Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Prevention and management of obesity for children and adolescents: percentage of patients who have an annual BMI measured.

Source(s)

Fitch A, Fox C, Bauerly K, Gross A, Heim C, Judge-Dietz J, Kaufman T, Krych E, Kumar S, Landin D, Larson J, Leslie D, Martens N, Monaghan-Beery N, Newell T, O'Connor P, Spaniol A, Thomas A, Webb B. Prevention and management of obesity for children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [110 references]

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measures is used to assess the percentage of patients ages 2 through 17 years who have an annual body mass index (BMI) measured.

Rationale

The priority aim addressed by this measure is to increase the percentage of patients ages 2 through 17 years who have an annual screening for obesity using body mass index (BMI) and their BMI percentile status is determined.

Childhood obesity has risen at an alarming pace over the past decade, making obesity the most prevalent health problem among children in the majority of the developed countries. Since 1980, obesity prevalence among children and adolescents in the United States has almost tripled. One in three children (31.7%) is

overweight or obese and approximately 17% (or 12.5 million) of children and adolescents 2 to 19 years of age are obese.

The causes of obesity are complex and multifactorial. Research on childhood obesity has demonstrated the role of race, ethnicity and social factors such as family income, family structure, and neighborhood safety and amenities. Studies show links between environmental influences, genetics, age, sleep and medication, bottle versus breastfeeding, comorbidities and social relationships, as well as health behaviors such as eating patterns, physical activity levels and screen time. In addition to individual traits and behaviors, the recent rise in obesity on a national level can be attributed to societal changes in eating habits, food and beverage availability, and less-active lifestyles, which has shifted the balance of energy intake and expenditure.

This societal shift has implications for the health of a generation. Childhood obesity is associated with major morbidity. Moreover, it is linked to obesity in adulthood and is a predictor of significant health consequences in early adulthood. Multiple studies have shown that the risk of adult obesity is at least twice as high for obese children as for non-obese children. One study showed that as many as 80% of 10 to 15-year-old overweight children become obese adults.

The body of research linking obesity in childhood to short- and long-term health consequences and obesity in adulthood is increasing. Obesity is associated with hypertension, dyslipidemia, atheroma, type 2 diabetes mellitus, the metabolic syndrome, systemic inflammation and oxidative stress. Concern is growing for the future health of our nation, the economic burden and the effect obesity will have on our health care system.

While this problem spans all age ranges, childhood obesity can be considered unique in its diagnostic, treatment and follow-up considerations. Identification and early intervention of overweight and obesity is critical in preventing or delaying the onset of chronic diseases.

Evidence for Rationale

Fitch A, Fox C, Bauerly K, Gross A, Heim C, Judge-Dietz J, Kaufman T, Krych E, Kumar S, Landin D, Larson J, Leslie D, Martens N, Monaghan-Beery N, Newell T, O'Connor P, Spaniol A, Thomas A, Webb B. Prevention and management of obesity for children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [110 references]

Molnar D, Erhardt E. Severe childhood obesity: what are the keys for management?. Int J Pediatr Obes. 2008 Oct 1;3 Suppl 2:9-14. PubMed

Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of obesity in the United States, 2009-2010. NCHS Data Brief. 2012 Jan;(82):1-8. PubMed

Pekruhn C. Preventing childhood obesity: a school health policy guide. Arlington (VA): National Association of State Boards of Education (NASBE); 2009. 24 p. [66 references]

Roberts M. Clinical briefing document. Endocrinologic and Metabolic Drugs Advisory Committee Meeting. New drug application 22580: VI-0521 QNEXA (phentermine/topiramate). Rockville (MD): U.S. Food and Drug Administration (FDA); 2012 Feb 22. various p.

Serdula MK, Ivery D, Coates RJ, Freedman DS, Williamson DF, Byers T. Do obese children become obese adults? A review of the literature. Prev Med. 1993 Mar;22(2):167-77. [47 references] PubMed

Solving the problem of childhood obesity within a generation. Report to the President. Washington (DC): White House Task Force on Childhood Obesity; 2010 May. 120 p. [338 references]

Primary Health Components

Obesity; body mass index (BMI) measurement; children; adolescents

Denominator Description

Total number of patients ages 2 through 17 years in the clinic's primary care pediatrics panel (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of patients ages 2 through 17 years who have an annual body mass index (BMI) measured

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

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

Additional Information Supporting Need for the Measure

- There are significant racial, ethnic and socioeconomic disparities in obesity prevalence among United States (U.S.) children and adolescents. Children are more racially and ethnically diverse than the nation's population as a whole, and obesity prevalence rates are highest in this group. Mexican-American and African-American children ages 6 to 11 are more likely to be obese or overweight than white children. Almost 43% of Mexican-American children and almost 37% of African-American children are obese or overweight, compared with about 32% of white children. For two to four year olds, the highest rates of obesity are found in American Indian and Alaska Native (20.7%) and Hispanic (17.9%) children. In 2007 to 2008, Hispanic boys ages 2 to 19 years were significantly more likely to be obese than non-Hispanic white boys, and non-Hispanic black girls were significantly more likely to be obese than non-Hispanic white girls.
- The burden of obesity is greater for lower socioeconomic groups. Children living in families under 200% of the Federal Poverty Level are more likely than their more affluent counterparts to be overweight or at risk for being overweight. Children covered by Medicaid are nearly six times more likely to be treated for a diagnosis of obesity than children covered by private insurance (1,115 per 100,000 vs. 195 per 100,000). Low income families have greater obstacles to overcome in addressing the problem of obesity. Often due to limited finances, transportation and other barriers, low-income families have less access to healthy food choices and safe, affordable opportunities for physical activity for their children.

Evidence for Additional Information Supporting Need for the Measure

Childhood obesity: harnessing the power of public and private partnerships. Arlington (VA): Association of State and Territorial Health Officials (ASTHO); 2007 Aug. 22 p.

Fitch A, Fox C, Bauerly K, Gross A, Heim C, Judge-Dietz J, Kaufman T, Krych E, Kumar S, Landin D, Larson J, Leslie D, Martens N, Monaghan-Beery N, Newell T, O'Connor P, Spaniol A, Thomas A, Webb B. Prevention and management of obesity for children and adolescents. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [110 references]

Ogden CL, Carroll MD. Prevalence of overweight, obesity, and extreme obesity among adults: United States, trends 1960â€"1962 through 2007â€"2008. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Health Statistics; 2010 Jun. 6 p.

Extent of Measure Testing

Unspecified

National Guideline Clearinghouse Link

Prevention and management of obesity for children and adolescents.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Clinical Practice or Public Health Sites

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age 2 to 17 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

The time frame pertaining to data collection is monthly, quarterly, semi-annually or annually.

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Total number of patients ages 2 through 17 years in the clinic's primary care pediatrics panel

Data Collection: Query electronic medical records for the total number of patients in the clinic's primary care pediatrics panel who were ages 2 through 17 in the last 12 months from the measurement period date. The measurement period can be monthly, quarterly, semi-annually or annually.

Exclusions

Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of patients ages 2 through 17 years who have an annual body mass index (BMI) measured

Exclusions

Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Electronic health/medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Percentage of patients who have an annual body mass index (BMI) measured.

Measure Collection Name

Prevention and Management of Obesity for Children and Adolescents

Submitter

Institute for Clinical Systems Improvement - Nonprofit Organization

Developer

Institute for Clinical Systems Improvement - Nonprofit Organization

Funding Source(s)

The Institute for Clinical Systems Improvement's (ICSI's) work is funded by the annual dues of the member medical groups and five sponsoring health plans in Minnesota and Wisconsin.

Composition of the Group that Developed the Measure

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Financial Disclosures/Other Potential Conflicts of Interest

The Institute for Clinical Systems Improvement (ICSI) has long had a policy of transparency in declaring potential conflicting and competing interests of all individuals who participate in the development, revision and approval of ICSI guidelines and protocols.

In 2010, the ICSI Conflict of Interest Review Committee was established by the Board of Directors to review all disclosures and make recommendations to the board when steps should be taken to mitigate potential conflicts of interest, including recommendations regarding removal of work group members. This committee has adopted the Institute of Medicine Conflict of Interest standards as outlined in the report Clinical Practice Guidelines We Can Trust (2011).

Where there are work group members with identified potential conflicts, these are disclosed and discussed at the initial work group meeting. These members are expected to recuse themselves from related discussions or authorship of related recommendations, as directed by the Conflict of Interest committee or requested by the work group.

The complete ICSI policy regarding Conflicts of Interest is available at the ICSI Web site .

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Guideline-Related Activities: None
Research Grants: None
Financial/non-financial Conflicts of Interest: None

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2013 Jul

Measure Maintenance

Scientific documents are revised every 12 to 24 months as indicated by changes in clinical practice and literature.

Date of Next Anticipated Revision

The next scheduled revision will occur within 12 months.

Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in January 2016.

Measure Availability

Source available for purchase from the Institute for Clinical Systems Improvement (ICSI) Web site . Also available to ICSI members for free at the ICSI Web site and to Minnesota health care organizations free by request at the ICSI Web site .

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NQMC Status

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Production

Source(s)

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