**Steps for Calculating Global Ratings and Composite Scores
for the Home Health Care CAHPS Survey**

Revised October 2013

I. Overview

CMS began publicly reporting Home Health Care CAHPS (HHCAHPS) Survey results on the Home Health Compare website in April 2012. HHCAHPS Survey results are now reported on Medicare's Care Compare website at: https://www.medicare.gov/care-compare/. HHCAHPS Survey results will be published quarterly and will include each HHA's most recent four quarters of data.

The two global ratings and three composite measures that are being publicly reported are the following:

Global Ratings

- Rating of care provided by the agency (Question 20)
- Willingness to recommend the agency to friends and family (Question 25)

Composite Measures

- Care of Patients (Questions 9, 16, 19 and 24). On Medicare Care Compare, results for this composite are shown as "Patients who reported that their home health team gave care in a professional way."
- Communications Between Providers and Patients (Questions 2, 15, 17, 18, 22 and 23). On Medicare Care Compare, results for this composite are shown as "Patients who reported that their home health team communicated well with them."
- Specific Care Issues (Questions 3, 4, 5, 10, 12, 13, and 14). On Medicare Care Compare, results for this composite are shown as "Patients who reported that their home health team discussed medicines, pain and home safety with them."

Composite measures are composed of four or more questions that ask about related topics or domains of care. The individual questions included in each HHCAHPS composite measure are shown in *Exhibit 1*. Response categories such as "do not remember" and those indicating that the question is not applicable to the respondent, for example, "I did not contact this agency," are not included when calculating the denominator for a composite; therefore, those response categories are not shown in Exhibit 1. Also, when calculating the denominator for a composite measure, if a respondent did not correctly follow the skip instruction for a screening question, responses to follow up questions governed by that screening question are not included in the denominator.

This document provides instructions for calculating HHCAHPS Survey global ratings and composite scores. These instructions are being made available so that survey vendors can calculate and provide HHCAHPS composite scores and ratings if requested to do so by their client HHAs. Survey vendors and HHAs should note that the HHCAHPS Coordination Team statistically adjusts the data for differences in HHCAHPS scores resulting from differences in patient mix. Therefore, HHCAHPS global ratings and composite scores calculated by survey vendors may differ from results that are publicly reported. Vendors should also note that the instructions below are for calculating scores from one quarter of data. To calculate scores for a specific reporting period, the HHCAHPS Coordination Team determines the average score for each measure across all four quarters in the reporting period.

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Exhibit 1. Home Health Care CAHPS Survey Composites

Care of Patients Composite (*"Patients who reported that their home health team gave care in a professional way."*)	**Response Categories**
Q9. In the last 2 months of care, how often did home health providers from this agency seem informed and up-to-date about all the care or treatment you got at home?	Never, Sometimes, Usually, Always
Q16. In the last 2 months of care, how often did home health providers from this agency treat you as gently as possible?	Never, Sometimes, Usually, Always
Q19. In the last 2 months of care, how often did home health providers from this agency treat you with courtesy and respect?	Never, Sometimes, Usually, Always
Q24. In the last 2 months of care, did you have any problems with the care you got through this agency?	Yes, No

Communications Between Providers and Patients Composite (*"Patients who reported that their home health team communicated well with them."*)	**Response Categories**
Q2. When you first started getting home health care from this agency, did someone from the agency tell you what care and services you would get?	Yes, No
Q15. In the last 2 months of care, how often did home health providers from this agency keep you informed about when they would arrive at your home?	Never, Sometimes, Usually, Always
Q17. In the last 2 months of care, how often did home health providers from this agency explain things in a way that was easy to understand?	Never, Sometimes, Usually, Always
Q18. In the last 2 months of care, how often did home health providers from this agency listen carefully to you?	Never, Sometimes, Usually, Always
Q22. In the last 2 months of care, when you contacted this agency's office did you get the help or advice you needed?	Yes, No
Q23. When you contacted this agency's office, how long did it take for you to get the help or advice you needed?	Same day, 1 to 5 days, 6 to 14 days, More than 14 days

Specific Care Issues Composite (*"Patients who reported that their home health team discussed medicines, pain and home safety with them."*)	**Response Categories**
Q3. When you first started getting home health care from this agency, did someone from the agency talk with you about how to set up your home so you can move around safely?	Yes, No
Q4. When you started getting home health care from this agency, did someone from the agency talk with you about all the prescription medicines you were taking?	Yes, No
Q5. When you started getting home health care from this agency, did someone from the agency ask to see all the prescription medicines you were taking?	Yes, No
Q10. In the last 2 months of care, did you and a home health provider from this agency talk about pain?	Yes, No
Q12. In the last 2 months of care, did home health providers from this agency talk with you about the **purpose** for taking your new or changed prescription medicines?	Yes, No
Q13. In the last 2 months of care, did home health providers from this agency talk with you about **when** to take these medicines?	Yes, No
Q14. In the last 2 months of care, did home health providers from this agency talk with you about the **important side effects** of these medicines?	Yes, No

II.   Calculating Global Rating Measures

The two HHCAHPS global ratings are the rating of the care provided by the agency (Question 20) and the patient's willingness to recommend the agency to his or her family or friends (Question 25).

A.   Calculating the Overall Rating of Care Received (Question 20)

In Question 20, respondents are asked "Using any number from 0–10, where 0 is the worst home health care possible, and 10 is the best home health care possible, what number would you use to rate your care from this agency's home health providers?"

The scoring for Question 20 will represent the proportion of respondents who gave a rating of 9 or 10. The steps for calculating the overall rating of care score are shown below.

Step 1 Identify the cases to be included in this calculation. Include only cases that pass the completeness criteria described in Section IX of the Protocols and Guidelines Manual.

Step 2 Calculate the proportion "P" of survey responses in the quarter with an overall rating of 9 or 10.

The proportion P is defined as follows: $P = X/Y$, where

- the numerator X is the number of respondents in the quarter for whom the overall rating is 9 or 10, and
- the denominator Y is the total number of respondents in the quarter who answered Question 20.

Example

If 110 respondents answered Question 20 and 82 of the respondents rated their home health care a 9 or 10,

then X = 82 and Y = 110. The ratio of 82 / 110 = 0.745

To compute a score for the overall rating based on survey data from four quarters, average the results obtained from each of the four separate quarters.

B.   Calculating the Willingness to Recommend Rating (Question 25)

For this question, respondents are asked, "Would you recommend this agency to your family and friends if they needed home health care?"

The scoring for Question 25 will represent the proportion of respondents who answered "Definitely Yes" to Question 25. The steps for calculating the Willingness to Recommend score are shown below.

Step 1 Identify the cases to be included in this calculation. Include only cases that passed the completeness criteria described in Section IX of the *HHCAHPS Survey Protocols and Guidelines Manual*.

<u>Step 2</u> Calculate the proportion "P" of cases in the quarter who answered "Definitely Yes" to Question 25.

The proportion P is defined as follows: $P = X/Y$, where

- the numerator X is the number of respondents in the quarter who answered "Definitely Yes" to this question, and
- the denominator Y is the total number of respondents in the quarter who answered Question 25.

Example

If 132 respondents answered Question 25 and 51 of those answered "Definitely Yes" to Question 25,

then $X = 51$ and $Y = 132$. The ratio of $51 / 132 = 0.386$

To compute a score for the willingness to recommend question based on survey data from four quarters, average the results obtained from each of the four separate quarters.

III.   Steps for Calculating Composite Measure Scores

A composite measure combines the results from multiple questions that ask about a common or related topic area or domain. The steps for computing a "score" for each of the three HHCAHPS composite measures are provided in this section.

A.   Calculating the Score for the Care of Patients Composite

The score for this composite is produced by combining responses to the four questions below:

- Question 9, "In the last 2 months of care, how often did home health providers from this agency seem informed and up-to-date about all the care or treatment you got at home?"
- Question 16, "In the last 2 months of care, how often did home health providers from this agency treat you as gently as possible?"
- Question 19, "In the last 2 months of care, how often did home health providers from this agency treat you with courtesy and respect?"
- Question 24, "In the last 2 months of care, did you have any problems with the care you got through this agency?"

Note that the response categories for Questions 9, 16, and 19 are "Never," "Sometimes," "Usually," and "Always" and for Question 24 the response categories are "Yes" and "No."

The scoring on this composite will represent the proportion of respondents who responded "Always" to Questions 9, 16, and 19 and "No" to Question 24. The steps for calculating an agency's score for the Care of Patients Composite are presented below.

<u>Step 1</u> Identify the cases to be included in this calculation. Include only cases that passed the completeness criteria described in Section IX of the Protocols and Guidelines Manual.

<u>Step 2</u> For each of the four questions above, calculate the proportion (P = X/Y) of cases in the quarter as follows:

P1 = Proportion of respondents whose response to Question 9 is Always.

P2 = Proportion of respondents whose response to Question 16 is Always.

P3 = Proportion of respondents whose response to Question 19 is Always.

P4 = Proportion of respondents whose response to Question 24 is No.

The proportions P1 through P4 are defined as follows: P = X/Y, where:

- The numerator X for each question in the composite is the number of respondents in the quarter who gave the most positive response to each (that is, responded "Always" to Questions 9, 16, and 19 and No to Question 24).
- The denominator Y for each question in the composite is the total number of respondents in the quarter who answered the question. Responses of "I only had one provider in the last 2 months of care" in Question 9 should not be included in the denominator of that question's proportion.

<u>Step 3</u> Average the proportions calculated for the four questions to derive the score for the Care of Patients Composite.

Composite score for the Care of Patients Composite = (P1 + P2 + P3 + P4) / 4

The denominator in this equation should include only those questions in the composite that had at least one nonmissing response across the HHA's respondents in the quarter. If a question was completely missing for all respondents in an HHA in the quarter, then this equation does not include that question. For example, if all of the respondents in the HHA did not answer the last question in the composite (Q24), then the numerator should be divided by 3 instead of 4.

Example

If 110 respondents answered Question 9, 105 answered Question 16, 100 answered Question 19, and 120 answered Question 24, then:

If 100 of the total of 110 responses to Question 9 are Always, then P1 = 100 / 110 = 0.909
If 90 of the total of 105 responses to Question 16 are Always, then P2 = 90 / 105 = 0.857
If 80 of the total of 100 responses to Question 19 are Always, then P3 = 80 / 100 = 0.800
If 110 of the total of 120 responses to Question 24 are No, then P4 = 110 / 120 = 0.917

Then, (P1 + P2 + P3 + P4) / 4 = (0.909 + 0.857 + 0.800 + 0.917) / 4 = 3.483 / 4 = 0.871

To compute a score for this composite based on survey data from four quarters, average the results obtained from each of the four separate quarters.

B. **Calculating the Score for the Communications Between Providers and Patients Composite**

The score for this composite is produced by combining responses to the six questions below.

- Question 2, "When you first started getting home health care from this agency, did someone from the agency tell you what care and services you would get?"
- Question 15, "In the last 2 months of care, how often did home health providers from this agency keep you informed about when they would arrive at your home?"
- Question 17, "In the last 2 months of care, how often did home health providers from this agency explain things in a way that was easy to understand?"
- Question 18, "In the last 2 months of care, how often did home health providers from this agency listen carefully to you?"
- Question 22, "In the last 2 months of care, when you contacted this agency's office did you get the help or advice you needed?"
- Question 23: When you contacted this agency's office, how long did it take for you to get the help or advice you needed?"

Note that the response categories for Questions 2 and 22 are "Yes" and "No." The response categories for Questions 15, 17, and 18 are "Never," "Sometimes," "Usually," and "Always." The response categories for Question 23 are "Same day," "1 to 5 days," "6 to 14 days," and "More than 14 days." Also note that the response to Question 22 should not be included in the numerator and denominator for Question 22 if the respondent's answer to Question 21 is "No"—that is, the respondent did not correctly follow the skip instruction in Question 21 and answered Question 22 when they should not have done so. The response to Question 23 is not included in the numerator and denominator for Question 23 if the respondent's answer to Question 21 **OR** Question 22 is "No"—that is, the respondent did not correctly follow the skip instructions in Question 21 or Question 22 and answered Question 23 when they should not have done so.

The scoring on this composite will represent the proportion of respondents who answered "Yes" to Questions 2 and 22, "Always" to Questions 15, 17, and 18, and "Same day" to Question 23.

The steps for calculating an agency's score for this composite are provided below.

Step 1 Identify the cases to be included in this calculation. Include only cases that passed the completeness criteria described in Section IX of the Protocols and Guidelines Manual.

Step 2 For each of the six questions above, calculate the proportion ($P = X/Y$) of cases in the quarter as follows:

P1 = Proportion of respondents whose response to Question 2 is "Yes."

P2 = Proportion of respondents whose response to Question 15 is "Always."

P3 = Proportion of respondents whose response to Question 17 is "Always."

P4 = Proportion of respondents whose response to Question 18 is said "Always."

P5 = Proportion of respondents whose response to Question 22 is "Yes."

P6 = Proportion of respondents whose response to Question 23 is "Same day."

The proportions for P1 through P6 are defined as follows: $P = X/Y$, where:

- The numerator X for each question in the composite is the number of respondents in the quarter who gave the most positive response to each question (that is, responded "Yes" to Questions 2 and 22, "Always" to Questions 15, 17 and 18, and "Same day" for Question 23).
- The denominator Y for each question in the composite is the total number of respondents in the quarter who answered the question. Responses of "Do not remember" in Question 2 and "I did not contact this agency" in Questions 22 and 23 should not be included in the denominators of those respective proportions.

<u>Step 3</u> Average the proportions calculated for the six questions to derive the score for this composite, as follows.

Communications between Providers and Patients Composite = (P1 + P2 + P3 + P4 + P5 + P6) / 6

The denominator in this equation should include only those questions in the composite that had at least one nonmissing response across the HHA's respondents in the quarter. If a question was completely missing for all respondents in an HHA in the quarter, then this equation does not include that question. For example, if all of the respondents in the HHA did not answer the last question in the composite (Q23), then the numerator should be divided by 5 instead of 6.

Example

If 110 respondents answered Question 2, 105 answered Question 15, 100 answered Question 17, 120 answered Question 18, 110 answered Question 22, and 120 answered Question 23, then:

If 100 of the total of 110 responses to Question 2 are Yes, then P1 = 100 / 110 = 0.909

If 90 of the total of 105 responses to Question 15 are Always, then P2 = 90 / 105 = 0.857

If 80 of the total of 100 responses to Question 17 are Always, then P3 = 80 / 100 = 0.800

If 110 of the total of 120 responses to Question 18 are Always, then P4 = 110 / 120 = 0.917

If 90 of the total of 110 responses to Question 22 are Yes, then P5 = 90 / 110 = 0.818

If 100 of the total of 120 responses to Question 23 are Same Day, then P6 = 100 / 120 = 0.833

Then, (P1 + P2 + P3 + P4 + P5 + P6) / 6 = (0.909 + 0.857 + 0.800 + 0.917 + 0.818 + 0.833) / 6 = 5.134 / 6 = 0.856

To compute a score for this composite based on four quarters of data, average the results obtained from each of the four separate quarters.

C.   Calculating the Score for the Specific Care Issues Composite

This composite is produced by combining responses to the seven questions below.

- Question 3, "When you first started getting home health care from this agency, did someone from the agency talk with you about how to set up your home so you can move around safely?"

- Question 4, "When you started getting home health care from this agency, did someone from the agency talk with you about all the prescription medicines you were taking?"
- Question 5, "When you started getting home health care from this agency, did someone from the agency ask to see all the prescription and over-the-counter medicines you were taking?"
- Question 10, "In the last 2 months of care, did you and a home health provider from this agency talk about pain?"
- Question 12, "In the last 2 months of care, did home health providers from this agency talk with you about the **purpose** for taking your new or changed prescription medicines?"
- Question 13, "In the last 2 months of care, did home health providers from the agency talk with you about **when** to take these medicines?"
- Question 14, "In the last 2 months of care, did home health providers from this agency talk with you about the important **side effects** of these medicines?"

Note that the response categories for all seven of these questions are "Yes" and "No."

The scoring for this composite will represent the proportion of respondents who gave a Yes response to these questions. When calculating the numerator and denominator for Questions 12, 13 and 14, do not include the responses to these questions in the numerator and denominator if the respondent's answer to Question 11 is "No." In other words, do not include responses to any of those three questions if the respondent did not correctly follow the skip instruction in Question 11 and answered Questions 12 or 13 or 14 when they should not have done so.

The steps in calculating an agency's score for this composite are provided below.

Step 1 Identify the cases to be included in this calculation. Include only cases that passed the completeness criteria described in Section IX of the Protocols and Guidelines Manual.

Step 2 For each of the seven questions above, calculate the proportion ($P = X/Y$) of cases in the quarter as follows:

P1 = Proportion of respondents whose response to Question 3 is "Yes."

P2 = Proportion of respondents whose response to Question 4 is "Yes."

P3 = Proportion of respondents whose response to Question 5 is "Yes."

P4 = Proportion of respondents whose response to Question 10 is "Yes."

P5 = Proportion of respondents whose response to Question 12 is "Yes."

P6 = Proportion of respondents whose response to Question 13 is "Yes."

P7 = Proportion of respondents whose response to Question 14 is "Yes."

The proportions for P1 through P7 are defined as follows: $P = X/Y$, where

- The numerator X for each question in the composite is the number of respondents in the quarter who gave the most positive response to each question (that is, responded "Yes" to all of these questions).

- The denominator Y for each question in the composite is the total number of respondents in the quarter who answered the question. Responses of "Do not remember" in Questions 3, 4, and 5 and "I did not take any new prescription medicines or change any medicines" in Questions 12, 13 and 14 should not be included in the denominators of those respective proportions.

Step 3 Average the proportions calculated for the seven questions to derive the score for this composite.

Score for the Specific Care Issues Composite = (P1 + P2 + P3 + P4 + P5 + P6 + P7) / 7

The denominator in this equation should include only those questions in the composite that had at least one nonmissing response across the HHA's respondents in the quarter. If a question was completely missing for all respondents in an HHA in the quarter, then this equation does not include that question. For example, if all of the respondents in the HHA did not answer the last question in the composite (Q14), then the numerator should be divided by 6 instead of 7.

Example

If 110 respondents answered Question 3, 105 answered Question 4, 100 answered Question 5, 120 answered Question 10, 110 answered Question 12, 120 answered Question 13, and 120 answered Question 14, then:

If 100 of the total of 110 responses to Question 3 are Yes, then P1 = 100 / 110 = 0.909

If 90 of the total of 105 responses to Question 4 are Yes, then P2 = 90 / 105 = 0.857

If 80 of the total of 100 responses to Question 5 are Yes, then P3 = 80 / 100 = 0.800

If 110 of the total of 120 responses to Question 10 are Yes, then P4 = 110 / 120 = 0.917

If 90 of the total of 110 responses to Question 12 are Yes, then P5 = 90 / 110 = 0.818

If 100 of the total of 120 responses to Question 13 are Yes, then P6 = 100 / 120 = 0.833

If 110 of the total of 120 responses to Question 14 are Yes, then P7 = 110 / 120 = 0.917

Then, (P1 + P2 + P3 + P4 + P5 + P6 + P7) / 7 = (0.909 + 0.857 + 0.800 + 0.917 + 0.818 + 0.833 + 0.917) / 7 = 6.051 / 7 = 0.864

To compute a score for this composite based on data from four quarters, average the results obtained from each of the four separate quarters.