

CHAPTER IV

Leading Health Indicators (LHI)

Lead Agencies

Agency for Healthcare Research and Quality
Centers for Disease Control and Prevention
Food and Drug Administration
Health Resources and Services Administration
Indian Health Service
National Institutes of Health
Office of Adolescent Health, Office of the Assistant Secretary for Health,
Office of the Secretary
Office of Population Affairs, Office of the Assistant Secretary for Health,
Office of the Secretary
President's Council on Fitness, Sports, & Nutrition
Substance Abuse and Mental Health Services Administration

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Background

For four decades, Healthy People has provided a comprehensive set of 10-year national goals and objectives for improving the health of all Americans. Healthy People 2020, the most recent iteration, tracks the country's health through more than 1,200 objectives that span 42 topic areas.

The Leading Health Indicators are a select subset of 26 Healthy People 2020 objectives chosen to communicate high-priority health issues and challenges. They address determinants of health that promote quality of life, healthy behaviors, and healthy development across all life stages. The indicators are used to assess the health of the country, facilitate collaboration across sectors, and motivate action to improve health at the national, state, and community levels.

The Leading Health Indicators were selected and organized using a “Health Determinants and Health Outcomes by Life Stages” conceptual framework. This approach was intended to draw attention to both individual and societal determinants that affect the public's health and contribute to health disparities from infancy through old age, thereby highlighting strategic opportunities to promote health and improve quality of life for all Americans. The selection process was led by the Healthy People 2020 Federal Interagency Workgroup (FIW). In selecting the indicators, the FIW took into consideration recommendations from the Institute of Medicine of the National Academy of Sciences and the Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. For more information on the development and framework see “More Information” below.

Leading Health Indicator Topics

The Leading Health Indicators are organized into 12 topics. These topics are described briefly below, and references are provided for readers interested in further information about their public health significance.

Access to Health Services. Barriers to accessing health services, such as lack of availability, high cost, and lack of medical insurance, lead to unmet health care needs, delays in receiving needed care, inability to obtain preventive services, and preventable hospitalizations.¹

Clinical Preventive Services. Services such as routine disease screening and scheduled immunizations prevent illnesses and detect diseases in their earlier, more treatable stages, reducing the risk of illness, disability, early death, and medical care costs.²

Environmental Quality. Approximately one-quarter of the global disease burden is due to modifiable environmental factors, which include exposure to toxic substances and hazardous wastes in the air, water, soil, and food.³

Injury and Violence. Intentional and unintentional injuries are critical public health concerns in the United States. They include homicide; intimate partner, sexual, and school violence; child abuse and neglect; suicide; motor vehicle crashes; and unintentional drug overdoses.⁴

Maternal, Infant, and Child Health. Addressing the health needs of women before, during, and after pregnancy helps to improve not only their health but also their children's health. Healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential.⁵

Mental Health. Mental health is a component of a person's well-being, healthy family and interpersonal relationships, and the ability to live a full and productive life. Mental health disorders have a serious impact on physical health and are associated with the prevalence, progression, and outcome of chronic diseases such as diabetes, heart disease, and cancer.⁶

Nutrition, Physical Activity, and Obesity. Good nutrition, physical activity, and a healthy body weight can help decrease the risk of developing serious health conditions, such as high blood pressure, high cholesterol, diabetes, heart disease, stroke, and cancer. In addition, to manage existing health conditions to improve quality of life, the 2015–2020 “Dietary Guidelines for Americans” emphasize following a healthy eating pattern, engaging in regular physical activity, and achieving and maintaining a healthy weight.⁷

Oral Health. Oral diseases include dental caries (cavities), periodontal (gum) disease, cleft lip and palate, oral and facial pain, and oral and pharyngeal (mouth and throat) cancers. Oral diseases, particularly gum disease, have been linked to chronic diseases such as diabetes, heart disease, and stroke. Many oral diseases can be prevented with regular dental care.⁸

Reproductive and Sexual Health. Reproductive and sexual health covers a broad range of health needs from adolescence forward, including the reproductive system, sexually transmitted diseases (STDs), HIV, and fertility. Untreated STDs can lead to serious long-term health

consequences, especially for adolescent girls and young women. These include reproductive health problems and infertility, fetal and perinatal health problems, cancer, and further sexual transmission of HIV and other STDs.⁹

Social Determinants. Individual and population health are affected by a range of personal, social, economic, and environmental factors. For example, access to parks and safe sidewalks is associated with physical activity in adults, and education is associated with improved health and quality of life and health-promoting behaviors. Although education is the Leading Health Indicator for this topic, many Healthy People 2020 objectives address social determinants as a means of improving population health.⁹

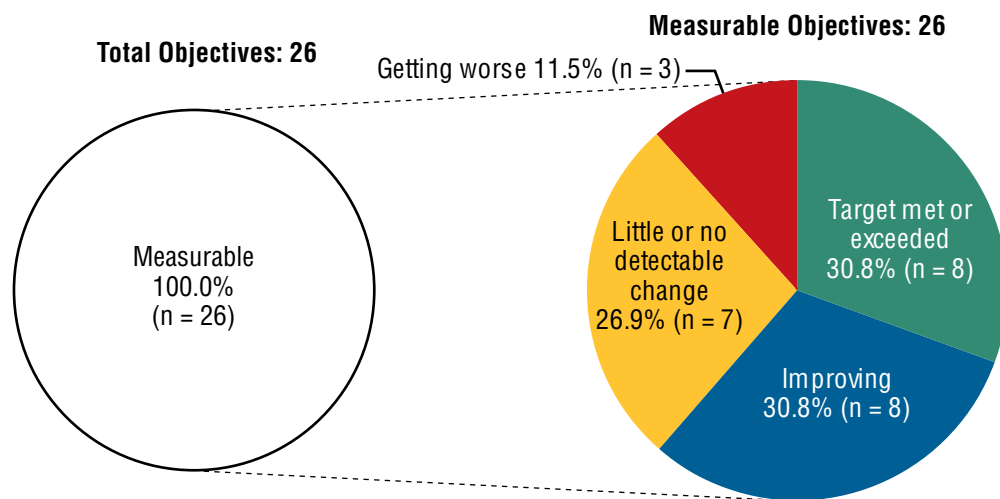
Substance Abuse. Substance abuse—involving drugs, alcohol, or both—is associated with a wide range

of detrimental social conditions, including family disruptions, financial problems, lost productivity, failure in school, domestic violence, child abuse, and crime. Substance abuse contributes to a number of negative health outcomes and public health problems, including cardiovascular conditions, pregnancy complications, teen pregnancy, HIV/AIDS, STDs, motor vehicle crashes, homicide, and suicide.^{10,11}

Tobacco. Tobacco use is the leading cause of preventable disease, disability, and death in the United States. More deaths are caused each year by tobacco use than from HIV, illegal drug use, alcohol use, motor vehicle injuries, suicides, and homicides combined. Tobacco use causes several forms of cancer, heart disease, stroke, lung diseases, pregnancy complications, gum disease, and vision problems.^{12,13}

Status of Leading Health Indicators

Figure IV-1. Midcourse Status of Leading Health Indicators



All 26 of the Leading Health Indicators were measurable Healthy People 2020 objectives^{15,16} at midcourse (Figure IV-1, Table IV-1). The midcourse status of these objectives (Table IV-2) was as follows:

- 8 objectives had met or exceeded their 2020 targets,¹⁷
- 8 objectives were improving,¹⁸
- 7 objectives had demonstrated little or no detectable change,¹⁹ and
- 3 objectives were getting worse.²⁰

Selected Findings

Access to Health Services

- The proportion of **persons under age 65 with medical insurance** (AHS-1.1) increased from 83.2% in 2008 to 86.7% in 2014, moving toward the 2020 target (Table IV-2).
 - » In 2014, there were statistically significant disparities by sex, race and ethnicity, education, family income, disability status, and geographic location in the proportion of persons under age 65 with medical insurance (AHS-1.1, Table IV-3).

- There was little or no detectable change (76.3% in 2007 and 76.5% in 2012) in the proportion of **persons with a usual primary care provider** (AHS-3, Table IV-2).

- » In 2012, there were statistically significant disparities by sex, race and ethnicity, education, and family income in the proportion of persons with a usual primary care provider (AHS-3, Table IV-3). The disparity by geographic location was not statistically significant.

Clinical Preventive Services

- The age-adjusted proportion of **adults aged 50–75 who had received a colorectal cancer screening based on the most recent guidelines** (C-16) increased from 52.1% in 2008 to 58.2% in 2013, moving toward the 2020 target (Table IV-2).

- » In 2014, the age-adjusted proportion of adults aged 50–75 who received a colorectal cancer screening based on the most recent guidelines varied by state (Map IV-1).²¹

- » In 2013, there were statistically significant disparities by race and ethnicity, education, family income, disability status, and geographic location in the age-adjusted proportion of adults aged 50–75 who had received a colorectal cancer screening based on the most recent guidelines (C-16, Table IV-3). The disparity by sex was not statistically significant.

- The age-adjusted proportion of **adults aged 18 and over with hypertension whose blood pressure was under control** (HDS-12) increased from 43.7% in 2005–2008 to 48.9% in 2009–2012, moving toward the 2020 target (Table IV-2).

- » In 2009–2012, there were statistically significant disparities by sex, race and ethnicity, and disability status in the age-adjusted proportion of adults with hypertension whose blood pressure was under control (HDS-12, Table IV-3). The disparities by education and family income were not statistically significant.

- Between 2005–2008 and 2009–2012, there was little or no detectable change in the age-adjusted proportion of **adults aged 18 and over with diagnosed diabetes whose A1c value was greater than 9%** (18.0% and 21.0%, respectively) (D-5.1, Table IV-2).

- » In 2009–2012, there were statistically significant disparities by sex and race and ethnicity in the age-adjusted proportion of adults with diagnosed diabetes whose A1c value was greater than 9%

(D-5.1, Table IV-3). The disparities by education, family income, and disability status were not statistically significant.

- The percentage of **children aged 19–35 months who received the recommended doses of diphtheria-tetanus-acellular pertussis (DTaP); polio; measles, mumps, rubella (MMR); Haemophilus influenza B (Hib); hepatitis B (HepB); varicella; and pneumococcal conjugate vaccine (PCV)** (IID-8) increased from 68.4% in 2012 to 71.6% in 2014, moving toward the 2020 target (Table IV-2).

- » In 2014, there were statistically significant disparities by sex, mother's education, and family income in the percentage of children aged 19–35 months who received the recommended doses of DTaP, polio, MMR, Hib, HepB, varicella, and PCV (IID-8, Table IV-3). The disparities by race and ethnicity and geographic location were not statistically significant.

Environmental Quality

- The number of **days the Air Quality Index (AQI) exceeded 100** (EH-1) decreased from 2,200,000,000 (weighted by population and AQI) in 2006–2008 to 982,186,972 in 2012–2014, exceeding the 2020 target (Table IV-2).
- The proportion of **children aged 3–11 years who were exposed to secondhand smoke** (TU-11.1) decreased from 52.2% in 2005–2008 to 41.3% in 2009–2012, exceeding the 2020 target (Table IV-2).

- » In 2009–2012, there were statistically significant disparities by race and ethnicity and family income in the proportion of children aged 3–11 years exposed to secondhand smoke (TU-11.1, Table IV-3). The disparity by sex was not statistically significant.

Injury and Violence

- The age-adjusted rate of **injury deaths** (IVP-1.1) per 100,000 population decreased from 59.7 in 2007 to 58.8 in 2013, moving toward the 2020 target (Table IV-2).
- » In 2013, there were statistically significant disparities by sex, race and ethnicity, and geographic location in the age-adjusted rate of injury deaths (IVP-1.1, Table IV-3).
- The age-adjusted rate of **homicides** (IVP-29) per 100,000 population decreased from 6.1 in 2007 to 5.2 in 2013, exceeding the 2020 target (Table IV-2).

- » In 2013, there were statistically significant disparities by sex, race and ethnicity, and geographic location in the age-adjusted rate of homicides (IVP-29, Table IV-3).

Maternal, Infant, and Child Health

- **All infants deaths under age 1 year** (MICH-1.3) per 1,000 live births decreased from 6.7 in 2006 to 6.0 in 2013, meeting the 2020 target (Table IV-2).
 - » Infant mortality rates (MICH-1.3) varied by state. In 2013, 24 states had met or exceeded the national target for all infant deaths under age 1 year (Map IV-2).
 - » In 2013, there were statistically significant disparities by the infant's sex and mother's race and ethnicity in the rate of all infant deaths under age 1 year (MICH-1.3, Table IV-3).
- **Total preterm live births born before 37 completed weeks of gestation** (MICH-9.1), decreased from 12.7% in 2007 to 11.4% in 2013, meeting the 2020 target (Table IV-2).
 - » Preterm births (MICH-9.1) varied by state. In 2013, 26 states had met or exceeded the national target for total preterm live births of less than 37 weeks gestation (Map IV-3).
 - » In 2013, there were statistically significant disparities by the infant's sex, mother's race and ethnicity, and geographic location in the proportion of preterm live births of less than 37 weeks gestation (MICH-9.1, Table IV-3).

Mental Health

- The age-adjusted rate of **suicide** per 100,000 population (MHMD-1) increased from 11.3 in 2007 to 12.6 in 2013, moving away from the baseline and 2020 target (Table IV-2).
 - » In 2013, there were statistically significant disparities by sex, race and ethnicity, and geographic location in the age-adjusted suicide rate (MHMD-1, Table IV-3).
- The proportion of **adolescents aged 12–17 with a major depressive episode in the past 12 months** (MHMD-4.1) increased from 8.3% in 2008 to 10.7% in 2013, moving away from the baseline and 2020 target (Table IV-2).
 - » In 2013, there were statistically significant disparities by sex, race and ethnicity, family income, and geographic location in the proportion of

adolescents aged 12–17 with a major depressive episode in the past 12 months (MHMD-4.1, Table IV-3).

Nutrition, Physical Activity, and Obesity

- The age-adjusted proportion of **adults aged 18 and over who met the physical activity guidelines for both aerobic** (150 minutes or more of light/moderate or 75 minutes or more of vigorous physical activity per week or equivalent combination) **and muscle-strengthening physical activity** (at least twice a week) (PA-2.4) increased from 18.2% in 2008 to 21.3% in 2014, exceeding the 2020 target (Table IV-2).
 - » In 2013, the age-adjusted proportion of adults who met the guidelines for both aerobic exercise and muscle-strengthening physical activity varied by state (Map IV-4).²²
 - » In 2014, there were statistically significant disparities by sex, education, family income, disability status, and geographic location in the age-adjusted proportion of adults who met the physical activity guidelines for both aerobic exercise and muscle-strengthening physical activity (PA-2.4, Table IV-3). The disparity by race and ethnicity was not statistically significant.
- There was little or no detectable change (33.9% in 2005–2008 and 35.3% in 2009–2012) in the age-adjusted proportion of **adults aged 20 and over with obesity** (NWS-9, Table IV-2).
 - » In 2013, age-adjusted self-reported obesity rates for adults aged 20 and over varied by state (Map IV-5).²³
 - » In 2009–2012, there were statistically significant disparities by race and ethnicity, education, family income, and disability status in the age-adjusted proportion of adults aged 20 and over with obesity (NWS-9, Table IV-3). The disparity by sex was not statistically significant.
- There was little or no detectable change (16.1% in 2005–2008 and 16.9% in 2009–2012) in the proportion of **children and adolescents aged 2–19 years with obesity** (NWS-10.4, Table IV-2).
 - » In 2009–2012, there were statistically significant disparities by race and ethnicity and family income in the proportion of children and adolescents aged 2–19 years with obesity (NWS-10.4, Table IV-3). The disparity by sex was not statistically significant.
- Between 2005–2008 and 2009–2012, there was little or no detectable change (0.76 and 0.77 cup equivalents per 1,000 calories, respectively) in the

age-adjusted **mean daily intake of total vegetables by persons aged 2 years and over** (NWS-15.1, Table IV-2).

- » In 2009–2012, there were statistically significant disparities by sex, race and ethnicity, education, family income, and disability status in the age-adjusted mean daily intake of total vegetables by persons aged 2 years and over (NWS-15.1, Table IV-3).

Oral Health

- The age-adjusted proportion of **persons aged 2 years and over who visited a dentist in the past year** (OH-7) decreased from 44.5% in 2007 to 42.1% in 2012, moving away from the baseline and 2020 target (Table IV-2).
 - » In 2012, there were statistically significant disparities by sex, race and ethnicity, education, family income, disability status, and geographic location in the age-adjusted proportion of persons age 2 years and over who visited a dentist in the past year (OH-7, Table IV-3).

Reproductive and Sexual Health

- There was little or no detectable change (78.6% in 2006–2010 and 77.3% in 2011–2013) in the proportion of **sexually active females aged 15–44 who had received reproductive health services in the past year** (FP-7.1, Table IV-2).
 - » In 2011–2013, there were statistically significant disparities by race and ethnicity and geographic location in the proportion of sexually active females aged 15–44 who had received reproductive health services in the past year (FP-7.1, Table IV-3). The disparities by education, family income, and disability status were not statistically significant.
- The proportion of **HIV-positive persons aged 13 and over who were aware of their HIV infection status** (HIV-13) increased from 80.9% in 2006 to 87.2% in 2012, moving toward the 2020 target (Table IV-2).
 - » The proportion of HIV-positive persons aged 13 and over who knew their serostatus (HIV-13) varied by state. In 2012, 11 states had met or exceeded the national target (Map IV-6).
 - » In 2012, the disparities by sex and race in the proportion of HIV-positive persons aged 13 and over who were aware of their HIV infection status were not tested for statistical significance (HIV-13, Table IV-3).

Social Determinants

- The proportion of **students who graduated from high school 4 years after starting 9th grade** (AH-5.1) increased from 79% in 2010–2011 to 81% in 2012–2013, moving toward the 2020 target (Table IV-2).
 - » The proportion of students who graduated from high school 4 years after starting 9th grade (AH-5.1) varied by state. In 2012–2013, nine states met the national 2020 target (Map IV-7).
 - » In 2012–2013, the disparity by race and ethnicity in the proportion of students who graduated from high school 4 years after starting 9th grade was not tested for statistical significance (AH-5.1, Table IV-3).

Substance Abuse

- The proportion of **adolescents aged 12–17 who had used alcohol or illicit drugs in the past 30 days** (SA-13.1) decreased from 18.4% in 2008 to 15.9% in 2013, exceeding the 2020 target (Table IV-2).
 - » In 2013, there were statistically significant disparities by race and ethnicity and family income in the proportion of adolescents aged 12–17 who had used alcohol or illicit drugs in the past 30 days (SA-13.1, Table IV-3). The disparities by sex and geographic location were not statistically significant.
- There was little or no detectable change (27.1% in 2008 and 26.9% in 2013) in the proportion of **adults aged 18 and over who engaged in binge drinking in the past 30 days** (SA-14.3, Table IV-2).
 - » The proportion of adults aged 18 and over who engaged in binge drinking in the past 30 days (SA-14.3) varied by state. In 2010–2013, 10 states had met or exceeded the national target (Map IV-8).
 - » In 2013, there were statistically significant disparities by sex, race and ethnicity, education, family income, and geographic location in the proportion of adults aged 18 and over who had engaged in binge drinking in the past 30 days (SA-14.3, Table IV-3).

Tobacco

- The age-adjusted proportion of **adults aged 18 and over who were current cigarette smokers** (TU-1.1) decreased from 20.6% in 2008 to 17.0% in 2014, moving toward the 2020 target (Table IV-2).
 - » In 2013, the age-adjusted proportion of adults aged 18 and over who were current cigarette smokers varied by state (Map IV-9).²⁴

- » In 2014, there were statistically significant disparities by sex, race and ethnicity, education, family income, disability status, and geographic location in the age-adjusted proportion of adults who were current cigarette smokers (TU-1.1, Table IV-3).
- The proportion of **students in grades 9–12 who smoked cigarettes in the past 30 days** decreased from 19.5% in 2009 to 15.7% in 2013, exceeding the 2020 target (TU-2.2, Table IV-2).
 - » State-level data on cigarette smoking in the past 30 days among students in grades 9–12 (TU-2.2) were available for 41 states in 2013. Thirty-two states had met or exceeded the national target (Map IV-10).
 - » In 2013, there was a statistically significant difference by race and ethnicity in the proportion of students in grades 9–12 who smoked cigarettes in the past 30 days (TU-2.2, Table IV-3). The disparity by sex was not statistically significant.

More Information

Readers interested in more detailed information about the Leading Health Indicators are invited to visit the HealthyPeople.gov website, where extensive substantive and technical information is available:

- For the background and importance of the Leading Health Indicators, see: <http://www.healthypeople.gov/2020/Leading-Health-Indicators>
- For information on a specific Leading Health Indicator Topic, see: <https://www.healthypeople.gov/2020/leading-health-indicators/2020-LHI-Topics>
- For data details for each indicator, including definitions, numerators, denominators, calculations, and data limitations, see: <https://www.healthypeople.gov/2020/topics-objectives>
Select and click on a topic area from the list. Then select the “Objectives” tab, select an objective, and then click on the “DATA2020” icon or “Data Details” icon.
- For indicator data by population group (e.g., sex, race and ethnicity, or family income), including rates, percentages, or counts for multiple years, see: <http://www.healthypeople.gov/2020/Leading-Health-Indicators>
Select and click on a Topic listed in the left-hand column. Then select and click on an indicator listed in the body of the text. When the objective box appears, click on the “Data2020” icon.

Readers interested in more detailed information about the Healthy People Topic Areas mentioned in this chapter are invited to visit the Healthy People 2020 Midcourse Review home page, where links to Topic Area chapters can be found: http://cdc.gov/nchs/healthy_people/hp2020/hp2020_midcourse_review.htm

Data for the Healthy People 2020 Leading Health Indicator objectives in this chapter were from the following data sources:

- Air Quality System: <https://www.epa.gov/aqs>
- Behavioral Risk Factor Surveillance System: <http://www.cdc.gov/brfss/>
- Bridged-race Population Estimates: http://www.cdc.gov/nchs/nvss/bridged_race.htm
- Common Core of Data: <https://nces.ed.gov/ccd/>
- Linked Birth and Infant Death Data Set: <http://www.cdc.gov/nchs/nvss/linked-birth.htm>
- Medical Expenditure Panel Survey: <http://meps.ahrq.gov/mepsweb/>
- National Health and Nutrition Examination Survey: <http://www.cdc.gov/nchs/nhanes/>
- National Health Interview Survey: <http://www.cdc.gov/nchs/nhis/>
- National HIV Surveillance System: <http://www.cdc.gov/hiv/statistics/>
- National Immunization Surveys: <http://www.cdc.gov/vaccines/imz-managers/nis/index.html>
- National Survey of Family Growth: <http://www.cdc.gov/nchs/nsfg/>
- National Survey on Drug Use and Health: <https://nsduhweb.rti.org/respsweb/homepage.cfm>
- National Vital Statistics System—Mortality: <http://www.cdc.gov/nchs/nvss/deaths.htm>
- National Vital Statistics System—Nativity: <http://www.cdc.gov/nchs/nvss/births.htm>
- Youth Risk Behavioral Surveillance System: <http://www.cdc.gov/healthyyouth/data/yrbs/index.htm>

Footnotes

¹ Agency for Healthcare Research and Quality. National Healthcare Disparities Report, 2013. Chapter 10: Access to Health Care. AHRQ Publication No. 14-0006. Rockville, MD. 2014. Available from: <http://www.ahrq.gov/research/findings/nhqrdr/nhdr13/chap10.html>.

² Agency for Healthcare Research and Quality. Guide to Clinical Preventive Services, 2014. Recommendations of the U.S. Preventive Services Task Force. Available from: <http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/guide/index.html>.

³ Prüss-Üstün A, Corvalán C. Preventing Disease Through Healthy Environments. World Health Organization. 2006. Available from: http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf.

⁴ Doll LS, Bonzo SE, Mercy JA, Sleet DA, editors. Handbook of Injury and Violence Prevention. New York, NY: Springer Science+Business Media, LLC. 2007.

⁵ U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health 2nd ed. Washington, DC: Government Printing Office. November 2000.

⁶ Chapman DP, Perry GS, Strine TW. The Vital Link Between Chronic Disease and Depressive Disorders. *Prev Chronic Dis* 2(1):A14. 2005. Available from: http://www.cdc.gov/pcd/issues/2005/jan/04_0066.htm.

⁷ U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans 2015–2020. 8th ed. 2015. Available from: <http://health.gov/dietaryguidelines/2015/guidelines/>.

⁸ US Department of Health and Human Services, Public Health Service, Office of the Surgeon General. Oral health in America: A report of the Surgeon General. Rockville, MD: National Institutes of Health, National Institute of Dental and Craniofacial Research; 2000. Available from: <http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/sgr/home.htm>.

⁹ Office of the Surgeon General National Prevention Council. National Prevention Strategy. 2011. Available from: <http://www.surgeongeneral.gov/priorities/prevention/strategy/report.pdf>.

¹⁰ National Institute on Drug Abuse. Medical Consequences of Drug Abuse. Available from: <https://www.drugabuse.gov/related-topics/medical-consequences-drug-abuse>.

¹¹ National Institute on Drug Abuse. Drug Abuse and Addiction: One of America's Most Challenging Public Health Problems. 2005. Available from: <https://archives.drugabuse.gov/about/welcome/aboutdrugabuse/index.html>.

¹² U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. 2014.

¹³ Centers for Disease Control and Prevention. Smoking-attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States, 2000–2004. *MMWR* 57(45):1226–8. 2008. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm>.

¹⁴ Office of Disease Prevention and Health Promotion. Leading Health Indicators Development and Framework. Available from: <https://www.healthypeople.gov/2020/leading-health-indicators/Leading-Health-Indicators-Development-and-Framework>.

¹⁵ More on understanding and interpreting Midcourse Review data, including a step-by-step guide to the tables, can be found in the **Reader's Guide**. The **Technical Notes** provide more information on Healthy People 2020 statistical methods and issues.

¹⁶ **Measurable** objectives had a national baseline value.

¹⁷ **Target met or exceeded**—One of the following, as specified in the Midcourse Progress Table:

- » At baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)
- » The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)

¹⁸ **Improving**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.
- » Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.

¹⁹ **Little or no detectable change**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.
- » Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.
- » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.
- » Movement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.
- » There was no change between the baseline and the midcourse data point.

²⁰ **Getting worse**—One of the following, as specified in the Midcourse Progress Table:

- » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.
- » Movement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.

²¹ The state data shown are from the Behavioral Risk Factor Surveillance System (BRFSS), while the national data, used to set the national target, are from the National Health Interview Survey (NHIS). National and state data may not be directly comparable, and therefore, the national target may not be applicable to the state data.

²² The state data shown are from BRFSS, while the national data, used to set the national target, are from NHIS. National and state data may not be directly comparable, and therefore, the national target may not be applicable to the state data.

²³ The obesity rates shown for states in the map are based on self-reported weight and height and are from the Behavioral Risk Factor Surveillance System. The national data for NWS-9 are based on measured weight and height from the National Health and Nutrition Examination Survey and are the basis for setting the national target. National and state data may not be directly comparable, and therefore, the national target may not be applicable to the state data.




²⁴ The state data shown are from BRFSS, while the national data, used to set the national target, are from NHIS. National and state data may not be directly comparable, and therefore the national target may not be applicable to the state data.

Suggested Citation

National Center for Health Statistics. Chapter IV: Leading Health Indicators. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016.

Table IV-1. Leading Health Indicators

LEGEND

	Data for this objective are available in this chapter's Midcourse Progress Table.		Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table.		A state or county level map for this objective is available at the end of the chapter.
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Objective Number	Objective Statement	Data Sources	Midcourse Data Availability		
Access to Health Services					
AHS-1.1	Increase the proportion of persons with medical insurance	National Health Interview Survey (NHIS), CDC/NCHS			
AHS-3	Increase the proportion of persons with a usual primary care provider	Medical Expenditure Panel Survey (MEPS), AHRQ			
Clinical Preventive Services					
C-16	Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines	National Health Interview Survey (NHIS), CDC/NCHS			
HDS-12	Increase the proportion of adults with hypertension whose blood pressure is under control	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS			
D-5.1	Reduce the proportion of persons with diabetes with an A1c value greater than 9 percent	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS			
IID-8	Increase the percentage of children aged 19 to 35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella and pneumococcal conjugate vaccine (PCV)	National Immunization Survey (NIS), CDC/NCIRD and CDC/NCHS			
Environmental Quality					
EH-1	Reduce the number of days the Air Quality Index (AQI) exceeds 100, weighted by population and AQI	Air Quality System (AQS), EPA			
TU-11.1	Reduce the proportion of children aged 3 to 11 years exposed to secondhand smoke	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS			
Injury and Violence					
IVP-1.1	Reduce fatal injuries	National Vital Statistics System–Mortality (NVSS–M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census			
IVP-29	Reduce homicides	National Vital Statistics System–Mortality (NVSS–M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census			

Table IV-1. Leading Health Indicators—Continued

LEGEND



Data for this objective are available in this chapter's Midcourse Progress Table.



Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table.



A state or county level map for this objective is available at the end of the chapter.

Objective Number	Objective Statement	Data Sources	Midcourse Data Availability		
Maternal, Infant, and Child Health					
MICH-1.3	Reduce the rate of all infant deaths (within 1 year)	Linked Birth/Infant Death Data Set, CDC/NCHS			
MICH-9.1	Reduce total preterm births	National Vital Statistics System–Natality (NVSS–N), CDC/NCHS			
Mental Health					
MHMD-1	Reduce the suicide rate	National Vital Statistics System–Mortality (NVSS–M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census			
MHMD-4.1	Reduce the proportion of adolescents aged 12 to 17 years who experience major depressive episodes (MDEs)	National Survey on Drug Use and Health (NSDUH), SAMHSA			
Nutrition, Physical Activity, and Obesity					
PA-2.4	Increase the proportion of adults who meet the objectives for aerobic physical activity and for muscle-strengthening activity	National Health Interview Survey (NHIS), CDC/NCHS			
NWS-9	Reduce the proportion of adults who are obese	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS			
NWS-10.4	Reduce the proportion of children and adolescents aged 2 to 19 years who are considered obese	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS			
NWS-15.1	Increase the contribution of total vegetables to the diets of the population aged 2 years and older	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS			
Oral Health					
OH-7	Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year	Medical Expenditure Panel Survey (MEPS), AHRQ			

Table IV–1. Leading Health Indicators—Continued

LEGEND



Data for this objective are available in this chapter's Midcourse Progress Table.



Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table.



A state or county level map for this objective is available at the end of the chapter.

Objective Number	Objective Statement	Data Sources	Midcourse Data Availability		
Reproductive and Sexual Health					
FP-7.1	Increase the proportion of sexually experienced females aged 15 to 44 years who received reproductive health services in the past 12 months	National Survey of Family Growth (NSFG), CDC/NCHS			
HIV-13	Increase the proportion of persons living with HIV who know their serostatus	National HIV Surveillance System (NHSS), CDC/NCHHSTP			
Social Determinants					
AH-5.1	Increase the proportion of students who graduate with a regular diploma 4 years after starting 9th grade	Common Core of Data (CCD), ED/NCES			
Substance Abuse					
SA-13.1	Reduce the proportion of adolescents reporting use of alcohol or any illicit drugs during the past 30 days	National Survey on Drug Use and Health (NSDUH), SAMHSA			
SA-14.3	Reduce the proportion of persons engaging in binge drinking during the past 30 days—adults aged 18 years and older	National Survey on Drug Use and Health (NSDUH), SAMHSA			
Tobacco					
TU-1.1	Reduce cigarette smoking by adults	National Health Interview Survey (NHIS), CDC/NCHS			
TU-2.2	Reduce use of cigarettes by adolescents (past month)	Youth Risk Behavior Surveillance System (YRBSS), CDC/NCHHSTP			

Table IV–2. Midcourse Progress for Leading Health Indicators

LEGEND

 Target met or exceeded ^{1,2}	 Improving ^{3,4}	 Little or no detectable change ^{5–9}	 Getting worse ^{10,11}	 Baseline only ¹²	 Informational ¹³
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Objective Description	Baseline Value (Year)	Midcourse Value (Year)	Target	Movement Toward Target ¹⁴	Movement Away From Baseline ¹⁵	Movement Statistically Significant ¹⁶
Access to Health Services						
 ³ AHS-1.1 Persons with medical insurance (percent, <65 years)	83.2% (2008)	86.7% (2014)	100%	20.8%		Yes
 ⁵ AHS-3 Persons with a usual primary care provider (percent)	76.3% (2007)	76.5% (2012)	83.9%	2.6%		No
Clinical Preventive Services						
 ³ C-16 Adults receiving colorectal cancer screening based on most recent guidelines (age-adjusted, percent, 50–75 years)	52.1% (2008)	58.2% (2013)	70.5%	33.2%		Yes
 ³ HDS-12 Adults with hypertension whose blood pressure is under control (age-adjusted, percent, 18+ years)	43.7% (2005–2008)	48.9% (2009–2012)	61.2%	29.7%		Yes
 ⁷ D-5.1 Adults with diagnosed diabetes whose A1c value is greater than 9% (age-adjusted, percent, 18+ years)	18.0% (2005–2008)	21.0% (2009–2012)	16.2%		16.7%	No
 ³ IID-8 Children receiving the recommended doses of DTaP, polio, MMR, Hib, HepB, varicella, and PCV vaccines by age 19–35 months (percent)	68.4% (2012)	71.6% (2014)	80.0%	27.6%		Yes
Environmental Quality						
 ¹ EH-1 Air Quality Index greater than 100 (number of days, weighted by population and Air Quality Index value)	2,200,000,000 (2006–2008)	982,186,972 (2012–2014)	1,980,000,000	553.6%		
 ¹ TU-11.1 Children exposed to secondhand smoke (percent, nonsmokers, 3–11 years)	52.2% (2005–2008)	41.3% (2009–2012)	47.0%	209.6%		Yes
Injury and Violence						
 ³ IVP-1.1 Injury deaths (age-adjusted, per 100,000 population)	59.7 (2007)	58.8 (2013)	53.7	15.0%		Yes
 ¹ IVP-29 Homicides (age-adjusted, per 100,000 population)	6.1 (2007)	5.2 (2013)	5.5	150.0%		Yes
Maternal, Infant, and Child Health						
 ¹ MICH-1.3 All Infant deaths (per 1,000 live births, <1 year)	6.7 (2006)	6.0 (2013)	6.0	100.0%		Yes
 ¹ MICH-9.1 Total preterm live births (percent, <37 completed weeks gestation)	12.7% (2007)	11.4% (2013)	11.4%	100.0%		Yes

Table IV-2. Midcourse Progress for Leading Health Indicators—Continued

LEGEND

 Target met or exceeded ^{1,2}	 Improving ^{3,4}	 Little or no detectable change ⁵⁻⁹	 Getting worse ^{10,11}	 Baseline only ¹²	 Informational ¹³
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Objective Description	Baseline Value (Year)	Midcourse Value (Year)	Target	Movement Toward Target ¹⁴	Movement Away From Baseline ¹⁵	Movement Statistically Significant ¹⁶
Mental Health						
 ¹⁰ MHMD-1 Suicide (age-adjusted, per 100,000 population)	11.3 (2007)	12.6 (2013)	10.2		11.5%	Yes
 ¹⁰ MHMD-4.1 Adolescents with a major depressive episode in the past 12 months (percent, 12–17 years)	8.3% (2008)	10.7% (2013)	7.5%		28.9%	Yes
Nutrition, Physical Activity, and Obesity						
 ¹ PA-2.4 Adults meeting aerobic physical activity and muscle-strengthening objectives (age-adjusted, percent, 18+ years)	18.2% (2008)	21.3% (2014)	20.1%	163.2%		Yes
 ⁷ NWS-9 Obesity among adults (age-adjusted, percent, 20+ years)	33.9% (2005–2008)	35.3% (2009–2012)	30.5%		4.1%	No
 ⁷ NWS-10.4 Obesity among children and adolescents (percent, 2–19 years)	16.1% (2005–2008)	16.9% (2009–2012)	14.5%		5.0%	No
 ⁵ NWS-15.1 Mean daily intake of total vegetables (age-adjusted, cup equivalents per 1,000 calories, 2+ years)	0.76 (2005–2008)	0.77 (2009–2012)	1.16	2.5%		No
Oral Health						
 ¹⁰ OH-7 Children, adolescents, and adults who visited the dentist in the past year (age-adjusted, percent, 2+ years)	44.5% (2007)	42.1% (2012)	49.0%		5.4%	Yes
Reproductive and Sexual Health						
 ⁷ FP-7.1 Sexually active females receiving reproductive health services (percent, 15–44 years)	78.6% (2006–2010)	77.3% (2011–2013)	86.5%		1.7%	No
 ⁴ HIV-13 Knowledge of serostatus among HIV-positive persons (percent, 13+ years)	80.9% (2006)	87.2% (2012)	90.0%	69.2%		
Social Determinants						
 ⁴ AH-5.1 Students awarded a high school diploma 4 years after starting 9th grade (percent)	79% (2010–2011)	81% (2012–2013)	87%	25.0%		
Substance Abuse						
 ¹ SA-13.1 Adolescents using alcohol or illicit drugs in past 30 days (percent, 12–17 years)	18.4% (2008)	15.9% (2013)	16.6%	138.9%		Yes
 ⁵ SA-14.3 Binge drinking in past 30 days—Adults (percent, 18+ years)	27.1% (2008)	26.9% (2013)	24.4%	7.4%		No

Table IV–2. Midcourse Progress for Leading Health Indicators—Continued

LEGEND

	Target met or exceeded ^{1,2}		Improving ^{3,4}		Little or no detectable change ^{5–9}		Getting worse ^{10,11}		Baseline only ¹²		Informational ¹³
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Objective Description	Baseline Value (Year)	Midcourse Value (Year)	Target	Movement Toward Target ¹⁴	Movement Away From Baseline ¹⁵	Movement Statistically Significant ¹⁶
Tobacco						
 ³ TU-1.1 Adult cigarette smoking (age-adjusted, percent, 18+ years)	20.6% (2008)	17.0% (2014)	12.0%	41.9%		Yes
 ¹ TU-2.2 Adolescent cigarette smoking in past 30 days (percent, grades 9–12)	19.5% (2009)	15.7% (2013)	16.0%	108.6%		Yes

NOTES

See [HealthyPeople.gov](https://www.healthypeople.gov) for all Healthy People 2020 data. The **Technical Notes** provide more information on the measures of progress.

FOOTNOTES

Target met or exceeded:

¹At baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)

²The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)

Improving:

³Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.

⁴Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.

Little or no detectable change:

⁵Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.

⁶Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.

⁷Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.

⁸Movement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.

⁹There was no change between the baseline and the midcourse data point.

Getting worse:

¹⁰Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.

¹¹Movement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.

¹²**Baseline only:** The objective only had one data point, so progress toward target attainment could not be assessed.

¹³**Informational:** A target was not set for this objective, so progress toward target attainment could not be assessed.

¹⁴For objectives that **moved toward** their targets, movement toward the target was measured as the percentage of targeted change achieved (unless the target was already met or exceeded at baseline):

$$\text{Percentage of targeted change achieved} = \frac{\text{Midcourse value} - \text{Baseline value}}{\text{HP2020 target} - \text{Baseline value}} \times 100$$

FOOTNOTES—Continued

¹⁵For objectives that **moved away** from their baselines and targets, movement away from the baseline was measured as the magnitude of the percentage change from baseline:

$$\text{Magnitude of percentage change from baseline} = \frac{|\text{Midcourse value} - \text{Baseline value}|}{\text{Baseline value}} \times 100$$

¹⁶Statistical significance was tested when the objective had a target and at least two data points, standard errors of the data were available, and a normal distribution could be assumed. Statistical significance of the percentage of targeted change achieved or the magnitude of the percentage change from baseline was assessed at the 0.05 level using a normal one-sided test.

DATA SOURCES

AH-5.1	Common Core of Data (CCD), ED/NCES
AHS-1.1	National Health Interview Survey (NHIS), CDC/NCHS
AHS-3	Medical Expenditure Panel Survey (MEPS), AHRQ
C-16	National Health Interview Survey (NHIS), CDC/NCHS
D-5.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
EH-1	Air Quality System (AQS), EPA
FP-7.1	National Survey of Family Growth (NSFG), CDC/NCHS
HDS-12	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
HIV-13	National HIV Surveillance System (NHSS), CDC/NCHHSTP
IID-8	National Immunization Survey (NIS), CDC/NCIRD and CDC/NCHS
IVP-1.1	National Vital Statistics System—Mortality (NVSS—M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census
IVP-29	National Vital Statistics System—Mortality (NVSS—M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census
MHMD-1	National Vital Statistics System—Mortality (NVSS—M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census
MHMD-4.1	National Survey on Drug Use and Health (NSDUH), SAMHSA
MICH-1.3	Linked Birth/Infant Death Data Set, CDC/NCHS
MICH-9.1	National Vital Statistics System—Nativity (NVSS—N), CDC/NCHS
NWS-9	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
NWS-10.4	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
NWS-15.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
OH-7	Medical Expenditure Panel Survey (MEPS), AHRQ
PA-2.4	National Health Interview Survey (NHIS), CDC/NCHS
SA-13.1	National Survey on Drug Use and Health (NSDUH), SAMHSA
SA-14.3	National Survey on Drug Use and Health (NSDUH), SAMHSA
TU-1.1	National Health Interview Survey (NHIS), CDC/NCHS
TU-2.2	Youth Risk Behavior Surveillance System (YRBSS), CDC/NCHHSTP
TU-11.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS

Table IV–3. Midcourse Health Disparities¹ for Population-based Leading Health IndicatorsMost favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios^{2,3} for selected characteristics at the midcourse data point

LEGEND

At the midcourse data point



Group with the most favorable (least adverse) rate



Group with the least favorable (most adverse) rate



Data are available, but this group did not have the highest or lowest rate.






Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed.

Population-based Objectives	Characteristics and Groups																													
	Sex		Race and Ethnicity							Education ⁴						Family Income ⁵					Disability		Location							
	Male	Female	Summary Disparity Ratio ²	American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic	Summary Disparity Ratio ³	Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree	Summary Disparity Ratio ³	Poor	Near-poor	Middle	Near-high	High	Summary Disparity Ratio ³	Persons with disabilities	Persons without disabilities	Summary Disparity Ratio ²	Metropolitan	Nonmetropolitan	Summary Disparity Ratio ²
Access to Health Services																														
AHS-1.1 Persons with medical insurance (percent, <65 years) (2014)			1.032*								1.084*							1.186*						1.160*			1.022*			1.026*
AHS-3 Persons with a usual primary care provider (percent) (2012)			1.103*								1.140*							1.087*						1.088*						1.000
Clinical Preventive Services																														
C-16 Adults receiving colorectal cancer screening based on most recent guidelines (age-adjusted, percent, 50–75 years) (2013)			1.033								1.195*							1.295*						1.339*			1.079*			1.068*
HDS-12 Adults with hypertension whose blood pressure is under control (age-adjusted, percent, 18+ years) (2009–2012)			1.313*								1.309*							1.102						1.187			1.395*			
D-5.1 Adults with diagnosed diabetes whose A1c value is greater than 9% (age-adjusted, percent, 18+ years) (2009–2012)			1.463*								1.847*							1.183						1.175			1.063			
IID-8 Children receiving the recommended doses of DTaP, polio, MMR, Hib, HepB, varicella, and PCV vaccines by age 19–35 months (percent) (2014)			1.037*								1.078							1.136*						1.116*						1.007

Table IV–3. Midcourse Health Disparities¹ for Population-based Leading Health Indicators—Continued

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios^{2,3} for selected characteristics at the midcourse data point

LEGEND

At the midcourse data point		Group with the most favorable (least adverse) rate		Group with the least favorable (most adverse) rate		Data are available, but this group did not have the highest or lowest rate.		Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed.
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Population-based Objectives	Characteristics and Groups																															
	Sex		Summary Disparity Ratio ²	Race and Ethnicity							Summary Disparity Ratio ³	Education ⁴						Summary Disparity Ratio ³	Family Income ⁵					Summary Disparity Ratio ³	Disability			Summary Disparity Ratio ²	Location		Summary Disparity Ratio ²	
	Male	Female		American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic		Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree		Poor	Near-poor	Middle	Near-high	High		Persons with disabilities	Persons without disabilities	Metropolitan		Nonmetropolitan			
Environmental Quality																																
TU-11.1 Children exposed to secondhand smoke (percent, nonsmokers, 3–11 years) (2009–2012)																																
			1.018								1.709*																					
Injury and Violence																																
IVP-1.1 Injury deaths (age-adjusted, per 100,000 population) (2013)																																
			2.361*		j	j					2.473*																					
IVP-29 Homicides (age-adjusted, per 100,000 population) (2013)																																
			3.840*		j	j					5.052*																					
Maternal, Infant, and Child Health																																
MICH-1.3 All Infant deaths (per 1,000 live births, <1 year) (2013)																																
			1.209*		l	j	j				1.767*																					
MICH-9.1 Total preterm live births (percent, <37 completed weeks gestation) (2013)																																
			1.085*		l	j	j				1.251*																					

Table IV–3. Midcourse Health Disparities¹ for Population-based Leading Health Indicators—ContinuedMost favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios^{2,3} for selected characteristics at the midcourse data point

LEGEND

At the midcourse data point



Group with the most favorable (least adverse) rate



Group with the least favorable (most adverse) rate



Data are available, but this group did not have the highest or lowest rate.




Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed.

Population-based Objectives	Characteristics and Groups																													
	Sex		Race and Ethnicity							Education ⁴						Family Income ⁵					Disability			Location						
	Male	Female	Summary Disparity Ratio ²	American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic	Summary Disparity Ratio ³	Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree	Summary Disparity Ratio ³	Poor	Near-poor	Middle	Near-high	High	Summary Disparity Ratio ³	Persons with disabilities	Persons without disabilities	Summary Disparity Ratio ²	Metropolitan	Nonmetropolitan	Summary Disparity Ratio ²
Mental Health																														
MHMD-1 Suicide (age-adjusted, per 100,000 population) (2013)			3.698*								1.738*																			1.404*
MHMD-4.1 Adolescents with a major depressive episode in the past 12 months (percent, 12–17 years) (2013)			3.056*								1.431*													1.229*						1.189*
Nutrition, Physical Activity, and Obesity																														
PA-2.4 Adults meeting aerobic physical activity and muscle-strengthening objectives (age-adjusted, percent, 18+ years) (2014)			1.435*								1.225							1.765*						2.033*			1.642*			1.405*
NWS-9 Obesity among adults (age-adjusted, percent, 20+ years) (2009–2012)			1.050								1.336*							1.448*						1.360*			1.283*			
NWS-10.4 Obesity among children and adolescents (percent, 2–19 years) (2009–2012)			1.096								1.565*							1.221*						1.481*						
NWS-15.1 Mean daily intake of total vegetables (age-adjusted, cup equivalents per 1,000 calories, 2+ years) (2009–2012)			1.160*								1.115*							1.221*						1.091*			1.149*			

Table IV–3. Midcourse Health Disparities¹ for Population-based Leading Health Indicators—Continued

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios^{2,3} for selected characteristics at the midcourse data point

LEGEND

At the midcourse data point		Group with the most favorable (least adverse) rate		Group with the least favorable (most adverse) rate		Data are available, but this group did not have the highest or lowest rate.		Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed.
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
















































































































Population-based Objectives	Characteristics and Groups																													
	Sex		Race and Ethnicity								Education ⁴						Family Income ⁵					Disability		Location						
	Male	Female	Summary Disparity Ratio ²	American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic	Summary Disparity Ratio ³	Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree	Summary Disparity Ratio ³	Poor	Near-poor	Middle	Near-high	High	Summary Disparity Ratio ³	Persons with disabilities	Persons without disabilities	Summary Disparity Ratio ²	Metropolitan	Nonmetropolitan	Summary Disparity Ratio ²
Oral Health																														
OH-7 Children, adolescents, and adults who visited the dentist in the past year (age-adjusted, percent, 2+ years) (2012)			1.160*								1.378*							2.067*				 m		1.720*	 g	 h	1.175*			1.132*
Reproductive and Sexual Health																														
FP-7.1 Sexually active females receiving reproductive health services (percent, 15–44 years) (2011–2013)											1.103*	 f	 f	 f	 f	 f	 f	1.089				 d	 e	1.055			1.064			1.076*
HIV-13 Knowledge of serostatus among HIV-positive persons (percent, 13+ years) (2012)			1.022 ²						 n	 n	1.091 ¹																			
Social Determinants																														
AH-5.1 Students awarded a high school diploma 4 years after starting 9th grade (percent) (2012–2013)				 o	 j	 o					1.175 ¹																			
Substance Abuse																														
SA-13.1 Adolescents using alcohol or illicit drugs in past 30 days (percent, 12–17 years) (2013)			1.000								1.544*													1.192*						1.075
SA-14.3 Binge drinking in past 30 days—Adults (percent, 18+ years) (2013)			1.533*								1.901*							1.127*						1.105*						1.102*

Table IV–3. Midcourse Health Disparities¹ for Population-based Leading Health Indicators—Continued

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios^{2,3} for selected characteristics at the midcourse data point

LEGEND

At the midcourse data point		Group with the most favorable (least adverse) rate		Group with the least favorable (most adverse) rate		Data are available, but this group did not have the highest or lowest rate.		Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed.
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Population-based Objectives	Characteristics and Groups																													
	Sex		Race and Ethnicity								Education ⁴						Family Income ⁵					Disability		Location						
	Male	Female	Summary Disparity Ratio ²	American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic	Summary Disparity Ratio ³	Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree	Summary Disparity Ratio ³	Poor	Near-poor	Middle	Near-high	High	Summary Disparity Ratio ³	Persons with disabilities	Persons without disabilities	Summary Disparity Ratio ²	Metropolitan	Nonmetropolitan	Summary Disparity Ratio ²
Tobacco																														
TU-1.1 Adult cigarette smoking (age-adjusted, percent, 18+ years) (2014)			1.256*								2.043*							3.509*						2.343*			1.844*			1.551*
TU-2.2 Adolescent cigarette smoking in past 30 days (percent, grades 9–12) (2013)			1.095								1.813*																			

Table IV–3. Midcourse Health Disparities¹ for Population-based Leading Health Indicators—Continued**NOTES**

See [HealthyPeople.gov](https://www.healthypeople.gov) for all Healthy People 2020 data. The **Technical Notes** provide more information on the measures of disparities.

FOOTNOTES

¹**Health disparities** were assessed among population groups within specified demographic characteristics (sex, race and ethnicity, educational attainment, etc.). This assessment did not include objectives that were not population-based, such as those based on states, worksites, or those monitoring the number of events.

²When there were only two groups (e.g., male and female), the **summary disparity ratio** was the ratio of the higher to the lower rate.

³When there were three or more groups (e.g., white non-Hispanic, black non-Hispanic, Hispanic) and the most favorable rate (R_b) was the highest rate, the **summary disparity ratio** was calculated as R_b/R_a , where R_a = the average of the rates for all other groups. When there were three or more groups and the most favorable rate was the lowest rate, the summary disparity ratio was calculated as R_a/R_b .

⁴Unless otherwise footnoted, data do not include persons under age 25 years.

⁵Unless otherwise footnoted, the poor, near-poor, middle, near-high, and high income groups are for persons whose family incomes were less than 100%, 100%–199%, 200%–399%, 400%–599%, and at or above 600% of the poverty threshold, respectively.

*The summary disparity ratio was significantly greater than 1.000. Statistical significance was assessed at the 0.05 level using a normal one-sided test on the natural logarithm scale.

[†]The summary disparity ratio was not tested for statistical significance because standard errors of the data were not available or normality on the natural logarithm scale could not be assumed.

^aData do not include persons under age 18 years.

^bData are for persons who completed some college or received an associate's degree.

^cData are for persons who graduated from college or above.

^dData are for persons whose family income was 400% to 499% of the poverty threshold.

^eData are for persons whose family income was 500% or more of the poverty threshold.

^fData do not include persons under age 20 years.

^gData are for persons with activity limitations.

^hData are for persons without activity limitations.

ⁱEducation level of the mother.

^jData are for Asian or Pacific Islander persons.

^kSex of the child.

^lRace/ethnicity of the mother.

^mData are for persons whose family income was 400% or more of the poverty threshold.

ⁿData include persons of Hispanic origin.

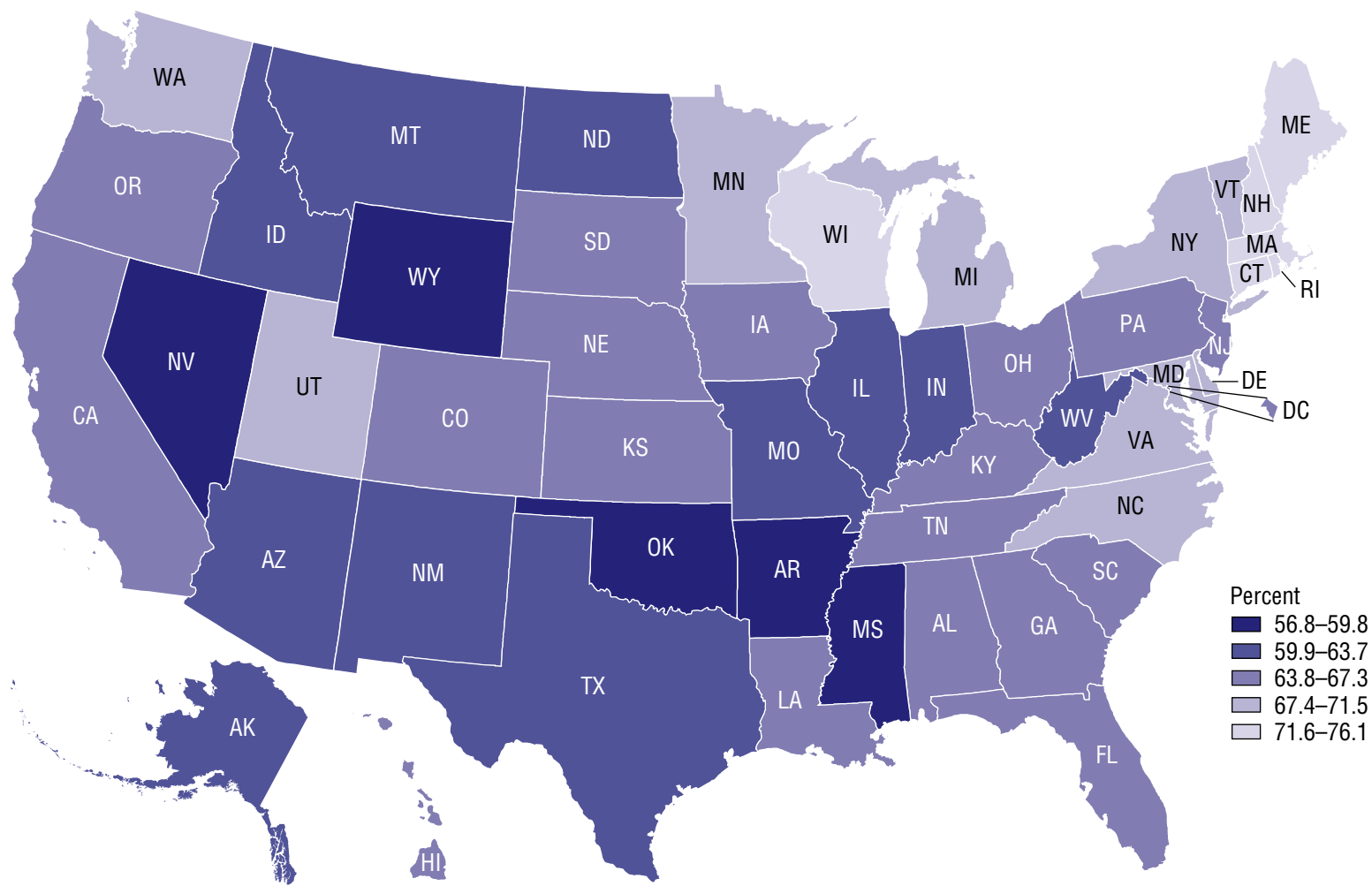
^oData do not include persons of Hispanic origin.

DATA SOURCES

D-5.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
FP-7.1	National Survey of Family Growth (NSFG), CDC/NCHS
HDS-12	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
HIV-13	National HIV Surveillance System (NHSS), CDC/NCHHSTP
IID-8	National Immunization Survey (NIS), CDC/NCIRD and CDC/NCHS
IVP-1.1	National Vital Statistics System–Mortality (NVSS–M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census
IVP-29	National Vital Statistics System–Mortality (NVSS–M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census
MHMD-1	National Vital Statistics System–Mortality (NVSS–M), CDC/NCHS; Bridged-race Population Estimates, CDC/NCHS and Census
MHMD-4.1	National Survey on Drug Use and Health (NSDUH), SAMHSA
MICH-1.3	Linked Birth/Infant Death Data Set, CDC/NCHS
MICH-9.1	National Vital Statistics System–Nativity (NVSS–N), CDC/NCHS
NWS-9	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
NWS-10.4	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
NWS-15.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
OH-7	Medical Expenditure Panel Survey (MEPS), AHRQ
PA-2.4	National Health Interview Survey (NHIS), CDC/NCHS
SA-13.1	National Survey on Drug Use and Health (NSDUH), SAMHSA
SA-14.3	National Survey on Drug Use and Health (NSDUH), SAMHSA
TU-1.1	National Health Interview Survey (NHIS), CDC/NCHS
TU-2.2	Youth Risk Behavior Surveillance System (YRBSS), CDC/NCHHSTP
TU-11.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS

Map IV–1. Adults (50–75 years) Who Received Colorectal Cancer Screening Based on Most Recent Guidelines, by State: 2014

Healthy People 2020 Objective C-16 • Related State Data

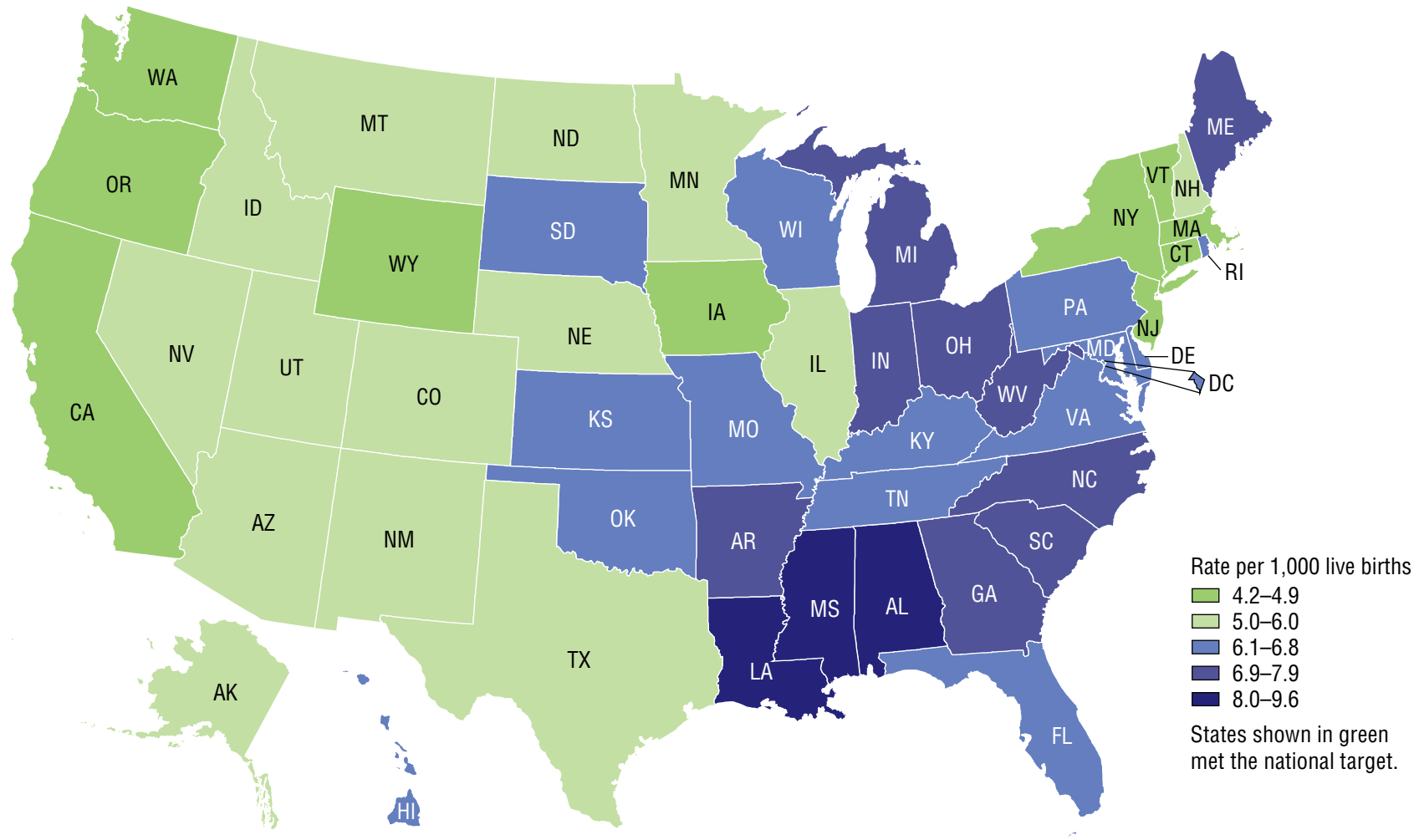


NOTES: Data are for adults who received colorectal cancer screening based on the most recent guidelines and are age-adjusted to the 2000 standard population. National data for the objective come from the National Health Interview Survey (NHIS) and are the basis for setting the target of 70.5%. Data from the NHIS (58.2% in 2013) may not be directly comparable with the all-states combined data from the Behavioral Risk Factor Surveillance System (BRFSS) (66.1% in 2014), and therefore, the national target may not be applicable to individual states. Data are displayed by a Jenks classification for U.S. States which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on the data and methods.

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

Map IV–2. All Infant (< 1 year) Deaths, by State: 2013

Healthy People 2020 Objective MICH-1.3 • National Target = 6.0 per 1,000 live births • National Rate = 6.0 per 1,000 live births

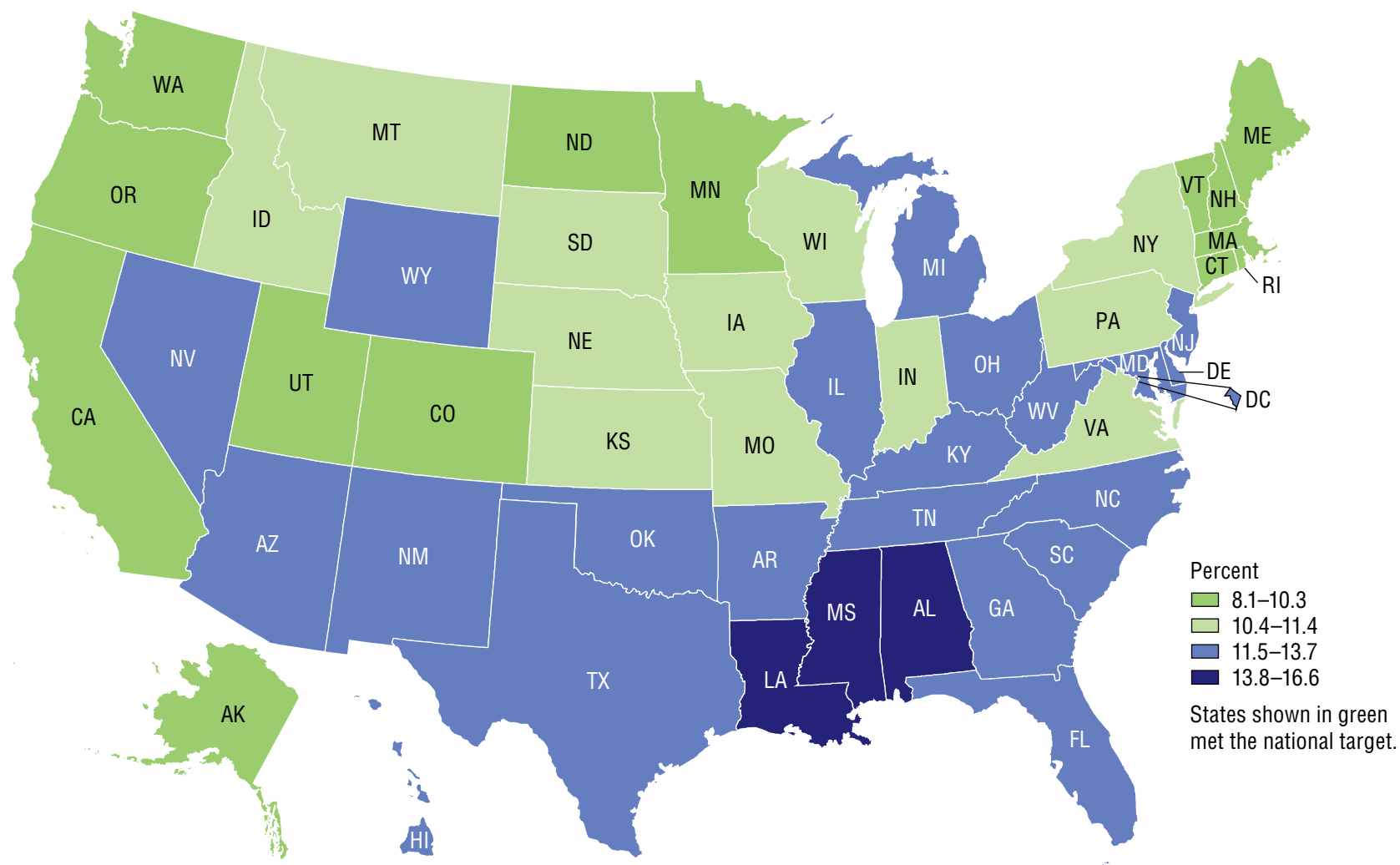


NOTES: Data are for deaths of infants under 1 year of age. Data are displayed by a modified Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on the data and methods.

DATA SOURCE: Linked Birth/Infant Death Data Set, CDC/NCHS

Map IV–3. Total Preterm Live Births (< 37 completed weeks of gestation), by State: 2013

Healthy People 2020 Objective MICH-9.1 • National Target = 11.4% • National Rate = 11.4%

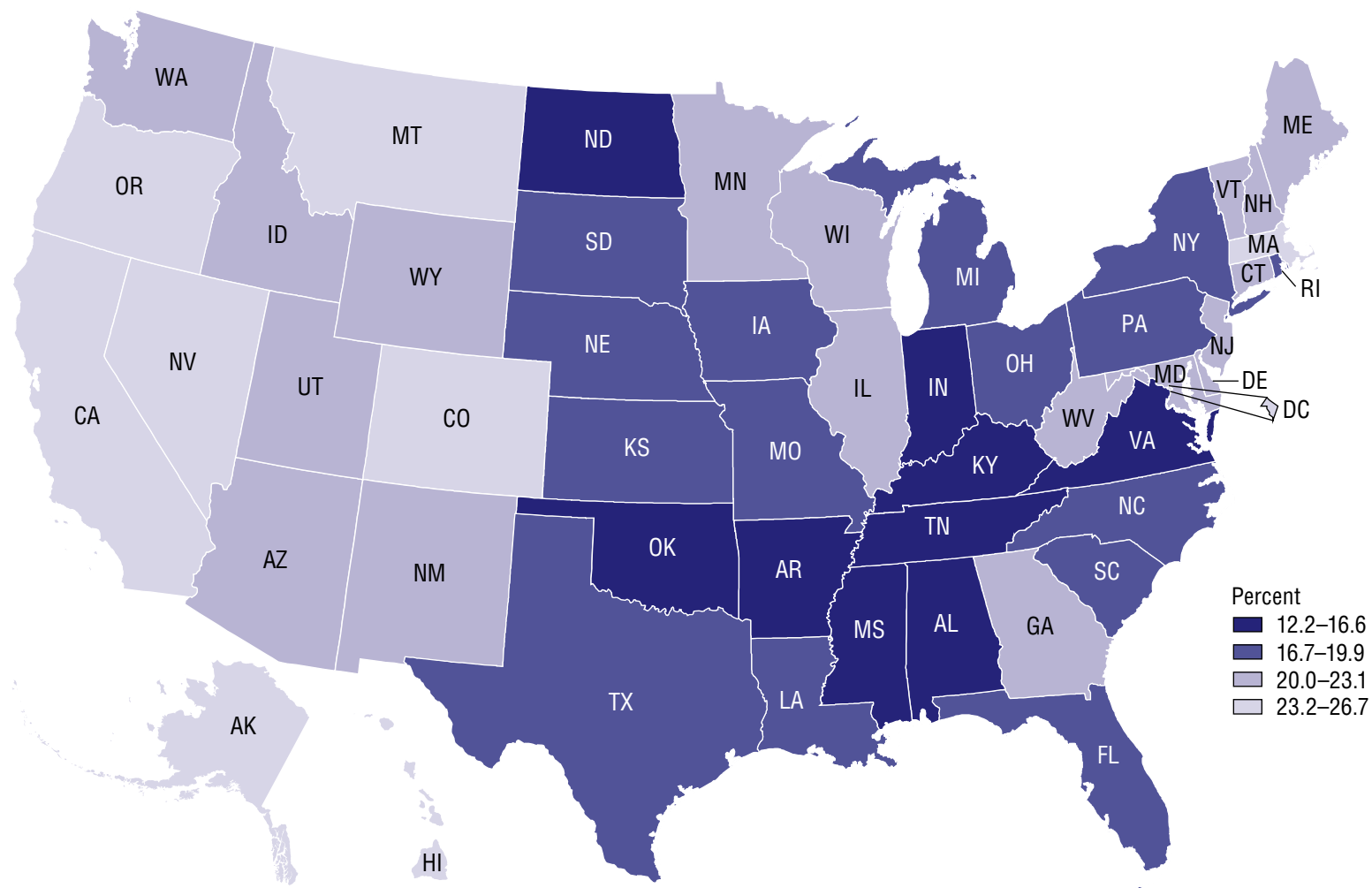


NOTES: Data are for infants born before 37 completed weeks of gestation. Data are displayed by a modified Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on the data and methods.

DATA SOURCE: National Vital Statistics System–Natality (NVSS–N), CDC/NCHS

Map IV–4. Adults (18+ years) Who Met Guidelines for Aerobic and Muscle-strengthening Physical Activity, by State: 2013

Healthy People 2020 Objective PA-2.4 • Related State Data

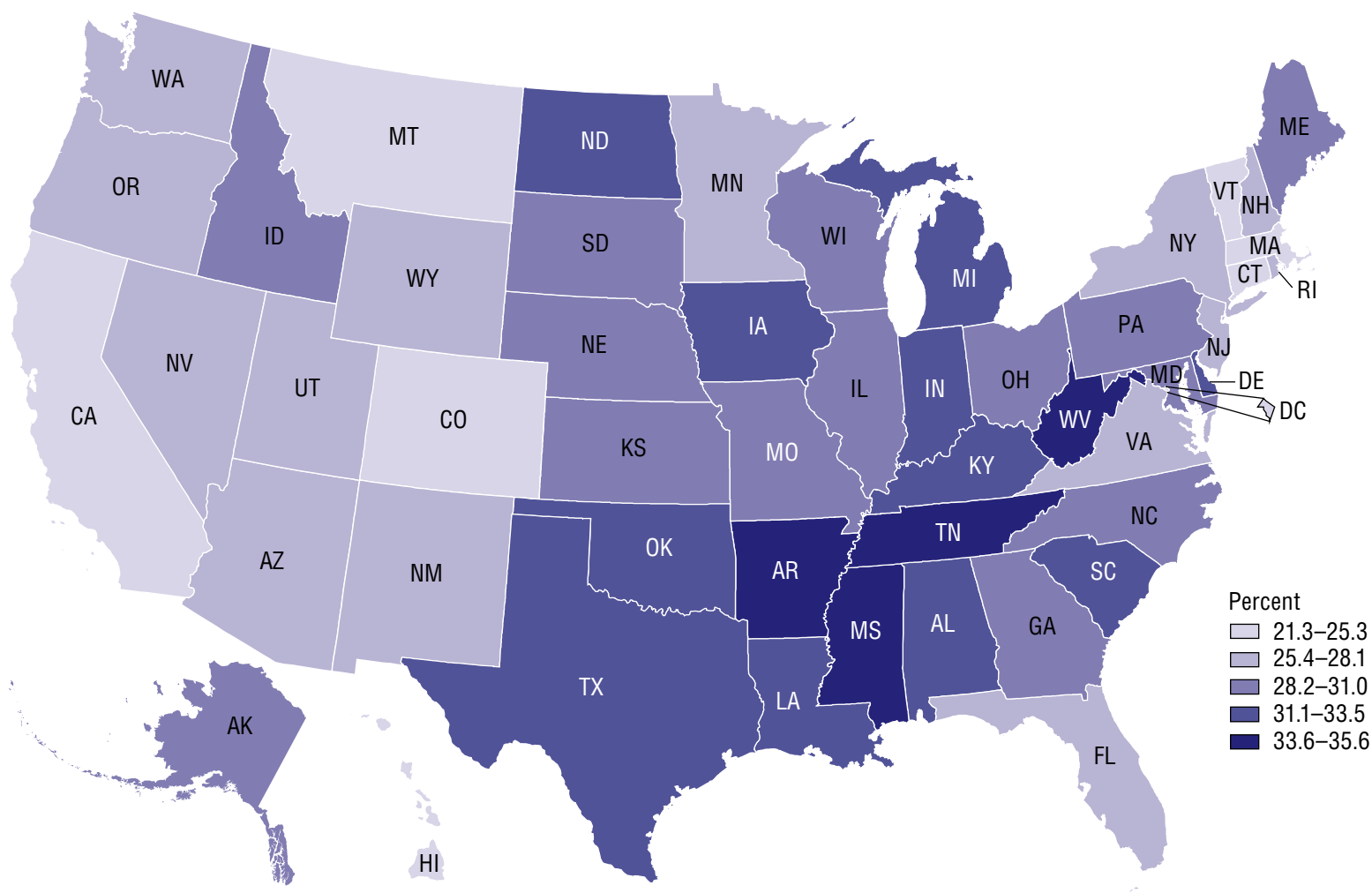


NOTES: Data are for adults aged 18 and over who reported light or moderate leisure-time physical activity for at least 150 minutes per week, vigorous physical activity for at least 75 minutes per week, or an equivalent combination of moderate and vigorous-intensity activity and muscle-strengthening physical activity at least twice per week. Data are age-adjusted to the 2000 standard population. State data from the Behavioral Risk Factor Surveillance System (BRFSS) are based on self-reported leisure-time physical activity. National data for the objective are based on self-reported physical activity from the National Health Interview Survey (NHIS) and are the basis for setting the national target of 20.1%. The data from NHIS (20.8% in 2013) may not be directly comparable with the all-states combined data from BRFSS (20.2% in 2013), and therefore, the national target may not be applicable to individual states. Data are displayed by a Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on the data and methods.

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

Map IV–5. Adult (20+ years) Obesity Based on Self-reported Weight and Height, by State: 2013

Healthy People 2020 Objective NWS-9 • Related State Data

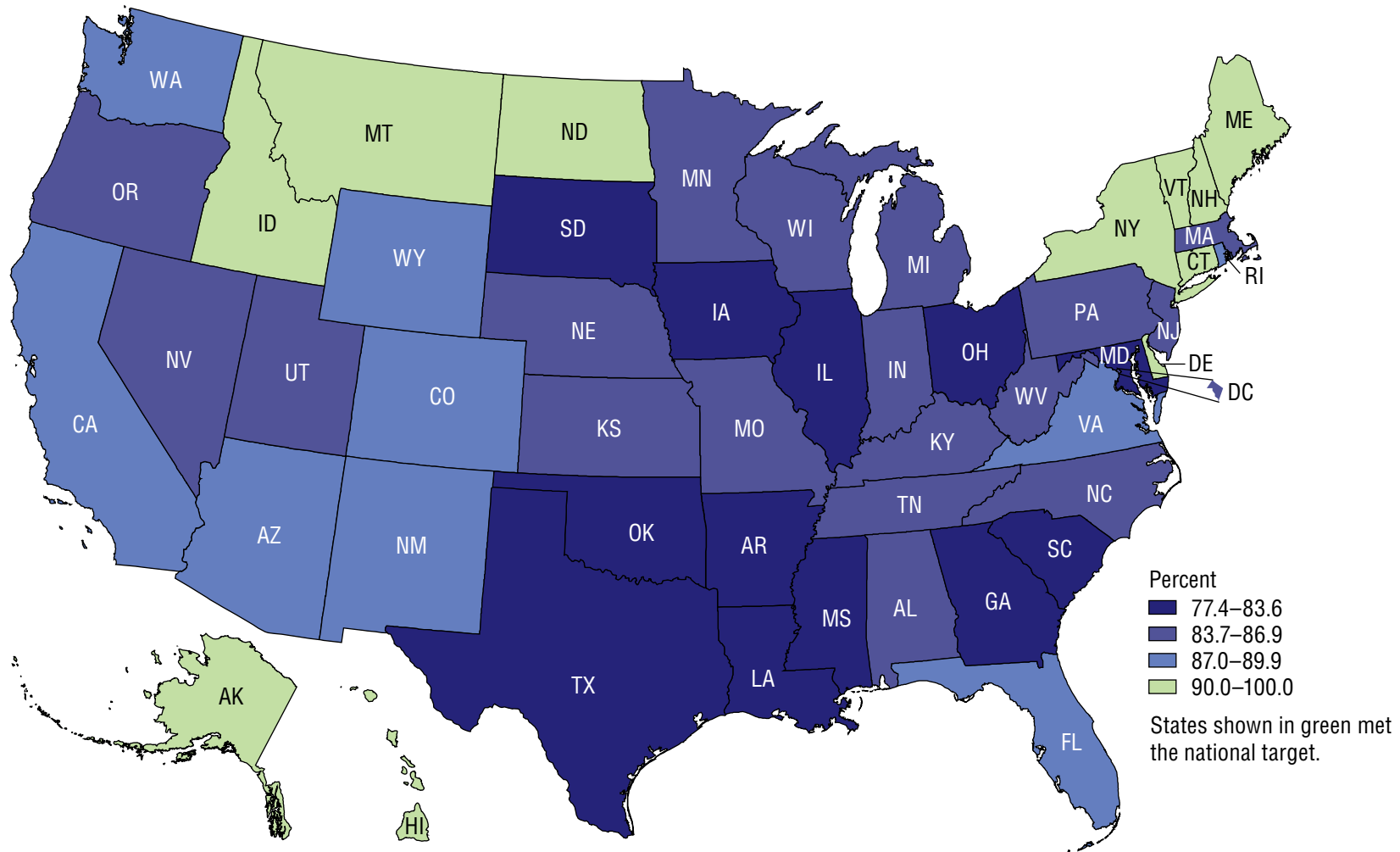


NOTES: Data are for adults aged 20 and over with obesity, defined as a body mass index at or above 30.0 kg/m², and are age-adjusted to the 2000 standard population. National data for the objective are based on measured weight and height from the National Health and Nutrition Examination Survey (NHANES) and are the basis for setting the national target of 30.5%. State data from the Behavioral Risk Factor Surveillance System (BRFSS) are based on self-reported weight and height. Data from NHANES (35.3% in 2009–2012) may not be directly comparable with the all-states combined data from BRFSS (28.6% in 2013), and therefore, the national target may not be applicable to individual states. Data are displayed by a Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on the data and methods.

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

Map IV-6. Knowledge of Serostatus Among HIV-positive Persons (13+ years), by State: 2012

Healthy People 2020 Objective HIV-13 • National Target = 90.0% • National Rate = 87.2%

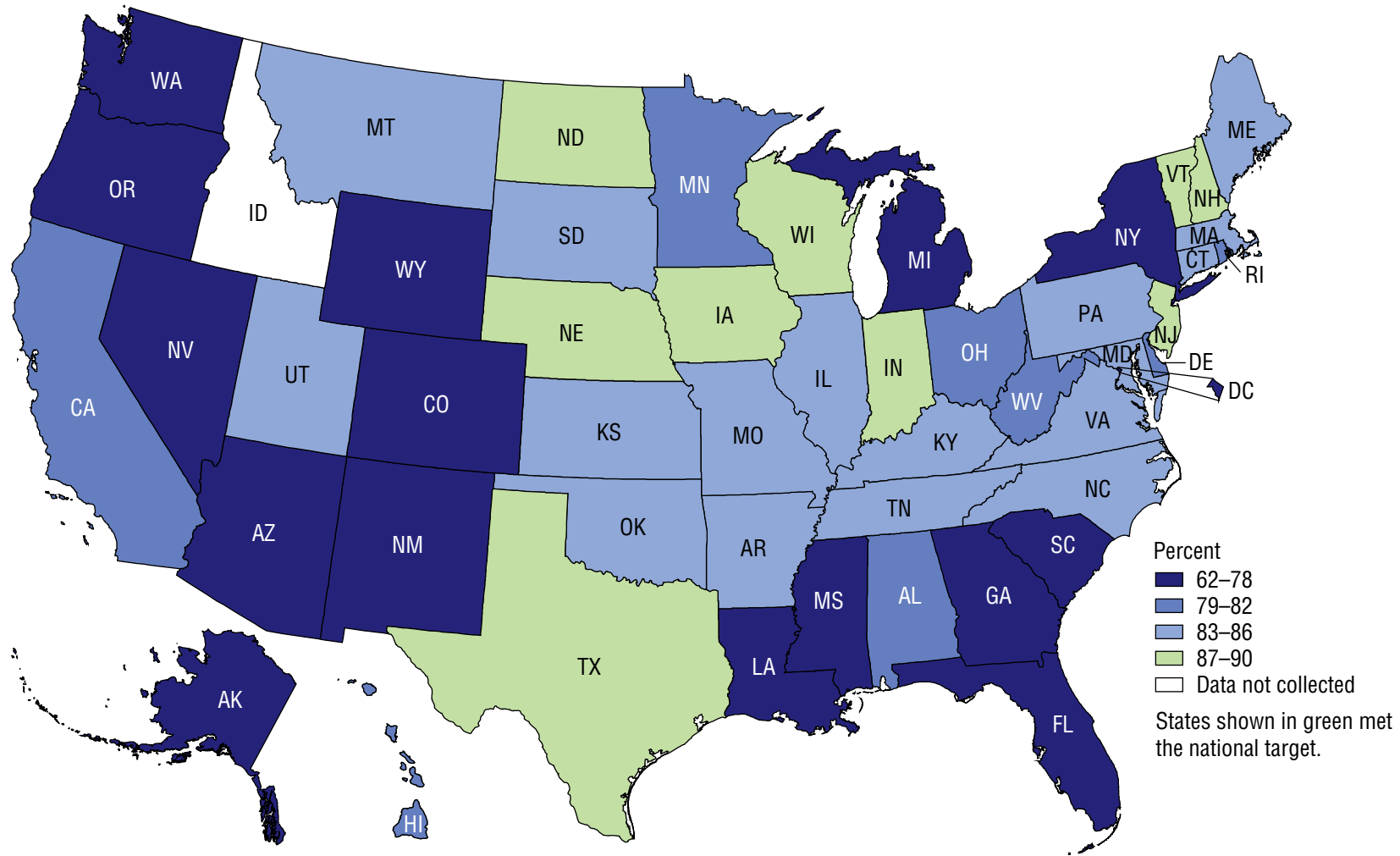


NOTES: Data are estimated number of persons living with HIV infection as of the end of 2012. Estimates were derived by using extended back-calculation on HIV and AIDS data for persons aged 13 years and over at diagnosis from 46 states that have had confidential name-based HIV infection reporting since at least January 2007, and AIDS data from 5 areas (Hawaii, Maryland, Massachusetts, Vermont, and the District of Columbia). Data are displayed by a Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on the data and methods.

DATA SOURCE: National HIV Surveillance System (NHSS), CDC/NCHSTP

Map IV–7. Students Who Graduated From High School 4 Years After Starting 9th Grade, by State: 2012–2013

Healthy People 2020 Objective AH-5.1 • National Target = 87% • National Rate = 81%

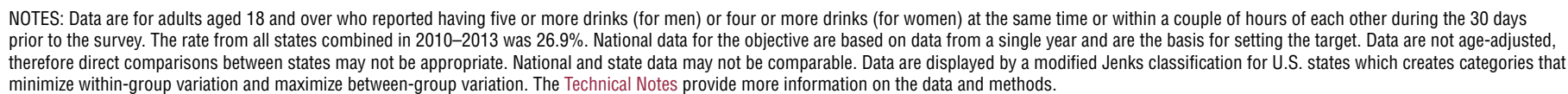


NOTES: Data are for students who graduated from high school 4 years after starting 9th grade and are measured using the 4-year adjusted cohort graduation rate. Data are displayed by a modified Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on the data and methods.

DATA SOURCE: Common Core of Data (CCD), ED/NCES

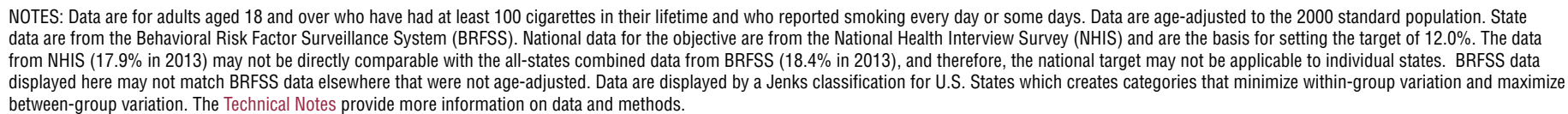
IV-30

HEALTHY PEOPLE 2020 MIDCOURSE REVIEW



DATA SOURCE: National Survey on Drug Use and Health (NSDUH), SAMHSA

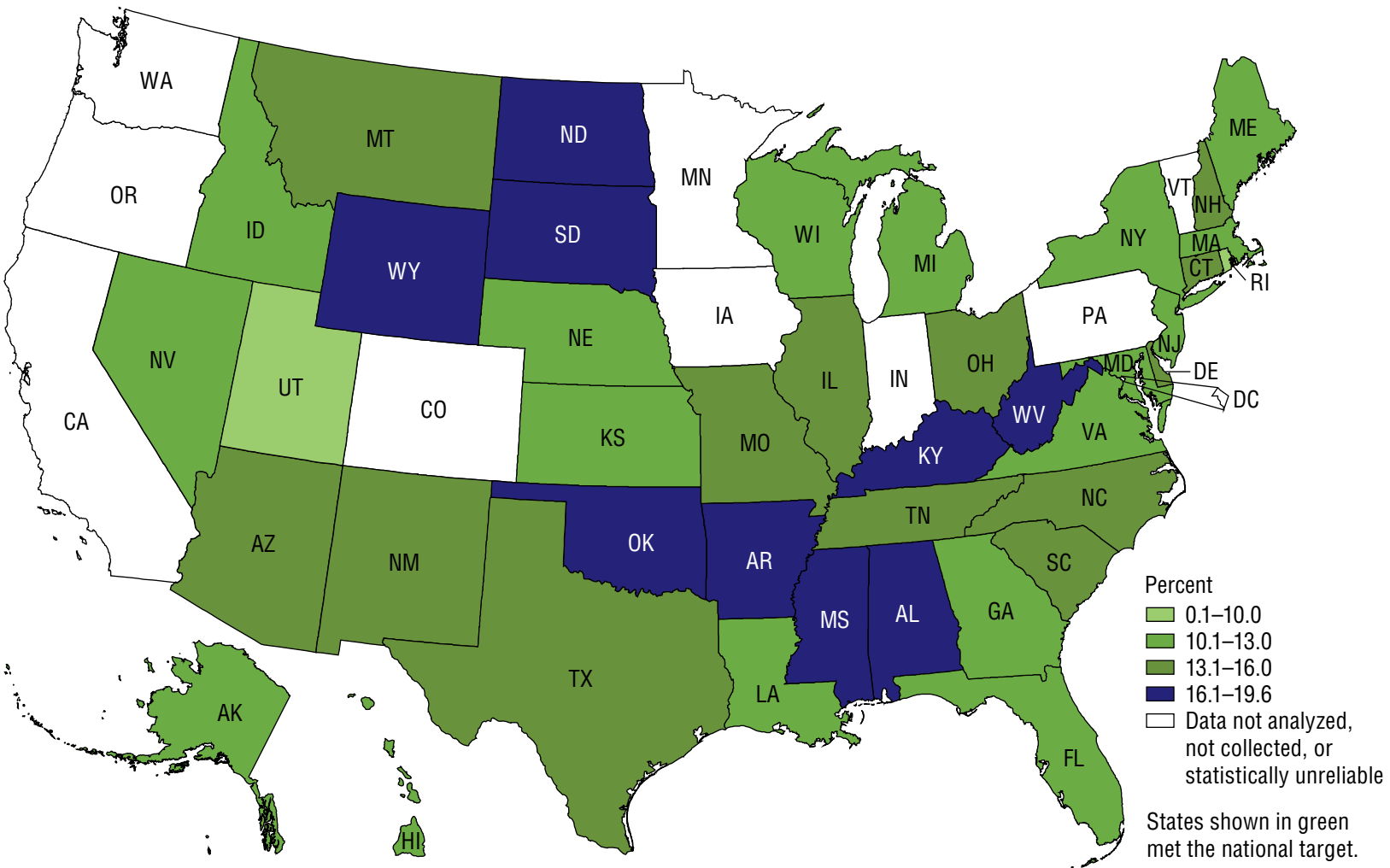
Healthy People 2020 Objective TU-1.1 • Related State Data



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

Map IV–10. Adolescent (grades 9–12) Cigarette Smoking in the Past 30 Days, by State: 2013

Healthy People 2020 Objective TU-2.2 • National Target = 16.0% • National Rate = 15.7%



NOTES: Data are for the proportion of students in grades 9–12 who used cigarettes on 1 or more of the 30 days preceding the survey. Data are displayed by a modified Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The [Technical Notes](#) provide more information on data and methods.

DATA SOURCE: Youth Risk Behavior Surveillance System (YRBSS), CDC/NCHHSTP