
CBE ID

2614

Title

The Percent of CoreQ Satisfaction among Short-Stay Discharged Residents in Skilled Nursing Facilities

Project

Advanced Illness and Post-Acute Care

Endorsement Status

Endorsed

Is Under Review

Yes

Next Maintenance Cycle

Spring 2026

Previous Endorsement Cycle

Spring 2020

Steward

American Health Care Association/National Center for Assisted Living

1.0 New or Maintenance

Maintenance

1.1 Measure Structure

Single Measure

1.3 Electronic Clinical Quality Measure (eCQM)

No

1.6 Measure Description

The measure calculates the percentage of individuals discharged in a six-month time period from a SNF, within 100 days of admission, who are satisfied. This patient reported outcome measure is based on the CoreQ: Short Stay Discharge questionnaire that utilizes four items.

1.6a Material Specification Change(s)

No

1.7 Measure Type

Patient-reported Outcome Performance Measure (PRO-PM)

1.8 Level of Analysis

Facility

1.9 Care Setting

Nursing Home/Skilled Nursing Facility

1.10 Measure Rationale

Collecting satisfaction information from skilled nursing facility (SNF) patients is more important now than ever. We have seen a philosophical change in healthcare that now includes the patient and their preferences as an integral part of the system of care. The Institute of Medicine (IOM) endorses this change by putting the patient as central to the care system (IOM, 2001). For this philosophical change to person-centered care to succeed, we have to be able to measure patient satisfaction for these three reasons:

- (1) Measuring satisfaction is necessary to understand patient preferences.
- (2) Measuring and reporting satisfaction with care helps patients and their families choose and trust a health care facility.
- (3) Satisfaction information can help facilities improve the quality of care they provide.

The implementation of person-centered care in SNFs has already begun, but there is still room for improvement. The Centers for Medicare and Medicaid Services (CMS) demonstrated interest in consumers' perspective on quality of care by supporting the development of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey for patients in nursing facilities (Sangl et al., 2007).

Further supporting person-centered care and resident satisfaction are ongoing organizational change initiatives. These include: the Advancing Excellence in America's Nursing Homes campaign (2006), which lists person-centered care as one of its goals; Action Pact, Inc., which provides workshops and consultations with nursing facilities on how to be more person-centered through their physical environment and organizational structure; and Eden Alternative, which uses education, consultation, and outreach to further person-centered care in nursing facilities. All of these initiatives have identified the measurement of resident satisfaction as an essential part in making, evaluating, and sustaining effective clinical and organizational changes that ultimately result in a person-centered philosophy of care.

The importance of measuring resident satisfaction as part of quality improvement cannot be stressed enough. Quality improvement initiatives, such as total quality management (TQM) and continuous quality improvement (CQI), emphasize meeting or exceeding "customer" expectations. William Deming, one of the first proponents of quality improvement, noted that "one of the five hallmarks of a quality organization is knowing your customer's needs and expectations and

working to meet or exceed them” (Deming, 1986). Measuring resident satisfaction can help organizations identify deficiencies that other quality metrics may struggle to identify, such as communication between a patient and the provider.

As part of the U.S. Department of Commerce renowned Baldrige Criteria for organizational excellence, applicants are assessed on their ability to describe the links between their mission, key customers, and strategic position. Applicants are also required to show evidence of successful improvements resulting from their performance improvement system. An essential component of this process is the measurement of customer, or resident, satisfaction (Shook & Chenoweth, 2012). Bhattacharyya et al. (2022) note that “satisfaction is an integral part of nursing home (NH) quality of care.”

The CoreQ: Short Stay Discharge questionnaire can strategically help nursing facilities achieve organizational excellence and provide high quality care by being a tool that targets a unique and growing patient population. Over the past several decades, care in nursing facilities has changed substantially. Statistics show that more than half of all elders cared for in nursing homes are now discharged home (approximately 1.6 million residents; CMS, 2009). Moreover, when satisfaction information from current residents (i.e., long stay residents) is compared with those of elders discharged home, substantial differences exist (Castle, 2007). This indicates that long stay and short stay residents are different populations with different needs in the nursing facilities. Thus, the CoreQ: Short Stay Discharge questionnaire measure is needed to improve the care for short stay SNF patients.

Furthermore, improving the care for short stay nursing home patients is tenable. A review of the literature on satisfaction surveys in nursing facilities (Castle, 2007) concluded that substantial improvements in resident satisfaction could be made in many nursing facilities by improving care (i.e., changing either structural or process aspects of care). This was based on satisfaction scores ranging from 60 to 80% on average.

It is worth noting, few other generalizations could be made because existing instruments used to collect satisfaction information are not standardized. Thus, benchmarking scores and comparison scores (i.e., best in class) were difficult to establish. The CoreQ: Short Stay Discharge measure has considerable relevance in establishing benchmarking scores and comparison scores.

This measure’s relevance is furthered by recent federal legislative actions. The Affordable Care Act of 2010 requires the Secretary of Health and Human Services (HHS) to implement a Quality Assurance & Performance Improvement Program (QAPI) within nursing facilities. This means all nursing facilities have increased accountability for continuous quality improvement efforts. In

CMS's "QAPI at a Glance" document there are references to customer-satisfaction surveys and organizations utilizing them to identify opportunities for improvement. Lastly, the new "Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities" proposed rule includes language purporting the importance of satisfaction and measuring satisfaction. CMS states "CMS is committed to strengthening and modernizing the nation's health care system to provide access to high quality care and improved health at lower cost. This includes improving the patient experience of care, both quality and satisfaction, improving the health of populations, and reducing the per capita cost of health care." There are also other references in the proposed rule speaking to improving resident satisfaction and increasing person-centered care (Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities, 2015). The CoreQ: Short Stay Discharge measure has considerable applicability to both of these initiatives.

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1.11 Measure Webpage

<https://coreq.org/CoreQ%20Satisfaction%20Questionnaire%20and%20User%20M...>

1.13 Data Dictionary

Not attached. I attest that all information will be provided where codes and/or value sets are needed (1.14a - 1.15c).

1.14 Numerator

The measure assesses the number of patients who are discharged from a SNF, within 100 days of admission, who are satisfied. The numerator is the sum of the individuals in the facility that have an average satisfaction score of ≥ 3 for the four questions on the CoreQ: Short Stay Discharge questionnaire.

1.14a Numerator Details

The numerator includes all of the patients who were discharged within 100 days of admission and had an average response ≥ 3 on the CoreQ: Short Stay Discharge questionnaire.

The calculation of the individual patient's average satisfaction score is done in the following manner:

- A numeric score is associated with each response scale option on the CoreQ: Short Stay Discharge questionnaire (that is, Poor=1, Average=2, Good=3, Very Good=4, and Excellent=5).
- The following formula is utilized to calculate the individual's average satisfaction score: $[\text{Numeric Score Question 1} + \text{Numeric Score Question 2} + \text{Numeric Score Question 3} + \text{Numeric Score Question 4}] / 4$
- The number of respondents whose average satisfaction score ≥ 3 are summed together and function as the numerator.

For patients with one missing data point (from the four items included in the questionnaire) imputation is used (representing the average value from the other three available responses). Patients with more than one missing data point, are excluded from the analyses (i.e., no imputation will be used for these patients). Imputation details are described further below.

1.15 Denominator

The denominator includes all of the patients that are admitted to the SNF, regardless of payor source, for post-acute care, that are discharged within 100 days; who receive the survey (e.g. people meeting exclusions do not receive a questionnaire) and who respond to the CoreQ: Short Stay Discharge questionnaire within the 2-month time window.

1.15a Denominator Details

The target population includes all of the individuals who respond to the CoreQ: Short Stay Discharge questionnaire within the time window.

The data is collected over a maximum 6-month time window. A shorter period can be used if the sample size (125) meets the specifications described below. The questionnaire is administered to discharged patients within 2 weeks of their discharge date. The discharge date is identified from nursing facility records (e.g., MDS, wherein a discharge MDS record is created that includes a discharge date). Note, the questionnaire must be administered after the patient is discharged and not on the day of the discharge. Patients must respond to the CoreQ: Short Stay Discharge questionnaire within 2-months of receiving the questionnaire.

1.15b Denominator Exclusions

Exclusions used are made at the time of sample selection and include:

- Patients who died during their SNF stay;
- Patients discharged to a hospital, another SNF, psychiatric facility, inpatient rehabilitation facility or long term care hospital;
- Patients with court appointed legal guardian for all decisions;
- Patients discharged on hospice;
- Patients who left the nursing facility against medical advice (AMA);
- Patients who have dementia impairing their ability to answer the questionnaire defined as having a BIMS score on the MDS as 7 or lower. [Note: we understand that some SNCCs may not have information on cognitive function available to help with sample selection. In that case, we suggest administering the survey to all residents and assume that those with cognitive impairment will not complete the survey or have someone else complete on their behalf which in either case will exclude them from the analysis.]
- Patients who responded after the two-month response period; and
- Patients whose responses were filled out by someone else.

1.15c Denominator Exclusions Details

Individuals are excluded based on information from the admission Minimum Data Set (MDS) 3.0 assessment.

- Patients who die: This is recorded in the MDS as Deceased (A2100 = 08).
- Patients who were discharged to a hospital, another SNCC, psychiatric facility, Inpatient Rehabilitation Facilities (IRF), or MR/DD facility: This is recorded in the MDS as Discharge to hospital (A2100 = 03); another SNCC (A2100 = 02); psychiatric facility (A2100 = 04); Inpatient Rehabilitation Facilities (A2100 = 05); ID/DD facility (A2100 = 06).
- Patients with Court appointed legal guardian for all decisions as identified from the nursing facility health information system.
- Patients on hospice: This is recorded in the MDS as Hospice O0100K1 = 1 ("the patient was on hospice in the last 14 days while not a resident"), O0100K2 = 1 ("the patient was on hospice in the last 14 days while a resident"), A1800=07 ("entered from hospice"), or A2100=07 ("discharged to hospice").
- Patients who left the nursing facility against medical advice (AMA) as identified from nursing facility health information systems.
- Patients with a BIMS score on the MDS as 7 or lower. This is recorded in the MDS as C0500 <= 7.
- Patients who respond after the two-month response period.
- Patients whose responses were filled out by somebody other than him/herself, as identified by the additional questions on the questionnaire.

Surveys returned as undeliverable are also excluded from the denominator.

1.15d Age Group

Older Adults (65 years and older)

1.16 Type of Score

Rate/proportion

1.17 Measure Score Interpretation

Better performance = Higher score

1.18 Calculation of Measure Score

1. Identify SNF patients that are discharged within 100 days after admission
 - a. Calculate the duration of the SNF stay [MDS discharge date (A2000) - MDS admission date (A1900)] to determine if it is ≤ 100 days.
2. Take the patients that have a SNF stay of ≤ 100 days and exclude the following:
 - a. Patients who died; patients discharged to a hospital; patients with Court appointed legal guardians for all decisions; patients with hospice; patients who left the nursing facility against medical advice (AMA), and patients with a BIMS score of less than 7 do not receive that survey as

a result of the exclusions (described in detail above).

- i. Patients who die: This is recorded in the MDS as Die during stay (A2100 = 08)
 - ii. Patients who were discharged to a hospital, another SNCC, psychiatric facility, Inpatient Rehabilitation Facility, or MR/DD facility (A2100 = 06): This is recorded in the MDS as Discharge to hospital (A2100 = 03); another SNCC (A2100 = 02); psychiatric facility (A2100 = 04); Inpatient Rehabilitation Facility (A2100 = 05); MR/DD facility (A2100 = 06).
 - iii. Patients with Court appointed legal guardians for all decisions will be identified from nursing facility health information system.
 - iv. Patients on hospice: This is recorded in the MDS as Hospice O0100K1 = 1 ("the patient was on hospice in the last 14 days while not a resident"), O0100K2 = 1 ("the patient was on hospice in the last 14 days while a resident"), A1800=07 ("entered from hospice"), or A2100=07 ("discharged to hospice").
 - v. Patients who left the nursing facility against medical advice (AMA) will be identified from nursing facility health information systems.
 - vi. Patients with a BIMS score of 7 or less. This is recorded in the MDS as C0500 <= 7.
3. Administer the CoreQ: Short Stay Discharge questionnaire to these individuals. The questionnaire should be administered to patients discharged within 2 weeks of discharge. Provide individuals with 2 months to respond to the survey.
 - a. Create a tracking sheet with the following columns:
 - i. Data Administered
 - ii. Data Response Received
 - iii. Time to Receive Response ([Date Response Received - Date Administered])
 - b. Exclude any surveys where Time to Receive Response >2 Months
 4. Collect data over a maximum 6-month time window or until 125 consecutive usable surveys are received.
 5. Exclude responses not completed by the intended recipient (e.g. questions were answered by a friend or family members. It is important to note that cases in which the residents had help with reading the questions, or writing down their responses, are included in the measure, because in these cases the residents answer the questions themselves).
 6. Exclude surveys that are returned after two months
 7. Combine the CoreQ: Short Stay Discharge questionnaire items to calculate a patient level score. Responses for each item should be given the following scores:
 - Poor = 1,
 - Average = 2,
 - Good = 3,
 - Very good =4 and
 - Excellent = 5.
 8. Impute missing data if only one of the four questions are missing data by taking the average of the other questions responses.
 9. Exclude any survey with 2 or more survey questions that have missing data.
 10. Calculated patient score from usable surveys.

Patient score= (Score for Item 1 + Score for Item 2 + Score for Item 3 + Score for Item 4) / 4.

 - a. For example, a patient rates their satisfaction on the CoreQ questions as excellent = 5, very good = 4, very good = 4, and good = 3. The resident's total score will be 5 + 4 + 4 + 3 for a total of 16. The patient's total score (16) will then be divided by the number of questions (4), which equals 4. Thus, the patients average satisfaction rating is 4.0. This individual would be counted in the numerator since their average score is >3.0.

11. Flag those patients with an average score equal to or greater than 3.0
12. Calculate the CoreQ: Short Stay Discharge measure which represents the percent of patients with average scores of 3.0 or above.
CoreQ: Short Stay Measure= ([number of valid responses with an average score of ≥ 3.0] / [total number of valid responses])*100
13. No risk-adjustment is used.

1.19 Measure Stratification Details

The measure is not stratified.

1.20 Types of Data Sources

Patient-Reported Data and/or Survey Data

1.20c Format: Patient-Reported Data and/or Survey Data

Non-digital

1.21b Attach Data Collection Tool(s)

[1.21b-Data-Collection-Tool-s- _Short-Stay.pdf](#)

1.22 Proxy Responses

No

1.23 Survey Respondent

Patient

1.24 Data Collection and Response Rate

1. Administer that CoreQ: Short Stay Discharge questionnaire to SNF patients discharged within 100 days of admission and who do not fall into one of the exclusions noted below.
 - a. Identify that SNF patient is discharged within 100 days of admission
 - i. Calculate the duration of the SNF stay [MDS discharge date (A2000) - MDS admission date (A1900)] to determine if it is ≤ 100 days.
 - b. Remove individuals with the following exclusions from the sample:
 - i. Patients who die: This is recorded in the MDS as Die during stay (A2100 = 08).
 - ii. Patients who were discharged to a hospital, another SNCC, psychiatric facility, Inpatient Rehabilitation Facility, or MR/DD facility (A2100 = 06). This is recorded in the MDS as Discharge to hospital (A2100 = 03); another SNCC (A2100 = 02); psychiatric facility (A2100 = 04); Inpatient Rehabilitation Facility (A2100 = 05); MR/DD facility (A2100 = 06).
 - iii. Patients with Court appointed legal guardian for all decisions will be identified from nursing facility health information system.
 - iv. Patients on hospice: This is recorded in the MDS as Hospice 00100K1 = 1 ("the patient was on hospice in the last 14 days while not a resident"), 00100K2 = 1 ("the patient was on hospice in the last 14 days while a resident"), A1800=07 ("entered from hospice"), or A2100=07 ("discharged to hospice").
 - v. Patients who left the nursing facility against medical advice (AMA) will be identified from

nursing facility health information system.

- vi. Patients with a BIMS score of 7 or lower. This is recorded in the MDS as C0500 ≤ 7 .
2. Administer the CoreQ: Short Stay Discharge questionnaire to patients discharged, within two weeks of discharge (ideally, within one week). The questionnaire should be administered after discharge, not the day of discharge. Optional but not required, reminders or duplicate questionnaires can be administered to patients to help increase response rate.
3. Instruct individuals that they must respond to the survey within two months.
4. Collect the responses continuously for all eligible discharges. The maximum time period for data collection is six months. However, a SNF may optionally stop data collection if they consecutively receive ≥ 125 usable surveys and calculate the measure.
5. A minimum response rate of 30% needs to be achieved for results to be reported for a SNF.
 - a. The response rate is calculated as the number of valid returned questionnaires divided by the number of questionnaires administered. Those returned as undeliverable are excluded as well as those completed by another person on behalf of the patient and those with missing data on 2 or more of the 4 questions.
6. Regardless of response rate, SNFs must also achieve a minimum number of 20 usable questionnaires (e.g. denominator). If after six months, less than 20 usable questionnaires are received then a facility level satisfaction measure cannot be reported.
7. All the questionnaires that are received (other than those with more than one missing value; or those returned as undeliverable; or those returned after two months; or those completed by another person) must be used in the calculations.

1.25 Data Source Details

The collection instrument is the CoreQ: Short-Stay Discharge Satisfaction Questionnaire. The resident information comes from facility health information systems used by all SNFs such as billing systems. The exclusions are from the facility health information systems that all facilities have in place such as MDS.

1.26 Minimum Sample Size

A minimum sample size of 20 and overall response rate of 30% is needed for the measure.

2.1 Attach Logic Model

[2.1-Logic-Model_CoreQ-Short-Stay.pdf](#)

2.2 Evidence of Measure Importance

The definition of quality in a nursing facility has shifted from a focus on structure and process criteria to clinical outcomes, resident satisfaction, and quality of life. This shift was first supported by nursing home reform legislation included in the Omnibus Budget Reconciliation Act of 1987 (OBRA, 1987). Furthering the movement, the Institute of Medicine (IOM) put the patient as central to the care system (Castle, 2007; IOM, 2001) - necessitating the collection of satisfaction information. As mentioned previously (see 1b.1), a focus on person-centered care and satisfaction

is also evident in the Quality Assurance & Performance Improvement Program (QAPI) for nursing facilities and proposed Reform Requirements for Long-Term Care Facilities (Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities, 2015). Also, the Institute for Healthcare Improvement (IHI) included “improving the patient experience” as part of the Triple Aim for improving quality.

Measuring and reporting satisfaction of nursing home care is important in many ways. First, residents are more likely to follow medical advice when they rate their care as satisfactory (Hall, Milburn, Roter, & Daltroy, 1998). Second, because resident satisfaction can influence the quality of care provided and the outcomes of treatment (Hudak and Wright 2000), satisfaction surveys can be used as measures of clinical and organizational accountability. Third, measuring and reporting resident satisfaction can help nursing facilities identify and improve aspects of quality. Furthermore, if publicly released, information on satisfaction with care can help elders and their families choose a nursing facility (Kwon and Bowblis, 2024).

Researchers have recently studied the association of satisfaction scores and the star rating system. The resident’s perspective is imperative in selecting a nursing home where they intend to spend their lives. Nursing homes with higher satisfaction scores tend to have higher star ratings thus proving that the nursing home provides higher quality care (Kwon and Bowblis, 2024). The data shows that for every 1%-point increase in resident satisfaction score, the probability of being a 4- or 5-star nursing home increases by 0.7% points across all star ratings (Kwon and Bowblis, 2024). Other researchers identified similar findings (e.g., Kusmaul et al., 2024). The addition of a publicly reported satisfaction measure in the star rating system or in Care Compare allows current and future consumers of nursing homes with the knowledge to make informed decisions about their long-term care.

Several research efforts have concluded consumer satisfaction is an important indicator of quality of care in nursing homes (Gesell, 2001; Bangerter et al., 2016; Shippee et al 2015; Kajonius and Kazemi, 2016). An online review cites studies showing a relationship between satisfaction and other quality measures, such as turnover (<https://www.dhcs.ca.gov/services/medi-cal/Documents>). In addition, other studies have concluded nursing resident satisfaction data provides information about quality of care that is different from clinician perspectives and clinical indicators (Berlowitz, Du, Kazis, & Lewis, 1993; Riccio, 2000; Uman & Urman, 1997). This exemplifies the need for resident satisfaction data to achieve person-centered care. Only by hearing from the patient can we ensure the care provided is person-centered. Bhattacharyya et al. (2022) note that “satisfaction is an integral part of nursing home (NH) quality of care.”

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2.4 Performance Gap

The data provided here comes from LTC Trend Tracker, a data tool managed by American Health Care Association (AHCA) to allow nursing homes to benchmark and trend their performance on various metrics, including CoreQ. On a voluntary basis, nursing homes can upload data themselves or delegate a customer satisfaction vendor to upload on their behalf.

The data provided below reflects data from 2024q2-2025q1 representing 1,369 providers and 88,433 patients. With an average satisfaction rate of 59.4% there is still room for improvement among providers.

Table 1. Performance Scores by Decile

Mean Performance Score by Decile, [2024q2-2025q1]

	Overall	Min	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	Max
Mean Performance Score	59.40%	0.00%	8.00%	29.80%	41.30%	50.60%	59.40%	66.70%	72.80%	79.50%	86.90%	98.70%	100.00%
N of Entities	1369	62	136	137	137	137	137	137	137	137	137	137	105
N of Persons / Encounters / Episodes	88433	162	1762	3427	4880	6081	10985	13488	16504	16945	11576	2785	825

Table 1. Performance Scores by Decile

	Performance Gap												
	Overall	Minimum	Decile_1	Decile_2	Decile_3	Decile_4	Decile_5	Decile_6	Decile_7	Decile_8	Decile_9	Decile_10	Maximum
Mean Performance Score	59.40	0.00	8.00	29.80	41.30	50.60	59.40	66.70	72.80	79.50	86.90	98.70	100.00
N of Entities	1369	62	136	137	137	137	137	137	137	137	137	137	105
N of Persons / Encounters / Episodes	88433	162	1762	3427	4880	6081	10985	13488	16504	16945	11576	2785	825

2.4a Attach Performance Gap Results

[Mean-Performance-Score-by-Decile_SS-Discharge_.pdf](#)

2.6 Meaningfulness to Target Population

The consumer movement has fostered the notion that patient evaluations should be an integral component of health care. Patient satisfaction, which is one form of patient evaluation, became an essential outcome of health care widely advocated for use by researchers and policy makers. Managed care organizations, accreditation and certification agencies, and advocates of quality improvement initiatives, among others, now promote the use of satisfaction surveys. For example, satisfaction information is included in the Health Plan Employer Data Information Set (HEDIS), which is used as a report card for managed care organizations (NCQA, 2016).

Measuring and improving patient satisfaction is valuable to patients, because it is a way forward on improving the patient-provider relationship, which influences health care outcomes. A 2014 systematic review and meta-analysis of randomized controlled trials, in which the patient-provider relationship was systematically manipulated and tracked with health care outcomes, found a small but statistically significant positive effect of the patient-provider relationship on health care outcomes (Kelly et al., 2014). This finding aligns with other studies that show a link between patient satisfaction and the following health-related behaviors:

1. Keeping follow-up appointments (Hall, Milburn, Roter, & Daltroy, 1998);
2. Disenrollment from health plans (Allen & Rogers, 1997); and,
3. Litigation against providers (Penchansky & Macnee, 1994).

The positive effect of person-centered care and patient satisfaction is not precluded from skilled nursing facilities. A 2013 systematic review of studies on the effect of person-centered initiatives in nursing facilities, such as the Eden Alternative, found person-centered care associated with psychosocial benefits to residents and staff, notwithstanding variations and limitations in study designs (Brownie & Nancarrow, 2013).

As person-centered care (PCC) continues to evolve in long-term care, states are creating programs geared towards training and educating nursing home staff about PCC. The Promoting Excellence Alternatives in Kansas (Peak) 2.0 program incentivizes nursing homes in Kansas to implement PCC by empowering staff to ensure that residents have a choice about their care (Poey et.al, 2017). Resident satisfaction is a great way to determine the effectiveness of PCC but also, it's a way to gain knowledge about nursing home quality. The program found the nursing homes that fully implemented PCC reports higher resident satisfaction. Programs that incorporate PCC benefits the residents but also have benefits for the nursing home by showing that it is a reputable location for older adults to age in place.

From the nursing facility and provider perspective, there are numerous ways to improve patient satisfaction. One study found conversations regarding end-of-life care options with family members improve overall satisfaction with care and increase use of advance directives (Reinhardt et al., 2014). Another found an association between improving symptom management of nursing home residents with dementia and higher satisfaction with care (Van Uden et al., 2013). Improvements in a nursing home food delivery system also were associated with higher overall satisfaction and improved resident health (Crogan et al., 2013). The association of specific factors (e.g., food, staff, programs) with satisfaction are discussed in a scoping review by Li et al. (2023). The advantage of the CoreQ: Short Stay Discharge questionnaire is it is broad enough to capture patient dissatisfaction on various provided services and signal to providers to drill down and discover ways of improving the patient experience at their facility.

Specific to the CoreQ: Short Stay Discharge questionnaire, the importance of the satisfaction areas assessed were examined with focus groups of residents and family members. The respondents were patients (N=40) in five nursing facilities in the Pittsburgh region. Table 1c.5 in the Section 7 Supplement document shows the score of the importance for question included in the CoreQ: Short Stay Discharge questionnaire. The overall ranking used was 10=Most important and 1=Least important. The final four questions included in the measure had average scores ranging from 9.35 to 9.69; this clearly shows that the respondents value the items used in the CoreQ: Short Stay Discharge measure.

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3.1 Contributions Towards Closing Care Gaps

Multiple studies in the past twenty years have examined racial disparities in the care of nursing facility residents and have consistently found poorer care in facilities with high minority populations (Fennell et al., 2000; Mor et al., 2004; Smith et al., 2007). Work on racial disparities in nursing facilities' quality of care between elderly white and black residents within nursing facility has shown clearly that nursing homes remain relatively segregated and that specifically nursing home care can be described as a tiered system in which blacks are concentrated in marginal-quality homes (Li, Ye, Glance & Temkin-Greener, 2014; Fennell, Feng, Clark & Mor, 2010; Li, Yin, Cai, Temkin-Greener, Mukamel, 2011; Chisholm, Weech-Maldonado, Laberge, Lin, & Hyer, 2013; Mor et al., 2004; Smith et al., 2007). Such homes tend to have serious deficiencies in staffing ratios, performance, and are more financially vulnerable (Smith et al, 2007; Chisholm et al., 2013). Based on a review of the nursing facility disparities literature, Konetzka and Werner concluded that disparities in care are likely related to this racial and socioeconomic segregation as opposed to within-provider discrimination (Konetzka and Werner 2009). This conclusion is supported, for example, by Grunier and colleagues who found that as the proportion of black residents in the nursing home increased the risk of hospitalization among all residents, regardless of race, also increased (Grunier et al., 2008). Thus, adjusting for racial status has the unintended effect of adjusting for poor quality providers not to differences due to racial status and not within-provider discrimination.

Therefore, lower satisfaction scores for both Caucasian and Blacks and other ethnicities are likely to increase as the proportion of black residents increases in a SNF, indicating that the best measure of racial disparities in satisfaction rates is one that measures scores at the facility level. That is, ethnic and social economic status differences are related to inter-facility differences not to intra-facility differences in care. Therefore, the literature suggests that racial status should not be risk adjusted otherwise one is adjusting for the poor quality of the SNFs rather than differences due to racial status.

The CoreQ information was collected from nursing homes and assisted living facilities during 2021. These facilities were primarily located in MA, PA, and NJ. These facilities were a sample of convenience, in that they had voluntarily participated in collecting CoreQ information during 2020 and continued doing so in 2021. In addition to the CoreQ items, in 2021 demographic questions including asking for the respondents' race were also included.

In these facilities, discharged residents and family members were sent a CoreQ questionnaire, a letter describing the questionnaire, and postage paid return envelope. The questionnaires were anonymous, but they did include the facility name as part of the survey. For long-stay residents, social workers in the facilities collected CoreQ information. The questionnaires used were also anonymous. In all cases, the standard data collection exclusions for collecting CoreQ were used.

The proportion of black residents in nursing homes is not uniform, and some facilities have higher concentrations of black residents than others. This has led to investigations of both within-nursing home care examining if differences exist by race within the same facility, and between-nursing home care examining if differences exist across facilities. Both within- and between-nursing home differences were examined.

For all three samples (discharge, resident, and family), overall scores for black residents are lower than those for white residents. However, we know that black residents are disproportionately cared for in lower quality facilities (described above). This may influence the overall scores. Indeed, when we examine nursing homes with >20% black residents, the resulting scores for black vs. white residents are almost identical.

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4.1a Data Structure and Availability

The data elements are routinely generated through the satisfaction survey. All data elements are in defined fields in a combination of electronic sources. In an effort to keep administrative burden low to encourage collection of satisfaction data, which is important in the field, there are no efforts to develop a plan for electronic collection.

4.1b Implementation Costs and Burden

Facilities have no data entry burden. However, they do have data collection burden. In the work we have done with CMS for the CoreQ Nursing Home Discharge survey the cost burden for the facility was calculated to be \$2.80 per respondent. This calculation was based on requiring more than 20 data elements; whereas, here only 4 are needed. The cost will likely be less than \$2.80.

Because CoreQ can be added to the beginning of existing surveys, the cost and burden of adoption can be minimal.

No barriers were encountered with the measure specifications. The measure calculation was sometimes confused with an average score. The CoreQ measure is not an average. This is explained on reports produced and in the technical manual.

4.1c Confidentiality

All of the patient surveys are anonymous. In addition, scores are only calculated with 20 or more survey returns. Thus, patient confidentiality is protected. The only identifier on the survey is the facility name so that a score can be attributed to the facility.

4.3 Feasibility Informed Final Measure

This is a maintenance application. As detailed above we have continued to collect CoreQ data to examine any changes in scores and implementation issues. We also continued testing the exclusions and inclusions. No adjustment to the measure has occurred.

4.4 Proprietary Information

Proprietary measure or components (e.g., risk model, codes), without fees

4.4a Fees, Licensing, or Other Requirements

There are no fees, licensing, or other requirements for this measure. The Short-Stay Discharge survey/questionnaire and the methodology are proprietary. The CoreQ name is trademarked by the American Health Care Association/National Center for Assisted Living.

5.1.1 Data Used for Testing

Data utilized for testing came from CoreQ: Short-Stay Discharge questionnaire from CY2025. To validate the measure; we also utilized CASPER Quality Indicators and data from Centers for Medicare and Medicaid Services (CMS) Nursing Home Compare from CY2025 from a national sample of facilities.

Additionally, Updated testing based on the Pilot CoreQ: Short-Stay Discharge questionnaire was completed for CY2025 from a national sample of facilities.

Performance gap data was collected from LTC Trend Tracker, a data tool managed by the

American Health Care Association (AHCA) to allow nursing homes to benchmark and trend their performance on various metrics, including CoreQ. The data provided below reflects data from 2024q2-2025q1.

Reliability and Validity data are derived from the CoreQ: Short-Stay questionnaire from CY2025. Also, CASPER Quality Indicators, CMS Nursing Home Compare, Five-Star, and Payroll-Based Journal data from CY2025 were used.

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025 data but was not used for testing in this submission.

5.1.1a Dates of Testing Data

The dates of the data used for testing are:

- Centers for Medicare and Medicaid Services (CMS) Nursing Home Compare, CASPER Quality indicators, Five-Star, and Payroll-Based Journal data from CY2025 (January-December 2025).
- Pilot CoreQ: Short-Stay Discharge questionnaire data from CY2025 (January-December 2025).
- CoreQ: Short-Stay Discharge questionnaire data from CY2025 (January-December 2025).
- Performance gap data was collected from LTC Trend Tracker for 2024q2-2025q1.

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025 data but was not used for testing in this submission.

5.1.2 Differences in Data

We conducted two levels of testing in the development of the CoreQ: Short Stay Discharge measure. The first focused on testing (e.g., reliability, validity, exclusions) of the CoreQ: Short Stay Discharge questionnaire. The first source of data (pilot data) was utilized in developing and choosing the items to be included in the CoreQ: Short Stay Discharge questionnaire. This included using a questionnaire with 22 items. Below we call this the Pilot CoreQ: Short Stay Discharge questionnaire.

- Once the CoreQ: Short Stay Discharge questionnaire was developed, a second source of data was used to test the validity of the CoreQ: Short Stay Discharge measure (i.e., facility and summary score validity).
- For this E&M similar analyses were conducted using CY2025 data. This was to check the

continued validity of the CoreQ: Short Stay Discharge measure.

- Reliability Testing: CoreQ: Short-Stay Discharge Questionnaire data from CY2025 (January 2025-December 2025) a national sample (n=357, 14,375 residents) at the data element, person/questionnaire, and measure (facility) level.
- Validity Testing: CoreQ: Short-Stay Discharge Questionnaire data from CY2025 (January 2025-December 2025) a national sample (n=357, 14,375 residents). To test the validity of the measure, CASPER Quality Indicators, CMS Nursing Home Compare, Five-Star, and Payroll-Based Journal data from CY2025 (January 2025- December 2025) was used.

5.1.3 Characteristics of Measured Entities

The testing and analysis included four data sources (Table 5.1.3 below):

1. Reliability and validity testing of the Pilot CoreQ: Short Stay Discharge questionnaire was examined using responses from 853 patients from a national sample of facilities.
2. Validity testing of the Pilot CoreQ: Short Stay Discharge questionnaire was examined using responses from 100 patients from the Pittsburgh area.
3. CoreQ: Short Stay Discharge measure was examined using 282 facilities and included responses from 10,319 patients. These facilities were located across multiple states.
4. Patient-level sociodemographic (SDS) variables were examined using a sample of 1012 patients in nursing facilities in Massachusetts. This included 121 facilities.
5. Repeat data came from a national sample of facilities (N=357) and a sample of 14,375 patients collected in 2025 (Source 5).

Table 5.1.3: Demographics of Data Sources

Data Source	Average Number of Licensed Beds	Average Daily Census	Average Monthly Number of New Patients	Sample Size of Patients (N)
Source 1	122	112	37	853
Source 2	202	188	49	100
Source 3	135	108	34	10,319
Source 4	140	133	29	1,012
Source 5	145	140	32	14,375

Data Source: CoreQ: Short-Stay Discharge Questionnaire (CY2014 (Pilot Data: Sources 1-4) and CY2025, Source 5)

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025

data but was not used for testing in this submission.

5.1.4 Characteristics of Units of the Eligible Population

Patient Level of Analysis:

Data was used from the CoreQ: Short Stay Discharge questionnaire. The questionnaire was mailed to all patients discharged within 2 weeks of their discharge date. The testing and analysis included:

1. The Pilot CoreQ: Short Stay Discharge questionnaire was examined using responses from 853 patients from a national sample of facilities.
2. Validity testing of the Pilot CoreQ: Short Stay Discharge questionnaire was examined using responses from 100 patients from the Pittsburgh area.
3. CoreQ: Short Stay Discharge measure was examined using 282 facilities and included responses from 10,319 patients. These facilities were located across multiple states.
4. In addition, patient-level sociodemographic (SDS) variables were examined using a sample of 1012 patients in nursing facilities in Massachusetts. This included 121 facilities.
5. Repeat data came from a national sample of facilities (N=357) and 14, 375 residents collected in 2025.

The descriptive characteristics of the residents are given in the following table that includes information from all of the data used (the education level and race information comes only from the sample described above with 14,375 respondents). Data from CY2014 is included to provide a comparison to CY2025 data. **(See Table 5.1.4 below).**

Table 5.1.4: Descriptive Characteristics of Patients Included in the Analysis

DEMOGRAPHICS		Percent (Samples 1-3 pooled, CY2014)	Percent (CY2025 data)
How long were you a resident at this facility?	<1 Month	61%	64%
	1-3Months	35%	33.5%
	3-6Months	3%	2.5%

Are you male or female?	Male	39%	33%
	Female	61%	67%
What year were you born?	Average	1936	1949
	Some HS	15%	12%
	HS or GED	41%	37%
What is the highest grade or level of school that you have completed?	Some College/ 2yr Degree	23%	21%
	4yr College Degree	11%	25%
	>4yr College Degree	10%	5%
Are you of Hispanic or Latino origin or descent?	Yes	2%	3%
	No	98%	97%
	White	86%	83%
	Black	13%	14%
What is your race?	Asian	1%	1%
	Native Hawaiian	0%	<1%
	American Indian	0%	<1%

Data Source: CoreQ: Short-Stay Discharge Questionnaire (CY2014 (Pilot Data) and CY2025)

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025 data but was not used for testing in this submission.

5.2.1 Level(s) of Reliability Testing Conducted

Person or encounter level (i.e., data element) (e.g., inter-abstractor reliability), Accountable entity level (i.e., measure score) (e.g., signal-to-noise analysis)

5.2.2 Method(s) of Reliability Testing

We measured reliability at the: (1) data element level; (2) the person/questionnaire level; (3) at the measure (i.e., facility) level and, (4) accountable entity-level. More detail of each analysis follows.

1. Data Element Level

To determine if the CoreQ: Short-Stay Discharge questionnaire data elements were repeatable (i.e. producing the same results a high proportion of the time when assessed in the same population in the same time period) we re-administered the questionnaire to patients 1 month

after the submission of their first survey. The Pilot CoreQ: Short Stay Discharge questionnaire had responses from 853 patients; we re-administered the survey to 100 patients. The re-administered sample was a sample of convenience as they represented patients from the Pittsburgh area (the location of the team testing the questionnaire). To measure the agreement, we calculated first the distribution of responses by question in the original round of surveys, and then again in the follow-up surveys (they should be distributed similarly); and second, calculated the correlations between the original and follow-up responses by question (they should be highly correlated). Repeat data came from a national sample of facilities (N=357) and 14,375 residents collected in 2025.

2. Person/Questionnaire Level

Having tested whether the data elements matched between the pilot responses and the re-administered responses, we then examined whether the person-level results matched between the Pilot CoreQ: Short-Stay Discharge questionnaire responses and their corresponding re-administered responses. In particular, we calculated the percent of time that there was agreement between whether or not the pilot response was poor, average, good, very good or excellent, and whether or not the re-administered response was poor, average, good, very good or excellent.

Repeat data came from a national sample of facilities (N=357) and 14,375 residents collected in 2025.

3. Measure (Facility) Level

Last, we measured stability of the facility-level measure when the facility's score is calculated using multiple "draws" from the same population. This measures how stable the facility's score would be if the underlying patients are from the same population but are subject to the kind of natural sample variation that occurs over time. We did this by bootstrap with 10,000 repetitions of the facility score calculation and present the percent of facility resamples where the facility score is within 1 percentage point, 3 percentage points, 5 percentage points, and 10 percentage points of the original score calculated on the Pilot CoreQ: Short-Stay Discharge questionnaire sample.

4. Accountable Entity-Level Reliability

Entities were ranked by mean performance score and grouped into deciles of approximately equal size. Reliability was estimated using a signal-to-noise framework in which reliability represents

the proportion of total variance attributable to true between-entity differences rather than measurement error. For each decile, we summarized the mean performance score, number of entities, and total number of persons/encounters/episodes contributing to the estimates. Reliability values ≥ 0.70 were considered acceptable and values ≥ 0.80 were considered good.

Data Source: CoreQ: Short-Stay Discharge Questionnaire for CY2025.

5.2.3 Reliability Testing Results

1.Data Element Level

Table 5.2.3a (Attached; See Additional Reliability Testing Results) shows the four CoreQ: Short Stay Discharge questionnaire items, and the response per item for both the pilot survey of 853 patients and the re-administered survey of 100 patients. The responses in the pilot survey are not statistically significant from the re-administered survey. This shows that the data elements were highly repeatable and produced the same results a high proportion of the time when assessing the same population in the same time period. Similar findings are shown from the repeat 2025 data.

2. Person/Questionnaire Level

Table 5.2.3c (Attached; See Additional Reliability Testing Results) shows the CoreQ: Short Stay Discharge questionnaire items, and the agreement in response per item and responses for both the pilot survey of 853 patients compared with the re-administered survey of 100 patients. The person-level responses in the pilot survey are not statistically significant from the re-administered survey. This shows that a high percent of time there was agreement between whether or not the pilot response was poor, average, good, very good or excellent, and whether or not the re-administered response was poor, average, good, very good or excellent. Table 5.2.3d (Attached; See Additional Reliability Testing Results) shows the average percent agreement between the pilot and re-administered responses. In summary, 98% or more of the re-administered responses agreed with their corresponding pilot responses, in terms of whether or not they were rated in the categories of poor or average or good, very good or excellent. Similar findings are shown from the repeat 2025 data.

3. Measure (Facility) Level

After having performed 10,000-repetition bootstrap 9.8% of bootstrap repetition scores were

within 1 percentage point of the score in the original sample, 32.5% were within 3 percentage points, 49.7% were within 5 percentage points, and 72.3% were within 10 percentage points.

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025 data but was not used for testing in this submission.

5.2.3a Attach Additional Reliability Testing Results

[5.2.3a-Additional-Reliability-Testing-Results_SS_2026.docx](#)

5.2.4 Interpretation of Reliability Results

In summary, the measure displays a high degree of element-level, questionnaire-level, and measure (facility)-level reliability. First, the CoreQ: Short Stay Discharge questionnaire data elements were highly repeatable, with pilot and re-administered responses agreeing between 95% and 99% of the time, depending on the question. That is, this produced the same results a high proportion of the time when assessed in the same population in the same time period. Second, the questionnaire level scores were also highly repeatable, with pilot and re-administered responses agreeing 98% of the time. Third, a facility drawing patients from the same underlying population only varied modestly. The 10,000-repetition bootstrap results showed that the CoreQ: Short Stay Discharge measure scores from the same facility are very stable, given the minimum sample size of 20 we set for this measure; and the maximum sample size of 196.

The performance measure demonstrated good overall reliability (0.802). Reliability increased progressively across performance deciles, ranging from 0.53 among the lowest-performing entities to 0.92 among the highest-performing entities, indicating stronger measurement stability among higher-performing groups.

Table 2. Accountable Entity Level Reliability Testing Results by Denominator, Target Population Size

Accountable Entity-Level Reliability Testing Results													
	Overall	Minimum	Decile_1	Decile_2	Decile_3	Decile_4	Decile_5	Decile_6	Decile_7	Decile_8	Decile_9	Decile_10	Maximum
Reliability													
Mean													
Performance	59.40	0.00	8.00	29.80	41.30	50.60	59.40	66.70	72.80	79.50	86.90	98.70	100.00
Score													
N of Entities	1369	62	139	137	137	137	137	137	137	137	137	137	105
N of Persons													
/ Encounters	88433	162	1762	3427	4880	6081	10985	13488	16504	16945	11576	2785	825
/ Episodes													

Table 2a. Accountable Entity Level Reliability Testing Results by Denominator, Target Population Size

Reliability Testing at the Accountable Entity Level, 1/1/2025-12/31/2025

	Overall	Min	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	Max
Reliability	0.802	0.53	0.53	0.74	0.79	0.82	0.84	0.78	0.86	0.85	0.89	0.92	0.92
Mean Performance Score	85%	39%	42%	51%	59%	63%	70%	77%	83%	86%	95%	99%	100%
N of Entities	760	4	76	76	76	76	76	76	76	76	76	76	31
N of Persons / Encounters / Episodes	23089	146	2280	2341	2471	2232	2276	2178	2299	2370	2411	2231	935

Note: Table 2a used Cronbach's alpha to show computations per decile.

Table 2b. Accountable Entity Level Reliability Testing Results by Reliability Score

Accountable Entity Level Reliability Testing Results by Reliability Score, 1/1/2025-12/31/2025

	Overall	Min	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	Max
Reliability	0.802	0.53	0.53	0.74	0.79	0.82	0.84	0.78	0.86	0.85	0.89	0.92	0.92

Note: Table 2b used Cronbach's alpha to show computations per decile.

5.3.1 Level(s) of Validity Testing Conducted

Person or encounter level (i.e., data element) (e.g., sensitivity and specificity), Accountable entity level (i.e., measure score) (e.g., criterion validity)

5.3.2 Type of Accountable Entity Level Validity Testing Conducted

Empirical validity testing at the accountable entity-level (e.g., criterion validity, construct validity, known groups analysis), Systematic assessment of face validity of the measure's performance score as an indicator of quality or resource use

5.3.3 Method(s) of Validity Testing

In the development of the CoreQ: Short Stay Discharge questionnaire, several sources of data were used to perform three levels of validity testing. Each is described further below. The first source of data (convenience sampling) was used in developing and choosing the format to be utilized in the CoreQ: Short Stay Discharge questionnaire (i.e., response scale). The second source of data was pilot data collected from 865 patients (described below). This data was used in choosing the items to be used in the CoreQ: Short Stay Discharge questionnaire. The third source of data was used to examine the validity of the CoreQ: Short Stay Discharge measure (i.e., facility and summary score validity). Repeat data came from a national sample of facilities (N=357) and 14, 375 residents collected in 2025.

Thus, the following sections describe this validity testing:

1. Validity testing of the questionnaire format used in the CoreQ: Short Stay Discharge questionnaire;
2. Testing the items for the CoreQ: Short Stay Discharge questionnaire;
3. To determine if a sub-set of items could reliably be used to produce an overall indicator of satisfaction (Core Q: Short Stay Discharge measure);
4. Validity Testing for the CoreQ: Short Stay discharge measure.

In summary, the overall intent of these analyses was to determine if a subset of items could reliably be used to produce an overall indicator of satisfaction.

1. Validity Testing for the Questionnaire Format used in the CoreQ: Short Stay Discharge Questionnaire

A. The face validity of the domains used in the CoreQ: Short Stay Discharge questionnaire was evaluated via a literature review. The literature review was conducted to examine important areas of satisfaction for long term care residents. The research team examined 12 commonly used satisfaction surveys and reports to determine the most valued satisfaction domains. These surveys were identified by completing internet searches in PubMed and Google. Key terms that were searched included “resident satisfaction, long-term care satisfaction, and elderly satisfaction”.

B. The face validity of the domains was also examined using patients. The overall ranking used was 1=Most important and 22=Least important. The respondents were patients (N=40) in five nursing facilities in the Pittsburgh region.

C. The face validity of the Pilot CoreQ: Short Stay Discharge questionnaire response scale was also examined. The respondents were patients (N=40) in five nursing facilities in the Pittsburgh region. The percent of respondents that stated they “fully understood” how the response scale worked, could complete the scale, AND in cognitive testing understood the scale was used.

D. The Flesch-Kinkaid scale (Streiner & Norman, 1995) was used to determine if respondent correctly understood the questions being asked (Streiner, D. L. & Norman, G.R., 1995).

2. Testing the Items for the CoreQ: Short Stay Discharge Questionnaire

The analyses above were performed to provide validity information on the format in the CoreQ: Short Stay Discharge questionnaire (i.e, domains and format). The second series of validity testing was used to further identify items that should be included in the CoreQ: Short Stay Discharge questionnaire. This analysis was important, as all items in a satisfaction measure should have adequate psychometric properties (such as low basement or ceiling effects). For this testing, a Pilot version of the CoreQ: Short Stay Discharge questionnaire survey was administered consisting of 22 items (N= 853 patients). The testing consisted of:

A. The Pilot CoreQ: Short Stay Discharge questionnaire items performance with respect to the distribution of the response scale and with respect to missing responses.

B. The intent of the pilot instrument was to have items that represented the most important areas of satisfaction (as identified above) and to be parsimonious. Additional analyses were used to eliminate items in the Pilot instrument. More specifically, analyses such as exploratory factor analysis (EFA) were used to further refine the pilot instrument. This was an iterative process that included using Eigenvalues from the principal factors (unrotated) and correlation analysis of the individual items.

3. Determine if a Sub-Set of Items Could Reliably be used to Produce an Overall Indicator of Satisfaction (The Core Q: Short Stay Discharge measure).

The CoreQ: Short Stay Discharge is meant to represent overall satisfaction with as few items as possible. The testing given below describes how this was achieved.

A. To support the construct validity (i.e. that the CoreQ items measured a single concept of “satisfaction”) we performed a correlation analysis using all items in the instrument.

B. In addition, using all items in the instruments a factor analysis was conducted. Using the global items Q1 (“How satisfied are you with the facility?”) the Cronbach’s Alpha of adding the “best” additional item was explored.

4. Validity Testing for the Core Q: Short Stay Discharge Measure.

The overall intent of the analyses described above was to identify if a sub-set of items could reliably be used to produce an overall indicator of satisfaction, the CoreQ: Short Stay Discharge questionnaire. Further testing was conducted to determine if the 4 items in the CoreQ: Short Stay Discharge questionnaire were a reliable indicator of satisfaction.

A. To determine if the 4 items in the CoreQ: Short Stay Discharge questionnaire were a reliable indicator of satisfaction, the correlation between these four items in the CoreQ: Short Stay Discharge Measure and all of the items on the Pilot CoreQ instrument was conducted.

B. We performed additional validity testing of the facility-level CoreQ: Short Stay Discharge measure by measuring the correlations between the CoreQ: Short Stay Discharge measure scores and i) measures of regulatory compliance and other quality metrics from the Certification and Survey Provider Enhanced Reporting (CASPER) data, ii) several other quality metrics from Nursing Home Compare, iii) risk adjusted discharge to community measure and iv) risk adjusted PointRight® Pro 30™ Rehospitalizations. If the CoreQ Short Stay Discharge scores correlate negatively with the measures that decrease as they get better, and positively with the measures that increase as they get better, then this supports the validity of the CoreQ Short Stay Discharge measure.

Repeat data also came from a national sample of facilities (N=357) and 14, 375 residents collected in 2025. **(See Table 5.3.4i).**

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025 data but was not used for testing in this submission.

Reference

Streiner, D. L. & Norman, G.R. 1995. Health measurement scales: A practical guide to their development and use. 2nd ed. New York: Oxford.

5.3.4 Validity Testing Results

1. Validity Testing for the Questionnaire Format used in the CoreQ: Short Stay Discharge questionnaire

A. The face validity of the Domains used in the CoreQ: Short Stay Discharge questionnaire was evaluated via a literature review. Specifically, the research team examined the surveys and reports to identify the different domains that were included. The research team scored the domains by simply counting if an instrument included the domain. Table 5.3.4a (Attached; See Additional Validity Testing Results) gives the domains that were found throughout the search, as their respective score. An example is the domain food, this was used in 11 out of the 12 surveys. (Note: food was not ultimately included in the final CoreQ Short Stay Discharge because correlation and factor analysis showed that it added little to the survey when the overall question, i.e. CoreQ Question 1 was used). An interpretation of this finding would be that items addressing food are extremely important in satisfaction surveys. These domains were used in developing the pilot CoreQ: Short Stay Discharge questionnaire items. A recent scoping review by Li et al. (2023) provides very similar results.

Reference

Li, X., Mpofu, E., Collins, S., Yin, C., & Shaw, T. (2023). Resident satisfaction indicators in long term care settings in the United States: A scoping review. *Aging and Health Research*, 3.

B. The face validity of the domains was also examined using patients (described above). The following abbreviated table shows the rank of importance for each group of domains. The overall ranking used was 1=Most important and 22=Least important. The ranking of the 4 areas used in the CoreQ: Short Stay Discharge questionnaire are shown in Table 5.3.4b (Attached; See Additional Validity Testing Results).

C. The face validity of the pilot CoreQ: Short Stay Discharge questionnaire response scale was also examined (described above). Table 5.3.4c (Attached; See Additional Validity Testing Results) gives the percent of respondents that stated they fully understood how the response scale worked, could complete the scale, AND in cognitive testing understood the scale.

D. The CoreQ: Short Stay Discharge questionnaire was purposefully written using simple language. No a priori goal for reading level was set, however a Flesch-Kinkaid scale score of six, or lower, is achieved for all questions.

2. Testing the Items for the CoreQ: Short Stay Discharge Questionnaire

A. The pilot CoreQ: Short Stay Discharge questionnaire items are shown below. Table 5.3.4d (Attached; See Additional Validity Testing Results) shows that the items performed well with respect to the distribution of the response scale and with respect to missing responses.

B. Using all items in the instruments (excluding the global item Q1 (“How would you rate the facility?”)) exploratory factor analysis (EFA) was used to evaluate the construct validity of the measure. The Eigenvalues from the principal factors (unrotated) are presented. Sensitivity analyses using principal factors and rotating provide highly similar findings.

3. Determine if a Sub-Set of Items could Reliably be used to Produce an Overall Indicator of Satisfaction (The Core Q: Short Stay Discharge Measure).

A. To support the construct validity that the idea that the CoreQ items measured a single concept of “satisfaction” – we performed a correlation analysis using all items in the instrument. The analysis identifies the pairs of CoreQ items with the highest correlations. The highest correlations are shown in Table 5.3.4f (attached). Items with the highest correlation are potentially providing similar satisfaction information. Note, the table provides 7 sets of correlations, the analysis was conducted examining all possible correlations between items. Because items with the highest correlation were potentially providing similar satisfaction information they could be eliminated from the instrument.

B. In addition, using all items in the instrument a factor analysis was conducted. Using the global items Q1 (“How satisfied are you with the facility?”) the Cronbach’s Alpha of adding the “best” additional item is shown in Table 5.3.4g (attached). Chronbach’s alpha measures the internal consistency of the values entered into the factor analysis, where a value of 0.7 or higher is generally considered acceptably high. The additional item(s) is considered best in the sense that it is most highly correlated with the existing item and therefore provides little additional information about the same construct. So, this analysis was also used to eliminate items. Note, the table again provides 7 sets of correlations, the analysis was conducted examining all possible correlations between items. Thus, using the correlation information and factor analysis 4 items representing the CoreQ: Short Stay Discharge questionnaire were identified.

4. Validity testing for the Core Q: Short Stay Discharge Measure

The overall intent of the analyses described above was to identify if a sub-set of items could reliably be used to produce an overall indicator of satisfaction, the CoreQ: Short Stay Discharge questionnaire.

A. The items were all scored according to the rules identified elsewhere. The same scoring was used in creating the 4 item CoreQ: Short Stay Discharge questionnaire summary score and the satisfaction score using the Pilot CoreQ: Short Stay Discharge questionnaire. The correlation was identified as having a value of 0.94. That is, the correlation score between the final “CoreQ: Short Stay Discharge Measure” and all of the 22 items used in the Pilot instrument indicates that the satisfaction information is approximately the same if we had included either the 4 items or the 22 item Pilot instrument.

B. We performed additional validity testing of the facility-level CoreQ: Short Stay Discharge measure by measuring the correlations between the CoreQ: Short Stay Discharge measure scores and i) measures of regulatory compliance and other quality metrics from the Certification and Survey Provider Enhanced Reporting (CASPER) data, ii) several other quality metrics from Nursing Home Compare, iii) risk-adjusted Discharge to Community Measure and iv) risk-adjusted PointRight® Pro 30™ Rehospitalizations. This score should be associated with better quality in the SNF. Therefore, we hypothesize that for each facility in the sample there is a positive correlation with other quality indicators.

(i) Relationship with CASPER Quality Indicators

Certification and Survey Provider Enhanced Reporting (CASPER) contains data collected as part of state/federal nursing home inspections. In short, nursing facilities that accept residents with Medicare and/or Medicaid payments are surveyed; this includes most (i.e., 97% [15,000 facilities]) nursing homes in the U.S. The survey process occurs approximately yearly, and includes the recording of many quality characteristics of the nursing home. The most commonly used CASPER quality indicators are restraint use, pressure ulcers, catheter use, antipsychotic use, antidepressant use, antianxiety use, and, use of hypnotics in SNFs.

In addition, when a SNF is determined not to meet a certification minimum standard a deficiency citation is issued. These deficiency citations are also commonly used in the analyses of the quality of SNFs. Approximately 180 deficiency citations exist and are grouped into 16 categories. These 16 categories group similar areas together. They were developed by CMS and have considerable face validity; although, one limitation of using these categories is that they were not defined using empirical estimation (such as factor analysis).

(ii) Relationship with Nursing Home Compare (NHC) Quality Indicators, Five Star ratings and staffing levels

Nursing Home Compare (NHC) is a nursing home report card. After several years of pilot testing, the Centers for Medicare and Medicaid Services (CMS) released this report card on the world-wide web in November of 2002. Briefly, Nursing Home Compare provides information for facility location, structural factors (such as ownership), and staffing characteristics (such as registered nurse [RN] staffing levels). Most significantly, standardized quality information is presented in

what are called Quality Measures (QMs). These are calculated from MDS information.

At the time period of for this study (i.e., 2014) CMS reported on 19 measures – these are called the core Quality Measures. The Quality Measures address specific areas of resident care, 5 are for short-stay residents and 14 are for long-stay residents. Long-stay measures are for those residents staying at a facility 3 months or more and short-stay measures are for residents staying at a facility less than 3 months. The short-stay measures are most pertinent to the CoreQ: Short Stay Discharge questionnaire; therefore, these were used in the analyses. These are the percent of residents: with delirium; with moderate to severe pain; and, with pressure sores.

Nursing Home Compare also uses a five-star rating for facilities. This is based on information from the health inspection, direct care staffing, and the MDS quality measures. A five-star facility is the highest score and a 1-star facility the lowest score. With respect to staffing, two measures are used: 1) RN hours per resident day; and 2) total staffing hours (RN+ LPN+ nurse aide hours) per resident day.

Some of these analyses were repeated with updated 2015 data. This included additional staffing data that was collected directly from the participating facilities.

(iii) Relationship with the risk-adjusted Discharge to Community Measure

The risk adjusted Discharge to Community measure determines the percentage of all new admissions from a hospital who are discharged back to the community within 100 days and remain out of any skilled nursing center for the next 30 days. The measure, referring to a rolling year of MDS entries, is calculated each quarter and includes all new admissions to a SNF regardless of payor source. Unsuccessful discharges will result in the resident becoming a long stay resident, which we hypothesize would increase dissatisfaction in SNFs with poor discharge to community rates.

The results of testing for correlation between risk-adjusted discharge to community measure and the CoreQ: Short Stay Discharge measure are provided in the table 5.3.4j (Attached; See Additional Validity Testing Results).

(iv) Relationship with the risk-adjusted PointRight® Pro 30™ Rehospitalizations

PointRight® Pro 30™ is an all-cause, risk adjusted rehospitalization measure. It provides the rate at which all patients (regardless of payer status or diagnosis) who enter skilled nursing facilities (SNFs) from acute hospitals and are subsequently rehospitalized during their SNF stay, within 30 days from their admission to the SNF. Individuals who are rehospitalized after admission are much more likely to become a long stay residents. We hypothesize residents would therefore be more dissatisfied on average in SNFs with high short stay resident rehospitalization rates.

The results of testing for correlation between the risk-adjusted PointRight® Pro 30™

Rehospitalizations measure and the CoreQ: Short Stay Discharge measure is provided in the table 5.3.4j2 (Attached; See Additional Validity Testing Results).

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025 data but was not used for testing in this submission.

5.3.4a Attach Additional Validity Testing Results

[5.3.4a-Additional-Validity-Testing-Results.zip](#)

5.3.5 Interpretation of Validity Results

1. Validity Testing for the Questionnaire Format used in the CoreQ: Short Stay Discharge Questionnaire

- A. The literature review shows that domains used in the Pilot CoreQ: Short Stay Discharge questionnaire items have a high degree of both face validity and content validity.
- B. Patients overall rankings, show the general “domain” areas used indicates a high degree of both face validity and content validity. Repeat testing in 2025 shows very similar results.
- C. The results show that 100% of residents are able to complete the response format used. This testing indicates a high degree of both face validity and content validity.
- D. The Flesch-Kinkaid scale score achieved for all questions indicates that respondents have a high degree of understanding of the items.

2. Testing the Items for the CoreQ: Short Stay Discharge Questionnaire

- A. The percent of missing responses for the items is very low. The distribution of the summary score is wide. This is important for quality improvement purposes, as nursing facilities can use benchmarks.
- B. EFA shows that one factor explains the common variance of the items. A single factor can be interpreted as the only “concept” being measured by those variables. This means that the instrument measures the global concept of satisfaction and not multiple areas of satisfaction. This supports the validity of the CoreQ instrument as measuring a single concept of “customer satisfaction”. This testing indicates a high degree of criterion validity.

3. Determine if a Sub-Set of Items Could Reliably be Used to Produce an Overall Indicator of Satisfaction (The Core Q: Short Stay Discharge Measure).

A. Using the correlation information of the Core Q: Short Stay Discharge questionnaire (22 items) and the 4 items representing the CoreQ: Short Stay Discharge questionnaire a high degree of correlation was identified. This testing indicates a high degree of criterion validity.

B. EFA shows that one factor explains the common variance of the items. A single factor can be interpreted as the only “concept” being measured by those variables. This means that the instrument measures the global concept of satisfaction and not multiple areas of satisfaction. This supports the validity of the CoreQ instrument as measuring a single concept of “customer satisfaction”. This testing indicates a high degree of criterion validity.

4. Validity Testing for the Core Q: Short Stay Discharge Measure.

A. The correlation of the 4 item CoreQ: Short Stay Discharge measure summary score (identified elsewhere in this document) with the overall satisfaction score (scored using all data and the same scoring metric) gave a value of 0.94.

That is, the correlation score between actual the “CoreQ: Short Stay Discharge Measure” and all of the 22 items used in the Pilot instrument indicates that the satisfaction information is approximately the same if we had included either the 4 items or the 22 item Pilot questions.

This indicates that the CoreQ: Short Stay Discharge instrument summary score adequately represents the overall satisfaction of the facility. This testing indicates a high degree of criterion validity.

(i) Relationship with CASPER Quality Indicators

The 8 CASPER quality indicators had a low to moderate level of negative correlation with the CoreQ: Short Stay Discharge measure. Those that correlate have a clear conceptual link with short stay, and those that do not are more associated with long stay residents or have unclear conceptual links to short stay customer satisfaction. The CASPER quality indicators that correlate with the CoreQ Short Stay Discharge score are any deficiency citations (-0.11; $p=0.07$), pressure ulcers (-0.22, $p<0.01$) and antidepressants (+0.13, $p=0.03$); those that do not correlate are physical restraints (-0.01, $p=0.91$), catheterization (-0.04, $p=0.56$), antipsychotic medications (-0.06, $p=0.32$), antianxiety medications (0.08, $p=0.19$), and hypnotic medications (0.04, $p=0.46$). This testing indicates a moderate degree of construct validity and convergent validity.

(ii) Relationship with Nursing Home Compare (NHC) Quality Indicators, Five Star ratings and staffing levels

The Nursing Home Compare (NHC) Quality Indicators, Five Star ratings, and staffing levels all had a moderately high levels of correlation and in the direction predicted with the CoreQ: Short-Stay Discharge measure. These correlations range from ± 0.120 to 0.330 . The CoreQ: Short-Stay Discharge measure is associated with these quality indicators, and always in the hypothesized direction (good correlates with good). In particular, as emphasized in the structure-process-outcome framework of the evidence section, the link between staffing and customer satisfaction is particularly high, as confirmed by the correlation coefficients 0.330 for RN hours per resident-day and 0.305 for total staffing hours per resident day.

We repeated some of this testing with 2025 data. This also included additional staffing data such as turnover, stability, and agency use. These factors were used as previous studies have shown strong associations with quality in nursing homes. We find a similar relationship with CoreQ. This updated testing indicates a high degree of construct validity and convergent validity.

(iii) Relationship with the risk-adjusted Discharge to Community Measure

The risk-adjusted Discharge to community measure was negatively correlated to the CoreQ: Short Stay Discharge measure. The correlations were small ranging from -0.05 to -0.16 . This was not as hypothesized which may be related to some SNFs that specialize in long stay, have very low discharge to community rates as admissions do not have a plan to go home.

(iv) Relationship with the risk adjusted PointRight® Pro 30™ Rehospitalizations

The risk-adjusted PointRight® Pro 30™ Rehospitalizations was negatively correlated to the CoreQ: Short Stay Discharge measure. The correlations were modest ranging from -0.22 to -0.31 , and all of them were statistically significant at the p-value of 0.05 . This is expected because lower rehospitalization rates (an indicator of high quality) are associated with higher satisfaction. This was as hypothesized. This testing indicates a reasonable degree of construct validity and convergent validity.

In summary, moderate correlations were identified between the quality measures. As noted by Mor and associates (2003, p.41) “there is only a low level of correlation among the various measures of quality.” Castle and Ferguson (2010) also show the pattern of findings of quality indicators in nursing facilities is consistently moderate with respect to the correlations identified. The magnitude of correlations of the CoreQ with quality metrics are consistent with other findings in this setting. Thus, it is not surprising that “very high” levels of correlations were not identified. Nevertheless, moderate correlations were identified and with a larger 2025 sample and more reliable data the correlations were consistent.

Summary

Validity testing demonstrated statistically significant associations between the performance measure and external staffing and quality indicators. Correlations ranged from 0.27 to 0.40 ($p < .001$ for all comparisons), indicating weak-to-moderate relationships in theoretically expected directions. Higher performance scores were associated with greater staff stability, lower turnover, increased staffing levels, and higher Five-Star ratings, supporting the construct validity of the measure (see Table 5.3.4i).

References

Castle N. G., Ferguson J. C. (2010). What is nursing home quality and how is it measured? *The Gerontologist*, 50(4), 426-442.

Mor V., Berg K., Angelelli J., Gifford D., Morris J., Moore T. (2003). The quality of quality measurement in U.S. nursing homes. *The Gerontologist*, 43(Special Issue II), 37-46.

More information is attached in 5.3.4a Attach Additional Validity Testing Results

Note: Data from CY2014 is included in the testing documents as a comparison to CY2025 data but was not used for testing in this submission.

5.4.1 Methods Used to Address Risk Factors

No risk adjustment or stratification

5.4.1a Other Methods Used

Risk adjustment is noted in some recent publications examining long-term care satisfaction. For example, one recent report noted “As of the date of this report, risk adjustment for geography (Twin Cities Metro vs. Other) is recommended. The U of MN suggests evaluating risk adjustment for size once there is sufficient data from small facilities (<20 residents), to conduct meaningful analysis.” (Shippee, Woodhouse, & Skarpho, 2023). The rationale for this has some merits, as this same report notes this “allows for more fair comparisons between providers who may serve residents with different needs and have different resources.”

However, this does come with some complications. First, it is not clear what risk adjustment methodology should be used. A simple stratification here would seem appropriate. Second, the notion of fair comparisons comes from a provider perspective. An alternative view is that a consumer should know the quality (i.e., satisfaction level) of a facility based on a standard and uniform metric. So risk adjustment for CoreQ using facility metrics could be misleading.

A memo regarding the Home Health Care CAHPS (HHCAHPS) Survey patient-mix adjustments (MUC2024, Adjustment Factors) noted that in 2022 HHCAHPS field test were used to determine which patient characteristics (patient mix) affected patients' assessment of the home health care they received. As with prior HHCAHPS field tests, the results of this showed differences in responses attributable to patient mix characteristics. Patient mix characteristics that were important included: Age, Education, Self-reported health status, and Mental/emotional status. Some have noted issues with HHCAHPS risk-adjustment (Lines et al., 2020).

In long-term care hospitals (LTACs) Zuckerbraun and associates (2020) identified the need for the adjustment of a CHAPS like survey. Patient risk factors included: age, gender, education, ethnicity, race, marital status, and overall health.

Kwon and Bowblis (2024) included the percent of residents with dementia, psychiatric illness and depression in their risk adjustment. For testing of CoreQ, a similar approach was not possible as the surveys are not linked directly to patient characteristics.

For CoreQ, an overall score is calculated for a facility (and as described elsewhere is not an average score of the items). Thus, the CoreQ score cannot be calculated using specific characteristics (such as age). So in our testing we used the average score for one question item (In recommending this facility to your friends and family, how would you rate it overall?). We acknowledge that one limitation of this is that the risk adjustment (if any) may be different for the other question items in CoreQ. Also, no interaction effects are used (e.g., male and <65). Factors such as SES and other factors not included may have an influence. And, lastly the theoretical reasons for the potential differences in scores is not well explained in the literature.

CoreQ Discharge

Age	Mean Score
<65	3.87

65-75	3.92
>75	3.83

Sex

Male	3.88
Female	3.85

Education

Some High School	3.89
High School Graduate/GED	3.84
College Graduate or More	3.80

Testing summary. Conducted in 2025 with 4,344 discharged residents. The facilities used were geographically diverse, and representative of national long-term care characteristics for size, payor mix, and ownership). The score distribution is 1 (low) to 5 (high). The average scores do vary by the patient mix. However, the influence is small and given the numerous unknowns in this area (described above) risk-adjustment is not recommended at this time.

References

Kwon, J. & Bowblis, J.R. (2024). Association between nursing home five-star ratings and consumer satisfaction. JAMDA, 25, 105322.

Lines, L.M., Anderson, W.L., Gordek, Ha., & Kenyoun, A.E. (2020). Risk adjustment in home health care CAHPS. AJMC, 25(2), 58-59.

MUC2024. Patient-Mix Adjustment Factors for Home Health Care CAHPS Survey Field Test Results.

Shippee T., Woodhouse, M., & Skarpho, T. (2023). Building Resident Quality of Life and Family Satisfaction Measures for the Minnesota Assisted Living Report Card. A Report to the Minnesota Department of Human Services.

Zuckerbraun, S.M., Deutsch, A., Eicheldinger C., et al. (2020). Risk adjustment, mode adjustment, and nonresponse bias analysis on quality measures from a long-term care hospital experience of care survey. *Archives of Physical Medicine and Rehabilitation*, 101, 841-51.

5.4.1b Rationale For No Adjustment or Stratification

Risk adjustment is noted in some recent publications examining long-term care satisfaction. For example, one recent report noted “As of the date of this report, risk adjustment for geography (Twin Cities Metro vs. Other) is recommended. The U of MN suggests evaluating risk adjustment for size once there is sufficient data from small facilities (<20 residents), to conduct meaningful analysis.” (Shippee, Woodhouse, & Skarpho, 2023). The rationale for this has some merits, as this same report notes this “allows for more fair comparisons between providers who may serve residents with different needs and have different resources.”

However, this does come with some complications. First, it is not clear what risk adjustment methodology should be used. A simple stratification here would seem appropriate. Second, the notion of fair comparisons comes from a provider perspective. An alternative view is that a consumer should know the quality (i.e., satisfaction level) of a facility based on a standard and uniform metric. So risk adjustment for CoreQ using facility metrics could be misleading.

A memo regarding the Home Health Care CAHPS (HHCAHPS) Survey patient-mix adjustments (MUC2024, Adjustment Factors) noted that in 2022 HHCAHPS field test were used to determine which patient characteristics (patient mix) affected patients’ assessment of the home health care they received. As with prior HHCAHPS field tests, the results of this showed differences in responses attributable to patient mix characteristics. Patient mix characteristics that were important included: Age, Education, Self-reported health status, and Mental/emotional status. Some have noted issues with HHCAHPS risk-adjustment (Lines et al., 2020).

In long-term care hospitals (LTACs) Zuckerbraun and associates (2020) identified the need for the adjustment of a CHAPS like survey. Patient risk factors included: age, gender, education, ethnicity, race, marital status, and overall health.

Kwon and Bowblis (2024) included the percent of residents with dementia, psychiatric illness and depression in their risk adjustment. For testing of CoreQ, a similar approach was not possible as the surveys are not linked directly to patient characteristics.

For CoreQ, an overall score is calculated for a facility (and as described elsewhere is not an average score of the items). Thus, the CoreQ score cannot be calculated using specific characteristics (such as age). So in our testing we used the average score for one question item (In recommending this facility to your friends and family, how would you rate it overall?). We acknowledge that one limitation of this is that the risk adjustment (if any) may be different for the other question items in CoreQ. Also, no interaction effects are used (e.g., male and <65). Factors such as SES and other factors not included may have an influence. And, lastly the theoretical reasons for the potential differences in scores is not well explained in the literature.

CoreQ Short-Stay Discharge

Age	Mean Score
<65	3.87
65-75	3.92
>75	3.83
Sex	
Male	3.88
Female	3.85
Education	
Some High School	3.89
High School Graduate/GED	3.84
College Graduate or More	3.80

Testing summary. Conducted in 2025 with 4,344 discharged residents. The facilities used were geographically diverse, and representative of national long-term care characteristics for size, payor mix, and ownership). The score distribution is 1 (low) to 5 (high). The average scores do vary by the patient mix. However, the influence is small and given the numerous unknowns in this area (described above) risk-adjustment is not recommended at this time.

To date, results from satisfaction surveys have mostly not used risk adjustment. The CoreQ measures overall satisfaction. Providing the scores across entities without any adjustment does provide a fair comparison. In addition, the data elements that could be used for any adjustment are not collected as part of the CoreQ (the surveys are anonymous). Nevertheless, we are examining the potential to risk adjust the CoreQ scores.

References

Kwon, J. & Bowblis, J.R. (2024). Association between nursing home five-star ratings and consumer satisfaction. *JAMDA*, 25, 105322.

Lines, L.M., Anderson, W.L., Gordek, Ha., & Kenyoun, A.E. (2020). Risk adjustment in home health care CAHPS. *AJMC*, 25(2), 58-59.

MUC2024. Patient-Mix Adjustment Factors for Home Health Care CAHPS Survey Field Test Results.

Shippee T., Woodhouse, M., & Skarpho, T. (2023). Building Resident Quality of Life and Family Satisfaction Measures for the Minnesota Assisted Living Report Card. A Report to the Minnesota Department of Human Services.

Zuckerbraun, S.M., Deutsch, A., Eicheldinger C., et al. (2020). Risk adjustment, mode adjustment, and nonresponse bias analysis on quality measures from a long-term care hospital experience of care survey. *Archives of Physical Medicine and Rehabilitation*, 101, 841-51.

5.4.2 Conceptual Model Rationale

N/A

5.4.3 Variable Distribution Across Measured Entities

N/A

5.4.4 Risk/Case-Mix Adjustment Modeling and/or Stratification Results

N/A

5.4.6 Interpretation of Risk/Case-mix Factor Findings

N/A

5.4.7 Final Approach to Address Risk Factors

No risk adjustment or stratification

6.1.1 Current Status

In use

6.1.2 Current or Planned Use(s)

Public Reporting, Payment Program, Professional Certification or Recognition Program, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Quality Improvement (Internal to the specific organization)

6.1.3 Current Use(s)

Payment Program, Professional Certification or Recognition Program, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Quality Improvement (Internal to the specific organization)

6.1.3 Program Details

Name of the program and sponsor

Massachusetts Senior Care Quality Improvement Program

URL of the program

<https://maseniorcare.org/>

Purpose of the program

Quality Improvement among nursing homes in Massachusetts using the CoreQ Short-Stay survey.

Purpose of the program

Quality Improvement among nursing homes in Massachusetts using the CoreQ Short-Stay survey.

Geographic area and percentage of accountable entities and patients included

Massachusetts; 150 facilities. The estimated number of patients/residents is about 99,501.

Geographic area and percentage of accountable entities and patients included

Massachusetts: 342 facilities and 100,129 residents

Applicable level of analysis and care setting

Facility-Level; skilled nursing facilities

,

Name of the program and sponsor

AHCA/NCAL National Quality Award Program

URL of the program

<https://www.ahcancal.org/Quality/National-Quality-Award-Program/Pages/default.a...>

Purpose of the program

The AHCA/NCAL National Quality Awards Program is a progressive program that is based on the Baldrige Criteria for Performance Excellence. This nationally recognized approach to performance excellence focuses on systems-based quality improvement to create.

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The AHCA/NCAL National Quality Awards Program is a progressive program that is based on the

Baldrige Criteria for Performance Excellence. This nationally recognized approach to performance excellence focuses on systems-based quality improvement to create.

Geographic area and percentage of accountable entities and patients included

The geographic area is the nation. The AHCA/NCAL National Quality Awards Program is used across the nation. Over 1,700 entities have received an award to date. This represents about 180,000 patients/residents.

Geographic area and percentage of accountable entities and patients included

The geographic area is the nation. The AHCA/NCAL National Quality Awards Program is used across the nation. Over 1,700 entities have received an award to date.

Applicable level of analysis and care setting

The level of analysis is the facility-level. The care settings are skilled nursing and assisted living facilities.

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Name of the program and sponsor

LTC Trend Tracker

URL of the program

<https://www.ahcancal.org/Data-and-Research/LTC-Trend-Tracker/Pages/default.aspx>

Purpose of the program

The program allows skilled nursing and assisted living organizations to benchmark personal metrics to those of their peers and examine ongoing quality improvement efforts.

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The program allows skilled nursing and assisted living organizations to benchmark personal metrics to those of their peers and examine ongoing quality improvement efforts.

Geographic area and percentage of accountable entities and patients included

About 15,266 Skilled Nursing Facilities and 9,280 Assisted Living Facilities use the program across the United States. This represents about 4,407,921 patients/residents.

Geographic area and percentage of accountable entities and patients included

Skilled Nursing and Assisted living facilities across the United States utilize LTC Trend Tracker. About 15,266 Skilled Nursing Facilities and 9,280 Assisted Living Facilities use the program.

Applicable level of analysis and care setting

The level of analysis is the facility-level. The care settings are skilled nursing and assisted living facilities.

6.1.4 Attributes for Accountability Use

Measuring and improving patient satisfaction is valuable to patients, because it is a way forward on improving the patient-provider relationship, which influences health care outcomes. The target population is all residents in long-term care, that includes Medicare, Medicaid and private pay.

Functional long-term care accountability programs often include a satisfaction component. These programs often prioritize the following components:

- Quality Assurance and Performance Improvement (QAPI) system in place,
- Person-centered care,
- Data-driven monitoring of performance metrics,
- Strong Leadership,
- And ethical compliance.

Together, all these components create a framework for quality improvement.

6.2.1 Actions of Measured Entities to Improve Performance

Improving performance relies on the testing of change and benchmarking. Frequently collecting data is a necessary step to enhance and maximize quality improvement. Data collected during tests provides critical insight that is needed to determine the best path forward. Benchmarking is a process used to measure the quality and performance of your organization. Benchmarking plays a significant role in identifying patterns, providing context, and then guiding decision-making processes.

The CoreQ Short-Stay Discharge Resident Satisfaction measure allows skilled nursing facilities to measure the impact of tests of change and benchmark their performance relative to other facilities. Specifically, facilities can increase the number of staff and/or improve staff training and measure the impact using CoreQ. Similarly, improvements in reduced adverse events, such as falls and hospitalizations, increase resident rating of care received and increase satisfaction. Finally, facilities can understand and address the needs and wants of residents, like certain activities or food, to increase their willingness to recommend the facility and CoreQ performance

The actions needed to improve performance are not difficult once a process or plan for improvement is developed (e.g. Quality Assurance/Performance Improvement (QAPI)). Measured entities can overcome difficulties by monitoring data and results. Monitoring data often ensures you preserve the advances of the quality improvement effort. Developing a feedback and monitoring system to sustain continuous improvement helps providers preserve the advances of the quality improvement effort.

6.2.2 Feedback on Measure Performance

The CoreQ measure for skilled nursing residents has elevated the resident and family voice as well as help guide consumer choices as another way for potential residents to review the quality of a care facility. Specifically, the CoreQ measure has been independently tested as a valid and reliable measure of customer satisfaction. The CoreQ is a short survey with three to four questions which reduces response burden on residents and allows organizations to benchmark their results with consistent questions and response scale. Satisfaction vendors and providers have particularly appreciated how easy it is to integrate the CoreQ questions to their satisfaction surveys. They

believe the short length relative to other survey tools, like HCAHPS, helps increase and maintain high response rates.

AHCA/NCAL developed LTC Trend Tracker, a web-based tool that enables long term and post-acute care providers, including assisted living, to access key information that can help their organization succeed. The CoreQ report and upload feature within LTC Trend Tracker includes an API (application programming interface) for vendors performing the survey on behalf of SNFs to upload data, so that the aggregate CoreQ results will be available to providers. Given that LTC Trend Tracker is the leading method for AHCA SNF members to profile their quality and other data, the incorporation of CoreQ into LTC Trend Tracker means it will immediately become the de facto standard for customer satisfaction surveys for the SNF industry. AHCA/NCAL continues to work with customer satisfaction vendors to promote CoreQ and receives requests for vendors to be added to the list of those incorporating CoreQ. Currently, there are over 40 vendors across the nation who can administer the CoreQ survey.

We also are working with states who require satisfaction measurement to incorporate CoreQ into their process. AHCA/NCAL has a presence in each state, and our state affiliates continue to promote the use of the CoreQ.

Feedback is continuously obtained through meetings with facility operators and vendors serving on AHCA/NCAL's Customer Experience Committee and the CoreQ Vendors' Workgroup. The purpose of the Customer Experience Committee is to champion the importance of meeting customer expectations now and in the future. This includes defining quality from the consumer's perspective. Key areas of focus include collecting, analyzing, and using data to drive performance improvement, and the application of successful practices. The CoreQ Vendors' Workgroup was created to help improve CoreQ usage and discuss ways to best support the CoreQ Vendors' who administer the surveys.

6.2.3 Consideration of Measure Feedback

AHCA/NCAL developed LTC Trend Tracker, a web-based tool that enables long term and post-acute care providers, including assisted living, to access key information that can help their organization succeed. The CoreQ report and upload feature within LTC Trend Tracker includes an API for vendors performing the survey on behalf of SNFs to upload data, so that the aggregate CoreQ results will be available to providers. Given that LTC Trend Tracker is the leading method for AHCA/NCAL SNF members to profile their quality and other data, the incorporation of CoreQ into LTC Trend Tracker means it will immediately become the de facto standard for customer satisfaction surveys for the SNF industry. AHCA/NCAL continues to work with customer satisfaction vendors to promote CoreQ and receives requests for vendors to be added to the list of those incorporating CoreQ.

Among providers and vendors, we receive feedback during committee and workgroup meetings. For feedback on LTC Trend Tracker, we scope out the cost and feasibility of suggested enhancements. For example, we added a more graphical user interface option for the API, in addition to the original command line interface that was more technical, based on feedback from vendors.

For some of the feedback we receive, we use it as an opportunity to educate about best practices in survey collection and administration. For example, some vendors and providers inquire about administering CoreQ over the phone or other mixed modes of collection. In this instance, we caution vendors and providers about possible response or interviewer bias and recommend using written surveys as the primary method because it has been tested and shown to be reliable and valid.

6.2.4 Progress on Improvement

The impact of COVID pandemic and the gradual recovery shows in the performance trend. Prior to the pandemic, the average satisfaction rate in LTC Trend Tracker was 78.6% (n=1,642). Over the next two years, the average rate dropped to a low of 56.6% (n=1,949) as the industry faced a massive staffing crisis, limited visitation, and had intense isolation procedures in place to limit potential outbreaks. Since, the average rate has been on a rise. The latest average rate is 72.8% (n=756). We suspect the increase in industry workforce as reported by the U.S. Bureau of Labor Statistics and the return to more normal operations related to visitors, therapy, and patient interactions have helped increase satisfaction rates.

6.2.5 Unexpected Findings

There were no negative consequences to individuals or populations identified during testing or evidence of unintended negative consequences to individuals or populations reported since the implementation of the CoreQ: Short Stay Discharge questionnaire or the measure that is calculated using this questionnaire.

This is consistent with satisfaction surveys in general in nursing facilities. Many other satisfaction surveys are used in nursing facilities with no reported unintended consequences to patients or their families.

There are no potentially serious physical, psychological, social, legal, or other risks for patients. However, in some cases the satisfaction questionnaire can highlight poor care for some dissatisfied patients, and this may make those patients further dissatisfied.

7.1 Supplemental Attachment

[Table-1c.5-Score-of-Importance_SS-Discharge.docx](#)

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Measure Developer POC

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The measure developer is different from the measure steward

Yes

Steward Address

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Steward Organization

American Health Care Association/National Center for Assisted Living

Steward Organization URL

<https://www.ahcancal.org/Pages/default.aspx>

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