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GEN AGED CARE DATA

Residential aged care quality indicators quarterly report

April to June 2023

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Australian Institute of Health and Welfare

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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

Residential Aged Care Quality Indicators—April to June 2023

Quality indicators (QI) measure aspects of service provision that contribute to the quality of care given by residential aged care services (RACS). 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 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:

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

Details about these new indicators can be found in the *National Aged Care Mandatory Quality Indicator Program Manual 3.0 – Part A* (QI Program Manual). The suite of 6 new indicators will be included in quarterly reporting from the July-September 2023 quarter and in the 2023-24 Annual Report. Baseline data for two of these new indicators, as well as data quality checking, are required before meaningful reporting is possible.

While the original QI Program (1 July 2019) counted occurrences of pressure injuries, unplanned weight loss and use of physical restraint devices (meaning that 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/not 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.

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 have 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 included in this report: 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).

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. Further detail on each QI, including its rationale and measurement, can be found in the QI Program Manual. More information on the QI Program is available from the Department of Health and Aged Care.

* * *

This quarterly report includes QI measurements from data collected from 1 April to 30 June 2023 for 2,387 residential aged care services (RACS) conducted under the expanded QI Program *(National Aged Care Mandatory Quality Indicator Program Manual 3.0)*. These RACS are those that had received Australian Government subsidies for delivering care, services, and accommodation in that period; had submitted QI data by the due date (21 July 2023); and had not amended these data by the date of QI data extraction (29 August 2023). Data processing, checking, and preparing the data for transfer was completed by the Department of Health and Aged Care between the submission and extraction dates.

Analysis was completed by AIHW on 6 September 2023, after which a period of statistical and content reviews was undertaken within the AIHW and by the Department of Health and Aged Care up to the point of embargo and publication. Available data represented 90% of the 2,648 RACS that received these government subsidies in the quarter (less than the previous quarter). Further detail on the care recipient coverage of the QI Program in this quarter, including counts of care recipient measurements and exclusions for each QI, is presented in Table 1 of the Technical notes.

Definitions of quality indicators included in this report

Quality Indicator 1: Pressure injuries

A pressure injury is a localised injury to the skin and/or underlying tissue usually over a bony prominence, because 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 and day in each quarter of the year. 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 use of physical restraint 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 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 are 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 on 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 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 as at the 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.

National Data: Variation over time

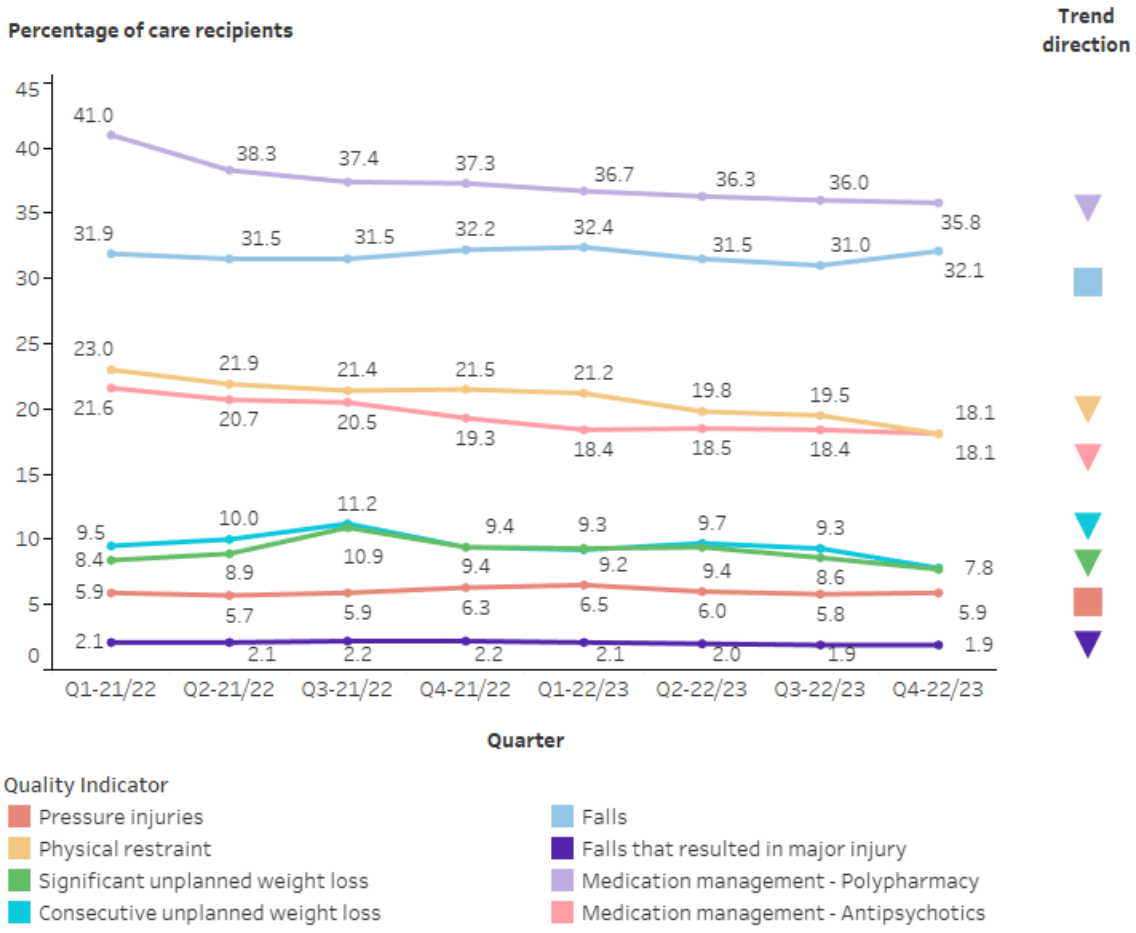
A trend analysis is conducted to examine variation over time in QI performance. For trend analysis, data are pooled together for every eligible care recipient reported about in the quarter. Trends are examined based on sector level outcomes per quarter.

At each quarter, the number of care recipients who meet 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.

The trend analysis included data from eight quarters, from July–September 2021 to April–June 2023. Results show that:

- Over time there has been a statistically significant decrease in the proportion of residents experiencing polypharmacy, antipsychotic medication use, falls that result in major injury, use of physical restraint, significant unplanned weight loss and consecutive unplanned weight loss, and;
- Over time there has been no statistically significant change in the proportion of residents experiencing falls or with one or more pressure injuries.

Trends in quality indicator performance over time, Q1 2021–22 to Q4 2022–23



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

Quality indicator data are presented below at a national level. The table presents data for all eligible care recipients aggregated across all 2,387 included RACS. The boxplot that follows presents data for all eligible care recipients aggregated at the service level. For further information on boxplots, see ‘Interpreting boxplots’ below.

Table 1: Pressure injuries in residential aged care, April to June 2023

Indicator category	Number of care recipients with one or more pressure injuries acquired outside the service	Total number of care recipients with one or more pressure injuries	Proportion of care recipients with one or more pressure injuries
One or more injuries	1,849	10,484	5.9%
Stage 1	661	4,473	2.5%
Stage 2	803	4,718	2.6%
Stage 3	220	844	0.5%
Stage 4	87	272	0.2%
Unstageable	221	794	0.4%
Suspected deep tissue	107	541	0.3%

Note: 178,661 eligible care recipients were assessed for pressure injuries in the 2,385 RACS that submitted data for this quality indicator. The total number of care recipients with one or more pressure injuries includes pressure injuries acquired both inside and outside the service.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 2: Use of physical restraint in residential aged care, April to June 2023

Indicator category	Number of care recipients restrained	Proportion of care recipients restrained
Use of physical restraint (total)	31,688	18.1%
Use of physical restraint exclusively through the use of a secure area	25,304	14.4%

Note: 175,203 eligible care recipients were assessed for use of physical restraint in the 2,381 RACS that submitted data for this quality indicator. The total number of care recipients physically restrained includes care recipients physically restrained exclusively through the use of a secure area and care recipients physically restrained not exclusively through the use of a secure area.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 3: Unplanned weight loss in residential aged care, April to June 2023

Indicator category	Number of care recipients with unplanned weight loss	Proportion of care recipients with unplanned weight loss
Significant unplanned weight loss	11,773	7.7%
Consecutive unplanned weight loss	11,629	7.8%

Note: 153,074 eligible care recipients were assessed for significant unplanned weight loss in the 2,386 RACS that submitted data for this quality indicator and 148,419 eligible care recipients were assessed for consecutive unplanned weight loss at the 2,383 RACS who submitted data for this quality indicator.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 4: Falls and falls that resulted in major injury in residential aged care, April to June 2023

Indicator category	Number of care recipients with recorded falls	Proportion of care recipients with recorded falls
Falls (total)	61,871	32.1%
Falls that resulted in major injury	3,619	1.9%

Note: 192,572 eligible care recipients were assessed for falls and major injuries in the 2,386 RACS that submitted data for this quality indicator. The total number of falls includes falls resulting in major injury and falls not resulting in major injury.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 5: Medication management—polypharmacy in residential aged care, April to June 2023

Indicator category	Number of care recipients who were prescribed nine or more medications	Proportion of care recipients who were prescribed nine or more medications
Polypharmacy	62,372	35.8%

Note: 174,351 eligible care recipients were assessed for polypharmacy in the 2,385 RACS that submitted data for this quality indicator. Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

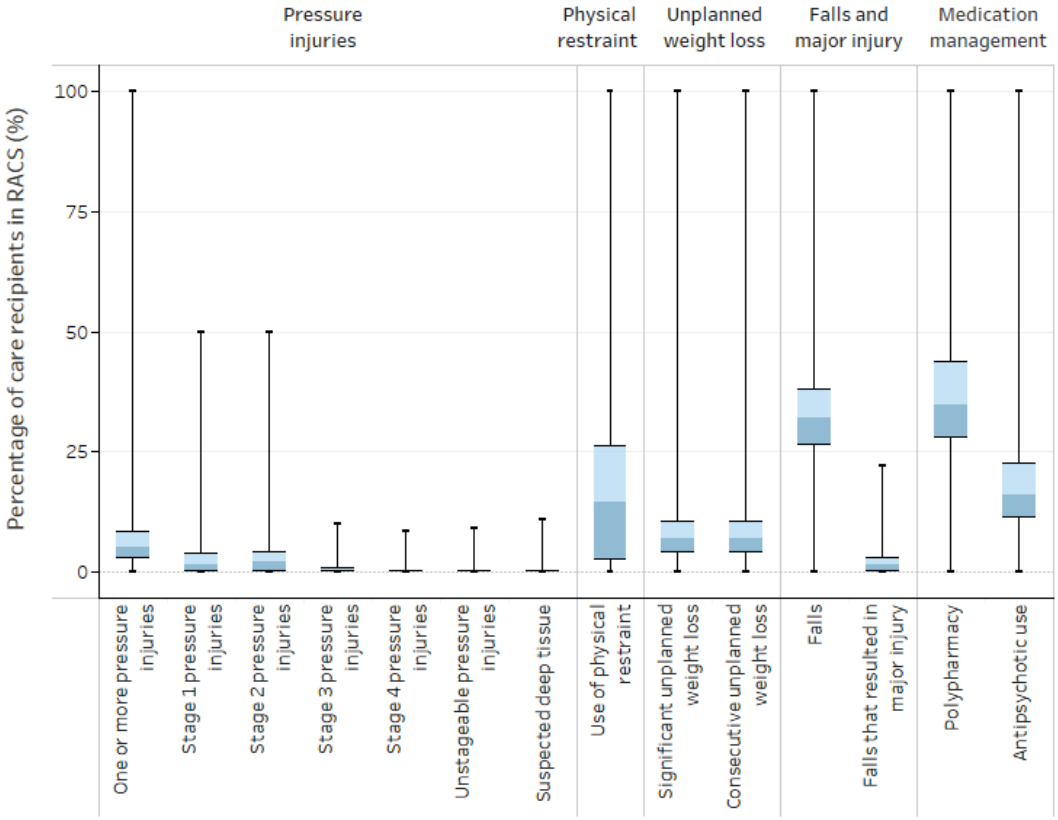
Table 6: Medication management—antipsychotics in residential aged care, April to June 2023

Indicator category	Number of care recipients who received an antipsychotic medication	Proportion of care recipients who received an antipsychotic medication
Use of antipsychotics (total)	31,598	18.1%
Antipsychotic use with diagnosed psychosis	16,546	9.5%

Note 174,808 eligible care recipients were assessed for antipsychotic use in the 2,385 RACS that submitted data for this quality indicator. The total use of antipsychotics includes care recipients who received an antipsychotic medication with diagnosed psychosis and care recipients who received an antipsychotic medication without diagnosed psychosis.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Distribution of percentage of care recipients reported by RACS as meeting criteria for quality indicators, April to June 2023



Note: The number of RACS reporting 100% QI prevalence rates was small and ranged from 0%–0.8% of the 2,387 RACS included in this report. These outlying values have not been removed prior to compiling the statistics presented in this report because although some could reflect recording errors others could reflect valid data. See 'Technical notes' for more information on outliers, inconsistencies in calculated QIs and number of RACS reporting 0% and 100%.
Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Interpreting boxplots

The values shown in the box plots are the **minimum** value, 25th percentile ('**Lower Hinge**'), the 50th percentile ('**Median'**), 75th percentile ('**Upper Hinge**') and the **maximum** value.

As an example of interpreting the percentiles, the 25th percentile shows at what QI prevalence rate 25% of the RACS reported a rate lower than this, and conversely 75% of the RACS reported a QI rate higher than this. The median value represents the QI prevalence rate in the middle of the values reported in Australia.

The interquartile range (IQR) is a measure of statistical dispersion or spread of QI rates and is the difference between the 75th percentile and the 25th percentile values.

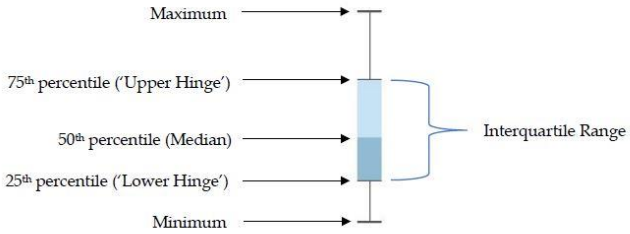


Table 7: Distribution of percentage of care recipients reported by RACS as meeting criteria for quality indicators, April to June 2023

	Percentage of care recipients in RACS (%)				
Indicator	**Minimum**	**25th percentile**	**Median**	**75th percentile**	**Maximum**
One or more pressure injuries	0.0	2.7	5.1	8.2	100
Stage 1 pressure injuries	0.0	0.0	1.7	3.8	50.0
Stage 2 pressure injuries	0.0	0.0	2.1	3.9	50.0
Stage 3 pressure injuries	0.0	0.0	0.0	0.7	10.0
Stage 4 pressure injuries	0.0	0.0	0.0	0.0	8.7
Unstageable pressure injuries	0.0	0.0	0.0	0.0	9.1
Suspected deep tissue pressure injuries	0.0	0.0	0.0	0.0	11.1
Use of physical restraint	0.0	2.4	14.6	25.9	100
Significant unplanned weight loss	0.0	4.0	7.0	10.3	100
Consecutive unplanned weight loss	0.0	4.0	7.1	10.4	100
Falls	0.0	26.3	32.1	37.7	100
Falls that resulted in major injury	0.0	0.0	1.5	2.9	22.2
Polypharmacy	0.0	27.7	34.9	43.5	100
Antipsychotic use	0.0	11.3	16.1	22.5	100

Note: The number of RACS reporting 100% QI prevalence rates was small and ranged from 0%–0.8% of the 2,387 RACS included in this report. These outlying values have not been removed prior to compiling the statistics presented in this report because although some could reflect recording errors others could reflect valid data. See ‘Technical notes’ for more information on outliers, inconsistencies in calculated QIs and number of RACS reporting 0% and 100%.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Geographic variation

Disaggregations of QIs by state and territory and by remoteness categories were calculated from raw data with no risk adjustment. It is not possible to take into account variation in the complexity of people's care needs at the service level (case-mix) 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).

Table 8a: Pressure injuries in residential aged care, percentage of care recipients, by state and territory, April to June 2023

Indicator category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
One or more injuries	5.5%	5.9%	5.6%	6.3%	6.6%	7.4%	5.8%	4.2%	5.9%
Stage 1	2.3%	2.3%	2.6%	2.9%	2.9%	4.0%	2.9%	2.2%	2.5%
Stage 2	2.6%	2.9%	2.5%	2.5%	2.9%	2.8%	1.9%	1.4%	2.6%
Stage 3	0.5%	0.5%	0.4%	0.4%	0.7%	0.5%	0.6%	0.6%	0.5%
Stage 4	0.2%	0.2%	0.1%	0.1%	0.2%	0.1%	0.2%	0.0%	0.2%
Unstageable	0.4%	0.5%	0.3%	0.5%	0.6%	0.2%	0.4%	0.2%	0.4%
Suspected deep tissue	0.3%	0.3%	0.2%	0.5%	0.2%	0.2%	0.3%	0.2%	0.3%

Note: This table presents aggregate data for 178,661 eligible care recipients assessed for pressure injuries in the 2,385 RACS that submitted data for this quality indicator by state and territory. It includes data for pressure injuries acquired both inside and outside the service.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 8b: Pressure injuries in residential aged care acquired outside the service, percentage of care recipients, by state and territory, April to June 2023

Indicator category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
One or more injuries	1.2%	0.9%	1.0%	0.9%	1.2%	1.0%	1.0%	0.6%	1.0%
Stage 1	0.4%	0.3%	0.3%	0.4%	0.4%	0.6%	0.3%	0.2%	0.4%
Stage 2	0.5%	0.4%	0.4%	0.4%	0.5%	0.3%	0.5%	0.0%	0.4%
Stage 3	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.2%	0.1%
Stage 4	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Unstageable	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.0%	0.2%	0.1%
Suspected deep tissue	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%

Note: This table presents aggregate data for 178,661 eligible care recipients assessed for pressure injuries in the 2,385 RACS that submitted data for this quality indicator by state and territory.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 9: Use of physical restraint in residential aged care, percentage of care recipients, by state and territory, April to June 2023

Indicator category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Physical restraint (total)	17.8%	17.4%	20.3%	19.4%	15.5%	16.2%	15.7%	21.7%	18.1%
Physical restraint exclusively through the use of a secure area	14.0%	14.9%	14.7%	16.1%	13.7%	11.2%	12.4%	17.1%	14.4%

Note: This table presents aggregate data for 175,203 eligible care recipients assessed for use of physical restraint in the 2,381 RACS that submitted data for this quality indicator by state and territory. The total number of care recipients physically restrained includes care recipients physically restrained exclusively through the use of a secure area and care recipients physically restrained not exclusively through the use of a secure area.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 10: Unplanned weight loss in residential aged care, percentage of care recipients, by state and territory, April to June 2023

Indicator category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Significant unplanned weight loss	7.5%	7.6%	8.2%	7.4%	7.2%	8.3%	7.3%	14.8%	7.7%
Consecutive unplanned weight loss	7.4%	8.5%	7.8%	7.2%	7.7%	9.4%	7.8%	11.1%	7.8%

Note: This table presents aggregate data for 153,074 eligible care recipients were assessed for significant unplanned weight loss in the 2,386 RACS that submitted data for this quality indicator and 148,419 eligible care recipients assessed for consecutive unplanned weight loss in the 2,383 RACS that submitted data for this quality indicator by state and territory.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 11: Falls and falls that resulted in major injury in residential aged care, percentage of care recipients, by state and territory, April to June 2023

Indicator category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Falls (total)	31.2%	31.2%	32.7%	34.1%	35.3%	31.2%	32.5%	28.2%	32.1%
Falls that resulted in major injury	1.8%	1.8%	2.2%	1.6%	2.2%	1.4%	1.4%	1.9%	1.9%

Note: This table presents aggregate data for 192,572 eligible care recipients assessed for falls and major injuries in the 2,386 RACS that submitted data for this quality indicator by state and territory. The total number of falls includes falls resulting in major injury and falls not resulting in major injury.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 12: Medication management in residential aged care, percentage of care recipients, by state and territory, April to June 2023

Indicator category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Polypharmacy	36.8%	36.5%	35.2%	35.2%	33.7%	32.4%	33.8%	18.9%	35.8%
Antipsychotics (total)	16.6%	20.8%	16.7%	19.6%	17.8%	16.8%	14.7%	15.1%	18.1%
Antipsychotics with diagnosed psychosis	9.0%	11.5%	8.3%	8.2%	10.3%	8.6%	7.3%	5.7%	9.5%

Note: This table presents aggregate data for 174,351 eligible care recipients assessed for polypharmacy in the 2,385 RACS that submitted data for this quality indicator and 174,808 eligible care recipients assessed for antipsychotic use in the 2,385 RACS that submitted data for this quality indicator by state and territory. The total use of antipsychotics includes care recipients who received an antipsychotic medication with diagnosed psychosis and care recipients who received an antipsychotic medication without diagnosed psychosis.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 13a: Pressure injuries in residential aged care, percentage of care recipients, by remoteness, April to June 2023

Indicator category	Metropolitan (MM1)	Regional centres (MM2)	Rural and remote (MM3–MM7)	Aust
One or more injuries	5.6%	6.6%	6.4%	5.9%
Stage 1	2.3%	3.2%	2.9%	2.5%
Stage 2	2.5%	2.8%	2.9%	2.6%
Stage 3	0.5%	0.4%	0.5%	0.5%
Stage 4	0.2%	0.2%	0.2%	0.2%
Unstageable	0.5%	0.4%	0.3%	0.4%
Suspected deep tissue	0.3%	0.3%	0.2%	0.3%

Note: This table presents aggregate data for 178,661 eligible care recipients assessed for pressure injuries in the 2,385 RACS that submitted data for this quality indicator by Modified Monash Model (2019) classifications. It includes data for pressure injuries acquired both inside and outside the service.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 13b: Pressure injuries in residential aged care acquired outside the service, percentage of care recipients, by remoteness, April to June 2023

Indicator category	Metropolitan (MM1)	Regional centres (MM2)	Rural and remote (MM3–MM7)	Aust
One or more injuries	1.0%	1.0%	1.1%	1.0%
Stage 1	0.4%	0.4%	0.4%	0.4%
Stage 2	0.5%	0.4%	0.5%	0.4%
Stage 3	0.1%	0.1%	0.1%	0.1%
Stage 4	0.0%	0.0%	0.1%	0.0%
Unstageable	0.1%	0.1%	0.1%	0.1%
Suspected deep tissue	0.1%	0.1%	0.0%	0.1%

Note: This table presents aggregate data for 178,661 eligible care recipients assessed for pressure injuries in the 2,385 RACS that submitted data for this quality indicator by Modified Monash Model (2019) classifications.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 14: Use of physical restraint in residential aged care, percentage of care recipients, by remoteness, April to June 2023

Indicator category	Metropolitan (MM1)	Regional centres (MM2)	Rural and remote (MM3–MM7)	Aust
Physical restraint (total)	17.6%	19.3%	19.1%	18.1%
Physical restraint exclusively through the use of a secure area	14.1%	14.7%	15.3%	14.4%

Note: This table presents aggregate data for 175,203 eligible care recipients assessed for use of physical restraint in the 2,381 RACS that submitted data for this quality indicator by Modified Monash Model (2019) classifications. The total number of care recipients physically restrained includes care recipients physically restrained exclusively through the use of a secure area and care recipients physically restrained not exclusively through the use of a secure area**.**

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 15: Unplanned weight loss in residential aged care, percentage of care recipients, by remoteness, April to June 2023

Indicator category	Metropolitan (MM1)	Regional centres (MM2)	Rural and remote (MM3–MM7)	Aust
Significant unplanned weight loss	7.6%	8.7%	7.6%	7.7%
Consecutive unplanned weight loss	7.8%	8.1%	7.9%	7.8%

Note: This table presents aggregate data **for** 153,074 eligible care recipients were assessed for significant unplanned weight loss in the 2,386 RACS that submitted data for this quality indicator and 148,419 eligible care recipients assessed for consecutive unplanned weight loss in the 2,383 RACS that submitted data for this quality indicator by Modified Monash Model (2019) classifications.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 16: Falls and falls that resulted in major injury in residential aged care, percentage of care recipients, by remoteness, April to June 2023

Indicator category	Metropolitan (MM1)	Regional centres (MM2)	Rural and remote (MM3–MM7)	Aust
Falls (total)	32.2%	31.3%	32.2%	32.1%
Falls that resulted in major injury	1.9%	1.9%	1.9%	1.9%

Note: This table presents aggregate data for 192,572 eligible care recipients assessed for falls and major injuries in the 2,386 RACS that submitted data for this quality indicator by Modified Monash Model (2019) classifications. The total number of falls includes falls resulting in major injury and falls not resulting in major injury.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Table 17: Medication management in residential aged care, percentage of care recipients, by remoteness, April to June 2023

Indicator category	Metropolitan (MM1)	Regional centres (MM2)	Rural and remote (MM3–MM7)	Aust
Polypharmacy	35.9%	33.6%	36.4%	35.8%
Antipsychotics (total)	17.9%	18.5%	18.3%	18.1%
Antipsychotics with diagnosed psychosis	9.8%	8.2%	9.0%	9.5%

Note: This table presents aggregate data for 174,351 eligible care recipients assessed for polypharmacy in the 2,385 RACS that submitted data for this quality indicator and 174,808 eligible care recipients assessed for antipsychotic use in the 2,385 RACS that submitted data for this quality indicator by Modified Monash Model (2019) classifications. The total use of antipsychotics includes care recipients who received an antipsychotic medication with diagnosed psychosis and care recipients who received an antipsychotic medication without diagnosed psychosis.

Source: Department of Health and Aged Care, data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Technical notes

National Aged Care Mandatory Quality Indicator Program: 1 April to 30 June 2023.

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' 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 3.0* (the 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 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 April to 30 June 2023 were provided to the AIHW on 29 August 2023 by 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 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 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 (referred to throughout this report as ‘eligible care recipients’) and multiplied by 100 to construct each QI category.

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

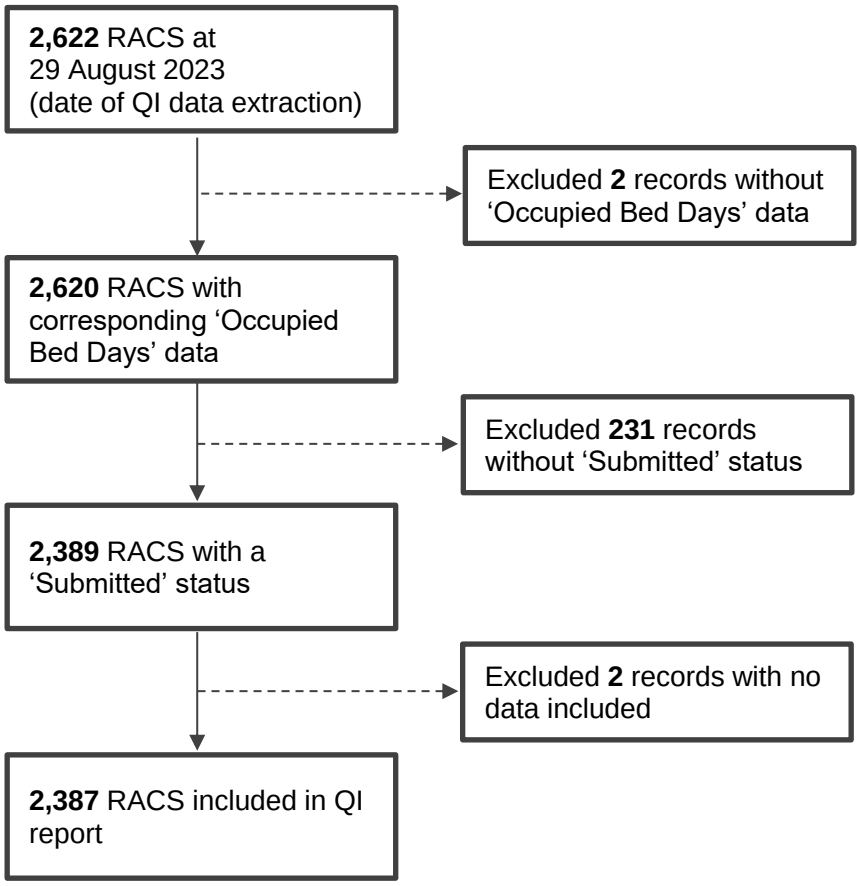
For each of the QIs, the percentage value was derived using the following formula:

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

Service participation, and estimated care recipient coverage

For this quarter, providers were required to submit QI data to the Department by 21 July 2023. The QI raw data were then extracted by the Department on 29 August 2023, comprising data from 2,622 RACS. No duplicate QI records were found. The QI records were then filtered using Occupied Bed Days (OBD) data to derive an approximate denominator. Two RACS were excluded due to having not received Australian Government subsidies for delivering care, services and accommodation (OBD data). Among 2,620 RACS with corresponding ‘Occupied Bed Days’, 2,389 (91.2%) were recorded with a ‘Submitted’ submission status. However, 2 of these RACS did not include any QI assessment data and were excluded, resulting in the final data set of 2,387 (91.1%) RACS.

Of the remaining 231 RACS without submitted status, 155 (5.9%) were recorded as ‘Updated after due date’; 26 (1.0%) were recorded as ‘late submission’, and 50 (1.9%) were recorded as ‘Not submitted’. The RACS analysed in this quarterly report include only the 2,387 RACS with a ‘Submitted’ status and with data for at least one QI.



Compared with the previous quarter, this represents a decrease in RACS included in this quarterly report of 4.4%. Of the included 2,387 RACS, 2,373 (99%) submitted QI data for all five QIs. Of the 14 RACS that did not submit data for all QIs, 13 (93%) submitted data for 4 of 5 QIs.

The QI Program's coverage of the estimated care recipient population ranged from 91.6% for antipsychotic use to greater than 100% for falls and major injury (Table 1).

Injuries related to falls can result in hospitalisations for eligible care recipients during a reporting period – this may affect the Occupied Bed Day figures for the facilities involved and the associated estimated denominator for this indicator.

The number of care recipients excluded due to ineligibility (Table 1, Column D) was highest for consecutive unplanned weight loss (18%) and significant unplanned weight loss (17%), consistent with the previous quarter. For these QIs, the most common reason for exclusion was the unavailability of care recipient records.

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 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.

Table 1: Estimated care recipient coverage and exclusions in the RACS QI Program, April to June 2023

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	180,132	93.8%	995 (0.6%)	476 (0.3%)	178,661 (99.2%)
Use of physical restraint	176,738	92.0%	N.A.	1,535 (0.9%)	175,203 (99.1%)
Unplanned weight loss —significant	187,309	97.5%	2,839 (1.5%)	31,396 (16.8%)	153,074 (81.7%)
Unplanned weight loss —consecutive	186,867	97.3%	3,867 (2.1%)	34,581 (18.5%)	148,419 (79.4%)
Falls and major injury	193,097	100.5%	N.A.	525 (0.3%)	192,572 (99.7%)
Medication management —polypharmacy	176,234	91.7%	N.A.	1,883 (1.1%)	174,351 (98.9%)
Medication management — antipsychotics	176,073	91.6%	N.A.	1,265 (0.7%)	174,808 (99.3%)

Notes:

* Included RACS were those that had: submitted QI data by the due date and had not amended those data by the date of QI data 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.

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 (192,117 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 data extracted 29 August 2023, OBD data extracted 29 August 2023, published on GEN-agedcaredata.gov.au

Geographic characteristics

Two separate disaggregations are reported for the location of RACS—state and territory and remoteness. State and territory was 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 2023 (the latest available) to bring the QI data together with Modified Monash Model (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. In this step, all of the 2,387 records matched with a service identified in the NACDC.

Remoteness was based on the Modified Monash Model (MMM) 2019 collapsed into 3 categories—Metropolitan; Regional Centres; and a category combining Inner Regional, Outer Regional, Remote and Very Remote regions, and was obtained predominantly from the NACDC.

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.

Outliers and inconsistencies 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 are differences in manuals (detailed below) and for this reason comparisons across the two program periods are not recommended.

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, 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).

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 this remains the case, the AIHW will continue to conduct analysis 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 Program Manual or reporting template.

There are probable discrepancies in the total number of care recipients assessed by a service for inclusion in each QI. Some of this is to be expected because measurement can occur at different times for different QIs. However some of the discrepancy may be attributable to data entry errors or misinterpretation of the Program Manual. In particular, some services appeared to have only assessed and counted care recipients who met the

criteria for that particular indicator, without accounting for those who were assessed but did not meet the criteria. For example, when assessing care recipients for use of physical restraint QI, some services only accounted for those who had been physically restrained, without accounting for those who had not been physically restrained. A service may have recorded 5 care recipients assessed as meeting the criteria for the use of physical restraint indicator out of 5 care recipients assessed (or 100%), rather than 5 care recipients assessed as meeting the criteria out of 81 assessed, 76 of whom were found not to meet the criteria (or 94%). This type of error means that QI percentages are overestimated for some RACS.

The number of 100% prevalence rate reporting was highest for use of physical restraint (Table 2). Some RACS reported zero care recipients meeting the criteria for individual QIs, which varied between QIs substantially (Table 2).

Table 2. Selected RACS reporting characteristics in the Mandatory QI Program, April to June 2023

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%	230	9.6%
Use of physical restraint	20	0.8%	504	21.1%
Significant unplanned weight loss	2	0.1%	223	9.3%
Consecutive unplanned weight loss	7	0.3%	250	10.5%
Falls	2	0.1%	9	0.4%
Falls that resulted in major injury	0	0.0%	783	32.8%
Polypharmacy	7	0.3%	6	0.3%
Antipsychotics	7	0.3%	45	1.9%

Note: Percentages are calculated in relation to 2,387 RACS
Source: Department of Health and Aged Care, data extracted 29 August 2023, 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.

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 test the trend of aggregated quality indicators over eight quarters from Q1 (July to September) 2021 to Q4 (April to June) 2023 as outlined in Formula 1. Quasi-Poisson regression fits an extra dispersion parameter to account for the extra variance. Models were fitted in SAS using *PROC GENMOD*.

$$\log(\mu_i) = \log t_i + \beta_0 + \beta_1 X_i$$

Formula 1. Quasi-Poisson regression model

Where:

- $\mu_= E(Y_i)=Var(Y_i)$: The main feature of a Poisson model is that the expected value of the random variable Y_i (counts of care recipients who meet criteria) for subject I (one or more pressure injuries, use of physical restraint, significant unplanned weight loss, consecutive unplanned weight loss, polypharmacy, antipsychotics) is equal to its variance.
- β_0 = regression constant
- β_1 = vector of regression coefficients
- X_i = vector of covariates for subject I (number of quarter for each quality indicator)
- Log t_i = offset variable (numbers of care recipients assessed for quality indicator i).

The differences in numbers of care recipients assessed by the service are considered by including an **offset** in the model 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-Sept 2021 to Q4 Apr-Jun 2023

	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	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	1.001 (0.996-1.005)	0.0%
Use of physical restraint	23.0	21.9	21.4	21.5	21.2	19.8	19.5	18.1	0.971 (0.965-0.977)	2.9%*
Significant unplanned weight loss	8.4	8.9	10.9	9.4	9.3	9.4	8.6	7.7	0.985 (0.982-0.989)	1.5%*
Consecutive unplanned weight loss	9.5	10.0	11.2	9.4	9.2	9.7	9.3	7.8	0.976 (0.972-0.980)	2.4%*
Falls	31.9	31.5	31.5	32.2	32.4	31.5	31	32.1	1.000 (0.997-1.002)	0.0%
Falls that resulted in major injury	2.1	2.1	2.2	2.2	2.1	2.0	1.9	1.9	0.980 (0.974-0.987)	2.0%*
Polypharmacy	41.0	38.3	37.4	37.3	36.7	36.3	36	35.8	0.984 (0.982-0.986)	1.6%*
Antipsychotic use	21.6	20.7	20.5	19.3	18.4	18.5	18.4	18.1	0.974 (0.970-0.978)	2.6%*

*Statistically significant to $p < 0.05$.

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

Conclusion

This quarterly report uses data collected under the National Aged Care Mandatory Quality Indicator Program Manual 3.0. In this quarter, 90% of services that claimed Australian Government subsidies for delivering care provided QI data, less than the previous quarter (94%). There was a decrease at the national level in the coverage of the QI Program in terms of care recipients assessed compared to the previous quarterly report.

Measurement and reporting factors impacting on data quality remain and some are described earlier in these technical notes. 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. In addition, 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. Caution also needs to be taken when interpreting changes in QI values across quarters, and when 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.

References

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