Obesity Epidemiology Worldwide

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KEYWORDS

- Obesity • Epidemiology • BMI • Racial/ethnic disparities
- Social determinants of health

KEY POINTS

- Trends in obesity prevalence over the past 2 decades have increased across the globe while remaining high in the United States.
- Obesity, for screening purposes, is defined as a body mass index (BMI) greater than or equal to 30 kg/m^2 for adults and BMI above the age- and sex-specific 95th percentile of the Centers for Disease Control and Prevention or World Health Organization growth charts.
- Obesity is higher among women, racial/ethnic groups, and at lower levels of education and income.
- Data collection of ethnic subgroups across all races will improve the ability to monitor trends in obesity and potential other health outcomes over time.
- It is critical to consider both individual behaviors and social determinants of health for identifying at-risk populations to develop evidence-based, culturally relevant clinical and population interventions.

INTRODUCTION

Obesity continues to be a public health concern across the globe. Obesity has a demonstrated association with health behaviors[1–8] and health outcomes, such as diabetes, hypertension, and cancer.[9–14] Over the past 2 decades, obesity has increased worldwide and remains highest in the United States. It is critical to understand the definition of obesity, using body mass index (BMI) appropriately, recent estimates, and

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risk factors as a framework within which clinicians should work to help reduce the burden of obesity and obesity-related health outcomes. This framework, including the Healthy People 2020 place-based approach to social determinants of health, is described in this article.

DEFINITION AND MEASUREMENT

BMI is the most common measure used for population and clinical screening for obesity. Weight and height are needed for BMI and usually determined using measured weight and height in clinical settings and self-reported weight and height in larger population health studies. BMI is calculated as one's weight in kilograms divided by one's height in meters squared (kg/m^2). Although the definition of obesity is dependent on the method used to determine the presence of obesity (ie, BMI, waist circumference), for the purpose of this article, obesity is defined based on the World Health Organization's international adult classification of BMI (Table 1).

Currently, there is no consensus on an international classification of BMI for children. However, for the purpose of this article, obesity is classified as BMI greater than or equal to the age- and sex-specific 95th percentile based on the 2000 Centers for Disease Control and Prevention growth charts.[15]

OBESITY WORLDWIDE

- Over the past 3 and half decades, the prevalence of obesity has nearly doubled worldwide.[16]
- Among adults aged 18 years or older, 11% of men and 15% of women were obese in 2014.
- More than 42 million children under the age of 5 years were overweight in 2013.

Table 1
International classification of adult underweight, overweight, and obesity according to body mass index

Classification	BMI (kg/m^2) Principal Cutoff Points	Additional Cutoff Points
Underweight	<18.50	<18.50
Severe thinness	<16.00	<16.00
Moderate thinness	16.00–16.99	16.00–16.99
Mild thinness	17.00–18.49	17.00–18.49
Normal range	18.50–24.99	18.50–22.99
		23.00–24.99
Overweight	≥25.00	≥25.00
Preobese	25.00–29.99	25.00–27.49
		27.50–29.99
Obese	≥30.00	≥30.00
Obese class I	30.00–34.99	30.00–32.49
		32.50–34.99
Obese class II	35.00–39.99	35.00–37.49
		37.50–39.99
Obese class III	≥40.00	≥40.00

From World Health Organization. BMI Classification. 2016.