cash payments to secure their care suite that is partially refunded on their death/transfer.[20] An ORA essentially acts as an interest free loan to a provider, reducing the provider's capital borrowing cost and therefore improving returns on invested capital. The provider also receives a deferred maintenance fee from the resident and benefits from any appreciation in the value of the care suite.

The use of ORAs has created a two-tier care system that is contributing to a reduction in the number of traditional standard care beds. Te Whatu Ora's staff estimated that approximately 50 per cent of the ARC facilities have some kind of ORA agreement (with or without retirement village colocation). EY in 2019 assumed that around two third of the residents in the facilities, that have ORA agreements in place, pay these charges (EY, 2019a).

Stakeholders are concerned that, if current trends persist, there will be a general decrease in choice of facilities for residents, and in particular for people without the means to afford premium or ORA facilities.

While the ability for ARC providers to use ORA arrangements encourages responsiveness to consumer preferences and encourages new capacity development, it increases the risk of increased capacity in higher socioeconomic areas and likely creates barriers for more remote areas (EY, 2019a).

[20] These arrangements can only be used by providers registered under the Retirement Villages Act 2003. The site does not have to be collocated with a retirement village.

The results of our analysis show that rest home-only and dementia-only service providers as well as mixed services of rest home and dementia are most likely underfunded even with ORA contacts in place for some of the rooms.

Our conclusion is consistent with other independent assessments

- **Ansell Strategic (2023)** found that more than half (circa 163) of their ARC survey respondents made a net loss of $4.24 per bed day, in the 2022/23 financial year. Survey respondents from most of the regions except Auckland and Bay of Plenty reported a net loss. We estimated a range of similar median loss per resident per day by service type..
- EY (2019) estimated the additional daily revenue above the ARC prices required to reduce deficits to zero: $52.37 for hospitals, $71.60 for rest homes and $56.57 for dementia care units. Compared to the EY estimates our analysis identified a slightly lower deficits for rest home and hospital level care and higher deficits for dementia level care.
- **Grant Thornton (2010)** outlined that the financial returns being achieved by the majority of existing operators only cover operating costs. Our analysis also shows that it is the case for all service types and their mixes.

4.1.4 Consequences if bed-day rates are not increased

The ARC sector in New Zealand is highly weighted towards facility ownership by individuals or small groups. As Table 8 shows, 49 per cent of ARC facilities (comprising 28 per cent of beds) are owned by individuals or small groups. These facilities are smaller than average (comprising an average of 42-53 beds) and are less likely to be able to weather inadequate funding levels.

Table 8: Ownership of ARC facilities (New Zealand Aged Care Association, 2022a)

Ownership of ARC facilities	% of facilities	% of beds
Public	1%	0.4%
Individual or minor group – private	38%	27%
Individual or minor group – charitable	12%	11%
Major Group – charitable	9%	9%
Major Group – private commercial	17%	19%
Major Group – publicly listed	23%	34%

Ensuring ARC providers are incentivised to make efficient investments in the care of older people is essential for maintaining the wellbeing of elderly residents and sustaining a supportive and economically viable care infrastructure. The results of our analysis show that the current bed day rates will be creating financial instability for many ARC providers. Direct outcomes of this financial instability include:

- **Impact of financial instability on new builds:** The existing financial instability is likely to result in a reduction of new builds and new beds within the aged residential care (ARC) sector. Private investors may be discouraged from entering this market due to uncertainties, thereby limiting opportunities for innovation and improvements in care services. This diminished

investment may hinder the industry's ability to effectively adapt to the evolving healthcare needs of the ageing population.

- **Integration with retirement living arrangements:** Many ARC facilities are integrated with retirement villages and are an integral part of providers 'continuum of care' offering to attract new retirees. We would expect smaller ARC facilities to continue to be built within retirement villages given larger providers are able to cross-subsidise the losses/lower-returns they may make on ARC beds. However, a continuation of this trend will enhance financial barriers to accessing ARC.
- **Increased focus on premium rooms:** In the context of economic instability, there may be a shift toward more premium beds within care facilities. These premium offerings could influence the choices available to families seeking care for their elderly members, potentially providing enhanced amenities and services for those who can afford them.
- **Rise in the importance of ORAs (Occupancy Right Agreements):** The economic challenges may contribute to a rise in the prevalence and importance of Occupancy Right Agreements (ORAs). These agreements, which often involve a payment for the right to occupy a unit or bed, could become more common as providers seek alternative funding models to navigate financial uncertainties and sustain the quality-of-care services.

Many ARC providers have very limited means to offset the low margins (or losses) they are making on care beds. Should current prices continue, the wider consequences of financial instability may include:

- **Impact on the health system:** Financial instability within the ARC sector can reverberate throughout the broader health system. This may manifest as an increase in hospitalisations and associated costs, as well as the phenomenon of bed blocking. Bed blocking refers to the inability to discharge elderly patients who require some level of care, leading to heightened pressure on hospital capacity and overflow in emergency departments. Considering the existing shortage of clinical staff, these challenges could impose a substantial economic burden.
- **Reduced quality of care and services:** Financial instability may compromise the quality of care and services provided to elderly residents. This could translate into inadequate medical attention, a reduction in recreational activities, and an overall decline in the well-being of residents. Insufficient funding may limit the resources available for maintaining high standards of care, potentially impacting the physical and mental health of residents.
- **Increased stress for families:** Families of elderly residents may experience heightened stress and concern over the well-being of their loved ones. If financial deficits lead to a deterioration in the quality of care or if a facility faces instability, families may be anxious about the living conditions and support provided to their relatives, particularly when facilities are forced to close. This emotional toll on families adds an additional layer of consequence to the broader societal impacts of financial instability in ARC facilities.

Addressing these challenges requires a comprehensive approach, involving not only financial considerations but also a focus on maintaining and improving the quality of care for elderly residents and alleviating the burden on the broader health system.

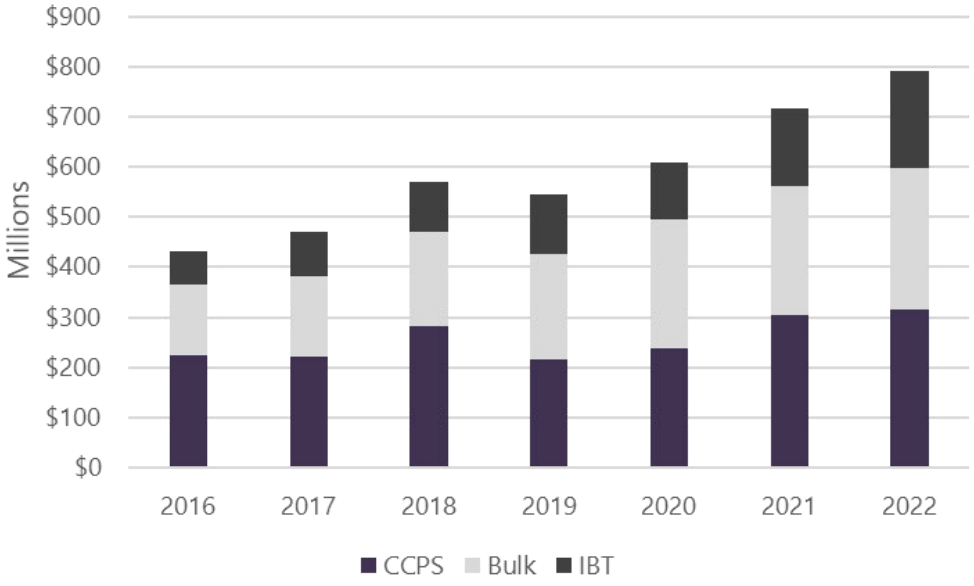
4.2 Funding levels for HCSS

Te Whatu Ora funds HCSS providers through one of two models – a fee-for-service model or bulk (case-mix) funding. At present, 53 per cent of Te Whatu Ora HCSS service funding is allocated to regions under a fee-for-service model and 47 per cent under a bulk funded model. The HCSS sector gets approximately three-quarters of its funding from Te Whatu Ora via Vote: Health (health and disability services) and receives about a quarter of its funding from ACC.

The revenue HCSS providers can generate still reflects the former DHB contracting model, with significant regional variation. The 2022/23 price paid per hour under a fee-for-service contract ranges from $32.51 to $47.19, whilst higher rates are typically paid for restorative case-mix contracts (where providers do the assessment and care planning). In addition to these models, in-between travel (IBT) funding was introduced to help the fiscal pressure on providers by covering mileage and time spent by care and support workers travelling between clients.

Figure 23 shows a summary of the share of each funding model from total HCSS fund by year.

Figure 23: Share of different funding models of total HCSS annual fund 2016 to 2022



Source: Data provided by Te Whatu Ora

4.2.1 HCSS funding does not cover efficient costs

HCSS providers report that although IBT has increased funding for service delivery, not all additional costs have been accounted for. We have confirmed that at current prices the HCSS sector as a whole is unlikely to be covering their efficient costs.

Our analysis shows the HCSS sector is underfunded in 2023. Our model projects that, if funding levels only increase at historic rates (3 per cent), the gap between funding and costs will widen over time. This analysis reflects the current funding split of some regions being funded on a fee-for-service basis and others on a case-mix basis. As we outline in our following chapter, we think there is likely to be a

case to move to a national bulk-funded case-mix model. We therefore modelled three scenarios where the sector transitioned to a case-mix model at different rates over the next decade.

.All three scenarios we modelled of transitioning to a case-mix model narrowed the funding gap, reflecting that the cost per client is typically lower than under a fee-for-service model (reflecting improved efficiency incentives). Of note, the HCSS sector remained materially underfunded under all scenarios.

We also ran scenarios of what the funding gap could look like over time if IBT funding was included as part of the sector's returns. Our conclusion is that IBT did not materially improve HCSS providers' profitability. As IBT costs have been significantly escalating in recent years, we modelled additional scenarios of what the funding shortfall would look like if the annual growth in public expenditure on IBT reimbursements was constrained at 3 per cent. If IBT expenditure continued at its current rates then HCSS underfunding would rapidly increase in size over 10 years.

Our financial model

A cost model developed by the Settlement Party Action Group (SPAG) in 2019-20, and updated by sector participants, provides a basis for estimating the likely costs and revenues of HCSS. We developed our own cost model, which integrated the SPAG model with a financial model to estimate the total costs and revenues of HCSS under the current funding model (hybrid) moving forward to 2033/34.

The financial model we set up comprises two main parts, cost of HCSS services and their revenue. In this section we describe the underlying assumptions we used for estimate and forecast of these two components over a period of 10 years from 2023/24.

Table 9: Our HCSS cost modelling assumptions

Parameter	Our modelling assumptions
Number of HCSS clients	The number of HCSS clients was estimated based on 2022/23 IBT client's number of 78,404, with an annual increase rate based on growth of 65+ population to forecast the potential total number of clients.[23] We included an extra growth margin of 1.5 per cent for the first two years of our analysis period to account for impact of circa 3 per cent decreased number of clients since 2019.
Split between fee-for-service and case-max funding models	The total client number and total annual hours are split between fee-for-service and case-mix, using the total estimated volume of 2022 fee-for-service hours (5,368,387 hrs) and case-mix hours (5,361,078 hrs). We examined two current trend state and potential future state including three scenarios of transition from fee-for-service to case-mix. We assumed under all three transition scenarios that by the end of the period the fee-for-service share of total fund reduces to the minimum of 10 per cent. A

[23] Although this is different from recent changes to HCSS client numbers, it was considered the best estimate for longer-term trends by modellers from Sapere, Te Whatu Ora and representatives from the HCSS sector.

	weighted average of $517 transition rate per client, based on TAS analysis of a number of providers, was used for these scenarios.
Hours per week	The average hours per week (2.8 for fee-for-service and 2.5 for case-mix) are derived from the estimated total HCSS clients and total hours for each funding method.
Unit cost per hour	Results of the SPAG cost model was used for the unit cost per hour of service of fee-for-service ($43.50) and case-mix ($47.11), in 2023. The unit costs increase by 3 per cent per annum.
Average hourly rate	The estimated weighted average fee-for-service rate for 2023, $42.63 per hour of service, and the weighted average case-mix rate $48.56 per hour of service are used as the unit revenue per hour of service. The funding rates increase by 3 per cent annually.
Return on investment	We used the providers desired return of investment of 7 per cent (as set out in the SPAG model) and an alternative return on investment of 3 per cent (desired by funders).
IBT funding gap	The 2022/23 IBT expenditure excluding funding initiatives, i.e. milage rate increase and minimum wage band rate, of $109 million is used as the base value in this analysis. It includes 83 per cent of total IBT expenditure to only account for Te Whatu Ora's share of IBT expenditure and exclude Whaikaha's 17 per cent share. It also net of milage rate increase and minimum wage band rate. The expenditure is increased by the average rate of last four years, 7 per cent reducing gradually to 4 per cent . It increased by 3 per cent for the estimate of potential funding level.

Collectively, these inputs and assumptions paint a picture of the financial landscape for the HCSS sector, highlighting the need for additional funding to ensure its sustainability and adaptability to future healthcare demands.

4.2.2 Consequences if funding is not increased

The ongoing shortage of nurses is a critical issue that is likely to unfold over time with several significant consequences. One of the foremost concerns is the potential deterioration of service quality. The shortage of nursing staff can lead to increased workloads for the existing personnel, potentially resulting in compromised patient care. Longer wait times, delayed responses, and challenges in meeting patient needs may become more prevalent, raising serious concerns about the overall quality of healthcare services.

Moreover, the strain on nursing resources may contribute to a domino effect, influencing hospital bed occupancy rates. With fewer nurses available to attend to patients, there is a risk of treatment delays and prolonged hospital stays. This, in turn, can lead to increased demand for beds, potentially causing a backlog of patients awaiting admission. The overall consequence is a higher occupancy rate within hospitals, which can strain the capacity of healthcare institutions and impact their ability to manage patient inflow effectively.

4.3 Conclusion on funding levels

Our cost modelling indicates that aged care services are under financial stress and ARC and HCSS providers may not be able to recover their efficient costs at current pricing and funding levels.

There is clear evidence that the ARC sector is underfunded, with providers building smaller care centres, facilities closing, and a clear shift to providers extracting more revenue from residents through more premium beds and selling occupational rights agreements (ORAs) for care beds. The extent of underfunding depends on a number of factors including type of service.

Our analysis also highlights the very thin margins HCSS providers are making at present. Our estimate is, on the whole, the HCSS sector is underfunded and this underfunding varies depending on the nature of provider's workforce, scale and funding model. Unlike the ARC sector, there are fewer opportunities for providers to generate premium fees from clients.

5. Key issue: Funding models

The funding models for aged residential care, home and community support services, and in-between travel are no longer fit-for-purpose and require wholesale reform.

- The ARC funding model relies too heavily on a broad-based average pricing approach to incentivise providers to proactively manage resident needs.
  - It results in inequitable distribution of funding, exposes smaller providers to greater financial risk (impacting provision in regional and rural locations), is not transparent, and is not sufficiently linked to underlying costs.
  - A new and more transparent means of price setting is required that better enables resources to match resident needs. New contracting/funding arrangements may be necessary to address pressing issues such as supporting facilities in rural locations, provision of dementia and psychogeriatric beds and provision of short-term stays.
- The HCSS funding model whereby some regions fund providers on a fee-for-service basis and others bulk-fund providers on a case-mix model is a legacy of decentralised DHB contracting and is no longer sustainable.
  - The lack of standardisation has created significant differences in funding rates, has contributed to limiting the scope for a more regular workforce, and has resulted in a lack of transparency and a disconnect as to how prices are set.
  - The fee-for-service model in particular promotes inefficiencies, is not suitably linked to patient outcomes and appears to be inconsistent with the needs of Māori communities.
  - There is likely to be a strong case for moving nationally to a case-mix model, which will be explored in the next phase of the review alongside the case for individualised funding and broadening service delivery eligibility.
- The IBT funding model of reimbursing HCSS providers' travel costs needs urgent reform. It represents an uncapped liability to the government and has contributed to rapidly spiralling costs (with travel costs up by 68 per cent since July 2018).
  - The growth in IBT costs is indicative of major workforce shortages, with carers and support workers now making much longer trips to see fewer clients.
  - The current model does not incentivise HCSS providers to reduce travel costs (on which they make a margin), does not support cost-effective decisions on when alternative care services should be supported, and is costly to administer.

The preceding chapter set out our conclusion that ARC and HCSS providers are likely to be struggling to cover their efficient costs at current regulated rates and funding levels. This section examines the effectiveness of current funding models that are used to distribute funding to ARC and HCSS providers (including in-between travel reimbursement).

5.1 The ARC funding model

In this section, we describe the current funding model and its issues.

5.1.1 The current funding model

Each of the four care categories has a different care price, although, as noted in the preceding chapter, residents face costs no higher than the regulated maximum contribution price for rest home care (with Te Whatu Ora covering the funding difference when ARC providers have clients in the three higher care categories).

Providers can of course charge additional fees to residents for extra services or accommodation options, such as for premium rooms. They can also charge refundable accommodation deposits whereby residents need to make large up-front financial payments to secure a care bed.

ARC funding notionally covers four components: accommodation costs (the physical built environment), core care and support (direct and indirect time spend on resident care and administration), everyday services (day to day living, such as food and cleaning), and additional care and support (episodic care).

The EY ARC Review 2019

The funding model for the aged residential care sector was subject to a comprehensive review by EY from 2017-2019. That review noted:

- Demand for ARC has been more muted than expected. Demand will continue to increase with an ageing population, but there will be a trend towards ARC dealing with more complex patients and providing palliative care.
- The current funding model's four care categories are no longer sensitive to the range of patient needs in ARC. Providers are expected to manage a diverse range of needs within a single category price, which may create a disincentive for providers to admit more costly residents.
- An improved pricing approach would be more strongly connected to evolving evidence-based care models and would distribute funding based on the mix of resources required to deliver these care models at a facility level.

EY recommended further stratification of the care categories using an internationally validated approach – the interRAI Resource Utilisation Group (RUG) approach. EY did not make definitive recommendations regarding how ARC accommodation should be funded, but suggested consideration be given to encouraging increased use of accommodation deposits, introducing targeted mechanisms to support strategically important providers to invest in capital stock, and a requirement for ARC facilities to publicly report their premium room rates.

5.1.2 Our assessment of the current ARC funding model

Nothing we have observed so far through the review has called into question the conclusions reached by EY in its 2019 review about the need to reform the current funding model.

Effective economic regulation – for any sector – should send signals that encourage the efficient allocation of costs and encourage innovation, efficiency improvements and appropriate levels of

investment. Ultimately regulation is designed to ensure that suppliers meet the needs of consumers. The current ARC funding model falls short of these aspirations.

The current funding model structure, with four care categories and prices, does have advantages. It is easy to understand and administratively simple to operate. The average price approach ensures that providers have some degree of certainty about their funding streams and minimises government exposure to unanticipated costs.

However, as we set out below, we consider there are some significant weakness to the current model.

The current model does not suitably match residents' needs with funding

A key issue with the funding model is that the four categories are so broad that the provision of care is not sufficiently linked to a resident's needs. ARC providers receive the same funding within a care category regardless of an individual's needs or the outcomes sought – this is an inherent aspect of any average cost model, but is exacerbated when the number of categories are few.

The vast majority of residents sit across two categories, with 84 per cent of residents currently in either rest home or hospital level care. Within these categories there is a wide spread of resident needs.

> An ARC provider receives the same funding for each care category, regardless of a resident's needs and associated costs.
>
> For example, a provider may have three patients in the same room receiving hospital level care: someone who has had a stroke, someone with end-state Parkinson's, and someone receiving palliative care. All three patients have very different needs (in terms of supervision, mobility support and pain management) and will have very different cost profiles for the provider. The current funding model assumes the profit a provider makes on the least resource-intensive patients will offset any losses it makes on the most resource-intensive patient.

The current model of average pricing works well if there is a relatively normal distribution of residents' needs. That is, that the 'overs' and 'unders' that an ARC provider makes across a category on a per-resident basis balance each other out. We have seen no evidence of such a distribution. EY's analysis on this matter remains robust – there is a long tail of high-cost residents within the care categories. EY's modelling estimated that 10-12 per cent of residents have "significantly greater" resourcing requirements than the average resident, while the most expensive 5 per cent of hospital level ARC residents have per-day costs nearly six-times the cohort average (EY, 2019a, pp. 136, 177).

We heard from stakeholders that ARC providers have limited ability – or incentive – under the current model to tailor their provision of care to a patient's needs. Residents with higher needs do not attract any supplementary funding until their needs are so great that they are assessed as moving into a higher category of care. Until that happens, providers have every incentive to ration care.

The next phase of this review will focus on identifying alternative models, with one clear area of focus being to identify the value in introducing additional care categories. Introducing additional care price points could help to better align funding to needs and strengthen incentives for care providers to

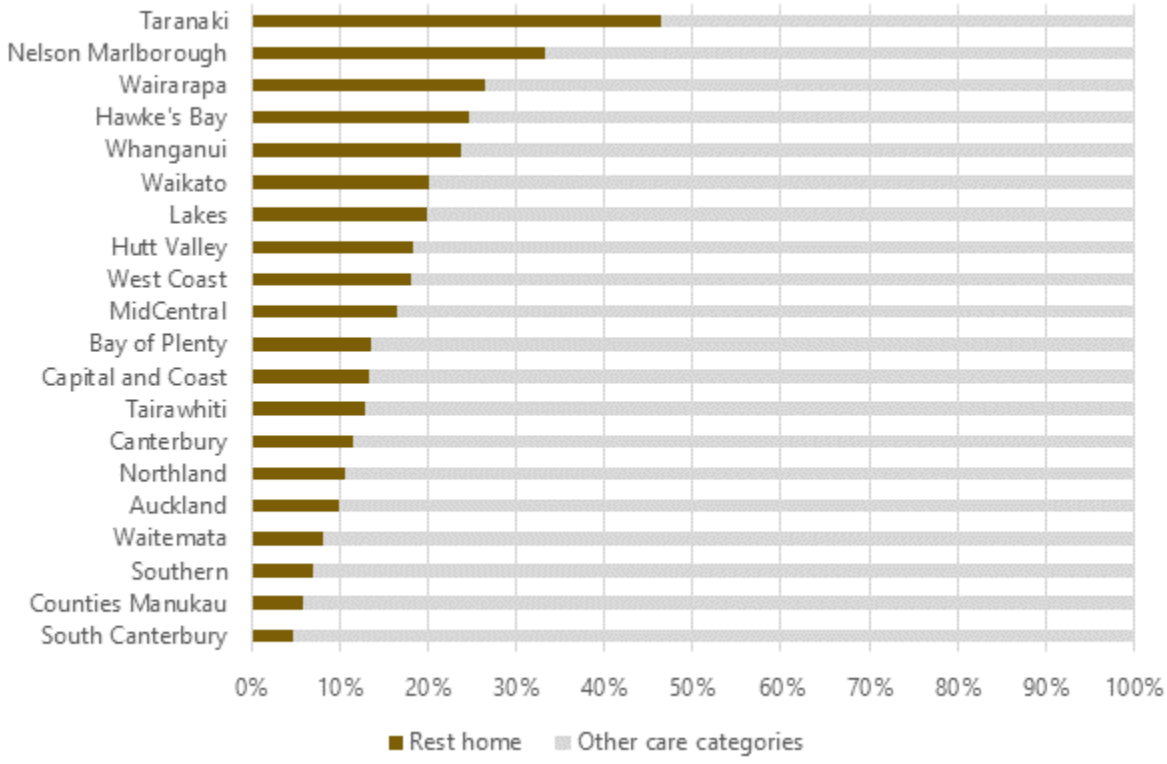
incentivise delivery of proactive and restorative care. This could potentially be linked to new quality and outcome measures that could link funding payments to specified performance targets.

The current model risks inequitable distribution of funding across providers

A feature of the average-price model is that the allocation of residents to a care category will determine the level of funding an ARC provider will receive. An inherent risk of the model is, given the relatively few care categories, an ARC provider may end up with a resident profile within a category that is skewed to higher needs, meaning they may not receive sufficient funding to provide necessary care. There is evidence that the allocation of residents to care categories is not occurring in a uniform manner, which will result in inequitable funding distribution and potentially exacerbate financial and service quality risks in some regions.

Figure 24 below shows, on a regional basis, the proportion of ARC residents that have been assessed as having an ADLS score of 10 or higher who are receiving rest home level care. An ADLS score of 10 or higher reflects a resident having moderate to high assistance needs, which is a key driver of ARC provider costs and resourcing.[24]

Figure 24: Proportion of ARC with ADLS score of >10 in rest home level care, by region (2023)



Source: LTCF assessment data

[24] Under the ADLS Short Form residents are scored on a scale from 0 to 16 that provides a summary of the person's ability to perform Activities of Daily Living. It is based on 4 categories, personal hygiene, toilet use, locomotion, eating. The higher the score the greater the difficulty in performing activities and the more assistance a resident requires.

Figure 24 highlights the substantial regional variation in whether a resident requiring a high degree of support is in rest home care or a higher level of care. At one end of the spectrum ARC facilities in Taranaki have 46 per cent of high-needs residents in rest home care (earning $176 per day), while facilities in South Canterbury have only 5 per cent – with the remainder being supported in higher-level and higher-earning care levels (earning between $233 and $311 per day).

There are a range of factors that will influence which care category a resident is allocated to, including capacity constraints at facilities. What is concerning is that providers are receiving different levels of funding for residents that may have very similar needs and resourcing requirements.

The current model is more likely to expose smaller providers to financial risks, which will likely impact availability of beds in regional and rural areas

The current financial model encourages larger facilities[25] and disadvantages smaller providers, which are more likely to be in regional and rural locations. The risk that an ARC provider will have more higher-needs patients within a care category is minimised when an ARC provider has scale – by virtue of having more residents, more facilities and being in more regions, large national providers are better placed to manage this risk and smooth any anomalies over time.

Smaller providers are impacted by risks that they may not be able to mitigate in the way that larger ARC providers can:

- If the make-up of their residents is of higher needs than the average of a care category, a smaller provider will not be able to cross-subsidise their costs from residents in other facilities. Providers can decline a resident for any reason (except unwillingness to pay an extra charge), and many do because they cannot look after their high needs.
- As funding to ARC providers is fully variable based on resident numbers, smaller providers are more financially exposed during periods of low occupancy and extended vacancies. While many facilities offer 'dual-service' beds that can accommodate both rest home and hospital level care,[26] an ARC provider faces a drop of nearly 60 per cent in resident revenue from replacing a hospital level patient with a rest home level patient (while still having to manage existing employment agreements and similar operational costs).
- Providers in regional and rural areas are more likely to have residents who own assets below the threshold and are less likely to rely on premium charges to generate additional revenue.[27] The ACA's most recent sector survey shows the regional use of ORAs in 2021 ranged from 0 to 32 per cent of beds, with markedly higher use of ORAs in regions with major urban centres (New Zealand Aged Care Association, 2022a, p. 20).
- Smaller providers in regional and rural settings may face additional challenges where there is a lack of alternative facilities, and they are seen as the repository for a growing number of

[25] The median facility size has slowly trended upwards, increasing from 45 beds in 2006 to 58 beds in 2021 (New Zealand Aged Care Association, 2022a, p. 16).
[26] These dual service beds comprised 38% of all ARC beds in September 2021 (New Zealand Aged Care Association, 2022a, p. 12).
[27] Means-tested residents below the threshold are considerably more prevalent in provincial/rural areas that do not have high property values and high incomes (New Zealand Aged Care Association, 2022a, p. 24).

> increasingly complex residents that can't be cared for at home safely. For example, Figure 24 above shows the significant regional variation in care needs within the rest home service category by region, which can place a particular burden on providers in regional locations. EY's analysis demonstrated that smaller facilities have higher average caseloads within their residents (EY, 2019a, p. 304).

As EY reported, the existing ARC price structure was premised on an efficient facility size of 45 beds, the efficient size implied by care prices had increased to 80 beds in 2010 (Grant Thornton, 2010) and then to 80-100 beds by 2019 (EY, 2019a, p. 174). Lower financial returns for smaller providers create a cycle where they struggle to invest in upgrades and maintenance and struggle to attract new residents.

The current model may create disincentives for providers to admit complex residents

The current funding model risks creating a disincentive for ARC providers to admit residents with care needs that are much higher than the average within a care category. While ARC providers have contractual obligations about not turning away prospective residents, providers do have complete discretion if there are only premium rooms available and nearby facilities have capacity (see the Age-Related Residential Care Services Agreement at A13.3, Te Whatu Ora (n.d.)). The potential for 'cherry picking' more able residents may increase the burden on some ARC facilities.

The current model lacks transparency

Regardless of the adequacy of current pricing levels, it is apparent that the setting and updating of aged care price has become disconnected from underlying costs.

When ARC prices were initially set in 2000, they were set on a regional basis, reflecting that capital costs were affected by geography, with the operational component being the same across the country. Over time, those initial prices have been adjusted each year by either a percentage increase or a fixed dollar amount. However, the focus of price adjustments was not to identify and reflect changes in underlying costs but was to agree updated prices through national negotiation between DHBs and providers. So, for example, the willingness of DHBs (and now Te Whatu Ora) to adjust prices was influenced not only by changes to input costs, but by the extent to which they had received any increase in their baseline funding that year as well as their need to manage competing healthcare priorities.

The current funding model is opaque and does not allow for informed decisions to be made on cost changes and price adjustments. At present it is not possible for funders or providers to state what portion of the current price comprises reimbursement to an ARC provider for their capital costs, care costs, everyday living services and administrative costs. This lack of transparency means that when there are material input cost changes (such as rapidly increasing land prices or wage costs), it is challenging for the care price to be set on the basis of efficient costs.

In our view there is a compelling case for a more transparent funding model that clearly sets out the various cost components for ARC (which will likely differ by region and provider), and translates those costs into relevant care prices for each care category. Such a building block model would link costs

and prices, and would enable the funder to transparently update prices over time, while also incorporating efficiency targets – as occurs in most other price-regulated industries in New Zealand.

The lack of transparency in funding is also mirrored in a lack of transparency in service quality and outcomes. The second phase of this review will need to explore the ability to link funding to patient needs and outcomes. The use of interRAI in tracking residents' journeys from HCSS through to ARC provides a rich dataset that could be used to benchmark the performance of providers, to incentivise service quality, and to identify any concerning trends (e.g. patterns of deterioration). The data to do this exists, but has not been a focus for policy makers.

5.1.3 ARC funding model – next steps

The ARC funding model requires an overhaul. The existing funding model relies too heavily on a broad-based average pricing approach, which does not provide sufficient incentives for providers to manage resident needs, disadvantages smaller and regional/rural ARC providers, is not transparent and lacks sufficient link between cost and price.

The next phase of the review will consider alternatives to the current model. In 2019 EY recommended further stratification of the funding model's care categories using the interRAI Resource Utilisation Group (RUG) approach, which is used overseas, whereby funding is based on how resource-intensive a resident is assessed to be (with fixed and variable cost components). The review will examine the costs and benefits of the RUG case-mix model (as well as variations with fewer categories and less complex administration), as well as alternative and complementary options, including (but not limited to):

- **Transparent pricing**: even if the funding model does not fundamentally change, there is likely to be value in moving to more transparent building-block model, which would provide transparency about the core components of the care price.
- **Rural and small facility adjustments:** the challenges of achieving scale will mean that rural ARC facilities in particular remain vulnerable. The review will need to examine the need for a funding model that better covers the fixed costs of rural ARC providers, which could include an additional funding stream for providers and/or long-term service contracts or guarantees for new facilities.
- **Outcomes-based funding:** given the ability of ARC facilities to keep residents out of hospitals, there is considerable scope to better link funding to resident outcomes. The review will need to identify how Te Whatu Ora might consider targeted funding programmes to encourage new models of care, effective use of primary care services and to reduce avoidable hospital presentations. One area to explore is how to incentivise the appropriate and safe return of certain residents back to the community.
- **Short-term stays:** we heard that ARC providers lack incentives to accept short-term stays (e.g. respite care, post-operative step-down rehabilitation and care) due to the higher costs associated with admitting and discharging residents. Given the value such services offer to the health system as a whole there may be merit in an additional funding stream for such short-term stays.

5.2 The HCSS funding model

The role of HCSS in supporting older people to remain in their homes and communities for longer will become increasingly important as New Zealand's population ages. Cost-effective homecare can delay entry into ARC facilities until absolutely necessary, while also helping to moderate demand for acute care in a hospital setting. It is therefore important that the funding model not only covers the efficient costs of providers, but creates incentives to provide appropriate quality of care, manage costs, invest in workforce, supervision and digital technology.

5.2.1 The current HCSS funding model

As outlined in section 1.2.2, at present the HCSS funding model differs by region, with some operating a fee-for-service model and others a bulk funded case-mix model. This is a legacy of the former decentralised DHB contracting model.

The Director-General's review

The investigation by the Director-General's Reference Group (DGRG) into health-funded HCSS critically examined the funding models being used by DHBs. It recommended moving to a national HCSS agreement, with national service standards and national pricing (Director-General of Health's Reference Group, 2015). It also recommended moving to a bulk-funded model to support a case-mix service delivery model.

Following the publication of the DGRG report, the settlement parties formed the Settlement Party Action Group (SPAG), which examined five workstreams in more detail. Its work on the costing model has been examined in the preceding chapter.

The National Framework for HCSS

In 2020 the Ministry of Health published a strategy to guide the development and continued improvement in services and support for older New Zealanders (Ministry of Health, 2020). It noted the shift to a case-mix funding model for HCSS was needed to achieve consistent service commissioning and delivery as well as consistent resource allocation:

> "… a nationally consistent case-mix methodology will be developed for all DHBs to use as a way of improving targeting resources according to need. Some DHBs are already applying case-mix methods to resource allocation or use. However, they are using different versions of the methodology, resulting in some inconsistency in resource allocation and lack of transparency across DHBs. This indicates the need for a single, nationally consistent case-mix method that will also be implemented across all DHBs by July 2022."

5.2.2 Our assessment of the current HCSS funding model

There is a compelling case for wholesale reform of the HCSS funding model and there is likely to be value in moving to a national case-mix model. As we set out below, there is a need to increase

standardisation, to address issues with a lack of transparency over costs and pricing, and to better link funding to client outcomes.

A regionally-based funding model can no longer be justified

While a decentralised HCSS funding model may have made sense under the previous DHB model – whereby DHBs were accountable for funding decisions and population outcomes – it can no longer be justified. We cannot see a strong justification for some regions to be bulk-funded and others to be fee-for-service, or why per-capita and per-hour funding levels should vary so dramatically.

In 2015 the DGRG noted that funding variability between DHBs for the same or similar services varied by over 25 per cent wi th regard to the rate paid to providers. Our comparison of the hourly rates paid to two large national HCSS providers shows a regional variation in public funding of 23 per cent for personal care and 31 per cent for household management services, with case-mix unit prices varying by up to 51 per cent around the country.

The lack of standardisation in HCSS funding enhances the risks that older people will be subject to a post-code lottery:

- HCSS providers in different regions are receiving materially different rates to provide the exact same service to clients. This will inevitably flow through to the quality of service that the client receives.
- HCSS providers in different regions face markedly different incentives in how they provide care to clients with the same needs, including the frequency and duration of contact. With some providers on bulk-funded contracts and others on fee-for-service contracts, it is highly unlikely that providers will be providing the same standards of care.

A nationally consistent funding model would mean that funds are distributed based on population needs and volumes, rather than continuing to reflect historical regional contract negotiations. It would mean that HCSS providers are funded (and therefore incentivised) to provide the same level of care to patients regardless of their location. Over time this should flow through to improved health outcomes.

Fee-for-service funding is not appropriately linked to patient outcomes

The fee-for-service model used across half the country promotes inefficiencies and is not suitably linked to patient outcomes. Our initial conclusion is that there is likely to be merit in moving to a national case-mix model, although this will be explored further in the second phase of this review.

Under the fee-for-service model, a NASC assessment will define the specific needs of a client and the number of hours for which they will receive HCSS funded services. This funding model is focused on the delivery of specific tasks by the HCSS provider, within minimal flexibility to either vary the tasks or the hours in response to a client's changing needs.

This fee-for-service model does not place the person at the centre of the model of care. The engagement can be viewed as transactional, whereby the funder contracts the provider to attend appointments – with no funding emphasis on the person's needs, prevention of illness, reducing avoidable hospitalisations, or improving outcomes more generally.

The success of the fee-for-service model is also dependent on the NASC's assessment of a client's needs being accurate and up to date. If circumstances change (for example, a supportive family member going away, health deterioration, or illness), then the NASC assessor needs to be re-engaged to re-evaluate the client's needs before the HCSS provider will be funded (and incentivised) to increase their level of support. Data on the frequency of NASC assessments does not indicate that these assessments are frequent enough to capture these changes in circumstances – Te Whatu Ora and interRAI data shows a HCSS client on average receives one interRAI homecare assessment per year.[28]

By contrast, under a case-mix model, a HCSS provider is not funded to deliver a specified number of hours but is funded based on the complexity of the clients they support. A client is assessed, categorised into a case-mix category depending on their complexity of needs, and each category is assigned a level of resources required for care.[29] Providers are responsible for monitoring outcomes and adjusting services as complexity changes. A case-mix model can be used to create incentives for HCSS providers to manage their client population efficiently and effectively and to focus on the needs of their clients when providing services. A case-mix model also makes it possible to add incentive payments depending on patient outcomes: for example, maintaining/regaining higher levels of independence, reducing avoidable ED presentations, or designing packages of care for clients with COPD.

At the core of a case-mix model is flexibility – recognising that a client's needs can change quite rapidly and encouraging HCSS providers to monitor those changes and change service levels accordingly. A provider is funded based on the needs of their projected client base and is given the flexibility about how to meet those needs. There are rigorous reporting requirements on service levels, but the HCSS provider is incentivised to efficiently allocate staff, to track patients' progress (with performance benchmarking available to funders) and to innovate in service delivery (including technology support tools).

Some of the fears that a case-mix model could lead to care rationing (whereby providers reduce service levels to maintain profits) have not been supported by evidence in those regions where a case-mix model has been successfully implemented. The examples we saw in the Southern and Canterbury regions, for example, highlight what can be done when funders and providers trust each other, work together to benchmark performance, and have open conversations about trends and areas of concerns.

Fee-for-service can limit the scope for a regularised workforce

We also heard from stakeholders that the sector's drive for a regularised workforce is hampered by the current funding model which pays employees on an appointment basis. HCSS providers submitted that a case-mix model would provide them with greater certainty about their funding streams and

[28] Te Whatu Ora, 'Home Care Assessments – Measuring Dependency' (2022).
[29] Each case-mix category can have nationally-agreed service and safety standards, and worker competency criteria.

that they would be able to hire staff and set rosters in a way that was not necessarily tied to attending hourly appointments.

The current funding streams are piecemeal and complex to administer: workloads and revenue fluctuate as the needs of clients vary, with revenue streams attaching to appointments, travel, and cancelled appointments. Guaranteed hours has made some difference in providing carers and support workers with greater certainty about their workload, but more could be done to make the workforce more attractive.

Fee-for-service appears to be inconsistent with needs of Māori communities in particular

Funding HCSS providers to provide a fixed number of hours to clients in the community appears to be at odds with how some Māori clients may want to be supported in the community.

We heard from Māori stakeholders that the hourly-based funding model is too inflexible. There was a strong sense of iwi wanting more autonomy and flexibility in both the design and delivery of care and support packages that meet the needs of whānau. For example, an Advisory Group member had concerns that qualifications of Māori tohunga (healers) are often overlooked and they end up relegated to menial roles when they could play an important role in supporting kaumātua.

There are funding options – such as a bulk-funded case-mix model or individualised funding – whereby decisions on care packages could be made closer to the client. Funding packages of care (rather than hours) may create some financial risks for smaller and regional providers, who are at risk of having a client base that is skewed towards the more complex clients. However, this is not an insurmountable issue and could be resolved through the use of mechanisms such as a rural adjustors/premium for certain categories of HCSS provider.

The funding model lacks transparency

Regardless of the adequacy of current pricing levels, it is apparent that the setting and updating of HCSS price has become disconnected from underlying costs.

As with ARC prices, the current HCSS prices are essentially indexed to rates that each DHB negotiated with providers. The willingness of DHBs to increase funding rates was highly influenced by any increase they received in baseline funding as well as local health pressures that may have been more pressing. Over time HCSS rates have been subject to national-level adjustments, with percentage increases to cover inflation and fixed increases to reflect pay disparity initiatives.

In our view there is likely to be a compelling case for a more transparent funding model that sets out the HCSS cost components and translates those costs into hourly rates or care and support packages. A transparent cost model would better link costs to prices and provide the sector with confidence that any large-scale input cost increases would be reflected in funding arrangements. One such example is the SPAG model, which was examined above, which could be used for agreeing and updating sector-wide costs.

5.2.3 HCSS funding model – next steps

The HCSS funding model is no longer fit for purpose. It is a legacy of a decentralised funding model and requires wholesale reform. There is a lack of national consistency, significant variation in practice and reporting standards, and an inflexibility that does not sufficiently incentivise delivery of patient-centred care or efficiency in care delivery. We consider there to be a strong case for moving away from the fee-for-service model, currently used to provide homecare to half of older New Zealanders.

The next phase of the review will consider alternatives to the current models, including moving to a single national contracting framework. Specific areas we will examine in more detail include:

- **Transparent pricing**: even if the funding model does not fundamentally change (with a continued mix of case-mix and fee-for-service funding), there is likely to be value in moving to more transparent national funding model, which would provide transparency about the core components of the homecare price.
- **Case-mix funding**: there is likely to be a strong case for moving nationally to a case-mix model. The key benefit of moving to a national HCSS case-mix model for the country is that it would enable benchmarking of service delivery and outcomes, provide the flexibility needed to adjust to client's changing needs, and strengthen providers' incentives to be efficient and innovative in service delivery. This option will be explored in further detail in phase two, including examining how to ensure such a model works financially for smaller providers in more remote locations (who could potentially end up with a mix of more complex patients).
- **Individualised funding**: individualised funding is available to disabled people in New Zealand and provides clients with a personal budget to use for their care and support needs. We will explore the case for shifting to such a model for homecare services more generally in next phase of this review, including examining experiences overseas with such funding models.
- **Broadening service delivery eligibility**: as part of our examination of the preferred national funding and service models we will also examine the extent the case for liberalising and standardising who should be eligible for HCSS contracts. For example, we heard from Māori stakeholders that we need to think more broadly about the range of social providers that can help kaumātua to age in place. Aged care operators signalled some frustration that their on-site nurses are typically precluded from providing HCSS services to retirement village residents and nearby communities, which could potentially help broaden the HCSS workforce and help to reduce travel costs.

5.3 The in-between travel funding model

In-between travel funding is problematic. We explain below.

5.3.1 The current IBT funding model

The 2014 In-Between Travel Settlement means that HCSS workers must be paid by their employers for the travel they undertake between clients. They are to be compensated based on:

- **a mileage rate**: this was set at 50c/km from 1 March 2016, 58.5c/km from 24 August 2020 and 64.5c/km from 15 March 2022 (Te Whatu Ora, 2023c)

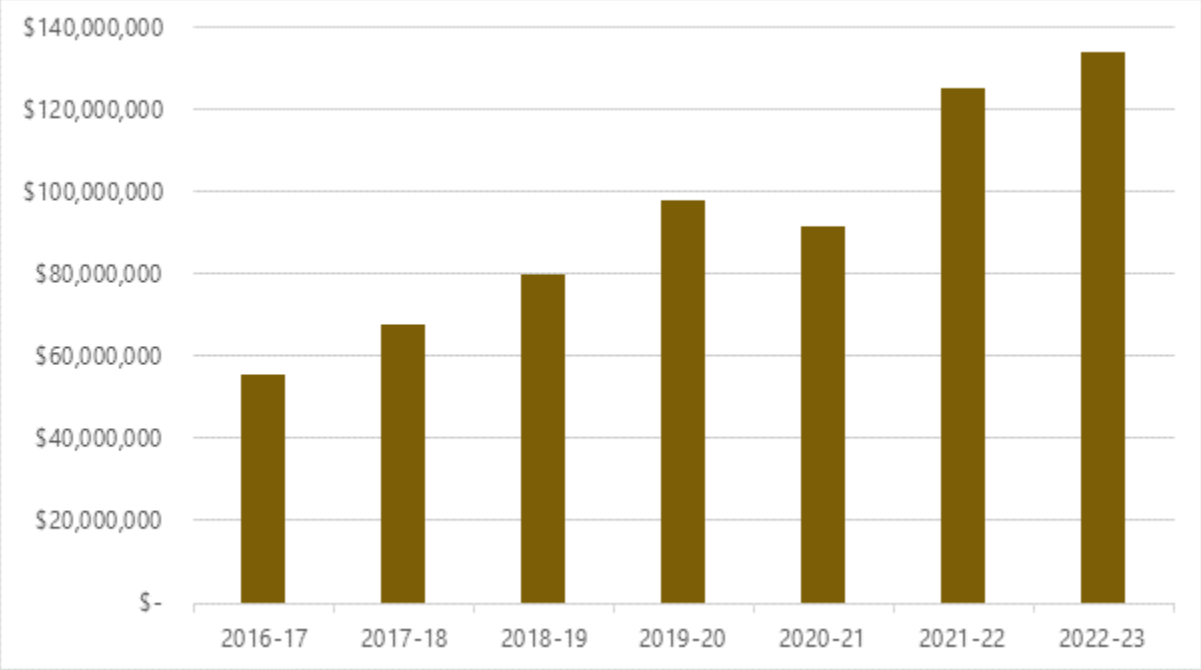
- **an hourly rate**: employees are to be paid for 8 minutes and 30 seconds of travel time for visits with more than 3.7km of travel distance,[30] with exceptional travel (being in excess of 15km) being funded by time taken using the most efficient route.[31] From 2016 employees were paid the minimum wage for their travel time, but from July 2021 workers were compensated at their ordinary wage rates.

HCSS providers lodge each individual IBT claim directly with Te Whatu Ora, which then reimburses the provider. Each HCSS provider receives a 6 per cent margin on travel mileage and up to a 36 per cent margin on the hourly rates for travel (Te Whatu Ora, 2023b).

IBT costs have been rapidly increasing

Figure 25 below shows the steady increase in public IBT expenditure. From 2018 to 2023, IBT costs have nearly tripled, from $55 million in the year to June 2017 to $134 million in the year to June 2023.[32] The growth in expenditure has been particularly marked over the past two years, with a 46 per cent increase in IBT expenditure from July 2021. IBT now represents 18 per cent of total public expenditure on home and community support services.

Figure 25: Public expenditure on in-between travel[33]



There are a number of factors that will be contributing to the increase in IBT expenditure. These include increasing petrol prices, the increase in reimbursement rates to reflect workers' ordinary wages (from July 2021) and the introduction of guaranteed hours, whereby employers may have incentives to

[30] Home and Community Support (Payment for Travel Between Clients) Settlement Act 2016, s 17.
[31] Home and Community Support (Payment for Travel Between Clients) Settlement Act 2016, s 18.
[32] Includes IBT service payments and non-service payments (e.g. guaranteed hours, disadvantage payments).
[33] Due to the impact of COVID-19, for the period 23 March 2020 and 26 July 2020 (dates inclusive), fixed payments were made to HCSS providers for travel outside of the IBT system.

send carers and support workers to clients to ensure the meet their guaranteed hours commitments. It is also reasonable to assume it took employers a year or two to adapt to the new IBT model, so data prior to 2018/19 may not be indicative of true travel costs.

The growth in IBT expenditure is a major concern and indicative of workforce shortages

Of particular concern for this review is that the rapid increase in IBT expenditure has not been driven by changes in client demand. Instead, it has become more expensive to visit clients, with the cost of travel per client increasing from $919 in 2018/19 to $1,707 in 2022/23.[34]

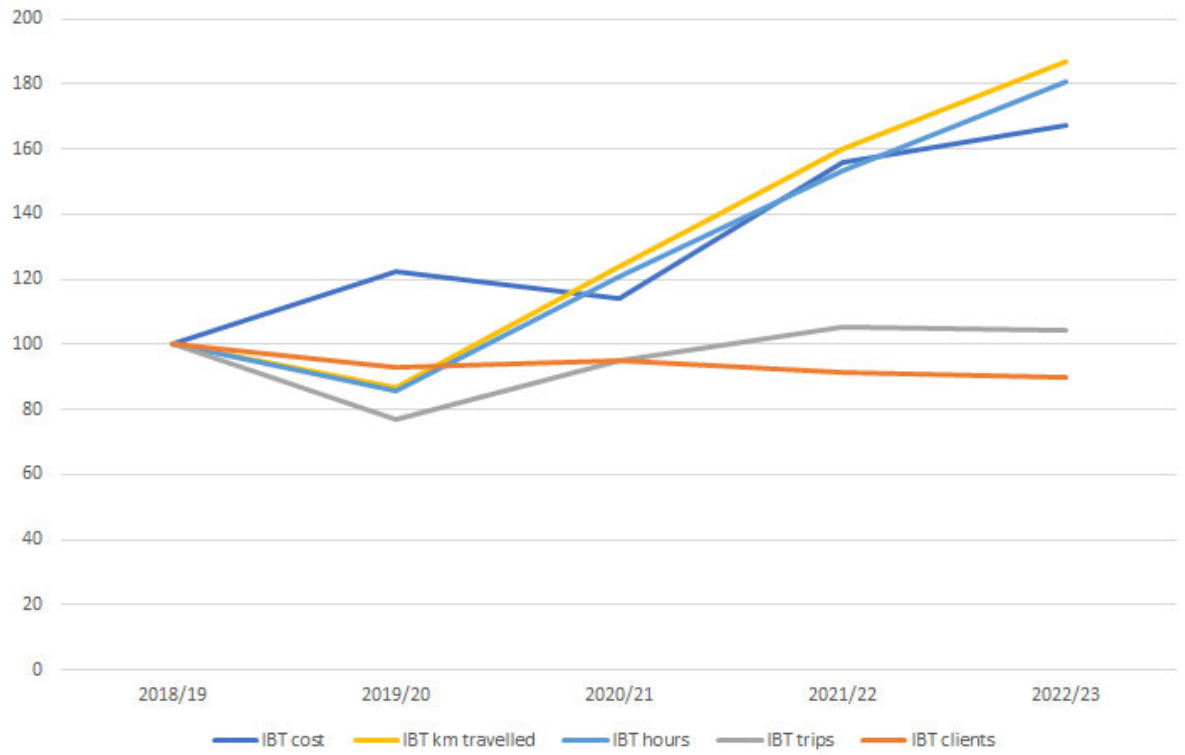
From July 2018 to June 2023:

- IBT costs have increased by 67 per cent
- the number of unique clients for whom an IBT claim has made has decreased by 10 per cent
- the total number of IBT exceptional travel trips has increased by four per cent
- the total number of exceptional travel kilometres travelled has increased by 87 per cent and the total number of IBT hours claimed has increased by 81 per cent
- ultimately, the IBT cost per client increased by 86 per cent.

Figure 26 shows, as one would expect, a correlation between the growth in IBT costs and mileage/hours claimed. However, given there has been no growth in the number of IBT clients or trips, we can infer that this chart is evidence of what we were hearing from the sector – that there are severe workforce shortages. Year on year, carers and support workers are making a similar number of trips to see clients, but are having to travel further to do so.

[34] Total IBT payments divided by total IBT clients

Figure 26: Changes in the core components of IBT (2018/19 base year)[35]



The detailed cost components for IBT are set out below in Table 10.

Table 10: IBT cost components

	2018/19	2019/20	2020/21	2021/22	2022/23
IBT cost	$80,097,830	$98,008,409	$91,516,068	$125,111,345	$133,856,147
HCSS clients	87,186	80,869	82,959	79,821	78,404
IBT trips	12,545,189	9,637,581	11,908,263	13,186,625	13,061,580
IBT km travelled	31,453,641	27,264,772	38,929,536	50,377,648	58,878,941
IBT hours	538,498	462,158	650,871	824,964	974,430
IBT cost per client	$919	$1,212	$1,103	$1,567	$1,707

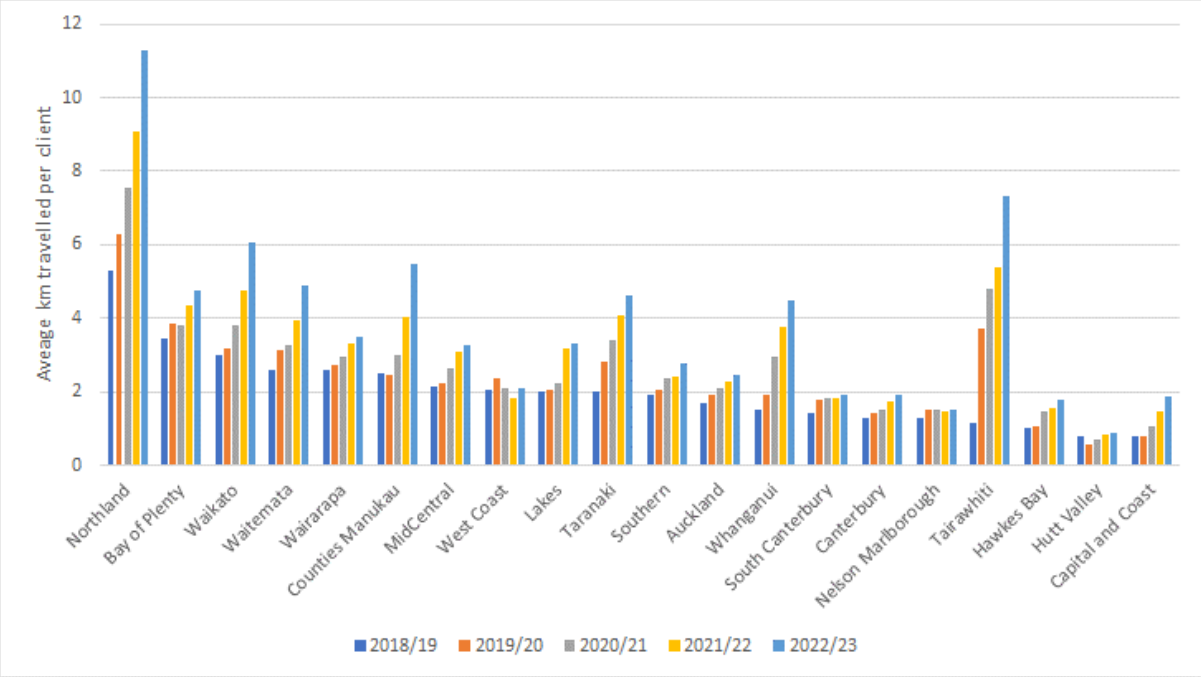
The travel time claimed by care and support workers in 2022/23 collectively represents 541 full-time equivalent roles that are spent simply on travel. The increase in travel time means there has been a "loss" of effective workforce capacity from travel commitments of 242 full-time equivalent carer roles

[35] Due to the impact of COVID-19, for the period 23 March 2020 and 26 July 2020 (dates inclusive), fixed payments were made to HCSS providers for IBT outside of the IBT system.

since 2018/19, simply from an increase in exceptional travel.[36] While the growth in IBT may have been driven by workforce shortages, the solution of increasing travel times is compounding the problem in a sector that is already under considerable pressure.

Figure 27 shows the average distance for IBT claims across New Zealand over the past five years. Intuitively, regions requiring carers and support workers to travel further between clients typically have more rural and remote populations.

Figure 27: Average distance travelled per client for IBT exceptional travel claims



The increase in exceptional travel distances between clients has not been uniform. The regions with the largest increases in average travel distances between clients over the past five years are Tairāwhiti (532 percent), Whanganui (197 per cent), Capital and Coast (143 per cent), Taranaki (132 per cent) and Counties Manukau (120 per cent). The regions with the smallest increase in average travel distances between clients are West Coast (1 per cent), Hutt Valley (12 per cent), Nelson Marlborough (21 per cent), South Canterbury (35 per cent), and Wairarapa (35 per cent). In the next phase of the review we will be examining the extent to which the acute increase in travel distances in some regions can be attributed to any specific regions – such as workforce shortages or increase in an increase in the number of providers (which would make the client base more dispersed for HCSS providers).

5.3.2 Our assessment of the IBT funding model

We do not consider the current IBT funding model to be sustainable in its current form. IBT expenditure appears to be growing largely unchecked. Part of the cost increases is almost certainly

[36] There were IBT claims for 538,498 travel hours in 2018/19 and 974,430 travel hours in 2022/23. The calculation of full-time equivalent roles 'lost' conservatively assessed workers would work 37.5 hour weeks for 48 weeks a year.

due to workforce shortages and guarantee hours requirements. However, as we set out below, we do not consider the current funding model provides appropriate incentives on HCSS providers to manage IBT costs.

HCSS providers do not have appropriate incentives to efficiently allocate staff

Under the current model HCSS providers are financially better off the more travel that their staff need to be reimbursed for – with Te Whatu Ora paying the employer a 6 per cent margin on mileage claims and a 36 per cent margin on hours spent by workers in transit. In a sector that claims it does not receive sufficient funding to cover care costs, we cannot ignore the possibility that some providers are using IBT to improve their finances. We note however, that such a position has been refuted by those in the sector we spoke to.

Regardless of whether HCSS providers are looking to make money from routing staff on to longer trips, it is clear that they do not face sufficient incentives to reduce travel costs. The full pass-through of travel costs under the current model means that a provider does not bear any financial risks from inefficient allocation of staff. Providers' decisions on staff allocation are completely de-linked from travel costs under the current model, which we consider is contributing to escalating travel costs.

We heard from HCSS providers that their obligations to meet guaranteed hours requirements were also driving some inefficiencies. Decisions on which carer to send to which client were not necessarily determined on who was closest or best placed to provide services, but were also influenced by whether the carer needed their hours 'topped up' to meet the guaranteed hours commitment.

The current IBT model is inefficient and requires reform. It does not make sense that funders should bear the full costs of IBT when they are not in any position to control those costs. The second phase of this review will examine options for IBT, including the possibility of incorporating it within a bulk-funded case-mix model with appropriate risk-sharing mechanisms.

It is important to acknowledge that some HCSS providers actively manage their workforce from an efficiency perspective to try to reduce unnecessary travel time. However, this is not true across the board. Analysis of IBT data highlights that in 2022/23 one provider, with s 9(2)(b)(ii) was responsible for s 9(2)(b)(ii) of all IBT costs. That provider was also responsible for 54 per cent of all claims for clients for whom there were in excess of $25,000 in travel claims. The provider is s 9(2)(b)(ii) and the claims cannot be supported solely on the basis of geography. Table 11 provides a breakdown of the share of high-cost travel claims that that particular provider is responsible for.

Table 11: Share of IBT claims by one HCSS provider in 2022/23

	Provider A	All other NZ providers
Share of total HCSS clients	s 9(2)(b)(ii)	
Share of total IBT costs		
Share of clients whose IBT spend was less than $25,000		
Share of clients whose IBT spend was $25,0000 - $50,000	48%	52%

Share of clients whose IBT spend was $50,000 - $100,000	70%	30%
Share of clients whose IBT spend was more than $100,000	85%	15%

A number of clients with high travel costs calls into question the allocation of public funds

The current IBT model represents an uncapped liability for the government and is encouraging inefficient allocation of public expenditure.

While on an individual level it is desirable for older people to be supported in the home for as long as can safely be accommodated, questions of cost-effectiveness are relevant at a population level. At a certain point it becomes more cost-effective for older people to be supported in an ARC facility rather than at home. For context, the average public expenditure in 2022/23 on a subsidised rest home resident was $65,000 and average cost for HCSS (non-travel) was $6,000.

In 2022/23, there were 20 people in the community for whom the provider received travel funding in excess of $100,000 (in addition to service funding). Two individuals within that group have had IBT travel costs of over $500,000 in the past five years. Table 12 below highlights the IBT costs for individuals associated with three highest IBT claims in 2022/23:

Table 12: Three individuals with largest associated IBT costs, 2022/23

	HCSS service cost component	IBT cost component	Total public cost	Number of days with IBT trips	Average distance claimed per day	Average travel hours claimed per day
Individual A	$106,000	$158,000	$264,000	365	374 km	5.2 hours
Individual B	$48,000	$191,000	$239,000	365	465 km	6.5 hours
Individual C	$33,000	$179,000	$212,000	365	416 km	6.4 hours

All three individuals in this case were in rural areas, which warrants exceptional travel times. However, this is not an efficient use of public expenditure, particularly at a time the sector is claiming margins across the board are slim. Of note:

- The degree of daily travel associated with all three individuals is so high that a single carer is likely dedicating their entire workload to servicing a single individual – with most of their day spent in a car going to/from the client.
- In all cases it would have been substantially less costly to have funded permanent in-home care or to have sought admission into ARC.
- While IBT costs far exceed service costs for all three individuals, this is particularly so for Individual B (79 per cent of public funding is going to travel costs) and Individual C (84 per cent of public funding is going to travel costs).
- Individual B, with an average distance claimed by the HCSS provider of 465 kilometres each day, lives only 70 kilometres from a major urban centre. While there may have been a specific

carer skillset that could not be served from that urban centre, it is also relevant that the HCSS provider faces no financial incentive to allocate available staff from the nearest urban centre or to recruit staff nearer to the client.

The current funding model does not require anyone – funder or provider – to take responsibility for monitoring public expenditure on individuals. What is needed is a model whereby someone in the system has an incentive to monitor expenditure, to reduce unnecessary costs, and to identify when there are anomalies in service provision.

The current model is complex and costly to administer

The current system of providers submitting travel claims to Te Whatu Ora is also administratively costly and inefficient.

In 2022/23 there were 13.1 million travel claims lodged by HCSS providers with Te Whatu Ora (which are submitted in batches). Providers are notionally compensated for the administration of IBT claims from their permitted margins, which in 2022/23 totalled $30.5 million in addition to the reimbursement of employee's costs.

From Te Whatu Ora's perspective, the receipt and processing of IBT claims is highly automated so the administrative costs of the current funding model are minimal.

5.3.3 IBT funding model – next steps

The IBT funding model is not fit for purpose. While the funding mechanism gives the sector certainty that their costs will be covered, it is contributing to rapidly increasing costs, does not impose incentives on providers to minimise unnecessary travel costs, and is administratively costly.

There are significant opportunities to drive efficiency improvements, especially in managing exceptional travel costs and allocating risks. The second phase of this review will examine alternative models, including the case for incorporating IBT into an HCSS case-mix model.

5.4 Next steps

As outlined above, we consider that the funding models for ARC, HCSS, and IBT are no longer fit for purpose and require wholesale reform. The next phase of this review will focus on identifying desired outcomes and models of care, and then assessing which funding models are likely to be appropriate for meeting those objectives.

6. Key issue: ethnic inequities

Our key observations:

- Māori, Pacific and Asian populations are materially less likely to make use of ARC, while Māori and Pacific populations are much more likely to receive HCSS support to help them remain in the home. Older Asian populations are underrepresented in utilisation of both ARC and HCSS services.
- Despite this, Māori, Pacific and Asian populations enter ARC younger on average, they are more likely to utilise services that require higher levels of care, and receive more HCSS hours per week relative to other ethnicities.
- These groups' underrepresentation in ARC services can be partly explained by their cultural preferences, health literacy and inaccessibility to aged care. There are however indicators of financial and regional barriers to care.
- The next phase of the review will explore these barriers in more detail and examine how to better support at-risk populations, including encouraging the provision of culturally competent aged care, improving knowledge of aged care options, and reducing barriers to care for low-income population groups.

Along with an ageing population, Stats NZ forecast the proportion of the population aged over 65 that is Māori and Pacific to increase from 10 per cent in 2021 to 12 per cent by 2025. This comes from a 26 and 24 per cent increase in the aged Māori and Pacific population respectively over the period.

6.1 Underrepresentation in aged care services

Despite being a growing proportion of an ageing population, Māori, Pacific and Asian populations are underrepresented in ARC. Table 13 shows that Māori, Pacific and Asian populations make up smaller proportions of ARC activity relative to their proportion of the aged population, with Asian populations in particular heavily underrepresented.

Table 13: Ethnic make-up of ARC residents 2022/23

Ethnicity	% of NZ pop. (65+)	% of ARC residents	Bed day/population ratio
Māori	7%	5%	8.7
Pacific	3%	2%	6.0
Asian	9%	4%	3.2
NZ European / Other	81%	88%	13.7
Total	-	-	11.6

Source: Sapere calculations based on data from Stats NZ and CCPS. Retrieved from www.stats.govt.nz

Table 14 provides an ethic break down for HCSS activity. This data confirms what our stakeholder engagement highlighted for Māori and Pacific populations in particular – that there is a stronger

preference to stay at home for longer, which is evident in the figures showing higher utilisation of HCSS and higher hours of care.

Table 14: Ethnic make-up of HCSS activity

Ethnicity	% of NZ pop. (65+)	% of HCSS recipients	Average weekly hours of HCSS use (2022/2023)
Māori	7%	10%	5.7
Pacific	3%	6%	6.0
Asian	9%	7%	5.1
NZ European / Other	81%	77%	3.5

Source: Sapere calculations based on data from Stats NZ and CCPS. Retrieved from www.stats.govt.nz

Concerningly, Asian populations are heavily underrepresented in both ARC and HCSS activity. This could indicate access barriers (potentially language and social isolation) and could be an indicator of unmet need in these population groups.

6.1.1 Complexity of needs

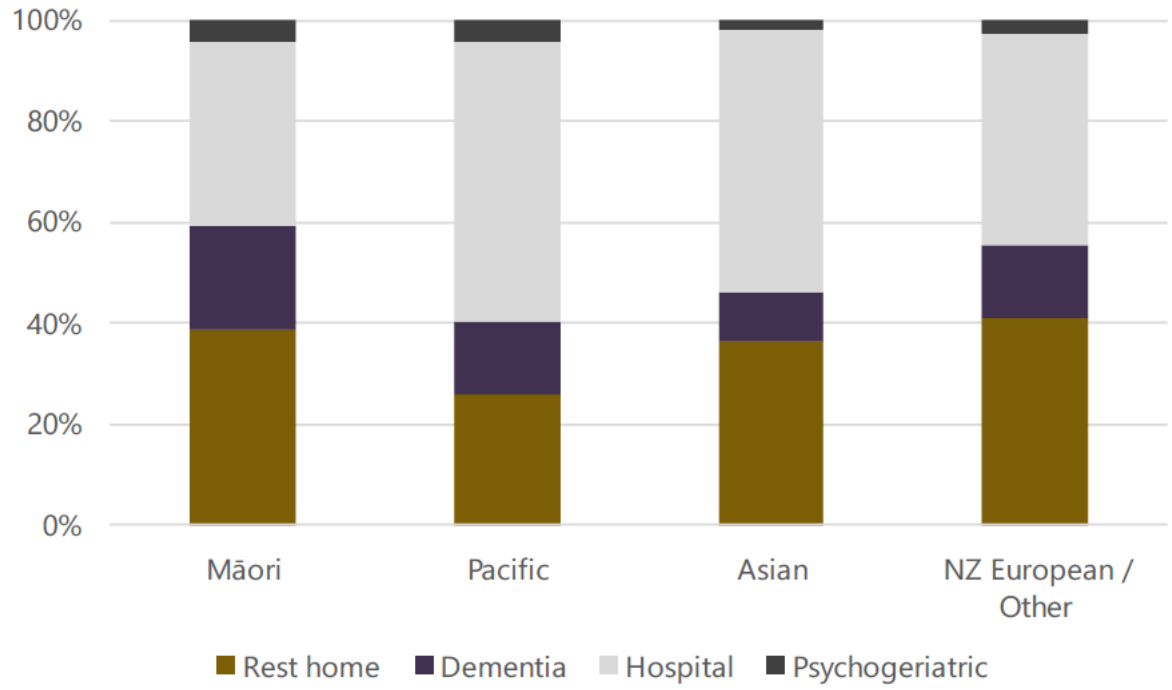
The underrepresentation of these groups in aged residential care activity is particularly concerning, given indications that the complexity of these groups' needs may be more severe than their European and other ethnic counterparts. For instance, the average Māori, Pacific and Asian ARC resident enters the facility younger in comparison to the rest of the population. Māori and Pacific individuals in particular enter ARC facilities almost nine years younger than other ethnic groups (excluding Asians).

Table 15: Age upon entry into ARC by ethnicity (2022/23)

Ethnicity	Average age upon entry into ARC
Māori	75.4
Pacific	75.3
Asian	81.7
NZ European / Other	84
Total	83.2

In addition, Figure 28 below highlights further ethnic differences in the use of ARC services. Larger proportions of kaumātua and mātua are in dementia care compared to other ethnic groups, while Pacific and Asian elders are more likely to utilise hospital care when compared to other ethnic groups. A larger proportion of Māori are also in psychogeriatric care when compared to their other ethnic counterparts.

Figure 28: Ethnic distribution across ARC service categories



6.1.2 Reasons for underrepresentation in ARC

Cultural reasons

We know primarily from various stakeholders that Māori and Pacific are not attracted to ARC due to the deep connections with family and their community. They feel that ARC distances them from whānau and wider community support. This could be a particular challenge for those with higher needs or rural communities, where ARC facilities that are able to cater to them are geographically restricted. Travel is a substantial factor to be considered for kaumātua, mātua and their whānau who wish to remain connected. We also know from stakeholders that kaumātua and mātua perceive their needs to carry a burden, particularly for whānau and the wider community. This perception, in addition to feelings of lost autonomy may also serve as a barrier to receiving HCSS support.

Health literacy

There is a lack of knowledge on the options accessible to older people. This information is not communicated effectively due to language barriers or is not disseminated through typical avenues of communication that is used by Māori, Pacific and Asian groups.

Aged care remains inaccessible

We have heard from stakeholders that given the nature of Māori and Pacific needs, it is difficult to access services given the shortage of dementia, respite, or residential beds. This also puts more pressure on whānau carers who lack support and information to safely care for their elders, particularly when they have complex underlying conditions.

6.1.3 Potential options and next steps for the review

This phase of the review has focused on identifying potential issue and the next phase will focus on potential solutions. While work on options has not begun, we thought it useful to reflect below some of the options we heard through this phase of the review – which will next to be explored in more detail.

More work is need to explore correlation between socioeconomic deprivation, rurality and ethnic inequity

This section has document some of the ethnic inequities (particularly in ARC) we have observed at this early stage of this review. As yet we have not had an opportunity to explore the links between socioeconomic deprivation and rurality, and the extent to which these factors may help explain some of the different outcomes we have observed. We have observed, for example, that it is financially challenging for ARC and HCSS providers to provide services in more remote areas.

Improving needs assessments for Māori

We heard that needs assessments in particular need to start earlier for Māori – that older Māori are being identified as needing help too late. Some HCSS providers highlighted that older persons and their whānau need to be assessed not just from a clinical perspective, but through a process that looks at the whole person/whānau, including their social and housing needs – some noted the potential to integrate these early-stage assessments as part of other social interventions.

We also heard that older Māori may be suspicious of clinical assessors coming into their homes and that some of these barriers might be addressed if NASC assessors were more closely embedded in the community, with potential Māori clients possibly being more receptive to Māori NASC assessors.

A more flexible funding model

As discussed above in section 5.2.2, we consider the fee-for-service funding model for HCSS is too inflexible and is at odds with how some Māori clients want to be supported in the community. The second phase of this review will explore case-mix funding model for HCSS as well as individualised funding, where the client has control over how their funding is allocated.

Supporting the provision of culturally competent aged care

Many stakeholders suggest improving the Māori and Pacific workforce in ARC and HCSS is the key to delivering culturally competent support and a sense of familiarity in terms of care for kaumātua and mātua. More involvement of Māori and Pacific worker representation groups such as Te Poari o Te Rūnanga o Aotearoa to understand the unmet needs for Māori and Pacific clients and workers.

A formal example of culturally competent care is found in the kaiāwhina workforce plan which highlights five priorities for kaiāwhina development from 2020 – 2025. One priority identified is to build cultural capability by actively seeking Māori kaiāwhina input in operations, and iwi input in the development of services and roles to implement Te Ao Māori. In addition, it aims to encourage training in Te Ao Māori and mātauranga Māori, and commitment to Te Tiriti principles. The plan also

calls for the involvement of Māori, Pacific and Asian organisations to identify areas that require more resources.

Improving health literacy

Providing resources to whānau, community groups, churches, Māori and Pacific health providers and other Māori, Pacific and Asian organisations could serve as a driver to increasing uptake of ARC and HCSS services. This should allow groups to effectively communicate the options available to older people, including the funding that is available, as well providing support with administrative processes that may be a barrier to these groups.

7. Key issue: workforce constraints

Our key observations:

- The aged care sector is facing substantial challenges attracting and retaining care and support workers.
- The difficulties aged care providers are facing in hiring staff is a consequence of the underfunding of the sector, but also reflects a nationwide shortage of nurses.
- Recent pay increases for public nurses in particular have compounded the difficulties facing the sector. It has created significant pay disparities, which is making it harder for ARC and HCSS providers to attract nurses to the sector.
- The pandemic, in addition to competition from overseas, has hindered the immigration process for migrant aged care workers. Immigration pathways and more local training and recruitment is required to address workforce shortages, both from migrants and the local workforce.

Analysis of Te Whatu Ora data has confirmed what stakeholders told us, that aged care providers are struggling to attract and retain a skilled workforce. At a time that New Zealand's population is ageing, the HCSS workforce has being shrinking – with HCSS employees falling by 8 per cent in the past two years.[37]

The workforce challenges are not confined to the aged care sector. In July 2023 Te Whatu Ora estimated there was a shortage of 4,800 nurses in New Zealand (Te Whatu Ora, 2023a).

7.1 The demography of the workforce

The aged care workforce is dominated by women who make up more than 90 per cent of the workforce. The Grant Thornton review along with the results from a 2021 care workforce survey identify a majority of workforce as NZ European or European, although it is acknowledged that the sector has typically been heavily reliant on immigrant workers (Ravenswood et al., 2021). The Grant Thornton review (2010) found that a significant growth in caregivers was attributed to immigration, particularly from the Philippines.

Registered nurses and kaiāwhina make up the bulk of the aged care workforce at 19 and 72 per cent of the workforce respectively according to a report for the Productivity Commission (Knopf, 2022). The sector is also characterised by high turnover, with turnover averaging between 20 and 30 per cent per year between 2005 and 2019. Further to this, a NZACA and BERL report shows that registered nurses had a turnover rate of 48 per cent in 2021 (New Zealand Aged Care Association, 2022a). This was much higher than the equivalent figure within the DHB workforce.

[37] Count of employees making IBT claims from 2021 and 2023.

7.2 The pay equity settlement

The Care and Support Workers (Pay Equity) Settlement Act 2017 implemented the settlement agreement relating to pay equity issues for care and support workers. The settlement was intended to fund significant pay increases and staff training over the five-year period after its effective date.

A 2018 report, "Spreading Our Wings" highlights that labour market outcomes for HCSS workers had improved, with workers becoming multi-skilled, having more opportunities in the sector, and having guaranteed hours and better wages (Home and Community Health Association & Lattice Consulting Ltd, 2018). Ravenswood and Douglas (2022) undertook a survey of ARC and HCSS workers in relation to the 2017 settlement, and found:

1. Most HCSS workers felt that there was no change in the requirements of their job after the settlement. However, many ARC nurses and managers felt they had additional work and responsibilities.
2. Many aged care workers felt there were no changes to their hours, and a large proportion of HCSS workers saw a decrease in their hours.
3. Many ARC workers felt there were no additional opportunities for training and in-house development, although many HCSS workers felt they had more training.
4. Most care workers experienced increases in their take-home pay.
5. However, managers claimed that additional funding from the settlement still did not cover the cost of implementation for their provider.
6. Respondents felt that neither staff to client ratios nor the standard of care had not changed from prior to the settlement.

While the settlement has seen positive effects in terms of pay and – to an extent – work hours, it likely did little to incentivise additional participation in the care workforce. There were also no changes to the potential for training and development for ARC workers who responded to this survey.

Of those respondents saying they had seen a decrease in their weekly hours, around 45 per cent reported that this was the decision of their employer, indicating that additional funding from the settlement may not have been sufficient to cover increased wages.

In November 2022, additional funding of $240 million from the government was announced, with priority allocation of an initial $40 million given to Kaupapa Māori providers, Pasifika providers, ARC providers, HCSS providers, and hospices. The aim of this funding was not to achieve pay parity, but to reduce the pay inequities between RNs, enrolled nurses and kaiāwhina in the aged care sector, and the same occupations covered by Te Whatu Ora MECA rates (Te Whatu Ora, 2023d).

A 2016 Ministry of Health report found that 9 per cent of nurses were in aged care in 2015; a large proportion of the workforce is comprised of kaiāwhina (non-regulated roles) (Ministry of Health, 2016).

7.2.1 Pay disparities

We know from existing research and from our Advisory Group that pay disparities between aged care registered nurses (RNs) and DHB/Te Whatu Ora nurses are a significant barrier in retaining a skilled aged care workforce, and recruitment.

The 2023 Te Whatu Ora pay settlement has created further disincentives to being in the aged care workforce

Additional funding to ARC, HCSS and Māori and Pacific providers in 2022 meant pay disparities were somewhat closed, but additional funding to Te Whatu Ora nurses in June 2023 backdating to March 2022 has once again created disparities between the sectors. Employers were required to pay 95 per cent of equivalent Te Whatu Ora rates at March 2022. Under assumptions where employers met this obligation, it is estimated that the pay gap between Te Whatu Ora nurses and ARC/HCSS registered and enrolled nurses is at around 10 per cent, while the pay gap for senior nurses is at around 12.1 per cent. It is further estimated that it would cost around $89 million per year to address the pay gaps present between Te Whatu Ora nurses and ARC/HCSS nurses.

In addition, a large proportion of the ARC nurse turnover in 2021 outlined in section 7.1 is characterised by movement towards a DHB/Te Whatu Ora hospital. 46.4 per cent of ex ARC nurses moved to a hospital, while 12.2 per cent moved to another non-aged care health sector employer (New Zealand Aged Care Association, 2022a).

In Section 3.3.1, we also highlight the concerns voiced by various stakeholders. Stakeholders strongly support an additional pay equity settlement between aged care RNs and Te Whatu Ora RNs to ensure current aged care nurses are not forced to leave the sector. Stakeholders are also concerned that increases in ARC and HCSS funding are not being passed through to workers, calling for more transparency in workforce and operational spending from funding.

Pay equity is also an issue for kaiāwhina. In 2023, a second pay equity claim was filed by four unions on behalf of care and support workers. This claim covers 167 employers in ARC, HCSS, disability, and mental health and addiction care.

7.2.2 Immigration settings

The aged care sector has been historically reliant on immigrant workers. An aged care case study for the Productivity Commission found that around 40 per cent of aged care RNs and kaiāwhina were on visas in 2019 (Knopf, 2022). This reflects a large growth in the migrant workforce for kaiāwhina in particular, who made up around only 20 per cent in the 1990s. From the share of migrant kaiāwhina, 64 per cent are on temporary work visas, and only a third of these are employer-sponsored.

The report on immigration settings also expressed concerns that migrants would be less likely to join a union than the local workforce, and that they would also be paid less than locally trained staff due to the scope of their practices being restricted as a result of their overseas training.

Over the last few years, border restrictions have made it increasingly difficult to recruit and maintain a sustainable migrant aged care workforce which already had perceived issues prior to the pandemic.

A main concern expressed by our stakeholders was being able to compete with Australia who have now implemented legislative change granting experienced aged care workers a pathway to residency. Although in April 2023 nurses were added to Immigration New Zealand's green list, which provides faster pathways for residency.

7.2.3 Training

One issue raised by the Advisory Group is the lack of development opportunities for staff. The Advisory Group state that it would be beneficial to increase the training provisions available for current and future aged care workers, and ensuring that this is kept free for care and support workers and household service workers. Section 3.3.4 highlights stakeholders' perceptions on the challenges surrounding additional training, which claims that with staffing shortages, many aged care workers – particularly healthcare assistants – operate beyond their scope which could create safety risks.

It is claimed that healthcare assistants would like to train to become RNs but cannot take time to do so. Additional training in this area would therefore have the potential to increase the skilled aged-care workforce. A similar sentiment is echoed by the findings of the care workforce survey which finds that 65 per cent of care workers and 72 per cent of Māori care workers in particular would like additional training opportunities (Ravenswood, 2022).

7.2.4 Safety and stress

This section largely highlights the findings of the 2019 care workforce survey by Ravenswood and Douglas (2021 & 2022). While a majority of respondents claim that they feel safe at work, a large proportion of the workforce occasionally experience safety concerns. Over 40 per cent of nurses and kaiāwhina at least sometimes experience physical violence, verbal aggression and emotional abuse from their clients. 24 and 30 per cent of care and support workers, and nurses respectively report experiencing high levels of stress of other mental conditions in the 12 months prior to the survey. Further to this, 36.9 per cent of ARC care and support workers had some intention to change jobs within the 12 months subsequent to taking the survey, citing stress and burnout as the main reason behind this. In addition to stress, many care workers have experienced a physical injury in the workplace.

7.3 Guaranteed hours

As a result of the In-Between Travel Settlement, a requirement that HCSS workers have guaranteed hours according to what they usually work came into effect on 1 April 2017. This means that workers are required to be paid for travel time and mileage, as well as if a client cancels a session and if a worker cannot find work elsewhere. EY noted that as a result, guaranteed hours has resulted in rostering issues which has led to increased bureaucratic costs. In section 5.3, we also detail how, particularly under a fee-for-service model, HCSS provider receive reimbursement for specific hours of care delivered. This makes it difficult to efficiently allocate HCSS workers across clients.

7.4 Issues to explore

There may be some ways to manage the workforce issues. We set out some that we have identified below.

7.4.1 Mandated staff levels

A petition from the E tū Union highlighted COVID-19's effects on ARC patient vulnerability, and additional workloads and responsibilities imposed on ARC workers which has resulted in increased stress and inherently serves as a key issue that drives staff to leave the ARC sector.

Following the Victorian and Queensland governments' implementation of mandated staffing levels, E tū argued that mandated staffing levels would better protect ARC patients and help overstretched staff. Improving and having mandated staff/client ratios was also an issue raised by some members of the Advisory Group, although ideas for the ratio model varied from staff to client numbers, to staff to client minutes. However, all suggestions of mandated staffing levels are complemented with counsel that the level of acuity should be considered.

Ultimately, there are mixed responses as to whether mandated staff levels would be able to achieve the desired outcome set out by the E tū Union. It was acknowledged that the ARC workforce was under significant pressure, but inconsistency of interRAI assessments across the health sector inherently meant that it would be difficult to have a clear understanding of acuity and its representation across New Zealand. Many responses advised investigating the use of the RUG-III case-mix tool as a mechanism to deliver acuity-based staff levels.

7.4.2 Creating immigrant pathways

For New Zealand to be competitive with similar jurisdictions such as Australia, stakeholders suggest similar considerations of immigration pathways such as freeing up visa entry for lower paid aged care jobs in addition to removing transition pathways. To address concerns of restricted scope arising from language barriers and differences between local training and overseas training, the Advisory Group also suggested orientation programmes for immigrant workers.

7.4.3 Training the local workforce and offering a career pathway

A complement to a strengthened migrant workforce is to create incentives for the local workforce to enter the aged care sector. According to the report for the Productivity Commission's aged care case study, the NZ Aged Care Association has submitted that various providers work with schools, training providers and Work and Income NZ to identify and recruit kaiāwhina, although anecdotally, these have low rates of kaiāwhina recruitment from those that apply.

Becoming an RN requires a tertiary qualification, and with current pay disparities, there appears to be minimal incentive to enter the aged care sector. In other health sectors such as primary care, RNs also have the opportunity to further develop themselves into nurse practitioners (who take on some general practitioner responsibilities). As an example, one of the large groups of ARC providers has begun employing nurse practitioners to support clients, which reduces the level of need for general practitioners in aged care. We also heard from some HCSS providers who noted the lack of variety in

work was an issue for many staff, particularly under a fee-for-service model where there may not be the same emphasis on restorative care and monitoring outcomes.

As signalled in section 5.2.3, in the next phase of the review we will be looking at whether current service eligibility restrictions for aged care funding are necessary – we heard from ARC providers whose nurses are unable to provide HCSS services to residents and the broader community, Māori stakeholders who can see benefit in allowing social providers to access HCSS funding to help support kaumatua in their homes, and HCSS providers whose nurses are keen to provide a wider range of services in the home (such as district nursing functions and discharge support).

The training and development of kaiāwhina has been formalised in the Kaiāwhina Workforce Plan, particularly in their priorities to establish pathways for kaiāwhina to enter registered roles, and the proposal of kaiāwhina membership on the Health Workforce Advisory Board.

7.4.4 Making greater use of technology

Using technology to streamline processes and reduce the pressure on workforce responsibilities has been acknowledged as an important development by our stakeholders (section 3.6).

The Productivity Commission's aged care case study also signals that technology's role in aged care can potentially assist with workforce constraints. Technology such as respiratory supports and dialysis equipment can shift the demand for care into public hospitals and in some cases home support from ARC. In addition, utilising design adaptations to equipment such as beds and wheelchairs has reduced the need for physical strength from carers, which is particularly important given the older age profile of the workforce.

8. Key issue: Rural challenges

Our key observations:

- We are already seeing capacity constraints in provincial and rural facilities, particularly for dementia and psychogeriatric facilities.
- Existing workforce pressures will likely be exacerbated by the continued trend of young people moving to urban areas for career reasons, reducing the number of working-age people in the rural areas.
- From a provider perspective, there is a direct relationship between scale and financial performance, and scale is difficult to achieve in rural areas due to lower population numbers.
- As outlined earlier, the costs to deliver aged-care services may be higher in rural areas and the current funding models may not be appropriate for provincial/rural ARC and HCSS providers, who are more exposed to resourcing risks from having clients with higher-needs.
- These factors combine to create a heightened risk that, under existing policy settings, ARC and HCSS supply may not meet demand.

8.1 A lack of specialist ARC capacity in rural and provincial New Zealand

ARC bed numbers and utilisation vary considerably throughout the country. As yet we have not set out to identify the extent to which this variation can be attributed to rurality as distinct from other factors (such as models of healthcare in each region). However, we know that smaller rural providers are more likely to be underfunded at current regulated prices and that older persons in provincial and rural New Zealand are less likely to be able to access an ARC facility when they need it. Ansell Strategic (2023) reported that provider losses were particularly prevalent in rural regions where there is limited ability for residents to contribute towards premium charges, which further highlights rural inequities and increasing financial barriers to care.

Table 18 through to Table 17 below show, for each care level, the number of facilities in each region that currently have no vacancy for new residents.[38] While only a snapshot, it does reinforce what we heard – that regions with the greatest level of rurality (fewest major and main urban centres) are more likely to have the highest proportion of facilities with no bed vacancies and people will need to travel further to find a facility.

Other points to note from the tables below include:

- High capacity constraints (when a care level in a region has 80 per cent or more of its facilities with no vacancies) are more likely to exist for dementia and psychogeriatric level care.
    - Rest home level: 1 of 21 regions had capacity constraints

[38] Data sourced from www.eldernet.co.nz, last accessed as of 22 November 2023.

  - Hospital level: 1 of 21 regions had capacity constraints
  - Dementia level: 4 of 21 regions had capacity constraints
  - Psychogeriatric: 9 of 21 regions had capacity constraints
- In terms of regions with high capacity constraints:
  - The West Coast had high capacity constraints across all four care levels
  - Hawkes Bay, Lakes, Northland and Tairāwhiti had high capacity constraints across both dementia and psychogeriatric care levels

In the tables below we have highlighted regions where 80 per cent or more of a region's facilities currently have no beds available. While there may still be high levels of capacity within certain facilities in the region, the high number of unavailable facilities means residents/families will likely need to travel further and will have fewer choices.

Table 16: Number of ARC facilities with rest home level beds

Rest home	# of facilities	# of facilities with no vacancy	% with no vacancy
Auckland	61	28	46%
Bay of Plenty	35	17	49%
Canterbury	82	19	23%
Capital and Coast	31	16	52%
Counties Manukau	41	19	46%
Hawke's Bay	26	17	65%
Hutt Valley	16	7	44%
Lakes	13	9	69%
MidCentral	35	8	23%
Nelson Marlborough	24	13	54%
Northland	24	15	63%
South Canterbury	11	5	45%
Southern (Otago)	41	10	24%
Southern (Southland)	19	5	26%
Tairāwhiti	6	4	67%
Taranaki	26	5	19%
Waikato	59	21	36%
Wairarapa	11	1	9%
Waitematā	66	25	38%
West Coast	5	4	80%
Whanganui	12	4	33%

Table 17: Number of ARC facilities with hospital level beds

Hospital	# of facilities	# of facilities with no vacancy	% with no vacancy
Auckland	47	22	47%
Bay of Plenty	29	16	55%
Canterbury	66	15	23%
Capital and Coast	27	16	59%
Counties Manukau	34	15	44%
Hawke's Bay	17	11	65%
Hutt Valley	13	5	38%
Lakes	10	7	70%
MidCentral	25	7	28%
Nelson Marlborough	19	10	53%
Northland	18	12	67%
South Canterbury	7	3	43%
Southern (Otago)	27	12	44%
Southern (Southland)	12	4	33%
Tairāwhiti	6	4	67%
Taranaki	18	3	17%
Waikato	54	19	35%
Wairarapa	9	1	11%
Waitematā	54	21	39%
West Coast	5	4	80%
Whanganui	10	3	30%

Table 18: Number of ARC facilities with dementia level beds

Dementia	# of facilities	# of facilities with no vacancy	% with no vacancy
Auckland	19	11	58%
Bay of Plenty	12	6	50%
Canterbury	37	7	19%
Capital and Coast	10	6	60%
Counties Manukau	9	7	78%
Hawke's Bay	10	9	90%
Hutt Valley	8	3	38%
Lakes	5	5	100%
MidCentral	15	7	47%
Nelson Marlborough	10	3	30%
Northland	11	9	82%
South Canterbury	3	2	67%
Southern (Otago)	15	7	47%
Southern (Southland)	5	2	40%
Tairāwhiti	4	3	75%
Taranaki	12	1	8%
Waikato	28	10	36%
Wairarapa	4	1	25%
Waitematā	31	12	39%
West Coast	1	1	100%
Whanganui	4	2	50%

Table 19: Number of ARC facilities with psychogeriatric level beds

Psychogeriatric	# of facilities	# of facilities with no vacancy	% with no vacancy
Auckland	2	0	0%
Bay of Plenty	1	1	100%
Canterbury	7	1	14%
Capital and Coast	4	3	75%
Counties Manukau	2	1	50%
Hawke's Bay	1	1	100%
Hutt Valley	1	1	100%
Lakes	1	1	100%
MidCentral	1	0	0%
Nelson Marlborough	2	1	50%
Northland	1	1	100%
South Canterbury	1	0	0%
Southern (Otago)	2	1	50%
Southern (Southland)	1	1	100%
Tairāwhiti	0	0	100%
Taranaki	1	0	0%
Waikato	3	0	0%
Wairarapa	0	0	100%
Waitematā	3	0	0%
West Coast	1	1	100%
Whanganui	1	0	0%

The regions that have higher capacity constraints are more rural also have a high degree of cross-over to regions with fewer ARC beds on a per-capita basis and higher ARC occupancy rates, as explored above in section 2.2.6.

8.2 The challenges facing the aged care sector are exacerbated in rural and provincial areas

While this review has highlighted the pressure the aged care sector is under across the country, the challenges facing providers and families in rural areas are particularly pronounced.

The trend of ageing of the population is happening across the country, but is expected to uniquely impact rural and provincial regions. At the same time as the population ages the trend of urbanisation will continue, meaning mainly young and working-age people who are moving to cities while older people tend to stay where they are comfortable in familiar surroundings. As EY observed:

> "All DHBs will experience ageing of their populations. However, DHBs with provincial and rural populations will tend to experience the greatest structural ageing of their populations since they will have the smallest (or negative) growth in their younger population." (EY, 2019b)

8.2.1 Workforce pressures are significant

Both ARC and HCSS providers are facing significant difficulties attracting skilled workers. The inability to attract staff is a consequence of a lack of funding, but is also contributed to in part by New Zealand's continued urbanisation.

We are aware of ARC facilities that have closed in the past two years, not because they were insolvent, but because providers could not source the workforce needed to operate. Even if an ARC facility does not close, it may need to reduce the number of beds it can safely operate.

The difficulties that HCSS providers in more rural areas are having servicing their clients with a shrinking workforce is evident from recent IBT claims (see section 5.3). The two regions with the largest average distance that staff have to travel between clients in 2022/23 – Northland and Tairāwhiti - are highly rural. The distances staff have to travel has increased markedly, indicating significant workforce shortages - over the past four years the increase in average travel distance was 114 per cent in Northland and 532 per cent in Tairāwhiti.

8.2.2 Rural ARC facilities

In section 4 we concluded that the ARC sector does not currently receive sufficient funding to cover its economic costs and that rural were likely the most underfunded. The provision of ARC services is ultimately a question of scale for providers, which creates challenges for rural providers, who are more likely to be smaller in size and less likely to have a national footprint. As we have summarised in section 5.1.2:

- Unlike their urban counterparts, rural providers have a limited catchment of potential demand and so are unable to increase the scale of their facilities. The fixed costs that rural ARC providers face in building a new facility need to be recouped from a smaller pool of demand.
- Smaller rural ARC providers lack the ability to cross-subsidise their activities from other facilities if their residents are of higher-needs than the average of a care category
- As funding is fully variable based on resident numbers, rural ARC providers are more financially exposed during periods of low occupancy or extended vacancies
- Providers in rural and provincial areas are less able to generate additional premium revenue or to use ORAs to the same extent as urban providers
- Smaller rural facilities where there is a limited consumer choice are likely to have more complex residents, which can put pressure on operational costs and resourcing.

Even if ARC funding levels are increased to a level that enables providers to recover their costs, it may not prove to be sufficient to provide incentives for efficient investment in provincial areas of New Zealand where there is known to be unmet need. In the second phase of this review we will examine alternative mechanisms for meeting the needs of rural populations. This could, for example, include a greater rural adjustor, which was the subject to consideration in EY's 2019 report on how to adjust for diseconomies of scale:

> "The recommendation to add a rurality adjustor recognises that some operational aspects of ARC provision incur fixed costs, which are intensified by the relatively small scale of rural facilities. This issue would not be directly addressed by the RUG funding approach, and may be exacerbated by increased variation in payment amounts. The proposed rurality adjustor should be built into the RUG payment for rural facilities to recognise the relationship between scale and costs, with or without occupancy adjustments (i.e., capacity funding)."

We will also examine whether there is a case in some locations with known access issues whether there are alternative solutions that can encourage investment, such as the provision of government demand guarantees.

8.2.3 Rural HCSS

As we have signalled, the lack of standardisation in HCSS funding models and rates, means that older persons with the same conditions can receive very different levels of care, with providers also having very different incentives. We have not seen any evidence that rural HCSS providers are necessarily disadvantaged by the current funding arrangements, although they certainly face more significant workforce pressures.

As indicated in section 5.2, we consider there may well be a case for moving to a national case-mix model. We have heard from some smaller provincial HCSS providers concerns that they could be disadvantaged under such a model, as their smaller client base means they could be at risk if they have to serve more complex patients (not having clients with low needs to balance out those with high needs). This is not an insurmountable issue and we are confident measures could be taken to safeguard smaller providers in terms of the risk associated with population distributions.

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Appendix A Detailed analysis of ARC funding gap

ARC cost model assumptions

In our cost model we used the available data and information from the literature (Ansel 2023, EY 2019 and Thornton 2010) as well as the results of the recent NZACA survey.

This section details the assumptions that underpin estimated capital and operating costs and their components.

Land cost

Land costs were derived from the Infrastructure Commission (2023). The Commission's report includes the land value per square metre for a selection of urban area and the relative rural land value in those region or cities. Sapere estimated land value for provincial locations at the midpoint of the estimated urban and rural land value based on the values used in the EY's 2019 report.

Table 20: Land value per square metre for selected cities' urban, provincial and rural area

City		Land price m^2
Auckland	Urban	$1,762
	Provincial	$1,081
	Rural	$400
Hamilton	Urban	$648
	Provincial	$428
	Rural	$208
Tauranga	Urban	$1,504
	Provincial	$929
	Rural	$353
Wellington	Urban	$913
	Provincial	$588
	Rural	$264
Christchurch	Urban	$444
	Provincial	$315
	Rural	$185
Queenstown	Urban	$880
	Provincial	$578
	Rural	$276

Source: Infrastructure Commission 2023 and Sapere's estimate

Construction cost

The following assumptions consistent with EY (2019) assumption for construction cost:

- Demolition cost is zero or the facility is built on a bare land.
- Single level facilities are built everywhere except Auckland and Christchurch.
- Costs are net of taxes and legal fees.
- It is assumed costs are not lower for larger facilities.
- Size of land estimated based on the number of construction levels and buildup area to land coverage.

Table 21 summarises the geographic units and their current rates (excluding GST) we used for IRR scenarios.

Table 21: Geographic units and rates (for IRR)

		Source	
Construction cost single level (per m^2)	Auckland	(EY, 2019a)	$4,980
	Christchurch		$5,105
	Other locations		$4,856
Multi story (additional) (per m^2)	Auckland and Christchurch only		$311
Council rates (including water)			$7,471
Margins (% of construction costs)			3%
Contingency (% of construction costs)			1.5%
Landscaping, drainage, parking areas etc (per bed)	Urban		$9,961
	Provincial		$14,941
	Rural		$18,677
Fit-out costs building (per bed)			$18,677
Fit-out costs client (per bed)			$12,451
Total construction cost per bed (average)			$309,412
Additional fit out costs (per premium rooms)		Sapere's assumption	10%
Building coverage ratio		NZACA's 2023 survey results	35%
Facility size per bed			36 m^2

Weighted average cost of capital (WACC)

WACC is the rate of return that an providers would expect from their investment in an ARC facility. We ran three scenarios to estimate the most appropriate WACC for ARC providers. We used the lowest

rate (9.31 per cent) for our main analysis. Table 22 summarises the components of the WACC estimate and the sources of information we used.

Table 22: WACC calculation

Cost of equity (CAPM)		**Source**
Risk free rate	4.9%	New Zealand Treasury As at 31 August
Post-tax risk free rate	3.5%	Derived
Equity market risk premium	5.5%	EY
Asset beta	0.73	Asset beta for ARC providers in Australia, internal modelling
Geared beta estimate	1.11	Derived
Size premium	0%	EY
Specific risk premium	0%	EY
Cost of equity	11.1%	Derived
Cost of debt		
Company credit spread	3.4%	EY
Cost of debt	8.3%	Derived
Capital structure		
D/E	52.46%	Provider capital structure
D/V	34%	Provider capital structure
E/V	66%	Provider capital structure
WACC		
Corporate tax rate	28%	NZ corporate tax rate
Weighted-average post-tax COE	7.2%	Derived
Weighted-average post-tax COD	2.1%	Derived
WACC (post-tax, nominal)	9.31%	Derived

Capital charge

Capital charge per annum estimated using the following assumptions based on the EY (2019) and Thornton (2010) reports:

- Total capital charge equals the land yield plus WACC charge on opening book value.
- Land yield assumed at 5 per cent per cent of its value.
- Opening book value estimated based on the initial investment minus depreciation plus new investment:

- Depreciation estimated based on useful life of construction (35 years), landscaping, drainage parking areas etc and building fit outs (15 years) and client fit outs (10 years); and 50 per cent residual value of building after its useful life.
- New investment for drainage etc and fitouts after their useful life.

- WACC charge on opening book equals the WACC rate multiplied by each year's opening book value.
- We used latest Cordell Construction Cost Index (CCCI) (6.4 per cent) to estimate the construction charge from 2024 forward.

Operating costs

We used EY (2019a) assumptions for operating costs per resident day and updated it using CPI rate 2018 to 2023. We used latest CPI rate of (6 per cent) for the years following 2023.

Table 23: Operating cost components per resident day 2023

	Rest home	Hospital	Dementia	Psychogeriatric
Care wage	$111.42	$195.84	$154.20	$210.90
Other care costs	$2.48	$6.01	$3.04	$6.02
Catering	$18.53	$24.32	$20.99	$24.34
Cleaning	$4.18	$5.35	$4.36	$5.35
Laundry	$5.39	$7.12	$5.06	$7.13
Property & maintenance	$15.13	$16.35	$15.29	$16.36
Administration	$12.24	$14.40	$16.94	$14.41
Other care costs	$1.77	$3.50	$2.20	$3.50
Total	$171.14	$272.88	$222.07	$288.01

Analysis of funding gap

We estimated the internal rate of return for an investment in an ARC facility to estimate the attractiveness of ARC facilities by comparing the IRR with the desired rate of return (WACC). If the IRR is lower than the WACC, it signals a potential funding gap. The break-even maximum contribution is the level at which the project becomes financially feasible, and meeting this maximum contribution would make the IRR equal to the WACC, indicating an optimal funding rate. Below is a definition for each of the terms used in this description for clarifying the terms.

- Internal rate of return (IRR): this is a metric used to evaluate the profitability of an investment. It represents the discount rate at which the net present value (NPV) of the investment becomes zero.
- Weighted average cost of capital (WACC): this is the average rate of return a company is expected to provide to all its investors, including equity and debt holders. It serves as the benchmark for evaluating the attractiveness of an investment.

- Funding gap: the difference between the IRR and WACC represents a funding gap. This suggests that the project may not be able to generate enough returns to cover the cost of capital, indicating a potential shortfall in funding.
- Break-even maximum contribution: this is the maximum contribution that would make the IRR equal to the WACC. It represents the point at which the investment becomes economically viable, covering the cost of capital. This is a crucial metric as it helps identify the optimal funding rate required for investment in an ARC.

We estimated IRR for three scenarios and eight categories of individual and mixed services for the selected geographic areas. Our scenarios are related to the exclusion of any premium charge and inclusion of either premium charge or ORA contracts.

The TLA pricing framework serves as a moderate incentive for providers to expand capacity in areas that promise optimal returns on both capital investment and operational efficiency. However, the model lacks a robust incentive for capacity development in potentially underserved, less affluent areas where demand may be more uncertain. This imbalance may lead to insufficient supply to meet the population's needs and potentially impact the quality of capital stock in certain instances (EY, 2019a).

The prices are calculated on a per bed-day basis, representing a day occupied by a resident in a facility. Providers receive payment based on the number of days in a two-week period that their available beds are occupied by residents. This revenue structure ties directly to the occupancy of the facility, meaning that providers' income is influenced by how many beds are filled and the mix of residents, particularly for providers offering multiple categories of care.

The maximum contribution for residents is established at the rest home price for the TLA. Te Whatu Ora covers the difference between the rest home level price and the cost of higher levels of care (dementia, hospital and psychogeriatric) for all residents, regardless of a resident’s assets or income.

Table 5 shows the contract price across selected TLAs by care category as at 1 July 2023. The table shows that the dementia price is approximately 35 per cent higher than the rest home care price, hospital 64 per cent higher and psychogeriatric about 79 per cent higher.

Below we presented a breakdown of some the key assumptions we used for estimate IRR for the investment in an ARC facility:

- Cash flows over 35 years: the cash flows for the investment were projected over a period of 35 years, which corresponds to the expected life of the building. This long-term projection allows for a comprehensive assessment of the financial viability of the investment.
- Revenue and cost assumptions: revenues and costs were assumed to increase based on the Consumer Price Index (CPI), reflecting general inflation. Additionally, building costs were assumed to increase based on the Cordell Construction Cost Index (CCCI). These assumptions account for potential changes in the economic environment over the life of the project.
- Treatment of land: the cash flows include a charge on the current value of land at a rate of 5 per cent. However, the estimated market value of the land at the end of the period was not added to the analysis.
- Annual R&M and exclusion of maintenance capital expenditure: the analysis includes an annual charge for repair and maintenance (R&M), but maintenance capital expenditure is excluded from the cash flows.

- Assumption of building and client fit-out replacement: the approach assumes that the building and client fit-out will be replaced during the project's life.
- A 50 per cent residual value of the building included in the cashflow.

Table 24 summarises our additional assumptions for the IRR calculation. Table 25 shows the detailed results of the IRR estimate for three scenarios. The colour-coded spectrum, ranging from black to green, illustrates the annual return on investment (IRR) for ARC providers, with black representing the lowest IRR and green representing the highest potential gain.

Table 24: IRR assumptions

Variable	Source of data	Variable's value(s)							
Service type	NZACA survey 2023	Rest home only	Hospital only	Dementia only	Psychogeriatric only	Rest home & hospital	Rest home & dementia	Rest home, hospital & dementia	All services
Facility scale (#of beds in average)	NZACA survey 2023	30	52	35	27	55 RH:22, H:33	48 RH:28, D:20	76 RH:24, H:33, D:19	92 RH:14, H:37, D:24, Psy:17
Premium rate in average (% of total # of beds)	NZACA survey 2023	45% or 0%	52% or 0%	33% or 0%	33% or 0%	46% or 0%	33% or 0%	33% or 0%	53% or 0%
Average premium charge by service type	NZACA survey 2023	$36.66	$40.79	$25.94	$25.94	$36.79	$25.94	$25.94	$41.42
Occupancy rate	EY 2019 and Sapere assumptions	95%	95%	95%	95%	95%	95%	95%	95%
Geographic characteristics	Land value per m^2 data from Maximum contribution data from	Auckland Urban	Hamilton Rural	Tauranga Provincial	Wellington	Christchurch	Queenstown		
ORA cost as a percentage of the land and building of the facility	EY 2019	80%							
Percentage of residents under ORA	EY 2019	33%							
DMF share of the initial ORA cost	EY 2019	30%							
Average dwelling duration (years)	EY 2019	3 years							

Table 25: Estimated IRR by service type and selected geographic area

		Scenario 1: without ORA and with premium								Scenario 2: with ORA and without premium								Scenario 3: without ORA or premium							
Geographic area		RH	H	D	Psy	RH & H	RH & D	RH, H & D	All	RH	H	D	Psy	RH & H	RH & D	RH, H & D	All	RH	H	D	Psy	RH & H	RH & D	RH, H & D	All
Auckland	Urban	1.1%	1.6%	-3.3%	2.1%	0.2%	-4.9%	-0.4%	1.4%	6.6%	6.2%	3.3%	9.6%	5.8%	2.2%	5.3%	5.9%	-2.8%	-2.5%	-8.5%	-0.6%	-2.6%	-12.1%	-3.6%	-3.1%
Auckland	Provincial	1.6%	2.9%	-2.5%	3.5%	1.3%	-3.8%	0.5%	2.4%	4.9%	6.0%	1.9%	9.0%	5.2%	1.1%	4.6%	5.3%	-2.2%	-0.8%	-7.2%	1.0%	-1.4%	-10.1%	-2.3%	-1.7%
Auckland	Rural	2.2%	3.5%	-1.5%	4.8%	1.9%	-2.5%	1.2%	3.2%	3.8%	4.9%	1.1%	8.6%	4.3%	0.3%	3.6%	4.5%	-1.5%	-0.1%	-5.7%	2.5%	-0.6%	-7.9%	-1.5%	-0.7%
Hamilton	Urban	2.5%	3.8%	-1.3%	4.9%	2.2%	-2.4%	1.5%	3.5%	4.7%	5.8%	1.9%	9.5%	5.2%	1.0%	4.5%	5.4%	-1.3%	0.1%	-5.7%	2.5%	-0.4%	-8.2%	-1.4%	-0.6%
Hamilton	Provincial	2.2%	3.5%	-1.9%	5.4%	1.8%	-3.0%	1.1%	3.3%	3.6%	4.8%	0.6%	9.4%	4.1%	-0.3%	3.4%	4.5%	-1.8%	-0.3%	-6.7%	3.0%	-0.9%	-9.4%	-1.9%	-0.9%
Hamilton	Rural	2.7%	4.0%	-1.1%	5.8%	2.3%	-2.1%	1.7%	3.8%	3.6%	4.8%	0.9%	9.2%	4.2%	0.0%	3.5%	4.5%	-1.1%	0.3%	-5.5%	3.4%	-0.3%	-7.7%	-1.2%	-0.2%
Tauranga	Urban	0.7%	2.1%	-4.5%	3.1%	0.3%	-6.3%	-0.5%	1.7%	4.8%	6.0%	1.2%	10.4%	5.2%	0.2%	4.4%	5.4%	-3.7%	-2.1%	-11.4%	0.5%	-2.7%	-13.2%	-3.9%	-3.1%
Tauranga	Provincial	1.6%	2.9%	-3.0%	4.3%	1.2%	-4.4%	0.4%	2.6%	4.1%	5.3%	0.9%	9.8%	4.6%	0.0%	3.8%	4.9%	-2.6%	-1.1%	-8.6%	1.8%	-1.7%	-12.1%	-2.7%	-1.8%
Tauranga	Rural	2.7%	4.0%	-1.0%	5.5%	2.4%	-2.1%	1.7%	3.7%	4.1%	5.3%	1.3%	9.3%	4.6%	0.4%	3.9%	4.9%	-1.1%	0.3%	-5.4%	3.1%	-0.2%	-7.6%	-1.1%	-0.3%
Wellington	Urban	2.6%	3.9%	-1.0%	4.4%	2.3%	-2.2%	1.7%	3.5%	5.7%	6.9%	3.1%	9.8%	6.1%	2.0%	5.5%	6.2%	-1.1%	0.3%	-5.3%	1.9%	-0.3%	-7.8%	-1.1%	-0.6%
Wellington	Provincial	2.8%	4.1%	-0.7%	5.0%	2.5%	-1.9%	1.9%	3.8%	5.0%	6.2%	2.4%	9.5%	5.5%	1.4%	4.8%	5.6%	-0.9%	0.5%	-4.9%	2.6%	0.0%	-7.1%	-0.9%	-0.2%
Wellington	Rural	2.5%	3.8%	-1.4%	5.7%	2.1%	-2.4%	1.5%	3.6%	3.5%	4.7%	0.7%	9.2%	4.1%	-0.2%	3.4%	4.5%	-1.4%	0.0%	-5.9%	3.3%	-0.5%	-8.3%	-1.4%	-0.5%
Christchurch	Urban	2.2%	3.4%	-1.4%	4.6%	1.9%	-2.5%	1.2%	3.1%	3.9%	5.0%	1.3%	8.4%	4.4%	0.6%	3.8%	4.6%	-1.4%	-0.1%	-5.5%	2.3%	-0.6%	-7.6%	-1.5%	-0.8%
Christchurch	Provincial	2.3%	3.5%	-1.3%	4.8%	1.9%	-2.3%	1.3%	3.2%	3.7%	4.8%	1.1%	8.4%	4.2%	0.4%	3.6%	4.4%	-1.4%	0.0%	-5.4%	2.5%	-0.5%	-7.4%	-1.4%	-0.6%
Christchurch	Rural	2.1%	3.5%	-1.7%	5.1%	1.9%	-2.6%	1.2%	3.2%	3.1%	4.5%	0.4%	8.3%	3.8%	-0.3%	3.1%	4.1%	-1.6%	0.0%	-5.9%	2.8%	-0.6%	-8.0%	-1.6%	-0.7%
Queenstown	Urban	2.2%	3.5%	-1.0%	4.5%	1.9%	-2.7%	1.3%	3.3%	5.0%	6.2%	3.0%	9.7%	5.4%	1.5%	4.9%	5.8%	-1.7%	-0.2%	-5.2%	2.0%	-0.8%	-8.6%	-1.6%	-0.9%
Queenstown	Provincial	1.7%	3.0%	-1.3%	5.1%	1.4%	-3.3%	0.8%	3.1%	3.3%	4.5%	1.7%	9.5%	3.9%	-0.1%	3.4%	4.6%	-2.4%	-0.9%	-5.7%	2.6%	-1.5%	-10.0%	-2.2%	-1.2%
Queenstown	Rural	2.3%	4.4%	-0.4%	5.7%	2.4%	-2.2%	1.9%	4.0%	3.3%	5.6%	1.8%	9.2%	4.5%	0.1%	4.0%	5.0%	-1.6%	0.8%	-4.4%	3.3%	-0.1%	-7.9%	-0.9%	0.0%

About Sapere

Sapere is one of the largest expert consulting firms in Australasia, and a leader in the provision of independent economic, forensic accounting and public policy services. We provide independent expert testimony, strategic advisory services, data analytics and other advice to Australasia's private sector corporate clients, major law firms, government agencies, and regulatory bodies.

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