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**Alberta Long Term Care
Resident Experience Survey**

Agili-T Health Solutions Inc.



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1 EXECUTIVE SUMMARY

1.1 Overview

Surveys are an integral part of the Health Quality Council of Alberta's (HQCA) legislated mandate to measure, monitor and report to Albertans about their experience and satisfaction with the quality of health services they receive. In 2003 and 2004, the HQCA did a survey called *Satisfaction with Health Care Services: A Survey of Albertans*. The results showed Albertans are concerned about long term care (also called nursing homes) services in the province. And while many Alberta long term care providers and some health regions have done family and resident surveys in the past, this is the first resident experience survey of its kind conducted at the provincial level.

In addition the HQCA, long term care providers, health care professionals and policymakers recognize that family and resident experience is a key measure of quality and an important aspect of providing and improving care and services for nursing home residents.

The survey sought to:

- Identify areas of excellence and opportunities for improvement in the long term care sector.
- Get standardized and comparable information from across the province, health regions and service providers.
- Provide a beginning point or baseline for measuring long term care quality improvement initiatives.

The survey used the CAHPS Nursing Home Survey: Resident Instrument. CAHPS refers to the Consumer Assessment of Healthcare Providers and Systems developed by the U.S.-based Agency for Healthcare Research and Quality. Prior to conducting the survey, the HQCA did validation studies and a pilot test to ensure the survey would collect valid and reliable information about residents' experiences with nursing home care in Alberta. The questionnaire collected the following information:

- Resident characteristics.
- Resident experience with care, communication and respect, autonomy, and activities.
- Quality of life.
- End of life issues.

A total of 3415 face-to-face interviews were completed with residents living in 172 long term care facilities across Alberta from May to September 2007. Overall, 24% of residents were able to complete the interview.

1.2 Key Findings

Overall, 50% of those residents surveyed rated the care they get from nursing home staff as excellent (9 or 10 out of 10); 32% rated the care as average (7 or 8 out of 10) and 18% rated the care as poor (0 to 6 out of 10). When asked how they would rate the nursing home on a scale of 0 to 10, 52% rated it as excellent (9 or 10 out of 10), 30% rated it as average (7 or 8 out of 10) and 18% rated it as poor (0 to 6 out of 10). Most residents (89%) said they would definitely (51%) or probably (38%) recommend the nursing home to others and 86% said they received the care they needed at the nursing home. In addition, the survey found residents rated smaller nursing homes (those with fewer beds) more positively than large facilities.

The survey found that from the residents' perspective, items related to communication and respect had the strongest relationship to the overall care rating. This includes how respectful staff are to residents, how well staff listen and how well they explain things to residents. Items related specifically to resident care (e.g., pain control, staff responsiveness and privacy) and the nursing home environment (e.g., food, cleanliness, safety and security) were also important.

The survey was constructed to gather the residents' experiences with the care and services provided at the nursing home. Most questions in the survey asked residents to answer on a scale of 0 - 10 where 0 is the worst possible and 10 is the best possible. This scale is a sensitive rating measure, but is always very skewed to the positive. It is also a relative measure; its power is the ability to discriminate between a range of performance. When more detailed experiences of respondents are examined, 0 - 6 ratings are associated with relatively poor care, 7 - 8 is associated with care that has room for improvement in

comparison to the best care, and 9 - 10 is associated with care that is generally optimal. In using this scale in other healthcare settings, CAHPS documentation recommends collapsing the 0 – 10 scale in this way^{1,2}. Furthermore, when the response distribution was examined in the HQCA study, 7 - 8 is in fact the lower middle ground (not a rating of 5). An average care rating is in effect the middle of the distribution; it is not the average of numbers between 0 and 10. Therefore, for reporting purposes, a resident rating of 9 - 10 is reported as excellent, 7 - 8 as average and 0 - 6 as poor.

To simplify data interpretation, survey questions were grouped into sets of items that relate to a specific theme. Results show that what had the strongest relationship to residents' overall care rating was the theme that addressed items related to communication and respect.

Communication and respect

- 51% of residents rated the respectfulness of staff as 9-10 (excellent), 31% rated it as 7-8 (average) and 18% rated it as 0-6 (poor).
- 40% of residents rated how well nursing home staff listened to them as 9-10 (excellent), 33% as 7-8 (average) and 27% as 0-6 (poor).
- 42% of surveyed residents rated staffs' ability to explain things in a way that is easy to understand as 9-10 (excellent), 32% as 7-8 (average) while 26% rated it as 0-6 (poor).
- 58% of residents reported they are **not** unhappy with the care they get at the nursing home while about 15% are unhappy with the care.
- 79% of residents feel free to speak to staff when they are unhappy with their care.

The remaining composites and related questions are listed in order of their strength of relationship to the overall care rating.

Care

- Of those residents that take medicine for aches or pain, 34% gave a rating of 9-10 (excellent) when asked how well their medicine worked to help with aches or pains, 38% rated it as 7-8 (average) and 28% rated it as 0-6 (poor).
- 46% of residents rated how well staff help when they have pain as 9-10 (excellent), 31% as 7-8 (average) and 23% as 0-6 (poor).
- 28% rated how quickly staff come when they call for help as 9-10 (excellent), 33% as 7-8 (average) and 38% as 0-6 (poor).
- Of those residents that reported staff help with dressing, bathing, showering or toileting, 47% rated how gentle staff are when they help as 9-10 (excellent), 33% as 7-8 (average) while 21% rated this as 0-6 (poor).
- Of those residents that reported staff help with dressing showering or bathing, 90% reported staff ensured they had enough personal privacy
- Of those residents that need help from staff to stay clean, 90% said they received the help they needed.

Environment

- 23% of residents rated the food at their nursing home as 9-10 (excellent), 33% as 7-8 (average) and 44% as 0-6 (poor).
- Of those residents that eat in the dining room, 22% rated how much they enjoyed mealtimes in the dining room as 9-10 (excellent), 34% as 7-8 (average) while 44% as 0-6 (poor).
- 28% rated the comfort of the temperature in the nursing home as 9-10 (excellent), 34% as 7-8 (average) and 39% as 0-6 (poor).
- 51% of residents rated the cleanliness of the nursing home as 9-10 (excellent), 32% as 7-8 (average) and 17% as 0-6 (poor).
- 53% of residents rated how safe and secure they feel in the nursing home as 9-10 (excellent), 29% rated it as 7-8 (average) and 19% rated it as 0-6 (poor).
- 83% said the area around their room was quiet at night and 21% reported being bothered by noise during the day.

¹ Instructions for Analyzing CAHPS® Data: Using the CAHPS Analysis Program Version 3.6, CAHPS Kit 2007.

² Frequently Asked Questions: "Why should we collapse the 0-10 global rating items into three categories?"
<https://www.cahps.ahrq.gov>

- 86% of residents reported being able to find a private place to visit.

Autonomy

- 80% of residents said they can choose what time they want to go to bed.
- 89% can choose the clothes they wear.
- 86% of residents reported they can choose what activities they do.

Activities

- 37% of residents reported there are **not** enough organized activities on weekends.
- 77% said there are enough organized activities during the week.
- 72% are satisfied with how their time is spent in the nursing home.

Medical and safety

- 17% of residents indicated they did **not** see a doctor for medical care inside or outside the nursing home.
- 74% said a doctor is available when they need one.
- Of those residents that are unable to turn themselves over without help, 33% reported being left sitting or laying in the same position so long it hurts.
- 87% said they can reach the call button by themselves and 72% can reach something to drink by themselves.

Quality of life

- 54% of residents reported feeling worried often (18%) or sometimes (36%),
- 86% of residents felt happy often (50%) or sometimes (36%).
- 54% reported feeling bored often (20%) or sometimes (34%).
- 53% of residents said they felt lonely often (21%) or sometimes (32%).
- 27% rated their life now as 9-10 (excellent), 33% as 7-8 (average) and 40% as 0-6 (poor).

End of life

- 56% said they had talked with their family and 28% spoke with a staff member or health care professional about what treatment they want if they become ill or cannot speak for themselves.
- 88% of residents said it is extremely, very or somewhat important to talk about end-of-life issues.

Upper and lower quartile facilities

A major aspect of our study explored differences between facilities that achieved higher overall nursing home ratings ("Overall, what number would you use to rate this nursing home?") and those with lower ratings. Residents from upper quartile facilities gave a higher rating overall for the nursing home (90% providing a rating of 7-10) compared to lower quartile facility residents (66% rating 7-10). This analysis will be important for those facilities in the lower quartiles in determining the importance and focus of quality improvement activities. Facilities wishing to improve can look to those upper quartile performers for examples of how to achieve exemplary performance in various areas. (Note: the following results reflect significant differences between those facilities belonging exclusively to the upper and lower quartiles:

- Staff at upper quartile facilities were perceived by residents as more respectful (86% of residents providing a rating from 7 to 10 compared to 75% for lower quartile facility residents) and better listeners (76% rating 7-10 in the upper quartile versus 66% lower).
- Fewer residents were unhappy with the care they get from staff in upper quartile facilities, (14% reported "yes" compared to 21% for lower quartile residents).
- Residents in upper quartile facilities rated how quickly staff come when they call for help higher (67% rating 7-10) than those in lower quartile facilities (48% rating 7-10).
- More residents in upper quartile facilities reported getting the help they needed from staff to stay clean (91% "yes" for the upper versus 82% for the lower).
- Residents at upper quartile facilities rated the food higher (59% rating 7-10) compared to lower quartile facility residents (41% rating 7-10).
- Upper quartile facility residents rated their enjoyment of mealtimes higher (61% rating 7-10) than residents from lower quartile facilities (48% rating 7-10).

- Upper quartile facility residents rated the temperature of the nursing home as more comfortable than lower quartile facility residents (68% rating 7-10 for the upper versus 55% for the lower).
- Residents from upper quartile facilities felt more safe and secure in the nursing home compared to those in lower quartile facilities (85% rating 7-10 for upper versus 75% for lower).
- Upper quartile facility residents reported the area around their room is quieter at night (88% “yes” for upper versus 81% for lower) and they are bothered less by noise during the day (7% “yes” for upper versus 11% for lower).
- Upper quartile facility residents were more likely to find a place to visit in private compared to lower quartile facility residents (91% “yes” for upper versus 84% for lower).
- More residents from upper quartile facilities reported there were enough organized activities on the weekends (54% “yes” for upper versus 44% for lower) and during the week (81% “yes” for upper versus 71% for lower).
- Residents from upper quartile facilities were more likely to be satisfied with how they spend their time (77% “yes”) compared to residents from lower quartile facilities (65%).
- Residents from upper quartile facilities were more likely to report they were able to reach something to drink by themselves (75% “yes” for upper versus 65% for lower).
- Residents from lower quartile facilities were bored more often (27% “often”) compared to residents from upper quartile facilities (18% “often”).
- Upper quartile facility residents rate the overall care they get from staff higher (88% rating 7-10) compared to lower quartile facility residents (73% rating 7-10).
- Residents from upper quartile facilities are more likely to “definitely” or “probably” recommend the nursing home to others compared to lower quartile facility residents (94% upper versus 80% lower).
- Upper quartile facility residents are more likely to report they get the care they need at the nursing home compared to lower quartile facility residents (89% “yes” for upper versus 79% for lower).

Facilities in the upper quartile were operating 60% less number of beds (120 beds upper versus 196 beds lower) on average than facilities in the lower quartile. This suggests smaller nursing homes are pre-disposed to more positive ratings from residents than large facilities. However, it is important to note the upper quartile includes a few larger facilities that have achieved this level of performance.

1.3 In Summary

The survey highlights areas of excellence and several quality of care issues as areas for focus and improvement in Alberta’s long term care facilities.

Within the province, there is considerable variation in performance between facilities in all dimensions of care. We suggest those organizations seeking to improve should look to those long term care facilities in the upper quartiles as a valuable resource for sharing best practices, ideas and experience.

From the perspective of the composites that had the strongest relationship to the overall care rating and those items that showed significant differences between the upper and lower quartile facilities, we suggest the following be considered for improvement efforts:

- Improving how respectful staff are and how well they listen to the residents.
- Improving staff responsiveness when residents call for help.
- Improvements to the nursing home environment (e.g. food, temperature, cleanliness).
- Creating environments similar to those found in smaller nursing homes.

While these items are important from the residents’ perspective, we recognize that all dimensions of care are important. Individual facilities will need to determine where to focus their quality improvement efforts to best meet the care and service needs of their residents and family members.

1.4 Overview of Report Documents

Provincial Technical Report Executive summary, survey methodology, analytical approach, relevant background information, detailed results and interpretational narrative.

This document also contains the following appendices:

- [Appendix A:](#) CAHPS® Nursing Home Survey: Resident Instrument.
- [Appendix B:](#) Details of the analytical and statistical techniques used for predictive modeling.
- [Appendix C:](#) Working group members who contributed to this initiative.

Facility Reports

- Facility-Level Report:** Detailed descriptive results for each facility showing comparisons to provincial and regional health authority averages in which they are located.
- Quartile Report:** Detailed descriptive results for each facility showing comparisons by quartile group.
- Comment Analysis:** Open-ended comments for each facility categorized by comment type and dimension.

2 BACKGROUND AND METHODOLOGY

2.1 Background

2.1.1 Working Group and Instrument Selection

A survey of nursing home residents and their families was identified as a priority by the HQCA's Health Quality Network in 2006. To undertake this initiative the HQCA formed a working group comprised of HQCA staff, long term care managers and clinicians, and measurement experts from across the province. This group was selected to be representative of different health regions, professions, and disciplines. Following a literature review, the working group assessed currently available material and survey instruments from various provincial, national and international organizations. From this assessment two survey instruments were considered: (1) the Smaller Worlds instrument developed originally by Sunnybrook nursing homes in Ontario;³ and (2) the CAHPS Nursing Home Survey: Family Member and Resident Instruments, developed and tested by the Agency for Healthcare Research and Quality (AHRQ).^{4 5}

The working group selected the CAHPS Nursing Home Survey instruments for the following reasons:

- The CAHPS Nursing Home Survey Instruments and other CAHPS instruments are designed to focus on issues that the respondent has direct experience with and where the respondent is the best source for the information.
- Family and resident areas of experience are different; therefore the two instruments are designed to collect complementary information from the best source depending on the area being assessed.
- Both CAHPS instruments were intended to be complimentary with the interRAI dataset and related quality measures⁶. Alberta and other jurisdictions across Canada have implemented or are currently in the process of implementing the interRAI Long Term Care Resident Assessment Instrument.
- The CAHPS instruments incorporated a number of items from the important work on quality of life in nursing homes undertaken by Dr. Rosalie Kane for the Centers for Medicare and Medicaid Services (CMS)⁷.
- The CAHPS survey development process is well resourced, scientifically rigorous and comprised of researchers from the following world class research organizations - RAND, Harvard Medical School, American Institutes for Research (AIR), and WestStat.
- The development and validation process took place over 5 years and included formative research with focus groups, cognitive tests with family members of nursing home residents, a technical expert panel review (e.g. representatives from the nursing home industry, regulators, quality improvement organizations, consumers, providers, and long term care researchers) and field testing in nursing homes from east Texas and Alberta.
- These questionnaires will be placed in the public domain with limited restriction on use by stakeholders or other parties as AHRQ intends the tools for broad use.
- There is opportunity for national and international level benchmarks and comparison.
- Using this instrument provided an opportunity to partner with AHRQ to pilot test the instrument and data collection process in Alberta nursing homes before the full project implementation.

³ P.G. Norton, et al, "Satisfaction of Residents and Families in Long-Term Care: I Construction and Application of an Instrument", *Quality Management in Health Care* 4, no 3 (1996)38-46.

⁴ Frentzel, Evensen, Keller and Garfinkel; American Institutes for Research. "CAHPS Survey for Family Members of Nursing Home Residents: Final Report", AHRQ (2007).

⁵ Cosenza, Fowler (Center for Survey Research, University of Massachusetts); Buchanan, Cleary (Harvard Medical School), "Nursing Home CAHPS Field Test Report", AHRQ (2006).

⁶ The Consumer Assessment of Healthcare Providers and Systems (CAHPS®) program has set an international standard in developing a set of valid and reliable surveys that ask consumers and patients to report on and evaluate their experiences with health care. Detailed information available at the following web site: <https://www.cahps.ahrq.gov/default.asp>.

⁷ Kane, Rosalie A. et al., "Measures, Indicators, and Improvement of Quality of Life in Nursing Homes: Final Report; Volume 1: Methods and Results", Centers for Medicare and Medicaid Services (2004).

2.1.2 Alberta Pilot Study

An Alberta pilot study was undertaken by the HQCA in partnership with AHRQ⁸ in the fall of 2006. For the resident survey component, objectives of the pilot study were to test and refine: (1) the survey and data management process, (2) the screening and interview protocol, (3) interviewer training and (4) the survey instrument and survey items unique to the Alberta nursing home environment. The pilot study also provided an opportunity to estimate costs for a full scale provincial survey; and to assess acceptability and usefulness to participating facilities. In all, 14 Alberta long term care facilities of diverse size, community type, and from 6 of 9 health regions participated in the pilot study on a voluntary basis.

The resident instrument requires face to face interviews as previous validation work has shown that this is necessary for nursing home populations. On the basis of previous Alberta experience conducting surveys in nursing homes, a team of summer student interviewers were trained both to conduct the resident interviews and to manage the interview process. This approach was chosen to:

- Lower costs relative to commercially conducted face to face interviews
- Reduce the potential bias of using volunteer interviewers at each site
- Standardize the training and interview protocol

The three students hired were well advanced in social work, social science, or healthcare related education programs. They underwent an intensive 2 week training and preparation period utilizing the draft interview manual prepared for AHRQ⁹, supplemental material prepared by nursing home specialists, practice interviewing and coaching, and customized curricula regarding the nursing home population and environment.

Detailed procedures were developed and refined to document and evaluate management of data, screening and recruitment of residents, and for administrative functions. Time and financial costs for various activities required to manage and conduct the interview process in multiple geographically dispersed nursing homes were systematically documented so that costs could be estimated for a full scale provincial survey.

A randomized test of interview data capture modalities was designed into the pilot study such that respondents were grouped randomly into a “paper form” group and a “PDA data capture” group.

At the conclusion of the pilot study, sufficient information had been gathered to plan and budget for a full scale provincial survey. It was concluded that the data collection model was effective, the instrument performed well in the Alberta environment, and that paper data collection as opposed to PDA data collection was more reliable and less intrusive. The pilot study showed that less than 30% of residents were capable of completing the interviews. This was somewhat fewer than expected. Residents with some cognitive disability had trouble completing questions using the 0 to 10 rating scale.

Pilot survey results were shared with each participating facility and were evaluated for usefulness to these sites. With limited exception feedback was positive and facilities confirmed that the information was useful and relevant, despite small sample sizes and relatively high margin of error. Based on pilot study results and feedback from facilities, it was decided to include the resident interview in the full scale provincial initiative.

⁸ The resident survey was conducted in collaboration with AHRQ and contributed to AHRQ fields testing. AHRQ staff contributed material and advice for the resident survey but were not directly involved in the resident survey piece of the pilot study.

⁹ Carol Coszenza, Draft Interview Manual.

2.1.3 Final Questionnaire – 2007 Provincial Survey

Minor adjustments to the final instrument were made on the basis of the pilot study and concurrent AHRQ validation work. The CAHPS Nursing Home Survey – Resident Instrument used in the HQCA 2007 survey is comprised of 57 questions plus 1 open-ended comment, and is used with the permission of the AHRQ. The Alberta instrument is different from the final CAHPS Nursing Home Survey – Resident Instrument, in the following ways: a) several minor changes were made to the final CAHPS instrument now in the public domain, b) several items were modified to reflect the unique Canadian context, and c) several additional items were added on the advice of the working group.

The final questionnaire (interview recording form) is found in [Appendix A](#), and collects the following information:

- a) Resident characteristics.
- b) Resident experience with care, communication and respect, autonomy, and activities.
- c) Quality of life.
- d) End of life issues.

2.2 Survey Process and Methodology

2.2.1 Privacy, Confidentiality and Ethics

In accordance with the requirements of the Health Information Act of Alberta (HIA), an amendment to the HQCA privacy impact assessment for surveys was submitted to and accepted by the Office of the Information and Privacy Commissioner of Alberta specifically for the Long Term Care Resident and Family Experience surveys. As a provincial custodian under HIA, the HQCA follows detailed policies and procedures to ensure security of the health information it collects. Completed survey forms were transported in person to the HQCA office. These de-identified survey forms were provided to the survey vendor to undertake analysis and reporting. The survey vendor is required under contract to HQCA to adhere to all of the HQCA's obligations under HIA to protect this data.

Advance notification materials were distributed to health regions and nursing home facilities that provided detailed communication material for family members and residents about the survey. The sponsor (HQCA), purpose, voluntary nature of participation, confidentiality, and survey process were communicated clearly to potential respondents during the survey process. Those respondents who declined to participate were dropped from the survey process.

The overall HQCA surveys initiative was reviewed and approved by the Calgary Conjoint Ethics Board, and is defined as a quality improvement activity as opposed to a research study.

2.2.2 Survey Management Process

The resident survey was planned for completion over the summer months so that trained student interviewers could be used. Likewise, the family survey was planned to follow in the fall, as family contact information was collected and compiled by the interview team during the facility visits for the resident interviews.

The interview team of 14 students was hired from the fields of healthcare, social work, and social science. They were located in three regional nodes in Calgary, Edmonton, and Lethbridge. The interview team included the project manager responsible for overall management of the initiative and for coordination of the Calgary node; and two additional coordinators responsible for the Edmonton and Lethbridge nodes.

The team underwent two weeks of intensive training and orientation in Calgary. This training included orientation to the population and facilities; interview training, practice and coaching within the group and with volunteers from the assisted living population; training and orientation on special issues such as Alzheimer's disease; and review of the HQCA's policies and procedures.

A comprehensive training and procedures manual was assembled for the team. Interviewers were responsible to complete high quality interviews and to manage their own interview list, data collection and expenses. The coordinator of each node was responsible to:

- Supervise and evaluate interview quality.
- Schedule and communicate with facilities.
- Collect survey forms and administrative materials.
- Collect family contact data.
- Book travel and accommodation.
- Liaise with and receive direction from the project manager.
- Manage personnel issues.

Regional and facility liaisons worked with the HQCA coordinators and interviewers to support the initiative. A regional liaison was established for each of the 9 regional health authorities to:

- Support and communicate at a regional level.
- Communicate with facilities.

A site liaison was identified at each site to assist with:

- Scheduling of site visits.
- Collection of resident data.
- Assessment of resident capacity to participate in the interview.
- Determine risks to residents and interviewers in conducting interviews.
- Assemble family contact data.
- Provide on-site orientation and support for interview team.
- Troubleshoot problems.

Even with three regional nodes of operation, conducting this survey required considerable travel primarily within the "node" but also to support other nodes, and to undertake interviews in more remote areas such as Aspen, Peace Country and Northern Lights health regions.

2.2.3 Interview Protocol

The protocol for interviews was designed by AHRQ and refined for HQCA purposes during the pilot study. A detailed description is available upon request and is documented in the interview and procedures manual. The following is a brief summary.

Site liaisons were required to prepare a full resident list prior to meeting with the HQCA coordinator. Site liaisons were also provided with exclusion codes in advance of meeting with the HQCA project coordinator. The resident list was reviewed and coded by the coordinator and the site liaison together. Residents with only mild cognitive limitations or who "might" be able to complete the interview were included in the suggested interview list. Exclusion and inclusion codes for residents are documented in **Table 1** below.

Table 1: Interview Exclusion and Inclusion Codes

Code	Administrative Exclusion Codes
DAL	DAL / Lodge resident
U1MO	Stay in facility less than 1 month
TRANS	Short stay or transitional resident
COMA	Comatose (B1=1 MDS)
LEGAL	Has formal legal guardian and facility policy prevents contact
CPS56	CPS score of 5 or 6 (If recent assessment available with MDS)
B4MDS3	MDS B4=3 (Only if MDS available) ("severely impaired in cognitive skills for daily decision making")
MOVP	Resident moved pre sample meeting
DECP	Resident deceased pre sample meeting
PALL	Acute stage of dying
Code	Reviewed Exclusion Codes (requires familiar knowledge of resident)
HOSP	In hospital or other facility for duration of on-site time
RISK	Poses potential danger to interviewer
PALL	Acute stage of dying
ENG	<u>No</u> ability to communicate in English (both verbal and printed media will be used)
DEM3	Severe dementia (Stage III)
ULC	Unlikely able to complete interview for cognitive reasons (possible exclusion) (moderate dementia)
Code	Reviewed Inclusion Codes (requires familiar knowledge of resident)
LACD	Likely able to complete interview (mild dementia or similar limitation present)
ELG	Resident is included (no issues or concerns)

Codes for each resident were reviewed by the coordinator and site liaison. Site liaisons were encouraged to be inclusive of residents who on a good day might complete a meaningful interview. Interviews were attempted with all such residents, and interview attempts were also made with residents "unlikely" (ULC) to complete an interview on an audit basis. In almost all cases such residents could not complete a meaningful interview.

A strict protocol and script was followed by interviewers for contacting and engaging with potential respondents. All potential respondents were fully informed about the survey, its purpose, sponsor, confidentiality and the voluntary nature of participation. All respondents were required to consent to complete the interview. The introductory script is included in [Appendix A](#).

Up to 6 attempts were made to connect with any given resident, and up to 3 attempts were made to actually interview each resident after initial engagement. During the course of the interview attempt, if the resident could not answer three consecutive questions, the interview attempt was terminated. The status of each resident on the interview list was documented using a pre-defined list of codes.

Interviewers were also trained to use specific probes for most items, and standardized responses to questions from respondents. All interviews used supplemental (visual) show cards for each question and response scale. Show cards were especially helpful for residents who were hard of hearing or who had cognitive issues.

2.2.4 Coverage Rate

In general, the refusal rate by cognitively able residents was less than 5%. In the nursing home population where a majority of potential respondents can not complete an interview, we suggest it is more important to determine the proportion of total resident population who actually complete the interview versus a response rate. The majority of resident exclusions are due to cognitive issues.

Based on the pilot study, we expected that approximately 30% of residents would be capable of completing an interview. As shown in **Table 2**, about 24% of residents actually completed an interview. Our resident sample therefore represents only “cognitively able” residents. It is not clear whether cognitively able residents are representative of residents who, for various reasons, cannot speak for themselves.

Care of residents with significant cognitive issues may or may not be of equal quality. Residents with dementia clearly have different and more significant care needs and the resident survey alone cannot speak to how well such needs are met. In this regard, the family survey may be more useful as it provides reliable information for the entire population.

Table 2: Coverage Rate

Description	Count	Coverage Rate
Number of completed interviews	3,415	24%
Total number of beds (in facilities surveyed)	14,115	

2.2.5 Population Sample & Margin of Error

The population 18 years or older for the 9 surveyed Regional Health Authorities (RHA) was 2.4 million. The total number of beds for the 172 surveyed nursing homes was 14,115 and the returned completed questionnaires represent 24% of the total capacity. As shown in **Table 3** below, the margin of error when considering all responses for a given RHA range from 2.7% to 9.4%. Northern Lights RHA results are indicative only because of its small sample size relative to the total number of beds.

Margin of error for individual sites varies considerably depending on the facility size. Small facilities often have a large margin of error and as a consequence it is more difficult to show statistical significance in comparative results for small facilities. Statistical significance does not describe the “magnitude” of a difference between two results; a difference between two large samples can be very small (clinically meaningless) and still achieve statistical significance. Likewise, non-significance (statistical) does not negate the result, especially when the result is the product of a census and represents a high proportion of eligible residents for a small site. It is merely a recognition that confidence intervals for the compared results overlap.¹⁰

¹⁰ In addition, confidence intervals and statistical tests used in this report assume an “infinite population”; in other words the “finite population correction” was not used to adjust for residents samples which are a large proportion of the individual nursing home population. This means that our tests are likely conservative and will tend to under-estimate significance for finite populations.

Table 3: Statistics by RHA

RHA ID	Regional Health Authorities (RHA)	Total RHA Population (18+ /Dec.05)	Number of Beds (Surveyed Facilities)	Completed Interviews (Surveyed Facilities)	Coverage Rate	Margin of Error (+/-)
R1	Chinook	115,007	785	148	19%	8.1%
R2	Palliser	76,021	536	108	20%	9.4%
R3	Calgary	894,853	4,340	1,288	30%	2.7%
R4	David Thompson	218,947	1,376	367	27%	5.1%
R5	East Central	83,615	1,005	231	23%	6.4%
R6	Capital	771,085	4,841	926	19%	3.2%
R7	Aspen	127,320	742	215	29%	6.7%
R8	Peace Country	97,533	414	117	28%	9.1%
R9	Northern Lights	50,795	76	15	20%	-
TOTAL		2,435,176	14,115	3,415	24%	1.7%

Sample size is critical for determining the margin of error on population average and ratio estimates. As shown in **Table 4**, only 49 facilities had 26 respondents or more, while only 11 facilities exceeded 50 respondents.

When estimating an average, the critical threshold number for calculating the margin of error based on the Normal distribution is 30 respondents. Below 30 respondents, the Student distribution is used but the confidence interval for an estimate grows tremendously as the sample size is reduced and the variability around the mean increases. However, in practice, sample sizes over 25 respondents are considered as reliable. For this reason, in the quartile analysis, facility level results were mainly analyzed in terms of 42 facilities with so called “reliable” sample sizes for respondents who answered question 17 (overall nursing home rating).

Please note that the sample size for Northern Lights is small (N=15) and hence these results, although statistically significant in some cases, may not be representative of the overall population in that region.

When estimating a proportion, the critical threshold number for calculating the margin of error based on the Normal distribution is 100 respondents (central limit theorem). Below 30 respondents, the exact hypothesis testing procedure for the population proportion requires the construction of the decision rule on the binomial distribution. This is rather unfortunate, because using the test requires having access to extensive binomial tables for many different sample sizes.¹¹

Table 4: Sample Sizes

RHA ID	Regional Health Authorities (RHA)	Number of Facilities	Facilities with less than or equal to 25 respondents	Facilities with more than 25 respondents	Facilities with more than 50 respondents
R1	Chinook	11	10	1	-
R2	Palliser	10	9	1	-
R3	Calgary	35	-	25	10
R4	David Thompson	25	22	3	-
R5	East Central	18	16	2	-
R6	Capital	38	21	16	1
R7	Aspen	19	18	1	-
R8	Peace Country	12	12	-	-
R9	Northern Lights	4	4	-	-
TOTAL		172	112	49	11

¹¹ Source: Statistical methods for business and economics, R.C. Pfaffenberger, J.H. Patterson, Richard D. IRWIN, INC. 1977 ISBN 0-256-01797-1, page 320

2.2.6 Interpretation of Tables and Identification of Significant Differences

Where applicable, statistical tests are computed. For example, the number of respondents for Capital Health Region (n=885) is shown by arrow (A). Because the sample size is > 100 respondents, the sample proportions is approximately normally distributed and a two-tail Z statistic based on the calculated normal distribution is calculated to test whether the Capital proportion is different than that of the entire set of respondents.

The proportion of respondents in the “75 to 84” age group was 27% for Capital (arrow B) as compared to 31% for all regions combined (arrow C). The “Z-Test” is $ABS [(27\%-31\%)/\sqrt{27\%*(1-27\%)/885}]$ and the hypothesis that the 27% Capital proportion could be equal to the Total 31% population ratio is rejected with 95% certainty because $2.733 > 1.96$ (arrow D). In other words, the confidence interval of these two scores does not overlap and we can conclude their difference is statistically significant as shown by the Z-Test.

In the report, statistically significant differences are indicated by yellow shaded values (27% as shown by arrow B); Z-Test scores are included here only for example and are not reported with results tables.

RHA / Resident Age	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
< 45 years old	1%	1%	2%	2%	1%	2%	2%	4%	15%	2%
45 to 54	2%	4%	2%	3%	3%	4%	2%	4%	15%	3%
55 to 64	6%	10%	5%	7%	10%	9%	3%	7%	15%	7%
65 to 74	15%	17%	10%	12%	15%	14%	15%	15%	23%	13%
75 to 84	40%	35%	32%	32%	30%	27%	37%	37%	15%	31%
85 to 94	30%	28%	41%	36%	33%	37%	33%	27%	0%	37%
95 and older	6%	6%	8%	8%	7%	6%	7%	6%	15%	7%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	144	101	1,196	354	215	885	208	112	13	3,228
Z-Test @95% (>1.96) for:										
< 45 years old	1.034	0.646	0.263	0.228	1.008	0.635	0.069	1.342	3.611	
45 to 54	0.738	0.460	1.949	0.056	0.080	2.121	0.623	0.789	2.520	
55 to 64	0.283	1.216	2.277	0.050	1.696	2.317	1.988	0.124	1.219	
65 to 74	0.702	1.268	3.147	0.279	0.990	1.633	1.191	0.809	1.133	
75 to 84	2.301	0.709	0.478	0.104	0.363	2.733	1.752	1.192	1.243	
85 to 94	1.742	1.904	3.062	0.165	1.026	0.052	1.104	2.211	2.755	
95 and older	0.462	0.507	1.149	0.684	0.109	1.316	0.288	0.408	1.131	

2.3 Analytical Methodology

- **Global statistics:** Descriptive statistics based on all 3,415 respondents were analyzed to provide a provincial level set of data.
- **Grouping of facilities into quartiles¹²:** Nursing homes with reliable sample sizes (42), based on respondents who answered Q17, were grouped into four quartiles based on their average global nursing home rating. The remaining 130 nursing homes with small sample sizes were classified into the four quartiles defined by the reliable sample size nursing homes.
- **Analysis of respondent answers from upper and lower quartiles:** Results for respondents from the **upper** quartile nursing homes were compared to results for respondents from the **lower** quartile facilities. Each facility was assigned to a quartile based on its calculated average overall nursing home rating. Significant differences between the experience of upper and lower quartile facility respondents were identified.
- **Predictive model:** A predictive model was produced to help stakeholders understand the relationship between residents' specific experiences and perceptions about nursing home services and the overall global ratings.
- **Additional analyses:** Additional analyses were conducted for various facility-level effects (i.e. the impact of the number of beds on the overall care rating).

¹² Quartiles are used to group sorted results into four equal parts, each with 25% of the total sample. The lowest quartile for example, represents the lowest scoring 25% of values. More accurately, the "percentile" of a distribution of values is a number x_p such that a percentage p of the population values are less than or equal to x_p . The 25th percentile is also referred to as the .25 quartile or lower quartile of a variable, and is the value where 25% (p) of the values of the variable fall below that value. Unless otherwise indicated, quartiles in this report represent residents level rather than facility level results.

3 DETAILED RESULTS

3.1 Resident Characteristics

Several questions about residents' characteristics are included in the survey questionnaire. These are intended to:

- a) Understand the resident and their demographic characteristics and,
- b) Evaluate how these characteristics might impact the results.

Resident characteristics are grouped into three (3) categories as follows:

(I) Socio-demographic profile:

- Age (Q49)
- Gender (Q52)
- Education (Q50)
- Ethnicity (Q51)
- Language (Q54)

(II) Resident has a roommate (Q53)

(III) Residents' overall health rating (Q41)

Detailed results for each attribute are reported in the following pages. The information provided is for the entire survey sample and is presented by the nine (9) regional health authorities.

3.1.1 Resident Age

The average age of the surveyed residents is 80.2 years. The distribution of resident age is a very important factor that can affect the results of health care surveys. It is well known that older people tend to give better ratings. For example, relative differences in the proportion of older residents for an individual nursing home could introduce some positive bias in the results.

- When year of birth is converted to one of 6 age group categories, approximately 75% of respondents are 75 years and older while 25% are less than 75 years old. The age distribution differs slightly across RHAs. For example, Northern Lights' residents are much younger than the average residents (30% under 55 years old and 30% over 75 years old).

Figure 1: Resident Age

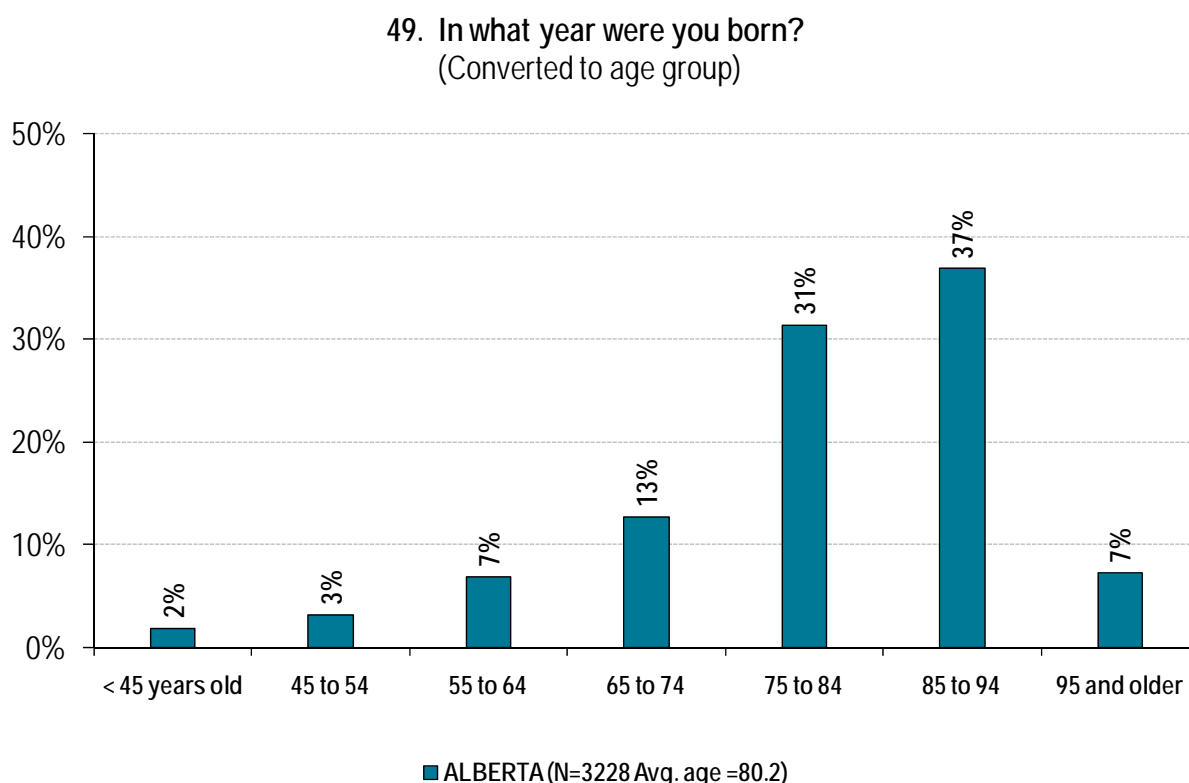


Table 5: Resident Age

RHA / Resident Age	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
< 45 years old	1%	1%	2%	2%	1%	2%	2%	4%	15%	2%
45 to 54	2%	4%	2%	3%	3%	4%	2%	4%	15%	3%
55 to 64	6%	10%	5%	7%	10%	9%	3%	7%	15%	7%
65 to 74	15%	17%	10%	12%	15%	14%	15%	15%	23%	13%
75 to 84	40%	35%	32%	32%	30%	27%	37%	37%	15%	31%
85 to 94	30%	28%	41%	36%	33%	37%	33%	27%	0%	37%
95 and older	6%	6%	8%	8%	7%	6%	7%	6%	15%	7%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	144	101	1,196	354	215	885	208	112	13	3,228

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.1.2 Resident Gender

- Overall, 64% of respondents were female and 36% male. The proportion of female versus male differs slightly across RHAs: there are more females in Calgary (67%), and more males in East Central (44%) and Northern Lights (73%).

Figure 2: Resident Gender

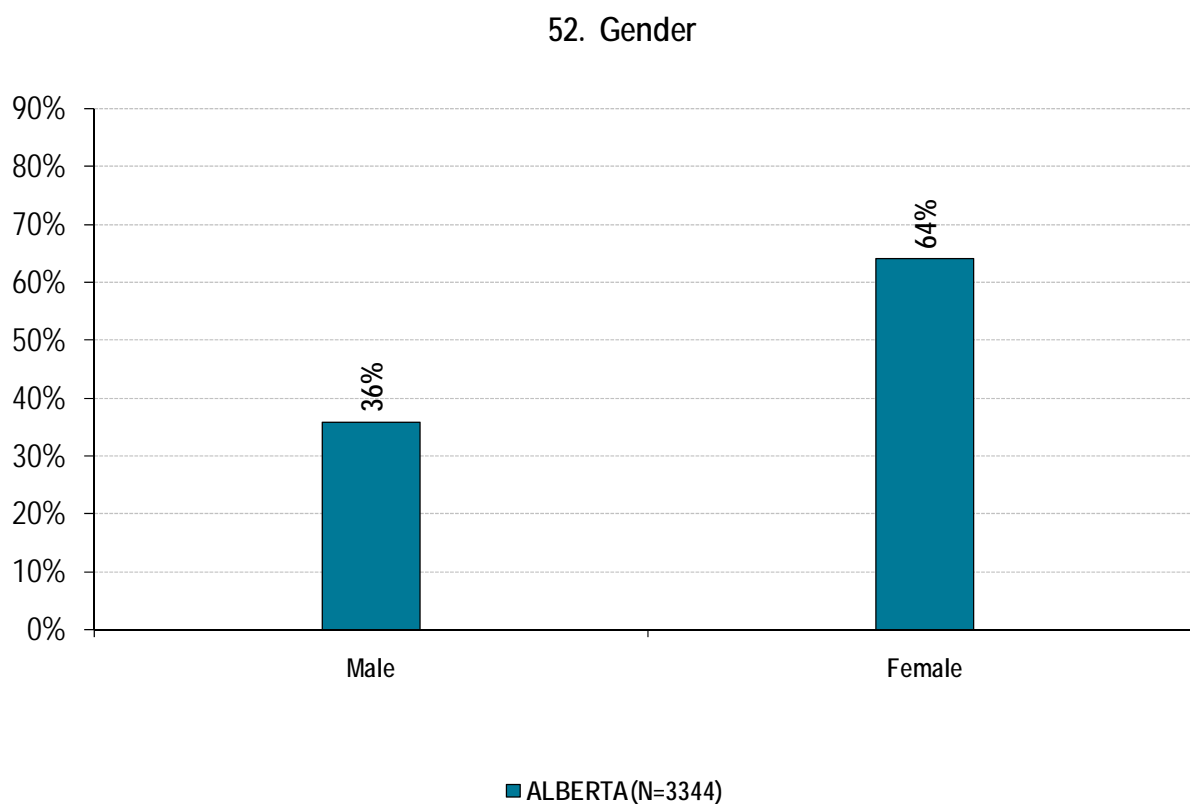


Table 6: Resident Gender

RHA / Resident Gender	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Male	39%	42%	33%	38%	44%	34%	36%	41%	73%	36%
Female	61%	58%	67%	62%	56%	66%	64%	59%	27%	64%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	146	106	1,253	361	227	908	213	115	15	3,344

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.1.3 Resident Education

- 19% of residents reported completing high school; 8% obtained university level of education or greater; while most of the residents (57%) obtained grade or some high school education.
- Residents' education varies slightly by region. For example, Calgary residents tend to have more university degrees (12%) than the average resident. Also, DTHR, East Central, Aspen and Peace Country residents are more likely to hold grade or some high school.

Figure 3: Resident Education

50. What is the highest level of school that you have completed?

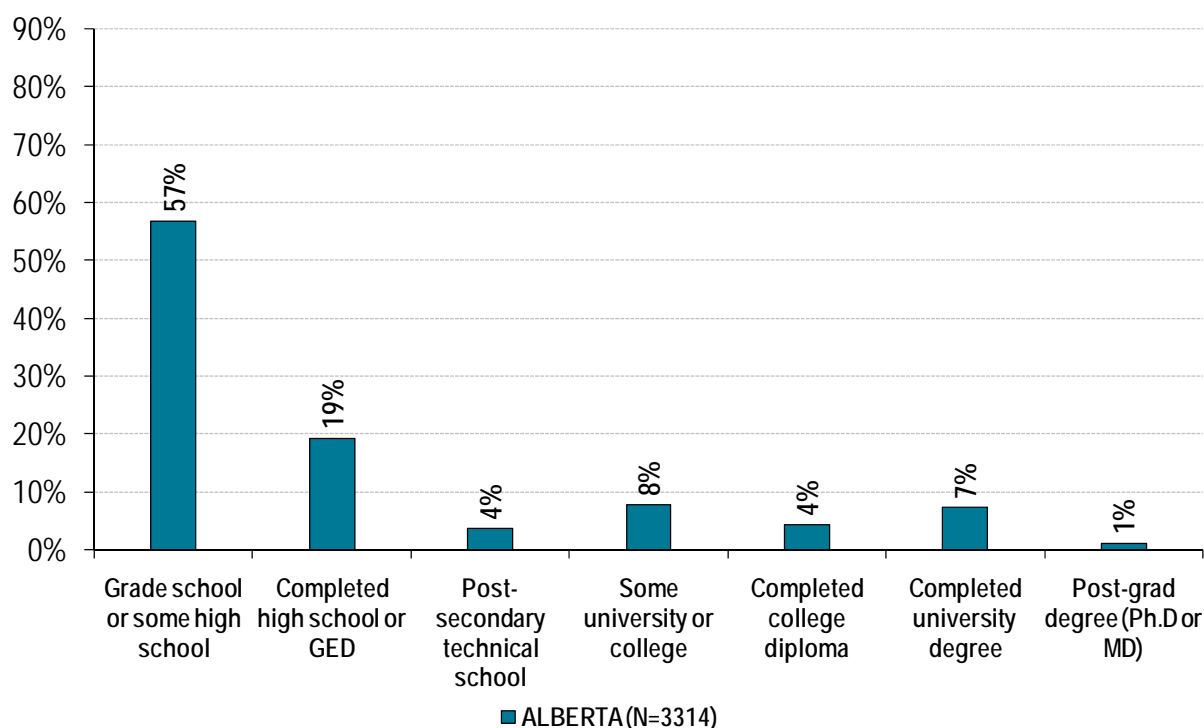


Table 7: Resident Education

RHA / Resident Education	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Grade school or some high school	63%	66%	49%	64%	72%	52%	75%	71%	80%	57%
Completed high school or GED	12%	15%	24%	16%	13%	21%	8%	15%	20%	19%
Post-secondary technical school	2%	5%	3%	5%	3%	4%	5%	2%	0%	4%
Some university or college	7%	5%	8%	6%	6%	9%	7%	4%	0%	8%
Completed college diploma	8%	5%	5%	6%	0%	4%	1%	2%	0%	4%
Completed university degree	5%	4%	10%	3%	5%	8%	3%	5%	0%	7%
Post-grad degree (Ph.D or MD)	2%	1%	2%	0%	1%	1%	0%	1%	0%	1%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	103	1,241	359	221	906	210	112	15	3,314

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.1.4 Resident Ethnicity

- Approximately 94% of residents are White or Caucasian. The proportion of ethnicity other than White or Caucasian is slightly different across RHAs. The proportion of Caucasians is higher in DTHR, while the proportion of “other ethnicity” is much higher in Northern Lights (40%).

Figure 4: Resident Ethnicity

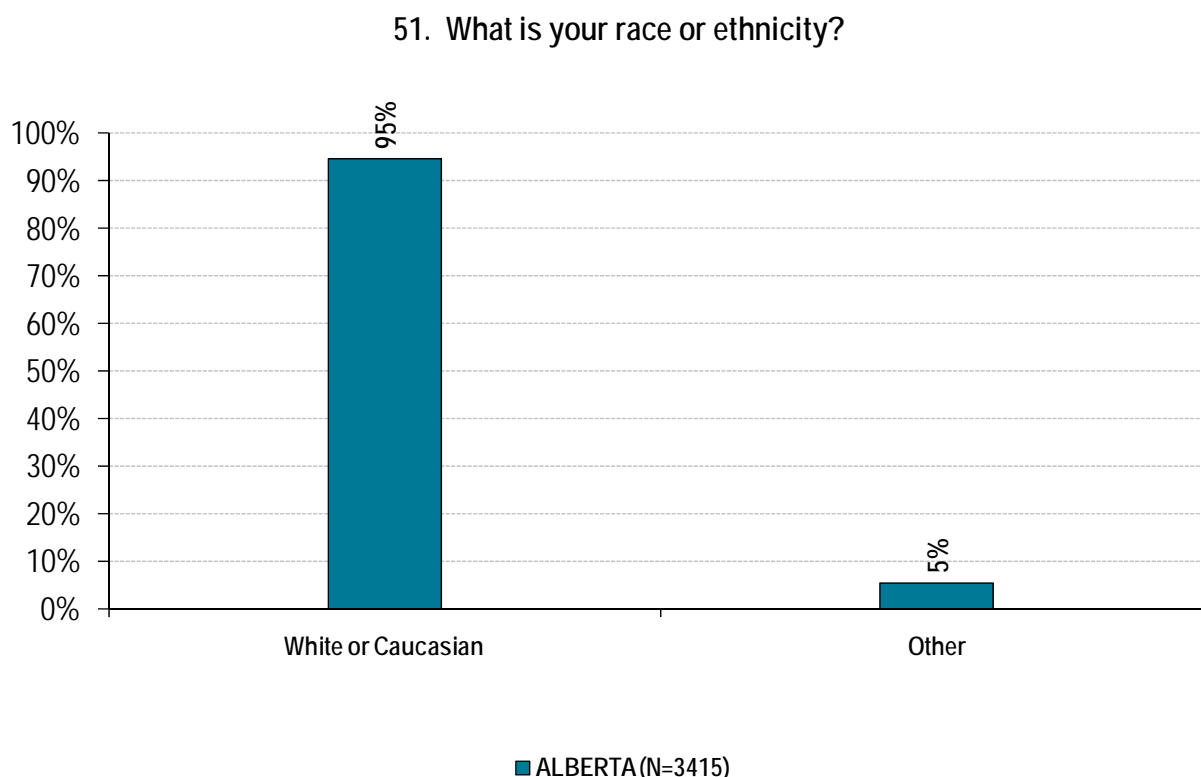


Table 8: Resident Ethnicity

RHA / Resident Ethnicity	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
White or Caucasian	95%	96%	94%	98%	97%	94%	94%	93%	60%	95%
Other	5%	4%	6%	2%	3%	6%	6%	7%	40%	5%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	108	1,288	367	231	926	215	117	15	3,415

Note: Individual proportions may not sum to 100% due to rounding of decimals.

Table 9: Resident Ethnicity – Other

RHA / Other Ethnicity	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Asian / South East Asian	22%		17%			8%				10%
Black			5%			5%				3%
First Nations – Aboriginal	11%		5%	22%	10%	17%	69%	75%	100%	20%
Latin American			2%			5%				2%
Not specified	56%	100%	68%	67%	60%	50%	13%	25%		54%
Number of Respondents	9	4	84	9	10	60	16	8	6	206

3.1.5 Roommate

- Approximately 42% of residents reported they have a roommate.
- Results differ significantly across RHAs (see **Table 10** below).

Figure 5: Roommate

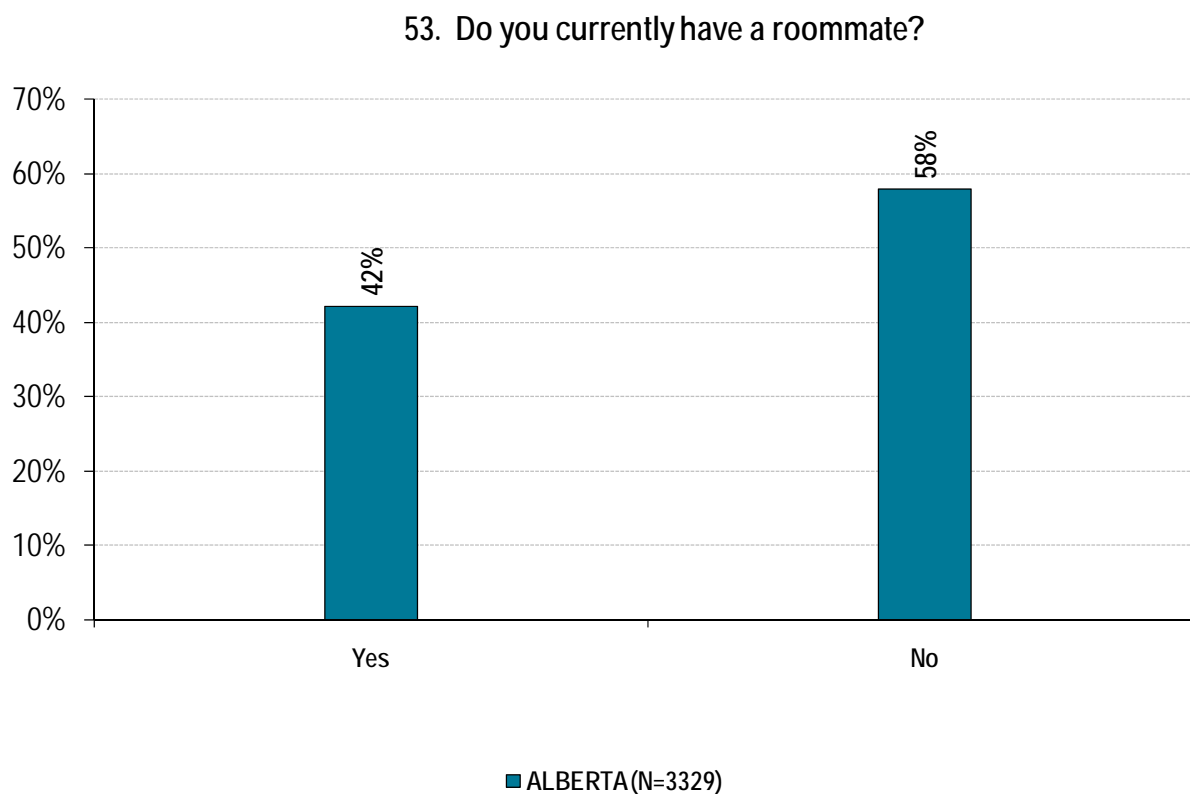


Table 10: Roommate

RHA / Roommate	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	41%	30%	50%	37%	35%	38%	42%	31%	7%	42%
No	59%	70%	50%	63%	65%	62%	58%	69%	93%	58%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	105	1,246	360	227	900	212	116	15	3,329

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.1.6 Difficulty with English Language

- Most residents (97%) do not express problems with the English language.
- Results are slightly different across all RHAs (see **Table 11** below).

Figure 6: Difficulty with English Language

54. Does resident have difficulty with English Language?

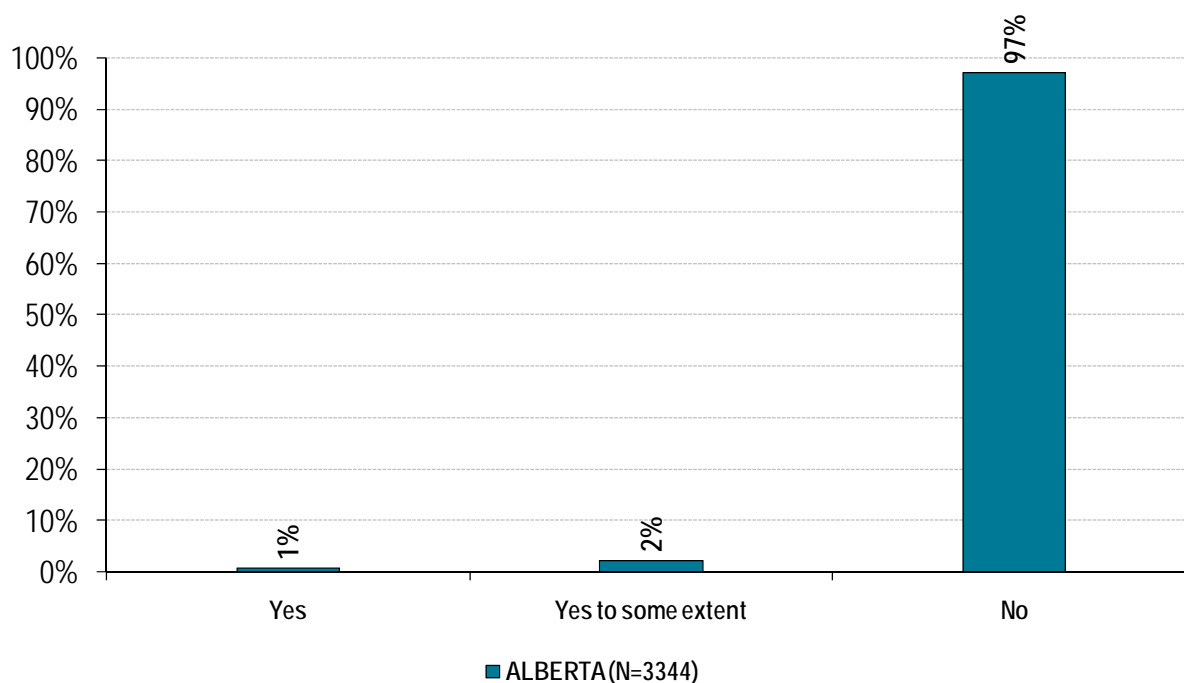


Table 11: Difficulty with English Language

RHA / Difficulty with English Language	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	1%	0%	0%	1%	0%	1%	1%	0%	0%	1%
Yes to some extent	1%	0%	1%	1%	4%	4%	5%	0%	0%	2%
No	98%	100%	98%	99%	96%	95%	94%	100%	100%	97%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	106	1,250	361	228	906	214	116	15	3,344

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.1.7 Overall Health Rating

- Two thirds (66%) of the residents rated their overall health as good or better.
- Results are similar across all RHAs, except in Northern Lights where a higher proportion of residents (29%) rated their health as “poor”, compared to the average (8%).

Figure 7: Overall Health Rating

41. In General, how would you rate your overall health - excellent, very good, good, fair, or poor?

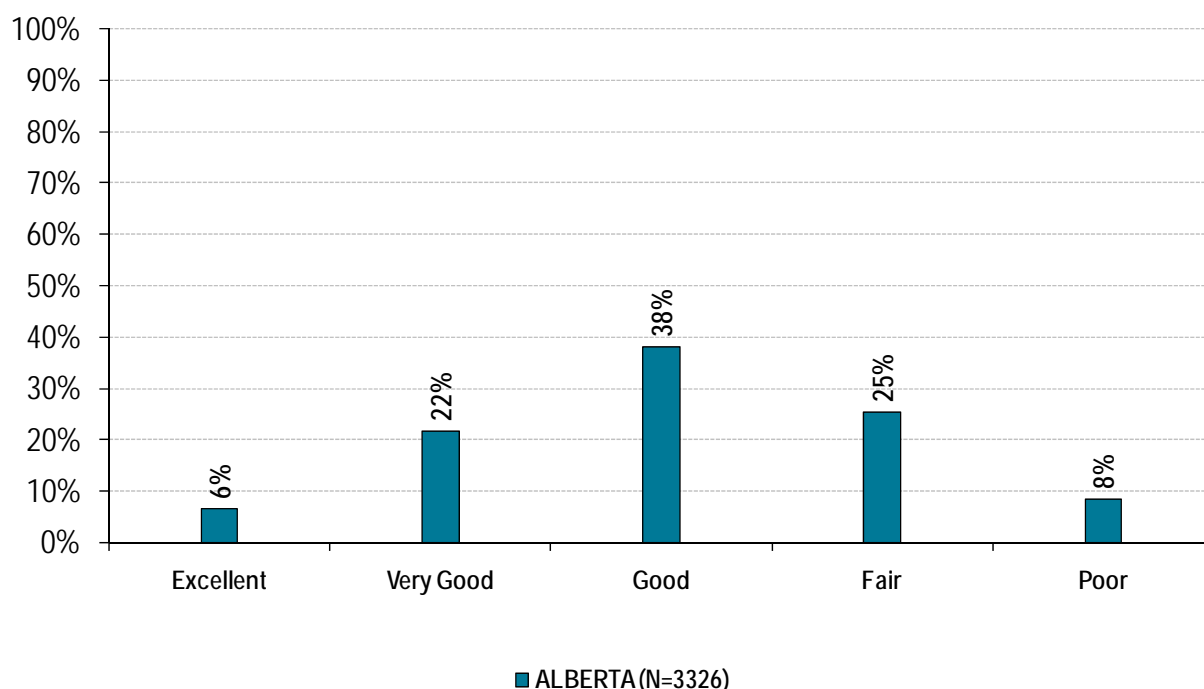


Table 12: Overall Health Rating

RHA / Resident Overall Health Rating	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Excellent	7%	9%	6%	8%	6%	6%	6%	9%	14%	6%
Very Good	22%	20%	24%	24%	20%	19%	18%	20%	29%	22%
Good	37%	41%	39%	35%	34%	39%	37%	39%	29%	38%
Fair	21%	23%	23%	26%	33%	27%	30%	20%	0%	25%
Poor	12%	7%	7%	8%	7%	9%	9%	12%	29%	8%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	103	1,246	359	225	906	212	114	14	3,326

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.2 Care Rating Forecasting – Composite Variables

To simplify data interpretation, questions have been grouped into sets of items that relate to a specific theme. The detailed analysis and methodology for identification, validation, and computation of composites are provided in **Section 3.14**. This analysis (and subsequent multivariate analysis) suggests that these variables are valid, reliable, and have significant predictive power with respect to the overall rating of care (Q16). The above composites are reported in the order of their strength of relationship to the overall care rating; beginning with the composite with the strongest relationship.

The individual survey questions ([Appendix A](#)) used to compute the 5 composite variables are:

- **Communication and respect:** How respectful staff are / How well staff listen / How well staff explain things.
- **Care:** How well medicine helped with aches or pain / How well staff help with pain / How quickly staff come when you call for help / How gentle staff are when they help / Do staff ensure enough privacy when you dress, shower or bathe.
- **Environment:** Rating of food / How much you enjoy mealtimes / How comfortable is the temperature in the nursing home / How clean is the nursing home / How safe and secure do you feel / Area around room quiet at night / Bothered by noise during the day / Find a place to visit in private.
- **Autonomy:** Choose time you go to bed / Choose what clothes to wear / Choose what activities you do.
- **Activities:** Enough organized activities on the weekends / Enough organized activities during the week.

The following dimensions represent conceptually related sets of items that have not been validated as composite variables such as those listed above:

- **Medical and Safety:** Do you visit a doctor for medical care outside the nursing home / Do you see any doctor for medical care inside the nursing home / Is a doctor available to you when needed / Are you left sitting or laying in the same position so long it hurts / Can you reach the call button by yourself / Is there water or something to drink where you can reach it.
- **Quality of Life:** How often do you feel worried / How often do you feel happy / How often do you feel bored / How often do you feel lonely / How would you rate your life now.
- **End of Life:** Discussion with family about what you want if you become ill and cannot speak for yourself / Discussion with a health care professional about what you want if you become ill and cannot speak for yourself/ Importance of this kind of discussion.
- **Global Ratings:** Rate the care from staff / Rate the nursing home / Would you recommend this nursing home / Do you get the care you need.

Most questions in the survey asked residents to answer on a scale of 0-10 where 0 is the worst possible and 10 is the best possible. This scale is a sensitive rating measure, but is always very skewed to the positive. It is also a relative measure; its power is the ability to discriminate between a range of performance. When more detailed experiences of respondents are examined, 0-6 ratings are associated with relatively poor care, 7-8 is associated with care that has room for improvement in comparison to the best care, and 9-10 is associated with care that is generally optimal. In using this scale in other healthcare settings, CAHPS documentation recommends collapsing in this way^{13, 14}. Furthermore, when the response distribution was examined in the HQCA study, 7-8 is in fact the lower middle ground (not a rating of 5). An average care rating is in effect the middle of the distribution; it is not the average of

¹³ Instructions for Analyzing CAHPS® Data: Using the CAHPS Analysis Program Version 3.6, CAHPS Kit 2007.

¹⁴ Frequently Asked Questions: "Why should we collapse the 0-10 global rating items into three categories?"
<https://www.cahps.ahrq.gov>

numbers between 0 and 10. Therefore, for reporting purposes, a resident rating of 9-10 is reported as excellent, 7-8 as average and 0-6 as poor.

3.3 Communication and Respect

This composite has the strongest relationship to the overall care rating (Q16); therefore change efforts targeted at this composite are predicted to have the greatest impact on the overall rating of care. A total of 3 questions are included in the *Communication and Respect* composite:

- Staff respectfulness (Q13)
- Staff listening (Q14)
- Ease of understanding (Q15)

Additional related items that are reported here but are not included in the composite calculation:

- Unhappiness with care (Q43)
- Feel free to speak when unhappy with care (Q44)

Details about each question are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.3.1 Staff Respectfulness

- Residents were asked to rate how respectful staff were to them on a scale of 0–10. The average score out of 10 was 8.1 with 51% rating staff respectfulness as 9-10 (excellent); 31% rating it as 7-8 (average), and 18% rating respectfulness as 0-6 (poor).
- According to the residents, staff are more respectful than average in the Chinook (61% excellent; 12% poor), DTHR (57% excellent; 14% poor) and Aspen (60% excellent) health regions and less respectful in the Calgary (47% excellent; 20% poor) and Capital (47% excellent) health regions.

Figure 8: Staff Respectfulness

13. What number would you use to rate how respectful the staff are to you?

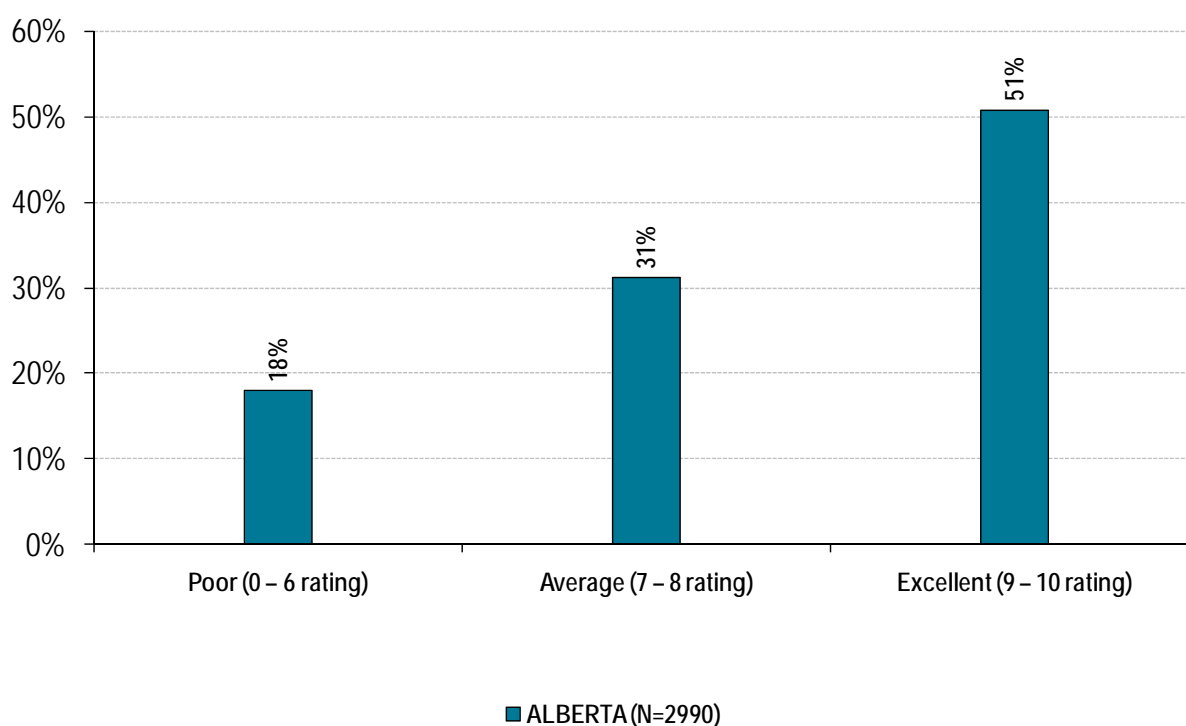


Table 13: Staff Respectfulness

RHA / Staff Respectfulness	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	12%	14%	20%	14%	19%	19%	14%	19%	25%	18%
Average (7 – 8 rating)	27%	28%	33%	29%	26%	34%	27%	31%	25%	31%
Excellent (9 – 10 rating)	61%	58%	47%	57%	56%	47%	60%	50%	50%	51%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	98	1,089	331	194	829	196	94	12	2,990

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.3.2 Staff Listening

- Residents were asked to rate how well staff listen to them on a scale of 0–10. The average score was 7.5 with 40% rating how well staff listen as 9-10 (excellent); 33% rating it as 7-8 (average); and 27% rating it as 0-6 (poor).
- Residents rate how well staff listen to them higher in the Chinook (48% excellent; 19% poor), DTHR (47% excellent; 18% poor), Aspen (54% excellent) and Peace Country (51% excellent) health regions and lower in the Calgary health region (34% excellent; 31% poor).

Figure 9: Staff Listening

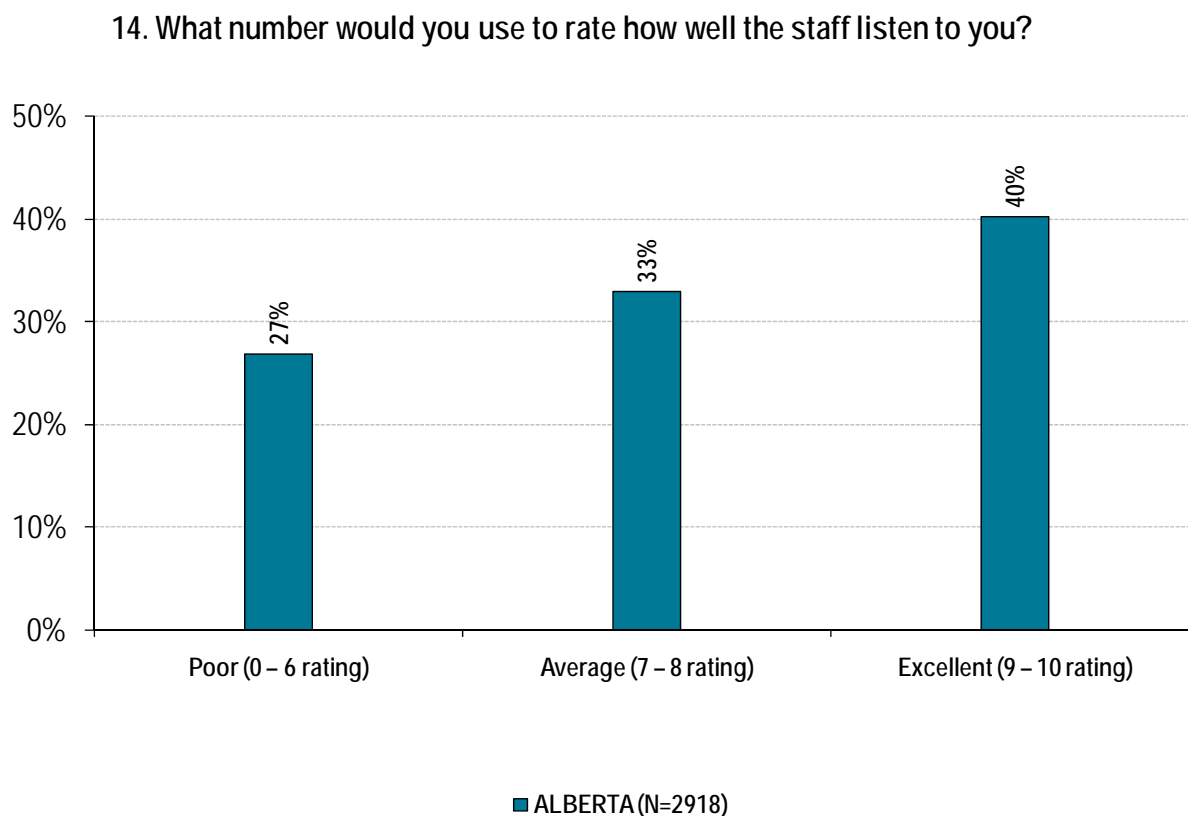


Table 14: Staff Listening

RHA / Staff Listening	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	19%	26%	31%	18%	21%	29%	24%	27%	8%	27%
Average (7 – 8 rating)	33%	29%	35%	35%	32%	34%	22%	22%	33%	33%
Excellent (9 – 10 rating)	48%	45%	34%	47%	46%	38%	54%	51%	58%	40%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	143	96	1,057	323	192	810	193	92	12	2,918

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.3.3 Ease of Understanding

- Residents were asked to rate how well staff explain things in a way that is easy to understand on a scale of 0 – 10. The average score was 7.6 with 42% rating how well staff explain things as 9-10 (excellent); 32% rating it as 7-8 (average), and 26% rating it as 0-6 (poor).
- Results are slightly different across RHAs. Staff explain things more understandably in the Chinook (51% excellent), DTHR (48% excellent) and Aspen (55% excellent) health regions and less understandably in the Calgary (37% excellent; 29% poor) health region.

Figure 10: Ease of Understanding

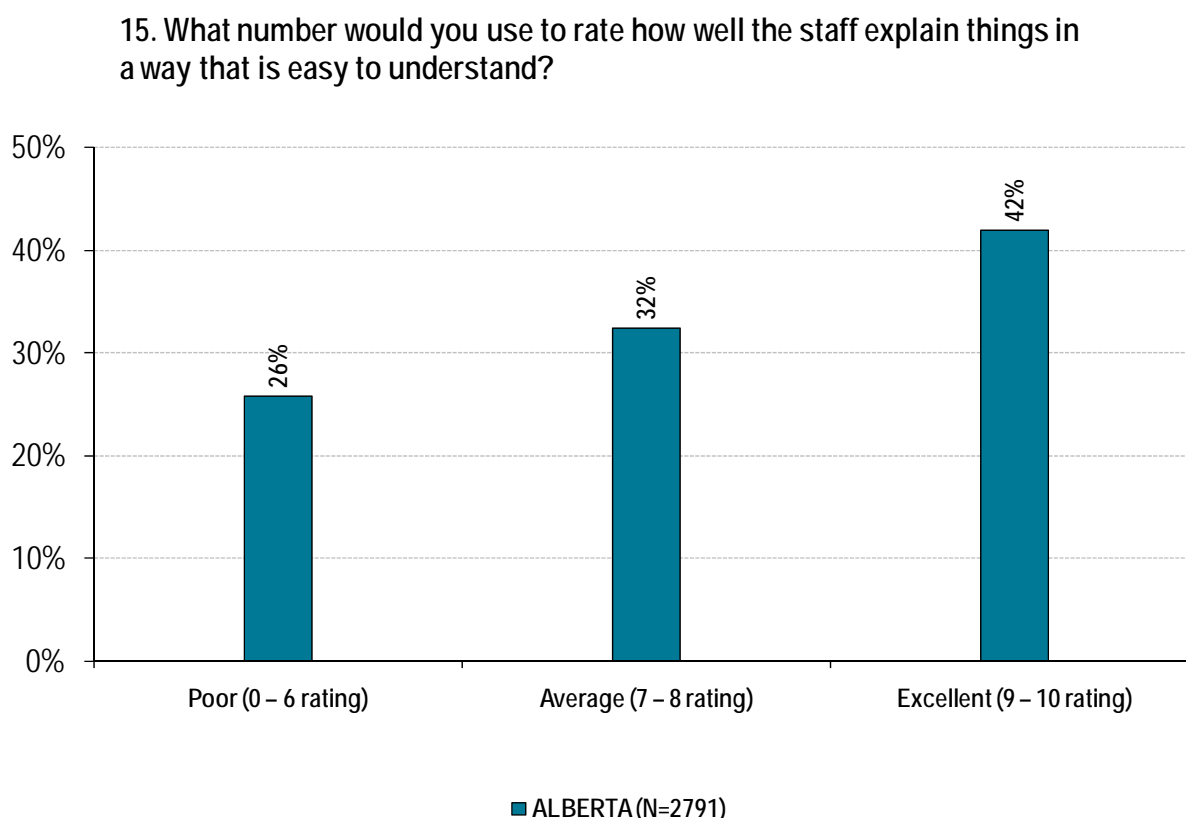


Table 15: Ease of Understanding

RHA / Ease of Understanding	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	20%	21%	29%	18%	22%	29%	20%	21%	18%	26%
Average (7 – 8 rating)	29%	36%	34%	35%	34%	31%	26%	28%	36%	32%
Excellent (9 – 10 rating)	51%	43%	37%	48%	45%	39%	55%	51%	45%	42%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	138	92	1,000	314	179	783	184	90	11	2,791

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.3.4 Unhappiness with Care

- 58% of residents stated they are not unhappy with the care they get at the nursing home; 26% are sometimes unhappy and 15% are unhappy with the care they get at the nursing home.
- Compared to the average, Aspen residents are less unhappy with the care (9% unhappy; 18% sometimes unhappy; 73% not unhappy) as are DTHR residents (11% unhappy; 65% not unhappy). The Capital Health region had more residents than the average unhappy (18%) with the care they get at the nursing home.

Figure 11: Unhappiness with Care

43. Are you ever unhappy with the care you get at this nursing home?

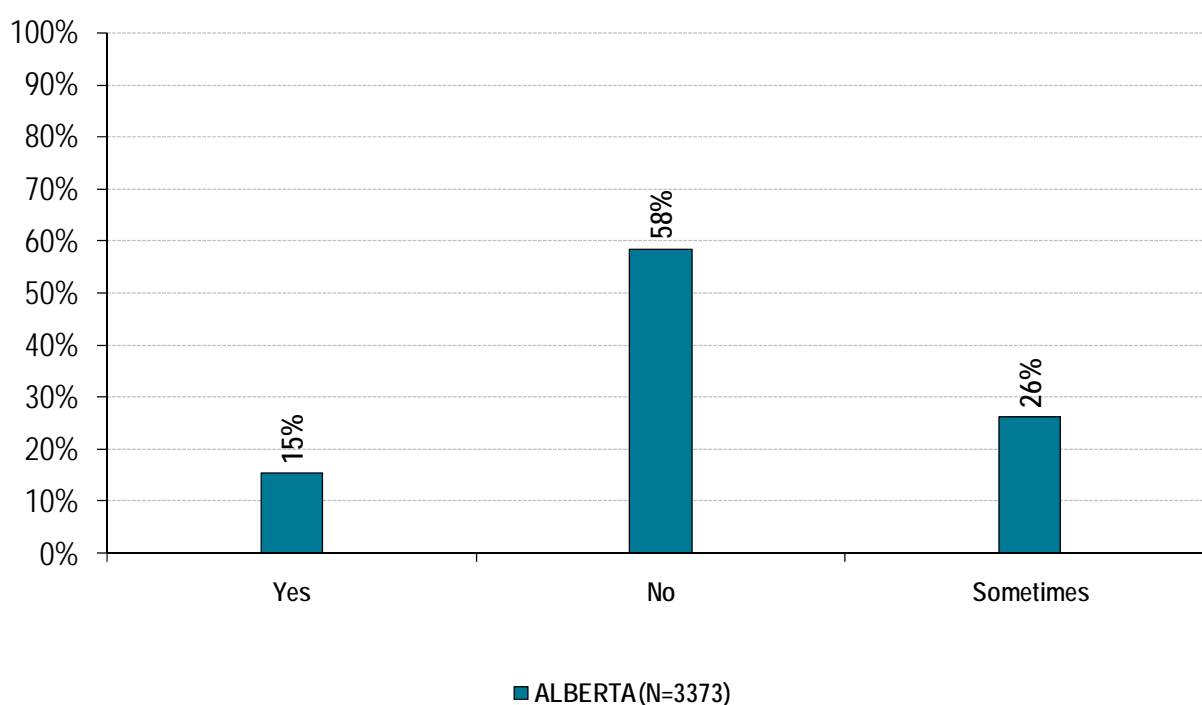


Table 16: Unhappiness with Care

RHA / Unhappiness with Care	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	15%	12%	17%	11%	11%	18%	9%	20%	13%	15%
No	66%	54%	58%	65%	60%	53%	73%	55%	60%	58%
Sometimes	19%	33%	25%	24%	29%	30%	18%	25%	27%	26%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	105	1,273	363	228	915	211	115	15	3,373

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.3.5 Feel Free to Speak when Unhappy with Care

- Most residents (79%) feel free to speak up to staff when unhappy with their care.
- Compared to the average, residents from DTHR (84%) and Aspen (88%) feel more free to speak to staff when they are unhappy with their care and residents in Peace Country feel less free to speak to staff (70%).

Figure 12: Feel Free to Speak when Unhappy with Care

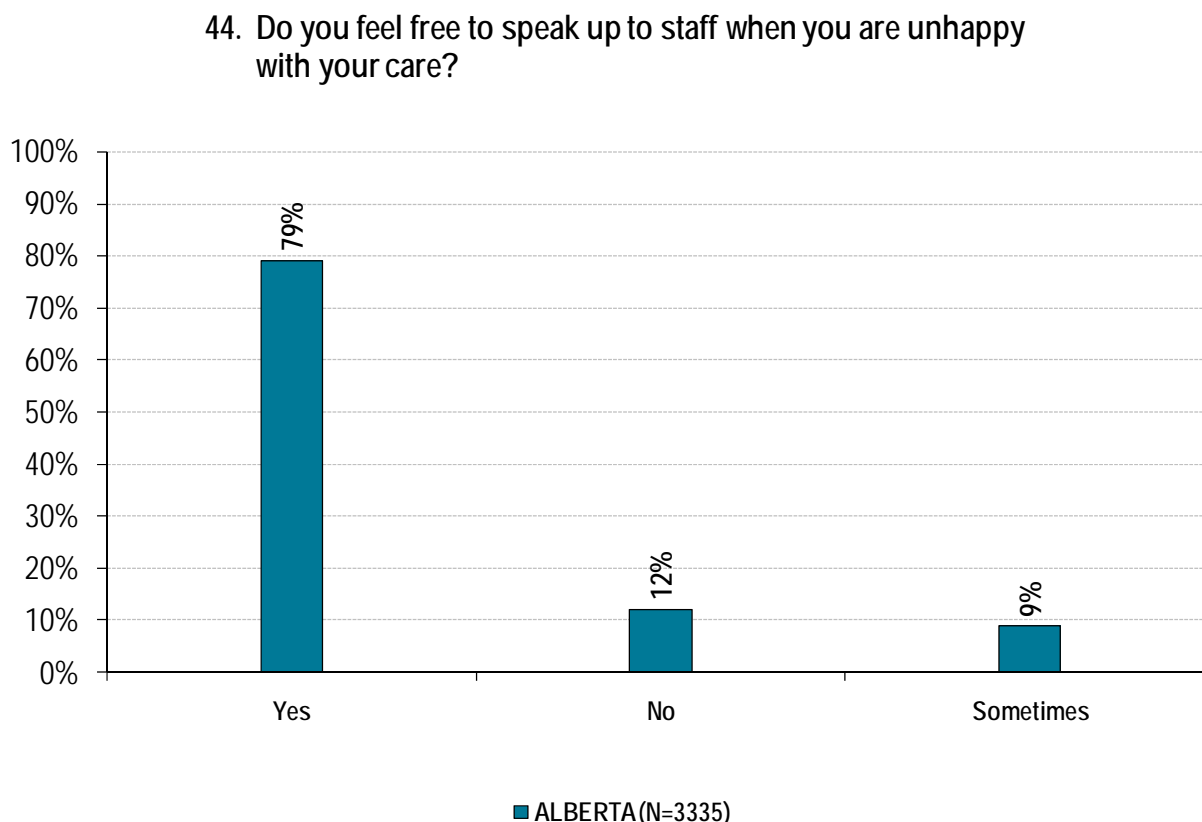


Table 17: Feel Free to Speak when Unhappy with Care

RHA / Feel Free to Speak when Unhappy with care	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	81%	76%	78%	84%	76%	77%	88%	70%	87%	79%
No	9%	10%	13%	9%	16%	12%	8%	21%	7%	12%
Sometimes	10%	14%	9%	7%	8%	10%	4%	9%	7%	9%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	146	105	1,253	355	224	910	213	114	15	3,335

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4 Care

This composite has the second strongest relationship to the overall care rating (Q16) and includes the following questions:

- Takes medicine for aches or pain (Q7 - Screener)
- Medicine efficiency for aches or pain (Q8)
- Staff helpfulness with pain (Q9)
- Staff responsiveness (Q10)
- Staff help when dressing, bathing, showering, or toileting (Q11 - Screener)
- Staff gentleness (dressing, bathing, showering, or toileting) (Q12)
- Staff help to dress, shower, or bathe (Q29 - Screener)
- Privacy when dressing, showering, or bathing (Q30)

Additional related items that are reported here but are not included in the composite calculation:

- Needs help from staff to stay clean (Q46 - Screener)
- Receive help from staff to stay clean (Q47)

Details about each attribute are reported in this section. The information provided is for the entire survey sample and is reported by the nine (9) regional health authorities.

3.4.1 Takes Medicine for Aches or Pain

- 68% of the residents reported taking medicine for aches or pain.
- Residents from the Chinook (78%) and Capital (72%) health regions take more pain medicine than the average residents; however only 65% of Calgary health region residents reported taking medicine for aches or pain.

Figure 13: Takes Medicine for Aches or Pain

7. Do you ever take any medicine to help with aches or pain?

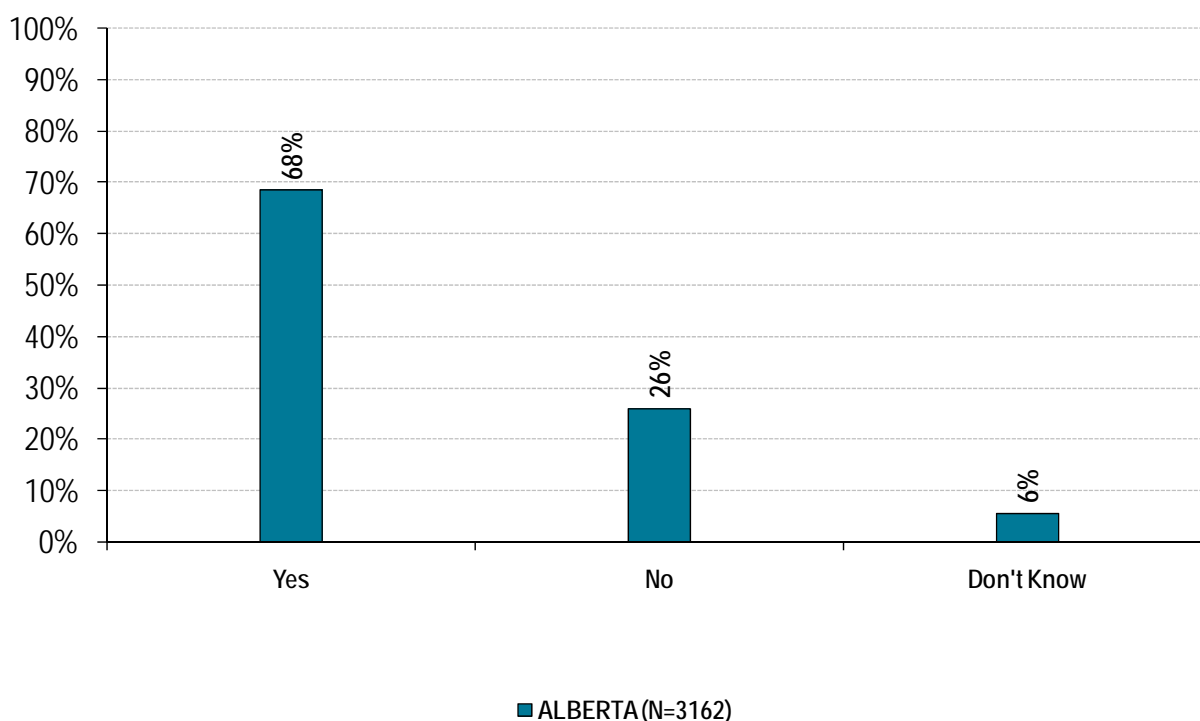


Table 18: Takes Medicine for Aches or Pain

RHA / Takes Medicine for Aches or Pain	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	78%	66%	65%	70%	67%	72%	71%	64%	75%	68%
No	19%	28%	29%	24%	28%	24%	22%	30%	25%	26%
Don't Know	3%	6%	6%	6%	4%	5%	7%	6%	0%	6%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	102	1,172	341	204	872	203	108	12	3,162

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.2 Medicine Effectiveness for Aches or Pain

- Those residents that take medicines for aches or pain were then asked to rate how well their medication worked to help with aches or pain on a scale of 0–10. The average score was 7.4 with 35% rating how well medication worked as 9–10 (excellent); 38% rating it as 7–8 (average); and 28% rating it as 0–6 (poor).

Figure 14: Medicine Effectiveness for Aches or Pain

8. What number would you use to rate how well the medicine worked to help with aches or pain?

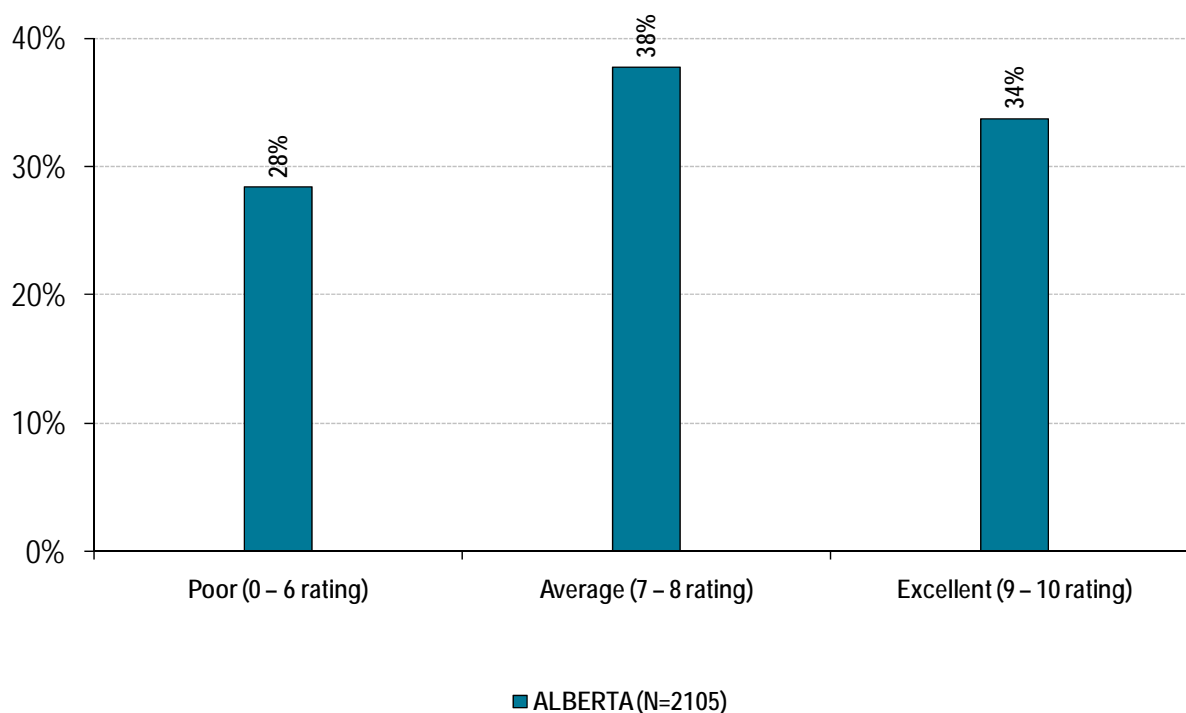


Table 19: Medicine Effectiveness for Aches or Pain

RHA / Medicine Effectiveness for Aches or Pain	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	26%	32%	27%	29%	31%	31%	27%	23%	63%	28%
Average (7 – 8 rating)	41%	29%	40%	37%	34%	37%	37%	34%	25%	38%
Excellent (9 – 10 rating)	33%	38%	33%	34%	35%	32%	36%	44%	13%	34%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	117	68	726	235	140	602	147	62	8	2,105

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.3 Staff Helpfulness with Pain

- Residents were asked to rate how well staff help when they have pain on a scale of 0-10. The average score was 7.8 with 46% rating staff helpfulness with pain as 9-10 (excellent); 31% rating it as 7-8 (average); and 23% rating it as 0-6 (poor).
- Residents rate how well staff help with pain higher in Chinook (14% poor; 59% excellent) and Peace Country (51% excellent) and less in the Calgary health region (25 poor; 43% excellent) compared to the average.

Figure 15: Staff Helpfulness with Pain

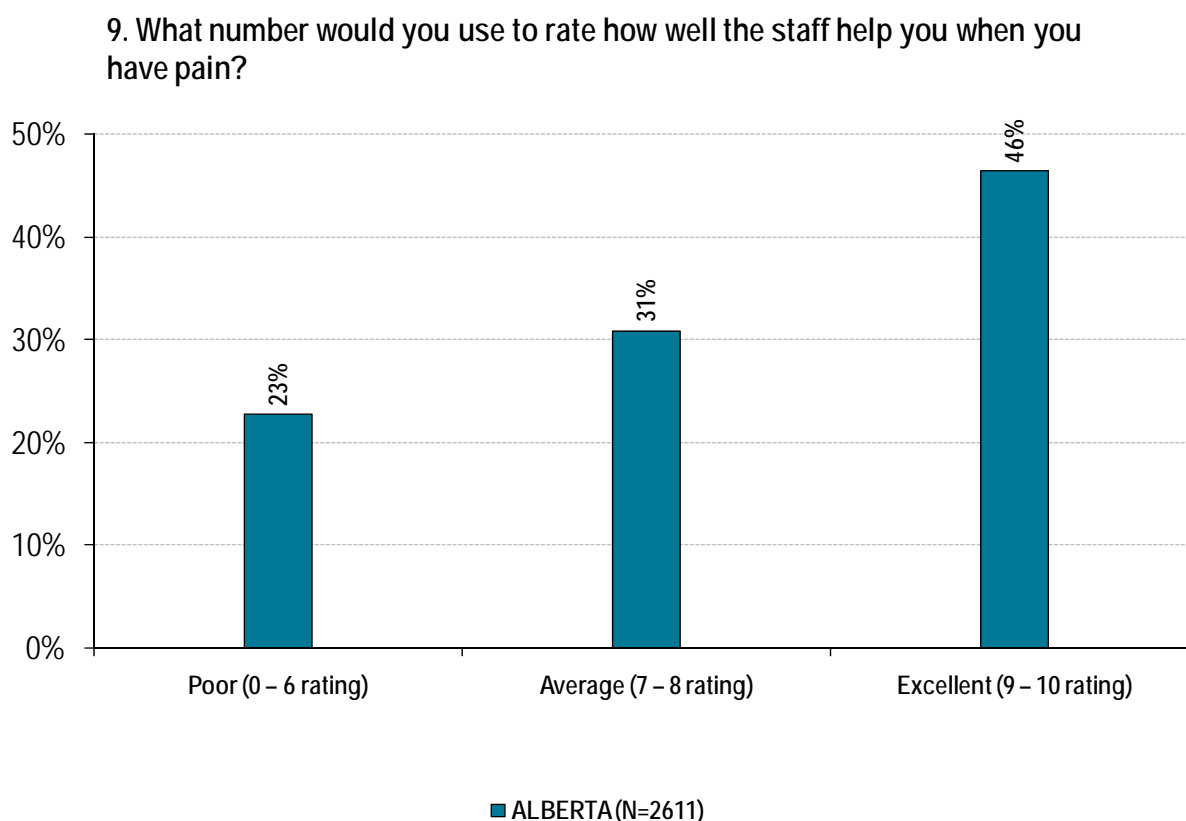


Table 20: Staff Helpfulness with Pain

RHA / Staff Helpfulness with Pain	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	14%	20%	25%	16%	20%	25%	20%	29%	18%	23%
Average (7 – 8 rating)	27%	25%	32%	35%	31%	32%	22%	20%	36%	31%
Excellent (9 – 10 rating)	59%	55%	43%	49%	49%	43%	57%	51%	45%	46%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	138	87	948	297	177	708	161	84	11	2,611

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.4 Staff Responsiveness

- Residents were asked to rate how quickly the staff come when they call for help on a scale of 0–10. The average score was 6.9 with 28% rating staff responsiveness as 9–10 (excellent); 33% rating it as 7–8 (average); and 38% rating it as 0–6.
- Residents rate how quickly staff come higher in the Chinook (38% excellent), DTHR (37% excellent), Aspen (40% excellent) and Peace Country (39% excellent) health regions and lower in the Capital (45% poor) health region compared to the average.

Figure 16: Staff Responsiveness

10. What number would you use to rate how quickly the staff come when you call for help?

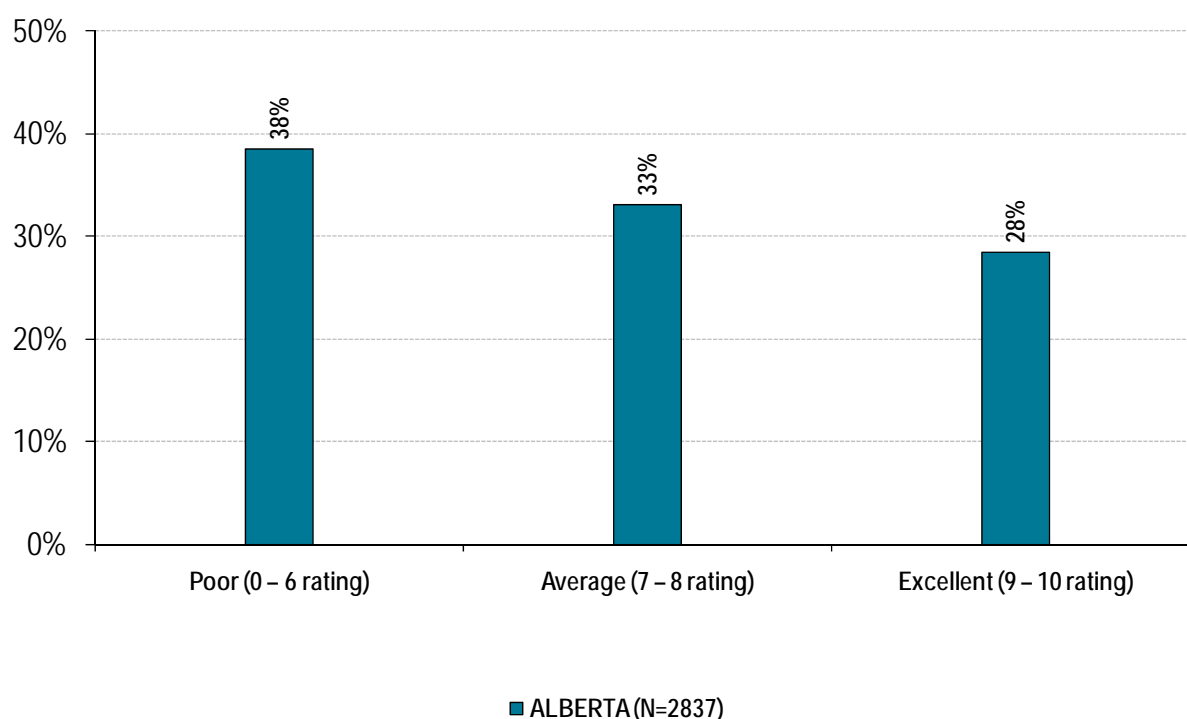


Table 21: Staff Responsiveness

RHA / Staff Responsiveness	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	30%	34%	40%	31%	33%	45%	26%	37%	33%	38%
Average (7 – 8 rating)	32%	39%	34%	32%	32%	32%	34%	24%	33%	33%
Excellent (9 – 10 rating)	38%	27%	25%	37%	35%	23%	40%	39%	33%	28%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	141	95	1,026	321	187	786	179	90	12	2,837

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.5 Staff Help with Dressing, Bathing, Showering or Toileting

- Most residents (89%) require help from staff for dressing, bathing, showering or toileting.

Figure 17: Staff Help with Dressing, Bathing, Showering or Toileting

11. Do the staff help you with any of the following: to dress, bath, shower or go to the toilet?

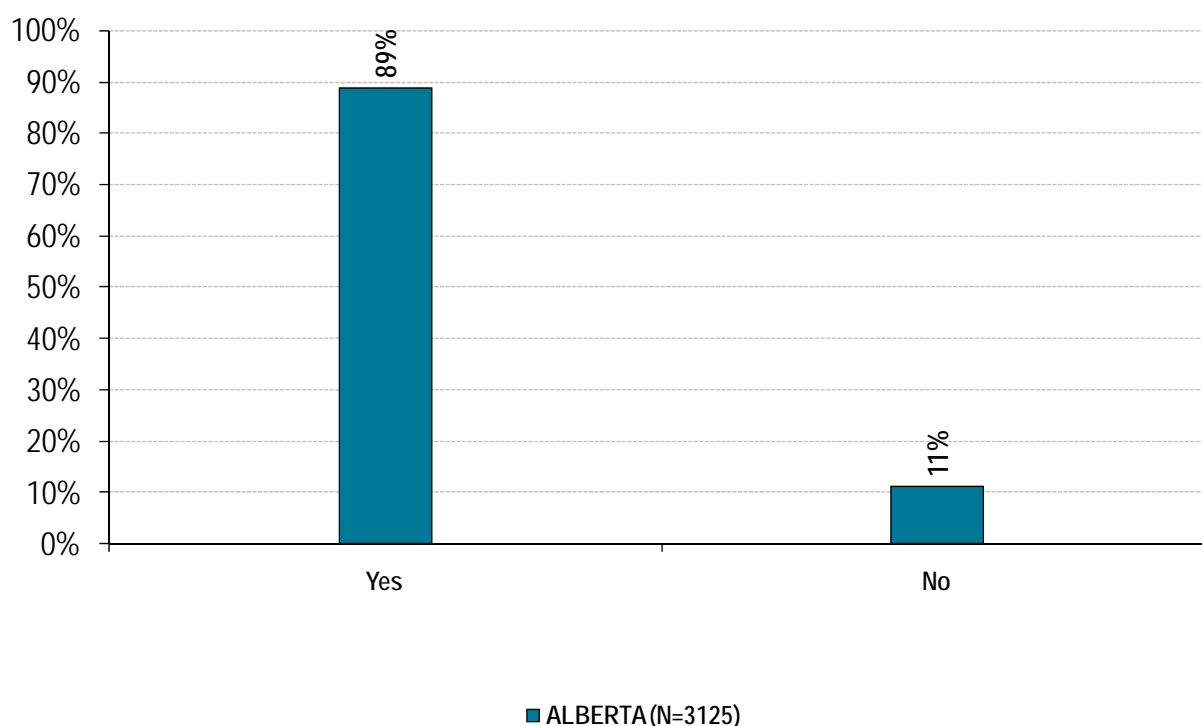


Table 22: Staff Help with Dressing, Bathing, Showering or Toileting

RHA / Staff Help with Dressing, Bathing, Showering or Toileting	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	85%	91%	86%	89%	92%	92%	92%	90%	83%	89%
No	15%	9%	14%	11%	8%	8%	8%	10%	17%	11%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	100	1,160	340	201	862	197	105	12	3,125

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.6 Staff Gentleness when Dressing, Bathing, Showering or Toileting

- Those residents that staff help with dressing, bathing, showering or toileting were then asked to rate how gentle the staff are when they help with dressing, bathing, showering or toileting on a scale of 0–10. The average score was 8.0 with 47% rating staff gentleness as 9-10 (excellent); 33% rating it as 7-8 (average); and 21% rating it as 0-6 (poor).
- Residents rate staff as more gentle than average in the DTHR (55% excellent), East Central (57% excellent) and Aspen (63% excellent) health regions and less gentle in the Calgary (41% excellent) and Capital (41% excellent) health regions compared to the average.

Figure 18: Staff Gentleness when Dressing, Bathing, Showering or Toileting

12. What number would you use to rate how gentle the staff are when they're helping you?

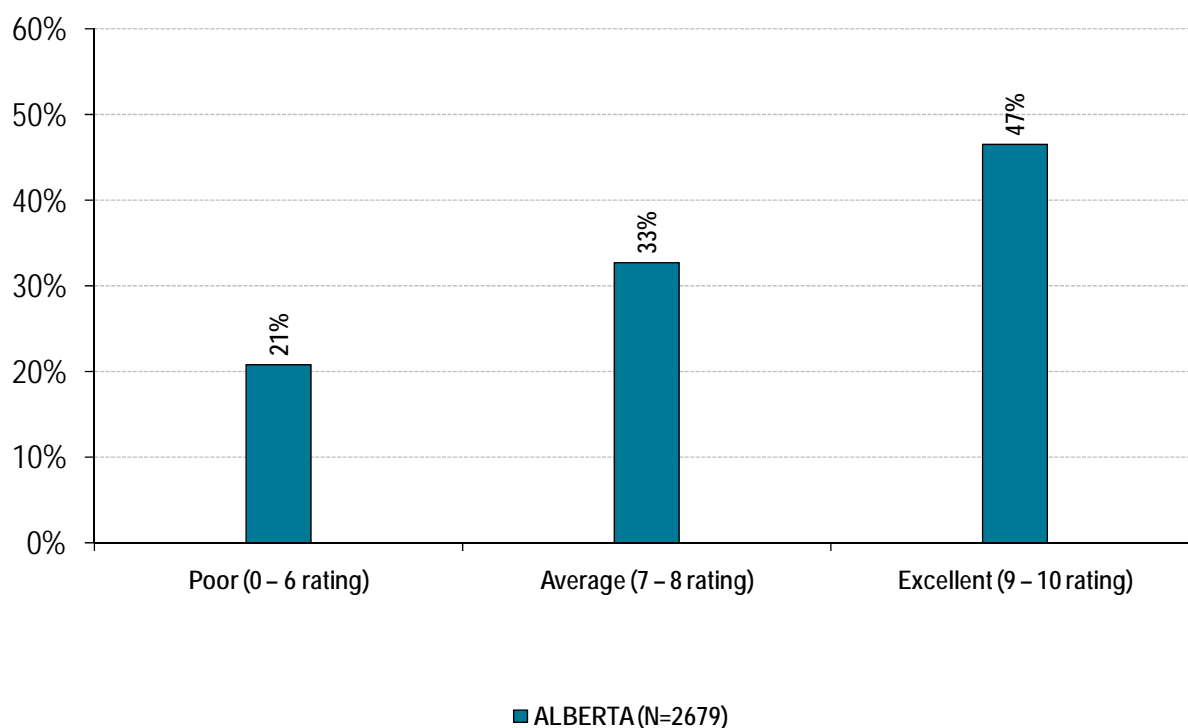


Table 23: Staff Gentleness when Dressing, Bathing, Showering, or Toileting

RHA / Staff Gentleness	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	13%	21%	23%	15%	17%	24%	12%	19%	40%	21%
Average (7 – 8 rating)	33%	30%	36%	30%	26%	35%	25%	28%	0%	33%
Excellent (9 – 10 rating)	54%	49%	41%	55%	57%	41%	63%	53%	60%	47%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	126	90	945	298	178	767	179	86	10	2,679

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.7 Help from Staff for Dressing, Showering or Bathing

- Most residents (90%) report staff help them with dressing, showering or bathing.
- Compared to the average, the proportion of residents that report staff help them is slightly higher than the average in the Capital health region (92%), and slightly lower in the Calgary health region (88%).

Figure 19: Help from Staff for Dressing, Showering or Bathing

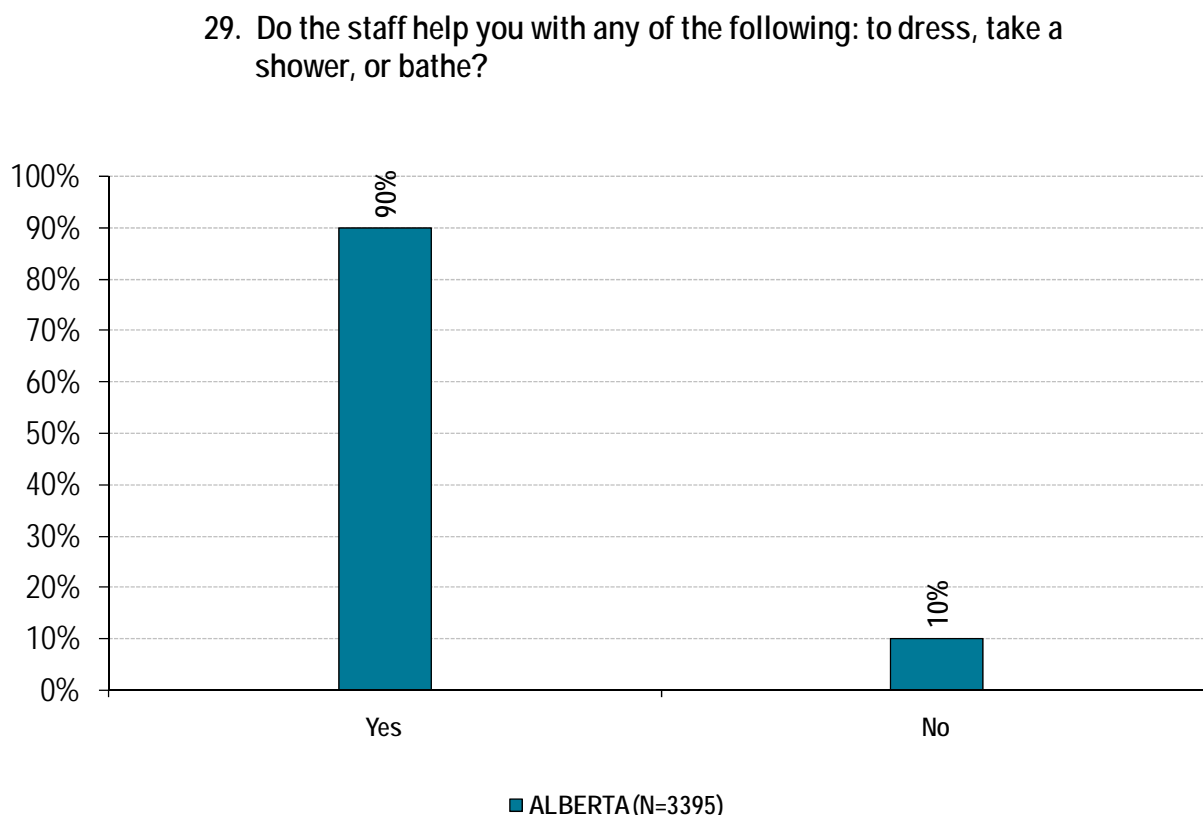


Table 24: Help from Staff for Dressing, Showering or Bathing

RHA / Help from Staff for Dressing, Showering or Bathing	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	89%	91%	88%	90%	93%	92%	93%	89%	80%	90%
No	11%	9%	12%	10%	7%	8%	7%	11%	20%	10%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	107	1,278	367	230	921	215	114	15	3,395

Note: Individual proportions may not sum to 100% due to rounding of decimals.

Note: This question (29) is virtually identical to question 11: both are used to screen the item that follows in the order the questions were presented on the survey.

3.4.8 Privacy when Dressing, Showering or Bathing

- Of those residents that staff help with dressing, showering or bathing, 90% report that staff ensure they have enough personal privacy when dressing, showering or bathing.
- Results are similar across RHAs except for Peace Country where 96% of residents say that they have enough privacy.

Figure 20: Privacy when Dressing, Showering or Bathing

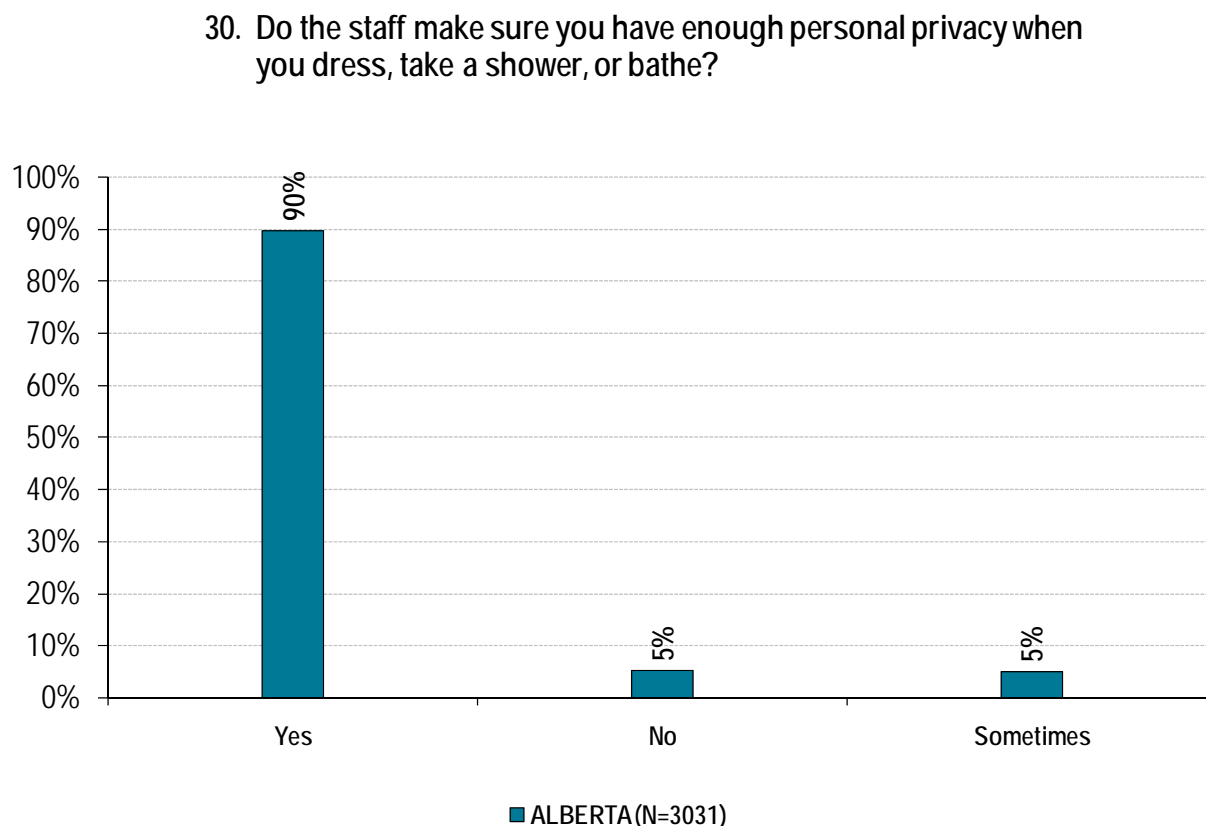


Table 25: Privacy when Dressing, Showering or Bathing

RHA / Privacy when Dressing, Showering or Bathing	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	92%	89%	88%	92%	93%	89%	89%	96%	92%	90%
No	3%	4%	6%	3%	4%	6%	7%	2%	8%	5%
Sometimes	5%	7%	6%	5%	2%	6%	4%	2%	0%	5%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	131	96	1,107	330	211	843	200	101	12	3,031

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.9 Needs Help from Staff to Stay Clean

- 61% of residents said they sometimes need help from staff to stay clean.
- More residents in the Chinook (71%), Palliser (71%), DTHR (70%) and Northern Lights (87%) health regions need help compared to the average and fewer residents in the Calgary (57%) and Aspen (54%) health regions report needing help.

Figure 21: Needs Help from Staff to Stay Clean

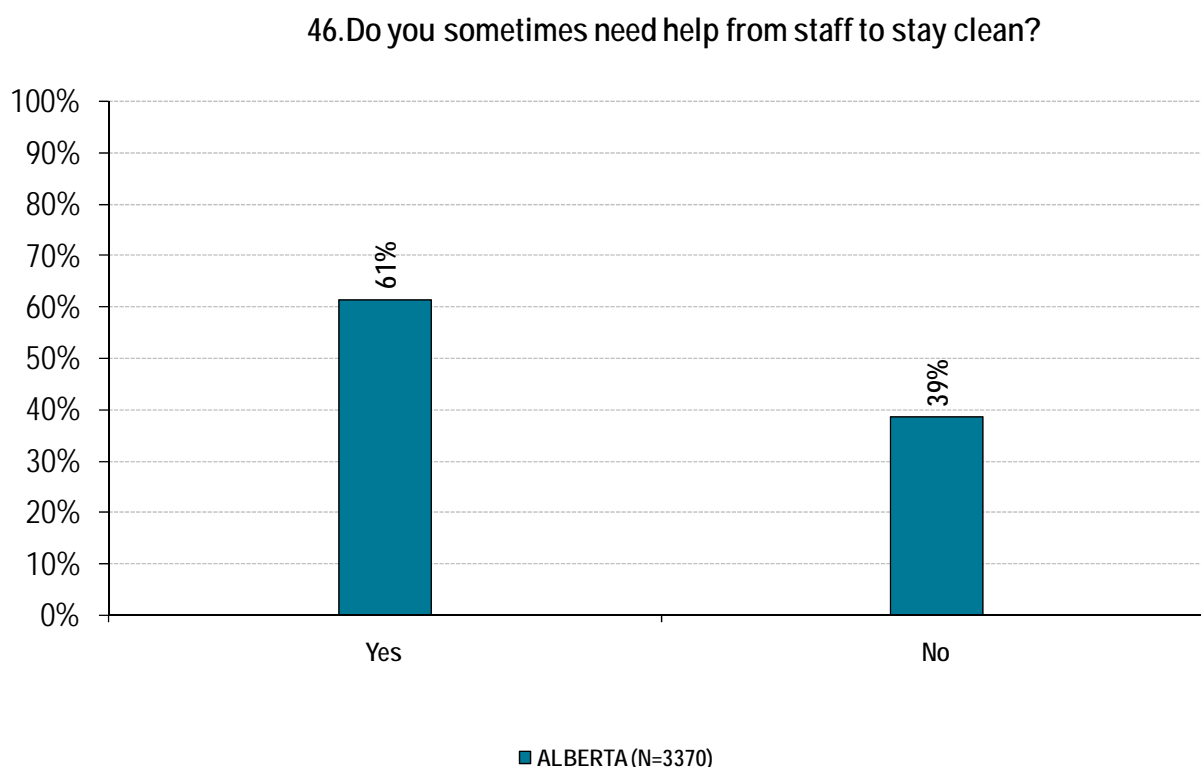


Table 26: Needs Help from Staff to Stay Clean

RHA / Needs Help from Staff to Stay Clean	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	71%	71%	57%	70%	66%	61%	54%	66%	87%	61%
No	29%	29%	43%	30%	34%	39%	46%	34%	13%	39%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	106	1,271	362	226	915	213	115	15	3,370

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.4.10 Receives Help to Stay Clean

- Of those residents who sometimes need help to stay clean, 90% said they receive the help they need to stay clean.
- Residents from the DTHR (95%) and Aspen (96%) health regions are more likely to report they receive the help they need from staff to stay clean; where Calgary Health Region residents are less likely to report receiving the help they need (87%), compared to the average.

Figure 22: Receives Help to Stay Clean

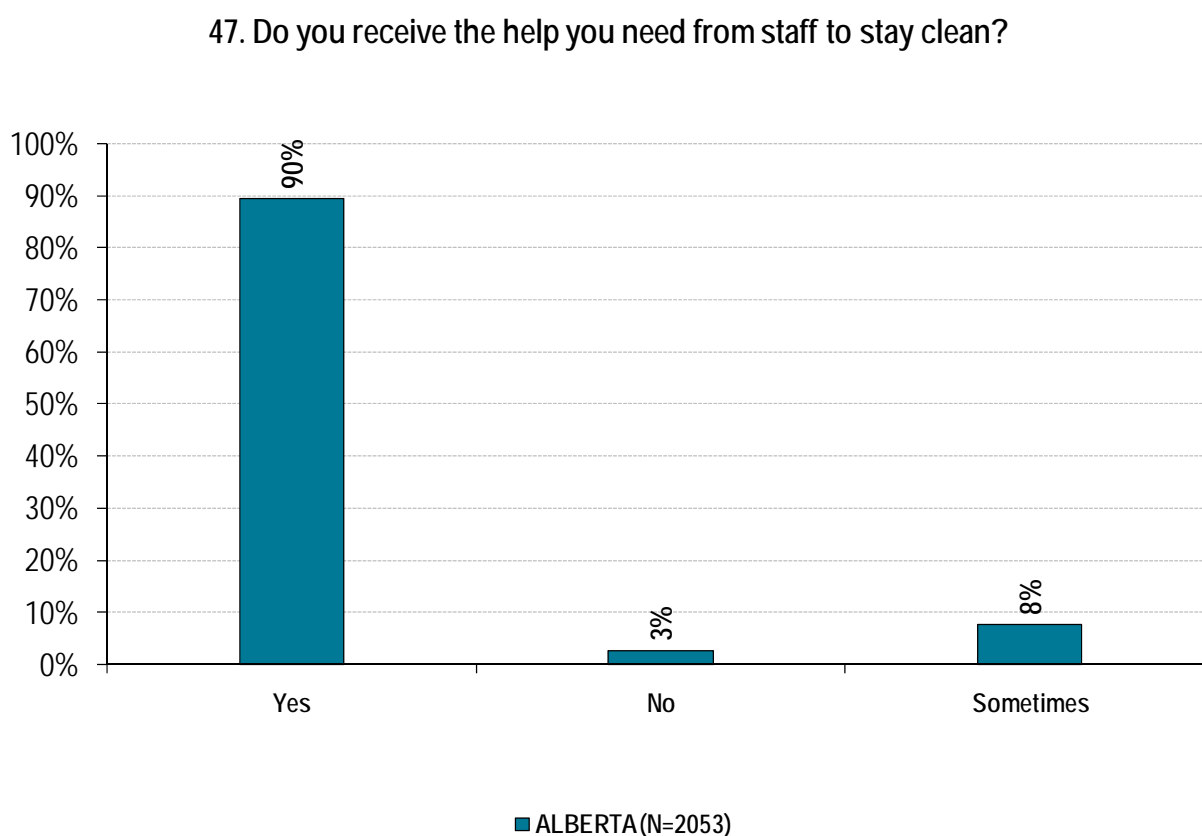


Table 27: Receives Help to Stay Clean

RHA / Receives Help to Stay Clean	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	89%	85%	87%	95%	92%	90%	96%	88%	92%	90%
No	3%	0%	3%	2%	3%	3%	1%	5%	0%	3%
Sometimes	8%	15%	10%	3%	5%	8%	3%	7%	8%	8%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	104	75	720	251	148	551	116	75	13	2,053

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5 Environment

This composite has the third strongest relationship to the overall care rating (Q16) and includes the following questions:

- Food rating (Q1)
- Eating in the dining room (Q2 - Screener)
- Mealtime enjoyment (Q3)
- Nursing home temperature (Q4)
- Nursing home cleanliness (Q5)
- Feel safe and secure (Q6)
- Quietness at night (Q18)
- Noise during the day (Q19)
- Privacy with visitors (Q20)

Details about each attribute are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.5.1 Food

- Residents were asked to rate the food at the nursing home on a scale of 0–10. The average score was 6.6 with 23% rating the food as 9-10 (excellent); 33% rating food as 7-8 (average) and 44% rating it as 0-6 (poor).
- Residents rated the food higher in the Palliser (34% excellent), DTHR (28% excellent), Aspen (30% excellent) and Peace Country (34% excellent) health regions, when compared to the average. Calgary health region residents rated the food lower (47% poor; 19% excellent).

Figure 23: Food

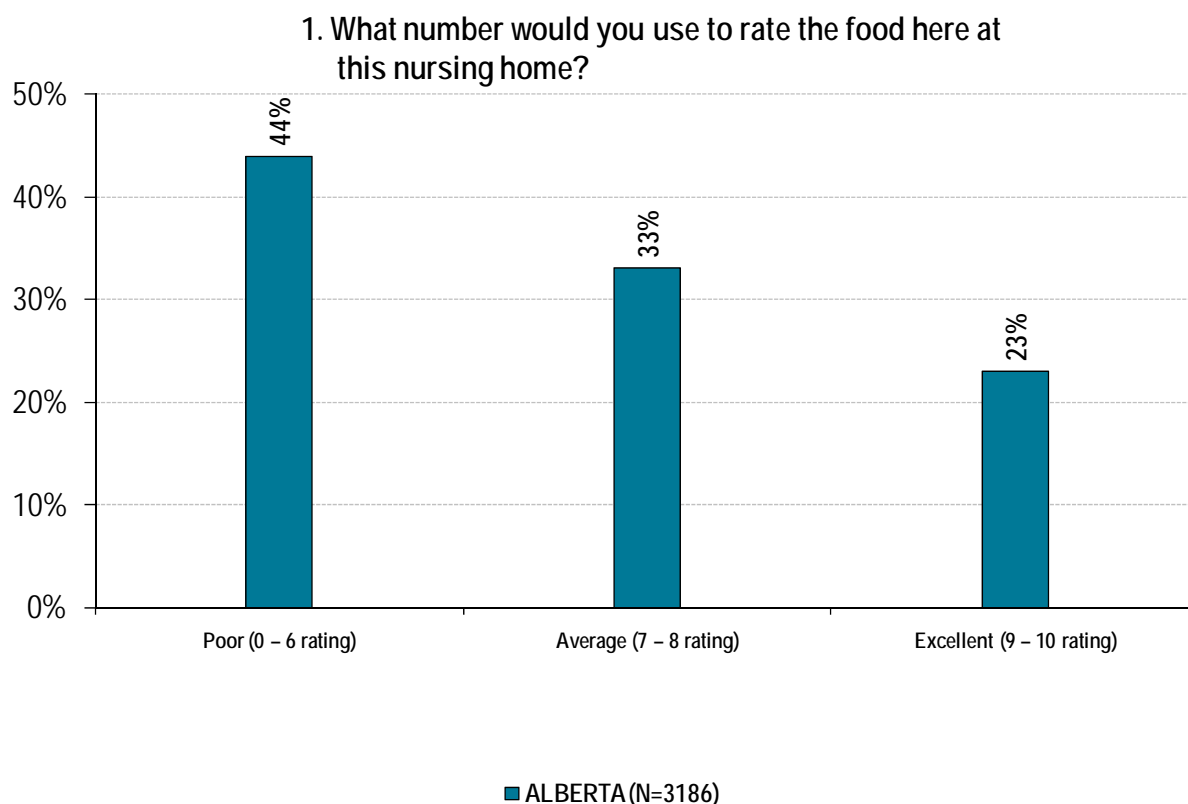


Table 28: Food

RHA / Food	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	43%	37%	47%	35%	44%	46%	35%	40%	42%	44%
Average (7 – 8 rating)	31%	30%	34%	37%	32%	32%	35%	26%	42%	33%
Excellent (9 – 10 rating)	26%	34%	19%	28%	24%	22%	30%	34%	17%	23%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	146	101	1,177	348	214	875	207	106	12	3,186

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.2 Eating in Dining Room

- The majority of residents (95%) said they eat in the dining room or communal area.

Figure 24: Eating in Dining Room

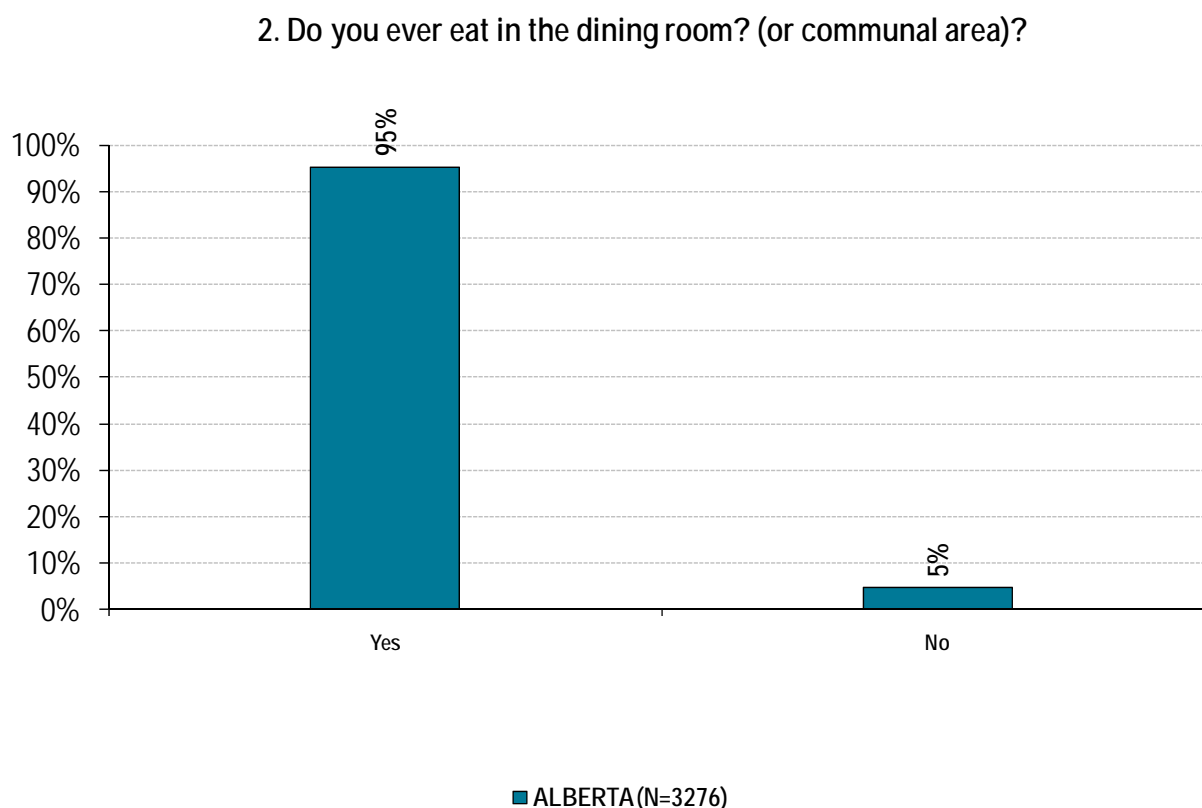


Table 29: Eating in Dining Room

RHA / Eat in Dining Room	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	96%	95%	95%	96%	97%	94%	98%	97%	83%	95%
No	4%	5%	5%	4%	3%	6%	2%	3%	17%	5%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	104	1,225	354	218	892	211	113	12	3,276

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.3 Enjoy Mealtimes

- Those residents that eat in the dining room or communal area were asked to rate how they enjoy mealtimes on a scale of 0–10. The average score was 6.7 with 22% rating their enjoyment as 9-10 (excellent); 34% rating it as 7-8 (average); and 44% rating their enjoyment as 0-6 (poor).
- Residents in the Aspen health region enjoy their mealtimes more (33% excellent) compared to the average; however fewer residents in the Calgary health region report they enjoy their mealtimes (19% excellent).

Figure 25: Enjoy Mealtimes

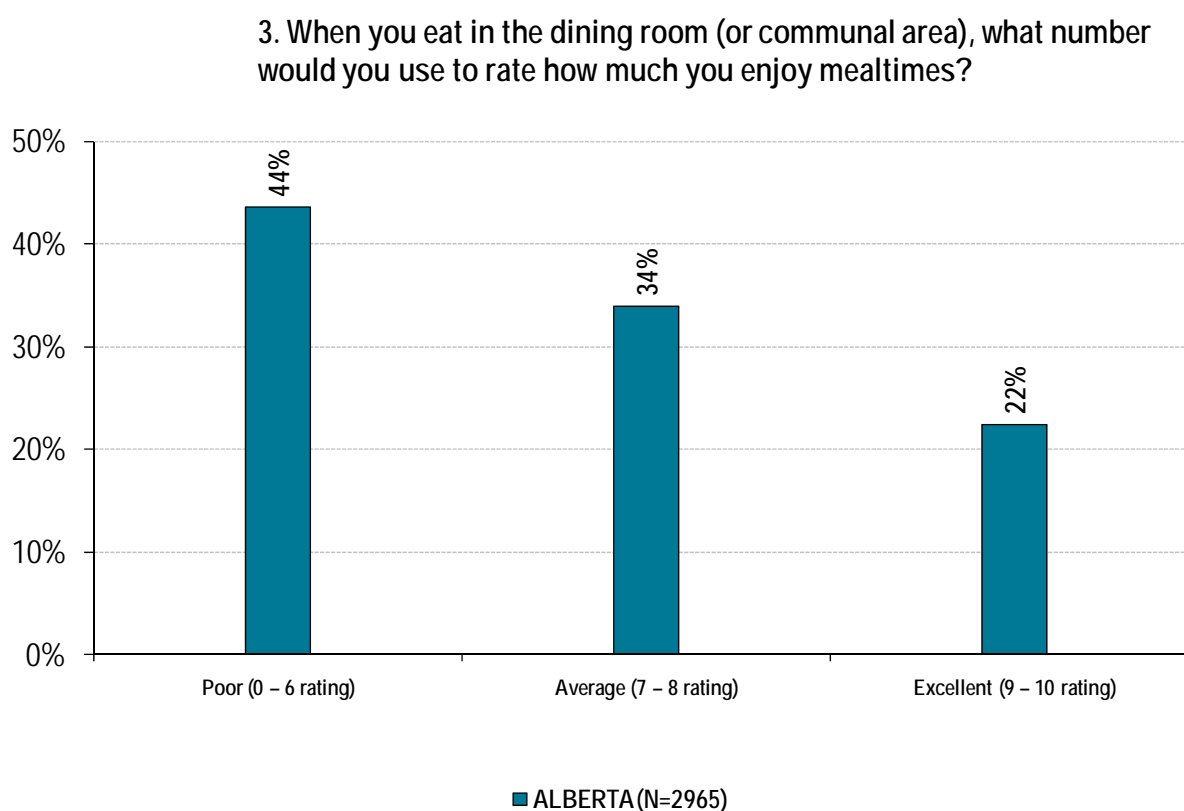


Table 30: Enjoy Mealtimes

RHA / Enjoy Mealtimes	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	38%	34%	46%	36%	46%	46%	38%	40%	50%	44%
Average (7 – 8 rating)	35%	42%	34%	39%	31%	32%	30%	30%	40%	34%
Excellent (9 – 10 rating)	27%	24%	19%	24%	23%	22%	33%	30%	10%	22%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	141	98	1,087	327	199	806	200	97	10	2,965

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.4 Temperature

- Residents were asked to rate how comfortable the temperature is in the nursing home on a scale of 0–10. The average score was 6.9 with 28% rating the comfort of the temperature as 9–10 (excellent); 34% rating it as 7–8 (average); and 39% rating it as 0–6 (poor).
- Results differ slightly across all RHAs. The temperature is less comfortable in the East Central (50% poor) and Calgary (24% excellent) health regions and more comfortable in the Aspen health region (39% excellent) compared to the average.

Figure 26: Temperature

4. What number would you use to rate how comfortable the temperature is in this nursing home?

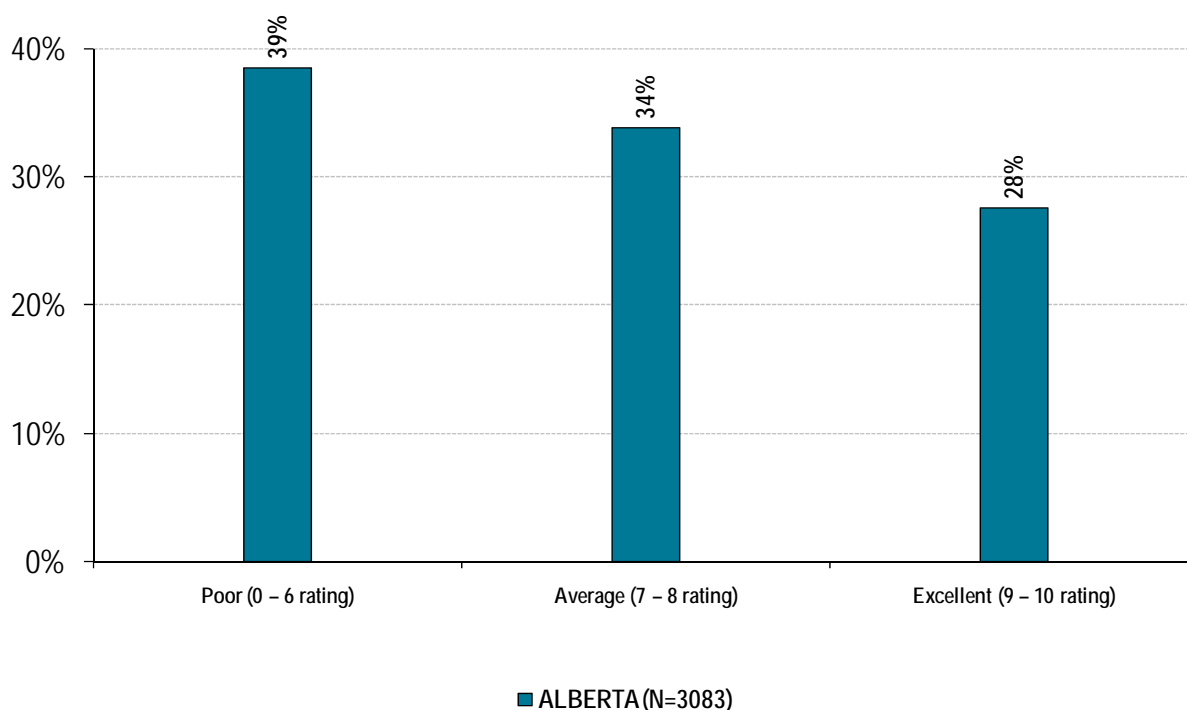


Table 31: Temperature

RHA / Temperature	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	33%	37%	39%	36%	50%	37%	39%	42%	33%	39%
Average (7 – 8 rating)	36%	33%	36%	36%	24%	36%	23%	23%	25%	34%
Excellent (9 – 10 rating)	31%	30%	24%	28%	26%	28%	39%	35%	42%	28%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	100	1,141	338	202	847	200	96	12	3,083

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.5 Nursing Home Cleanliness

- Residents were asked to rate the cleanliness of the nursing home on a scale of 0–10. The average score was 8.1 with 51% rating the cleanliness of the nursing home as 9–10 (excellent); 32% rating it as 7–8 (average) and 17% rating it as 0–6 (poor).
- A greater proportion of residents from Chinook (61%), Palliser (61%), Aspen (66%) and Peace Country (68%) gave a rating of 9 or 10 (excellent) compared to the average. However, only 44% of residents from the Calgary health region rated the cleanliness as 9 or 10 (excellent).

Figure 27: Nursing Home Cleanliness

5. Now think about all the different areas of the nursing home. What number would you use to rate how clean this nursing home is?

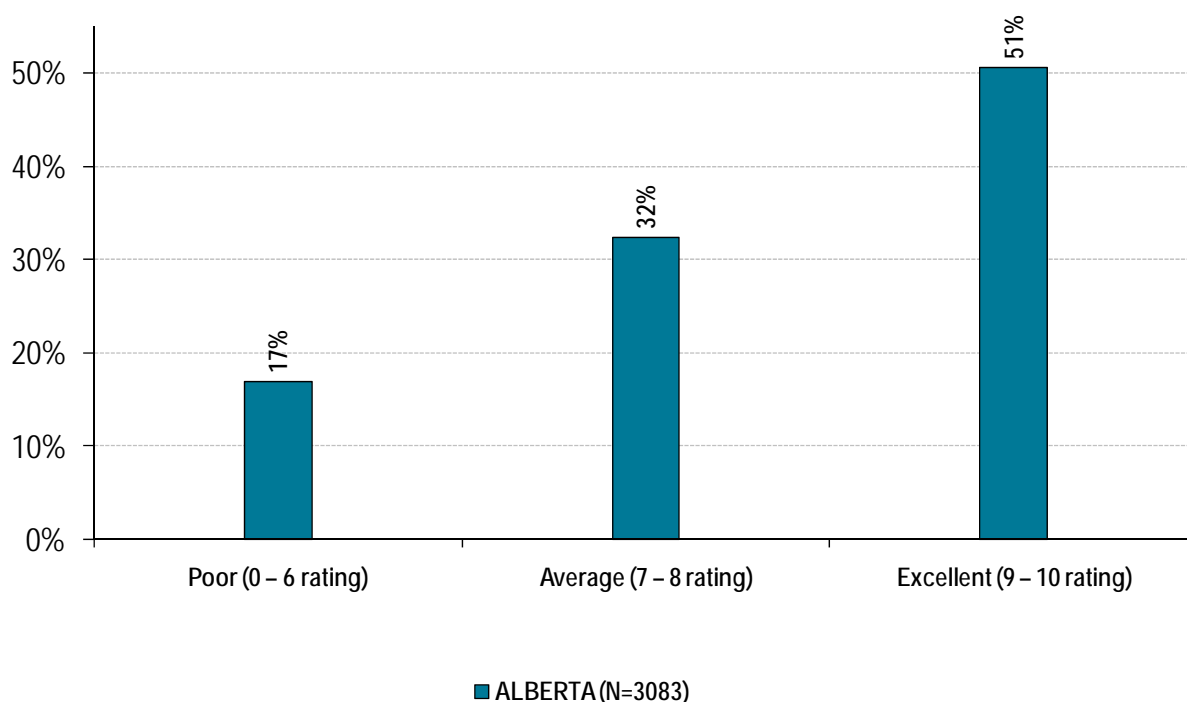


Table 32: Nursing Home Cleanliness

RHA / Nursing Home Cleanliness	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	11%	17%	20%	12%	17%	18%	12%	17%	8%	17%
Average (7 – 8 rating)	27%	22%	36%	34%	27%	35%	23%	16%	33%	32%
Excellent (9 – 10 rating)	61%	61%	44%	54%	57%	48%	66%	68%	58%	51%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	99	1,138	342	198	846	200	96	12	3,079

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.6 Feel Safe and Secure

- Residents were asked to rate how safe and secure they feel in the nursing home on a scale of 0–10. The average score was 8.1 with 53% rating safety and security as 9–10 (excellent); 29% rating it as 7–8 (average) and 19% rating it as 0–6 (poor).
- In Aspen, a greater proportion (60%) of residents rated how safe and secure they feel as 9 or 10 (excellent) compared to the average. In Calgary, fewer residents (49%) rated safety and security as 9 or 10 (excellent).

Figure 28: Feel Safe and Secure

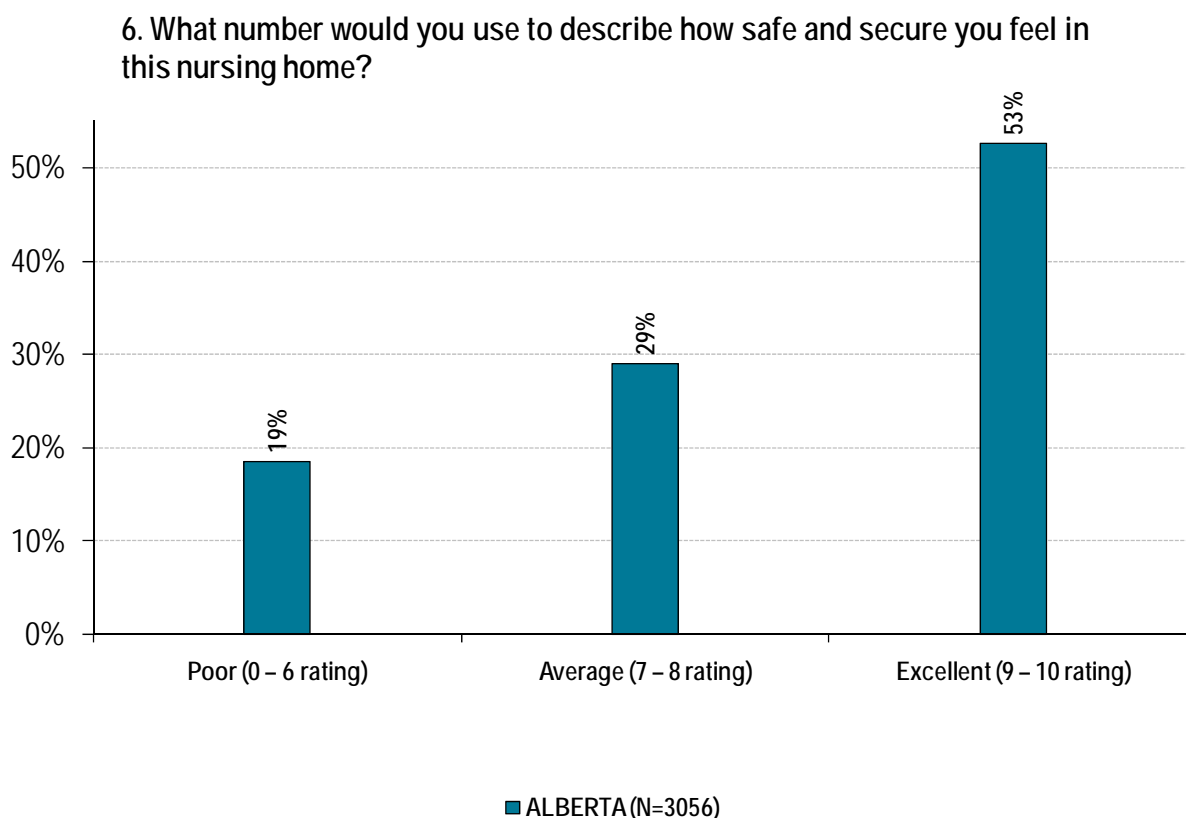


Table 33: Feel Safe and Secure

RHA / Feel Safe & Secure	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	12%	19%	19%	14%	17%	20%	18%	23%	25%	19%
Average (7 – 8 rating)	32%	26%	32%	29%	25%	28%	23%	24%	25%	29%
Excellent (9 – 10 rating)	57%	56%	49%	57%	58%	51%	60%	54%	50%	53%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	146	97	1,123	333	201	847	200	97	12	3,056

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.7 Quietness at Night

- Most residents (83%) said the area around their room was quiet at night.
- More residents from the DTHR (87%) and Aspen (88%) health regions said the area around their room is quiet at night compared to the average.

Figure 29: Quietness at Night

18. Is the area around your room quiet at night?

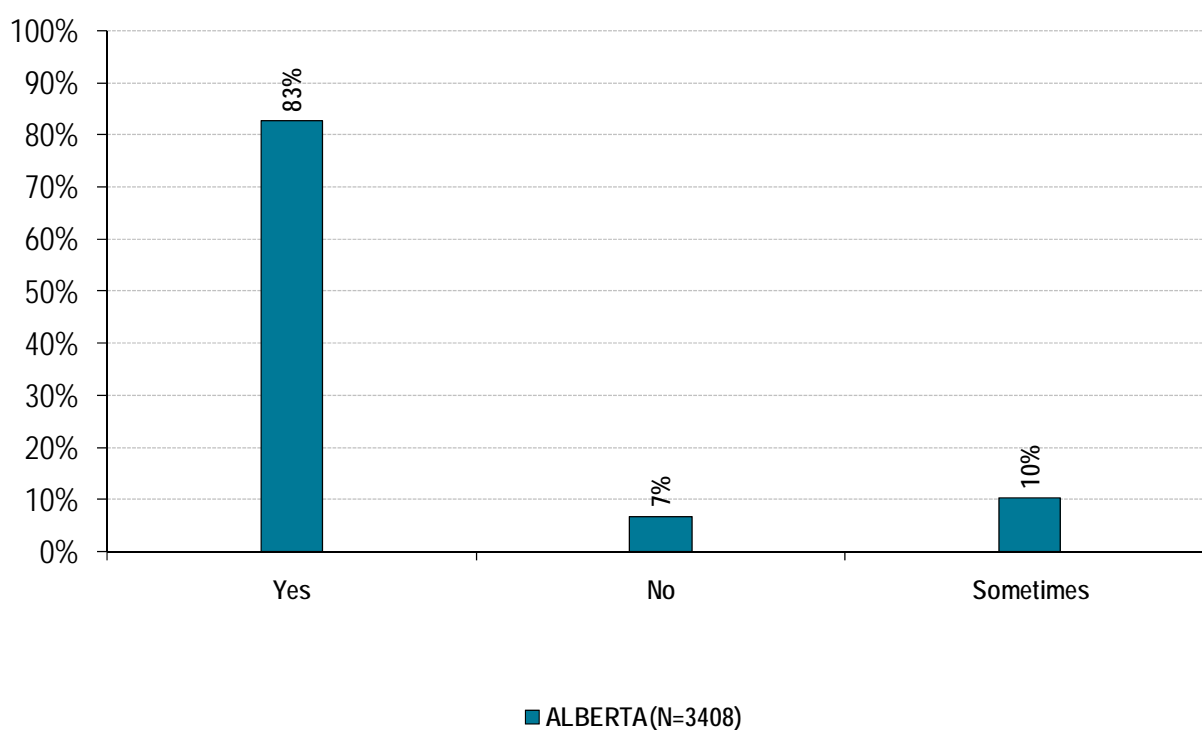


Table 34: Quietness at Night

RHA / Quietness at Night	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	82%	82%	82%	87%	82%	81%	88%	82%	80%	83%
No	9%	4%	7%	5%	6%	8%	6%	5%	7%	7%
Sometimes	10%	14%	11%	8%	11%	11%	7%	13%	13%	10%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	108	1,284	367	231	924	215	117	15	3,408

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.8 Noise During the Day

- 21% of residents said they are bothered by noise during the day.
- Results are very similar across RHAs except for the Palliser health region where more residents (31%) are bothered by noise during the day compared to the average.

Figure 30: Noise During the Day

19. Are you bothered by noise in the nursing home during the day?

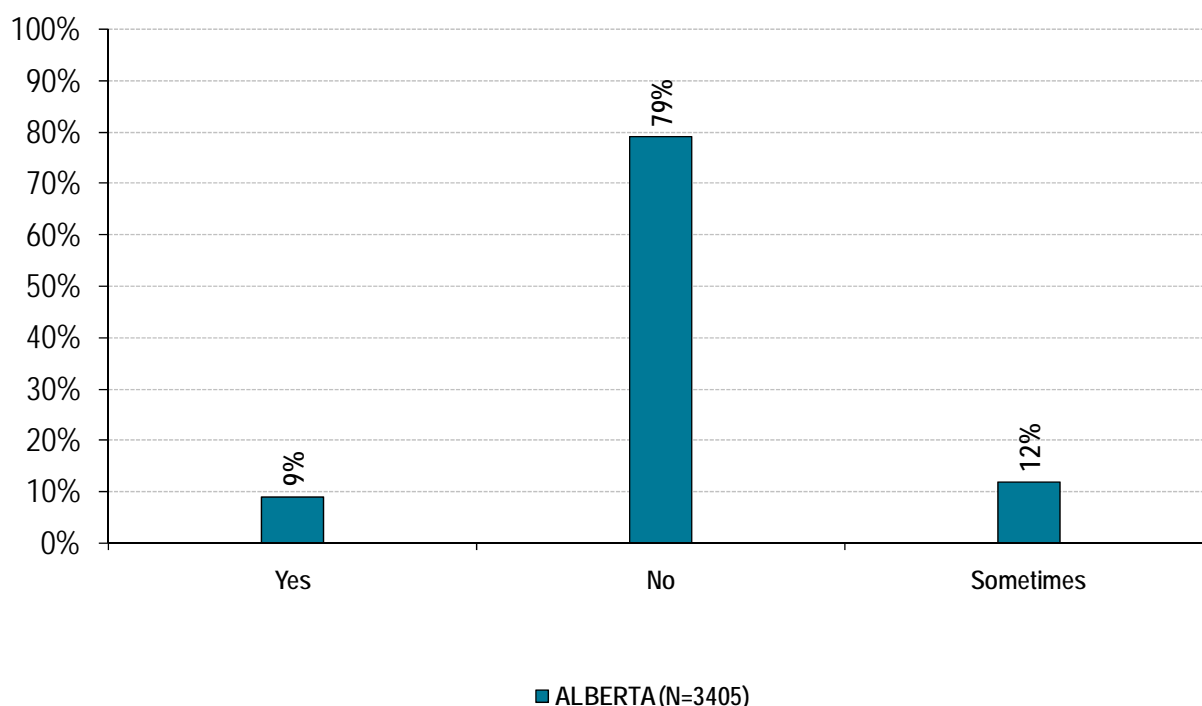


Table 35: Noise During the Day

RHA / Noise During the Day	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	6%	5%	9%	8%	10%	10%	9%	11%	13%	9%
No	82%	69%	81%	78%	81%	77%	81%	78%	67%	79%
Sometimes	12%	26%	11%	13%	9%	12%	10%	11%	20%	12%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	108	1,282	366	231	923	215	117	15	3,405

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.5.9 Privacy with Visitors

- 86% of residents report being able to find a private place to visit; 6% report this is the case some of the time.

Figure 31: Privacy with Visitors

20. If you have a visitor, can you find a place to visit in private?

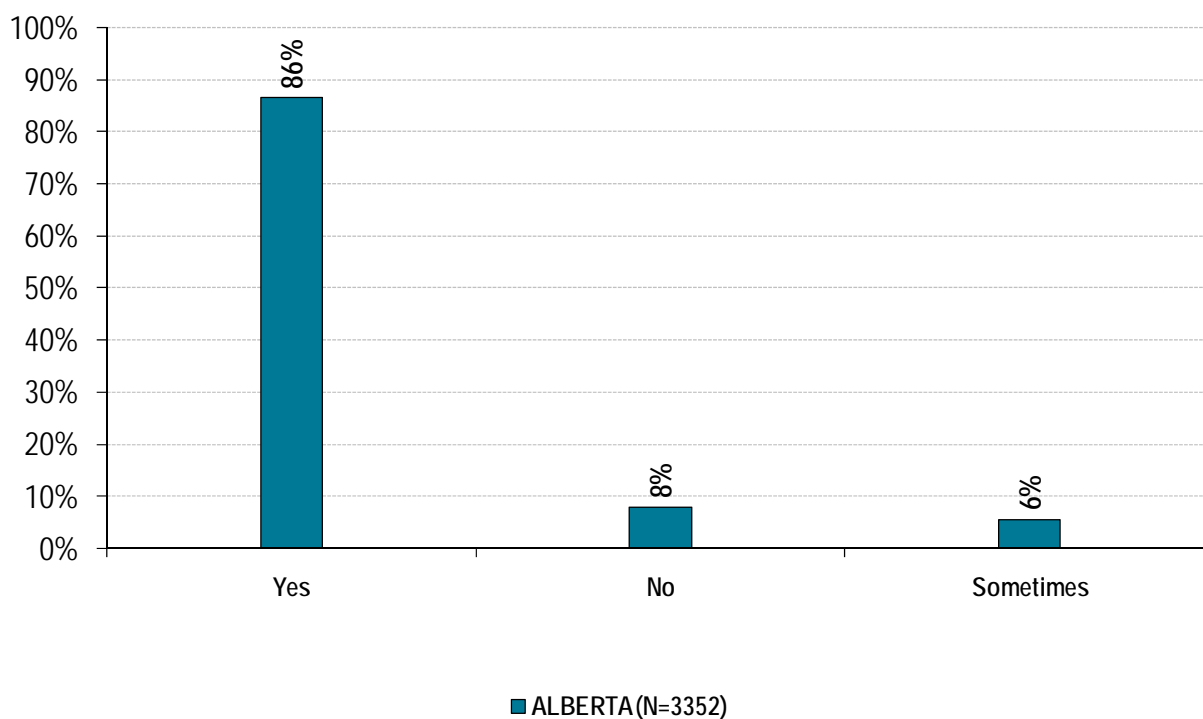


Table 36: Privacy with Visitors

RHA / Privacy with Visitors	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	84%	91%	86%	89%	86%	86%	88%	84%	100%	86%
No	8%	3%	8%	6%	8%	9%	7%	9%	0%	8%
Sometimes	8%	7%	6%	5%	6%	5%	5%	7%	0%	6%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.6 Autonomy

This composite has the fourth strongest relationship to the overall care rating (Q16) and includes the following questions:

- Choose bedtime (Q31)
- Choose clothes to wear (Q32)
- Choose activities (Q33)

Details about each attribute are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.6.1 Choose Bedtime

- 80% of residents indicated they can choose what time they go to bed.
- A greater proportion of residents from Aspen (86%) can choose their bedtime compared to the average.

Figure 32: Choose Bedtime

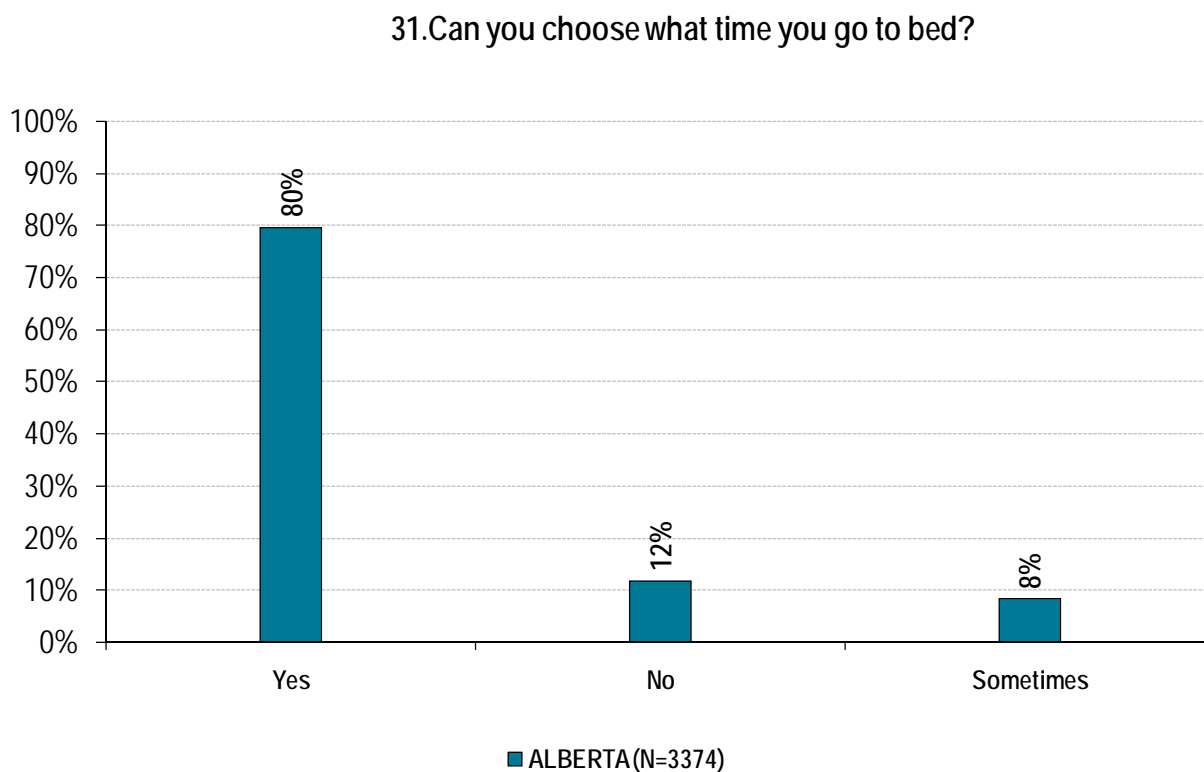


Table 37: Choose Bedtime

RHA / Choose Bedtime	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	78%	73%	82%	81%	78%	76%	86%	81%	93%	80%
No	8%	10%	12%	9%	13%	14%	10%	13%	0%	12%
Sometimes	14%	17%	7%	10%	9%	10%	4%	6%	7%	8%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	108	1,266	363	229	914	215	116	15	3,374

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.6.2 Choose Clothes to Wear

- Most residents (89%) can choose the clothes they wear.
- Results are similar across RHAs except for Peace Country where fewer residents (81%) indicate they can choose what clothes they wear compared to the average.

Figure 33: Choose Clothes to Wear

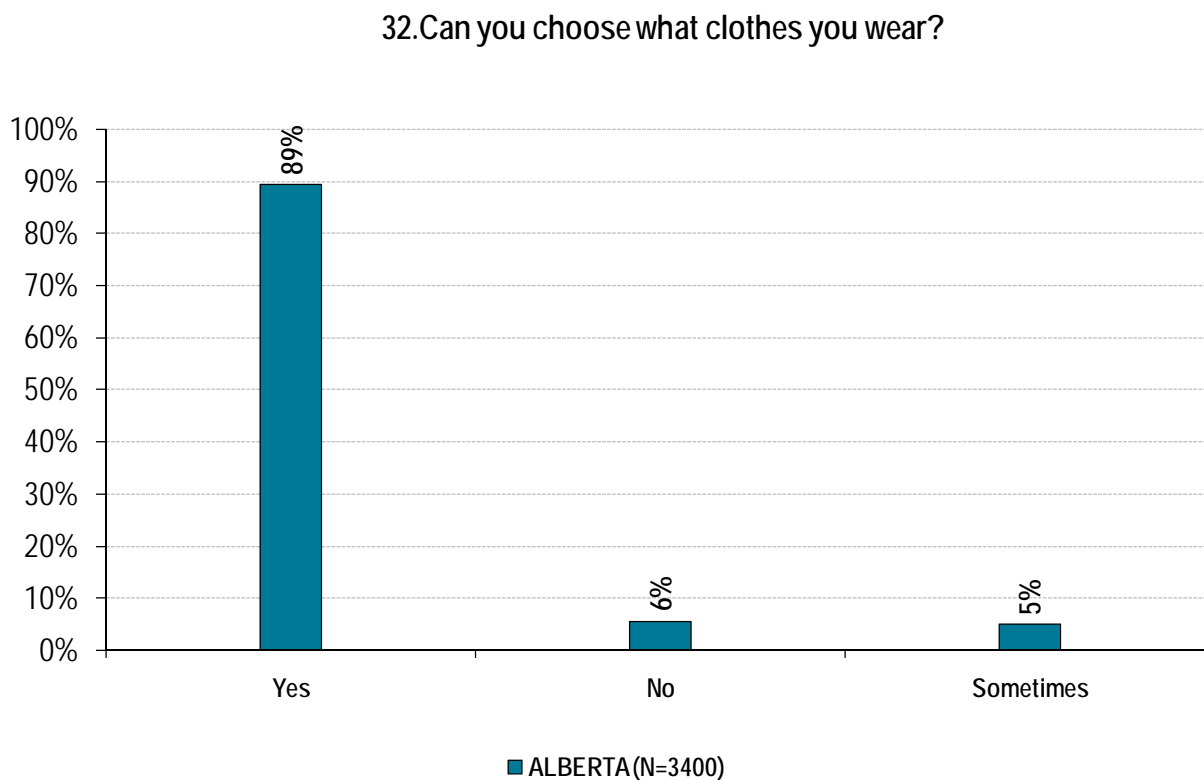


Table 38: Choose Clothes to Wear

RHA / Choose Clothes to Wear	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	89%	85%	91%	88%	87%	91%	86%	81%	87%	89%
No	5%	9%	5%	5%	8%	5%	7%	14%	7%	6%
Sometimes	5%	6%	4%	7%	5%	4%	7%	5%	7%	5%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	108	1,282	366	228	922	215	116	15	3,400

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.6.3 Choose Activities

- 86% of residents reported they can choose what activities they do.
- Fewer residents from Palliser (75%) and East Central (81%) can choose their activities compared to the average.

Figure 34: Choose Activities

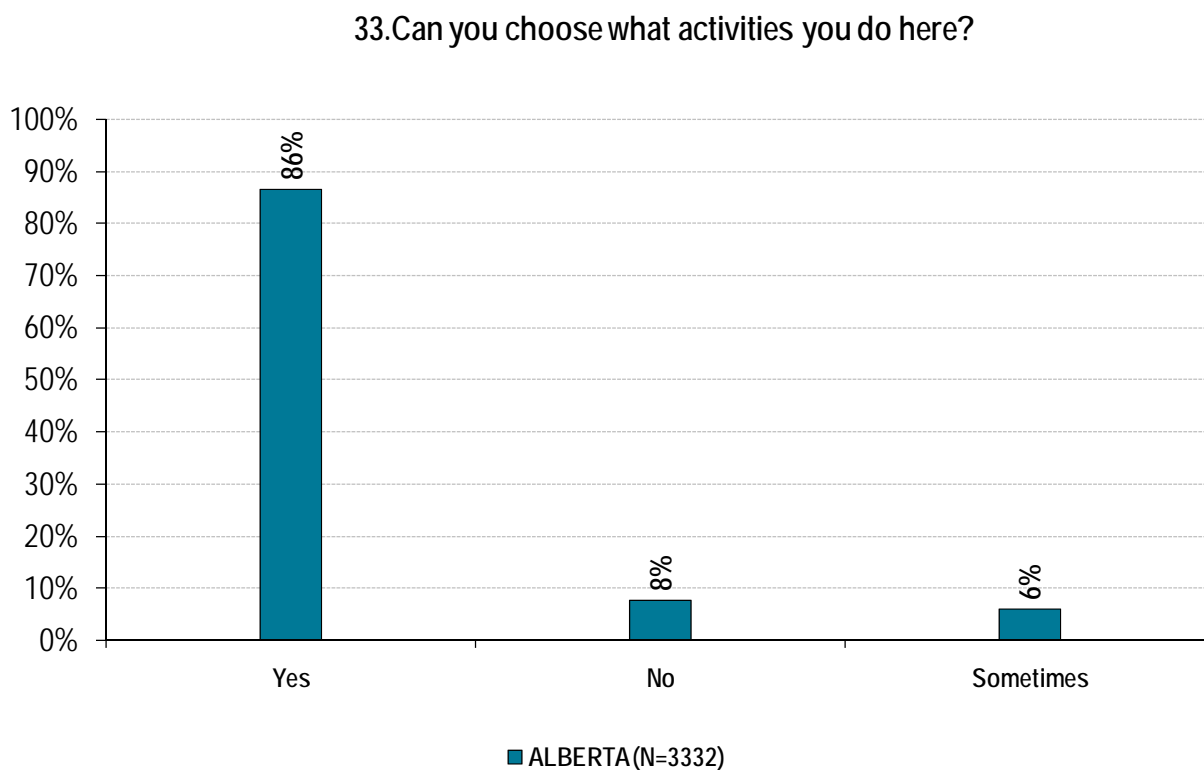


Table 39: Choose Activities

RHA / Choose Activities	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	82%	75%	88%	87%	81%	87%	91%	85%	93%	86%
No	7%	9%	8%	6%	10%	7%	6%	10%	0%	8%
Sometimes	10%	15%	4%	8%	9%	6%	4%	5%	7%	6%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	106	1,249	360	226	904	213	112	15	3,332

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.7 Activities

Of the five composites, this composite has the weakest relationship to the overall care rating (Q16). A total of 2 questions are included in this composite:

- Enough activities (weekends) (Q34)
- Enough activities (weekdays) (Q35)

Additional related item that is reported here but is not included in the composite calculation:

- Satisfaction with time spent at nursing home (Q42)

Details about each attribute are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.7.1 Weekend Activities

- Over one-third of residents (37%) think there are not enough organized activities on the weekends.
- More residents from Chinook (45%) and Capital (41%) indicate there are not enough activities compared to the average. However, more residents in the DTHR (59%), East Central (60%) and Northern Lights (87%) health regions report there are enough activities on the weekends.

Figure 35: Weekend Activities

34. Are there enough organized activities for you to do on the weekends?

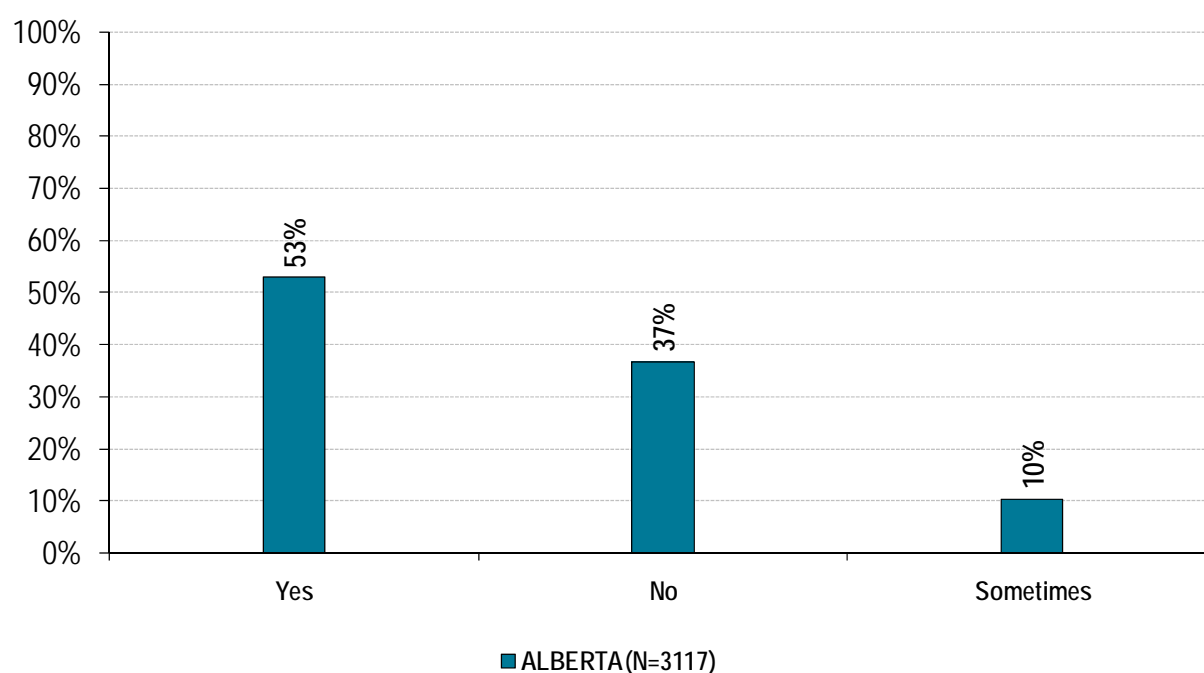


Table 40: Weekend Activities

RHA / Weekend Activities	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	34%	45%	54%	59%	60%	50%	53%	53%	87%	53%
No	45%	39%	35%	32%	31%	41%	41%	37%	13%	37%
Sometimes	21%	17%	11%	9%	9%	9%	6%	10%	0%	10%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	144	103	1,168	347	216	816	199	109	15	3,117

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.7.2 Weekday Activities

- 77% of residents report there are enough organized activities during the week.
- Results across RHAs are similar, except for the Palliser health region where fewer residents (68%) report enough activities during the week compared to the average.

Figure 36: Weekday Activities

35. Are there enough organized activities for you to do during the week?

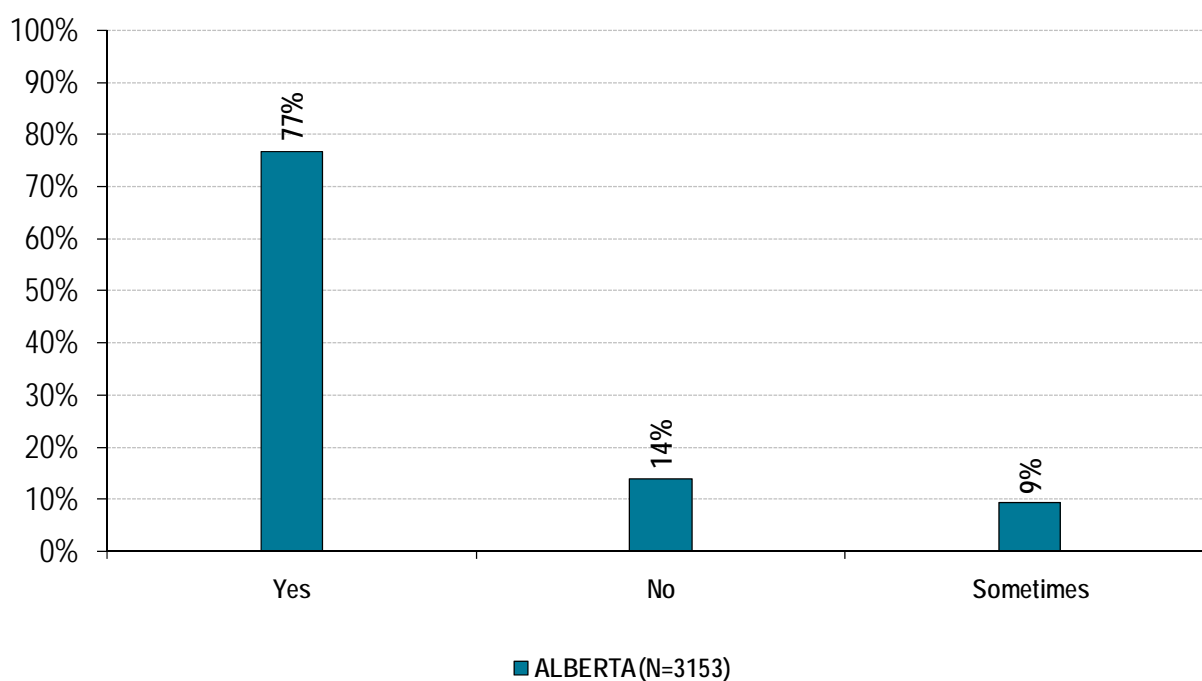


Table 41: Weekday Activities

RHA / Weekday Activities	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	76%	68%	77%	81%	78%	75%	80%	77%	80%	77%
No	13%	17%	14%	10%	12%	16%	14%	14%	7%	14%
Sometimes	11%	16%	9%	9%	10%	10%	6%	9%	13%	9%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	142	102	1,183	345	221	832	202	111	15	3,153

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.7.3 Satisfaction with Time Spent at Nursing Home

- 72% of residents are satisfied with how their time is spent at the nursing home.
- A greater proportion of residents from DTHR (78%) and Aspen (79%) are satisfied with how their time is spent compared to the average.

Figure 37: Satisfaction with Time Spent at Nursing Home

42. Are you satisfied with how you spend your time at this nursing home?

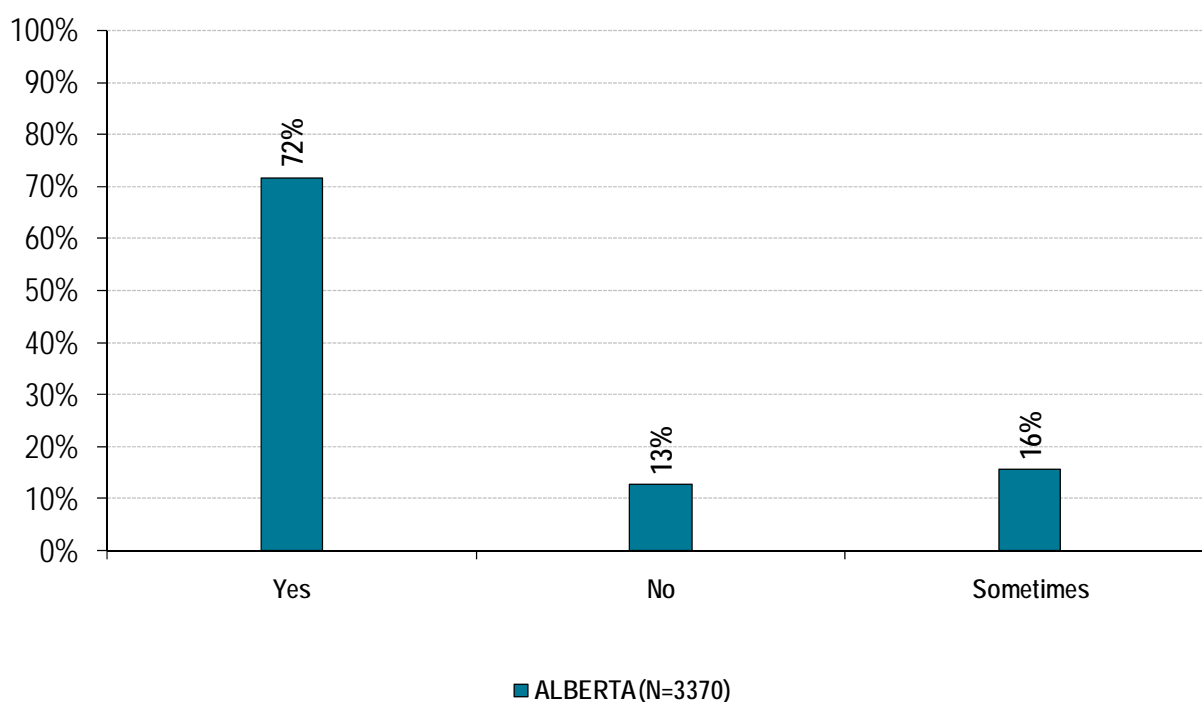


Table 42: Satisfaction with Time Spent at Nursing Home

RHA / Satisfaction with Time Spent at Nursing Home	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	67%	68%	70%	78%	74%	71%	79%	72%	73%	72%
No	10%	8%	15%	7%	13%	13%	11%	15%	13%	13%
Sometimes	22%	25%	16%	14%	14%	16%	10%	14%	13%	16%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	106	1,270	360	229	913	214	116	15	3,370

Note: Individual proportions may not sum to 100% due to rounding of decimals.

The following dimensions are related sets of items that are specific to this survey; however they have not been validated as the five composite variables listed above.

3.8 Medical and Safety

The following questions are included in the medical and safety dimension:

- Visits to a doctor outside the nursing home (Q21)
- Sees any doctor inside the nursing home (Q22)
- Doctor availability (Q23)
- Ability to move alone, without wheelchair (Observational Screener)
- Ability to turn themselves in bed (Q24 - Screener)
- Left in the same position so long that it hurts (Q25)
- Ability to reach wanted objects (Q26 - Screener)
- Call button within reach (Q27 - Screener)
- Beverage within reach (Q28)

Details about each question are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.8.1 Visit a Doctor Outside the Nursing Home

- 27% of residents said they visit a doctor for medical care outside the nursing home.
- Results are very similar across all RHAs.

Figure 38: Visit a Doctor Outside the Nursing Home

21. Do you visit a doctor for medical care outside the nursing home?

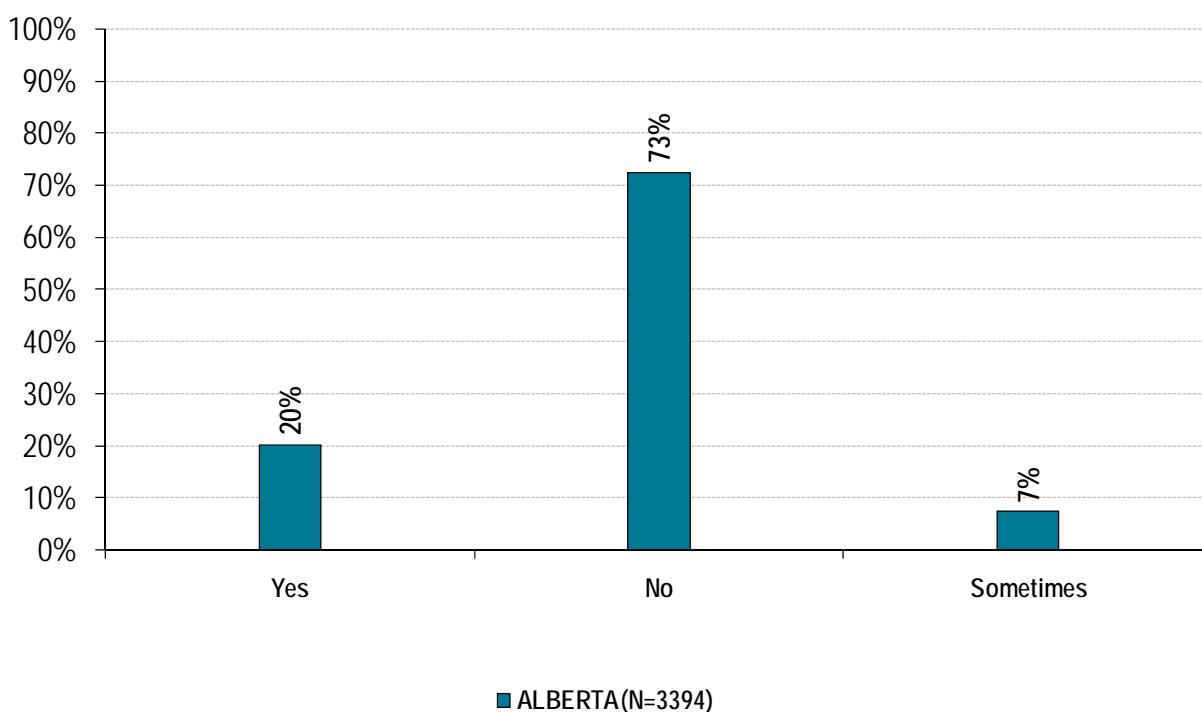


Table 43: Visit a Doctor Outside the Nursing Home

RHA / Visit a Doctor Outside the Nursing Home	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	22%	26%	21%	19%	17%	19%	18%	27%	7%	20%
No	66%	69%	73%	75%	75%	73%	71%	66%	80%	73%
Sometimes	13%	5%	6%	7%	8%	8%	12%	7%	13%	7%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	108	1,279	362	229	922	215	116	15	3,394

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.8.2 See a Doctor Inside the Nursing Home

- Three quarters of the residents (75%) see a doctor for medical care inside the nursing home.
- Fewer residents see a doctor in the nursing home in Palliser (65%), Peace Country (65%) and Aspen (73%) compared to the average.

Figure 39: See a Doctor inside the Nursing Home

22. Do you see any doctor for medical care inside the nursing home?

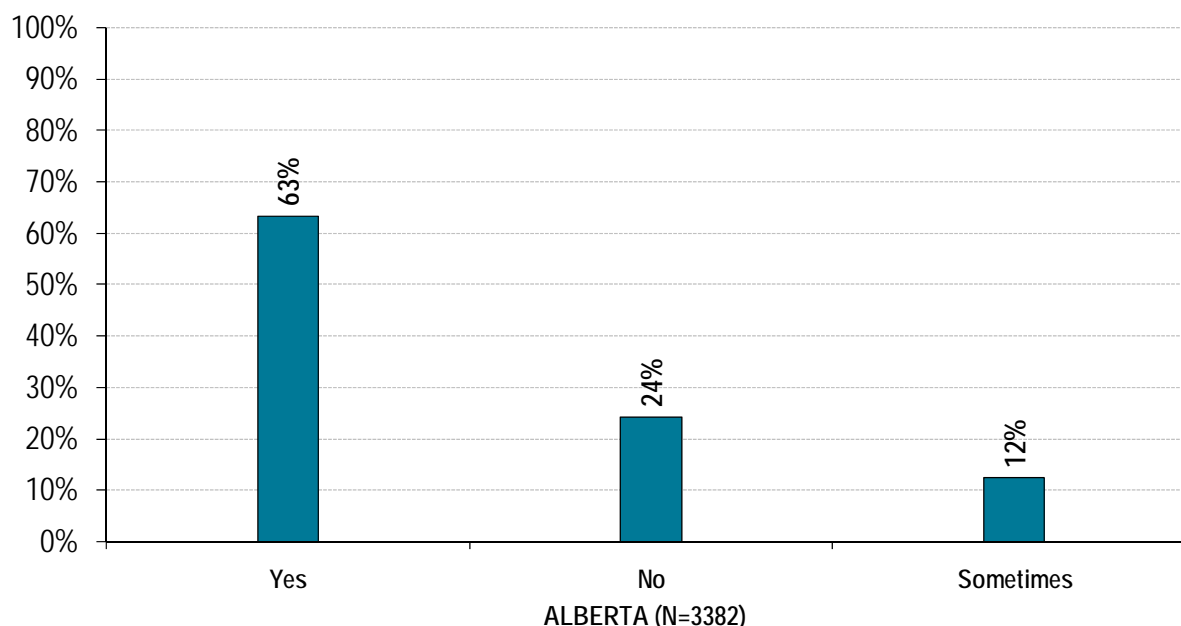


Table 44: See a Doctor Inside the Nursing Home

RHA / See a Doctor Inside the Nursing Home	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	64%	51%	64%	59%	64%	68%	52%	54%	87%	63%
No	23%	35%	25%	25%	23%	21%	27%	34%	7%	24%
Sometimes	13%	14%	11%	16%	13%	11%	21%	11%	7%	12%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	108	1,274	360	228	920	215	114	15	3,382

Note: Individual proportions may not sum to 100% due to rounding of decimals.

Residents who did not see a doctor for medical care inside or outside the nursing home:

- Only 17% of residents indicated that they did not see a doctor for medical care inside or outside the nursing home.

Table 45: Did Not See Doctor Inside or Outside the Nursing Home

RHA / Did Not See Doctor Inside or Outside	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
No to Q21 AND No to Q22	14%	21%	18%	17%	17%	14%	17%	23%	0%	17%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	21	23	227	60	38	127	37	26	0	559

3.8.3 Doctor Availability

- For a majority of residents (88%), a doctor is available when needed (74%), or sometimes available (14%).

Figure 40: Doctor Availability

23. Is a doctor available to you when needed?

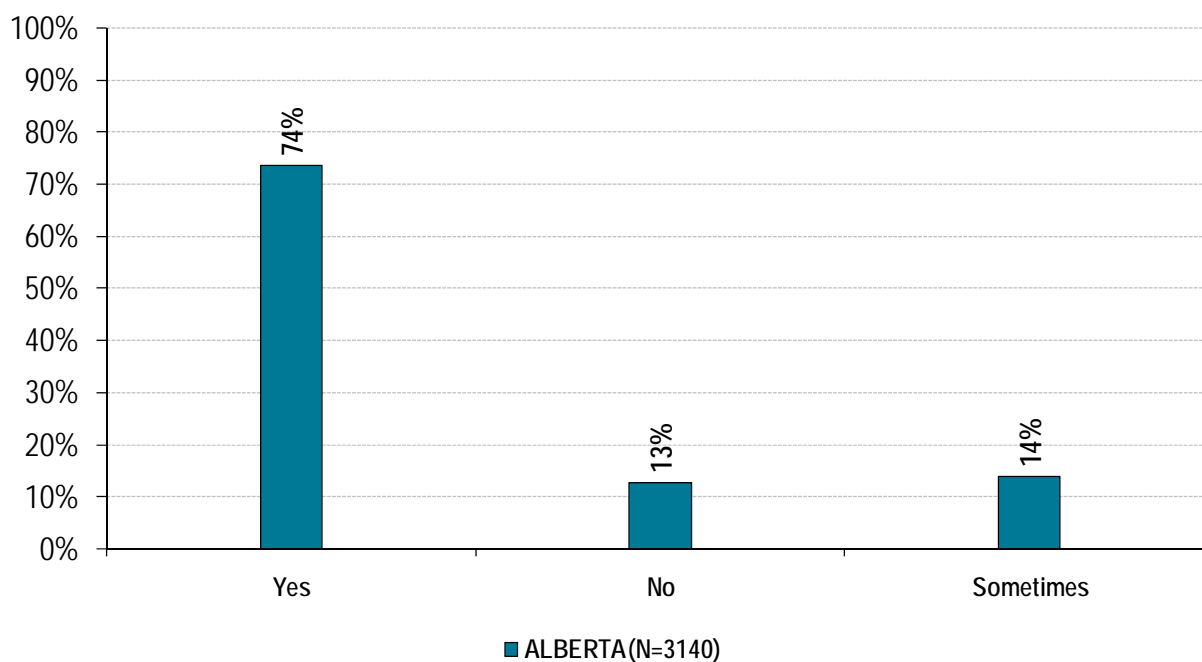


Table 46: Doctor Availability

RHA / Doctor Availability	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	71%	70%	73%	79%	76%	72%	79%	72%	73%	74%
No	9%	9%	15%	7%	12%	14%	9%	17%	7%	13%
Sometimes	20%	22%	13%	14%	12%	14%	12%	11%	20%	14%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	105	1,122	352	218	863	203	115	15	3,140

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.8.4 Resident Able to Move Alone

- More than half (59%) of the residents are not able to move around by themselves, without a wheelchair.
- Results differ across several RHAs (see **Table 47**).

Figure 41: Resident Able to Move Alone

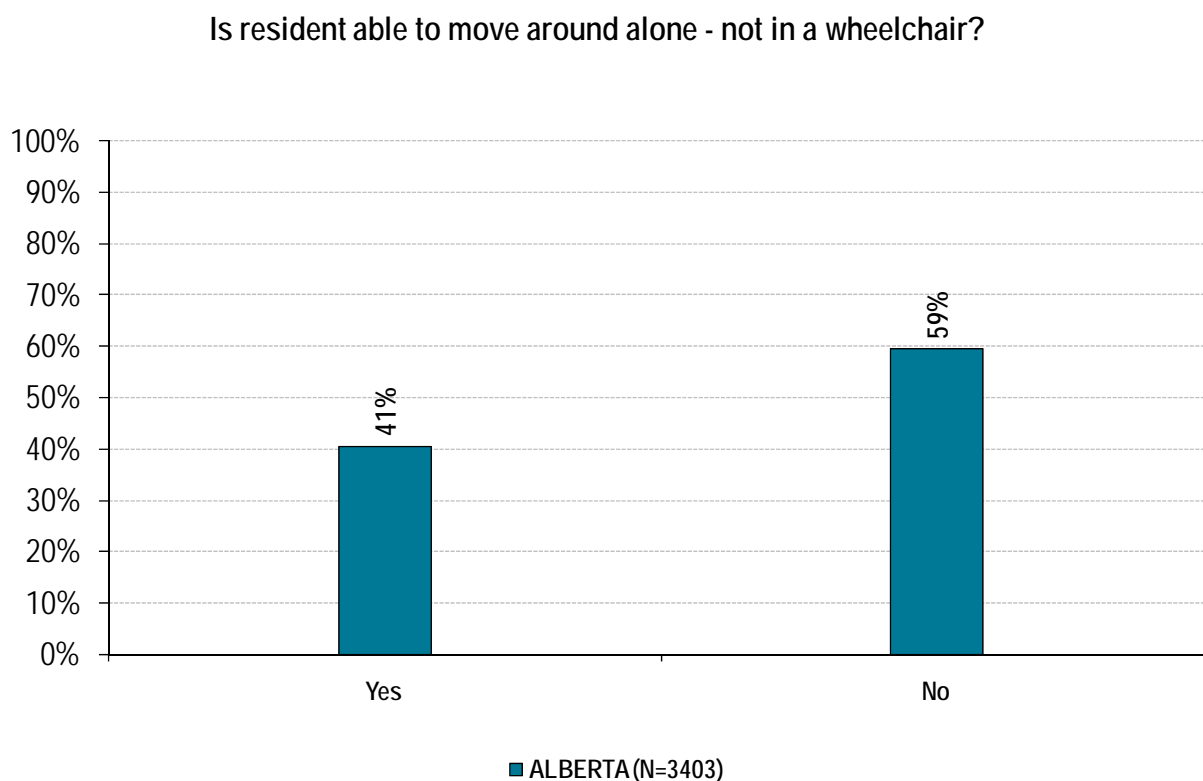


Table 47: Resident Able to Move Alone

RHA / Resident Able to Move Alone	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	50%	38%	47%	43%	37%	32%	40%	26%	27%	41%
No	50%	62%	53%	57%	63%	68%	60%	74%	73%	59%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	107	1,277	367	231	926	215	117	15	3,403

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.8.5 Resident Able to Turn Self in Bed

- Of those residents that are not able to move around alone, 35% are not able to turn themselves in bed without help from another person. An additional 7% can sometimes turn themselves.
- Results are similar across RHAs.

Figure 42: Resident Able to Turn Self in Bed

24. If you wanted to, can you turn yourself over in bed without help from another person?

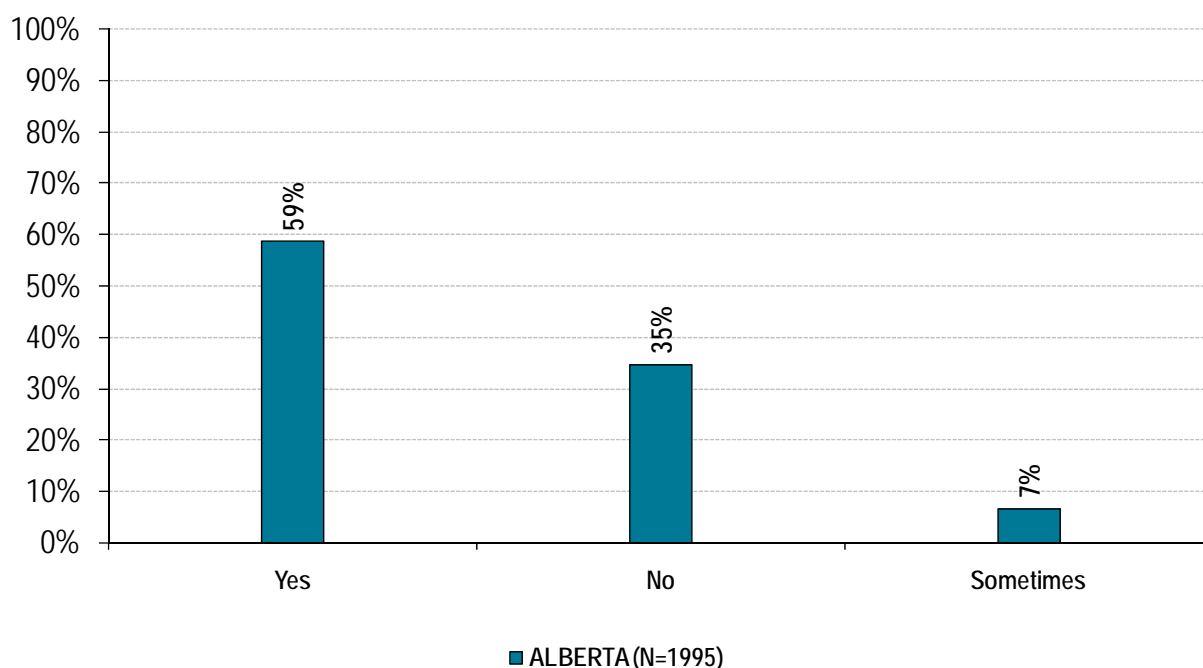


Table 48: Resident Able to Turn Self in Bed

RHA / Residents Able to Turn Self in Bed	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	50%	56%	63%	54%	58%	58%	58%	57%	55%	59%
No	41%	38%	31%	38%	33%	36%	38%	37%	36%	35%
Sometimes	9%	6%	6%	7%	8%	6%	5%	6%	9%	7%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	74	66	669	204	144	615	125	87	11	1,995

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.8.6 Resident Left in the Same Position so Long it Hurts

- Of those residents that are not able to move around alone and who are unable to turn themselves in bed without help, 33% report they are left sitting or laying in the same position so long that it hurts, an additional 19% say this is sometimes the case.

Figure 43: Resident Left in the Same Position so Long it Hurts

25. Are you ever left sitting or laying in the same position so long that it hurts?

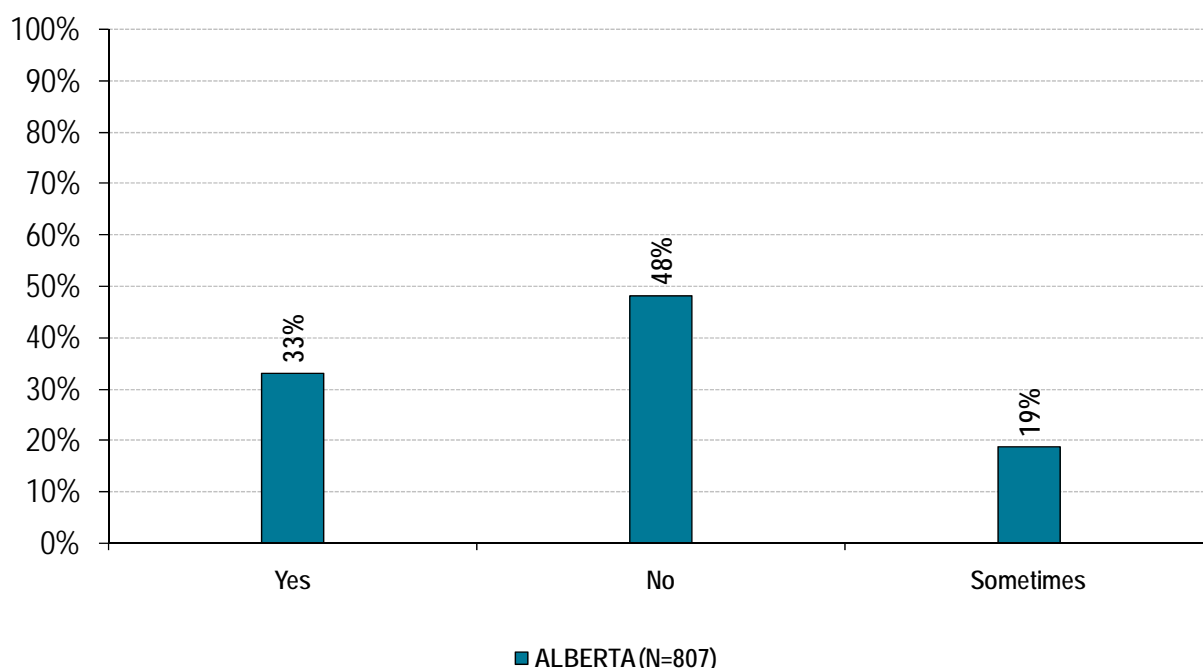


Table 49: Resident Left in the Same Position so Long it Hurts

RHA / Resident Left in the Same Position so Long it Hurts	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	27%	38%	33%	38%	22%	36%	20%	42%	20%	33%
No	35%	41%	50%	39%	63%	48%	61%	39%	60%	48%
Sometimes	38%	21%	17%	24%	15%	16%	20%	19%	20%	19%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	37	29	239	93	60	257	51	36	5	807

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.8.7 Able to Move Arms to Reach Things

- 74% of residents are able to move their arms to reach things they want; an additional 16% are sometimes able to do this.
- Results are similar across RHAs.

Figure 44: Able to Move Arms to Reach Things

26. Are you able to move your arms to reach things that you want?

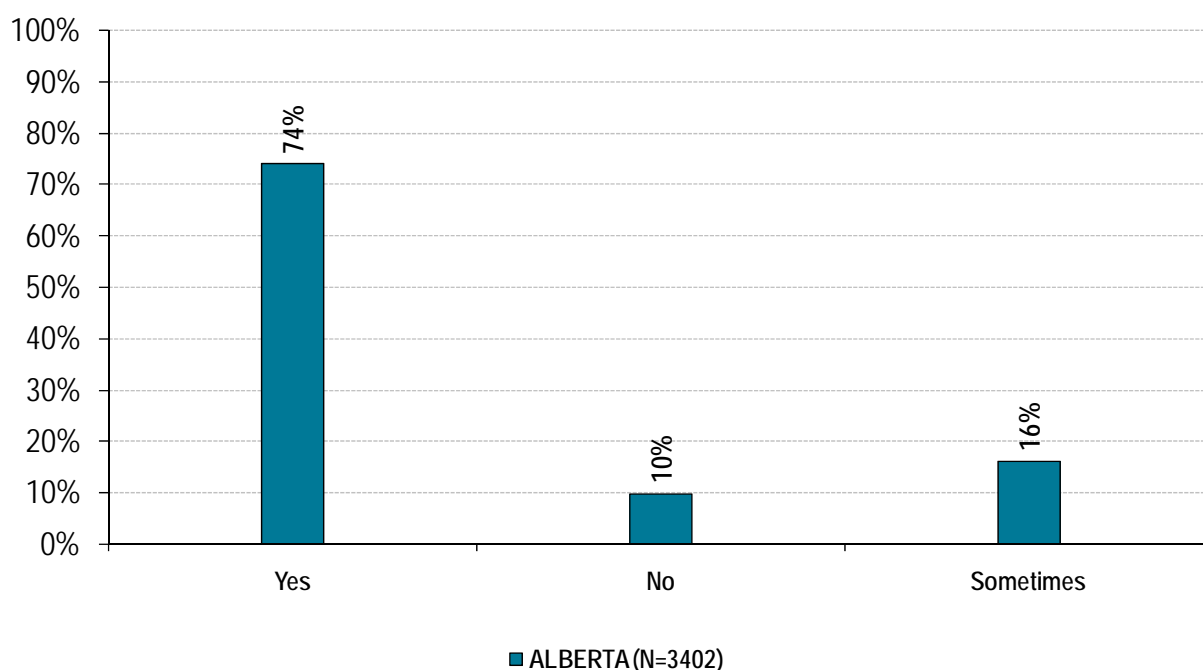


Table 50: Able to Move Arms to Reach Things

RHA / Able to Move Arms to Reach Things	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	80%	69%	76%	73%	70%	71%	72%	79%	80%	74%
No	8%	10%	10%	10%	11%	11%	8%	10%	0%	10%
Sometimes	11%	21%	14%	16%	20%	18%	20%	11%	20%	16%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	108	1,280	366	230	923	215	117	15	3,402

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.8.8 Resident Can Reach the Call Button

- The majority of residents (87%) can reach the call button by themselves.
- Results are similar across RHAs.

Figure 45: Resident Can Reach the Call Button

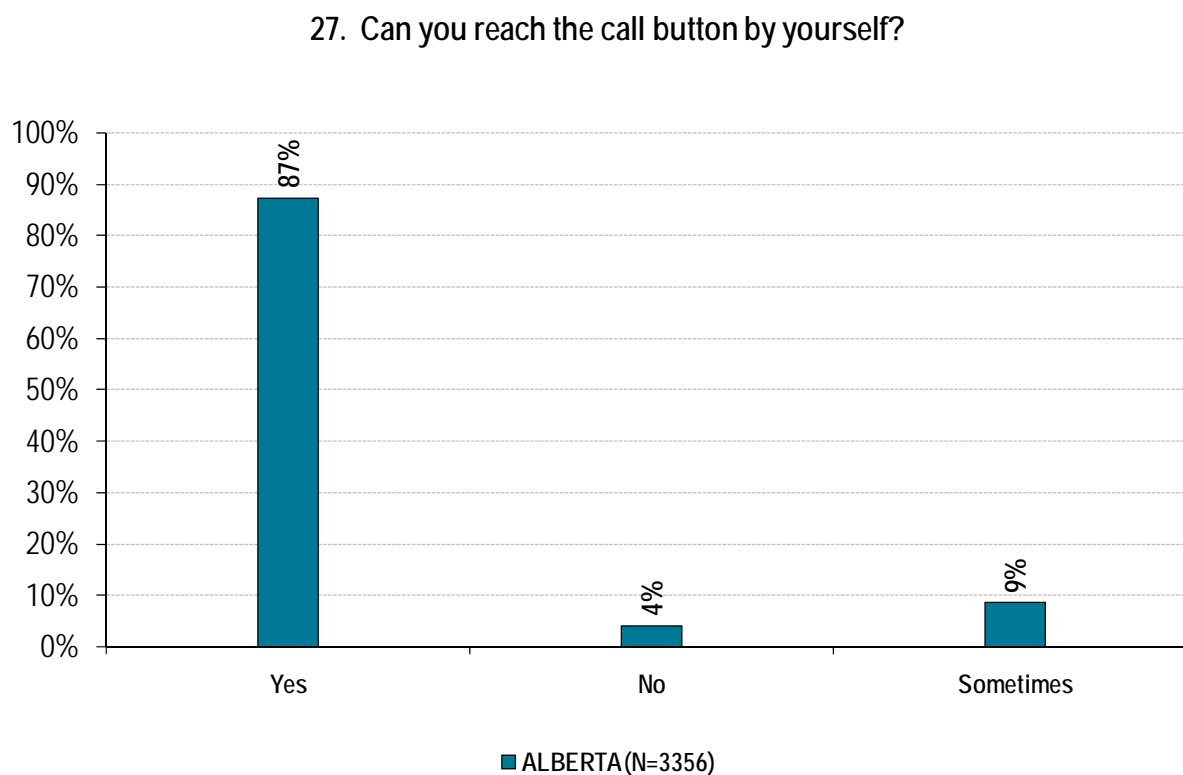


Table 51: Residents Can Reach the Call Button

RHA / Residents Can Reach the Call Button	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	92%	84%	87%	86%	87%	88%	87%	85%	93%	87%
No	1%	4%	6%	4%	3%	3%	4%	7%	7%	4%
Sometimes	7%	12%	7%	10%	10%	9%	9%	8%	0%	9%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	145	106	1,253	363	226	916	215	117	15	3,356

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.8.9 Residents Can Reach Something to Drink

- 72% of residents can reach something to drink by themselves; 9% can sometimes achieve this and 19% are unable to reach something to drink by themselves.
- The Palliser health region residents report a higher percentage (84%) of those that can reach something to drink by themselves compared to the average.

Figure 46: Residents Can Reach Something to Drink

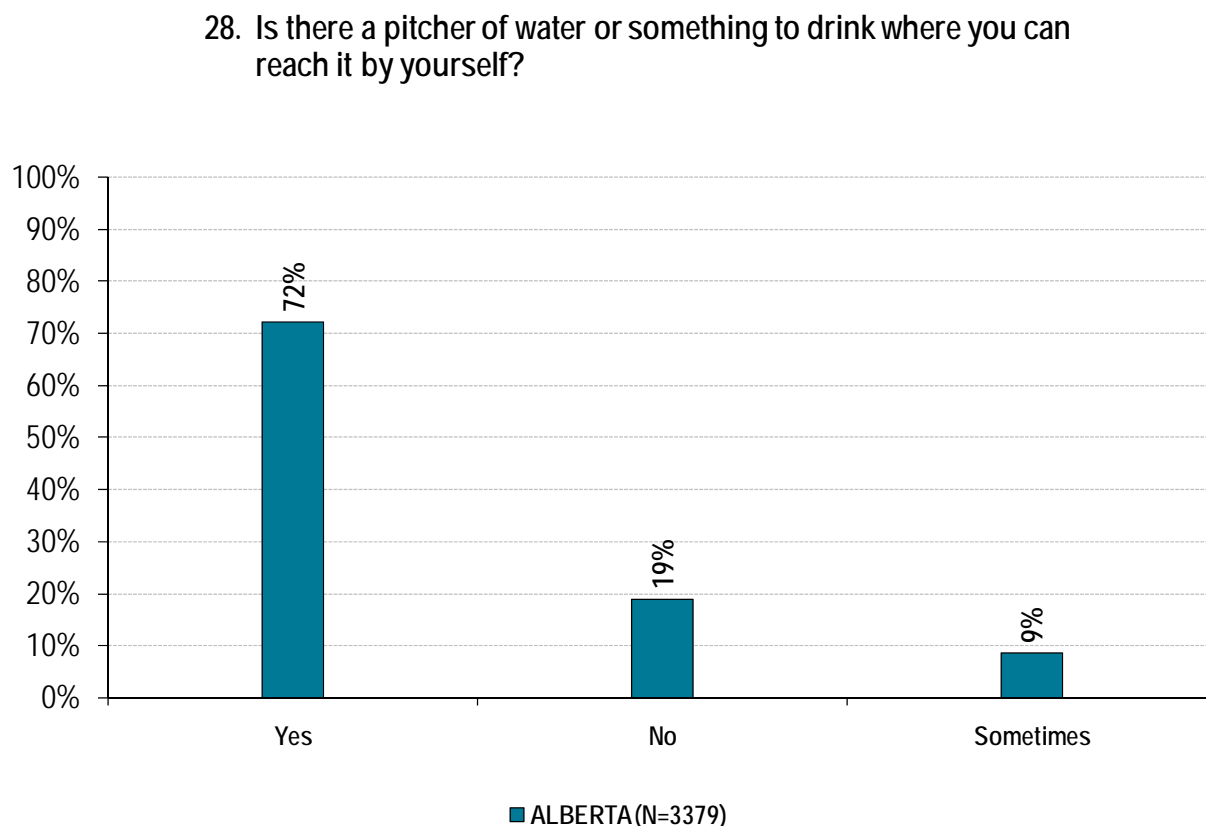


Table 52: Residents Can Reach Something to Drink

RHA / Residents Can Reach Something to Drink	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	77%	84%	72%	75%	69%	70%	72%	68%	80%	72%
No	16%	12%	20%	14%	22%	21%	18%	21%	20%	19%
Sometimes	7%	4%	8%	10%	9%	9%	9%	11%	0%	9%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	108	1,271	366	228	914	214	116	15	3,379

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.9 Quality of Life

The following questions are included in the Quality of Life dimension:

- Feeling worried (Q37)
- Feeling happy (Q38)
- Feeling bored (Q39)
- Feeling lonely (Q40)
- Rating of life now (Q48)

Detailed results for each question are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.9.1 Feeling Worried

- 54% of the residents report feeling worried often (18%) or sometimes (36%).
- There are no significant differences across RHAs.

Figure 47: Feeling Worried

37. How often do you feel worried - often, sometimes, rarely, or never?

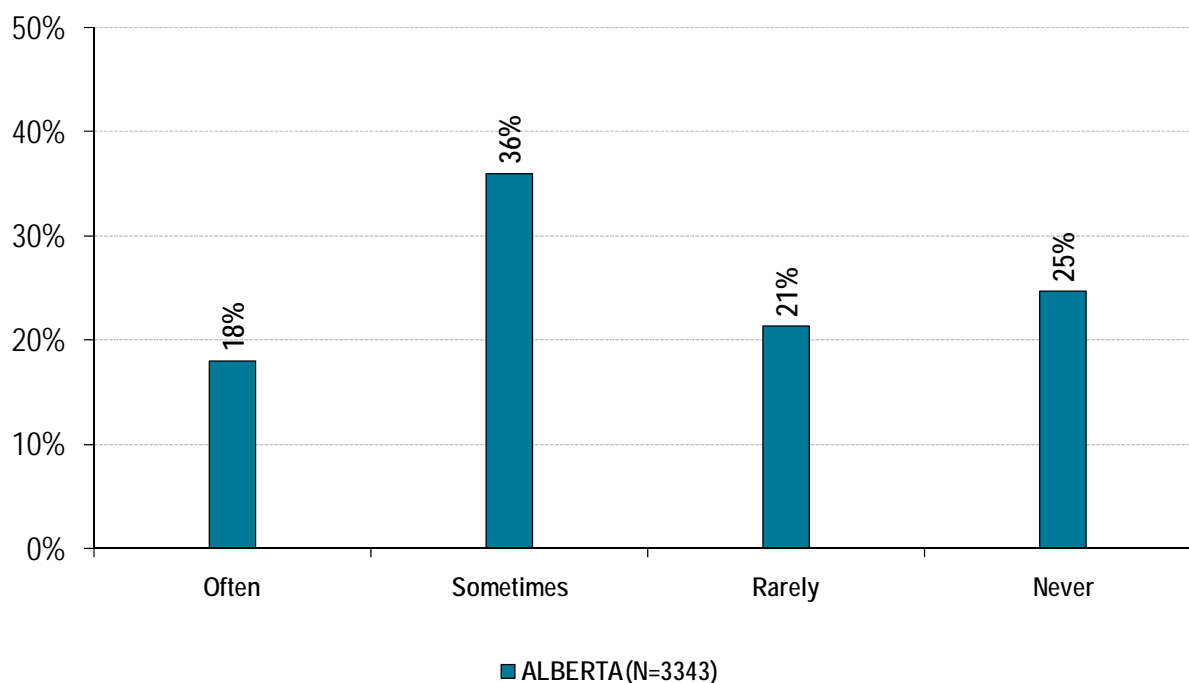


Table 53: Feeling Worried

RHA / Feeling Worried	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Often	17%	21%	18%	19%	16%	18%	18%	20%	20%	18%
Sometimes	41%	38%	34%	35%	38%	37%	40%	35%	40%	36%
Rarely	19%	21%	22%	19%	23%	22%	20%	21%	7%	21%
Never	22%	19%	26%	28%	23%	23%	23%	25%	33%	25%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	107	1,258	362	225	909	210	110	15	3,343

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.9.2 Feeling Happy

- A majority (86%) of residents feel happy often (50%) or sometimes (36%).
- Residents from DTHR report being happy more often (57%) compared to the average.

Figure 48: Feeling Happy

38. How often do you feel happy - often, sometimes, rarely, or never?

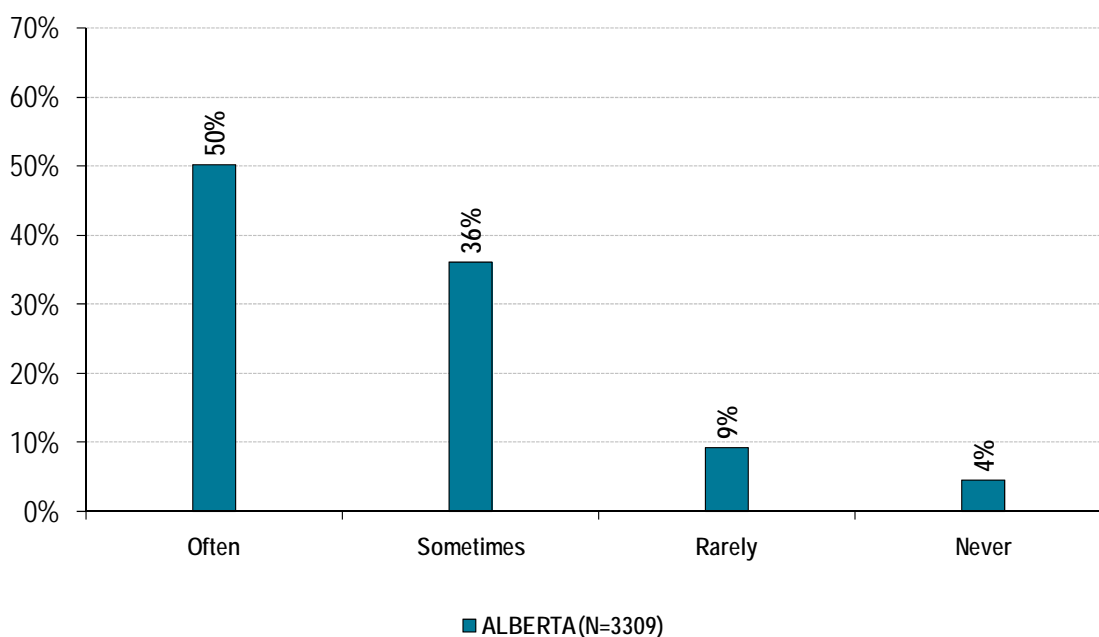


Table 54: Feeling Happy

RHA / Feeling Happy	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Often	54%	54%	48%	57%	47%	50%	52%	50%	47%	50%
Sometimes	39%	34%	36%	32%	38%	37%	36%	32%	47%	36%
Rarely	6%	8%	9%	8%	11%	10%	8%	12%	0%	9%
Never	1%	5%	6%	3%	4%	3%	3%	5%	7%	4%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	104	1,243	359	222	897	209	113	15	3,309

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.9.3 Feeling Bored

- 54% of residents report feeling bored often (20%) or sometimes (34%).
- More DTHR residents reported never being bored (32% compared to the average of 26%) and in Peace Country where 12% answered rarely compared to the average of 20%. A greater proportion of Palliser's residents said they were sometimes bored (50%), compared to the average of 34%.

Figure 49: Feeling Bored

39. How often do you feel bored here - often, sometimes, rarely, or never?

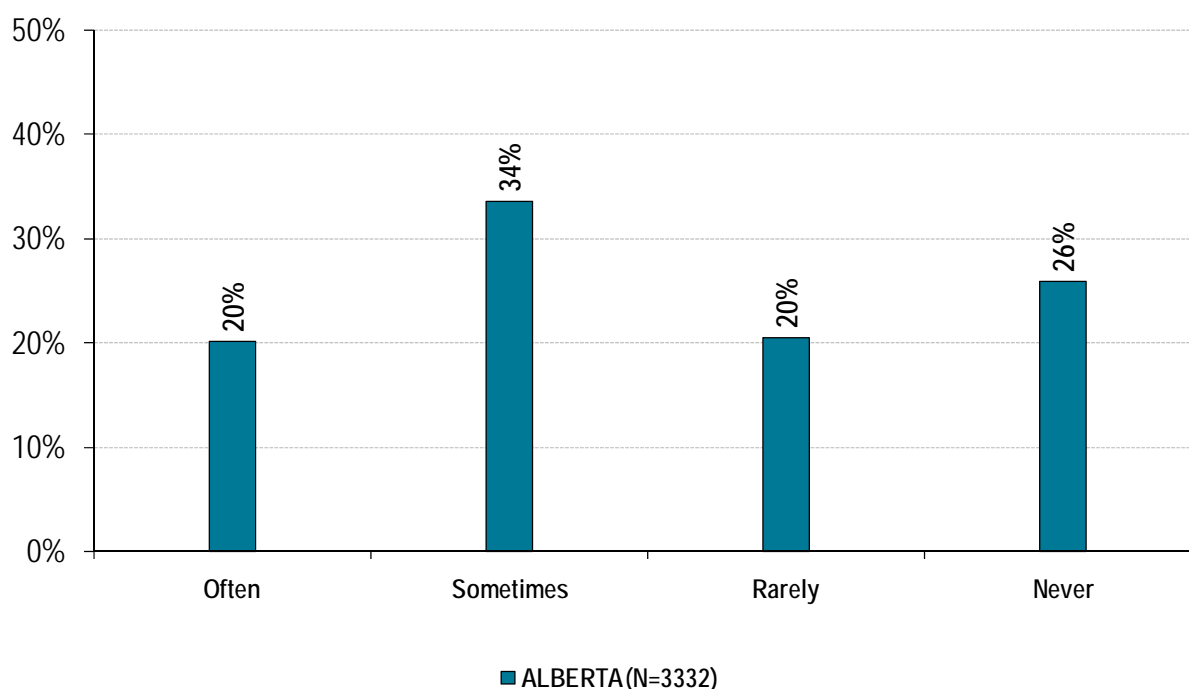


Table 55: Feeling Bored

RHA / Feeling Bored	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Often	19%	15%	23%	17%	20%	19%	15%	23%	7%	20%
Sometimes	36%	50%	32%	31%	38%	31%	35%	38%	53%	34%
Rarely	21%	14%	22%	20%	18%	21%	22%	12%	20%	20%
Never	24%	20%	23%	32%	24%	29%	28%	26%	20%	26%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	104	1,249	363	223	906	209	115	15	3,332

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.9.4 Feeling Lonely

- 53% of residents report feeling lonely often (21%) or sometimes (32%).
- Compared to the average (26%), fewer residents from Chinook (19%) indicate never feeling lonely.

Figure 50: Feeling Lonely

40. How often do you feel lonely here - often, sometimes, rarely, or never?

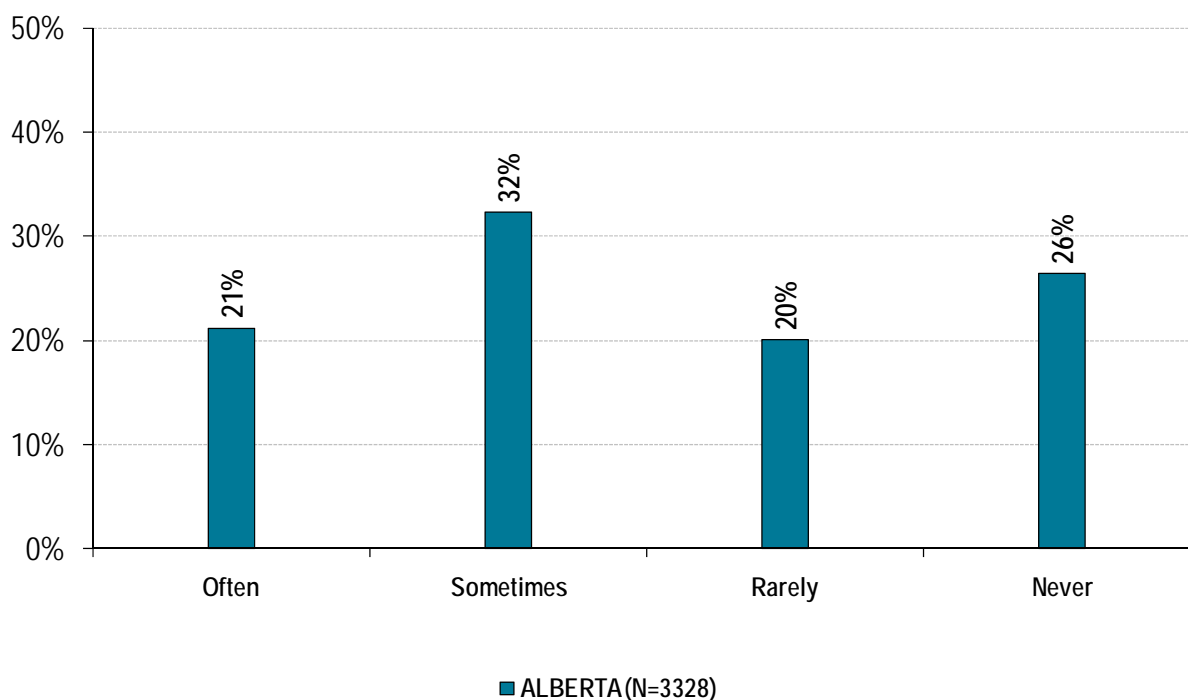


Table 56: Feeling Lonely

RHA / Feeling Lonely	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Often	19%	25%	24%	21%	19%	19%	18%	23%	13%	21%
Sometimes	36%	28%	29%	35%	38%	32%	38%	36%	40%	32%
Rarely	26%	27%	20%	20%	18%	20%	16%	17%	7%	20%
Never	19%	21%	27%	24%	25%	28%	28%	25%	40%	26%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	146	105	1,257	361	221	902	207	114	15	3,328

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.9.5 Residents' Rating of Their Life

- Residents were asked to rate their quality of life on a scale of 0–10. The average score was 6.8 or 27% rating their life as 9–10 (excellent); 33% rating it as 7–8 (average) and 40% rating their life as 0–6 (poor).
- The residents in the Chinook (35% excellent) and DTHR (33% excellent) health regions rate their life higher than the average (27% excellent). However, the Palliser (18% excellent) and Calgary (24% excellent) health regions saw ratings below the average.

Figure 51: Residents' Rating of Their Life

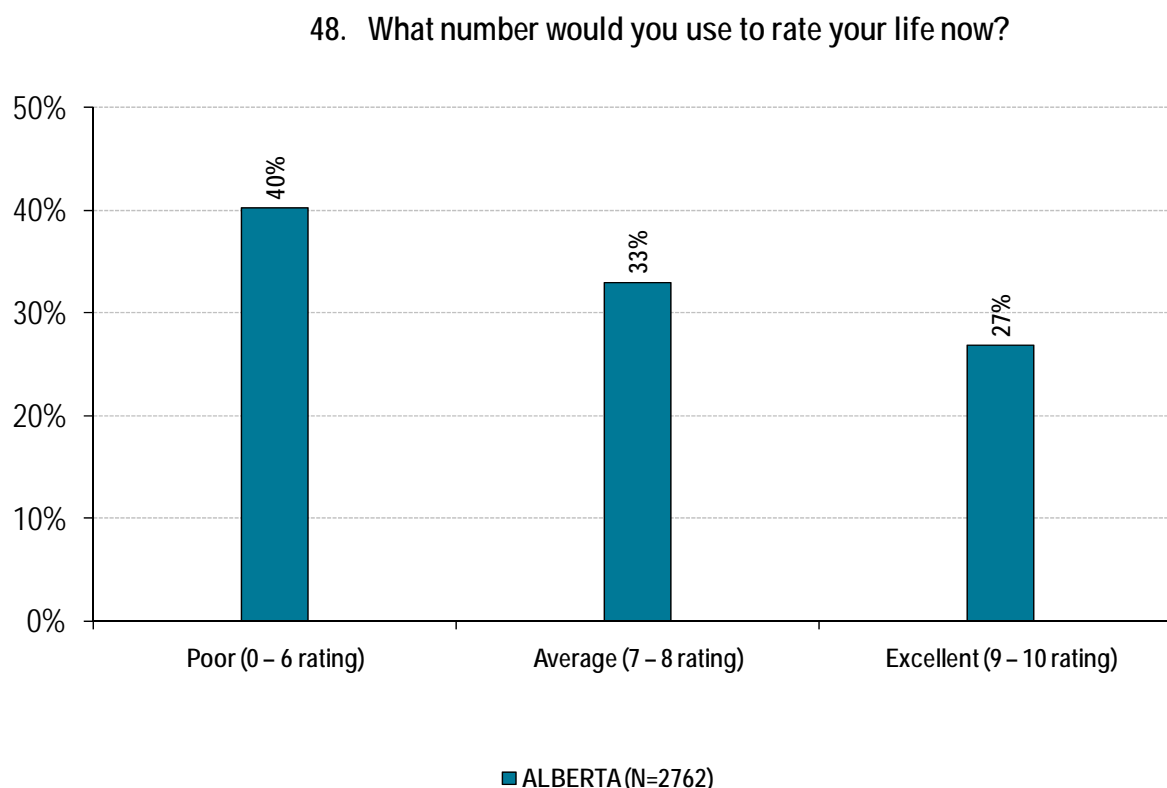


Table 57: Residents' Rating of Their Life

RHA / Residents' Rating of Their Life	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	42%	38%	43%	40%	39%	37%	41%	35%	25%	40%
Average (7 – 8 rating)	24%	44%	33%	27%	32%	38%	25%	30%	33%	33%
Excellent (9 – 10 rating)	35%	18%	24%	33%	29%	25%	33%	35%	42%	27%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	142	95	1,032	308	187	729	165	92	12	2,762

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.10 End of Life

The following questions are included in the End of Life dimension:

- Discussion with family about end of life issues (Q55)
- Discussion with staff about end of life issues (Q56)
- Importance of end of life discussion (Q57)

Details about each question are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.10.1 Discussion with Family about End of Life

- A little more than half (56%) of residents talked with their family or a close friend about what treatment they want if they become ill and cannot speak for themselves.
- A greater proportion of residents from Aspen (45%) and Northern Lights (71%) did not have this conversation with family or a close friend, compared to the average (38%). However, more residents did have this type of discussion in the Capital region (61%) compared to the average.

Figure 52: Discussion with Family about End of Life

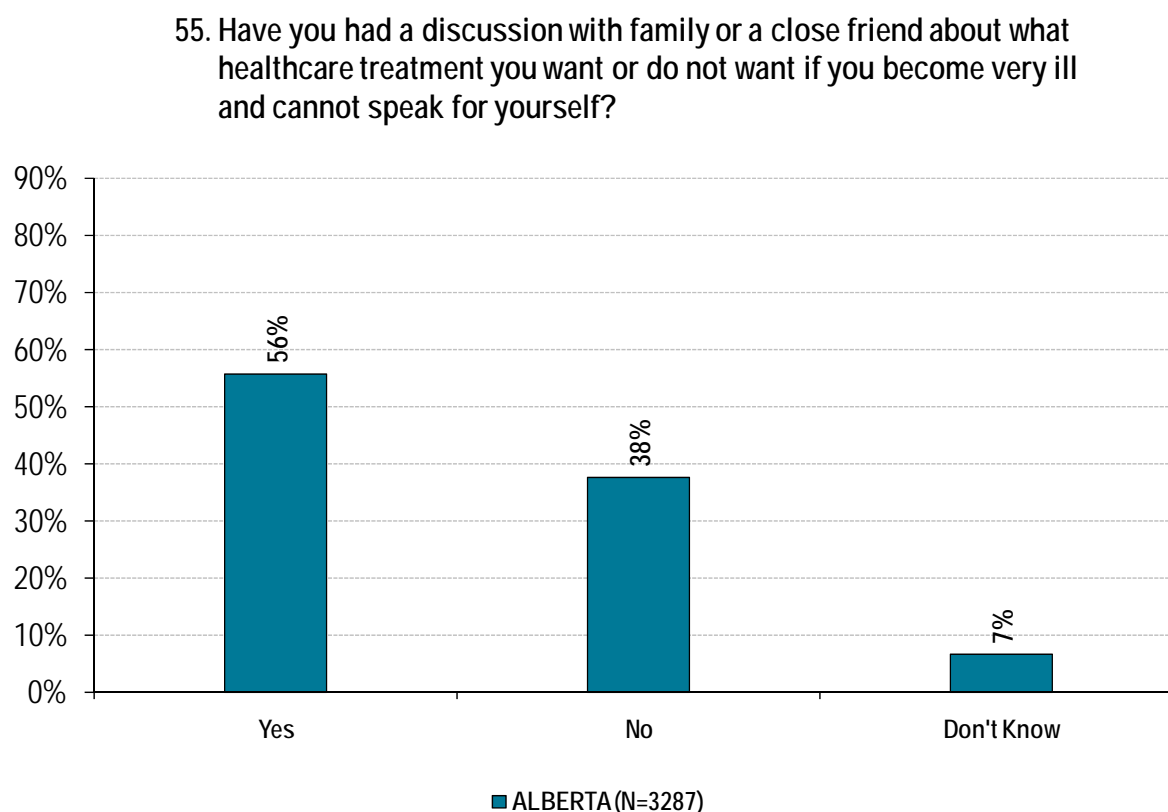


Table 58: Discussion with Family about End of Life

RHA / Discussion with Family about End of Life	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	58%	61%	55%	52%	55%	61%	50%	49%	29%	56%
No	37%	32%	40%	38%	33%	33%	45%	43%	71%	38%
Don't Know	5%	7%	5%	10%	13%	6%	6%	8%	0%	7%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	105	1,249	354	221	885	199	113	14	3,287

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.10.2 Discussion with Staff about End of Life

- Almost a third (28%) of residents talked with a staff member or health care professional about what treatment they want if they become ill and cannot speak for themselves.
- Results are very similar across RHAs.

Figure 53: Discussion with Staff about End of Life

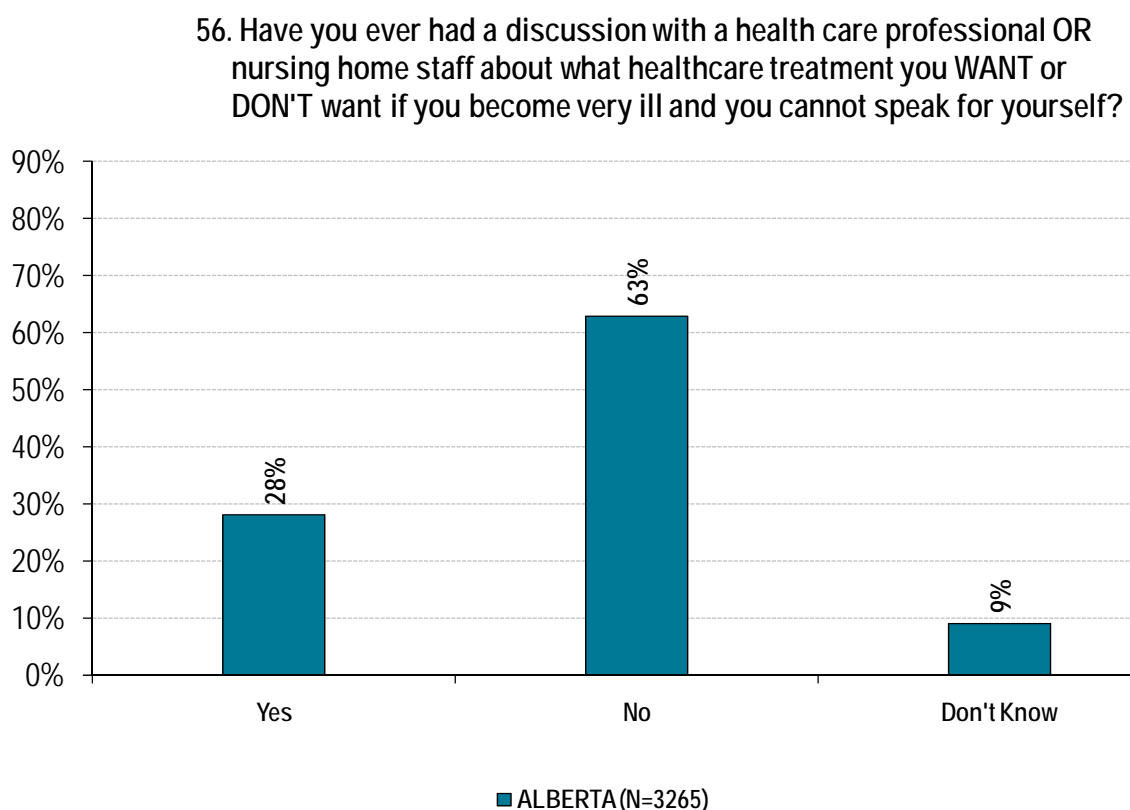


Table 59: Discussion with Staff about End of Life

RHA / Discussion with Staff about End of Life	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	36%	28%	28%	25%	25%	31%	22%	28%	14%	28%
No	55%	61%	65%	63%	62%	59%	73%	64%	71%	63%
Don't Know	9%	12%	7%	12%	13%	10%	6%	8%	14%	9%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	104	1,239	353	219	882	199	108	14	3,265

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.10.3 Importance of End of Life Discussion

- 88% of residents think it's extremely, very or somewhat important to discuss end of life issues with a health care professional or nursing home staff.

Figure 54: Importance of End of life Discussion

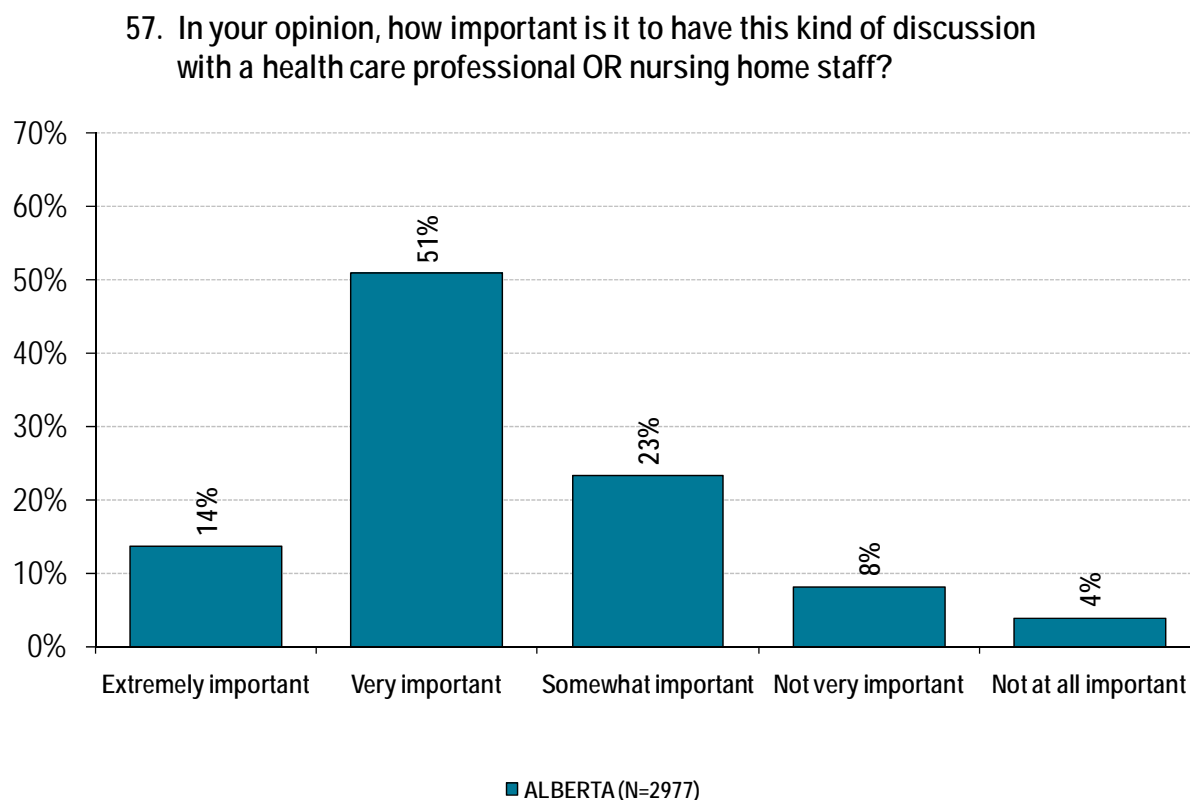


Table 60: Importance of End of Life Discussion

RHA / Importance of End of Life Discussion	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Extremely important	16%	14%	12%	13%	12%	17%	11%	10%	23%	14%
Very important	51%	42%	48%	54%	53%	53%	56%	55%	46%	51%
Somewhat important	26%	33%	25%	20%	26%	21%	18%	22%	23%	23%
Not very important	6%	7%	9%	9%	8%	6%	10%	9%	0%	8%
Not at all important	1%	4%	5%	4%	2%	3%	4%	5%	8%	4%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	144	100	1,140	336	198	772	186	88	13	2,977

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.11 Global Ratings

Global ratings reflect the resident's overall evaluation of the nursing home. These questions are not specific, but rather, they reflect the resident's summative opinion about the nursing home. Global ratings are often used as stand-alone performance measures or are often used in multivariate analysis as outcome variables. In such analyses, more specific items can be compared in terms of their relationship to the outcome variable.

The following questions are included as global overall ratings:

- Overall rating of care (Q16)
- Overall rating of the nursing home (Q17)
- Propensity to recommend the nursing home (Q36)
- Residents get the care they need (Q45)

Details about each question are reported in this section. The information provided is for the entire survey sample and the nine (9) regional health authorities.

3.11.1 Global Care Rating

- Residents were asked to rate the care they get from staff on a scale of 0–10. The average score was 8.1 with 50% rating the care from staff as 9-10 (excellent); 32% rating it as 7-8 (average) and 18% rating it as 0-6 (poor).
- Residents rated the care received from staff higher in the Chinook (62% excellent; 10% poor), DTHR (61% excellent; 11% poor) and Aspen (62% excellent) health regions, compared to the average. However, residents in the Calgary (46% excellent; 21% poor) and Capital (46% excellent) health regions rated the care lower when compared to the average.

Figure 55: Overall Care Rating

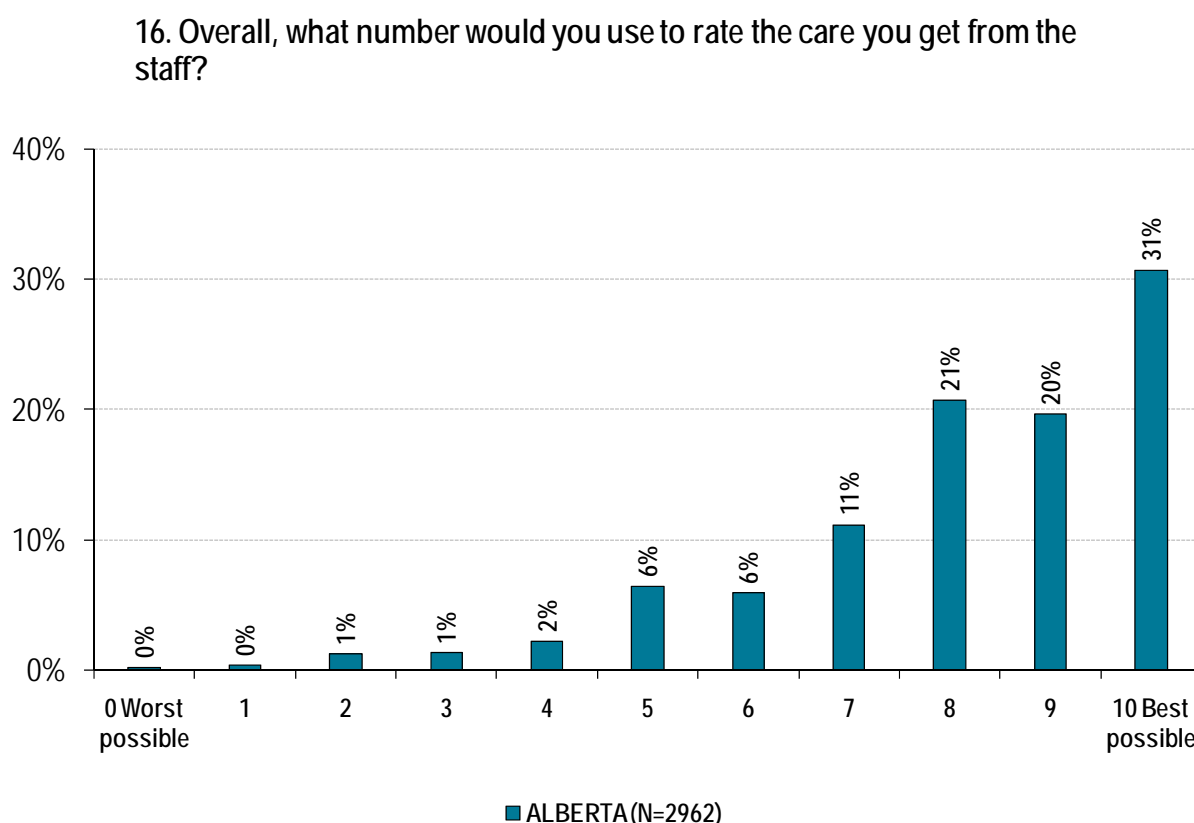


Figure 56: Global Care Rating

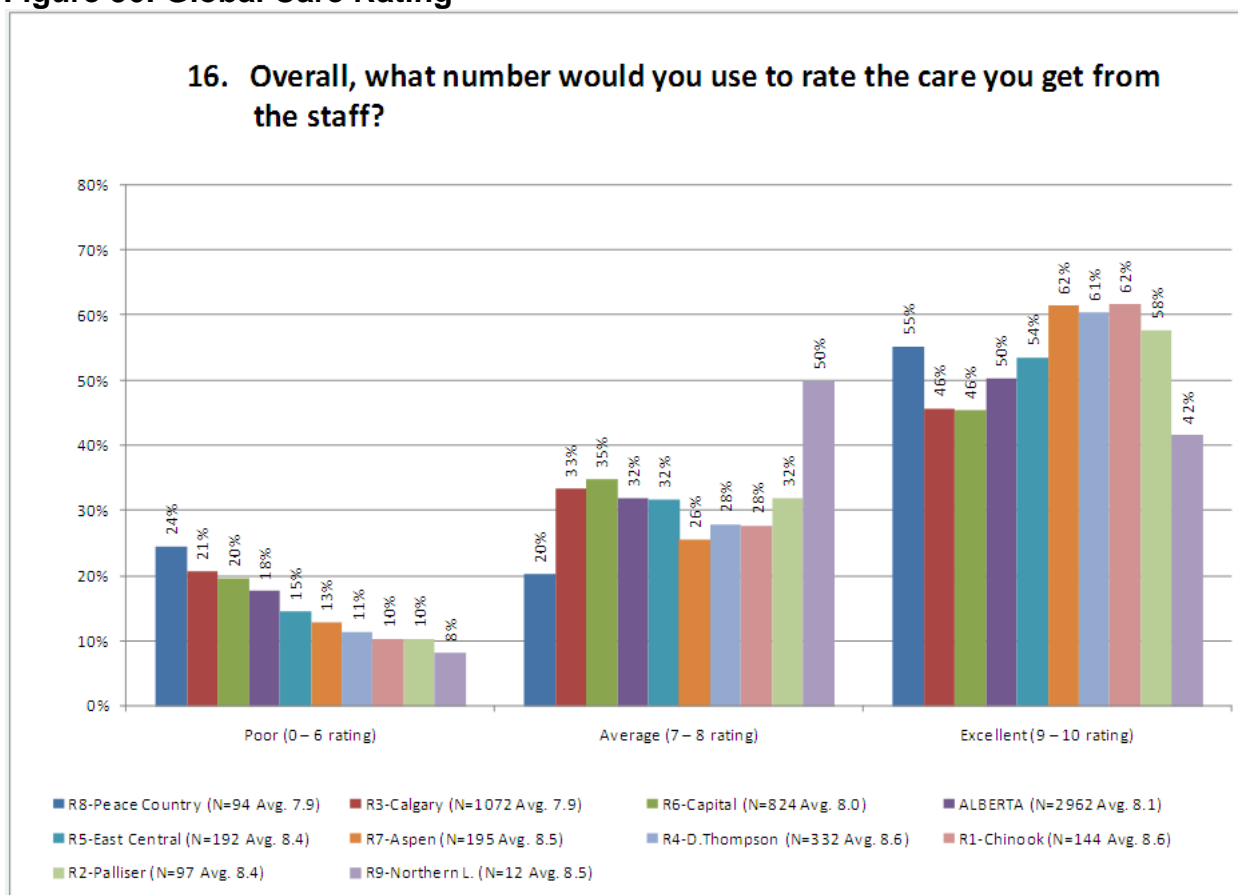


Table 61: Global Care Rating

RHA / Global Care Rating	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	10%	10%	21%	11%	15%	20%	13%	24%	8%	18%
Average (7 – 8 rating)	28%	32%	33%	28%	32%	35%	26%	20%	50%	32%
Excellent (9 – 10 rating)	62%	58%	46%	61%	54%	46%	62%	55%	42%	50%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	144	97	1,072	332	192	824	195	94	12	2,962

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.11.2 Global Rating of the Nursing Home

- Residents were asked to rate the nursing home on a scale of 0–10. The average score was 8.1 with 52% rating the nursing home as 9-10 (excellent); 30% rating it as 7-8 (average) and 18% rating it as 0-6.
- Residents rated the nursing home higher than average in the DTHR (59% excellent) and Aspen (62% excellent) health regions and lower in the Calgary health region (47% excellent).

Figure 57: Global Rating of the Nursing Home

17. Overall, what number would you use to rate this nursing home?

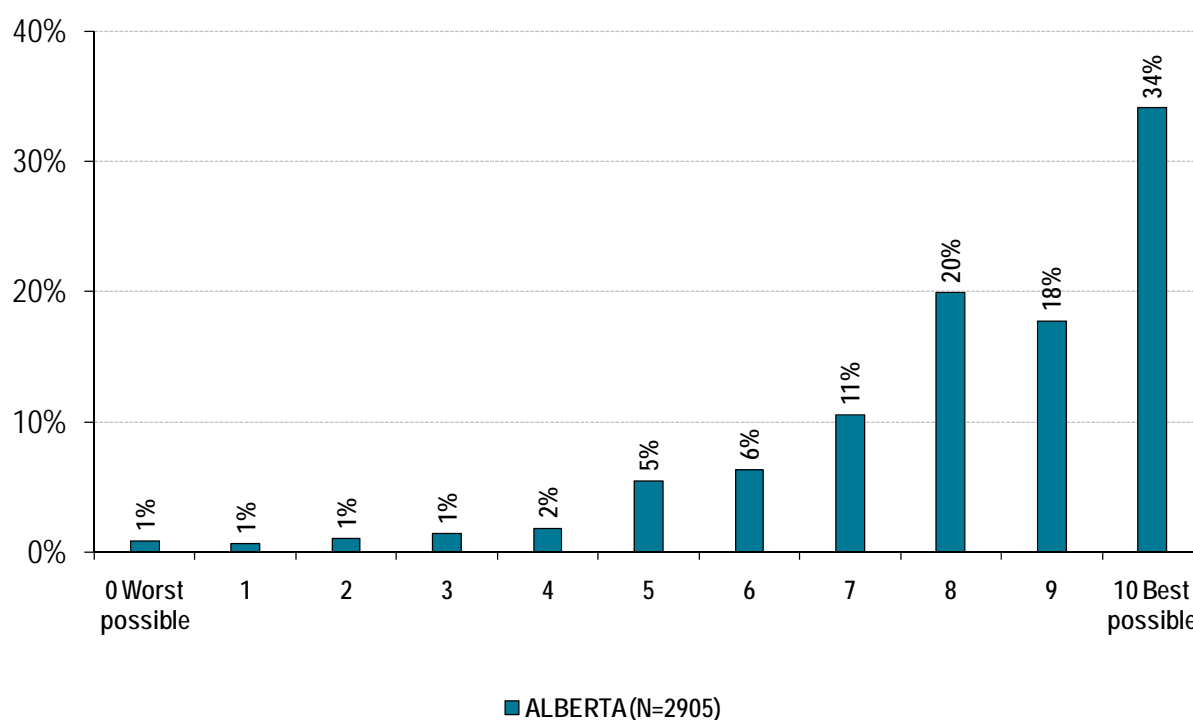


Figure 58: Global Rating of the Nursing Home

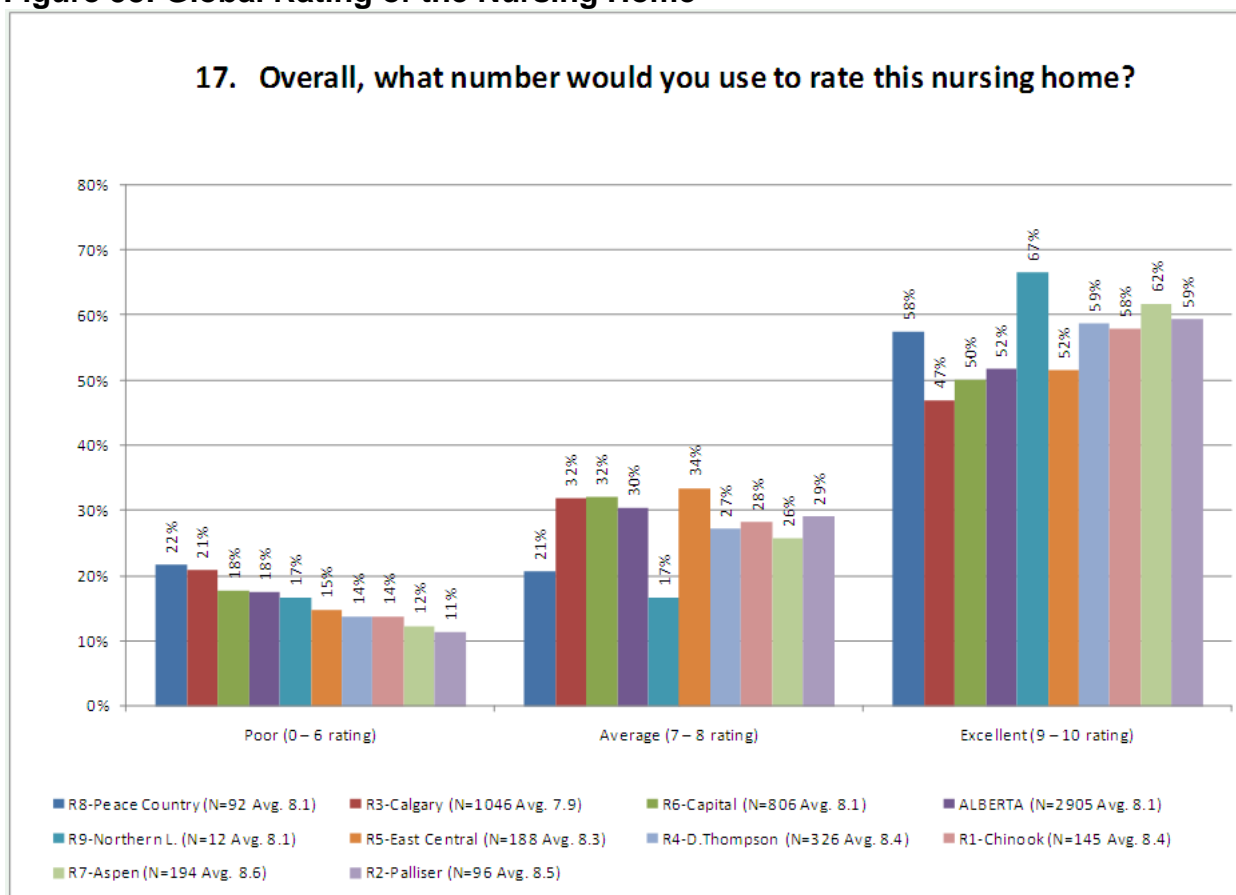


Table 62: Overall Rating of the Nursing Home

RHA / Overall Rating of the Nursing Home	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Poor (0 – 6 rating)	14%	11%	21%	14%	15%	18%	12%	22%	17%	18%
Average (7 – 8 rating)	28%	29%	32%	27%	34%	32%	26%	21%	17%	30%
Excellent (9 – 10 rating)	58%	59%	47%	59%	52%	50%	62%	58%	67%	52%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	145	96	1,046	326	188	806	194	92	12	2,905

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.11.3 Willingness to Recommend the Nursing Home

- Most residents (89%) would definitely (51%) or probably (38%) recommend the nursing home.
- A greater proportion of residents in the Chinook (63%), DTHR (56%) and Aspen (58%) health regions would definitely recommend the nursing home compared to the average. A smaller proportion would definitely recommend the nursing home in the Calgary (47%) health region.

Figure 59: Willingness to Recommend the Nursing Home

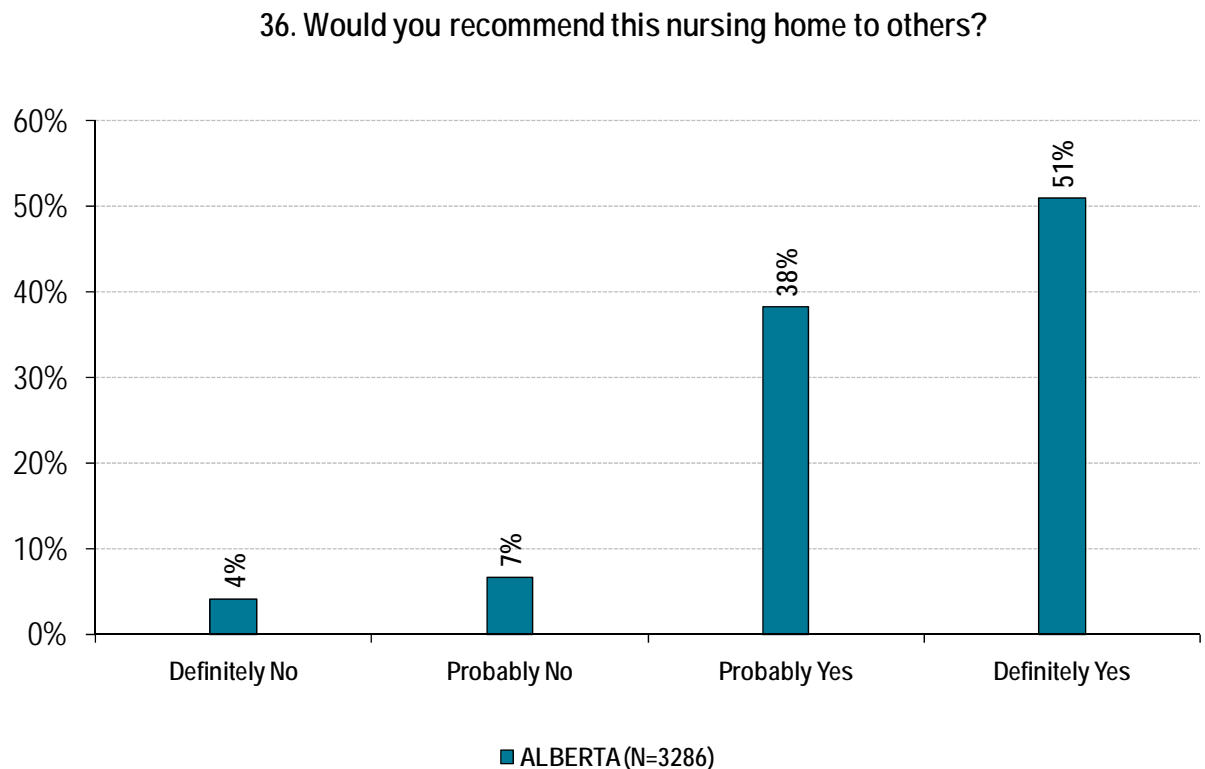


Figure 60: Willingness to Recommend the Nursing Home

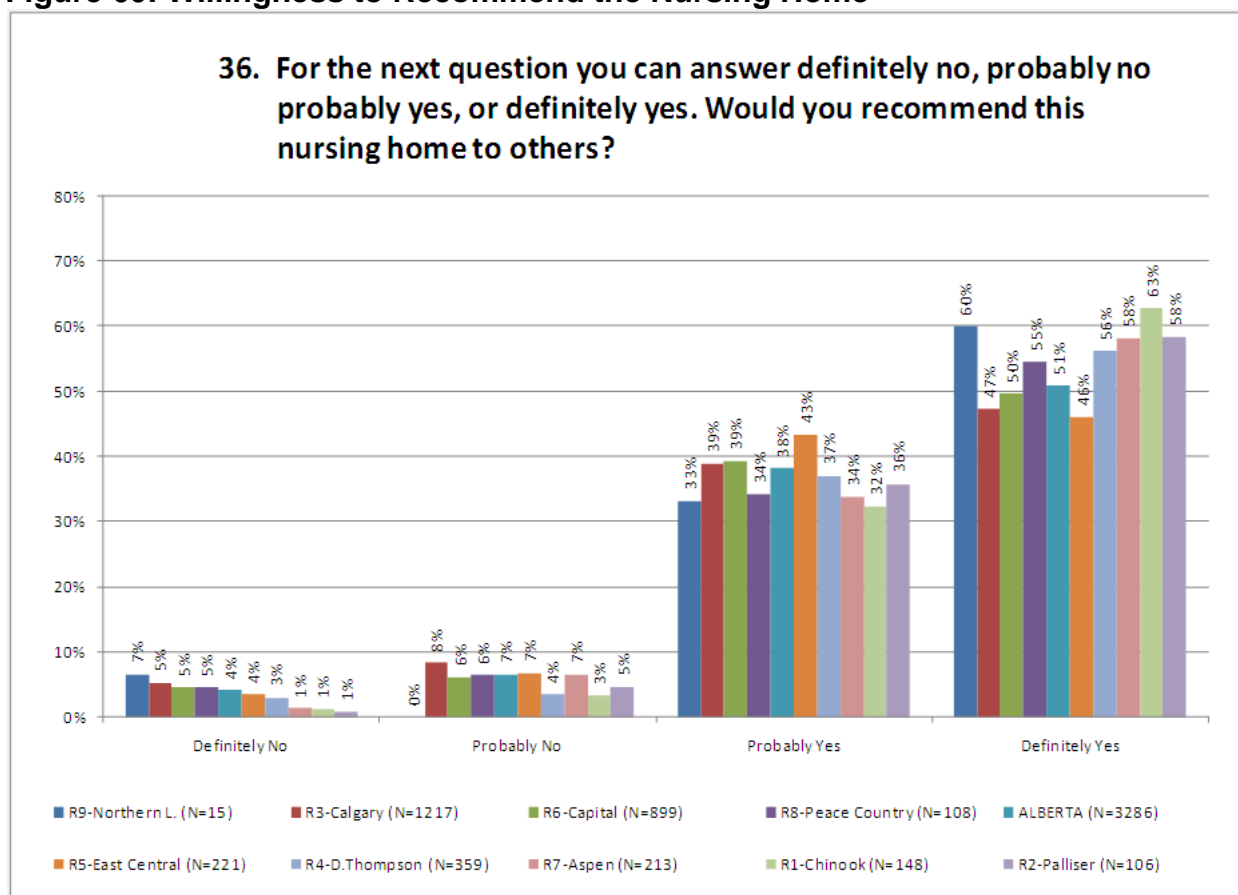


Table 63: Willingness to Recommend the Nursing Home

RHA / Willingness to Recommend the Nursing Home	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Definitely No	1%	1%	5%	3%	4%	5%	1%	5%	7%	4%
Probably No	3%	5%	8%	4%	7%	6%	7%	6%	0%	7%
Probably Yes	32%	36%	39%	37%	43%	39%	34%	34%	33%	38%
Definitely Yes	63%	58%	47%	56%	46%	50%	58%	55%	60%	51%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	148	106	1,217	359	221	899	213	108	15	3,286

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.11.4 Residents Get the Care They Need

- Most residents (86%) reported getting the care they need at the nursing home; 10% reported sometimes getting the care they need and 4% said they did not get the care they need at the nursing home.

Figure 61: Residents Get the Care They Need

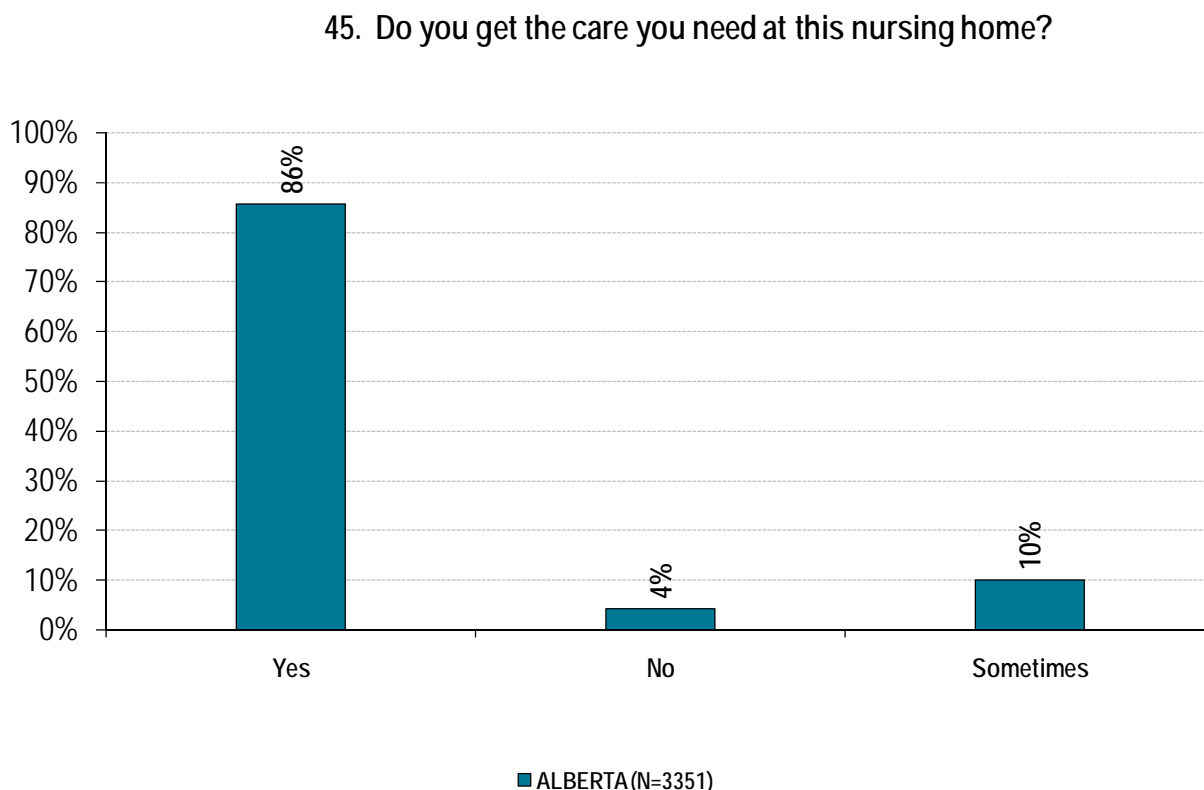


Table 64: Residents Get the Care They Need

RHA / Residents Get the Care They Need	Chinook (R1)	Palliser (R2)	Calgary (R3)	DTHR (R4)	East Central (R5)	Capital (R6)	Aspen (R7)	Peace Country (R8)	Northern Lights (R9)	Total
Yes	86%	90%	85%	91%	84%	84%	90%	84%	87%	86%
No	2%	1%	5%	3%	5%	4%	4%	8%	7%	4%
Sometimes	12%	9%	10%	6%	11%	12%	6%	8%	7%	10%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of respondents	147	104	1,261	359	228	908	213	116	15	3,351

Note: Individual proportions may not sum to 100% due to rounding of decimals.

3.12 Overall Care Rating – Quartile Analysis

3.12.1 Facility Groupings by Quartile

One aspect of this study is to explore differences between facilities that achieved higher than average overall care ratings and those with lower ratings. This analysis will be important for those facilities in the lower quartiles in determining the importance and focus of quality improvement initiatives. Facilities wishing to improve can look to the upper quartile nursing homes for examples of how to achieve improved performance in various areas.

When estimating the average overall care rating by facility, the critical threshold number for calculating the margin of error based on the Normal distribution is 30 respondents. Below 30 respondents, the Student distribution is used but the confidence interval for an estimate grows tremendously as the sample size is reduced and the variability around the mean increases. However, in practice, the threshold of 25 respondents is quite acceptable. For this reason, facility level overall average ratings were analyzed in terms of the facilities with so called “reliable” sample sizes.

During the quartile analysis, the issue of using either the *overall care rating* (Q16) or the *overall nursing home rating* (Q17) or a combination of both ratings was raised. In the family member survey, facilities were rated according to the *care* provided at the nursing home (i.e. question Q46 = Using any number from 0 to 10 where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate the care at the nursing home?). Ideally, for the resident survey, classifying facilities into quartiles based on question Q16 (i.e. Overall, what number would you use to rate the care you get from the staff?) would have allowed for a sound comparison between the resident and the family member surveys (e.g. residents’ perspectives versus family members’ perspectives).

Unfortunately, only 41 facilities in the resident survey have what may be deemed a “reliable” sample size for Q16 ratings and the distribution of their ratings failed the normality test with only 2 facilities belonging to the 3rd quartile (Lower = 11; Middle (-) = 15; Middle (+) = 2; Upper = 13). This is illustrated in **Figure 62** and **Figure 63**.

However, 42 facilities in the resident survey have a reliable sample size for Q17 (overall nursing home rating) and the distribution of their ratings passed the normality test as illustrated by **Figure 64** and **Figure 65**. Therefore, the quartile analysis is conducted using the overall nursing home rating (Q17).

A total of five composites and four dimensions and within those, thirty-three (33) variables were examined for differences between upper and lower quartile facilities. Significant differences are reported to assist facilities to identify potential areas for improvement.

The overall nursing home ratings of the remaining 130 facilities with small sample sizes were also normalized using the normal distribution parameters calculated for the 42 facilities with reliable sample sizes. This is illustrated in **Figure 66**. The 130 small sample facilities obtained better overall nursing home ratings (Q17) than the 42 facilities with reliable sample sizes and 78 of the 130 facilities belong to the upper (75%-100%) quartile defined by the reliable sample facilities.

Figure 62: Nonparametric Test for Normality of Care Ratings (41 Facilities with Reliable Sample Sizes)

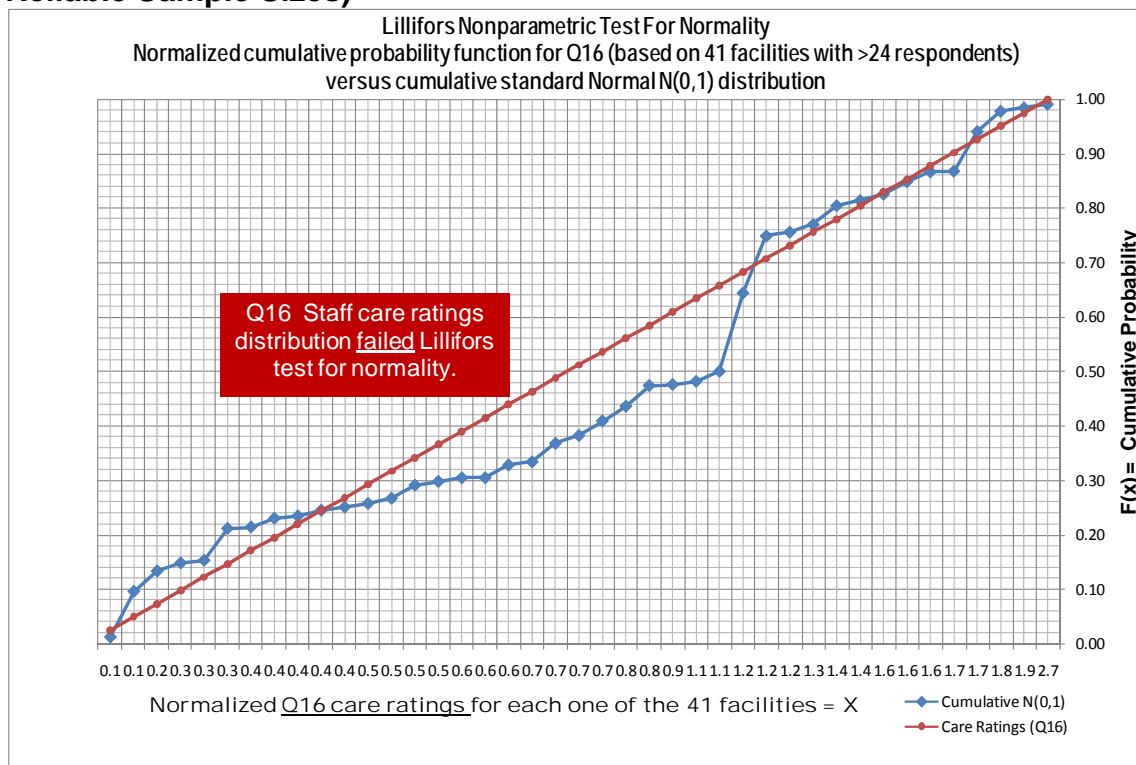


Figure 63: Normalized Care Ratings for the 41 Facilities with Reliable Sample Sizes

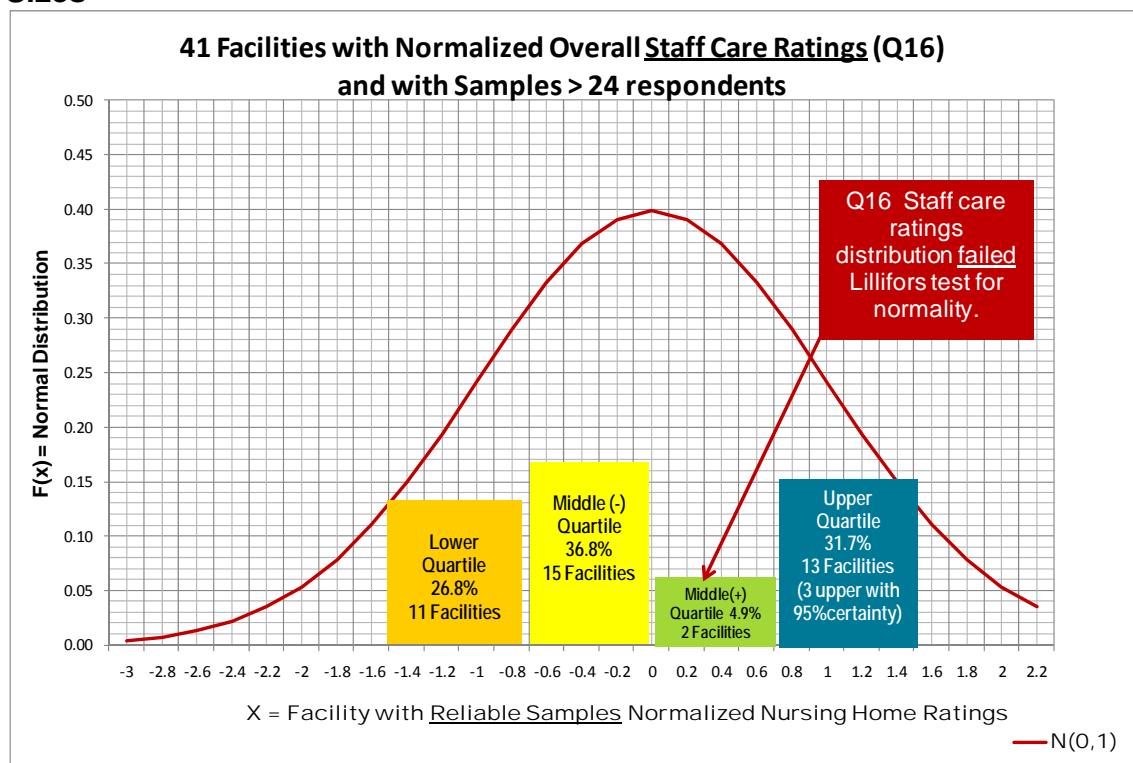


Figure 64: Nonparametric Test for Normality of Overall Facility Ratings (42 Facilities with Reliable Sample Sizes)

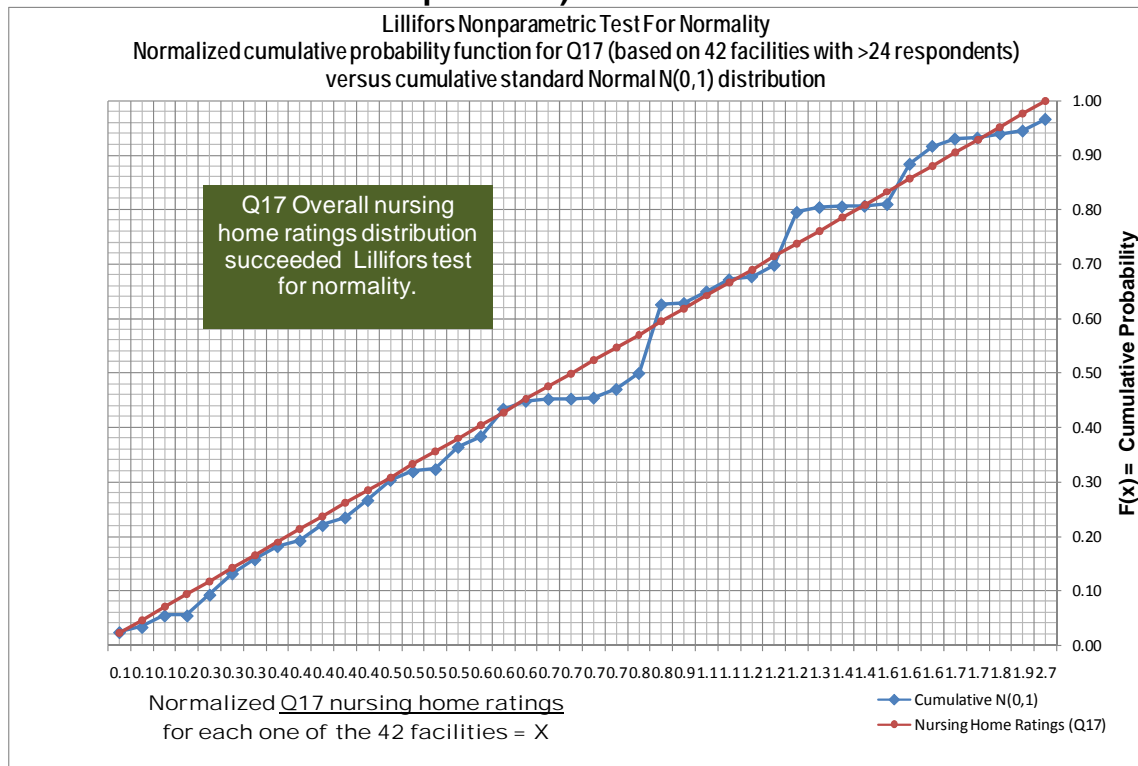


Figure 65: Normalized Care Ratings for the 42 Facilities with Reliable Sample Sizes

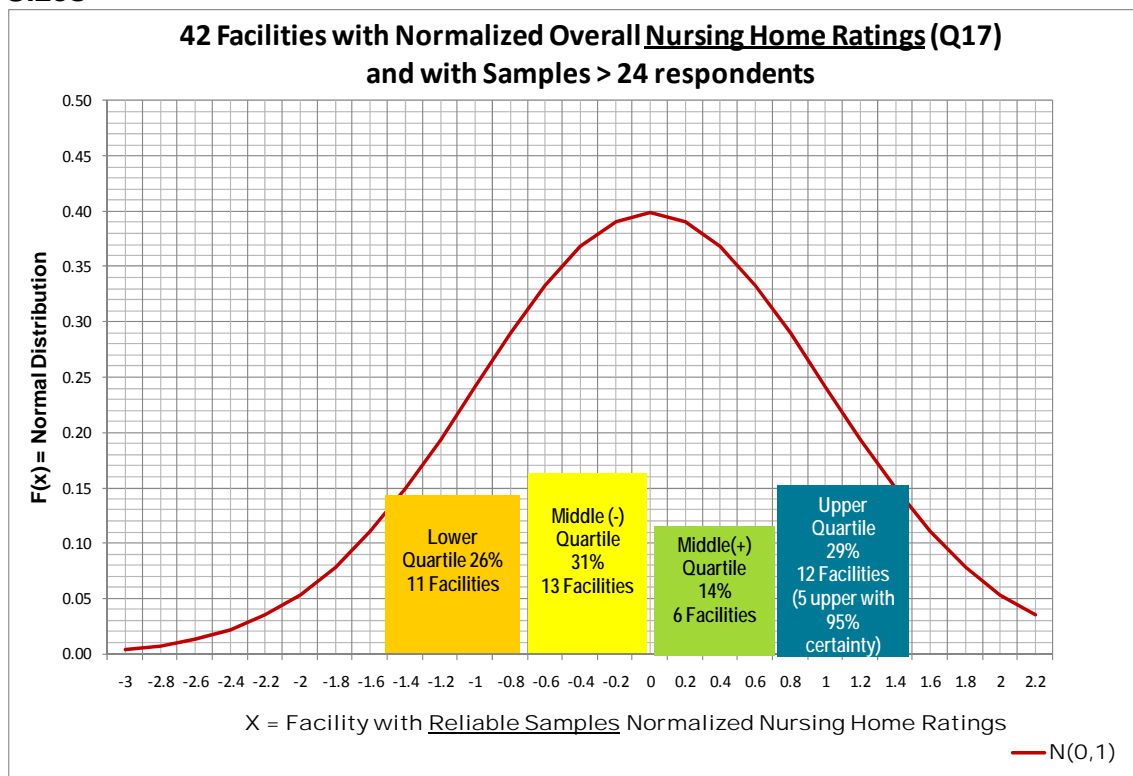
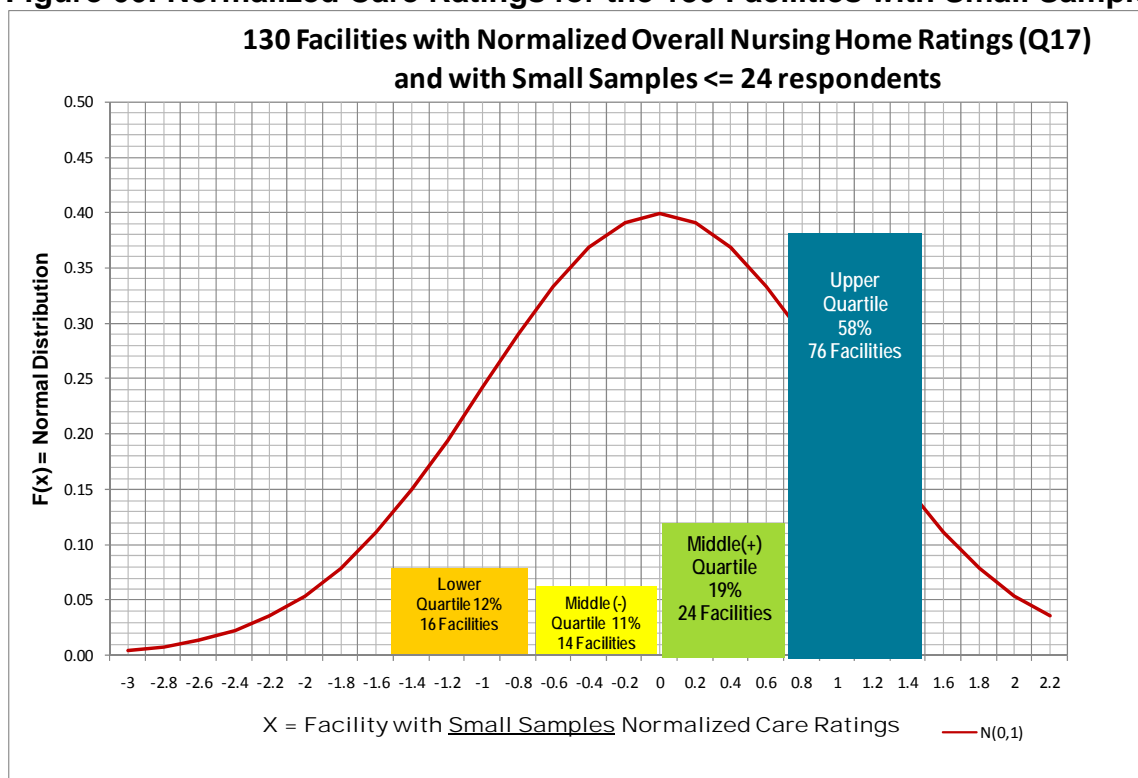


Figure 66: Normalized Care Ratings for the 130 Facilities with Small Sample Sizes



A total of 42 facilities with reliable sample sizes for Q17 (*overall nursing home rating*) were selected and the following calculations were done:

- Average global nursing home ratings for each of the 42 facilities.
- Average global nursing home ratings were then normalized.
- A non-parametric test for normality (Lillifors) was conducted and the hypothesis of a normal distribution of the average global nursing home ratings of the 42 facilities could not be rejected.
- A 95% confidence interval was calculated for each facility's average global nursing home rating and converted into a "quartile" confidence interval.

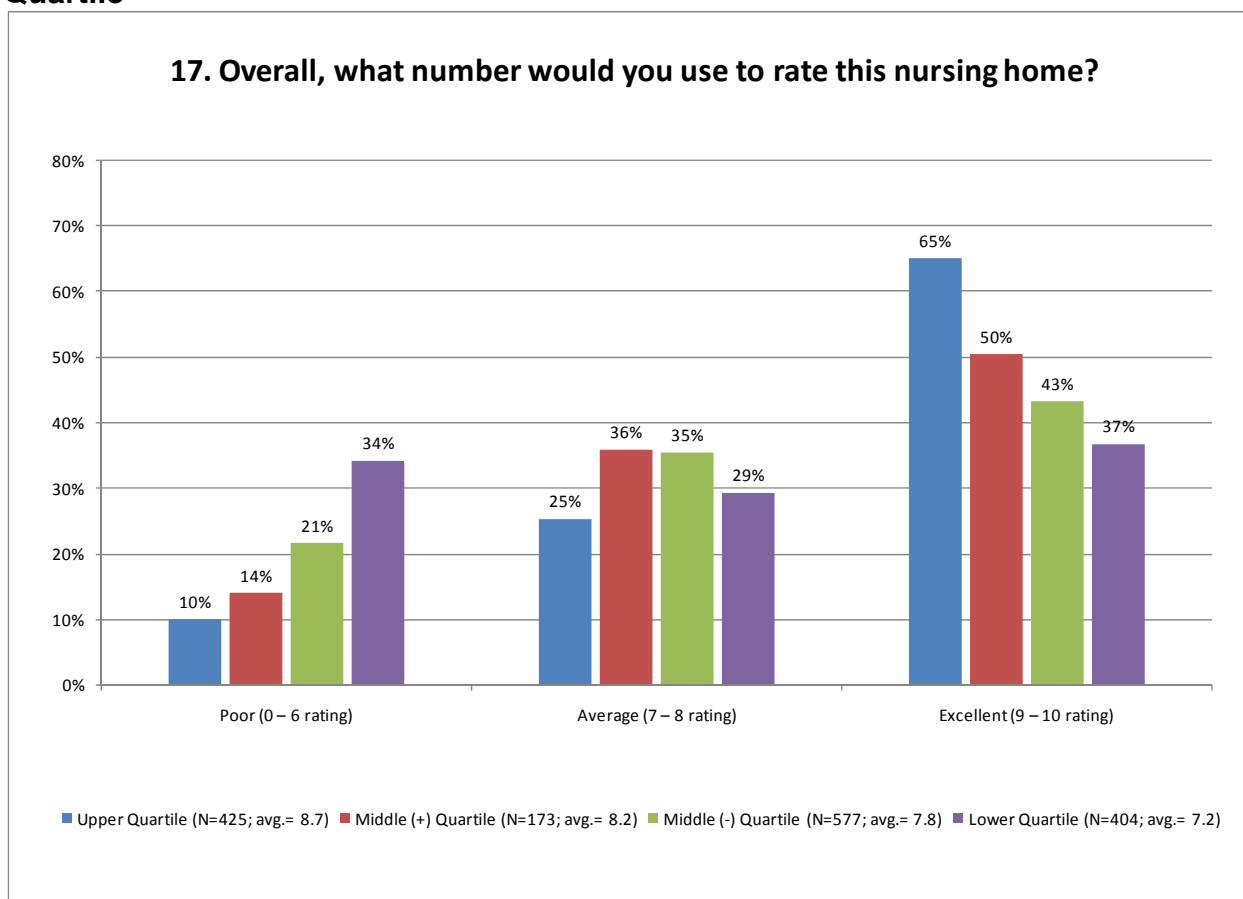
Key Findings for the 42 nursing homes with reliable sample sizes

- The average nursing home rating for all 42 facilities is 8.0 on a 0 to 10 rating scale.
- The average number of beds for facilities in the Upper and Middle (+) quartiles is 125 (StDev=44) compared to 194 (StDev=95) for facilities in the Lower and Middle (-) quartiles. Due to the variability in facility sizes for both groups, we cannot conclude with 95% certainty that facilities with fewer beds are more likely to obtain better nursing home scores.
- There are only 5 facilities for which the calculated average score remains within its quartile with 95% certainty.
- The 12 facilities belonging to the upper (75%-100%) quartile are compared with the 11 facilities belonging to the lower (0-25%) quartile. The statistically significant differences between both groups are examined in **Section 3.12.6**.

Table 65: Statistics for Nursing Homes with Reliable Samples Sizes

Quartile	Number of Facilities	Total Respondents	Avg. # of Respondents by Facility	Average Overall Facility Rating (0-10)	95% Confidence Interval in Terms of Number of Quartiles	Average Number of Beds
Upper	12	425	35.4	8.7	5 facilities overlap no other quartile 7 facilities overlap with Middle(+)	126
Middle (+)	6	173	28.8	8.2	6 facilities overlap 3 other quartiles (i.e. Lower and Upper quartiles)	111
Middle (-)	13	577	44.4	7.8	6 facilities overlap 2 other quartiles (i.e., Lower and Middle(+) quartiles) 7 facilities overlap 3 other quartiles (i.e., Lower and Upper quartiles)	193
Lower	11	404	36.7	7.2	7 facilities overlap 2 other quartiles (i.e., Lower and Middle(-) quartiles) 4 facilities overlap 3 other quartiles (i.e., Lower and Middle(+) quartiles)	196
All	42	1579	37.6	8.0	5 in same quartile @ 95% certainty	163

Figure 67: Collapsed Distribution of Global Nursing Home Rating Presented by Quartile



3.12.2 Upper Quartile Facilities

There are 12 nursing homes in the upper (75-100%) quartile.

Key Findings:

- The overall average nursing home rating for this group is 8.7 out of 10.
- The average global nursing home ratings for the facilities in this quartile range from 8.5 to 9.1 on a 0 to 10 rating scale.
- 5 facilities of the 12 belong to the upper quartile with 95% certainty.
- 7 facility's nursing home ratings 95% confidence interval overlap two quartiles (i.e. nursing home ratings could either be in the upper quartile or in the middle plus quartile with 95% certainty).

3.12.3 Middle (+) Quartile Facilities

There are 6 nursing homes in the middle (50%-75%) plus quartile.

Key Findings:

- The overall average nursing home rating for this group is 8.2 out of 10.
- The average global nursing home ratings for the facilities in this quartile range from 8.2 to 8.3 on a 0 to 10 rating scale.
- All facility's nursing home ratings 95% confidence interval overlaps three quartiles, from the Lower to the Upper quartiles.

3.12.4 Middle (-) Quartile Facilities

There are 13 nursing homes in the middle (25%-50%) minus quartile.

Key Findings:

- The overall average nursing home rating for this group is 7.8 out of 10.
- The average global nursing home ratings for facilities in this quartile range from 7.6 to 8.0 on a 0 to 10 rating scale.
- 6 facility's nursing home ratings 95% confidence interval overlaps two quartiles.
- 7 facility's nursing home ratings 95% confidence interval overlaps three quartiles.

3.12.5 Lower Quartile Facilities

There are 11 nursing homes in the lower (0-25%) quartile.

Key Findings:

- The overall average nursing home rating for this group is 7.2 out of 10.
- The average global nursing home ratings for facilities in this quartile range from 6.6 to 7.5 on a 0 to 10 rating scale.
- 7 facility's nursing home ratings 95% confidence intervals overlap two quartiles.
- 4 facility's nursing home ratings 95% confidence intervals overlap three quartiles.

3.12.6 Reliable Sample Size Facilities - Upper/Lower Quartile Comparison

The next **Section 3.12.7** examines in more detail the significant differences between results for the upper and lower quartile nursing homes. Statistically significant differences between nursing homes in the upper (75%-100%) quartile and the lower (0-25%) quartile were compiled and analyzed globally by composite variable.

Please note that comparisons are often very useful, but readers should be very cautious about judging whether differences represent strong or poor performance. They may be neither, and it is challenging to make appropriate comparisons between facilities. Results may be significantly impacted by confounding variables such as respondent characteristics and facility characteristics such as the number of beds or community size. Statistically significant difference does not say anything about the magnitude of the difference or whether the difference is “clinically” important. Benchmarking (i.e. achieving the “average” or even a higher benchmark score) is not the objective; improving the quality of care is the objective.

Overall nursing home ratings were compiled for each facility belonging to a short list of 42 nursing homes with reliable sample sizes (greater or equal to 25 respondents per facility and 95% confidence interval ranges). The total number of respondents for the 42 facilities was 1,825 compared to 3,415 for all 172 facilities or 53% of all eligible respondents that responded to the resident survey. Facilities with small sample sizes were excluded because the 95% confidence interval becomes very large as the number of respondents decreases and the variability among ratings increases, leading to confidence intervals overlapping too many quartiles.

Twelve nursing homes belonging to the upper quartile and eleven from the lower quartile are compared. Please note that a predictive model based on composite variables was also developed and results are reported in **Section 3.14**.

In the following analysis, we only examine questions with significant differences between the upper and lower quartiles. Respondent results have been grouped under the 5 composite variables and 3 additional dimensions and are listed in order of strength of relationship to the overall nursing home rating. In addition, the mean composite score is reported.

3.12.7 Upper versus Lower Quartile Facilities – Significant Differences

3.12.7.1 Communication and respect

- The mean scores¹⁵ (0-100) for the *Communication and respect* composite variable are 78 / 100 for the lower quartile and 79 / 100 for the upper quartile facility residents. Note: this score is a result of all items comprising the composite.
- As illustrated in **Table 66**, two composite attributes and one additional related item showed significant differences between upper and lower quartile facility residents.
 - Staff from upper quartile facilities were perceived as more respectful than staff from lower quartile facilities.
 - Staff from upper facilities was perceived as better listeners than staff from lower facilities.
 - There are significantly less residents unhappy with the care they get from staff in upper facilities compared to lower quartile facilities.

Table 66: Significant Differences for Communication and Respect

Composite variable attributes	All	Upper	Lower	Upper Less Lower
Staff respectfulness (Q13) (7-10 ratings)	82% (N=2990)	86%	75%	11%
Staff listening (Q14) (7-10 ratings)	73% (N=2918)	76%	66%	12%
Ease of understanding (Q15) (7-10 ratings)	74% (N=2791)	76%	69%	Not statistically significant
Additional related items not included in the composite				
Unhappiness with care (Q43) (Yes)	15% (N=3373)	14%	21%	7%
Feel free to speak when unhappy with care (Q44) (Yes)	79% (N=3335)	79%	77%	Not statistically significant

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

¹⁵ The method used to compute composite scores from the individual items contributing to the composite is described in Section 3.14.1.

3.12.7.2 Care

- The mean scores (0-100) for the *Care* composite variable are 76 / 100 for the lower quartile and 78 / 100 for the upper quartile facility residents. Note: this score is a result of all items comprising the composite.
- As illustrated in **Table 67** one composite attribute and one additional related item showed significant differences between upper and lower quartile facility residents:
 - Upper quartile facility residents rate how quickly staff come when they call for help significantly higher than lower quartile facility residents.
 - A greater proportion of upper quartile facility residents reported getting the help they needed from staff to stay clean compared to lower quartile facility residents.

Table 67: Significant Differences for Care

Composite variable attributes	All	Upper	Lower	Upper Less Lower
Medicine efficiency for aches or pains (Q8) (7-10 ratings)	72% (N=2105)	73%	69%	Not statistically significant
Staff helpfulness with pain (Q9) (7-10 ratings)	77% (N=2611)	79%	72%	Not statistically significant
Staff responsiveness (Q10) (7-10 ratings)	62% (N=2837)	67%	49%	18%
Staff gentleness (Q12) (7-10 ratings)	79% (N=2679)	80%	76%	Not statistically significant
Privacy when dressing, showering or bathing (Q30) (Yes)	90% (N=3031)	90%	87%	Not statistically significant
Additional related items not included in the composite				
Needs medicine for aches or pain (Q7 Screener)	68% (N=3162)	67%	67%	Not statistically significant
Needs help from staff when dressing, bathing, showering, or toileting (Q11 Screener) (Yes)	89% (N=3125)	88%	86%	Not statistically significant
Staff help for dressing, showering, bathing (Q29 Screener) (Yes)	90% (N=3395)	89%	89%	Not statistically significant
Needs help from staff to stay clean (Q46 Screener) (Yes)	61% (N=3370)	61%	59%	Not statistically significant
Receive help from staff to stay clean (Q47) (Yes)	90% (N=2053)	91%	82%	9%

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

3.12.7.3 Environment

- The mean scores (0-100) for the *Environment* composite variable are 67 / 100 for the lower quartile and 72 / 100 for the upper quartile facility residents, a significant difference of 5 out of 100. Note: this score is a result of all items comprising the composite.
- As illustrated in **Table 68** eight composite attributes showed significant differences between upper and lower quartile facility residents:
 - Upper facility quartile residents gave the food a significantly higher rating compared to lower quartile facility residents.
 - Residents from upper quartile facilities rated their enjoyment of mealtimes significantly higher than residents from lower quartile facilities.
 - Upper quartile facility residents rated the temperature as significantly more comfortable compared to lower quartile facility residents.
 - Upper quartile facility residents rated the cleanliness of the nursing home significantly higher than lower quartile facility residents.
 - Residents from upper quartile facilities felt significantly more safe and secure compared to lower quartile facility residents.
 - Upper quartile facility residents reported the area around their room is significantly more quiet at night compared to lower quartile facility residents.
 - Upper quartile facility residents were bothered less by noise during the day compared to lower quartile facility residents.
 - Upper quartile facility residents were more likely to find a place to visit in private compared to lower quartile facility residents.

Table 68: Significant Differences for Environment

Composite variable attributes	All	Upper	Lower	Upper Less Lower
Food rating (Q1) (7-10 ratings)	56% (N=3186)	59%	41%	18%
Mealtime enjoyment (Q3) (7-10 ratings)	56% (N=2965)	61%	48%	13%
Nursing home temperature (Q4) (7-10 ratings)	61% (N=3083)	68%	55%	13%
Nursing home cleanliness (Q5) (7-10 ratings)	83% (N=3079)	87%	75%	12%
Feel safe and secure (Q6) (7-10 ratings)	81% (N=3056)	85%	75%	10%
Quietness at night (Q18) (Yes)	83% (N=3408)	88%	81%	7%
Noise during the day (Q19) (Yes)	9% (N=3405)	7%	11%	4%
Privacy with visitors (Q20) (Yes)	86% (N=3352)	91%	84%	7%
Additional related items not included in the composite				
Eating in the dining room (Q2 Screener) (Yes)	95% (N=3276)	95%	95%	0%

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

3.12.7.4 Activities

- The mean scores (0-100) for the *Activities* composite variable are 56 / 100 for the lower quartile and 65 / 100 for the upper quartile facility residents, a significant difference of 9 out of 100. Note: this score is a result of all items comprising the composite.
- **Table 69** all composite attributes and an additional related item showed significant differences between upper and lower quartile facility residents:
 - More residents from upper quartile facilities believed there are enough organized weekend and weekday activities compared to residents from lower quartile facilities.
 - More residents from upper quartile facilities are satisfied with how they spend their time at the nursing home than residents from lower quartile facilities.

Table 69: Significant Differences for Activities

Composite variable attributes	All	Upper	Lower	Upper Less Lower
Enough activities on weekends (Q34) (Yes)	53% (N=3117)	54%	44%	10%
Enough activities on weekdays (Q35) (Yes)	77% (N=3153)	81%	71%	10%
Additional related items not included in the composite				
Residents satisfaction with how time is spent (Q42) (Yes)	72% (N=3370)	77%	65%	12%

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

3.12.7.5 Autonomy

- The mean scores (0-100) for the *Autonomy* composite variable are 87 / 100 for the lower quartile and 87 / 100 for the upper quartile facility residents. Note: this score is a result of all items comprising the composite.
- As illustrated in **Table 70** there were no significant differences between upper and lower quartile facility residents for the composite attributes:

Table 70: Significant Differences for Autonomy

Composite variable attributes	All	Upper	Lower	Upper Less Lower
Choose bedtime (Q31) (Yes)	80% (N=3374)	76%	79%	Not statistically significant
Choose clothing (Q32) (Yes)	89% (N=3400)	90%	92%	Not statistically significant
Choose activities (Q33) (Yes)	86% (N=3332)	88%	85%	Not statistically significant

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

The following dimensions represent conceptually related sets of items that have not been validated as composite variables such as those listed above.

3.12.7.6 Medical and Safety

- The mean scores (0-100) for the *Medical and safety* dimension are 59 / 100 for the lower quartile and 66 / 100 for the upper quartile facility residents, a significant difference of 7 out of 100. Note: this score is a result of all items comprising the dimension.
- As illustrated in **Table 71** only one variable shows a significant difference between upper and lower quartile facility residents.
 - More residents from upper quartile facilities reported being able to reach something to drink (Q28) compared to residents from lower quartile facilities.

Table 71: Significant Differences for Medical and Safety

Dimension variable attributes	All	Upper	Lower	Upper Less Lower
Visits to a doctor – outside the nursing home (Q21) (Yes)	20% (N=3394)	23%	20%	Not statistically significant
Sees any doctor – inside the nursing home (Q22) (Yes)	63% (N=3382)	66%	66%	Not statistically significant
Doctor's availability (Q23) (Yes)	74% (N=3140)	74%	67%	Not statistically significant
Left in same position so long it hurts (Q25) (Yes)	33% (N=807)	36%	41%	Not statistically significant
Beverage within reach (Q28) (Yes)	72% (N=3379)	75%	65%	10%

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

3.12.7.7 Quality of Life

- The mean scores (0-100) for the *Quality of life* dimension are 47 / 100 for the lower quartile and 49 / 100 for the upper quartile facility residents. Note: this score is a result of all items comprising the dimension.
- There was one significant difference between upper and lower quartile facility residents as illustrated in **Table 72**. Residents from lower quartile facilities reported being bored more often compared to residents from upper quartile facilities.

Table 72: Significant Differences for Quality of Life

Dimension variable attributes	All	Upper	Lower	Upper Less Lower
Feeling worried (Q37) (Often)	18% (N=3343)	16%	20%	Not statistically significant
Feeling happy (Q38) (Often)	50% (N=3309)	54%	47%	Not statistically significant
Feeling bored (Q39) (Often)	20% (N=3332)	18%	27%	9%
Feeling lonely (Q40) (Often)	21% (N=3328)	21%	24%	Not statistically significant
Rating of life now (Q48) (7-10 ratings)	60% (N=2762)	63%	53%	Not statistically significant

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

3.12.7.8 End of Life

- The mean scores (0-100) for the *End of life* dimension are 56 / 100 for the lower quartile and 59 / 100 for the upper quartile facility residents. Note: this score is a result of all items comprising the dimension.
- As illustrated in **Table 73** there were no significant differences between upper and lower quartile facility residents for the individual variables.

Table 73: Significant Differences for End of Life

Dimension variable attributes	All	Upper	Lower	Upper Less Lower
Discussion with family about end of life issues (Q55) (Yes)	56% (N=3287)	59%	57%	Not statistically significant
Discussion with professionals about end of life issues (Q56) (Yes)	28% (N=3265)	31%	32%	Not statistically significant
Importance of end of life discussion (Q57) (Extremely important+ Very important)	65% (N=2977)	63%	59%	Not statistically significant

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

3.12.7.9 Global Care Rating

- The mean scores (0-100) for the *Quality of life* dimension are 81 / 100 for the lower quartile and 88 / 100 for the upper quartile facility residents, a significant difference of 7 out of 100. Note: this score is a result of all items comprising the dimension.
- As illustrated in **Table 74** there were significant differences between upper and lower quartile facility residents on all attributes:
 - Residents from upper quartile facilities rated the care received from staff and the nursing home higher than residents from lower quartile facilities.
 - Residents from upper quartile facilities were more likely to definitely or probably recommend the nursing home than residents from lower quartile facilities.
 - Residents from upper quartile facilities were more likely to say they got the care they needed at the nursing home compared to residents from lower quartile facilities.

Table 74: Significant Differences for Global Care Rating

Dimension variable attributes	All	Upper	Lower	Upper Less Lower
Overall rating of care (Q16) (7-10 ratings)	82% (N=2962)	88%	73%	15%
Overall rating of the nursing home (Q17) (7-10 ratings)	82% (N=2905)	90%	66%	24%
Propensity to recommend (Q36) (Probably yes+ Definitely yes)	89% (N=3285)	94%	80%	14%
Residents get the care they need (Q45) (Yes)	86% (N=3351)	89%	79%	10%

Z-Test with 95% confidence was carried on proportions to identify significantly different ratios

3.13 Overall Care Rating versus Facility-Level Effects

3.13.1 Facility-Level Effects

The results demonstrate that a facility operating fewer beds is more likely to obtain a higher overall nursing home rating from residents. **Figure 68** shows the detailed distribution of number of beds by facility rating quartile. Clearly, the average number of beds declines as we move towards the higher quartiles. Facilities belonging to the upper (75%-100%) quartile were operating 60% less number of beds (e.g. 120 versus 196 beds) on average than the facilities in the lower (0-25%) quartile. This is also confirmed by statistical tests comparing means from different quartiles. These findings concur with similar findings in the family survey.

Figure 68 suggests that smaller nursing homes are predisposed to more positive overall nursing home ratings from residents than are large facilities. Said another way, larger nursing homes and particularly those in an urban setting will be challenged to perform as well as small nursing homes in small communities. The reasons for this are likely complex. While we could have compared large facilities with large and small with small, we did not want to mask this important finding. While large nursing homes should aspire to the highest performance standards, this data suggests that a transition to smaller facilities is desirable at least from the perspective of the resident.

Figure 69 is similar to the previous figure but is for nursing homes with small sample sizes (total 130 facilities). Most of the facilities fall in the upper (75%-100%) nursing home rating quartile (76 out of 130 facilities) and the average number of beds per quartile varies from 48 (lower quartile) to 72 (50%-75% quartile).

Figure 68: Distribution of Number of Beds by Nursing Home Ratings (Reliable Samples)

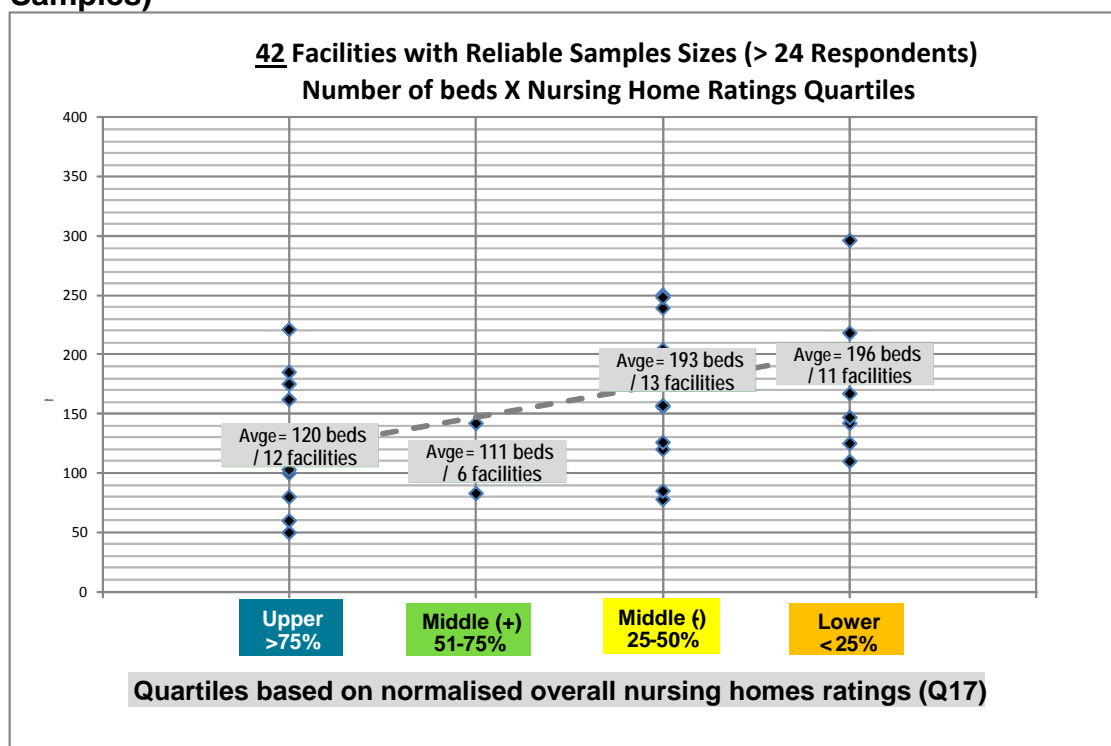
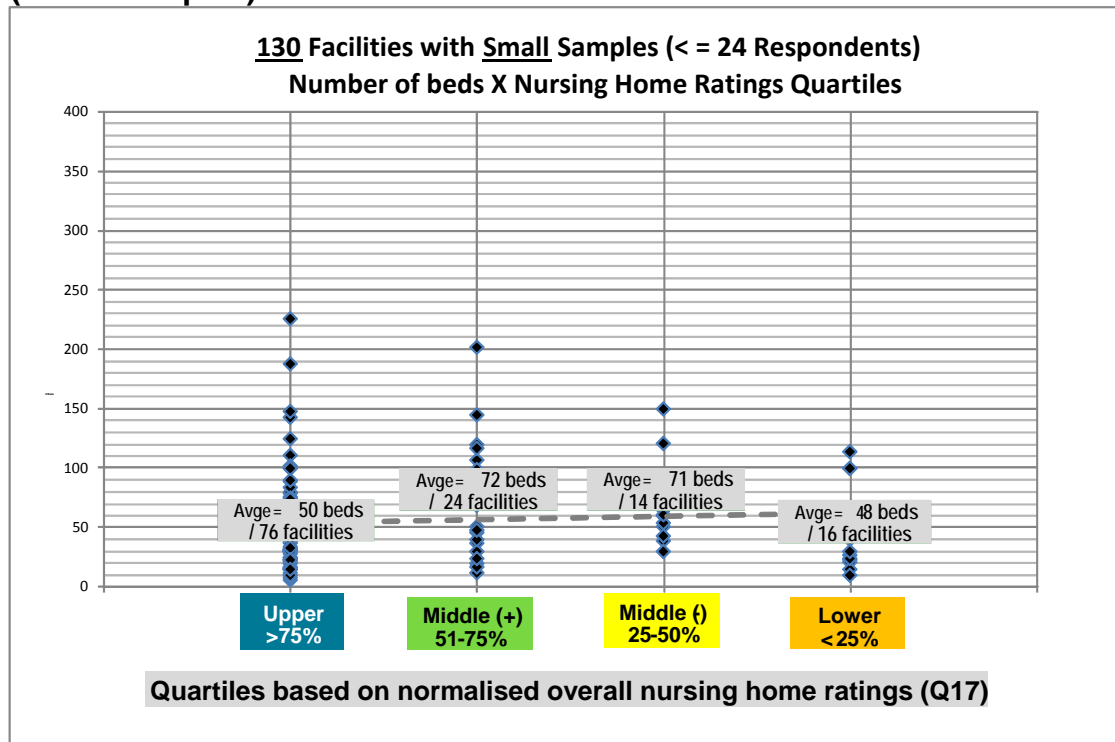


Figure 69: Distribution of Number of Beds by Facility Nursing Home Ratings (Small Samples)



3.14 Global Overall Care Rating Forecasting Model

3.14.1 Model Description – Composite Variables

As previously mentioned, to simplify the interpretation of the data and enhance the reliability of the results, results from questions that measure similar topics are computed (averaged) into single variables called composites. In reducing the complexity of the data, such composites facilitate the development of a forecasting model for the global rating of care. Such a model explores the strength of correlation between more specific quality variables (the composites in this case) with the outcome variable (the global rating of care).

The composite variables are essentially the weighted average score of all variables within the factor. They provide a summary record for the common attribute of care represented by the scale. Given that they are shown to be valid, composite variables are often better performance measures than the individual question items they represent.

In this section, a forecasting model was developed to identify those composites with the strongest relationship to the overall rating of care. Assuming it is desirable to maximize the overall rating of care in the nursing home, understanding what factors impact that overall rating can provide useful information for quality improvement activities.

The CAHPS® Nursing Home Survey Resident Instrument collects residents' ratings of a large number of dimensions of long term care services. Forecasting nursing home overall care rating based on all the individual 48 CAHPS survey measured attributes is a very complex task.

The 21 variables used to compute the 5 composite variables are identified below. Question 16 will be used as the outcome variable (overall rating of care). Variable naming convention refers to the survey question number that can be found in [Appendix A](#). For example, "Q1" means question number 1.

(1) Environment Composite:

Q1	Food rating
Q3	Mealtime enjoyment
Q4	Nursing home temperature
Q5	Nursing home cleanliness
Q6	Feel safe and secure
Q18	Quietness at night
Q19	Noise during the day
Q20	Privacy with visitors

(2) Care Composite:

Q8	Medicine efficiency for aches or pain
Q9	Staff helpfulness with pain
Q10	Staff responsiveness
Q12	Staff gentleness (dressing, bathing, showering, toileting)
Q30	Privacy when dressing, showering or bathing

(3) Communication and Respect Composite:

Q13	Staff respectfulness
Q14	Staff listening
Q15	Ease of understanding

(4) Autonomy Composite:

Q31	Choose bedtime
Q32	Choose clothes
Q33	Choose activities

(5) Activity Composite:

Q34	Enough activities (weekends)
Q35	Enough activities (weekdays)

Outcome Variable:

Q16	Overall rating of care
-----	------------------------

The composite variables for each one of the 3,415 residents were computed as follows:

1. For all residents, each response was converted into a numerical value based on a 0 to 100 common standardized scale (e.g. typical yes/no answers were converted into 0/100 numerical values while the typical never/sometimes/usually/always answers were converted into 0/33/67/100 numerical values). The 0-10 rating scale was also converted to a 0-100 scale.
2. Composite variables are the weighted sum of the answers to the related questions, where weights are based on relative proportion of missing data (based on the whole sample).
3. For each residents, a composite score was calculated only if at least one answer was provided to one of the questions used for calculating the composite variable; a missing answer for any given question used in a composite variable was replaced by the average value of all other residents for the same given question and facility.
4. Composite variables were calculated for each one of the 3,415 individual residents (when possible).

3.14.2 Forecasting Models

A base forecasting model was developed by Agili-T to identify those factors with the strongest relationship with the overall rating of care. The base model was calculated from 3,415 residents of 172 different facilities and explains 62.0% of the variance in the overall care rating score.

Several other models were explored and can be found in [Appendix B](#). Reported forecasting models are essentially the base model where the following possible confounding variables were included: residents' gender, residents' age, residents level of education, residents overall health and life ratings, presence or absence of a roommate with the residents, residents' facility ownership (public, private, voluntary), and finally, the number of beds in the residents' facility.

The most reliable forecasting model (No. 2) is summarized in **Table 75**. The goal was to enhance substantially the predictability of the base forecasting model. As seen below, adding the confounding variables didn't improve the model. In other words, these variables don't seem to have a predictive effect on the overall rating of care (Q16). The predictability of the base model (R-Square) increased from 62.0% to 62.4%.

Additionally, a third forecasting model was tested with Q17 (Resident overall rating of the nursing home), given that the quartile analyses are based on this question. This model's explained variance is much lower than if we use Q16 (45% instead of 62%).

In conclusion, the retained regression model offers strong evidence that the residents' scores for the five composites is a very strong predictor of the overall global care rating. The first three composite variables have the strongest relationship to the overall care rating obtained by the nursing homes.

Table 75: Summary of Analysed Forecasting Models

Forecasting Model Components, Composite coefficients Comments	MODEL No. 1 BASE MODEL = 5 composites variables only	MODEL No. 2 = BASE MODEL + Confounding variables	MODEL No.3 (Alternative – Q17) = BASE MODEL + Confounding variables
Composite 1: Environment	0.133	0.125	0.327
Composite 2: Care	0.199	0.186	0.140
Composite 3: Communication and Respect	0.638	0.628	0.433
Composite 4: Autonomy	- 0.021	- 0.021	- 0.021
Composite 5: Activity	0.006	0.004	0.011
Constant	8.149	10.358	10.961
R-Square (Adjusted)	.620 (.620)	.624 (.621)	.459 (.454)
Comments	Base model with 62% variance explanation (N=3,415)	Base model plus confounding variables with 62% variance explanation (N=3,415)	Base model plus confounding variables with 46% variance explanation (N=3,415)

Table 76: Global (Overall) Rating of Care Forecasting Model

Care Rating Forecasting Model		Coefficients / constant
1) Environment (8 attributes)		0.125 (significant)
2) Care (5 attributes)		0.186 (significant)
3) Communication and Respect (3 attributes)		0.628 (significant)
4) Autonomy (3 attributes)		- 0.021 (not significant)
5) Activity (2 attributes)		0.04 (not significant)
6) Confounding variable – Residents' age		- 0.015 (not significant)
7) Confounding variable – Residents' overall life rating		0.033 (significant)
8) Confounding variable - Number of beds in facility		0.0 (not significant)
9) Confounding variable - Residents gender (1= male, 2 =female)		Not significant
10) Confounding variable - Residents level of education		Not significant
11) Confounding variable - Residents health status rating (1= Excellent, 2= Very good, 3= Good, 4= Fair, 5= Poor)		Not significant
12) Confounding variable - Residents has a roommate (1= Yes, 2 = No)		Not significant
13) Confounding variable – Facility ownership (1= privately-owned; 2 = voluntary owner; 3 = publicly-owned)		Not significant
14) Constant		10.358
Strength of the linear relationship (R-Square = 62.4% of variability in the global care rating is explained by the independent composite and confounding variables)		.624
Notes	1. This model explains 62% of overall care ratings by those residents. 2. Care ratings were converted from a 0-10 scale to a 0-100% scale. Composite variables are based on a 0-100% scale.	

3.15 Comments Analysis

3.15.1 Number of Comments by Dimension

The questionnaire included one open-ended question (Q58): *“Do you have any additional comments, concerns or issues about your care in this nursing home? If so, please explain.”*. Residents' comments were classified in one of the following five dimensions: (1) environment, (2) care, (3) communication and respect (4) autonomy and (5) activities. Each comment was further classified as being either **positive** (😊), **negative** (😞) or a **suggestion** (Q). Please note that some comments, due to their nature, were not classifiable in any of the above-mentioned dimensions; however, they were labelled as either positive, negative or suggestion.

Comments categorized as positive were those where residents clearly expressed a high level of satisfaction with the care the resident is receiving. These included accolades relating to the quality of care, services, the nursing home environment and staff. Negative comments were labelled as such because residents felt that there was room for improvement in a specific area. For example, comments about the lack or availability of staff were generally considered negative as staffing issues often impact the quality of care. Finally, suggestions represent specific recommendations by residents as a means to improve the provision of care and services.

Overall, 28% of residents provided qualitative feedback representing a total of 917 comments. Individual residents' comments that touched upon multiple themes and subject matters were dissected into their respective parts and categorized according to each individual thematic statement. In total, 1,452 statements were identified representing an average of 1.6 thematic statements per resident who provided comments. Each dimension is defined by a list of attributes that can be found in **Table 77** below.

Table 77: Number of Comments by Dimension

Dimension (attributes)	😊 % Positive Comments	😞 % Negative Comments	Q % Suggestions	Total
Environment: Rating of food / How much you enjoy mealtimes / How comfortable is the temperature in the nursing home / How clean is the nursing home / How safe and secure do you feel / Area around room quiet at night / Bothered by noise during the day / Find a place to visit in private	1.1%	27.0%	6.1%	34.2%
Care: How well medicine helped with aches or pain / How well staff help with pain / How quickly staff come when you call for help / How gentle staff are when they help / Do staff ensure enough privacy when you dress, shower or bathe	17.7%	33.0%	22.9%	73.6%
Communication and respect: How respectful staff are / How well staff listen / How well staff explain things	0.5%	12.2%	2.4%	15.1%

Number of Comments by Dimension, *continued*

Autonomy: Choose time you go to bed / Choose what clothes to wear / Choose what activities you do	0.2%	3.8%	0.3%	4.3%
Activities: Enough organized activities on the weekends / Enough organized activities during the week	0.6%	5.6%	0.8%	7.1%
TOTAL	18.9%	54.6%	26.4%	100.0%

3.15.2 Number of Comments by Comment Type

The proportion of positive, negative and suggestive comments was computed for each resident. When a comment is dominated by positive comments, the residents is classified as complimenting while in the opposite case, it is classified as complaining. **Table 78** provides a summary of comments by type.

Table 78: Number of Comments by Comment Type

Resident Groupings	Compliments	Complaints	Other
<u>Residents with primarily positive comments</u>			
• Residents with only positive comment(s)	155		
• Residents with half positive comment(s) and half suggestion(s)	9		
• Residents with more than half of all comment(s) that are positive [>50% positive]	1		
<u>Residents with primarily negative comments</u>			
• Residents with only negative comment(s)		364	
• Residents with half negative comment(s) and half suggestion(s) Residents with more than half of all comment(s) that are negative) [>50% negative]		177	
• Residents with exactly half negative comment(s) and half positive comment(s) (it was assumed that negative comments have more weight than positive comments)		22	
• Residents with exactly a third negative comment(s), a third positive comment(s) and a third suggestion(s)		5	
<u>Other residents</u>			
• Residents with only suggestion(s)			121
• Other residents			63
Total Residents with comments (N=917)	165	568	184
% Based on only residents with comment(s) (N=917)	18%	62%	20%
% Based on all survey respondents (N=3415)	5%	17%	5%

Appendix A

CAHPS[®] Nursing Home Survey: Resident Instrument

Note: The resident survey is conducted using a structured face-to-face interview. The interview process involved in depth training of interviewers, detailed scripts, show cards, probes, and standardized responses to various potential questions. The introductory script and the interview recording sheet included in this appendix are not intended for use as a self-administered questionnaire.

INTRODUCTORY SCRIPT – RESIDENT INTERVIEW (MS Word Version)

Hello, My name is <interviewer>

I am interviewing residents to find out how satisfied you are with care and services.
Have you heard about the interviews we are doing with residents in the home?

What is your name? Is your name {First Name, Last Name} [Confirm Name]
How are you doing today {First Name}?

IF UNRESPONSIVE (3 SIS questions)

Did you get food today?

Did you get your (previous) meal today?

Did you get your (next) meal today?

NOTE: CORRECT ANSWERS NOT REQUIRED – JUST RESPONSE

NOTE: IF UNABLE TO PROCEED – CODE APPROPRIATELY – CONCLUDE

Let me tell you a few things about the survey...

The survey is being done by the Health Quality Council of Alberta. We are an independent organization funded by the Alberta Government. This survey is being done in almost all Nursing Homes in Alberta. This survey is part of an Alberta wide project to learn about the care that nursing home residents receive. The overall goal is to improve the quality of care in nursing homes.

If you agree to take part, we would ask you some questions about your satisfaction with the care and services you receive at <Nursing Home>.

Your participation is completely voluntary. You may stop the interview at any time, for any reason at all. No matter whether you decide to complete the interview or refuse to participate, your care here will not be affected in any way. If you wish to stop or rest, you just have to let me know, and we will stop.

All of your answers are completely confidential. Your name won't be connected to your answers in any way. No one at the nursing home will know what you said. No one will get in trouble because of the answers you give or if you decide not to participate.

We are interested in YOUR feelings and opinions about your care and services.
There are NO right or wrong answers.

By participating in this survey, you will help us develop better ways of assessing nursing home quality.
We hope this will help to improve the quality of care and services in all Alberta Nursing Homes.

This interview should take approximately 20 minutes.

Do you have some time right now?

VERBAL CONSENT:

Do you understand and agree to participate in the survey? YES NO (Record on Form)

Continue with engagement if required (whether, items in room, anything non emotional)

If you would like I can close your door in order to ensure your confidentiality
(only ask this if interviewer safety is ensured).

We should probably start to go through our questions!

NH_CAHPS INTERVIEW RECORDING FORM (NO SELF ADMINISTRATION)



Please Fill-In Bubbles ● Print Neatly Inside Boxes. **THANKS!!**

ID

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Do you understand and agree to participate in the survey? ☐ Yes ☐ No

Time
Now:

		:		
--	--	---	--	--

Now let's talk about how you feel about things at this nursing home and how you feel about the care you get. Remember, when you answer, you can use any number from 0 to 10 where 0 is the worst possible, and 10 is the best possible



Use Show Card 1: 0 Worst Possible... 10 Best Possible

1. First, what number would you use to rate the food here at this nursing home?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

2. Do you ever eat in the dining room? (or communal area)? ☐ Yes ☐ No → Skip to 4

3. When you eat in the dining room (or communal area), what number would you use to rate how much you enjoy mealtimes?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

4. What number would you use to rate how comfortable the temperature is in this nursing home?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

5. Now think about all the different areas of the nursing home.

What number would you use to rate how clean this nursing home is?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

6. What number would you use to describe how safe and secure you feel in this nursing home?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

7. Now think about all the different kinds of medicine that help with aches or pain.

This includes medicine prescribed by a doctor, as well as aspirin and Tylenol.

Do you ever take any medicine to help with aches or pain?

☐ Yes ☐ Don't Know (DO NOT READ)

☐ No → Skip to 9

Don't
Know

--

8. What number would you use to rate how well the medicine worked to help with aches or pain?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

9. What number would you use to rate how well the staff help you when you have pain?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

10. What number would you use to rate how quickly the staff come when you call for help?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

11. Do the staff help you with any of the following: to dress, bath, shower OR go to the toilet?

☐ Yes ☐ No → Skip to 13

12. What number would you use to rate how gentle the staff are when they're helping you?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA



13. What number would you use to rate how respectful the staff are to you?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

14. What number would you use to rate how well the staff listen to you?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

15. What number would you use to rate how well the staff explain things in a way that is easy to understand?


☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

16. Overall, what number would you use to rate the care you get from the staff?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

17. Overall, what number would you use to rate this nursing home?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

 Use Show Card 2: Yes / No / Sometimes

18. Is the area around your room quiet at night?


☐ Yes
☐ No
☐ Sometimes

19. Are you bothered by noise in the nursing home during the day?

☐ Yes
☐ No
☐ Sometimes

20. If you have a visitor, can you find a place to visit in private?

☐ Yes
☐ No
☐ Sometimes

 Interviewer note: This can include their room if they feel it is "private."

21. Do you visit a doctor for medical care outside the nursing home?

☐ Yes
☐ No
☐ Sometimes

22. Do you see any doctor for medical care inside the nursing home?

☐ Yes
☐ No
☐ Sometimes

23. Is a doctor available to you when needed?

☐ Yes
☐ No
☐ Sometimes

OBSERVATIONAL SCREENER: Is R able to move around alone - not in a wheelchair? (Ask if not sure)

☐ Yes → Skip to 26
☐ No

24. If you wanted to, can you turn yourself over in bed without help from another person?

☐ Yes → Skip to 26
☐ No
☐ Sometimes

25. Are you ever left sitting or laying in the same position so long that it hurts?

☐ Yes
☐ No
☐ Sometimes




26. Are you able to move your arms to reach things that you want?

- ☐ Yes
- ☐ No
- ☐ Sometimes

**27. We'd like to find out about whether you can reach the things you need to in your room.
Can you reach the call button by yourself?**

- ☐ Yes
- ☐ No
- ☐ Sometimes

 **Point out call button if helpful.**

28. Is there a pitcher of water or something to drink where you can reach it by yourself?

- ☐ Yes
- ☐ No
- ☐ Sometimes

29. Do the staff help you with any of the following: to dress, take a shower, OR bathe?

- ☐ Yes
- ☐ No → Skip to 31

30. Do the staff make sure you have enough personal privacy when you dress, take a shower, or bathe?

- ☐ Yes
- ☐ No
- ☐ Sometimes

31. Can you choose what time you go to bed?

- ☐ Yes
- ☐ No
- ☐ Sometimes

32. Can you choose what clothes you wear?

- ☐ Yes
- ☐ No
- ☐ Sometimes

33. Can you choose what activities you do here?

- ☐ Yes
- ☐ No
- ☐ Sometimes

34. Are there enough organized activities for you to do on the weekends?

- ☐ Yes
- ☐ No
- ☐ Sometimes

35. Are there enough organized activities for you to do during the week?

- ☐ Yes
- ☐ No
- ☐ Sometimes

 **Show Card 3: Definitely No/ Probably No...**

**36. For the next question you can answer definitely no, probably no, probably yes, or definitely yes.
Would you recommend this nursing home to others?**

- ☐ Definitely No
- ☐ Probably No
- ☐ Probably Yes
- ☐ Definitely Yes

 **Show Card 4: Often/Sometimes/Rarely/Never**

**37. Now I'd like you to use this list of answer choices - Often, Sometimes, Rarely or Never
How often do you feel worried - often, sometimes, rarely, or never?**

- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

38. How often do you feel happy - often, sometimes, rarely, or never?


- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

39. How often do you feel bored here - often, sometimes, rarely, or never?

- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

40. How often do you feel lonely here - often, sometimes, rarely, or never?

- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

 Show Card 5: Excellent/Very Good/Good/Fair/Poor

41. In General, how would you rate your overall health - excellent, very good, good, fair, or poor?

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair
- ☐ Poor

 Show Card 2: Yes / No / Sometimes

Thinking about this nursing home . . .

42. Are you satisfied with how you spend your time at this nursing home?

- ☐ Yes
- ☐ No
- ☐ Sometimes

43. Are you ever unhappy with the care you get at this nursing home?

- ☐ Yes
- ☐ No
- ☐ Sometimes

44. Do you feel free to speak up to staff when you are unhappy with your care?

- ☐ Yes
- ☐ No
- ☐ Sometimes

45. Do you get the care you need at this nursing home?

- ☐ Yes
- ☐ No
- ☐ Sometimes

46. Do you sometimes need help from staff to stay clean?

- ☐ Yes
- ☐ No → Skip to 48

47. Do you receive the help you need from staff to stay clean?

- ☐ Yes
- ☐ No
- ☐ Sometimes

Show Card 1: 0 Worst Possible... 10 Best Possible

These next few questions are about you.

48. First we want to know how you feel about your life now. Use any number from 0 to 10 where 0 is the worst possible and 10 is the best possible. What number would you use to rate your life now?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ NA

49. In what year were you born?

--	--	--	--



50. What is the highest level of school that you have completed? Field Coded - only read choices if needed.

- ☐ Grade school or some high school
- ☐ Completed high school or GED
- ☐ Post-secondary technical school
- ☐ Some university or college
- ☐ Completed college diploma
- ☐ Completed university degree
- ☐ Post-grad degree (Ph.D or MD)

51. (Ask only if needed)

What is your race or ethnicity?

- ☐ White or Caucasian (Please Print)
- ☐ Other

52. Gender (Do not ask if obvious)

- ☐ Male
- ☐ Female

53. Ask if not observed

Do you currently have a roommate?

- ☐ Yes
- ☐ No

54. Do Not Read

Does resident have difficulty with English Language?

- ☐ Yes
- ☐ Yes to some extent
- ☐ No

The Final 3 questions are about "Advance Care Planning":

55. Have you had a discussion with family or a close friend about what healthcare treatment you want or do not want if you become very ill and you cannot speak for yourself?

- ☐ Yes
- ☐ No
- ☐ Don't Know (Read)

56. Have you ever had a discussion with a health care professional OR nursing home staff about what healthcare treatment you WANT or DON'T want if you become very ill and you cannot speak for yourself?

- ☐ Yes
- ☐ No
- ☐ Don't Know (Read)



Show Card 6: Extremely important // Somewhat important

57. In your opinion, how important is it to have this kind of discussion with a health care professional OR nursing home staff? (READ ALL)

- ☐ Extremely important
- ☐ Very important
- ☐ Somewhat important
- ☐ Not very important
- ☐ Not at all important

58. Do you have any additional comments, concerns, or issues about your care in this nursing home? If so, please explain.

Time Now: :

51198



Appendix B

Regression Outputs for Forecasting Models

Forecasting Models

Several forecasting models were developed and the results of four of those models are presented in this section.

(1) Model No.1 – Four Composite Variables Base Model

```
REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING PAIRWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT q16_outcome
/METHOD=ENTER env_w care_w com_w auto_w act_w
/RESIDUALS DURBIN.
```

- The model is based on 3,415 respondents for which at least one composite variable was calculated.
- “Missing pairwise” SPSS option was used
- The adjusted R-square of this base model No.1 is 62.0% and the constant is 8.149

The F-Test in the ANOVA table below shows that the regression equation is significant.

Table 79: ANOVA for Model No.1

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	706804.391	5	141360.878	1113.292	.000
Residual	432859.837	3409	126.976		
Total	1139664.227	3414			

Table 80: Coefficients for Model No.1

Model (1)	B	Std. Error	Beta (Standardized)	t	Sig.
(Constant)	8.149	1.462		5.574	.000
Environment	.133	.020	.083	6.531	.000
Care	.199	.018	.157	10.799	.000
Communication and respect	.638	.015	.631	43.556	.000
Autonomy	-.021	.010	-.022	-2.057	.040
Activity	.006	.006	.012	1.049	.294

The positive B coefficients mean that an increase in the composite score will lead to an increase in the overall care rating. If the coefficient is negative, an increase in the composite score will lead to a decrease in the overall care rating.

Table 81: Composite Effect on Overall Rating of Care for Base Model No.1

Composite	Regression Coefficient
Communication and respect	0.638
Care	0.199
Environment	0.133
Autonomy	- 0.021
Activity	0.006
Constant	8.149
Adjusted R-square = 0.620 (62% of the variation in the overall care rating)	

As shown in **Table 81**, the *Communication and respect* composite is the most important to the overall rating of care (question 16), with a coefficient of 0.638. Given standardized scores from 0 to 100, this predicts that a unit (1.0) increase in this composite variable will yield an increase in the global rating of care (Q16) of (0.638). For example, if the *Communication and respect* composite improves from 50 to 70 out of 100, an initial overall care rating of 80% is predicted to increase to approximately 93%.

In conclusion, this regression basic model No. 1 offers strong evidence that the respondents' scores for the five composites is a very good predictor of its overall global care rating. The next step was the exploration of other models to enhance the basic model.

(2) Model No.2 – Composite Variables, Confounding Variables

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING PAIRWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT q16_outcome
/METHOD=ENTER env_w care_w com_w auto_w act_w Q94NBBeds q49A q48_con
/METHOD=ENTER d_sex1
/METHOD=ENTER d_own1 d_own2
/METHOD=ENTER d_educ1 d_educ2 d_educ3 d_educ4 d_educ5 d_educ6
/METHOD=ENTER d_health1 d_health2 d_health3 d_health4
/METHOD=ENTER d_mate1
/RESIDUALS DURBIN.

```

- This model is the base model No.1 where the following confounding variables were included: residents' gender, residents' age, residents level of education, residents overall health and life ratings, presence or absence of a roommate with the residents, residents' facility ownership (RHA, private, voluntary), and finally, the number of beds in the residents' facility.

- The R-square increased from 62.0% to only 62.4%; the confounding variables added a marginal contribution to the predictability of the forecasting model.
- As a confounding variable, only the resident's overall life rating had a significant impact on the forecasting model.

Table 82: ANOVA for Model No.2

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	553632.224	22	25165.101	198.685	.000
Residual	333997.296	2637	126.658		
Total	887629.520	2659			

(3) Model No.3 – Composite Variables, Confounding Variables (Q17)

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING PAIRWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT q17_outcome
/METHOD=ENTER env_w care_w com_w auto_w act_w q48_con q49A Q94NBeds
/METHOD=ENTER d_sex1
/METHOD=ENTER d_own1 d_own2
/METHOD=ENTER d_educ1 d_educ2 d_educ3 d_educ4 d_educ5 d_educ6
/METHOD=ENTER d_health1 d_health2 d_health3 d_health4
/METHOD=ENTER d_mate1
/RESIDUALS DURBIN.

```

- This model is the same as the base model No.1 where the following confounding variables were included: residents' gender, residents' age, residents level of education, residents overall health and life ratings, presence or absence of a roommate with the residents, residents' facility ownership (RHA, private, voluntary), and finally, the number of beds in the respondents' facility. However, Q17 was used instead of Q16.
- The R-square has a value of
- For the confounding variables, resident's overall life rating and the number of beds had a significant impact on the forecasting model (but marginal on the R-square).

Table 83: ANOVA for Model No.3

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	453436.888	22	20610.768	101.553	.000
Residual	535192.331	2637	202.955		
Total	988629.218	2659			

Table 84: Composite Effect on Overall Rating of Care for Base Model No.2

Composite	Regression Coefficient
Communication and respect	0.628
Care	0.186
Environment	0.125
Autonomy	- 0.021
Activity	0.004
Constant	10.358
Adjusted R-square = 0.621 (62% of the variation in the overall care rating)	

Table 85 Coefficients for Model No.3

Model (1)	B	Std. Error	Beta (Standardized)	t	Sig.
(Constant)	10.961	2.932		3.738	.000
Environment	.327	.030	.192	10.932	.000
Care	.140	.027	.104	5.224	.000
Communication and respect	.433	.021	.405	20.168	.000
Autonomy	-.021	.014	-.021	-1.439	.150
Activity	.011	.009	.020	1.313	.189

Confounding variable – Residents' age	0.014 (not significant)
Confounding variable – Residents' overall life rating (Q48)	0.078 (significant)
Confounding variable - Number of beds in facility	-.009 (Significant)
Confounding variable - Residents gender (1= male, 2 =female)	Not significant
Confounding variable - Residents level of education	Not significant
Confounding variable - Residents health status rating (1= Excellent, 2= Very good, 3= Good, 4= Fair, 5= Poor)	Not significant
Confounding variable - Residents has a roommate (1= Yes, 2 = No)	Not significant
Confounding variable – Facility ownership (1= privately-owned; 2 = voluntary owner; 3 = publicly-owned)	Not significant

Table 86: Composite Effect on Overall Rating of Care for Base Model No.3

Composite	Regression Coefficient
Communication and respect	0.433
Environment	0.327
Care	0.140
Autonomy	- 0.021
Activity	0.011
Constant	10.961
Adjusted R-square = 0.454 (45% of the variation in the overall care rating)	

Appendix C

Working Group Credits

Survey Credits

Numerous individuals from many organizations contributed to the design, testing and completion of this survey initiative. This includes people from individual facilities, health regions and government that helped compile resident and family contact lists, facilitated on-site interviews, and supported the initiative throughout the entire process. The HQCA would like to thank these many individuals.

Working Group and Contributors

The working group was established to evaluate existing survey instruments, select the most appropriate instrument, and oversee the pilot study completed prior to the full survey. The following individuals made significant contributions or provided advice at various points in the process. Most were not involved at every stage and thus may not own all decisions and directions taken by HQCA to complete this initiative.

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 Judith Sangl - AHRQ
 Edward Seksenski -CMS

Facility Site Liaisons

Across Alberta, 172 facilities participated in this survey. Each had a site liaison that supported the resident interviewers, and helped compile the contact information for the family survey. These tasks were added to an already busy set of clinical and administrative responsibilities and we would like to thank them for their support.

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 AIR – American Institutes for Research
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