

## Use of Appropriate Medications for People With Asthma (ASM)

### Description

The percentage of members 5–64 years of age during the measurement year who were identified as having persistent asthma and who were appropriately prescribed medication during the measurement year.

### Definitions

#### Oral medication dispensing event

One prescription of an amount lasting 30 days or less. To calculate dispensing events for prescriptions longer than 30 days, divide the days supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events ( $100/30 = 3.33$ , rounded down to 3). The organization should allocate the dispensing events to the appropriate year based on the date when the prescription is filled.

Multiple prescriptions for different medications dispensed on the same day are counted as separate dispensing events. If multiple prescriptions for the same medication are dispensed on the same day, sum the days supply and divide by 30. Use the Drug ID to determine if the prescriptions are the same or different.

- *Two prescriptions* for different medications dispensed on the same day, each with a 60-day supply, equals four dispensing events (two prescriptions with two dispensing events each).
- *Two prescriptions* for different medications dispensed on the same day, each with a 15-day supply, equals two dispensing events (two prescriptions with one dispensing event each).
- *Two prescriptions* for the same medication dispensed on the same day, each with a 15-day supply, equals one dispensing event (sum the days supply for a total of 30 days).
- *Two prescriptions* for the same medication dispensed on the same day, each with a 60-day supply, equals four dispensing events (sum the days supply for a total of 120 days).

#### Inhaler dispensing event

All inhalers (i.e., canisters) dispensed on the same calendar day count as one dispensing event, regardless if they are the same medication or a different medication. For example, two inhalers dispensed on the same day count as one dispensing event. Two inhalers dispensed on different dates of service count as two dispensing events.

Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.

#### Injection dispensing event

Injections count as one dispensing event. Multiple dispensing events of the same medication or a different medication count as separate dispensing events. Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.

### Eligible Population

#### Product lines

Commercial, Medicaid (report each product line separately).

#### Ages

5–64 years by December 31 of the measurement year. Report four age stratifications and a total rate:

- 5–11 years.
- 12–18 years.
- 19–50 years.
- 51–64 years.
- Total.

The total is the sum of the age stratifications.

**Continuous enrollment**

The measurement year and the year prior to the measurement year.

**Allowable gap**

No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage during each year of continuous enrollment year.

**Anchor date**

December 31 of the measurement year.

**Benefits**

Medical. Pharmacy during the measurement year.

**Event/  
diagnosis**

Follow the steps below to identify the eligible population for the measure.

**Step 1** Identify members as having persistent asthma who met at least one of the following criteria during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.

- At least one ED visit (Table ASM-B), with asthma as the principal diagnosis (Table ASM-A).
- At least one acute inpatient claim/encounter (Table ASM-B), with asthma as the principal diagnosis (Table ASM-A).
- At least four outpatient asthma visits (Table ASM-B) on different dates of service, with asthma as one of the listed diagnoses (Table ASM-A) and at least two asthma medication dispensing events (Table ASM-C).
- At least four asthma medication dispensing events (Table ASM-C).

Table ASM-A: Codes to Identify Asthma

Description	ICD-9-CM Diagnosis
Asthma	493.0, 493.1, 493.8, 493.9

Table ASM-B: Codes to Identify Visit Type

Description	CPT	UB Revenue
Outpatient	99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99382-99386, 99392-99396, 99401-99404, 99411, 99412, 99420, 99429	051x, 0520-0523, 0526-0529, 057x-059x, 0982, 0983
Acute inpatient	99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291	010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x, 021x, 072x, 0987
ED	99281-99285	045x, 0981

Table ASM-C: Asthma Medications

Description	Prescriptions
Antiasthmatic combinations	<ul style="list-style-type: none"> <li>• Dyphylline-guaifenesin</li> <li>• Guaifenesin-theophylline</li> <li>• Potassium iodide-theophylline</li> </ul>
Antibody inhibitor	<ul style="list-style-type: none"> <li>• Omalizumab</li> </ul>
Inhaled steroid combinations	<ul style="list-style-type: none"> <li>• Budesonide-formoterol</li> <li>• Fluticasone-salmeterol</li> <li>• Mometasone-formoterol</li> </ul>
Inhaled corticosteroids	<ul style="list-style-type: none"> <li>• Beclomethasone</li> <li>• Flunisolide</li> <li>• Triamcinolone</li> <li>• Budesonide</li> <li>• Fluticasone CFC free</li> <li>• Ciclesonide</li> <li>• Mometasone</li> </ul>
Leukotriene modifiers	<ul style="list-style-type: none"> <li>• Montelukast</li> <li>• Zafirlukast</li> <li>• Zileuton</li> </ul>
Long-acting, inhaled beta-2 agonists	<ul style="list-style-type: none"> <li>• Arformoterol</li> <li>• Formoterol</li> <li>• Salmeterol</li> <li>• Indacaterol</li> </ul>
Mast cell stabilizers	<ul style="list-style-type: none"> <li>• Cromolyn</li> <li>• Nedocromil</li> </ul>
Methylxanthines	<ul style="list-style-type: none"> <li>• Aminophylline</li> <li>• Oxtriphylline</li> <li>• Dyphylline</li> <li>• Theophylline</li> </ul>
Short-acting, inhaled beta-2 agonists	<ul style="list-style-type: none"> <li>• Albuterol</li> <li>• Metaproterenol</li> <li>• Levalbuterol</li> <li>• Pirbuterol</li> </ul>

**Note:** NCQA will post a comprehensive list of medications and NDC codes to [www.ncqa.org](http://www.ncqa.org) by November 15, 2012.

**Step 2** A member identified as having persistent asthma because of at least four asthma medication dispensing events, where leukotriene modifiers were the sole asthma medication dispensed in that year, must also have at least one diagnosis of asthma (Table ASM-A), in any setting, in the same year as the leukotriene modifier (i.e., measurement year or year prior to the measurement year).

**Step 3: Required exclusions** Exclude any members who had at least one encounter, in any setting, with any code to identify a diagnosis of emphysema, COPD, cystic fibrosis or acute respiratory failure (Table ASM-E). Look as far back as possible in the member's history through December 31 of the measurement year.

**Table ASM-E: Codes to Identify Required Exclusions**

Description	ICD-9-CM Diagnosis
Emphysema	492, 518.1, 518.2
COPD	491.2, 493.2, 496, 506.4
Cystic fibrosis	277.0
Acute respiratory failure	518.81

**Administrative Specification**

**Denominator** The eligible population.

**Numerator** Dispensed at least one prescription for an asthma controller medication during the measurement year (Table ASM-D).

**Table ASM-D: Asthma Controller Medications**

Description	Prescriptions		
Antiasthmatic combinations	• Dyphylline-guaifenesin	• Guaifenesin-theophylline	• Potassium iodide-theophylline
Antibody inhibitor	• Omalizumab		
Inhaled steroid combinations	• Budesonide-formoterol	• Fluticasone-salmeterol	• Mometasone-formoterol
Inhaled corticosteroids	• Beclomethasone • Budesonide • Ciclesonide	• Flunisolide • Fluticasone CFC free	• Mometasone • Triamcinolone
Leukotriene modifiers	• Montelukast	• Zafirlukast	• Zileuton
Mast cell stabilizers	• Cromolyn	• Nedocromil	
Methylxanthines	• Aminophylline • Dyphylline	• Oxitriphylline	• Theophylline

**Note:** NCQA will post a comprehensive list of medications and NDC codes to [www.ncqa.org](http://www.ncqa.org) by November 15, 2012.

**Note**

- The HEDIS age strata for asthma measures are designed to align with both clinical practice guidelines and reporting requirements for child health quality improvement programs. Clinical guidelines specify appropriate age cohorts for measuring use of asthma medications as 5–11 years of age and 12–50 years of age to account for the differences in medication regimens for children vs. for adolescents and adults. Implementation requires further stratification of the age ranges to enable creation of comparable cohorts that align with child health populations.

## Medication Management for People With Asthma (MMA)

### Description

The percentage of members 5–64 years of age during the measurement year who were identified as having persistent asthma and were dispensed appropriate medications that they remained on during the treatment period. Two rates are reported:

1. The percentage of members who remained on an asthma controller medication for at least 50% of their treatment period.
2. The percentage of members who remained on an asthma controller medication for at least 75% of their treatment period.

### Definitions

<b>IPSD</b>	Index prescription start date. The earliest prescription dispensing date for any asthma controller medication during the measurement year.
<b>Treatment period</b>	The period of time beginning on the IPSD through the last day of the measurement year.
<b>PDC</b>	Proportion of days covered. The number of days that a member is covered by at least one asthma controller medication prescription, divided by the number of days in the treatment period.
<b>Oral medication dispensing event</b>	<p>One prescription of an amount lasting 30 days or less. To calculate dispensing events for prescriptions longer than 30 days, divide the days supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events (<math>100/30 = 3.33</math>, rounded down to 3). The organization should allocate the dispensing events to the appropriate year based on the date when the prescription is filled.</p> <p>Multiple prescriptions for different medications dispensed on the same day are counted as separate dispensing events. If multiple prescriptions for the same medication are dispensed on the same day, sum the days supply and divide by 30. Use the Drug ID to determine if the prescriptions are the same or different.</p> <ul style="list-style-type: none"> <li>• Two prescriptions for different medications dispensed on the same day, each with a 60-day supply, equals four dispensing events (two prescriptions with two dispensing events each).</li> <li>• Two prescriptions for different medications dispensed on the same day, each with a 15-day supply, equals two dispensing events (two prescriptions with one dispensing event each).</li> <li>• Two prescriptions for the same medication dispensed on the same day, each with a 15-day supply, equals one dispensing event (sum the days supply for a total of 30 days).</li> <li>• Two prescriptions for the same medication dispensed on the same day, each with a 60-day supply, equals four dispensing events (sum the days supply for a total of 120 days).</li> </ul>
<b>Inhaler dispensing event</b>	All inhalers (i.e., canisters) dispensed on the same calendar day count as one dispensing event, regardless if they are the same medication or a different medication. For example, two inhalers dispensed on the same day count as one

	dispensing event. Two inhalers dispensed on different dates of service count as two dispensing events.
	Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.
<b>Injection dispensing event</b>	Injections count as one dispensing event. Multiple dispensing events of the same medication or a different medication count as separate dispensing events. Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.
<b>Calculating number of days covered for multiple prescriptions</b>	<p>If multiple prescriptions for different medications are dispensed on the same day, calculate number of days covered by a controller medication (for the numerator) using the prescriptions with the longest days supply. For multiple different prescriptions dispensed on different days with overlapping days supply, count each day within the treatment period only once toward the numerator.</p> <p>If multiple prescriptions for the same medication are dispensed on the same or different day, sum the days supply and use the total to calculate the number of days covered by a controller medication (for the numerator). For example, three controller prescriptions for the same medication are dispensed on the same day, each with a 30-day supply, sum the days supply for a total of 90 days covered by a controller.</p> <p>Use the drug ID provided by the NDC to determine if the prescriptions are the same or different.</p>

## Eligible Population

<b>Product lines</b>	Commercial, Medicaid (report each product line separately).
<b>Ages</b>	<p>5–64 years by December 31 of the measurement year. Report four age stratifications and a total rate:</p> <ul style="list-style-type: none"> <li>• 5–11 years.</li> <li>• 12–18 years.</li> <li>• 19–50 years.</li> <li>• 51–64 years.</li> <li>• Total.</li> </ul> <p>The total is the sum of the age stratifications.</p>
<b>Continuous enrollment</b>	The measurement year and the year prior to the measurement year.
<b>Allowable gap</b>	No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage during each year of continuous enrollment year.
<b>Anchor date</b>	December 31 of the measurement year.
<b>Benefits</b>	Medical. Pharmacy during the measurement year.
<b>Event/ diagnosis</b>	Follow the steps below to identify the eligible population for the measure.

- Step 1** Identify members as having persistent asthma who met at least one of the following criteria during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.
- At least one ED visit (Table ASM-B) with asthma as the principal diagnosis (Table ASM-A).
  - At least one acute inpatient claim/encounter (Table ASM-B) with asthma as the principal diagnosis (Table ASM-A).
  - At least four outpatient asthma visits (Table ASM-B) on different dates of service, with asthma as one of the listed diagnoses (Table ASM-A) and at least two asthma medication dispensing events (Table ASM-C).
  - At least four asthma medication dispensing events (Table ASM-C).
- Step 2** A member identified as having persistent asthma because of at least four asthma medication dispensing events, where leukotriene modifiers were the sole asthma medication dispensed in that year, must also have at least one diagnosis of asthma (Table ASM-A), in any setting, in the same year as the leukotriene modifier (i.e., measurement year or year prior to the measurement year).
- Step 3: Required exclusions**
- Members who had at least one encounter in any setting, with any code to identify a diagnosis of emphysema, COPD, cystic fibrosis or acute respiratory failure (Table ASM-E). Look as far back as possible in the member's history through December 31 of the measurement year.
  - Members who have no asthma controller medications (Table ASM-D) dispensed during the measurement year.

### Administrative Specification

**Denominator** The eligible population.

#### Numerators

**Medication Compliance 50%** The number of members who achieved a PDC of at least 50% for their asthma controller medications (Table ASM-D) during the measurement year.

**Medication Compliance 75%** The number of members who achieved a PDC of at least 75% for their asthma controller medications (Table ASM-D) during the measurement year.

Follow the steps below to identify numerator compliance.

- Step 1** Identify the IPSD. The IPSD is the earliest dispensing event for any asthma controller medication (Table ASM-D) during the measurement year.
- Step 2** To determine the treatment period, calculate the number of days from the IPSD (inclusive) to the end of the measurement year.
- Step 3** Count the days covered by at least one prescription for an asthma controller medication (Table ASM-D) during the treatment period. To ensure that the days supply does not exceed the treatment period, subtract any days supply that extends beyond December 31 of the measurement year.

**Step 4** Calculate the member's PDC using the following equation.

$$\frac{\text{Total Days Covered by a Controller Medication in the Treatment Period (step 3)}}{\text{Total Days in Treatment Period (step 2)}}$$

**Medication Compliance 50%** Sum the number of members whose PDC is  $\geq 50\%$  for their treatment period.

**Medication Compliance 75%** Sum the number of members whose PDC is  $\geq 75\%$  for their treatment period.

#### Note

- *The HEDIS age strata for asthma measures are designed to align with both clinical practice guidelines and reporting requirements for child health quality improvement programs. Clinical guidelines specify appropriate age cohorts for measuring use of asthma medications as 5–11 years of age and 12–50 years of age, to account for the differences in medication regimens for children vs. for adolescents and adults. Implementation requires further stratification of the age ranges, to enable creation of comparable cohorts that align with child health populations.*

## Asthma Medication Ratio (AMR)

### SUMMARY OF CHANGES TO HEDIS 2013

#### Description

The percentage of members 5–64 years of age who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year.

#### Definitions

##### Oral medication dispensing event

One prescription of an amount lasting 30 days or less. To calculate dispensing events for prescriptions longer than 30 days, divide the days supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events ( $100/30 = 3.33$ , rounded down to 3). The organization should allocate the dispensing events to the appropriate year based on the date when the prescription is filled.

Multiple prescriptions for different medications dispensed on the same day are counted as separate dispensing events. If multiple prescriptions for the same medication are dispensed on the same day, sum the days supply and divide by 30. Use the Drug ID to determine if the prescriptions are the same or different.

- *Two prescriptions* for different medications dispensed on the same day, each with a 60-day supply, equals four dispensing events (two prescriptions with two dispensing events each).
- *Two prescriptions* for different medications dispensed on the same day, each with a 15-day supply, equals two dispensing events (two prescriptions with one dispensing event each).
- *Two prescriptions* for the same medication dispensed on the same day, each with a 15-day supply, equals one dispensing event (sum the days supply for a total of 30 days).
- *Two prescriptions* for the same medication dispensed on the same day, each with a 60-day supply, equals four dispensing events (sum the days supply for a total of 120 days).

##### Inhaler dispensing event

All inhalers (i.e., canisters) dispensed on the same calendar day count as one dispensing event, regardless if they are the same medication or a different medication. For example, two inhalers dispensed on the same day count as one dispensing event. Two inhalers dispensed on different dates of service count as two dispensing events.

Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.

##### Injection dispensing event

Injections count as one dispensing event. Multiple dispensing events of the same medication or a different medication count as separate dispensing events. Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.

#### Eligible Population

**Product lines** Commercial, Medicaid (report each product line separately).

<b>Ages</b>	<p>5–64 years by December 31 of the measurement year. Report four age stratifications and a total rate:</p> <ul style="list-style-type: none"> <li>• 5–11 years.</li> <li>• 12–18 years.</li> <li>• 19–50 years.</li> <li>• 51–64 years.</li> <li>• Total.</li> </ul> <p>The total is the sum of the age stratifications.</p>
<b>Continuous enrollment</b>	The measurement year and the year prior to the measurement year.
<b>Allowable gap</b>	No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage during each year of continuous enrollment year.
<b>Anchor date</b>	December 31 of the measurement year.
<b>Benefits</b>	Medical. Pharmacy during the measurement year.
<b>Event/diagnosis</b>	Follow the steps below to identify the eligible population.
<b>Step 1</b>	<p>Identify members as having persistent asthma who met at least one of the following criteria during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.</p> <ul style="list-style-type: none"> <li>• At least one ED visit (Table ASM-B), with asthma as the principal diagnosis (Table ASM-A).</li> <li>• At least one acute inpatient claim/encounter (Table ASM-B), with asthma as the principal diagnosis (Table ASM-A).</li> <li>• At least four outpatient asthma visits (Table ASM-B) on different dates of service, with asthma as one of the listed diagnoses (Table ASM-A) and at least two asthma medication dispensing events (Table ASM-C).</li> <li>• At least four asthma medication dispensing events (Table ASM-C).</li> </ul>
<b>Step 2</b>	A member identified as having persistent asthma because of at least four asthma medication dispensing events where leukotriene modifiers were the sole asthma medication dispensed in that year, must also have at least one diagnosis of asthma (Table ASM-A), in any setting, in the same year as the leukotriene modifier (i.e., the measurement year or the year prior to the measurement year).
<b>Step 3: Required exclusions</b>	<ul style="list-style-type: none"> <li>• Members who had at least one encounter in any setting, with any code to identify a diagnosis of emphysema, COPD, cystic fibrosis or acute respiratory failure (Table ASM-E). Look as far back as possible in the member's history through December 31 of the measurement year.</li> <li>• Members who have no asthma controller or reliever medications dispensed (Table AMR-A) during the measurement year.</li> </ul>

**Administrative Specification**

<b>Denominator</b>	The eligible population.
<b>Numerator</b>	The number of members who have a medication ratio of 0.50 or greater during the measurement year.

- Step 1** For each member, count the units of controller medications (Table ASM-C) dispensed during the measurement year. Each dispensing event is one unit.
- Step 2** For each member, count the units of reliever medications (Table ASM-C) dispensed during the measurement year. Each dispensing event is one unit.
- Step 3** For each member, sum the units calculated in step 1 and step 2 to determine units of total asthma medications.

**Step 4** Calculate the member's PDC using the following equation. Round (using the .5 rule) to two decimal places.

$$\frac{\text{Total Days Covered by a Controller Medication in the Treatment Period (step 3)}}{\text{Total Days in Treatment Period (step 2)}}$$

**Medication Compliance 50%** Sum the number of members whose PDC is  $\geq 50\%$  for their treatment period.

**Medication Compliance 75%** Sum the number of members whose PDC is  $\geq 75\%$  for their treatment period.

**Table AMR-A: Asthma Controller and Reliever Medications**

Asthma Controller Medications	
Description	Prescriptions
Antiasthmatic combinations	<ul style="list-style-type: none"> <li>• Dyphylline-guaifenesin</li> <li>• Guaifenesin-theophylline</li> <li>• Potassium iodide-theophylline</li> </ul>
Antibody inhibitors	<ul style="list-style-type: none"> <li>• Omalizumab</li> </ul>
Inhaled steroid combinations	<ul style="list-style-type: none"> <li>• Budesonide-formoterol</li> <li>• Fluticasone-salmeterol</li> <li>• Mometasone-formoterol</li> </ul>
Inhaled corticosteroids	<ul style="list-style-type: none"> <li>• Beclomethasone</li> <li>• Budesonide</li> <li>• Ciclesonide</li> <li>• Flunisolide</li> <li>• Fluticasone CFC free</li> <li>• Mometasone</li> <li>• Triamcinolone</li> </ul>
Leukotriene modifiers	<ul style="list-style-type: none"> <li>• Montelukast</li> <li>• Zafirlukast</li> <li>• Zileuton</li> </ul>
Mast cell stabilizers	<ul style="list-style-type: none"> <li>• Cromolyn</li> <li>• Nedocromil</li> </ul>
Methylxanthines	<ul style="list-style-type: none"> <li>• Aminophylline</li> <li>• Dyphylline</li> <li>• Oxtriphylline</li> <li>• Theophylline</li> </ul>
Asthma Reliever Medications	
Description	Prescriptions
Short-acting, inhaled beta-2 agonists	<ul style="list-style-type: none"> <li>• Albuterol</li> <li>• Levalbuterol</li> <li>• Metaproterenol</li> <li>• Pirbuterol</li> </ul>

**Note:** NCQA will post a comprehensive list of medications and NDC codes to [www.ncqa.org](http://www.ncqa.org) by November 15, 2012.

**Note**

The HEDIS age strata for asthma measures are designed to align with both clinical practice guidelines and reporting requirements for child health quality improvement programs. Clinical guidelines specify appropriate age cohorts for measuring use of asthma medications as 5–11 years and 12–50 years, to account for differences in medication regimens for children vs. regimens for adolescents and adults. Implementation requires further stratification of age ranges to enable creation of comparable cohorts that align with child health populations.