

PRIORITY: NUTRITION (FAMILY HEALTH)

As advanced by the *Healthy People 2010* Initiative,

Nutritional, or dietary, factors contribute substantially to the burden of preventable illnesses and premature deaths in the United States. Indeed, dietary factors are associated with 4 of the 10 leading causes of death: coronary heart disease, some types of cancer, stroke, and type 2 diabetes. These health conditions are estimated to cost society over \$200 billion each year in medical expenses and lost productivity. Dietary factors also are associated with osteoporosis, which affects more than 25 million persons in the United States and is the major underlying cause of bone fractures in postmenopausal women and elderly persons.

The *2010* Initiative states that

A primary concern is consuming too much saturated fat and too few vegetables, fruits, and grain products that are high in vitamins and minerals, carbohydrates (starch and dietary fiber), and other substances that are important to good health.

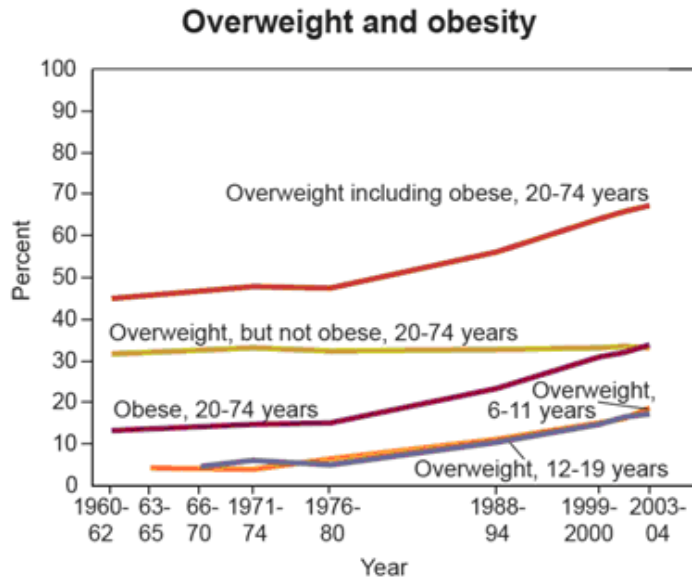
Issues and Trends

According to *Healthy People 2010*, although some progress has been made since the 1970s in reducing the prevalence of iron deficiency among low-income children, much more is needed to improve the health of children of all ages and of women who are pregnant or are of childbearing age. Since the start of this decade, consumption of calcium-rich foods, such as milk products, has generally decreased and is especially low among teenaged girls and young women. In addition, in recent years there has been a concerted effort to increase the folic acid intake of females of childbearing age through fortification and other means to reduce the risk of neural tube defects.

In general, excesses and imbalances of some food components in the diet have replaced once commonplace nutrient deficiencies. Unfortunately, there has been an alarming increase in the number of overweight and obese persons. When a body mass index (BMI) cut-point of 25 is used, over 65 percent of the U.S. adult population was defined as overweight or obese in 2003–2004, compared to 46 percent in 1976–80. In particular, the proportion of adults defined as obese by a BMI of 30 or greater has increased from 14.5 percent to 31.4 percent. A similar increase in overweight and obesity also has been observed in children above age 6 years in both genders and in all population groups. Figure 1 illustrates the increasing trends toward obesity for children and adolescents in the U.S. from 1960-2004.

(<http://www.healthypeople.gov/document/word/Volume2/19Nutrition.doc>).

Figure 1. Proportions of Overweight and Obesity by Age: United States, 1960-2004



SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, *Health, United States, 2006*, Figure 13. Data from the National Health and Nutrition Examination Survey.

Source: CDC/NCHS, *Health, United States, 2006*

(<http://win.niddk.nih.gov/statistics/index.htm>)

Healthy People 2010 Initiative notes that

Disparities in health status indicators and risk factors for diet-related disease are evident in many segments of the population based on gender, age, race and ethnicity, and income. For example, overweight and obesity are observed in all population groups, but obesity is particularly common among Hispanic, African American, Native American, and Pacific Islander women. Furthermore, segments of the population suffer from undernutrition, including persons who are socially isolated and poor. With food security and other measures of undernutrition, such as growth retardation and iron deficiency, disparities are evident based not only on income but also on race and ethnicity.

In addition, the *2010* Initiative stressed concerns about the nutritional status of persons in hospitals, nursing homes, convalescent centers, and institutions; persons with disabilities, including physically, mentally, and developmentally disabled persons in community settings; children in child care facilities; persons living on reservations; persons in correctional facilities; and persons who are homeless. National data about these population groups are currently unavailable or limited. Data also are insufficient to target the fastest growing segment of the population, old and very old persons who live independently. The proportion of adolescents from poor households who are overweight or obese is twice that of adolescents from middle- and high-income households. Obesity is especially prevalent among women with lower incomes and is more common among African American and Mexican American women than among white women. Among African Americans, the proportion of women who are obese is 80 percent higher than the proportion of men who are obese. This gender difference also is seen among Mexican American women and men, but the percentage of white, non-Hispanic women and men who are obese is about the same (<http://www.healthypeople.gov/document/word/Volume2/19Nutrition.doc>).

Healthy People 2010 and Priority: Nutrition (Family Health)

The following chart presents the *Healthy People 2010* targets for the objectives pertinent to ensuring adequate and appropriate nutrition and weight management, along with baseline data for the year(s) indicated. This chapter examines Chautauqua County data for the Priority: *Nutrition (Family Health)* indicators listed in **bold type** and selected other indicators associated with nutrition and weight status.

Healthy People 2010 Baselines and Targets for Nutrition.

Objective		1988-94 Baseline*	2010 Target
19.1	Increase the proportion of adults who are at a healthy weight. (Persons over age 20 who have a BMI of greater than 18.5 and less than 25)	42%	60%
19.2	Reduce the proportion of adults who are obese. (Persons over age 20 who have a BMI of 30 or more)	23%	15%
19.3	Reduce the proportion of children and adolescents who are overweight or obese.		
19.3a	Children ages 6-11 years	11%	5%
19.3b	Children ages 12-19 years	11%	5%
19.4	Reduce growth retardation among low income children under age 5 years.	8%	5%
19.5	Increase the proportion of persons aged 2 years and older who consume at least two daily serving of fruit.	28% (1994-96)	75%
19.6	Increase the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables.	3% (1994-96)	50%

19.7	Increase the proportion of persons aged 2 years and older who consume at least six daily servings of grain products, with at least three being whole grains.	7% (1994-96)	50%
19.8	Increase the proportion of persons aged 2 years and older who consume less than 10% of calories from saturated fat.	36% (1994-96)	75%
19.9	Increase the proportion of persons aged 2 years and older who consume no more than 30 percent of calories from total fat.	33% (1994-96)	75%
19.10	Increase the proportion of persons aged 2 years and older who consume 2,400 mg or less of sodium daily.	21%	65%
19.11	Increase the proportion of persons aged 2 years and older who meet dietary requirements for calcium.	46%	75%
19.12	Reduce iron deficiency among young children and women of childbearing age.		
19.12a	Children aged 1 to 2 years	9%	5%
19.12b	Children aged 3 to 4 years	4%	1%
19.12c	Non-pregnant females aged 12 to 49 years	11%	7%
19.13	Reduce anemia among low-income pregnant females in their third trimester.	29% (1996)	20%
19.14	(developmental) Reduce iron deficiency among pregnant females.	---	---

19.15	(developmental) Increase the proportion of children and adolescents aged 6 to 19 years whose intake of meals and snacks at school contributes to good dietary quality.	---	---
19.16	Increase the proportion of worksites that offer nutrition or weight management classes or counseling.	55% (1998-99)	85%
19.17	Increase the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia that include counseling or education related to diet and nutrition.	42% (1997)	75%
19.18	Increase food security among U.S. households and in so doing reduce hunger.	88% (1995)	94%

* Except as noted.

A. Health Data

1. Nutrition of Adults in New York State

Table 1 presents data from *BRFSS* estimating the fruit and vegetable consumption of adults in New York State for 2004-2005. Groups who consume the least amounts per day are those under age 55, males, persons who earn between \$15,000 to \$75,000 per year, those with a high school education or less, and African American and Hispanic race/ethnic groups. However, no group is close to the *Healthy People 2010* targets (75% eating 2+ vegetables per day, and 50% eating 3+ fruits per day).

Table 1. Fruit and Vegetable Consumption (5+ per day) of Adults (18+ years) in New York State, 2004-2005.

		% 5+ per day
Total		26.4
Age		
	18-34	26.4
	35-64	24.4
	65+	31.6
Race		
	White, Non-Hispanic	26.8
	African American	15.9
	Hispanic	12.7
	Other	34.1
Sex		
	Male	20.9
	Female	31.5
Income		
	Less than \$10,000	32.2
	<\$15,000	31.0
	<\$20,000	18.1
	< \$25,000	23.5
	< \$35,000	22.2
	< \$50,000	21.9
	< \$75,000	24.9
	\$75,000 +	38.7
Education		
	Less Than High School	22.9
	High School	22.5
	More Than High School	29.8

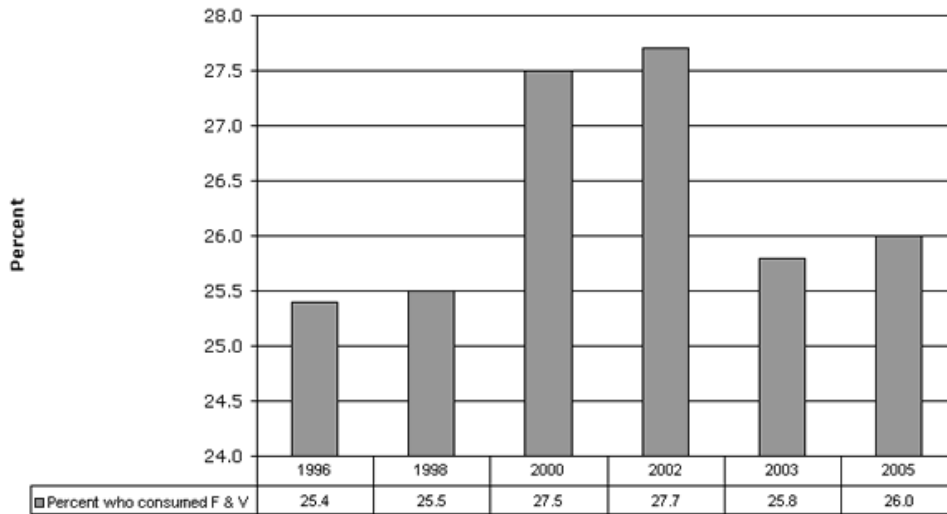
Source: *BRFSS*, 2004-2005.

(<http://www.fredonia.edu/org/steps/BRFSS04-05/>)

Figure 2 illustrates trends in fruit and vegetable consumption in New York State for the years 1996-2005. Some progress is evident: a greater percentage of individuals met the "5+ per day" guideline in 2002 than in 1996 (27.7% vs. 25.4%). Though the rate subsequently fell from the 2002 high, it remained slightly higher in 2003-2005 than in 1996-1998. As noted for Table 1, however, the most recent data show fruit and vegetable consumption still fall far short of the 2010 targets.

Figure 2

**Consumption of Five or More Servings of Fruits and Vegetables
Daily Among Adults Aged 18 Years and Older
New York State, 1996 - 2005**



Source: BRFSS

(http://www.health.state.ny.us/statistics/chac/general/fruits_n_veggies.htm)

2. Weight Status of Adults in Chautauqua County

In Table 2, *BRFSS* estimates reveal that the majority of adults living in Chautauqua county are above normal weight, as defined by the body mass index (BMI). Nearly 2/3 (63.1%) are heavier than the BMI suggests is ideal, and over 1/4 of the county's population (26.9%) is obese. The *Healthy People 2010* target for those older than 20 years is 60% at normal weight.

Table 2. Weight Status of Adults in Chautauqua County, 2004-2005.

	Percent Normal or Underweight* (BMI <25)	Percent Overweight (BMI 25-29)	Percent Obese (BMI 30+)	Percent Overweight/Obese
Chautauqua County (number)	36.8% (37,980)	36.2% (37,340)	26.9% (27,777)	63.1%
<i>Healthy People 2010</i> Target	60% (with normal weight)			

Source: *BRFSS*, 2004-2005. (<http://www.fredonia.edu/org/steps/BRFSS04-05/summary.asp>)

3. Weight Status of Children in Chautauqua County

Tables 3 and 4 display data on the weight of children ages 0-4 years living in Chautauqua County. Table 3 presents the percentages of children 0-4 years who are underweight as a proportion of those tested, 2002-2004. The percent of underweight children in the County (2.8%) is lower than in western New York or New York State (7.6% and 8.5%, respectively). As shown by the table, Chautauqua County has met the 2010 target, though western New York and New York State have not.

Table 3. Percent of Underweight Children Age 0-4 in Chautauqua County and New York State per 100 Children Tested, 2002-2004.

	Children (Age 0-4) Who Are Underweight				Number Tested	Percent
	2002	2003	2004	Total	2002-2004	
Chautauqua County	42	42	26	110	3,878	2.8
Western New York Region Total	843	835	740	2,418	31,705	7.6
New York State Total	12,073	11,933	12,229	36,235	428,646	8.5
<i>Healthy People 2010 Target</i> (growth retardation among low income children < age 5)						5%

Source: 2002-2004 Division of Nutrition Data as of November, 2006
<http://www.health.state.ny.us/statistics/chac/general/underwt.htm>

The percentage of children 0-4 years who are overweight is shown in Table 4. In Chautauqua County, 12.9% of the children tested are overweight, slightly lower than the percentage of young children in western New York (14.1%) and New York State (16.6%) who are overweight. If the 2010 target for older children is applied to this younger group, the percentage of overweight children in the county should be reduced by more than one-half.

Table 4. Percent of Overweight Children Age 2-4 in Chautauqua County and New York State per 100 Children Tested, 2002-2004.

	Children (Age 2-4) Who Are Overweight				Number Tested	Percent
	2002	2003	2004	Total	2002-2004	
Chautauqua County	76	92	107	275	2,126	12.9
Western New York Region Total	763	731	805	2,299	16,346	14.1
New York State Total	10,671	11,679	12,393	34,743	209,837	16.6
<i>Healthy People 2010 Target</i> (for ages 6-19 years)						5%

Source: 2002-2004 Division of Nutrition Data as of November, 2006
<http://www.health.state.ny.us/statistics/chac/general/overwt.htm>

B. Unmet Needs

Summary: Nutrition in Chautauqua County

In New York State, no age, race, gender, education or income group is close to the *Healthy People 2010* targets for fruit and vegetable consumption. Some progress had been made between the mid-1990's and 2002, followed by a decline nearly back to the rates from 1996 and 1998. Even if the progress made from 1990 – 2002 had continued at the same rate, it would have required approximately 48 years before the two highest-consuming groups (women and college educated) would have met the *2010* targets. Without intervention, the time period could be even longer for those currently consuming the least amounts of fruits and vegetables (<55 years, males, those with yearly incomes between \$15,000 to \$75,000 per year, those with a high school education or less, and African American and Hispanic race/ethnic groups).

As shown in the *BRFSS* data for Chautauqua county, the majority of adults are above normal weight, as defined by the BMI. Nearly 2/3 are heavier than the BMI suggests is ideal, and just over 1/4 are obese. The *Healthy People 2010* target for those 20+ years old is 60% at normal weight. Also, 12.9% of Chautauqua County children 0-4 years are estimated to be overweight per 100 County children tested. If the *2010* target for older children is applied to this younger group, the percentage of overweight children in this age group should be reduced by more than one-half. On the other hand, the percent of underweight children in the County 0-4 years is lower than in western New York and in New York State, and lower than the *2010* target.

Healthy People 2010

According to *Healthy People 2010*

Establishing healthful dietary and physical activity behaviors needs to begin at birth and continue throughout the lifespan. According to the *2010* Initiative, educating school-aged children about nutrition is important to help establish healthful eating habits early in life. Further, the Initiative avers that research suggests that parents who understand proper nutrition can help children in preschool choose healthful foods, but they have less influence on the choices of school-aged children. Thus, the Initiative concludes that the impact of nutrition education on health for school-age children may be more effective if targeted directly at them. The *2010* Initiative also states that a well-designed curriculum that effectively addresses essential nutrition education topics can increase students' knowledge about nutrition, help shape appropriate attitudes, and help develop the behavioral skills students need to plan, prepare, and select healthful meals and snacks. In order to enhance the effectiveness of these lessons, however, *2010* avers that nutrition course work should be part of the core curriculum for the professional preparation of teachers of all grades and should be emphasized in continuing education activities for teachers (<http://www.healthypeople.gov/document/word/Volume2/19Nutrition.doc>).

C. Resources in Chautauqua County

The following are public service Chautauqua County organizations, agencies and programs that offer assistance on nutrition and weight management.

- Chautauqua Opportunities Inc., Summer Lunch Program
- Child and Adult Care Food Program (reimburses daycare facilities and similar programs for providing appropriate nutrition)
- 3 Community Kitchens providing free meals (Dunkirk, Westfield, and Jamestown)
- 18 Congregate meal sites providing senior nutrition
- Department of Social Services (food stamp program)
- Dieticians

- Eat Well, Play Hard (Jamestown YMCA)
- Emergency Food Pantry, Chautauqua County Rural Ministries (Dunkirk)
- 5 Farmer's Markets
- Fruit/Vegetable Stands
- Jamestown Community Learning Council
- Joint Neighborhood Project
- Meals on Wheels (Jamestown, Dunkirk/Fredonia, Sinclairville)
- Office for the Aging Nutrition Program, Jamestown and Dunkirk-Fredonia areas
- Pediatric practices (dietitians available for counseling)
- Salvation Army Food Pantry, Jamestown
- School Health Advisory Council
- STEPS Program, Chautauqua County
- WIC Nutrition Program

D. Opportunities for Action

Opportunities for action in Chautauqua County pertinent to nutrition and weight management, adapted from the *Healthy People 2010* Initiative, include the following.

- Increase public education about the long-term health consequences and risks associated with overweight and how to achieve and maintain a healthy weight.
- Help individuals, families and others integrate healthful dietary habits with decreased sedentary behavior and increased physical activity as permanent lifestyle changes.
- Increase the percentage of school districts requiring nutrition education for students in at least some grades from kindergarten through 12th grade.
- Incorporate nutrition education as part of a comprehensive school health education program, and integrate essential nutrition education topics into science and other curricula to reinforce principles and messages learned in the health units.
- Help students plan, prepare, and select healthful meals and snacks, and maintain those behaviors. Help them to evaluate food labels, balance food intake and physical activity; accept body size differences; and follow food safety practices.
- At the middle, junior high, and senior high school levels provide information on: eating disorders; healthy weight maintenance; influences on food choices from families, culture, and media; and how to develop goals for dietary improvement.
- Add or expand biking, walking and hiking trails, playground facilities and other community recreational areas and facilities.
- Encourage greater use of parks and other county and state recreational lands.
- Increase availability of fresh local produce from fruit and vegetable stands and farmers' markets.

- Increase access to local food pantries.
- Expand Meals on Wheels services to include a greater number of communities and individuals served.
- Increase the number of congregate centers providing meals and nutrition services for senior citizens, and for all residents at general locales, such as soup kitchens.
- Increase the number of registered dietitians and other qualified health care practitioners providing nutrition and weight-management services for all persons, including those in institutional settings such as nursing homes, assisted living facilities, hospitals and rehabilitative centers, and corrections facilities.
- Facilitate expansion of services by registered dietitians and other qualified health care practitioners via nutrition screening, assessment, and primary and secondary prevention.
- Encourage food-related businesses to provide nutrition information for foods purchased in supermarkets, fast-food outlets, restaurants, and carry-out operations.
- Educate individuals to eat smaller amounts when they eat out, eat lower calorie foods, or both.
- Encourage institutional food services, and the media to provide leadership in fostering healthful diets and physical activity patterns.
- Encourage worksites to provide leadership in fostering healthful diets and physical activity patterns.
- Include nutrition course work in the core curriculum for the professional preparation of teachers of all grades and emphasize nutrition in continuing education activities for teachers.
- Increase nutrition screening, assessment, and primary and secondary prevention by registered dietitians and other qualified health care practitioners
(<http://www.healthypeople.gov/document/word/Volume2/19Nutrition.doc>).