This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: NH-028-10 NQF Project: Nursing Homes 2010

<table>
<thead>
<tr>
<th>MEASURE DESCRIPTIVE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>De.1 Measure Title: Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Family Member Instrument</td>
</tr>
<tr>
<td>De.2 Brief description of measure: The CAHPS Nursing Home Survey: Family Member Instrument is a mail survey instrument to gather information on the experiences of family members of long stay (greater than 100 days) residents currently in nursing homes. The Centers for Medicare &amp; Medicaid Services requested development of this questionnaire, which is intended to complement the CAHPS Nursing Home Survey: Long-Stay Resident Instrument and the Discharged resident Instrument. The Family Member Instrument asks respondents to report on their own experiences (not the resident’s) with the nursing home and their perceptions of the quality of care provided to a family member living in a nursing home. The survey instrument provides nursing home level scores on 4 topics valued by patients and families: (1) Meeting Basic Needs: Help with Eating, Drinking, and Toileting; (2) Nurses/Aides’ Kindness/ Respect Towards Resident; (3)Nursing Home Provides Information/Encourages Respondent Involvement; and (4) Nursing Home Staffing, Care of Belongings, and Cleanliness. In addition, the survey provides nursing home scores on 3 global items including an overall Rating of Care.</td>
</tr>
<tr>
<td>1.1-2 Type of Measure: Patient experience</td>
</tr>
<tr>
<td>De.3 If included in a composite or paired with another measure, please identify composite or paired measure</td>
</tr>
<tr>
<td>De.4 National Priority Partners Priority Area: Patient and family engagement</td>
</tr>
<tr>
<td>De.5 IOM Quality Domain: Patient-centered</td>
</tr>
<tr>
<td>De.6 Consumer Care Need:</td>
</tr>
</tbody>
</table>

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<tr>
<th>CONDITIONS FOR CONSIDERATION BY NQF</th>
</tr>
</thead>
</table>
| A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed.
Public domain only applies to governmental organizations. All non-government organizations must sign a |
| Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable |

A Y
measure steward agreement even if measures are made publicly and freely available.
A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?  Yes
A.2 Indicate if Proprietary Measure (as defined in measure steward agreement):
A.3 Measure Steward Agreement:  Government entity and in the public domain - no agreement necessary
A.4 Measure Steward Agreement attached:

B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years.  Yes, information provided in contact section

C. The intended use of the measure includes both public reporting and quality improvement.  Purpose: Public reporting, internal quality improvement

D. The requested measure submission information is complete.  Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided.  Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement.

D.1 Testing:  Yes, fully developed and tested
D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?  Yes

(for NQF staff use) Have all conditions for consideration been met?
Staff Notes to Steward (if submission returned):

Staff Notes to Reviewers (issues or questions regarding any criteria):

Staff Reviewer Name(s):

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1. IMPORTANCE TO MEASURE AND REPORT

Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance.

Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria.  (evaluation criteria)

1a. High Impact

(for NQF staff use) Specific NPP goal:

1a.1 Demonstrated High Impact Aspect of Healthcare:  Patient/societal consequences of poor quality
1a.2

1a.3 Summary of Evidence of High Impact:  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.pioneer testify.net). The Pioneer Network estimates that 5% of nursing homes have fully adopted culture change (www.pioneer testify.net). Resident/Patient Experience surveys are one tool for a nursing home to use to become more resident-centered. Surveying family members is a very important source of feedback for nursing home residents who cannot respond independently to a survey (for example, residents with advanced dementia). The family also can often add information to the resident’s viewpoint. The Institute of Medicine (2010) recently updated its conceptual framework for categorizing health care quality and disparities measurement to add family-centeredness to patient-centeredness. The National Priorities Partnership (http://www.nationalprioritiespartnership.org/PriorityDetails.aspx?id=596) also includes patient and family engagement as one of its priorities.

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

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: The goal would be to use this family member 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 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
The 2008 National Ombudsman 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. The first composite, meeting basic needs, covers the top complaint identified by ombudsmen, indicating a critical need to assess how well and how poorly a nursing home provides basic care. 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). Similarly, most of the other negative items were also major sources of complaints. While no specific complaint used the word rude, complaints relating to dignity, respect and staff attitudes totaled 9,075. Fear of reprisals totaled 687—which may not seem high, but given the research indicating that people seldom complain about fear of reprisals, it suggests a significant issue. Finally, loss of laundry was mentioned 1,771 times in 2008. These common complaints are covered in the family member survey instrument.

Comment [KP2]: 1b. Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating considerable variation, or overall poor performance, in the quality of care across providers and/or population groups (disparities in care).

Comment [k3]: 1 Examples of data on opportunity for improvement include, but are not limited to: prior studies, epidemiologic data, measure data from pilot testing or implementation. If data are not available, the measure focus is systematically assessed (e.g., expert panel rating) and judged to be a quality problem.
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 Citations for data on performance gap:
2. CMS Nursing Home Compare website contains information on U.S. average number of deficiency citations at www.medicare.gov/NHCompare

1b.4 Summary of Data on disparities by population group: not available

1b.5 Citations for data on Disparities: not available

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): For consumer satisfaction/experience data to be useful to nursing homes (i.e., know what areas need improvement and which have priority), surveys should measure what is important to family members and residents. Survey data could also be used by consumers to help select higher quality nursing homes.

Some research indicates that higher family and resident satisfaction is associated with better resident clinical outcomes.

1c.2-3. Type of Evidence: Observational study, Expert opinion

1c.4 Summary of Evidence (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome): Carefully developed patient experience surveys can inform nursing home providers about areas that need improvement particularly in areas that residents and families consider important. (see section 3a.6 for focus group results on what is important to consumers). These survey items complement the data nursing homes may currently collect to support improvements in internal customer services and quality related activities. Surveys can also be important to consumers for selecting nursing homes; however, surveys that have substantial ceiling effects may make it difficult to distinguish significant differences among nursing homes. This family member instrument had a fairly low percent at the ceiling for 3 out of 4 composites (9% to 15% for Composites 2, 3 and 4) while Composite 1 had 64% at ceiling because of limited degrees of freedom with a Yes/No scale. See Table 9 in AIR Final Report on page 24.

Two separate unpublished studies by Castle (personal communication, April 2010) indicate that higher family satisfaction is associated with fewer nursing home deficiency citations and clinical outcomes (less restraints and less depression).

1c.5 Rating of strength/quality of evidence (also provide narrative description of the rating and by whom):
ungraded

1c.6 Method for rating evidence: ungraded

1c.7 Summary of Controversy/Contradictory Evidence: none identified

1c.8 Citations for Evidence (other than guidelines): Nicholas Castle, Ph.D., University of Pittsburgh

Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable

Comment [k4]: 1c. The measure focus is:
• an outcome (e.g., morbidity, mortality, function, health-related quality of life) that is relevant to, or associated with, a national health goal/priority, the condition, population, and/or care being addressed; OR
• if an intermediate outcome, process, structure, etc., there is evidence that supports the specific measure focus as follows:
  • Intermediate outcome - evidence that the measured intermediate outcome (e.g., blood pressure, Hba1c) leads to improved health/avoidance of harm or cost/benefit.
  • Process - evidence that the measured clinical or administrative process leads to improved health/avoidance of harm and if the measure focus is on one step in a multi-step care process, it measures the step that has the greatest effect on improving the specified desired outcome(s).
  • Structure - evidence that the measured structure supports the consistent delivery of effective processes or access that lead to improved health/avoidance of harm or cost/benefit.
  • Patient experience - evidence that an association exists between access to a health service and the outcomes of, or experience with, the service.

[1]

Comment [k5]: 4 Clinical care processes typically include multiple steps: assess → identify problem/potential problem → choose/plan intervention (with patient input) → provide intervention → evaluate impact on health status. If the measure focus is one step in such a multi-step process, the step with the greatest effect on the desired outcome should be selected as the focus of measurement. For example, although assessment of immunization status and recommending immunization are necessary steps, they are not sufficient to achieve the desired impact on health status - patients must be vaccinated to achieve immunity. This does not preclude consideration of measures of preventive screening interventions where there is a strong link with desired outcomes (e.g., mammography) or measures for multiple care processes that affect a single outcome.

Comment [k6]: 3 The strength of the body of evidence for the specific measure focus should be systematically assessed and rated (e.g., USPSTF grading system http://www.ahrq.gov/clinic/uspstf07/methods/s/benefit.htm). If the USPSTF grading system was not used, the grading system is explained including how it relates to the USPSTF grades or why it does not. However, evidence is not limited to quantitative studies and the best type of evidence depends upon the question being studied (e.g., randomized controlled trials appropriate for studying drug efficacy are not well suited for complex system changes). When qualitative studies are used, appropriate qualitative research criteria are used to judge the strength of the evidence.
(personal communication, April 2010), unpublished research from 2 study samples. (1) a sample of 6000 family members in 300 nursing homes (1200 units); and (2) a sample of 180 nursing homes with family, resident, and staff satisfaction surveys.

1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number): not applicable

1c.10 Clinical Practice Guideline Citation: not applicable

1c.11 National Guideline Clearinghouse or other URL: not applicable

1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom): not applicable

1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF): not applicable

1c.14 Rationale for using this guideline over others: not applicable

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Importance to Measure and Report?

Steering Committee: Was the threshold criterion, Importance to Measure and Report, met? Rationale:

2. 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. (evaluation criteria)

2a. MEASURE SPECIFICATIONS

S.1 Do you have a web page where current detailed measure specifications can be obtained?
S.2 If yes, provide web page URL:

2a. Precisely Specified

2a.1 Numerator Statement (Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome):
The following topics are measured for nursing homes from a family members perspective:
Composite 1: Meeting Basic Needs - sum of applicable family member scores on 3 survey items (see codebook for points assigned to each response category) related to basic activities of daily living needs (help with eating, drinking, and toileting)
Composite 2: Nurses and Aides' Kindness and Respect towards Resident - sum of applicable family member scores on 5 survey items
Composite 3: How Well the Nursing Home Provides Information and Encourages Family Involvement - sum of applicable family member scores on 6 survey items
Composite 4: Nursing Home Staffing, Care of Belongings, and Cleanliness - sum of applicable family member scores on 7 survey items
Global Items:
Global Rating of care item: sum of family member scores on 0 to 10 scale
Global item whether ever unhappy with nursing home care: sum of family member scores on item (see codebook for points assigned to each response category)
Global item whether respondent would recommend nursing home: sum of family member scores on item (see codebook for points assigned to each response category).

Comment [KP8]: 2a. The measure is well defined and precisely specified so that it can be implemented consistently within and across organizations and allow for comparability. The required data elements are of high quality as defined by NQF’s Health Information Technology Expert Panel (HITEP).
2a.2 **Numerator Time Window** *(The time period in which cases are eligible for inclusion in the numerator):*

*last six months*

2a.3 **Numerator Details** *(All information required to collect/calculate the numerator, including all codes, logic, and definitions):*

- Composite 1: 3 survey items Q17, Q19, Q21
- Composite 2: 5 survey items Q12, Q13, Q14, Q15, Q24
- Composite 3: 6 survey items Q26, Q27, Q28, Q35, Q37, Q42
- Composite 4: 7 survey items Q11, Q22, Q29, Q30, Q31, Q32, Q33, Q40
- Global items: 3 survey items Q34, Q38, Q39

2a.4 **Denominator Statement** *(Brief, text description of the denominator - 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).

2a.5 **Target population gender:** Female, Male

2a.6 **Target population age range:** 18 and older

2a.7 **Denominator Time Window** *(The time period in which cases are eligible for inclusion in the denominator):*

*last six months*

2a.8 **Denominator Details** *(All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions):*

- Q17: the number of surveys completed by all those who responded “yes” to screener Q16
- Q19: the number of surveys completed by all those who responded “yes” to screener Q18
- Q21: the number of surveys completed by all those who responded “yes” to screener Q20
- Composite 2: Nurses and Aides’ Kindness and Respect towards Resident:
  - the denominator is the total number of completed surveys for 4 out of 5 questions in this composite excluding Q24; for Q24, its denominator is the number of surveys completed by all those who responded “yes” to screener Q23
- Composite 3: How Well the Nursing Home Provides Information and Encourages Family Involvement:
  - the denominator is the total number of completed surveys for 2 out of 6 questions (Q27 and Q28) in this composite excluding Q23; for Q23, its denominator is the number of surveys completed by all those who responded “yes” to screener Q23
- Composite 4: Nursing Home Staffing, Care of Belongings, and Cleanliness:
  - the denominator is the total number of completed surveys for 6 out of 7 questions in this composite excluding Q33; for Q33, its denominator is the number of surveys completed by all those who responded “yes” to screener Q33
- Global Items: for all 3 global items the denominator is the total number of completed surveys.

2a.9 **Denominator Exclusions** *(Brief text description of exclusions from the target population):*

We exclude family member respondents (1) who are under age 18, (2) who did not visit the nursing home resident at least twice in 6 months, (3) whose resident was discharged, and (4) those with a resident who had been in the nursing home for less than or equal to 100 days. In addition, screener questions may reduce the denominator size - those questions with screeners are noted in 2a.8 above.

2a.10 **Denominator Exclusion Details** *(All information required to collect exclusions to the denominator, including all codes, logic, and definitions):*

- Q43: respondents age
- Q9: number of times visited nursing home resident in last 6 month
- Q2 & Q3 resident was discharged
resident in the nursing home for 100 days or less -- Q5 will work for some categories (6 months or more) but will need to combine with facility information (including MDS 3.0) to get more precise information for under 6 months. AHRQ will harmonize its long stay specifications with CMS.

2a.11 Stratification Details/Variables (All information required to stratify the measure including the stratification variables, all codes, logic, and definitions):
not applicable

2a.12-13 Risk Adjustment Type: Case-mix adjustment

2a.14 Risk Adjustment Methodology/Variables (List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method):
The CAHPS team recommends four items to be case-mix adjusters for the CAHPS Nursing Home Family Survey: 1) respondent age, 2) respondent education, 3) whether the respondent believes the resident will permanently live in the nursing home, and 4) respondent’s belief about whether the resident was capable of making decisions (See Table 10 on page 29 in AIR Final Report). Several additional items were considered as potential adjusters but were rejected for a variety of reasons. A full description of the risk adjustment process is available in the AIR Final Report on pages 26-33.

2a.15-17 Detailed risk model available Web page URL or attachment: Attachment Nursing Home Final Report (17 Sept 08).doc

2a.18-19 Type of Score: Non-weighted score/composite/scale

2a.20 Interpretation of Score:

2a.21 Calculation Algorithm (Describe the calculation of the measure as a flowchart or series of steps):

1. Global rating and items
   • Measured by family member’s overall rating of the care at the nursing home on a scale of 0-10 (Q38)
   • Measured by whether the family member was ever unhappy with the care their family member received at the nursing home on a Yes/No scale (Q34) Note: “No” represents better quality
   • Measured by whether the family member would recommend the nursing home to others on a four-point scale: Definitely No, Probably No, Probably Yes, Definitely Yes (Q39)

2. Domains of care
1. Meeting Basic Needs - Help with Eating, Drinking and Toileting (Q17, Q19, & Q21)
2. Nurses and Aides’ Kindness and Respect towards Resident (Q12, Q13, Q14, Q15, & Q24)
3. How Well the Nursing Home Provides Information and Encourages Family Involvement (Q26, Q27, Q28, Q35, Q37 & Q42)
4. Nursing Home Staffing, Care of Belongings, and Cleanliness (Q11, Q22, Q29, Q30, Q31, Q33 & Q40)

3. Production of nursing home scores - Global items
   • Q38 Nursing home level ratings are presented using percentages for three-categories for the 0-10 scale question: 0-6, 7-8, and 9-10.
   • Q39 Nursing home level scores are presented using percentages for the following three categories: definitely would recommend, probably would recommend, and definitely not or probably not recommend
   • Q34 Nursing home level scores are presented using percentages for two categories (reverse coded): yes, happy with nursing home care in past 6 months; and no, not happy with nursing home care in past 6 months

4. Production of nursing home scores - Domain-level composites
There are four domain-level composites included in the Nursing Home Family Member Questionnaire: 1) Meeting Basic Needs - Help with Eating, Drinking and Toileting; 2) Nurses and Aides’ Kindness and Respect towards Resident; 3) How Well the Nursing Home Provides Information and Encourages Family Involvement; 4) Nursing Home Staffing, Care of Belongings, and Cleanliness.

   • Meeting Basic Needs - Help with Eating, Drinking and Toileting
This composite is produced by combining responses to three questions:

- Q17: Family member helped nursing home resident with eating. "Was it because the nurses or aides either didn’t help or made him or her wait too long?"
- Q19: Family member helped nursing home resident with drinking. "Was it because the nurses or aides either didn’t help or made him or her wait too long?"
- Q21: Family member helped nursing home resident with toileting. "Was it because the nurses or aides either didn’t help or made him or her wait too long?"

Respondents can answer "yes" or "no" to each. (note: "yes" represents lower quality) A nursing home’s score on the “Meeting Basic Needs – Help with Eating, Drinking and Toileting” 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 answered “yes”
P12 = Proportion of respondents who answered “no”

Follow the same steps for the second question:
P21 = Proportion of respondents who answered “yes”
P22 = Proportion of respondents who answered “no”

Follow the same steps for the third question:
P31 = Proportion of respondents who answered “yes”
P32 = Proportion of respondents who answered “no”

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 “Meeting Basic Needs – Help with Eating, Drinking and Toileting” composite (three questions), calculations would be as follows:
PC1 = Composite proportion who said “yes” = (P11 + P21 + P31) / 3
PC2 = Composite proportion who said “no” = (P12 + P22 + P32) / 3

This composite is produced by combining responses to five questions:

- Q12: “In the last 6 months, how often did you see the nurses and aides treat your family member with courtesy and respect?”
- Q13: “In the last 6 months, how often did you see the nurses and aides treat your family member with kindness?”
- Q14: “In the last 6 months, how often did you feel that the nurses and aides really cared about your family member?”
- Q15: “In the last 6 months, did you ever see any nurses or aides be rude to your family member or any other resident?” *(Yes/no)*
- Q24: “In the last 6 months, how often did the nurses and aides handle the situation in a way that you felt was appropriate?”

Respondents can answer “never,” “sometimes,” “usually,” or “always” to each item except for Q15 where the response scale is Yes/No. The steps to calculate a nursing home’s composite score for this domain are the following:

Step 1 - Calculate the proportion of cases in each response category for the first question (Q12):
P11 = Proportion of respondents who answered “never”
P12 = Proportion of respondents who answered “sometimes”
P13 = Proportion of respondents who answered “usually”
P14 = Proportion of respondents who answered “always”

Follow the same steps for the second (Q13), third (Q14), and fifth (Q26) questions:
For the fourth question (Q15) calculate the proportion of cases in each response category: note: “No” represents better quality.

\[ P_{41}= \text{Proportion of respondents who answered “yes”} \]
\[ P_{42}= \text{Proportion of respondents who answered “no”} \]

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 “Nurses and Aides’ Kindness and Respect Towards Resident” composite (five questions), calculations would be as follows:

\[ \text{PC}_1 = \text{Composite proportion who said “never” or “yes”} = \frac{(P_{11} + P_{21} + P_{31} + P_{41} + P_{51})}{5} \]
\[ \text{PC}_2 = \text{Composite proportion who said “sometimes”} = \frac{(P_{12} + P_{22} + P_{32} + P_{52})}{5} \]
\[ \text{PC}_3 = \text{Composite proportion who said “usually”} = \frac{(P_{13} + P_{23} + P_{33} + P_{53})}{5} \]
\[ \text{PC}_4 = \text{Composite proportion who said “always” or “no”} = \frac{(P_{14} + P_{24} + P_{34} + P_{44} + P_{54})}{5} \]

Note: “No” represents better quality.

Survey sponsors may choose an alternative to combine proportions of respondents who said “never” or “sometimes” or “yes” and compare with combined proportions of respondents who said “always” or “usually” or “no”.

- **How Well the Nursing Home Provides Information and Encourages Family Involvement**
  
  This composite is produced by combining responses to six questions:
  
  - Q26: “In the last 6 months, how often did you get this information as soon as you wanted?”
  - Q27: “In the last 6 months, how often did the nurses and aides explain things in a way that was easy for you to understand?”
  - Q28: “In the last 6 months, did the nurses and aides ever try to discourage you from asking questions about your family member?” note: “No” represents better quality.
  - Q35: “In the last 6 months, did you ever stop yourself from talking to any nursing home staff about your concerns because you thought they would take it out on your family member?” note: “No” represents better quality.
  - Q37: “In the last 6 months, how often were you involved as much as you wanted to be in the decisions about your family member’s care?”
  - Q42: “In the last 6 months, how often did you get all the information you wanted from the nursing home about payments or expenses?”

  Respondents to four of the above questions can answer “never,” “sometimes,” “usually,” or “always” to each. Respondents can answer “yes” or “no” to two of the above questions (Q31 and Q43), where “no” indicates better quality. The steps to calculate a nursing home’s composite score for this domain are similar to calculations for Composite 2: “Nurses and Aides’ Kindness and Respect Towards Resident”, except that in Step 2, each composite proportion category would be divided by six (the total number of items).

- **Nursing Home Staffing, Care of Belongings, and Cleanliness**
  
  This composite is produced by combining responses to seven questions:
  
  - Q11: “In the last 6 months, how often were you able to find a nurse or aide when you wanted one?”
  - Q22: “In the last 6 months, how often did your family member look and smell clean?”
  - Q29: “In the last 6 months, how often did your family member’s room look and smell clean?”
  - Q30: “In the last 6 months, how often did the public areas of the nursing home look and smell clean?”
  - Q37: “Personal medical belongings are things like hearing aids, glasses, and dentures. In the last 6 months, how often were your family member’s personal medical belongings damaged or lost?” note: “Never” represents better quality.
  - Q39: “In the last 6 months, when your family member used the laundry service, how often were clothes damaged or lost?” note: “Never” represents better quality.
  - Q51: “In the last 6 months, how often did you feel there were enough nurses and aides in this nursing home?”
Respondents to three of the above questions can answer “never,” “sometimes,” “usually,” or “always” to each. Respondents to two of the above questions (Q37 and Q39) can answer “never”, “once”, or “two or more times” to each, where “Never” represents better quality. The steps to calculate a nursing home’s composite score for this domain are similar to calculations for Composite 2: “Nurses and Aides’ Kindness and Respect Towards Resident”, except that in Step 2, each composite proportion category would be divided by seven (the total number of items).

Risk adjustment algorithm is provided as attachment in Additional Information section at Ad.11

<table>
<thead>
<tr>
<th>2a.22 Describe the method for discriminating performance (e.g., significance testing):</th>
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<tbody>
<tr>
<td>For statistical significance for each composite or global item, we used a t-test comparing each nursing home mean to the mean of all the nursing home means.</td>
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<tr>
<th>2a.23 Sampling (Survey) Methodology If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):</th>
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<tr>
<td><strong>Sampling Frame Elements:</strong> An eligible sample member is the person listed by the nursing home as the responsible person for a resident who has resided at the nursing home for at least 30 consecutive days. Eligible sample members can include family, friends, guardians, people with medical power of attorney for the resident, and attorneys. This survey is designed for adults only (18 and older). If a resident listed more than one responsible party, the respondent should be randomly selected. If the same responsible party is listed for more than one resident, the resident for whom the responsible party responds should be randomly selected. If there is more than one responsible party listed for a resident, randomly select one of them. The sampling frame should include: Name of responsible party, Address, Telephone number; Resident/patient name; date of birth, gender, whether the responsible party was the power of attorney; admission date; and whether the resident is in a dementia unit.</td>
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<tr>
<td><strong>Drawing the Sample:</strong> Based on the CAHPS grantees’ experiences with the field tests of this instrument, we recommend the following:</td>
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<td>• For facilities with up to 150 eligible patients, use all patients (a census) from each facility.</td>
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<tr>
<td>• For facilities with more than 150 eligible patients, draw a systematic random sample of 150 patients from each facility. If you anticipate that poor contact information (addresses and telephone numbers) will decrease the number of questionnaires that reach the sampled individuals, you may need to start with a larger sample.</td>
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<tr>
<td><strong>Data Collection Protocol:</strong> Recommended Protocol for Mail with Optional Telephone Followup: The following guidance builds upon the grantees’ experiences fielding CAHPS and other surveys, as well as their specific experience with the field test of the Family Member Instrument. The CAHPS Team recommends using one of the following two protocols for data collection:</td>
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<tr>
<td>• Two (2) mailings of the survey with a reminder postcard/letter prior to the 2nd mailing followed by telephone contact for those family members who have not responded to the mailed surveys.</td>
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<tr>
<td>• Two (2) mailings of the survey with a reminder postcard/letter prior to the 2nd mailing without the telephone followup.</td>
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<tr>
<td>Once the vendor has initiated the data collection process, it is important to follow the protocol through to completion. Even if you achieve the minimum response rate of 50 percent, continue with the survey administration protocol to achieve the highest response rate possible. In the field test of this instrument, the CAHPS Consortium tested elements of this survey administration protocol by mail with telephone followup. A response rate of 66 percent was achieved through a combination of the following:</td>
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<tr>
<td>• An initial mailing of the questionnaire with a cover letter and return postage-paid envelope: 42% response rate</td>
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<tr>
<td>• A second mailing of the questionnaire 2 weeks after the reminder: 14%</td>
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<tr>
<td>• Computer-assisted telephone interviews (CATI) for non-respondents 2 weeks after the second mailing of the questionnaire: 10%</td>
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</table>

**Minimum sample size:**

The number of subjects 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. This number was then adjusted by the lowest
Based on the pilot test of the family member survey, Q23 (waited too long for help with toileting) had the lowest proportion (25%) who were eligible to respond (based on the screener Q22). So the number needed to reach 0.70 reliability for the composite Meeting Basic Needs was (31/0.25) or 124. If necessary this data could be accumulated over time to achieve sufficient sample size. The other 3 composites require smaller sample numbers:

- Composite 2: Nurses/Aides’ Kindness/Respect Towards Resident: (6.3/.26)= 24.2 minimum recommended
- Composite 3: How Well the Nursing Home Provides Information and Encourages Family Involvement: (6.4/.32)= 20 minimum recommended
- Composite 4: Nursing Home Staffing, Care of Belongings and Cleanliness: (10.8/.765)= 14 minimum recommended

If the goal is to use survey data only for quality improvement purposes, a smaller number of completes may be used.

2a.24 Data Source (Check the source(s) for which the measure is specified and tested)
Survey: Patient, Special or unique data

2a.25 Data source/data collection instrument (identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.):
CAHPS Nursing Home Survey: Family Member Instrument


2a.29-31 Data dictionary/code table web page URL or attachment: Attachment CODEBOOK FAMILY MEMBER NURSING HOME SURVEY final 5_7_10.doc

2a.32-35 Level of Measurement/Analysis (Check the level(s) for which the measure is specified and tested)
Facility/Agency

2a.36-37 Care Settings (Check the setting(s) for which the measure is specified and tested)
Nursing home (NH) /Skilled Nursing Facility (SNF)

2a.38-41 Clinical Services (Healthcare services being measured, check all that apply)
Clinicians: Pharmacist, Other nurse aides

2b. Reliability testing

2b.1 Data/sample (description of data/sample and size): With the assistance of the Texas State Long Term Care Ombudsman, the CAHPS Team conducted a field test at 15 nursing homes in Texas between October 2006 and January 2007. Of the 1,444 family members in the sample with addresses, 885 completed the survey for a response rate of 66%.

2b.2 Analytic Method (type of reliability & rationale, method for testing): To look at reliability, internal consistency reliability (alpha) was estimated. This is a measure of how well the items in a composite hang together. Composites should have an alpha of 0.70 or greater to be considered reliable. Additionally, we looked at nursing-home (NH)-level reliability, or inter-unit reliability (IUR). This statistic represents a transformation of the F-statistic for testing differences among agencies on an item or composite (IUR = (F-1)/F). IUR can be interpreted as the fraction of the variation among facility scores that is due to real differences, rather than due to chance. If the IUR is higher, the ability of the item or composite to discriminate across facilities is greater. An IUR > 0.70 is considered to indicate a high level of discriminant ability for an item or composite. As the IUR gets smaller, you need a larger sample in order to reliably discriminate across facilities.

2b.3 Testing Results (reliability statistics, assessment of adequacy in the context of norms for the test)
conduct); All four composites had a Cronbach’s alpha greater than 0.7 which indicates that the scores would provide reliable data. The alphas were: Meeting Basic Needs = 0.90; Nurses and Aides’ Kindness and Respect towards Family Members=0.88; How Well the NH Provides Information and Encourages Family Involvement = 0.78; and NH Staffing, Care of Belongings and Cleanliness = 0.79. For more detail see pages 22-25 and Tables 7, 8 and 9 in the AIR Final report.

Three composites (except Meeting Basic Needs) had NHr (or IUR=“inter-unit reliability”) greater than 0.7: Nurse & Aides Kindness/Respect Towards Resident was 0.83; Nursing home Provides Information/Encourages respondent Involvement was 0.85 and Nursing Home Staffing, Care of Belongings and Cleanliness was 0.89. Although the observed facility-level reliability of the Meeting Basic Needs composite is not as high (NHr= 0.48) as we would like, it will be able to discriminate across nursing homes, given a sufficient number of respondents per facility. Because this composite is made up of three items that were appropriately skipped by a large number of respondents, it has a high percentage of missing data. (See Table 7 and Table 8 on pages 22-24 in AIR Final report).

These final 4 domains were a balance of theory (original intent of items and composites), statistical evidence of reliability and validity (item-level and nursing home level, factor analyses) and stakeholder perspectives. Two individual items were recommended to be dropped due to low statistical values (see Table 3 in AIR Final Report). Two items (“Nurses & Aides Discourage Questions” and “Medical Belongings Lost”) were retained despite marginal measurement characteristics because of stakeholder interest and because they scaled well with their respective composite (see Table 3 in AIR Final Report).

2c. Validity testing

2c.1 Data/sample (description of data/sample and size): Data are from the field test at 15 nursing homes in Texas between October 2006 and January 2007 (n=885)

2c.2 Analytic Method (type of validity & rationale, method for testing): We examined the correlation of each of the composites with the global ratings as a measure of criterion validity. We also used scaling success to summarize the discriminant validity of the composite measures, or the degree to which each item correlates more highly with its own scale than it does with competing scales. The target for scaling success should be about 100%.

2c.3 Testing Results (statistical results, assessment of adequacy in the context of norms for the test conducted): All four composites demonstrate sufficient criterion validity, as evidenced by their relatively high correlations (> 0.30) with the three global measures (see Table 7 on page 23 of AIR Final Report). Except for the composite on NH Staffing, Care of Belongings and Cleanliness, the scaling success was 100%; the 4th composite had a scaling success of 86%. The ‘statistical results taken together for this last composite indicate that the composite has reliable scores but overlaps in meaning with some content in the other composites. This finding is to be expected given that the composite is a general indicator of nursing home quality and actually indicative of the composite’s validity as a more general measure. (see Tables 8 and 9 and pages 24-25 in AIR Final report for more detail)

2d. Exclusions Justified

2d.1 Summary of Evidence supporting exclusion(s): There are several exclusions for the family member survey. The first one is family members of residents, who have resided in the nursing home for 100 or less days; another is family members who are less than 18 years old. One reason for the first exclusion is that AHRQ created a separate survey for short stay residents whose opinion can be obtained through mail administration because, on average, they have less cognitive impairment than long stay residents. In addition, the CAHPS team believed that a minimum number of days was needed for a family member to obtain a relatively stable opinion about facility care for a resident who will be a long stay resident. AHRQ will harmonize its specification on long stay residents with CMS. For family members who are under 18 years old, the CAHPS team decided they would not accept those under age 18 as responsible adults since 18 and older is generally regarded as adult.

2d.2 Citations for Evidence:

Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable

Comment [KP12]: 2c. Validity testing demonstrates that the measure reflects the quality of care provided. It sufficiently distinguishes good and poor quality. If face validity is the only validity addressed, it is systematically assessed.

Comment [K13]: 2d.1 Examples of validity testing include, but are not limited to: determining if measure scores adequately distinguish between providers known to have good or poor quality assessed by another valid method; correlation of measure scores with another valid indicator of quality for the specific topic; ability of measure scores to predict scores on some other related valid measure; content validity for multi-item scales/tests. Face validity is a subjective assessment by experts of whether the measure reflects the quality of care (e.g., whether the proportion of patients with BP < 140/90 is a marker of quality). If face validity is the only validity addressed, it is systematically assessed (e.g., ratings by relevant stakeholders) and the measure is judged to represent quality care for the specific topic and that the measure focus is the most important aspect of quality for the specific topic.

Comment [KP14]: 2d.2 Clinically necessary measure exclusions are identified and must be: • supported by evidence of sufficient frequency of occurrence so that results are distorted without the exclusion; AND • clinically appropriate exception (e.g., contraindication) to eligibility for the measure focus; AND • precisely defined and specified: - if there is substantial variability in exclusions across providers, the measure is specified so that exclusions are computable and the effect on the measure is transparent (e.g., impact clearly delineated, such as number of cases excluded, exclusion rates by type of exclusion); if patient preference (e.g., informed decision-making) is a basis for exclusion, there must be evidence that it strongly impacts performance on the measure and the measure must be specified so that the information about patient preference and the effect on the measure is transparent (e.g., numerator category computed separately, denominator exclusion category computed separately).

Comment [K15]: 10 Examples of evidence that an exclusion distorts measure results include, but are not limited to: frequency of occurrence, sensitivity analyses with and without the exclusion, and variability of exclusions across providers.
2e. Risk Adjustment for Outcomes/ Resource Use Measures

2e.1 Data/sample (description of data/sample and size): Data are from the field test at 15 nursing homes in Texas between October 2006 and January 2007 (n=885).

2e.2 Analytic Method (type of adjustment, analysis, & rationale): Four items are recommended as case-mix adjusters for the CAHPS Nursing Home Family Survey: 1) respondent age, 2) respondent education, 3) whether the respondent believes the resident will permanently live in the nursing home, and 4) respondent’s belief about whether the resident was capable of making decisions (See Table 10 on page 29 in AIR Final Report).

2e.3 Testing Results (risk model performance metrics): The CAHPS team recommends four items to be case-mix adjusters for the CAHPS Nursing Home Family Survey: 1) respondent age, 2) respondent education, 3) whether the respondent believes the resident will permanently live in the nursing home, and 4) respondent’s belief about whether the resident was capable of making decisions (See Table 10 on page 29 in AIR Final Report). Several additional items were considered as potential adjusters but were rejected for a variety of reasons. A full description of the risk adjustment process is available in the AIR Final Report on pages 26-33.

2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:

2f. Identification of Meaningful Differences in Performance
### 2f.1 Data/sample from Testing or Current Use
(description of data/sample and size):
Data are from the field test at 15 nursing homes in Texas between October 2006 and January 2007 (n=885).

### 2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance
(type of analysis & rationale):
For statistical significance, we used t-test comparing each nursing home mean to the mean of all the nursing home means.

### 2f.3 Provide Measure Scores from Testing or Current Use
(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance):
The means and standard deviations (SD) for the composites are:
- Composite 1: Meeting Basic Needs-- mean = 73.5 (39.3)
- Composite 2: Nurses and Aides' Kindness and Respect towards Family Members-- mean = 84.8 (19.9)
- Composite 3: How Well the NH Provides Info and Encourages Family Involvement -- mean= 87.4 (17.0)
- Composite 4: NH Staffing, Care of Belongings, and Cleanliness - mean = 80.5 (17.1)

Frequencies from the pilot test are available for all pilot survey questions in Appendix G of AIR Final Report

### 2g. Comparability of Multiple Data Sources/Methods

#### 2g.1 Data/sample (description of data/sample and size):
The Health Quality Council of Alberta conducted its own field test in 14 nursing homes and supplied data to AIR for psychometric analyses

#### 2g.2 Analytic Method (type of analysis & rationale):

#### 2g.3 Testing Results (e.g., correlation statistics, comparison of rankings):
available on request

### 2h. Disparities in Care

#### 2h.1 If measure is stratified, provide stratified results (scores by stratified categories/cohorts):
not applicable - measure is not stratified

#### 2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:

### TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Scientific Acceptability of Measure Properties?

Steering Committee: Overall, to what extent was the criterion, Scientific Acceptability of Measure Properties, met?
Rationale:

### 3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)

#### 3a. Meaningful, Understandable, and Useful Information

#### 3a.1 Current Use:
In use
### 3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) *(If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years):*

The Health Quality Council of Alberta, Canada, is using this survey for public reporting in aggregate -- see http://hqca.ca/index.php?id=130.

### 3a.3 If used in other programs/initiatives *(If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years):*

The Health Quality Council of Alberta, Canada, is using this survey for QI by providing site specific results back to nursing homes and comparing them to peers and norms. Also, this survey is included as one possible survey for nursing homes to use as part of Goal 7 (measuring Resident & Family Satisfaction) of the Advancing Excellence in America's Nursing Homes Campaign, of which more than 6,400 U.S. nursing homes have joined (a home should pick three out of 8 possible goals).

### Testing of Interpretability *(Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement)*

#### 3a.4 Data/sample *(description of data/sample and size):*

Anyone with a family member in a nursing home was eligible to participate in the cognitive interviews; however persons were selected so as to assure variation in race, ethnicity, and education. The team conducted a total of 27 interviews in the first testing round in June 2005 and conducted another 27 interviews in the second round in June 2006.

#### 3a.5 Methods *(e.g., focus group, survey, QI project):*

The formative research included focus groups, a call for measures, and reviewing literature. The goals of the focus groups were to: a) Understand participants’ current experiences with nursing homes; b) Determine how participants’ conceptualize good care; c) Determine the comparative salience and importance of the factors associated with good care; and d) Understand participants’ potential uses of a nursing home quality report. In order to answer these questions, the three CAHPS grantees (Harvard University, AIR, and RAND, conducted 12 focus groups: two each in New York City and Phoenix, Arizona and four each in Palo Alto, California and Chapel Hill, North Carolina. With the exception of those in North Carolina, all focus group participants had already chosen a nursing home for a family member. Those participants in North Carolina were at the stage of considering moving a relative to a nursing home within a year. Detailed findings from the focus groups can be found in Appendix A, Focus Group Findings from AIR, RAND, and Harvard. AHRQ also published a call for measures in the Federal Register.

After reviewing the questionnaires and items received in response to that notice, and combined with information from a literature review and the focus groups, the team prepared a draft instrument for testing purposes. In the pilot version of the Nursing Home Family Member Survey, there were 12 negatively framed items (see Table 1 in paper posted at http://www.fcsm.gov/09papers/Frentzel_XI-C.pdf.) For the Nursing Home Family Survey, one purpose of using negative items has been to measure unique constructs that could not be framed as a positively written item. Because of the significant issue of staff failing to respond to requests for assistance in nursing homes, the CAHPS team developed items that would explore the issue of staff responsiveness on the most essential ADLs - eating, drinking fluids and toileting. For example, the survey asks a screener question, "In the last 6 months, during any of your visits, did you help your family member with eating?" and if yes, the survey then asks, "Was it because the nurses or aides either didn’t help or made him or her wait too long?" Two similar items to this one on drinking and toileting are also asked. Had these items been written in a positive frame, e.g., "How often did the nurses or aides help your family member with eating?, the items would capture a different construct. Similarly, the item, "in the last 6 months, did the nurses and aides ever try to discourage you from asking questions about your family member?" would not have the same meaning if positively framed, for example, "in the last 6 months, did the nurses and aides ever try to encourage you to ask questions about your family member?" When positively framed, it measures a different construct that does not help to elucidate a potentially significant problem in the nursing home, i.e., that the patient population holds back from talking about a problem because of fear of reprisal.

In 2005 and 2006, the items in this draft instrument went through two rounds of cognitive testing with people who have family members in nursing homes. The cognitive interviews examined the following issues...
related to the draft questionnaires: 1. Content: Are the questions that are included in the survey important to consumers? Are consumers able to make judgments about the questions? 2. Comprehension and Interpretation: Are the words, phrases, and questions easy to understand regardless of education level or knowledge of nursing home care? Are the questions interpreted as intended? 3. Recall: Are consumers able to recall the events asked about and to make judgments about them? 4. Navigation: Did the survey flow correctly? Were people skipped out of sections appropriately? The team prepared a formatted “cognitive testing” version of the instrument and a cognitive interviewing protocol for use by the interviewers. This protocol provided a listing of scripted probes that could be employed to provide insights into each respondent’s cognitive processes as he or she read and answered the pilot items. It also included a series of general questions about the items, to allow the respondent to provide additional feedback about the items and to help assess the comprehensiveness of the instrument. A think aloud training exercise, with practice questions and a scripted response for the interviewers to use in modeling appropriate thinking aloud behaviors, was also included (for more detail see Appendix B: Draft Survey and First Cognitive Testing Protocol). Following the first round of cognitive tests, the team revised the items and prepared a protocol for the second round of cognitive testing (for more detail see Appendix D: Draft Survey and Second Cognitive Testing Protocol). This round tested the items as both self-administered items and as interviewer-administered items under the assumption that the final instrument would probably be administered by both mail and telephone. The instrument was revised again after the second round of cognitive testing. Trained cognitive interviewers conducted one-on-one, in-person interviews. Using a “think-aloud” approach for the interviews, the researchers asked the participant to read each question (or read the question verbally to the participant), provide a verbal response, and explain the reason for the response. They then followed up with probes after each of the questions to ask about specific potential problems with each item. Immediately after each interview, the interviewer wrote a summary of the participant’s comments. A member of each grantee team reviewed these summaries and extracted common themes for each item. At the end of each round, the team met to review these themes and make recommendations to the larger family survey team. The larger team made decisions together regarding each of the items.

3a.6 Results (qualitative and/or quantitative results and conclusions):

Focus Groups Summary:
The factors or components of nursing home quality identified by participants represent a mix of quality of life, quality of care, safety, and security.

Aspects of quality that were mentioned in the focus groups included: (1) Quality and the type of medical or physical care available at the nursing home; (2) Physical aspects of the nursing home facility, for example, cleanliness, security, appearance, size of rooms; (3) Quality of the nursing home staff, referring to whether they are trained or certified, and whether staffing numbers are adequate; (4) Quality of the nursing home staff, referring to whether the nursing home staff members are caring, approachable, and dedicated; (5) Quality and type of activities and opportunities for social engagement; (6) Adequate information-sharing and responsiveness to the family; (7) Respect for the resident and treating the resident as a “real person.”

In addition to the factors above, participants mentioned that they would like nursing homes to be required to post their “scores.” Overall, participants reported that both the resident and family survey information would be useful in helping them choose a nursing home. However, a few participants did voice a concern that the resident surveys may not be as reliable because of cognitive constraints, fear of retaliation, and other personal characteristics. The family survey could help to address some of the weaknesses in the resident survey because people felt that family members would have useful observer information. On the other hand, people also noted some potential weaknesses associated with family information: “Family members might overlook some things depending on what their relationship was. They figure ‘well this is better than having them somewhere else.’” Participants stated that they would use survey information in two main ways: before visiting a nursing home and, similarly, to narrow down the choices. (For more detail see Appendix A of AIR Final report)

Cognitive testing results summary:
In the first Round of cognitive testing, the most important issues considered and resolved were: 1) Asking questions about the respondent’s experiences: We found that some of the questions we tested were actually proxy questions about the family member’s experience. We had tried to ask them if they “observed” something, but in testing found that many of the items were things that visitors just didn’t have experience with and didn’t really see (basically the care processes). Details of this can be found in the question by question report. Solution: Delete proxy questions and only ask items in which the family member reports or rates a direct experience that they had. 2) Answering for all family members, not just...
In the second Round of cognitive testing, the most important issues considered and resolved were: 1) Q8: “family member capable of making decisions” - The item rationale needs to focus only on cognitive impairment and revise the question accordingly--[FINAL version] Is your family member able to make decisions about his or her own daily life, such as when to get up, what clothes to wear, and which activities to do? NSUA [based on MDS Problem, evaluates either or both family capability and stringent rules of nursing home]; 2) Q11/12: (courtesy & respect/kindness) - as always, “kindness” goes beyond “courtesy & respect” (which is expected). EF: In most cases we found similar findings, but... Respondents generally defined courtesy and respect as the same and had similar definitions for kindness. However, two respondents defined courtesy, respect, and kindness as the same. One theme that came up was that aides are paid to be courteous and respectful, but kindness is a personal attribute they bring to their job, “kindness you do on your own.” For now, suggest either leaving it in or waiting to see the field test results to see if items if there is no added discrimination provided by the second item. Testing Decision: Keep items in as is; 3) Q20/21: (help toileting) - this question does not specify “in the nursing home” - 2 respondents said yes because they had to help on trips outside the NH (there was no staff there, so Q21 could not be answered) - 1 respondent understood “toileting” to be “on the toilet” and said “no” because they were now in Depends and not using the bathroom anymore. EF: Definite problem: Two respondents were not completely clear about the definition of toileting. Suggest adding a definition prior to the question such as, “Help toileting” is defined as helping in the bathroom, to get on and off the toilet, clean up after him or her, or change a resident’s disposable briefs or pads. DRAFT: Revise to read, “In the last 6 months, did you help your family member with toileting in the nursing home? “Help toileting” is defined as helping to get on and off the toilet or helping to change his or her disposable briefs or pads.” [Roger’s suggested revision to second sentence, “Help toileting” means helping...”] See revised item in questionnaire. 4) Q26: (nurses/aides discourage questions) had 2 respondents who (correctly) focused on the 6 month time frame but said “no” because they said nurses had “trained” them not to ask questions prior to 6 months so they didn’t ask anything in the last 6 months. EF: No problem found. No changes to item. 5) Q50-52: (rating the nursing home) - this section of 3 rating DID NOT WORK for respondents - they had no idea how to distinguish the questions and felt they all were about the same thing - at Q50 that asked a rating of care - respondents included staff, medical care, physical environment, pretty much everything. Q51 seemed to be a rating of the medical care rather than a rating of confidence in medical care. At Q52 several respondents asked why we were asking the same question again! So, basically respondents felt that Q50 & Q52 were the same question and that without knowing that medical care should be considered separately, everyone included that in the rating of care (in Q50). Testing Decision: Q50: [KEEP] Using any number from 0 to 10 where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate the care at the nursing home? Q51: [DELETE 51] Using any number from 0 to 10 where 0 is not confident and 10 is completely confident, how confident are you that your family member is receiving high quality medical care from the nursing home? Q52. [DELETE 52] Using any number from 0 to 10, where 0 is the worst nursing home possible and 10 is the best nursing home possible, what number would you use to rate this nursing home? (For more detail see Appendix C for First Round Cognitive Testing memo and Appendix E for Second Round Cognitive Testing memo of AIR Final report)

Summary of composite decisions: The final 4 domains are a balance of theory (original intent of items and composites), statistical evidence of reliability and validity (item-level and nursing home level, factor analyses) and stakeholder perspectives. The team, in consultation with the Technical Expert Panel eliminated ten items from the survey, two of which were negative items. In order to determine which items to keep and which items to eliminate, we closely reviewed the psychometric properties of the composites and items. We used an inter-unit reliability statistic to determine how well items and composites were able to detect differences - or discriminate - across nursing homes. We assessed the convergent validity of the items within each composite by examining the item-to-total correlations and the factor loadings. In every case these ten items had either poor convergent or discriminant validity with their composite, did not discriminate among nursing homes, and/or contained content that was included elsewhere in the survey.
Two of the negative items ("Nurses and Aides Discourage Questions" and "Medical Belongings Lost") that were retained among the 21 had marginal measurement properties but were very important to the consumer advocates and nursing home resident ombudsman in our stakeholder panel and were also indicated as a significant problem by Ombudsman data. These were included to maintain the content validity of the survey. The eight negatively-framed items were kept either because they had good or excellent measurement properties or because they discussed aspects of care that ombudsman had identified as particularly important to patients (see Table 2 in AIR Final Report on page 111).

### 3b/3c. Relation to other NQF-endorsed measures

**3b.1 NQF # and Title of similar or related measures:**
There are similar CAHPS measures but for different types or settings of care (Hospital CAHPS, Clinician and Group CAHPS, Home Health CAHPS). However, all the other CAHPS measures are specifically for patients, not for family members.

*(for NQF staff use) Notes on similar/related endorsed or submitted measures:*

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**3b.2 Are the measure specifications harmonized?**
Yes, the measure specifications of this CAHPS family member instrument is harmonized with other CAHPS survey measure specifications.

**3c. Distinctive or Additive Value**
This adds a nursing home experience measure based on a family member (of a long stay resident) perspective.

**5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**
There is no similar measure for the same target population.

**TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Usability?**

**3. Rationale:**
Steering Committee: Overall, to what extent was the criterion, Usability, met?

**4. FEASIBILITY**

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**4a. Data Generated as a Byproduct of Care Processes**

**4a.1-2 How are the data elements that are needed to compute measure scores generated?**
Survey

**4b. Electronic Sources**

**4b.1 Are all the data elements available electronically?**
(elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims)
No

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**Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable**
4b. If not, specify the near-term path to achieve electronic capture by most providers. This is a survey instrument so electronic capture is not considered.

4c. Exclusions

4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?
   - No

4c.2 If yes, provide justification.

4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences

4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.

4e. Data Collection Strategy/Implementation

4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/implementation issues:

Based on the field test results that achieved more than 50% response rate in the two rounds of family surveys, our survey administration guidelines permit the phone interview phone follow up to be an optional part of administration protocol.

Additional lessons learned about obtaining the sampling frame:

- After we contacted each nursing home by phone, we emailed a document describing each of the data elements and how we would like the file laid out and provided options in terms of how to provide the data.
- We requested two types of data: critical data elements such as the responsible party, address, phone number, and start date of care. Additionally, we provided detailed instructions about how to maintain HIPAA compliance including the need for encryption. We also followed up with calls and/or emails to see if they had questions or comments.

Despite the fact that the nursing homes were provided with detailed instructions regarding data file construction and delivery, there were several challenges to obtaining the sampling frame data. These challenges included:

- Misunderstanding on the part of the nursing homes of HIPAA rules and regulations
- Lack of technical ability on the part of the nursing homes with regard to extracting the necessary data from their systems and providing it in a usable, electronic format.

- When we interacted with the nursing home, the staff we typically were in contact with were not staff who managed the data regularly. Thus, in some cases, it wasn’t until later that we found out that nursing homes were having difficulty understanding which data to include. For example, we needed to know the date care began in order to determine eligibility. In some cases, some recipients had more than one start date of care, and in other cases it was unclear to an nursing home what was meant by ‘start’ date.

- Nursing homes faxed information, emailed information, fedexed hard copies, or sent CD-ROMs. In a few cases, they had a good understanding of HIPAA polices and how to provide protected health information data safely and securely. In the instructions provided to the nursing homes, we stated that the files must be encrypted and that they could not be emailed without encrypting them first because of HIPAA rules. Nevertheless, many nursing homes emailed files or did not encrypt them, even when they thought that they had or said that they did. One nursing home was unable even to burn a file onto a CD. Some had no idea that they needed to encrypt files or how to do so. Most of the sample files were sent in a hard copy format.
We used optical character recognition software to read the information (with significant quality assurance review) and/or manually keyed information. In some cases, while the information was electronic, the data were not in any order or set fields, thus staff had to key in the data. Many of the nursing homes had more than one responsible party, or one responsible party was responsible for more than one person at the nursing home. In a few cases, someone at the nursing home was the responsible party.

Lessons Learned
Below is a list of recommendations for future users:

**Use Data Use Agreements:** Give each nursing home 5 business days to fax a signed data use agreement. Call each nursing home 2 days before to confirm that you will get the data use agreement on the day you requested.

**Confirm the data:** At the same time you are obtaining the Data Use Agreements, ask them to provide an example of the data they will provide for the field test, but blacking out any personal health information or personally identifiable information. This will help you to understand whether the home is able to produce an electronic file or not and help the home prepare for developing a sample frame.

**Provide information about HIPAA:** Since HIPAA non-compliance was a common problem, and because both managers and IT staff need to understand HIPAA regulations, provide a short description of HIPAA including links (no more than one page). Provide links to downloading inexpensive encryption software that meets HIPAA requirements.

**Contact multiple nursing home representatives:** Rather than having one main nursing home contact, always ask to contact the main nursing home representative (typically an administrator, manager, or QI director) and the IT lead on the project starting from the very beginning of the project. This is helpful for two reasons; we often found that the main staff was out of the office at critical points; secondly, the IT lead is the only person who will know how the data is laid out and will understand what challenges there are to download the data. Unfortunately, this method will not work in all cases as many nursing homes do not have any IT staff.

**Work with headquarters when working with chains:** If you are working with an organization that is part of a chain, contact the headquarters. In many cases, the headquarters staff can facilitate the process immeasurably and even provide all of the data for each nursing home.

### 4e.2 Costs to implement the measure (costs of data collection, fees associated with proprietary measures):

| The CAHPS Nursing Home Survey: Family Member Instrument and all composite measures are in the public domain and free to use. The costs associated with implementing these measures are the cost of the data collection, analysis and facility feedback or public reporting. The data collection budget (via subcontract with AIR) was $46,620 for survey implementation of the pilot test in 15 nursing homes (October 2006 through February 2007) for 885 completed family member surveys or $52.68 per completed survey. This cost included 2 mail rounds and phone interview followup and achieved a response rate of 66%. This does not include analysis or facility feedback costs which were borne by the CAHPS team. A similar family member survey conducted by the Maryland Health Care Commission in fall 2009 that included 2 mail rounds with postcard and a final phone reminder but no phone interviews cost $25 per completed interview and achieved a response rate of 57.7%. AHRQ’s preliminary survey administration guidance for this Family Instrument is to include 2 rounds of mailing with an optional phone interview so the implementation costs could be closer to MHCC or $25 per completed interview. |

| Cost data are available from the AHRQ 2007 Pilot test and the 2009 MHCC Family Member Survey (similar to CAHPS). Cost data per completed survey can also be obtained from the 2008 Ohio Department of Aging Family survey and the Health Quality Council of Alberta for its 2007 family member survey (CAHPS survey). |

### 4e.3 Evidence for costs:

Cost data are available from the AHRQ 2007 Pilot test and the 2009 MHCC Family Member Survey (similar to CAHPS). Cost data per completed survey can also be obtained from the 2008 Ohio Department of Aging Family survey and the Health Quality Council of Alberta for its 2007 family member survey (CAHPS survey).

### 4e.4 Business case documentation:

The intent of the NHCAHPS initiative (also known as Nursing Home CAHPS) is to provide a standardized survey instrument and data collection methodology for measuring nursing home residents’ and their family members’ perspectives on nursing home care. While many nursing homes may currently collect information on patient satisfaction, prior to NHCAHPS there has been no national standard for collecting or publicly reporting nursing home residents’ and family members’ perspectives of care information that would enable valid comparisons to be made across all nursing homes.

In order to make “apples to apples” comparisons to support consumer choice, AHRQ has recognized the
importance of creating a standard measurement approach. NHCAHPS is a core set of questions that can be combined with a broader, customized set of nursing home-specific items. NHCAHPS survey items complement the data a nursing home may currently collect to support improvements in internal customer services and quality related activities.

Three broad goals have shaped the NHCAHPS survey. First, the survey is designed to produce comparable data on the nursing home residents’ and family members’ perspective on care that allows objective and meaningful comparisons between nursing homes on domains that are important to them. Second, public reporting of the survey results is designed to create incentives for nursing home to improve their quality of care. Third, public reporting will serve to enhance public accountability in health care by increasing the transparency of the quality of nursing home care provided in return for the public investment. Because the government (federal and state combined) pays for almost two-thirds of the $131 billion of total nursing home costs (2008 statistics), the Centers for Medicare & Medicaid Services (CMS) are interested in the consumers’ perspective on the quality of care they receive. As the federal agency responsible for nursing home quality oversight, CMS has supported the development of a consumer experience survey for both residents and their family members. With these goals in mind, the NHCAHPS CAHPS project has taken substantial steps to assure that the survey is credible, useful, and practical. This methodology and the information it generates is available to the public.

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Feasibility?

Steering Committee: Overall, to what extent was the criterion, Feasibility, met?

Rationale:

RECOMMENDATION

(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.

Steering Committee: Do you recommend for endorsement?

Comments:

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner)
Co.1 Organization
Agency for Healthcare Research and Quality (AHRQ/DHHS), 540 Gaither Road, Rockville, Maryland, 20850

Co.2 Point of Contact
Judith, Sangl, Sc.D., jsangl@ahrq.gov, 301-427-1308-

Measure Developer If different from Measure Steward
Co.3 Organization
Agency for Healthcare Research and Quality (AHRQ/DHHS), 540 Gaither Road, Rockville, Maryland, 20850

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

Co.5 Submitter If different from Measure Steward POC
Judith, Sangl, Sc.D., jsangl@ahrq.gov, 301-427-1308-, Agency for Healthcare Research and Quality (AHRQ/DHHS)

Co.6 Additional organizations that sponsored/participated in measure development

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 Provide a list of sponsoring organizations and workgroup/panel members’ names and organizations.
Describe the members’ role in measure development.

AHRQ’s primary way of obtaining stakeholder input was by establishing a Technical Expert Panel (TEP) composed of industry, regulators and quality improvement organizations, payers, long-term care researchers, and consumer advocates. In addition to the Centers for Medicare & Medicaid Services, the TEP included representatives from the following organizations: (1) AARP; (2) American Health Care Association; (3) American Association of Homes and Services; (4) National Alliance for Caregivers/Gerontology Program of Towson University; (5) Quality Partners of Rhode Island, the CMS QIOSC for nursing home care; (6) Veterans Administration; (7) National Citizen’s Coalition for Nursing Home Reform; (8) Scripps Gerontology Center of Miami University; (9) Alzheimer’s Association; (10) American Medical Directors Association; and (11) National Network of Career Nursing Assistants. This TEP met in-person in November 2005 and February 2008. Additionally, AHRQ consulted with various TEP members at additional times during the survey development. Members of the TEP offered different perspectives on the use and value of a questionnaire for family members and provided valuable feedback on the proposed items, analyses, and final instrument.

Issues raised by TEP: On the February 2008 conference call, TEP members raised several issues in their review of the Final Report and survey. One issue raised was that the survey instrument does not incorporate the full range of domains of interest to consumers or facilities (dining, activities, and the admissions process were given as examples). A related point was that the survey would be difficult to use for quality improvement because it is not comprehensive. The CAHPS team responded that it is not possible to create an instrument that would serve all purposes but that the proposed questions would be useful for identifying issues that require more detailed study at the facility level. It was pointed out that it is possible to add supplemental questions to a CAHPS survey at the end of the instrument, right before the demographic items. It was further noted that the instrument was intended for family members, not to be a proxy for the resident. This family member survey should complement but not substitute for a survey of residents. Some of the topic areas considered missing in the family survey are covered in the resident survey.

Consumer advocates affirmed the importance of staff availability and staff attitude as key survey items in the recommended composites. They noted that several items proposed for deletion (e.g., “staff treating resident roughly”) were frequently mentioned by family members. However, the CAHPS team explained that the items were proposed for deletion because of their poor psychometric performance. The advocates suggested that there be an explanation to family members about confidentiality because of fear of retaliation and an explanation about how the data will be used. Another suggestion was to include an open-ended question asking for additional comments on the care in the nursing home. A long term care expert recommended that the protocol materials explain how to do the case mix adjustment.

Ad.2 If adapted, provide name of original measure:
Ad.3-5 If adapted, provide original specifications URL or attachment

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.6 Year the measure was first released: 2008
Ad.7 Month and Year of most recent revision:
Ad.8 What is your frequency for review/update of this measure? AHRQ will work with NQF to update the measure as needed.
Ad.9 When is the next scheduled review/update for this measure?
Ad.10 Copyright statement/disclaimers: 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.11-13 Additional Information web page URL or attachment: Attachment ATTACHMENT 1 CASE MIX CALCULATION.doc

Date of Submission (MM/DD/YY): 10/07/2010
1c. The measure focus is:

- an outcome (e.g., morbidity, mortality, function, health-related quality of life) that is relevant to, or associated with, a national health goal/priority, the condition, population, and/or care being addressed; 

OR

- if an intermediate outcome, process, structure, etc., there is evidence that supports the specific measure focus as follows:
  - Intermediate outcome - evidence that the measured intermediate outcome (e.g., blood pressure, Hba1c) leads to improved health/avoidance of harm or cost/benefit.
  - Process - evidence that the measured clinical or administrative process leads to improved health/avoidance of harm and if the measure focus is on one step in a multi-step care process, it measures the step that has the greatest effect on improving the specified desired outcome(s).
  - Structure - evidence that the measured structure supports the consistent delivery of effective processes or access that lead to improved health/avoidance of harm or cost/benefit.
  - Patient experience - evidence that an association exists between the measure of patient experience of health care and the outcomes, values and preferences of individuals/ the public.
  - Access - evidence that an association exists between access to a health service and the outcomes of, or experience with, care.
  - Efficiency - demonstration of an association between the measured resource use and level of performance with respect to one or more of the other five IOM aims of quality.