Alberta
Long-Term Care Resident Profile 2016/2017
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Definitions

Alberta Continuing Care Information System (ACCIS): A data repository in Alberta Health that validates and stores standardized assessment data on the characteristics of residents in publicly funded long-term care facilities.

Continuing care: The health care, personal care and accommodation services provided to Albertans to support their independence and quality of life, based on assessed need. This includes home care, supportive living and long-term care.

Episode of care: The time between the resident’s admission into the long-term care facility until discharge.

Full assessment: A Resident Assessment Instrument-Minimum Data Set 2.0 (RAI-MDS 2.0) assessment completed within two weeks of entry to a long-term care facility, on the anniversary of the previous full assessment, or if there is a significant change in health status. If a full assessment is done after a significant change in a resident’s health status, the date of this full assessment becomes the new anniversary date.

interRAI: An international collaboration that develops tools to collect data on characteristics and outcomes of individuals who obtain health and social services. This includes the RAI-MDS 2.0 that is used to assess long-term care residents in Alberta.

Long-term care: A facility-based living environment (either a nursing home or an auxiliary hospital) with 24/7 registered nursing support for individuals with complex needs who are unable to remain at home or in a supportive living setting.

Maintenance resident: A resident with chronic health conditions and/or unstable living conditions who requires the support of professional health services delivered in a long-term care facility.

Physical function: Includes activities such as the ability to transfer from the bed to a chair, use the toilet, eat, and manage personal hygiene needs.

Private pay resident: A resident with chronic health conditions and/or unstable living conditions who requires the support of professional health services delivered in a long-term care facility, and who exclusively pays all costs associated with care services and accommodations.
Quarterly assessment: The quarterly assessment is used to track the resident’s status between full assessments, and to ensure monitoring of critical indicators of the gradual onset of significant changes in resident status. This assessment must be completed on a quarterly basis between full assessments and within 92 days following the last full or quarterly assessment.

Resident: Any person who resides in a long-term care facility.

Resident Assessment Instrument-Minimum Data Set 2.0 (RAI-MDS 2.0): The RAI-MDS 2.0 is a standardized clinical assessment tool developed by interRAI and designed to guide care planning and monitoring of resident health status in long-term care settings. See page 7 (Background) for more information about the RAI-MDS 2.0 assessment instrument.

Respite Resident: A resident who resides in a long-term care facility for a short period of time, for the purpose of providing relief to their primary caregiver. Following the planned short stay, it is anticipated that the resident will return to their home in the community.

Short-stay resident: A resident who resides in a long-term care facility for 28 days or less.
Introduction

This Long-Term Care (LTC) Resident Profile describes the population that resides in LTC in Alberta during a specified period of time. This includes the social, demographic, physical, health and behavioral characteristics of LTC residents. This information helps identify trends and guides strategic policy for continuing care in Alberta.

This report presents the profile of LTC residents in Alberta for the 2016/2017 fiscal year (April 1, 2016 to March 31, 2017). LTC facilities submitted data to the Alberta Continuing Care Information System (ACCIS) at Alberta Health. This is the sixth annual LTC Resident Profile developed in Alberta using the ACCIS data.

To capture changes over a five year period, comparisons to 2011/2012 ACCIS data have been included for some sections. In addition, the Canadian Institute for Health Information (CIHI) Quality Indicator data (2016/2017) has been incorporated into this profile, where applicable, to compare Alberta’s performance on a number of quality indicators to the national average. Further details regarding CIHI’s data and other Quality Indicators not included in this report are publicly available at www.yourhealthsystem.cihi.ca using the search function within the “In Depth” section.

Background

In 2003/2004, ACCIS was developed as a way to gather accurate, meaningful and timely information about continuing care clients. ACCIS is a valuable tool to support provincial and health system accountability measures and quality improvement initiatives. ACCIS uses a standardized data set developed by interRAI consisting of the RAI-MDS 2.0 assessment instrument for use in LTC facilities.

The ACCIS database receives, validates and stores data from publicly funded LTC facilities. The data are also submitted to CIHI on a regular basis.

The RAI-MDS 2.0:

- Gathers information on residents’ strengths and needs
- Enables the tracking of changes in health status
- Uses an interdisciplinary approach
- Aids in care planning
Methodology

In the ACCIS database, an episode of care is defined as the time between the resident’s admission into the LTC facility and discharge. Within that episode, the resident will have a full assessment completed within 14 days of admission and an assessment completed every quarter (92 days) thereafter.

A total of 20,073 unique residents (maintenance, short-stay and private pay) who received services from LTC facilities during the 2016/2017 fiscal year were initially identified to be included in this profile. LTC residents are assessed using the full RAI-MDS 2.0 tool within 14 days of admission to gain a comprehensive understanding of the resident’s health status and care needs. During the year, residents also receive three quarterly assessments which monitor the resident’s needs between yearly comprehensive full assessments. Of the 20,073 unique residents, 475 did not have a full or quarterly assessment completed (this could be for a variety of reasons including residents being discharged before 14 days of admission). This reduced the total number of residents described in the 2016/2017 Alberta Long-Term Care Resident Profile to 19,598.

To see a breakdown of the assessment numbers used for this report, please see page 9.

Interpreting these results

This profile consists of a compilation of data from both types of assessment (full assessment and quarterly assessment) to gather a better picture of LTC residents. The data used in this report is based on the most recent assessment; that may be either a full assessment or quarterly assessment, depending on the resident.

It is important to note that more items are captured on the yearly full assessment than are captured on the quarterly assessments and therefore, the total number of full assessments used (18,792) is the most commonly used denominator for the data results. Where a denominator differs from 18,792, the profile will identify the denominator.

For ease of readability and simplicity, percentages within this report are rounded to the nearest whole number. Accordingly, some percentages may total more than 100%.
Assessments used for the report

20,073
Number of unique individuals (maintenance, short-stay and private pay) living in a LTC facility during the 2016/2017 fiscal year

475 (Removed)
Number of unique residents with no completed full or quarterly assessment (short-stay residents or those who passed away)

2,073
Number of unique individuals (maintenance, short-stay and private pay) living in a LTC facility during the 2016/2017 fiscal year

18,792
Number of full assessments used

806
Number of quarterly assessments used

19,598
Number of unique individuals who were assessed using the RAI-MDS 2.0 during the 2016/2017 fiscal year
Demographic profile

This section of the report provides a brief description of the demographic profile of LTC residents in Alberta during the 2016/2017 fiscal year.

Age

Age at mid-fiscal year (September 30, 2016) ranged from 19 to 111 years with an average age of 82.5 years and a median age of 85 years.*

- 9% of residents were under 65 years of age
- 80% were 75 years of age or older
- 54% were 85 years of age or older

*The age data set includes all 19,598 residents.

Figure 1: Age of Long-Term Care Residents as of September 30, 2016

Average Length of Stay was 2.4 years**

**Excludes short stay and respite residents. Median length of stay is 1.3 years.
Gender

Sixty-two per cent (62%) of LTC residents in Alberta were female, while thirty-eight per cent (38%) were male.*

62% were female
38% were male

*The gender data set includes all 19,598 residents.

Primary language

There were 121 different languages recorded among LTC residents*. The most common language primarily spoken or understood by LTC residents was English. The top five languages are listed in the table below.

Table 1: Top Five Languages Spoken

<table>
<thead>
<tr>
<th>Language</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>89.5%</td>
</tr>
<tr>
<td>Chinese</td>
<td>1.9%</td>
</tr>
<tr>
<td>Italian</td>
<td>0.6%</td>
</tr>
<tr>
<td>Cantonese</td>
<td>0.6%</td>
</tr>
<tr>
<td>Polish</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

89% spoke English as their primary language.

*Language data is based on 18,314 residents.
Education level

Education levels recorded for LTC residents vary from “no schooling” to “graduate degree.”

Over 50% of LTC residents with a recorded education level had a high school education or higher.

Figure 2: Highest Level of Education

- Graduate degree: 4%
- Bachelor’s degree: 8%
- Some college: 10%
- Technical or trade school: 8%
- High school: 23%
- 9th - 11th grades: 22%
- 8th grade or less: 24%
- No schooling: 2%

*26% of residents were recorded as unknown for this element and therefore, only 14,407 residents were included in Figure 2.
Health profile

This section describes the health status of LTC residents in Alberta during the 2016/2017 fiscal year.

Chronic disease

The most commonly diagnosed chronic condition among LTC residents was dementia or Alzheimer’s disease. Fifty-nine per cent (59%) of all LTC residents in Alberta had a diagnosis of dementia or Alzheimer’s disease. Figure 3 shows the top 10 chronic conditions for 2016/2017 and the increase, if any, in disease prevalence since 2011/2012.

Figure 3: Top 10 Chronic Conditions in 2016/2017 and Increase in Prevalence from 2011/2012

- Dementia or Alzheimer’s Disease: 59%
- Hypertension: 54%, Increase: 5%
- Arthritis: 36%, Increase: 4%
- Depression: 35%
- Gastrointestinal Disease: 30%, Increase: 6%
- Osteoporosis: 25%
- Diabetes Mellitus: 24%, Increase: 2%
- Hypothyroidism: 23%, Increase: 4%
- Emphysema/Chronic Obstructive Pulmonary Disease (COPD): 19%, Increase: 2%
- Cerebrovascular Accident (CVA/Stroke): 18%

+ 3% of LTC residents have a developmental disability

*Canadian Institute for Health Information Quick Stats (2016/2017)
Changes in Health, End-Stage Disease and Signs and Symptoms (CHESS) Scores

The CHESS score detects frailty and health instability. It is designed to identify residents at risk of serious decline. Higher scores indicate higher levels of medical complexity and are associated with adverse outcomes such as mortality, hospitalization, pain, caregiver stress and poor self-rated health. In 2016/2017, sixty-three percent (63%) of residents had some indication of health instability (CHESS score ≥1).

Compared to Ontario (62%), British Columbia (52%), Saskatchewan (49%) and Manitoba (45%), Alberta has the largest percentage of LTC residents with CHESS scores equal to or greater than one, indicating that Alberta has increased health instability among its LTC residents*.

*Canadian Institute for Health Information Quick Stats (2016/2017)

Table 2: Changes in Health, End-Stage Disease and Signs**

<table>
<thead>
<tr>
<th>CHESS Score</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>No instability (0)</td>
<td>37%</td>
</tr>
<tr>
<td>1</td>
<td>31%</td>
</tr>
<tr>
<td>2</td>
<td>19%</td>
</tr>
<tr>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Highest instability (5)</td>
<td>1%</td>
</tr>
</tbody>
</table>

**The CHESS Score data set includes all 19,598 residents.

In 2016/2017, 4% of LTC residents had an end-stage disease (six months or less to live), which is a 2% increase from 2011/2012.
Memory and Recall Ability

Both short-term and long-term memory loss were common among LTC residents, indicating that the majority of residents had difficulty recalling both recent (e.g., what was for breakfast) and past events (e.g., where did the resident live prior to LTC).

Observation period: last seven days prior to assessment.

77% of residents had short-term memory loss
63% of residents had long-term memory loss

Figure 4 illustrates the memory/recall performance of LTC residents within their environmental setting. This data set identifies all that the resident was normally able to recall during the past 7 days, and therefore, the total is greater than one hundred percent (100%). This information provides staff with a better understanding of the resident’s memory and recall performance beyond initial impression.

Figure 4: Memory/Recall Performance within the Resident’s Environmental Setting
Cognitive Skills for Daily Decision-Making

When determining a resident’s actual performance in making everyday decisions about tasks or activities of daily living (e.g., choosing items of clothing, attending scheduled meals, and understanding their own strengths and limitations) a small percentage of LTC residents (10%) were identified as independent with decision making.

Nearly one-quarter (24%) of residents were classified as having modified independence where they were able to make safe decisions in familiar situations, but experienced some difficulty in decision-making when faced with new tasks or situations.

The largest proportion (43%) of LTC residents were moderately impaired meaning their decisions were poor and the resident required reminders, cues and supervision in organizing and planning daily routines. Nearly a quarter of LTC residents (23%) were severely impaired; never or rarely making decisions. Observation period: last seven days prior to assessment.

90% of residents in LTC have some form of cognitive impairment. This percentage has remained consistent over the past five years.

Nearly 1 in 4 residents of LTC never or rarely make decisions about tasks or activities of daily living.
Cognitive Performance Scale

A further measure of cognitive functioning is the Cognitive Performance Scale (CPS). This scale looks at short-term memory recall, cognitive skills for daily decision-making, expressive communication (making self understood), and impairments in self-performance related to eating. Higher CPS scores indicate more severe cognitive impairment. Thirty-two percent (32%) of LTC residents in Alberta have severe cognitive impairment (CPS score ≥ 4); this is consistent with other provinces.

Table 3: Cognitive Performance Scale Scores*

<table>
<thead>
<tr>
<th>Cognitive Performance Scale Score</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intact (0)</td>
<td>8%</td>
</tr>
<tr>
<td>Borderline intact (1)</td>
<td>12%</td>
</tr>
<tr>
<td>Mild impairment (2)</td>
<td>14.5%</td>
</tr>
<tr>
<td>Moderate impairment (3)</td>
<td>33.5%</td>
</tr>
<tr>
<td>Moderate/severe impairment (4)</td>
<td>9%</td>
</tr>
<tr>
<td>Severe impairment (5)</td>
<td>12.5%</td>
</tr>
<tr>
<td>Very severe impairment (6)</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

*This CPS data set includes all 19,598 residents.

**Canadian Institute for Health Information Quick Stats
Indicators of Depression, Anxiety and Sad Mood

To help identify mood distress, a serious condition that can be associated with significant morbidity, the RAI-MDS 2.0 records the frequency of indicators of depression, anxiety and sad mood. Figure 5 represents the frequency of each indicator as exhibited at least once in the past 30 days or exhibited daily in the past 30 days.

Figure 5: Indicators of Depression, Anxiety and Sad Mood Exhibited in the Past 30 days
Focus on Depression in LTC

Depression affects quality of life and may also contribute to deteriorations in activities of daily living and an increased sensitivity to pain. It is important to assess for depression and to treat appropriately. The Depression Rating Scale (DRS)* is a clinical tool used to screen for depression. The scale ranges from 0 (no depressive symptoms) to 13. In 2016/2017, thirty-three percent (33%) of LTC residents scored 3 or higher, indicating a potential or actual problem with depression. This is a six percent (6%) decrease from the 2011/2012 rates.

*The DRS data set includes all 19,598 residents.

Behaviour Symptoms

The RAI-MDS 2.0 captures the frequency, in the last seven days, of behavioural symptoms that cause distress to the resident, or are distressing or disruptive to facility residents or staff members. Figure 6 represents the percentage of residents who either resisted care, displayed verbally abusive behavioural symptoms, socially inappropriate or disruptive behavioural symptoms, physically abusive behavioural symptoms, or wandering behaviour either 1 to 3 days, 4 to 6 days or daily, in the past seven days.

Figure 6: Behavioural Symptom Frequency in the Past 7 Days

<table>
<thead>
<tr>
<th>Behavioural Symptoms</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resists Care</td>
<td>19%</td>
</tr>
<tr>
<td>Verbally Abusive</td>
<td>11%</td>
</tr>
<tr>
<td>Socially Inappropriate/Disruptive</td>
<td>10%</td>
</tr>
<tr>
<td>Physically Abusive</td>
<td>9%</td>
</tr>
<tr>
<td>Wandering</td>
<td>8%</td>
</tr>
</tbody>
</table>

The 2016/2017 CIHI Quality Indicators report that 27.1% of Alberta’s LTC residents experienced worsened depressive mood. This is higher than the Canadian average at 21.7%**.

**2016/2017 CIHI Quality Indicators. The Canada rate includes participation from approximately 60% of LTC facilities across the country.
Bowel and Bladder Continence

Regarding urinary bladder function, twenty-four percent (24%) of residents were continent or usually continent, while forty-nine percent (49%) of residents had some level of incontinence*. Nine percent (9%) of residents had an indwelling catheter. The pattern of bowel continence in thirty-eight percent (38%) of residents was either continent or usually continent, while sixteen percent (16%) of residents had some level of bowel incontinence.

A five-point coding scale is used to describe continence patterns.

0 Continent—Complete control (including control achieved by care that involves prompted voiding, habit training, reminders, etc.).

1 Usually Continent—Bladder incontinent episodes occur once a week or less. Bowel incontinent episodes occur less than weekly.

2 Occasionally Incontinent—Bladder incontinent episodes occur two or more times a week but not daily. Bowel incontinent episodes occur once a week.

3 Frequently Incontinent—Bladder incontinent episodes tend to occur daily, but some control is present (e.g. on day shift). Bowel incontinent episodes occur two to three times per week.

4 Incontinent—Has inadequate control. Bladder incontinent episodes occur multiple times daily. Bowel incontinence is all (or almost all) of the time.

Figure 7: Pattern of Bladder and Bowel Continence in the Past 14 Days

*The Bowel and Bladder Continence data set includes all 19,598 residents.
**Pain**

On the RAI-MDS 2.0, pain is defined as physical pain or discomfort in any part of the body. Forty-one percent (41%) of LTC residents* experienced some sort of pain on a daily basis or less than daily basis. Of the residents that experienced some sort of pain, ninety-three percent (93%) experienced pain of a mild or moderate nature. For seven percent (7%) of the LTC residents, the pain was severe enough to disrupt social occasions, sleep and daily activities.

*The Frequency of Pain data set includes all 19,598 residents.

6.9% of Alberta’s LTC residents experienced pain (moderate or excruciating). This is second lowest compared to other Canadian provinces.**

13% of Alberta’s LTC residents experienced worsened pain. This is second highest compared to other Canadian provinces.**

**2016/2017 CIHI Quality Indicators. The Canada rate includes participation from approximately 60% of LTC facilities across the country.

**Figure 8: Location of Physical Pain as Described by the Residents**

<table>
<thead>
<tr>
<th>Location of Pain</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Pain (Other than Hip)</td>
<td>34%</td>
</tr>
<tr>
<td>Pain in Other Site</td>
<td>33%</td>
</tr>
<tr>
<td>Back Pain</td>
<td>29%</td>
</tr>
<tr>
<td>Soft Tissue Pain</td>
<td>17%</td>
</tr>
<tr>
<td>Hip Pain</td>
<td>13%</td>
</tr>
<tr>
<td>Headache</td>
<td>10%</td>
</tr>
<tr>
<td>Bone Pain</td>
<td>8%</td>
</tr>
<tr>
<td>Stomach Pain</td>
<td>6%</td>
</tr>
<tr>
<td>Incisional Pain</td>
<td>2%</td>
</tr>
<tr>
<td>Chest Pain</td>
<td>1%</td>
</tr>
</tbody>
</table>
Skin Conditions: Ulcers

To determine the condition of the resident’s skin, the RAI-MDS 2.0 records the highest stage for two types of ulcers, pressure and stasis. Pressure ulcers are a breakdown of the skin (sometimes deep) resulting from pressure or shear forces. Stasis ulcers are a breakdown of the skin resulting from poor venous blood circulation. Observation period: last seven days prior to assessment.

There are four stages of skin ulcers:

- **Stage 1**: A persistent area of skin redness without a break in the skin
- **Stage 2**: A partial thickness loss of skin layers that presents clinically as an abrasion, blister or shallow crater
- **Stage 3**: A full thickness of skin is lost, exposing the subcutaneous tissue
- **Stage 4**: A full thickness of skin and Subcutaneous tissue is lost, exposing muscle or bone.

Figure 9: Highest Stage for Pressure and Stasis Ulcers in the Past 7 Days

3.1% of Alberta’s LTC residents experienced worsened pressure ulcers. This is higher than the Canadian average at 2.9%.*

*2016/2017 CIHI Quality Indicators. The Canada rate includes participation from approximately 60% of LTC facilities across the country
Skin Conditions: Other Skin Problems or Lesions Present and Skin Treatments Received

The RAI-MDS 2.0 also records the presence of other skin problems or lesions and skin treatments received in the past 7 days. Thirty-four percent (34%) of LTC residents had an abrasion or bruise while sixty-six percent (66%) of residents used a pressure relieving device for a chair.

Figure 10: Presence of Other Skin Problems or Lesions in the Past 7 Days

Table 4: Skin Treatments Received in the Past 7 Days

<table>
<thead>
<tr>
<th>Type of Skin Treatments</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure relieving device(s) for chair</td>
<td>66%</td>
</tr>
<tr>
<td>Other preventative or protective skin care</td>
<td>59%</td>
</tr>
<tr>
<td>Pressure relieving device(s) for bed</td>
<td>55%</td>
</tr>
<tr>
<td>Application of ointments or medications</td>
<td>29%</td>
</tr>
<tr>
<td>Application of dressing other than to the feet</td>
<td>13%</td>
</tr>
<tr>
<td>Nutrition or hydration intervention to manage skin problems</td>
<td>11%</td>
</tr>
<tr>
<td>Ulcer care</td>
<td>10%</td>
</tr>
<tr>
<td>Turning or repositioning program</td>
<td>10%</td>
</tr>
<tr>
<td>Surgical wound care</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Percentages do not add up to 100% as not all residents have skin problems or lesions.
Accidents (Falls)

The RAI-MDS 2.0 measures accidents. This metric can help determine the resident’s risk of future falls or injuries.

- 18% of LTC residents fell in the past month
- 28% of LTC residents fell in the past six months
- 3% of LTC residents experienced a hip fracture in the past six months
- 2% of LTC residents experienced a fracture other than of the hip in the past six months

*2016/2017 CIHI Quality Indicators. The Canada rate includes participation from approximately 60% of LTC facilities across the country

Medication Use: Number

Almost all LTC residents (99.6%) received one or more different medications in the past seven days. On average, LTC residents in Alberta received 10 different medications in the past seven days at the time of assessment. The Canadian Institute for Health Information (2016) reports that “residents of LTC facilities use more drugs than those in the community because they tend to be older, more frail and sicker than seniors living in the community. This increased drug use continues even after adjusting for clinical characteristics.” (Drug Use Among Seniors in Canada, Canadian Institute for Health Information, 2016).

Figure 11: Number of Different Medications Received in the Past 7 Days
## Medication Use: Type

### Table 5: Medications Received by Type (in the past 7 days)**

<table>
<thead>
<tr>
<th>Medication Type</th>
<th>Percentage of Residents***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analgesic</td>
<td>70.3%</td>
</tr>
<tr>
<td>Antidepressant</td>
<td>51.8%</td>
</tr>
<tr>
<td>Diuretic</td>
<td>26.6%</td>
</tr>
<tr>
<td>Antipsychotic</td>
<td>21.7%</td>
</tr>
<tr>
<td>Hypnotic</td>
<td>17.1%</td>
</tr>
<tr>
<td>Antianxiety</td>
<td>11.2%</td>
</tr>
</tbody>
</table>

**Canadian Institute for Health Information Quick Stats (2016/2017), a total of 19,989 assessments were used for this data set.

***Percentages do not add up to 100% as many residents took medication from more than one category.

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### Spotlight on the Appropriate Use of Antipsychotics

Since 2015, Alberta’s Ministry of Health has funded the Alberta Health Services Appropriate Use of Antipsychotic (AUA) program to reduce the inappropriate use of antipsychotics in facility-based care. In 2010/2011, 27.8% of residents in LTC were on antipsychotics without a diagnosis of psychosis. In six years, Alberta has decreased that rate to 17.4%, the lowest rate in Canada. The new target for antipsychotic use in LTC is 15%; the goal will be for 80% of Alberta’s LTC facilities to fall between 10-20% by March 31, 2020.

Initiatives such as the AUA program have raised awareness regarding drug use in seniors. CIHI reports that the proportion of seniors prescribed 10 or more different drug classes decreased from 53.4% in 2011 to 48.4% in 2016¹. Alberta has also seen a decrease in the percentage of residents who received 10 or more different medications from 59% in 2011/12 to 53% in 2016/17.
Communication and Hearing

The RAI-MDS 2.0 assesses a resident’s ability to hear (with assistive devices, if used), understand and communicate with others.

Despite forty-four percent (44%) of LTC residents recording difficulty hearing, only eleven percent (11%) of residents used a hearing aid on a regular basis. Four percent (4%) had a hearing aid but did not use it regularly *Observation period: last seven days prior to assessment.*

Table 6: Hearing Ability

<table>
<thead>
<tr>
<th>Hearing Ability</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hears adequately</td>
<td>74%</td>
</tr>
<tr>
<td>Hears with minimal difficulty</td>
<td>29%</td>
</tr>
<tr>
<td>Can only hear in special situations, or highly impaired</td>
<td>15%</td>
</tr>
</tbody>
</table>

94% of LTC residents used speech as their mode of expression; however, only 75% of all residents had clear speech.

19% of LTC residents used signs, gestures or sounds to communicate.

Table 7: Making Self Understood (A) and Ability to Understand Others (B)

(A) Making Self Understood by Others

<table>
<thead>
<tr>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understood or usually understood</td>
</tr>
<tr>
<td>Sometimes or rarely/never understood</td>
</tr>
</tbody>
</table>

(B) Ability to Understand Others

<table>
<thead>
<tr>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understands or usually understands</td>
</tr>
<tr>
<td>Sometimes or rarely/never understands</td>
</tr>
</tbody>
</table>
Vision

The RAI-MDS 2.0 measures a LTC resident’s ability to see close objects in adequate lighting, using the resident’s customary visual appliance (e.g., glasses or magnifying glass). Sixty-one percent (61%) of residents used a visual appliance (e.g., glasses). Observation period: last seven days prior to assessment.

When assessing a resident’s ability to see close objects in adequate light:

- 45% of residents had adequate vision
- 37% of residents had impaired vision
- 10% of residents had moderately impaired vision
- 8% of residents had highly or severely impaired vision

Oral and Nutritional Status

In the seven days prior to assessment, thirty-seven percent (37%) of LTC residents had difficulty chewing, twenty-seven percent (27%) of residents had problems associated with swallowing, while one percent (1%) of residents had mouth pain*.

35% of residents left a quarter or more of their food uneaten at most meals. This element may alert a health practitioner that a resident is not receiving adequate nutrition.

* The Oral and Nutritional Status data set includes all 19,598 residents
Activities of Daily Living (ADL) Self-Performance

A LTC resident’s ability to perform activities of daily living (ADL) is one indicator of their physical functioning. Physical function includes ADLs such as the ability to transfer from the bed to a chair, to use the toilet, to feed oneself, and to manage personal hygiene needs. Assessing what the resident actually did for them self and/or how much verbal or physical help was required by others is important for identifying residents at risk of physical decline.

Figure 12: Residents’ Self-Performance in Activities of Daily Living

<table>
<thead>
<tr>
<th>Walking/Locomotion (i.e., wheelchair propulsion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locomotion On Unit</td>
</tr>
<tr>
<td>Locomotion Off Unit</td>
</tr>
<tr>
<td>Walk In Room</td>
</tr>
<tr>
<td>Walk In Corridor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transfer and Bed Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer</td>
</tr>
<tr>
<td>Bed Mobility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Care Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilet Use</td>
</tr>
<tr>
<td>Personal Hygiene</td>
</tr>
<tr>
<td>Eating</td>
</tr>
<tr>
<td>Dressing</td>
</tr>
</tbody>
</table>

- Independent
- Supervision
- Limited Assistance
- Extensive Assistance
- Total Dependence
- Activity Did Not Occur
Over the past five years, there has been a rise in residents’ needs for extensive assistance with daily activities. This figure shows the increase from 2011/12 to 2016/17.

**A Focus on Transferring and Locomotion: CIHI Quality Indicators**

In 2016/2017, **31.5%** of Alberta’s LTC residents improved or remained independent in transferring and locomotion, two activities of daily living that may indicate an improvement in overall health status. This percentage is the same as the Canadian average (**31.4%**).

However, in the same year, **35.4%** of Alberta’s LTC residents worsened or remained completely dependent in transferring and locomotion, which is higher than the Canadian average of **33.1%**. An increased level of dependence on others to assist with these two daily activities may indicate deterioration in health status.

*2016/2017 CIHI Quality Indicators. The Canada rate includes participation from approximately 60% of LTC facilities across the country*
Care and Intervention

This section describes common care and intervention strategies for LTC residents in Alberta during the 2016/2017 fiscal year.

Nutritional Approaches

Many LTC residents had oral problems such as difficulties with chewing and/or swallowing food that could affect their health and functional status.

Table 8 below identifies what nutritional approaches were used in LTC and the percentage of residents that used each approach. Thirty-five percent (35%) of residents had their meals mechanically altered (e.g., pureed food, ground meat and soft solids) and thirty percent (30%) of residents had a therapeutic diet. Twenty-nine percent (29%) used dietary supplements, such as protein shakes, between meals.

Table 8: Nutritional Approaches

<table>
<thead>
<tr>
<th>Approach</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanically altered diet</td>
<td>35%</td>
</tr>
<tr>
<td>Therapeutic diet (e.g., low salt, calorie-specific, etc.)</td>
<td>30%</td>
</tr>
<tr>
<td>Dietary supplement between meals</td>
<td>29%</td>
</tr>
<tr>
<td>On a planned weight change program</td>
<td>11%</td>
</tr>
<tr>
<td>Specialized, altered or adaptive equipment</td>
<td>5%</td>
</tr>
<tr>
<td>Parenteral/intravenous</td>
<td>3%</td>
</tr>
<tr>
<td>Feeding tube</td>
<td>2%</td>
</tr>
<tr>
<td>Syringe (oral feeding)</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>
Devices and Physical Restraints

A physical restraint is any manual method, or any physical or mechanical device, material, or equipment that is attached or adjacent to the resident’s body, that the resident cannot remove easily and that restricts the resident’s freedom of movement or normal access to his or her body.

Among LTC residents, other types of side rails (partial bed rails, such as half rails or rails on one side) were the most frequently used device to physically restrain residents at any time during the day or night. Limb restraints were the least frequently used device for restraining residents. Observation period: last seven days prior to assessment.

**Figure 13: Frequency with which the Resident was Restrained by Devices and Restraints used over the Past 7 Days**

Alberta’s 2016-2017 rate for percentage of LTC residents that are in daily physical restraints is 6.5%. This is second lowest across Canada and the same as the Canadian average*.

*2016/2017 CIHI Quality Indicators. The Canada rate includes participation from approximately 60% of LTC facilities across the country.
**Therapy**

The RAI-MDS 2.0 assessment definition states that to be included, therapies must have occurred after admission into the facility, be ordered by a physician (if applicable), and be performed by a qualified therapist or, in some instances, under the direct supervision of a qualified therapist. The therapeutic interventions residents receive are based on a therapist’s assessment and treatment plan documented in the resident’s records. Figure 14 describes the proportion of residents that received at least one day of therapy in the past seven days.

Figure 14: Proportion of Residents with at Least One Day of Therapy in the Past 7 Days

<table>
<thead>
<tr>
<th>Types of Therapies</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational Therapy</td>
<td>34%</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>22%</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>20%</td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td>1%</td>
</tr>
<tr>
<td>Psychological Therapy</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Speech Language Pathology/Audiology Services</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Compared to 2011/2012, the proportion of residents with at least one day of recreational therapy in the past seven days has **decreased** by 20%. However, the 2016/2017 rate of 34% is substantially higher than the Canadian average of 13.6%*

*Canadian Institute for Health Information Quick Stats (2016/2017)
Hospital and Emergency Room Use

Eight percent (8%) of residents visited the emergency room (ER) once and one percent (1%) visited the emergency room twice, with no overnight stay.

Nineteen percent (19%) of residents had one hospital admission (with an overnight stay) while two percent (2%) of residents had two hospital admissions (with an overnight stay).

The majority of residents had no ER visits (91%) or overnight hospital admissions (79%). Observation period: last ninety days prior to assessment.

Figure 15: Number of ER Visits and Hospital Admissions (with an overnight stay) in the Past 90 Days

- 91% of residents had no ER visits.
- 79% of residents had no overnight hospital admissions.
- 8% of residents visited the ER once.
- 1% of residents visited the ER twice.
- 19% of residents had one hospital admission.
- 2% of residents had two hospital admissions.
- 0% of residents visited the ER three or more times.
- 0% of residents had more than two hospital admissions.
**Physician Visits**

The majority of residents within the LTC facility (79%) were examined by a physician (this includes medical doctor, osteopath, nurse practitioner, podiatrist, optometrist, dentist and naturopathic doctor) at least one day in the past 14 days. In some cases, the frequency of physician’s visits is indicative of clinical complexity.

This data only shows the number of days in which a resident has seen a physician, not how many individual visits or encounters a resident has had with physicians. It is possible that a resident may see two physicians on one day, however this would still count as one day of physician visits.

**Figure 16: Number of Days During the Past 14 Day Period that a Physician Examined the LTC Resident**

*The Physician Visits data includes all 19,598 residents*
Intervention Programs for Mood, Behaviour and Cognitive Loss

Table 9 represents the percentage of residents who participated in an intervention program for mood, behavior and cognitive loss. This measure captures all interventions or strategies used for a resident in the past 90 days.

Table 9: Intervention Programs for Mood, Behaviour and Cognitive Loss

<table>
<thead>
<tr>
<th>Type of Intervention</th>
<th>Description</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reorientation</td>
<td>Sessions that aim to reduce disorientation in confused residents. Includes environmental cues.</td>
<td>19%</td>
</tr>
<tr>
<td>Resident-specific deliberate changes in the environment</td>
<td>Adapting the environment based on the resident's individual pattern. For example, placing “wet paint” banner on a closet door to keep the resident from repetitively emptying all the clothes out of the closet.</td>
<td>7%</td>
</tr>
<tr>
<td>Evaluation by a licensed mental health specialist</td>
<td>Assessment of a mood or behaviour, disorder or other mental health problem by a qualified clinical professional (psychiatrist, psychologist, psychiatric nurse, etc.)</td>
<td>3%</td>
</tr>
<tr>
<td>Special behaviour symptom evaluation program</td>
<td>A program of ongoing, comprehensive, interdisciplinary evaluation of behavioural symptoms in an attempt to understand the meaning behind the behaviour in regards to the resident’s health and functional status.</td>
<td>2%</td>
</tr>
<tr>
<td>Group therapy</td>
<td>A group of people participating in therapy aimed at helping to reduce loneliness, isolation and the sense that one’s problems are unique and difficult to solve.</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>
For more information

The 2016/2017 Alberta Long-Term Care Resident Profile was developed through the coordinated efforts of the Continuing Care Branch and the Health Analytics Branch at Alberta Health. The Alberta Long-Term Care Resident Profile is an ongoing project that will continue to produce this report on an annual basis. Each report will act as a cross-sectional profile, providing insight on the potential changes among LTC residents in Alberta.

For questions regarding the methodology or development of the Alberta Long-Term Care Resident Profile, please contact the Continuing Care Branch at Alberta Health at 780-638-4495. Dial 310-0000 for toll-free access within Alberta.

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