



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

Brief Measure Information

NQF #: 0692

Corresponding Measures:

De.2. Measure Title: Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Long-Stay Resident Instrument

Co.1.1. Measure Steward: Agency for Healthcare Research and Quality

De.3. Brief Description of Measure: The CAHPS® Nursing Home Survey: Long-Stay Resident Instrument is an in-person survey instrument to gather information on the experience of long stay (greater than 100 days) residents currently in nursing homes. The Centers for Medicare & Medicaid Services requested development of this survey, and can be used in conjunction with the CAHPS Nursing Home Survey: Family Member Instrument and Discharged Resident Instrument. The survey instrument provides nursing home level scores on 5 topics valued by residents: (1) Environment; (2) Care; (3) Communication & Respect; (4) Autonomy and (5) Activities. In addition, the survey provides nursing home level scores on 3 global items.

1b.1. Developer Rationale: The goal would be to use this resident survey as feedback to transform nursing home care to be resident-directed/centered and achieve the highest quality of life and quality of care for this vulnerable nursing home population.

S.4. Numerator Statement: The following topics are measured for nursing homes from a resident's perspective:

Composite 1: Environment – sum of applicable resident scores on 8 survey items (see codebook for points assigned to each response category) related to aspects of environment in nursing home

Composite 2: Care - sum of applicable resident scores on 5 survey items

Composite 3: Communication and Respect- facility score is sum of applicable resident scores on 3 survey items

Composite 4: Autonomy - sum of applicable resident scores on 3 survey items

Composite 5: Activities – sum of applicable resident scores on 2 survey items

Global Items:

Global Rating of care received from staff: sum of resident scores on 0 to 10 scale

Global Rating of overall nursing home: sum of resident scores on 0 to 10 scale

Global item whether respondent would recommend nursing home: sum of resident scores on item (see codebook for points assigned to each response category)

S.7. Denominator Statement: The denominator is the total number of surveys for respondents that meet CAHPS completion standard and any applicable screener (discussed in details below)

S.10. Denominator Exclusions: We exclude residents who (1)are under age 18, (2)are comatose, (3) are severely impaired in mental status or in cognitive skills for daily decisionmaking, (4) cannot answer 3 questions in a row; (5) conscious but unresponsive to interviewer and (6) unable to speak English for survey (we expect Spanish translation will be available in summer/fall 2011). All residents whose length of stay (LOS) in the facility is equal to or less than 100 days from the date of admission will also be excluded. Residents who return to the nursing home following any hospital discharge will not have their stay reset to zero when they return to the facility. AHRQ will harmonize its specification on long stay residents with CMS.

De.1. Measure Type: Outcome

S.23. Data Source: Special or unique data, Survey : Patient

S.26. Level of Analysis: Facility/Agency

IF Endorsement Maintenance – Original Endorsement Date: Mar 03, 2011 **Most Recent Endorsement Date:** Mar 03, 2011

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[0692_Evidence_MSF5.0_Data.doc](#)

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in quality envisioned by use of this measure)

The goal would be to use this resident survey as feedback to transform nursing home care to be resident-directed/centered and achieve the highest quality of life and quality of care for this vulnerable nursing home population.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

The 2008 National Ombudsmen Reporting System (NORS) data showed that the top complaint of nursing home residents and their families, eliciting some 14,329 complaints to ombudsmen, was failing to respond to requests for assistance. Specific complaints relating to these items include lack of assistance with toileting which had 3,404 complaints; lack of assistance with drinking which had 2,899 complaints; and lack of assistance with eating which had 1,529 complaints (NORS, 2008). Complaints relating to dignity, respect and staff attitudes were also among the top ten.

Under contract with CMS, states conduct nursing home inspections, known as surveys, to assess compliance with federal quality and safety requirements, including requirements for resident rights and quality of life. According to the CMS Nursing Home Compare website, the US average number of nursing home deficiencies issued as of March 2010 was 8; however the range of deficiencies by state was 0 to 68.

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

1. National Ombudsmen Reporting System (NORS, 2008). Top 20 complaints by category for nursing facilities (FFY 1996-2008). 2008 National Ombudsman Reporting System Data Tables (Unlettered Tables in Appendix B). Retrieved on December 31, 2009 from http://www.aoa.gov/AoARoot/AoA_Programs/Elder_Rights/Ombudsman/National_State_Data/2008/Index.aspx.

2. CMS Nursing Home Compare website contains information on U.S. average number of deficiency citations at www.medicare.gov/NHCompare

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. (This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

not available

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

not available

1c. High Priority (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Patient/societal consequences of poor quality

1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in 1c.4.

According to the 2004 National Nursing Home Survey (NNHS), there were approximately 1.5 million nursing home residents in 16,100 nursing home facilities (Jones et al, 2009). They are a population with significant limitations in activities of daily living (ADLs) with 51% receiving assistance with all 5 ADLs (bathing, dressing, toileting, transferring or eating) and less than 3% receiving no ADL help (Jones et al 2009); about 69% have cognitive impairment as measured by the Cognitive Performance Scale (CMS 2008). The National Health Expenditures Accounts (CMS, 2009) estimate that nursing home costs totaled \$131 billion in 2008.

With the passage of the Omnibus Reconciliation Act of 1987 (OBRA'87) Congress responded to growing concerns about the quality of care that nursing home residents received by requiring reforms in the federal certification and oversight of nursing homes. OBRA'87 shifted evaluations of health care quality from a focus on structure, and process criteria to clinical outcomes, resident satisfaction and quality of life. Since OBRA'87 implementation, GAO (2005; 2007) has continued to investigate quality of care in nursing homes and quality oversight activities of CMS and the states.

Concurrent with changes from OBRA'87 implementation, a radical rethinking of the long term care system known as "culture change" began more than a decade ago. Culture change refers to the transformation of nursing homes from an "acute care" model to a consumer-directed model. Common themes of changes include: autonomy in personal choices for the residents, improved communication between residents and staff, and more homelike environments (www.pioneernetwork.net). The Pioneer Network estimates that 5% of nursing homes have fully adopted culture change (www.pioneernetwork.net). Resident/Patient Experience surveys are one tool for a nursing home to use to become more resident-centered. The Institute of Medicine (2010) includes patient-centeredness in its conceptual framework for categorizing health care quality and disparities measurement. The National Priorities Partnership (<http://www.nationalprioritiespartnership.org/PriorityDetails.aspx?id=596>) also includes patient and family engagement as one of its priorities.

1c.4. Citations for data demonstrating high priority provided in 1a.3

Jones, A. L., Dwyer, L.L., Bercovitz, A.R., Strahan, G. The National Nursing Home Survey: 2004 Overview. National Center for Health Statistics. Vital Health Stat. 13(167). 2009

CMS, Nursing Home Data Compendium, 2008 edition.

CMS national Health Expenditure Data is at <http://www.cms.gov/NationalHealthExpendData/>

GAO (Dec. 2005). "Despite increased oversight, challenges remain in ensuring high-quality care and resident safety" www.gao.gov/cgi-bin/getrpt?GAO-06-117.

GAO (May 2007). "Continued attention is needed to improve quality of care in small but significant share of homes." www.gao.gov/cgi-bin/getrpt?GAO-07-794T.

Institute of Medicine Committee on Future Directions for the National Healthcare Quality and Disparities Reports; Cheryl Ulmer,

Michelle Bruno, and Sheila Burke, Editors; Future Directions for the National Healthcare Quality and Disparities Reports. Washington, DC: National Academy Press, 2010

1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

De.6. Non-Condition Specific (check all the areas that apply):

[Person-and Family-Centered Care](#)

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: [CODEBOOK FOR LONG STAY NURSING HOME RESIDENT final tues 5_11_10.doc](#)

S.3. For endorsement maintenance, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)
IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

The following topics are measured for nursing homes from a resident's perspective:

Composite 1: Environment – sum of applicable resident scores on 8 survey items (see codebook for points assigned to each response category) related to aspects of environment in nursing home

Composite 2: Care - sum of applicable resident scores on 5 survey items

Composite 3: Communication and Respect- facility score is sum of applicable resident scores on 3 survey items

Composite 4: Autonomy - sum of applicable resident scores on 3 survey items

Composite 5: Activities – sum of applicable resident scores on 2 survey items

Global Items:

Global Rating of care received from staff: sum of resident scores on 0 to 10 scale

Global Rating of overall nursing home: sum of resident scores on 0 to 10 scale

Global item whether respondent would recommend nursing home: sum of resident scores on item (see codebook for points assigned to each response category)

S.5. Time Period for Data (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

non-specific present – see 3a.6 for cognitive testing results for this time window decision

S.6. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

(Note: Question # is from final survey which may differ from pilot survey)

Composite 1: 8 survey items Q1, Q3, Q4, Q5, Q6, Q18, Q19, Q20

Composite 2: 5 survey items Q8, Q9, Q10, Q12, Q29

Composite 3: 3 survey items Q13, Q14, Q15

Composite 4: 3 survey items Q30, Q31, Q32

Composite 5: 2 survey items Q33, Q34

Global items: 3 survey items Q16, Q17, Q35

S.7. Denominator Statement (Brief, narrative description of the target population being measured)

The denominator is the total number of surveys for respondents that meet CAHPS completion standard and any applicable screener (discussed in details below)

S.8. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Elderly

S.9. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

Composite 1: Environment

the denominator is the total number of completed surveys for 7 out of 8 questions in this composite excluding Q3, where it is the number of surveys completed by all those who responded “yes” to screener Q2

Composite 2: Care

the denominator is the total number of completed surveys for 2 out of 5 questions in this composite excluding these questions:

Q8: the number of surveys completed by all those who responded “yes” to screener Q7

Q12: the number of surveys completed by all those who responded “yes” to screener Q11

Q29: the number of surveys completed by all those who responded “yes” to screener Q28

Composite 3: Communication and Respect

the denominator is the total number of completed surveys for all 3 questions

Composite 4: Autonomy: the denominator is the total number of completed surveys for all 3 questions in this composite

Composite 4: Activities: the denominator is the total number of completed surveys for the 2 questions in this composite

Global Items: for all 3 global items the denominator is the total number of completed surveys.

S.10. Denominator Exclusions (Brief narrative description of exclusions from the target population)

We exclude residents who (1) are under age 18, (2) are comatose, (3) are severely impaired in mental status or in cognitive skills for daily decisionmaking, (4) cannot answer 3 questions in a row; (5) conscious but unresponsive to interviewer and (6) unable to speak English for survey (we expect Spanish translation will be available in summer/fall 2011). All residents whose length of stay (LOS) in the facility is equal to or less than 100 days from the date of admission will also be excluded. Residents who return to the nursing home following any hospital discharge will not have their stay reset to zero when they return to the facility. AHRQ will harmonize its specification on long stay residents with CMS.

S.11. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

1. Residents who are under age 18.
2. Residents whose last MDS 3.0 evaluation had a Brief Interview for Mental Status(BIMS)score of less than 8 on item C0500 or the staff assessment of mental status indicated they were “severely impaired in cognitive skills for daily decision making” (MDS 3.0 C1000 = 3).
3. Residents who were in a coma (MDS3.0 B0100 =1).
4. Residents who had not been in the home for more than 100 days or would not be by the time of data collection/date of interview. Residents who return to the nursing home following any hospital discharge will not have their stay reset to zero when they return to the facility. AHRQ will harmonize its specification on long stay residents with CMS

During survey administration there were the following additional exclusions determined by trained interviewers:

1. Non-English speaking (pilot survey only available in English)- (we expect Spanish translation will be available in summer/fall 2011).
2. unable to answer 3 questions in a row
3. unresponsive to interviewer

S.12. Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)
not applicable

S.13. Risk Adjustment Type (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)

No risk adjustment or risk stratification

If other:

S.14. Identify the statistical risk model method and variables (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)

S.15. Detailed risk model specifications (must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. Detailed risk model specifications (if not provided in excel or csv file at S.2b)

S.16. Type of score:

Non-weighted score/composite/scale

If other:

S.17. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

S.18. Calculation Algorithm/Measure Logic (Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)

SCORING FOR CAHPS NURSING HOME SURVEY: LONG STAY RESIDENT INSTRUMENT

1. Global ratings and items

- Measured by resident’s overall care from staff on a scale of 0-10 (Q16)

- Measured by resident's overall rating of the nursing home on a scale of 0-10 (Q17)
- Measured by whether the resident would recommend the nursing home to others on a scale of Definitely No, Probably No, Probably Yes, and Definitely Yes (Q35)

2. Domains of care

- Environment (Q1, Q3, Q4, Q5, Q6, Q18, Q19, Q20)
- Care (Q8, Q9, Q10, Q12, and Q29)
- Communication/Respect (Q13, Q14, & Q15)
- Autonomy (Q30, Q31, & Q32)
- Activity (Q33 & Q34)

3. Production of Nursing Home scores – Global items

- Nursing home level ratings for Q16 and Q17 are presented using a three-category display for the 0-10 scale question: 0-6, 7-8, and 9-10.
- Q35: Nursing home level scores are presented using percentages for the following three categories: definitely would recommend, probably would recommend, and probably not or definitely not recommend.

4. Production of Nursing Home scores - Domain-level composites

There are five domain-level composites included in the Nursing Home Long-Stay Resident Questionnaire: Environment, Care, Communication/Respect, Autonomy, and Activities.

• Environment

The nursing home score for this composite is produced by combining responses to eight questions:

- o Q1: "What number would you use to rate the food here at the nursing home?"
- o Q3: "When you eat in the dining room, what number would you use to rate how much you enjoy mealtimes?"
- o Q4: "What number would you use to rate how comfortable the temperature is in the nursing home?"
- o Q5: "What number would you use to rate how clean the nursing home is?"
- o Q6: "What number would you use to describe how safe and secure you feel in the nursing home?"
- o Q18: "Is the area around your room quiet at night?"
- o Q19: "Are you bothered by noise in the nursing home during the day?" (note: "No" represents higher quality so this question needs to be reverse coded)
- o Q20: "If you have a visitor, can you find a place to visit in private?"

- Respondents to five of the above questions can answer on a 0-10 scale. Respondents to three of the above questions can answer "yes", "no" or "sometimes" to each. A nursing home's score on the "Environment" composite is the proportion of cases in each response category.

The steps to calculate a nursing home provider's composite score follow:

Step 1 – Calculate the proportion of cases in each response category for the first question:

P11 = Proportion of respondents who gave a rating of "0 to 6"

P12 = Proportion of respondents who gave a rating of "7 or 8"

P13 = Proportion of respondents who gave a rating of "9 or 10"

Follow the same steps for the second question:

P21 = Proportion of respondents who gave a rating of "0 to 6"

P22 = Proportion of respondents who gave a rating of "7 or 8"

P23 = Proportion of respondents who gave a rating of "9 or 10"

Repeat the same procedure for each of the rating questions in the composite.

For the three questions with "yes/no/sometimes; consider "yes" to be equivalent to rating of "9 or 10"; "sometimes" to be equivalent to rating of "7 or 8" and "no" to be equivalent to rating of "0 to 6", except for Q19 where it would be reverse coded

because “no” represents better quality.

Survey sponsors may choose alternative methods to combine proportions (such as different groups of rating from 0 to 10).

Step 2 – Combine responses from the questions to form the composite

Calculate the average proportion responding to each category across the questions in the composite. For example, in the “Environment” composite (eight questions), calculations would be as follows:

PC1 = Composite proportion who said “yes” or gave a rating of “9 or 10” = $(P11 + P21 + P31 + P41 + P51 + P61 + P73^* + P81) / 8$

* Q19 is reverse coded

PC2 = Composite proportion who said “sometimes” or gave a rating of “7 or 8” = $(P12 + P22 + P32 + P42 + P52 + P62 + P72 + P82) / 8$

PC3 = Composite proportion who said “no” or gave a rating of “0 to 6” = $(P13 + P23 + P33 + P43 + P53 + P63 + P71^* + P83) / 8$

* Q19 is reverse coded

- Care

The nursing home score for this composite is produced by combining responses to five questions:

- o Q8: “What number would you use to rate how well the medicine worked to help with aches or pain?”
- o Q9: “What number would you use to rate how well the staff help you when you have pain?”
- o Q10: “What number would you use to rate how quickly the staff come when you call for help?”
- o Q12: “What number would you use to rate how gentle the staff are when they're helping you?”
- o Q29: “Do the staff make sure you have enough personal privacy when you dress, take a shower, or bathe?”

Respondents to four of the above five questions can answer on a 0-10 scale. Respondents can answer “yes,” “no,” “sometimes,” to one question - Q29. The steps to calculate a nursing home’s composite score for this domain are similar to Environment composite except that in Step 2, each composite proportion category would be divided by 5 (the total number of items).

- Communication/Respect

The nursing home score for this composite is produced by combining responses to three questions:

- o Q13: “What number would you use to rate how respectful the staff are to you?”
- o Q14: “What number would you use to rate how well the staff listen to you?”
- o Q15: “What number would you use to rate how clearly the staff explain things about your care to you?”

Respondents to the above questions can answer 0-10 to each. The steps to calculate a nursing home’s composite score for this domain are similar to Environment composite except that in Step 2, each composite proportion category would be divided by 3 (the total number of items).

- Autonomy

The nursing home score for this composite is produced by combining responses to three questions:

- o Q30: “Can you choose what time you go to bed?”
- o Q31: “Can you choose what clothes you wear?”
- o Q32: “Can you choose what activities you do here?”

Respondents to the above questions can answer “yes”, “no” or “sometimes” to each. The steps to calculate a nursing home’s composite score for this domain are similar to Environment composite except that in Step 2, each composite proportion category would be divided by 3 (the total number of items).

- Activities

The nursing home score for this composite is produced by combining responses to third questions:

- o Q33: “Are there enough organized activities for you to do on the weekends?”
- o Q34: “Are there enough organized activities for you to do during the week?”

Respondents to the above questions can answer “yes”, “no” or “sometimes” to each. The steps to calculate a nursing home’s composite score for this domain are similar to Environment composite except that in Step 2, each composite proportion category would be divided by 2 (the total number of items).

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment *(You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)*

S.20. Sampling *(If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)*

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

Sampling Guidelines

Sampling Frame Elements

The following information must be included in the sample frame that a sponsor provides to the vendor. These data elements should come from the nursing home facility’s medical records of all current residents; most, but not all, data may be collected from the most current Minimum Data Set (MDS)3.0 available:

- Name
- Room number
- Legal guardian or other legal oversight
- Date of admission (note: Residents who return to the nursing home following any hospital discharge will not have their stay reset to zero when they return to the facility. (AHRQ will harmonize its specification on long stay residents with CMS)
- Comatose status (MDS 3.0 item B0100)
- Brief Interview for Mental Status (BIMS) score MDS 3.0 item C0500 or the staff assessment of mental status on cognitive skills for daily decision making” (MDS 3.0 C1000).

The following elements are also helpful in the interviewing process; if possible, these should be included in the sample frame as well:

- Patient unique nursing home identifier
- Gender (MDS 3.0 item A0800)
- Date of birth (MDS 3.0 item A0900)

Researchers have found the following elements to be potentially useful analytic variables:

- Race/Ethnicity (MDS 3.0 item A1000)
- Education (not available on MDS 3.0)
- Date of most recent MDS assessment
- Current payment source: Medicaid or Medicare

Sample Size

- The CAHPS Team’s preliminary recommendation is to aim for a minimum of 50 completed interviews per facility. Based on our field test experiences, an initial sample size of 75 eligible residents may be needed to yield 50 completed interviews.
- Nursing homes that may not be able to achieve the recommended minimum of 50 completed interviews should attempt to interview all eligible residents.
- Nursing homes large enough to potentially yield more completed surveys than the recommended minimum should create a list of all eligible residents, randomize the list, then attempt to interview residents selecting in order from the randomized list until the targeted number of interviews is reached. Or, if they choose, they could interview additional residents after the target number of interviews is reached.

Eligible Population

A number of criteria define the population eligible to participate in the survey. To qualify as an eligible survey respondent:

- The resident must be 18 years or older.
- The resident must be living at the nursing home at the time of the initial visit by the interviewer.
- The resident must have been living at the nursing home for more than 100 days at the time of the initial visit by the interviewer (AHRQ will harmonize its day count specification with CMS).

If a resident has a legal guardian or other legal oversight, interviewers must have prior approval from the guardian or overseer before talking to the resident.

Excluded Populations

The only population excluded from the sample is residents who are comatose (as indicated on MDS); The nursing home may also choose to exclude from the sample residents who are severely impaired in mental status or skills for daily decision making (see MDS 3.0 items above). The CAHPS Team excluded this group from the field tests of this instrument. If these individuals are included, the sample size needs to be increased accordingly in order to yield the minimum number of completed interviews.

Response Rates

In its simplest form, the response rate is the total number of completed questionnaires divided by the total number of residents selected. For CAHPS analyses and reports, this rate is adjusted as shown in the following formula:

Number of completed questionnaires

Total number of residents selected – (deceased + ineligible)

In calculating the response rate, do not exclude residents who refused or who were unable to complete the questionnaire because of language barriers or cognitive difficulties.

Numerator Inclusions:

- Completed questionnaires. A questionnaire is considered complete if responses are available for at least 50 percent of the items that could be answered by all respondents (for a list of these key items, refer to Appendix: Determining Whether a Question Is Complete at https://www.cahps.ahrq.gov/content/products/NH/PROD_NH_Long-Stay_Prelim_Guidelines.htm). In addition, interviews in which residents who are unable to answer three questions in a row within the first six questions should be considered incomplete and thus excluded from the numerator.

Denominator Inclusions:

- Refusals. The resident (or guardian) refused to participate.
- Nonresponse. The resident is presumed to be eligible but did not complete the interview for some reason (for example, was unavailable at the time of the interview, was ill or cognitively unable to complete the survey, or had hearing problems or a language barrier).

Data Collection

The Long-Stay Resident Instrument must be administered in person by a trained interviewer. Sponsors should retain a third-party vendor with experience in in-person interviewing and interviewing an elderly/nursing home population.

Interviewers

The CAHPS Consortium recommends using professional interviewers to conduct the in-person interviews. Some studies have used graduate students, ombudsmen, or volunteers to conduct the interviews. These individuals should receive training in standardized interviewing techniques, particularly with an elderly/nursing home population. Individuals who provide care or services to the nursing home residents being surveyed should not be interviewers.

Privacy and Confidentiality

Privacy During the Interview

When possible, interviews should be conducted privately. However, interviewers might find it difficult to secure a private area for an interview. For example, a resident might not want to go to a private area, cannot be moved, or might prefer to be interviewed in his/her room with a roommate present. In these instances, interviewers should try to maintain as much privacy as possible (e.g., draw a curtain, allow the resident to point to responses on a show card [see Appendix: Showcards With Printed Response Options in CAHPS Nursing Home Survey – Long-Stay Resident Instrument (With Instructions) at website above], rather than giving an answer out loud). At no time should staff members, family, or friends be present during the interview. For example, if a staff person enters the room during the interview, the interviewer should stop the interview and wait until the staff person leaves.

Confidentiality of Responses

All information that could identify respondents must be kept confidential. The respondent's name must not appear anywhere on the questionnaire; instead, unique identifiers should be placed on the cover page of the survey. In order to assure that respondents cannot be identified by their responses to the interview, our preliminary recommendation is that the vendor should not present summary data to the nursing home until 50 interviews per facility have been completed.

Minimum sample size:

The number of residents needed for each composite to reach a reliability of 0.70 (if the goal is public reporting for reliable comparison purposes) was calculated with the Spearman-Brown Prediction formula using the average number of respondents per nursing home. Based on the pilot test of the 2005 Resident survey, the following number of completes are needed to reach 0.70 reliability for the composites below:

Composite 1 Environment= 92.7

Composite 2: Care = 50.0

Composite 3: Communication & Respect = 55.9

Composite 4: Autonomy = 81.1

Composite 5: Activities = 29.5

So the minimum number of completes to be sufficient for all composites is 93. If necessary this data could be accumulated over time to achieve sufficient sample size. If the goal is to use survey data only for quality improvement purposes, a smaller number of completes may be used. (for more detail see Table 28 on page 88 of Harvard Final Report)

S.21. Survey/Patient-reported data (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

S.22. Missing data (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

S.23. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

Special or unique data, Survey : Patient

S.24. Data Source or Collection Instrument (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

CAHPS® Nursing Home Survey: Long-Stay Resident Instrument

S.25. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

URL

S.26. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility/Agency

S.27. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Nursing home (NH) /Skilled Nursing Facility (SNF)

If other:

S.28. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

0692_MeasureTesting_MS5.0_Data.doc

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

Other

If other: Survey

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields? (*i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields*)

No

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.

this is an in-person survey instrument so electronic capture is not considered; only MDS items for sampling frame may be electronically available

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.

Lessons learned:

The Harvard Field Test Report (see attached) describes the results of a field test that was conducted, as part of the survey development process, to learn more about how samples of potential respondents would be identified, how best to work with nursing homes to identify potential respondents, how best to conduct surveys, and about the performance of the draft survey. Previous work by the CAHPS consortium determined that the most feasible and accurate method of surveying nursing home residents most likely would differ for short and long term residents. Thus, the pilot study included two distinct activities - in-person interviewing of long term nursing home residents and a mail survey of recently discharged residents.

Protocol: An important part of the survey protocol was how interviewers were to decide who was able to be interviewed. In addition to the survey questions, the interview had a series of three vignettes about hypothetical residents' experiences in nursing homes that were thought to be a good predictor of the ability to answer the survey questions. The Short Blessed (a frequently used test of cognitive ability) was administered at the end of the survey. Interviewers used neither of these to screen out respondents. Rather, they tried to ask every assigned respondent all the survey questions. If the respondent could not provide a meaningful answer to any three questions in a row, the interview was terminated.

PRETEST: On May 26, 2005, the protocol and survey were pretested. We learned many things from the pretest. Using a single person as "site coordinator" to manage and control the sample worked well. Finding private locations to do interviews was a challenge. Showing the respondents the response options on a show card was helpful to both the respondent and the interviewer during the interview process. We also found that when talking with respondents who had cognitive difficulties, it was necessary to add an "unresponsive" code - to be used when the respondent was conscious but totally disoriented or unresponsive to the interviewer. Based on what was learned during the pretest, we also changed the wording of some questions and simplified the informed consent script page.

Field Test Results:

Sampling: We asked each nursing home to provide 19 items from all of their current residents' Minimum Data Set (MDS) data. This information included basic demographics, items we needed for sampling, and items needed to create a Cognitive Performance Scale (CPS) score. Almost all the homes had the information needed in electronic form, but the majority lacked either the data processing expertise, or the staff time, to produce selected data from their files. For future studies using this protocol, we feel the best way to do the sampling is to collect the data that is necessary to define the sample from the nursing home and then have the project staff actually process the information to select the sample.

Eligibility: The 12 nursing homes sent a total of 1347 names of current residents; 57% were eligible for the long-term stay survey. If we include those residents who had guardians or other legal overseers and who were not ineligible for other reasons and those who probably could be interviewed in another language, that number rises to 67%. At the individual nursing home level, the rates of eligibility range from 36.1% to 93.0%. The presence of specialized Alzheimer's or psychiatric treatment units and the percentage of short term beds are the two factors that seem to most influence this rate.

Data Collection Results: Of the 870 residents who were believed to be eligible based on analysis of the record data provided, 103 were found or estimated to be ineligible and another 169 were not contacted because they were not needed to meet targeted sample goals. Thus, there were 618 residents whom interviewers attempted to interview who were part of the study population. Of those, interviews were completed with 424 residents, which is 69% of the eligible sample that interviewers attempted to interview. The most common reason for nonresponse was that eligible respondents were cognitively unable to answer survey questions; 39% of nonrespondents were unable to answer 3 questions in a row, 22% could not be roused to answer any questions at all. Thus, close to 20% of the total eligible sample and 61% of the nonrespondents were not able to do an interview. Most of the other nonresponse was due to hearing problems, not feeling well, and not being willing to be interviewed. However, all together, those reasons accounted for less than 12% of the total sample not being interviewed. We conclude that most of residents who are physically and cognitively able to be interviewed are willing to do so. The protocol called for interviewers to go back to all respondents who initially were busy, ill, unresponsive, or who had refused. The idea was that finding a "better time" would lead to getting interviews. For refusals, a different interviewer made the second interview attempt; 95% of all those interviewed were interviewed on the first or second contact with an interviewer. Contacting nonrespondents a third time to try to complete an interview was not productive.

Screening for ability to respond: We think all eligible residents should be approached and that interviewers should not rely on medical records or staff members to determine appropriateness for interviewing. By only eliminating the most severely impaired (those with a CPS score of 5 or 6), we were able to interview some respondents with moderately high impairment (and CPS scores) who might be eliminated in other protocols. Interviewers would prefer not to use a screener for cognitive ability unless it is highly predictive. We feel that the best way to screen for ability to complete the interview is to actually attempt to do the interview. If a respondent is unable to answer 3 questions in a row, then the interview should be stopped. (This is similar to procedure to be used when MDS 3.0 is implemented)

Data Collection Process: It was not easy to find a private place to administer the interview. Even for those interviews that were done with other people around, however, interviewers felt that it rarely interfered with the survey process. Part of this could be because of the use of show cards. As expected, many respondents who were interviewed had physical and intellectual impairments. Interviewers felt that only about 66% of residents were always able to understand the survey questions.

Length of Interview Schedule: The length of the interviews worked well. In about 83% of the cases, the survey itself (not including vignettes or the Short Blessed) took 20 minutes or less to complete. There were only 15 of the 424 interviews that took more than 30 minutes to complete and most of these took that long because the respondents liked to talk and it was sometimes hard to keep them focused on the interview.

Feedback from Nursing Home Administrators: Almost all of the administrators felt the sampling process went well. Administrators said it took an average of 8 hours to access and compile the data we requested of them. This number depended on how the records are kept at the home, the person's familiarity with the computer systems, and whether CSR sent staff to the home to collect the information or it was sent to us. Since our original data request was for both the current and discharged residents, some amount of time (and some problems) may be the result of getting the data for residents who are no longer there. When asked, most said they could have created lists for us of residents who met certain sampling criteria, but considering the problems of getting simple census data from these sites, we think it would be difficult for the homes to do the sampling required correctly. All of the nursing homes

thought the actual interviewing process went well and were pleased with the self-sufficiency of the interviewing team. On the whole, there were no disruptions or difficulties.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

| Planned | Current Use (for current use provide URL) |
|---|---|
| Public Reporting | |
| Quality Improvement (Internal to the specific organization) | |

4a.1. For each CURRENT use, checked above, provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included

4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

4b. Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)
- Geographic area and number and percentage of accountable entities and patients included

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4c. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

There could be issues if the entity collecting the data does not follow the guidelines for survey administration (e.g., if the interviewers do not ask each of the questionnaire items as worded on the survey, or the interviewer did not assure privacy of resident in the interview). In addition, errors could be introduced if an entity adds non-Nursing Home CAHPS items before any of the core survey questions in the Nursing Home CAHPS Family Member Survey. The core survey items are all those questions prior to the "About You" section of the survey. AHRQ has a CAHPS User Group support contract that is available to provide technical assistance for entities wishing to implement this survey- this can help reduce errors.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

Yes

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications completely harmonized?

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

There is no similar measure for the same target population. This is the only measure for long stay nursing home resident experience.

Related Measures: There are similar CAHPS survey measures but for different types or settings of care (Hospital CAHPS, Clinician and Group CAHPS, Home health CAHPS). Separate measures are being submitted to NQF for family members of nursing home residents and for short-stay nursing home residents.

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): Agency for Healthcare Research and Quality

Co.2 Point of Contact: Pamela, Owens, Pam.Owens@ahrq.hhs.gov, 301-427-1412-

Co.3 Measure Developer if different from Measure Steward: Agency for Healthcare Research and Quality

Co.4 Point of Contact: Judith, Sangl, jsangl@ahrq.gov, 301-427-1308-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

The development of the NHCAHPS resident instrument was a multi-phase process. In the initial phase, CMS requested AHRQ and the CAHPS team to investigate the methodological challenges of conducting a survey with nursing home residents. This phase examined sampling issues, cognitive screeners, data collection methods, and possible survey content. The CAHPS team conducted interviews on these topics with the following experts: Steve Albert, Kitty Buckwalter, Tim Case, Ann Gruber-Baldini, Catherine Hawes, Ted Johnson, Rosalie Kane, Powell Lawton, Vince Mor, John Morris, Peter Norton, Sandra Simmons, Phil Sloan, Joan Teno, Gwen Uman, Sheryl Zimmerman, and Jackie Zinn. AHRQ and the CAHPS team convened a Methodological Expert Group (MEG) to further explore these issues. The MEG included: Robert and Rosalie Kane; Farida Ejaz, Catherine Hawes; Kathleen Buckwalter; Andrew Kramer; Powell Lawton; Jay Magaziner; Vincent Mor; Rudolph Moos; John Schnelle; Philip Sloane; Liane Soberman; Joan Teno; and Sheryl Zimmerman. At the end this initial Phase, CMS, AHRQ, and the CAHPS team concluded that it was feasible to obtain reliable reports of experiences in the nursing home from many long stay nursing home residents by conducting in-person surveys. AHRQ also had extensive consultations with CMS and the Kanes when working on the merger of the Quality of Life items with the Quality of Care items.

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2006

Ad.3 Month and Year of most recent revision:

Ad.4 What is your frequency for review/update of this measure? CAHPS team is reviewing mixed reporting composites and environment composite question design.

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Instrument, Last Updated: Mar 16, 2016

| |
|---|
| Ad.5 When is the next scheduled review/update for this measure? 01, 2011 |
| Ad.6 Copyright statement: CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services. This CAHPS® questionnaire should be used without modification to the core set of questions. Supplemental questions may be added after the core set of questions and before the demographic question section. Please consult Guidelines for Modifying and Naming CAHPS Surveys at https://www.cahps.ahrq.gov/content/products/PROD_ModifySurveys.asp |
| Ad.7 Disclaimers: |
| Ad.8 Additional Information/Comments: |