



## Complete Summary

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### TITLE

Asthma care: percent of enrollees with a diagnosis of asthma with at least one emergency department encounter with a principal diagnosis of asthma (MEDDIC-MS).

### SOURCE(S)

Department of Health and Family Services, Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS. Medicaid encounter data driven improvement core measure set. Madison (WI): State of Wisconsin; 2003 Jan 1. 47 p.

## Brief Abstract

### DESCRIPTION

This measure tracks the utilization of hospital emergency department (ED) care for asthma among Wisconsin Medicaid/BadgerCare enrollees.

### RATIONALE

This monitoring measure is useful for chronic disease management programs, targeted case management and overall program operations. It also can be used as an adjunct data source for other measures. When the numerator is compared to fee-for-service (FFS) data for the same criteria, it is useful for assessing the relative effectiveness of the FFS and managed care delivery systems with respect to quality of care for chronic conditions, which are sensitive to ambulatory management.

As an indicator of the effect of both process and outcome of primary care, the measure has shown that improved access to primary care in managed care has led to more frequent diagnosis of asthma among managed care enrollees than in FFS -- by an approximately two-to-one margin. Meanwhile, utilization of inpatient and emergency department (ED) care for asthma during the same period was roughly half that in FFS during the same period.

### PRIMARY CLINICAL COMPONENT

Asthma; emergency department (ED) care

### DENOMINATOR DESCRIPTION

Medicaid/BadgerCare enrollees in each age cohort (birth to age 20 years and over age 21 years) continuously enrolled with the same health maintenance organization (HMO) for at least 304 days immediately prior to the measure end date with no more than one gap in enrollment of not more than 45 days. The enrollee must have a total of not less than 259 enrolled days in the look-back period.

Include unduplicated enrollees in each age cohort with encounter primary diagnosis codes for asthma (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] 493.x).

#### NUMERATOR DESCRIPTION

The number of enrollees in the denominator with at least one emergency department (ED) encounter with a principal diagnosis of asthma

### Evidence Supporting the Measure

#### PRIMARY MEASURE DOMAIN

Outcome

#### SECONDARY MEASURE DOMAIN

Process

#### EVIDENCE SUPPORTING THE MEASURE

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

### Evidence Supporting Need for the Measure

#### NEED FOR THE MEASURE

Use of this measure to improve performance

#### EVIDENCE SUPPORTING NEED FOR THE MEASURE

Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS data book. Medicaid encounter data driven improvement core measure set. Vol. 1, 2002 HMO aggregate performance data. Wisconsin Medicaid and BadgerCare programs. Milwaukee (WI): Wisconsin Department of Health and Family Services; 2004 Feb 1. 31 p.

Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS data book. Medicaid encounter data driven improvement core measure set. Vol. 2, 2002 HMO performance data. Medicaid program data and BadgerCare program data compared. Madison (WI): Wisconsin Department of Health and Family Services; 2004 Feb 1. 25 p.

Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS data book. Medicaid encounter data driven improvement core measure set. Vol. 3, 2002 HMO-specific performance data. Wisconsin Medicaid and BadgerCare programs. Madison (WI): Wisconsin Department of Health and Family Services; 2004 Feb 1. 36 p.

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Decision-making by consumers about health plan/provider choice  
External oversight/Medicaid  
External oversight/State government program  
Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Emergency Medical Services  
Managed Care Plans

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses  
Physicians

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

### TARGET POPULATION AGE

All ages are included in the measure.

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

### INCIDENCE/PREVALENCE

Approximately 5% of Wisconsin Medicaid/BadgerCare health maintenance organization/managed care organization (HMO/MCO) enrollees are diagnosed with asthma.

### EVIDENCE FOR INCIDENCE/PREVALENCE

Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS data book. Medicaid encounter data driven improvement core measure set. Vol. 1, 2002 HMO aggregate performance data. Wisconsin Medicaid and BadgerCare programs. Milwaukee (WI): Wisconsin Department of Health and Family Services; 2004 Feb 1. 31 p.

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### ASSOCIATION WITH VULNERABLE POPULATIONS

Although there remains much to learn about the causes of asthma, it is clear that the increasing severity of the disease in the U.S. is concentrated in urban centers among children who live in poor conditions. These children are more likely to be exposed to allergens and air pollution episodes and to have sporadic medical care. Current research suggests that controlling allergens in the indoor environment, improving urban air quality, and providing access to a primary medical provider for low-income children would do much to reduce rates of asthma.

### EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Childhood asthma. [internet]. New York (NY): Center for Children's Health and the Environment; 2002 [updated 2002 Jun 01]; [7 p].

### BURDEN OF ILLNESS

Asthma is a disease of high prevalence and morbidity, with a low but persistent rate of mortality. In the United States, the prevalence of asthma and associated death rates have risen by almost 50% over the past decade.

### EVIDENCE FOR BURDEN OF ILLNESS

Homer CJ. Asthma disease management. N Engl J Med 1997 Nov 13;337(20):1461-3. [PubMed](#)

## UTILIZATION

In 2002, among Medicaid/BadgerCare enrollees, use of emergency department (ED) care and inpatient care for asthma was 24% and 5.4%, respectively.

## EVIDENCE FOR UTILIZATION

Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS data book. Medicaid encounter data driven improvement core measure set. Vol. 1, 2002 HMO aggregate performance data. Wisconsin Medicaid and BadgerCare programs. Milwaukee (WI): Wisconsin Department of Health and Family Services; 2004 Feb 1. 31 p.

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## COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

## IOM CARE NEED

Living with Illness

## IOM DOMAIN

Effectiveness

Data Collection for the Measure

## CASE FINDING

Users of care only

## DESCRIPTION OF CASE FINDING

Medicaid/BadgerCare enrollees in each age cohort (birth to age 20 years and over age 21 years) continuously enrolled with the same health maintenance organization (HMO) for at least 304 days immediately prior to the measure end date\* with no more than one gap in enrollment of not more than 45 days. The enrollee must have a total of not less than 259 enrolled days in the look-back period.\*\*

Include unduplicated enrollees in each age cohort with encounter primary diagnosis codes for asthma (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] 493.x).

\*Measure end date: The last date by which measured services can be rendered to be included in the measure numerator. This is the date from which the look-back period begins. Typically, measure end date is December 31 if a calendar year is to be measured, but it may be any date specified by the Chief Medical Officer according to program needs.

\*\*Measure look-back period: 12 months (365 days) from the measure end date. Services provided prior to enrollment in the HMO are not counted in the numerator. The measure look-back period may vary as specified by the Chief Medical Officer according to program needs.

Measure data extraction date: The date(s) determined by the department for extraction of data from the data warehouse for the purposes of reporting the measure. This will be at least 182 days after the measure end date.

#### DENOMINATOR SAMPLING FRAME

Patients associated with provider

#### DENOMINATOR (INDEX) EVENT

Clinical Condition  
Patient Characteristic

#### DENOMINATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Medicaid/BadgerCare enrollees in each age cohort (birth to age 20 years and over age 21 years) continuously enrolled with the same health maintenance organization (HMO) for at least 304 days immediately prior to the measure end date with no more than one gap in enrollment of not more than 45 days. The enrollee must have a total of not less than 259 enrolled days in the look-back period.

Include unduplicated enrollees in each age cohort with encounter primary diagnosis codes for asthma (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] 493.x).

Exclusions  
Unspecified

#### NUMERATOR INCLUSIONS/EXCLUSIONS

#### Inclusions

The number of enrollees in the denominator with at least one emergency department (ED) encounter with a principal diagnosis of asthma

Refer to the original measure documentation for International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), Current Procedure Terminology (CPT), and Uniform Billing-92 (UB-92) codes.

#### Exclusions

Unspecified

#### DENOMINATOR TIME WINDOW

Time window precedes index event

#### NUMERATOR TIME WINDOW

Encounter or point in time

#### DATA SOURCE

Administrative data

#### LEVEL OF DETERMINATION OF QUALITY

Not Individual Case

#### OUTCOME TYPE

Proxy for Outcome

#### PRE-EXISTING INSTRUMENT USED

Unspecified

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a lower score

#### ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors)

## DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

Two age cohorts are reported:

- Birth to age 20 years
- Over age 21 years

## STANDARD OF COMPARISON

External comparison of time trends  
Internal time comparison

## Evaluation of Measure Properties

### EXTENT OF MEASURE TESTING

This measure was tested and validated by an independent third party and subject to internal review in 2002.

### EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Innovative Resources Group (IRG). Measure testing/validation reports for MEDDIC-MS. Brookfield (WI): Innovative Resources Group (IRG); 2002.

## Identifying Information

### ORIGINAL TITLE

Asthma care. Asthma ED (emergency department) care.

### MEASURE COLLECTION

[MEDDIC-MS \(Medicaid Encounter Data Driven Improvement Core Measure Set\). Rapid-cycle performance improvement measures system for Medicaid managed care.](#)

### MEASURE SET NAME

[MEDDIC-MS \(Medicaid Encounter Data Driven Improvement Core Measure Set\). Measures applicable to AFDC/HS \(Medicaid\) and SCHIP \(BadgerCare\).](#)

### MEASURE SUBSET NAME

[Monitoring Measures](#)

### DEVELOPER

State of Wisconsin, Department of Health and Family Services

## ADAPTATION

Measure was not adapted from another source.

## RELEASE DATE

2003 Jan

## MEASURE STATUS

This is the current release of the measure.

## SOURCE(S)

Department of Health and Family Services, Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS. Medicaid encounter data driven improvement core measure set. Madison (WI): State of Wisconsin; 2003 Jan 1. 47 p.

## MEASURE AVAILABILITY

The individual measure, "Asthma care. Asthma ED (emergency department) care," is published in "Medicaid Encounter Data Driven Improvement Core Measure Set (MEDDIC-MS)."

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## COMPANION DOCUMENTS

The following are available:

- Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS data book. Medicaid encounter data driven improvement core measure set. Vol. 1, 2002 HMO aggregate performance data. Wisconsin Medicaid and BadgerCare programs. Madison (WI): Wisconsin Department of Health and Family Services; 2004 Feb 1. 31 p. This document is available in Portable Document Format (PDF) from the [Wisconsin Medicaid Managed Care Web site](#).
- Division of Health Care Financing, Bureau of Managed Health Care Programs. MEDDIC-MS data book. Medicaid encounter data driven improvement core measure set. Vol. 2, 2002 HMO performance data. Medicaid program data and BadgerCare program data compared. Madison (WI): Wisconsin Department of

- Health and Family Services; 2004 Feb 1. 25 p. This document is available in PDF from the [Wisconsin Medicaid Managed Care Web site](#).
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#### NQMC STATUS

This NQMC summary was completed by ECRI on May 25, 2004. The information was verified by the measure developer on May 27, 2004.

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Date Modified: 10/25/2004

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