

Analysis of consumer experience report (CER) data: Report to the Australian Aged Care Quality Agency, December 2018

Australian Institute for Primary Care & Ageing

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Reference: Wells, Y., and Solly, K. (2018). *Analysis of consumer experience report data: Final report to the Australian Aged Care Quality Agency, December 2018*. Melbourne: AIPCA.

Executive summary

The current set of analyses was commissioned by the Australian Aged Care Quality Agency (AACQA). In November 2018, the AACQA approached the AIPCA to carry out an analysis of CER data:

We are seeking a sense of the variance of and between services and the overall variance of the sector wide results. As discussed, please apply either parametric (where possible) or non-parametric methods to perform the analyses.

The data set provided included ratings from interviews held between 9 May 2017 and 4 July 2018. This data set included data from:

- 1,159 homes.
- 17,194 cases.

The modal number of people interviewed in each home was 15, with a range from 2 to 36.

New South Wales provided the largest number and proportion of homes, followed by Victoria. Very small numbers of homes in the ACT and the Northern Territory were included.

The numbers of large and medium-sized homes were similar, with a minority of homes classified as small (6.1%).

Almost two-thirds of interviewees were selected at random, and 88.2% were residents rather than representatives.

Levels of missing data were low (less than 1.5% for all questions). The question with the most missing data was the last question: Q10: I am encouraged to do as much as possible for myself.

The two questions that elicited the lowest levels of positive responses were:

- Q6: Do you like the food here?
- Q7: If I'm feeling a bit sad or worried, there are staff here who I can talk to.

Spread of responses to questions varied between questions, with very small spread for question 2 (Do you feel safe here?)

Formal measures of spread proved not very useful. Instead, percentage agreement was compared across groups. This analysis showed:

- Men tended to give less positive responses than women.
- People who were not independently mobile gave much lower ratings to all questions than those who were.
- Small-sized facilities received higher ratings on every question than medium-sized facilities, who again scored better than large facilities.
- Care recipients tended to give higher ratings than representatives, but lower ratings for food.
- People with dementia tended to give lower ratings to the question on being treated with respect, but higher ratings to the question on food.

Further analyses showed:

- Different services differed on their modal responses and spread of responses.
- Responses to the Agree-Disagree questions formed one factor, while those to the Never-Always questions formed a second factor.
- The odds of giving a positive response to a question was in the order of two-to-three times higher for residents of small homes than residents of large homes, other factors being equal.

Introduction

Background

The current set of analyses was commissioned by the Australian Aged Care Quality Agency (AACQA). The Agency:¹

- accredits Australian Government-subsidised aged care homes.
- conducts quality reviews of home care and Aboriginal and Torres Strait Islander flexible care services.
- provides compliance monitoring, information and training to providers.
- works with the community to promote quality care for older Australians.

In 2016, the Agency commissioned the Australian Institute for Primary Care and Ageing (AIPCA) at La Trobe University to assist them to develop and pilot a set of questions to be used to collect the views of residents systematically during audits of homes. These ratings were intended to comprise consumer experience reports (CERs) to be published online, to inform consumers and prospective consumers about the quality of residents' experiences in the homes audited.

The pilot study involved: 10 residential aged care facilities (RACFs) recruited in Sydney, Melbourne and Launceston; 188 respondents (140 residents and 48 representatives [family members or friends]); 11 assessors; and three interpreters. Fifty-two residents were interviewed twice, and 27 resident-representative pairs were recruited. In addition, ratings of the questions piloted were sought from the surveyors who carried out the interviews, interpreters who were involved in interviews in some homes, and other groups of stakeholders.

Twenty-four questions were piloted. Ten quantitative questions and two qualitative questions were selected for retention for use in the CER (see Table 1 below). CERs have been published online since June 2017.

When a team of surveyors from the Quality Agency visit a residential aged care home to perform re-accreditation as part of an audit, they interview at least 10% of those living in the home. This group of residents is selected as randomly as possible.

A core set of consumer interview questions is used to collect data on the experiences of the quality of care and services from those living in the home. Responses are collated into a Consumer Experience Report on each home and published alongside the re-accreditation audit report for each home.

CER reports are presented in terms of a percentage of respondents who endorse the question/item (i.e., they respond with *"Most of the time"*/*"All of the time"* or *"Agree"*/*"Strongly agree"* to questions put, depending on how response options are worded: six questions are rated using the first set of response options, four questions using the second set). Results are also presented in a graphical form, with a graph for each item/question and the percentage agreement under each

¹ <https://www.aacqa.gov.au/>

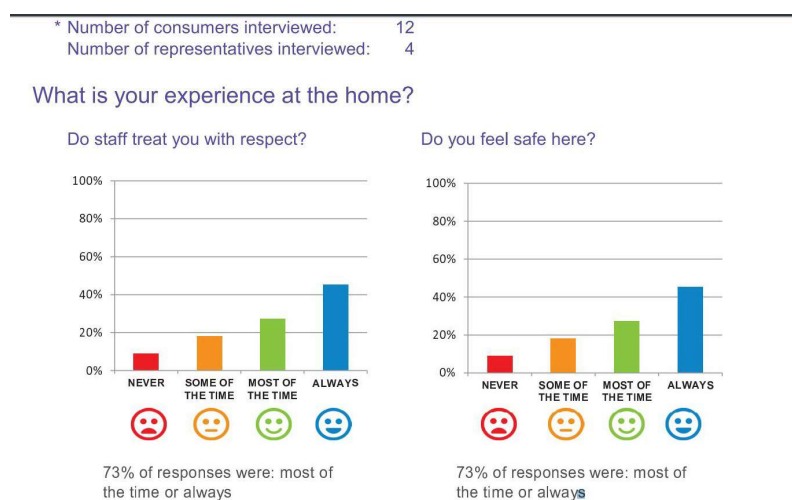
graph (see Figure 1). These reports aim to promote consumer choice by capturing the consumer experience of the quality of care and services in aged care.

Table 1: Consumer Experience Report questions and response options

Question
1. Do staff treat you with respect? (<i>Never – Always</i>)
2. Do you feel safe here? (<i>Never – Always</i>)
3. Do staff meet your healthcare needs? (<i>Never – Always</i>)
4. Do staff follow up when you raise things with them? (<i>Never – Always</i>)
5. Do staff explain things to you? (<i>Never – Always</i>)
6. Do you like the food here? (<i>Never – Always</i>)
7. If I'm feeling a bit sad or worried, there are staff here who I can talk to. (<i>Strongly disagree – Strongly agree</i>)
8. The staff know what they are doing. (<i>Strongly disagree – Strongly agree</i>)
9. This place is well run. (<i>Strongly disagree – Strongly agree</i>)
10. I am encouraged to do as much as possible for myself. (<i>Strongly disagree – Strongly agree</i>)
11. What would you say was the best thing about this home? (Open-ended)
12. What is one thing you would suggest as an improvement at this home? (Open-ended)

CERs are published online in the following format:

Figure 1: Format of CER reports on the AACQA website



In November 2018, the AACQA approached the AIPCA to carry out an analysis of CER data:

We are seeking a sense of the variance of and between services and the overall variance of the sector wide results. As discussed, please apply either parametric (where possible) or non-parametric methods to perform the analyses.

Aim and method

The data set included ratings from interviews held between 9 May 2017 and 4 July 2018.

CER data were provided in an Excel spreadsheet. Meta data on each home were also provided in a separate spreadsheet.

Analyses were conducted to:

- Describe the data set.
- Examine differences in responses between groups, including both differences in means and differences in spread.
- Determine whether responses to questions could be added together to form a total.
- Examine strongest predictors of responses

SPSS 25.0 and MPlus 8 were used to conduct these analyses.

Results

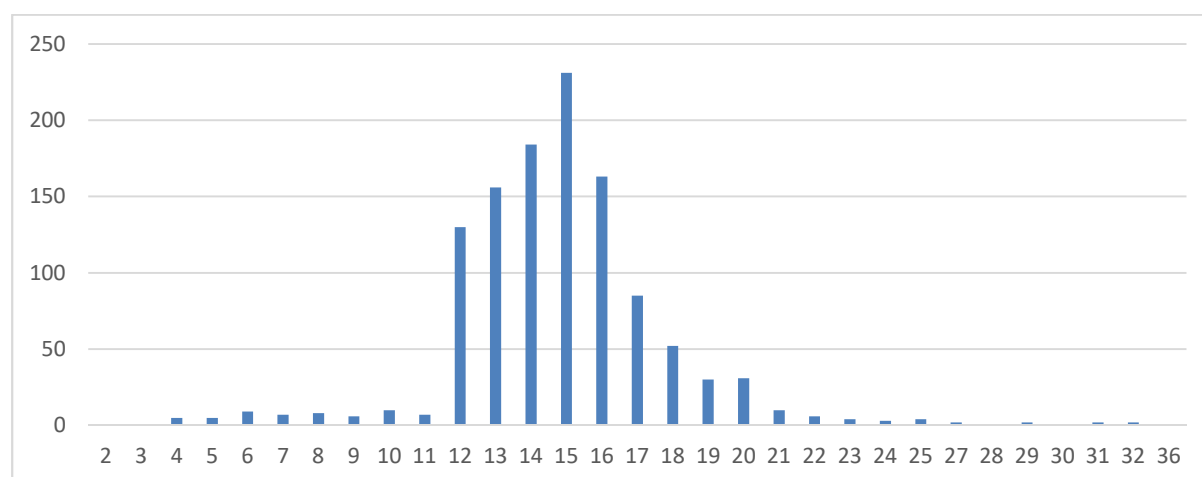
Section 1: Descriptive statistics

Data were collected from 1,159 homes. The dataset included 17,194 cases.

Table 2 and Figure 2 illustrate the number of residents interviewed in each home. The modal number interviewed was 15 consumers, with a range from 2 to 36 consumers.

Table 2: Number of consumers (residents or representatives) interviewed in each home

Number of interviews	Number of homes
2	1
3	1
4	5
5	5
6	9
7	7
8	8
9	6
10	10
11	7
12	130
13	156
14	184
15	231
16	163
17	85
18	52
19	30
20	31
21	10
22	6
23	4
24	3
25	4
27	2
28	1
29	2
30	1
31	2
32	2
36	1
Grand Total	1159

Figure 2: Number of consumers interviewed in each home

The metadata provided were used to describe the homes included in the sample (Table 3):

Table 3: Characteristics of homes

Characteristic	N	% of sample
State/Territory		
ACT	12	1.0
NSW	419	36.2
NT	5	0.4
QLD	187	16.1
SA	80	6.9
TAS	38	3.3
VIC	308	26.6
WA	109	9.4
Size of service		
Large	525	45.3
Medium	536	46.3
Small	97	8.4

Not surprisingly, New South Wales provided the largest number and proportion of homes, followed by Victoria. Very small numbers of homes in the ACT and the Northern Territory were included.

The numbers of large and medium-sized homes were similar, with a minority of homes classified as small (8.4%).

Table 4 below sets out characteristics of the sample of interviewees:

Table 4: Characteristics of interviewees

Characteristic	N	% of sample
Interviewee sample		
Random	11,263	65.5
Random substitute	5,341	31.1
Purposeful	588	3.4
Missing	2	0.0
Responder type		
Resident	15,157	88.2
Representative	2,035	11.8
Missing	2	0.0
Gender		
Men	5,891	34.3
Women	11,128	64.7
Unspecified	175	1.0
Dementia		
No	9,767	56.9
Yes	5,067	29.5
Other specified cognitive impairment	2,108	12.3
Missing	226	1.3
Mobility		
Not mobile	3777	22.1
Mobile	12,752	74.9
Not specified	527	3.1
Missing	138	0.8
State/Territory		
ACT	194	1.1
NSW	6,419	37.3
NT	55	0.3
QLD	2,789	16.2
SA	1,200	7.0
TAS	556	3.2
VIC	4,409	25.6
WA	1,572	9.1
Size of service		
Large	8,624	50.2
Medium	7,520	43.7
Small	1,050	6.1

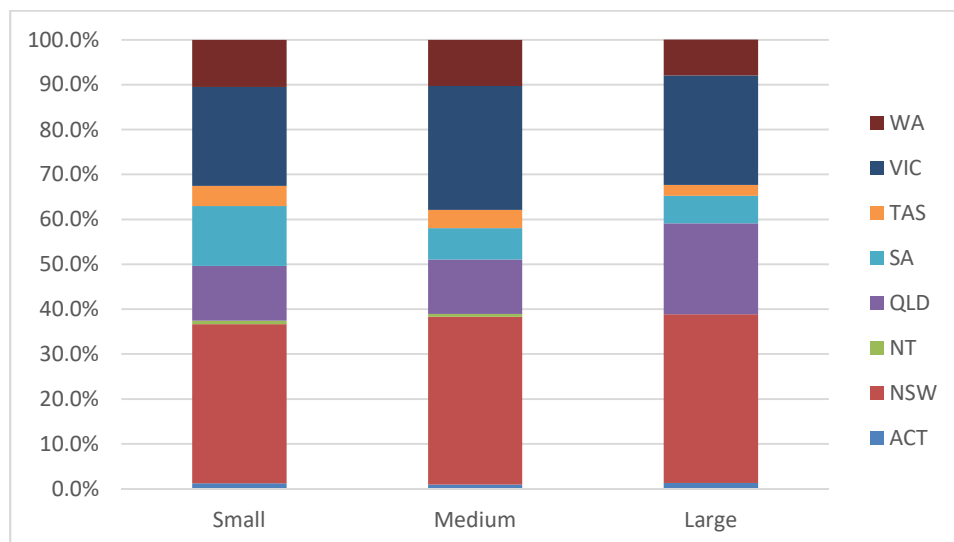
Almost two-thirds of interviewees were selected at random as intended, with another third selected as a substitute. This is evidence for the surveyors adhering closely to their instructions for selecting consumers.

A large majority of consumers were residents (88.2%), rather than their representatives. As expected, twice as many women as men were included in the sample and close to 30% had

dementia. Almost three-quarters (74.9%) were independently mobile (including with a stick or walker).

The size of homes was cross-tabulated against the state/territory to determine whether homes of various sizes were evenly distributed between states (see Figure 3):

Figure 3: Size of home by State/Territory



New South Wales and Queensland accounted for a relatively large proportion of large and medium sizes homes, whereas Victoria accounted for a relatively large proportion of medium-sized homes and SA had a relatively large proportion of small homes.

Section 2: Consumer ratings

The proportions of responses given to each question are provided below, separately for questions answered *Never -- Always* and those answered *Strongly disagree -- Strongly agree*. Responses were coded as positive if *Always* or *Most of the time* for the first six questions and *Agree* or *Strongly agree* for the remaining four.

Table 5: Responses to questions (*Never – Always*)

	Never	Some of the time	Most of the time	Always	missing	Total	% positive
q1	0.1	2.3	25.5	71.4	0.6	100.0	96.9
q2	0.2	1.7	17.5	80.0	0.6	100.0	97.5
q3	0.2	2.7	28.0	68.2	1.0	100.0	96.2
q4	0.7	6.0	38.6	53.4	1.4	100.0	92.0
q5	1.1	5.8	37.4	54.4	1.3	100.0	91.8
q6	2.3	14.2	44.1	38.5	0.8	100.0	82.6

Table 6: Responses to questions (*Strongly disagree – Strongly agree*)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Missing	Total	% positive
q7	0.4	3.1	15.8	55.4	23.9	1.3	100.0	79.3
q8	0.1	1.5	5.4	60.6	31.2	1.2	100.0	91.8
q9	0.3	2.5	6.2	56.6	33.3	1.2	100.0	89.9
q10	0.2	1.3	6.3	57.3	33.5	1.5	100.0	90.8

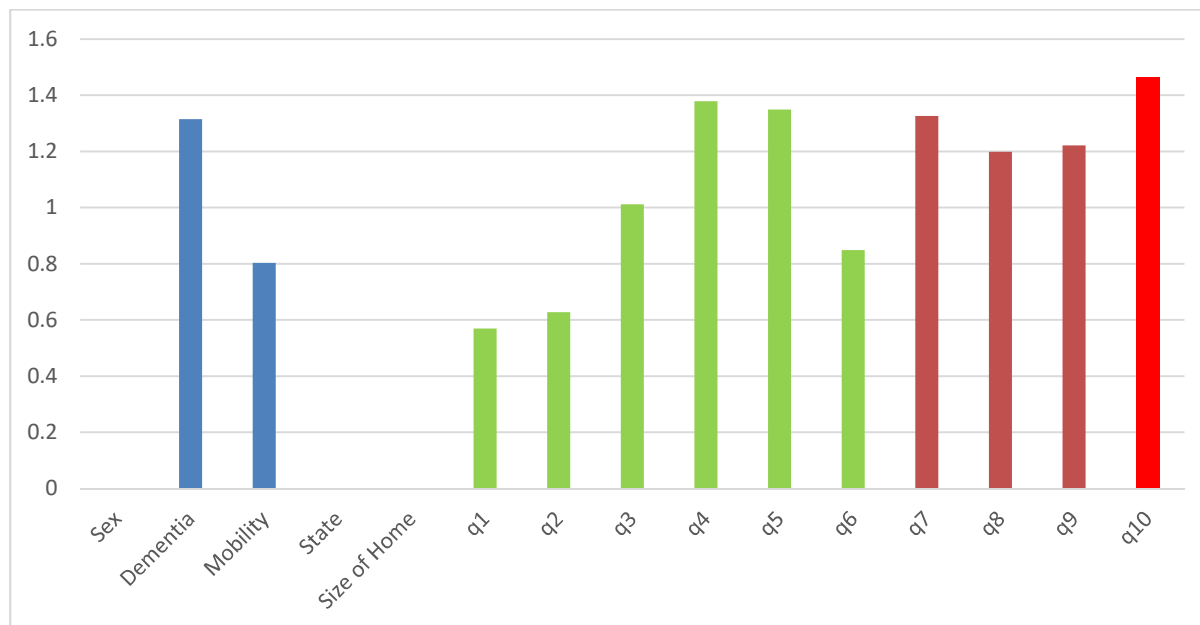
The following sections address in turn:

- Missing data.
- Percent positive responses.

Percentages missing—what are the problem questions?

Figure 4 below sets out the proportions of missing data on each question:

Figure 4: Proportion of missing data on each question



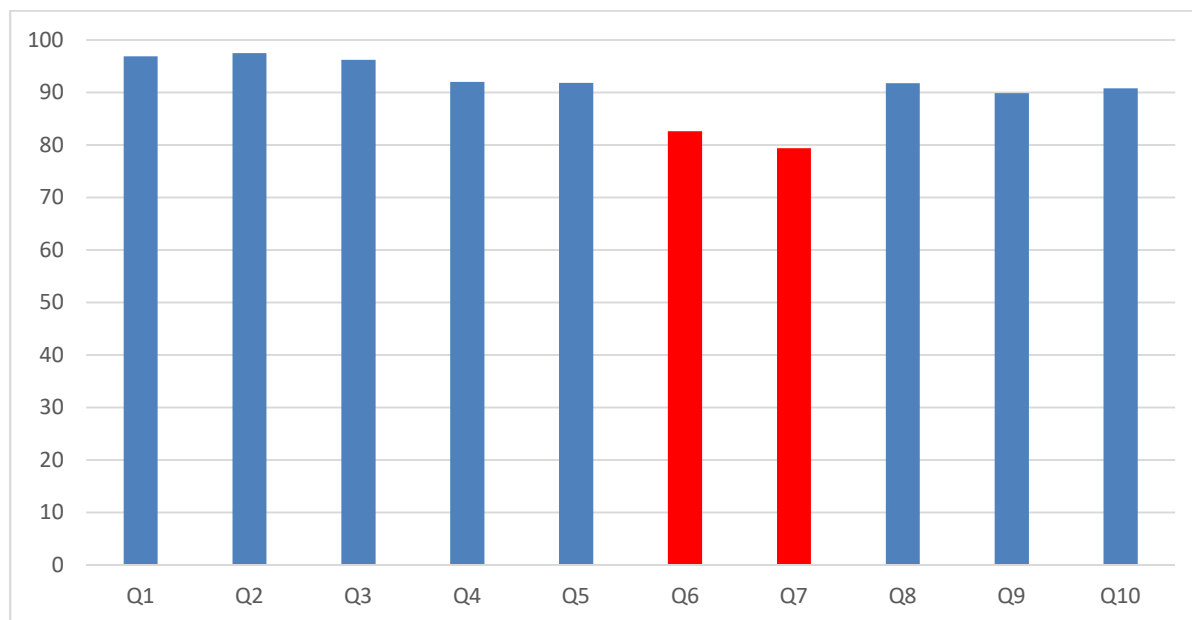
This figure indicates:

- 1) Levels of missing data were low (less than 1.4% for all questions except Question 10).
- 2) Earlier CER question items had lower levels of missing data than later ones:
 - It is possible that some missing data is due to resident fatigue, loss of interest, or interruptions to the interviews.
 - It is possible that the 4-choice questions are easier to answer than the 5-choice ones.
- 3) The question with the most missing data was:
 - Q10: I am encouraged to do as much as possible for myself.
- 4) Other relatively problematic items in the dataset included the two ratings of resident function and three CER questions:
 - Mobility: Can the resident walk independently?
 - Dementia: Does the resident have a diagnosis of dementia?
 - Q4: Do staff follow up when you raise things with them?
 - Q5: Do the staff explain things to you?
 - Q7: If I'm feeling a bit sad or worried, there are staff here who I can talk to.

Percentage agreement: What are the problematic areas of experience?

Figure 5 below sets out the levels of agreement on each question:

Figure 5: Proportion agreement on each question

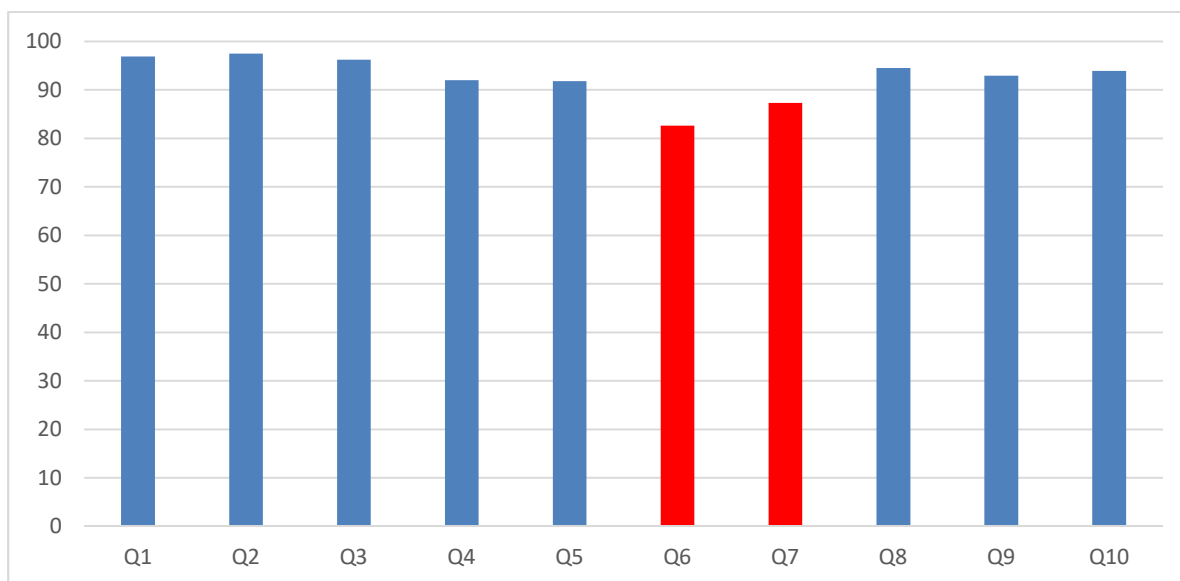


The two questions with the lowest levels of agreement were:

- Q6: Do you like the food here?
- Q7: If I'm feeling a bit sad or worried, there are staff here who I can talk to.

Questions 7-to-10 include a neutral option, which potentially might suppress the proportions of agreement to those questions. The following figure shows what happens if one-half of the "Neutral" responses are recoded as positive responses:

Figure 6: Proportion agreement on each question (with Neutral responses distributed)



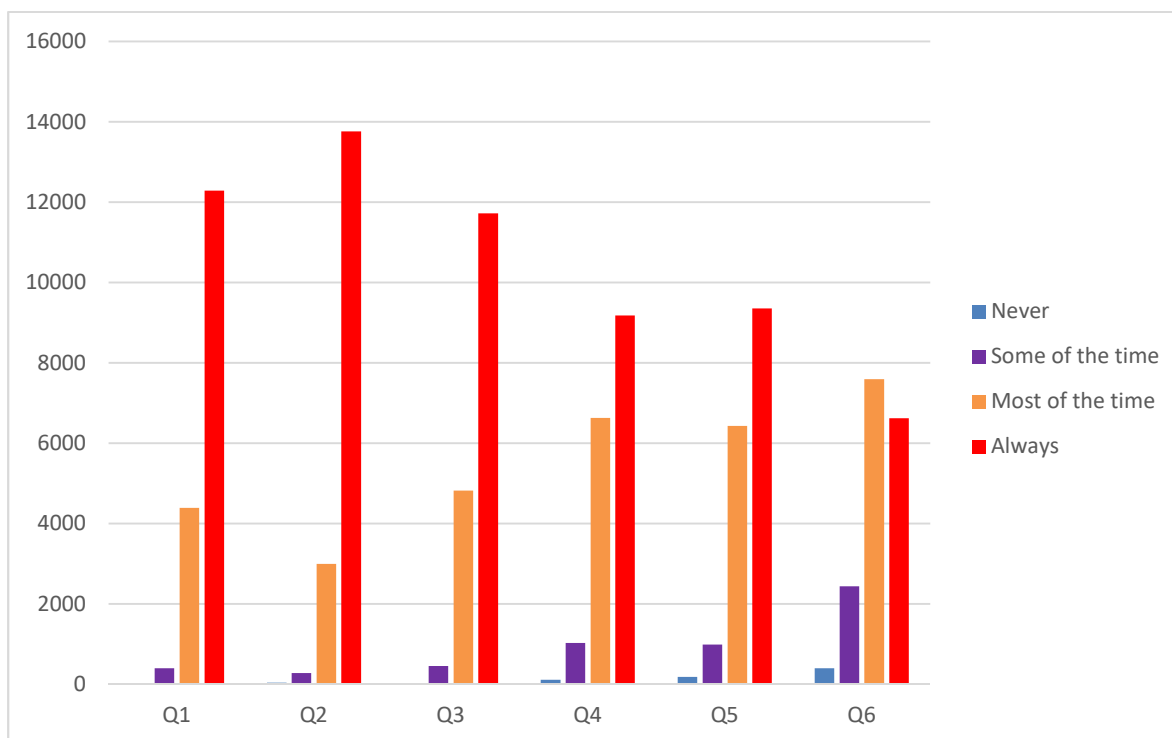
This analysis shows some improvement on questions 7-to-10. However, the two questions with the least level of agreement remain:

- Q6: Do you like the food here?
- Q7: If I'm feeling a bit sad or worried, there are staff here who I can talk to.

Spread of responses

The spread of responses on the first six questions is illustrated in Figure 6 below. In this figure, interest is in the numbers of responses away from the *Always* response option, and especially the size of the bars for *Some of the time* and *Never*.

Figure 7: Spread of responses (Never – Always questions)

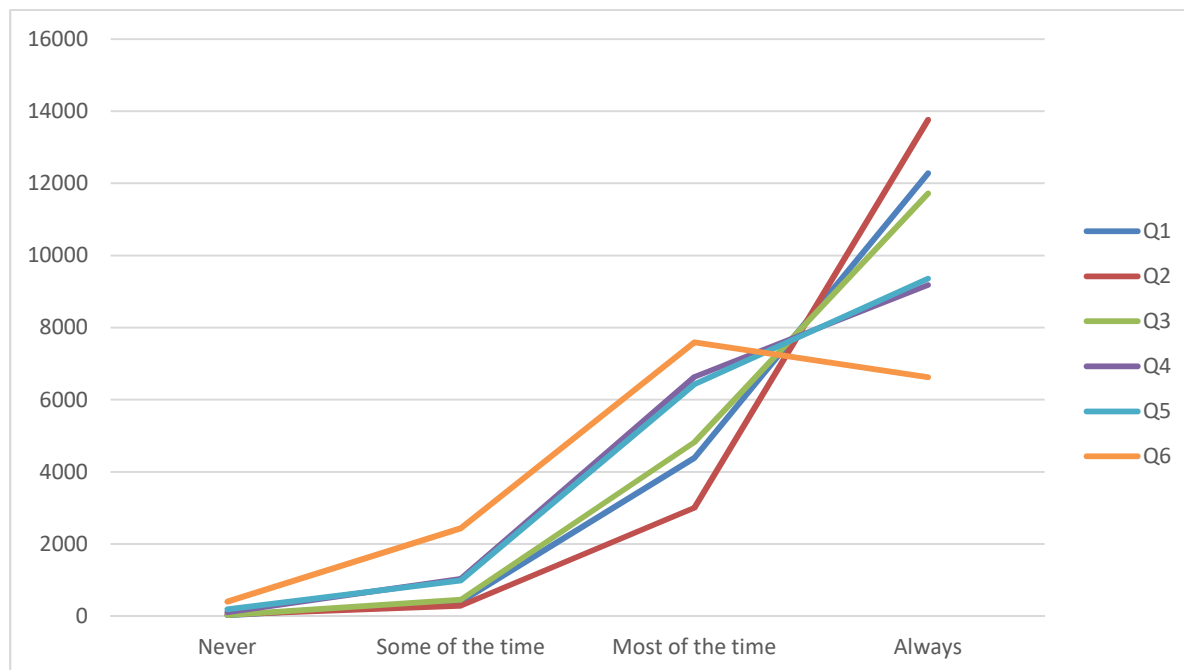


This graph indicates that the spread of responses is:

- very small for question 2 (Do you feel safe here?)
- slightly higher for questions 1 and 3 (Do staff treat you with respect? Do staff meet your healthcare need?)
- higher again for questions 4 and 5 (Do staff follow up when you raise things with them?)
- highest for question 6 (Do you like the food here?)

The graph below is another way of illustrating the same thing, using slopes. The spread for Q2 is minimal (the orange line), for Q1 and Q3 is slightly higher, for Q4 and Q5 is higher again, and is highest for Q6 (the green line).

Figure 8: Spread of responses (Never – Always questions): Line graph



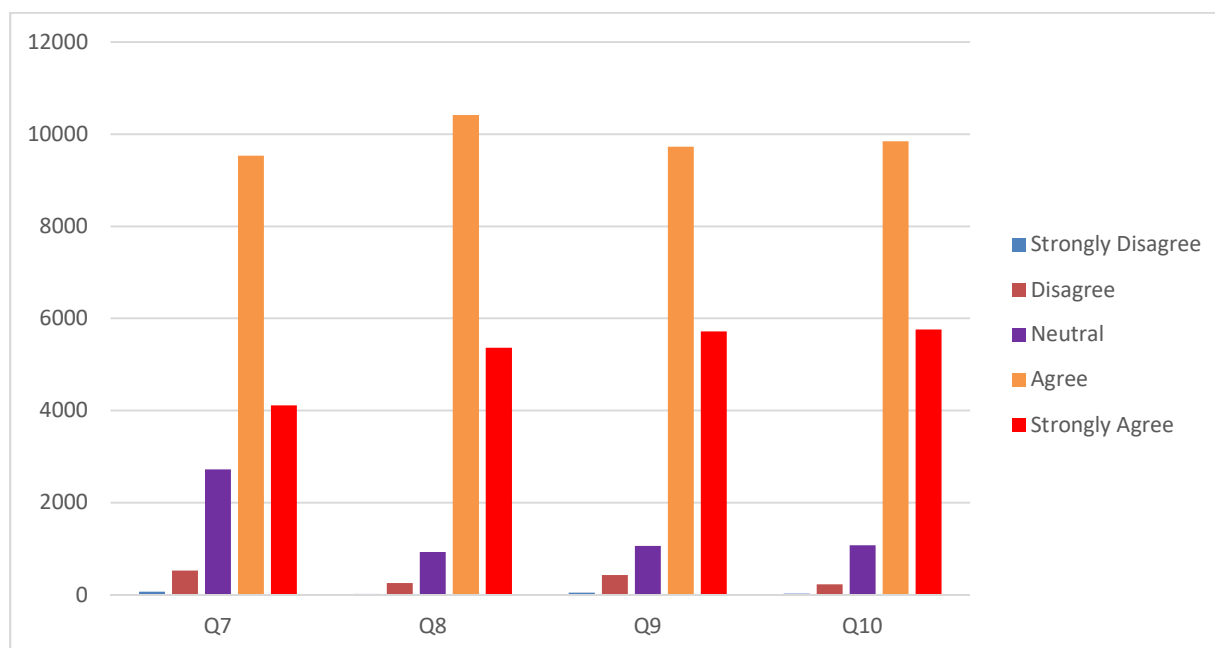
It is very difficult to assess these data statistically, as they are so highly skewed. The following tables provide data on the median, 25th percentile, 75th percentile and standard deviation for these six questions. (The standard deviation is not really a valid measure of spread for ordinal variables such as these, and the other data tell you very little, but all of these statistics are included here for completeness.)

Table 7: Measures of dispersion (Never – Always questions)

	q1	q2	q3	q4	q5	q6
Median	4	4	4	4	4	3
Percentiles						
25	3	4	3	3	3	3
75	4	4	4	4	4	4
SD	0.52	0.47	0.54	0.64	0.66	0.77

Similarly, to assess spread of responses for the last four questions, the important criterion is the number of responses away from “Strongly agree” and “Agree”, and especially the size of the bars for “Neutral”, “Disagree”, and “Strongly disagree”.

Figure 9: Spread of responses (Strongly disagree – Strongly agree questions)

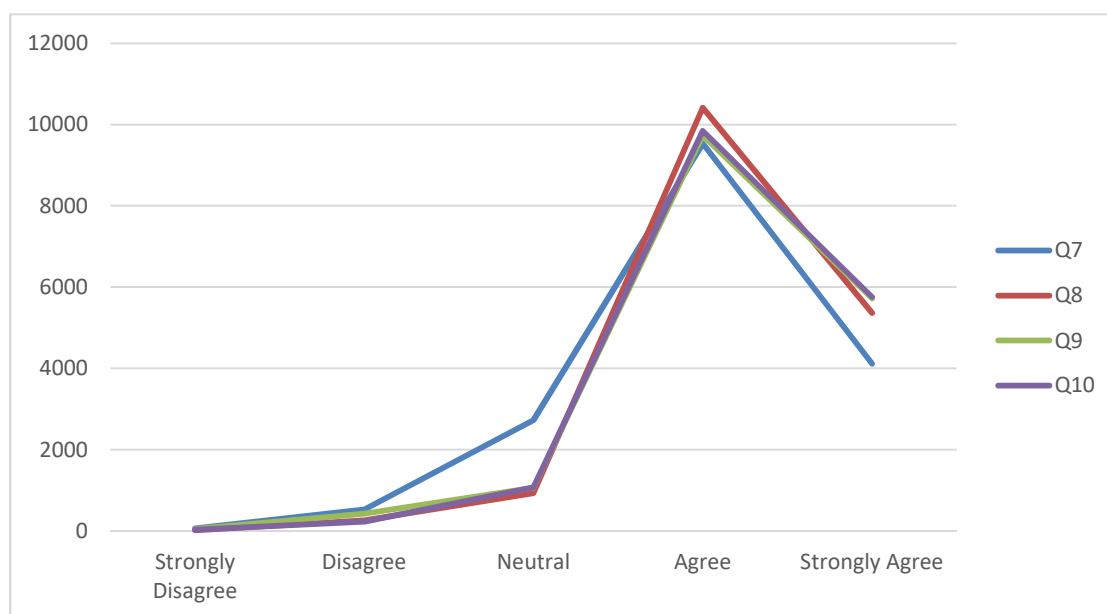


This graph indicates that the spread of responses is:

- Largest for Q7 (When I'm feeling a bit sad or worried, there are staff here I can talk to)
- Similar for Q8, Q9 and Q10 (The staff know what they're doing; This place is well run; I'm encouraged to do as much as possible for myself)

This line graph reinforces the improves that the spread of responses for Q7 (the blue line) is distinctively different from that for the other three questions:

Figure 10: Spread of responses (Strongly disagree – Strongly agree questions): Line graph



The following tables provide data on the median, 25th percentile, 75th percentile and standard deviation for these four questions. (Again, the standard deviation is not really a valid measure of spread for ordinal variables such as these, and the other data tell you very little, but are included here for completeness.)

Table 8: Measures of dispersion (Strongly disagree – Strongly agree questions)

	Q7	Q8	Q9	Q10
Median	4	4	4	4
Percentiles				
25	4	4	4	4
75	4	5	5	5
SD	0.75	0.63	0.69	0.65

Variation in results within and between groups of respondents

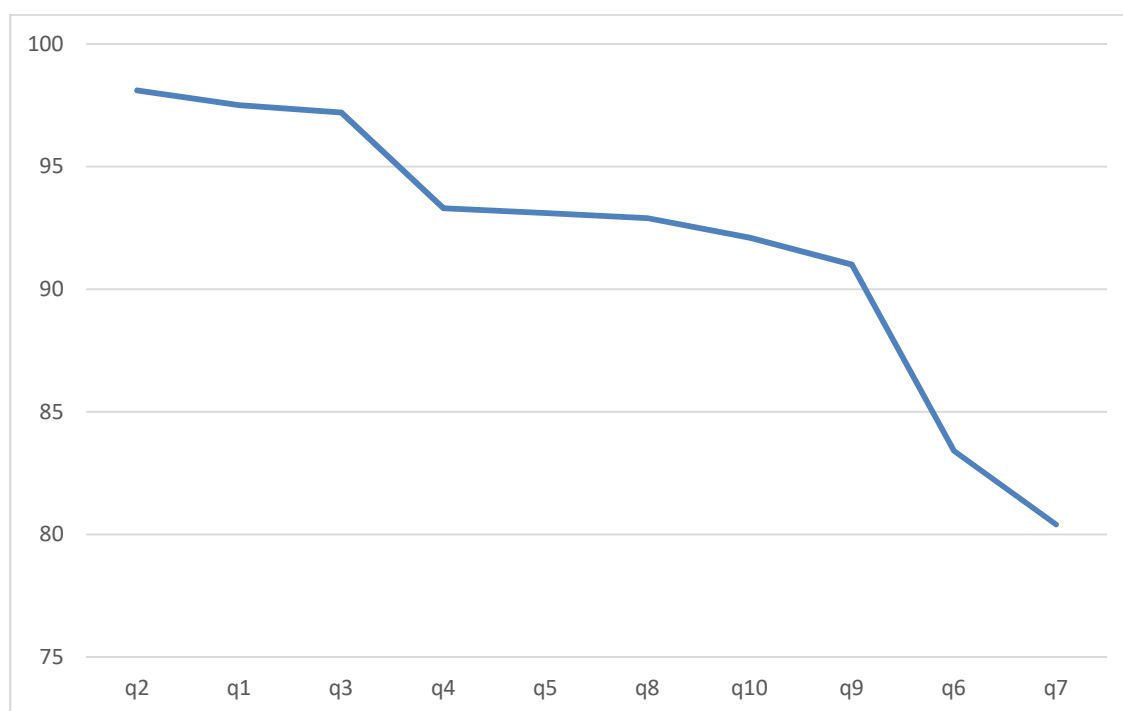
To explore variation, the proportions of positive responses to the ten questions were compared across groups. This section looks at variation by gender, dementia, mobility, state, and size of home. Repeated measures analysis of variance was used to produce these graphs (but no formal statistics were calculated because the data did not meet the necessary assumptions).

In these graphs, the vertical axes illustrate proportion of agreement. The questions have been re-ordered so that the “slope” of responses across questions is clearer. Subsequent graphs show the “slope” for different groups of respondents.

The sample for these analyses includes only participants with no missing data on all ten questions (n = 16,702). However, most analyses include smaller samples than this. The levels of agreement calculated do not include missing data in either the numerator or denominator. Also, data were omitted if the independent variable was missing, undefined (in the case of gender and mobility), or unclear (in the case of dementia).

The identification of individual questions responded to significantly differently by groups was carried out using the χ^2 statistic.

Figure 11: Variation in agreement across the 10 questions (% agreement)



Overall, the highest levels of agreement (over 97%) were for the three questions:

- Q2: Do you feel safe here?
- Q1: Do staff treat you with respect?
- Q3: Do staff meet your healthcare needs?

The next five questions all elicited similar levels of agreement (91 – 94%):

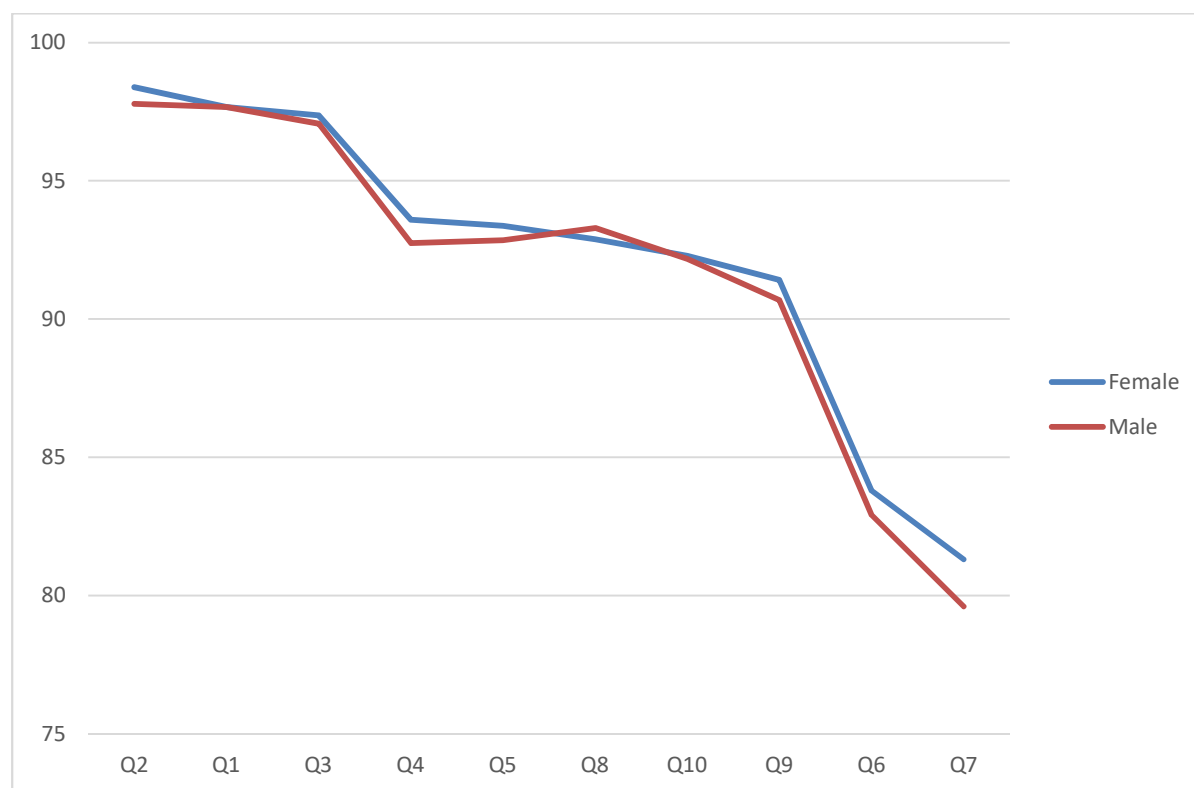
- Q4: Do staff follow up when you raise things with them?
- Q5: Do the staff explain things to you?
- Q8: The staff know what they are doing
- Q10: I'm encouraged to do as much as possible for myself
- Q9: This place is well run

The final two questions were responded to much less positively than the other questions:

- Q6: Do you like the food here?
- Q7: When I'm feeling a bit sad or worried, there are staff here I can talk to.

1. Responses by gender

Figure 12: Variation in agreement by gender (% agreement)



Men tended to give similar responses to women. However, they were much less likely than women to respond positive to:

Q7: When I'm feeling a bit sad or worried, there are staff here I can talk to.

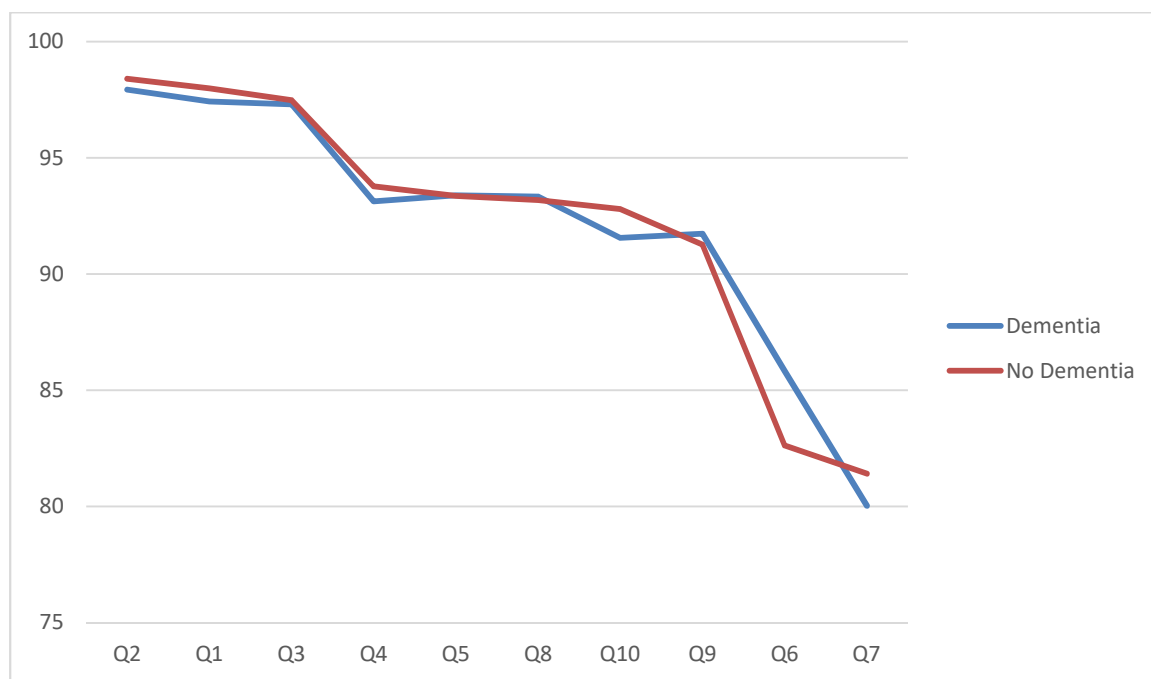
Men were also significantly less likely than women to respond positively to:

Q2: Do you feel safe here?

Q9: This place is well run.

2. Responses by dementia

Figure 13: Variation in agreement by dementia status (% agreement)

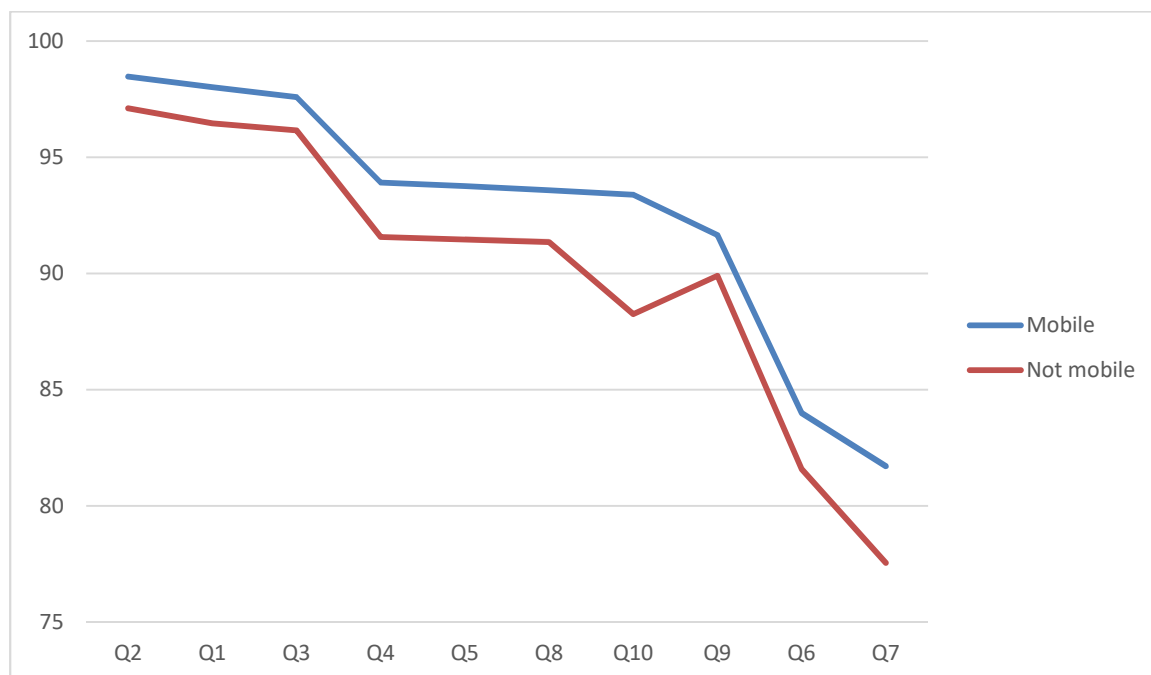


Responses from people with dementia were similar to those without dementia, except people with dementia gave:

- Much lower ratings for Q10: I'm encouraged to do as much as possible for myself.
- Much higher ratings for Q6: Do you like the food here?
- Lower ratings for Q7: When I'm feeling a bit sad or worried, there are staff here I can talk to.
- Lower ratings for Q2: Do you feel safe here?
- Lower ratings for Q1: Do staff treat you with respect?

3. Responses by mobility status

Figure 14: Variation in agreement by mobility status (% agreement)

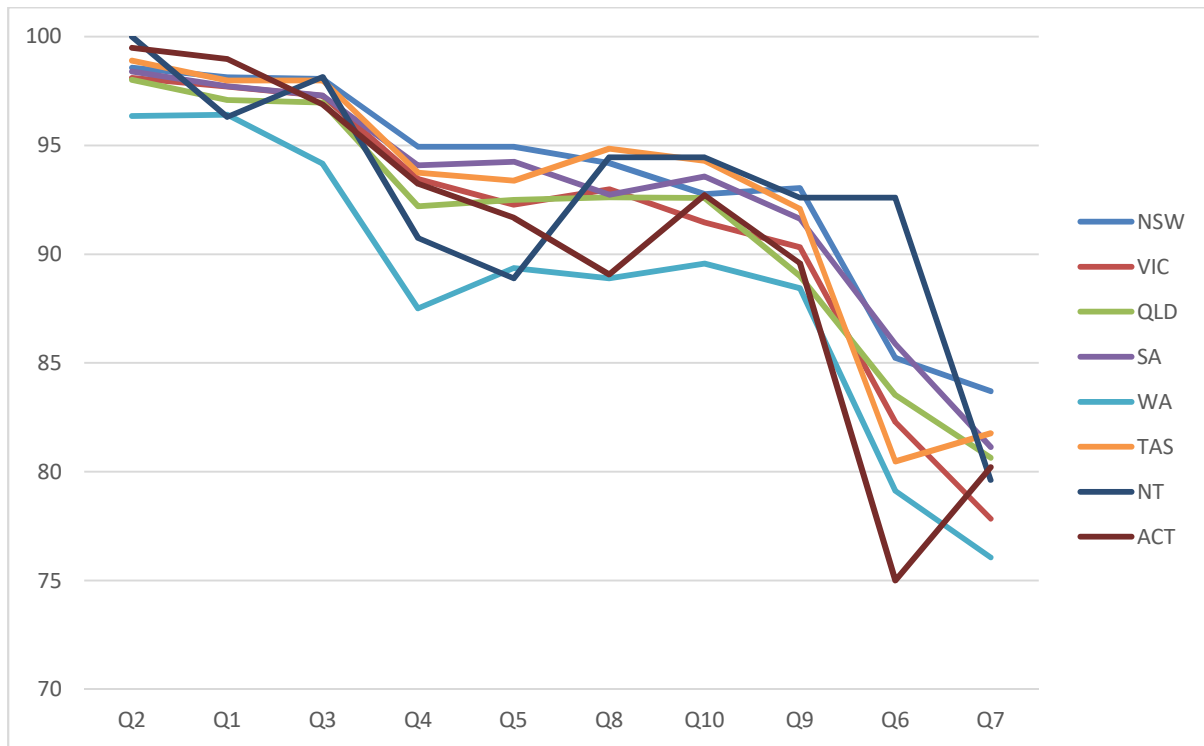


All responses were much lower if the person was not independently mobile. An especially dramatic difference between groups was noted for Q10: I'm encouraged to do as much as possible for myself, with another sizeable difference on Q7: When I'm feeling a bit sad or worried, there are staff here I can talk to.

This consistent difference between residents who are and are not independently mobile highlights issues with ensuring adequate quality of life in residential care for residents who are bed- or chair-bound or have to rely on for assistance with mobility.

4. Responses by state/territory

Figure 15: Variation in agreement by State/Territory (% agreement)

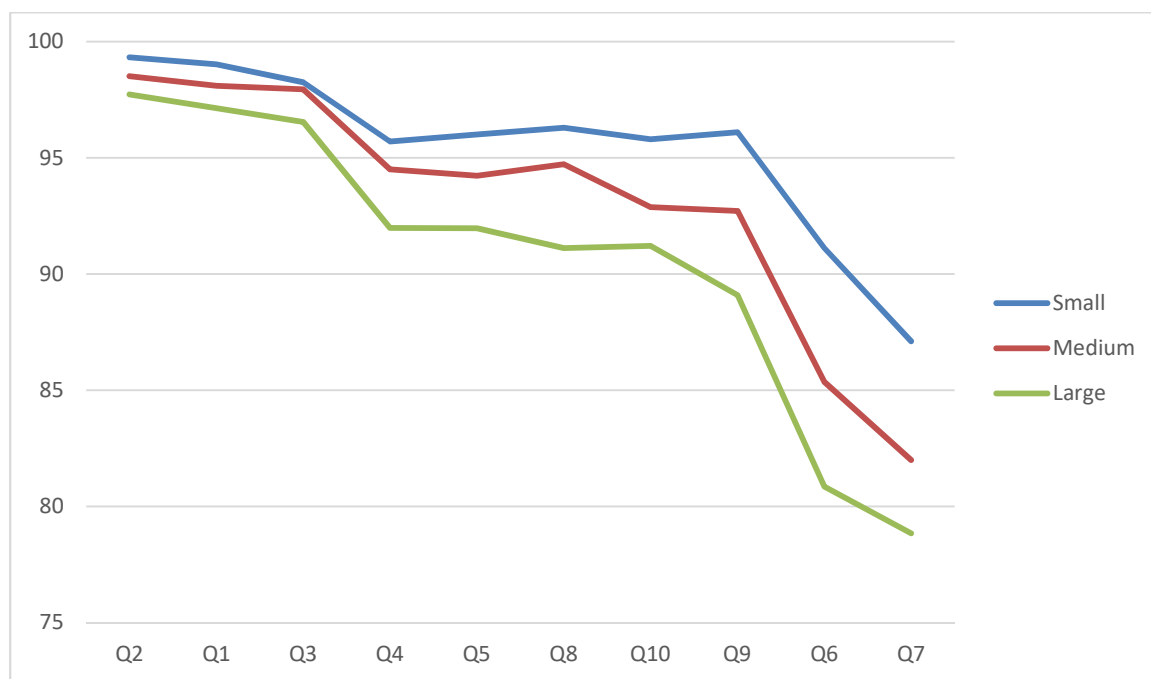


This graph shows:

- Very different patterns of responding by state.
- Consistently lower ratings for WA than the other states on many of the questions.
- Low ratings for the ACT but high ratings for the NT for Q6: I like the food here.

5. Size of facility

Figure 16: Variation in agreement by size of the facility (% agreement)



This figure provides convincing evidence for the superiority of smaller facilities over large ones on every measure of consumer experience. Especially large differences were notable for:

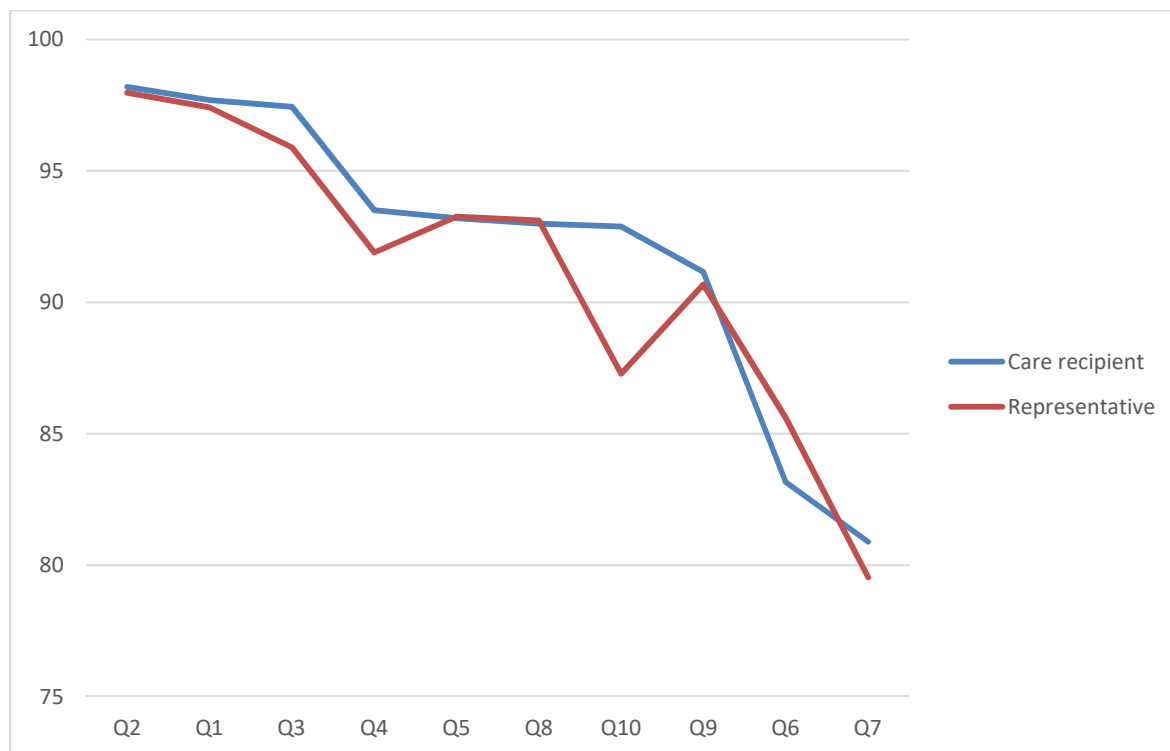
Q9: This place is well run

Q6: Do you like the food here?

Q7: When I'm feeling a bit sad or worried, there are staff here I can talk to.

6. Care recipient vs. representative

Figure 17: Variation in agreement by resident/representative (% agreement)



Similar ratings were obtained from care recipients and residents to six questions, which is reassuring.

However, care recipients gave much lower ratings than representatives to one question:

- Q6: Do you like the food here?

On the other hand, residents gave much higher ratings than representatives to one question (Q10) and were significantly more positive than representatives in response to two more questions:

- Q10: I'm encouraged to do as much as possible for myself.
- Q3: Do staff meet your healthcare needs?
- Q4: Do staff follow up when you raise things with them?

These four questions probably reflect differences between care recipients and representatives in expected standards of care and support.

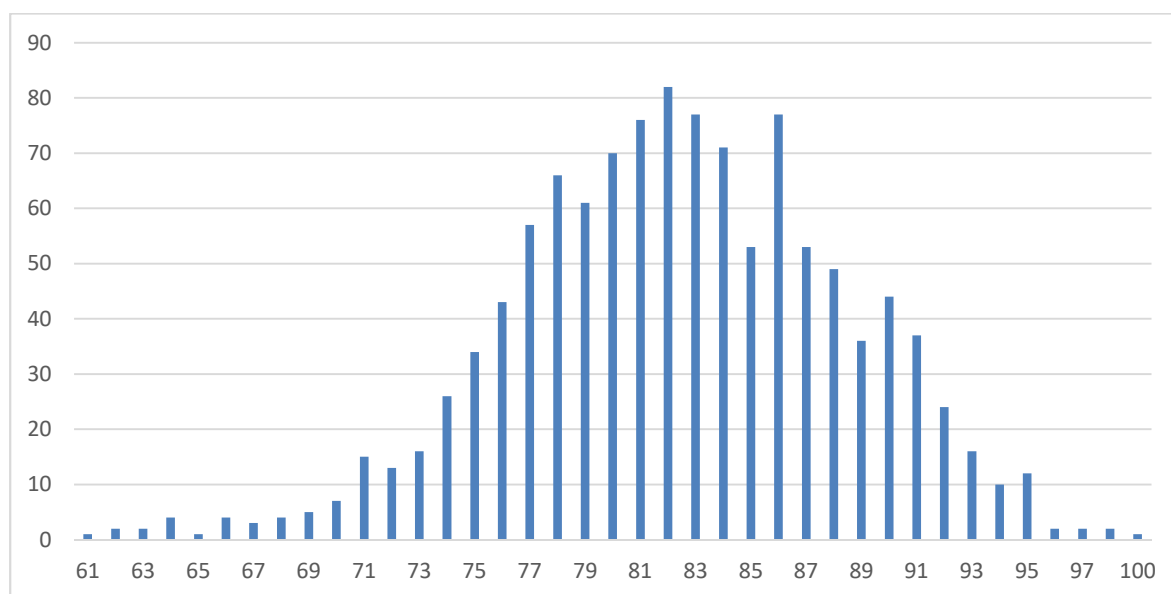
7. Spread of responses by service

It is not possible to repeat the kind of analysis above by service. Instead a summary score was calculated for each service.

Ratings for each item were recoded so that the spread of responses was from 1 to 10, and then summed to form a score out of 100. (This procedure involves assumptions about the data that are not strictly justifiable, but the resulting score provides a rough guide that can be used as an interim assessment of total score.)

Then the modal score was calculated for each service and added to the service-level dataset. The figure below shows how modal scores were distributed:

Figure 18: Variation in modal total scores within facility

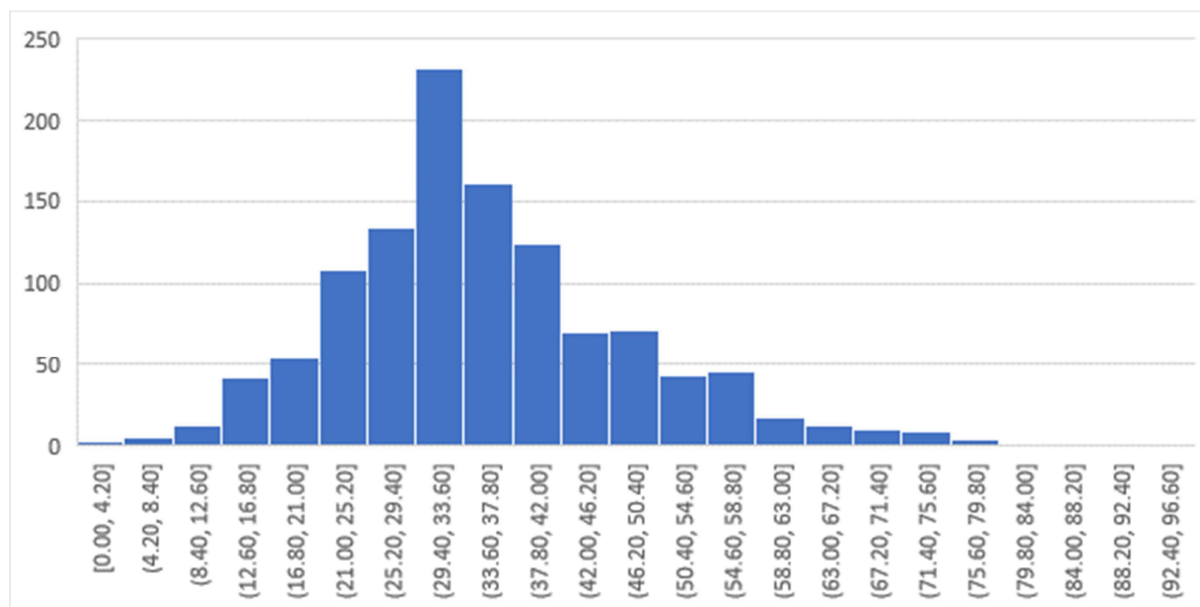


Modal responses were almost normally distributed.

Twenty-six facilities had modal scores less than 70. Scores in this range reflect majority disagreement (or lack of positive agreement) with the CER questions and should raise concerns among surveyors.

Services also differed on their spread of scores, from minimum to maximum total scores.

Figure 19: Spread of total scores within facility



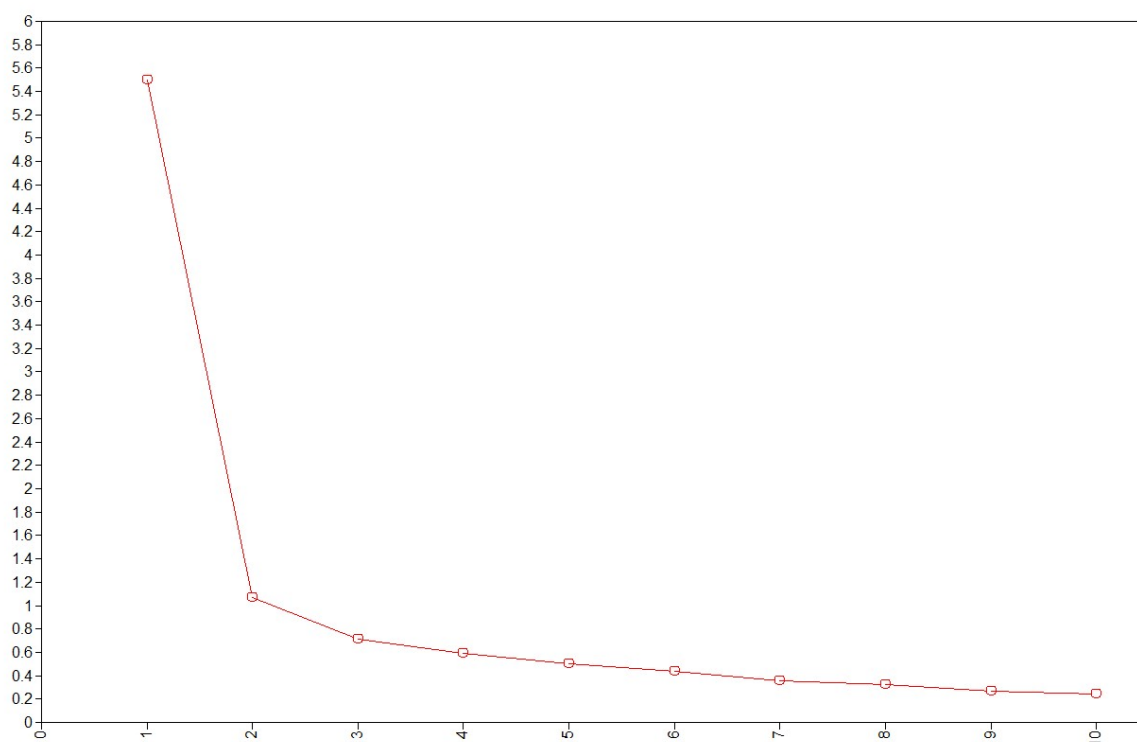
These measures of spread are the differences between minimum and maximum scores in each home. The average total range of scores was about 30 points – for example, that is the difference between 70% and 100%. The 100% person would have given maximum ratings for all indicators, while the 70% person gave one rating below the maximum on all indicators.

Can respondents' ratings be combined to form a total score?

Exploratory factor analysis was conducted using MPlus.²

The scree plot indicated that a single factor was the optimal solution:

Figure 20: Scree plot for EFA for 10 questions



However, model fit information indicated that model fit was not satisfactory (RMSEA for the one-factor solution was 0.115).³

A two-factor solution was tested. RMSEA for this solution was 0.056, which is satisfactory. However, this solution grouped together questions 1 to 6 and questions 7 to 10, indicating that response set was likely to have accounted for the two factors -- people tend to respond to the two kinds of items differently.

Solutions with three or more factors did not make good sense.

This result supports the Agency's decision to change the response set for the final four items so that it is consistent with that used for the first six questions.

² MPlus was used because it can conduct exploratory factor analysis with ordinal data.

³ Chi-square was not an appropriate statistic to measure model fit because of the large sample size and highly skewed data.

Can respondents' or homes' characteristics predict responses to the questions?

Multivariate logistic regression analyses were conducted on each question separately to determine the independent predictors of a response. Logistic regression was chosen as the method of analysis rather than linear regression as data were significantly skewed. Data were recoded into agreement or disagreement responses consistent with the analyses reported above.

A **binomial logistic regression** (often referred to simply as **logistic regression**) predicts the probability that an observation falls into one of two categories of a dichotomous dependent variable based on one or more independent variables that can be either continuous or categorical.

An **odds ratio** (OR) is a measure of association between an exposure and an outcome. The OR represents the **odds** that an outcome **will** occur given a particular exposure, compared to the **odds** of the outcome occurring in the absence of that exposure.

The odds ratio can also be used to determine whether a particular exposure is a risk factor for a particular outcome, and to compare the magnitude of various risk factors for that outcome.

- OR = 1 Exposure does not affect odds of the outcome
- OR > 1 Exposure is associated with higher odds of the outcome
- OR < 1 Exposure is associated with lower odds of the outcome

The following tables present odds ratios from separate multivariate analyses of each of the 10 questions. In a multivariate analysis, all predictors are included, and the resultant odds ratios are corrected for the presence of other predictors.

The variable State was omitted from these analyses, as its inclusion reduced the cell sizes too much (i.e., there were too few respondents in some combinations of categories, particularly for the ACT and the NT).

Data points were omitted for respondents with non-binary data for gender (unspecified), dementia (other cognitive issue), and mobility (unspecified).

Table 9: Binomial logistic regression predicting item responses from responder type, sex, dementia diagnosis and mobility.

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Responder	1.10	1.05	0.56*	0.75*	1.03	1.11	0.95	1.01	0.94	0.59*
Gender	1.10	0.76*	0.93	0.89	0.91	0.94	0.91*	1.07	0.90	0.99
Dementia	0.75*	0.79	1.16	1.01	1.05	1.29*	0.95	1.08	1.10	1.05
Mobility	1.72*	1.94*	1.51*	1.40*	1.45*	1.25*	1.26*	1.44*	1.26*	1.74*
Home size										
Medium	1.59*	1.55*	1.88*	1.50*	1.37*	1.41*	1.26*	1.61*	1.53*	1.24*
Small	3.26*	3.34*	1.81*	1.76*	2.35*	2.40*	1.72*	2.21*	2.59*	2.49*

Note: * significant using a 95% confidence interval. Reference categories: *Responder* – Care recipient; *Sex* – Female; *Dementia* – No diagnosis; *Mobility* – Not mobile; *Home size* – Large.

The results of these analyses **can** most readily be interpreted by examining the pattern of responses within each question. For example:

- In response to Q1 (Do staff treat you with respect?), people were significantly less likely to give positive responses if they had dementia, if they were not independently mobile, and if they lived in a medium-sized or large home rather than a small home.
- In response to Q2 (Do you feel safe here?), people were significantly less likely to give positive responses if they were men rather than women, if they were not independently mobile, and if they lived in a medium-sized or large home.

Questions to do with having someone to talk to and liking the food were identified in previous sections of this report as eliciting the most negative responses.

- In response to Q7 (When I'm feeling a bit sad or worried, there are staff here I can talk to), people were significantly less likely to give positive responses if they were men rather than women, were not independently mobile, and lived in a medium-sized or large home.
- In response to Q6 (Do you like the food here?), people were significantly more likely to give positive responses if they had dementia, but less likely to give positive responses if they were not independently mobile. People also gave less positive responses if they lived in a medium-sized or large home.

Results of the multivariate logistic regressions can also be examined across rows. These comparisons yielded results that echo those of the χ^2 analyses:

- Representatives were less likely than care recipients to give positive responses to Q3 (healthcare), Q4 (staff follow up), and Q10 (encouraged to be independent).
- Men were less likely than women to give positive responses to Q2 (safe) and Q7 (someone I can talk to).
- Respondents with dementia were more likely than those with no dementia to give positive responses to Q6 (food), but they were less likely to respond positively to Q1 (respect).
- Those who were not independently mobile were less likely to give positive responses to all questions, with especially large differences for Q1 (respect), Q2 (safe), and Q10 (encouraged to be independent).
- Respondents from medium sized homes were more likely to give positive responses to all questions than those from large homes, and those from small homes were very much more likely to respond positively to all questions. The odds of giving a positive response to a question was in the order of two-to-three times higher for residents of small homes than residents of large homes, other factors being equal.