

## 2025 Measure Set Review (MSR): 00389-01-C-HHQR Preliminary Assessment

### I. Measure Overview<sup>1</sup>

CMIT ID	Title
Link to CMIT measure record: <a href="#">00389-01-C-HHQR</a>	Influenza Immunization Received for Current Flu Season
Measure Steward	CMS Program
Centers for Medicare & Medicaid Services (CMS)	Home Health Quality Reporting Program Link: <a href="#">Home Health Quality Reporting Program   CMS</a>

CBE Endorsement Status	CBE Endorsement History
Endorsement Removed	<ul style="list-style-type: none"> <li>Endorsement Removed, Health and Well-Being Project, 2015-2017</li> <li>Initial endorsement, 2009</li> </ul> <p>Link to endorsement measure record: <a href="#">Influenza Immunization Received for Current Flu Season (Home Health)</a></p>

Measure Overview
<p><b>Rationale for Use:</b> There are differential adverse impacts on older people from influenza, including higher rates of mortality, hospitalization and long term health effects, accounting for more than 60% of the influenza-related hospitalizations and 85% of the influenza-related deaths.<sup>2</sup> There is at least one report that 10% of the winter time deaths represent influenza-related deaths<sup>3</sup> which is much less than previous reports<sup>4</sup> but explained by study design (lack of RCTs; over-reliance on cohort studies). One explanation is that providers do not use the entire influenza vaccination season to provide vaccination, generally using a two-to-three-month time frame when there is a seven month influenza season.<sup>5</sup></p> <p><b>CMS-Provided Rationale for Use in Program:</b> This quality measure (QM) was added to the Home Health Quality Reporting Program (HHQRP) and remains in the HHQRP because addressing priority areas in the adult vaccination set is still important. Influenza disproportionately affects the patient population who make up the majority of those receiving the Medicare Home Health benefit. Continued inclusion of this QM, as well as other vaccine strategies, are vital in comprehensively addressing</p>

<sup>1</sup> The information in this PA is sourced from the [CMS Measures Inventory Tool \(CMIT\)](#) and the [PQM Submission Tool and Repository \(STAR\) Measure Database](#). This document reflects the content available as of September 2025.

<sup>2</sup> Nichol KL. Influenza vaccination in the elderly: impact on hospitalization and mortality. *Drugs Aging* 2005; 22(6):495-515.

<sup>3</sup> Simonsen L, Reichert TA, Viboud C, Blackwelder WC, Taylor RJ, Miller MA. Impact of influenza vaccination on seasonal mortality in the US elderly population. *Arch Intern Med* 2005; 165(3):265-272.

<sup>4</sup> Simonsen L, Taylor RJ, Viboud C, Miller MA, Jackson LA. Mortality benefits of influenza vaccination in elderly people: an ongoing controversy. *Lancet Infect Dis* 2007; 7(10):658-666.

<sup>5</sup> Poland GA, Johnson DR. Increasing influenza vaccination rates: the need to vaccinate throughout the entire influenza season. *Am J Med* 2008; 121(7 Suppl 2):S3-10.

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Measure Overview	
vaccination in home health care patients.	
<b>Description:</b> Percentage of home health quality episodes of care during which patients received influenza immunization for the current flu season.	
<b>Numerator:</b> Number of home health quality episodes of care during which the patient a) received vaccination from the HHA or b) had received vaccination from HHA during earlier episode of care, or c) was determined to have received vaccination from another provider.	
<b>Exclusions:</b> None	
<b>Denominator:</b> Number of home health quality episodes of care ending with a discharge or transfer to inpatient facility during the reporting period, other than those covered by generic or measure-specific exclusions.	
<b>Exclusions:</b> Home health quality episodes for which no care was provided during October 1-March 31, OR the patient died, or the patient does not meet age/condition guidelines for influenza vaccine.	
<b>CMS Program History:</b> <ul style="list-style-type: none"> <li>In Home Health Quality Reporting since 2010.</li> <li>Removed from Home Health Value-Based Purchasing in 2020.</li> </ul>	<b>Cascade of Meaningful Measures Priority:</b> Wellness and Prevention
<b>Measure Type:</b> Process	<b>Is the Measure Digital or an Electronic Clinical Quality Measure (eCQM)?</b> No
<b>Level(s) of Analysis/Measured Entity:</b> Facility, Hospital, or Agency Level	<b>Care Setting(s):</b> Home Health
<b>Does the Measure Fill a Statutorily Required Category for the Program?</b> No	<b>Is the Measure Included in Upcoming Rulemaking?</b> No

## II. Measure Performance in Program

For this measure, the MSR evaluation and analysis team reviewed the publicly available datasets:

- [home health services 04 2025.zip](#) (which contains data from July 2023-June 2024 and is referred to as PY2023 in this assessment)
- [home health services 04 2024.zip](#) (which contains data from July 2022-June 2023 and is referred to as PY2022 in this assessment)
- [home health services 05 2023.zip](#) (which contains data from July 2021-June 2022 and is referred to as PY2021 in this assessment)

**About Figure 1:** Figure 1 is a boxplot that shows how scores have changed over the past 3 years of publicly available data. For each year, the boxplot displays a box with lines and dots to help visualize the range and distribution of scores. The dots represent the points where the lowest 5% and highest 5% of scores fall, and the line connecting them shows where 90% of the scores are located. The box itself covers the middle half of the scores, from the 25th to the 75th percentile. Inside the box, a horizontal line marks the median score, which is the middle value,

while a “+” sign shows the average score. This type of graph makes overall trends in scores over time as well as the consistency and spread of the results easier to understand.

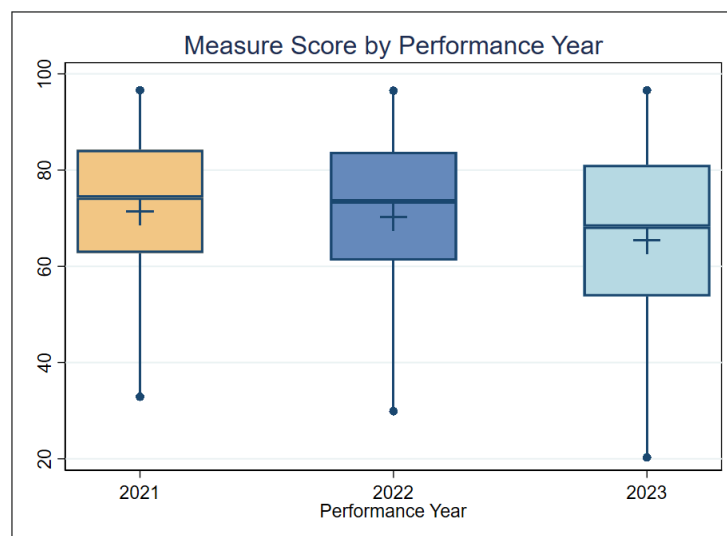


Figure 1. Boxplot of Measure Score by Year

**Figure 1 Interpretation:** In the boxplot above, the median score decreased slightly from 74.3% in 2021 to about 73.5% in 2022 and decreased more to about 68.3% in 2023. For this measure, a higher score indicates better quality of care. The decrease in median measure scores over the past 3 years suggests that the quality of care has been decreasing over that time. The widening of the box over the past year suggests that the performance for some facilities has decreased more than for others.

**About Table 1:** Table 1 illustrates the distribution of scores and the number of patients represented within each group. It is important to note that the groups with the lowest or highest scores (referred to as deciles, each comprising 10% of the entities) may contain more or fewer patients than other groups. For example, if the lowest-scoring decile includes only 5% of the total patient population, this smaller group size may be associated with lower performance scores.

For this measure, Decile 1 represents a grouping of organizations who have the lowest measure scores and Decile 10 shows those with the highest measure scores. The arrow denotes improving performance on the measure.

**Table 1. Importance (Decile by Measure Score, PY2023)**

		<div> <div>Lowest Performers</div> <div>→</div> <div>Highest Performers</div> </div>									
	Overall	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
<b>Average Score (Standard Deviation)</b>	65.4 (21.99)	18.9	43.5	53.6	60.3	65.6	70.7	75.7	81.2	87.8	96.5
<b>Entities</b>	8,104	811	810	811	810	810	811	810	811	810	810
<b>Patients</b>	4,550,815	146,672	334,048	494,648	601,312	657,694	723,977	591,036	436,090	341,085	224,253

**Table 1 Interpretation:** To estimate the number of positive outcomes (when a patient's flu shot status for the current season is assessed), the number of patients is multiplied by the average score for each decile. Right now, the total estimated number of positive outcomes across all deciles is about 3,060,000. Assuming it would be plausible for entities in deciles 1-7 to improve and reach the average score of the 8th decile (which more than 20% of the entities have already achieved), we can use that score to estimate possible improvement in outcomes. If the average performance of Decile 8 (81.2%) is considered a plausible, achievable score and the entities in Deciles 1 through 7 improved to reach that score, the estimated proportion of eligible patients whose current flu shot status is assessed would go up by about 18%, which translates to a potential total of about 3,750,000 positive outcomes. This means that improving performance on this measure could help ensure that hundreds of thousands of patients will be assessed for their current flu shot status, potentially leading to better health outcomes for many people.

**About Figure 2:** Figure 2 is a bar graph displaying average change in performance by performance decile on this measure. Battelle developed this graph by first assigning each entity's year 1 performance score to a decile (1-10). For each entity, the change in performance score from year 1 was then calculated for both year 2 and year 3. The resulting changes in performance for year 2 and year 3 were plotted against the year 1 decile assignments, allowing for visualization of performance trends over time by initial performance level.

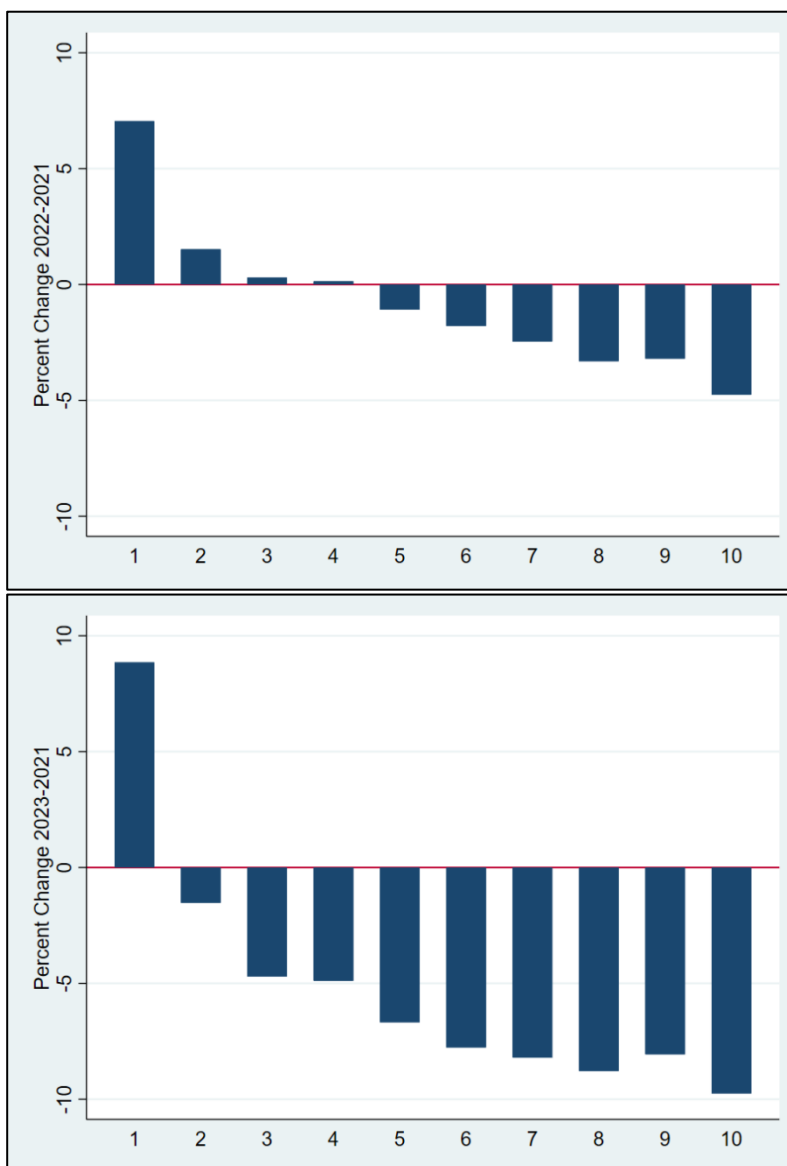


Figure 2. Mean Change in Performance by Decile

**Figure 2 Interpretation:** The upper graph shows that the average performance for entities in the first decile (the 10% lowest-scoring entities) for PY2021 improved in PY2022. However, entities in the higher-scoring deciles in PY2021 had an average lower performance in PY2022. The lower graph shows that the average performance for entities in the first decile in PY2021 improved slightly more in PY2023. The average performance for all other deciles decreased between PY2021 and PY2023 with the degree of decrease proportional to the performance in

PY2021. In other words, the entities with better PY2021 performance tended to decrease the most by PY2023.

### III. Evaluation Criteria

#### Meaningfulness

Importance
<p><b>Guiding Questions:</b> Does the evidence show that the focus of the measure is linked to meaningful outcomes for patients and health care organizations? Does the data demonstrate that using this measure within the quality program results in benefits that outweigh any associated burdens or costs?</p>
<p>Evidence in the published literature cited above demonstrates that the focus of Influenza Immunizations Received for Current Flu Season is associated with lower rates of mortality, hospitalization, and negative long-term health effects in older adults.</p> <p>Figure 1 shows that measure performance has decreased for some entities. Table 1 and Figure 2 outline the impacts on patient outcomes that improvement on this measure score could have over time. Table 1 demonstrates that improving performance on the measure could lead to about 3,750,000 more patients to be assessed for their current flu shot status, potentially leading to better health outcomes. Figure 2 shows that the entities with the highest performance in PY2021 decreased the most by PY2023. This indicates room for improvement among even the highest performing entities.</p> <p><b>Committee Member Considerations:</b> Based on reviewing measure performance and professional and personal experiences, consider the balance of implementation costs or burdens with the benefit of measure use within the program. Committee members will have a chance to share these thoughts with the broader committee via Pre-Meeting Initial Evaluation (PIE) Forms and group discussion.</p>
<b>Staff Rating:</b> Met

Conformance
<p><b>Guiding Question:</b> Do measure components and specifications align with the measure intent and target population?</p>
<p>The intent of the measure is to ensure patients in home health facilities received influenza immunizations for the current flu season by assessing the percentage of home health quality episodes of care where a patient received a flu shot for the current season. The measure is consistent with the program objectives of working with communities to help people live healthily. The measure generally aligns with its stated intent, however, some components—such as certain exclusions—may not fully reflect the needs of the target population. For example, patients who refuse the vaccine due to medical, religious, or other personal reasons are still included in the denominator. In future, developers and stewards may consider refining the numerator and denominator definitions to exclude cases in these instances.</p> <p><b>Committee Member Considerations:</b> Committee members should review the list of active measures within this CMS program in the appendix and consider this measure's alignment with the group. Committee members can consider evidence on vaccine hesitancy and the potential impact on the measure specifications. The <a href="#">appendix</a> lists all active measures reported in this program.</p>
<b>Staff Rating:</b> Met

### Feasibility

**Guiding Question:** Are the tools, processes, and people necessary to implement and report on the measure reasonably available for measured entities in the CMS program?

All required data elements are routinely captured in electronic health records, and reporting is integrated into existing digital workflows. No additional resources are needed for implementation.

**Committee Member Considerations:** Committee members with experience implementing this or similar measures in home health settings should reflect on potential challenges to feasibility of data collection and reporting.

**Staff Rating:** Met

### Validity

**Guiding Question:** Do the data and/or logic support the idea that the measured entity can improve their performance on the measure?

Measure performance from 2021-2023 demonstrates additional room for improvement among measured entities. However, performance may be heavily influenced by factors outside the entity's control, such as increased hesitancy around vaccinations,<sup>6</sup> which could limit the measure's validity as a tool for quality improvement.

**Committee Member Considerations:** Committee members with experience implementing this or similar measures in home health settings should reflect on potential methods to improve influenza immunizations among individuals in home health facilities.

**Staff Rating:** Met

<sup>6</sup> 2024 national survey: Attitudes and behaviors about influenza, COVID-19, respiratory syncytial virus, and pneumococcal disease. September 25, 2024. <https://www.nfid.org/resource/2024-national-survey-attitudes-and-behaviors-about-influenza-covid-19-respiratory-syncytial-virus-and-pneumococcal-disease/>  
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## Reliability

The two tables below summarize reliability. Table 2 sorts entities by the number of patients and reports average reliability along with the number of entities and average number and total patients for each decile. This table can be used to assess the impact of population size on the reliability of an entity's measure score. Population size can impact reliability estimates because larger populations generally provide more stable and consistent measure scores, while smaller populations can lead to greater variation. In cases where reliability has a strong relationship to population size, reliability will be the lowest at Decile 1 and progressively increase up to Decile 10.

Table 3 sorts entities by reliability and reports the average reliability by decile. The table also includes the mean, standard deviation,<sup>7</sup> and interquartile range (IQR).<sup>8</sup> This table can be used to see the distribution of the reliability of the entities. A measure is generally considered reliable when the reliability for at least 70% of the individual entities is above 60%.

**Table 2. Reliability (Decile by Denominator – Target Population Size)**

	Overall	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
<b>Mean Target Population Size</b>	562	29	51	80	120	176	261	390	599	1,005	2,905
<b>Mean Reliability</b>	96.9	88.7	93.4	95.7	97.1	98.0	98.6	99.1	99.4	99.6	99.8
<b>Entities</b>	8,104	811	810	811	810	810	811	810	811	810	810
<b>Total Patients</b>	4,550,815	23,322	41,137	64,935	97,403	142,432	211,984	315,931	486,170	814,268	2,353,233

**Table 3. Mean Reliability (By Reliability Decile)**

Mean	SD	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	IQR
96.9	3.44	88.7	93.4	95.7	97.1	98.0	98.6	99.1	99.4	99.6	99.8	3.64

<sup>7</sup> Standard deviation is a number that shows how spread out the values in a group of numbers are. If the standard deviation is small, most values are close to the average; if it's large, the values are more spread out and indicate greater variation in performance.

<sup>8</sup> IQR, or interquartile range, is a number that shows how spread out the middle half of a group of numbers is. It measures the range between the value at the 25th percentile and the value at the 75th percentile, indicating how tightly or loosely the middle values are grouped.

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**Tables 2 and 3 Interpretation:** Reliability was estimated using a modification of the Adams<sup>9</sup>

signal-to-noise method where the reliability for each entity  $i$  is estimated by<sup>10</sup>  $100 * \frac{n_i}{\hat{\alpha} + \hat{\beta} + n_i}$  where  $n_i$  is the total number of patients for entity  $i$ , and  $\hat{\alpha}$  and  $\hat{\beta}$  are estimates of the beta binomial parameters. This method helps show how much the difference in scores between groups is due to real differences in quality rather than just random chance. In this case, the mean reliability is 96.9 and 100% of all groups had a reliability score higher than 60%. This means that the measure can reliably tell the difference between those who are performing better or worse, making it a useful tool for comparing quality of care.

Reliability
<p><b>Guiding Question:</b> Does the evidence show that changes in measure performance are due to improvements in quality of care? In other words, do the data demonstrate that variation in measure performance is linked to changes made to processes or behaviors to improve care?</p>
<p>As shown in Tables 2 and 3, 100% of the entities are well above the 60% reliability threshold that indicates that a measure score is generally reliable. The high reliability among entities demonstrates that the measure consistently reflects true differences in care and quality and can be relied upon for comparing quality-of-care between entities.</p> <p><b>Committee Member Considerations:</b> Committee members should reflect on implications of the measure's reliability on program use and what the reliability may mean for individual measured entities.</p>
<p><b>Staff Rating:</b> Met</p>

Usability
<p><b>Guiding Questions:</b> Are there any known barriers or facilitators that determine whether the person or entity could improve on the measure focus? Are these barriers addressable?</p>
<p>Based on information currently available, the measure appears to be integrated into existing reporting processes and is generally understood by participating entities. Home health agencies with at least 20 qualifying quality episodes of care receive quarterly measure reports on all their publicly reported measures. In addition, providers, through the CMS Internet Quality Improvement &amp; Evaluation System (iQIES), can run on-demand, confidential reports showing individual measure results and national averages. Home agencies may also submit questions to the Home Health Quality Reporting Program via email. Providers serving communities that experience increased vaccine hesitancy<sup>11</sup> may experience additional barriers to implementing this measure that home health facilities are not able to address.</p> <p><b>Committee Member Considerations:</b> Based on professional/personal experiences, committee members should consider any barriers to using this measure for certain measured entities as well as any potential facilitators that might promote usability within the program.</p>
<p><b>Staff Rating:</b> Met</p>

<sup>9</sup> Adams, John L., *The Reliability of Provider Profiling: A Tutorial*. Santa Monica, CA: RAND Corporation, 2009.

<sup>10</sup> Nieser, K.J. and Harris, H.S. *Comparing methods for assessing the reliability of health care quality measures*. Statistics in Medicine: 43(23), 2024.

<sup>11</sup> 2024 national survey: Attitudes and behaviors about influenza, COVID-19, respiratory syncytial virus, and pneumococcal disease. September 25, 2024. <https://www.nfid.org/resource/2024-national-survey-attitudes-and-behaviors-about-influenza-covid-19-respiratory-syncytial-virus-and-pneumococcal-disease/>

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## Data Stream Parsimony

Data Stream Parsimony
<b>Guiding Question:</b> Does the clinical data flow required for the measure promote non-burdensome data collection and reporting?
<p>The measure uses digital sources of data and relies on information that is already routinely collected in the electronic health record (EHR), requiring no additional manual data entry or special data collection processes. The measure is reported quarterly. Electronic reporting further streamlines the process and minimizes staff burden. The measure is not reported on in any other CMS programs nor are there any measures active in the Home Health Quality Reporting Program that would lead to potential reporting overlap. However, there is potential for misalignment as similar influenza immunization measures in other programs use different data sources.</p> <p><b>Committee Member Considerations:</b> Based on professional/personal experiences, committee members should reflect on any additional barriers to the clinical data flow that collection may add as well as potential mitigation strategies.</p>

## Patient Journey

Patient Health Journey
<b>Guiding Question:</b> Does the measure address the appropriate aspects of care to align with the patient health care journey?
<p>The measure emphasizes regular follow-up and influenza immunization monitoring, which are essential for preventing the spread of influenza and associated adverse impacts. This approach aligns with the patient's need for continuous, coordinated care throughout their health journey. Home health patients are more vulnerable to morbidity and mortality, so focusing on influenza immunization while they are receiving home health services is appropriate.</p> <p><b>Committee Member Considerations:</b> Based on professional/personal experiences, committee members should consider if the measure identifies an appropriate and critical time to assess continued influenza immunization received for the current flu season. Reflect on if this timepoint is meaningful to patients and any potential barriers or burdens associated with this timepoint in the care journey.</p>

## Appendix: Active Measures in the Home Health Quality Reporting Program

Measures in the Home Health Quality Reporting Program	
CMIT ID	Measure Title
00520-04-C-HHQR	Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)
00153-01-C-HHQR	CAHPS Home Health Care Survey (experience with care)
00364-01-C-HHQR	Improvement in Ambulation/Locomotion
00365-01-C-HHQR	Improvement in Bathing
00369-01-C-HHQR	Improvement in Dyspnea
00371-01-C-HHQR	Improvement in Management of Oral Medications
00366-01-C-HHQR	Improvement in Bed Transferring
00389-01-C-HHQR	<i>Influenza Immunization Received for Current Flu Season</i>
00728-05-C-HHQR	Transfer of Health Information to Provider - Post-Acute Care
00719-01-C-HHQR	Timely Initiation Of Care
00727-03-C-HHQR	Transfer of Health Information to Patient - Post-Acute Care
00121-04-C-HHQR	Changes in Skin Integrity Post-Acute Care
01698-02-C-HHQR	Discharge Function Score
01699-02-C-HHQR	COVID-19 Vaccine: Percent of Patients/Residents Who Are up to Date
00434-06-C-HHQR	Total Estimated Medicare Spending Per Beneficiary (MSPB) - Post Acute Care (PAC) HHQRP
00225-04-C-HHQR	Drug Regimen Review Conducted with Follow-Up for Identified Issues - Post Acute Care (PAC) HH QRP
00575-04-C-HHQR	Potentially Preventable 30-Day Post-Discharge Readmission Measure for HH Quality Reporting Program
01222-02-C-HHQR	Home Health Within Stay Potentially Preventable Hospitalization
00210-05-C-HHQR	Discharge to Community - Post Acute Care (PAC) Home Health (HH) Quality Reporting Program (QRP)