

U.S. Food Consumption and Obesity, Part 2 of 2

G. Douglas Andersen, DC, DACBSP, CCN

The first National Health and Nutrition Examination Survey (NHANES) was performed from 1971-1974. It was repeated in 1976-1980 (NHANES II), and again from 1988-1994 (NHANES III). The survey, which polls a cross-section of the United States' population, became a continuing project in 1999. The sample size for the only year currently available, 1999-2000, numbered slightly over 40,000.

Body Mass Index

The body mass index (BMI) is a popular way for epidemiologists to classify the weight of large groups of people. BMI is calculated in the following ways: The body weight in kilograms divided by the height in meters squared; or the body weight in pounds divided by the height in inches, squared and multiplied by 705. (See Table 1.) The BMI is fairly accurate for normal people. It is not as accurate for extremely short people or athletic people (heavy exercisers) of normal size.

Table 1: <i>Body Mass Index</i>	
Underweight	Less than 18.5
Normal Weight	18.5 to 24.9
Overweight	25.0 to 29.9
Obese	30.0 to 34.9
Very Obese	35.0 to 39.9
Morbid Obesity	Over 40

It is completely inaccurate for those who are heavily muscled. However, in cross-sectional surveys, due to the number of persons in the survey, there are too few heavily muscled athletes to affect the results of large groups. For example, a 6-foot-tall, 225-pound, heavily muscled athlete with 10 percent body fat has a BMI of 30. Obviously, this person is not obese. Contrast this patient with another who is 6 feet tall, 225 pounds and not athletic; in that case, a BMI of 30 is accurate. To see how much Americans have been growing, please see Table 2.

Table 2: <i>Percent of obesity in the U.S. population (BMI greater than 30).</i>				
Sex	1971-1974 NHANES I	1976-1980 NHANES II	1988-1994 NHANES III	1999-2000 NHANES CONT.
Males 20-74	14.5	15.0	23.3	30.9
Females 20-74	16.6	17.0	25.9	34.0

It is no surprise that the percentage of our population defined as obese is growing. What is even

more disturbing is the percentage of people who are now overweight, as defined by a BMI of 25 or greater. Please see Table 3.

Men Ages	Percentage	Women Ages	Percentage
20-39	60.5	20-39	54.3
40-59	70.0	30-59	66.1
60+	74.1	60+	68.1
All Men	64.5	All Women	61.9

Although NHANES concentrates on the U.S. population, the World Health Organization (WHO) reports that this problem is seen in other modern nations around the world, and in the Third World, particularly as prosperity increases.²

Table 4 below tells a story that will please people who feel the obesity problem is caused by excessive consumption of fats, simple carbohydrates, total carbohydrates and total calories. Table 5 bolsters the argument for those who feel obesity is caused by insufficient protein intake. In part 3 of this article, we will review in detail selected food groups, and how their consumption has changed over the years.

Food	% Increase
Cheese	146
Soft Drinks	118
Poultry	92
Flour/Cereal	48
Sugars	26
Fats	25
Fruits/Vegetables	24
Fish	24
Alcohol	17

Food	% Decrease
Coffee*	32
Milk	23
Eggs	23
Red Meat	16

Please note that this figure is based on data through 1997 only. With the rise in popularity of coffeehouses, it is likely that coffee consumption has increased since then. It also is interesting to note that in many coffee-serving establishments, coffee, which used to be considered a low-calorie beverage (even including 1-2 spoonfuls of sugar), can now cost a person 500 calories or more when creams, flavorings, etc., are added.

References

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3. Putnam JJ, Allshouse JE. *Food Consumption, Prices, and Expenditures 1970-97*. Food and Rural Economics Division, Economics Research Service, United States Department of Agriculture 1990, Statistical Bulletin, no. 965.

G. Douglas Andersen, DC, DACBSP, CCN
Brea, California
gdandersen@earthlink.net

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