Nutrition and Overweight

CHAPTER 19

Co-Lead Agencies

Food and Drug Administration
National Institutes of Health

Contents

GOAL:
Promote health and reduce chronic disease associated with diet and weight.

The objectives in this chapter monitor trends in overweight and obesity, growth retardation, the consumption of various types of foods and nutrients, iron deficiency, diet and nutrition counseling, and food security (access to food).

All Healthy People tracking data quoted in this chapter, along with technical information and Operational Definitions for each objective, can be found in the Healthy People 2010 database, DATA2010, available from http://wonder.cdc.gov/data2010/.

More information about this Focus Area can be found in the following publications:

- *Healthy People 2010: Understanding and Improving Health*, available from http://www.healthypeople.gov/2010/Document/tableofcontents.htm#under.
- *Healthy People 2010 Midcourse Review*, available from http://www.healthypeople.gov/2010/data/midcourse/html/default.htm#FocusAreas.

Highlights

- Almost no progress was made toward the Healthy People 2010 targets for objectives in this Focus Area [1]. Only one Nutrition and Overweight objective (19-11, calcium intake) showed significant positive movement (Figure 19-1). In addition, statistically significant health disparities were observed among racial and ethnic populations, as well as by sex, income, and disability status (Figure 19-2), some of which are discussed below [2].
- The proportion of adults aged 20 and over who were at a healthy weight based on directly measured height and weight (objective 19-1) decreased 26.2% from 1988–94 to 2005–08, from 42% to 31% (age adjusted), moving away from the Healthy People 2010 target of 60%.
- Obesity in the U.S. population has increased, moving away from Healthy People 2010 targets. Based on directly measured height and weight, from 1988–94 to 2005–08 the proportion of adults aged 20 and over who were obese (objective 19-2) rose 47.8%, from 23% to 34% (age adjusted), moving away from the 2010 target of 15%. During the same period, obesity increased 54.5% in children aged 6–11 years, from 11% to 17% (objective 19-3a) and 63.6% in adolescents aged 12–19 years, from 11% to 18% (objective 19-3b), moving away from the 2010 targets of 5%.
- Obesity in adults varied by geographic area. Based on self-reported height and weight, in 2008, Colorado, Connecticut, the District of Columbia, Rhode Island, and Massachusetts had the lowest obesity rates, whereas Alabama, Mississippi, Oklahoma, South Carolina, and West Virginia had the highest rates (Figure 19-3).
- The proportion of persons with healthful eating patterns (objectives 19-5 through 19-11) showed little change. These objectives remained well below their 2010 targets. One objective did show some positive progress: calcium intake among persons aged 2 years and over (objective 19-11) increased 35.5% from 1988–94 to 2003-04, from 31% to 42% (age adjusted), moving toward the Healthy People 2010 target of 74%.
- Food security among U.S. households (objective 19-18) declined 3.4% between 1995 and 2008, from 88% to 85%, moving away from the 2010 target of 94%. Disparities were observed for a number of population groups, for example:
  - Among racial and ethnic groups, non-Hispanic white households had the highest (best) rate of food security, 89% in 2008, whereas non-Hispanic black, Hispanic or Latino, and American Indian or Alaska Native households had rates of 74%, 73%, and 77%, respectively. When expressed as households with *food insecurity*, the rates for non-Hispanic black and Hispanic or Latino

households were almost two and a half times the rate that for non-Hispanic white households, whereas the rate for American Indian or Alaska Native households was more than twice the non-Hispanic white rate (Figure 19-2) [2].

Summary of Progress

- Figure 19-1 presents a quantitative assessment of progress in achieving the Healthy People 2010 objectives for Nutrition and Overweight. Data to measure progress toward target attainment were available for 20 objectives [1]. Of these:
  - Two objectives moved toward their 2010 targets. A statistically significant difference between the baseline and the final data points was observed for one of these objectives (19-11). No significant difference was observed for the other objective (19-5).
  - Three objectives (19-4, 19-6, and 19-12a) showed no change.
  - Fifteen objectives moved away from their targets. A statistically significant difference between the baseline and final data points was observed for nine objectives (19-1, 19-2, 19-3a through c, 19-7, 19-12c, 19-17, and 19-18). No significant differences were observed for five objectives (19-8 through 19-10, 19-12b, and 19-14); and data to test the significance of the difference were unavailable for one objective (19-13).
- One objective (19-16) had no follow-up data available to measure progress and one objective (19-15) was deleted at the Midcourse Review.
- Figure 19-2 displays health disparities in Nutrition and Overweight from the best group rate for each characteristic at the most recent data point [2]. It also displays changes in disparities from baseline to the most recent data point [3].
  - Statistically significant health disparities of 10% or more by race and ethnicity were observed for 10 objectives. Health disparities of 10% or more by race and ethnicity were observed for two additional objectives, although data to test their statistical significance were unavailable. Of these 12 objectives, the non-Hispanic white population had the best rate for six objectives (19-1, 19-2, 19-11, 19-12c, 19-13, and 19-18). The non-Hispanic black and American Indian or Alaska Native populations had the best rate for one objective each (objectives 19-3a and 19-4, respectively). The Mexican American population had the best rate for four objectives (19-5 and 19-8 through 19-10).
  - Females had better rates than males for two of the three objectives with statistically significant health disparities of 10% or more by sex (objectives 19-1 and 19-10). Males had a better rate for the third objective (19-11). Females also had a better rate for one objective with a disparity of 10% or more by sex for which statistical significance could not be assessed (objective 19-4).
  - Persons whose income was above 130% of the poverty threshold (Federal poverty level; see Data Considerations section below) had better rates than persons whose income was below 130% of the poverty threshold for six of the seven objectives with statistically significant health disparities of 10% or more by income (objectives 19-2, 19-3b and c, 19-11, 19-12c, and 19-18). Persons whose income was below 130% of the poverty threshold had a better rate for the seventh objective (19-9).
  - Persons without disabilities had a better rate than persons with disabilities for the one objective with statistically significant health disparities of 10% or more by disability status (objective 19-2).

Transition to Healthy People 2020

For Healthy People 2020, the focus of the Nutrition and Weight Status objectives was expanded to include a broader range of policies and environmental factors that support eating a healthful diet and maintaining a healthy body weight in settings such as schools, worksites, health care organizations, and communities. In addition, the wording and definitions of the food and nutrient consumption objectives have been revised to be applicable to the 2010 Dietary Guidelines for Americans (DGA) and minimize the need to revise the objectives with subsequent updates [4]. To better describe the range of weight-related objectives in Healthy People 2020, the Topic Area name was changed to "Nutrition and Weight Status" from the Healthy People 2010 Focus Area name "Nutrition and Overweight." The Nutrition and Weight Status objectives primarily assess individual behaviors regarding the consumption of healthful diets and achievement and maintenance of healthy body weights, and the policies and environments that support these behaviors. See HealthyPeople.gov for a complete list of Healthy People 2020 topics and objectives.

The Healthy People 2020 Nutrition and Weight Status Topic Area objectives can be grouped into six sections:

- Healthier food access
- Health care and worksite settings
- Weight status

- Food insecurity
- Food and nutrient consumption
- Iron deficiency.

The differences between the Healthy People 2010 objectives and those included in Healthy People 2020 are summarized below:

- The Healthy People 2020 Nutrition and Weight Status Topic Area has a total of 38 objectives, 7 of which are developmental [5]. The Healthy People 2010 Nutrition and Overweight Focus Area had 22 objectives, 1 of which was deleted at the Midcourse Review.
- Six Healthy People 2010 objectives were retained "as is" [6]. These objectives include: healthy weight in adults (objective 19-1), obesity in adults (objective 19-2), obesity in children (separately assessed for those aged 6–11 years and 12–19 years; objectives 19-3a and b, respectively), iron deficiency in pregnant females (objective 19-14), and the complement to food security (i.e., food insecurity) among U.S. households (objective 19-18).
- Three Healthy People 2010 objectives were archived [7]. These include: growth retardation in low-income children (objective 19-4), anemia in low-income pregnant females (objective 19-13), and total fat intake (objective 19-9).
- One objective, meals and snacks at school (objective 19-15), was deleted at the Midcourse Review due to lack of a national data source.
- Twelve Healthy People 2010 objectives were modified to create 13 Healthy People 2020 objectives [8].
  - The age group tracked for obesity in children (objective 19-3c) was expanded from 6–19 years to 2–19 years.
  - Three food consumption objectives for fruits (objective 19-5), vegetables (objective 19-6), and grains (objective 19-7) were changed to create four objectives that are applicable to the 2010 DGA and assess mean intake. The objective for vegetables was divided into two objectives to separately monitor the quantity and variety of vegetables consumed.
  - Three nutrient consumption objectives, including the percentage of calories from saturated fat (objective 19-8), total sodium (objective 19-10), and total calcium (objective 19-11), were also changed to assess mean intake rather than the percentage of the population meeting the DGA, to allow population groups' progress to be assessed in meeting DGA recommendations over the decade without the need to modify the objectives with future releases of the DGA.
  - The model used to determine iron deficiency was changed from the ferritin model to the body iron stores model for three iron deficiency objectives (19-12a through c) assessed among young children (aged 1–2 years and 3–4 years) and nonpregnant females.
  - The objective (19-16) on worksite nutrition and weight management classes or counseling was moved back to developmental status until more current data become available.
  - The objective (19-17) tracking physician office visits that include nutrition counseling or education for patients with cardiovascular disease, diabetes, or hyperlipidemia was modified to include additional diagnostic information from the patient record.
- Nineteen new objectives, six of which are developmental, were added to the Healthy People 2020 Nutrition and Weight Status Topic Area [5]:
  - Five new objectives tracking healthier food access include State nutrition standards for child care, schools not offering calorically sweetened beverages, school requirements for fruit and vegetable availability, State-level incentive policies for food retail, and a developmental objective on access to food retail outlets that sell a variety of foods that are encouraged by the DGA.
  - Four new health care objectives include primary care physicians who assess child and adult patients' body mass index (BMI), physician office visits with weight reduction, nutrition or physical activity counseling or education for obese patients, and nutrition counseling for all patients.
  - Six new weight status objectives include obesity among children aged 2–5 years and five developmental objectives on inappropriate weight gain among youth and adults.
  - A new food security objective tracks very low food security among children.
  - Three new nutrient consumption objectives focus on the percentage of calories from solid fats, added sugars, and both.

Appendix D, "A Crosswalk Between Objectives From Healthy People 2010 to Healthy People 2020," summarizes the changes between the two decades of objectives, reflecting new knowledge and direction for this area.

Data Considerations

State-level rates for obesity among adults (objective 19-2) in Figure 19-3 are based on self-reported height and weight data from Behavioral Risk Factory Surveillance

System (BRFSS) telephone interviews and may not be comparable with national rates in Figures 19-1 and 19-2, which are based on directly measured height and weight from the National Health and Nutrition Examination Survey (NHANES). BMI estimates derived from self-reported height and weight tend to be lower than those derived from measured height and weight due to underreporting of weight and overreporting of height [9]. However, BRFSS data is still useful in assessing geographic differences and changes over time.

The data label used for objectives 19-3a through c "overweight or obesity" in children and adolescents, was revised since the Healthy People 2010 midcourse and progress reviews to "obesity" even though the definition (BMI at or above the sex- and age-specific 95th percentile from the 2000 CDC Growth Charts) and interpretation are still the same. This terminology change in NCHS and other CDC publications is consistent with revisions made by the American Academy of Pediatrics, the Institute of Medicine, and other organizations. Because the indices used are based on body mass rather than fatness, the original terminology of "overweight" for children at or above the 95th percentile was intended to clarify that this cut-off point should not be used as diagnostic criteria. Rather, these children may or may not have excess body fat and should, therefore, be screened for obesity. However, because body fat is difficult to measure and the majority of children with BMI at or above the 95th percentile have high adiposity, on a population-wide basis, high weight-for-height can be considered as an indicator for obesity [10].

Education and income are the primary measures of socioeconomic status in Healthy People 2010. Most data systems used in Healthy People 2010 define income as a family's income before taxes. To facilitate comparisons among groups and over time, while adjusting for family size and for inflation, Healthy People 2010 categorizes income using the poverty thresholds developed by the Census Bureau. Thus, the three categories of family income that are primarily used are:

- Poor—below the Federal poverty level
- Near poor—100% to 199% of the Federal poverty level
- Middle/high income—200% or more of the Federal poverty level.
- These categories may be overridden by considerations specific to the data system, in which case they are modified as appropriate. See *Healthy People 2010: General Data Issues*, referenced below.

Additional information on data issues is available from the following sources:

- All Healthy People 2010 tracking data can be found in the Healthy People 2010 database, DATA2010, available from http://wonder.cdc.gov/data2010/.
- Detailed information about the data and data sources used to support these objectives can be found in the Operational Definitions on the DATA 2010 website, available from http://wonder.cdc.gov/data2010/focusod.htm.
- More information on statistical issues related to Healthy People tracking and measurement can be found in the Technical Appendix and in *Healthy People 2010: General Data Issues*, which is available in the General Data Issues section of the NCHS Healthy People website under Healthy People 2010; see http://www.cdc.gov/nchs/healthy_people/hp2010/hp2010_data_issues.htm.

References and Notes

1. Displayed in the Progress Chart (Figure 19-1), the percent of targeted change achieved expresses the difference between the baseline and the final value relative to the initial difference between the baseline and the Healthy People 2010 target. As such, it is a relative measure of progress toward attaining the Healthy People 2010 target. See the Reader's Guide for more information. When standard errors were available, the difference between the baseline and the final value was tested at the 0.05 level of significance. See the Figure 19-1 footnotes, as well as the Technical Appendix, for more detail.
2. Information about disparities among select populations is shown in the Health Disparities Table (Figure 19-2). Disparity from the best group rate is defined as the percent difference between the best group rate and each of the other group rates for a characteristic. For example, racial and ethnic health disparities are measured as the percent difference between the best racial and ethnic group rate and each of the other racial and ethnic group rates. Similarly, disparities by sex are measured as the percent difference between the better group rate (e.g., female) and the rate for the other group (e.g., male). Some objectives are expressed in terms of favorable events or conditions that are to be increased, while others are expressed in terms of adverse events or conditions that are to be reduced. To facilitate comparison of health disparities across different objectives, disparity is measured only in terms of adverse events or conditions. For comparability across objectives, objectives that are expressed in terms of favorable events or conditions are re-expressed using the adverse event or condition for the purpose of computing disparity, but they are not otherwise restated or changed. For example, objective 1-1, to increase the proportion of persons with health insurance (e.g., 72% of the American Indian or Alaska Native population under age 65 had some form of

health insurance in 2008), is expressed in terms of the percentage of persons without health insurance (e.g., 100% – 72% = 28% of the American Indian or Alaska Native population under age 65 did not have any form of health insurance in 2008) when the disparity from the best group rate is calculated See the Reader's Guide for more information. When standard errors were available, the difference between the best group rate and each of the other group rates was tested at the 0.05 level of significance. See the Figure 19-2 footnotes, as well as the Technical Appendix, for more detail.

3. The change in disparity is estimated by subtracting the disparity at baseline from the disparity at the most recent data point and, therefore, is expressed in percentage points. See the Reader's Guide for more information. When standard errors were available, the change in disparity was tested at the 0.05 level of significance. See the Figure 19-2 footnotes, as well as the Technical Appendix, for more detail.

4. Department of Health and Human Services (DHHS) and Department of Agriculture (USDA). Dietary guidelines for Americans, 2010. 7th ed. Washington: Government Printing Office, 2011 Jan. Available from http://www.health.gov/dietaryguidelines/.

5. To be included in Healthy People 2010, an objective must have a national data source that provides a baseline and at least one additional data point for tracking progress. Some objectives lacked baseline data at the time of their development but had a potential data source and were considered of sufficient national importance to be included in Healthy People. These are called "developmental" objectives. When data become available, a developmental objective is moved to measurable status and a Healthy People target can be set.

6. As of the Healthy People 2020 launch, Healthy People 2020 objectives that were retained "as is" from Healthy People 2010 had no change in the numerator or denominator definitions, the data source(s), or the data collection methodology. These include objectives that were developmental in Healthy People 2010 and are developmental in Healthy People 2020, and for which no numerator information is available.

7. Archived objectives had at least one data point in Healthy People 2010 but were not carried forward into Healthy People 2020.

8. As of the Healthy People 2020 launch, objectives that were modified from Healthy People 2010 had some change in the numerator or denominator definitions, the data source(s), or the data collection methodology. These include objectives that went from developmental in Healthy People 2010 to measurable in Healthy People 2020, or vice versa.

9. Gorber SC, Tremblay M, Moher D, Gorber B. A comparison of direct vs. self-report measures for assessing height, weight and body mass index: a systematic review. Obes Rev 8(4):307–26. 2007 Jul.

10. Ogden CL, Flegal KM. Changes in terminology for childhood overweight and obesity. National health statistics reports; no 25. Hyattsville, MD: National Center for Health Statistics. 2010. Available from http://www.cdc.gov/nchs/data/nhsr/nhsr025.pdf.

Comprehensive Summary of Objectives: Nutrition and Overweight

Objective	Description	Data Source or Objective Status
19-1	Healthy weight in adults (age adjusted, 20+ years)	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-2	Obesity in adults (age adjusted, 20+ years)	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-3a	Obesity—Children 6–11 years	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-3b	Obesity—Adolescents 12–19 years	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-3c	Obesity—Children and adolescents 6–19 years	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-4	Growth retardation in low-income children (<5 years)	Pediatric Nutrition Surveillance System (PedNSS), CDC, NCCDPHP.
19-5	Fruit intake—At least two daily servings (age adjusted, 2+ years)	Baseline data: Continuing Survey of Food Intakes by Individuals (CSFII), Department of Agriculture (USDA), Agricultural Research Service (ARS). Final data: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-6	Vegetable intake—At least three daily servings with at least 1/3 dark green or orange (age adjusted, 2+ years)	Baseline data: Continuing Survey of Food Intakes by Individuals (CSFII), Department of Agriculture (USDA), Agricultural Research Service (ARS). Final data: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-7	Grain product intake—At least six daily servings with at least three being whole grains (age adjusted, 2+ years)	Baseline data: Continuing Survey of Food Intakes by Individuals (CSFII), Department of Agriculture (USDA), Agricultural Research Service (ARS). Final data: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-8	Saturated fat intake—Less than 10% of caloric intake (age adjusted, 2+ years)	Baseline data: Continuing Survey of Food Intakes by Individuals (CSFII), Department of Agriculture (USDA), Agricultural Research Service (ARS). Final data: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-9	Total fat intake—No more than 30% of caloric intake (age adjusted, 2+ years)	Baseline data: Continuing Survey of Food Intakes by Individuals (CSFII), Department of Agriculture (USDA), Agricultural Research Service (ARS). Final data: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-10	Total sodium intake—No more than 2,400 mg daily (age adjusted, 2+ years)	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-11	Total calcium intake—At or above recommended level (age adjusted, 2+ years)	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-12a	Iron deficiency—Children 1–2 years	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-12b	Iron deficiency—Children 3–4 years	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Comprehensive Summary of Objectives: Nutrition and Overweight (continued)

Objective	Description	Data Source or Objective Status
19-12c	Iron deficiency—Nonpregnant females 12–49 years	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-13	Anemia in low-income pregnant females in their third trimester	Pregnancy Nutrition Surveillance System (PNSS), CDC, NCCDPHP.
19-14	Iron deficiency in pregnant females	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-15	Meals and snacks at school—Children and Adolescents (6–19 years)	Deleted at the Midcourse Review.
19-16	Worksite nutrition and weight management classes or counseling	National Worksite Health Promotion Survey (NWHPS), Association for Worksite Health Promotion (AWHP) and OPHS, ODPHP.
19-17	Physician office visits with nutrition counseling for patients with cardiovascular disease, diabetes, or hyperlipidemia (age adjusted, 20+ years)	National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS.
19-18	Food security among U.S. households	Food Security Supplement to the Current Population Survey (CPS): Department of Commerce, Census Bureau; Department of Labor (DOL), Bureau of Labor Statistics (BLS).

Figure 19-1. Progress Toward Target Attainment for Focus Area 19: Nutrition and Overweight

LEGEND — Moved away from target[1] | Moved toward target | Met or exceeded target

	Objective	Percent of targeted change achieved[2] (0 25 50 75 100)	2010 Target	Baseline (Year)	Final (Year)	Baseline vs. Final: Difference[3]	Baseline vs. Final: Statistically Significant[4]	Baseline vs. Final: Percent Change[5]
19-1.	Healthy weight in adults (age adjusted, 20+ years)		60%	42% (1988–94)	31% (2005–08)	-11	Yes	-26.2%
19-2.	Obesity in adults (age adjusted, 20+ years)		15%	23% (1988–94)	34% (2005–08)	11	Yes	47.8%
19-3.	Obesity							
	a. Children 6–11 years		5%	11% (1988–94)	17% (2005–08)	6	Yes	54.5%
	b. Adolescents 12–19 years		5%	11% (1988–94)	18% (2005–08)	7	Yes	63.6%
	c. Children and adolescents 6–19 years		5%	11% (1988–94)	18% (2005–08)	7	Yes	63.6%
19-4.	Growth retardation in low-income children (<5 years)	0.0%	4%	6% (1997)	6% (2009)	0	Not tested	0.0%
19-5.	Fruit intake—At least two daily servings (age adjusted, 2+ years)	2.8%	75%	39% (1994–96)	40% (2003–04)	1	No	2.6%
19-6.	Vegetable intake—At least three daily servings with at least 1/3 dark green or orange (age adjusted, 2+ years)	0.0%	50%	4% (1994–96)	4% (2003–04)	0	No	0.0%
19-7.	Grain product intake—At least six daily servings with at least three being whole grains (age adjusted, 2+ years)		50%	4% (1994–96)	3% (2003–04)	-1	Yes	-25.0%
19-8.	Saturated fat intake—Less than 10% of caloric intake (age adjusted, 2+ years)		75%	36% (1994–96)	34% (2005–08)	-2	No	-5.6%
19-9.	Total fat intake—No more than 30% of caloric intake (age adjusted, 2+ years)		75%	33% (1994–96)	31% (2005–08)	-2	No	-6.1%
19-10.	Total sodium intake—No more than 2,400 mg daily (age adjusted, 2+ years)		65%	15% (1988–94)	13% (2003–04)	-2	No	-13.3%
19-11.	Total calcium intake—At or above recommended level (age adjusted, 2+ years)	25.6%	74%	31% (1988–94)	42% (2003–04)	11	Yes	35.5%
19-12.	Iron deficiency							
	a. Children 1–2 years	0.0%	5%	9% (1988–94)	9% (1999–2002)	0	No	0.0%
	b. Children 3–4 years		1%	4% (1988–94)	6% (2003–06)	2	No	50.0%
	c. Nonpregnant females 12–49 years		7%	11% (1988–94)	16% (2003–06)	5	Yes	45.5%

Figure 19-1. Progress Toward Target Attainment for Focus Area 19: Nutrition and Overweight (continued)

	Objective	Percent of targeted change achieved[2] (0 25 50 75 100)	2010 Target	Baseline (Year)	Final (Year)	Baseline vs. Final: Difference[3]	Baseline vs. Final: Statistically Significant[4]	Baseline vs. Final: Percent Change[5]
19-13.	Anemia in low-income pregnant females in their third trimester		20%	29% (1996)	34% (2009)	5	Not tested	17.2%
19-14.	Iron deficiency in pregnant females		9%	14% (1999–2002)	16% (2003–06)	2	No	14.3%
19-17.	Physician office visits with nutrition counseling for patients with cardiovascular disease, diabetes, or hyperlipidemia (age adjusted, 20+ years)		75%	42% (1997)	28% (2007)	-14	Yes	-33.3%
19-18.	Food security among U.S. households		94%	88% (1995)	85% (2008)	-3	Yes	-3.4%

NOTES

See the Reader's Guide for more information on how to read this figure. See DATA2010 at http://wonder.cdc.gov/data2010 for all HealthyPeople 2010 tracking data. Tracking data are not available for objective 19-16. Objective 19-15 was deleted at the Midcourse Review.

FOOTNOTES

[1] Movement away from target is not quantified using the percent of targeted change achieved. See Technical Appendix for more information.

[2] Percent of targeted change achieved = $\frac{\text{Final value} - \text{Baseline value}}{\text{Healthy People 2010 target} - \text{Baseline value}} \times 100$.

[3] Difference = Final value – Baseline value. Differences between percents (%) are measured in percentage points.

[4] When estimates of variability are available, the statistical significance of the difference between the final value and the baseline value is assessed at the 0.05 level. See Technical Appendix for more information.

[5] Percent change = $\frac{\text{Final value} - \text{Baseline value}}{\text{Baseline value}} \times 100$.

DATA SOURCES

19-1–19-2. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-3a–c. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-4. Pediatric Nutrition Surveillance System (PedNSS), CDC, NCCDPHP.
19-5–19-9. Baseline data: Continuing Survey of Food Intakes by Individuals (CSFII), Department of Agriculture (USDA), Agricultural Research Service (ARS).
Final data: National Health and Nutrition Examination Survey (NHANES): CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-10–19-11. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-12a–c. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-13. Pregnancy Nutrition Surveillance System (PNSS), CDC, NCCDPHP.
19-14. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-17. National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS.
19-18. Food Security Supplement to the Current Population Survey (CPS): Department of Commerce, Census Bureau; Department of Labor (DOL), Bureau of Labor Statistics (BLS).

Figure 19-2. Health Disparities Table for Focus Area 19: Nutrition and Overweight

Disparities from the best group rate for each characteristic at the most recent data point and changes in disparity from the baseline to the most recent data point.

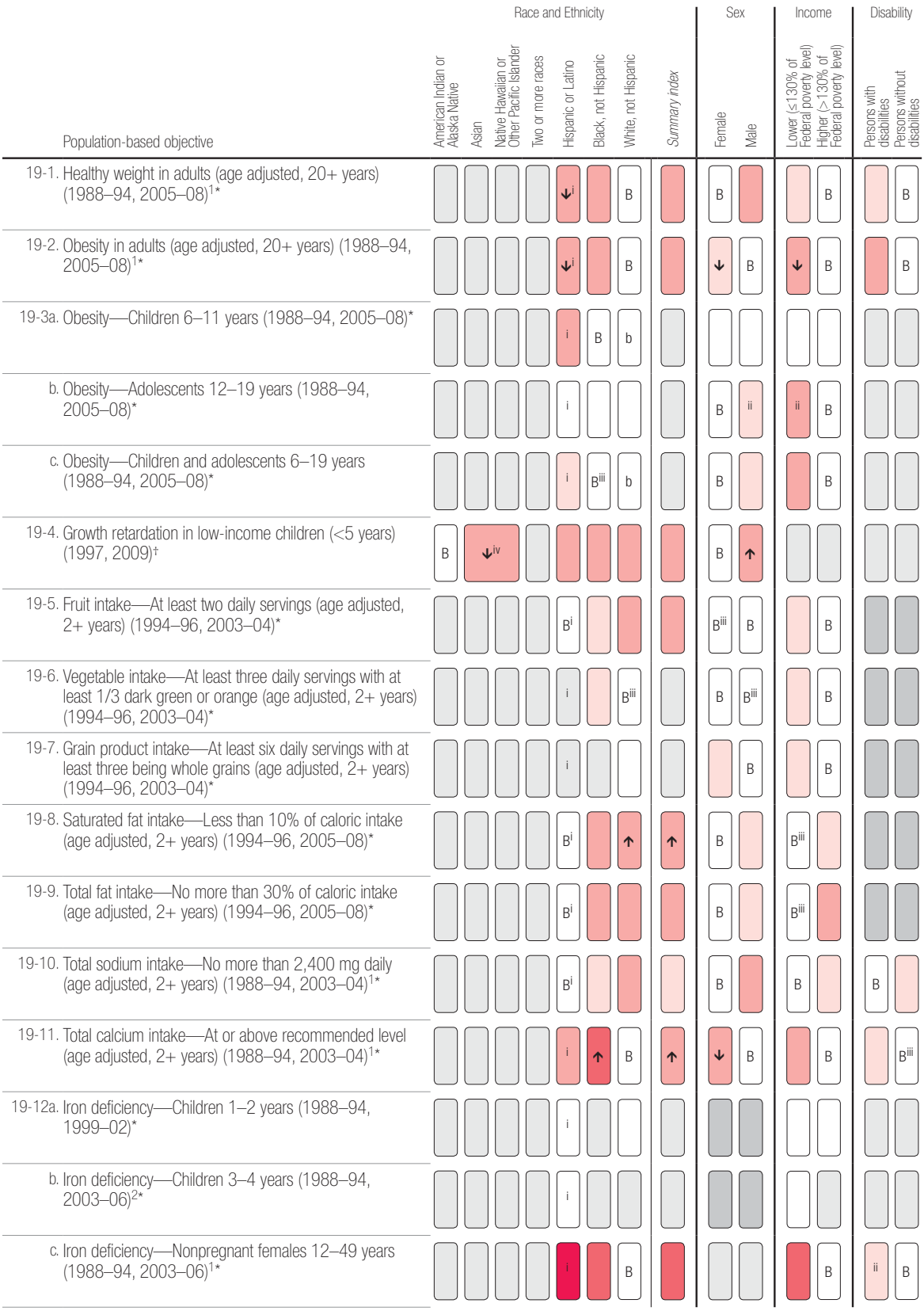
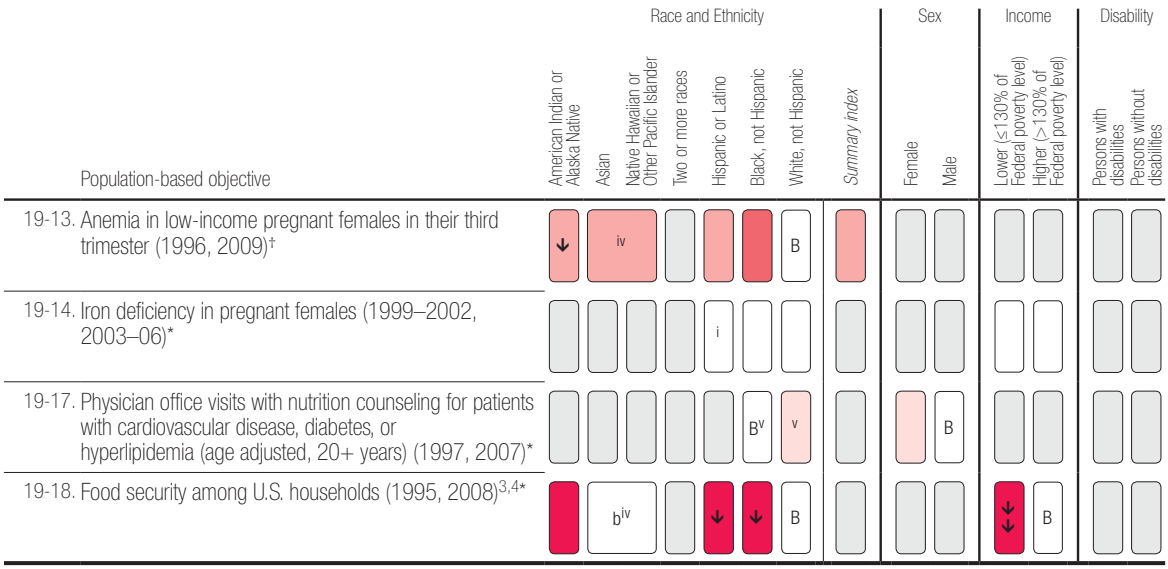


Figure 19-2. Health Disparities Table for Focus Area 19: Nutrition and Overweight (continued)



NOTES

See DATA2010 at http://wonder.cdc.gov/data2010 for all Healthy People 2010 tracking data. Disparity data are either unavailable or not applicable for objective 19-16. Objective 19-15 was deleted at Midcourse Review.

Years in parentheses represent the baseline and most recent data years (if available).

Disparity from the best group rate is defined as the percent difference between the best group rate and each of the other group rates for a characteristic (e.g., race and ethnicity). The summary index is the average of these percent differences for a characteristic. Change in disparity is estimated by subtracting the disparity at baseline from the disparity at the most recent data point. Change in the summary index is estimated by subtracting the summary index at baseline from the summary index at the most recent data point. See Technical Appendix for more information.

LEGEND

The "best" group rate at the most recent data point.

B — The group with the best rate for specified characteristic.

b — Most favorable group rate for specified characteristic, but reliability criterion not met.

Reliability criterion for best group rate not met, or data available for only one group.

Disparity from the best group rate at the most recent data point.

Percent difference from the best group rate

Less than 10%, or difference not statistically significant (when estimates of variability are available).

10%–49%

50%–99%

100% or more

Changes in disparity over time are shown when: (a) disparities data are available at both baseline and most recent time points; (b) data are not for the group(s) indicated by "B" or "b" at either time point; and (c) the change is greater than or equal to 10 percentage points and statistically significant, or when the change is greater than or equal to 10 percentage points and estimates of variability were not available. See Technical Appendix.

Increase in disparity (percentage points)

↑ 10–49 points

↑↑ 50–99 points

↑↑↑ 100 points or more

Decrease in disparity (percentage points)

↓ 10–49 points

↓↓ 50–99 points

↓↓↓ 100 points or more

Availability of Data

Data not available.

Characteristic not selected for this objective.

Figure 19-2. Health Disparities Table for Focus Area 19: Nutrition and Overweight (continued)

FOOTNOTES

* Measures of variability were available. Thus, the variability of best group rates was assessed, and statistical significance was tested. Disparities of 10% or more are displayed when the differences from the best group rate are statistically significant at the 0.05 level. Changes in disparities over time are indicated by arrows when the changes are greater than or equal to 10 percentage points and are statistically significant at the 0.05 level. See Technical Appendix.

† Measures of variability were not available. Thus, the variability of best group rates was not assessed, and statistical significance could not be tested. Nonetheless, disparities and changes in disparities over time are displayed according to their magnitude. See Technical Appendix.

[1] Baseline data by disability status are for 1991–94.

[2] Most recent data by race and ethnicity are for 1988–94.

[3] Baseline data for American Indian or Alaska Native are based on years 1995–97.

[4] Most recent data for American Indian or Alaska Native are based on years 2006–08.

[i] Data are for Mexican American.

[ii] Reliability criterion for best group rate not met, or data available for only one group, at baseline. Change in disparity cannot be assessed. See Technical Appendix.

[iii] The group with the best rate at the most recent data point is different from the group with the best rate at baseline. Both rates met the reliability criterion. See Technical Appendix.

[iv] Data are for Asian or Pacific Islander.

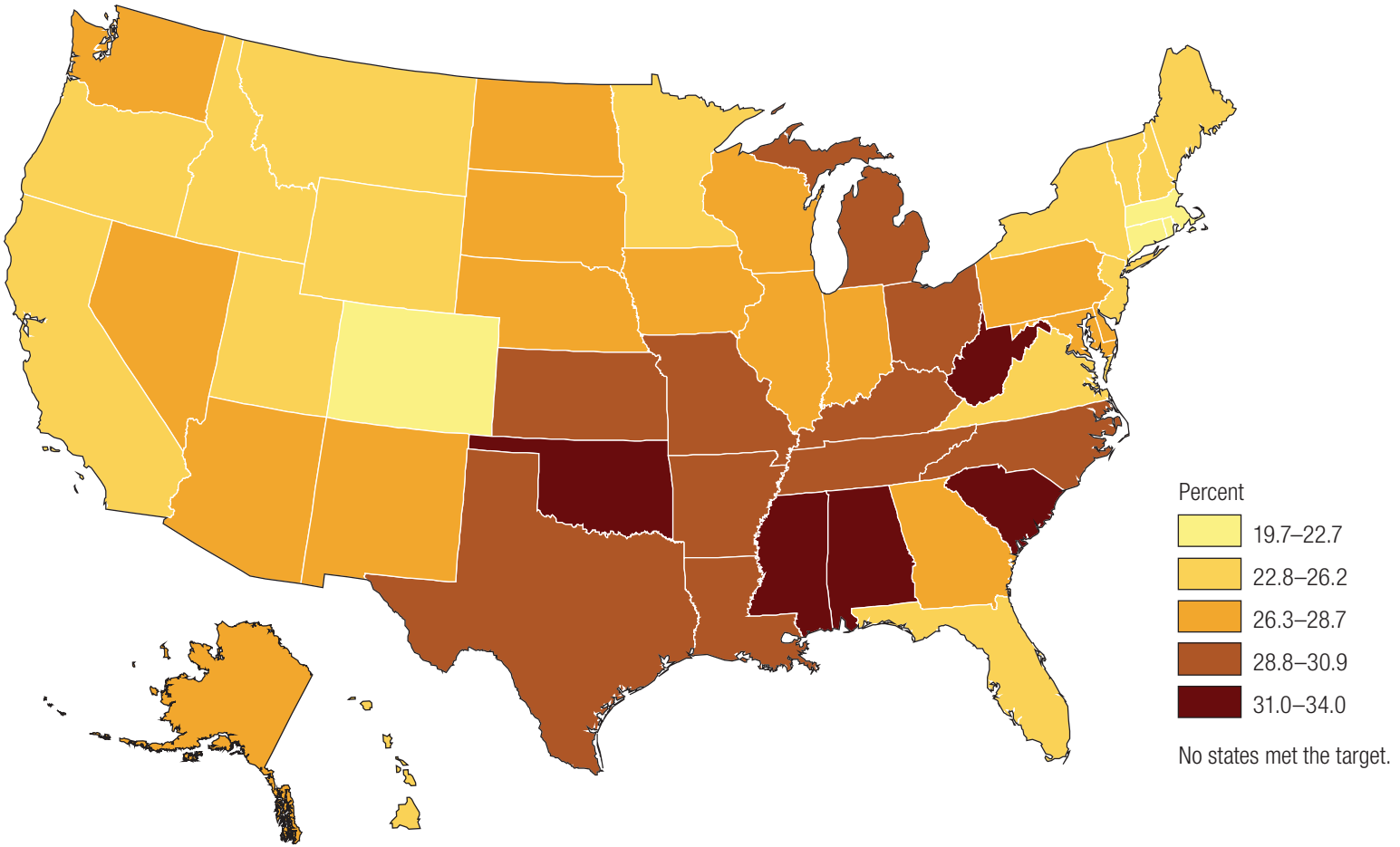
[v] Data include persons of Hispanic origin.

DATA SOURCES

19-1–19-2.	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-3a–c.	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-4.	Pediatric Nutrition Surveillance System (PedNSS), CDC, NCCDPHP.
19-5–19-9.	Baseline data: Continuing Survey of Food Intakes by Individuals (CSFII), Department of Agriculture (USDA), Agricultural Research Service (ARS). Final data: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-10–19-11.	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS; Department of Agriculture (USDA), Agricultural Research Service (ARS).
19-12a–c.	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-13.	Pregnancy Nutrition Surveillance System (PNSS), CDC, NCCDPHP.
19-14.	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
19-17.	National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS.
19-18.	Food Security Supplement to the Current Population Survey (CPS): Department of Commerce, Census Bureau; Department of Labor (DOL), Bureau of Labor Statistics (BLS).

Figure 19-3. Obesity in Adults (Aged 20+), 2008

Healthy People 2010 objective 19-2 • Target = 15 percent



NOTES: Data are for adults aged 20 and over and are age-adjusted to the 2000 standard population. Rates are displayed by a Jenks classification for U.S. states. National data for the objective are based on measured height and weight from the National Health and Nutrition Examination Survey (NHANES) and are the basis for setting the target. State data from the BRFSS are based on self-reported height and weight and may not be comparable with national data from NHANES. The U.S. rate in 2008 from NHANES was 34%. The rate for all states combined from BRFSS in 2008 was 27%.

SOURCE: Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.