



## 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 sub criterion 1b).

### Brief Measure Information

**NQF #:** 2548

**Corresponding Measures:**

**De.2. Measure Title:** Child Hospital Consumer Assessment of Healthcare Providers and Systems (Child HCAHPS) Survey

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

**De.3. Brief Description of Measure:** The Child Hospital Consumer Assessment of Healthcare Providers and Systems (Child HCAHPS) Survey is a standardized survey instrument that asks parents and guardians (henceforth referred to as parents) of children under 18 years old to report on their and their child's experiences with inpatient hospital care.

The performance measures of the Child HCAHPS survey consist of 39 items organized by overarching groups into the following 18 composite and single-item measures:

**Communication with Parent**

1. Communication between you and your child's nurses (3 items)
2. Communication between you and your child's doctors (3 items)
3. Communication about your child's medicines (4 items)
4. Keeping you informed about your child's care (2 items)
5. Privacy when talking with doctors, nurses, and other providers (1 item)
6. Preparing you and your child to leave the hospital (5 items)
7. Keeping you informed about your child's care in the Emergency Room (1 item)

**Communication with Child**

8. How well nurses communicate with your child (3 items)
9. How well doctors communicate with your child (3 items)
10. Involving teens in their care (3 items)

**Attention to Safety and Comfort**

11. Preventing mistakes and helping you report concerns (2 items)
12. Responsiveness to the call button (1 item)
13. Helping your child feel comfortable (3 items)
14. Paying attention to your child's pain (1 item)

**Hospital Environment**

15. Cleanliness of hospital room (1 item)
16. Quietness of hospital room (1 item)

**Global Rating**

17. Overall rating (1 item)
18. Recommend hospital (1 item)

We recommend that the scores for the Child HCAHPS composite and single-item measures be calculated using a top-box scoring method. The top box score refers to the percentage of respondents who answered survey items using the best possible response option. The measure time frame is 12 months. A more detailed description of the Child HCAHPS measure can be found in the Detailed Measure Specifications (Appendix A).

**1b.1. Developer Rationale:** CAHPS surveys measure aspects of healthcare delivery that are important to patients and their families

and for which patients are generally the only or best source of information. Use of Child HCAHPS will benefit patients, families, and providers. Patients and their families can use scores from the Child HCAHPS measures to help make better and more informed choices about their providers. Providers and third-party payers can use the measure reports to assess quality for quality improvement initiatives and incentive programs.

#### IMPORTANCE OF MEASURING PATIENT- AND FAMILY-CENTERED CARE

The healthcare system has shifted dramatically toward the delivery of patient-centered care. Patient-centeredness refers to the principle that care should be designed around patients' needs, preferences, circumstances, and well-being. It has been identified as a core aspect of healthcare quality that should be addressed as part of overall quality improvement strategies.[1-3] In pediatrics, the goal is family-centeredness, meaning care that is designed around the child's and family's needs. Hospitals provide family-centered care by involving the patient and family as active participants in care.

Research shows that patient-centered care is important in improving the quality of care and achieving desirable outcomes.[4-14] Studies of adults have found that care that is more patient-centered, as measured by patient experience surveys, is associated with lower readmission and mortality rates as well as greater adherence to treatment plans.[15-19] Furthermore, studies of adults have demonstrated that patient-centered care may help reduce racial and ethnic disparities in the quality of care.[20-22]

Studies in the pediatric setting have similarly demonstrated that patient- and family-centered care is associated with better parent-reported experience and improved health outcomes.[3-7,23-29] For example, parents' perceptions of their child's care quality decline when parents are less involved in decision making and receive fewer explanations about their child's care.[30-31] Moreover, poor family-centeredness is associated with increased family stress and higher rates of delayed or forgone care.[25] Using a patient- and family-centered approach helps children and their families cope with the stress of hospitalization by easing anxiety, establishing trust and support, and promoting shared-decision making.[32]

#### IMPORTANCE OF PATIENT EXPERIENCE AS A MEASURE OF PATIENT- AND FAMILY-CENTERED CARE

One key approach to measuring patient- and family-centeredness is through assessment of patient experience. Patient experience surveys capture the patient's or family's perception of the care received, making them valuable tools for measuring patient-centered care. Patients are often best able to judge how well their providers are meeting their healthcare needs, and this understanding correlates with health outcomes and satisfaction. In fact, studies have shown that the association between patient-centeredness and health outcomes is stronger when patient-centeredness is measured by patient report than when it is measured by provider or researcher assessment.[15,33,34]

The Consumer Assessment of Healthcare Providers and Systems Hospital Survey – Child Version (Child HCAHPS) evaluates family-centeredness by measuring parents' perspectives on their child's inpatient experiences of care. The Child HCAHPS survey reports on aspects of family-centered care such as how much providers involve families in a child's care, the hospital environment, and the age-appropriateness of care delivery.

#### PEDIATRIC INPATIENT EXPERIENCE OF CARE: LACK OF STANDARDIZED QUALITY MEASUREMENT

Measuring patient experience has become a standard in assessing healthcare quality among adult patients. The National Quality Forum's (NQF) National Priorities Partnership and Measure Applications Partnership cite assessment of patient experience as a top priority.[35,36] The Consumer Assessment of Healthcare Providers and Systems Hospital Survey - Adult Version (Adult HCAHPS) facilitates objective and meaningful comparisons across hospitals of patients' perspectives regarding aspects of care that are important to them.[37] The Centers for Medicare & Medicaid Services (CMS) uses Adult HCAHPS results to inform consumer choice through public reporting on the Hospital Compare website and to calculate incentive payments for the CMS Hospital Value-based Purchasing Program.[37] Although Adult HCAHPS has become a national standard in quality measurement among adult patients, an analogous pediatric survey has not been previously developed. Child HCAHPS will fill the need for a tool to assess inpatient experience of pediatric care and differences in experience across hospitals.

#### DISPARITIES IN CHILDREN'S EXPERIENCES WITH CARE

Racial/ethnic disparities have been documented in pediatric outpatient settings.[38-40] One study demonstrated that non-English speaking parents of Asian and Hispanic children reported worse patient experience in multiple domains.[38] However, little is known about racial/ethnic disparities in pediatric inpatient experience of care. Child HCAHPS collects data on the race and ethnicity of the surveyed child, which will allow for stratification to assess racial/ethnic differences in care.

#### POTENTIAL FOR QUALITY IMPROVEMENT

Patients, including children,[41-42] are able to identify areas that they believe are important targets for quality improvement initiatives.[41-47] For nearly two decades, healthcare organizations have used CAHPS survey scores to assess patients' experience of

care.[48,49] When CMS began publicly reporting Adult HCAHPS scores in 2008, hospitals were able to implement changes that were associated with improvements in their patient experience scores after only one year.[50] This example of achievement of small but meaningful increases in scores suggests potential for improvement. Patient experience survey results have also prompted quality improvement initiatives in ambulatory and inpatient settings.[47,51,52] For example, a guide was released in 2008 that described potential interventions that can be used to improve performance on specific Adult CAHPS domains and improve patient experience.[52] In the inpatient setting, hospitals could use Child HCAHPS to identify gaps in performance in the domains measured by the survey (e.g., quality of discharge planning) and variation in performance associated with patient (e.g., race/ethnicity, type of insurance) or hospital (e.g., service line, type of hospital) characteristics.[50,53-55]

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**S.4. Numerator Statement:** Using the top-box scoring method, the numerator of the top-box score for a measure consists of the number of respondents with a completed survey who gave the best possible answer for the item(s) in a measure.

For example, the top-box numerator for the communication between you and your child's nurses composite is the number of respondents who answered "Always" to questions about how well nurses communicated well with them.

**S.6. Denominator Statement:** The denominator for each single-item measure is the number of respondents with a completed survey who responded to the item. The denominator for each composite measure is the number of respondents with a completed survey who responded to at least one of the items within the measure. The target population for the survey is parents of children under 18 years old who have been discharged from the hospital during the target 12-month time frame.

**S.8. Denominator Exclusions:** SURVEY AND MEASURES 1-18

Exclude parents of certain patients from the measure (numerator and denominator) based on clinical and non-clinical criteria:

1. "No-publicity" patients
2. Court/law enforcement patients
3. Patients with a foreign home addresses
4. Patients discharged to hospice care (hospice-home or hospice-medical facility)
5. Patients who are excluded because of state regulations
6. Patients who are wards of the state
7. Healthy newborns
8. Maternity-stay patients
9. Patients admitted for observation
10. Patients discharged to skilled nursing facilities
11. Patients who are emancipated minors

#### MEASURES 1-18

Exclude respondents from the numerator and denominator of a measure if they have completed survey items in the measure using multiple marks (i.e., they gave multiple answers to an individual question).

#### MEASURES 8-9

Exclude the following respondents from the numerator and denominator:

1. All those who answered "No" to screener question 6 (Is your child able to talk with nurses and doctors about his or her health care?)
2. All those whose child was under 3 years old at discharge as determined using administrative data

#### MEASURE 10

Exclude the following respondents from the numerator and denominator:

1. All those who answered "No" in screener question 43 (During this hospital stay, was your child 13 years old or older?)
2. All those whose child was under 13 years old at discharge as determined using administrative data
3. All those who answered "No" in screener question 6 (Is your child able to talk with nurses and doctors about his or her health care?)

#### MEASURE 12

Exclude the following respondents from the numerator and denominator:

1. All those who answered "No" in screener question 25 (During this hospital stay, did you or your child ever press the call button?)

#### MEASURE 14

Exclude the following respondents from the numerator and denominator:

1. All those who answered "No" in screener question 30 (During this hospital stay, did your child have pain that needed medicine or other treatment?)

De.1. Measure Type: Outcome

S.17. Data Source: Claims

S.20. Level of Analysis: Facility

IF Endorsement Maintenance – Original Endorsement Date: Jan 07, 2015 Most Recent Endorsement Date: Oct 25, 2019

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? Not applicable

### 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 sub criteria to pass this criterion and be evaluated against the remaining criteria.**

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

[NQF\\_Child\\_HCAHPS\\_Combined\\_Performance\\_Score\\_2019.xlsx](#), [Child\\_HCAHPS\\_NQF\\_Evidence\\_Form\\_Final\\_04\\_23\\_19.docx](#)

##### 1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

Yes

#### 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., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

*If a COMPOSITE* (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.

CAHPS surveys measure aspects of healthcare delivery that are important to patients and their families and for which patients are generally the only or best source of information. Use of Child HCAHPS will benefit patients, families, and providers. Patients and their families can use scores from the Child HCAHPS measures to help make better and more informed choices about their providers.



Providers and third-party payers can use the measure reports to assess quality for quality improvement initiatives and incentive programs.

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#### POTENTIAL FOR QUALITY IMPROVEMENT

Patients, including children,[41-42] are able to identify areas that they believe are important targets for quality improvement initiatives.[41-47] For nearly two decades, healthcare organizations have used CAHPS survey scores to assess patients' experience of care.[48,49] When CMS began publicly reporting Adult HCAHPS scores in 2008, hospitals were able to implement changes that were associated with improvements in their patient experience scores after only one year.[50] This example of achievement of small but

meaningful increases in scores suggests potential for improvement. Patient experience survey results have also prompted quality improvement initiatives in ambulatory and inpatient settings.[47,51,52] For example, a guide was released in 2008 that described potential interventions that can be used to improve performance on specific Adult CAHPS domains and improve patient experience.[52] In the inpatient setting, hospitals could use Child HCAHPS to identify gaps in performance in the domains measured by the survey (e.g., quality of discharge planning) and variation in performance associated with patient (e.g., race/ethnicity, type of insurance) or hospital (e.g., service line, type of hospital) characteristics.[50,53-55]

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**1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis.** *(This is required for maintenance of endorsement. 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 include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

We provide three sets of Child HCAHPS performance scores. First, we provide performance scores for each of the Child HCAHPS measures using data from the 2012-2014 national field test. Data from 69 hospitals were used to calculate scores for all measures, except for the composite measure Involving Teens in Care, for which data from 67 hospitals were used (hospitals were excluded if they did not have an adequate sample size to allow for variance calculations). We also provide performance scores from the two largest vendors administering the Child HCAHPS measure at the national level. Vendor A administered Child HCAHPS in 2017 to 34,156 patients in 172 total facilities and in 2018 to 46,296 patients in 225 total facilities. Performance scores from Vendor A are for the 128 and 175 facilities in 2017 and 2018, respectively, that had at least 30 responses during the collection period. Vendor B administered Child HCAHPS to 91,438 in 122 facilities during the collection period 2/20/2015-1/31/2019. Performance scores from Vendor B are for all facilities/respondents during the collection period. We provide the following performance score values for each dataset: mean; minimum and maximum score; standard deviation; interquartile range; and mean score by quintile. Due to the number of hospitals in each dataset, we have reported mean scores by quintile rather than decile to provide a better representation of score distribution, allowing for more meaningful comparisons of scores. Please see the sheet labeled "performance scores" in the excel workbook attached with the evidence submission 1a. for the performance data described above.

Finally, we have included additional performance scores from survey vendor A to demonstrate change over time. The sheet labeled "performance trends" in the attached performance score excel sheet includes two sets of trends. The data show the performance scores for the individual years from 2016 to 2017 and 2017 to 2018 and a calculation of the difference between the two sets of years for each Child HCAHPS measure item.

Child HCAHPS National Field Test Data:

Measure X

Line 1 – Mean (M); standard deviation (SD); minimum/maximum (min/max); 25th/50th/75th percentile (%ile); interquartile range (IQR)

Line 2 – Quintiles: quintile 1 mean/quintile 2 mean/quintile 3 mean/quintile 4 mean/quintile 5 mean

Nurse-Parent Communication:

M: .81; SD: .07; min/max: .49/1.00; %ile: .78/.81/.84; IQR: .06

Quintiles: .72/.79/.81/.83/.89

Doctor-Parent Communication:

M: .81; SD: .07; min/max: .47/.91; %ile: .79/.82/.85; IQR: .06

Quintiles: .70/.79/.82/.84/.88

Communication About Medicines:

M: .78; SD: .06; min/max: .47/.96; %ile: .76/.80/.82; IQR: .06

Quintiles: .69/.77/.79/.81/.85  
Informed About Child's Care:  
M: .71; SD: .08; min/max: .41/.89; %ile: .67/.72/.75; IQR: .08  
Quintiles: .59/.68/.72/.74/.79  
Privacy With Providers:  
M: .81; SD: .08; min/max: .37/.91; %ile: .78/.83/.87; IQR: .09  
Quintiles: .68/.78/.83/.86/.89  
Preparing to Leave Hospital:  
M: .79; SD: .07; min/max: .48/.92; %ile: .77/.80/.83; IQR: .06  
Quintiles: .68/.77/.80/.82/.86  
Informed in Emergency Room:  
M: .84; SD: .08; min/max: .61/1.00; %ile: .81/.84/.88; IQR: .07  
Quintiles: .72/.80/.84/.87/.94  
Nurse-Child Communication:  
M: .69; SD: .09; min/max: .35/.92; %ile: .67/.70/.74; IQR: .07  
Quintiles: .55/.67/.69/.72/.80  
Doctor-Child Communication:  
M: .65; SD: .11; min/max: .18/.96; %ile: .62/.66/.70; IQR: .08  
Quintiles: .50/.62/.66/.69/.77  
Involving Teens in Care:  
M: .70; SD: .10; min/max: .37/.96; %ile: .65/.72/.75; IQR: .10  
Quintiles: .55/.66/.71/.75/.82  
Mistakes and Concerns:  
M: .55; SD: .07; min/max: .38/.70; %ile: .51/.56/.59; IQR: .08  
Quintiles: .46/.52/.55/.58/.65  
Call Button:  
M: .59; SD: .08; min/max: .40/.79; %ile: .54/.58/.65; IQR: .11  
Quintiles: .49/.55/.58/.64/.71  
Child Comfort:  
M: .67; SD: .07; min/max: .49/.86; %ile: .64/.67/.71; IQR: .07  
Quintiles: .57/.64/.67/.70/.76  
Child Pain:  
M: .74; SD: .09; min/max: .47/.96; %ile: .70/.74/.78; IQR: .08  
Quintiles: .60/.71/.74/.77/.85  
Cleanliness:  
M: .69; SD: .10; min/max: .45/1.00; %ile: .64/.69/.73; IQR: .09  
Quintiles: .56/.65/.68/.71/.82  
Quietness:  
M: .63; SD: .11; min/max: .37/1.00; %ile: .57/.64/.69; IQR: .12  
Quintiles: .48/.57/.64/.69/.78  
Overall Rating:  
M: .73; SD: .11; min/max: .29/.90; %ile: .69/.75/.79; IQR: .10  
Quintiles: .55/.70/.75/.79/.84  
Recommend Hospital:  
M: .80; SD: .14; min/max: .27/1.00; %ile: .76/.83/.88; IQR: .12  
Quintiles: .57/.77/.83/.87/.92

Vendor A Data (2017):  
Nurse-Parent Communication:  
M: .83; SD: .06; min/max: .56/.95; %ile: .81/.84/.86; IQR: .06  
Quintiles: .56/.80/.83/.85/.87  
Doctor-Parent Communication:  
M: .84; SD: .05; min/max: .60/.96; %ile: .81/.85/.87; IQR: .06  
Quintiles: .60/.81/.83/.86/.88

Communication About Medicines:

M: .79; SD: .04; min/max: .57/.88; %ile: .77/.79/.81; IQR: .05

Quintiles: .57/.76/.79/.80/.82

Informed About Child's Care:

M: .75; SD: .07; min/max: .27/.96; %ile: .72/.75/.79; IQR: .07

Quintiles: .27/.71/.74/.76/.80

Privacy With Providers:

M: .86; SD: .06; min/max: .59/.97; %ile: .83/.87/.90; IQR: .07

Quintiles: .59/.82/.86/.87/.90

Preparing to Leave Hospital:

M: .80; SD: .05; min/max: .57/.90; %ile: .78/.81/.84; IQR: .06

Quintiles: .57/.77/.80/.82/.84

Informed in Emergency Room:

M: .84; SD: .08; min/max: .51/1.00; %ile: .81/.86/.89; IQR: .08

Quintiles: .51/.81/.83/.87/.90

Nurse-Child Communication:

M: .74; SD: .08; min/max: .41/1.00; %ile: .71/.75/.78; IQR: .08

Quintiles: .41/.70/.73/.76/.79

Doctor-Child Communication:

M: .71; SD: .09; min/max: .33/1.00; %ile: .67/.72/.76; IQR: .09

Quintiles: .33/.65/.70/.73/.77

Involving Teens in Care:

M: .72; SD: .10; min/max: .13/1.00; %ile: .69/.72/.77; IQR: .08

Quintiles: .13/.67/.71/.74/.79

Mistakes and Concerns:

M: .60; SD: .05; min/max: .36/.74; %ile: .57/.60/.63; IQR: .06

Quintiles: .36/.56/.59/.61/.64

Call Button:

M: .67; SD: .11; min/max: .00/.95; %ile: .63/.68/.73; IQR: .10

Quintiles: .00/.60/.66/.69/.74

Child Comfort:

M: .68; SD: .07; min/max: .42/.82; %ile: .64/.69/.72; IQR: .08

Quintiles: .42/.63/.67/.70/.73

Child Pain:

M: .77; SD: .08; min/max: .48/1.00; %ile: .74/.78/.82; IQR: .08

Quintiles: .48/.73/.76/.79/.83

Cleanliness:

M: .69; SD: .08; min/max: .46/.88; %ile: .64/.69/.75; IQR: .11

Quintiles: .46/.62/.67/.71/.76

Quietness:

M: .64; SD: .10; min/max: .23/.85; %ile: .58/.65/.71; IQR: .13

Quintiles: .23/.56/.62/.68/.73

Overall Rating:

M: .73; SD: .09; min/max: .42/.89; %ile: .68/.74/.78; IQR: .10

Quintiles: .42/.66/.72/.76/.79

Recommend Hospital:

M: .80; SD: .09; min/max: .47/.93; %ile: .76/.81/.86; IQR: .10

Quintiles: .47/.74/.79/.83/.87

Vender A Data (2018):

Nurse-Parent Communication:

M: .84; SD: .05; min/max: .68/.95; %ile: .81/.84/.87; IQR: .05

Quintiles: .68/.80/.83/.85/.87

Doctor-Parent Communication:

M: .84; SD: .05; min/max: .67/.94; %ile: .82/.85/.87; IQR: .05

Quintiles: .67/.81/.83/.86/.88  
Communication About Medicines:  
M: .79; SD: .05; min/max: .56/.89; %ile: .76/.80/.82; IQR: .06  
Quintiles: .56/.75/.78/.80/.82  
Informed About Child's Care:  
M: .75; SD: .06; min/max: .55/.91; %ile: .72/.75/.78; IQR: .07  
Quintiles: .55/.71/.74/.77/.79  
Privacy With Providers:  
M: .86; SD: .07; min/max: .48/1.0; %ile: .84/.87/.90; IQR: .07  
Quintiles: .48/.82/.86/.88/.91  
Preparing to Leave Hospital:  
M: .81; SD: .04; min/max: .64/.93; %ile: .79/.81/.83; IQR: .05  
Quintiles: .64/.78/.80/.82/.84  
Informed in Emergency Room:  
M: .84; SD: .09; min/max: .33/1.00; %ile: .81/.85/.89; IQR: .07  
Quintiles: .33/.80/.84/.87/.89  
Nurse-Child Communication:  
M: .75; SD: .07; min/max: .43/1.00; %ile: .71/.76/.80; IQR: .08  
Quintiles: .43/.70/.75/.77/.81  
Doctor-Child Communication:  
M: .72; SD: .08; min/max: .42/1.00; %ile: .67/.72/.77; IQR: .10  
Quintiles: .42/.66/.71/.74/.78  
Involving Teens in Care:  
M: .72; SD: .12; min/max: .13/1.00; %ile: .68/.73/.77; IQR: .10  
Quintiles: .13/.66/.71/.74/.79  
Mistakes and Concerns:  
M: .61; SD: .05; min/max: .40/.83; %ile: .58/.60/.64; IQR: .07  
Quintiles: .40/.57/.59/.62/.65  
Call Button:  
M: .69; SD: .09; min/max: .35/.91; %ile: .64/.69/.74; IQR: .11  
Quintiles: .35/.63/.67/.71/.76  
Child Comfort:  
M: .69; SD: .06; min/max: .47/.80; %ile: .65/.69/.72; IQR: .07  
Quintiles: .47/.64/.68/.70/.73  
Child Pain:  
M: .77; SD: .08; min/max: .41/1.00; %ile: .73/.78/.81; IQR: .09  
Quintiles: .41/.72/.77/.79/.83  
Cleanliness:  
M: .70; SD: .09; min/max: .44/.91; %ile: .64/.70/.75; IQR: .11  
Quintiles: .44/.63/.68/.74/.77  
Quietness:  
M: .66; SD: .09; min/max: .39/.85; %ile: .59/.66/.73; IQR: .13  
Quintiles: .39/.57/.63/.69/.74  
Overall Rating:  
M: .73; SD: .09; min/max: .30/.92; %ile: .69/.74/.79; IQR: .10  
Quintiles: .30/.67/.72/.76/.79  
Recommend Hospital:  
M: .80; SD: .09; min/max: .35/.94; %ile: .77/.81/.85; IQR: .09  
Quintiles: .35/.75/.80/.83/.86  
  
Vendor B Data:  
Nurse-Parent Communication:  
M: .82; SD: .05; min/max: .60/1.00; %ile: .79/.83/.86; IQR: .06  
Quintiles: .77/.81/.83/.84/.87

Doctor-Parent Communication:  
M: .84; SD: .05; min/max: .67/1.00; %ile: .82/.85/.87; IQR: .05  
Quintiles: .81/.83/.85/.87/.89  
Communication About Medicines:  
M: .74; SD: .12; min/max: .35/.93; %ile: .72/.78/.81; IQR: .09  
Quintiles: .62/.74/.78/.80/.82  
Informed About Child's Care:  
M: .75; SD: .06; min/max: .54/1.00; %ile: .72/.76/.79; IQR: .06  
Quintiles: .70/.74/.76/.78/.80  
Privacy With Providers:  
M: .85; SD: .05; min/max: .64/1.00; %ile: .83/.86/.89; IQR: .06  
Quintiles: .81/.84/.86/.88/.90  
Preparing to Leave Hospital:  
M: .81; SD: .06; min/max: .51/.91; %ile: .78/.82/.84; IQR: .06  
Quintiles: .76/.79/.82/.83/.85  
Informed in Emergency Room:  
M: .84; SD: .14; min/max: .00/1.00; %ile: .80/.85/.89; IQR: .09  
Quintiles: .76/.82/.85/.87/.94  
Nurse-Child Communication:  
M: .72; SD: .10; min/max: .33/1.00; %ile: .68/.73/.77; IQR: .09  
Quintiles: .67/.71/.73/.75/.79  
Doctor-Child Communication:  
M: .71; SD: .12; min/max: .00/1.00; %ile: .66/.71/.76; IQR: .10  
Quintiles: .65/.67/.71/.74/.78  
Involving Teens in Care:  
M: .71; SD: .15; min/max: .00/1.00; %ile: .67/.72/.78; IQR: .11  
Quintiles: .60/.70/.72/.76/.80  
Mistakes and Concerns:  
M: .59; SD: .06; min/max: .43/.74; %ile: .56/.59/.62; IQR: .06  
Quintiles: .54/.56/.59/.61/.64  
Call Button:  
M: .69; SD: .11; min/max: .33/1.00; %ile: .64/.69/.75; IQR: .10  
Quintiles: .60/.67/.69/.72/.77  
Child Comfort:  
M: .64; SD: .08; min/max: .36/.81; %ile: .59/.64/.70; IQR: .12  
Quintiles: .56/.60/.64/.69/.72  
Child Pain:  
M: .76; SD: .12; min/max: .33/1.00; %ile: .73/.78/.82; IQR: .09  
Quintiles: .69/.75/.78/.81/.83  
Cleanliness:  
M: .74; SD: .08; min/max: .53/1.00; %ile: .70/.74/.79; IQR: .09  
Quintiles: .68/.71/.74/.77/.82  
Quietness:  
M: .68; SD: .09; min/max: .42/.93; %ile: .63/.68/.74; IQR: .11  
Quintiles: .61/.65/.68/.72/.77  
Overall Rating:  
M: .74; SD: .10; min/max: .36/.97; %ile: .70/.76/.81; IQR: .11  
Quintiles: .65/.72/.76/.79/.83  
Recommend Hospital:  
M: .79; SD: .11; min/max: .29/1.00; %ile: .75/.81/.86; IQR: .12  
Quintiles: .70/.79/.81/.84/.89

**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.**

Not applicable

**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 maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.) For measures that show high levels of performance, i.e., “topped out”, disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

**RACE/ETHNICITY**

We assessed differences in inpatient pediatric experience associated with race/ethnicity. Child race/ethnicity is determined from survey responses to two items that were devised based on recommendations from the Office of Minority Health: “Is your child of Hispanic, Latino, or Spanish origin?” and “How would you describe your child’s race?”[1] For our analyses, we categorized responses into the following groups: American Indian/Alaskan Native, Asian/Pacific Islander, Black, Hispanic, White, and Multiracial.

In unadjusted results for the majority of the measures, we found that compared with hospital top-box scores for White patients, those for Black and Hispanic patients were higher and those for Asian/Pacific Islanders were lower. In multivariate analyses controlling for child global health status, child age, respondent relation to child, respondent age, and hospital, the results were similar across racial/ethnic groups. See Child HCAHPS Disparities Analysis (Appendix L) for data on differences in inpatient pediatric patient experience based on patient race/ethnicity.

Our findings are similar to those from other patient surveys in the inpatient setting. Higher patient experience scores for Black and Hispanic patients than for White patients have been reported in the adult literature, as have lower scores for Asian/Pacific Islander patients.[2-5] However, our findings and those for adult inpatients differ from what has been observed in outpatient and community settings. Because inpatient samples by definition have been hospitalized, they are a more homogeneous group with regard to access to care than a general community sample of children. In contrast, access to care in outpatient and community settings may vary among patients in different racial/ethnic groups, perhaps leading to corresponding racial/ethnic differences in patient experience. Furthermore, comparisons of reported patient experience by racial/ethnic group should be interpreted with caution. Parents’ perceptions may be influenced by factors such as differences in culture and expectations rather than true differences in quality of care. In addition, it has been shown that responses to global rating items are particularly likely to be influenced by underlying response tendencies that vary across groups.[6,7]

In adults, racial/ethnic variation in patient experience has been found to be due more to between-hospital differences than within-hospital differences. In other words, hospitals that serve a larger proportion of non-White adult patients generally perform worse on patient experience measures for all racial/ethnic groups, not just for non-White patients, compared with hospitals that serve a smaller proportion of non-White patients. Thus, the main factor accounting for racial/ethnic variation in adult patient experience is that non-White patients tend to receive care at lower-performing hospitals, not that at a given hospital non-White patients tend to receive worse care than White patients.

The results from our multivariate analyses suggest that the situation is different for children. If the major explanation for racial/ethnic variation in inpatient pediatric experience were overall differences (for all racial/ethnic groups) in patient experience between hospitals serving high versus low proportions of non-White children, one would expect that controlling for hospital would decrease the racial/ethnic variation observed in unadjusted scores. We found, however, that controlling for hospital had only a small effect on racial/ethnic differences. The small effect on racial/ethnic differences of controlling for hospital suggests that in our sample, these differences primarily exist within hospitals rather than primarily being due to variation in the average quality of the hospitals that different groups use.

One possible reason for the contrast between our findings and those in adults is that many of the hospitals in our dataset are children’s hospitals. Because children’s hospitals provide unique services in a given geographic area, the relationship between the distribution of racial/ethnic groups across children’s hospitals and the quality of care these hospitals provide might not be the same as for non-children’s hospitals. Our sample does not capture all hospitals within a given area, which limits our ability to assess whether patient experience tends to vary between non-children’s hospitals serving high versus low proportions of children of a particular racial/ethnic group.

## SOCIOECONOMIC STATUS

We assessed differences in inpatient pediatric experience associated with socioeconomic status. We used parent education as a proxy for socioeconomic status, measured using the following item: “What is the highest level of school that you have completed?” For our analysis, we categorized responses into the following groups: 8th grade or less or some high school, high school graduate or GED, some college or 2-year degree, 4-year college graduate, and more than 4-year college graduate.

In unadjusted results, we found a pattern for a majority of the measures such that top-box scores were highest for those who had not completed high school and decreased for each higher level of educational attainment. In multivariate analyses controlling for child global health status, child age, respondent relation to child, respondent age, and hospital, results were similar. The small effect on education-related differences of controlling for hospital suggests that in our sample, these differences primarily exist within hospitals rather than primarily being due to variation in the average quality of hospitals that are used by different groups. See Child HCAHPS Disparities Analysis (Appendix L) for data on differences in inpatient pediatric patient experience based on respondent education.

Our findings are similar to those from other patient surveys. Higher scores for less versus more educated individuals have been reported in both inpatient and outpatient settings in the adult patient experience literature.[8-13] The same trend has been observed when parents provide ratings of their child’s health plan. In an analysis of Child CAHPS Health Plan survey scores, less educated adults generally provided higher ratings of their child’s commercial health plan and received care.[8] These differences in scores may reflect differences in expectations of care or reporting styles associated with education level rather than actual differences in the quality of care received.[9-11] Such explanations might also be relevant to Child HCAHPS.

As is true for racial/ethnic differences in inpatient pediatric experience, our findings regarding differences associated with parent education level are specifically applicable to the inpatient setting. As noted previously, hospitalized children are a more homogeneous group with regard to access to care than a general community sample of children. In outpatient and community settings, children with less versus more educated parents may experience greater differences in access to care, possibly leading to even greater differences in patient experience.

## GENDER

We assessed differences in inpatient pediatric experience associated with gender. Child gender is determined from hospital administrative data. For our analyses, we categorized gender into the following groups: male and female.

In unadjusted results, we found no significant differences in top-box scores for males and females for all but two measures. In multivariate analyses controlling for child global health status, child age, respondent relation to child, respondent age, and hospital, results were similar. Parents of female children gave slightly higher scores for the Communication about Medicines composite, and parents of male children gave slightly higher scores for the Quietness composite. See Child HCAHPS Disparities Analysis (Appendix L) for data on differences in inpatient pediatric patient experience based on patient gender.

## REFERENCES

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  11. Carlson MJ, Blustein J, Fiorentino N, Prestianni F. Socioeconomic Status and Dissatisfaction Among HMO Enrollees. Med Care May 2000. 2000;38(5):508-516.
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**1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4**

Not applicable

## 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 sub criteria 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

**De.7. Target Population Category** (Check all the populations for which the measure is specified and tested if any):

Children, Populations at Risk : Individuals with multiple chronic conditions

**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.)

[https://www.ahrq.gov/cahps/surveys-guidance/hospital/about/child\\_hp\\_survey.html](https://www.ahrq.gov/cahps/surveys-guidance/hospital/about/child_hp_survey.html)

**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)

This is not an eMeasure 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: Data\_dictionary\_UPDATE\_04\_09\_18-636588797981265996.xlsx

**S.2c.** Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Attachment **Attachment:** [Appendix\\_revised\\_final\\_01\\_07\\_19.pdf](#)

**S.2d.** Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

[Family or other caregiver](#)

**S.3.1. For maintenance of endorsement:** Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

[No](#)

**S.3.2. For maintenance of endorsement,** please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

[We made no major changes to the measure specifications for this maintenance review.](#)

**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) DO NOT include the rationale for the measure.

*IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).*

[Using the top-box scoring method, the numerator of the top-box score for a measure consists of the number of respondents with a completed survey who gave the best possible answer for the item\(s\) in a measure.](#)

[For example, the top-box numerator for the communication between you and your child's nurses composite is the number of respondents who answered "Always" to questions about how well nurses communicated well with them.](#)

**S.5. 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, time period for data collection, 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 (S.14).*

[SURVEY](#)

[The numerator is the number of parents who return a completed survey. A survey is considered complete if responses are available for half of the key survey items. For more information about the key items in Child HCAHPS, see Survey Items in Domain-Level Composite and Single-Item Measures \(Appendix I\).](#)

[MEASURE 1: Communication between you and your child's nurses](#)

[The numerator is the percentage number of respondents who answered "Always" to questions about how well nurses communicated well with them.](#)

[MEASURE 2: Communication between you and your child's doctors](#)

[The numerator is the number of respondents who answered "Always" to questions about how well doctors communicated well with them.](#)

[MEASURE 3: Communication about your child's medicines](#)

[The numerator is the number of respondents who answered "Yes, Definitely" to questions about whether providers communicated well about their child's medicines.](#)

[MEASURE 4: Keeping you informed about your child's care](#)

[The numerator is the number of respondents who answered "Always" to questions about whether providers kept them informed about their child's care.](#)

**MEASURE 5: Privacy when talking with doctors, nurses, and other providers**

This numerator is the number of respondents who answered “Always” to a question about whether they were given as much privacy as they wanted when discussing their child’s care with providers.

**MEASURE 6: Preparing you and your child to leave the hospital**

The numerator is the number of respondents who answered “Yes, Definitely” to questions about whether providers prepared them and their child to leave the hospital.

**MEASURE 7: Keeping you informed about your child’s care in the Emergency Room**

The numerator is the number of respondents who answered “Yes, Definitely” to a question about whether they were kept informed about their child’s care in the Emergency Room.

**MEASURE 8: How well nurses communicate with your child**

The numerator is the number of respondents who answered “Always” to questions about whether nurses communicated well with their child.

**MEASURE 9: How well doctors communicate with your child**

The numerator is the number of respondents who answered “Always” to questions about whether doctors communicated well with their child.

**MEASURE 10: Involving teens in their care**

The numerator is the number of respondents who answered “Always” or “Yes, Definitely” to questions about whether providers involved teens in their care.

**MEASURE 11: Preventing mistakes and helping you report concerns**

The numerator is the number of respondents who answered “Always” or “Yes, Definitely” to questions about whether providers prevented mistakes and helped them report concerns.

**MEASURE 12: Responsiveness to the call button**

The numerator is the number of respondents who answered “Always” to a question about how often providers were responsive to the call button.

**MEASURE 13: Helping your child feel comfortable**

The numerator is the number of respondents who answered “Always” or “Yes, Definitely” to questions about whether providers helped their child feel comfortable.

**MEASURE 14: Paying attention to your child’s pain**

The numerator is the number of respondents who answered “Yes, Definitely” to a question about whether providers and hospital staff paid attention to their child’s pain.

**MEASURE 15: Cleanliness of hospital room**

The numerator is the number of respondents who answered “Always” to a question about how often their child’s room and bathroom were kept clean.

**MEASURE 16: Quietness of hospital room**

The numerator is the number of respondents who answered “Always” to a question about how often their child’s room was quiet at night.

**MEASURE 17: Overall rating**

The numerator is the number of respondents who gave their hospital a rating of 9 or 10 on a scale from 0 (worst hospital) to 10 (best hospital).

**MEASURE 18: Recommend hospital**

The numerator is the number of respondents who answered “Yes, Definitely” to a question about whether they would recommend

the hospital.

**S.6. Denominator Statement** *(Brief, narrative description of the target population being measured)*

The denominator for each single-item measure is the number of respondents with a completed survey who responded to the item. The denominator for each composite measure is the number of respondents with a completed survey who responded to at least one of the items within the measure. The target population for the survey is parents of children under 18 years old who have been discharged from the hospital during the target 12-month time frame.

**S.7. Denominator Details** *(All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, 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 target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).*

**SURVEY**

The denominator for the survey is all parents of patients who meet the following criteria:

1. Children under 18 years old
2. Admission includes at least one overnight stay in the hospital
3. Non-psychiatric MS-DRG/principal diagnosis at discharge
4. Alive at time of discharge

**MEASURE 1: Communication between you and your child's nurses**

The denominator is the total number of respondents with completed surveys who have given a response to at least one of the following items: Q13, Q14, and Q15.

**MEASURE 2: Communication between you and your child's doctors**

The denominator is the total number of respondents with completed surveys who have given a response to at least one of the following items: Q16, Q17, and Q18.

**MEASURE 3: Communication about your child's medicines**

The denominator is the total number of completed surveys with at least one response to any of the following items: Q4, Q5, Q38, and Q39.

**MEASURE 4: Providers keep you informed about your child's care**

The denominator is the total number of completed surveys with at least one response to either of the following items: Q22 and Q24.

**MEASURE 5: Privacy when talking with providers**

The denominator is the total number of surveys with a response to the following item: Q19.

**MEASURE 6: Preparing you and your child to leave the hospital**

The denominator is the total number of completed surveys with at least one response to any of the following items: Q35, Q36, Q40, Q41, and Q42.

**MEASURE 7: Keeping you informed about your child's care in the Emergency Room**

The denominator is the total number of completed surveys with a response to the following item: Q3.

**MEASURE 8: How well nurses communicate with your child**

The denominator is the total number of completed surveys with at least one response to any of the following items: Q7, Q8, and Q9.

**MEASURE 9: How well doctors communicate with your child**

The denominator is the total number of completed surveys with at least one response to any of the following items: Q10, Q11, and Q12.

**MEASURE 10: Involving teens in their care**



The denominator is the total number of completed surveys with at least one response to any of the following items: Q44, Q45, and Q46.

**MEASURE 11: Preventing mistakes and helping you report concerns**

The denominator is the total number of completed surveys with at least one response to either of the following items: Q28 and Q29.

**MEASURE 12: Responsiveness to the call button**

The denominator is the total number of completed surveys with a response to the following item: Q26.

**MEASURE 13: Helping your child feel comfortable**

The denominator is the total number of completed surveys with at least one response to any of the following items: Q20, Q21, and Q34.

**MEASURE 14: Paying attention to your child's pain**

The denominator is the total number of completed surveys with a response to the following item: Q31.

**MEASURE 15: Cleanliness of hospital room**

The denominator is the total number of completed surveys with a response to the following item: Q32.

**MEASURE 16: Quietness of hospital room**

The denominator is the total number of completed surveys with a response to the following item: Q33.

**MEASURE 17: Overall rating**

The denominator is the total number of completed surveys with a response to the following item: Q47.

**MEASURE 18: Recommend hospital**

The denominator is the total number of completed surveys with a response to the following item: Q48.

**S.8. Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*

**SURVEY AND MEASURES 1-18**

Exclude parents of certain patients from the measure (numerator and denominator) based on clinical and non-clinical criteria:

1. "No-publicity" patients
2. Court/law enforcement patients
3. Patients with a foreign home addresses
4. Patients discharged to hospice care (hospice-home or hospice-medical facility)
5. Patients who are excluded because of state regulations
6. Patients who are wards of the state
7. Healthy newborns
8. Maternity-stay patients
9. Patients admitted for observation
10. Patients discharged to skilled nursing facilities
11. Patients who are emancipated minors

**MEASURES 1-18**

Exclude respondents from the numerator and denominator of a measure if they have completed survey items in the measure using multiple marks (i.e., they gave multiple answers to an individual question).

**MEASURES 8-9**

Exclude the following respondents from the numerator and denominator:

1. All those who answered "No" to screener question 6 (Is your child able to talk with nurses and doctors about his or her health care?)
2. All those whose child was under 3 years old at discharge as determined using administrative data

#### MEASURE 10

Exclude the following respondents from the numerator and denominator:

1. All those who answered “No” in screener question 43 (During this hospital stay, was your child 13 years old or older?)
2. All those whose child was under 13 years old at discharge as determined using administrative data
3. All those who answered “No” in screener question 6 (Is your child able to talk with nurses and doctors about his or her health care?)

#### MEASURE 12

Exclude the following respondents from the numerator and denominator:

1. All those who answered “No” in screener question 25 (During this hospital stay, did you or your child ever press the call button?)

#### MEASURE 14

Exclude the following respondents from the numerator and denominator:

1. All those who answered “No” in screener question 30 (During this hospital stay, did your child have pain that needed medicine or other treatment?)

**S.9. Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, 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.)*

“No-publicity” patients are defined as those whose parents voluntarily sign a “no-publicity” request while hospitalized or directly request that a hospital or survey vendor not contact them (“Do Not Call List”).

Court/law enforcement patients (i.e., prisoners) are excluded from the sample frame because of the logistical difficulties of administering the survey in a timely manner and regulations governing surveys of this population. These individuals can be identified by the admission source (UB-04 field location 15) “8 – Court/law enforcement” or patient discharge status code (UB-04 field location 17) “21 – Discharged/transferred to court/law enforcement.” This exclusion does not include patients residing in halfway houses.

Patients with a foreign home address are excluded because of the logistical difficulty and added expense of calling or mailing outside of the United States. (The US territories—American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and Virgin Islands—are not considered foreign addresses and are not excluded.)

Patients discharged to hospice care are excluded because of the greater likelihood that they will die before the survey process can be completed. Patients with a discharge status code (UB-04 field location 17) of “50 – Hospice – home” or “51 – Hospice – medical facility” should not be included in the sample frame.

Some state regulations place further restrictions on which patients may be contacted after discharge. It is the responsibility of the hospital/survey vendor to identify any applicable laws or regulations and to exclude those patients as required in the state in which the hospital operates.

Patients who are wards of the state are excluded because they do not have parents to assess their experiences in the hospital.

Healthy newborns are excluded because their care may be closely associated with a mother’s obstetric care and thus may not reflect a pediatric hospital’s quality of care. Healthy newborns are identified based on administrative billing codes; see Codes to Identify Healthy Newborns for Exclusion in the Data Dictionary Code Table.

Maternity-stay patients are excluded because care related to pregnancy does not generally fall within the purview of pediatric providers.

Observation patients are excluded because their hospital stay is generally short and does not meet the criteria for an inpatient stay.

Patients discharged to skilled nursing facilities are excluded because of concerns that parents would not be able to adequately distinguish the care received at the two facilities and also might be more difficult to locate. Patients with a discharge status code

(UB-04 field location 17) of “03 – Skilled Nursing Facility,” “61 – SNF Swing bed within Hospital,” or “64 – Certified Medicaid Nursing Facility” should not be included in the sample frame.

Patients who are emancipated minors are excluded because they do not have parents/guardians to assess their experiences in the hospital.

Note: Patients should be included in the Child HCAHPS sample frame unless the hospital/survey vendor has positive evidence that they are ineligible or fall within an excluded category. If information is missing on ANY variable that affects survey eligibility when the sample frame is constructed, the patient should not be excluded in the sample frame because of that variable.

**S.10. Stratification Information** *(Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – 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.)*

Stratification is not required. However, users of the survey may choose to stratify scores. Variables commonly used to stratify inpatient patient experience of care measures include service (e.g., medical versus surgical) or condition (e.g., patients with the primary diagnosis of asthma).

**S.11. Risk Adjustment Type** (Select type. Provide specifications for risk stratification in measure testing attachment)

Statistical risk model

If other:

**S.12. Type of score:**

Rate/proportion

If other:

**S.13. 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)*

Better quality = Higher score

**S.14. Calculation Algorithm/Measure Logic** *(Diagram or 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; time period for data, aggregating data; risk adjustment; etc.)*

The Child HCAHPS survey includes three types of measures: global measures, domain-level composites, and domain-level single items. The production of unadjusted hospital scores for each measure and use of adjustments to better ensure the comparability of scores across hospitals are discussed below.

ASSIGN APPROPRIATE SAMPLING WEIGHT TO EACH CASE

Prior to calculating any of the measure scores, it may be necessary to calculate sampling weights that are applicable to all of the measures. Some hospitals will sample a constant proportion of patients for each month, in which case sampling weights are not needed. Alternatively, some hospitals will sample a fixed number of discharges each month to reach the annual target of 300 completed surveys. However, the monthly population of discharges from which these fixed-sized samples are drawn will vary throughout the year because there are more total discharges in some months than others in most hospitals. In such a case, sampling rates will vary from month to month. To make the combined monthly samples representative of the full population of discharges for the year, it is necessary to adjust for the different monthly sampling rates. Appropriate sampling weights can be assigned to each case to make the combined monthly samples representative of the total population of annual discharges. This is done using the approach below. For a more detailed description, see the production of hospital scores section of the Detailed Measure Specifications (Appendix A).

Step 1 – Calculate the expansion weight for each month

Expansion weight = (Population size for the month) / (Sample size for the month)

Step 2 – Calculate the mean expansion weight for the number of months covered by the score (e.g., 12 months)

Step 3 – Calculate the relative weight for each month as the expansion weight for the month divided by the mean expansion weight

Step 4 – Assign a sampling weight to each case based on the month in which the person was discharged and the corresponding value of the mean expansion weight

#### GLOBAL MEASURES

The global measures consist of an overall rating of the hospital and an item about willingness to recommend the hospital. The approach for producing scores for these items is below.

##### Overall Rating of the Hospital.

For this item, respondents are asked, “Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your child’s stay?” The scoring on this item represents the proportion of respondents who gave ratings of 0-6, 7-8, or 9-10. The top-box score is the proportion of respondents who gave ratings of 9-10.

The steps to calculate a hospital’s score, including the top-box score, are as follows:

##### Step 1 – Identify relevant cases

Include only cases with non-missing values on the overall rating question.

##### Step 2 – Calculate the proportion of cases in each response category

###### (1) Proportion of respondents who gave the hospital an overall rating of 0-6 (P1):

The numerator is the number of respondents for whom the overall rating is 0-6. Each case is weighted by the appropriate sampling weight for the discharge month.

The denominator is the total number of respondents, each weighted by the appropriate sampling weight for the discharge month.

###### (2) Proportion of respondents who gave the hospital an overall rating of 9 or 10 (P3):

The numerator is the number of respondents for whom the overall rating is 9 or 10. Each case is weighted by the appropriate sampling weight for the discharge month.

The denominator is the total number of respondents, each weighted by the appropriate sampling weight for the discharge month.

###### (3) Proportion of respondents who gave the hospital an overall rating of 7 or 8 (P2)

The proportion can be defined as follows:

$$P2 = 1 - P1 - P3$$

A hospital’s top-box score on the overall rating item is equal to P3, the proportion of respondents who gave ratings of 9-10 to the hospital. The proportion of cases in the other categories may be informative for hospitals’ quality improvement efforts.

##### Willingness to Recommend the Hospital

For this item, respondents are asked, “Would you recommend this hospital to your friends and family?” Response options are “definitely no,” “probably no,” “probably yes,” or “definitely yes.” A hospital’s score is the proportion of cases in each response category. The hospital’s top-box score is the proportion of cases in which the response is “definitely yes.” Production of a hospital’s score on this item follows the same steps discussed above.

#### DOMAIN-LEVEL COMPOSITES

There are 10 domain-level composites included in Child HCAHPS; see the Data Dictionary Code Table for survey items in domain-level composite measures. Composite scores are generated by calculating top-box proportions—the proportion of responses in the most positive category. Production of composite scores is described below.

Composite example: Communication between you and your child’s doctors

This composite is produced by combining responses to three questions:

- “During this hospital stay, how often did your child’s doctors listen carefully to you?”
- “During this hospital stay, how often did your child’s doctors explain things to you in a way that was easy to understand?”
- “During this hospital stay, how often did your child’s doctors treat you with courtesy and respect?”

Response options for each question are “never,” “sometimes,” “usually,” or “always.” The basic steps to calculate a hospital’s composite score are as follows:

Step 1 – Calculate the proportion of cases in the “always” response category for each question:

- P11 = Proportion of respondents who said “always” to the first question
- P12 = Proportion of respondents who said “always” to the second question
- P13 = Proportion of respondents who said “always” to the third question

Step 2 – Combine responses from the three questions to form the top-box proportion for the composite:

- PC1 = Composite proportion who said “always” =  $(P11 + P12 + P13) / 3$

The most positive response categories for the composites are listed below:

1. Nurse-parent communication: Always
2. Doctor-parent communication: Always
3. Communication about medicines: Yes, definitely
4. Informed about child’s care: Always
5. Preparing to leave hospital: Yes, definitely
6. Nurse-child communication: Always
7. Doctor-child communication: Always
8. Involving teens in care: Always/Yes, definitely
9. Mistakes and concerns: Always/Yes, definitely
10. Child comfort: Always/Yes, definitely

Production of a hospital’s scores on these composites follows the same steps discussed above; see Survey Items in the Data Dictionary Code Table for the list of items that comprise each composite.

#### DOMAIN-LEVEL SINGLE ITEMS

There are eight domain-level single items included in Child HCAHPS; see Survey Items in the Data Dictionary Code Table for single-item measures. Scores are generated by calculating top-box proportions. Production of item scores is described below.

Example of domain-level single item: “During this hospital stay, how often were you given as much privacy as you wanted when discussing your child’s care with providers?”

Response options are “never,” “sometimes,” “usually,” or “always”. To determine a hospital’s score, calculate the proportion of cases in the “always” response category for this question.

The most positive response categories for the single items are listed below:

1. Privacy with providers: Always
2. Informed in emergency room: Always
3. Call button: Always

4. Child pain: Always
5. Cleanliness: Always
6. Quietness: Always

Production of a hospital's scores on these items follows the same approach described above.

The discussion above describes the steps used to produce unadjusted hospital-level scores. Adjusted scores are used when comparing hospitals.

#### CASE-MIX ADJUSTMENT

One of the methodological issues associated with making comparisons across hospitals is the need to adjust appropriately for case-mix differences. Case-mix refers to patient characteristics, such as demographic characteristics and health status, that are not under the control of the hospital and may affect measures of outcomes or processes. Systematic effects of this sort create the potential for a hospital's ratings to be higher or lower because of the characteristics of its patient population, rather than because of the quality of care it provides, making comparisons of unadjusted scores misleading. The basic goal of adjusting for case-mix is to estimate how different hospitals would be rated if they all provided care to comparable groups of patients. Detailed instructions regarding how to use the case-mix adjustment model can be found in Case-Mix Adjustment Methodology (Appendix K).

**S.15. Sampling** *(If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)*

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

The sample will be drawn from a list of pediatric patients (children under 18 years old) who have been discharged from the hospital during the specified time interval. This list is called a sample frame. The respondents are the parents of the sampled children. No proxy respondents are allowed.

#### SAMPLE FRAME CREATION

Hospitals/survey vendors participating in Child HCAHPS are responsible for generating complete, accurate, and valid sample frame data files for each month that contain all administrative information on all patients who meet the eligible population criteria. See Administrative Items (Appendix D) for a list of these administrative items.

- It is recommended that hospitals contracting with a CAHPS-approved survey vendor submit the hospital's entire patient discharge list to the vendor, excluding no-publicity patients and patients excluded because of state regulations.
- If a hospital excludes any patients from the discharge list provided to the hospital's survey vendor, the hospital should also submit to the vendor a count of total ineligible and excluded patients and a count of patients by each exclusion category.

Hospitals/survey vendors use the information derived from the sample frame to administer the survey. Prior to generating the Child HCAHPS sample frame, hospitals/survey vendors should apply eligibility criteria, remove exclusions, and perform de-duplication. The following guidelines should be followed when creating the sample frame:

- Patients whose eligibility status is uncertain should be included in the sample frame.
- The sample frame for a particular month should include all eligible hospital discharges between the first and last days of the month (e.g., for January, any qualifying discharges between and including the 1st and 31st). All CAHPS survey items have been designed for the general population. Appropriate screening items are included for items targeted to assess a specific experience. In order to ensure that results are comparable to those produced by vendors, targeted sampling, such as selecting only patients with particular conditions or experiences, is not recommended. Targeted sampling should only be used to supplement the general population sample, if desired.
- The patient address included in the sample frame is the address in the medical record.
- Patients with missing or incomplete addresses and/or telephone numbers should not be removed from the sample frame. Instead, every attempt should be made to find the correct address and/or telephone number. If the necessary contact information is not found, the "Final Survey Status" should be coded as "9 – Bad address" or as "10 – Bad/no telephone number".

After applying the above steps, the following data elements should be included in the sample frame that a hospital provides to the



survey vendor: Unique ID, hospital name, facility state, population size, sample size, sample type, patient ID, discharge status, admit source, family preferred language, patient date of birth, patient sex, patient name, parent name, parent address, parent telephone number, admission date, discharge date.

#### RECOMMENDED NUMBER OF COMPLETES

Three hundred completed surveys per 12-month reporting period are required to achieve the desired statistical precision of survey results. This number was determined using a reliability criterion. Hospital-level unit reliability reflects item or composite score variation between or among hospitals relative to random variation in the mean response within hospitals. For example, if no true differences existed among hospitals, all of the variation in a measure would reflect random variation in the responses of patients who happened to answer the survey, and the hospital level unit reliability would be 0. Conversely, if all of the variation in scores were due to differences among hospitals (i.e., hospitals received different scores, but all of the patients within a given hospital gave the same score), the hospital-level unit reliability would be 1.0.

Achieving adequate reliability makes it reasonably likely that differences in hospital-level means of top-box scores represent true underlying differences rather than being due to chance. The minimum of 300 responses per hospital was calculated based on a goal that most composite and single-item measures have a reliability = .7, which is a standard target reliability, taking into account the rate at which each item was completed in the national field test. In addition, 300 responses per hospital is the minimum number that CMS requires for publicly reporting and comparing Adult HCAHPS results based on the hospital-level unit reliabilities of the Adult HCAHPS composites. For additional information on the unit item and composite reliabilities, see the Measuring Testing Form. Because response rates will vary among hospitals and cannot be predicted with complete certainty, a conservative approach of aiming for slightly more than 300 completed surveys is recommended.

#### **S.16. Survey/Patient-reported data** *(If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)*

Specify calculation of response rates to be reported with performance measure results.

#### PREPARING SAMPLING FILES FOR DATA COLLECTION

Once the sample has been selected, the hospital/survey vendor assigns a unique identification (ID) number to each sampled patient. This unique ID number should not be based on an existing identifier, such as a Social Security Number or a patient ID number. This number will be used only to track the respondents during data collection.

The data elements that are most critical to the success of data collection are accurate and complete patient, parent, and hospital names and contact information appropriate for the mode of administration (i.e., addresses for mail surveys and telephone numbers for telephone administration). When address information is incomplete or there is reason to believe it may be inaccurate, sponsors and/or survey vendors may be able to use other sources, such as CD-ROM directories, Internet sources, or directory assistance, to clean the sample file.

#### SAMPLING PROCEDURE

The basic sampling procedure for Child HCAHPS entails drawing a random sample of all eligible discharges from a hospital on a monthly basis. Sampling may be conducted either continuously throughout the month or at the end of the month, as long as a random sample is generated for the entire month. If the hospital/survey vendor chooses to sample continuously, each sample should be drawn using the same sampling ratio (for instance, 25 percent of eligible discharges or every fourth eligible discharge) and the same sampling timeframe (for instance, every 24 hours, 48 hours, week, etc.) throughout the month. For details on random sampling methods, see Methods of Sampling below. Three hundred completed surveys per 12-month reporting period are required to achieve the desired statistical precision of survey results.

#### Consistent Monthly Sampling

For ease of sampling, hospitals/survey vendors should sample an approximately equal number of discharges each month unless adjustments are required. For example, for quarterly reporting, changes can be made only at the start of the quarter, not during the quarter. Hospitals/survey vendors have the option to allocate the yearly sample proportionately to each month according to the expected proportional distribution of total eligible discharges over the four rolling quarters (12-month reporting period).

#### Final Survey Sample

The final sample drawn each month should reflect a random sample of patients from the survey sample frame. Some small hospitals may not be able to obtain at least 300 completed surveys in a 12-month reporting period. In such cases, hospitals should sample all

eligible discharges (that is, conduct a census) and attempt to obtain as many completed surveys as possible.

#### Methods of Sampling

Sampling for Child HCAHPS is based on the eligible discharges (Child HCAHPS sample frame) for a calendar month. If every eligible discharge for a given month has the same probability of being sampled, this constitutes an equiprobable approach.

There are three options for sampling patients for Child HCAHPS: Simple Random Sampling (SRS), Proportionate Stratified Random Sampling (PSRS), and Disproportionate Stratified Random Sampling (DSRS). In stratified sampling, eligible discharges are divided into non-overlapping subgroups, referred to as strata, before sampling.

- Simple Random Sampling (SRS) is the most basic sampling approach; patients are randomly selected from all eligible discharges for a month. Strata are not used, and each patient has equal opportunity of being selected into the sample, making SRS equiprobable.
- Proportionate Stratified Random Sampling (PSRS) uses strata definitions and random sample selection from all strata at equal rates. Since the sampling rates of the strata are equal (sample sizes from each stratum are proportionate to the stratum's size), PSRS is also considered equiprobable.
- Disproportionate Stratified Random Sampling (DSRS) involves sampling within strata at different rates; DSRS therefore requires information about the strata and must be weighted appropriately. By definition, DSRS is not an equiprobable approach as it allows for differing sampling rates across strata.

Additional details regarding sampling methods are provided in the sampling guidelines section of the Detailed Measure Specifications (Appendix A).

#### CALCULATING THE SAMPLE SIZE

The sample size goal for the survey should account for several factors:

- The anticipated response rate
- The accuracy of contact information
- The mode or modes of data collection
- Any prior surveys of the same or similar populations
- The number of individuals who may be identified as ineligible

#### Sample Size Calculation: Hospitals

As discussed previously, to have a sufficient number of responses for analysis and reporting, enough surveys should be administered to obtain at least 300 completed surveys per hospital. Because response rates will vary among hospitals and cannot be predicted with complete certainty, a conservative approach of aiming for slightly more than 300 completed surveys is recommended. The following example shows the sample size calculation for a goal of 325 surveys for a hospital that has a response rate of 30 percent:

Goal: 300 completed surveys annually

Target response rate: 30 percent (= 0.30)

Minimum annual sample size:  $(325/0.30) = 1085$  per hospital

Minimum monthly sample size:  $1085/12 = 91$  per month

#### DATA COLLECTION MODES

Based on field test results, the CAHPS Consortium recommends the following modes:

- Mail-Only
- Telephone-Only
- Mixed (mail and telephone, email and mail, or email and telephone)

Results from CAHPS field tests, as well as the experiences of organizations that have fielded CAHPS surveys, indicate that the mail with telephone follow-up method is most effective; results from survey research literature indicate that follow-up by telephone often adds 10 to 15 percentage points to the response rate.

#### DATA COLLECTION PROTOCOLS

Mail and telephone protocols, each of which can be implemented alone, are described below. Alternatively, the mixed-mode protocol combines the mail and telephone protocols: the survey is first provided by mail, but if the parent does not respond within

21 calendar days, the telephone protocol is then initiated. The parent who spent the most time with the patient should be the one receiving the survey. This may not be the parent who is listed in the hospital system (e.g., the child may reside in more than one household).

The mixed email protocol is also described below. An email-only protocol is not recommended at this time. Regardless of the response rate achieved through email alone, the email protocol must be followed by a full mail or telephone protocol for non-respondents to ensure that all patients in the sample have an equal chance of completing the survey and that the respondents are representative of the patient population. For the same reason, the sample should not consist of only those with an email address.

#### Mail Protocol

This section lists the basic steps for administering the survey by mail and offers advice for making this process as effective as possible.

- Set up a toll-free number and include it in all correspondence with prospective respondents. Assign a trained project staff member to respond to questions on the line. Maintain a log of these calls and review them periodically.
- Mail the survey to prospective respondents with a cover letter and a postage-paid envelope. A well-written, persuasive letter authored by a recognizable organization will increase the likelihood that the recipient will complete and return the survey by the stated deadline. The cover letter should include instructions for completing and returning the survey. For an example, see Child HCAHPS Mail Survey Materials – English (Appendix F) and Child HCAHPS Mail Survey Materials – Spanish (Appendix G).
  - o Tips for the cover letter:
    - Tailor the letter to include language that explains the purpose of the survey, the voluntary nature of participation, and the confidentiality of responses.
    - Note that a refusal to participate will not affect a patient’s healthcare.
    - Personalize the letter with the name and address of the intended recipient.
    - Have the letter signed by a representative of the sponsoring organization.
    - Spend some time on the letter, checking it for brevity and clarity and ensuring that there are no grammatical or typographical errors.
  - o Tips for the outside envelope:
    - Make the envelope look “official” but not too bureaucratic; it should not look like junk mail.
    - Place a recognizable sponsor’s name—such as the name of a government agency, where applicable—above the return address.
    - Mark the envelopes “change service requested” in order to update records for respondents who have moved and to increase the likelihood that the survey packet will reach the intended respondent.

- Send a postcard reminder to nonrespondents 10 days after sending the questionnaire. Some vendors prefer sending a reminder postcard to all respondents 3 to 5 days after mailing the survey instead of sending a postcard only to nonrespondents 10 days after the questionnaire is mailed. Their reminder postcards serve as a thank-you to those who have returned their questionnaires and as a reminder to those who have not. The reminder postcard is an inexpensive way to increase your response rate.

- Send a second survey with a reminder letter and a postage-paid envelope to those who have not responded by three weeks after the first mailing. For an example, see Child HCAHPS Mail Survey Materials – English (Appendix F) and Child HCAHPS Mail Survey Materials – Spanish (Appendix G).

#### Telephone Protocol

Child HCAHPS must be modified for telephone administration. See the Child HCAHPS Telephone Survey Materials (Appendix H) for an example.

When administering the survey by telephone, a hospital/survey vendor can use either a computer-assisted telephone interviewing (CATI) script or a paper-and-pencil method.

Tips for collecting data via telephone:

- Check telephone numbers – Check the telephone numbers of sample respondents for partial or unlikely telephone numbers. All survey vendors should have standard automated procedures for checking and updating telephone numbers before beginning data collection. After extensive tracking, some prospective respondents may remain for whom a working telephone number is not

available or for whom only an address is available. If using a mixed-mode administration, these respondents can be moved to the mail mode administration.

- Train interviewers before they begin interviewing – The interviewer should be trained to avoid biasing survey responses or otherwise affecting the survey results.
- Begin contacting nonrespondents. If following up on a mailed questionnaire, initiate telephone contact with nonrespondents three weeks after sending the second questionnaire. You may want to send a letter to respondents in advance to let them know that you will be contacting them by telephone.
- Attempt to contact each prospective respondent at least five times – The survey vendor should make at least five attempts to reach prospective respondents unless they explicitly refuse to complete the survey. These attempts should be on different days of the week (both weekdays and weekends), at different times of the day, and during different weeks.

Email Protocol: At this time, an email-only mode is not recommended. For details on email mixed-mode administration, see [https://www.ahrq.gov/cahps/surveys-guidance/hospital/about/child\\_hp\\_survey.html](https://www.ahrq.gov/cahps/surveys-guidance/hospital/about/child_hp_survey.html)

#### SURVEY TIMING

Sampled patients should be surveyed between 48 hours and six weeks (42 calendar days) after discharge, regardless of the mode of survey administration. Distributing surveys to patients before they are discharged is not recommended. Data collection for sampled patients should be concluded no later than six weeks (42 calendar days) after the date the first survey is mailed (Mail-Only and Mixed modes) or six weeks (42 calendar days) after the first telephone attempt (Telephone-Only).

#### Mail-Only Survey Administration

The basic tasks and timing for conducting Child HCAHPS using the Mail-Only mode of survey administration are summarized below.

- Send first survey with initial cover letter to one parent of each sampled patient between 48 hours and six weeks (42 calendar days) after discharge.
- Send second survey with follow-up cover letter to non-respondents approximately 21 calendar days after the first survey mailing.
- Complete data collection within six weeks (42 calendar days) of the first survey mailing.

#### Telephone-Only Survey Administration

The basic tasks and timing for conducting Child HCAHPS using the Telephone-Only mode of survey administration are summarized below.

- Initiate systematic telephone contact with one parent of each sampled patient between 48 hours and six weeks (42 calendar days) after discharge.
- Complete telephone sequence so that a total of five telephone calls are attempted at different times of the day, on different days of the week, and during different weeks within the six weeks (42 calendar days) after initiation of the survey (initial contact). The five telephone call attempts should span more than one week (eight or more days) to account for parents who are temporarily unavailable. If it is known that a parent may be available in the latter part of the 42-calendar-day data collection time period (e.g., the parent is on vacation during the first two or three weeks of the 42-calendar-day data collection time period but could be reached closer to the end of the data collection time period), then hospitals/survey vendors should use the entire data collection time period to attempt telephone calls.

#### Mixed-Mode Survey Administration

The basic tasks and timing for conducting Child HCAHPS using the mail-telephone mode of survey administration are summarized below.

- Send mail survey with cover letter to one parent of each sampled patient between 48 hours and six weeks (42 calendar days) after discharge.
- Initiate systematic telephone contact for all non-respondents approximately 21 calendar days after mailing the survey.
- Over the next 21 calendar days, five telephone calls should be attempted at different times of the day, on different days of the week, and during different weeks. The five telephone call attempts should span more than one week (eight or more days) to account for parents who are temporarily unavailable. If it is known that a parent may be available in the latter part of the 21-calendar-day telephone component data collection time period (e.g., the parent is on vacation during the first two or three weeks of the 21-calendar-day data telephone component collection time period but could be reached closer to the end of the data collection time period), then hospitals/survey vendors should use the entire data collection time period to attempt telephone calls.

The basic tasks and timing for conducting Child HCAHPS using the email-mail or email-telephone modes of survey administration are summarized below.

- Send e-mail survey with cover letter to one parent of each sampled patient between 48 hours and six weeks (42 calendar days) after discharge.
- Send an email reminder to nonrespondents 7-10 days after sending the initial email invitation.
- Send a second email reminder to those still not responding 2-3 weeks after the initial email invitation.
- Followup with nonrespondents by mail or telephone

#### TRACKING RETURNED SURVEYS

Most survey vendors have established methods for tracking the sample. A system should also be set up to track returned surveys by the unique ID number that is assigned to each prospective respondent in the sample. This ID number should be placed on every survey that is mailed and/or on the call record of each telephone case.

To maintain respondent confidentiality, the response tracking system should not contain any of the survey responses. The survey responses should be entered in a separate data file linked to the sample file by the unique ID number. (This system should be used to generate weekly progress reports that hospitals and survey vendors should review closely.)

Each prospective respondent in the response tracking system should be assigned a survey result code that indicates whether he or she completed and returned the survey, completed the telephone interview, responded to the online survey, was ineligible to participate in the study, could not be located, is deceased, or refused to respond. See Survey Status Codes for additional information on survey status codes and the Survey Codebook and Administrative Data Codebook for additional information on creating data files in the Data Dictionary Code Table. The tracking system should also include the date the survey was returned or the telephone interview completed. Typically, survey status codes are either interim (indicating the status of each respondent during the data collection period) or final (indicating the final outcome for each respondent at the end of data collection). These result codes are used to calculate response rates as shown in the next section.

#### CALCULATING THE RESPONSE RATE

In its simplest form, the response rate is the total number of completed surveys divided by the total number of individuals sampled. There is no minimum response rate however we do recommend that there should be 300 completed surveys within a 12-month period to maintain adequate reliability. For Child HCAHPS analyses and reports, this rate is adjusted as shown in the following formula:

$$(\text{Number of completed returned surveys}) / (\text{Total number of surveys fielded} - \text{Total number of ineligible surveys})$$

The response rate calculation should include survey recipients who refused to participate, those who could not be reached because of bad addresses or telephone numbers, those who could not complete the survey because of language barriers, those who were ineligible because they were institutionalized, or those who were ineligible because they had a developmental or cognitive disability. Listed below is an explanation of the categories included and excluded in the response rate calculation.

#### Numerator Inclusions

- Completed surveys – A survey is considered complete if responses are available for half of the key survey items. For more information about the key items in Child HCAHPS, see Survey Items in Domain-Level Composite and Single- Item Measures (Appendix I).

#### Denominator Inclusions

The total number in the denominator should include the following:

- Respondents – The parent or guardian of the sampled child returned a survey, whether complete, incomplete, or partially complete.
- Refusals – The individual refused in writing or by phone to participate.
- Non-response – The individual is presumed to be eligible but did not complete the survey for some reason (never responded, was unavailable at the time of the survey, was ill or incapable, had a language barrier, and so on).
- Bad addresses/telephone numbers – The parent is presumed to be eligible but was never located.

#### Denominator Exclusions

- Deceased – In some cases, a household or family member may indicate that the parent of the sampled patient has died.
- Ineligible – The sampled patient did not have an inpatient stay at the participating hospital in the last six weeks or the patient met criteria for exclusion.

For a detailed explanation of the numerator and denominator inclusion and exclusion criteria, see S.4 – Numerator Statement, S.6 – Denominator Statement, S.8 – Denominator Exclusions, and S.10 – Denominator Exclusion Details.

**S.17. Data Source** (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Claims

**S.18. Data Source or Collection Instrument** (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

Child Hospital Consumer Assessment of Healthcare Providers and Systems (Child HCAHPS) Survey

The survey is available in English and Spanish. The recommended modes of administration are Mail-Only, Telephone-Only, and Mixed mode (mail and telephone, email and mail, or email and telephone).

**S.19. Data Source or Collection Instrument** (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

Available in attached appendix at A.1

**S.20. Level of Analysis** (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility

**S.21. Care Setting** (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital

If other:

**S.22. 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.)

Not applicable

## **2. Validity – See attached Measure Testing Submission Form**

Child\_HCAHPS\_NQF\_Measure\_Submission\_Measure\_Testing\_Form\_Final\_04\_9\_19.docx

### **2.1 For maintenance of endorsement**

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

### **2.2 For maintenance of endorsement**

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

No

### **2.3 For maintenance of endorsement**

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1,2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required



questions.

Yes - Updated information is included

### 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: Collected via survey completed by parents.

#### 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)** Update this field for **maintenance of endorsement**.

No data elements are in defined fields in electronic sources

**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.** For **maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

Though multiple modes of data collection, as well as mixed-mode types of administration, are possible and have been tested, CAHPS surveys are primarily administered by mail. Electronic databases are created after surveys are returned. The rationale for not using electronic sources more broadly is that mail and telephone administration are the best ways to obtain representative samples of patients based on the contact information that is available for sampling and data collection. Mixed mode email administration (email-mail, email-phone) can also be used, although use of an email only mode is not currently recommended.

**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. Please also complete and attach the NQF Feasibility Score Card.**

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. Required for maintenance of endorsement.** Describe difficulties (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 instrument-based,** consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

##### ADMINISTRATIVE DATA AVAILABILITY

CAHPS surveys use administrative data to develop the sampling frame for survey administration. Administrative data are commonly used for quality measurement due to high levels of completeness and ready availability. For the Child HCAHPS survey, hospitals will use discharge data to identify patients by discharge date. Discharge data are the most reliable and complete source of information necessary for the sampling frame. Moreover, discharge data are easily accessible to hospitals given that they are derived from administrative and billing data.

#### SURVEY DATA COLLECTION

As previously mentioned, we have gone through an iterative process to ensure that the survey will be understandable to patients and their families. Additionally, the survey can easily be completed within a short period of time (approximately 15 minutes), and is therefore minimally burdensome to respondents.

Inpatient pediatric patient experience is widely measured using a variety of survey instruments developed by a number of survey vendors and hospitals. Although reporting across hospitals is not done nationally, survey vendors uniformly compare hospital scores among the hospitals that contract with them. Most survey vendors are CAHPS-approved and currently field Adult HCAHPS. Survey vendors are capable of administering Child HCAHPS, as demonstrated by our national field test, in which they administered the survey for 69 participating hospitals. CMS maintains the CAHPS database for Adult HCAHPS reporting, and AHRQ maintains the CAHPS database for voluntary reporting of the health plan and clinician and group surveys. Were Child HCAHPS to become a core measure, it would be possible for data to be collected in either of these databases. A national pediatric database would be valuable in permitting national comparisons with case-mix adjusted data.

#### 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).

The Child HCAHPS survey is available to users free of charge. In addition to the survey instrument, SAS programming code for analysis of Child CAHPS will be available with the other CAHPS surveys at: <https://cahps.ahrq.gov/surveys-guidance/hp/instructions/index.html>. Requirements for using the CAHPS name on an instrument include:

- All core items must be present on the user's questionnaire.
- No changes to core item wording are permitted.
- Instruments must not omit any of the survey items related to respondent characteristics.

## 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.*

Specific Plan for Use	Current Use (for current use provide URL)
	<p>Public Reporting Leapfrog Hospital Survey, The Leapfrog Group <a href="http://www.leapfroggroup.org/ratings-reports/new-2017-leapfrog-hospital-survey">http://www.leapfroggroup.org/ratings-reports/new-2017-leapfrog-hospital-survey</a></p> <p>Regulatory and Accreditation Programs Magnet Recognition Program, American Nurses' Credentialing Center (ANCC) <a href="http://www.clinicalmanagementconsultants.com/ancc-list-of-magnet-recognized-hospitals--cid-4457.html">http://www.clinicalmanagementconsultants.com/ancc-list-of-magnet-recognized-hospitals--cid-4457.html</a></p> <p>Quality Improvement (external benchmarking to organizations) Massachusetts Standard Quality Measure Set, Statewide Quality Advisory Committee, Massachusetts Center for Health Information and Analysis <a href="http://www.chiamass.gov/sqms/">http://www.chiamass.gov/sqms/</a></p> <p>Quality Improvement (Internal to the specific organization)</p>

	<p>The 69 national field test hospitals have received, and can track their Child HCAHPS scores for quality improvement efforts.</p> <p>Not applicable</p> <p>Two large survey vendors have administered Child HCAHPS in 347+ hospitals since completion of the national field test and measure endorsement.</p> <p>Not applicable</p>
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**4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:**

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

**1) Public Reporting**

Name of program and sponsor: The Leapfrog Group

Purpose: The Leapfrog Group is a national nonprofit organization that publicly reports hospital performance and safety via two primary initiatives: The Leapfrog Hospital Survey and the Leapfrog Hospital Safety Grade are known nationally as a gold standard for evaluating hospitals on facility level quality, safety, and resource use. Child HCAHPS was added to the Leapfrog Hospital Survey in 2017. Leapfrog scores help purchasers and consumers identify high quality hospitals and help individual hospitals benchmark their own progress.

Geographic area and number and percentage of accountable entities and patients included: The Leapfrog Hospital Survey is administered nationally to evaluate individual facilities.

Level of measurement and setting: Leapfrog evaluates performance at the individual facility level.

**2) Quality Improvement (external benchmarking to organizations)**

Name of program and sponsor: Massachusetts Standard Quality Measure Set, Statewide Quality Advisory Committee, Massachusetts Center for Health Information and Analysis

Purpose: The Standard Quality Measure Set (SQMS) is an annually-updated measure set created to guide statewide quality priorities in Massachusetts. The SQMS is managed by the Statewide Quality Advisory Committee (SQAC), a stakeholder advisory group of consumer advocates, providers, and insurers. The SQAC is chaired by the Executive Director of the Massachusetts Center for Health Information and Analysis. SQMS measures are also used by state agencies for evaluating innovative care delivery models and by payers for establishing payment structures.

Geographic area and number and percentage of accountable entities and patients included: The SQMS guides statewide quality priorities in Massachusetts.

Level of measurement and setting: The SQMS guides statewide quality priorities in Massachusetts.

**3a) Quality Improvement with Benchmarking (external benchmarking to multiple organizations) and Quality Improvement (Internal to the specific organization)**

NOTE: We estimated the number of patients using the HCUP Kids' Inpatient Database (KID) 2009 for the participating hospitals we were able to identify in the database. The number of patients is the total annual admissions for the 43 hospitals out of the 69 hospitals in the national field test that were identified in KID (excluding healthy newborns and patients with a primary psychiatric diagnosis).

Annual admissions represent the patients who may be affected by Child HCAHPS quality improvement efforts.

Name of program and sponsor: 69 hospitals participating in the Child HCAHPS national field test.

Purpose: Child HCAHPS scores are available for use for benchmarking purposes (e.g., reference points such as average scores for hospitals contracting with the same vendor) and for local quality improvement efforts. Each hospital received a report of their case-mix adjusted Child HCAHPS scores with benchmarks from the national field test.

Geographic area and number of patients included: Hospitals from the following 33 states participated in the Child HCAHPS national field test: AZ, CA, CO, CT, DE, FL, GA, IA, ID, IL, IN, KY, MA, ME, MI, MO, MS, NC, NJ, NV, NY, OH, OK, OR, PA, SD, TN, TX, UT, VA, WA, WI, WV. We estimate a total of 309,389 admissions for the 43 out of the 69 hospitals that were identified in KID.

Level of measurement and setting: The Child HCAHPS national field test evaluated performance at the individual facility level.

3b) Quality Improvement with Benchmarking (external benchmarking to multiple organizations) and Quality Improvement (Internal to the specific organization)

Name of program and sponsor: 2347+ hospitals currently fielding the Child HCAHPS measure through two large national survey vendors.

Purpose: Child HCAHPS scores are available for use for benchmarking purposes (e.g., reference points such as average scores for hospitals contracting with the same vendor) and for local quality improvement efforts through systems maintained by the survey administrators.

Geographic area and number of patients included: We do not have access to information on the specific geographic region or number of impacted patients. However, we believe it is safe to assume Child HCAHPS administration impacts a large number of pediatric admissions nationally given the high number of hospitals currently fielding the measure with survey vendors.

Level of measurement and setting: Survey vendors administer the Child HCAHPS measure to evaluate performance at the individual facility level.

#### 4) Regulatory and Accreditation Programs

Name of program and sponsor: Magnet Recognition Program, American Nurses' Credentialing Center (ANCC)

Purpose: The Magnet Recognition Program, run by the American Nurses' Credentialing Center, is a hospital-level recognition of excellence in nursing practice. In order to achieve Magnet Recognition, hospitals must submit unit-level measure outcomes across a variety of care quality domains for comparison with national benchmarks. The Magnet Recognition Program recognizes Child HCAHPS as a measure of patient experience for their certification program.

Geographic area and number and percentage of accountable entities and patients included: Hospitals nationwide are using Child HCAHPS data for similar credentialing purposes.

Level of measurement and setting: Magnet status is awarded at the facility level.

**4a1.2. 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?)**

N/A

**4a1.3. 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.)**

N/A

**4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**

**How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.**

A core principle of all CAHPS surveys is to assess aspects of care for which the patient is generally the only or best source of information. Information is obtained directly from the patient, or in the case of Child HCAHPS, from the patient's parents.

Understandability of the surveys is thus especially critical. To ensure the relevance of the Child HCAHPS measure to pediatric patients and their families and evaluate its understandability, we conducted focus groups and cognitive interviews. In addition, we conducted end-user interviews with parents to test preliminary composite measure concepts and labels and further gauge understandability and validity.

Following its development, the Child HCAHPS measure was piloted among 69 hospitals from across the country that were part of the Child HCAHPS national field test. All 69 hospitals were provided with a summary of their specific hospital data and the aggregate national field test data in an individualized one page report. Data for both the hospital level and national field test data were presented as case-mix adjusted top-box scores for each single and composite item within Child HCAHPS.

Child HCAHPS is currently administered by national survey vendors. These vendors provide systems to allow for detailed reporting and benchmarking against other hospitals using the same vendor. Two of the largest survey vendors report that they have received no major negative feedback regarding administration of Child HCAHPS at the hospital level.

**4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.**

Hospitals administering the Child HCAHPS through survey vendors have access to systems (e.g., web-based portals) that provide results on demand and additional supports for making improvements.

**4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.**

**Describe how feedback was obtained.**

Child HCAHPS was originally piloted in 69 hospitals from across the country in the Child HCAHPS national field test. The development team encountered no notable difficulties during administration of Child HCAHPS during the national field test.

In addition to the hospitals from the national field test, Child HCAHPS is currently being fielded by large national survey vendors across the country. We are aware of at least 347 hospitals that are currently fielding Child HCAHPS, which is a significant number of institutions given environmental factors that impede uptake. For example, unlike other CAHPS surveys, there is at this time no federal mandate to field Child HCAHPS. In addition, there are far fewer facilities that have a significant number of pediatric admissions to support fielding Child HCAHPS. Given these impediments, we are very encouraged by Child HCAHPS dissemination to date. These survey vendors solicit hospitals directly for feedback on measure performance, implementation, and content. For the vendors from whom we received data, feedback received by hospitals using Child HCAHPS has been generally positive. Survey vendors have received no negative feedback regarding performance or implementation of the Child HCAHPS measure and limited feedback from fielding hospitals on possible ways to improve some measure domains and specific items.

**4a2.2.2. Summarize the feedback obtained from those being measured.**

We received a variety of reactions and feedback from patients/families and hospitals via one of the largest survey vendors currently administering Child HCAHPS. We were encouraged by the generally positive feedback on the content and usability of the measure. Critical reactions from patients/families and hospitals were limited and are generally representative of common reactions to all patient experience measures that are not specific to Child HCAHPS. Please find a brief description of this feedback below:

-A few hospitals reported that the survey is too long and the response rates are low. Apart from these limited concerns, feedback on survey length and response rates was generally positive. One vendor indicated that response rates for Child HCAHPS were comparable to other pediatric inpatient surveys it administers.

-Vendors received feedback from a few patients/families indicating they found certain questions to be complex or confusing in their wording. A few other patients/families said they found the term “provider” to be confusing, although feedback from the measure development (e.g., focus groups, cognitive interviews, end-user testing etc.) indicated patients/families generally preferred the term “provider” to alternatives.

-Some hospitals that do not have emergency departments expressed concerns regarding inclusion of the emergency department questions. We have clarified with the survey vendors and applicable hospitals that if a hospital does not have an emergency department, the emergency department questions are not required to be asked or completed.

-A few hospitals questioned how applicable Child HCAHPS is to the NICU patient population. The NICU population was included throughout the development of Child HCAHPS, and parents of NICU patients were included in cognitive testing of the survey.

**4a2.2.3. Summarize the feedback obtained from other users**

The Child HCAHPS development team has received a variety of feedback from other Child HCAHPS users. We have received technical assistance questions related to accessing survey materials, specifications, and guidelines, fielding the survey, and accurately analyzing results. We have received other questions regarding current use, including whether or not the survey is currently mandated or will be in the future. Additionally, various researchers, quality improvement specialists, and other stakeholders have asked about the availability of data for the purposes of benchmarking and research. We have also received limited feedback on adapting/improving the content of the survey, including changing the wording of questions around pain assessment and adding new items around surgery and anesthesia induction.

**4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.**

As a patient experience measure, Child HCAHPS is meant specifically to evaluate experiences that families and patients value and find meaningful. The Child HCAHPS development process relied heavily on patient and family input in order to ensure we were measuring outcomes important to patients and families. We conducted focus groups, cognitive interviews, and end-user interviews with adolescents and parents of recently hospitalized children across the U.S. to gauge understandability, validity, and meaningfulness of the Child HCAHPS measure. Eight focus groups were held in Boston, Los Angeles, and St. Louis, 109 cognitive interviews were performed in Boston, Los Angeles, Miami, and St. Louis, and an additional 23 end-user interviews were conducted in Atlanta and Washington, D.C. Parent participants across all parts of the Child HCAHPS development process constituted a diverse spectrum with regard to gender, race, ethnicity, insurance status, marital status, child's age, and child's reason for and length of hospitalization. In addition, two focus groups were comprised of recently hospitalized adolescent patients while four others targeted specific populations: Spanish speakers, Medicaid-insured patients, and parents of children with special health care needs. Patient and family feedback from each step in the development process helped shaped and define Child HCAHPS items to be meaningful and useful for patients, families, providers, hospitals, and other stakeholders.

**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.

**4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (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.)**

**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.**

We are gratified by the number of hospitals that have been adopting Child HCHAPS since NQF endorsement in 2015 and further encouraged as the number of hospitals continues to grow. However, we do not have access to a longitudinal national database that would allow us to demonstrate change over time in a meaningful way.

**4b2. 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).

**4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.**

No unexpected findings were identified during measure implementation.

**4b2.2. Please explain any unexpected benefits from implementation of this measure.**

No unexpected benefits were identified during measure implementation.

## 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)**

0005 : CAHPS Clinician & Group Surveys (CG-CAHPS) Version 3.0 -Adult, Child

0166 : HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) Survey

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

Not applicable

**5a. Harmonization of Related Measures**

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 harmonized to the extent possible?**

Yes

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

**\*NOTE: THE SUBMISSION FORM WOULD NOT ALLOW FOR FORMATTING. FOR THE FORMATTED VERSION, SEE MEASURE HARMONIZATION (APPENDIX P).\***

Our candidate survey fills a gap in pediatric quality measurement by addressing the current dearth of quality measures that assess inpatient care. Child HCAHPS addresses the need for a pediatric inpatient patient experience of care survey. We have harmonized our survey with the Consumer Assessment of Healthcare Providers and Systems Hospital Survey – Adult Version (Adult HCAHPS) (NQF # 0166), which was endorsed by NQF in 2005, and the Consumer Assessment of Healthcare Providers and Systems Clinician & Group Survey – Child Version (Child CG CAHPS) (NQF # 0005), which was endorsed by NQF in 2007. The Centers for Medicare & Medicaid Services (CMS) uses Adult HCAHPS results to inform consumer choice through public reporting on the Hospital Compare website and to calculate incentive payments for the CMS Hospital Value-based Purchasing Program.[1] Like the Adult HCAHPS survey, Child HCAHPS could be used as a national standard for collecting or publicly reporting information on patients' perspectives of care that would enable valid comparisons to be made across all hospitals.[2] In developing Child HCAHPS, we followed the same rigorous survey development methodology that other CAHPS survey development teams have employed, including, but not limited to, conducting focus groups, cognitive interviews and end-user testing. We also built upon CAHPS patient experience domains and items when developing our survey. Additionally, the CAHPS Consortium collaborated with us on the development of Child HCAHPS. Child HCAHPS covers the pediatric population, with an age eligibility criterion that is identical to that of Child CG CAHPS (under 18 years old) and complementary to that of the Adult HCAHPS survey (18 years or older). While Child HCAHPS and Child CG CAHPS have the same age eligibility criterion, Child HCAHPS has been developed for inpatient pediatric populations, while Child CG CAHPS is targeted to the outpatient pediatric population. Like the Adult HCAHPS and Child CG CAHPS surveys, Child HCAHPS also uses a statistical model to case-mix adjust scores, but our model was specifically developed for inpatient pediatric patients. Various aspects of the Child HCAHPS survey, such as item wording and response categories, have been harmonized with the Adult HCAHPS and Child CG CAHPS surveys. The Child HCAHPS survey assesses many of the same domains as the Adult HCAHPS survey, and where appropriate, also addresses similar domains to those found in the Child CG CAHPS survey, such as communication with providers. Additional domains shared by the Adult and Child HCAHPS surveys include experiences with nurses, experiences with doctors, pain management, the hospital environment, discharge planning from the hospital, and overall hospital rating. Furthermore, the Child HCAHPS survey assesses aspects of care that are particularly relevant to children. For example, Child HCAHPS assesses whether providers talk and interact with the child in a way that is age-appropriate. Child HCAHPS also gathers information from parents on their teenagers who have experienced a hospitalization. These items are not included in the Adult HCAHPS survey but are valuable to the Child HCAHPS survey because they assess the unique experiences of adolescents, an important population that previously has not been heavily targeted for quality improvement initiatives.[3,4] Lastly, the Child HCAHPS survey assesses new domains not



mentioned above that are not found in the other CAHPS surveys include communication in the emergency room, family involvement, privacy, and safety.

The Child HCAHPS survey is a parent-reported survey, a notable difference from the self-reported Adult HCAHPS survey. While most items are of the parent's experience of their child's care, similar to Child CG CAHPS, Child HCAHPS also assesses the experiences of the child for a subset of items by relying on a parent's assessment of the child's experience of care. In pediatrics, parents' assessment of their child's care is commonly accepted for a variety of methodological and logistical reasons.[5] We do not anticipate that differences between the Child HCAHPS survey and the Adult HCAHPS or Child CG CAHPS survey would affect the interpretability or data collection burden of Child HCAHPS.

**REFERENCES** 1. Centers for Medicare & Medicaid. HospitalHCAHPS. 2013. Available at: <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.html>. Accessed November 29, 2013. 2. HCAHPS - Hospital Survey. Available at: <http://www.hcahponline.org/home.aspx>. Accessed February 12, 2014. 3. Van Staa A, Jedeloo S, van der Stege H, On Your Own Feet Research Group. "What we want": chronically ill adolescents' preferences and priorities for improving health care. Patient Prefer Adherence. 2011;5:291-305. doi:10.2147/PPA.S17184. 4. Chesney M, Lindeke L, Johnson L, Jukkala A, Lynch S. Comparison of child and parent satisfaction ratings of ambulatory pediatric subspecialty care. J Pediatr Health Care Off Publ Natl Assoc Pediatr Nurse Assoc Pract. 2005;19(4):221-229. doi:10.1016/j.pedhc.2005.02.003. 5. Shaul JA, Fowler FJ Jr, Zaslavsky AM, Homer CJ, Gallagher PM, Cleary PD. The impact of having parents report about both their own and their children's experiences with health insurance plans. Med Care. 1999;37(3 Suppl):MS59-68.

#### 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.)**

NA

## 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:** Caren, Ginsberg, [caren.ginsberg@ahrq.hhs.gov](mailto:caren.ginsberg@ahrq.hhs.gov), 301-427-1894-

**Co.3 Measure Developer if different from Measure Steward:** Center of Excellence for Pediatric Quality Measurement

**Co.4 Point of Contact:** Sara, Toomey, [cepqm@childrens.harvard.edu](mailto:cepqm@childrens.harvard.edu), 617-919-3550-

## 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 following people participated in the development and maintenance of the Child HCAHPS survey:

**THE CORE TEAM:**

Marc N. Elliott, PhD

Mark A. Schuster, MD, PhD (Measure Co-Leader)

Sara L. Toomey, MD, MPhil, MPH, MSc (Measure Co-Leader)

Alan M. Zaslavsky, PhD

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Mark A. Schuster, MD, PhD (Measure Co-Leader)

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Alan M. Zaslavsky, PhD

Carla L. Zema, PhD

SUPPORT STAFF

Shanshan Liu, MS, MPH

Marisa Howard-Karp, MS

Paul Holden, BS

Staff of the Center of Excellence for Pediatric Quality Measurement (CEPQM) at Boston Children's Hospital and members of CEPQM's National Advisory Board provided guidance and feedback on the measure.

**Measure Developer/Steward Updates and Ongoing Maintenance**

**Ad.2** Year the measure was first released: 2015

**Ad.3** Month and Year of most recent revision: 01, 2015

**Ad.4** What is your frequency for review/update of this measure?

**Ad.5** When is the next scheduled review/update for this measure? 04, 2019

**Ad.6** Copyright statement:

**Ad.7** Disclaimers:

**Ad.8** Additional Information/Comments: