



Tobacco Use >

CHAPTER 27

Lead Agency

Centers for Disease Control and Prevention

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GOAL:

Reduce illness, disability, and death related to tobacco use and exposure to secondhand smoke.



The objectives in this chapter monitor tobacco use, smoking cessation and the availability of treatment programs, environmental exposure to tobacco smoke, adolescent attitudes toward smoking, and tobacco control laws.

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

- › Substantial progress was achieved in objectives for this Focus Area during the past decade [1]. Eighty-five percent of the Tobacco Use objectives with data to measure progress moved toward or achieved their Healthy People 2010 targets (Figure 27-1). However, statistically significant health disparities were observed among racial and ethnic populations, as well as by sex, education level, income, and disability status (Figure 27-2), as discussed below [2].
- › The percentage of adults aged 18 and over who were current cigarette smokers (objective 27-1a) decreased 12.5% between 1998 and 2008, from 24% to 21% (age adjusted), moving toward the Healthy People

2010 target of 12%. However, from 2004 to 2008, the proportion of U.S. adults who were current cigarette smokers did not noticeably change. Disparities were observed for a number of populations, for example:

- Among educational groups, adults aged 25 and over with at least some college education had the lowest (best) current cigarette smoking rate, 15% (age adjusted) in 2008. Adults aged 25 and over with less than a high school education had a rate of 30% (age adjusted), twice the best group rate [2].
- › Current cigarette smoking varied by geographic area. Utah was the only state to exceed the 2010 target, with an adult smoking rate of 9.2% in 2008. Indiana, Kentucky, Missouri, Oklahoma, and West Virginia had the highest smoking rates (Figure 27-3).
- › The percentage of students in grades 9–12 who used tobacco products in the last month declined between 1999 and 2009. Student use of all tobacco products (which includes use of cigarettes, chewing tobacco, snuff, or cigars) (objective 27-2a) decreased 35.0%, from 40% in 1999 to 26% in 2009, moving toward the 2010 target of 21%. Student cigarette smoking (objective 27-2b) decreased 45.7%, from 35% in 1999 to 19% in 2009, moving toward the 2010 target of 16%; whereas cigar use (objective 27-2d) declined 22.2%, from 18% to 14%, moving toward the 2010 target of 8%. Student bidi use (objective 27-2e) declined 41.5% between 2000 and 2009, from 4.1% to 2.4%, meeting the target of 2.4%.
 - Female students had a lower (better) rate of cigar use in the past month than male students, 19% vs. 9% in 2009. The rate for male students was more than twice that of female students [2].
 - The percentage of children aged 6 years and under exposed to tobacco smoke at home (objective 27-9) decreased 70.4% between 1994

and 2005, from 27% to 8%, exceeding the Healthy People 2010 target of 10%. Disparities were observed among a number of population groups, for example: among income groups, children aged 6 years and under living in middle/high-income households had the lowest (best) rates of exposure to tobacco smoke at home, 5% in 2005, whereas children living in poor or near-poor households had rates of 15% and 12%, respectively. The rate for children living in poor households was three times the best group rate, whereas the rate for children living in near-poor households was almost two and a half times the best group rate [2].

- Children living in poor households had rates of exposure to tobacco smoke of 38% in 1994 and 15% in 2005; those living in near-poor households had rates of 33% in 1994 and 12% in 2005; whereas those living in middle/high-income households had rates of 19% in 1994 and 5% in 2005. The disparity between children living in poor households and those living in middle/high-income households increased 100 percentage points between 1994 and 2005. During the same period, the disparity between children living in near-poor households and those living in middle/high-income households increased 66 percentage points [3].
- › The percentage of nonsmokers aged 4 years and over exposed to environmental tobacco smoke (objective 27-10) declined 51.2% between 1988–94 and 2005–08, from 84% to 41% (age adjusted), exceeding the 2010 target of 56%.
- › The number of states with smoke-free indoor air laws (objectives 27-13a through f, and i) increased between 1998 and 2009, moving toward the 2010 targets of 51 (all 50 states plus the District of Columbia). The number of states that had laws prohibiting smoking in private workplaces increased from 0 states in 1998 to 30 (29 states plus the District of Columbia) in 2009 (objective 27-13a). The number of states that prohibited smoking in restaurants increased from 1 in 1998 to 28 (27 states plus the District of Columbia) in 2009 (objective 27-13c). And the number of states that prohibited smoking in bars increased from 0 states in 1998 to 22 (21 states plus the District of Columbia) in 2009 (objective 27-13i).
 - Twenty-one states had laws prohibiting smoking in private workplaces, restaurants, and bars in 2009. Nineteen states, including large-population states like California and Texas, had no such laws (Figure 27-4).
- › Exposure to tobacco advertising on the Internet among students in grades 6–12 (objective 27-16a) increased 32.1% between 2000 and 2009, from 28% to 37%, moving away from the 2010 target of 25%.

- › The average combined Federal and State excise taxes on a standard pack of cigarettes (objective 27-21a) increased nearly four-fold, from \$0.63 in 1998 to \$2.35 in 2009, exceeding the 2010 target of \$2.00. (The 2009 figure includes an increase in the Federal cigarette tax to \$1.01).
 - Twenty-nine states had cigarette taxes of at least \$2.00 per pack in 2009, achieving the target. South Carolina had the lowest combined tax rate: \$1.08 per pack (Figure 27-5).

Summary of Progress

- › Figure 27-1 presents a quantitative assessment of progress in achieving the Healthy People 2010 objectives for Tobacco Use [1]. Data to measure progress toward target attainment were available for 40 objectives. Of these:
 - Six objectives (27-2e, 27-9, 27-10, 27-16b, 27-20a, and 27-21a) met or exceeded their Healthy People 2010 targets.
 - Twenty-eight objectives moved toward their 2010 targets. A statistically significant difference between the baseline and the final data points was observed for 11 of these objectives (27-1a, 27-2a and b, 27-2d, 27-4a, 27-5, 27-11, 27-12, and 27-17a through c). No significant differences were observed for 3 objectives (27-1b and c, and 27-3a); and data to test the significance of the difference were unavailable for 14 objectives (27-13a through f, 27-13i, 27-14a and b, 27-15, 27-19, 27-20b and c, and 27-21b).
 - Six objectives moved away from their 2010 targets. A statistically significant difference between the baseline and final data points was observed for two objectives (27-3b and 27-16a); no significant differences were observed for four objectives (27-2c, 27-4b, 27-6, and 27-7).
- › Four objectives remained developmental (objectives 27-13g and h, and 27-18b and d), and three had no follow-up data available to measure progress (objectives 27-8a and b, and 27-18a) [4]. Two objectives were deleted at the Midcourse Review (objectives 27-1d and 27-8c).
- › Figure 27-2 displays health disparities in Tobacco Use 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].
 - Of the 10 objectives with statistically significant health disparities of 10% or more by race and ethnicity, the Asian population had the best rate for 3 objectives (27-12, and 27-16a and b);

the non-Hispanic black population had the best rate for 2 objectives (27-2a and b); the Hispanic or Latino population had the best rate for 2 objectives (27-1a and 27-10); the non-Hispanic white population had the best rate for 2 objectives (27-9 and 27-17a); and the non-Hispanic white and non-Hispanic black populations were tied for the best rate for 1 objective (27-4a).

- Females had better rates than males for 10 of the 12 objectives with statistically significant health disparities of 10% or more by sex (objectives 27-1a, 27-2a and d, 27-3b, 24-5, 27-7, 27-10, 27-12, and 27-17a and b). Males had better rates than females for 2 objectives (27-3a and 27-4a).
- Persons with at least some college education had the best rates for all five of the objectives with statistically significant health disparities of 10% or more by education level (27-1a and b, 27-5, 27-10, and 27-12).
- Persons with middle/high incomes had the best rates for the four objectives with statistically significant health disparities of 10% or more by income (objectives 27-1, 27-4a, 27-9, and 27-12).
- Persons without disabilities had the better rates for both objectives with statistically significant health disparities of 10% or more by disability status (objectives 27-1a and c).

Transition to Healthy People 2020

The focus of the Healthy People 2020 Tobacco Use objectives remains similar to that of Healthy People 2010. There have been some changes in organization and some objectives have been expanded. See HealthyPeople.gov for a complete list of Healthy People 2020 topics and objectives.

The Healthy People 2020 objectives can be grouped into several sections:

- › The Tobacco Use Prevalence section focuses on reducing tobacco use and initiation among youth and adults.
- › The Health System Changes section addresses policies and strategies to increase access, affordability, and use of smoking cessation services and treatments.
- › The Social and Environmental Changes section monitors policies to reduce exposure to secondhand smoke, increase the cost of tobacco, restrict tobacco advertising, and reduce illegal sales to minors.

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

- › The Healthy People 2020 Tobacco Use Topic Area has a total of 70 objectives, 19 of which are developmental, whereas the Healthy People 2010 Tobacco Use Focus Area had 49 objectives, 2 of which were deleted at the Midcourse Review [4].
- › Twenty-two Healthy People 2010 objectives were retained “as is” [5]. These include: adult and adolescent tobacco use (objectives 27-1a through c, and 27-2a through d); initiation of cigarette use (objectives 27-3a and b); smoking cessation attempts for adults (objective 27-5), adolescents (objective 27-7), and pregnant women (objective 27-6); indoor worksite policies (objective 27-12); smoke-free indoor air laws in private and public workplaces (objectives 27-13a and b), restaurants (objective 27-13c), public transportation (objective 27-13d), and bars (objective 27-13i); enforcement of illegal tobacco sales to minors (objectives 27-14a and b); and adolescent exposure to tobacco advertising and promotion on the Internet or in magazines and newspapers (objectives 27-16a and b).
- › Seven Healthy People 2010 objectives were modified and expanded into 14 objectives [6]:
 - Medicaid program coverage for treatment of nicotine dependency (objective 27-8b) will be measurable in Healthy People 2020 using a different data source.
 - Exposure to environmental tobacco smoke (objective 27-10) was split into three age-group objectives including 3–11 years, 12–17 years, and 18 and over.
 - The smoke-free and tobacco-free schools objective (27-11) was modified to tobacco-free schools and has been split into three objectives including junior high, middle school, and high school.
 - The objective on smoke-free indoor air laws in day care centers (objective 27-13e) was divided into two objectives for commercial and home-based centers.
 - The preemptive tobacco control laws objective (27-19) was expanded to include objectives for preemption in smoke-free indoor air, advertising, and youth access.
 - Two objectives that monitor increases in Federal and State tax on cigarettes (objective 27-21a) and smokeless tobacco products (objective 27-21b) will be measured differently in Healthy People 2020.
- › Three Healthy People 2010 objectives, evidence-based tobacco control programs for states, territories, and for tribes, were retained as developmental due to lack of baseline data (objectives 27-18a through c) [4].

- › Thirteen Healthy People 2010 objectives were archived [7]. These include: adolescent use of bidis (objective 27-2e); average age at first use of tobacco (objectives 27-4a and b); managed care organization coverage for treatment of nicotine dependency (objective 27-8a); exposure to tobacco smoke at home (objective 27-9); smoke-free indoor air laws for retail stores (objective 27-13f); retail license suspension for sales to minors (objective 27-15); adolescent disapproval of smoking for eighth (objective 27-17a), tenth (objective 27-17b) and twelfth (objective 27-17c) graders; sales-weighted average tobacco specific nitrosamines (objective 27-20a); and polyaromatic hydrocarbon compounds (objective 27-20b) and volatile organic compounds (objective 27-20c) in cigarette smoke.
 - While objective 27-9, to reduce the proportion of children who are regularly exposed to tobacco smoke at home, was archived, the modified Healthy People 2020 objective TU-11.1 measures the exposure to secondhand smoke among children aged 3–11 years using measured serum cotinine levels, and is thought to measure children’s exposure more accurately than self-report data.
- › Two objectives were deleted at the Midcourse Review due to lack of data: adult use of other tobacco (objective 27-1d); and insurance coverage for treatment of nicotine dependency (objective 27-8c). Two additional objectives that had remained developmental in Healthy People 2010 were removed during the Healthy People 2020 planning process, due to lack of data: smoke-free indoor air laws for tribes (objective 27-13g) and territories (objective 27-13h).
- › Thirty one new objectives were added to the Healthy People 2020 Tobacco Use Topic Area:
 - Six new objectives address age at first use for all tobacco products, smokeless tobacco, and cigars for both the 12–17 and the 18–25 age groups.
 - Three new objectives monitor smoking cessation success and smoking cessation using evidence-based strategies.
 - Eight objectives address screening and counseling in office-based ambulatory care settings, hospital ambulatory care settings, dental care settings, and substance abuse care settings.
 - Ten new smoke-free indoor air objectives track indoor air in gaming halls, hotels and motels, multi-unit housing, vehicles with children, prisons and correctional facilities, substance abuse treatment facilities, mental health treatment facilities, entrances and exits of all public places, hospital campuses, and college and university campuses.
 - An objective was added to include Head Start on the list of smoke-free and tobacco-free schools.
 - One new objective will monitor increases in Federal and state tax on other smoked tobacco products.
 - Two new objectives address adolescent exposure to tobacco advertising at the movies and at point of purchase.

[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

Figure 27-3 (Tobacco Use by Adults—Cigarettes) presents state-level data from the Behavioral Risk Factor Surveillance System (BRFSS). National data for these objectives come from the National Health Interview Survey (NHIS) and are the basis for setting the targets. BRFSS data may not be comparable with the national data from NHIS.

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.

In general, data on educational attainment are presented for persons aged 25 and over, consistent with guidance given by the Census Bureau. However, because of the requirements of the different data systems, the age groups used to calculate educational attainment for any specific objective may differ from the age groups used to report the data for other Healthy People 2010 objectives, as well as from select populations within the same objective. Therefore, the reader is urged to exercise caution in interpreting the data by educational attainment shown in the Health Disparities Table. 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.

Notes

1. Displayed in the Progress Chart (Figure 27-1), 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 27-1 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 27-2). 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 27-2 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 27-2 footnotes, as well as the [Technical Appendix](#), for more detail.
4. 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.
5. 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.
6. 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.

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

Comprehensive Summary of Objectives: Tobacco Use

Objective	Description	Data Source or Objective Status
27-1a	Tobacco use by adults—Cigarettes (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
27-1b	Tobacco use by adults—Spit tobacco (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
27-1c	Tobacco use by adults—Cigars (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
27-1d	Tobacco use by adults—Other (age adjusted, 18+ years)	Deleted at the Midcourse Review.
27-2a	Tobacco use in past month by students—Tobacco products (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
27-2b	Tobacco use in past month by students—Cigarettes (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
27-2c	Tobacco use in past month by students—Spit tobacco (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
27-2d	Tobacco use in past month by students—Cigars (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
27-2e	Tobacco use in past month by students—Bidis (grades 9–12)	National Youth Tobacco Survey: American Legacy Foundation; CDC, NCCDPHP.
27-3a	Initiation of cigarette use—Adolescents 12–17 years (percent at risk)	National Survey on Drug Use and Health (NSDUH), SAMHSA.
27-3b	Initiation of cigarette use—Young adults 18–25 years (percent at risk)	National Survey on Drug Use and Health (NSDUH), SAMHSA.
27-4a	Average age at first tobacco use—Adolescents 12–17 years	National Survey on Drug Use and Health (NSDUH), SAMHSA.
27-4b	Average age at first tobacco use—Young adults 18–25 years	National Survey on Drug Use and Health (NSDUH), SAMHSA.
27-5	Smoking cessation attempts by adults (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
27-6	Smoking cessation in first trimester and for remainder of pregnancy (females, 18–49 years)	National Health Interview Survey (NHIS), CDC, NCHS.
27-7	Smoking cessation attempts by students (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
27-8a	Managed care organization coverage for treatment of nicotine dependency	Addressing Tobacco in Managed Care Survey, Robert Wood Johnson Foundation.
27-8b	Medicaid program coverage for treatment of nicotine dependency (no. States and D.C.)	Health Policy Tracking Service, National Conference of State Legislators.
27-8c	Insurance coverage for treatment of nicotine dependency	Deleted at the Midcourse Review.

Comprehensive Summary of Objectives: Tobacco Use (continued)

Objective	Description	Data Source or Objective Status
27-9	Exposure to tobacco smoke at home among children (≤ 6 years)	National Health Interview Survey (NHIS), CDC, NCHS.
27-10	Exposure to environmental tobacco smoke among nonsmokers (age adjusted, 4+ years)	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
27-11	Smoke-free and tobacco-free schools	School Health Policies and Programs Study (SHPPS), CDC, NCCDPHP.
27-12	Indoor worksite policies that prohibit smoking	Tobacco Use Supplement to the Current Population Survey (TUS-CPS); Department of Commerce, Census Bureau; Department of Labor (DOL), Bureau of Labor Statistics (BLS).
27-13a	Smoke-free indoor air laws—Private workplaces (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-13b	Smoke-free indoor air laws—Public workplaces (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-13c	Smoke-free indoor air laws—Restaurants (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-13d	Smoke-free indoor air laws—Public transportation (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-13e	Smoke-free indoor air laws—Day care centers (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-13f	Smoke-free indoor air laws—Retail stores (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-13g	Smoke-free indoor air laws—Tribes (number)	Developmental.
27-13h	Smoke-free indoor air laws—Territories (number)	Developmental.
27-13i	Smoke-free indoor air laws—Bars (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-14a	Jurisdictions with $\leq 5\%$ illegal tobacco buy rate among minors—States and D.C.	State Synar Enforcement Reporting, SAMHSA.
27-14b	Jurisdictions with $\leq 5\%$ illegal tobacco buy rate among minors—Territories	State Synar Enforcement Reporting, SAMHSA.
27-15	Retail license suspension for sales to minors (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-16a	Exposure to tobacco advertising and promotions among students—Internet (grades 6–12)	National Youth Tobacco Survey: American Legacy Foundation; CDC, NCCDPHP.
27-16b	Exposure to tobacco advertising and promotions among students—Magazines and newspapers (grades 6–12)	National Youth Tobacco Survey: American Legacy Foundation; CDC, NCCDPHP.
27-17a	Student disapproval of smoking 1+ pack of cigarettes per day—8 th graders	Monitoring the Future Study (MTF), NIH, NIDA.
27-17b	Student disapproval of smoking 1+ pack of cigarettes per day—10 th graders	Monitoring the Future Study (MTF), NIH, NIDA.
27-17c	Student disapproval of smoking 1+ pack of cigarettes per day—12 th graders	Monitoring the Future Study (MTF), NIH, NIDA.

Comprehensive Summary of Objectives: Tobacco Use (continued)

Objective	Description	Data Source or Objective Status
27-18a	Evidence-based tobacco control programs (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP, OSH.
27-18b	Evidence-based tobacco control programs (no. Territories)	Developmental.
27-18c	Evidence-based tobacco control programs (no. Tribes)	Developmental.
27-19	Preemptive tobacco control laws (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-20a	Sales-weighted average tobacco-specific nitrosamines in cigarette smoke (ng per cigarette)	Office on Smoking and Health, CDC, NCCDPHP; Division of Laboratory Sciences, CDC, NCEH.
27-20b	Sales-weighted average polyaromatic hydrocarbon compounds in cigarette smoke (ng per cigarette)	Office on Smoking and Health, CDC, NCCDPHP; Division of Laboratory Sciences, CDC, NCEH.
27-20c	Sales-weighted average volatile organic compounds in cigarette smoke (µg per cigarette)	Office on Smoking and Health, CDC, NCCDPHP; Division of Laboratory Sciences, CDC, NCEH.
27-21a	Average combined Federal and State excise taxes on retail price of a standard pack of cigarettes in all 50 States and D.C.	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
27-21b	Increased taxes on smokeless tobacco (no. States and D.C.)	State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.

Figure 27-1. Progress Toward Target Attainment for Focus Area 27: Tobacco Use

LEGEND		 Moved away from target ¹	 Moved toward target	 Met or exceeded target					
Objective	Percent of targeted change achieved ²	2010 Target	Baseline (Year)	Final (Year)	Baseline vs. Final				
					Difference ³	Statistically Significant ⁴	Percent Change ⁵		
27-1. Tobacco use by adults (age adjusted, 18+ years)									
a. Cigarettes	 25.0%	12%	24% (1998)	21% (2008)	-3	Yes	-12.5%		
b. Spit tobacco	 9.5%	0.4%	2.5% (1998)	2.3% (2005)	-0.2	No	-8.0%		
c. Cigars	 16.7%	1.2%	2.4% (1998)	2.2% (2005)	-0.2	No	-8.3%		
27-2. Tobacco use in past month by students (grades 9–12)									
a. Tobacco products	 73.7%	21%	40% (1999)	26% (2009)	-14	Yes	-35.0%		
b. Cigarettes	 84.2%	16%	35% (1999)	19% (2009)	-16	Yes	-45.7%		
c. Spit tobacco		1%	8% (1999)	9% (2009)	1	No	12.5%		
d. Cigars	 40.0%	8%	18% (1999)	14% (2009)	-4	Yes	-22.2%		
e. Bidis	 100.0%	2.4%	4.1% (2000)	2.4% (2009)	-1.7	Yes	-41.5%		
27-3. Initiation of cigarette use (percent at risk)									
a. Adolescents 12–17 years	 19.2%	4.1%	6.7% (2002)	6.2% (2008)	-0.5	No	-7.5%		
b. Young adults 18–25 years		4.4%	6.7% (2002)	8.3% (2008)	1.6	Yes	23.9%		
27-4. Average age at first tobacco use									
a. Adolescents 12–17 years	 13.8%	17.6	14.7 (2002)	15.1 (2008)	0.4	Yes	2.7%		
b. Young adults 18–25 years		20.9	19.0 (2002)	18.9 (2008)	-0.1	No	-0.5%		
27-5. Smoking cessation attempts by adults (age adjusted, 18+ years)	 8.6%	80%	45% (1998)	48% (2008)	3	Yes	6.7%		
27-6. Smoking cessation in first trimester and for remainder of pregnancy (females, 18–49 years)		30%	14% (1998)	11% (2005)	-3	No	-21.4%		
27-7. Smoking cessation attempts by students (grades 9–12)		64%	61% (2001)	59% (2009)	-2	No	-3.3%		
27-9. Exposure to tobacco smoke at home among children (≤6 years)	 111.8%	10%	27% (1994)	8% (2005)	-19	Yes	-70.4%		
27-10. Exposure to environmental tobacco smoke among nonsmokers (age adjusted, 4+ years)	 153.6%	56%	84% (1988–94)	41% (2005–08)	-43	Yes	-51.2%		

Figure 27-1. Progress Toward Target Attainment for Focus Area 27: Tobacco Use (continued)

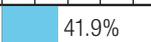
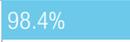
Objective	Percent of targeted change achieved ²	2010 Target	Baseline (Year)	Final (Year)	Baseline vs. Final		
					Difference ³	Statistically Significant ⁴	Percent Change ⁵
27-11. Smoke-free and tobacco-free schools	 41.9%	100%	38% (1994)	64% (2006)	26	Yes	68.4%
27-12. Indoor worksite policies that prohibit smoking	 19.4%	100%	69% (1998–99)	75% (2006–07)	6	Yes	8.7%
27-13. Smoke-free indoor air laws (no. States and D.C.)							
a. Private workplaces	 58.8%	51	0 (1998)	30 (2009)	30	Not tested	*
b. Public workplaces	 58.5%	51	10 (1998)	34 (2009)	24	Not tested	240.0%
c. Restaurants	 54.0%	51	1 (1998)	28 (2009)	27	Not tested	2,700.0%
d. Public transportation	 62.9%	51	16 (1998)	38 (2009)	22	Not tested	137.5%
e. Day care centers	 63.3%	51	21 (1998)	40 (2009)	19	Not tested	90.5%
f. Retail stores	 52.0%	51	1 (1998)	27 (2009)	26	Not tested	2,600.0%
i. Bars	 43.1%	51	0 (1998)	22 (2009)	22	Not tested	*
27-14. Jurisdictions with ≤5% illegal tobacco buy rate among minors							
a. States and D.C.	 9.8%	51	0 (1998)	5 (2009)	5	Not tested	*
b. Territories	 12.5%	8	0 (1998)	1 (2009)	1	Not tested	*
27-15. Retail license suspension for sales to minors (no. States and D.C.)	 7.1%	51	23 (1998)	25 (2009)	2	Not tested	8.7%
27-16. Exposure to tobacco advertising and promotions among students (grades 6–12)							
a. Internet	 32.1%	25%	28% (2000)	37% (2009)	9	Yes	32.1%
b. Magazines and newspapers	 357.1%	67%	74% (2000)	49% (2009)	-25	Yes	-33.8%
27-17. Student disapproval of smoking 1+ pack of cigarettes per day							
a. 8 th graders	 46.7%	95%	80% (1998)	87% (2009)	7	Yes	8.8%
b. 10 th graders	 50.0%	95%	75% (1998)	85% (2009)	10	Yes	13.3%
c. 12 th graders	 50.0%	95%	69% (1998)	82% (2009)	13	Yes	18.8%
27-19. Preemptive tobacco control laws (no. States and D.C.)	 3.6%	0	28 (1998)	27 (2009)	-1	Not tested	-3.6%

Figure 27-1. Progress Toward Target Attainment for Focus Area 27: Tobacco Use (continued)

Objective	Percent of targeted change achieved ²	2010 Target	Baseline (Year)	Final (Year)	Baseline vs. Final		
					Difference ³	Statistically Significant ⁴	Percent Change ⁵
27-20a. Sales-weighted average tobacco-specific nitrosamines in cigarette smoke (ng per cigarette)		109.4	121.5 (2003–04)	108.1 (2007)	-13.4	Not tested	-11.0%
27-20b. Sales-weighted average polyaromatic hydrocarbon compounds in cigarette smoke (ng per cigarette)		894.3	993.7 (2003–04)	929.5 (2007)	-64.2	Not tested	-6.5%
27-20c. Sales-weighted average volatile organic compounds in cigarette smoke (µg per cigarette)		636.3	707.0 (2002)	637.4 (2007)	-69.6	Not tested	-9.8%
27-21a. Average combined Federal and state excise taxes on retail price of a standard pack of cigarettes in all 50 States and D.C.		\$2.00	\$0.63 (1998)	\$2.35 (2009)	\$1.72	Not tested	273.0%
27-21b. Increased taxes on smokeless tobacco (no. States and D.C.)		51	3 (2000)	38 (2009)	35	Not tested	1,166.7%

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 objectives 27-8a, 27-8b, 27-13g, 27-13h, and 27-18a through c. Objectives 27-1d and 27-8c were 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 = $\frac{\text{Final value} - \text{Baseline value}}{\text{Baseline value}} \times 100$.

* Percent change cannot be calculated. See [Technical Appendix](#) for more information.

DATA SOURCES

- 27-1a–c. National Health Interview Survey (NHIS), CDC, NCHS.
- 27-2a–d. Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
- 27-2e. National Youth Tobacco Survey: American Legacy Foundation; CDC, NCCDPHP.
- 27-3a–b. National Survey on Drug Use and Health (NSDUH), SAMHSA.
- 27-4a–b. National Survey on Drug Use and Health (NSDUH), SAMHSA.
- 27-5–27-6. National Health Interview Survey (NHIS), CDC, NCHS.
- 27-7. Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
- 27-9. National Health Interview Survey (NHIS), CDC, NCHS.
- 27-10. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
- 27-11. School Health Policies and Programs Study (SHPPS), CDC, NCCDPHP.
- 27-12. Tobacco Use Supplement to the Current Population Survey (TUS-CPS): Department of Commerce, Census Bureau; Department of Labor (DOL), Bureau of Labor Statistics (BLS).
- 27-13a–f. State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
- 27-13i. State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
- 27-14a–b. State Synar Enforcement Reporting, SAMHSA.
- 27-15. State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
- 27-16a–b. National Youth Tobacco Survey: American Legacy Foundation; CDC, NCCDPHP.
- 27-17a–c. Monitoring the Future Study (MTF), NIH, NIDA.
- 27-19. State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.
- 27-20a–c. Office on Smoking and Health, CDC, NCCDPHP; Division of Laboratory Sciences, CDC, NCEH.
- 27-21a–b. State Tobacco Activities Tracking and Evaluation System (STATE), CDC, NCCDPHP.

Figure 27-2. Health Disparities Table for Focus Area 27: Tobacco Use

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.

Population-based objective	Race and Ethnicity							Summary index	Sex		Education				Income			Disability	
	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		Female	Male	Less than high school	High school graduate	At least some college	Summary index	Poor	Near poor	Middle/high income	Summary index	Persons with disabilities
27-1a. Tobacco use by adults—Cigarettes (age adjusted, 18+ years) (1998, 2008) ^{1*}	■	b		■	B	■	■		B	■	■	■	■	■	■	B	■	■	B
b. Tobacco use by adults—Spit tobacco (age adjusted, 18+ years) (1998, 2005) ^{2*}										■	■	B	■	b		B		■	B
c. Tobacco use by adults—Cigars (age adjusted, 18+ years) (1998, 2005) ^{2*}										b		B						■	B
27-2a. Tobacco use in past month by students—Tobacco products (grades 9–12) (1999, 2009) [*]					■	B	■		B	■									
b. Tobacco use in past month by students—Cigarettes (grades 9–12) (1999, 2009) [*]					■	B ⁱ	■		B	■									
c. Tobacco use in past month by students—Spit tobacco (grades 9–12) (1999, 2009) [*]																			
d. Tobacco use in past month by students—Cigars (grades 9–12) (1999, 2009) [*]					B ⁱ	B	■		B	■									
e. Tobacco use in past month by students—Bidis (grades 9–12) (2000, 2009) [*]																			
27-3a. Initiation of cigarette use—Adolescents 12–17 years (percent at risk) (2002, 2008) ^{3*}	■	b		b	b	b	B		■	B				b	B ⁱ	■			
b. Initiation of cigarette use—Young adults 18–25 years (percent at risk) (2002, 2008) ^{3*}									B	■									
27-4a. Average age at first tobacco use—Adolescents 12–17 years (2002, 2008) ^{3*}	■	b		■	■	B ⁱ	B		■	B				■	■	B	■		
b. Average age at first tobacco use—Young adults 18–25 years (2002, 2008) ^{3*}	■	b		B ⁱ	■	■	■		B	■				■	B ⁱ	■	■		
27-5. Smoking cessation attempts by adults (age adjusted, 18+ years) (1998, 2008) ^{1*}	■	b		b	■	B	■		B	■	■	B	■	B ⁱ	■	■	■	B	■
27-6. Smoking cessation in first trimester and for remainder of pregnancy (females, 18–49 years) (1998, 2005) ^{4*}																			
27-7. Smoking cessation attempts by students (grades 9–12) (2001, 2009) [*]					B ⁱ	■	B	■	B	■									
27-9. Exposure to tobacco smoke at home among children (≤6 years) (1994, 2005) ^{4*}				■	b	■	B		■	B				■	■	B	■	■	■

Figure 27-2. Health Disparities Table for Focus Area 27: Tobacco Use (continued)

Population-based objective	Race and Ethnicity							Summary index	Sex		Education				Income				Disability	
	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		Female	Male	Less than high school	High school graduate	At least some college	Summary index	Poor	Near poor	Middle/high income	Summary index	Persons with disabilities	Persons without disabilities
27-10. Exposure to environmental tobacco smoke among nonsmokers (age adjusted, 4+ years) (1988–94, 2005–08)*					B ^{iv}	↑	↑	↑	B		↑	↑	B	↑						
27-12. Indoor worksite policies that prohibit smoking (1998–99, 2006–07) ^{5*}		B			↑			ii	B	↓	↓	↓	B	↓		B				
27-16a. Exposure to tobacco advertising and promotions among students—Internet (grades 6–12) (2000, 2009)*		B ⁱ								B										
b. Exposure to tobacco advertising and promotions among students—Magazines and newspapers (grades 6–12) (2000, 2009)*		B ⁱ			↑					B										
27-17a. Student disapproval of smoking 1+ pack of cigarettes per day—8 th graders (1998, 2009) ^{6‡}									B											
b. Student disapproval of smoking 1+ pack of cigarettes per day—10 th graders (1998, 2009) ^{6‡}						B	B ⁱ		B											
c. Student disapproval of smoking 1+ pack of cigarettes per day—12 th graders (1998, 2009) ^{6‡}																				

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 objectives 27-8a and b, 27-11, 27-13a through i, 27-14a and b, 27-15, 27-18a through c, 27-19, 27-20a through c, and 27-21a and b. Objectives 27-1d and 27-8c were 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.

Figure 27-2. Health Disparities Table for Focus Area 27: Tobacco Use (continued)

LEGEND			
The “best” group rate at the most recent data point.		The group with the best rate for specified characteristic.	
		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.	
Percent difference from the best group rate			
Disparity from the best group rate at the most recent data point.		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.

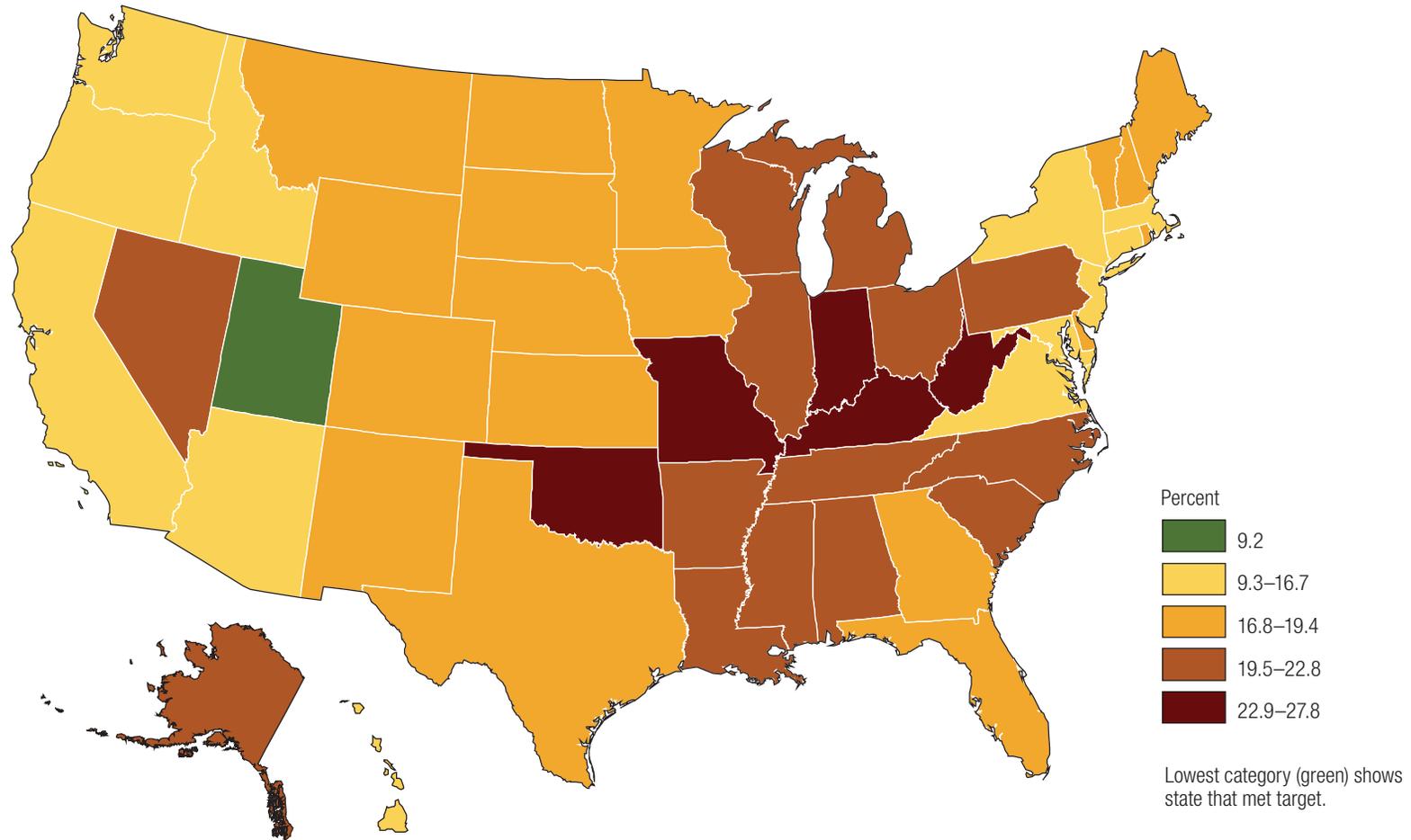
FOOTNOTES

- * 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 available only for the most recent data. Thus, the variability of best group rates was assessed only for the most recent data, and statistical significance was tested only for the most recent data. 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 displayed according to their magnitude, since measures of variability were not available at baseline and therefore statistical significance of changes in disparity could not be tested. See [Technical Appendix](#).
- ¹ Baseline data by race and ethnicity are for 1999.
- ² Baseline data by race and ethnicity are for 2000.
- ³ Baseline data by income group are for 2005.
- ⁴ Baseline data by race and ethnicity are for 2005.
- ⁵ Baseline data by race and ethnicity are for 2003.
- ⁶ Baseline data by race and ethnicity are for 2004–05, while most recent data by race and ethnicity are for 2008–09.
- ⁱ 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](#).
- ⁱⁱ Change in the summary index cannot be assessed. See [Technical Appendix](#).
- ⁱⁱⁱ 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](#).
- ^{iv} Data are for Mexican American.

DATA SOURCES

- 27-1a–c. National Health Interview Survey (NHIS), CDC, NCHS.
- 27-2a–d. Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
- 27-2e. National Youth Tobacco Survey: American Legacy Foundation; CDC, NCCDPHP.
- 27-3a–b. National Survey on Drug Use and Health (NSDUH), SAMHSA.
- 27-4a–b. National Survey on Drug Use and Health (NSDUH), SAMHSA.
- 27-5–27-6. National Health Interview Survey (NHIS), CDC, NCHS.
- 27-7. Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
- 27-9. National Health Interview Survey (NHIS), CDC, NCHS.
- 27-10. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
- 27-12. Tobacco Use Supplement to the Current Population Survey (TUS-CPS): Department of Commerce, Census Bureau; Department of Labor (DOL), Bureau of Labor Statistics (BLS).
- 27-16a–b. National Youth Tobacco Survey: American Legacy Foundation; CDC, NCCDPHP.
- 27-17a–c. Monitoring the Future Study (MTF), NIH, NIDA.

Figure 27-3. Tobacco Use by Adults—Cigarettes (Aged 18+), 2008
 Healthy People 2010 objective 27-1a • Target = 12 percent



NOTES: Data are age adjusted to the 2000 standard population. Data are for persons who have had at least 100 cigarettes in their lifetime and currently report smoking everyday or some days. Rates are displayed by a modified Jenks classification for U.S. states. National data for the objective come from the National Health Interview Survey (NHIS) and are the basis for setting the target. State data from BRFSS may not be comparable with national data from NHIS. The U.S. rate in 2008 from NHIS was 20.6%. The rate for all states combined from BRFSS in 2008 was 18.5%. BRFSS data displayed here may not match BRFSS data elsewhere that are not age adjusted.

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

