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## Prevalence of Overweight and Obesity in the United States, 2007-2012

Overweight and obesity are associated with various chronic conditions.[1] These conditions are considerable health care and societal burdens, yet could potentially be averted by preventing weight gain and obesity. In a prior analysis, now almost 20 years old, Must et al[2] used a nationally representative data set from 1988 through 1994 and reported the US chronic disease burden associated with body mass index (BMI), thus informing clinical practice and the priorities for cost-effective prevention strategies. Using the most recent data in the National Health and Nutrition Examination Survey (NHANES, 2007-2012), we updated the prevalence of overweight and obesity by sex, age, and race/ethnicity and compared the values with those of the earlier study.[2]

**Methods** | The NHANES was designed to provide cross-sectional estimates of the prevalence of major diseases, nutritional disorders, and potential risk factors among the US population.[3] We aggregated data from 2007-2008, 2009-2010, and 2011-2012 and included only adults who were 25 years or older (n = 15 208), excluding those who were pregnant at the time of examination (n = 125) or provided insufficient data regarding weight and height (n = 827). The NHANES obtained approval from the National Center for Health Statistics Research Ethics Review Board and participants provided written consent.

Weight and height were measured during the physical examination using standard procedures. Patients' BMIs (calculated as weight in kilograms divided by height in meters squared) were classified according to the following categories: underweight (<18.5), normal weight (18.5-24.9), overweight (25.0-29.9), obesity class 1 (30.0-34.9), obesity class 2 (35.0-39.9), and obesity class 3 (≥40).[2]

Data regarding patients' age, sex, and race/ethnicity were collected. Age was classified as 25 to 54 years or 55 or more years. Self-reported race/ethnicity were categorized as Mexican American, non-Hispanic black, non-Hispanic white, or other.

We stratified the analyses by sex and calculated the weighted proportion estimates in each BMI category by race or ethnic group and age group. All statistical analyses were conducted in Stata, version 12.0 (StataCorp LP), using survey analysis procedures to account for the complex sampling design.

**Results** | Of the sample population, 39.96% (weighted n = 36 325 297) of men and 29.74% (weighted n = 28 894 630) of women were overweight and 35.04% (weighted n = 31 847 198) of men and 36.84% (weighted n = 35 792 733) of women were obese. The weight status distribution was similar for both sexes across racial groups (**Table**), except for the proportion of non-Hispanic white women, which was higher in the normal-weight than the overweight category. Compared with 20 years ago, the greatest increase in the proportion of patients in the obesity class 3 category was among non-Hispanic black women.

**Discussion** | Compared with 1988-1994,[2] the distribution of the population's weight status has increased in the past 20 years. The rising trends in overweight and obesity warrant timely attention from health-policy and health care–system decision makers. Clinical practice for the prevention and treatment of chronic conditions has mainly focused on screening high-risk populations. As a result, people in higher-weight categories are more likely to be diagnosed with the chronic diseases associated with excess weight[2] because of more frequent measurements, compared with people in the normal-weight category. This approach may ignore individuals with normal weight and their weight gain, which puts them at risk.

Population-based strategies helping to reduce modifiable risk factors such as physical environment interventions, enhancing primary care efforts to prevent and treat obesity, and altering societal norms of behavior are required.[4] In 2012, the Institute of Medicine identified population-based obesity-prevention strategies that target physical activity, healthy diet,

Table. Sociodemographic Characteristics of Persons 25 Years or Older From the NHANES, 2007-2012[a]

| Characteristic | Study Population, No. | | Percentage | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Obesity Class | | |
| | Sample | Weighted | Underweight | Normal Weight | Overweight | 1 | 2 | 3 |
| **Men** | | | | | | | | |
| Race/ethnicity | | | | | | | | |
| Mexican American | 1845 | 12 316 214 | 0.35 | 18.75 | 43.17 | 24.83 | 8.21 | 4.70 |
| Non-Hispanic black | 1577 | 9 245 105 | 1.73 | 25.67 | 33.44 | 21.80 | 9.90 | 7.46 |
| Non-Hispanic white | 3427 | 63 145 888 | 0.62 | 23.35 | 40.74 | 23.36 | 7.80 | 4.13 |
| Other | 629 | 6 187 710 | 1.36 | 42.33 | 35.47 | 15.58 | 2.09 | 3.17 |
| Age, y | | | | | | | | |
| 25-54 | 4143 | 59 105 817 | 0.69 | 25.05 | 39.38 | 22.51 | 7.78 | 4.59 |
| ≥55 | 3335 | 31 789 101 | 0.84 | 22.78 | 41.05 | 23.54 | 7.50 | 4.29 |
| **Women** | | | | | | | | |
| Race/ethnicity | | | | | | | | |
| Mexican American | 2024 | 11 983 246 | 0.68 | 22.43 | 33.58 | 24.16 | 12.34 | 6.81 |
| Non-Hispanic black | 1653 | 11 484 735 | 1.66 | 15.79 | 25.77 | 26.03 | 13.45 | 17.30 |
| Non-Hispanic white | 3417 | 67 131 553 | 2.28 | 33.77 | 30.02 | 17.58 | 9.37 | 6.98 |
| Other | 636 | 6 556 840 | 3.23 | 50.02 | 26.84 | 10.80 | 4.76 | 4.35 |
| Age, y | | | | | | | | |
| 25-54 | 4291 | 59 578 408 | 2.29 | 33.45 | 28.58 | 17.64 | 9.82 | 8.22 |
| ≥55 | 3439 | 37 577 965 | 1.73 | 28.01 | 31.58 | 20.98 | 10.05 | 7.65 |

Abbreviation: NHANES, National Health and Nutrition Examination Survey.

[a] Patients are divided by National Heart, Lung, and Blood Institute–recommended weight group and sex. Weight groups were defined by body mass index (calculated as weight in kilograms divided by height in meters squared): underweight (<18.5), normal weight (18.5-24.9), overweight (25.0-29.9), obesity class 1 (30.0-34.9), obesity class 2 (35.0-39.9), and obesity class 3 (≥40).

and models of healthy social norms and provided recommendations on setting specific implementations of those policy and environmental strategies to combat obesity.[5] The Institute of Medicine[6] also summarized specific key metrics to evaluate the progress of obesity-prevention strategies toward sustainable implementation. Delivering these strategies is a priority to counter the burden of obesity on contemporary and future generations.

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*Study supervision:* Colditz.

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## Computed Tomography Radiation Dose in Patients With Suspected Urolithiasis

Computed tomography (CT) for the evaluation of suspected urolithiasis should use low-dose techniques (<4 mSv)[1] given that diagnostic accuracy is equal to or better than that of conventional CT[2] and that this technique reduces the risk for radiation-related carcinogenesis. Despite its widespread