

Patient-Mix Adjustment Factors for Home Health Care CAHPS Survey Results Publicly Reported on Care Compare in April 2026

Home Health Care CAHPS (HHCAHPS) Survey results will be “refreshed” or updated each calendar year quarter and published on [Medicare’s Care Compare website](#). HHCAHPS Survey results based on survey responses from a sample of patients who received home health care from Medicare-certified home health agencies (HHAs) at some point between October 2024 and September 2025 are currently available on Care Compare.

Prior research has shown that patients’ assessment of the health care they receive may be affected by both the survey data collection mode and patient characteristics. In 2009 and 2010, the Centers for Medicare & Medicaid Services (CMS) and the HHCAHPS Coordination Team conducted a mode experiment to assess the effects of the three approved data collection modes (mail only, telephone only, and mail with telephone follow-up of nonrespondents). Data collected during the HHCAHPS mode experiment were also used to determine which, if any, patient characteristics (patient mix) affected patients’ assessment of the home health care they received. The results of the HHCAHPS Survey mode experiment showed no significant differences in results based on survey mode. There were, however, differences in responses attributable to patient mix characteristics. Therefore, patient mix adjustments are made on HHCAHPS Survey results that are publicly reported using selected patient characteristics identified during the mode experiment, but no adjustments are being made for mode differences.

The patient mix adjustment factors used in the HHCAHPS Survey are derived from coefficients obtained from Ordinary Least Squares regression analyses on each separate HHCAHPS response item for the identified patient characteristics. The regression coefficients indicate the tendency of patients with particular characteristics to respond more positively or negatively to HHCAHPS Survey questions. Patient mix adjustment factors are calculated directly from these regression coefficients for each HHCAHPS response item by multiplying the coefficients by negative one (–1.0).

For example, analyses of the data for the most recent quarter (Quarter 3, 2025) showed that patients who were aged 50–64 in the regression on the Overall Rating global measure were 2.6 percent less likely to provide the most positive (“top box”) response (rating of a 9 or 10 for this HHCAHPS measure) when compared to the reference group of patients aged 65–74. Consequently, the quarterly adjustment factor for patients aged 50–64 is +2.6 percent. Likewise, patients with a schizophrenia diagnosis were 3.5 percent less likely to report the most positive

(top box) response (“Definitely Recommend”) on the Willingness to Recommend measure. Therefore, the quarterly adjustment factor for patients with a schizophrenia diagnosis on this specific item is +3.5 percent (Tables 1-4).

Adjustment factors to account for HHA differences in patient mix are calculated for a quarter and applied to the quarter’s HHA raw scores for each of the HHCAHPS response items. Specifically, scores are adjusted for differences between an HHA’s patient composition according to the HHCAHPS patient mix characteristics and the overall national composition of home health patients on these same characteristics. This adjustment, which allows consumers to compare different HHAs based on the same overall patient composition, is made by subtracting the national mean for a given patient characteristic from an HHA’s share of patients on this patient characteristic. For example, if nationally 20 percent of patients are aged 65–74, but an HHA’s share of patients on this measure is 25 percent, then this adjustment for the difference in the HHA’s patient composition versus the overall national patient composition is calculated as 25 percent minus 20 percent, or 5 percent. The quarter’s composite measures are then formed from these adjusted scores. The last four quarters of adjusted scores are then averaged to produce the current quarter’s published scores.

Four sets of numbers are needed to calculate an HHA’s quarterly adjusted score for any given HHCAHPS response item: (1) the “raw score,” or HHA’s mean on the respective HHCAHPS outcome before adjustment, (2) the quarter-specific individual-level patient mix adjustment factors shown in Tables 1-4 (top box adjustment factors), (3) the quarter-specific HHA’s means on the patient mix characteristic variables, and (4) the quarter-specific national means on the patient mix characteristic variables shown in Table 5. In addition, we have also attached the patient ICD-10 diagnostic codes that were used to determine if a patient had dementia and/or schizophrenia for re-creation of the diagnoses patient mix characteristics. (see Attachment A).

The quarterly adjusted score for a given HHCAHPS Survey response item for an HHA is the sum of a series of products in the equation shown below, where each product multiplies the patient mix adjustment factors (top box) by the deviation of the HHA’s mean on a given patient mix characteristic from the national mean on that characteristic:

$$Y' = y + a1(h1 - m1) + a2(h2 - m2) + a3(h3 - m3) + \dots + a19(h19 - m19)$$

where

- y' is the HHA’s adjusted score for the respective HHCAHPS response item;
- y is the HHA’s “raw score,” or mean on the respective unadjusted top box HHCAHPS response item;
- a1 to a19 are the individual-level adjustments for the patient characteristics in the table expressed as a proportion rather than as a percentage;
- h1 to h19 are the HHA’s mean proportions of patients with each of the patient characteristics in the same row; and
- m1 to m19 are the national mean proportions of patients with each of the patient characteristics in Table 5 across the HHAs participating in HHCAHPS.

For public reporting purposes, the final adjusted HHCAHPS score is rounded to the nearest integer and expressed as a percentage (e.g., 84%).

The results posted to Medicare’s Care Compare website by CMS are the official HHCAHPS Survey results. Information presented in this document will permit an HHA to approximate the effect of patient mix adjustment on its HHCAHPS Survey results. When a survey vendor tries to replicate published HHCAHPS results, there may be small differences due to differences in the data cleaning or the application of the patient mix adjustments.


For each future public reporting period, Tables 1 through 5 will be updated and posted on the [Home Health Care CAHPS website](#) .

Table 1. “Top Box” HHCAHPS Patient-Mix Adjustment Factors (Quarterly Average for the April 2026 Public Reporting Period – October 2024 through December 2024 Home Health Patients)

Patient Mix Characteristic Patient Mix Level	Overall Rating	Willingness to Recommend	Care of Patients	Communication	Specific Care Issues
Proxy Proxy	0.000	0.001	-0.003	-0.007	0.007
Non-English survey response Non-English survey response	-0.041	-0.052	0.011	0.004	-0.035
Age					
18-49	0.056	0.035	0.023	0.008	0.021
50-64	0.028	0.010	0.014	0.007	0.005
65-74	RC	RC	RC	RC	RC
75-84	-0.002	0.008	0.001	0.009	0.017
85+	0.011	0.029	0.010	0.026	0.035
Education					
< 8th grade	0.000	-0.003	0.008	0.006	-0.019
Some high school	-0.014	-0.013	-0.001	0.000	-0.018
High school graduate/GED	RC	RC	RC	RC	RC
Some college	0.020	0.006	0.010	0.011	0.015
College graduate or more	0.043	0.019	0.020	0.024	0.042
Residence status					
Patient lived alone	0.029	0.036	0.024	0.024	0.026
Self-reported health status					
Excellent	-0.093	-0.120	-0.045	-0.051	-0.065
Very good	-0.011	0.000	-0.005	-0.005	-0.008
Good	RC	RC	RC	RC	RC
Fair	0.007	0.002	0.007	0.006	0.000
Poor	0.039	0.020	0.023	0.023	0.011
Mental/emotional status					
Excellent/very good	-0.039	-0.043	-0.022	-0.025	-0.003
Good	RC	RC	RC	RC	RC
Fair/poor	0.022	0.021	0.012	0.019	0.007
Diagnoses					
Schizophrenia	0.034	0.036	0.034	0.028	0.029
Dementia/cerebral degeneration	0.004	-0.004	-0.001	0.009	0.007

RC = reference category

Table 2. “Top Box” HHCAHPS Patient-Mix Adjustment Factors (Quarterly Average for the April 2026 Public Reporting Period – January 2025 through March 2025 Home Health Patients)

Patient Mix Characteristic Patient Mix Level	Overall Rating	Willingness to Recommend	Care of Patients	Communication	Specific Care Issues
Proxy Proxy	-0.003	0.003	-0.007	-0.007	0.005
Non-English survey response Non-English survey response	-0.043	-0.046	0.012	0.009	-0.032
Age					
18-49	0.055	0.036	0.031	0.017	0.029
50-64	0.021	0.008	0.010	0.009	0.007
65-74	RC	RC	RC	RC	RC
75-84	-0.003	0.008	0.001	0.009	0.017
85+	0.011	0.030	0.009	0.023	0.036
Education					
< 8th grade	-0.002	-0.002	0.005	0.000	-0.020
Some high school	-0.012	-0.007	0.000	-0.001	-0.016
High school graduate/GED	RC	RC	RC	RC	RC
Some college	0.019	0.010	0.008	0.008	0.016
College graduate or more	0.040	0.022	0.018	0.020	0.042
Residence status					
Patient lived alone	0.027	0.038	0.023	0.025	0.023
Self-reported health status					
Excellent	-0.091	-0.120	-0.046	-0.049	-0.059
Very good	-0.012	0.002	-0.005	-0.005	-0.005
Good	RC	RC	RC	RC	RC
Fair	0.009	0.003	0.005	0.004	0.002
Poor	0.031	0.018	0.022	0.018	0.012
Mental/emotional status					
Excellent/very good	-0.037	-0.044	-0.021	-0.024	-0.005
Good	RC	RC	RC	RC	RC
Fair/poor	0.025	0.022	0.014	0.016	0.010
Diagnoses					
Schizophrenia	0.051	0.046	0.041	0.041	0.039
Dementia/cerebral degeneration	0.005	0.002	0.003	0.015	0.008

RC = reference category

Table 3. “Top Box” HHCAHPS Patient-Mix Adjustment Factors (Quarterly Average for the April 2026 Public Reporting Period – April 2025 through June 2025 Home Health Patients)

Patient Mix Characteristic Patient Mix Level	Overall Rating	Willingness to Recommend	Care of Patients	Communication	Specific Care Issues
Proxy Proxy	0.003	0.007	-0.001	-0.002	0.016
Non-English survey response Non-English survey response	-0.051	-0.054	0.009	0.001	-0.037
Age					
18-49	0.048	0.030	0.025	0.011	0.019
50-64	0.026	0.009	0.015	0.007	0.004
65-74	RC	RC	RC	RC	RC
75-84	-0.003	0.005	0.000	0.006	0.016
85+	0.010	0.029	0.009	0.026	0.037
Education					
< 8th grade	-0.004	0.002	0.005	0.004	-0.024
Some high school	-0.010	-0.005	0.000	0.003	-0.018
High school graduate/GED	RC	RC	RC	RC	RC
Some college	0.022	0.014	0.009	0.009	0.019
College graduate or more	0.044	0.029	0.020	0.019	0.044
Residence status					
Patient lived alone	0.027	0.036	0.024	0.025	0.028
Self-reported health status					
Excellent	-0.093	-0.124	-0.047	-0.048	-0.065
Very good	-0.013	0.002	-0.004	-0.001	-0.011
Good	RC	RC	RC	RC	RC
Fair	0.010	0.004	0.005	0.006	0.000
Poor	0.041	0.025	0.024	0.022	0.009
Mental/emotional status					
Excellent/very good	-0.038	-0.046	-0.023	-0.027	0.001
Good	RC	RC	RC	RC	RC
Fair/poor	0.021	0.015	0.013	0.016	0.012
Diagnoses					
Schizophrenia	0.038	0.028	0.038	0.043	0.036
Dementia/cerebral degeneration	0.009	0.005	0.004	0.012	0.010

RC = reference category

Table 4. “Top Box” HHCAHPS Patient-Mix Adjustment Factors (Quarterly Average for the April 2026 Public Reporting Period – July 2025 through September 2025 Home Health Patients)

Patient Mix Characteristic Patient Mix Level	Overall Rating	Willingness to Recommend	Care of Patients	Communication	Specific Care Issues
Proxy Proxy	0.000	0.002	-0.007	-0.007	0.006
Non-English survey response Non-English survey response	-0.053	-0.059	-0.002	-0.001	-0.035
Age					
18-49	0.051	0.029	0.024	0.015	0.017
50-64	0.026	0.015	0.013	0.008	0.011
65-74	RC	RC	RC	RC	RC
75-84	-0.002	0.008	0.000	0.007	0.018
85+	0.008	0.028	0.008	0.022	0.035
Education					
< 8th grade	0.000	0.002	0.007	0.009	-0.023
Some high school	-0.002	0.007	0.004	0.004	-0.013
High school graduate/GED	RC	RC	RC	RC	RC
Some college	0.018	0.012	0.008	0.008	0.017
College graduate or more	0.035	0.021	0.018	0.019	0.045
Residence status					
Patient lived alone	0.024	0.034	0.021	0.023	0.024
Self-reported health status					
Excellent	-0.090	-0.123	-0.046	-0.049	-0.062
Very good	-0.012	-0.003	-0.006	-0.003	-0.010
Good	RC	RC	RC	RC	RC
Fair	0.008	-0.001	0.005	0.007	0.002
Poor	0.039	0.025	0.026	0.023	0.006
Mental/emotional status					
Excellent/very good	-0.041	-0.044	-0.023	-0.025	-0.003
Good	RC	RC	RC	RC	RC
Fair/poor	0.020	0.021	0.013	0.017	0.010
Diagnoses					
Schizophrenia	0.036	0.035	0.045	0.038	0.038
Dementia/cerebral degeneration	0.008	0.003	0.004	0.011	0.007

RC = reference category

Table 5. National Means on Patient-Mix Adjustment Factors (Quarterly Average for the April 2026 Public Reporting Period, October 2024 through September 2025 Home Health Patients)

Patient Mix Characteristic Patient Mix Level	National-Level Means			
	Oct 24 – Dec 24	Jan 25 – Mar 25	Apr 25 – Jun 25	Jul 25 – Sep 25
Proxy respondent used	0.11	0.11	0.11	0.11
Non-English survey response	0.05	0.05	0.05	0.05
Age				
18–49	0.03	0.02	0.02	0.02
50–64	0.08	0.07	0.08	0.08
65–74	0.27	0.26	0.26	0.26
75–84	0.37	0.37	0.37	0.37
85+	0.26	0.27	0.27	0.26
Education				
8th grade or less	0.07	0.07	0.07	0.06
Some high school	0.08	0.08	0.08	0.08
High school graduate/GED	0.32	0.32	0.32	0.32
Some college	0.27	0.27	0.27	0.28
College graduate or more	0.26	0.26	0.26	0.26
Residence status				
Patient lived alone	0.33	0.33	0.34	0.34
Self-reported health status				
Excellent	0.10	0.10	0.10	0.10
Very good	0.17	0.17	0.17	0.17
Good	0.33	0.33	0.32	0.33
Fair	0.31	0.31	0.31	0.31
Poor	0.10	0.09	0.10	0.09
Mental/emotional status				
Excellent/very good	0.44	0.45	0.44	0.45
Good	0.32	0.32	0.32	0.32
Fair/poor	0.24	0.23	0.24	0.23
Diagnoses				
Schizophrenia	0.01	0.01	0.01	0.01
Dementia/cerebral degeneration	0.08	0.08	0.08	0.08

Attachment A – ICD-10 Diagnosis Codes for Dementia and Schizophrenia

Dementia (cc49)							Schizophrenia (cc54)
A8100	F01	F01C2	F02C0	F03A4	F064	G913	F2089
A8101	F0150	F01C3	F02C11	F03B0	F068	G914	F201
A8109	F0151	F01C4	F02C18	F03B11	F842	G918	F202
A811	F01511	F028	F02C2	F03B18	G132	G919	F200
A812	F01518	F0280	F02C3	F03B2	G138	G937	F208
A8181	F0152	F0281	F02C4	F03B3	G300	G9389	F2081
A8182	F0153	F02811	F02	F03B4	G301	G939	F205
A8183	F0154	F02818	F0280	F03C0	G308	G94	F259
A8189	F01A0	F0282	F0281	F03C11	G309	I673	F2089
A819	F01A11	F0283	F03	F03C18	G310	I67850	F209
E7500	F01A18	F0284	F039	F03C2	G3101	Q050	F203
E7501	F01A2	F02A0	F0390	F03C3	G3109	Q051	F21
E7502	F01A3	F02A11	F0391	F03C4	G311	Q052	F22
E7509	F01A4	F02A18	F03911	F04	G3181	Q053	F23
E7510	F01B0	F02A2	F03918	F05	G3182	Q054	F24
E7511	F01B11	F02A3	F0392	F060	G3183	Q0700	F250
E7519	F01B18	F02A4	F0393	F061	G3184	-	F251
E7523	F01B2	F02B0	F0394	F062	G3185	-	F258
E7525	F01B3	F02B11	F03A0	F0630	G3189	-	-
E7526	F01B4	F02B18	F03A11	F0631	G319	-	-
E7529	F01C0	F02B2	F03A18	F0632	G910	-	-
E753	F01C11	F02B3	F03A2	F0633	G911	-	-
E754	F01C18	F02B4	F03A3	F0634	G912	-	-