

♣ **Measure #128: Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up**

**2011 PHYSICIAN QUALITY REPORTING OPTIONS FOR INDIVIDUAL MEASURES:  
CLAIMS, REGISTRY**

**DESCRIPTION:**

Percentage of patients aged 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record AND if the most recent BMI is outside of normal parameters, a follow-up plan is documented

Normal Parameters: Age 65 and older BMI  $\geq 23$  and  $< 30$   
Age 18 – 64 BMI  $\geq 18.5$  and  $< 25$

**INSTRUCTIONS:**

This measure is to be reported a minimum of once per reporting period for patients seen during the reporting period. The most recent quality code submitted will be used for performance calculation. There is no diagnosis associated with this measure. This measure may be reported by eligible professionals who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding. BMI measured and documented in the medical record may be reported if done in the provider's office/facility or if BMI calculation within the past six months is documented in outside medical records obtained by the provider. For justification of BMI parameters for this measure please refer to the rationale and clinical recommendation statements. The documentation of a follow up plan should be based on the most recently calculated BMI.

**Measure Reporting via Claims:**

CPT codes, HCPCS (D- and G-) codes, and patient demographics are used to identify patients who are included in the measure's denominator. G-codes are used to report the numerator of the measure.

When reporting the measure via claims, submit the listed CPT codes, HCPCS codes, and the appropriate numerator G-code. All measure-specific coding should be reported on the claim(s) representing the eligible encounter.

**Measure Reporting via Registry:**

CPT codes, HCPCS (D- and G-) codes, and patient demographics are used to identify patients who are included in the measure's denominator. The numerator options as described in the quality-data codes are used to report the numerator of the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

## DENOMINATOR:

All patients aged 18 years and older

### Denominator Criteria (Eligible Cases):

Patients aged  $\geq 18$  years on date of encounter

### AND

**Patient encounter during the reporting period (CPT or HCPCS):** 90801, 90802, 90804, 90805, 90806, 90807, 90808, 90809, 97001, 97003, 97802, 97803, 98960, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, D7140, D7210, G0101, G0108, G0270

## NUMERATOR:

Patients with BMI calculated within the past six months or during the current visit and a follow-up plan documented if the BMI is outside of parameters

### **Definitions:**

**BMI** – Body mass index (BMI), expressed as weight/height (BMI; kg/m<sup>2</sup>), is commonly used to classify overweight (BMI 25.0-29.9), obesity (BMI greater than or equal to 30.0) and extreme obesity (BMI greater than or equal to 40) among adults (CDC). BMI is calculated either as weight in pounds divided by height in inches squared multiplied by 703, or as weight in kilograms divided by height in meters squared. The National Institutes of Health (NIH) provides a BMI calculator table at [http://www.nhlbi.nih.gov/guidelines/obesity/bmi\\_tbl.htm](http://www.nhlbi.nih.gov/guidelines/obesity/bmi_tbl.htm). (AHRQ Preventive Guidelines 2009)

**Elderly BMI** – Most experts suggest use of a higher BMI threshold for underweight elderly individuals, compared to what is used for the general population (Chernoff, Cook, Mahan). *International Dietetics and Nutrition Terminology* defines underweight in persons >65 years of age as a BMI of <23. This BMI value is one indicator of malnutrition when forming a nutrition diagnosis for the elderly population (American Dietetic Association). A BMI of <23 classifies an older adult (older than age 65) as underweight and may require nutrition intervention.

**Calculated BMI** – Requires that both the height and weight are actually measured. Values merely reported by the patient cannot be used.

**Follow-up Plan** – Proposed outline of treatment to be conducted as a result of abnormal BMI measurement. Such follow-up can include documentation of a future appointment, education referral, (such as, a registered dietician, nutritionist, occupational therapy, primary care physician, exercise physiologist, mental health professional, surgeon, etc.) prescription/administration of medications/dietary supplements, etc.

**Not Eligible/Not Appropriate for BMI Measurement** – Patients can be considered not eligible in the following situations:

- There is documentation in the medical record that the patient is over or under weight and is being managed by another provider
- If the patient has a terminal illness – life expectancy less than 6 months
- If the patient refuses BMI measurement
- If there is any other reason documented in the medical record by the provider explaining why BMI measurement was not appropriate

- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status

**Numerator Quality-Data Coding Options for Reporting Satisfactorily:**

**BMI Calculated, No Follow-up Plan Needed or BMI Calculated, Follow-up Plan Documented**

**G8420:** Calculated BMI within normal parameters and documented

**OR**

**G8417:** Calculated BMI above the upper parameter and a follow-up plan was documented in the medical record

**OR**

**G8418:** Calculated BMI below the lower parameter and a follow-up plan was documented in the medical record

**OR**

**Patient not Eligible for BMI Calculation for Documented Reasons**

**G8422:** Patient not eligible for BMI calculation

**OR**

**BMI not Performed and/or Calculated BMI Outside of Normal Parameters, Follow-up Plan not Documented, Reason not Specified**

**G8421:** BMI not calculated

**OR**

**G8419:** Calculated BMI outside normal parameters, no follow-up plan documented in the medical record

**RATIONALE:**

In 2009, no U.S. state met the *Healthy People 2010* adult obesity prevalence target of 15 percent, and the number of states with an obesity prevalence  $\geq 30$  increased from zero in 2000 to nine in 2009 (CDC, 2010). Further, the report revealed that the overall self-reported obesity prevalence in the United States was 26.7 percent, an increase of 1.1 percentage points from 2007 to 2009 among adults aged 18 years or older (CDC, 2010).

Obesity continues to be a public health concern in the United States and throughout the world (Flegal, et al, 2005; Ogden, et al, 2007)). In the United States, obesity prevalence doubled among adults between 1980 and 2004 (Flegal, et al, 2002; Ogden, et al, 2006). Obesity is associated with increased risk of a number of conditions, including diabetes mellitus, cardiovascular disease, hypertension, and certain cancers, and with increased risk of disability and a modestly elevated risk of all-cause mortality. With obesity on the rise, the medical community anticipates an increase in the complications of obesity, including type 2 diabetes mellitus, hypertension, dyslipidemia, cardiovascular disease, obstructive sleep apnea, degenerative arthritis, non-alcoholic steatohepatitis, gallbladder disease and others.

Results from the 2005-2006 National Health and Nutrition Examination Survey (NHANES) indicate that an estimated 32.7 percent of U.S. adults 20 years and older are overweight, 34.3 percent are obese and 5.9 percent are extremely obese. Although prevalence of adults in the U.S. who are obese is still high, with about one-third of adults obese in 2007-2008, although new data suggest that the rate of increase for obesity in the U.S. in recent decades may be slowing (Flegal, et al, 2010).

In 2000, obesity was responsible for an estimated 400,000 deaths, compared to 300,000 in 1990 (Flegal, et al, 2005). Obesity places second only to smoking as the leading preventable cause of death in the United States. In addition, obesity is a significant contributor to premature death. In Caucasians ages 20 to 30 with a BMI >45 kg/m<sup>2</sup>, it has been estimated that obesity decreases life expectancy by 13 years in men and 8 years in women (Fontaine, et al, 2003).

Poor nutrition or underlying health conditions can result in underweight. Results from the 2003-2006 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 1.8% of U.S. adults are underweight. (Source: The National Center for Health Statistics (NCHS) Health E-Stat. Prevalence of Underweight Among Adults: United States, 2003-2006, Accessed September 15, 2010 at [http://www.cdc.gov/nchs/data/hestat/underweight/underweight\\_adults.htm](http://www.cdc.gov/nchs/data/hestat/underweight/underweight_adults.htm). A tremendous gap still exists between our knowledge of malnutrition and its sequelae and our actions in preventing and treating it. To date professionals in various disciplines have applied their own approaches to solving the problem. Yet the causes of malnutrition are multi-factorial and the solutions demand an integration of knowledge and expertise from the many different disciplines involved in geriatric care. Older people have special nutritional needs due to age and disease processes.

Elderly patients with unintentional weight loss are at higher risk for infection, depression and death. The leading causes of involuntary weight loss are depression (especially in residents of long-term care facilities), cancer (lung and gastrointestinal malignancies), cardiac disorders and benign gastrointestinal diseases. Medications that may cause nausea and vomiting, dysphagia, dysgeusia and anorexia have been implicated. Polypharmacy can cause unintended weight loss, as can psychotropic medication reduction (e.g., by unmasking problems such as anxiety). In one study it was found that a BMI of less than 22 kg per m<sup>2</sup> in women and less than 23.5 in men is associated with increased mortality. In another study it was found that the optimal BMI in the elderly is 24 to 29 kg per m<sup>2</sup>. (Huffman, G. B., Evaluation and Treatment of Unintentional Weight Loss in the Elderly, *American Family Physician*, 2002 Feb, 4:640-650). Ranhoff, et al (2005), identified through an observational study that using a BMI <23, resulted in a positive screen for malnutrition (sensitivity 0.86, specificity 0.71), giving 0.75 correctly classified subjects. Thus leading to the recommendation that a score of BMI <23 should be followed by MNA-SF when the aim is to identify poor nutritional status in elderly.

In 1998 the medical costs of obesity were estimated to be as high as \$78.5 billion, with roughly half financed by Medicare and Medicaid (Finkelstein, et al, 2009). This analysis presents updated estimates of the costs of obesity for the United States across payers (Medicare, Medicaid, and private insurers), in separate categories for inpatient, non-inpatient, and prescription drug spending.

Finkelstein, et al (2009), found that the increased prevalence of obesity is responsible for almost \$40 billion of increased medical spending through 2006, including \$7 billion in Medicare prescription drug costs. We estimate that the medical costs of obesity could have risen to \$147 billion per year by 2008.

Ma, et al (2009) performed a retrospective, cross-sectional analysis of ambulatory visits in the National Ambulatory Medical Care Survey from 2005 and 2006. The study findings on obesity and office-based quality of care concluded the evidence is compelling that obesity is underappreciated in office-based physician practices across the United States (Ma, et al, 2009). Many opportunities are missed for obesity screening and diagnosis, as well as for the prevention and treatment of obesity and related health risks, regardless of patient and provider characteristics (Ma, et al, 2009).

A Web search of the National Quality Measures Clearinghouse on the key words of BMI, body mass index, produced four measures, all focused on possible follow-up for overweight and obesity for a broader age range and/or related to a specific disease/condition. There were no measures that focused on underweight or a follow-up plan.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Although multiple clinical recommendations addressing Obesity have been developed by professional organizations, societies and associations, two recommendations, which exemplify the intent of the measure and address the numerator and denominator, have been identified.

The US Preventive Health Services Task Force (USPSTF) (2003) recommends that clinicians screen all adult patients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults (Level Evidence B).

Institute for Clinical Systems Improvement (ICSI) (2009) Prevention and Management of Obesity (Mature Adolescents and Adults) provides the following guidance:

- Calculate the body mass index; classify the individual based on the body mass index categories. Educate patients about their body mass index and their associated risks. (*Annotation #1; Aim #1*)
- Weight management requires a team approach. Be aware of clinical and community resources. The patient needs to have an ongoing therapeutic relationship and follow-up with a health care team. Weight control is a lifelong commitment, and the health care team can assist with setting specific goals with the patient. (*Annotations #10, 13; Aim #4*)

There are no current clinical recommendations addressing Underweight or Unintentional Weight Loss in the elderly population that have been developed by professional organizations, societies or associations.