



## Complete Summary

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### TITLE

Blood lead toxicity screening: percentage of enrolled children who had a blood lead screening performed with a date of service between ages 17 and 28 months (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 uses current and previous (if applicable) health maintenance organization (HMO) claims/encounter data, fee-for-service (FFS) Medicaid Evaluation & Decision Support (MEDS) data and Division of Public Health (DPH) lead poisoning prevention program data to determine the percent of children who obtain a blood lead test by approximately age two years.

See the related NQMC measure summary, [Blood lead toxicity screening: percentage of enrolled children who had a blood lead screening performed with a date of service between ages 6 and 16 months \(MEDDIC-MS\)](#).

### RATIONALE

Blood lead toxicity screening is a federal requirement for all Medicaid recipients. Exposure to and ingestion of environmental lead is known to cause damage to the neurological systems in humans and is particularly damaging to young children whose bodies are still developing. Blood lead levels as low as 10 micrograms/dL are associated with harmful effects on children's learning and behavior. Wisconsin Medicaid/BadgerCare lead toxicity screening standards are consistent with recommendations of the Centers for Disease Control and Prevention (CDC).

According to CDC, screening efforts should be concentrated on the 0-24 months age group because, "children's blood lead levels increase rapidly at age 6-12 months and peak at 18-24 months." Also, "In general, screening should focus on children younger than 72 months of age, particularly on children younger than 36 months of age. Young children engage in the most hand-to-mouth activity (and therefore are at highest risk for lead exposure) and have the most rapidly

developing nervous systems, making them more vulnerable to the effects of lead."

#### PRIMARY CLINICAL COMPONENT

Blood lead toxicity; screening

#### DENOMINATOR DESCRIPTION

Medicaid/BadgerCare enrollees age 28 to 30 months of age as of the measure end date who were continuously enrolled in the health maintenance organization (HMO) for at least ten months (304 days) prior to the measure end date with no more than one break in enrollment of up to 45 days. There must be at least 259 days of enrollment in the look-back period.

#### NUMERATOR DESCRIPTION

The number of children in the denominator who had a blood lead screening performed with a date of service between ages 17 and 28 months (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

### Evidence Supporting the Measure

#### PRIMARY MEASURE DOMAIN

Process

#### SECONDARY MEASURE DOMAIN

Access

#### EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

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

#### NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Recommendations for blood lead screening of young children enrolled in Medicaid: targeting a group at high risk.](#)

### Evidence Supporting Need for the Measure

#### NEED FOR THE MEASURE

Use of this measure to improve performance

## EVIDENCE SUPPORTING NEED FOR THE MEASURE

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.

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

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

Children age 17 to 28 months at the date of service and age 28 to 30 months at the measure end date

#### TARGET POPULATION GENDER

Either male or female

#### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

### Characteristics of the Primary Clinical Component

#### INCIDENCE/PREVALENCE

The Healthy People 2010 goal related to blood lead toxicity is to "reduce the prevalence of blood lead levels exceeding 10 micrograms/dL to zero in children aged 1 to 5." Baseline data cited is from the National Health and Nutritional Examination Survey (NHANES), 1988-91, which supports the estimate that more than 1.7 million children aged 1.5 years have blood lead levels of 10 micrograms/dL or greater.

Wisconsin Medicaid/BadgerCare health maintenance organization (HMO) blood lead screening rates for 1999 showed that 44.7% of eligible 2 year olds (17-28 months) were screened.

Of the blood lead screens reported in Wisconsin in 1999 for two year olds, 71.7% were below 10 micrograms/dL and 7.9% had levels of 20 micrograms/dL or higher.

#### EVIDENCE FOR INCIDENCE/PREVALENCE

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.

#### ASSOCIATION WITH VULNERABLE POPULATIONS

Low income children are at high risk for blood lead toxicity due to environmental exposure.

#### EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Childhood lead poisoning. [internet]. Atlanta (GA): Centers for Disease Control and Prevention; 2003 Mar 6 [cited 2003 Jun 09].

## BURDEN OF ILLNESS

Developmental delay and other neurological problems have been associated with blood lead toxicity in young children.

## EVIDENCE FOR BURDEN OF ILLNESS

U.S. General Accounting Office. Lead poisoning: federal health care programs are not effectively reaching at risk children [GAO/HEHS-99-18]. Washington (DC): U.S. General Accounting Office; 1999 Jan 1. 109 p.

## UTILIZATION

Unspecified

## COSTS

Unspecified

## Institute of Medicine National Healthcare Quality Report Categories

## IOM CARE NEED

Staying Healthy

## IOM DOMAIN

Effectiveness  
Timeliness

## Data Collection for the Measure

## CASE FINDING

Both users and nonusers of care

## DESCRIPTION OF CASE FINDING

Medicaid/BadgerCare enrollees age 28 to 30 months of age as of the measure end date who were continuously enrolled in the health maintenance organization (HMO) for at least ten months (304 days) prior to the measure end date with no more than one break in enrollment of up to 45 days. There must be at least 259 days of enrollment in the look-back period.

## DENOMINATOR SAMPLING FRAME

Enrollees or beneficiaries

## DENOMINATOR (INDEX) EVENT

## Patient Characteristic

### DENOMINATOR INCLUSIONS/EXCLUSIONS

#### Inclusions

Medicaid/BadgerCare enrollees age 28 to 30 months of age as of the measure end date who were continuously enrolled in the health maintenance organization (HMO) for at least ten months (304 days) prior to the measure end date with no more than one break in enrollment of up to 45 days. There must be at least 259 days of enrollment in the look-back period.

#### Exclusions

Unspecified

### NUMERATOR INCLUSIONS/EXCLUSIONS

#### Inclusions

The number of children in the denominator who had a blood lead screening performed with a date of service between ages 17 and 28 months

Criteria: encounter with Current Procedure Terminology-4 (CPT-4)/CPT 2001 code 83655 or Division of Public Health (DPH) record of a blood lead test. Codes for new screening procedures that are equivalent to the blood lead test will be added to the numerator specification upon approval and included in the calculation of the screening performance rate.

#### Exclusions

Count only those tests administered for children age 17 to 28 months at the date of service. Lead screens provided before age 17 months are included in the numerator of the related NQMC measure summary, [Blood lead toxicity screening: percentage of enrolled children who had a blood lead screening performed with a date of service between ages 6 and 16 months \(MEDDIC-MS\)](#).

### DENOMINATOR TIME WINDOW

Time window precedes index event

### NUMERATOR TIME WINDOW

Fixed time period

### DATA SOURCE

Administrative data  
State public health data

### LEVEL OF DETERMINATION OF QUALITY

Individual Case

## PRE-EXISTING INSTRUMENT USED

Unspecified

## Computation of the Measure

### SCORING

Rate

### INTERPRETATION OF SCORE

Better quality is associated with a higher score

### ALLOWANCE FOR PATIENT FACTORS

Unspecified

### STANDARD OF COMPARISON

External comparison of time trends  
Internal time comparison  
Prescriptive standard

### PRESCRIPTIVE STANDARD

Program-wide 2002 aggregate baselines and 2004 performance goals (with input from participating health maintenance organizations [HMOs] based on aggregate baselines) to be established. Goals will be ramped up over time to progressively drive performance improvement.

### EVIDENCE FOR PRESCRIPTIVE STANDARD

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.

## 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

Blood lead toxicity screening: age one and two years.

### 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

[Targeted Performance Improvement Measures \(TPIM\)](#)

### 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, "Blood Lead Toxicity Screening: Age One and Two Years," 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](#).
- 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. This document is available in PDF from the [Wisconsin Medicaid Managed Care Web site](#).

#### NQMC STATUS

This NQMC summary was completed by ECRI on January 30, 2004. The information was verified by the measure developer on February 9, 2004.

#### COPYRIGHT STATEMENT

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