Measuring quality in aged care: what is known now and what data are coming

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Measuring quality in aged care: what is known now and what data are coming

Key messages

Aged care is used by many Australians

Aged care – delivered in both residential and home settings – is used by many Australians. In 2021–22, 34% of the target population, received some type of aged care. By the time they die, around 4 in 5 people aged 65 or over would have used aged care (based on 2010–11 data).

The quality of aged care is important to track and monitor

The quality of aged care directly affects people's outcomes, including their quality of life; this makes it important to monitor the quality of care provided. As well, the Australian Government (which is responsible for regulating aged care services) needs evidence of their quality and of whether they are providing value for the public money spent on them.

There have been limited data on quality until recently, but the situation is improving

Until recently, there has been only limited data on the quality of aged care. In response to the Royal Commission into Aged Care Quality and Safety, which was completed in 2021, there is now a range of new data available. Governments and providers have begun to make concerted efforts to improve this situation, with initiatives recently taken to collect more data. Further data development is also underway.

Data on 5 domains of clinical quality indicators in residential aged care show stable rates or small declines

The indicators provide data over 6 quarters using standardised definitions. This article provides details on how to interpret the individual indicators.

Results between July 2021 and December 2022 show that:

- around 9–11% of care recipients had unplanned weight loss, with little change in this proportion over time
- around 6% of residents had one or more pressure injuries, with around 2 in 5 (41%) of these injuries being in the least severe stage (intact skin). Again, there was little change over time in this indicator
- a little over 30% of people had a fall, though these resulted in severe injuries in a much smaller number of cases (around 2% of care recipients). The rates have remained steady

- polypharmacy (being prescribed 9 or more medications) was relatively common, with around 35–40% of people living in residential aged care falling into this category. There has been a small but steady decline in this indicator since the July–September 2021 quarter
- physical restraints were used for a little over 20% of residents, with a small apparent decrease in this indicator over the period
- antipsychotics were provided to around 20% of residents, with around half of these residents having a diagnosis of psychosis. This indicator has shown small declines since the July–September 2021.

Compliance checks against Quality Standards identify and aim to rectify services that have significant quality issues

In the July–September 2022 quarter, 177 (6.6%) of the 2,676 residential aged care services in operation were found to be non-compliant with the sector's Quality Standards – similar to the number in the previous quarter.

In the same period, for home-care services, 64 (2.9%) of the 2,206 operational services were found to be non-compliant.

Aged care, which includes a range of programs in both residential and community settings, is used by many Australians. In 2021–22, around 1.5 million people received some form of aged care, representing 34% of the corresponding population (Department of Health and Aged Care 2022a). Nearly 246,000 people received permanent residential aged care, and over 1 million people received either home care or home support. Other ways to use aged care include residential respite care, flexible care programs and other aged care services; some people received care through more than one program.

The majority of older people – defined here as people aged 65 and over, and First Nations people aged 50 and over – will use some type of aged care at some stage before the end of life. Four in 5 (80%) people aged at least 65 who died in 2010–11 used aged care in the 8 years before their death (AIHW 2015). For more details on the people using aged care see 'Aged Care' at www.aihw.gov.au/reports/australias-welfare/aged-care.

Aged care has been co-funded by governments since the 1940s, evolving from being exclusively residential care to a mix of residential and community-based care. In 2021–22, the Australian Government alone spent $25 billion on aged care (Productivity Commission 2023), making up around one-quarter of its health and aged care portfolio expenditure that year (Department of Health and Aged Care 2022b).

It is important to track and monitor the quality of care provided. Crucially, the level of quality of that care can directly affect an individual's 'quality of life' – defined as 'an individual's perception of their position in life … in relation to their goals, expectations,

standards and concerns' (WHO 2023a). Monitoring the quality of care provided is also a key part of the government's regulatory role in delivering aged care, and in ensuring that its spending in this area represents value for public money.

Outcomes of aged care services, and various elements of the complex delivery model involving both government and non-government sectors, have been the subject of many reviews and inquiries over several decades (Duckett et al. 2020; Royal Commission 2019). Many of these reviews also supported mandatory quality reporting by service providers (Royal Commission 2019).

More recently, increasing public attention has focused on the quality and safety of aged care services provided – particularly on concerns around instances of substandard care. This culminated in the Royal Commission into Aged Care Quality and Safety (hereafter referred to as the Royal Commission), which was conducted between late 2018 and early 2021 (Royal Commission 2021a). As a result, the Australian Government is introducing a series of reforms for the aged care sector which aim, ultimately, to influence the quality of services delivered, both in residential and community settings.

The substantial challenges encountered during the COVID-19 pandemic – including the high numbers of COVID-19 infections and related mortality in residential care compared with that in the general community – have also increased public focus on residential aged care. Existing workforce challenges were exacerbated and became more visible during the pandemic, such as high levels of turnover and difficulties in attracting staff (see Chapter 9 'Welfare workforce: demand and supply').

Data and information are important not only to understand the quality of aged care services, but also to identify areas for improvement and monitor steps towards better quality. The Royal Commission highlighted that quality had not to date been adequately measured; it recommended that a comprehensive approach in this regard would include indicators to measure quality, benchmarking for continuous improvement and a Star Rating system for residential aged care services to compare providers (Royal Commission 2021b).

Quality of care data have several users and uses:

- Individuals and their families can use it to inform decisions they may need to make about which aged care service to use.
- The data also support aged care providers in improving the quality of their service.
- Regulators can use the data to monitor compliance with the Standards and identify and respond to potential risks.

The data enable policy makers and researchers to evaluate services and system outcomes to ultimately improve them.

There have been recent developments in national data about aged care quality, particularly in residential aged care facilities. For example, a program of quality indicator measurement has started, and Star Ratings for residential aged care services were first released in December 2022.

- The quality indicator measures relate to 5 clinical conditions in residents that reflect standards of care quality.
- The Star Ratings program provides an overall rating of all residential aged care services in Australia, and ratings across 4 component quality of care domains: compliance, residents' experience, staffing minutes and quality measures.

The initial data are summarised in this article (see the section headed 'Information available now' later in this article). Further developments are underway, with extra data starting to be collected in 2023.

This article covers what is meant by quality in aged care, how it is currently being measured, what the available data show about quality of care, what gaps remain, and what new initiatives are being implemented or planned in the aged care data system to strengthen monitoring of quality of care. The article's focus is on the monitoring of 'within' program quality. Other issues that affect quality of care, such as access to care, is out of scope of this article, but is being explored through further aged care research projects at the AIHW.

What is meant by quality of care?

Aged care covers various care functions

Quality in aged care is affected and influenced by various components of care. These include clinical care, support with personal care and general day-to-day activities (for example, bathing, eating, moving around) and social and emotional support – all delivered while aiming to maintain the dignity of the person receiving the care. Quality is relevant to all these aspects of care delivery. Quality care is about not only keeping people safe and preventing substandard care – but also creating physical and social environments that enable frail older people to have fulfilling lives, despite their illnesses and disabilities.

Defining quality of care

Quality in aged care covers several concepts and domains. At the broad level, quality of care can be defined as the degree to which care for individuals and populations increases the likelihood of desired outcomes (WHO 2023c) and minimises the likelihood of poor, undesirable and unsafe events. Domains of quality of care include that it needs to be:

- **effective:** providing care based on scientific knowledge to all who could benefit and not to those people unlikely to benefit; this avoids underuse and overuse
- **efficient:** avoiding waste, including waste of equipment, supplies, ideas and energy
- **accessible/timely:** reducing waits and sometimes harmful delays
- **acceptable/person-centred**: providing respectful care that is responsive to individual patient preferences, needs and values
- **equitable:** providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socioeconomic position
- **safe:** avoiding harm to care recipients (Caughey et al. 2022; NASEM 2022).

Quality of life is key

One important component of care quality is how it affects the quality of life of individuals – that is, an individual's wellbeing and/or overall health. Quality of life in itself is an important measurable outcome from aged care services. The Royal Commission, for example, noted that:

> High quality aged care delivers a high quality of life. It enables people to engage in meaningful activities that provide purpose, and provides the opportunity for people to remain connected to their community (Royal Commission 2021b).

There is an association between quality of life and quality of care; efforts to improve quality of care can be expected to improve quality of life. Good clinical outcomes (for example, relief of pain, or improved mobility) can result in improved quality of

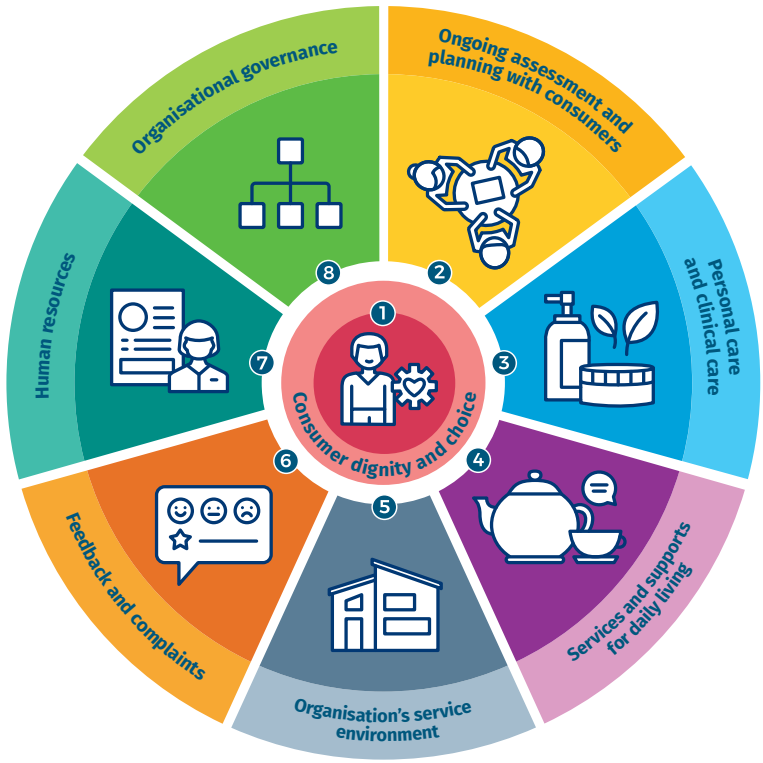
life. Perception of quality of life is dynamic within an individual and varies between individuals. The quality of life of people in residential aged care is typically affected by pre-existing ill health and loss of independence; therefore, efforts to improve it through high-quality care in the residential aged care setting are challenging, but very important.

Australian Aged Care Quality Standards

Australia has a set of Standards that define the type and quality of care that people receiving aged care (at home or in a residential setting) can expect from government-funded providers (Department of Health and Aged Care 2022d) (Figure 8.1). This care covers various functions (personal care, clinical care, services and supports for daily living), ongoing assessment and planning as well as various service-level areas (human resources, service environment, governance and feedback/complaint mechanisms). Most importantly, in the centre is the consumer, specifically highlighting the importance of dignity and choice with this foundation standard.

The Quality Standards document outlines the detail underpinning each of these Standards. For example, 'Standard 1: consumer dignity and choice' reflects 7 concepts: dignity, respect, identity, culture, diversity, cultural safety, and choice.

Figure 8.1: Consumer dignity and choice is at the centre of the Australian Aged Care Quality Standards



Source: Aged Care Quality and Safety Commission.

The aged care regulator, the Aged Care Quality and Safety Commission (hereafter referred to as the Commission), checks and publicly reports the compliance of service providers against these Standards (ACQSC 2022) (see the section headed 'Compliance with Quality Standards' later in this article). Information on compliance and quality in aged care services is publicly available on the 'My Aged Care' website through the 'Find a provider' tool.

Following recommendations from the Royal Commission, the Standards are (at the time of writing) being reviewed, with a focus on strengthening governance, diversity, dementia care, food and nutrition, and clinical care. A draft set of new guidelines is available (Department of Health and Aged Care 2022d).

How is quality of care measured?

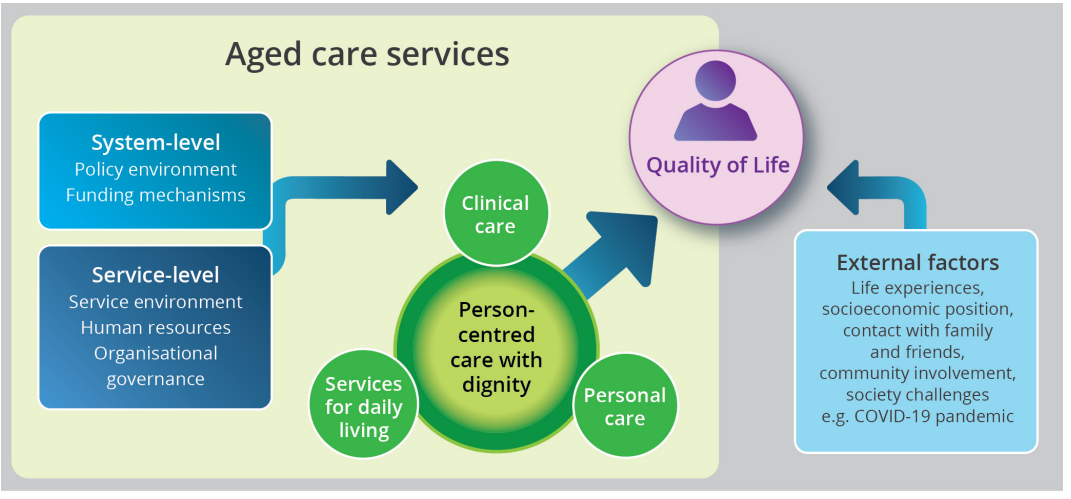
What needs to be measured?

Conceptual models

To help assess areas to measure, it is useful to depict the relationships between various functions of aged care at the different levels to be covered by data (individual, service and system levels). Figure 8.2 has the individual at the centre of the care continuum – as do the Australian Aged Care Quality Standards. The figure has various other components of the Standards placed at the individual level (covering aspects of direct care) and the service level (such as staffing, governance) of the aged care system. More broadly, system-level factors include policy and funding. These all contribute to an individual's quality of life. External factors also affect quality of life, such as contact with family and friends, socioeconomic position and society-wide challenges.

Figure 8.2: Individual-, service- and system-level quality considerations – and external factors – influence quality of life

Conceptual model for components of quality in aged care for measurement



Several conceptual models provide further context about measuring quality of care (NASEM et al. 2022). One used consistently, particularly in relation to measuring quality in aged care, is described by Donabedian (1966). This model provides a framework for evaluating quality of care through measures of:

- structure: for example, workforce, services, organisational culture, stated organisational policy and protocols
- process: for example, models of care, minimum care minutes, clinical care
- outcomes: for example, rates of falls, patient satisfaction, quality of life (Last 2001).

Ideally, a mix of these types of measures will provide a range of perspectives.

A focus on monitoring

Program monitoring is the 'systematic collection, management, analysis and use of … data to support strategic decisions for … program management' (WHO 2023b). It provides transparent information to many stakeholders: care recipients, their families, advocates, service providers and many parts of government. It is essential information for assessing the extent of substandard care and for highlighting areas for policy and regulation focus.

Government organisations have a central role in monitoring aged care services in Australia. The AIHW provides routine reporting on aged care service use and the people who use that care on the GEN Aged Care Data website, as well as quarterly and annual reporting on the National Mandatory Aged Care Quality Indicator Program. The Department of Health and Aged Care has a key role in policy and program management and therefore in monitoring quality in aged care through its reporting activities. These activities include, for example, financial reporting, consumer experience surveys and the care minutes component of Star Ratings. The Commission plays a critical role in regulation and thus in monitoring and responding to quality of care compliance and serious incidents in the sector.

Information available now

To provide the required information across various quality domains (effective, efficient, timely, person-centred, equitable and safe care), across the different levels of the aged care system (system-, service- and individual-level) and from different measurement perspectives (structure, process, outcomes), a range of data is required.

The key sources of data currently able to be reported at the national level, most of which have only become available in recent years, are:

- residential aged care quality indicators (weight loss, falls, pressure injuries, physical and chemical restraint, multiple medication use)
- consumer experience surveys
- workforce data (aggregated data on workforce numbers and roles)

- compliance (against the Quality Standards), serious incidents, and complaints data.

Several new sources of data – either soon to start being collected or which have recently started being collected – are not yet available for detailed national reporting:

- new residential aged care quality indicators (activities of daily living, incontinence care, hospitalisation, workforce turnover, consumer experience, quality of life; see Box 8.4)
- improved consumer experience surveys
- components of the new Star Rating program, such as care minutes received (Box 8.1)
- financial data (Box 8.1).

Box 8.1: Recently released data: service-level Star Ratings, care minutes and financial data

During the drafting of this article, some new data were released related to quality of care, though not in sufficient detail for national reporting. A brief summary is provided here.

Star Ratings

The Star Ratings program rates residential aged care services across Australia. Its objective is to support Australians using these services (and their representatives) so that they can easily compare them and make informed choices based on an overall Star Rating and 4 sub-categories. It provides a rating from 1–5 stars for 4 components of quality for individual residential care services: compliance, residents' experience, time each resident receives care ('care minutes') and quality measures. An overall star rating is also provided that incorporates information from these components (with a weighting of 30%, 33%, 22% and 15%, respectively). The ratings are updated as new information becomes available.

The program, which started in December 2022 in response to a recommendation from the Royal Commission, initially reported that 90% of services had received 3 stars or above:

- 1% of services received 1 star
- 9% received 2 stars
- 59% received 3 stars
- 30% received 4 stars
- 1% received 5 stars (Kelly and Egan 2022).

These Star Ratings are viewable in the 'Find a provider' part of the My Aged Care website (My Aged Care 2023b). Note that data are presented below for some of these components.

(continued)

Box 8.1 (continued): Recently released data: service-level Star Ratings, care minutes and financial data

Care minutes

Some initial information on care minutes across the sector became available in 2023. This showed that the average care minutes per resident per day between July and September 2022 was 187 minutes (Department of Health and Aged Care 2023e). Local/state/territory government providers had the highest average care minutes (229 minutes), followed by not-for-profit (189 minutes) and for-profit providers (179 minutes). Average care minutes per day from registered nurses was 34 minutes. Mandatory care minutes are planned to start in October 2023, when residents will be expected to receive a total of 200 minutes per day, of which 40 minutes will be from registered nurses. These mandatory minutes will increase to 215 and 44, respectively, in October 2024.

Financial data

A snapshot of financial data in the aged care sector for the July–September 2022 quarter was released in early 2023 (Department of Health and Aged Care 2023e). It showed that 1 in 3 (34%) residential care providers and around 4 in 5 (78%) in-home aged care providers were profitable. It also showed that median spending on food and ingredients in residential aged care was $12.40 per resident per day. This was fairly consistent across most provider types, apart from the local/state/territory government providers, where the median cost per person was higher at $16.60.

Assessing data availability

Domains of quality

Some of the domains of quality are covered relatively well by available monitoring data:

- Safe care can be assessed in part through the quality indicators (for example, falls, pressure injuries), compliance data and serious incident reporting.
- Person-centred care can be assessed through the consumer experience surveys, the forthcoming quality of life data, and via the compliance data.
- Effective care is covered to some degree via the restraint and polypharmacy data, as well as via some of the other clinical data – for example, unplanned weight loss, pressure injuries, collected through quality indicators.
- Equitable care could be examined via further analysis of data across population groups – for example, geographical, and potentially other groups if data were to become available at those levels.

- Timely care are not currently part of the group of data outlined here. Data on waiting times would be the basis of this and there is current discussion across relevant government agencies about how information in this area might be improved. Currently, data on the number of people waiting on a Home Care Package at their approved level is reported by state and territory of residence and level of approval in quarterly Home Care Package Program data (Department of Health and Aged Care 2022c).
- Efficient care is not part of an explicit monitoring exercise so is not covered by the data described here. However, analysis of some of the data described here could potentially inform such an assessment; for example, using financial or workforce data.

Levels of the aged care system

Two of the 3 levels of the aged care system are covered relatively well by the data, though gaps in these do still remain.

- Relating to the service-level of the system, information is available for compliance and Star Ratings.
- Relating to the individual-level of the system, information is available for quality of life, consumer experience, falls, unplanned weight loss, and care minutes (though these are currently only for the residential care sector).

There are less routine data available about quality at the system level. The exception is financial data, which are routinely reported (Department of Health and Aged Care 2023e; Productivity Commission 2022). Assessment at the system level more broadly is more likely to occur at irregular intervals, often by researchers or as part of inquiries. The recent Royal Commission is an example: it undertook a detailed assessment of these aspects. A coherent performance framework for the aged care system would be a valuable addition to guiding quality of care.

Note that the level at which data are collected or reported is a different concept to the level of the aged care system described above. Aged care data may be collected at the system-, service- or individual-level. For example, information about falls in residential aged care are collected for each service to describe the experience of individual aged care users and input into the Star Ratings for residential aged care facilities.

Structure, process, outcomes

Data are available across all 3 components of the Donabedian model – structure, process and outcomes – described above (see the section headed ‘Conceptual models’ earlier in this article).

What is known now

The Royal Commission identified many examples of substandard care, which could have resulted in considerable harm to the individual (Royal Commission 2021b). These included instances in complex and routine care, as well as cases of deliberate abuse.

Substandard care was particularly found for complex care – such as from medical conditions that can change rapidly. The Royal Commission identified dementia, mental health and end-of-life care as areas of particular concern. Many instances of substandard care were also identified in relation to food and nutrition, oral care, mobility, skin care, incontinence care, medication management, infection control and meeting social and emotional needs.

Instances of abuse were especially confronting, including restrictive practices without a clear justification and/or clinical indication – either via medication or physical restraint. Abuse, which includes physical and sexual assault by staff and other residents, was found to be not uncommon (Royal Commission 2021b). There was also concern that the system struggled to meet the needs of certain groups such as LGBTQI+ groups and First Nations people. The Royal Commission made many recommendations to deal with these serious concerns. These have now been considered by the Australian Government and several subsequent reforms are underway.

This section presents a summary of currently available data for national reporting on the quality of care in the aged care sector.

Residential aged care quality indicators

Currently, the area of aged care with the most comprehensive data on quality is residential care. Boxes 8.2 and 8.3 provide some contextual information on these residents and services.

Box 8.2: Profile of people in residential aged care

As at 30 June 2022,180,750 people were using permanent residential aged care. Of these:

- 2 in 3 (66%) were women
- the median age for women was 87, and 84 for men
- 1.1% were First Nations people, and their median age was 75
- 1 in 5 (20%) were born in a non-English-speaking country
- 9.0% preferred to speak a language other than English
- 53% had dementia
- most had a high care needs rating in at least one care domain, based on their latest Aged Care Funding Instrument (ACFI) assessment (68% of people for activities of daily living, 68% of people for cognition and behaviour, and 58% of people for complex health care).

For more details on the people using aged care, see 'Aged Care' at www.aihw.gov.au/reports/australias-welfare/aged-care.

Box 8.3: Residential aged care services in Australia

As at 30 June 2022, 811 providers were delivering residential aged care through 2,671 services. There were 219,965 residential aged care places – for both permanent and respite admissions.

Most residential aged care services were operated by not-for-profit organisations (57%), followed by private organisations (35%) and government organisations (8%).

More than 3 in 5 (62%) of residential aged care services were located in metropolitan areas, compared with 21% in rural, remote and very remote areas. However, the number of residential aged care services per capita was highest in small rural towns – 1.2 residential aged care services per 1,000 people in the target population aged 70 and over.

For more information, see the 'Providers, services and places in aged care' topic on GEN Aged Care Data at https://www.gen-agedcaredata.gov.au/Topics/Providers,-services-and-places-in-aged-care.

Overview of indicators

All residential services funded by the Australian Government provide it with important information on a quarterly basis about a set of 5 quality indicator domains (Box 8.4). These indicators are largely clinical in nature, although many have broader implications. For example, unplanned weight loss measures a clinical outcome, but also may reflect the quality and appropriateness of the food or the dining environment.

The 5 domains of indicators have been collected since July 2021 using the current definitions. Similar data were also collected for 3 of these indicator domains for the preceding 2-year period starting July 2019; these earlier data are not directly comparable with the current data.

The Quality Indicator Program expanded with further data in April 2023, when an additional 6 domains were added to the program, including Quality of Life and Consumer Experience measures (Box 8.4). Data are not yet available for reporting on these indicators.

Box 8.4: Current and new residential aged care quality indicators

Data are currently available for 5 domains of indicators from the mandatory Quality Indicator Program for residential aged care services subsidised by the Australian Government. The indicators are collected quarterly and reported on the GEN Aged Care Data website at https://www.gen-agedcaredata.gov.au/Topics/Providers,-services-and-places-in-aged-care; this website also contains further details, including how each indicator is measured.

The domains of these indicators are (Department of Health and Aged Care 2023c):

- **pressure injuries** – percentage of care recipients with pressure injuries, reported against 6 severity levels. A pressure injury is a localised injury to the skin and/or underlying tissue due to pressure, shear or a combination of these factors
- **unplanned weight loss** – percentage of care recipients with unplanned weight loss. There are 2 categories: significant unplanned weight loss (5% or more compared with the previous quarter) and consecutive unplanned weight loss (unplanned weight loss every month over 3 consecutive months of the quarter)
- **falls and major injury** – percentage of care recipients experiencing a fall, and the percentage with major injury from a fall. Major injury includes bone fractures, joint dislocations, closed head injuries with altered consciousness and/or subdural haematoma

Box 8.4 (continued): Current and new residential aged care quality indicators

- **use of physical restraint** – percentage of care recipients who were physically restrained reported as 2 categories: use of physical restraint, and use of physical restraint exclusively through use of a secure area (environmental restraint). Use of physical restraint is defined as any practice that restricts the freedom of movement of a care recipient, including physical restraint, mechanical restraint, environmental restraint, and seclusion, but excluding chemical restraint. Environmental restraint is reported separately as the percentage of residents restrained solely on the basis of living in a locked building
- **medication management** – proportion of care recipients falling into 2 categories: polypharmacy (9 or more prescribed medications) and use of antipsychotics. Data on antipsychotic use without a diagnosis of psychosis are also collected. Other medications that may be used as chemical restraint are not included.

On 1 April 2023, data collection started for several new indicators. These are:

- **quality of life** – percentage of care recipients who report 'good' or 'excellent' quality of life. Data are collected using the Quality of life – Aged Care Consumers survey instrument, either through self-completion, interviewer-facilitated completion or proxy-completion
- **consumer experience** – percentage of care recipients who report 'good' or 'excellent' experience of the service. Information is collected from care recipients using the Quality of Care Experience – Aged Care Consumers survey instrument, either through self-completed, proxy-completed or interviewer-facilitated means
- **decline in activities of daily living (ADL)** – percentage of care recipients who experienced a decline in activities of daily living. ADLs are self-care activities – such as managing personal hygiene, dressing, toileting and eating – that are important to maintain independence, health status and quality of life.
- **incontinence care** – percentage of care recipients who experienced incontinence associated dermatitis. Incontinence is any accidental or involuntary loss of urine from the bladder or faeces from the bowel. Incontinence associated dermatitis is a type of irritant contact dermatitis arising primarily from inadequate continence management
- **emergency department hospital visit** – percentage of care recipients who had one or more emergency department presentation(s). Data are also collected on residents assessed for hospitalisation. Many emergency department presentations are avoidable if care recipients have timely access to appropriate care. Excessive transfers to hospital may indicate poor care quality and access
- **workforce turnover** – percentage of staff turnover. This indicator measures the proportion of staff – including care management staff, nurses and personal care workers – who stopped working during the quarter.

General considerations for interpreting the information from these quality indicators are outlined in Box 8.5. Specific considerations for each indicator are noted in the text accompanying figures 8.4 and 8.5.

Box 8.5: General considerations in interpreting the quality indicators

What does an indicator measure mean?

The quality indicators measure the prevalence (frequency) or incidence (new cases) of the measure in the population during the preceding 90 days. For most of the indicators currently being reported, lower values indicate better care. For the new quality of life and consumer experience indicators, higher values will represent better care.

The indicators were selected because they are more likely to affect older Australians even when not receiving aged care (as part of the normal ageing process) and therefore there is no expectation that the measures will be zero. A balance will often need to be found to enable as much autonomy and freedom as possible, while also preventing harm. For example, the potential physical injury from falls needs to be balanced with ensuring the individual is provided with as much dignity and freedom of movement as possible. Another example is with polypharmacy (optimal treatment of diseases versus risks of interactions and dispensing errors).

In making comparisons and identifying trends, quality indicators need to be monitored across successive periods of time (for example, at least a year) rather than only examining quarter-to-quarter changes – this avoids over-interpretation of random rises and falls in individual quality indicators.

Effect of complexity of care needs

The current indicators provide a point estimate of the number of events in a service, without accounting for the different profile of the individuals in these services. This is important for the services to understand their performance and to be able to implement any improvements.

However, different resident profiles (known as the 'casemix') can make it difficult to compare services, or make comparisons over time. Increasing frailty and the presence of various diseases or multiple diseases can increase the likelihood of an individual being counted for a particular indicator. This means that services with different casemix profiles may have different indicator measures. For example, lower mobility may increase the risk of pressure injuries, but may lower the number of falls. This highlights the importance of risk-adjustment in service-level reporting (discussed further in the section headed 'Looking ahead' later in this article).

Box 8.5 (continued): General considerations in interpreting the quality indicators

Data are reported at the service level

The residential aged care service indicators are designed for and reported at the service level. While this provides very useful data for providers, regulators and consumers, it also presents certain challenges. For example, it is not possible to look at changes over time for the same individual or to adjust results to reflect the individual's level of care needs. Data developments currently underway aim to meet this challenge (see the section headed 'Looking ahead' later in this article).

Comparisons – over time, across regions, between providers

As well as differences across services due to variations in casemix (as discussed above), other differences may need to be considered when interpreting comparisons across time, regions or providers. Different numbers of people living in residential care who come from vulnerable populations or diverse cultures, or who have special needs, may also affect the indicator measures. As well, during the COVID-19 period, many more challenges in the aged care sector affected patient care, potentially introducing an external influence that could modify any underlying trends over time.

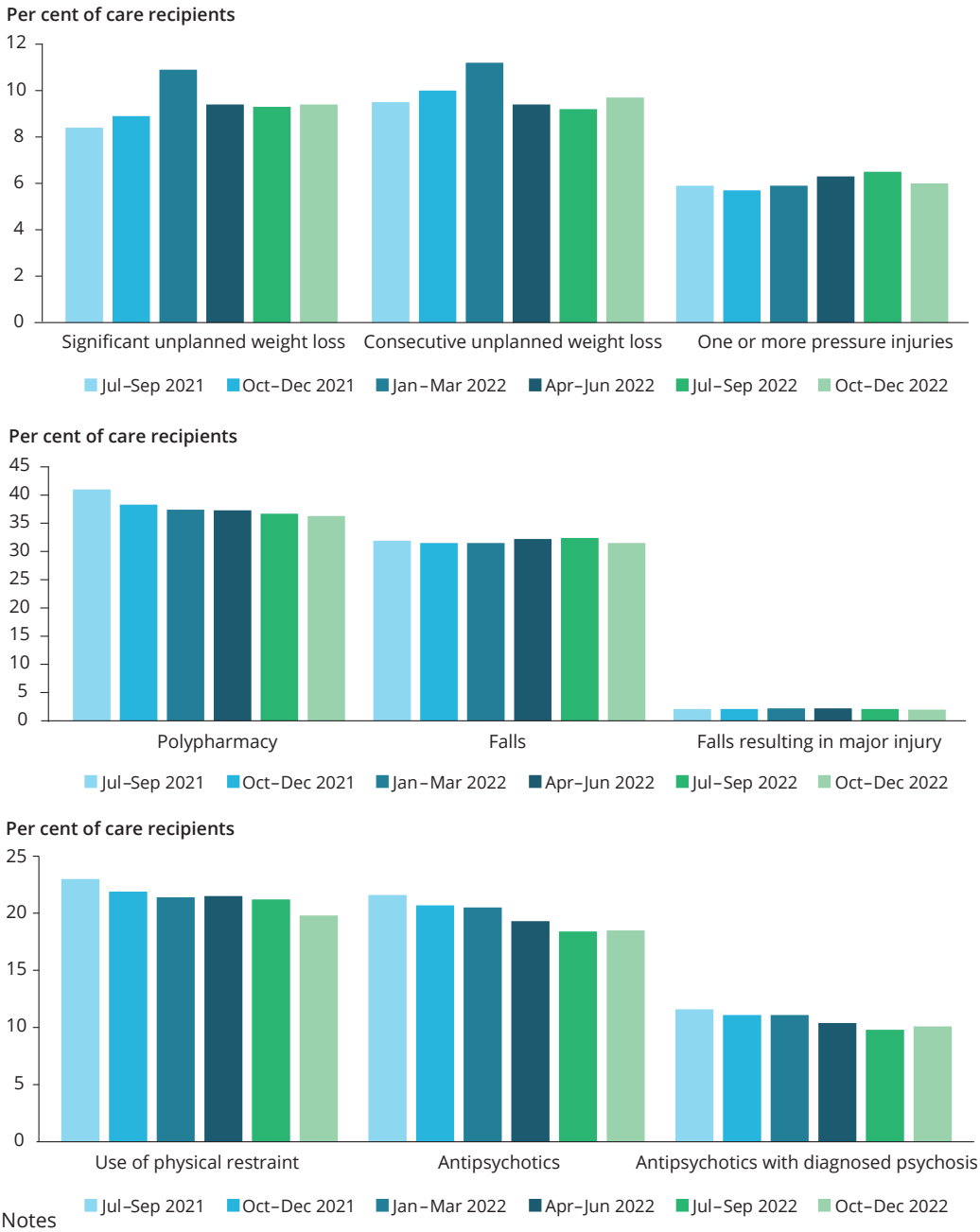
Variation over time

Over the 6 quarters with data available, for most indicators there has been little variation over time at the national level (Figure 8.3). Many of the general considerations described in Box 8.5 may apply to these results. Other observations are described below:

- Around 9–11% of care recipients in a particular quarter between July 2021 and December 2022 had unplanned weight loss against both indicators, with little change over the 6 quarters. Earlier data using a different definition for unplanned weight loss also showed a relatively flat time trend (AIHW 2021a; AIHW 2021b). With the weight loss indicators, it is not possible to determine if weight loss is due to illness or to dietary intake problems.
- Over the July 2021 to December 2022 period, around 6% of residents had one or more pressure injuries, with little change over time. The largest numbers in the October–December 2022 quarter were stage 1 injuries (intact skin, in 41% of residents with pressure injuries) and stage 2 injuries (partial thickness skin loss, in 47% of residents). Note that an individual can have more than one pressure injury, and these can be in different severity categories.
- Polypharmacy was relatively common, with around 35–40% of people living in residential aged care being prescribed 9 or more medications. There has been a small but steady decline in this indicator since the July–September 2021 quarter.
- Falls were also relatively common – occurring in a little over 30% of people, though these resulted in severe injuries in a much smaller number of cases (around 2% of care recipients). There was no change over time.
- Physical restraints were used for around 20% of residents. The data show a small decrease in use of these since the July–September 2021 quarter. Three days of records within the quarter are examined to construct this indicator. The 3 days are chosen by providers but must vary each quarter and not be known to direct care staff.
- Antipsychotics were provided to approximately 20% of residents, with around half of these residents recorded as having a diagnosis of psychosis. This indicator has shown small declines since the July–September 2021 quarter.

Figure 8.3: The indicators showed relatively stable or small changes over time

Residential aged care quality indicators, July 2021–December 2022



Notes

1. See boxes 8.4 and 8.5 for more details.
2. Quasi-Poisson regression was used to model the observed unadjusted indicators over time. The largest changes were found for antipsychotic use (declined by 3.3% on average per quarter), use of physical restraint (declined by 2.3% on average per quarter) and polypharmacy (declined by 2.1% on average per quarter). The corresponding incident rate ratios were 0.967 (95% CI 0.961–0.973), 0.977 (95% CI 0.968–0.986) and 0.979 (95% CI 0.975–0.983).

Source: Department of Health and Aged Care, data extracted 13 February 2023, published on GEN-agedcaredata.gov.au.

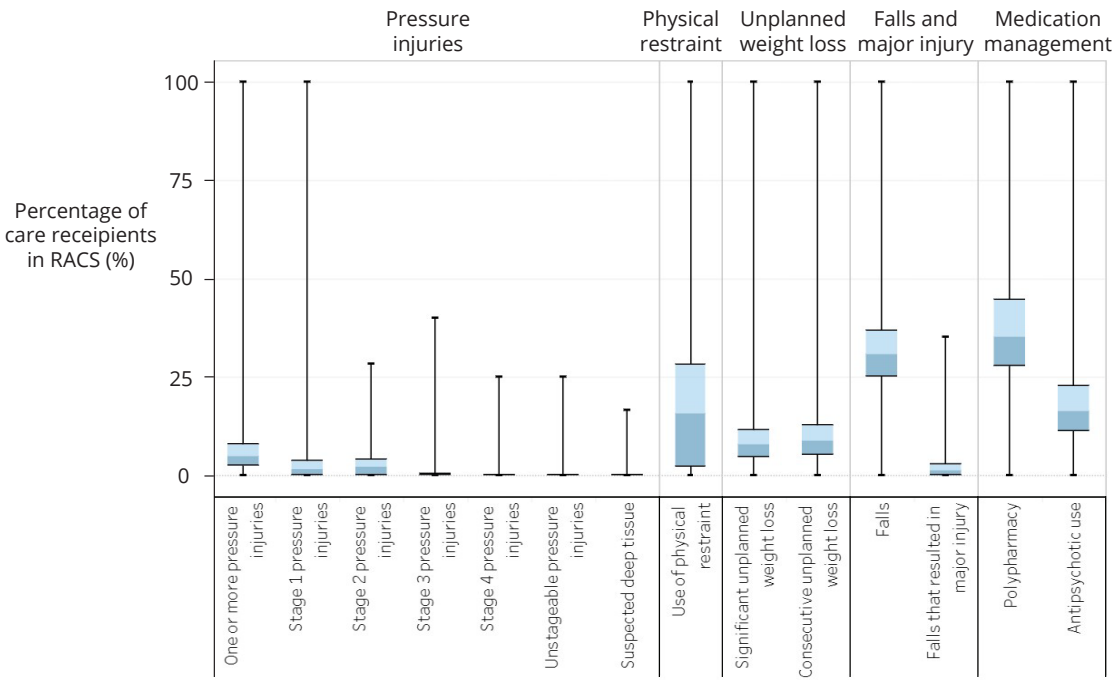
Variation across services

The aggregate percentages shown in Figure 8.3 mask considerable variation across providers. Figure 8.4 provides a summary of this spread for a selection of indicators. The values shown in the box plots are the minimum value (bottom of the vertical line), 25th percentile (lowest point of the box), the 50th percentile (or median; the middle of the box), 75th percentile (highest point of the box) and the maximum value (top of the vertical line). Thus, the middle 50% of values fall into the box for each indicator, with those services with values in the second lowest quarter of values corresponding to the light blue area, and those in the second highest quarter corresponding to the darker blue area.

In most cases, as is shown here, there is a large range in the values across services. However, in general, the middle 50% of services have a much smaller range (for example, for one or more pressure injuries, this is between 2.8% and 8.5%). Some indicators range between 0% and 100%. Note that the number of services reporting 100% prevalence rates was small (0.0% to 1.9% of services for different indicators). While these outliers in the data could be errors in reporting, they have not been removed as some of them may be valid.

Figure 8.4: Substantial variation exists across services

Distribution of residential aged care quality indicators, October to December 2022



Source: Department of Health and Aged Care, data extracted 13 February 2023, published on GEN-agedcaredata.gov.au.

Variation across geographic areas

As well as data over time and across services, geographical differences are also reported for the indicators above (AIHW 2022). There was some variation across states and territories, though the jurisdictions with the highest and lowest values varied by indicator. The data show a similar picture across remoteness regions, with no clear pattern emerging. For more information, see https://www.gen-agedcaredata.gov.au/Topics/Quality-in-aged-care#Residential%20Aged%20Care%20Quality%20Indicators.

Consumer experience surveys

Consumer experience interviews (CEIs) can provide important information on how care is viewed by the recipient. A new CEI survey program began in 2022 (now known as the Resident's Experience Survey); around 20% of residential care recipients were interviewed, ensuring that culturally diverse and special needs groups were included (Department of Health and Aged Care 2023f). Residents are interviewed by a third-party consortium. The interview comprises 14 questions – 12 scaled questions that are quick to answer and 2 free text ones that aim to empower residents to elaborate on their experience. These data are a component of the Star Ratings but are not currently available at the national level.

Some results are available from previous surveys conducted in 2017–18, 2018–19 and in the second half of 2019 (available at https://www.gen-agedcaredata.gov.au/Topics/Quality-in-aged-care/Explore-consumer-experience-in-aged-care). Between 80–98% of people surveyed in these time periods responded positively to the different questions. Responding positively meant answering 'always' or 'most of the time' for some questions; and 'strongly agree' or 'agree' for others. The highest proportion of positive responses were for questions around safety, respect and health-care needs being met (around 98% positive for each of these). People responded less positively to questions about liking the food (85% liked it) and having staff available to talk to if they are feeling sad or worried (80%).

Note, though, that results from these surveys should be interpreted with caution due to factors such as small sample sizes, and subsequent lack of generalisability of results to the whole residential aged care population (AIHW 2020). These surveys were administered by auditors alongside their assessment of the service's accreditation standards. The aim was to interview around 10% of residents; however, there is no information on how representative the sampled group was, or on characteristics of non-responders, so as to assess for potential sampling problems. Also, the various surveys cannot be compared across time due to differences in methods.

Workforce

The size, mix and qualifications of the workforce are important enablers for quality aged care. The final report of the Royal Commission highlighted that there were limited data available on the aged care workforce (Royal Commission 2021a). Some recent information has been released on care minutes in residential aged care, with initial results summarised in Box 8.1. Also, as noted in Box 8.4, new workforce data are becoming available on staff turnover as part of the new quality indicators.

A recent report on aged care employment by the Australian Productivity Commission estimated the total aged care workforce at 434,000 (102,000 management, ancillary and other workers; and 332,000 personal care workers, nurses and allied health professionals). Details can be found at www.pc.gov.au/inquiries/completed/aged-care-employment/report. The report used the 2020 aged care workforce census commissioned by the (then) Department of Health and other data sources to produce the estimates.

This 2020 census found itself that nearly 278,000 workers were in residential aged care, of whom 75% were in direct care roles (see the *2020 Aged Care Workforce Census Report* [PDF 5.1 MB] at https://gen-agedcaredata.gov.au/Resources/Reports-and-publications/2021/October/2020-Aged-Care-Workforce-Census-Report).

In home-based care, just over 80,000 workers were providing care as part of the Home Care Packages program (80% of these people were providing direct care) and a little over 76,000 for the Commonwealth Home Support Program (78% providing direct care). Note that workers may have been counted more than once if they worked for more than one care provider.

The census was conducted during the COVID-19 pandemic. The staffing situation may therefore have been atypical (for example, with a then 'surge workforce' to deal with the major challenges faced in responding, and managing, during the pandemic circumstances). The census timing, together with methodological changes compared with previous censuses, make it difficult to compare workforce estimates over time.

The Department of Health and Aged Care plans to collect workforce data more regularly in the future and improve the consistency of methods. Over time, this will support an improved understanding of staffing in areas that are important for the quality of aged care.

Compliance, serious incidents and complaints

The Commission manages the accreditation of residential aged care services across Australia, and the quality review of home services. This includes assessing their performance against the Quality Standards through comprehensive audits and assessment contacts. Services found to have sufficient quality against the Standards

achieve or retain accreditation; this enables them to receive government subsidies for the services they provide. Further details are outlined below for both residential and home-based care services.

Note a process is followed for services found to be non-compliant that aims to rectify any identified problems (ACQSC 2022). The Commission also has processes for receiving complaints about substandard care and for serious incident reporting, as outlined below (ACQSC 2022).

Compliance with Quality Standards

In the period July–September 2022, 177 (6.6%) of the 2,676 residential services in operation were found to be non-compliant against the Quality Standards – similar to the number in the previous quarter (ACQSC 2022:26). Most non-compliance fell into the 'very few requirements not met' category, though there were a number where 'many/all requirements' were not met. The 'personal and clinical care' standard had the highest number of services found to be non-compliant. The most frequent specific area of non-compliance was 'safe and effective personal and clinical care'.

In the same period for home-care services, 64 (2.9%) of the 2,206 operational services were found to be non-compliant. The 2 areas with the highest number of services found to be non-compliant were 'organisational governance' and 'ongoing assessment and planning with consumers' (ACQSC 2022:47).

As part of the Star Ratings program first published in December 2022, information on accreditation status for individual residential services were included (Department of Health and Aged Care 2022e; My Aged Care 2023a). Previously, 'dot ratings' were available from 2020. Ratings are assigned from 1 star ('The aged care home has current compliance issues, and the Commission has put conditions on the home until the issues are fixed.') to 5 stars ('The Commission visited the aged care home and gave an accreditation period of 3 or more years. The service has had no compliance issues for the last 3 years.').

Serious incident reporting and complaints

Residential services are required to notify the Commission of 8 types of reportable incidents:

1. unreasonable use of force
2. unlawful/inappropriate sexual contact
3. neglect
4. psychological or emotional abuse
5. unexpected death
6. financial abuse
7. inappropriate restrictive practices
8. unexplained absence from care (ACQSC 2023).

In the quarter to September 2022, there were 11,677 reportable notifications (ACQSC 2022:18-19). The most common incident was unreasonable use of force (61%), followed by neglect (16%). As a rate, there were 6.2 incident notifications per 10,000 occupied bed days for the year ending September 2022. Serious incident reporting was extended to in-home aged care services in late 2022, but no data are publicly available at this stage.

The formal complaints process to the Commission covers both residential and community-based care services (ACQSC 2022). In the quarter to September 2022, there were 1,197 complaints about residential aged care in 780 residential services (ACQSC 2022:12-13). This is equal to 0.64 complaints per 100 residents. In home services, there were 832 total complaints in the same period (ACQSC 2022:40).

Using linked data to examine quality

Combining data from different data sources through data linkage has many benefits. It enables chronological sequences of events to be constructed for individual service users, while protecting privacy. In relation to aged care quality, it can establish an individual's pathway through the system, incorporate information on their health and social needs, and make comparisons with the general population.

AIHW analysis

The AIHW analysed the interface between the aged care and health systems (using linked data) as an input to the Royal Commission (AIHW 2019). This analysis combined aged care data with Medicare data, Pharmaceutical Benefits Scheme data, deaths data and hospital data for Victoria and Queensland.

It found that people in permanent residential aged care were:

- more likely than people receiving in-home aged care to have had an antipsychotic prescription
- less likely to have had an emergency department presentation
- more likely to have had a hospital admission for a fall.

This would partly reflect that people in residential care are likely to be frailer, and more likely to have dementia and other conditions that could affect these findings.

Registry of Senior Australians

The Registry of Senior Australians (ROSA) is another example of the use of linked data. It monitors several indicators in residential aged care (Inacio et al. 2020), home care and home support for people receiving home care packages (Caughey et al. 2022) – some at the national level and some for South Australia. Hospital data are now also included for New South Wales, Victoria and Queensland. Many of the indicators overlap in content with the national indicator program for residential care presented in Figure 8.3. Note that the ROSA indicators are presented in both crude and risk-adjusted formats.

An area included in the ROSA data that has not been included in the current mandatory Quality Indicator Program uses hospital and deaths data to track unfavourable outcomes – notably unplanned hospitalisations and premature mortality. However, a hospitalisation indicator is included in the new indicators with data collected from April 2023. Presented below are 2 indicators with their definitions (Inacio et al. 2020: Appendix 2):

- **premature mortality for long-term residents:** proportion of long-term residents whose main cause of death is 'external causes' (for example, falls, medication errors, other accidents) and considered potentially avoidable
- **emergency department presentations for long-term residents:** proportion of long-term residents who had an emergency department visit within 30 days of re-entry to aged care from hospital.

The results for these 2 indicators (Figure 8.5) are shown for individual services (the dots). The dashed line in each graph shows the average obtained from a statistical model that summarises the indicator by service size, with risk-adjustment to account for differences across services.

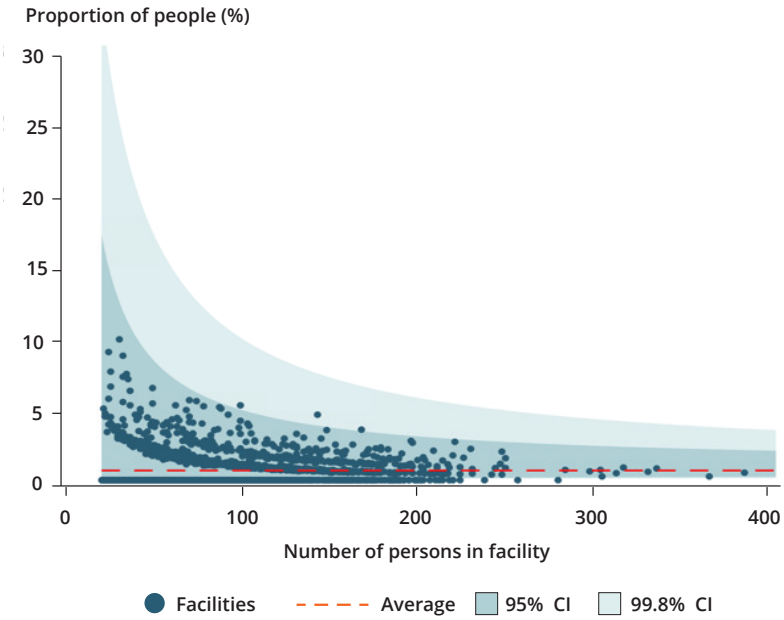
The graphs show the 'expected' variation in performance using upper and lower confidence intervals around the average value for each indicator. A confidence interval (CI) is the range of values in which the true estimate may lie; in these plots, the 95% and 99.8% CIs are shown. A service that may have an estimate below or above these intervals was considered an outlier.

For the national indicator of premature mortality (Figure 8.5A), there were three facilities (out of 2,746) above the 95% CI, with none above the 99.8% CI. There were no facilities below the 95% or 99.8% CIs – however, for this indicator, the lower CIs are at zero so it is not possible to be below the CI (Inacio et al. 2023).

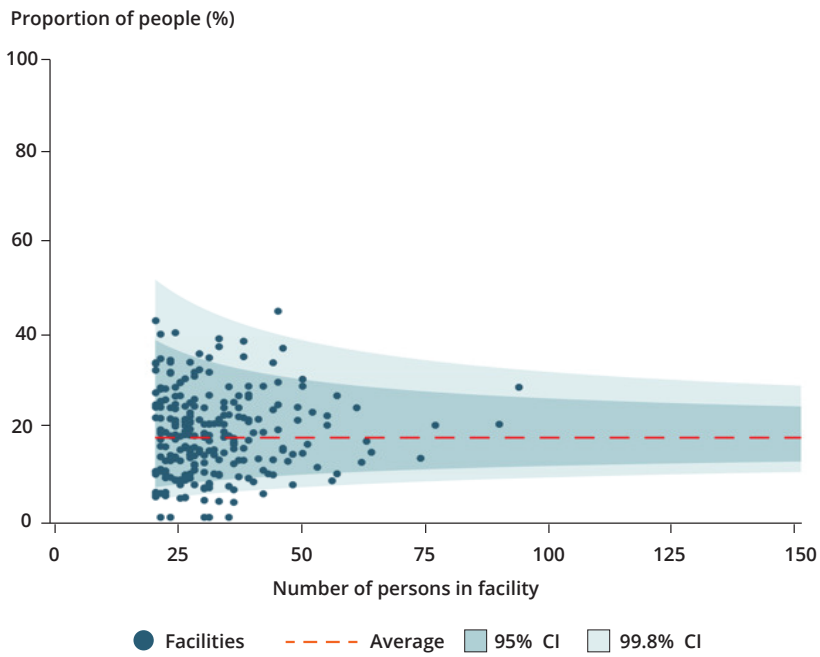
For emergency department presentation after hospitalisation in Victoria (Figure 8.5B), 14 facilities (out of 757) were above the 95% CI, with one facility above the 99.8% CI. There were no facilities below the 95% or 99.8% CIs.

Figure 8.5: A very small number of facilities had risk-adjusted death or hospitalisation rates outside the expected range

(A) Adjusted premature mortality in residents of residential aged care in 2,746 services in Australia, 2019



(B) Adjusted emergency department presentations after hospitalisation in 757 Victorian services, 2019



Note: For the emergency department presentations indicator, risk-adjustment was made for age, sex, number of emergency inpatient hospitalisations the year before, number of comorbidities, and hospital length of stay. For the premature mortality indicator, adjustment was made for age, sex, and number of comorbidities.

Source: Inacio et al. 2023, Appendix 1.

Looking ahead

The Royal Commission made many recommendations on how the quality of aged care could be improved, and data development was highlighted as an important component. Data availability has improved, and further data are becoming available. Notably, 6 new indicators as part of the Quality Indicator Program in residential aged care services started collection on 1 April 2023, with the first data expected to be published around July–August 2023 (as discussed in Box 8.4).

Developments and gaps in the aged care data system

Gaps remain in the data on quality in aged care, and collection challenges are also evident. Notably, only very limited data are currently available on the quality of in-home aged care. In this article, the only areas with data from home-based care were for compliance and workforce. However, the Australian Government is working on an improved in-home aged care program and associated reporting, expansion of the Quality Indicator Program into home-based care, and new quality of life measures that will help to fill some of the data gaps (Department of Health and Aged Care 2023a). Enhancements to the Star Rating and Quality Indicator programs announced in the May 2023 Federal Budget (Department of Health and Aged Care 2023d) are expected to provide additional data for monitoring quality in aged care. Gaps also remain for other important areas – for example, interactions with the health system and premature deaths.

Important developments are underway to improve the aged care data system as part of broader aged care reforms (Department of Health and Aged Care 2023b). A National Aged Care Data Strategy is expected to be finalised by the end of 2023. It will be underpinned by an implementation plan that aims to realise the vision of a data system that effectively collects, secures, uses and shares information to support the provision of high-quality care that maximises health and wellbeing. Consultation with stakeholders to date has highlighted the importance of prioritising data governance, workforce data literacy and capability, and data standardisation and harmonisation, as well as dealing with data gaps (on clinical and care needs, safety and quality of care, workforce, and the diversity of people using aged care).

Two key data improvement activities being led by the AIHW (funded by the Department of Health and Aged Care) will tackle these priorities, including filling critical data gaps:

- The Aged Care National Minimum Data Set (NMDS) will standardise the collection and reporting of a core set of aged care data (see Glossary). The data standards for the first version of the NMDS were endorsed in June 2023 and are being implemented over a 12-month timeline. The NMDS first version focused on standardising existing data that are mostly at the person level; subsequent versions will look to expand the data items in scope. Where possible, the focus of the NMDS data standards is on person-level data, recognising that this substantially improves the value of resulting analysis.

- The Aged Care Data Asset will integrate person-level data collected across different settings to better understand the interfaces between aged care, health and welfare. The data asset will enable exploration of how people access aged care programs – including their interactions with other related systems – and of what this reveals about the needs and outcomes of Australians using aged care. It will be built in stages, with the first stage focusing on the interface between aged care and the health system. In the future, the data asset will be accessible to policy analysts and researchers for approved projects.

Analysis and interpretation of data will expand once individual-level data are available. This will enable the different casemix of services (some with a higher proportion of high-needs care recipients than others) to be accounted for. This risk-adjustment would mean that services with a similar casemix could be compared with each other. It could also help in interpreting some indicators. For example, services with mostly low-needs residents may have higher numbers of falls as more people are mobile. Individual-level data would also enable a person's pathway between services to be tracked and, ultimately, between community and residential services.

Resolving known data gaps in capturing people's health conditions, care needs or diverse characteristics and in establishing consistent measures for clinical needs or functional status would make it possible, among other things, to account for normal ageing declines in functioning over time.

Funding changes

The Royal Commission highlighted the inadequacy of funding in the aged care sector, especially in terms of the distribution of funds for residential aged care. In response, the Australian Government implemented the research-informed Australian National Aged Care Classification (AN-ACC) for residential aged care funding in October 2022. It replaces the ACFI, which had been in use for more than a decade and found to be no longer fit for purpose (McNamee et al. 2017). A key feature of the AN-ACC funding model is that a resident's assessment for funding is undertaken independently and separately from their care planning. The funding assessment is conducted by an external assessor, and the care planning is done within the residential aged care service by the team who know the resident's care needs best. For funding, an individual is assigned to a casemix category that reflects their care needs. Services are also given a fixed payment per day to enable providers to have financial certainty in planning and managing their services.

The new clinically based classification system of the AN-ACC can be used to identify staffing requirements that reflect the needs of the mix of residents living in residential care. It can also support quality improvements and benchmarking between comparable services; for example, Quality Indicator Program indicators such as falls

can be adjusted for the complexity of residents based on the overall classifications derived from AN-ACC assessments (Loggie et al. 2021). However, as a funding tool, AN-ACC assessment data do not provide all required information about people's health conditions (for example, dementia diagnosis), care needs or functional status. Deploying a similar funding tool for in-home aged care will also require careful planning to ensure all relevant factors are considered.

On 4 May 2023, the Australian Government announced a commitment to fund the 15% pay increase to the minimum wage for aged care staff previously awarded by the Fair Work Commission (Wells A, the Hon. MP 2020; Fair Work Ombudsman 2023).

Care minute standards

Care minute 'target' standards in residential aged care services were introduced from 1 October 2022. This initiative was a response to the Royal Commission's final report that found that staffing levels were a key determinant of the quality of care received by aged care residents. The initial care minutes target is a sector-wide average of 200 minutes of care per resident per day, including 40 minutes from a registered nurse. The care time targets for each facility will be adjusted according to the AN-ACC casemix classification for each resident. Services with higher needs residents will receive more funding while also being required to meet higher care minute targets. Care minute standards will be mandatory from 1 October 2023 and will increase to an average of 215 minutes (including 44 minutes of registered nurse time) from 1 October 2024. Also from 1 July 2023, providers must have a registered nurse onsite and on duty 24 hours a day. New quarterly reporting of direct care time and costs began for the July–September 2022 period as part of the new Quarterly Financial report (see Box 8.1 for an overview of care minutes results). Care minutes data are being used to inform the new Star Ratings, with data about 24/7 registered nurse onsite contributing at a later date.

It is not certain whether providers will be able to source the workforce needed to implement these requirements in full. However, the data will provide better transparency to enable these determinations to be made or to support further reforms. Aged care workforce data need to be improved to better understand the current and future demand for workers, as well as the impact of reforms.

It will be possible to look for patterns in the Quality Indicator Program indicator data from residential aged care services over time in parallel with the implementation of the care minutes to determine if mandated care minutes are coinciding with improvements in measured quality indicators (for example, whether increased staff turnover is associated with lower care minutes).

Conclusion

The quality of aged care is very important for people using them, their families, governments, and the whole community. Data to enable assessment of this have been sparse until quite recently. However, governments and providers have started making substantial efforts to improve the situation, with initial data becoming available as presented in this article. Further data are now being collected that can be presented in the future. To ensure full assessment of the quality of care, and to highlight areas for further improvement, it is important that these data improvements not only continue to be built on in a way that is sustainable for governments and providers, but also to use systems that enable efficient capture and use of the data. A coherent performance framework for the aged care system would be a valuable addition to guide the monitoring of quality of care.

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