



Residential Aged Care Quality Indicators—Annual Report

2023–24

**Compiled from mandatory reporting by residential aged care services,
covering the period 1 April 2023 to 30 June 2024**

18 November 2024

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1 National Aged Care Mandatory Quality Indicator Program

Since 1 July 2019, participation in the National Aged Care Mandatory Quality Indicator Program (QI Program) has been a requirement for all Australian Government-subsidised residential aged care services (RACS).

The objectives of the QI Program as legislated by the *Aged Care Legislation Amendment (Quality Indicator Program) Principles 2019* (Aged Care Legislation Amendment 2019), are to:

- to give consumers transparent information about quality in aged care to assist decision making; and
- for providers to have robust, valid data to measure and monitor their performance and support continuous quality improvement in the care they provide to aged care recipients.

Reporting on the quality of care through the QI Program aims to help approved providers of residential aged care services to measure, monitor, compare and improve the quality of their services.

About the QI Program

The QI Program collects quality indicator data from RACS every 3 months. All Australian Government-subsidised RACS are required to collect specified data at the service level and submit these via the Government Provider Management System to the Department of Health and Aged Care (the Department). With prior agreement from the Department, services can submit data through a commercial benchmarking company. Raw quality indicator data for each quarter must be submitted by the 21st day of the month after the end of that quarter.

Detailed requirements for participation in the QI Program are set out in the *National Aged Care Mandatory Quality Indicator Program Manual 3.0* (Department of Health and Aged Care 2023). More information on the QI Program is available from the Department of Health and Aged Care.

The indicators

Quality indicators (QIs) measure aspects of service provision and health outcomes related to the quality of care provided by RACS. Until 30 June 2021, the QI Program included 3 QIs (pressure injuries, use of physical restraint, unplanned weight loss). On 1 July 2021, the QI Program expanded to include 5 QIs:

- Pressure injuries
- Use of physical restraint
- Unplanned weight loss
- Falls and major injury
- Medication management

On 1 April 2023, the QI Program was further expanded to include 6 new QIs, for a total of 11 QIs:

- Activities of daily living
- Incontinence care
- Hospitalisations
- Workforce
- Consumer experience
- Quality of life

A brief description of each indicator is provided in Table 1. Further details can be found in the [National Aged Care Mandatory Quality Indicator Program Manual 3.0 – Part A \(QI Program Manual\)](#) and in Appendix B.

About this report

This Annual Report provides QI Program data at national, state and territory, and remoteness area levels. It is produced using an updated annual extract of the quarterly QI data (Section 2), and describes insights into data completeness and data quality (Section 3).

Technical Notes are provided in Appendix A.

The annual QI data extract integrates source data that were not complete when compilations were first made to meet quarterly reporting timetables (in published quarterly reports on the GEN aged care website). The annual extract comprises more complete data for the period, as it includes data from RACS that amended or submitted QI data after the required submission date for each quarter.

All 11 QIs included in the program (Table 1) are reported on for the four quarters of 2023–24 (1 July 2023 to 30 June 2024). Additionally, QI Program data for Quarter 4 of 2022–23 (1 April to 30 June 2023) are also included in this report. During the 2022–2023 financial year, data for the 6 new indicators were collected for the first time in Quarter 4 and these data have not been reported on elsewhere.

Table 1: QIs in the QI Program reported here

Quality indicator	Measurements
Pressure injuries	<ul style="list-style-type: none"> Percentage of eligible care recipients with pressure injuries, reported against six pressure injury stages
Use of physical restraint	<ul style="list-style-type: none"> Percentage of eligible care recipients who were restrained, either physically, mechanically, environmentally or via seclusion*
Unplanned weight loss	<ul style="list-style-type: none"> Percentage of eligible care recipients who experienced significant unplanned weight loss (5% or more) Percentage of eligible care recipients who experienced consecutive unplanned weight loss
Falls and major injury	<ul style="list-style-type: none"> Percentage of eligible care recipients who experienced one or more falls Percentage of eligible care recipients who experienced one or more falls resulting in major injury
Medication management	<ul style="list-style-type: none"> Percentage of eligible care recipients who were prescribed nine or more medications Percentage of eligible care recipients who received an antipsychotic medication
Activities of daily living	<ul style="list-style-type: none"> Percentage of eligible care recipients who recorded a decline on their total score on the Barthel Index of one point or more in the current quarter compared to the previous quarter.
Incontinence care	<ul style="list-style-type: none"> Percentage of care recipients with incontinence-associated dermatitis, reported against four incontinence-associated dermatitis categories.
Hospitalisations	<ul style="list-style-type: none"> Percentage of care recipients who had one or more emergency department presentations during the quarter. Percentage of care recipients who had one or more emergency department presentations or hospital admissions during the quarter
Workforce	<ul style="list-style-type: none"> Percentage of care staff who stopped working for the provider between quarters, reported by four staff categories
Consumer experience	<ul style="list-style-type: none"> Percentage of care recipients who rated their consumer experience as 'Good' or 'Excellent'.
Quality of life	<ul style="list-style-type: none"> Percentage of care recipients who rated their quality of life as 'Good' or 'Excellent'.

Notes:

- Details about the indicators can be found in the [National Aged Care Mandatory Quality Indicator Program Manual 3.0 – Part A](#) (QI Program Manual) and Appendix B.
- Reporting of additional data is undertaken for pressure injuries, use of physical restraint and medication management. These are specified in Appendix B.

* 'Use of physical restraint' excludes chemical restraint.

2 Quality indicators

Key findings

1. There was little variation in the QIs across the five quarters presented in this annual report. However, since 2021 there has been a statistically significant decrease in the proportion of residents experiencing polypharmacy, antipsychotic medication use, falls that resulted in major injury, one or more pressure injuries, use of physical restraint, physical restraint exclusively through the use of a secure area, significant unplanned weight loss and consecutive unplanned weight loss. There has been no statistically significant change in the proportion of residents experiencing falls over time¹.
2. Greater variation in the QIs was observed between geographical regions, e.g. state and territories and remoteness areas. However, there were no consistent patterns observed and, in areas with smaller residential aged care service populations, differences in QI proportions from quarter to quarter are likely random fluctuations due to small numbers.

Annual summary

The overall percentages of care recipients for the 11 indicators at a national level are shown in Table 2 for Quarter 4 of 2022–23 and each of the four quarters of 2023–24.

QI percentages disaggregated by state/territory and remoteness categories, are provided in:

- Supplementary Table S03: Quality indicators by state/territory, and
- Supplementary Table S04: Quality indicators by remoteness.

1. Only 5 of the 11 quality indicators could be included in the trend analysis at this point in the maturity of the program. Several of these indicators have multiple reporting categories (i.e. 2 measures each for medication management, falls and weight loss) resulting in 8 separate measures.

Table 2: Quality indicator percentages (%) in residential aged care, Quarter 4 2022–23 and Quarters 1 to 4 2023–24, of the Mandatory QI Program

Quality indicator	Quarter 4 Apr–Jun 2023	Quarter 1 Jul–Sep 2023	Quarter 2 Oct–Dec 2023	Quarter 3 Jan–Mar 2024	Quarter 4 Apr–Jun 2024
One or more pressure injuries	5.8	5.9	5.9	5.5	5.4
Stage 1 pressure injuries	2.4	2.5	2.5	2.3	2.3
Stage 2 pressure injuries	2.6	2.7	2.6	2.5	2.4
Stage 3 pressure injuries	0.5	0.5	0.5	0.4	0.4
Stage 4 pressure injuries	0.2	0.1	0.1	0.1	0.1
Unstageable pressure injuries	0.4	0.5	0.4	0.4	0.4
Suspected deep tissue pressure injuries	0.3	0.3	0.3	0.3	0.3
Use of physical restraint	17.8	17.4	17.8	17.6	18.5
Significant unplanned weight loss	7.7	7.8	8.9	8.6	7.1
Consecutive unplanned weight loss	7.9	8.2	9.4	9.3	7.1
Falls	32.1	32.0	31.4	31.2	32.6
Falls that resulted in major injury	1.9	1.7	1.9	1.7	1.8
Polypharmacy	35.5	34.4	35.0	34.3	34.3
Antipsychotic use	18.0	17.8	18.3	17.8	17.7
Activities of daily living*	N.A	21.2	20.9	20.5	20.3
Incontinence	77.9	78.7	78.1	77.3	78.2
Incontinence associated dermatitis (IAD)	4.0	4.0	3.9	3.9	4.1
Stage 1A IAD	2.7	2.8	2.7	2.6	2.8
Stage 1B IAD	0.3	0.3	0.3	0.3	0.3
Stage 2A IAD	0.9	0.8	0.8	0.9	0.9
Stage 2B IAD	0.1	0.1	0.1	0.1	0.1
Hospitalisations - ED presentations	11.6	11.6	11.9	11.7	12.2
Hospitalisations - ED presentations and hospital admissions	14.1	14.6	15.0	14.5	15.3
Workforce** - all eligible staff	6.8	6.0	5.6	6.0	5.1
Workforce - Service managers	7.3	6.6	6.7	7.3	6.7
Workforce - Nurse practitioners or registered nurses	8.9	7.9	7.3	8.0	7.0
Workforce - Enrolled nurses	7.2	6.7	6.0	6.7	5.3
Workforce - Personal care staff or assistants in nursing	6.3	5.4	5.2	5.5	4.6
Consumer experience† - all completion formats	79.7	81.8	82.2	82.5	82.5
Consumer experience - self-completion	80.1	82.0	81.1	81.8	81.8
Consumer experience - interviewer-facilitated completion	81.5	83.4	83.7	84.5	85.2
Consumer experience - proxy completion	74.6	77.2	79.3	77.9	76.0
Quality of life† - all completion formats	69.7	72.5	72.7	73.1	73.7
Quality of life - self-completion	74.4	77.1	76.0	77.5	77.8
Quality of life - interviewer-facilitated completion	72.4	75.1	75.4	75.8	76.6
Quality of life - proxy completion	55.1	57.7	59.4	58.7	58.4

Notes:

* The activities of daily living QI measures a decline in score since the previous quarter. This QI could not be calculated for Quarter 4 of 2022–23 as no data were available for this indicator prior to this quarter.

** The workforce QI measures the percentage of care staff who stopped working for the provider between quarters.

† The consumer experience and quality of life QIs measure the proportion of care recipients who reported 'good' or 'excellent' consumer experience and quality of life, respectively.

N.A., not applicable.

Source: Department of Health and Aged Care, data extracted 10 September 2024, published on GEN-agedcaredata.gov.au

Variation over time

A trend analysis was conducted to examine variation over time in QI performance. For the trend analysis, data are pooled together for every eligible care recipient reported about in the quarter. Trends are examined based on sector level outcomes per quarter. Only the 5 indicators included in the program since 1 July 2021 are included in trend analysis. The 6 new QIs will be included in trend analysis once there are 6 or more quarters of data available.

At each quarter, the number of care recipients who meet the criteria for a quality indicator is counted. These counts are then compared over time using a quasi-Poisson regression model. More detail about the quasi-Poisson regression model can be found in the Technical Notes.

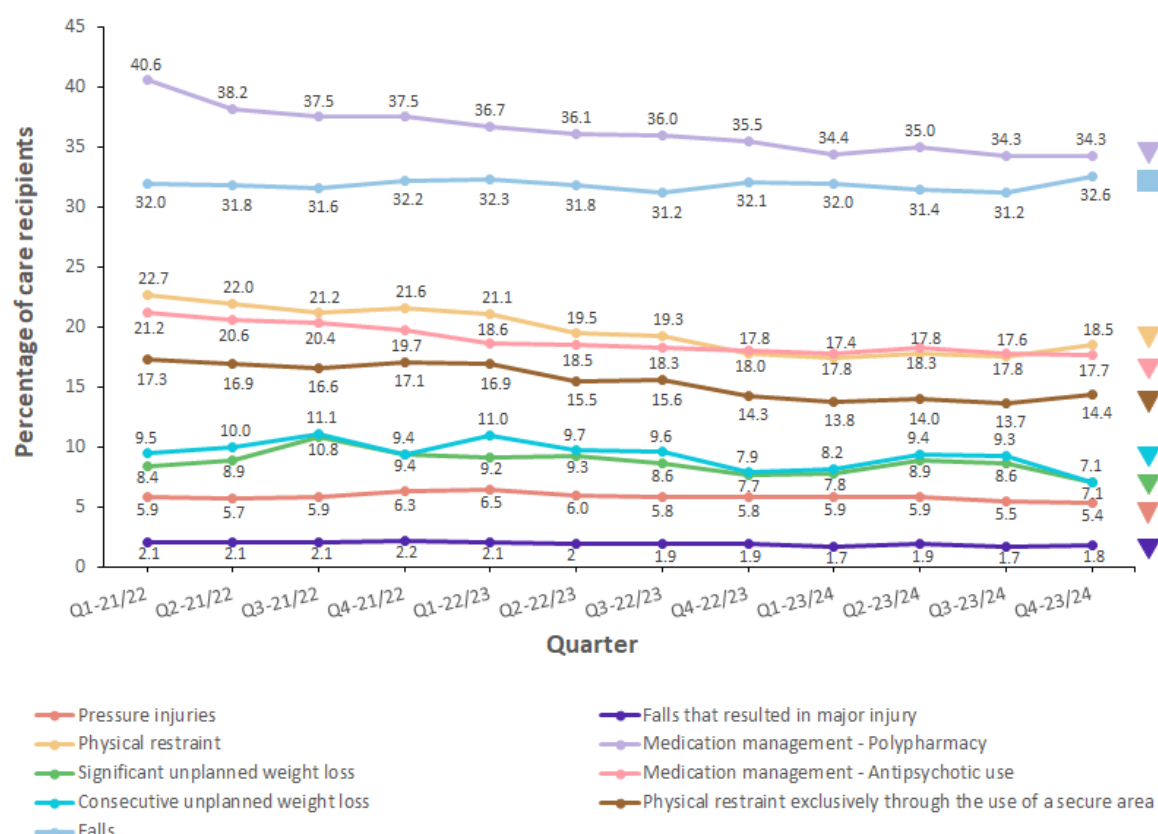


Figure 1: Prevalence proportion (%) of care recipients reported by RACS as meeting criteria for clinical quality indicators, Quarter 1 2021–22 to Quarter 4 2023–24

Note: Down arrow icon (▼) indicates a statistically significant downward trend at $p < .05$. Square icon (■) indicates a statistically non-significant trend ($p \geq .05$).

Source: Department of Health and Aged Care, data extracted 10 September 2024, published on GEN-agedcaredata.gov.au

Table 3: Prevalence proportion (%) of care recipients reported by RACS as meeting criteria for clinical quality indicators, Q1 2021–22 to Q4 2023–24

Indicator	Prevalence proportion (%)												Risk ratio (95% Confidence Interval)	Relative quarterly change in prevalence proportion
	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		
One or more pressure injuries	5.9	5.7	5.9	6.3	6.5	6	5.8	5.8	5.9	5.9	5.5	5.4	0.993 (0.991-0.995)	-0.7%*
Use of physical restraint	22.7	22	21.2	21.6	21.1	19.5	19.3	17.8	17.4	17.8	17.6	18.5	0.975 (0.972-0.978)	-2.5%*
Use of physical restraint exclusively through the use of a secure area	17.3	16.9	16.6	17.1	16.9	15.5	15.6	14.3	13.8	14	13.7	14.4	0.977 (0.974-0.981)	-2.3%*
Significant unplanned weight loss	8.4	8.9	10.8	9.4	9.2	9.3	8.6	7.7	7.8	8.9	8.6	7.1	0.982 (0.980-0.984)	-1.8%*
Consecutive unplanned weight loss	9.5	10	11.1	9.4	11	9.7	9.6	7.9	8.2	9.4	9.3	7.1	0.979 (0.977-0.981)	-2.1%*
Falls	32	31.8	31.6	32.2	32.3	31.8	31.2	32.1	32	31.4	31.2	32.6	1.000 (0.999-1.001)	0.0%
Falls that resulted in major injury	2.1	2.1	2.1	2.2	2.1	2.0	1.9	1.9	1.7	1.9	1.7	1.8	0.977 (0.974-0.981)	-2.3%*
Polypharmacy	40.6	38.2	37.5	37.5	36.7	36.1	36	35.5	34.4	35	34.3	34.3	0.987 (0.985-0.988)	-1.3%*
Antipsychotic use	21.2	20.6	20.4	19.7	18.6	18.5	18.3	18.0	17.8	18.3	17.8	17.7	0.984 (0.981-0.986)	-1.6%*

*Statistically significant to $p < 0.05$.

Source: Department of Health and Aged Care, data extracted 10 September 2024, published on GEN-agedcaredata.gov.au

3 Data quality

The data in this report, extracted on 10 September 2024, may differ slightly from QI Program quarterly reports published by the AIHW for Quarter 4 of 2022–23 and the four quarters of 2023–24. The quarterly reports were based on data that were i) submitted by the 21st day of the month following the end of each quarter; and ii) unamended by the date at which the Department extracted them for the purposes of the AIHW's quarterly reports. This is with the exception of Quarter 2 of 2023–24, when updated data was included in the quarterly report as the submission date fell on a Sunday and a high proportion of services would have had QI data excluded, otherwise.

The AIHW is not the primary collector of the QI data and observations about data quality are based on AIHW's analysis of data as submitted by RACS to the Department. Data are supplied directly by service providers as aggregated data, using specifications in the Program Manual version 3.0.

Quality indicator reporting 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.

The AIHW has noted in previous QI data reports that it has no firm basis for determining that an apparent 'outlier' in the distribution of QIs across RACS represents an incorrect data point. Therefore, no data cleaning is undertaken by AIHW prior to compiling the figures in this report. While the AIHW is not able to verify the accuracy of QI raw data, the data appear suitable for reporting at aggregate levels.

Data quality issues identified by the AIHW in this report include the reporting of missing values for all QIs, which could suggest non-reporting (Table 5). Across the 5 quarters, 46 RACS were observed for non-reporting in the data used to compile this 2023–24 annual report. This is an increase from two RACS recorded for non-reporting in 2022–23. For consistency with AIHW's previous reporting, these services were excluded from the subsequent statistics and compilation of QI data for this report.

The AIHW continues to conduct analysis to identify the most extreme upper-level 'outliers', the extent of zero reporting, and any apparent internal inconsistencies in reporting. Some services included in this report had questionable 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 may be indicative of potential data entry errors or misinterpretation of the Manual or reporting template.

Some inconsistencies were observed regarding how QIs (e.g. incontinence associated dermatitis (IAD)) and their additional reporting categories (e.g. IAD sub-categories) were recorded. By definition, data for QI totals (e.g. IAD total) are inclusive of any additional reporting data (e.g. IAD sub-categories), but some services reported higher counts for additional reporting categories than for the corresponding total QI.

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 development of the QI program over time.

The following material focuses on RACS response levels and the coverage of their care recipient populations.

Care recipient coverage

The eligible care recipient population may be different for each of the 11 QIs subject to relevant exclusion criteria. Table 4 shows the estimated proportion of care recipients that were assessed for their eligibility to be included in quarterly QI measurements for each indicator. This estimate of care recipient coverage was calculated by dividing the number of care recipients assessed for QI eligibility in included RACS by an estimate of the total RACS care recipient population for the quarter. The care recipient population estimate was determined by first summing the total number of 'Occupied Bed Days' for all participating Australian Government residential aged care services that claimed a subsidy and then dividing by the number of days in the quarter.

The number of care recipients assessed for QI eligibility in included RACS was calculated as the sum of (i) care recipients excluded due to not providing consent, (ii) care recipients excluded due to ineligibility, and (iii) care recipients eligible for QI measurement. Reasons for ineligibility for measurement differ by QI and are detailed in the QI Program Manual. More details on care recipient coverage and exclusions in the RACS QI Program at the national level for each quarter are provided in Supplementary Table S02: Care recipient coverage and exclusions.

It is important to note that, as the numerator and denominator for this calculation are not aligned at the individual level, there is the possibility for proportions to exceed one hundred per cent. Many factors contribute to the misalignment of the numerator and denominator, including lagged claims, retrospective adjustments, measurement timings, absent care recipients and care recipient deaths.

Table 4: Proportion of estimated care recipient population assessed for QIs, Quarter 4 2022–23 and Quarters 1 to 4 2023–24, of the Mandatory QI Program

	Quarter 4 Apr–Jun 2023	Quarter 1 Jul–Sep 2023	Quarter 2 Oct–Dec 2023	Quarter 3 Jan–Mar 2024	Quarter 4 Apr–Jun 2024
Pressure injuries	101.1%	102.1%	102.1%	101.4%	104.1%
Use of physical restraint	99.5%	100.4%	99.9%	99.4%	101.8%
Significant unplanned weight loss	104.3%	107.4%	107.9%	107.2%	110.3%
Consecutive unplanned weight loss	104.1%	108.3%	107.9%	107.5%	110.0%
Falls and major injury	108.9%	110.2%	109.2%	108.6%	111.5%
Medication management— polypharmacy	99.1%	100.2%	100.2%	98.8%	101.2%
Medication management— antipsychotics	98.9%	100.3%	100.1%	98.8%	101.2%
Activities of daily living*	N.A.	109.3%	106.6%	106.8%	108.9%
Incontinence	100.4%	101.7%	102.0%	101.2%	103.6%
Hospitalisations	106.7%	108.4%	108.1%	107.3%	110.8%
Workforce**	N.A.	N.A.	N.A.	N.A.	N.A.
Consumer experience	94.3%	97.4%	97.9%	97.2%	99.7%
Quality of life	93.7%	97.8%	98.0%	97.6%	100.3%

Notes:

* The activities of daily living QI measures a decline in score since the previous quarter. This QI could not be calculated for Quarter 4 of 2022-23 as no data were available for this indicator prior to this quarter.

** It is not possible to calculate estimations of coverage for the Workforce QI because population data are not available.

N.A., not applicable.

Source: Department of Health and Aged Care, data extracted 10 September 2024, published on GEN-agedcaredata.gov.au

Service response

Table 5 shows submission rates for RACS for Quarter 4 of 2022–23 and Quarters 1 to 4 of 2023–24. The submission rates by state and territory are provided in Supplementary Table S01: Service response by state/territory for 2023–24.

Table 5: Number and proportion of RACS submitting QI Program data, Quarter 4 2022–23 and Quarters 1 to 4 2023–24, of the Mandatory QI Program

	Quarter 4 Apr–Jun 2023	Quarter 1 Jul–Sep 2023	Quarter 2 Oct–Dec 2023	Quarter 3 Jan–Mar 2024	Quarter 4 Apr–Jun 2024
Number of RACS submitting QI data	2,571	2,596	2,442	2,581	2,581
Number of RACS submitting OBD claims	2,648	2,624	2,473	2,611	2,589
Proportion of RACS submitting QI data (%)	97.1%	98.9%	98.7%	98.9%	99.7%
Number of RACS reporting missing values for all QIs	2	12	12	20	0
Proportion of RACS reporting missing values for all QIs (%)	0.1%	0.5%	0.5%	0.8%	0.0%
Final number of RACS used for analysis	2,569	2,584	2,430	2,561	2,581

Notes:

Service response levels presented in this report may be different from those in the quarterly reports published by the AIHW for Quarter 4 of 2022–23 and the four quarters of 2023–24, due to the inclusion of RACS that were previously missing data as a result of late submission or amendment.

Source: Department of Health and Aged Care, data extracted 10 September 2024, published on GEN-agedcaredata.gov.au

Of the submitting RACS, not all submitted data against all 11 QIs. Table 6 shows the number whose submitted data was missing for individual QIs.

Table 6: Number and proportion of included RACS without data available on individual QIs, Quarter 4 2022–23 and Quarters 1 to 4 2023–24, of the Mandatory QI Program

	Quarter 4 Apr–Jun 2023	Quarter 1 Jul–Sep 2023	Quarter 2 Oct–Dec 2023	Quarter 3 Jan–Mar 2024	Quarter 4 Apr–Jun 2024
RACS that did not submit QI data for:					
One or more pressure injuries	3 (0.1%)	4 (0.2%)	1 (0.0%)	2 (0.1%)	2 (0.1%)
Use of physical restraint	6 (0.2%)	10 (0.4%)	11 (0.5%)	6 (0.2%)	2 (0.1%)
Significant unplanned weight loss	3 (0.1%)	9 (0.3%)	5 (0.2%)	4 (0.2%)	10 (0.4%)
Consecutive unplanned weight loss	5 (0.2%)	10 (0.4%)	12 (0.5%)	6 (0.2%)	13 (0.5%)
Falls	1 (0.0%)	3 (0.1%)	0 (0.0%)	0 (0.0%)	1 (0.0%)
Medication management—polypharmacy	2 (0.1%)	1 (0.0%)	3 (0.1%)	1 (0.0%)	1 (0.0%)
Medication management—antipsychotics	2 (0.1%)	1 (0.0%)	3 (0.1%)	1 (0.0%)	1 (0.0%)
Activities of daily living	N.A*	3 (0.1%)	11 (0.5%)	11 (0.4%)	15 (0.6%)
Incontinence associated dermatitis	2 (0.1%)	2 (0.1%)	2 (0.1%)	2 (0.1%)	3 (0.1%)
Hospitalisations	5 (0.2%)	6 (0.2%)	2 (0.1%)	0 (0.0%)	3 (0.1%)
Workforce	11 (0.4%)	16 (0.6%)	22 (0.9%)	8 (0.3%)	10 (0.4%)
Consumer experience	50 (1.9%)	24 (0.9%)	33 (1.4%)	20 (0.8%)	24 (0.9%)
Quality of life	51 (2.0%)	23 (0.9%)	32 (1.3%)	21 (0.8%)	29 (1.1%)
Total RACS	2,569	2,584	2,430	2,561	2,581

Notes:

* The activities of daily living QI measures a decline in score since the previous quarter. This QI could not be calculated for Quarter 4 of 2022–23 as no data were available for this indicator prior to this quarter.

N.A., not applicable.

Source: Department of Health and Aged Care, data extracted 10 September 2024, published on GEN-agedcaredata.gov.au

For QIs where higher percentages indicate poorer performance, 100% prevalence reporting was most common for use of physical restraint in all quarters (Table 7). These results are consistent with quarterly reports, except that 100% prevalence reporting was most common for falls in the Quarter 3 2023–24 quarterly report. For QIs where higher percentages indicate better performance, 100% prevalence reporting was most common for consumer experience in all quarters. Again, these results are consistent with quarterly reporting, except that 100% prevalence reporting was most common for quality of life in the Quarter 1 and 2 2023–24 quarterly reports.

Some RACS reported zero care recipients meeting the criteria for individual QIs (Table 7).

Table 7: Proportion of included RACS reporting 0% or 100% QI percentages, Quarter 4 2022–23 and Quarters 1 to 4 2023–24, of the Mandatory QI Program

Quality indicator	Quarter 4 Apr–Jun 2023		Quarter 1 Jul–Sep 2023		Quarter 2 Oct–Dec 2023		Quarter 3 Jan–Mar 2024		Quarter 4 Apr–Jun 2024	
	0% QI	100% QI	0% QI	100% QI	0% QI	100% QI	0% QI	100% QI	0% QI	100% QI
One or more pressure injuries	9.8%	0.0%	9.0%	0.0%	9.9%	0.0%	10.3%	0.0%	9.7%	0.0%
Use of physical restraint	21.1%	0.9%	20.2%	0.9%	21.9%	1.0%	20.8%	0.8%	19.7%	0.8%
Significant unplanned weight loss	9.3%	0.1%	8.1%	0.0%	7.0%	0.1%	6.5%	0.2%	9.3%	0.1%
Consecutive unplanned weight loss	10.5%	0.3%	8.6%	0.4%	6.9%	0.2%	7.0%	0.2%	9.5%	0.2%
Falls	0.4%	0.1%	0.4%	0.0%	0.3%	0.1%	0.6%	0.1%	0.3%	0.0%
Falls that resulted in major injury	33.0%	0.0%	34.7%	0.0%	34.8%	0.0%	34.6%	0.0%	32.5%	0.0%
Medication management—polypharmacy	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.3%	0.2%	0.3%
Medication management—antipsychotics	1.8%	0.4%	1.2%	0.3%	1.3%	0.4%	1.1%	0.4%	1.2%	0.3%
Activities of daily living	N.A*	0.0%	10.8%	0.0%	7.8%	0.0%	5.7%	0.1%	6.3%	0.0%
Incontinence	0.6%	6.0%	0.1%	5.1%	0.2%	5.1%	0.1%	4.7%	0.1%	4.5%
Incontinence associated dermatitis	33.1%	0.3%	32.2%	0.1%	31.7%	0.2%	29.9%	0.2%	28.6%	0.2%
Hospitalisations – Emergency department presentations	7.2%	0.2%	6.8%	0.2%	7.9%	0.0%	6.6%	0.0%	6.4%	0.0%
Hospitalisations – Emergency department presentations and hospitalisations	4.1%	0.3%	2.9%	0.1%	3.0%	0.1%	2.5%	0.1%	2.2%	0.2%
Workforce	23.2%	0.2%	23.5%	0.1%	24.2%	0.2%	18.7%	0.1%	23.0%	0.2%
Consumer experience	0.1%	9.1%	0.2%	10.2%	0.2%	12.4%	0.1%	11.7%	0.1%	13.1%
Quality of life	0.2%	5.0%	0.2%	5.5%	0.2%	6.9%	0.2%	6.4%	0.3%	6.5%

Notes:

* The activities of daily living QI measures a decline in score since the previous quarter. This QI could not be calculated for Quarter 4 of 2022–23 as no data were available for this indicator prior to this quarter.

N.A., not applicable.

Source: Department of Health and Aged Care, data extracted 10 September 2024, published on [GEN-agedcaredata.gov.au](https://gen-agedcaredata.gov.au)

Appendix A: Technical notes

Since 1 July 2023 the AIHW has been contracted by the Department of Health and Aged Care to provide 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. Quarterly reports have been released on the AIHW [GEN aged care data](#) website from December 2019 onwards.

These notes provide general information about data arrangements and the AIHW's collation, processing and reporting of QIs for residential aged care. Similar notes are published alongside the results for each quarter on the [GEN Aged Care website](#).

The QI Program collects QI data from 'eligible care recipients' only, meaning that QI events or outcomes experienced by care recipients 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 version 3.0](#) (the Manual).

Calculation of QIs

In accordance with the Manual, 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) and multiplied by 100 to construct each QI percentage value as follows:

$$\text{QI value} = \frac{\text{Number of eligible care recipients meeting QI criteria}}{\text{Total number of eligible care recipients assessed for QI}} \times 100$$

Not all care recipients are counted in each QI measurement. Care recipients may be excluded from QIs for various reasons, such as not consenting to being assessed or having their data collected (for applicable QIs), being absent from the service during the QI assessment period, or receiving end-of-life care. Consent is required from care recipients for the purposes of two QIs only: unplanned weight loss and pressure injuries. The reasons for other exclusions differ by QI and are detailed in the [QI Program Manual](#). The care recipients eligible to contribute to QI measurements are those in the total care recipient population who remain after subtracting ineligible care recipients (including those that do not provide consent).

In this report, aggregation was across all RACS for the main tables, or disaggregated across state/territory and remoteness regions for the supplementary tables. Disaggregation of QIs by state/territory and by remoteness categories were calculated from raw data with no risk adjustment. This means that it has not been possible to take into account variation in the complexity of residents' care needs at the service level (casemix) nor how this interacts with other features known to vary across geographical areas: such as service size, service ownership, or interaction with healthcare services such as hospitals and palliative care services.

Interpretation of QIs and Coverage

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. 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 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). It should be noted that while the original QI Program counted occurrences of pressure injuries, unplanned weight loss and physical restraint events (meaning that more than one pressure injury or physical restraint event could be counted for a single care recipient), the expanded QI Program from 1 July 2021 counts the number of care recipients meeting/not meeting QI criteria and produces prevalence rates in the form of percentages.

When interpreting 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 days in a quarter by the number of ‘Occupied Bed Days’ (OBD) for 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, yet 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.

Quality assurance checks of raw QI program data

The AIHW undertook initial examination of all QI data to confirm that there were no cases of duplicate reporting from a single service within a quarter, as well as no data supplied against invalid Residential Aged Care Service Identifiers (RACS-IDs).

In preparing this report the AIHW noted that some RACS that were included in individual quarterly reports were missing from the annual report data extract, likely due to being inactive in the system at the time of data extraction. This issue affected a small number of RACS (3 in Quarter 4 2022–23, 14 in Quarter 1 2023–24, 12 in Quarter 2 2023–24, and 14 in Quarter 3 2023–24). As it is unsustainable to manually enter inactive records for all quarters for each of the 11 quality indicators over time these data are not included in this report. This approach is consistent with the handling of inactive RACS in the quarterly reports.

Service level data from the National Aged Care Data Clearinghouse

The QI data set was merged with service-level data from the National Aged Care Data Clearinghouse (NACDC) as of 30 June 2023 (the latest available) to bring the QI data together with Modified Monash Model (MMM) 2019 remoteness classifications for 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. All RACS who submitted QI data were matched to the latest available NACDC records.

Geographic characteristics

Two separate dis-aggregations, from records that matched with NACDC records (see above), are reported for the location of residential aged care services—state/territory and remoteness. State/territory was taken from location address information reported on the QI data file and reflects standard sub-national administrative areas. Remoteness was based on the MMM collapsed into three categories—Metropolitan (MM1); Regional Centres (MM2); and a category combining Inner Regional, Outer Regional, Remote and Very Remote regions (MM3–7). It is important to note that data presented by state/territory and remoteness are not risk-adjusted to account for possible differences in the care complexity of residents in different geographical locations.

Trend analysis

Analysis to examine trends in QI performance over time was conducted using a quasi-Poisson regression model. Only the 5 indicators included in the program since 1 July 2021 are included in trend analysis. The 6 new QIs will be included in the trend analysis once there are 6 or more quarters of data available.

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 12 quarters from Q1 (July to September) 2021 to Q4 (April to June) 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"`.

$$\log(Y_{ij}) = \log(n_{ij}) + \beta_0 + \beta_1 t_j$$

Formula 1. Quasi-Poisson regression model

Where:

- Y_{ij} = 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., $t_j = 1, 2, \dots, 12$)
- n_{ij} = 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 ($\log(n_{ij})$) 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 $p < .05$ and there has been no statistically 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 $100 \times (1 - 0.975) = 2.5\%$ 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 $100 \times (1.014 - 1) = 1.4\%$ 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.

Appendix B: Quality Indicator descriptions

Quality Indicator 1: Pressure injuries

A pressure injury is a localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, shear, or a combination of these factors. Assessment of pressure injuries in eligible care recipients is made on or around the same time each quarter. This can be done as part of the care recipient's usual personal care. Consent is sought from care recipients before a full-body observation assessment is undertaken.

Eligible care recipients with one or more pressure injuries are reported against each of the six pressure injury stages:

- Stage 1 pressure injuries: intact skin with non-blanchable redness of a localised area.
- Stage 2 pressure injuries: partial-thickness skin loss presenting as a shallow open ulcer with a red/pink wound bed.
- Stage 3 pressure injuries: full-thickness skin loss, no exposure of bone, tendon or muscle.
- Stage 4 pressure injuries: full-thickness loss of skin and tissue with exposed bone, tendon or muscle.
- Unstageable pressure injuries: full-thickness skin tissue loss in which the base of the injury is covered by slough (yellow, tan, grey, green or brown) and/or eschar (tan, brown or black).
- Suspected deep tissue injuries: purple or maroon localised area of discoloured intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear.

Additional reporting: Eligible care recipients with pressure injuries that were acquired outside of the service during the quarter are counted separately but are still included in the total number of care recipients reported as having pressure injuries.

Quality Indicator 2: Use of physical restraint

The Quality of Care Principles 2014 (Quality of Care Principles) define restrictive practices as any practice or intervention that has the effect of restricting the rights or freedom of movement of a care recipient.

The QI Program physical restraint quality indicator measures and reports data relating to all restrictive practice, excluding chemical restraint. This includes physical restraint, mechanical restraint, environmental restraint and seclusion.

It is a legal requirement for RACS to document all instances of physical restraint (see Part 4A of the Quality of Care Principles). For this QI in each quarter, three days of existing records for all eligible care recipients at a service are assessed for any instances of physical restraint. This indicator is therefore a measure of the use of physical restraint across the three-day period only. This consecutive three-day period is selected and recorded by providers but must be varied each quarter and not known to the staff directly involved in care.

Use of physical restraint is still recorded even if a care recipient or their representative has provided consent for the use of the restraint.

Additional reporting: Eligible care recipients physically restrained exclusively through the use of a secure area are counted separately but are still included in the total number of care recipients reported as being physically restrained.

Quality Indicator 3: Unplanned weight loss

Weight loss is considered to be unplanned where there is no written strategy and ongoing record relating to planned weight loss for the care recipient. Eligible care recipients are weighed each month around the same time of the day and wearing clothing of a similar weight (e.g. a single layer without coats or shoes). Consent is sought from care recipients before an assessment of their body weight is undertaken.

This indicator includes two categories:

- Significant unplanned weight loss: Eligible care recipients who experienced significant unplanned weight loss of 5% or more when comparing their current and previous quarter finishing weights.
- Consecutive unplanned weight loss: Eligible care recipients who experienced consecutive unplanned weight loss every month over three consecutive months of the quarter.

Quality Indicator 4: Falls and major injury

A fall is an event that results in a person coming to rest inadvertently on the ground or floor or other lower level. For a fall to meet the criteria of resulting in a major injury, the fall must result in one or more of the following: bone fractures, joint dislocations, closed head injuries with altered consciousness and/or subdural haematoma. Assessment for falls and major injury is conducted through a single review of the care records of each eligible care recipient for the entire quarter.

This indicator includes two categories:

- Falls: Eligible care recipients who experienced a fall (one or more) at the service during the quarter.
- Falls that resulted in major injury: Eligible care recipients who experienced a fall at the service, resulting in major injury (one or more), during the quarter.

Quality Indicator 5: Medication management

Assessment for polypharmacy is conducted through a single review of medication charts and/or administration records for each eligible care recipient for a collection date selected by the service every quarter. For antipsychotics, a consecutive seven-day medication chart and/or administration record review is conducted for each eligible care recipient every quarter.

This indicator includes two categories:

- Polypharmacy: Eligible care recipients who were prescribed nine or more medications, identified by a single review of records as they were on the identified collection date in the quarter.
- Antipsychotics: Eligible care recipients who received an antipsychotic medication during the seven-day assessment period in the quarter.

Additional reporting: Eligible care recipients who received an antipsychotic medication for a diagnosed condition of psychosis are counted separately but are still reported in the total number of care recipients who received an antipsychotic medication.

Quality Indicator 6: Activities of Daily Living

Activities of daily living indicate a person's ability to move and care for themselves, and include management of personal hygiene, dressing, going to the toilet, and eating.

Assessment for activities of daily living is conducted using the Barthel Index of Activities of Daily Living (ADL assessment), a 10-item questionnaire completed by a staff member for each eligible care recipient once per quarter using existing knowledge, care records, direct observation, and talking to the care recipient. The timing of measurement is chosen at the discretion of individual services but is recommended to occur around the same time each quarter. The ADL assessment reflects the care recipient's performance in the 24-48 hours prior to the assessment.

The total score on the current quarter ADL assessment is compared to the total score on the previous quarter's ADL assessment. A decline in ADL assessment is defined as a decline of one or more points from the previous quarter to the current quarter.

Eligible care recipients who received a 'zero' score (indicating dependence in all areas) on both the previous quarter and the current quarter are included in the total number of people assessed for this indicator.

Additional reporting: Care recipients with an ADL assessment total score of zero in the previous quarter.

Quality Indicator 7: Incontinence care

Incontinence is the loss of bladder and bowel control and can lead to incontinence associated dermatitis (IAD).

Incontinence care is assessed using the Ghent Global IAD Categorisation Tool, which categorises IAD severity based on visual inspection of the affected skin areas. Assessment is conducted by a staff member for each eligible care recipient once per quarter, around the same time each quarter. The timing of measurement is chosen at the discretion of individual services.

Eligible care recipients with incontinence are recorded. Additionally, eligible care recipients who experience IAD are reported against each of the four sub-categories:

- 1A: Persistent redness without clinical signs of infection
- 1B: Persistent redness with clinical signs of infection
- 2A: Skin loss without clinical signs of infection
- 2B: Skin loss with clinical signs of infection

The proportion of care recipients meeting criteria for IAD is calculated only for those who are recorded with incontinence.

Quality Indicator 8: Hospitalisations

Emergency department presentations and hospital admissions are potentially preventable if care recipients have timely access to appropriate healthcare services.

Assessment for hospitalisations is conducted through a single review of care records for each eligible care recipient over the entire quarter.

The indicator includes two categories:

- Emergency department presentations: Eligible care recipients who had one or more emergency department presentations during the quarter.
- Emergency department presentations or hospital admissions: Eligible care recipients who had one or more emergency department presentations or hospital admissions during the quarter.

Quality Indicator 9: Workforce

Approved providers of residential aged care services report the number of staff working in defined roles over the entire quarter.

The defined roles to be reported are:

- Service managers
- Nurse practitioners or registered nurses
- Enrolled nurses
- Personal care staff or assistants in nursing

Approved providers report workforce data in three steps:

1. Staff who worked any hours in each of these roles in the previous quarter
2. Of those recorded at Step 1, staff employed in each of these roles at the start of the current quarter (i.e. those who worked at least 120 hours in the previous quarter)
3. Of those recorded at Step 2, staff who stopped working in each of these roles during the current quarter (i.e. those with a period of at least 60 days in the current quarter in which they did not work)

This quality indicator is the number and proportion of care staff in each category who stopped working for the provider between quarters, as an indicator of workforce turnover.

Quality Indicator 10: Consumer experience

The consumer experience indicator captures the care recipient's rating of six key attributes of care quality: respect and dignity, supported decision-making, skills of aged care staff, impact on health and wellbeing, social relationships and community connection, and confidence in lodging complaints.

Assessment for consumer experience is conducted using the Quality of Care Experience-Aged Care Consumers instrument, a 6-item questionnaire completed by the eligible care recipient (where possible) or a person who knows them well and sees them regularly (where the care recipient is unable to answer on their own behalf due to cognitive impairment). 'Self-completion' is when a care recipient independently completed the questionnaire, while 'interviewer-facilitated completion' is when a care recipient is assisted to complete the

questionnaire (i.e. by reading out the questions and response options) by an interviewer. The interviewer may or may not be a facility staff member. Proxy completion is when the questionnaire is completed by a family member, informal carer, or formal carer who knows the care recipient well.

Assessment occurs once per quarter, around the same time each quarter. The timing of measurement is chosen at the discretion of individual services.

Responses are categorised as:

- Excellent consumer experience: where a care recipient scores between 22–24
- Good consumer experience: where a care recipient scores between 19–21
- Moderate consumer experience: where a care recipient scores between 14–18
- Poor consumer experience: where a care recipient scores between 8–13
- Very poor consumer experience: where a care recipient scores between 0–7

The quality indicator is the number and proportion of care recipients who rated their consumer experience as 'Good' or 'Excellent'.

Quality Indicator 11: Quality of life

The quality of life indicator captures the care recipient's perception of their position in life taking into consideration their environment, goals, expectations, standards, and concerns. Assessment examines independence, mobility, pain management, emotional wellbeing, social relationships, and leisure activities / hobbies.

Assessment for quality of life is conducted using the Quality of Life – Aged Care Consumers instrument, a 6-item questionnaire completed by the eligible care recipient themselves or via an interviewer (where possible) or a person who knows them well and sees them regularly (where the care recipient is unable to answer on their own behalf due to cognitive impairment). 'Self-completion' is when a care recipient independently completed the questionnaire, while 'interviewer-facilitated completion' is when a care recipient is assisted to complete the questionnaire (i.e. by reading out the questions and response options) by an interviewer. The interviewer may or may not be a facility staff member. Proxy completion is when the questionnaire is completed by a family member, informal carer, or formal carer who knows the care recipient well.

Assessment occurs once per quarter, around the same time each quarter. The timing of measurement is chosen at the discretion of individual services.

Responses are categorised as:

- Excellent quality of life: where a care recipient scores between 22–24
- Good quality of life: where a care recipient scores between 19–21
- Moderate quality of life: where a care recipient scores between 14–18
- Poor quality of life: where a care recipient scores between 8–13
- Very poor quality of life: where a care recipient scores between 0–7

The quality indicator is the number and proportion of care recipients who rated their quality of life as 'Good' or 'Excellent'.

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Abbreviations

AIHW	Australian Institute of Health and Welfare
Commission	Aged Care Quality and Safety Commission
Department	Department of Health and Aged Care
MMM	Modified Monash Model
NACDC	National Aged Care Data Clearinghouse
NAPS	National Approved Provider System
OBD	Occupied bed days
QI	Quality Indicator
RACS	Residential Aged Care Service

References

Department of Health 2021. Modified Monash Model – fact sheet. Canberra: Department of Health. <https://www.health.gov.au/resources/publications/modified-monash-model-fact-sheet>

Department of Health and Aged Care 2019. National Aged Care Mandatory Quality Indicator Program Manual 1.0. Canberra: Department of Health.

Department of Health and Aged Care 2021. National Aged Care Mandatory Quality Indicator Program Manual 2.0. Canberra: Department of Health.

Department of Health and Aged Care 2023. National Aged Care Mandatory Quality Indicator Program Manual 3.0. Canberra: Department of Health.

Aged Care Legislation Amendment 2019. Aged Care Legislation Amendment (Quality Indicator Program) Principles 2019.