

## Calculating the Admission to an Institution from the Community (AIF-HH) Measure in the Health Home Core Set

### Introduction

The Medicaid health home program seeks to improve outcomes and disease management for beneficiaries with chronic conditions, including appropriate use of institutions such as nursing facilities and intermediate care facilities for individuals with intellectual disabilities (ICFs/IID). The Admission to an Institution from the Community (AIF-HH) measure assesses the number of admissions to an institutional facility among health home program enrollees age 18 and older residing in the community for at least one month during the measurement period. Table 1 provides an overview of the AIF-HH measure in the Health Home Core Set.

This technical assistance resource provides a step-by-step guide for calculating the measure denominator and numerator and is intended to supplement the technical specifications. Examples and quality assurance tips are provided to help states ensure consistency and accuracy of reporting.

Additional resources, including the Health Home Core Set Resource Manual, Measurement Period Table, and Data Quality Checklist for calculating the measure, are listed at the end of this technical assistance resource.

**Table 1. Overview of the AIF-HH Measure in the Health Home Core Set**

<b>Measure steward</b>	Centers for Medicare & Medicaid Services (CMS)
<b>Description</b>	<p>The number of admissions to an institutional facility among health home enrollees age 18 and older residing in the community for at least one month. The number of short-, medium-, or long-term admissions is reported per 1,000 enrollee months. Enrollee months reflect the total number of months each enrollee is enrolled in the program and residing in the community for at least one day of the month.</p> <p>States report three rates:</p> <ul style="list-style-type: none"> <li>• Short-term stays, from 1 to 20 days</li> <li>• Medium-term stays, from 21 to 100 days</li> <li>• Long-term stays, 101 days or more</li> </ul> <p>Each rate should be reported for four age groups:</p> <ul style="list-style-type: none"> <li>• Ages 18 to 64</li> <li>• Ages 65 to 74</li> <li>• Ages 75 to 84</li> <li>• Age 85 and older</li> </ul>
<b>Data source</b>	Administrative
<b>Institutional facility</b>	<ul style="list-style-type: none"> <li>• A Medicaid- or Medicare-certified nursing facility providing skilled nursing/medical care; rehabilitation needed due to injury, illness, or disability; or long-term care (also referred to as “custodial care”).</li> <li>• A Medicaid-certified Intermediate Care Facility for Individuals with Intellectual Disabilities (ICF/IID).</li> </ul>
<b>Continuous enrollment</b>	Enrollee must be continuously enrolled in a Health Home program for at least 30 days from August 1 of the year prior to the measurement year through July 31 of the measurement year.
<b>Required benefits</b>	Medical

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## Step-by-Step Guide to Calculating the Admission to an Institution from the Community (AIF-HH) Measure

### Calculating the Denominator

For the AIF-HH measure, the denominator is the total number of enrollee months during which the enrollee resided in the community for at least one day of the month, among enrollees who meet age and continuous enrollment criteria.

#### Step 1: Identify the Eligible Population

The eligible population includes health home enrollees who meet both age criteria and continuous enrollment requirements.

- **Age:** Enrollees must be at least 18 years of age on August 1 of the year prior to the measurement year. For FFY 2022 reporting, check that enrollees are at least 18 years of age on August 1, 2020.
- **Continuous enrollment:** Enrollees must be enrolled in an approved health home program for at least 30 days from August 1 of the year prior to the measurement year through July 31 of the measurement year. For FFY 2022 reporting, confirm that enrollees meet continuous enrollment requirement of at least 30 days of continuous enrollment between August 1, 2020 and July 31, 2021. There is no allowable gap during the continuous enrollment period.

#### Step 2: Determine Enrollee Months

Determine the number of enrollee months between August 1 of the year prior to the measurement year through July 31 of the measurement year using the same day for each enrollee for each month of each year (e.g., the 15th or last day of the month). For example, if the state tallies enrollment on the 15th of the month, and an enrollee is enrolled in the approved health home program on January 15, the enrollee contributes one enrollee month in January.

#### Step 3: Identify Community Residence

States should only count enrollee months where there was an opportunity for an admission to an institutional facility. Identify any months where the health home enrollee was residing in an institutional facility for the entire month (i.e., months during which there were no days in the month spent residing in the community) and remove these months from the denominator.

#### Step 4: Remove Enrollee Months for Enrollees who Died

Remove the month that an enrollee dies, and any subsequent months, from the denominator.

#### Step 5: Calculate the Continuous Enrollment

Remove months for enrollees that do not meet continuous enrollment criteria.

### **Denominator Example: Calculating Enrollee Months Based on Community Residence and Enrollee Date of Death**

Table 2 (next page) illustrates how to calculate the denominator (enrollee months) for three enrollees using the criteria of whether the enrollee resided in the community for at least one day of the month. In this example, all enrollees are assumed to meet age (age 18 and older) and continuous enrollment criteria for all months.

**Table 2. Assessing Enrollee Month Inclusion in AIF-HH Denominator**

Enrollee	Date of Birth	Dates of Admission and Discharge	Date of Death, if applicable	Enrollee Resided in Community for at Least One Day of the Month and Was Alive for the Entire Month?												Total Months Contributed to the Denominator	
				Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul		
Enrollee A	02/27/2000	02/12/21–04/15/21	05/15/21	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes	No	No	No	8
Enrollee B	04/03/1956	NA	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
Enrollee C	12/31/1945	12/31/20–01/15/21 05/01/21–07/31/21	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	No*	No*	9

\* = Enrollee was institutionalized for the duration of the month; NA = not applicable.

In Table 2, the examples are based on a denominator measurement period of August 1, 2020 through July 31, 2021 which corresponds to the FFY 2022 Core Set reporting cycle.

- **Enrollee A:** Enrollee A was admitted to an institutional facility from the community on February 12, 2021, discharged to the community on April 15, 2021, and died on May 15, 2021. August through February and April are included in the denominator because the enrollee resided in the community for at least one day of each month. Since the enrollee resided in an institutional facility for the full month in March, March is not included in the denominator. Since the enrollee died in May, the months of May through July are not included in the denominator. Thus, the enrollee met community residence and age criteria for 8 months.
- **Enrollee B:** Enrollee B was never admitted to an institutional facility and lived in the community from August 1, 2020 through July 31, 2021. Thus, the enrollee met community residence and age criteria for 12 months.
- **Enrollee C:** Enrollee C was admitted to an institutional facility and discharged to the community twice during the measurement period. The enrollee was first admitted to a nursing facility on December 31, 2020 and discharged to the community on January 15, 2021. Both December and January are included in the denominator because the enrollee resided in the community for at least one day of each month. The enrollee was then admitted to an ICF/IID on May 1, 2021 and discharged to the community on July 31, 2021. The second admission spanned the duration of May, June, and July, so none of these 3 months are included in the denominator. Thus, the enrollee met community residence and age criteria for 9 months.

**Step 6: Divide Enrollees into Age Stratification Groups**

To determine which age group the enrollee month will be attributed to use the enrollee’s age on the specified day of each month. The four age groups are: ages 18 to 64, ages 65 to 74, ages 75 to 84, and age 85 and older. For example, if the state tallies enrollees on the 15th of each month and an enrollee turns 65 on April 3rd of the measurement year and meets all other eligibility criteria for each month during the year, then the enrollee contributes eight enrollee months to the 18 to 64 age group category (August through March) and four enrollee months to the 65 to 74 age group category (April through July).

**Denominator Example: Attributing Enrollee Months to Each Age Group and Enrollee Date of Death**

Table 3 (next page) illustrates how to attribute enrollee months to age group(s) for three enrollees using the enrollee’s date of birth and the day of each month the state uses to tally eligible enrollment. In this example, eligible enrollment is determined by using the 15th of the month. States may use another date provided the date selected is consistent from person to person, month to month, and year to year.

**Table 3. Assigning Enrollee Months to Age Groups for AIF-HH Denominator**

Enrollee	Date of Birth	Date of Death, if applicable	Enrollee Months Contributed to AIF-HH Age Groups				Total Months Contributed to the Denominator
			Ages 18 to 64	Ages 65 to 74	Ages 75 to 84	Age 85 and Older	
Enrollee A	02/27/2000	05/15/2021	8	0	0	0	8
Enrollee B	04/03/1956	NA	8	4	0	0	12
Enrollee C	12/31/1945	NA	0	5	4	0	9

NA = not applicable; enrollee did not die during the measurement period.

In Table 3, the examples are based on a denominator measurement period of August 1, 2020 through July 31, 2021, which corresponds to the FFY 2022 Core Set reporting cycle.

- **Enrollee A:** Enrollee A turned 21 on February 27, 2021. The enrollee was admitted to an institutional facility on February 12, 2021, discharged to the community on April 15, 2021, and died on May 15, 2021. Thus, 8 months (August 2020–February 2021 and April 2021) are attributed to the ages 18 to 64 group.
- **Enrollee B:** Enrollee B turned 65 on April 3, 2021. The enrollee was never admitted to an institutional facility and lived in the community from August 1, 2020 through July 31, 2021. Thus, 8 months (August 2020–March 2021) are attributed to the ages 18 to 64 group and 4 months (April 2021–July 2021) are attributed to the ages 65 to 74 group.
- **Enrollee C:** Enrollee C turned 75 on December 31, 2020. The enrollee was admitted to an institutional facility on December 31, 2020 and was discharged to the community on January 15, 2021. The enrollee was subsequently admitted to an institutional facility on May 1, 2021 and discharged to the community on July 31, 2021. Because the state assesses enrollment on the 15th of the month, December is included in the ages 65 to 74 group for this enrollee. Thus, 5 months (August 2020–December 2020) are attributed to the ages 65 to 74 group and four months (January 2021–April 2021) are attributed to the ages 75 to 84 group.

### Calculating the Numerator

For the AIF-HH measure, the numerator is the number of institutional facility admissions (IFA) from a community residence between August 1 of the year prior to the measurement year and July 31 of the measurement year. Admissions are reported in three categories: short-term stay (1 to 20 days), medium-term stay (21 to 100 days), and long-term stay (greater than or equal to 101 days). Enrollees may have more than one IFA during the measurement year, and states should follow the guidance below to determine whether to treat multiple IFAs as a single admission or as separate admissions.

In addition, states should follow the enrollee through the end of the measurement year to calculate length of stay and determine whether the IFA qualifies for inclusion in the numerator. For FFY 2022 reporting, states should follow enrollees through December 31, 2021 when calculating the numerator.

#### Step 1: Identify Admissions to Institutions

Identify all admissions to institutions between August 1 of the year prior to the measurement year and July 31 of the measurement year.

- To identify qualifying institutional facility stays, use the UBREV and UBTOB codes included in the Institutional Facility Value Set, available at <https://www.medicaid.gov/medicaid/quality-of-care/downloads/2022-HH-non-hedis-value-set-directory.zip>.
- Include institutional facility stays with an admission date between August 1 of the year prior to the measurement year and July 31 of the measurement year.

## Step 2: Identify Admissions that are Direct Transfers from another Institution

Identify direct transfers based on the discharge date from the first institutional facility and the admission date to the second institutional facility. When there is one calendar day or less between the discharge from the first facility and admission to the second facility, this counts as a direct transfer. The original (first) IFA date should be used as the date of the new IFA in this case.

## Step 3: Remove Admissions from the Hospital that Originated from an Institution

Remove any admissions from the hospital that originated from a nursing facility or ICF/IDD. Keep the original IFA (prior to the hospital stay) date as the date of the new IFA, counting the two admissions as one. The days in the hospital should be included in the length of stay calculation, in this case.

## Step 4: Remove Admissions that Result in Death

If an enrollee dies in the institution or within one day of discharge, remove the admission from the numerator.

## Step 5: Calculate Length of Stay for Qualified Admissions

For all remaining IFAs, look for the location of the first discharge in the measurement year. For each reporting year, the last day of the measurement year is December 31.

- If the enrollee is discharged to the community, calculate length of stay (LOS) as the date of institution discharge minus the index admission date.
- If there is no discharge, then calculate LOS as the date of the last day of the measurement year minus the index admission date.
- If the enrollee is discharged to the hospital, look for the hospital discharge and location of discharge. If the enrollee is discharged from the hospital to the community, calculate LOS as the date of hospital discharge minus the IFA date.
- If the enrollee is discharged to the hospital and remains in the hospital at the end of the measurement year, exclude the admission from the numerator.
- If the enrollee is discharged to the hospital and then admitted back to the institution, repeat Step 5 until there is a discharge to the community or the end of the measurement year. When calculating the LOS, include all hospital days between the IFA date and discharge to the community or the end of the measurement year.
- If the enrollee is discharged to a different institution (i.e., a transfer), repeat Step 5 until there is a discharge to the community or the end of the measurement year. When calculating the LOS, include all institution days between the IFA date and discharge to the community or end of the measurement year.
- When counting the duration of each stay within a measurement year, include the day of entry (admission) but not the day of discharge, unless the admission and discharge occurred on the same day, in which case the number of days in the stay is equal to 1.

## Step 6: Classify Length of Stay for each Institutional Facility Admission

Classify each qualifying stay as short-term (1 to 20 days), medium-term (21 to 100 days), or long-term (greater than or equal to 101 days).

## Step 7: Assign Each Stay to an Age Group

Based on enrollee's age on the IFA date, assign each stay to one age group: ages 18 to 64, ages 65 to 74, ages 75 to 84, or age 85 and older.

## Numerator Example

Table 4 illustrates how to identify admissions that qualify for the numerator based on institutional admission criteria for six enrollees. All enrollees are assumed to meet age and continuous enrollment criteria. States may create an enrollee-level timeline to compare the dates of admission and discharge from institutions. In some cases, states may use this timeline to determine whether to remove facility admissions from the numerator. Table 4 also provides examples of enrollee-level timelines to support states in determining which admissions qualify for inclusion in the numerator.

**Table 4. Identifying Institutional Facility Admissions (IFA) for Inclusion in the Numerator**

Enrollee	Enrollee-Level Timeline	Does the IFA Qualify for the Numerator?	Length of Stay	Length of Stay Category
Enrollee A	<ul style="list-style-type: none"> <li>Admitted from home to nursing facility on August 1</li> <li>Nursing facility stay until September 30, then discharged home</li> </ul>	Yes. The IFA originated from the community on August 1 of the year prior to the measurement year.	60 days (August 1–September 30)	Medium-term stay
Enrollee B	<ul style="list-style-type: none"> <li>Admitted from home to hospital on August 1</li> <li>Hospital stay until August 5</li> <li>Discharged from hospital on August 5</li> <li>Admitted to ICF/IDD on August 5</li> <li>ICF/IDD stay until August 21, then discharged home</li> </ul>	Yes. The enrollee was admitted from the community to a hospital and then to the institutional facility; thus, the IFA should be counted in the numerator.	16 days (August 5–August 21)	Short-term stay
Enrollee C	<ul style="list-style-type: none"> <li>Admitted from home to ICF/IDD on August 1</li> <li>ICF/IDD stay until August 8, then discharged home</li> <li>Admitted from home to nursing facility on August 11</li> <li>Nursing facility stay until August 30, then discharged home</li> </ul>	Yes. There was more than one calendar day between discharge from the ICF/IDD and admission to the nursing facility; treat the admissions as two distinct IFAs when counting toward the numerator.	First IFA: 7 days (August 1–August 8)  Second IFA: 19 days (August 11–August 30)	First IFA: Short-term stay  Second IFA: Short-term stay
Enrollee D	<ul style="list-style-type: none"> <li>Admitted from home to ICF/IDD on July 1</li> <li>Discharged from ICF/IDD on August 30</li> <li>Admitted to nursing facility on August 30</li> <li>Nursing facility stay until December 1</li> </ul>	No. The original ICF/IDD admission date occurred prior to August 1 of the year prior to the measurement year.	NA	NA
Enrollee E	<ul style="list-style-type: none"> <li>Admitted from home to nursing facility May 1</li> <li>Nursing facility stay until October 15</li> <li>Discharged from nursing facility on October 15</li> <li>Admitted to hospital on October 15</li> <li>Still in hospital on last day of measurement year, December 31</li> </ul>	No. The enrollee remained in the hospital at the end of the measurement year.	NA	NA
Enrollee F	<ul style="list-style-type: none"> <li>Admitted from home to nursing facility on January 1</li> <li>Nursing facility stay until September 30</li> <li>Discharged from nursing facility on September 30</li> <li>Admitted to hospital on September 30</li> <li>Discharged from hospital on November 1</li> <li>Admitted to nursing facility November 1</li> <li>Nursing facility stay until December 20, then discharged home</li> </ul>	Yes. The enrollee was transferred from the nursing facility to the hospital and back to the nursing facility; treat the admissions as a single IFA when counting toward the numerator.	354 days (January 1–December 20)	Long-term stay

NA = not applicable; institutional facility admission does not qualify for inclusion in the numerator; thus, the stay does not have an associated length of stay.

## Calculating the Admission Rates

Calculate the admission rate for each length of stay category and age category by dividing the number of qualifying admissions (numerator) by the number of eligible enrollee months (denominator) and multiplying the result by 1,000 as follows:

- Short-term admission rate = (Number of short-term admissions / number of enrollee months) x 1,000
- Medium-term admission rate = (Number of medium-term admissions / number of enrollee months) x 1,000
- Long-term admission rate = (Number of long-term admission / number of enrollee months) x 1,000

### **AIF-HH Denominator Quality Assurance (QA) Tip**

States can conduct QA by checking for consistency across the denominators of the three admission rates (short-, medium-, and long-term). The denominator of each rate is the total number of eligible enrollee months, so states should check that the number of enrollee months for all three rates is the same.

## Technical Assistance Resources for Calculating the AIF-HH Measure

Several resources are available to help states calculate the AIF-HH measure for Health Home Core Set reporting:

- The technical specifications for the AIF-HH measure are in the FFY 2022 Health Home Core Set Resource Manual, available at <https://www.medicaid.gov/state-resource-center/medicaid-state-technical-assistance/downloads/FFY-2022-HH-Core-Set-Manual.pdf>.
- The FFY 2022 Health Home Core Set Measurement Period Tables include the date ranges that should be used for the denominator and numerators for the AIF-HH measure and is available at <https://www.medicaid.gov/state-resource-center/medicaid-state-technical-assistance/downloads/hh-core-set-measurement-period-table-2022.pdf>.
- The FFY 2022 Child, Adult, and Health Home Core Set Reporting Data Quality Checklist contains additional guidance to help states improve the completeness, accuracy, consistency, and documentation of the data reported. The Data Quality Checklist is available at <https://www.medicaid.gov/state-resource-center/medicaid-state-technical-assistance/downloads/data-quality-checklist-for-states-2022.pdf>.

## For More Information

For technical assistance related to calculating and reporting the AIF-HH measure, or other Child, Adult, and Health Home Core Set measures, please contact the TA mailbox at [MACQualityTA@cms.hhs.gov](mailto:MACQualityTA@cms.hhs.gov).