Australian Government
Australian Institute of Health and Welfare
GEN AGED CARE DATA

Residential Aged Care Quality Indicators– October to December 2024

Technical notes

28 March 2025

The Australian Institute of Health and Welfare is an independent statutory Australian Government agency producing authoritative and accessible information and statistics to inform and support better policy and service delivery decisions, leading to better health and wellbeing for all Australians.

Suggested citation

Australian Institute of Health and Welfare (2025) *Residential Aged Care Quality Indicators–October to December 2024 Technical notes*, AIHW, Australian Government.

Any enquiries about or comments on this publication should be directed to:
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601
Tel: (02) 6244 1000
Email: GEN@aihw.gov.au

Published by the Australian Institute of Health and Welfare.

Please note that there is the potential for minor revisions of data in this report. Please check the online version at gen-agedcaredata.gov.au for any amendments.

Contents

National Aged Care Mandatory Quality Indicator Program: 1 October to 31 December 2024

These notes provide general information about data arrangements and the AIHW's collation, processing and reporting of residential aged care quality indicators (QIs).

The QI Program collects QI data from 'eligible care recipients' or 'eligible staff' only, meaning that QI events or outcomes experienced by care recipients or staff who met exclusion criteria for QI measurement are not included in the statistics presented in this report. These exclusion criteria are further detailed in the National Aged Care Mandatory Quality Indicator Program Manual 3.0 (QI Program Manual). Note that collection of QIs in this period was undertaken in the context of ongoing transmission of COVID-19 in Australia.

Data collection and transmission to AIHW

In accordance with the QI Program Manual from 1 April 2023, all Australian Government-subsidised residential aged care providers are required to collect specified data at the service level and submit these via the Quality Indicators App in the Government Provider Management System (GPMS) to the Department of Health and Aged Care (the Department). With the prior agreement of the Department, services can submit data through a commercial benchmarking company. Submission of the QI raw data is required by the 21st day of the month after the end of each quarter.

Since 1 July 2023 the AIHW has been contracted by the Department of Health and Aged Care for the provision of computation and reporting services for the QI program. Formerly this relationship was with the Aged Care Quality and Safety Commission (1 October 2020 to 31 June 2023), and the Department of Health and Aged Care (from 1 July 2019 to 30 September 2020). Throughout the life of these contracted periods, the Department of Health and Aged Care have provided the QI data to the AIHW. Raw QI data for the quarter 1 October to 31 December 2024 were provided to the AIHW on 6 February 2025 via secure data transfer from the Department.

Numerator data and QI interpretation

In interpreting the QIs in this report it is important to consider the way in which they were measured.

Most QIs in this report are measured during specified assessment windows (e.g., use of physical restraint is assessed during a review of three days of records in the quarter). The results for some QIs may therefore not represent the occurrence of those events across other, non-assessed periods in the quarter.

In addition, by definition, the indicators in this report provide information about whether a care recipient or staff member met the criteria for the QI during the quarter or assessment window. The indicator measure does not provide information about the frequency or duration of that measure (e.g., frequency or duration of physical restraint, number of falls, duration of polypharmacy).

Denominator data and QI construction

In accordance with the QI Program Manual, for all QIs except for the Workforce QI, the total number of care recipients meeting the criteria to be counted for the QI is divided by the total number of care recipients assessed at the service who do not meet exclusion criteria (referred to throughout this report as 'eligible care recipients') and multiplied by 100 to construct each QI category.

For these QIs, the percentage value was derived using the following formula:

$$\text{QI value} = \frac{\text{The total number of care recipients meeting the criteria to be counted (affirmative) for the quality indicator}}{\text{The total number of care recipients assessed at the service who do not meet exclusion criteria for the quality indicator (eligible care recipients)}} \times 100$$

For the Workforce QI, the number of staff reported to have stopped working during the quarter is divided by the total number of staff reported to have been employed at the beginning of the quarter.

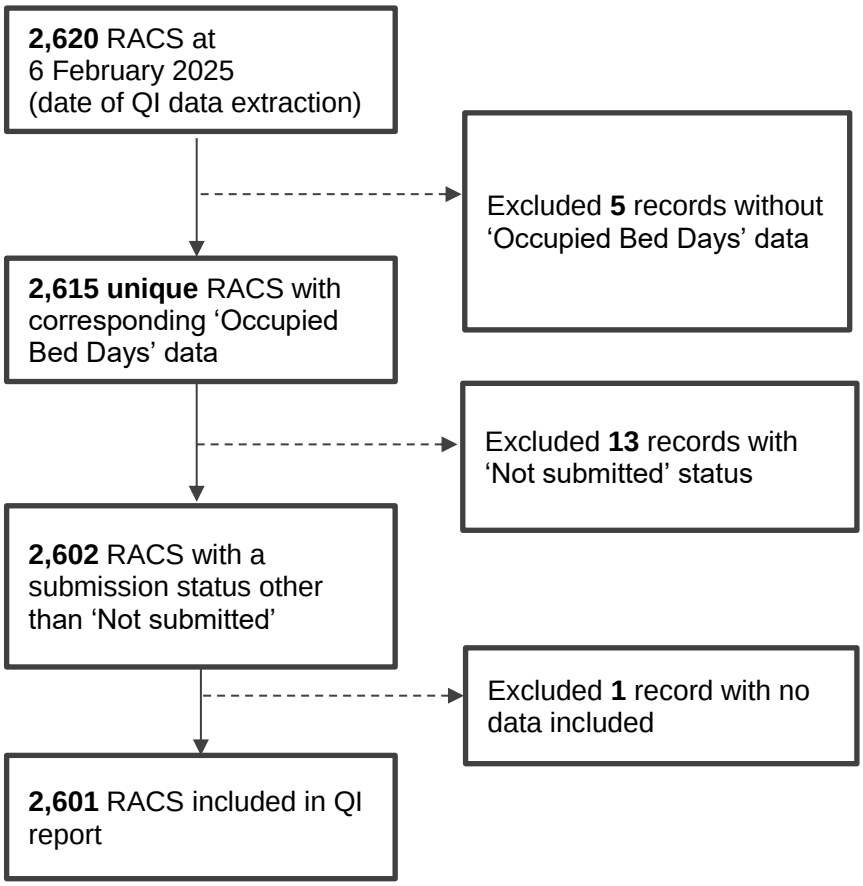
In this report, aggregation for all QIs was across all RACS for the main tables, or disaggregated across state and territory and remoteness regions.

Service participation, and estimated care recipient coverage

For this quarter, providers were required to submit QI data to the Department by 21 January 2025. The QI raw data were then extracted by the Department on 6 February 2025, comprising data from 2,620 RACS. The QI records were then filtered using Occupied Bed Days (OBD) data to derive an approximate denominator. OBD data was extracted by the Department and supplied to the AIHW on 6 February 2025. Five RACS were excluded due to not having available data about Australian Government subsidies for delivering care, services and accommodation (OBD data).

Of the remaining 2,615 RACS, 2,589 (99.0%) had a submission status of 'Submitted' (i.e., QI data were submitted on time), 12 (0.46 %) were 'Submitted - updated after due date', 1 (0.04%) was recorded as a 'Late submission' and 13 (0.5%) were recorded as 'Not submitted'. The 13 RACS with a 'Not submitted' status were excluded from the analyses presented in this quarterly report.

Finally, 1 (0.04%) of the remaining 2,602 RACS did not submit any QI data and was excluded, resulting in the final data set of 2,601 RACS with at least some QI data submitted.



Compared with the previous quarter, this represents an increase in RACS included in this quarterly report of 2.2%. Of the included 2,601 RACS, 2,568 (98.7%) submitted QI data for all 11 QIs. Of the 33 RACS that did not submit data for all QIs, 29 (87.9%) submitted data for 9 or 10 QIs.

The QI Program's coverage of the estimated care recipient population ranged from 98.1% for consumer experience to greater than 111.5% for falls and major injuries (Table 1). It was not possible to calculate coverage for the Workforce QI, because population data for the aged care workforce are not available.

When interpreting these coverage data, it is important to note that the calculations are based on an approximation of the denominator using data that shows how many bed days were funded for each service in that period. While the numerator data for quality indicators measure one event per individual, the denominator data are calculated using an approximation – dividing the number of 'Occupied Bed Days' (OBD) for a quarter by the number of days in that quarter to get an estimate of how many individuals occupied beds per quarter. This approximation assumes that individuals occupy beds for the same number of days per quarter, but this may not be the case. There are various reasons an individual may not occupy a bed for an entire quarter, including entering or exiting care mid-quarter. As the numerator and denominator for the coverage calculation are not aligned at the individual level, there is the possibility for proportions to exceed one hundred per cent. Additional factors contribute to the misalignment of the numerator and denominator, including lagged claims, retrospective adjustments, measurement timings, absent care recipients (e.g. hospitalisations) and care recipient deaths. It should also be noted that in the interests of

timeliness for the release of this quarterly report, the preliminary OBD data extracted on 6 February 2025 was used in the analysis; prior to finalisation of the quality assurance of these data by the Department. Preliminary data is considered robust for this purpose as minor changes to data are expected after the quality assurance process since the date of OBD data extraction.

Table 1: Estimated care recipient coverage and exclusions in the RACS QI Program, October to December 2024

Quality indicator	Estimated care recipient coverage in QI Program		Exclusions and measurements of care recipients in QI Program		
	Care recipients assessed for QI eligibility in included RACS* (A)	Coverage of estimated care recipient population in all RACS (B)	Care recipients excluded due to not providing consent (C)	Care recipients excluded due to ineligibility (D)	Care recipients eligible for QI measurement (E)
Pressure injuries	208,701	104.1%	895 (0.4%)	369 (0.2%)	207,437 (99.4%)
Use of physical restraint	203,768	101.6%	N.A.	1,772 (0.9%)	201,996 (99.1%)
Unplanned weight loss — significant	219,322	109.4%	4,414 (2.0%)	42,296 (19.3%)	172,612 (78.7%)
Unplanned weight loss — consecutive	219,490	109.4%	5,527 (2.5%)	44,765 (20.4%)	169,198 (77.1%)
Falls and major injury	223,706	111.5%	N.A.	243 (0.1%)	223,463 (99.9%)
Medication management — polypharmacy	202,279	100.9%	N.A.	1,321 (0.7%)	200,958 (99.3%)
Medication management — antipsychotics	202,384	100.9%	N.A.	737 (0.4%)	201,647 (99.6%)
Decline in activities of daily living	218,415	108.9%	N.A.	29,866 (13.7%)	188,549 (86.3%)
Incontinence	208,591	104.0%	N.A.	607 (0.3%)	207,984 (99.7%)
Incontinence associated dermatitis	208,591	104.0%	N.A.	49,296 (23.6%)	159,295 (76.4%)
Hospitalisations	222,770	111.1%	N.A.	299 (0.1%)	222,471 (99.9%)
Workforce turnover **	N.A.	N.A.	N.A.	N.A.	N.A.
Consumer experience	196,804	98.1%	60,665 (30.8%)	2,875 (1.5%)	133,264 (67.7%)
Quality of life	197,768	98.6%	61,450 (31.1%)	2,939 (1.5%)	133,379 (67.4%)

Notes:
* Included RACS were those that had submitted QI data by the date of extraction and received Australian Government subsidies for delivering care, services, and accommodation in the quarter. Services not meeting these criteria, and the care recipients that may or may not have been assessed for QI eligibility at those services, were excluded from these calculations. **A** (*Care recipients assessed for QI eligibility in included* RACS), and therefore **B** (*Coverage of estimated care recipient population in all RACS*), is higher than these figures when these excluded RACS are included (data not shown). Reasons for ineligibility for measurement differ by QI and are detailed in the QI Program Manual.
** It is not possible to calculate estimations of coverage for the Workforce QI because population data are not available.
A (*Care recipients assessed for QI eligibility in included RACS*) was calculated as the sum of **C** (*Care recipients excluded due to not providing consent*), **D** (*Care recipients excluded due to ineligibility*) and **E** (*Care recipients eligible for QI measurement*).
B (*Coverage of estimated care recipient population in all RACS*) was calculated by dividing **A** (*Care recipients assessed for QI eligibility in included RACS*) by an estimate of the total RACS care recipient population for this quarter (200,548) care recipients—calculated by summing the total number of 'Occupied Bed Days' (OBD) for which an Australian Government residential aged care subsidy was claimed by all RACS and dividing by the number of days in the quarter).
Percentages in **C**–**E** are in relation to values in **A** (*Care recipients assessed for QI eligibility in included RACS*).
N.A., not applicable.
Source: Department of Health and Aged Care, QI and OBD data extracted 6 February 2025, published on GEN-agedcaredata.gov.au

The number of care recipients excluded (Table 1, Columns C and D) was highest for consumer experience and quality of life (32.3% and 32.6%, respectively). For these QIs, the most common reason for exclusion was that the care recipient did not choose to complete the assessment.

Geographic characteristics

Two separate disaggregations are reported for the location of RACS—state and territory and remoteness. State and territory were taken from location address information reported on the QI data file and reflects standard sub-national administrative areas.

The QI data set was merged with service-level data from the National Aged Care Data Clearinghouse (NACDC) as at 30 June 2024 (the latest available) to bring the QI data together with the Modified Monash Model (MMM) 2019 remoteness classifications for the analysis presented in this report. This merge used as its linkage key the National Approved Provider System (NAPS) service identification number, the identifier used in the NACDC. In this step, 2,596 of the 2,601 included records matched with a service identified in the NACDC. Five records did not match with NACDC service list but could be matched to MMM using the MMM 2019 list.

Remoteness was based on the MMM 2019 classifications obtained from the NACDC collapsed into 3 categories—metropolitan areas (MM1); regional centres (MM2); and a category combining large rural towns (MM3), medium rural towns (MM4), small rural towns (MM5), remote communities (MM6) and very remote communities (MM7).

As with the national QI data in this report, it is important to note that QI data presented by state and territory and remoteness are not risk-adjusted to account for possible differences in the care complexity of care recipients.

Coherence, inconsistencies, and outliers in calculated QIs

This data collection was conducted under the National Aged Care Mandatory Quality Indicator Program Manual 3.0, which has been in place since 1 April 2023. Program Manual 1.0 applied for previous collections between 1 July 2019 and 30 June 2021, and Program Manual 2.0 applied for previous collections between 1 July 2021 and 31 March 2023.

There have been changes over time in how QIs related to care recipients have been calculated. While the original QI Program (1 July 2019) counted occurrences of QIs (meaning that, for example, more than one pressure injury or physical restraint device could be counted for a single care recipient), the expanded QI Program from 1 July 2021 counts the number of care recipients meeting QI criteria and produces prevalence rates in the form of percentages. This value is calculated by dividing the number of eligible care recipients that meet the criteria to be counted for the QI by the total number of eligible care recipients assessed and then multiplying by 100.

Quality indicator reporting under Program Manuals 2.0 and 3.0 requires services to report the total number of eligible care recipients assessed for each QI, which is then used as the denominator when compiling QI percentages. This differs to the original QI Program (Manual 1.0), where QI rates were compiled using the number of care recipient days in which an Australian Government subsidy was claimed as the denominator (referred to as ‘Occupied Bed Days’ in Program Manual 1.0).

Due to reporting requirements, measurement and reporting factors, the AIHW does not undertake any data cleaning prior to compiling the figures in this report. For example, QI data are submitted by residential aged care providers as aggregated data at the service level and there is no mechanism for independent monitoring or validation against source data. Therefore, the AIHW has no firm basis for determining that an apparent 'outlier' in the distribution of QIs across RACS represents an incorrect data point. In addition, QIs are not risk adjusted at the service level to account for different case-mix of residents. Similarly, analyses to compare QI data between geographic regions and over time are not risk adjusted and do not consider factors that might affect differences (e.g. case mix, service size).

Because of these limitations, AIHW advise that caution should be exercised in interpreting compiled QI values and comparing QIs in less populated states and territories where small differences in counts of QIs can cause fluctuations in QI percentages from quarter to quarter.

Nevertheless, the AIHW will continue to conduct analyses to identify the most extreme upper-level outliers along the service size continuum, the extent of zero reporting and apparent internal inconsistencies that appear to reflect varied interpretation of reporting requirements. Consultation with the Department of Health and Aged Care on these matters may be expected to contribute, through education of providers and improvements to data collection methods, to improved quality of reporting and to development of the QI Program over time.

Some services included in this report had probable discrepancies in the total number of care recipients assessed for inclusion in each QI. While some variation in the total number of care recipients assessed in a RACS can be expected given that measurements for different QIs can occur at different times, the magnitude of this variation for some RACS points to possible data entry errors or misinterpretation of the QI Program Manual or reporting template.

For QIs where higher percentages indicate poorer performance, 100% prevalence reporting was most common for physical restraint (0.8%). This is expected as some services that have reported data for physical restraint at 100% are dementia services within a locked facility. Therefore, all care recipients in these services would be assessed as being physically restrained exclusively through the use of a secure area (as per the manual). For QIs where higher percentages indicate better performance, 100% prevalence reporting was most common for consumer experience (14.0%) (Table 2). Some RACS reported zero care recipients meeting the criteria for individual QIs, which varied between QIs (Table 2).

Table 2. Selected RACS reporting characteristics in the Mandatory QI Program, October to December 2024

Quality indicator	Number of RACS that reported 100% QI rate	Percentage of RACS that reported 100% QI rate	Number of RACS that reported 0% QI rate	Percentage of RACS that reported 0% QI rate
One or more pressure injuries	1	0.0%	289	11.1%
Use of physical restraint	20	0.8%	504	19.4%
Significant unplanned weight loss	1	0.0%	161	6.2%
Consecutive unplanned weight loss	4	0.2%	184	7.1%
Falls	2	0.1%	9	0.3%
Falls that resulted in major injury	0	0.0%	915	35.2%
Polypharmacy	5	0.2%	4	0.2%
Antipsychotics	8	0.3%	26	1.0%
Decline in activities of daily living	1	0.0%	129	5.0%
Incontinence associated dermatitis	1	0.0%	743	28.6%
Hospitalisations – Emergency department presentations	3	0.1%	132	5.1%
Hospitalisations – Emergency department presentations or hospital admissions	3	0.1%	46	1.8%
Workforce turnover	2	0.1%	544	20.9%
Consumer experience	363	14.0%	3	0.1%
Quality of life	170	6.5%	7	0.3%

Note: Percentages are calculated in relation to 2,601 RACS
Source: Department of Health and Aged Care, data extracted 6 February 2025, published on GEN-agedcaredata.gov.au

Trend analysis

Analysis to examine trends in QI performance over time was conducted using a quasi-Poisson regression model. QIs are included in the trend analysis once there are 6 or more quarters of data available. The 5 indicators included in the program since 1 July 2021 are included in trend analysis, and from Q2 (October to December) 2024, all 6 of the new QIs included in the program since 1 April 2023 are also included.

Poisson regression is commonly used to model counts and rates. With a traditional Poisson regression model, we would expect the conditional means and variances of the event counts to be about the same in various groups. To account for potential over-dispersion (e.g. where the variance is larger than the mean) in the data, a quasi-Poisson regression method was used to examine the trend of aggregated quality indicators over 14 quarters from Q1 (July to September) 2021 to Q2 (October to December) 2024 as outlined in Formula 1. Quasi-Poisson regression fits an extra dispersion parameter to account for the extra variance. Models were fitted in R 4.2.2 using the glm() function with family = "quasipoisson".

$$\log(Y_{i,j}) = \log(n_{i,j}) + \beta_0 + \beta_1 t_j$$

Formula 1. Quasi-Poisson regression model

Where:

- $Y_{i,j}$ = the count of care recipients who meet the criteria for quality indicator *i* (one or more pressure injuries, use of physical restraint, significant unplanned weight loss, consecutive unplanned weight loss, polypharmacy, antipsychotics) in quarter *j*.
- β_0, β_1 = fitted regression coefficients
- t_j = quarter number *(i.e., t_j = 1, 2, …, 14)*
- $n_{i,j}$ = the number of care recipients assessed for quality indicator *i* in quarter *j*.

Differences in numbers of care recipients assessed by each service are considered by including an **offset** in the model ($\log(n_{i,j})$) so that the care recipient count is adjusted to be comparable across services of different sizes.

Interpreting risk ratios

A quasi-Poisson regression model generates risk ratios. In this analysis, risk ratios describe the average change in QI performance per quarter (Table 3). A risk ratio greater than 1.0 indicates an increasing trend over time, and a risk ratio less than 1.0 indicates a declining trend over time. 95% confidence intervals indicate the precision of the risk ratio. Where a 95% confidence interval crosses 1.0, this indicates that the risk ratio is not statistically significant to $p < 0.05$ and there has been no meaningful change in indicator performance over time.

For example:

- A risk ratio of 0.975 indicates that the prevalence proportion of aged care recipients who experienced the event **declined** by an average of 100 x (1-0.975) = 2.5% per quarter over the reporting period. A 95% confidence interval (0.968-0.982) tells us that there is a 95% likelihood that the true average decline per quarter lies between 1.8% and 3.2%.
- A risk ratio of 1.014 indicates that the prevalence proportion of aged care recipients who experienced the event **increased** by an average of 100 x (1.014-1) = 1.4% per quarter over the reporting period. A 95% confidence interval (1.009-1.021) tells us that there is a 95% likelihood that the true average increase per quarter lies between 0.9% and 2.1%

Note that trend analyses are unadjusted and therefore do not consider factors that may influence QI performance (e.g. service size, type, location).

In modelling with large sample sizes, even very small differences over time can be statistically significant. It is important to consider clinical significance (i.e. real-world impact) of the change.

Table 3: Prevalence proportion of care recipients reported by RACS as meeting criteria for quality indicators, Q1 July–September 2021 to Q2 October–December 2024

	Prevalence proportion															
Indicator	**Q1-21/22**	**Q2-21/22**	**Q3-21/22**	**Q4-21/22**	**Q1-22/23**	**Q2-22/23**	**Q3-22/23**	**Q4-22/23**	**Q1-23/24**	**Q2-23/24**	**Q3-23/24**	**Q4-23/24**	**Q1-24/25**	**Q2-24/25**	**Risk ratio (95% Confidence Interval)**	**Relative quarterly change in prevalence proportion**
One or more pressure injuries	5.9	5.7	5.9	6.3	6.5	6.0	5.8	5.9	5.9	5.9	5.5	5.5	5.6	5.2	0.991 (0.989-0.993)	-0.9%*
Use of physical restraint	23.0	21.9	21.4	21.5	21.2	19.8	19.5	18.1	17.4	17.8	17.7	18.8	19.3	19.3	0.984 (0.981-0.986)	-1.6%*
Physical restraint exclusively through the use of a secure area	17.2	16.8	16.7	16.9	16.8	15.7	15.7	14.4	13.8	14.0	13.7	14.6	15.2	15.1	0.985 (0.982-0.988)	-1.5%*
Significant unplanned weight loss	8.4	8.9	10.9	9.4	9.3	9.4	8.6	7.7	7.8	9.0	8.7	7.1	7.9	8.4	0.986 (0.984-0.987)	-1.4%*
Consecutive unplanned weight loss	9.5	10.0	11.2	9.4	9.2	9.7	9.3	7.8	8.2	9.4	9.3	7.1	8.2	9.1	0.984 (0.982-0.986)	-1.6%*
Falls	31.9	31.5	31.5	32.2	32.4	31.5	31.0	32.1	32.0	31.5	31.3	32.6	31.8	31.5	1.000 (0.999-1.001)	0.0%
Falls that resulted in major injury	2.1	2.1	2.2	2.2	2.1	2.0	1.9	1.9	1.7	1.8	1.8	1.8	1.8	1.7	0.978 (0.975-0.981)	-2.2%*
Medication management - Polypharmacy	41.0	38.3	37.4	37.3	36.7	36.3	36.0	35.8	34.4	35.1	34.6	34.3	34.6	35.0	0.989 (0.989-0.990)	-1.1%*
Medication management - Antipsychotic use	21.6	20.7	20.5	19.3	18.4	18.5	18.4	18.1	17.7	18.2	18.0	17.9	17.3	17.5	0.986 (0.984-0.987)	-1.4%*
Decline in activities of daily living									21.3	18.2	20.4	20.2	20.9	19.6	0.998 (0.991-1.005)	-0.2%
Incontinence								78.1	78.7	78.1	76.7	78.0	75.5	76.6	0.995 (0.993-0.996)	-0.5%*
Incontinence associated dermatitis								3.9	4.0	3.9	4.1	4.2	4.1	4.0	1.004 (0.995-1.014)	0.4%
Hospitalisations - Emergency department presentations								11.7	11.7	11.9	11.7	12.1	12.6	12.4	1.012 (1.007-1.017)	1.2%*
Hospitalisations - Emergency department presentations or hospital admissions								14.2	14.7	14.9	14.6	15.3	15.5	15.3	1.013 (1.009-1.017)	1.3%*
Workforce turnover								7.0	6.0	5.6	6.2	5.2	5.1	5.3	0.957 (0.948-0.965)	-4.3%*
Consumer experience								79.7	81.8	82.2	82.3	82.4	83.9	84.4	1.008 (1.006-1.009)	0.8%*
Quality of life								69.4	72.5	72.6	72.8	73.2	74.5	75.0	1.010 (1.007-1.012)	1.0%*

*Statistically significant to $p < 0.05$.

Source: Department of Health and Aged Care published on GEN-agedcaredata.gov.au

References

Department of Health 2019. Modified Monash Model (MMM)-Suburb and Locality Classification. Department of Health.

Department of Health 2021. Modified Monash Model – fact sheet. Canberra: Department of Health.

Department of Health and Aged Care 2024. National Aged Care Mandatory Quality Indicator Program Manual 3.0. Canberra: Department of Health and Aged Care.