Sexually Transmitted Diseases

CHAPTER 25

Lead Agency

Centers for Disease Control and Prevention

Contents

GOAL:
Promote responsible sexual behaviors, strengthen community capacity, and increase accessibility to quality services to prevent sexually transmitted diseases (STDs) and their complications.

Sexually transmitted diseases (STDs) refer to the more than 25 infectious organisms that are transmitted primarily through sexual activity. This chapter includes objectives that monitor cases of STD, responsible sexual behavior among adolescents, and the availability of screening programs for genital chlamydia.

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]. Almost two thirds (63%) of the STD objectives with data to measure progress moved toward or achieved their Healthy People 2010 targets (Figure 25-1). However, health disparities of 50% or more among racial and ethnic populations, as well as by sex, were observed (Figure 25-2), as highlighted below [2].

❯ Chlamydia infections (objectives 25-1a through d) increased, moving away from the Healthy People 2010 targets [3]. Infections among females aged 15–24 attending family planning clinics (objective 25-1a) increased 62% between 1997 and 2009, from 5.0% to 8.1%. Similarly, for persons attending STD clinics, infections among females (objective 25-1b) increased 34.4% between 1997 and 2009, from 12.2% to 16.4%, whereas infections among males (objective 25-1c) increased 52.9%, from 15.7% to 24.0%. Each of these three objectives had a 2010 target of 3.0%. Chlamydia infections among females aged 24 and under who were enrolled in National Job Training Programs (objective 25-1d) increased 15.8% between 2002 and 2009, from 10.1% to 11.7%, moving away from the 2010 target of 6.8%. Health disparities among racial and ethnic groups were observed for all four of these objectives. For example:

- In 2009, non-Hispanic white women attending family planning clinics, STD clinics, or enrolled in National Job Training Programs had the lowest (best) rates of chlamydia infection among racial and ethnic groups of women: 5.4%, 12.1%, and 5.9%, respectively. The rate for non-Hispanic black women attending family planning clinics, 14.8%, was more than two and a half times the best rate (that for non-Hispanic white women), whereas the rate for non-Hispanic black women enrolled in National Job Training Programs, 14.8%, was twice the best rate [2].

- Asian men attending STD clinics had the lowest (best) rate of chlamydia infection among racial and ethnic groups of men, 14.4% in 2009, whereas non-Hispanic black men had a rate of 29.4%, about twice the best rate [2].

›   Chlamydia infection varied by geographic area. In 2009, the states of Idaho, Maine, New Hampshire, Utah, Vermont, and West Virginia had the lowest rates. Rates were highest in Alaska and Mississippi (Figure 25-3).

›   The incidence of gonorrhea (objective 25-2a) declined 18.9% between 1997 and 2009, from 122 to 99 new cases per 100,000 population, moving toward the 2010 target of 19 new cases per 100,000 population. New cases of gonorrhea among females aged 15–44 (objective 25-2b) declined 8.6% between 2002 and 2009, from 279 to 255 per 100,000 population, moving toward the target of 42 new cases per 100,000 population.

▪   Among racial and ethnic groups, the combined Asian or Pacific Islander population had the lowest (best) rates of new cases of gonorrhea (objective 25-2a), 19 new cases per 100,000 population in 1997 and 18 new cases per 100,000 in 2009. The Hispanic or Latino population had rates of 65 per 100,000 in 1997 and 59 in 2009; the American Indian or Alaska Native population had rates of 97 per 100,000 in 1997 and 113 in 2009; and the non-Hispanic black population had rates of 809 per 100,000 in 1997 and 556 in 2009.

▪   In 2009, the rate for the Hispanic or Latino population was almost three and a half times the best group rate (that for the Asian or Pacific Islander population); the rate for the American Indian or Alaska Native was almost six and a half times the best rate; and the rate for the non-Hispanic black population was almost 31 times the best rate [2].

▪   Between 1997 and 2009, the disparity between the American Indian or Alaska Native population and the Asian or Pacific Islander population (group with the best rate) increased 117 percentage points, whereas the disparity between the non-Hispanic black population and the Asian or Pacific Islander population decreased 1,169 percentage points [4].

▪   Racial and ethnic disparities in the incidence of gonorrhea among females aged 15–44 (objective 25-2b) were similar to those observed in the total population.

▪   The Asian or Pacific Islander population had the lowest (best) rate, 37 per 100,000 population in 2009. The rates for the non-Hispanic white, Hispanic or Latino, American Indian or Alaska Native, and non-Hispanic black populations were 83, 128, 311, and 1,198 per 100,000, respectively.

▪   The rate for the non-Hispanic white population was more than twice the best group rate (that for the Asian or Pacific Islander population); the rate for the Hispanic or Latino population

was about three and a half times the best rate; the rate for the American Indian or Alaska Native population was almost eight and a half times the best rate; and the rate for the non-Hispanic black population was over 32 times the best rate [2].

▪   The incidence of gonorrhea among females aged 15–44 (objective 25-2b) for the Asian or Pacific Islander population was 43 new cases per 100,000 population in 1997 and 37 per 100,000 in 2009, whereas the rates for the American Indian or Alaska Native populations were 304 per 100,000 in 1997 and 311 in 2009.

▪   Between 1997 and 2009, the disparity between the American Indian or Alaska Native population and the Asian or Pacific Islander population (group with the best rate) increased 134 percentage points [4].

›   Gonorrhea incidence varied by geographic region. In 2009, incidence was lower in the West, Midwest, and Northeast. Seven states, including Idaho, Montana, Utah, and Wyoming in the West, and Maine, New Hampshire, and Vermont in New England, achieved the Healthy People 2010 target. The District of Columbia had the highest incidence of gonorrhea (Figure 25-4).

›   Domestic transmission of primary and secondary syphilis (objective 25-3) increased 43.7% between 1997 and 2009, from 3.2 new cases per 100,000 population to 4.6 new cases per 100,000, moving away from the Healthy People 2010 target of 0.2 new cases per 100,000 population.

▪   Among racial and ethnic groups, the combined Asian or Pacific Islander population had the lowest (best) rates of new cases of syphilis: 0.3 new cases per 100,000 population in 1997 and 1.6 in 2009. Rates for the American Indian or Alaska Native population were 2.0 per 100,000 in 1997 and 2.4 in 2009; rates for the Hispanic or Latino population were 1.6 per 100,000 in 1997 and 4.5 in 2009; and rates for the non-Hispanic black population were 22.0 per 100,000 in 1997 and 19.2 in 2009.

▪   In 2009, the rate for the Hispanic or Latino population was almost three times the best group rate (that for the Asian or Pacific Islander population), whereas the rate for the non-Hispanic black population was 12 times the best rate [2].

▪   Between 1997 and 2009, the disparity between the American Indian or Alaska Native population and the Asian or Pacific Islander population (group with the best rate) declined 517 percentage points; whereas the disparity between the Hispanic or Latino population and the Asian or Pacific Islander population

declined 252 percentage points; and the disparity between the non-Hispanic black population and the Asian or Pacific Islander population declined 6,133 percentage points [4].

- Females had lower (better) rates of new cases of syphilis than males: 2.9 new cases per 100,000 population in 1997, and 1.4 in 2009. The rates for males were 3.6 new cases per 100,000 in 1997 and 7.8 in 2009. The 2009 rate for males was more than five and a half times the rate for females [2]. Between 1997 and 2009, the disparity between males and females increased 433 percentage points [4].

❯ Domestic transmission of primary and secondary syphilis also varied by geographic area. Four states achieved the Healthy People 2010 target: Alaska, Idaho, South Dakota, and Vermont. In 2009, Louisiana had the highest incidence of domestic transmission of primary and secondary syphilis (Figure 25-5).

❯ The incidence of congenital syphilis (objective 25-9) declined 64.3% between 1997 and 2009, from 28 new cases per 100,000 live births to 10 new cases per 100,000 live births, moving toward the 2010 target of 1 new case per 100,000 population.

- Among racial and ethnic groups, the non-Hispanic white population had the lowest (best) rates of new cases of congenital syphilis: 4 new cases per 100,000 live births in 1997 and 3 in 2009. The American Indian or Alaska Native population had rates of 11 new cases per 100,000 live births in 1997 and 12 in 2009; the Hispanic or Latino population had rates of 34 new cases per 100,000 live births in 1997 and 12 in 2009; and the non-Hispanic black population had rates of 123 new cases per 100,000 live births in 1997 and 35 in 2009.

  - In 2009, the rates for the American Indian or Alaska native and the Hispanic or Latino populations were four times the best rate (that for the non-Hispanic white population), whereas the rate for the non-Hispanic black population was almost 12 times the best rate [2].

  - Between 1997 and 2009, the disparity between the American Indian or Alaska Native population and the non-Hispanic white population (group with the best rate) increased 125 percentage points; whereas the disparity between the Hispanic or Latino and the non-Hispanic white population declined 450 percentage points; and the disparity between the non-Hispanic black population and the non-Hispanic white population declined 1,908 percentage points [4].

❯ The proportion of persons aged 20–29 with genital herpes infections (objective 25-4) declined 35.3% from 1988–94 to 2005–08, from 17% to 11%, exceeding the 2010 target of 14%.

❯ The proportion of women aged 15–44 who had ever required treatment for pelvic inflammatory disease (PID) (objective 25-6) declined 50% between 1995 and 2006–08, from 8% to 4%, exceeding the 2010 target of 5%.

Summary of Progress

❯ Figure 25-1 presents a quantitative assessment of progress in achieving the Healthy People 2010 objectives for STDs [1]. Data to measure progress toward target attainment were available for 16 objectives. Of these:

- Two objectives exceeded their 2010 targets (objectives 25-4 and 25-6).

- Eight objectives moved toward their targets. No statistically significant difference between the baseline and final data points was observed for one of these objectives (25-7). Data to test the significance of the difference were unavailable for seven objectives (25-2a and b; 25-9; 25-11a and c; and 25-16-a and b).

- Six objectives moved away from their targets (objectives 25-1a through d; 25-3; and 25-11b). Data to test the significance of the difference between the baseline and final data points were unavailable for all of these objectives.

❯ One objective remained developmental (objective 25-5) and one objective had no follow-up data available to measure progress (objective 25-13) [5]. One objective (25-8) was moved to the HIV Focus Area and seven were deleted at the Midcourse Review (objectives 25-10, 25-12, 25-14, 25-15, 25-17, 25-18, and 25-19).

❯ Figure 25-2 displays health disparities 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 [4].

- Two objectives had statistically significant health disparities of 10% or more by race and ethnicity (objectives 25-4 and 25-7) and eight additional objectives with racial and ethnic disparities of 10% or more lacked data to assess statistical significance (objectives 25-1a through d; 25-2a and b; 25-3; and 25-9).

- Of these 10 objectives, the non-Hispanic white population had the best rate for 6 objectives (25-1a, b, and d; 25-2a; 25-9; 25-11a; and 25-11c). The

combined Asian or Pacific Islander population had the best rate for 3 objectives (25-2a and b, and 25-3) and the Asian population had the best rate for 1 objective (25-1c).

- One objective had statistically significant disparities of 10% or more by sex (objective 25-11c) and two additional objectives with disparities of 10% or more by sex lacked data to assess statistical significance (objectives 25-2a and 25-3). Of these three objectives, males had better rates for two objectives (25-2a and 25-11c) and females had a better rate for one objective (25-3).

- Health disparities of 100% or more were observed among racial and ethnic populations, as well as by sex. Changes in disparity of 100 percentage points or more also were observed. These findings are discussed in the Highlights section, above.

Transition to Healthy People 2020

For Healthy People 2020, the Sexually Transmitted Diseases Topic Area has a smaller set of objectives than were included in Healthy People 2010. 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:

❭ Bacterial STD illness and disability

❭ Viral STD illness and disability

❭ STD complications affecting females

❭ STD complications affecting fetuses and newborns

❭ Personal health services.

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

❭ The Healthy People 2020 Sexually Transmitted Diseases Topic Area has 18 objectives, whereas the Healthy People 2010 Focus Area had 26 objectives.

❭ Six Healthy People 2010 objectives were retained "as is" [6]. These objectives include:

- Chlamydia infections among females aged 15–24 attending family planning clinics (objective 25-1a)

- Chlamydia infections among females aged 24 and under enrolled in a National Job Training Program (objective 25-1d)

- Gonorrhea infections among females aged 15–44 (objective 25-2b)

- Young adults with genital herpes infection due to herpes simplex, type 2 (objective 25-4)

- Females aged 15–44 who have ever required treatment for PID (objective 25-6)

- Congenital syphilis (objective 25-9).

❭ Four Healthy People 2010 objectives (25-3, 25-5, and 25-16a and b) were modified to create nine Healthy People 2020 objectives [7].

- The objective on sustained domestic transmission of primary and secondary syphilis (objective 25-3) was divided into two objectives: domestic transmission of primary and secondary syphilis among males, and domestic transmission of primary and secondary syphilis among females.

- The objective on sexually active females aged 24 and under enrolled in commercial health insurance plans who are screened for genital chlamydia infections during the measurement year (objective 25-16a) was split into two objectives: 1) sexually active females aged 16–20 enrolled in commercial health insurance plans who are screened for genital chlamydia infections during the measurement year; and 2) sexually active females aged 21–24 enrolled in commercial health insurance plans who are screened for genital chlamydia infections during the measurement year.

- The objective on sexually active females aged 24 and under enrolled in Medicaid plans who are screened for genital chlamydia infections during the measurement year (objective 25-16b) was divided into two objectives: 1) sexually active females aged 16–20 enrolled in Medicaid plans who are screened for genital chlamydia infections during the measurement year; and 2) sexually active females aged 21–24 enrolled in Medicaid plans who are screened for genital chlamydia infections during the measurement year.

- The objective on human papillomavirus (HPV) infections among females aged 14–49 (objective 25-5) was split into three objectives depicting the different HPV types: HPV types 6 and 11; HPV types 16 and 18; and all other HPV types.

❭ One developmental Healthy People 2010 objective was moved to the HIV Focus Area: heterosexually transmitted HIV infections in women aged 13–24 (objective 25-8) [5].

❭ Seven Healthy People 2010 objectives were deleted at the Midcourse Review due to lack of nationally representative data sources: neonatal STDs (objective 25-10); responsible sexual behavior messages on television (objective 25-12); screening for STDs

in jails (objective 25-14); contracts with managed care providers to treat partners of STD patients (objective 25-15); STD screening of pregnant women during prenatal visits (objective 25-17); primary care provider compliance with STD treatment standards (objective 25-18); and provider referral services for partners of STD patients (objective 25-19).

❱ Eight objectives were archived [8]:

- Two objectives, chlamydia infections among females and males aged 15–24 attending STD clinics (objectives 25-1b and c), were archived because they were not deemed accurate measures of the community burden associated with chlamydia, since they focused on persons who had sought care for a suspected STD.

- One objective, new cases of gonorrhea (objective 25-2a), was archived because it was redundant with the Healthy People 2020 gonorrhea objectives.

- One objective, fertility problems among childless females with an STD or PID (objective 25-7), was archived because it did not differentiate between STDs and PID and hence could not be used to assess STD-associated infertility.

- Three objectives, measuring responsible sexual behavior among students in grades 9–12 (objectives 25-11a through c), were archived because they overlapped with the Family Planning objectives.

- One objective, Hepatitis B vaccines offered in tribal, state, and local STD clinics (objective 25-13), was archived because it lacked a viable data source.

❱ Three new objectives were added to the Healthy People 2020 Sexually Transmitted Diseases Topic Area:

- Gonorrhea infections among males aged 15–44

- Chlamydia infections among females aged 15–44

- Chlamydia infections among males aged 24 and under who enrolled in a National Job Training Program.

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

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 25-1), 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 25-1 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 25-2). 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 25-2 footnotes, as well as the Technical Appendix, for more detail.

3. Most of the observed increases in chlamydia infections (objectives 25-1a through d) were due to increases in test sensitivity, which resulted in previously undiagnosed infections being detected. In addition, the chlamydia infection rates tracked in objectives 25-1a through d have not been adjusted for increases in screening rates and efforts to target screening to persons most at risk of infection. Therefore, the reader is urged to exercise caution in interpreting the observed increases in chlamydia infections.

4. 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 25-2 footnotes, as well as the Technical Appendix, for more detail.

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

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

7. 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.

8. 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: Sexually Transmitted Diseases

Objective	Description	Data Source or Objective Status
25-1a	Chlamydia infections—Females 15–24 years attending family planning clinics	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-1b	Chlamydia infections—Females 15–24 years attending STD clinics	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-1c	Chlamydia infections—Males 15–24 years attending STD clinics	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-1d	Chlamydia infections—Females ≤24 years enrolled in National Job Training Program	STD Surveillance System (STDSS), CDC, NCHHSTP; National Job Training Program.
25-2a	Gonorrhea—New cases per 100,000 population	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-2b	Gonorrhea—New cases per 100,000 population among females 15–44 years	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-3	Domestic transmission of primary and secondary syphilis (new cases per 100,000 population)	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-4	Genital herpes infection among adults 20–29 years	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
25-5	Human papillomavirus (HPV) infection—Females 14–49 years	Developmental.
25-6	Treatment for pelvic inflammatory disease (PID) among females (15–44 years)	National Survey of Family Growth (NSFG), CDC, NCHS.
25-7	Fertility problems among childless females with an STD or PID (15–44 years)	National Survey of Family Growth (NSFG), CDC, NCHS.
25-9	Congenital syphilis (new cases per 100,000 live births)	STD Surveillance System (STDSS), CDC, NCHHSTP; National Vital Statistics System—Natality (NVSS-N), CDC, NCHS.
25-10	Neonatal STDs	Deleted at the Midcourse Review.
25-11a	Students who never had sexual intercourse (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
25-11b	Students who had sexual intercourse, but not in the past 3 months (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
25-11c	Students who used condoms at last intercourse (grades 9–12)	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
25-12	Responsible sexual behavior messages on television	Deleted at the Midcourse Review.
25-13	Hepatitis B vaccines offered in STD clinics—Tribal, State and local	Survey of STD Programs, National Coalition of STD Directors (NCSD); IHS.
25-14	Screening for sexually transmitted diseases in detention facilities and jails	Deleted at the Midcourse Review.
25-15	Contracts with managed care providers to treat nonplan partners of STD patients	Deleted at the Midcourse Review.
25-16a	Annual screening for genital chlamydia among females ≤25 years—Enrolled in commercial managed care organizations (MCOs)	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA).

Objective	Description	Data Source or Objective Status
25-16b	Annual screening for genital chlamydia among females ≤25 years—Enrolled in Medicaid managed care organizations (MCOs)	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA).
25-17	STD screening of pregnant women during prenatal health care visits	Deleted at the Midcourse Review.
25-18	Primary care provider compliance with recognized STD treatment standards	Deleted at the Midcourse Review.
25-19	Provider referral services for partners of STD patients	Deleted at the Midcourse Review.

Figure 25-1. Progress Toward Target Attainment for Focus Area 25: Sexually Transmitted Diseases

LEGEND	◄ Moved away from target[1]	▬ Moved toward target	► Met or exceeded target

Objective	Percent of targeted change achieved[2] 0 25 50 75 100	2010 Target	Baseline (Year)	Final (Year)	Difference[3]	Statistically Significant[4]	Percent Change[5]
25-1. Chlamydia infections							
a. Females 15–24 years attending family planning clinics	◄	3.0%	5.0% (1997)	8.1% (2009)	3.1	Not tested	62.0%
b. Females 15–24 years attending STD clinics	◄	3.0%	12.2% (1997)	16.4% (2009)	4.2	Not tested	34.4%
c. Males 15–24 years attending STD clinics	◄	3.0%	15.7% (1997)	24.0% (2009)	8.3	Not tested	52.9%
d. Females ≤24 years enrolled in National Job Training Program	◄	6.8%	10.1% (2002)	11.7% (2009)	1.6	Not tested	15.8%
25-2. Gonorrhea							
a. New cases per 100,000 population	▬ 22.3%	19	122 (1997)	99 (2009)	-23	Not tested	-18.9%
b. New cases per 100,000 population among females 15–44 years	▬ 10.1%	42	279 (2002)	255 (2009)	-24	Not tested	-8.6%
25-3. Domestic transmission of primary and secondary syphilis (new cases per 100,000 population)	◄	0.2	3.2 (1997)	4.6 (2009)	1.4	Not tested	43.7%
25-4. Genital herpes infection among adults 20–29 years	► 200.0%	14%	17% (1988–94)	11% (2005–08)	-6	Yes	-35.3%
25-6. Treatment for pelvic inflammatory disease (PID) among females (15–44 years)	► 133.3%	5%	8% (1995)	4% (2006–08)	-4	Not tested	-50.0%
25-7. Fertility problems among childless females with an STD or PID (15–44 years)	▬ 50.0%	15%	27% (1995)	21% (2006–08)	-6	No	-22.2%
25-9. Congenital syphilis (new cases per 100,000 live births)	▬ 66.7%	1	28 (1997)	10 (2009)	-18	Not tested	-64.3%
25-11a. Students who never had sexual intercourse (grades 9–12)	▬ 66.7%	56%	50% (1999)	54% (2009)	4	Not tested	8.0%
25-11b. Students who had sexual intercourse, but not in the past 3 months (grades 9–12)	◄	30%	27% (1999)	26% (2009)	-1	Not tested	-3.7%
25-11c. Students who used condoms at last intercourse (grades 9–12)	▬ 42.9%	65%	58% (1999)	61% (2009)	3	Not tested	5.2%
25-16. Annual screening for genital chlamydia among females ≤25 years							
a. Enrolled in commercial managed care organizations (MCOs)	▬ 48.6%	62%	25% (2002)	43% (2009)	18	Not tested	72.0%
b. Enrolled in Medicaid managed care organizations (MCOs)	▬ 81.0%	62%	41% (2002)	58% (2009)	17	Not tested	41.5%

Figure 25-1. Progress Toward Target Attainment for Focus Area 25: Sexually Transmitted Diseases (continued)

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 25-5 and 25-13. Objective 25-8 has been moved to Focus Area 13; see objective 13-18. Objectives 25-10, 25-12, 25-14, 25-15, and 25-17 through 25-19 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 = $\dfrac{\text{Final value} - \text{Baseline value}}{\text{Healthy People 2010 target} - \text{Baseline value}} \times 100$.

[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 = $\dfrac{\text{Final value} - \text{Baseline value}}{\text{Baseline value}} \times 100$.

DATA SOURCES

25-1a–c.	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-1d.	STD Surveillance System (STDSS), CDC, NCHHSTP; National Job Training Program.
25-2a–b.	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-3.	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-4.	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
25-6–25-7.	National Survey of Family Growth (NSFG), CDC, NCHS.
25-9	STD Surveillance System (STDSS), CDC, NCHHSTP; National Vital Statistics System—Natality (NVSS-N), CDC, NCHS.
25-11a–c.	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
25-16a–b.	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA).

Figure 25-2. Health Disparities Table for Focus Area 25: Sexually Transmitted Diseases

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	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 index	Female	Male	Less than high school	High school graduate	At least some college	Summary index	Poor	Near poor	Middle/high income	Summary index
25-1a. Chlamydia infections—Females 15–24 years attending family planning clinics (1997, 2009)†	↓				↓	↓↓	B	i										
b. Chlamydia infections—Females 15–24 years attending STD clinics (1997, 2009)†	↑				↓		B	i										
c. Chlamydia infections—Males 15–24 years attending STD clinics (1997, 2009)†		B			↓↓	↑		i										
d. Chlamydia infections—Females ≤24 years enrolled in National Job Training Program (2002, 2009)†					↑	↑↑	B	↑										
25-2a. Gonorrhea—New cases per 100,000 population (1997, 2009)†	↑↑↑	Bii			↓	↓↓	↑	↓↓		Biii								
25-2b. Gonorrhea—New cases per 100,000 population among females 15–44 years (2002, 2009)†	↑↑↑	Bii			↑		↑	↑										
25-3. Domestic transmission of primary and secondary syphilis (new cases per 100,000 population) (1997, 2009)†	↓↓↓	Bii			↓↓↓	↓↓↓	↓	↓↓↓	B	↑↑↑								
25-4. Genital herpes infection among adults 20–29 years (1988–94, 2005–08)*					iv													
25-6. Treatment for pelvic inflammatory disease (PID) among females (15–44 years) (1995, 2006–08)‡																		
25-7. Fertility problems among childless females with an STD or PID (15–44 years) (1995, 2006–08)*																		
25-9. Congenital syphilis (new cases per 100,000 live births) (1997, 2009)†	↑↑↑	↓ii			↓↓↓	↓↓↓	B	↓↓										
25-11a. Students who never had sexual intercourse (grades 9–12) (1999, 2009)‡							B		B	Biii								
25-11b. Students who had sexual intercourse, but not in the past 3 months (grades 9–12) (1999, 2009)‡					B					B								
25-11c. Students who used condoms at last intercourse (grades 9–12) (1999, 2009)‡					↓		Biii	↓		B								

Figure 25-2. Health Disparities Table for Focus Area 25: Sexually Transmitted Diseases (continued)

NOTES

See DATA2010 at http://wonder.cdc.gov/data2010 for all Healthy People 2010 tracking data. Disparity data are either unavailable or not applicable for objectives 25-5, 25-8, 25-13, and 25-16a and b. Objectives 25-10, 25-12, 25-14, 25-15, and 25-17 through 25-19, 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.

LEGEND

| The "best" group rate at the most recent data point. | B | The group with the best rate for specified characteristic. | b | Most favorable group rate for specified characteristic, but reliability criterion not met. | | Reliability criterion for best group rate not met, or data available for only one group. |

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 were displayed when the differences from the best group rate are statistically significant at the 0.05 level. Changes in disparities over time are indicated by arrows when the changes are greater than or equal to 10 percentage points and are statistically significant at the 0.05 level. See Technical Appendix.

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

‡ 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.

i Change in the summary index cannot be assessed. See Technical Appendix.

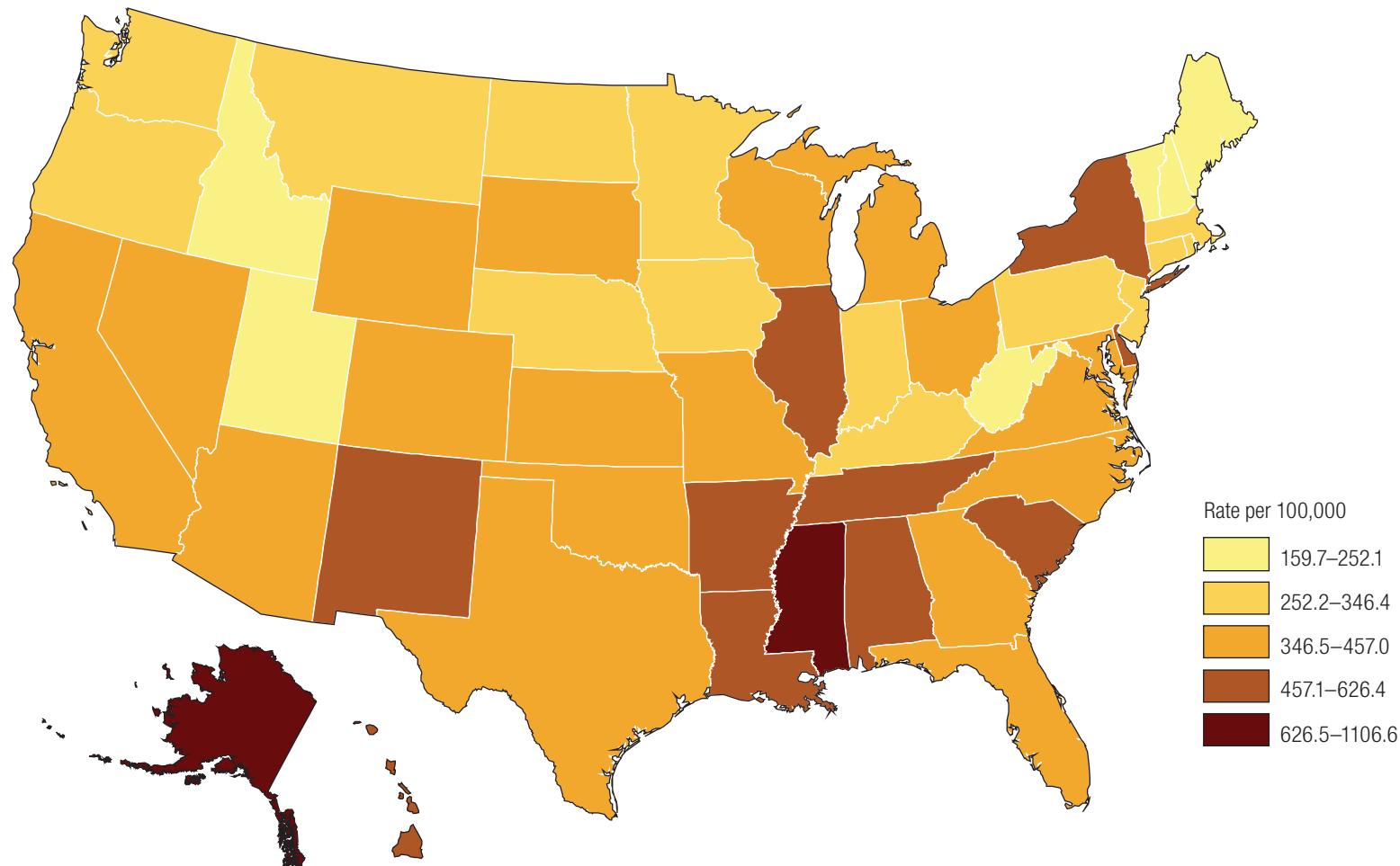ii Data are for Asian or Pacific Islander.

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

iv Data are for Mexican American.

DATA SOURCES

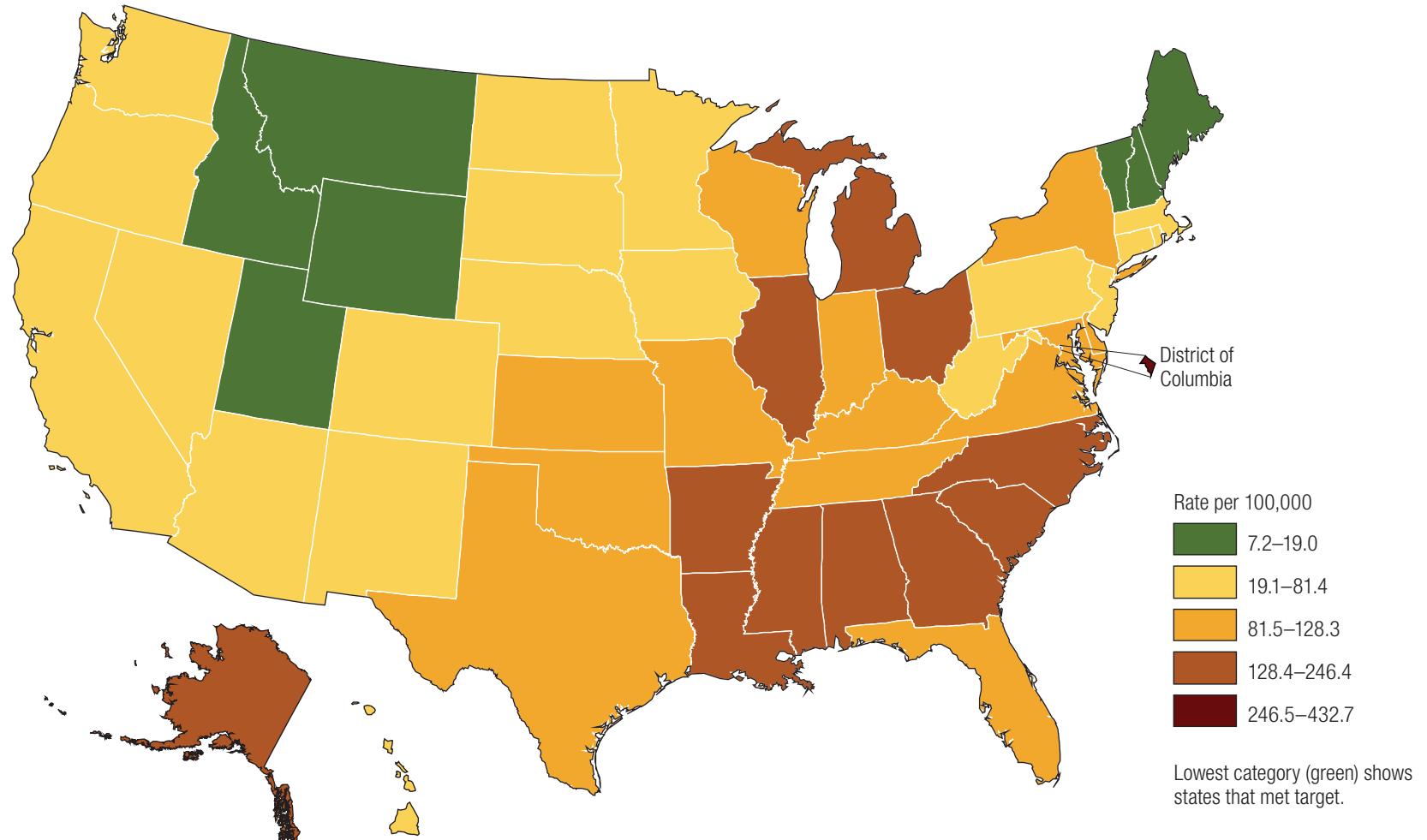| 25-1a–c. | STD Surveillance System (STDSS), CDC, NCHHSTP. |
25-1d.	STD Surveillance System (STDSS), CDC, NCHHSTP; National Job Training Program.
25-2a–b.	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-3.	STD Surveillance System (STDSS), CDC, NCHHSTP.
25-4.	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
25-6–25-7.	National Survey of Family Growth (NSFG), CDC, NCHS.
25-9.	STD Surveillance System (STDSS), CDC, NCHHSTP; National Vital Statistics System—Natality (NVSS-N), CDC, NCHS.
25-11a–c.	Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

Figure 25-3. Chlamydia Infections (New Cases per 100,000 Population), 2009

Rate per 100,000

159.7–252.1
252.2–346.4
346.5–457.0
457.1–626.4
626.5–1106.6

NOTES: Data are crude rates, not age adjusted. Rates are displayed by a modified Jenks classification for U.S. states. Healthy People 2010 objectives for chlamydia (objectives 25–1a through d) track age- and sex-specific groups separately.

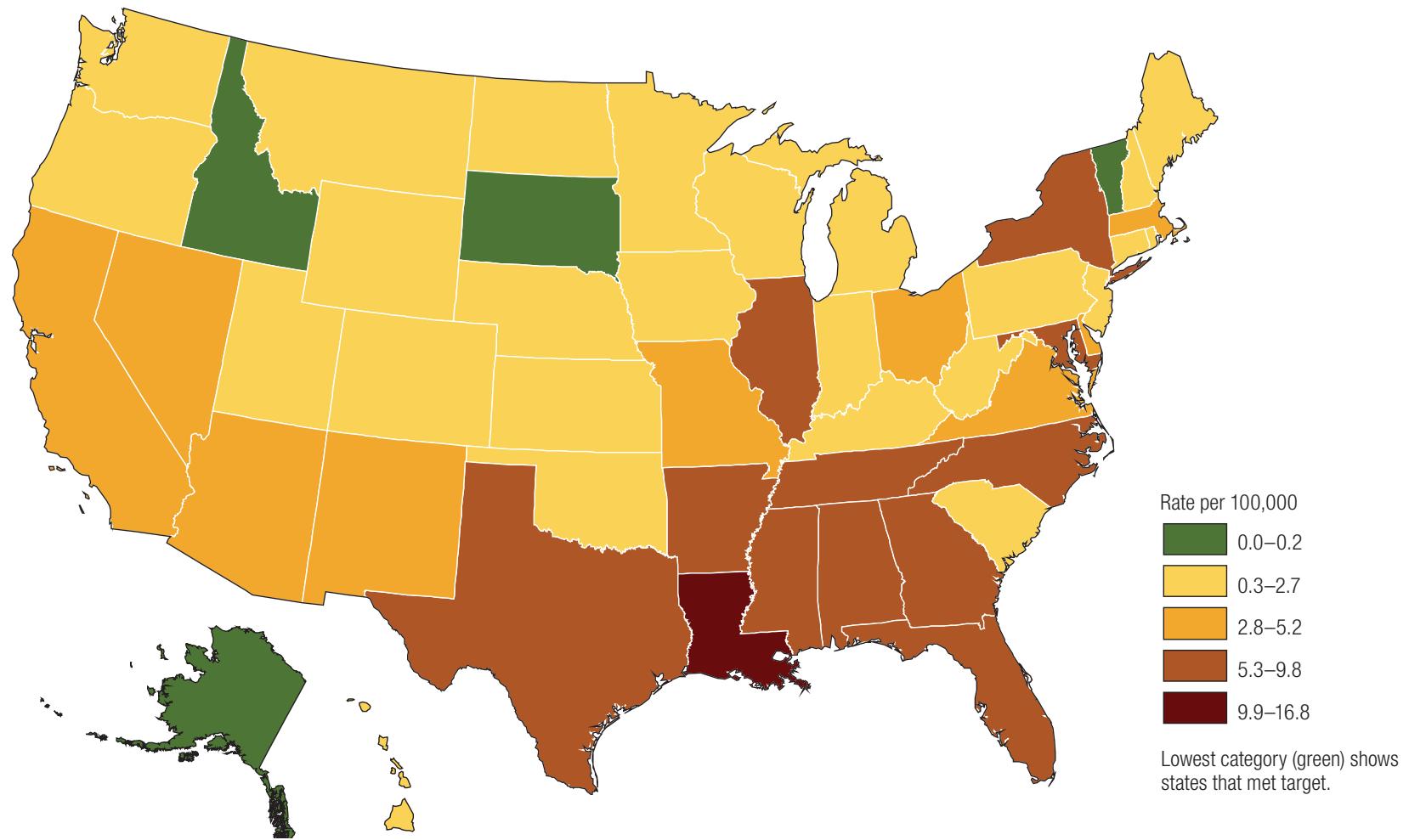SOURCE: STD Surveillance System (STDSS), CDC, NCHHSTP.

Figure 25-4. Gonorrhea (New Cases per 100,000 Population), 2009
Healthy People 2010 objective 25-2a • Target = 19 per 100,000

District of
Columbia

Rate per 100,000

- 7.2–19.0
- 19.1–81.4
- 81.5–128.3
- 128.4–246.4
- 246.5–432.7

Lowest category (green) shows
states that met target.

NOTES: Data are crude rates, not age adjusted. Rates are displayed by a modified Jenks classification for U.S. states.

SOURCE: STD Surveillance System (STDSS), CDC, NCHHSTP.

Figure 25-5. Domestic Transmission of Primary and Secondary Syphilis (New Cases per 100,000 Population), 2009
Healthy People 2010 objective 25-3 • Target = 0.2 per 100,000

Rate per 100,000

- 0.0–0.2
- 0.3–2.7
- 2.8–5.2
- 5.3–9.8
- 9.9–16.8

Lowest category (green) shows states that met target.

NOTES: Data are crude rates, not age adjusted. Rates are displayed by a modified Jenks classification for U.S. states.

SOURCE: STD Surveillance System (STDSS), CDC, NCHHSTP.