

Patient Experience Measures for the CAHPS® Dental Plan Survey

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Introduction

This document discusses the types of reports you may produce for the CAHPS Dental Plan Survey, the types of measures the survey produces, and the composite and rating measures generated by the results of the Dental Plan Survey.

It also provides a basic overview of how the CAHPS survey items are combined to come up with composite measures; for details on how the CAHPS analysis program calculates composite measures, please see *Instructions for Using CAHPS Analysis Programs* in *Get the Dental Plan Survey and Instructions* at <https://www.cahps.ahrq.gov/Surveys-Guidance/Dental/Get-Dental-Survey-and-Instructions.aspx>.

Types of Reports

Users of the CAHPS Dental Plan Survey may report the results of the survey publicly to inform health care consumers and/or privately to inform dental plans and providers and support their efforts to improve patients' experiences with care. While the basic content included in these reports may be the same, the specific content should differ because the purposes differ.

In reports intended for consumers, the goal is to provide information the reader can use to assess and compare the performance of dental plans and providers and identify the ones that best meet his or her needs. To that end, the presentation of measures and scores must be concise and easily digestible. For guidance on developing reports of comparative information for consumers, visit –

- The *Consumer Reporting* section of the CAHPS website at <https://www.cahps.ahrq.gov/>
- *TalkingQuality* at <https://www.talkingquality.ahrq.gov>.

A report intended for dental plans, providers, and other internal audiences must also be clear and concise, but can and should contain more information in order to support the use of the results to identify relative strengths and weaknesses. These reports need to provide trend data (when available) and different kinds of comparators, such as local or State averages and percentiles. They can also provide a greater level of detail, such as results at the item level, results for supplemental items, and the full range of survey responses (i.e., the percent that gave each possible response). With this information, plans and providers are equipped to analyze their data and take steps towards improving their patients' experiences. For guidance on improving CAHPS survey results, visit the *Quality Improvement* section of the CAHPS website at <https://www.cahps.ahrq.gov>.

Types of Measures

Like other CAHPS survey, the Dental Plan Survey generates three types of measures for reporting purposes:

- **Rating measures**, which are based on items that use a scale of 0 to 10 to measure respondents' assessment of their provider. This measure is sometimes referred to as the “global rating” or “overall rating.”
- **Composite measures (also known as reporting composites)**, which combine results for closely-related items that have been grouped together. Composite measures are strongly recommended for both public and private reporting because they keep the reports comprehensive yet of reasonable length. Psychometric analyses also indicate that they are reliable and valid measures of patients' experiences.^{1, 2, 3}
- **Individual items**, which are survey questions that did not fit into the composite measures. These measures may be included in public reports, but they are especially useful in reports for providers and other internal audiences that use the data to identify specific strengths and weaknesses.

Measures Based on the Dental Plan Survey

The Dental Plan Survey produces three composite measures and four rating measures:

- Care from dentists and staff (6 items)
- Access to dental care (5 items)
- Dental plan costs and services (6 items)
- Patients' ratings (4 items)

Please note that the CAHPS Consortium has not developed and tested labels for these composite measures.

Appendix A lists the questions for each of the measures in the CAHPS Dental Plan Survey.

¹ McGee J, Kanouse DE, Sofaer S, Hargraves JL, Hoy E, Kleimann S. Making survey results easy to report to consumers: How reporting needs guided survey design in CAHPS®. *Med Care*. 1999 Mar;37(3 Suppl):MS32-40.

² Solomon LS, Hays RD, Zaslavsky AM, Ding L, Cleary PD. Psychometric properties of a group-level Consumer Assessment of Health Plans Study (CAHPS) instrument. *Med Care*. 2005 Jan;43(1):53-60.

³ Hays RD, Chong K, Brown J, Spritzer KL, Horne K. Patient reports and ratings of individual physicians: an evaluation of the DoctorGuide and Consumer Assessment of Health Plans Study provider-level surveys. *Am J Med Qual*. 2003 Sep-Oct;18(5):190-6.

How to Calculate Composite Scores for Reporting

All users of CAHPS surveys can apply the SAS®-based CAHPS analysis programs (also referred to as the CAHPS macro) to calculate performance scores for individual items—including the rating measure—and composite measures. The analysis programs and instructions for using those programs are available at **Get the Dental Plan Survey and Instructions** at <https://www.cahps.ahrq.gov/Surveys-Guidance/Dental/Get-Dental-Survey-and-Instructions.aspx>.

The calculation of CAHPS survey composites uses a proportional scoring method, which basically generates a proportion for each response option.

There are three basic steps to this approach:

1. Calculate the proportion of patient responses in each response category for each item in a composite.
2. Combine these proportions for all items in a composite.
3. Adjust for the case-mix of the patients who evaluated each provider to allow comparison of scores across providers.

Appendix B spells out the first two steps in greater detail. The macro handles these calculations as well as the case-mix adjustment.

This approach provides users with several options for reporting. Two recommended strategies are average scoring and “top box” scoring, which involves reporting only the score for the most positive categories (e.g., the proportion of patients reporting “always”).

Appendix A: Measures for the CAHPS Dental Plan Survey

Care from Dentists and Staff		
Q6	How often did your regular dentist explain things in a way that was easy to understand?	Response Options <ul style="list-style-type: none"> ▪ Never ▪ Sometimes ▪ Usually ▪ Always
Q7	How often did your regular dentist listen carefully to you?	
Q8	How often did your regular dentist treat you with courtesy and respect?	
Q9	How often did your regular dentist spend enough time with you?	
Q11	How often did the dentists or dental staff do everything they could to help you feel as comfortable as possible during your dental work?	
Q12	How often did the dentists or dental staff explain what they were doing while treating you?	

Access to Dental Care		
Q13	How often were your dental appointments as soon as you wanted?	Response Options <ul style="list-style-type: none"> ▪ Never ▪ Sometimes ▪ Usually ▪ Always
Q15 ⁴	If you tried to get an appointment for yourself with a dentist who specializes in a particular type of dental care (such as root canals or gum disease) in the last 12 months, how often did you get an appointment as soon as you wanted?	
Q16	How often did you have to spend more than 15 minutes in the waiting room before you saw someone for your appointment?	
Q17 ⁵	If you had to spend more than 15 minutes in the waiting room before you saw someone for your appointment, how often did someone tell you why there was a delay or how long the delay would be?	
Q14 ⁶	If you needed to see a dentist right away because of a dental emergency in the last 12 months, did you get to see a dentist as soon as you wanted?	Response Options <ul style="list-style-type: none"> ▪ Definitely Yes ▪ Somewhat Yes ▪ Somewhat No ▪ Definitely No

⁴ Response option for question 15 only: I did not try to get an appointment with a specialist dentist for myself in the last 12 months.

⁵ Response option for question 17 only: I never had to spend more than 15 minutes in the waiting room before seeing someone for an appointment.

⁶ Response option for question 14 only: I did not have a dental emergency in the last 12 months.

Dental Plan Costs and Services

Q19	How often did your dental plan cover all of the services you thought were covered?	Response Options ▪ Never ▪ Sometimes ▪ Usually ▪ Always
Q22	How often did the 800 number, written materials, or website provide the information you wanted?	
Q27	How often did your dental plan's customer service give you the information or help you needed?	
Q28	How often did your dental plan's customer service staff treat you with courtesy and respect	
Q20	Did your dental plan cover what you and your family needed to get done?	Response Options ▪ Definitely Yes ▪ Somewhat Yes ▪ Somewhat No ▪ Definitely No
Q24	Did this information (from your dental plan) help you find a dentist you were happy with?	

Patients' Ratings

Q10	Using any number from 0 to 10, where 0 is the worst regular dentist possible and 10 is the best regular dentist possible, what number would you use to rate your regular dentist?	Response Options ▪ 0-10
Q18	Using any number from 0 to 10, where 0 is the worst dental care possible and 10 is the best dental care possible, what number would you use to rate all of the dental care you personally received in the last 12 months?	
Q25	Using any number from 0 to 10, where 0 is extremely difficult and 10 is extremely easy, what number would you use to rate how easy it was for you to find a dentist?	
Q29	Using any number from 0 to 10, where 0 is the worst dental plan possible and 10 is the best dental plan possible, what number would you use to rate your dental plan?	

Appendix B: Applying the Proportional Scoring Method to Dental Plan Survey Composites

Given a composite with five items, where each item has four response options, a provider's score for that composite is the proportion of responses (excluding missing data) in each response category. The following steps show how those proportions are calculated:

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

P11 = Proportion of respondents who answered “never”

P12 = Proportion of respondents who answered “sometimes”

P13 = Proportion of respondents who answered “usually”

P14 = Proportion of respondents who answered “always”

Follow the same steps for the second question:

P21 = Proportion of respondents who answered “never”

P22 = Proportion of respondents who answered “sometimes”

P23 = Proportion of respondents who answered “usually”

P24 = Proportion of respondents who answered “always”

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

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

Calculate the average proportion responding to each category across the questions in the composite. For example:

PC1 = Composite proportion who said “never” = $(P11 + P21 + P31 + P41 + P51) / 5$

PC2 = Composite proportion who said “sometimes” = $(P12 + P22 + P32 + P42 + P52) / 5$

PC3 = Composite proportion who said “usually” = $(P13 + P23 + P33 + P43 + P53) / 5$

PC4 = Composite proportion who said “always” = $(P14 + P24 + P34 + P44 + P54) / 5$

To download the analysis programs and instructions for using them, go to **Get the Dental Plan Survey and Instructions** at <https://www.cahps.ahrq.gov/Surveys-Guidance/Dental/Get-Dental-Survey-and-Instructions.aspx>.