

Sexually Transmitted Disease Surveillance 2009

**Division of STD Prevention
November 2010**

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION
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Web Site

The online version of this report is available at <http://www.cdc.gov/std/stats>.
Printed copies can be ordered from <http://wwwn.cdc.gov/pubs/dstdp.aspx>.

Selected STD Surveillance and Prevention References and Web Sites

STD Surveillance Reports 1993–2009

<http://www.cdc.gov/std/stats/>

STD Data on Wonder

<http://wonder.cdc.gov/std.html>

STD Data Management & Information Technology

<http://www.cdc.gov/std/Program/data-mgmt.htm>

STD Fact Sheets

http://www.cdc.gov/std/healthcomm/fact_sheets.htm

STD Treatment Guidelines

<http://www.cdc.gov/STD/treatment/>

STD Program Evaluation Guidelines

<http://www.cdc.gov/std/program/pupestd.htm>

STD Program Operation Guidelines

<http://www.cdc.gov/std/program/default.htm>

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Foreword

“STDs are hidden epidemics of enormous health and economic consequence in the United States. They are hidden because many Americans are reluctant to address sexual health issues in an open way and because of the biologic and social characteristics of these diseases. All Americans have an interest in STD prevention because all communities are impacted by STDs and all individuals directly or indirectly pay for the costs of these diseases.

STDs are public health problems that lack easy solutions because they are rooted in human behavior and fundamental societal problems. Indeed, there are many obstacles to effective prevention efforts. The first hurdle will be to confront the reluctance of American society to openly confront issues surrounding sexuality and STDs. Despite the barriers, there are existing individual- and community-based interventions that are effective and can be implemented immediately. That is why a multifaceted approach is necessary to both the individual and community levels.

To successfully prevent STDs, many stakeholders need to redefine their mission, refocus their efforts, modify how they deliver services, and accept new responsibilities. In this process, strong leadership, innovative thinking, partnerships, and adequate resources will be required. The additional investment required to effectively prevent STDs may be considerable, but it is negligible when compared with the likely return on the investment.

The process of preventing STDs must be a collaborative one. No one agency, organization, or sector can effectively do it alone; all members of the community must do their part. A successful national initiative to confront and prevent STDs requires widespread public awareness and participation and bold national leadership from the highest levels.”¹

¹ Eng TR, Butler WT, editors; Institute of Medicine (US). The hidden epidemic: confronting sexually transmitted diseases. Washington (DC): National Academy Press; 1997. p. 43.

Preface

Sexually Transmitted Disease Surveillance 2009 presents statistics and trends for sexually transmitted diseases (STDs) in the United States through 2009. This annual publication is intended as a reference document for policy makers, program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. The figures and tables in this edition supersede those in earlier publications of these data.

The surveillance information in this report is based on the following sources of data: (1) notifiable disease reporting from state and local STD programs; (2) projects that monitor STD prevalence in various settings, including regional Infertility Prevention Projects, the National Job Training Program, the Indian Health Service, the STD Surveillance Network, and the Gonococcal Isolate Surveillance Project; and (3) national surveys implemented by federal and private organizations.

The STD surveillance systems operated by state and local STD control programs, which provide the case report data for chlamydia, gonorrhea, syphilis, and chancroid, are the data sources of many of the figures and most of the statistical tables in this publication. These systems are an integral part of program management at all levels of STD prevention and control in the United States. Because of incomplete diagnosis and reporting, the number of STD cases reported to the Centers for Disease Control and Prevention is less than the actual number of cases occurring in the U.S. population. National summary data of case reports for other STDs are not available because they are not nationally notifiable diseases.

Sexually Transmitted Disease Surveillance 2009 consists of four sections: the National Profile, the Special Focus Profiles, the Tables, and the Appendix. The National Profile section contains figures that provide an overview of STD morbidity in the United States. The accompanying text identifies major findings and trends for selected STDs. The Special Focus Profiles section contains figures and text that describe STDs in selected subgroups and populations that are a focus of national and state prevention efforts. The Tables section provides statistical information about STDs at county, metropolitan statistical area, regional, state, and national levels. The Appendix includes information on how to interpret the STD surveillance data used to produce this report, as well as information about *Healthy People 2010* STD objectives and progress toward meeting these objectives, Government Performance and Results Act goals and progress toward meeting these goals, and STD surveillance case definitions.

Any comments and suggestions that would improve future publications are appreciated and should be sent to

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National Center for HIV/AIDS, Viral Hepatitis, STD,
and TB Prevention
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1600 Clifton Road, Mailstop E-02
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Guide to Acronyms

Add Health	National Longitudinal Study of Adolescent Health
CDC	Centers for Disease Control and Prevention
CSF	cerebrospinal fluid
DSTD	Division of STD Prevention
GISP	Gonococcal Isolate Surveillance Project
GPRA	Government Performance and Results Act
HEDIS	Healthcare Effectiveness Data and Information Set
HHS	U.S. Department of Health and Human Services
HMOs	health maintenance organizations
HIV	human immunodeficiency virus
HP2010	<i>Healthy People 2010</i>
HPV	human papillomavirus
HSV	herpes simplex virus
IPP	Infertility Prevention Project
MICs	minimum inhibitory concentrations
MPC	mucopurulent cervicitis
MSA	metropolitan statistical area
MSM	men who have sex with men
MSW	men who have sex with women only
NAATs	nucleic acid amplification tests
NDTI	National Disease and Therapeutic Index
NETSS	National Electronic Telecommunications System for Surveillance
NGU	nongonococcal urethritis
NHANES	National Health and Nutrition Examination Survey
NHDS	National Hospital Discharge Survey
NJTP	National Job Training Program
OMB	Office of Management and Budget
P&S	primary and secondary
PID	pelvic inflammatory disease
QRNG	quinolone-resistant <i>Neisseria gonorrhoeae</i>
RPR	rapid plasma reagin
SSuN	STD Surveillance Network
STD	sexually transmitted disease
VDRL	Venereal Disease Research Laboratory

Contents

Acknowledgments	ii
Foreword.....	v
Preface.....	vi
Guide to Acronyms	vii
Figures in the National Profile.....	x
Figures in the Special Focus Profiles.....	xiii
Tables in the National Profile	xv
Census Regions of the United States.....	xix
National Overview of Sexually Transmitted Diseases (STDs), 2009.....	1

National Profile	5
Chlamydia.....	7
Gonorrhea.....	17
Syphilis.....	33
Other Sexually Transmitted Diseases.....	45

Special Focus Profiles.....	53
STDs in Women and Infants.....	55
STDs in Adolescents and Young Adults	63
STDs in Racial and Ethnic Minorities	69
STDs in Men Who Have Sex with Men	77
STDs in Persons Entering Corrections Facilities	81

Tables	85
National Summary	85
Chlamydia.....	87
Gonorrhea.....	98
Syphilis.....	110
Chancroid	133
Selected STDs	134

Appendix	135
Interpreting STD Surveillance Data.....	135
Table A1. Selected STDs—Percentage of Unknown, Missing, or Invalid Values for Selected Variables by State and by Nationally Notifiable STD, 2009	143
Table A2. Reported Cases of STDs by Reporting Source and Sex, United States, 2009	144
Table A3. <i>Healthy People 2010</i> (HP2010) Sexually Transmitted Diseases Objective Status.....	145
Table A4. Government Performance and Results Act (GPRA) Sexually Transmitted Diseases Goals and Measures.....	146
STD Surveillance Case Definitions.....	147
Contributors.....	156

Figures in the National Profile

Chlamydia

Figure 1.	Chlamydia—Rates by Sex, United States, 1990–2009.....	10
Figure 2.	Chlamydia—Rates by Region, United States, 2000–2009.....	10
Figure 3.	Chlamydia—Rates by State, United States and Outlying Areas, 2009	11
Figure 4.	Chlamydia—Rates by County, United States, 2009	11
Figure 5.	Chlamydia—Rates by Age and Sex, United States, 2009	12
Figure 6.	Chlamydia—Rates by Race/Ethnicity, United States, 2000–2009	12
Figure 7.	Chlamydia—Cases by Reporting Source and Sex, United States, 2000–2009.....	13
Figure 8.	Chlamydia—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2009	13
Figure 9.	Chlamydia—Prevalence by Age Group and Race/Ethnicity, National Health and Nutrition Examination Survey, 1999–2002.....	14
Figure 10.	Chlamydia—Median State-specific Positivity Rates Among Women Aged 15–24 Years Tested in Family Planning Clinics, Infertility Prevention Project, United States, 1997–2009	14
Figure 11.	Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009.....	15
Figure 12.	Chlamydia—Trends in Positivity Rates Among Women Aged 15–24 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2005–2009	15
Figure 13.	Chlamydia—Percentage of Nucleic Acid Amplification Tests Used Among Women Aged 15–24 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2005–2009.....	16

Gonorrhea

Figure 14.	Gonorrhea—Rates, United States, 1941–2009.....	22
Figure 15.	Gonorrhea—Rates by Sex, United States, 1990–2009.....	22
Figure 16.	Gonorrhea—Rates by Region, United States, 2000–2009	23
Figure 17.	Gonorrhea—Rates by State, United States and Outlying Areas, 2009	23
Figure 18.	Gonorrhea—Rates by County, United States, 2009	24
Figure 19.	Gonorrhea—Rates by Age and Sex, United States, 2009	24
Figure 20.	Gonorrhea—Rates by Age Among Women Aged 15–44 Years, United States, 2000–2009	25
Figure 21.	Gonorrhea—Rates by Age Among Men Aged 15–44 Years, United States, 2000–2009	25
Figure 22.	Gonorrhea—Rates by Race/Ethnicity, United States, 2000–2009	26
Figure 23.	Gonorrhea—Cases by Reporting Source and Sex, United States, 2000–2009.....	26
Figure 24.	Gonorrhea—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2009	27
Figure 25.	Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009	27

Figure 26.	Gonococcal Isolate Surveillance Project (GISP)—Location of Participating Sentinel Sites and Regional Laboratories, United States, 2009	28
Figure 27.	Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Ceftriaxone Among GISP Isolates, 2005–2009	28
Figure 28.	Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Cefixime Among GISP Isolates, 2005–2006 and 2009	29
Figure 29.	Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Azithromycin Among GISP Isolates, 2005–2009	29
Figure 30.	Gonococcal Isolate Surveillance Project (GISP)—Percentage of <i>Neisseria gonorrhoeae</i> Isolates with Resistance or Intermediate Resistance to Ciprofloxacin, 1990–2009	30
Figure 31.	Gonococcal Isolate Surveillance Project (GISP)—Penicillin, Tetracycline, and Ciprofloxacin Resistance Among GISP Isolates, 2009	30
Figure 32.	Gonococcal Isolate Surveillance Project (GISP)—Drugs Used to Treat Gonorrhea Among GISP Participants, 1988–2009	31

Syphilis

Figure 33.	Syphilis—Reported Cases by Stage of Infection, United States, 1941–2009	37
Figure 34.	Primary and Secondary Syphilis—Rates by Sex and Male-to-Female Rate Ratios, United States, 1990–2009	37
Figure 35.	Primary and Secondary Syphilis—Rates by Region, United States, 2000–2009	38
Figure 36.	Primary and Secondary Syphilis—Rates by State, United States and Outlying Areas, 2009	38
Figure 37.	Primary and Secondary Syphilis—Rates by County, United States, 2009	39
Figure 38.	Primary and Secondary Syphilis—Rates by Age and Sex, United States, 2009	39
Figure 39.	Primary and Secondary Syphilis—Rates by Age Among Women Aged 15–44 Years, United States, 2000–2009	40
Figure 40.	Primary and Secondary Syphilis—Rates by Age Among Men Aged 15–44 Years, United States, 2000–2009	40
Figure 41.	Primary and Secondary Syphilis—Rates by Race/Ethnicity, United States, 2000–2009	41
Figure 42.	Primary and Secondary Syphilis—Reported Cases by Stage, Sex, and Sexual Behavior, United States, 2009	41
Figure 43.	Primary and Secondary Syphilis—Reported Cases by Sex, Sexual Behavior, and Race/Ethnicity, United States, 2009	42
Figure 44.	Primary and Secondary Syphilis—Reported Cases by Reporting Source and Sex, United States, 2000–2009	42
Figure 45.	Primary and Secondary Syphilis—Percentage of Reported Cases by Sex, Sexual Behavior, and Selected Reporting Sources, 2009	43
Figure 46.	Congenital Syphilis—Reported Cases Among Infants by Year of Birth and Rates of Primary and Secondary Syphilis Among Women, United States, 2000–2009	43

Other Sexually Transmitted Diseases

Figure 47.	Chancroid—Reported Cases, United States, 1981–2009.....	47
Figure 48.	Human Papillomavirus—Prevalence of High-risk and Low-risk Types Among Females Aged 14–59 Years, National Health and Nutrition Examination Survey, 2003–2004.....	47
Figure 49.	Genital Warts—Initial Visits to Physicians’ Offices, United States, 1966–2009	48
Figure 50.	Genital Warts—Prevalence Among Sexually Transmitted Disease (STD) Clinic Patients by Sex, Sex of Partners, and Site, STD Surveillance Network, 2009	48
Figure 51.	Genital Herpes—Initial Visits to Physicians’ Offices, United States, 1966–2009	49
Figure 52.	Herpes Simplex Virus Type 2—Seroprevalence in Non-Hispanic Whites and Non-Hispanic Blacks by Age Group, National Health and Nutrition Examination Survey, 1976–1980, 1988–1994, 1999–2004, 2005–2008.....	50
Figure 53.	Trichomoniasis and Other Vaginal Infections—Women—Initial Visits to Physicians’ Offices, United States, 1966–2009	51

Figures in the Special Focus Profiles

STDs in Women and Infants

Figure A.	Chlamydia—Women—Rates by State, United States and Outlying Areas, 2009	58
Figure B.	Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009	58
Figure C.	Gonorrhea—Women—Rates by State, United States and Outlying Areas, 2009	59
Figure D.	Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009	59
Figure E.	Primary and Secondary Syphilis—Women—Rates by State, United States and Outlying Areas, 2009	60
Figure F.	Congenital Syphilis—Infants—Rates by Year of Birth and State, United States and Outlying Areas, 2009	60
Figure G.	Pelvic Inflammatory Disease—Hospitalizations of Women Aged 15–44 Years, United States, 1998–2007	61
Figure H.	Pelvic Inflammatory Disease—Initial Visits to Physicians’ Offices by Women Aged 15–44 Years, United States, 2000–2009	61
Figure I.	Ectopic Pregnancy—Hospitalizations of Women Aged 15–44 Years, United States, 1998–2007	62

STDs in Adolescents and Young Adults

Figure J.	Chlamydia—Trends in Positivity Among Women Aged 15–19 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2005–2009	65
Figure K.	Chlamydia—Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009	65
Figure L.	Chlamydia—Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009	66
Figure M.	Gonorrhea—Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009	66
Figure N.	Gonorrhea—Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009	67

STDs in Racial and Ethnic Minorities

Figure O.	Chlamydia—Rates by Race/Ethnicity and Sex, United States, 2009	72
Figure P.	Gonorrhea—Rate Ratios by Race/Ethnicity, United States, 2000–2009	72
Figure Q.	Gonorrhea—Rates by Race/Ethnicity and Sex, United States, 2009	73
Figure R.	Gonorrhea—Rate Ratios by Race/Ethnicity and Region, United States, 2009	73
Figure S.	Primary and Secondary Syphilis—Rates by Race/Ethnicity and Sex, United States, 2009	74
Figure T.	Primary and Secondary Syphilis—Rates Among Females Aged 15–19 Years by Race/Ethnicity, United States, 2000–2009	74

Figure U.	Primary and Secondary Syphilis—Rates Among Males Aged 15–19 Years by Race/Ethnicity, United States, 2000–2009	75
Figure V.	Congenital Syphilis—Infants—Rates by Year of Birth and Mother’s Race/Ethnicity, United States, 2000–2009	75

STDs in Men Who Have Sex with Men

Figure W.	Gonorrhea and Chlamydia—Proportion of MSM Testing Positive for Gonorrhea and Chlamydia, by Site, STD Surveillance Network, 2009	79
Figure X.	Primary and Secondary Syphilis and HIV—Proportion of MSM with Primary and Secondary Syphilis Who Are Co-infected with HIV, by Site, STD Surveillance Network, 2009	79
Figure Y.	Gonococcal Isolate Surveillance Project (GISP)—Percentage of Urethral <i>Neisseria gonorrhoeae</i> Isolates Obtained From MSM Attending STD Clinics, 1990–2009	80
Figure Z.	Gonococcal Isolate Surveillance Project (GISP)—Percentage of Urethral <i>Neisseria gonorrhoeae</i> Isolates Obtained from MSM Attending STD Clinics, by Site, 2006–2009	80

STDs in Persons Entering Corrections Facilities

Figure AA.	Chlamydia—Positivity by Age and Sex, Juvenile Corrections Facilities, 2009	83
Figure BB.	Chlamydia—Positivity by Age Group and Sex, Adult Corrections Facilities, 2009	83
Figure CC.	Gonorrhea—Positivity by Age and Sex, Juvenile Corrections Facilities, 2009	84
Figure DD.	Gonorrhea—Positivity by Age Group and Sex, Adult Corrections Facilities, 2009	84

Tables in the National Profile

National Summary

Table 1.	Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2009	85
----------	--	----

Chlamydia

Table 2.	Chlamydia—Reported Cases and Rates by State, Ranked by Rates, United States, 2009	87
Table 3.	Chlamydia—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	88
Table 4.	Chlamydia—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	89
Table 5.	Chlamydia—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	90
Table 6.	Chlamydia—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	91
Table 7.	Chlamydia—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	92
Table 8.	Chlamydia—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	93
Table 9.	Chlamydia—Counties and Independent Cities Ranked by Number of Reported Cases, United States, 2009	94
Table 10.	Chlamydia—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2005–2009	95
Table 11A.	Chlamydia—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009	96
Table 11B.	Chlamydia—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009	97

Gonorrhea

Table 12.	Gonorrhea—Reported Cases and Rates by State, Ranked by Rates, United States, 2009	98
Table 13.	Gonorrhea—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	99
Table 14.	Gonorrhea—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	100
Table 15.	Gonorrhea—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	101
Table 16.	Gonorrhea—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	102
Table 17.	Gonorrhea—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	103
Table 18.	Gonorrhea—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	104

Table 19.	Gonorrhea—Counties and Independent Cities Ranked by Number of Reported Cases, United States, 2009	105
Table 20.	Gonorrhea—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2005–2009	106
Table 21A.	Gonorrhea—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009	108
Table 21B.	Gonorrhea—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009	109

Syphilis

Table 22.	All Stages of Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	110
Table 23.	All Stages of Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	111
Table 24.	Primary and Secondary Syphilis—Reported Cases and Rates by State, Ranked by Rates, United States, 2009	112
Table 25.	Primary and Secondary Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	113
Table 26.	Primary and Secondary Syphilis—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	114
Table 27.	Primary and Secondary Syphilis—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	115
Table 28.	Primary and Secondary Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	116
Table 29.	Primary and Secondary Syphilis—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	117
Table 30.	Primary and Secondary Syphilis—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	118
Table 31.	Primary and Secondary Syphilis—Counties and Independent Cities Ranked by Number of Reported Cases, United States, 2009	119
Table 32.	Primary and Secondary Syphilis—Reported Cases and Rates Among Men and Women and Male-To-Female Rate Ratios in the Counties and Independent Cities Ranked in the Top 30 for Cases in 2009, United States, 2008–2009	121
Table 33.	Primary and Secondary Syphilis—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2005–2009	122
Table 34A.	Primary and Secondary Syphilis—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009	124
Table 34B.	Primary and Secondary Syphilis—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009	125

Table 35.	Early Latent Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	126
Table 36.	Early Latent Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	127
Table 37.	Late and Late Latent Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	128
Table 38.	Late and Late Latent Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs) in Alphabetical Order, United States, 2005–2009	129
Table 39.	Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth, by State, Ranked by Rates, United States, 2009	130
Table 40.	Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009	131
Table 41.	Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth by Race/Ethnicity of Mother, United States, 2005–2009	132

Chancroid

Table 42.	Chancroid—Reported Cases and Rates by State/Area in Alphabetical Order, United States and Outlying Areas, 2005–2009	133
-----------	---	-----

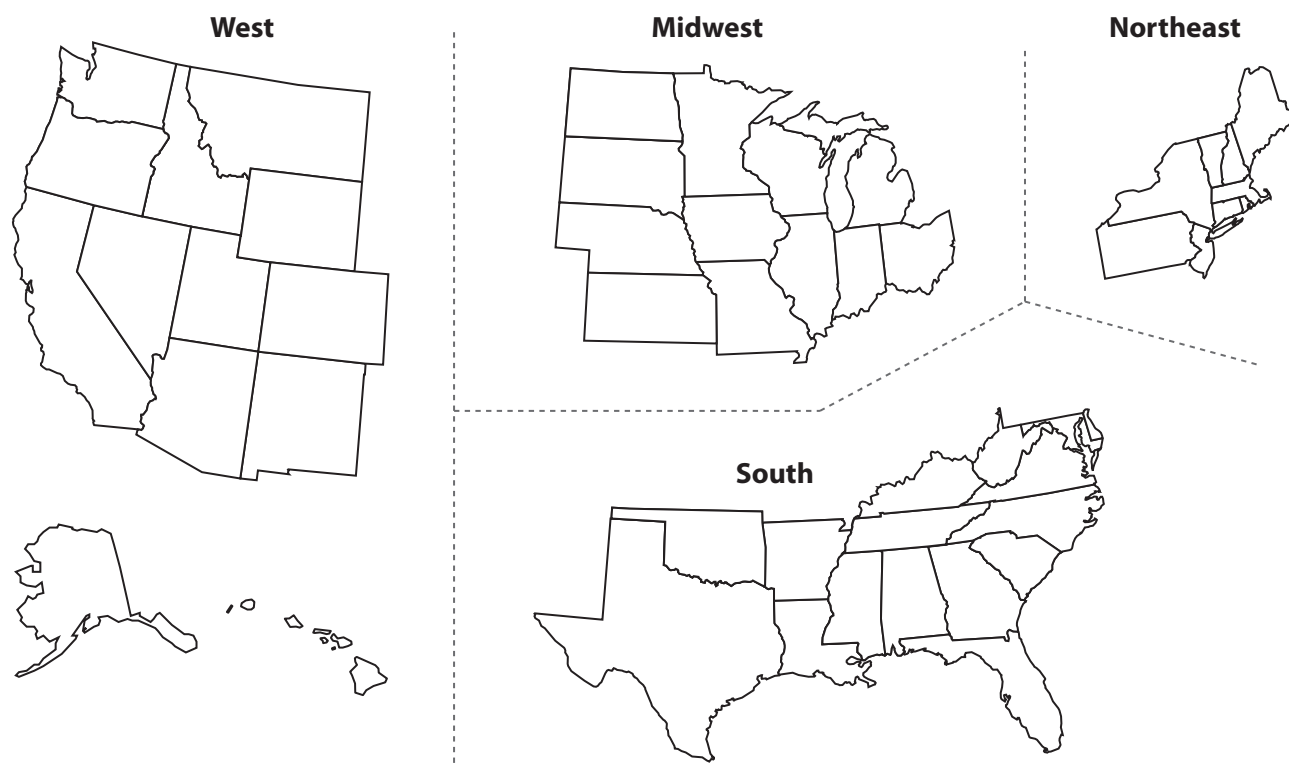
Selected STDs

Table 43.	Selected STDs and Complications—Initial Visits To Physicians' Offices, National Disease and Therapeutic Index, United States, 1966–2009	134
-----------	---	-----

Interpreting STD Surveillance Data

Table A1.	Selected STDs—Percentage of Unknown, Missing, or Invalid Values for Selected Variables by State and by Nationally Notifiable STD, 2009	143
Table A2.	Reported Cases of STDs by Reporting Source and Sex: United States, 2009	144
Table A3.	<i>Healthy People 2010</i> (HP2010) Sexually Transmitted Diseases Objective Status.....	145
Table A4.	Government Performance and Results Act Sexually Transmitted Diseases Goals and Measures	146

Census Regions of the United States



West

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

Midwest

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

South

Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

Northeast

Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

National Overview of Sexually Transmitted Diseases (STDs), 2009

Organized collaboration among interested, committed public and private organizations and communities is the key to reducing sexually transmitted diseases (STDs) and their related health burdens. As noted in the Institute of Medicine report, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*,¹ surveillance is a key component of our efforts to prevent and control these diseases.

This overview summarizes national surveillance data for 2009 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis. Several observations for 2009 are worthy of note.

Chlamydia

In 2009, a total of 1,244,180 cases of sexually transmitted *Chlamydia trachomatis* infection were reported to the Centers for Disease Control and Prevention (CDC) (Table 1). This is the largest number of cases ever reported to CDC for any condition. This case count corresponds to a rate of 409.2 cases per 100,000 population, an increase of 2.8% compared with the rate in 2008. Rates of reported chlamydial infections among women have been increasing annually since the late 1980s, when public programs for screening and treatment of women were first established to avert pelvic inflammatory disease (PID) and related complications.

The continued increase in chlamydia case reports in 2009 most likely represents a continued increase in screening for this infection, expanded use of more sensitive tests, and more complete national reporting, but it also may reflect a true increase in morbidity.

In 2009, the overall rate of chlamydial infection in the United States among women (592.2 cases per 100,000 females) was almost three times the rate among men (219.3 cases per 100,000 males), reflecting the large number of women screened for this disease (Tables 4 and 5). However, with the increased availability of urine testing, men are increasingly being tested for chlamydial

infection. During 2005–2009, the chlamydia rate in men increased 37.6%, compared with a 20.3% increase in women during this period. Rates also varied among different racial and ethnic minority populations. For example, in 2009, the chlamydia rate in black men was nearly 12 times higher than that in white men; the rate in black women was nearly 8 times higher than that in white women.

Data from multiple sources on the prevalence of chlamydial infection in defined populations have been useful in monitoring disease burden and guiding chlamydia screening programs.

In 2009, the median state-specific chlamydia test positivity was 7.5% (range: 3.5% to 15.5%) among women aged 15–24 years who were screened at selected family planning clinics in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands (Figures 10 and 11).

At selected prenatal clinics in 18 states, Puerto Rico, and the Virgin Islands, the median state-specific chlamydia positivity was 7.7% (range: 3.6% to 20.4%) (Figure B).

The prevalence of infection was greater among economically disadvantaged women aged 16–24 years who entered the National Job Training Program (NJTP) in 2009 in 43 states, the District of Columbia, and Puerto Rico. The median state-specific prevalence was 11.3% (range: 4.2% to 19.0%) (Figure K). Among men entering the program in 2009 in 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.0% (range: 2.4% to 11.7%) (Figure L).

Among females entering juvenile corrections facilities, the median facility-specific chlamydia positivity was 14.4% (range: 1.8% to 35.7%). Among males entering juvenile corrections facilities, the median facility-specific chlamydia positivity was 6.0% (range: 0.0% to 19.4%).

Gonorrhea

Following a 74% decline in the rate of reported gonorrhea during 1975–1996, overall gonorrhea rates plateaued for 10 years and then decreased during the past 3 years. In 2009, a total of 301,174 cases of gonorrhea were reported in the United States, which corresponds to a rate of 99.1 cases per 100,000 population. The 2009 rate is a 10.5% decrease from the rate of 110.7 cases per 100,000 population in 2008 (Figure 14, Table 1).

In 2009, as in previous years, the South had the highest gonorrhea rate among the four regions of the country (Table 13). Rates in the South and Midwest remained higher than rates in the Northeast and West. Rates in all regions of the country have decreased for the last 2 years (Figure 16).

During 1996–2009, gonorrhea rates in men and women were similar, but slightly higher in women in more recent years (Figure 15). In 2009, the gonorrhea rate in women was 105.5 cases per 100,000 population compared with a rate of 90.8 in men (Figure 15). As with chlamydia, gonorrhea rates in women were highest among those aged 15–24 years. In men, they were highest among those aged 20–24 years (Figure 19). In 2009, the gonorrhea rate in black men was 26 times higher than that in white men; the rate in black women was 17 times higher than that in white women.

As with chlamydia, data on gonorrhea prevalence in defined populations were available from several sources in 2009. These data showed a continuing high burden of disease in some adolescents and young adults in parts of the United States.

In 2009, the median state-specific gonorrhea test positivity among women aged 15–24 years screened in selected family planning clinics in 46 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 1.0% (range: 0.0% to 3.4%) (Figure 25). In 2009, the median state-specific gonorrhea test positivity among women aged 15–24 years screened in selected prenatal clinics in 18 states, Puerto Rico, and the Virgin Islands was 1.2% (range: 0.0% to 5.5%) (Figure D).

For women aged 16–24 years entering the NJTP in 41 states, the District of Columbia, and Puerto Rico in 2009, the median state-specific gonorrhea prevalence

was 1.6% (range: 0.0% to 5.0%) (Figure M). Among men entering the program in 33 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.6% (range: 0.0% to 3.4%) (Figure N).

Among females entering juvenile corrections facilities, the median facility-specific gonorrhea positivity was 2.9% (range: 0.0% to 13.4%); the median facility-specific gonorrhea positivity for males entering juvenile corrections facilities was 0.7% (range: 0.0% to 6.5%).

Syphilis

The rate of primary and secondary (P&S) syphilis reported in the United States decreased during the 1990s, and in 2000, it was the lowest since reporting began in 1941. The low rate of syphilis and the concentration of most syphilis cases in a small number of geographic areas led to the development of the *National Plan to Eliminate Syphilis from the United States*, which was announced by the Surgeon General in 1999 and updated in 2006.² The overall rate of P&S syphilis in the United States declined 89.7% during 1990–2000, but has increased each year since 2001, mostly in men, but also in women during 2004–2008. The overall rate in women declined slightly in 2009.

In 2009, a total of 13,997 cases of P&S syphilis were reported to CDC. This case count is the highest number of cases reported since 1995 and corresponds to a rate of 4.6 cases per 100,000 population, a 5% increase from 2008. Since 2005, the rate of P&S syphilis has increased 59%.

After 14 years of decline, the number of reported cases of congenital syphilis reached a historic low of 339 cases in 2005. The number of cases has since increased, with 427 cases reported in 2009, a 26% increase since 2005.

Although wide disparities exist in the rates of STDs among racial and ethnic groups, these disparities have decreased for syphilis over the past 10 years. In 2009, the P&S syphilis rate among blacks was 9 times the rate among whites (Table 34B), which is substantially lower than the disparity observed in 1999, when the rate among blacks was 24 times higher than the rate among whites.

However, during 2005–2009, syphilis rates increased 167% among black men aged 15–19 years (Table 34B) and 212% among those aged 20–24 years. This increase is the largest observed in any age, sex, or racial/ethnic group. The 2009 rate among men aged 15–19 years was 26 times higher for blacks than for whites. Among black women aged 15–24 years, rates doubled during 2005–2009. In 2009, rates were 29 times higher for black women aged 15–19 years than for white women of the same age.

Although efforts to eliminate syphilis have focused on racial and ethnic minority populations, the syphilis rates among all men who have sex with men (MSM) have increased since 2001. Rates also have increased recently among black women and among black men who have sex with women (MSW). These findings highlight the importance of continually reassessing and refining surveillance, prevention, and control strategies to eliminate syphilis.

¹ Eng TR, Butler WT, editors; Institute of Medicine (US). The hidden epidemic: confronting sexually transmitted diseases. Washington (DC): National Academy Press; 1997. 43 p.

² Centers for Disease Control and Prevention. The national plan to eliminate syphilis from the United States. Atlanta: U.S. Department of Health and Human Services; 2006.

NATIONAL PROFILE

NATIONAL PROFILE

National Profile

The National Profile section contains figures that show trends and the distribution of nationally reportable STDs (chlamydia, gonorrhea, syphilis, and chancroid) by age, sex, race/ethnicity, and location for the United States.

Chlamydia

Background

C. trachomatis infection is the most commonly reported notifiable disease in the United States. It is among the most prevalent of all STDs, and since 1994, has comprised the largest proportion of all STDs reported to CDC (Table 1). Studies also demonstrate the high prevalence of chlamydial infections in the general U.S. population. Among young adults (aged 18–26 years) who participated in the nationally representative National Longitudinal Study of Adolescent Health (Add Health) during 2001–2002, chlamydia prevalence was 4.2%.¹

Chlamydial infections in women, which are usually asymptomatic, can result in PID, which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Data from a randomized controlled trial of chlamydia screening in a managed care setting suggested that screening programs can lead to as much as a 60% reduction in the incidence of PID.² As with other inflammatory STDs, chlamydial infection can facilitate the transmission of human immunodeficiency virus (HIV) infection.³ In addition, pregnant women infected with chlamydia can pass the infection to their infants during delivery, potentially resulting in neonatal ophthalmia and pneumonia. Because of the large burden of disease and risks associated with infection, CDC recommends that all sexually active women younger than age 26 years receive an annual chlamydia screening.⁴

The increase in reported chlamydial infections during the last 20 years reflects the expansion of chlamydia screening activities, the use of increasingly sensitive diagnostic tests, an increased emphasis on case reporting from providers and laboratories, and improvements in the information systems used for reporting. However, many women who are at risk are still not being tested—reflecting, in part, the lack of awareness among some health care providers and the limited resources available to support these screenings.

Chlamydia screening and reporting are likely to continue to expand in response to the Healthcare Effectiveness Data and Information Set (HEDIS) annual measure,

which assesses chlamydia screening coverage of sexually active young women who receive medical care through commercial or Medicaid managed care organizations.⁵ The annual chlamydia screening rate increased from 25.3% in 2000 to 41.6% in 2007 among sexually active females aged 16–25 years (or aged 16–26 years during 2000–2002) who were enrolled in commercial or Medicaid health plans in the United States during 2000–2007.⁶ In 2008, women aged 16–20 years in commercial plans had a chlamydia screening coverage rate of 40.1%, while those in Medicaid had a rate of 52.7%.⁷

To better monitor trends in disease burden in defined populations during the expansion of chlamydia screening activities, data on chlamydia positivity and prevalence among people screened in a variety of settings are used. In most instances, test positivity serves as a reasonable approximation of prevalence.⁸

Chlamydia—United States

In 2009, a total of 1,244,180 chlamydial infections were reported to CDC in 50 states and the District of Columbia (Table 1). This case count corresponds to a rate of 409.2 cases per 100,000 population, which is an increase of 2.8% compared with the rate of 398.1 in 2008. During 1990–2009, the rate of reported chlamydial infection increased from 160.2 to 409.2 cases per 100,000 population (Figure 1, Table 1).

Chlamydia by Region

During 2000–2009, chlamydia rates increased in all regions (Figure 2). In 2009, rates were highest in the South (452.4 per 100,000 population), followed by the Midwest (401.9) and the West (383.0) (Table 3). Rates have consistently remained lowest in the Northeast (363.9).

Chlamydia by State

In 2009, chlamydia rates per 100,000 population by state ranged from 159.7 cases in New Hampshire to 802.7 cases in Mississippi (Figure 3, Table 2).

Chlamydia by Metropolitan Statistical Area

In 2009, the chlamydia rate per 100,000 population in the 50 most populous metropolitan statistical areas (MSAs) increased (Table 6). Among women, the 2009 rate of 629.3 cases was a 3.3% increase over the 2008 rate of 609.0 cases (Table 7). The 2009 rate among men (248.3) increased 6.1% from the 2008 rate (234.1) (Table 8). In 2009, 58.4% of chlamydia cases were reported by these MSAs.

Chlamydia by County

Counties in the United States with the highest chlamydia case rates per 100,000 population were located primarily in the Southeast and West, including Alaska (Figure 4). In 2009, a total of 710 (22.6%) of 3,141 counties had rates higher than 400.0 cases per 100,000 population. Fifty-four counties and independent cities reported 40% of all chlamydia cases in 2009 (Table 9).

Chlamydia by Sex

In 2009, the overall rate of reported chlamydial infection among women in all 50 states and the District of Columbia (592.2 cases per 100,000 females) was almost three times higher than the rate among men (219.3 cases per 100,000 males), likely reflecting a larger number of women screened for this infection (Figure 1, Tables 4 and 5). The lower rates among men also suggest that many of the sex partners of women with chlamydia are receiving a diagnosis of chlamydia or being reported as having chlamydia.

However, with the advent of highly sensitive nucleic acid amplification tests (NAATs) that can be performed on urine, chlamydial infection is increasingly being diagnosed in symptomatic and asymptomatic men. During 2005–2009, the chlamydial infection rate among men increased 37.6% (from 159.4 to 219.3 cases per 100,000 males) compared with a 20.3% increase among women during the same period (from 492.2 to 592.2 cases per 100,000 females).

Chlamydia by Age

Among women, the highest age-specific rates of reported chlamydia in 2009 were among those aged 15–19 years (3,329.3 cases per 100,000 females) and 20–24 years (3,273.9 cases per 100,000 females) (Figure 5, Table 10). Age-specific rates among men, although substantially lower than the rates among women, were highest in those aged 20–24 years (1,120.6 cases per 100,000 males) (Figure 5, Table 10).

Chlamydia by Race/Ethnicity

In 2009, chlamydia rates were highest among black men and women (Figure 6, Table 11B). The rate of chlamydia in blacks was more than eight times higher than that in whites (1,559.1 and 178.8 cases per 100,000 population, respectively). During 2005–2009, rates among blacks increased 26.3% (from 1,234.2 to 1,559.1). Among whites, rates increased 17.9% (from 151.7 to 178.8). The rates among American Indians/Alaska Natives (776.5) and Hispanics (504.2) were 4.3 and 2.8 times higher, respectively, than that of whites.

Chlamydia by Reporting Source

Most chlamydia cases reported in 2009 were from venues outside of STD clinics (Table A2). Over time, the proportion of cases reported from non-STD clinic sites has continued to increase (Figure 7). In 2009, among women, only 11.5% of chlamydia cases were reported through an STD clinic (Figure 8). Most cases among women were reported from private physicians/health maintenance organizations (HMOs) (39.7%). In contrast, among men, 33.1% of chlamydia cases were reported from an STD clinic in 2009 and 26.9% were reported from private physicians/HMOs.

Chlamydia Prevalence in the Population

The National Health and Nutrition Examination Survey (NHANES) is a nationally representative survey of the U.S. civilian, noninstitutionalized population aged 14–39 years that provides an important measure of chlamydia disease burden. During 1999–2002, the overall prevalence of chlamydial infection was 2.2% and was similar in males and females (2.0% and 2.5%,

respectively).⁹ Prevalence was higher among non-Hispanic blacks than non-Hispanic whites in all age groups (Figure 9).

Prevalence Monitoring

Chlamydia screening and prevalence monitoring activities were initiated in Region X of the U.S. Department of Health and Human Services (HHS) in 1988 as a CDC-supported demonstration project. In 1993, chlamydia screening services for women were expanded to three additional HHS regions (III, VII, and VIII) and in 1995, to the remaining HHS regions (I, II, IV, V, VI, and IX). In some regions, federally funded chlamydia screening supplements local- and state-funded screening programs. Screening criteria and practices vary by region and state. See Definitions of HHS Regions in the Appendix for details.

In 2009, the median state-specific chlamydia test positivity among women aged 15–24 years who were tested during visits to selected family planning clinics in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 7.5% (range: 3.5% to 15.5%) (Figures 10 and 11). Since 1997, median chlamydia positivity has increased steadily. This increase is likely because of increasing use of more sensitive test technology. See Chlamydia and Gonorrhea Prevalence Monitoring in the Appendix for details.

Chlamydia test positivity among women aged 15–24 years screened in family planning clinics fluctuated in all 10 HHS regions during 2005–2009 (Figure 12). Positivity has remained fairly stable in six regions (I, II, III, IV, V, and X). In the remaining four regions (VI, VII, VIII, and IX), positivity increased slightly during 2005–2009.

The positivity trend data in Figure 12 are not adjusted for changes in laboratory test methods and associated increases in test sensitivity. Using more sensitive tests has been shown to affect positivity.¹⁰ Use of NAATs in family planning clinics to screen women aged 15–24 years for chlamydia is increasingly widespread (Figure 13). In four HHS regions (I, V, VII, and VIII), NAATs were used nearly exclusively during 2005–2009. In four other regions (III, IV, VI, and IX), NAATs usage was 97% or higher in 2009. The remaining two regions used NAATs more than 80% of the time in 2008.

Chlamydia Among Special Populations

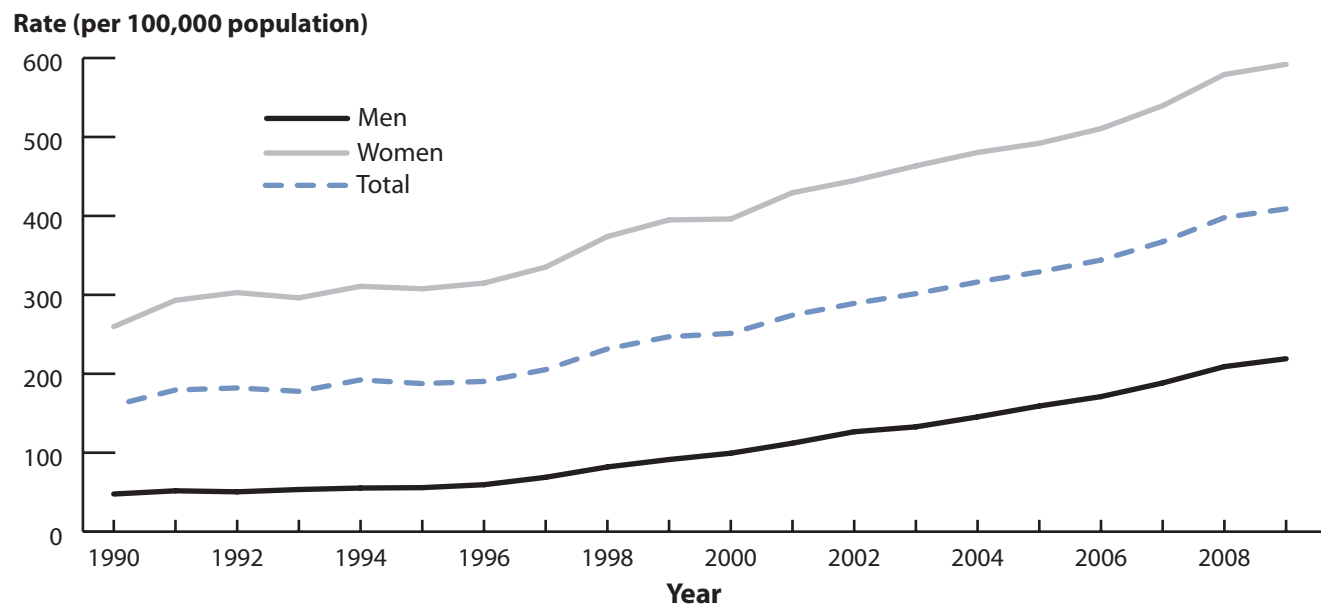
More information on chlamydia screening programs for women of reproductive age and chlamydia among adolescents, minority populations, and people in corrections facilities is presented in the Special Focus Profiles.

Chlamydia Summary

Both prevalence and the number of reported cases of *C. trachomatis* infections remain high among most age groups, racial/ethnic groups, geographic areas, and both sexes. The reported number of chlamydia cases is higher among women, especially those of younger age (15–19 and 20–24 years), but this finding could be a reflection of screening recommendations. Racial differences also persist; rates among blacks continue to be substantially higher than rates among other racial/ethnic groups.

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 - 2 Scholes D, Stergachis A, Heidrich FE, Andrilla H, Holmes KK, Stamm WE. Prevention of pelvic inflammatory disease by screening for cervical chlamydial infection. *N Engl J Med*. 1996;34(21):1362-6.
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 - 5 National Committee for Quality Assurance. HEDIS 2009: technical specifications. Washington (DC): National Committee for Quality Assurance; 2008. p.81-3.
 - 6 Centers for Disease Control and Prevention. Chlamydia screening among sexually active young female enrollees of health plans — United States, 2000–2007. *MMWR Morb Mortal Wkly Rep*. 2009;58(14):362-5.
 - 7 National Committee for Quality Assurance. The state of healthcare quality 2009. Washington (DC): National Committee for Quality Assurance; 2009. p.37-38.
 - 8 Dicker LW, Mosure DJ, Levine WC. Chlamydia positivity versus prevalence: what's the difference? *Sex Transm Dis*. 1998;25:251-3.
 - 9 Datta SD, Sternberg M, Johnson RE, Berman S, Papp JR, McQuillan G, et al. Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. *Ann Intern Med*. 2007;147(2):89-96.
 - 10 Dicker LW, Mosure DJ, Levine WC, Black CM, Berman SM. Impact of switching laboratory tests on reported trends in *Chlamydia trachomatis* infections. *Am J Epidemiol*. 2000;151(4):430-5.

Figure 1. Chlamydia—Rates by Sex, United States, 1990–2009



NOTE: As of January 2000, all 50 states and the District of Columbia had regulations that required chlamydia cases to be reported.

Figure 2. Chlamydia—Rates by Region, United States, 2000–2009

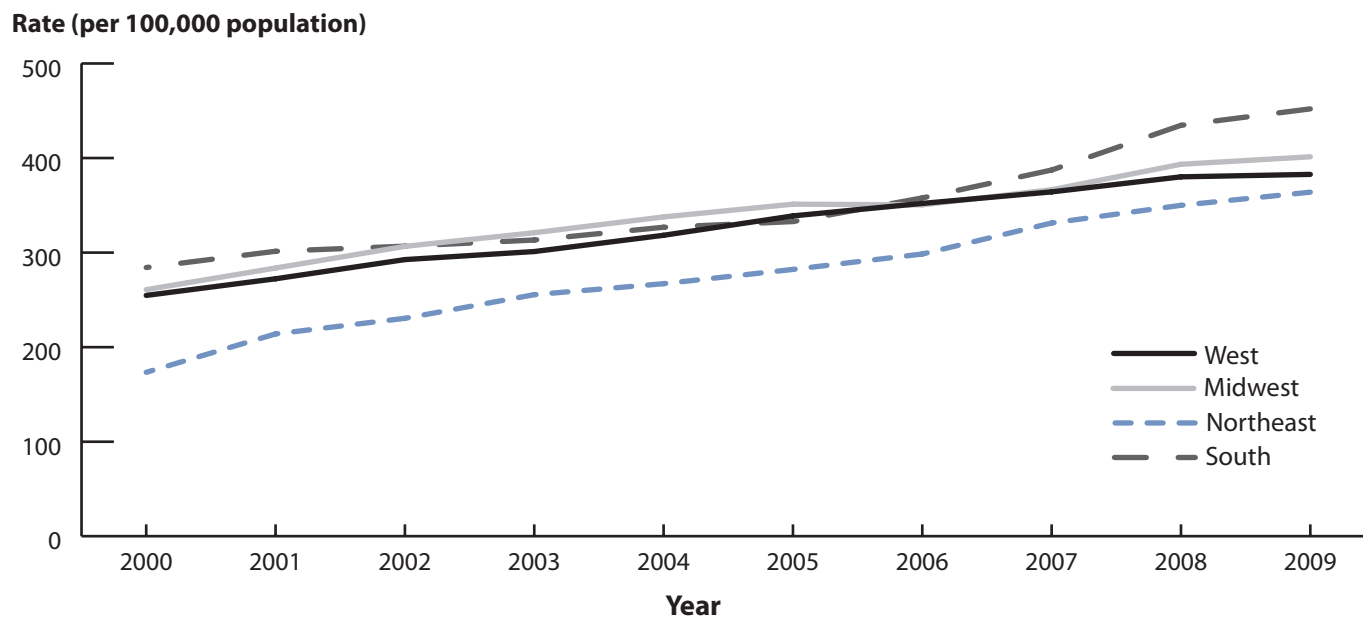
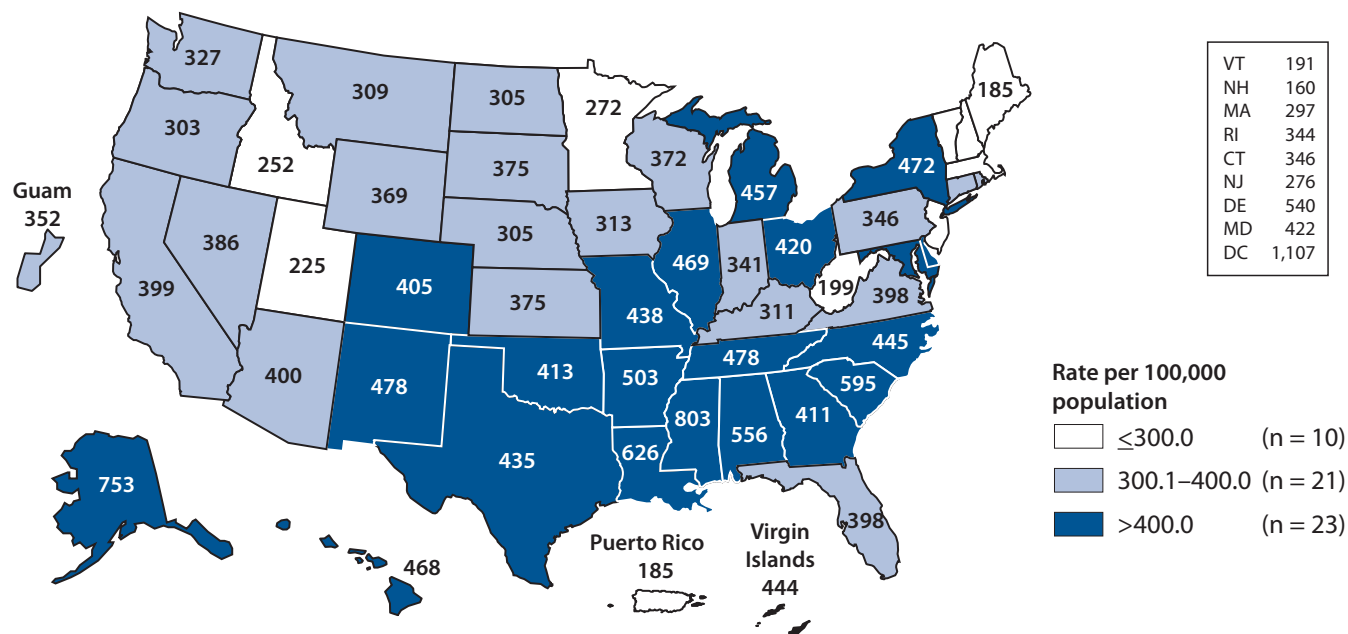


Figure 3. Chlamydia—Rates by State, United States and Outlying Areas, 2009



NOTE: The total rate of chlamydia for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 406.3 per 100,000 population. For more information on chlamydia reporting, see Chlamydia Morbidity Reporting in the Appendix.

Figure 4. Chlamydia—Rates by County, United States, 2009

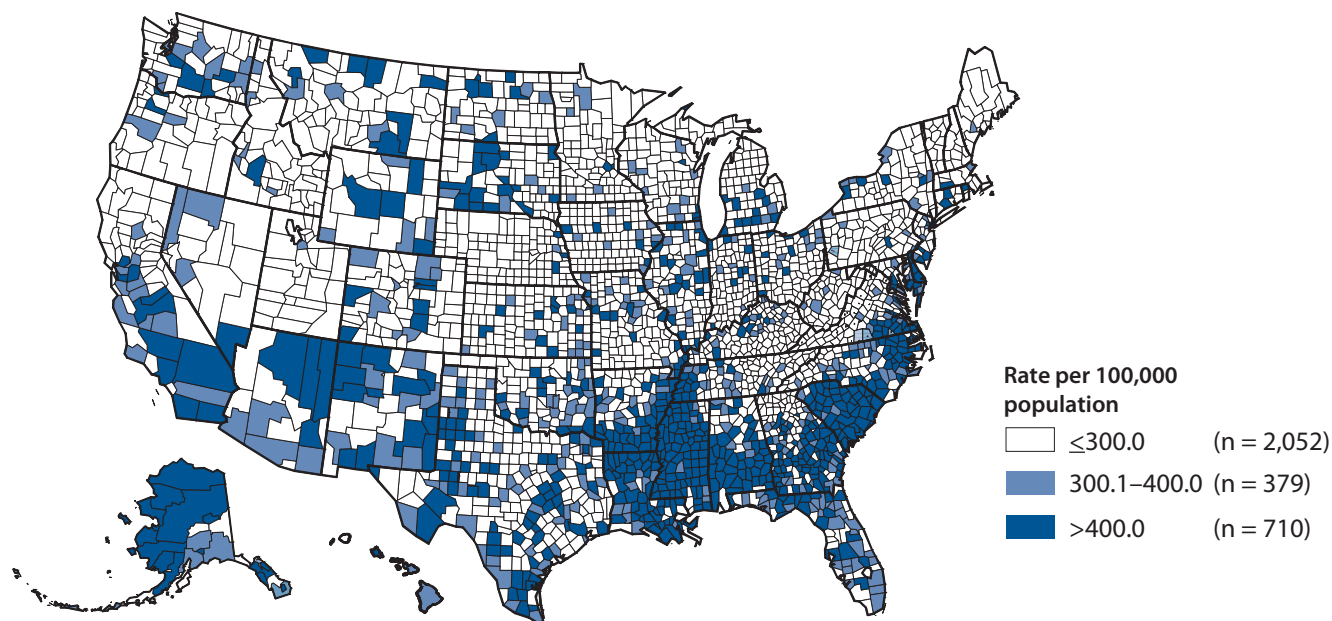


Figure 5. Chlamydia—Rates by Age and Sex, United States, 2009

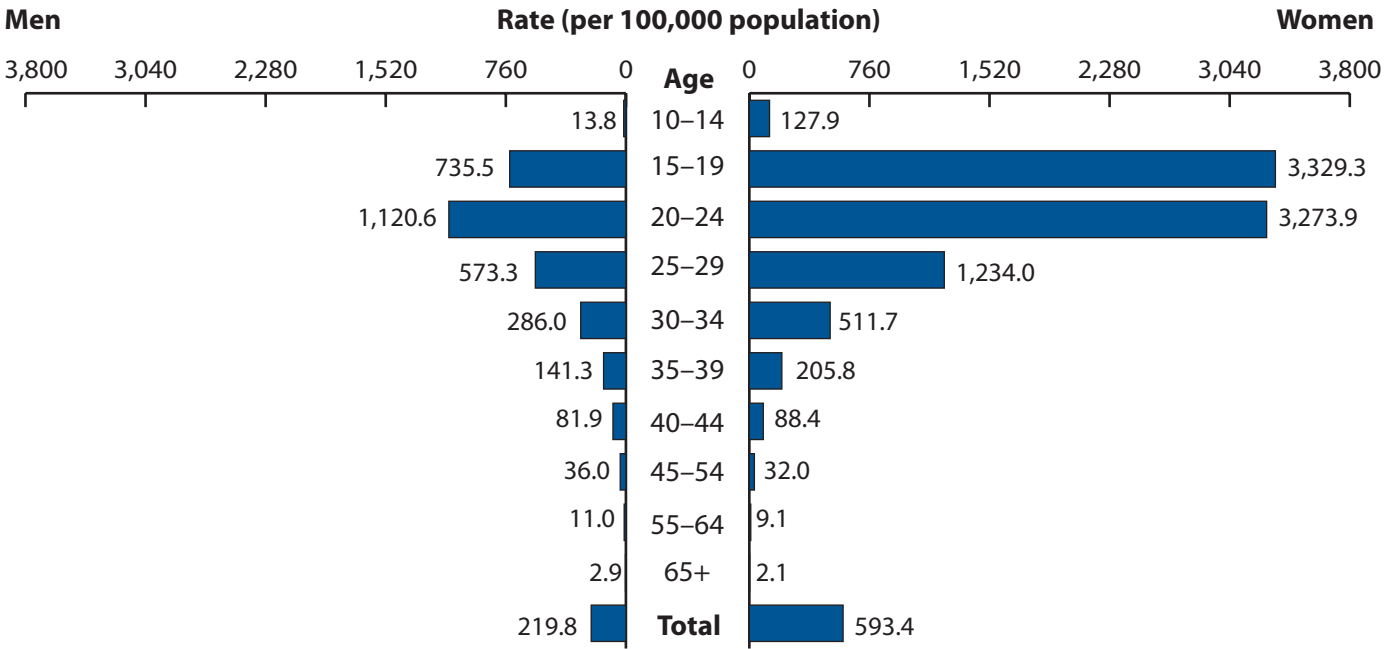


Figure 6. Chlamydia—Rates by Race/Ethnicity, United States, 2000–2009

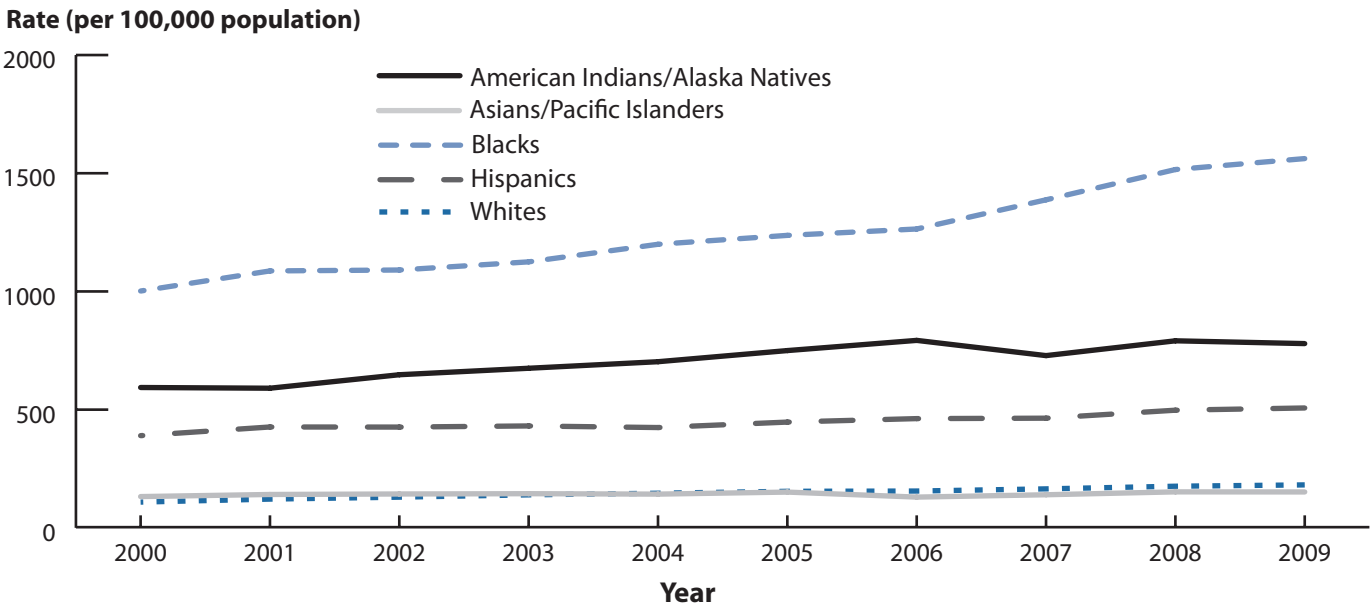


Figure 7. Chlamydia—Cases by Reporting Source and Sex, United States, 2000–2009

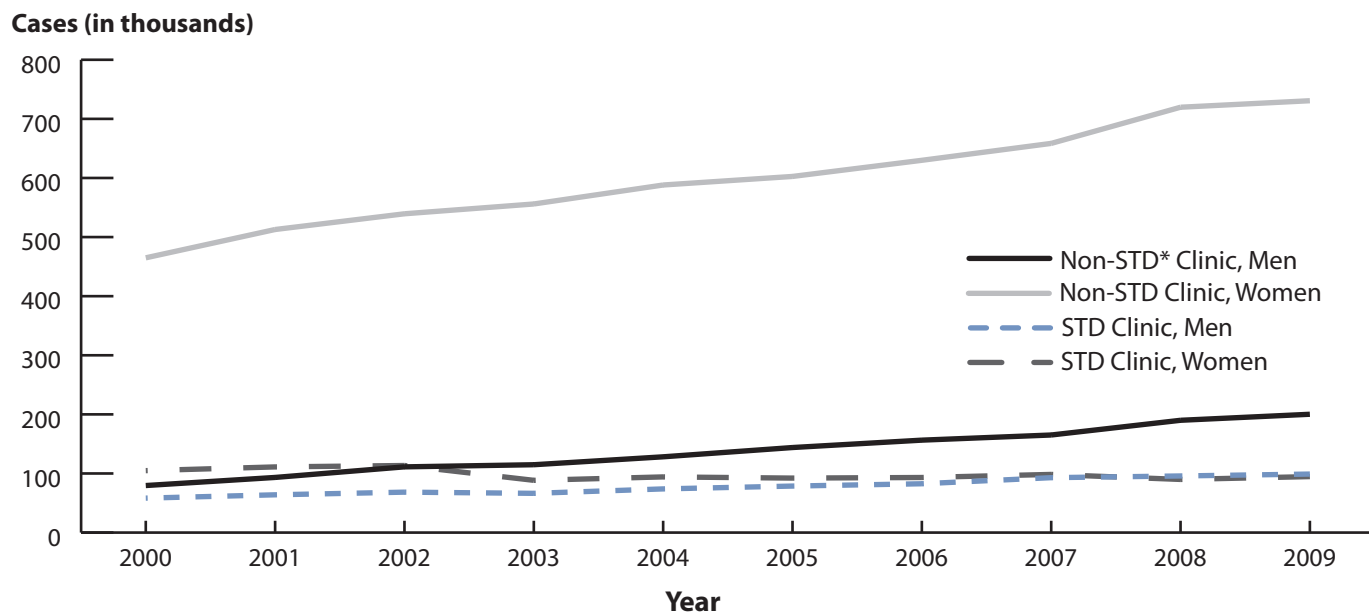
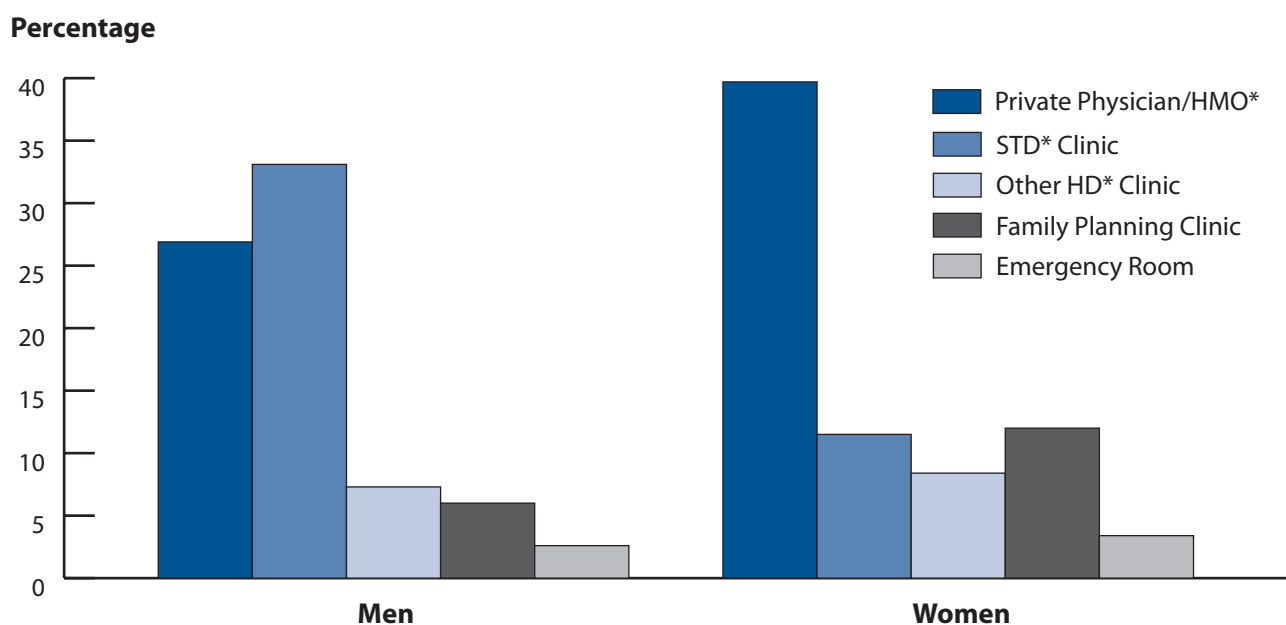


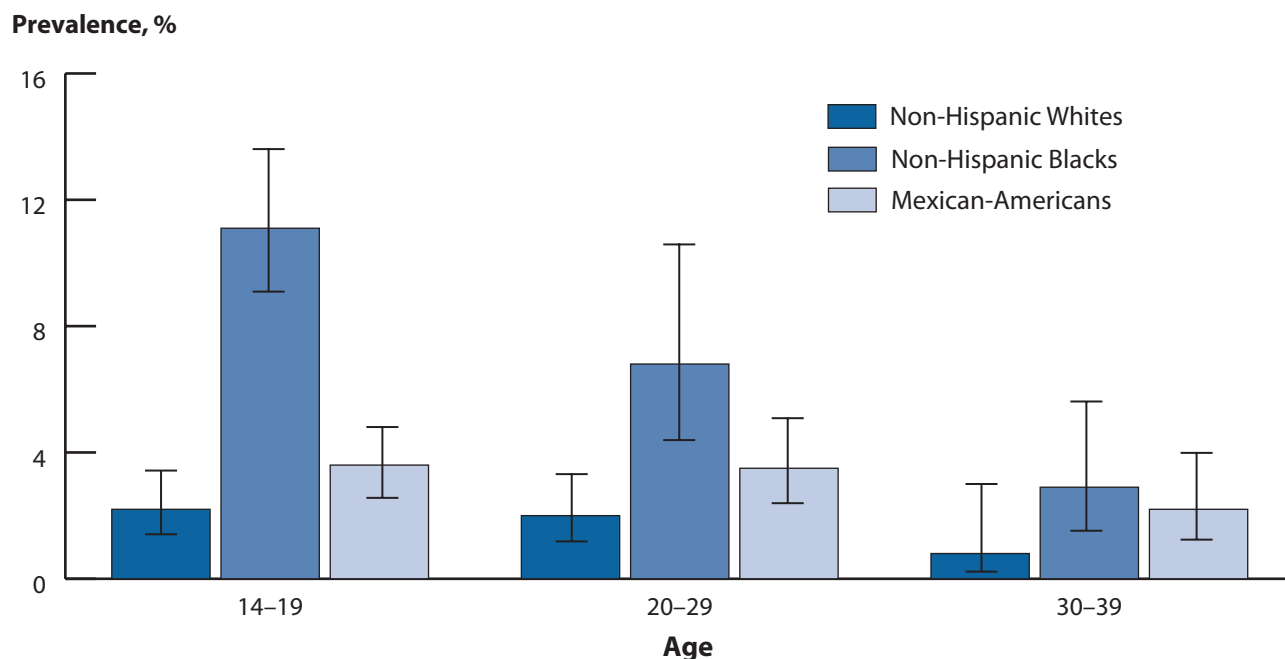
Figure 8. Chlamydia—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2009



* HMO = health maintenance organization; STD = sexually transmitted disease; HD = health department.

NOTE: These categories represent 75.2% of cases with a known reporting source. Of all cases, 9.5% had a missing or unknown reporting source.

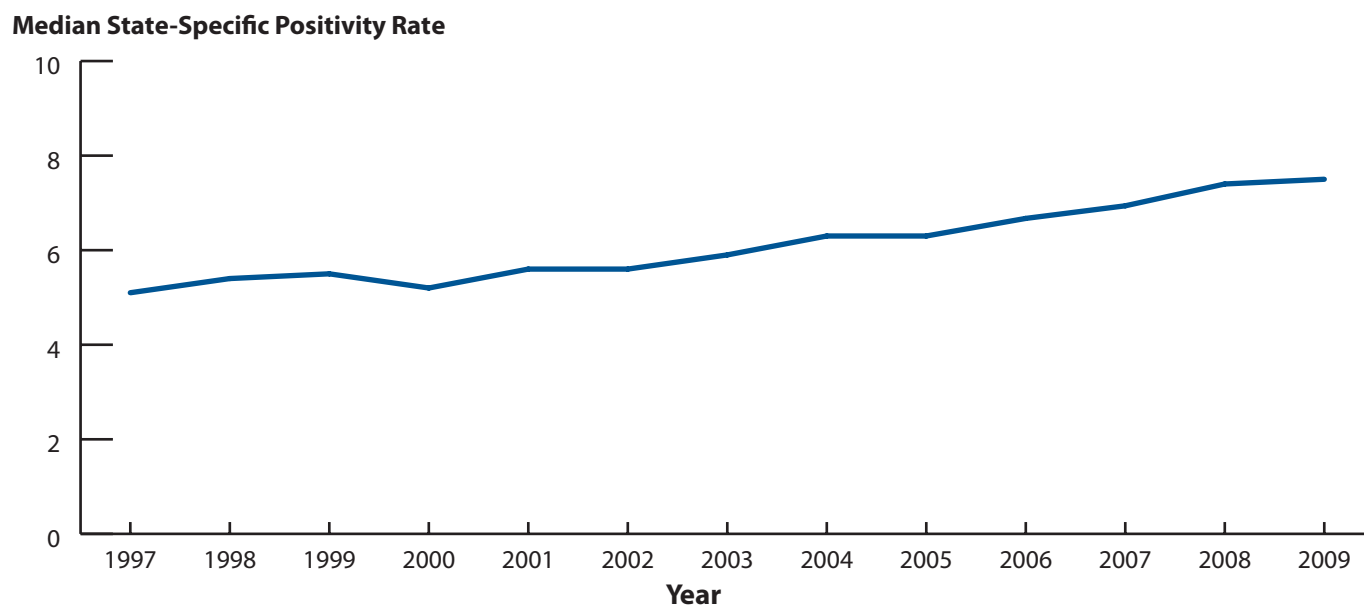
Figure 9. Chlamydia—Prevalence by Age Group and Race/Ethnicity, National Health and Nutrition Examination Survey, 1999–2002



NOTE: Error bars indicate 95% confidence intervals.

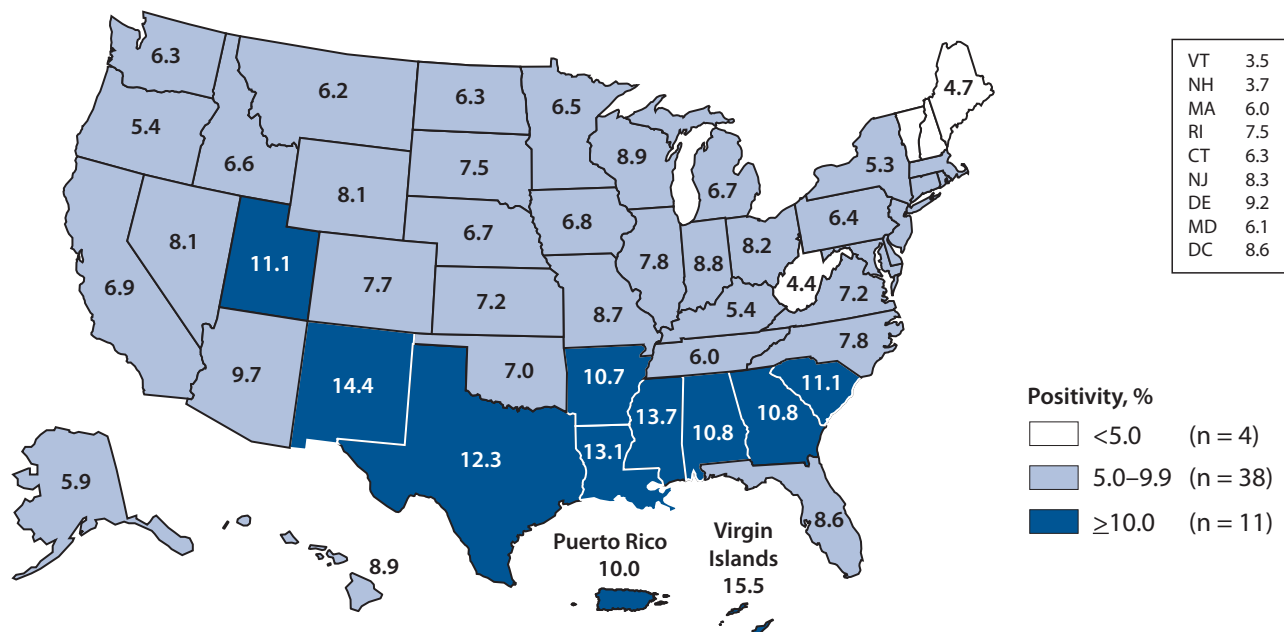
SOURCE: Datta SD, Sternberg M, Johnson RE, Berman S, Papp JR, McQuillan G, et al. Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. *Ann Intern Med.* 2007;147(2):89-96.

Figure 10. Chlamydia—Median State-specific Positivity Rates Among Women Aged 15–24 Years Tested in Family Planning Clinics, Infertility Prevention Project, United States, 1997–2009



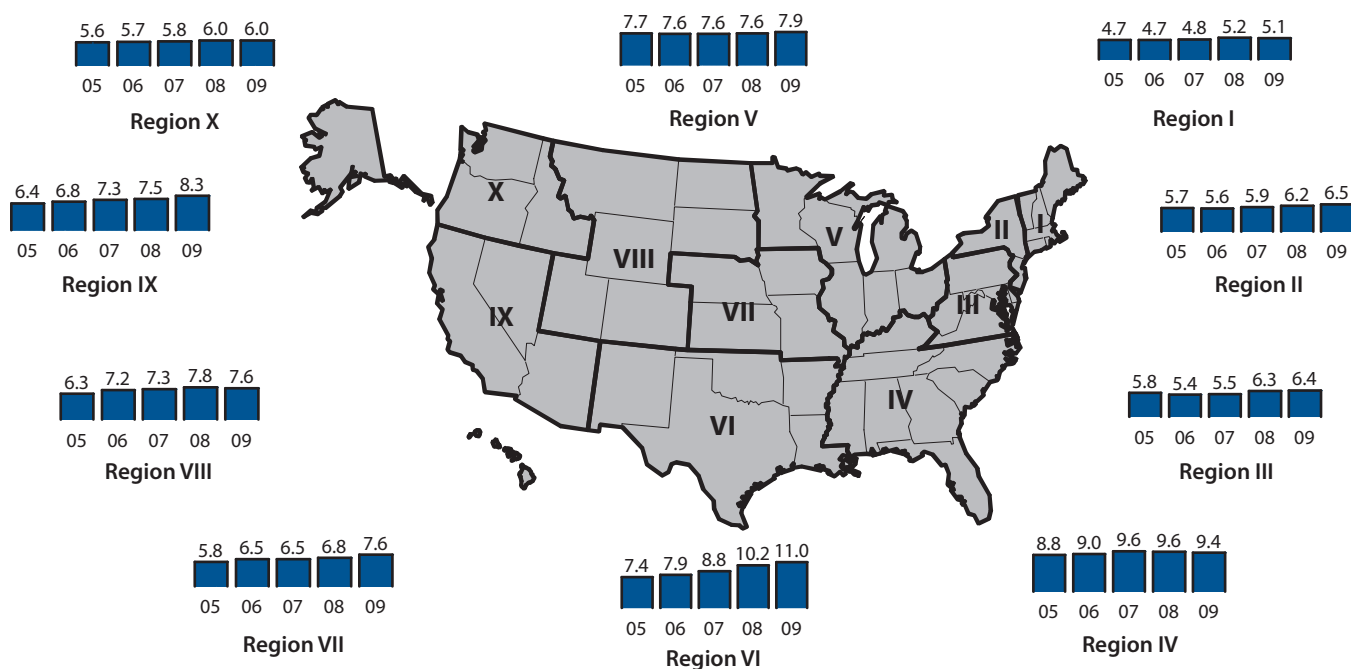
NOTE: As of 1997, all 10 U.S. Department of Health and Human Services (HHS) regions, which represent all 50 states, the District of Columbia, and outlying areas, reported chlamydia positivity data. See Definition of HHS Regions in the Appendix for definitions.

Figure 11. Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009



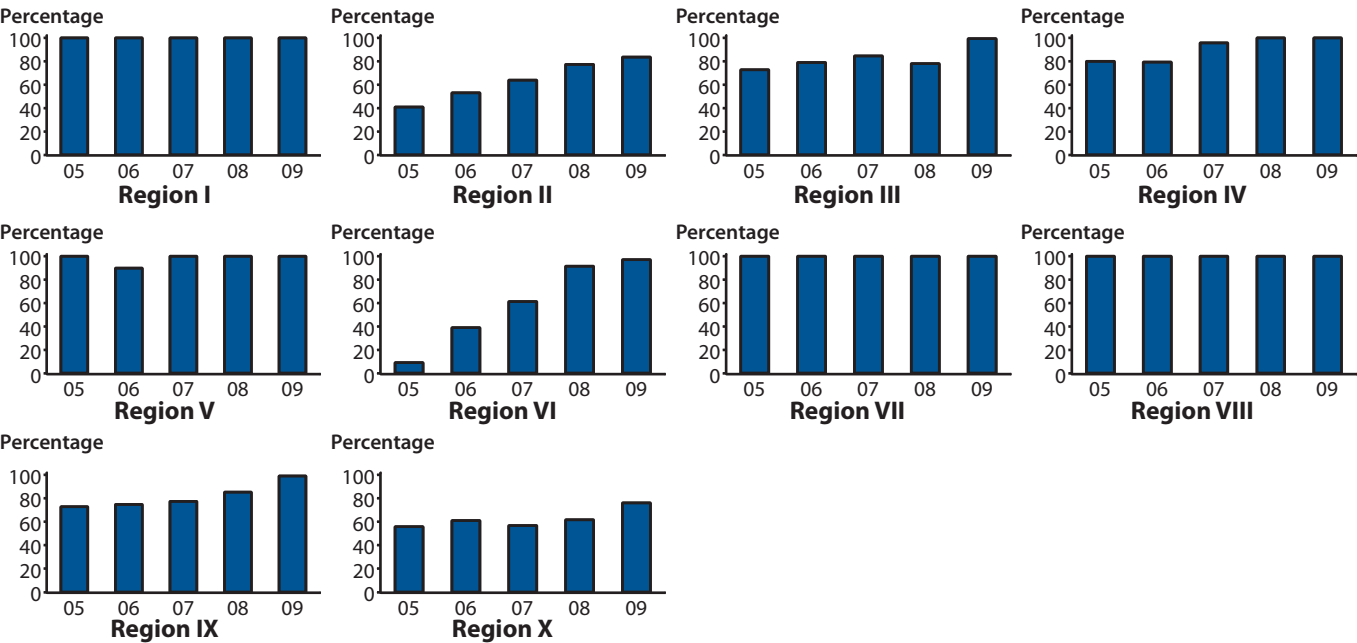
NOTE: Includes states and outlying areas that reported chlamydia positivity data on at least 500 women aged 15–24 years who were screened during 2009.

Figure 12. Chlamydia—Trends in Positivity Rates Among Women Aged 15–24 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2005–2009



NOTE: See Definition of HHS Regions in the Appendix for definitions.

Figure 13. Chlamydia—Percentage of Nucleic Acid Amplification Tests Used Among Women Aged 15–24 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2005–2009



NOTE: See Definition of HHS Regions in the Appendix for definitions.

Gonorrhea

Background

Gonorrhea is the second most commonly reported notifiable disease in the United States. Infections due to *Neisseria gonorrhoeae*, like those resulting from *C. trachomatis*, are a major cause of PID in the United States. PID can lead to serious outcomes in women, such as tubal infertility, ectopic pregnancy, and chronic pelvic pain. In addition, epidemiologic and biologic studies provide strong evidence that gonococcal infections facilitate the transmission of HIV infection.¹

During 1975–1997, the national gonorrhea rate declined 74% after implementation of the national gonorrhea control program in the mid-1970s (Figure 14). During 1996–2006, the rate fluctuated at about 115 cases per 100,000 population. During 2006–2009, it decreased from 119.7 cases per 100,000 population to 99.1 cases (Table 1).

During 2006–2009, decreases in gonorrhea rates were seen in all racial/ethnic groups, in all age groups, and in both males and females (Figure 15). During 2008–2009, rate decreases were seen in 84% (42/50) of states.

In 2007, increases in quinolone-resistant *N. gonorrhoeae* (QRNG) led to changes in national guidelines that now limit the recommended treatment of gonorrhea to a single class of drug, the cephalosporins.² The combination of persistently high gonorrhea morbidity in some populations, along with increases in resistance and decreased treatment options, has reinforced the need to better understand the epidemiology of gonorrhea.

Although gonorrhea case reporting is useful for monitoring disease trends, true increases or decreases in the burden of the disease may be masked by changes in screening practices (e.g., concomitant testing for chlamydia and broader use of urine-based testing), changes in reporting practices, and the use of diagnostic tests with different test performance.³

For most states, the number of gonorrhea cases reported to CDC is affected by many factors in addition to the actual occurrence of the infection within the population. As with other STDs, reporting of gonorrhea cases to CDC is incomplete.⁴ For these reasons, supplemental data on gonorrhea prevalence in persons screened in a variety of settings are useful in assessing the burden of the disease in selected populations.

Gonorrhea—United States

In 2009, a total of 301,174 cases of gonorrhea were reported in the United States, a rate of 99.1 cases per 100,000 population (Figure 14, Table 1). This is a rate decrease of 10.5% since 2008.

Gonorrhea by Region

In 2009, as in previous years, the South had the highest gonorrhea rate (133.2 cases per 100,000 population) among the four regions of the country, and rates in the South and Midwest remained higher than rates in the Northeast and West. Rates in all regions have decreased during the past 2 years (Figure 16, Table 13).

Gonorrhea by State

In 2009, gonorrhea rates per 100,000 population by state ranged from 7.2 in Idaho to 246.4 in Mississippi (Figure 17, Table 12). During 2008–2009, 84% (42/50) of states reported a decrease in gonorrhea rates.

Gonorrhea by Metropolitan Statistical Area

The overall gonorrhea rate in the 50 most populous MSAs was 110.4 cases per 100,000 population in 2009. This is a decrease from the rate of 120.4 cases per 100,000 population in 2008. In 2009, 60.2% of gonorrhea cases were reported by these MSAs (Table 16). Similar to previous years, the total gonorrhea rate among females in these MSAs in 2009 (111.1) remained similar to that in males (109.1) (Tables 17 and 18).

Gonorrhea by County

In 2009, a total of 1,405 counties (44.7%) in the United States had a rate less than or equal to 19 cases per 100,000 population. Rates ranged from 19.0 to 100.0 in 1,129 counties (35.9%) and more than 100.0 in 607 counties (19.3%). Most counties with more than 100 cases per 100,000 population were located in the South (Figure 18).

In 2009, 50% of reported gonorrhea cases occurred in just 63 counties or independent cities (Table 19).

Gonorrhea by Sex

Before 1996, gonorrhea rates among men were higher than rates among women. Since that time, rates have been similar among women and men, but during the past 3 years, an increasing trend shows slightly lower rates among men (Figure 15). In 2009, the gonorrhea rate was 105.5 cases per 100,000 population among women and 91.9 among men (Tables 14 and 15).

Gonorrhea by Age

In 2009, gonorrhea rates continued to be highest among adolescents and young adults. In 2009, women aged 15–19 and 20–24 years had the highest rates of gonorrhea (568.8 and 555.3, respectively). Among men, the rate was highest among those aged 20–24 years (407.5) (Figure 19, Table 20).

During 2005–2009, gonorrhea rates decreased in all age groups (Table 20). The largest decreases were among those aged 40–44 years (33.4%), 65 years or older (33.3%), and 35–39 years (29.8%). The smallest decreases were among those aged 20–24 years (5.2%) and 15–19 years (6.1%).

These decreases were reported for both males and females. In males, the largest decreases were among those aged 65 years or older (34.1%) and 40–44 years (33.6%). The smallest decreases were among those aged 15–19 years (2.9%) and 20–24 years (6.2%). In females, the largest decreases were among those aged 40–44 years (33.2%) and 10–14 years (29.1%). The smallest decreases were among those aged 20–24 years (4.3%) and 15–19 years (7.6%).

Gonorrhea by Race/Ethnicity

In 2009, gonorrhea rates remained highest among blacks (556.4 cases per 100,000 population) (Figure 22, Table 21B). Similar to recent years, the rate among blacks was 20.5 times higher than the rate among whites (27.2). Gonorrhea rates were 4.2 times higher among American Indians/Alaska Natives (113.3) and 2.2 times higher among Hispanics (58.6) than among whites in 2009. Rates among whites were 1.5 times higher than those among Asians/Pacific Islanders (18.1) in 2009 (Figure 22, Table 21B).

During 2005–2009, gonorrhea rates decreased in all racial/ethnic groups (22.5% in non-Hispanic whites, 10.2% in blacks, 19.1% in Hispanics, 28.2% in Asians/Pacific Islanders, and 13.8% in American Indians/Alaska Natives) (Figure 22, Table 21B). More information on gonorrhea rates among minority populations can be found in the Special Focus Profiles.

Gonorrhea by Region and Sex

During 2005–2009, gonorrhea rates among women decreased in the West, Northeast, and Midwest and remained essentially unchanged in the South (39.2% decrease in the West, 13.7% in the Northeast, and 12.7% in the Midwest; 0.6% increase in the South) (Table 14). During 2005–2009, rates among men decreased in all regions of the United States (29.1% in the West, 20.2% in the Midwest, 13.2% in the South, and 4.7% in the Northeast) (Table 15).

Gonorrhea by Race/Ethnicity and Sex

During 2005–2009, overall gonorrhea rates decreased among men in all racial/ethnic groups (31.8% in Asians/Pacific Islanders, 22.1% in whites, 16.5% in Hispanics, 15.6% in blacks, and 15.1% in American Indians/Alaska Natives) (Table 21B).

During 2005–2009, overall gonorrhea rates decreased among women in all racial/ethnic groups (24.8% in Asians/Pacific Islanders, 22.6% in whites, 21.3% in Hispanics, 13.2% in American Indians/Alaska Natives, and 4.6% in blacks) (Table 21 B).

In 2009, black women aged 15–19 years had the highest gonorrhea rate of any group (2,613.8 per 100,000 population). Black women and black men aged 20–24 years had similar rates (2,548.7 and 2,168.9, respectively).

Gonorrhea by Reporting Source

In 2009, 22.6% of gonorrhea cases were reported by STD clinics (Table A2). This is a decrease from 2005, when 28.1% of gonorrhea cases were reported by STD clinics. In 2009, a higher proportion of male gonorrhea cases than female cases (31.8% and 14.9%, respectively) were reported from STD clinics (Figure 23, Table A2). Among males, 35.0% of cases with known reporting source came from STD clinics.

Other common reporting sources for males were private physicians/HMOs (22.8%), other health department clinics (7.5%), family planning clinics (2.9%), and emergency rooms (5.0%) (Figure 24). Among females, the most common reporting source was private physicians/HMOs (30.9%), followed by STD clinics (16.7%), family planning clinics (9.1%), other health department clinics (8.1%), and emergency rooms (5.8%).

Prevalence Monitoring

Positivity data from gonorrhea tests are primarily available from family planning clinics. Screening criteria and practices vary by state and over time.

In 2009, the median state-specific gonorrhea test positivity among women aged 15–24 years screened in selected family planning clinics in 46 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 1.0% (range: 0.0% to 3.4%) (Figure 25).

Gonococcal Isolate Surveillance Project

Antimicrobial resistance remains an important consideration in the treatment of gonorrhea.^{3,5–12} In 1986, the Gonococcal Isolate Surveillance Project (GISP), a national sentinel surveillance system, was established to monitor trends in antimicrobial susceptibilities of strains of *N. gonorrhoeae* in the United

States. Data are collected from selected STD clinics at 25–30 GISP sentinel sites and from 4–5 regional laboratories (Figure 26).¹²

With the renewed availability of cefixime, susceptibility testing for this oral cephalosporin antibiotic was restarted in 2009. Susceptibility testing for an additional oral cephalosporin, cefpodoxime, was started in 2009.

Information on the GISP antimicrobial susceptibility criteria used can be found in the Gonococcal Isolate Surveillance Project section of the Appendix, Interpreting STD Surveillance Data.

Susceptibility to Ceftriaxone

Susceptibility testing for ceftriaxone began in 1987. Figure 27 shows the distribution of minimum inhibitory concentrations (MICs) to ceftriaxone among GISP isolates during 2005–2009. An increase was reported in the proportion of isolates with MICs of 0.06 µg/ml, from 0.5% in 2006 to 2.4% in 2009. No increases were observed at higher MIC values.

The GISP has reported four isolates with decreased susceptibility to ceftriaxone, and all four had MICs of 0.5 µg/ml. The locations and years of these isolates were San Diego, 1987; Cincinnati, 1992 and 1993; and Philadelphia, 1997. No isolates with decreased susceptibility to ceftriaxone were seen in 2009.

Susceptibility to Cefixime

Susceptibility testing for cefixime began in 1992, was discontinued in 2007, and was restarted in 2009. Figure 28 displays the distribution of MICs to cefixime among GISP isolates in 2005, 2006, and 2009. An increase was reported in the proportion of isolates with MICs greater than or equal to 0.06 µg/ml, from 3.4% in 2005 to 8.3% in 2009.

Since 2000, the GISP has reported 11 isolates with decreased susceptibility to cefixime, and all had MICs of 0.5 µg/ml. Four isolates with decreased susceptibility to cefixime (MIC = 0.5 µg/ml) were reported in 2009 from Chicago, Honolulu, Los Angeles, and Portland.

Susceptibility to Cefpodoxime

GISP began monitoring cefpodoxime susceptibility in 2009. Of 5,630 GISP isolates tested for cefpodoxime susceptibility in 2009, 58.1% had MICs to cefpodoxime less than or equal to 0.015 µg/ml, 39.8% had MICs of 0.03–0.125 µg/ml, and 1.3% had MICs of 0.250–0.5 µg/ml. There were 46 (0.8%) isolates with decreased susceptibility to cefpodoxime (MICs of 1.0–2.0 µg/ml).

Susceptibility to Azithromycin

GISP began monitoring azithromycin susceptibility in 1992. Figure 29 shows the distribution of MICs to azithromycin among GISP isolates during 2005–2009. The proportion of GISP isolates with MICs of 0.5 µg/ml and 1.0 µg/ml to azithromycin increased during 2005–2008 and decreased in 2009. In 2009, five isolates had MICs of 8.0 µg/ml, and two isolates had MICs of 16.0 µg/ml.

Susceptibility to Spectinomycin

All isolates were susceptible to spectinomycin in 2009. GISP has reported five spectinomycin-resistant isolates—from St. Louis in 1988, Honolulu in 1989, San Francisco in 1989, Long Beach in 1990, and West Palm Beach in 1994.

Susceptibility to Ciprofloxacin

Resistance to ciprofloxacin (a fluoroquinolone in the quinolone family of antimicrobials) was first identified at GISP sites in 1991. However, since 1999, QRNG prevalence has steadily increased, first in Hawaii and the Pacific Islands, then in the Western states, then among MSM,^{6,8,9} and eventually among all populations in all regions of the United States.²

In 2009, a total of 542 (9.6%) of 5,630 GISP isolates collected were identified as QRNG (Figure 30). The proportion of GISP isolates identified as QRNG declined in 2008 and 2009 after peaking at 14.8% in 2007.

Quinolone-resistant *Neisseria gonorrhoeae* by Sexual Behavior

The prevalence of QRNG in isolates from men who have sex with men (MSM) decreased from 33.6% in 2008 to 20.1% in 2009. During the same period, the prevalence of QRNG in isolates from men who have sex with women only (MSW) also decreased from 8.2% in 2008 to 6.0% in 2009.

Other Antimicrobial Susceptibility Testing

Overall in 2009, 23.5% of isolates collected from GISP sites were resistant to penicillin, tetracycline, ciprofloxacin, or some combination of those antibiotics (Figure 31).

Antimicrobial Treatments Given for Gonorrhea

The antimicrobial agents given to GISP patients for gonorrhea therapy are shown in Figure 32. The proportion of GISP patients treated with cephalosporins increased from 95.1% in 2008 to 96.2% in 2009. Among patients treated with cephalosporins, the proportion treated with ceftriaxone 250 mg increased from 15.7% in 2008 to 21.6% in 2009; the proportion treated with ceftriaxone 125 mg decreased from 59.5% in 2008 to 53.7% in 2009. The proportion treated with cefixime increased from 5.1% in 2008 to 13.2% in 2009.

Conversely, the proportion of GISP patients being treated with fluoroquinolones (ciprofloxacin, ofloxacin, or levofloxacin) declined from 2.2% in 2008 to 0.5% in 2009. Treatment with azithromycin 2 g increased slightly, from 1.2% in 2008 to 1.7% in 2009.

More information about 2009 GISP data can be found at <http://www.cdc.gov/std/GISP>.

Gonorrhea Among Special Populations

More information about gonorrhea in racial and ethnic minority populations, women of reproductive age, adolescents, MSM, and other populations at higher risk can be found in the Special Focus Profiles.

Gonorrhea Summary

The national gonorrhea rate fluctuated at about 115 cases per 100,000 population for 10 years during 1996–2006 and then decreased during 2006–2009. High rates persist in some geographic areas, adolescents and young adults, and some racial/ethnic groups.

The GISP continues to monitor for the emergence of decreased susceptibility and resistance to cephalosporins and for decreased susceptibility to azithromycin.

¹ Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect.* 1999;75(1):3-17.

² Centers for Disease Control and Prevention. Update to CDC's sexually transmitted diseases treatment guidelines, 2006: fluoroquinolones no longer recommended for treatment of gonococcal infections. *MMWR Morb Mortal Wkly Rep.* 2007;56:332-6.

³ Centers for Disease Control and Prevention. Gonorrhea — United States, 1998. *MMWR Morb Mortal Wkly Rep.* 2000;49:538-42.

⁴ American Social Health Association. Sexually transmitted diseases in America: how many cases and at what cost? Menlo Park (CA): Kaiser Family Foundation; 1998.

⁵ Centers for Disease Control and Prevention. Fluoroquinolone-resistance in *Neisseria gonorrhoeae*, Hawaii, 1999, and decreased susceptibility to azithromycin in *N. gonorrhoeae*, Missouri, 1999. *MMWR Morb Mortal Wkly Rep.* 2000;49:833-7.

⁶ Centers for Disease Control and Prevention. Sexually transmitted disease surveillance 2007 supplement: Gonococcal Isolate Surveillance Project (GISP) annual report 2007. Atlanta (GA): U.S. Department of Health and Human Services; 2007.

⁷ Centers for Disease Control and Prevention. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* — Hawaii and California, 2001. *MMWR Morb Mortal Wkly Rep.* 2002;51:1041-4.

⁸ Centers for Disease Control and Prevention. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* among men who have sex with men — United States, 2003, and revised recommendations for gonorrhea treatment, 2004. *MMWR Morb Mortal Wkly Rep.* 2004;53:335-8.

⁹ Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2006. *MMWR Recomm Rep.* 2006;55(No.RR-11).

¹⁰ Wang SA, Lee MV, Iverson CJ, Ohye RG, Whitticar PM, Hale JA, et al. Multi-drug resistant *Neisseria gonorrhoeae* with decreased susceptibility to cefixime, Hawaii, 2001. *Clin Infect Dis.* 2003;37:849-52.

¹¹ Wang SA, Harvey AB, Conner SM, Zaidi AA, Knapp JS, Whittington WL, et al. Antimicrobial resistance for *Neisseria gonorrhoeae* in the United States, 1988 to 2003: the spread of fluoroquinolone resistance. *Ann Intern Med.* 2007;147:81-9.

¹² Schwarcz S, Zenilman J, Schnell D, Knapp JS, Hook EW 3rd, Thompson S, et al. National surveillance of antimicrobial resistance in *Neisseria gonorrhoeae*. *JAMA.* 1990;264:1413-7.

Figure 14. Gonorrhea—Rates, United States, 1941–2009

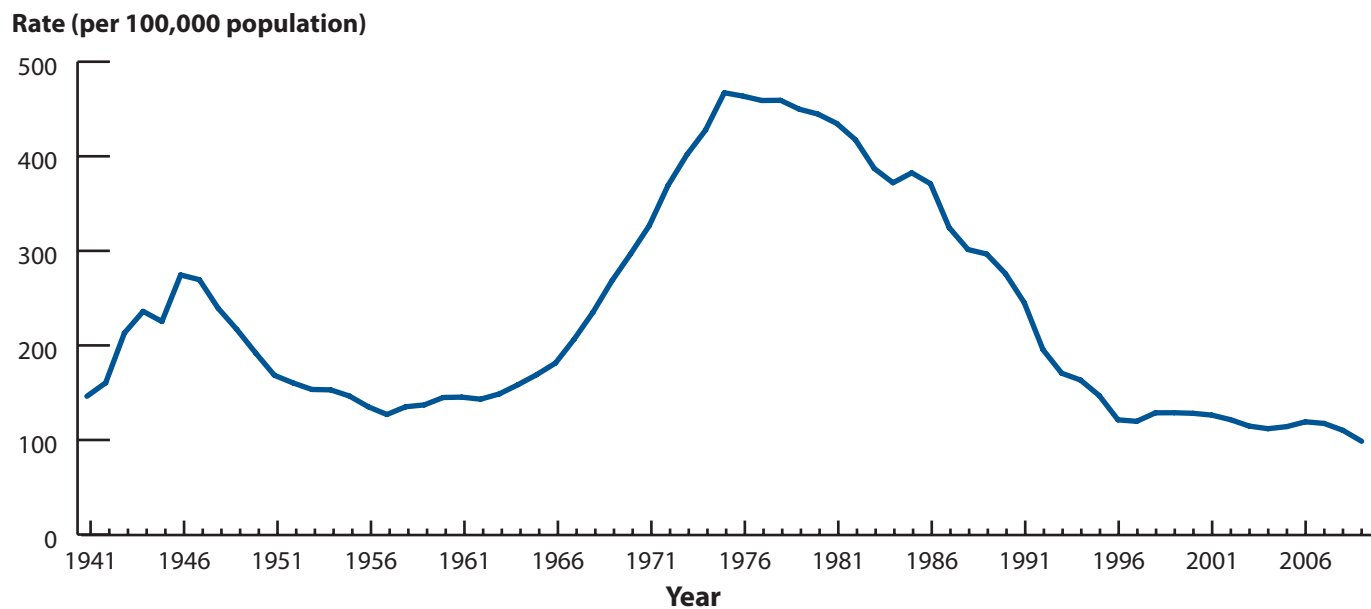


Figure 15. Gonorrhea—Rates by Sex, United States, 1990–2009

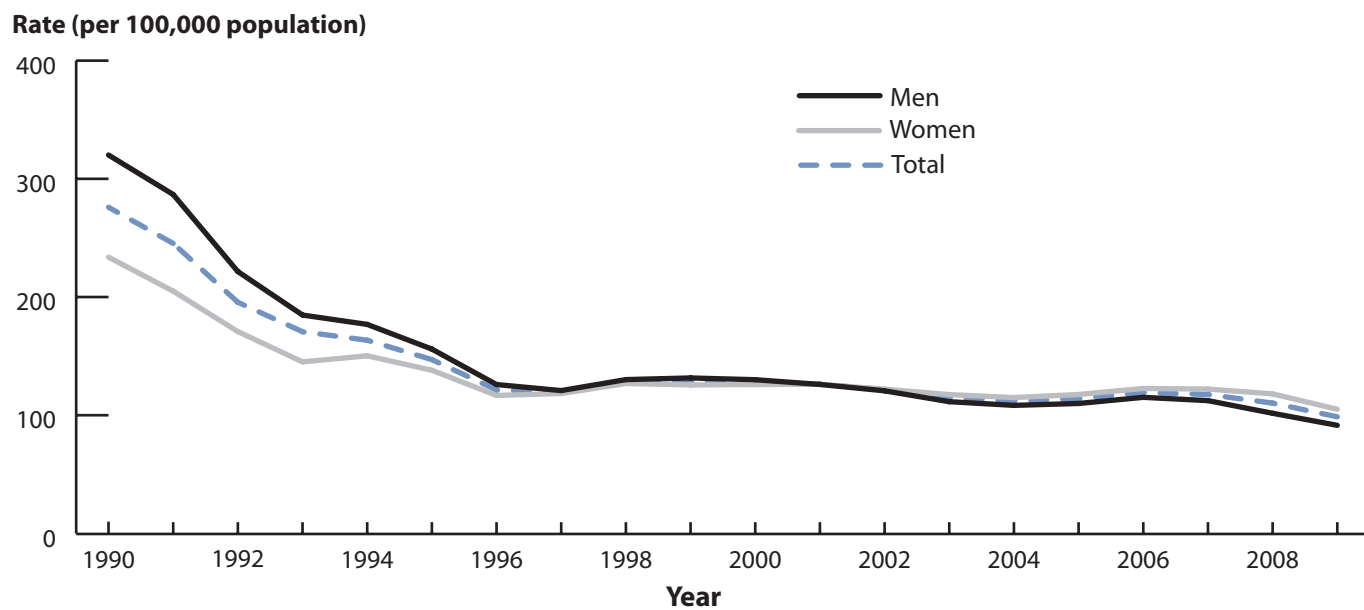


Figure 16. Gonorrhea—Rates by Region, United States, 2000–2009

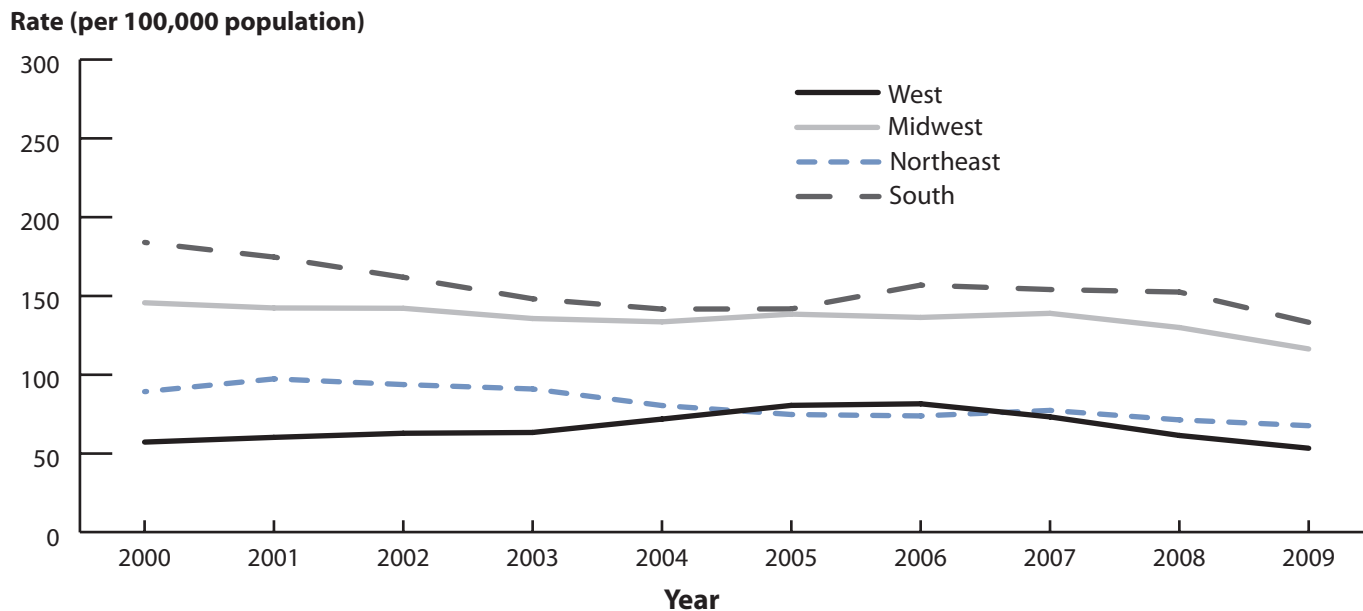
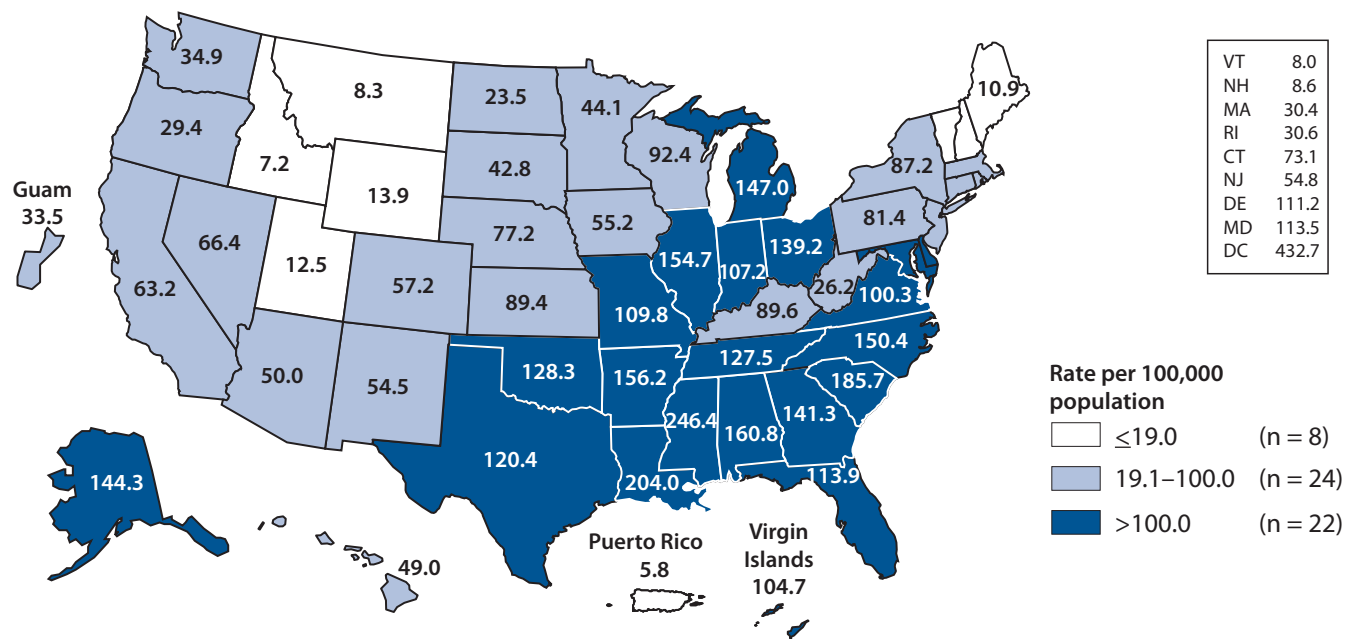


Figure 17. Gonorrhea—Rates by State, United States and Outlying Areas, 2009



NOTE: The total rate of gonorrhea for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 97.8 per 100,000 population.

Figure 18. Gonorrhea—Rates by County, United States, 2009

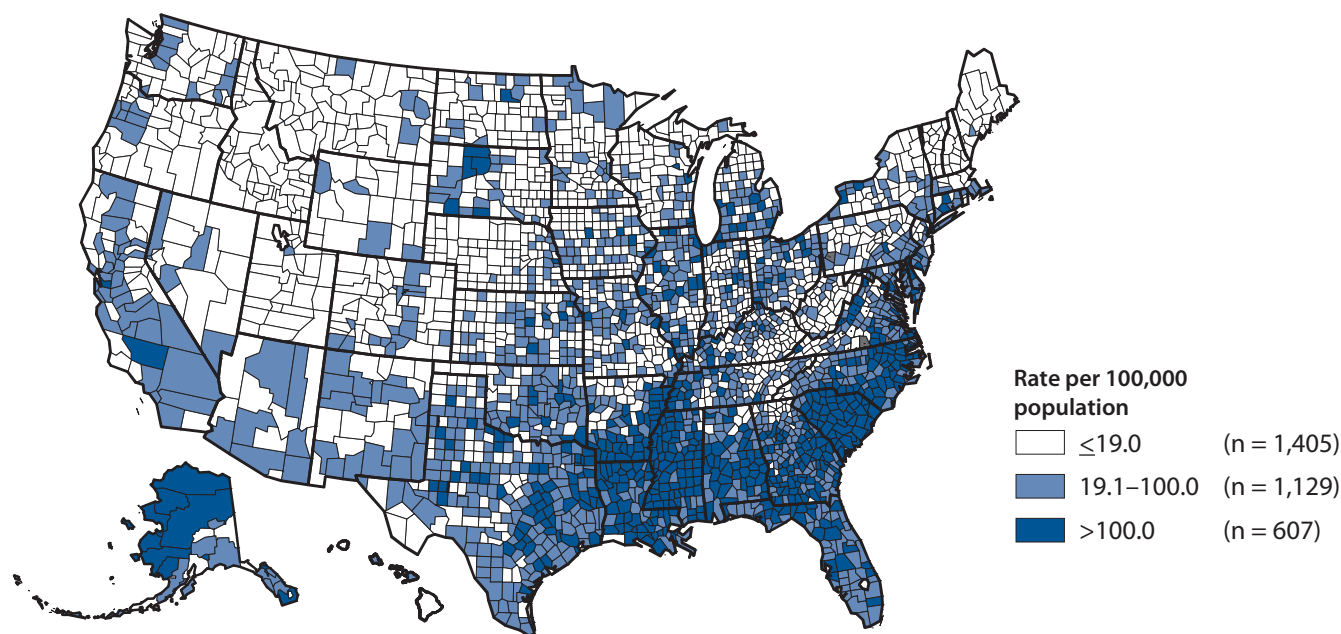


Figure 19. Gonorrhea—Rates by Age and Sex, United States, 2009

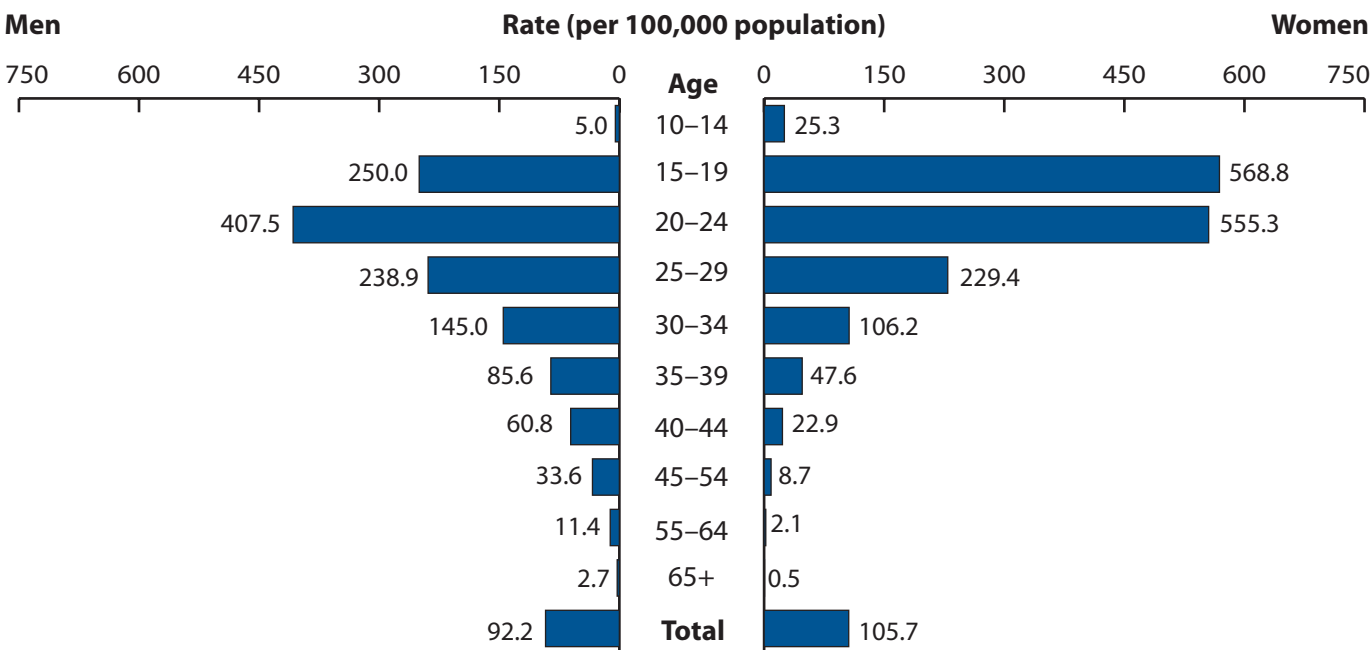


Figure 20. Gonorrhea—Rates by Age Among Women Aged 15–44 Years, United States, 2000–2009

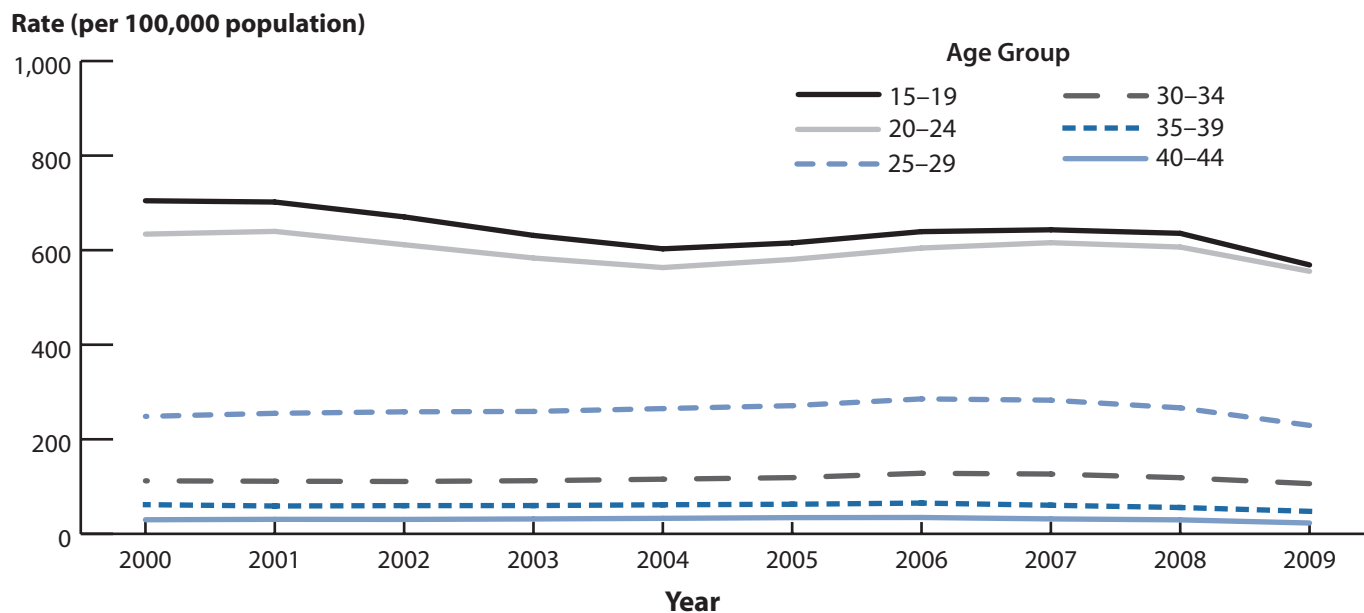


Figure 21. Gonorrhea—Rates by Age Among Men Aged 15–44 Years, United States, 2000–2009

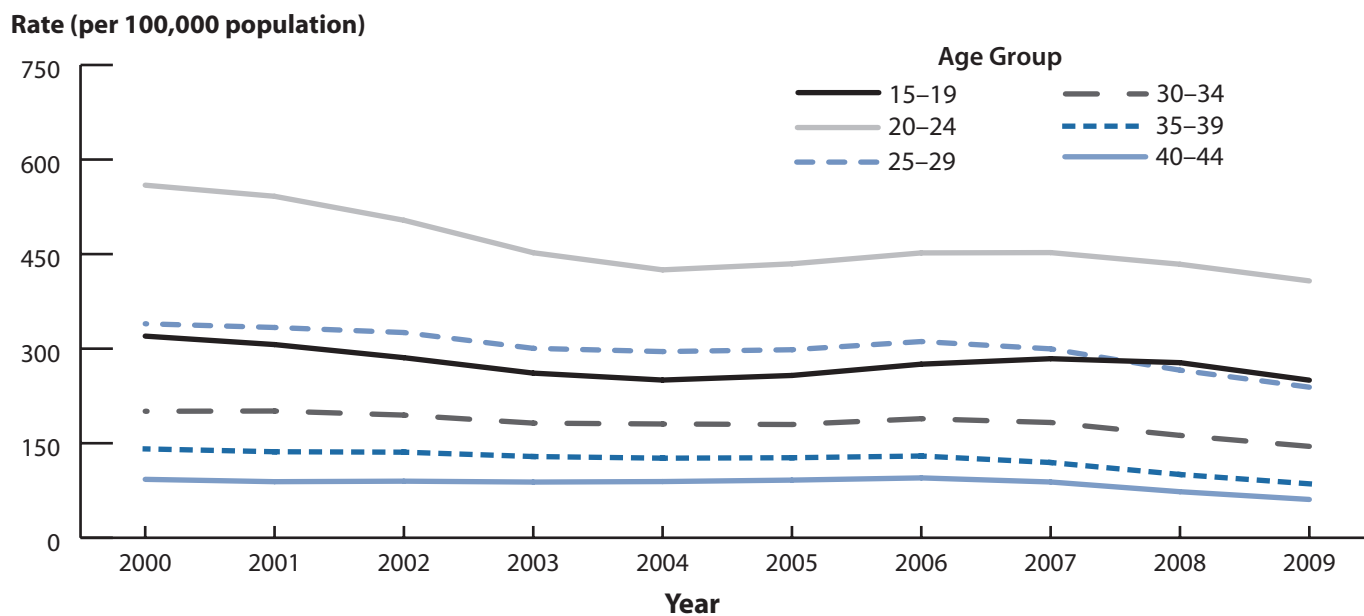


Figure 22. Gonorrhea—Rates by Race/Ethnicity, United States, 2000–2009

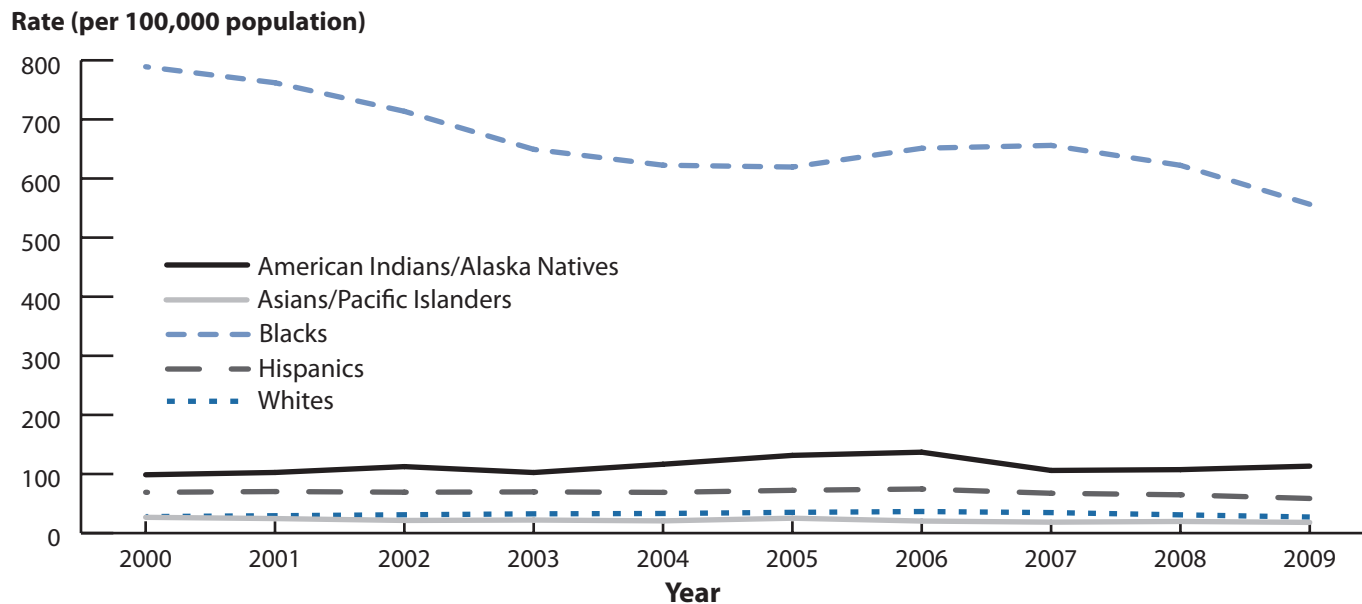
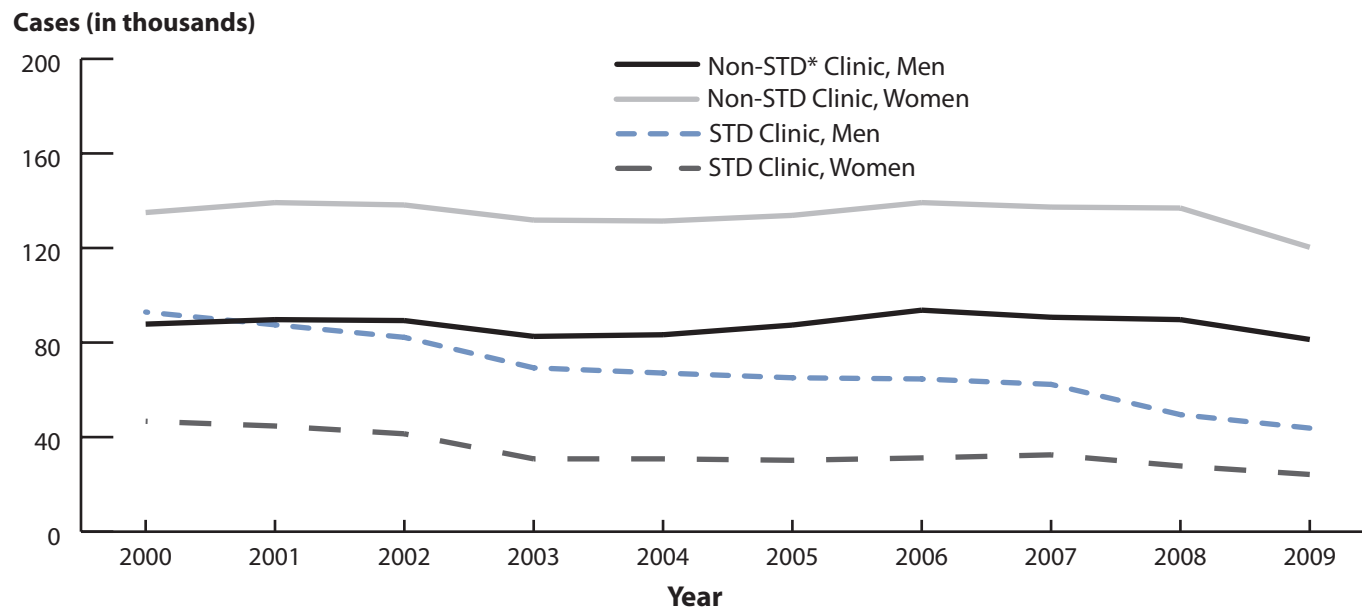
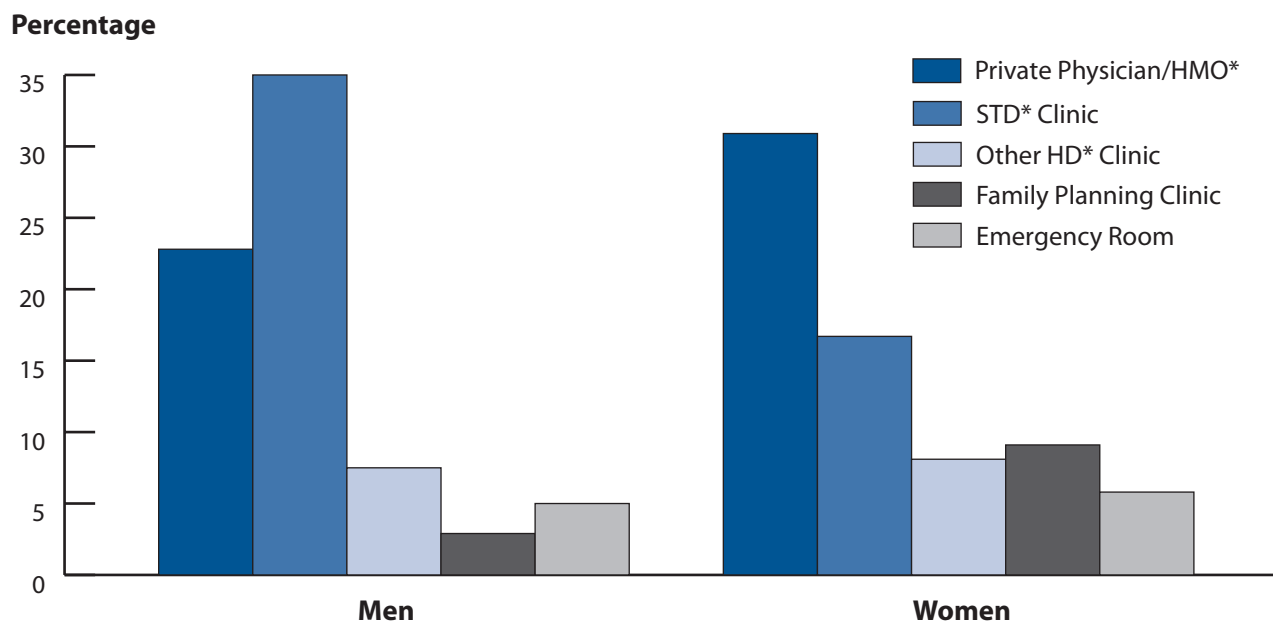


Figure 23. Gonorrhea—Cases by Reporting Source and Sex, United States, 2000–2009



* STD = sexually transmitted disease.

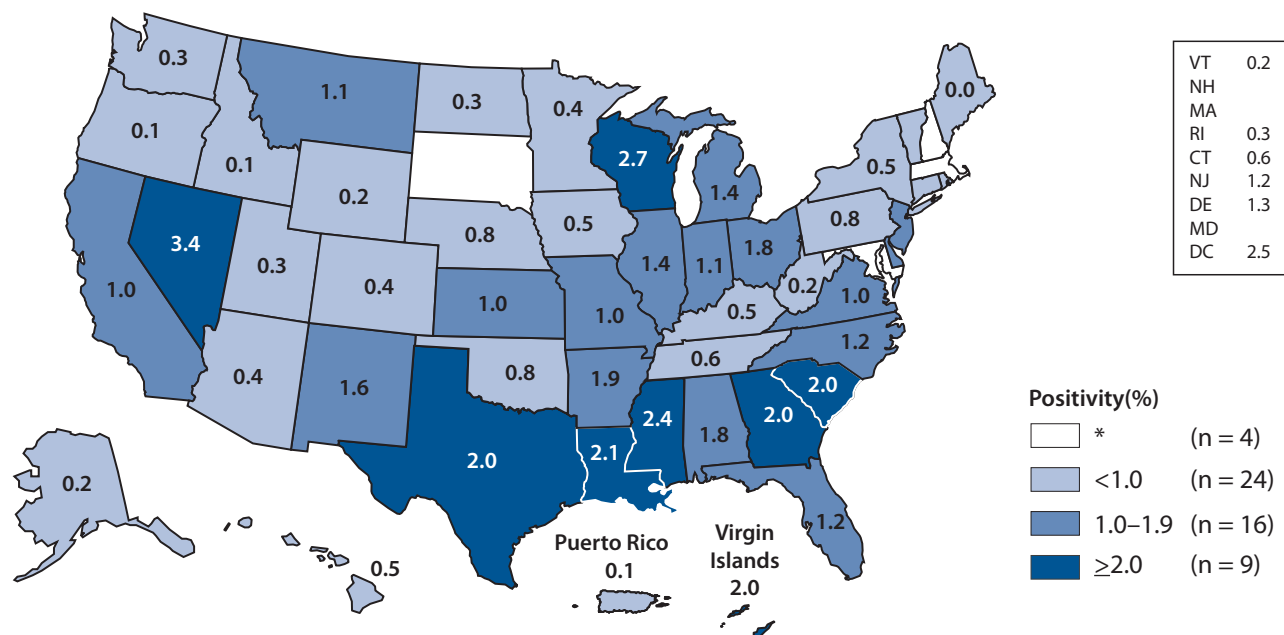
Figure 24. Gonorrhea—Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2009



* HMO = health maintenance organization; STD = sexually transmitted disease; HD = health department.

NOTE: These categories represent 71.9% of cases with known reporting source. Of all cases, 10.3% had a missing or unknown reporting source.

Figure 25. Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Family Planning Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009



* States/areas not meeting minimum inclusion criteria.

NOTE: Includes states and outlying areas that reported positivity data on at least 500 women aged 15–24 years who were screened during 2009.

Figure 26. Gonococcal Isolate Surveillance Project (GISP)—Location of Participating Sentinel Sites and Regional Laboratories, United States, 2009



Figure 27. Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Ceftriaxone Among GISP Isolates, 2005–2009

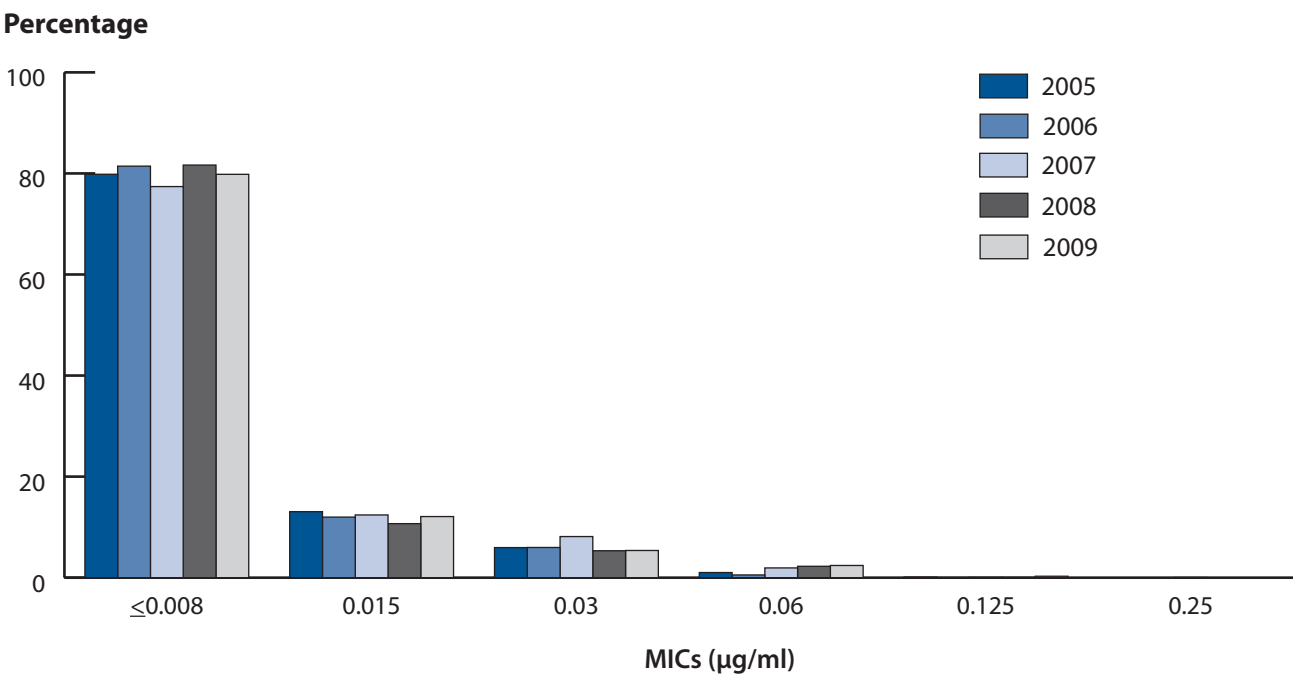
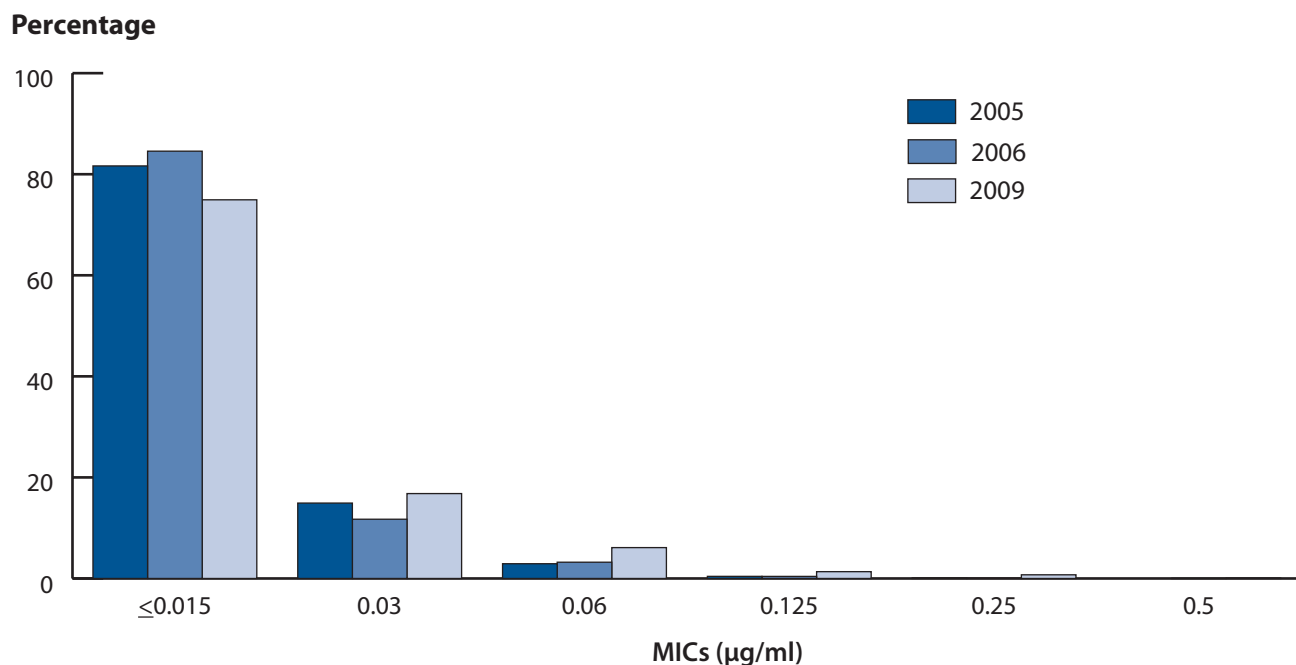


Figure 28. Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Cefixime Among GISP Isolates, 2005–2006 and 2009



NOTE: Isolates were not tested for cefixime susceptibility in 2007 and 2008.

Figure 29. Gonococcal Isolate Surveillance Project (GISP)—Distribution of Minimum Inhibitory Concentrations (MICs) to Azithromycin Among GISP Isolates, 2005–2009

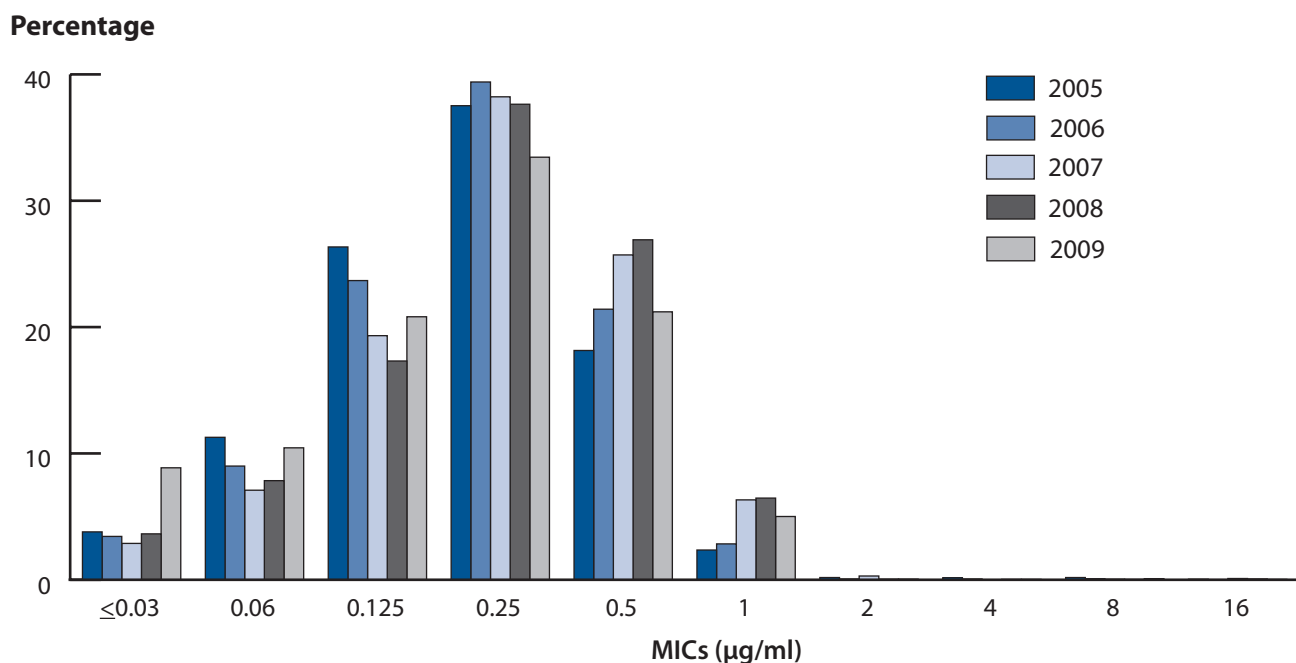
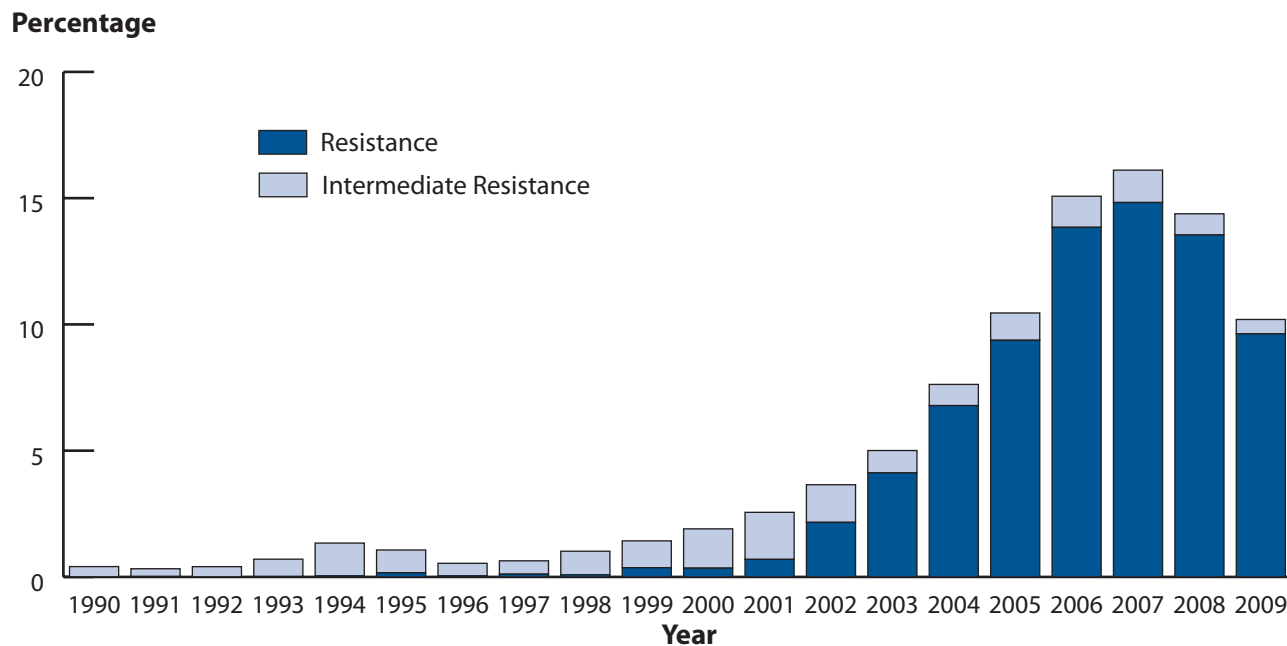
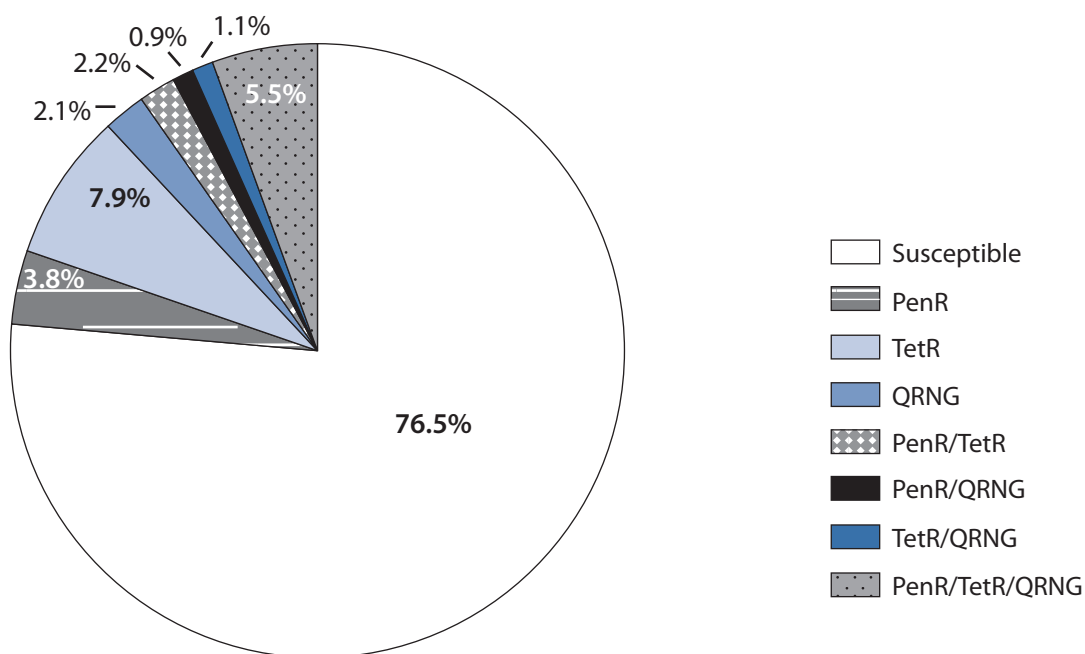


Figure 30. Gonococcal Isolate Surveillance Project (GISP)—Percentage of *Neisseria gonorrhoeae* Isolates with Resistance or Intermediate Resistance to Ciprofloxacin, 1990–2009



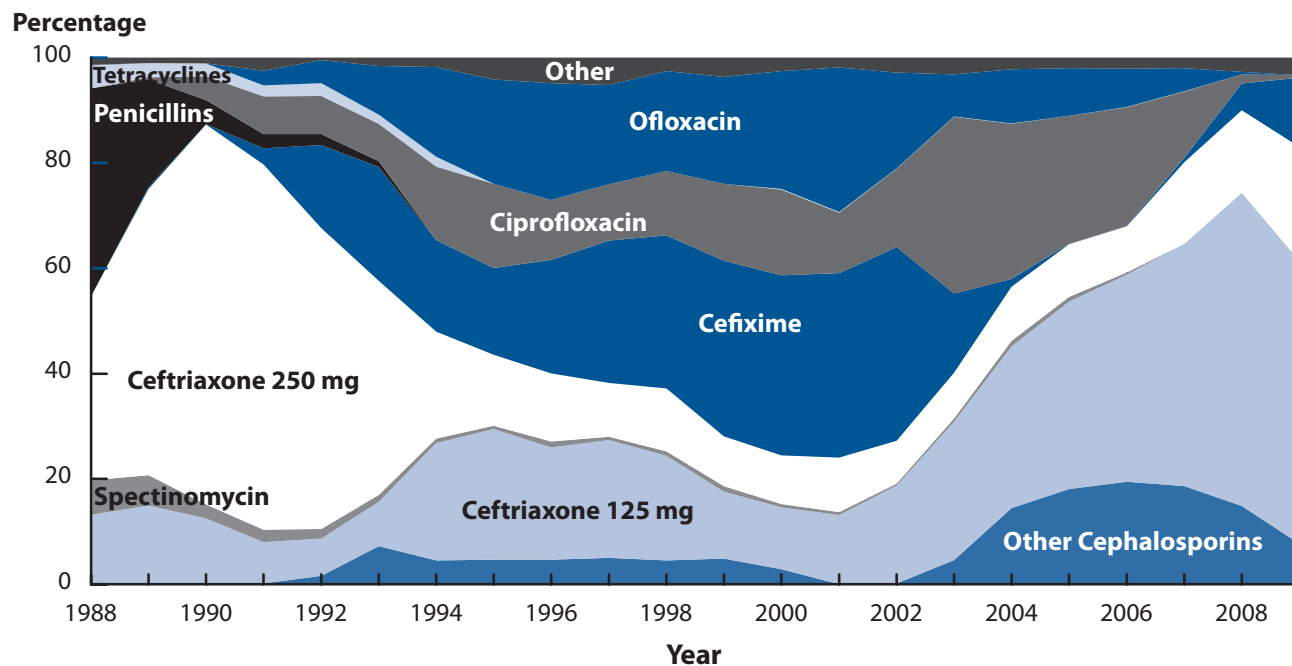
NOTE: Resistant isolates have ciprofloxacin minimum inhibitory concentrations (MICs) ≥ 1 $\mu\text{g/ml}$. Isolates with intermediate resistance have ciprofloxacin MICs of 0.125–0.5 $\mu\text{g/ml}$. Susceptibility to ciprofloxacin was first measured in GISP in 1990.

Figure 31. Gonococcal Isolate Surveillance Project (GISP)—Penicillin, Tetracycline, and Ciprofloxacin Resistance Among GISP Isolates, 2009



NOTE: PenR = penicillinase producing *Neisseria gonorrhoeae* and chromosomally mediated penicillin-resistant *N. gonorrhoeae*; TetR = chromosomally and plasmid mediated tetracycline-resistant *N. gonorrhoeae*; and QRNG = quinolone-resistant *N. gonorrhoeae*.

Figure 32. Gonococcal Isolate Surveillance Project (GISP)—Drugs Used to Treat Gonorrhea Among GISP Participants, 1988–2009



NOTE: For 2009, "Other" includes no therapy (1.5%), azithromycin 2 g (1.7%), and other less frequently used drugs.

Syphilis

Background

Syphilis, a genital ulcerative disease, causes significant complications if untreated and facilitates the transmission of HIV infection. Untreated early syphilis in pregnant women results in perinatal death in up to 40% of cases and, if acquired during the 4 years before pregnancy, can lead to infection of the fetus in 80% of cases.¹

The rate of P&S syphilis reported in the United States decreased during the 1990s; in 2000, the rate was the lowest since reporting began in 1941 (Figure 33). The low rate of infectious syphilis and the concentration of the majority of syphilis cases in a small number of geographic areas in the United States led to the development of CDC's *National Plan to Eliminate Syphilis*, which was announced by Surgeon General David Satcher, MD, PhD, in October 1999 and revised in May 2006.²

Although the rate of P&S syphilis in the United States declined 89.7% during 1990–2000, the rate increased annually during 2001–2009. Overall increases in rates were observed primarily among men (increasing from 3.0 cases per 100,000 population in 2001 to 7.8 cases in 2009). After persistent declines during 1992–2003, the rate among women increased from 0.8 cases in 2004 to 1.4 cases in 2009.

Syphilis remains a major health problem in the South and in urban areas in other regions of the country. Increases in cases among MSM (including men having sex with both men and women) have occurred and have been characterized by high rates of HIV co-infection and high-risk sexual behaviors.^{3–7} The estimated proportion of P&S syphilis cases attributable to MSM increased from 7% in 2000 to 64% in 2004.^{8,9} In 2005, CDC requested that all state health departments report the sex of sex partners for persons with syphilis. In 2009, 62% of P&S syphilis cases in 44 states and the District of Columbia that provided information about sex of sex partners were among MSM. Of reported male cases with P&S syphilis, sex of sex partner information in 2009 was available for 80%.

Syphilis—All Stages (P&S, Early Latent, Late, Late Latent, and Congenital)

During 2008–2009, the number of cases of early latent syphilis reported to CDC increased 5.4% (from 12,401 to 13,066 cases), while the number of cases of late and late latent syphilis decreased 13.1% (from 19,945 to 17,338 cases) (Tables 1, 35, and 37). The total number of cases of syphilis (P&S, early latent, late, late latent, and congenital) reported to CDC decreased 3.2% (from 46,291 to 44,828 cases) during 2008–2009 (Table 1).

P&S Syphilis—United States

P&S syphilis cases reported to CDC increased from 13,500 in 2008 to 13,997 in 2009, an increase of 3.7%. The rate of P&S syphilis in the United States in 2009 (4.6 cases per 100,000 population) was 4.5% higher than the rate in 2008 (4.4 cases) (Figure 33, Table 1).

P&S Syphilis by Region

The South accounted for 53.0% of the P&S syphilis cases in 2009 and 49.7% in 2008. During 2008–2009, rates increased 10.0% in the South (from 6.0 to 6.6 cases per 100,000 population), 2.7% in the Northeast (from 3.7 to 3.8 cases), and 7.7% in the Midwest (from 2.6 to 2.8 cases). Rates decreased in the West by 11.6% (from 4.3 to 3.8 cases) (Figure 35, Table 25).

P&S Syphilis by State

In 2009, the 13 states with the highest rates of P&S syphilis accounted for 75% of all U.S. cases of P&S syphilis. The rate of P&S syphilis in these 13 states exceeded the national rate of 4.6 cases per 100,000 population. Of these states, 10 were in the South (Figure 36, Table 24).

P&S Syphilis by Metropolitan Statistical Area

The rate of P&S syphilis in 2009 for the 50 most populous MSAs (6.2 cases per 100,000 population) exceeded the overall rate for the United States (4.6 cases) (Table 28). The rate increased in 25 of these 50 MSAs (50%) during 2008–2009.

P&S Syphilis by County

In 2009, a total of 2,194 of the 3,141 counties (69.9%) in the United States reported no cases of P&S syphilis, compared with 2,180 counties (69.3%) in 2008 (Figure 37). In 2009, half of the total number of P&S syphilis cases was reported from 29 counties and two cities (Table 31).

P&S Syphilis by Sex

The rate of P&S syphilis increased 4.0% among men (from 7.5 to 7.8 cases per 100,000 men) during 2008–2009 (Figure 34, Table 27). During this same period, the rate decreased 6.7% among women (from 1.5 to 1.4 cases per 100,000 women) (Figure 34, Table 26).

P&S Syphilis by Age

In 2009, the rate of P&S syphilis was highest among persons aged 20–24 years and 25–29 years (13.4 and 11.3 cases per 100,000 population, respectively) (Figure 38, Table 33).

During 2008–2009, rates for men increased the most in those aged 15–19 years and 20–24 years (Figures 38–40, Table 33). Rates for men are now highest in those aged 20–24 years, and the rates decrease with age. These data indicate a considerable shift since 2000, when the highest rates were in men aged 25–34 years. In women, rates increased the most among those aged 15–19 years and 30–34 years (Figures 38–40, Table 33), but have remained highest in those aged 20–24 years.

P&S Syphilis by Race/Ethnicity

During 2008–2009, the rate of P&S syphilis increased in all racial and ethnic groups except non-Hispanic whites and Hispanics (Figure 41, Table 34B). The rate

increased 11.6% among non-Hispanic blacks (from 17.2 to 19.2 cases per 100,000 population), 6.7% among Asians/Pacific Islanders (from 1.5 to 1.6 cases), and 4.3% among American Indians/Alaska Natives (from 2.3 to 2.4 cases). The rate decreased 4.5% among non-Hispanic whites (from 2.2 to 2.1 cases) and 2.2% among Hispanics (from 4.6 to 4.5 cases) (Table 34B).

P&S Syphilis by Sex and Sex Behavior

The male-to-female ratio for P&S syphilis rates has risen steadily since 1996, when it was 1.2, reflecting higher rates in men than women (Figure 34). This increase is consistent with an increase in P&S syphilis rates among MSM. In 2008, this ratio decreased to 5.0, but in 2009, it increased to 5.6.

In 2005, CDC began collecting information on the sex partners of patients with P&S syphilis. In 2009, this information was available for 80% of male cases.

In 2009, among men who have sex with women only (MSW) with P&S syphilis, 39.4% had primary syphilis, and 60.6% had secondary syphilis. Among women with P&S syphilis, 15.9% had primary syphilis, and 84.1% had secondary syphilis. Among MSM, 23.9% had primary syphilis, and 76.1% had secondary syphilis (Figure 42).

Among women with P&S syphilis, 19.0% were white, 72.9% were black, 6.5% were Hispanic, and 1.5% were of other races/ethnicities. Among MSW, 16.1% were white, 68.4% were black, 13.4% were Hispanic, and 2.1% were of other races/ethnicities. Among MSM, 37.7% were white, 39.6% were black, 19.1% were Hispanic, and 3.6% were of other races/ethnicities (Figure 43).

P&S Syphilis by Race/Ethnicity and Sex

During 2008–2009, the P&S syphilis rate decreased 2.5% (from 4.0 to 3.9 cases per 100,000 population) among non-Hispanic white males and 20% (from 0.5 to 0.4 cases) among non-Hispanic white females.

The rate increased 12.2% among non-Hispanic black males (from 27.9 to 31.3 cases) and 7.9% among non-Hispanic black females (from 7.6 to 8.2 cases). The rate increased 1.3% among Hispanic males (from 8.0 to 8.1 cases) and decreased 33% among Hispanic females (from 0.9 to 0.6 cases).

The rate remained unchanged for Asian/Pacific Islander males (3.0 cases) but increased among Asian/Pacific Islander females (from 0.1 to 0.2 cases). The rate increased among American Indian/Alaska Native males (from 3.1 to 3.9 cases) and decreased among American Indian/Alaska Native females (from 1.4 to 0.9 cases) (Table 34B).

P&S Syphilis by Race/Ethnicity, Age, and Sex

In 2009, the rate of P&S syphilis among non-Hispanic blacks was highest among women aged 20–24 years (29.6 cases, an 18.9% increase from 24.9 cases in 2008) and among men aged 20–24 years (94.2 cases, a 27.0% increase from 74.2 cases in 2008) and 25–29 years (79.2 cases). For non-Hispanic whites, the rate was highest among women aged 20–24 years (1.3 cases) and among men 40–44 years (9.9 cases).

For Hispanics, the rate was highest among women aged 20–24 years (2.0 cases) and among men aged 20–24 years (18.9 cases). For Asians/Pacific Islanders, the rate was highest among women aged 35–39 years (0.6 cases) and among men aged 30–34 years (6.8 cases). For American Indians/Alaska Natives, the rate was highest among women aged 25–29 years (3.1 cases) and among men aged 35–39 years (11.4 cases) (Table 34B).

P&S Syphilis by Reporting Source

In 1990, 25.6% of P&S syphilis cases were reported from sources other than STD clinics; this figure increased to 39.2% in 1998. During 1998–2009, the proportion of cases reported from sources other than STD clinics increased from 39.2% to 64.9% (Figure 44, Table A2). During 2001–2009, the number of cases among males reported from non-STD clinic sources increased sharply, while the number reported from STD clinics increased only slightly (Figure 44).

During 2009, patients with P&S syphilis usually sought care from private physicians or STD clinics. More cases of syphilis among MSM were reported from private physicians (34.8%) than STD clinics (33.0%) (Figure 45). More cases among women and MSW were reported from STD clinics than from private physicians.

Congenital Syphilis—United States

Overall, the rate of congenital syphilis decreased during 2008–2009 (from 10.4 to 10.0 cases per 100,000 live births); a 17% rate increase occurred during 2006–2007 (Table 40). In 2009, a total of 427.0 cases were reported, an increase from 339.0 in 2005. The increase in the rate of congenital syphilis since 2005 (when the rate reached a low point of 8.2 cases per 100,000 live births) might be associated with the increase in the rate of P&S syphilis among women that has occurred since 2004 (Figure 46).¹⁰

In 2009, a total of 33 states and 1 outlying area had 1 or more cases of congenital syphilis (Tables 39 and 40).

Syphilis Among Special Populations

More information about syphilis and congenital syphilis in racial and ethnic minority populations, adolescents, MSM, and other populations at higher risk can be found in the Special Focus Profiles.

Syphilis Summary

In recent years, MSM have accounted for an increasing number of syphilis cases in the United States.⁹ According to information reported in 44 states and the District of Columbia, 62% of P&S syphilis cases are among MSM. Although the majority of U.S. syphilis cases have occurred among MSM, syphilis among MSW is an emerging problem.¹¹

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- ¹ Ingraham NR. The value of penicillin alone in the prevention and treatment of congenital syphilis. *Acta Derm Venereol*. 1951;31(Suppl 24):60-88.
- ² Centers for Disease Control and Prevention. The national plan to eliminate syphilis from the United States. Atlanta: U.S. Department of Health and Human Services; 2006.
- ³ Centers for Disease Control and Prevention. Resurgent bacterial sexually transmitted disease among men who have sex with men — King County, Washington, 1997–1999. *MMWR Morb Mortal Wkly Rep*. 1999;48:773-7.
- ⁴ Centers for Disease Control and Prevention. Outbreak of syphilis among men who have sex with men — Southern California, 2000. *MMWR Morb Mortal Wkly Rep*. 2001;50(7):117-20.
- ⁵ Centers for Disease Control and Prevention. Primary and secondary syphilis among men who have sex with men — New York City, 2001. *MMWR Morb Mortal Wkly Rep*. 2002; 51:853-6.
- ⁶ Chen SY, Gibson S, Katz MH, Klausner JD, Dilley JW, Schwarcz SK, et al. Continuing increases in sexual risk behavior and sexually transmitted diseases among men who have sex with men: San Francisco, California, 1999–2001 [Letter]. *Am J Public Health*. 2002;92:1387-8.
- ⁷ D'Souza G, Lee JH, Paffel JM. Outbreak of syphilis among men who have sex with men in Houston, Texas. *Sex Transm Dis*. 2003;30:872-3.
- ⁸ Centers for Disease Control and Prevention. Primary and secondary syphilis — United States, 2003–2004. *MMWR Morb Mortal Wkly Rep*. 2006;55:269-73.
- ⁹ Heffelfinger JD, Swint EB, Berman SM, Weinstock HS. Trends in primary and secondary syphilis among men who have sex with men in the United States. *Am J Public Health*. 2007;97:1076-83.
- ¹⁰ Centers for Disease Control and Prevention. Congenital syphilis — United States, 2003–2008. *MMWR Morb Mortal Wkly Rep*. 2010;59:413-7.
- ¹¹ Centers for Disease Control and Prevention. Primary and secondary syphilis — Jefferson County, Alabama, 2002–2007. *MMWR Morb Mortal Wkly Rep*. 2009;58:463-7.

Figure 33. Syphilis—Reported Cases by Stage of Infection, United States, 1941–2009

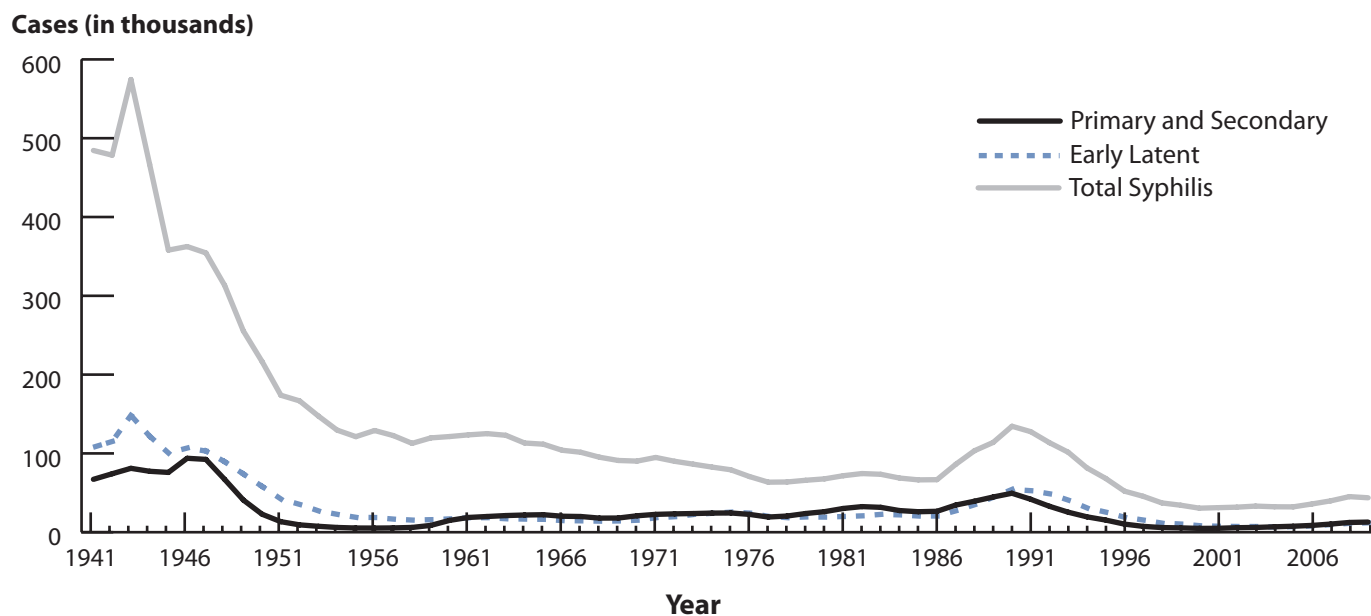


Figure 34. Primary and Secondary Syphilis—Rates by Sex and Male-to-Female Rate Ratios, United States, 1990–2009

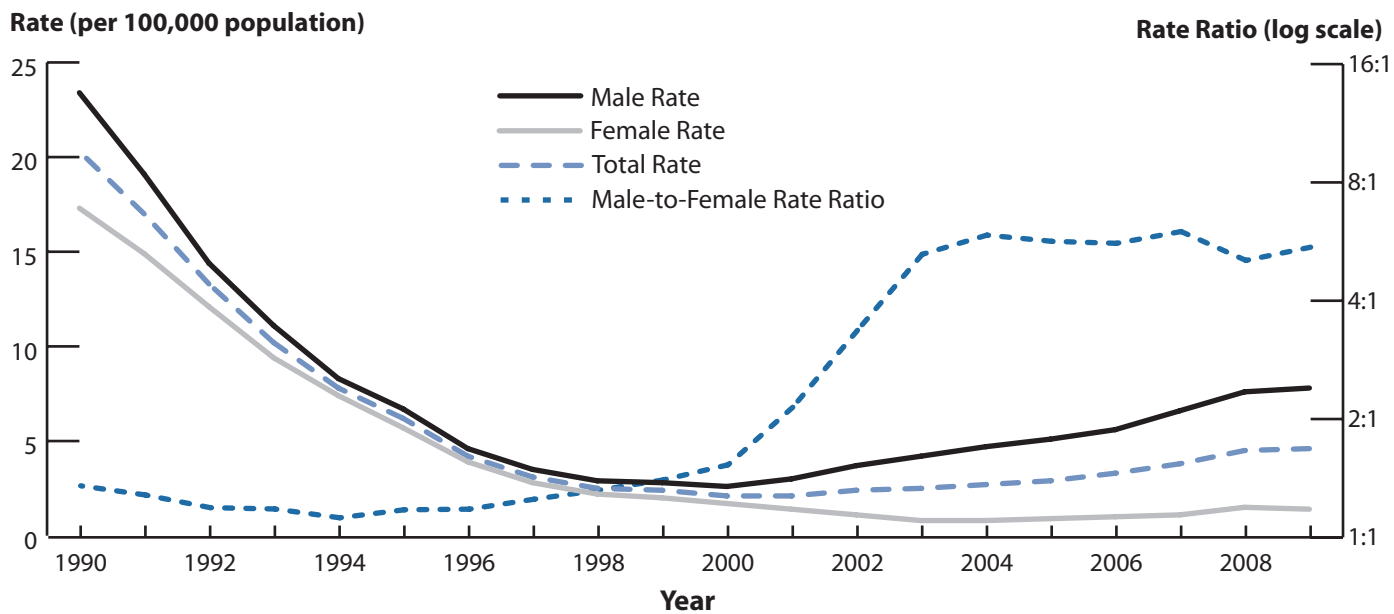


Figure 35. Primary and Secondary Syphilis—Rates by Region, United States, 2000–2009

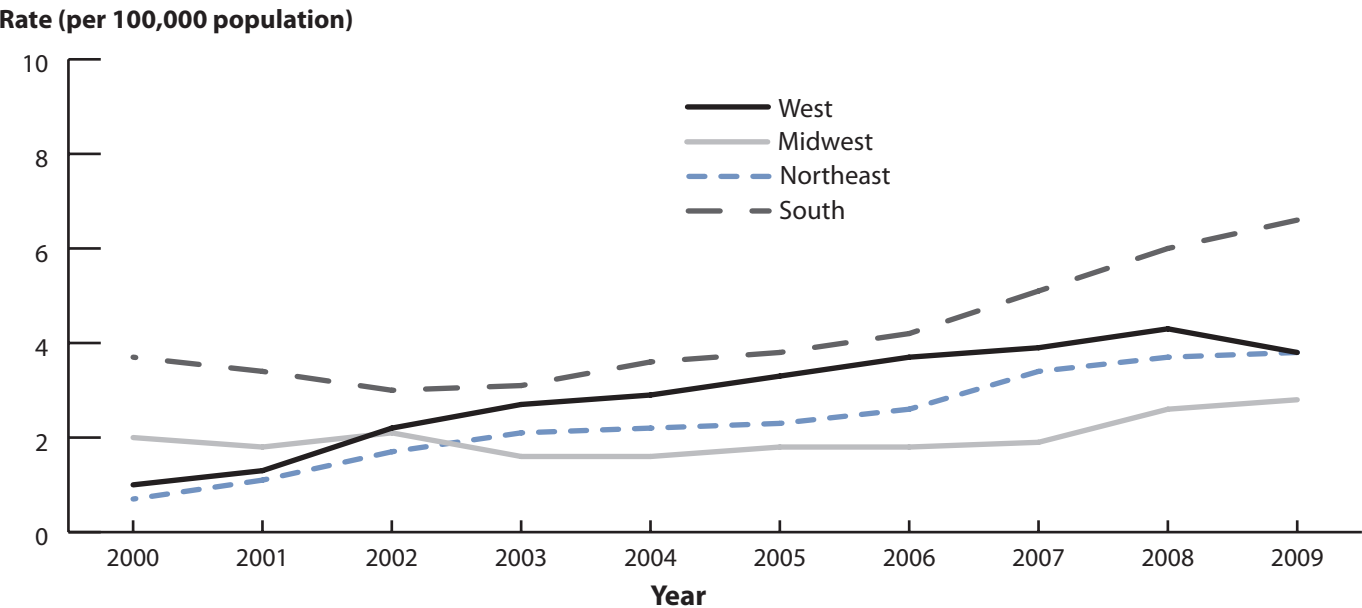
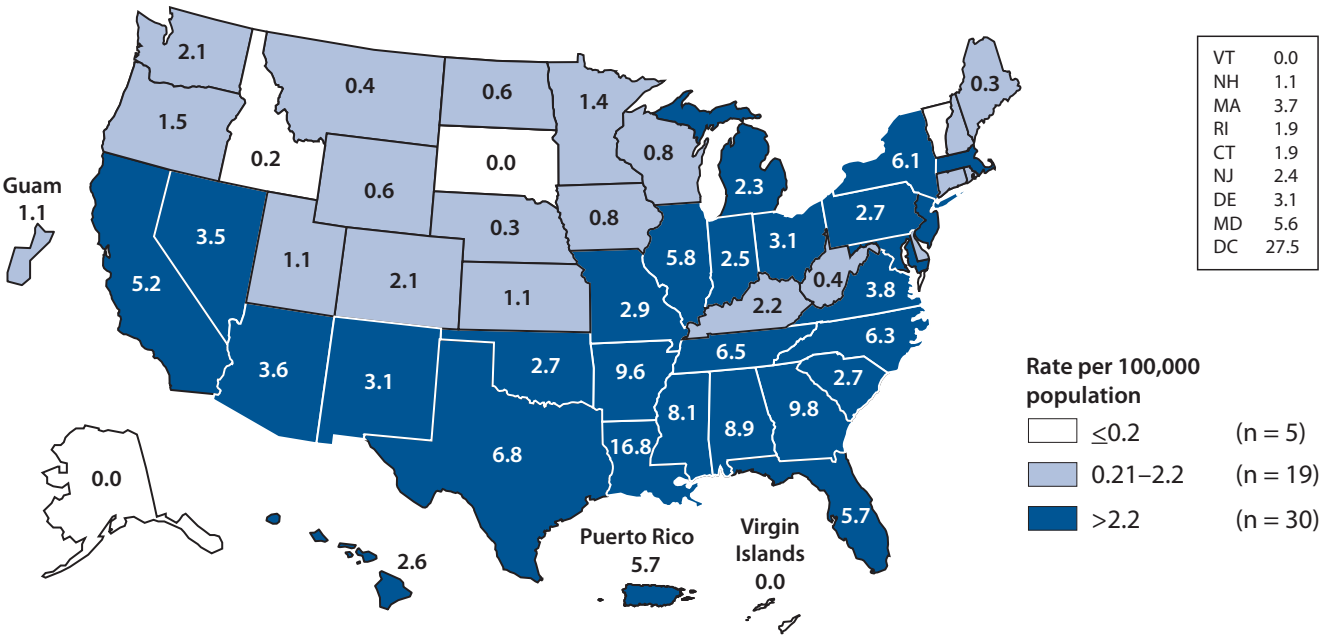
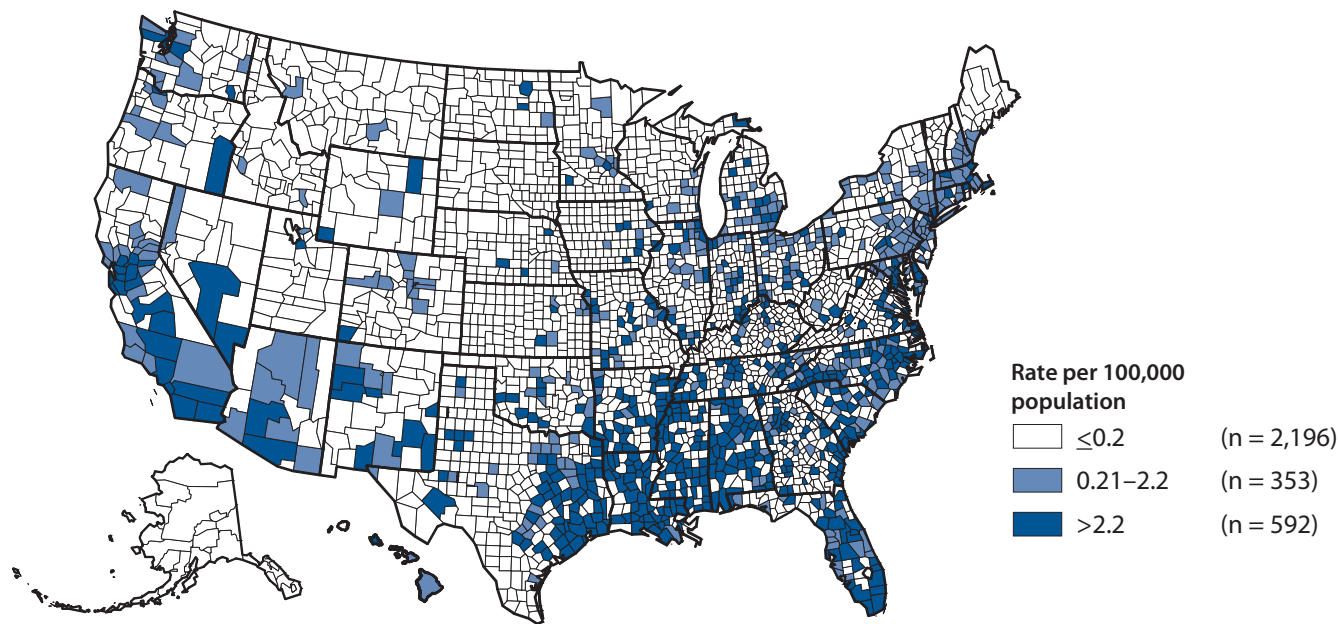


Figure 36. Primary and Secondary Syphilis—Rates by State, United States and Outlying Areas, 2009



NOTE: The total rate of primary and secondary syphilis for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 4.6 per 100,000 population.

Figure 37. Primary and Secondary Syphilis—Rates by County, United States, 2009



NOTE: In 2009, a total of 2,194 (69.9%) of 3,141 counties in the United States reported no cases of primary and secondary syphilis.

Figure 38. Primary and Secondary Syphilis—Rates by Age and Sex, United States, 2009

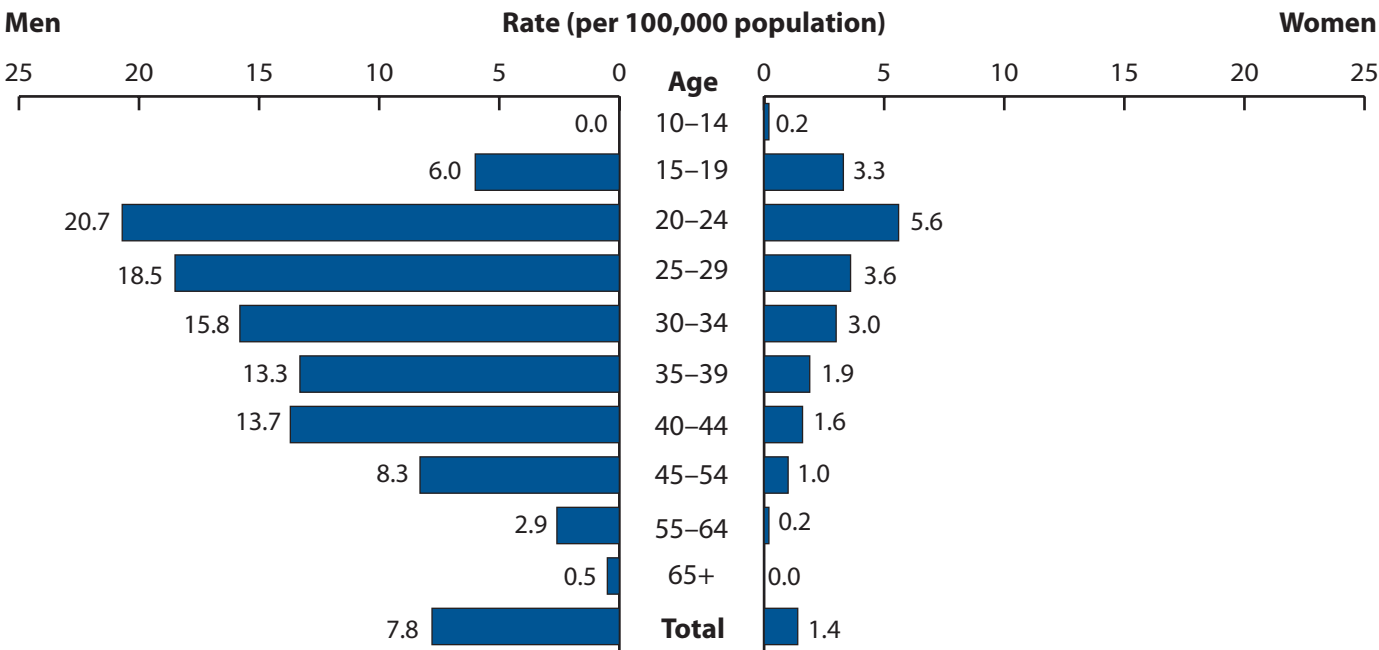


Figure 39. Primary and Secondary Syphilis—Rates by Age Among Women Aged 15–44 Years, United States, 2000–2009

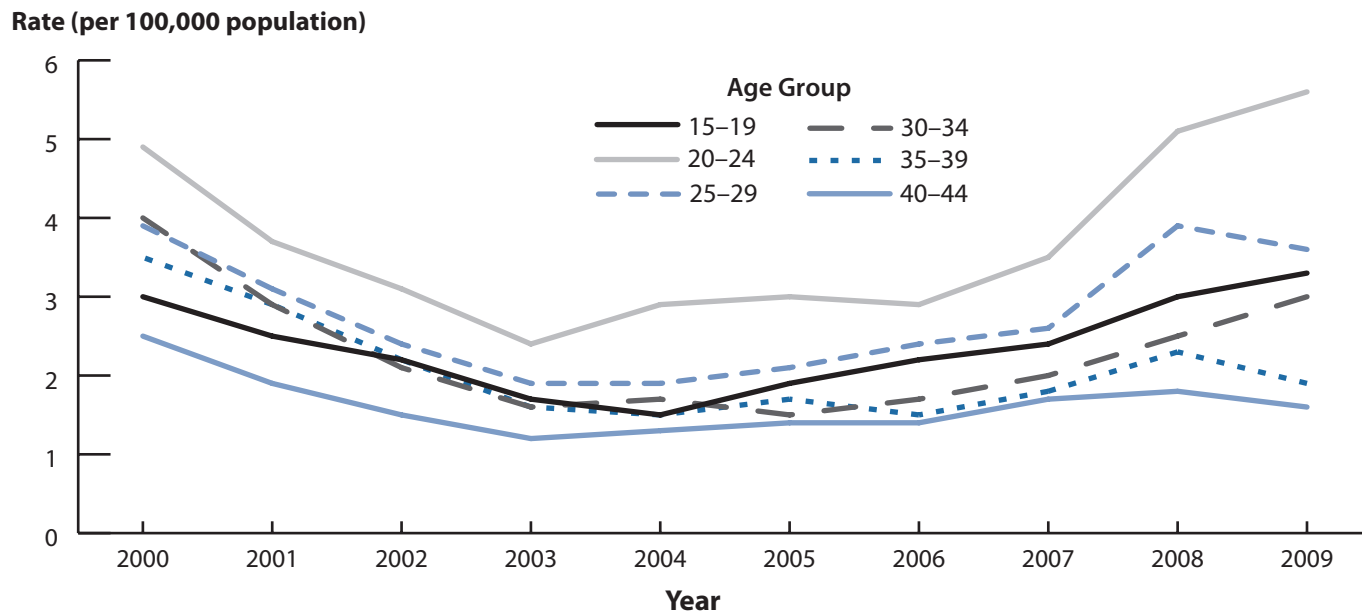


Figure 40. Primary and Secondary Syphilis—Rates by Age Among Men Aged 15–44 Years, United States, 2000–2009

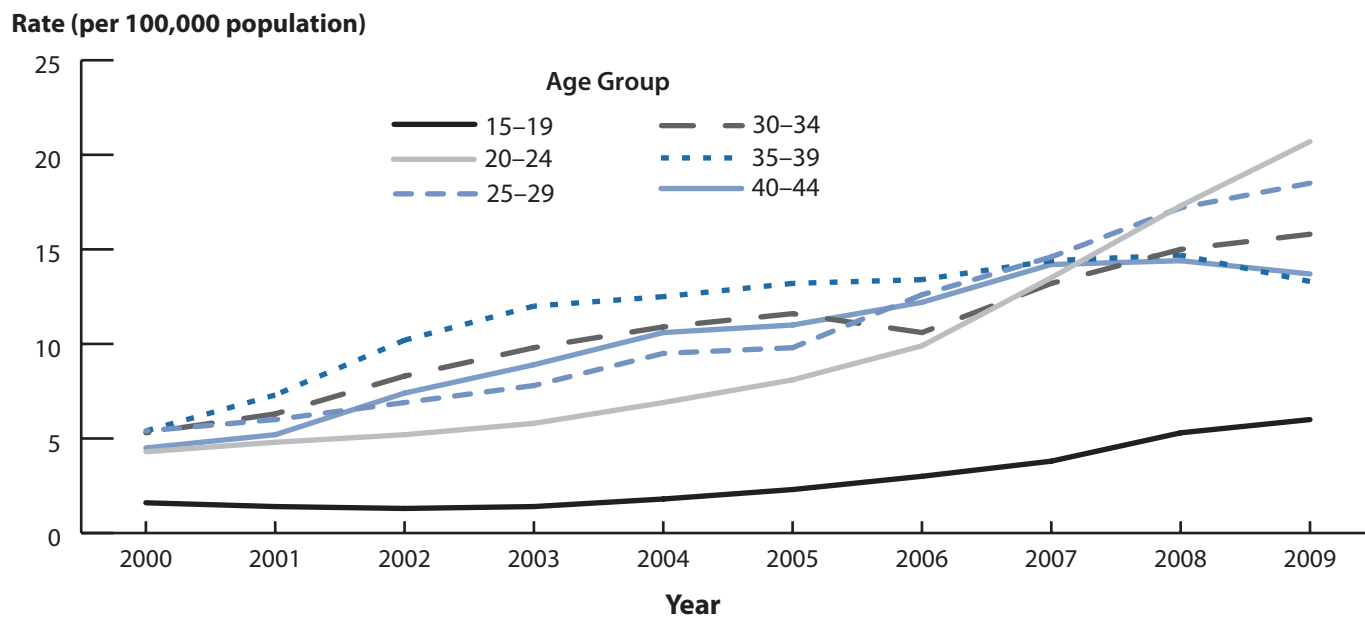


Figure 41. Primary and Secondary Syphilis—Rates by Race/Ethnicity, United States, 2000–2009

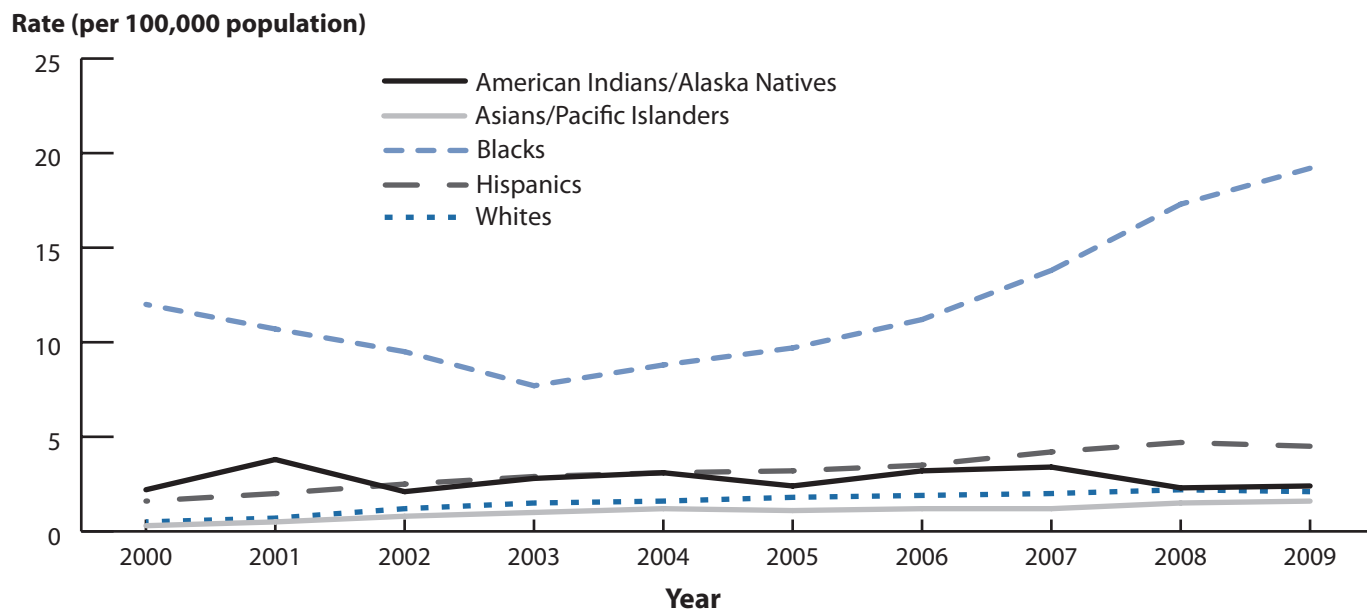
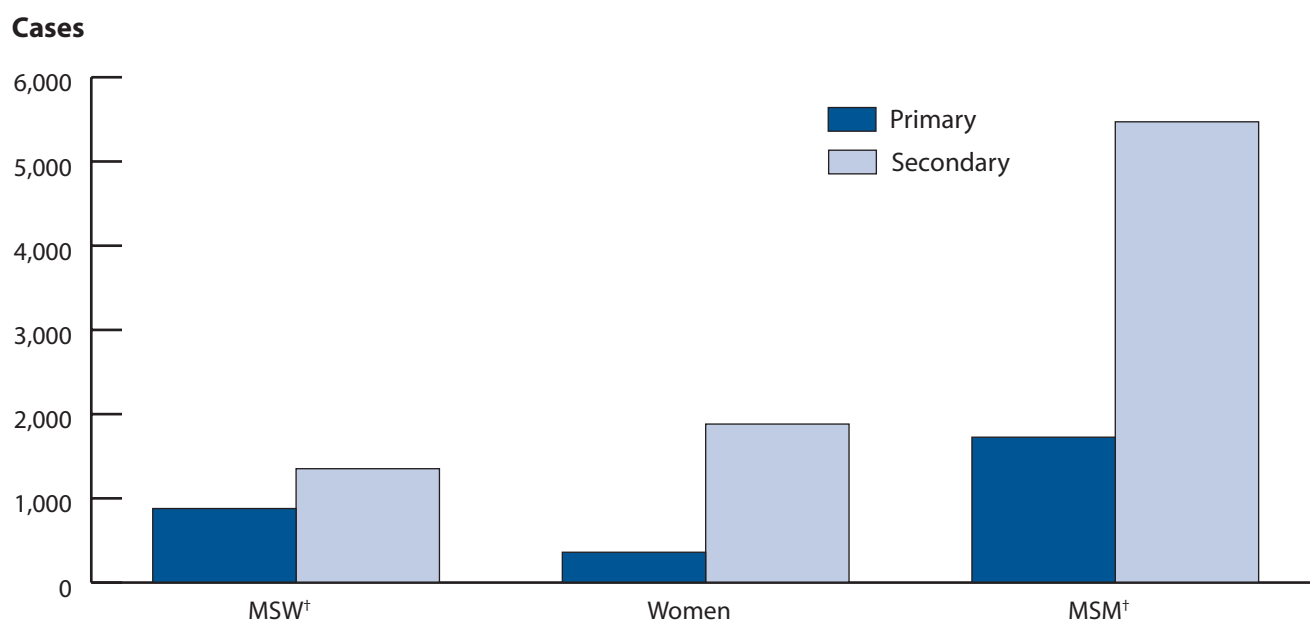


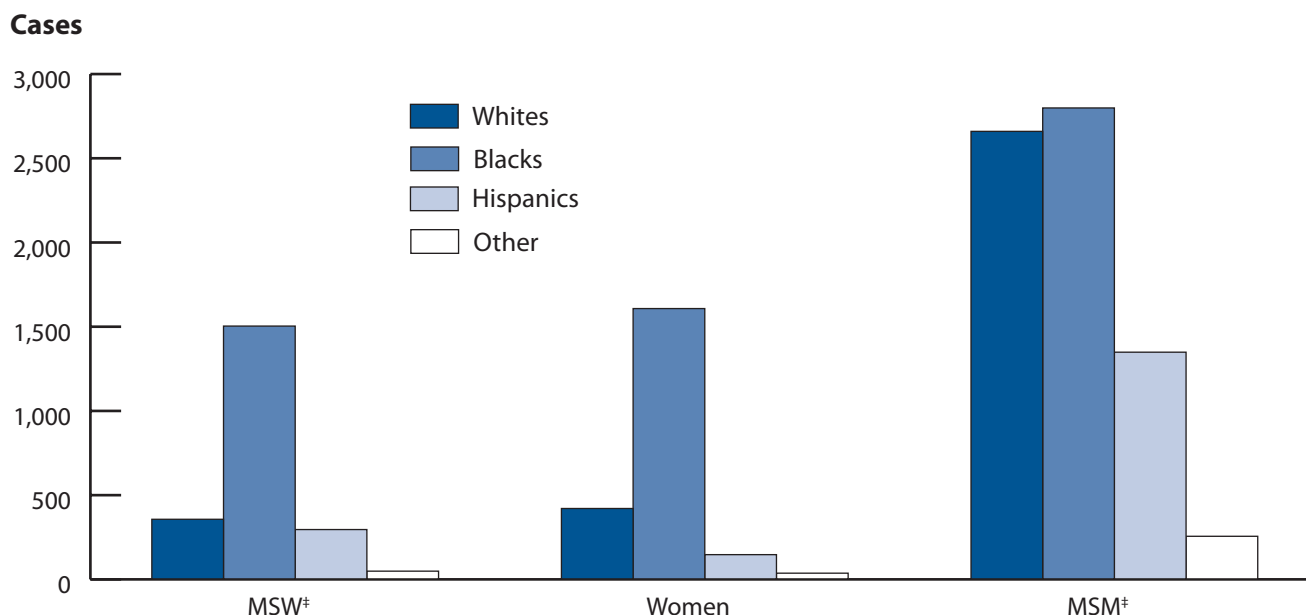
Figure 42. Primary and Secondary Syphilis—Reported Cases* by Stage, Sex, and Sexual Behavior, United States, 2009



* Of the reported male cases of primary and secondary syphilis, 20% were missing sex of sex partner information.

[†] MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 43. Primary and Secondary Syphilis—Reported Cases* by Sex, Sexual Behavior, and Race/Ethnicity,† United States, 2009

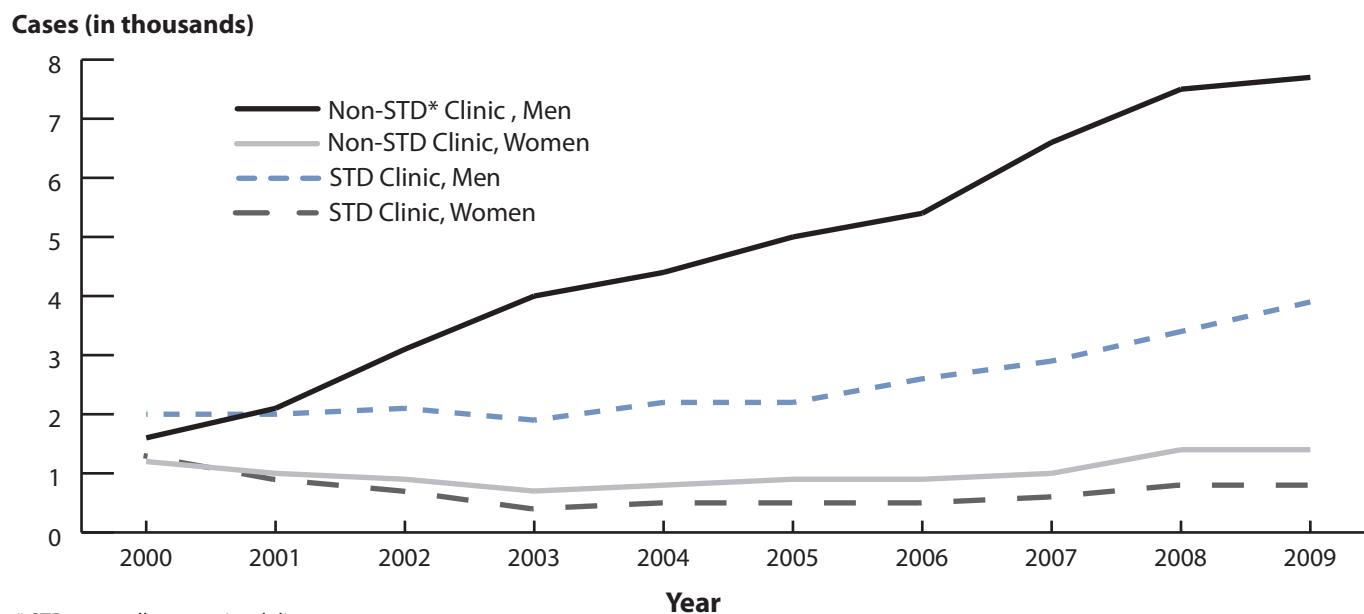


* Of the reported male cases of primary and secondary syphilis, 20% were missing sex of sex partner information; 1.7% of reported male cases with sex of sex partner data were missing race/ethnicity data.

† No imputation was done for race/ethnicity.

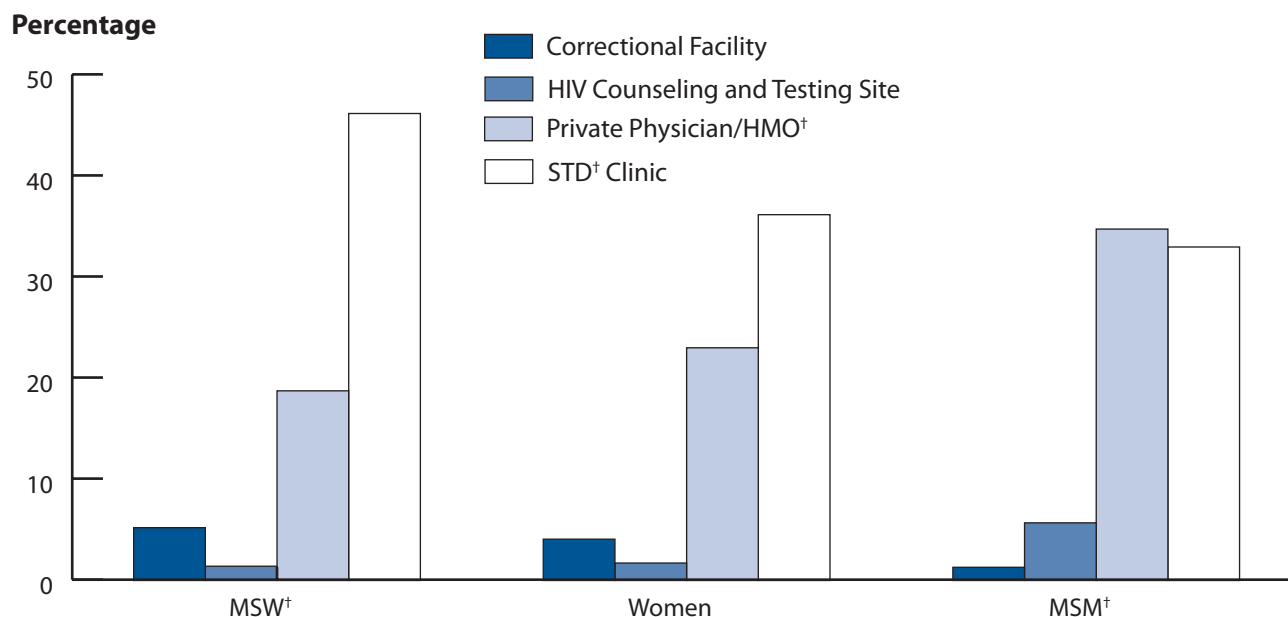
‡ MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 44. Primary and Secondary Syphilis—Reported Cases by Reporting Source and Sex, United States, 2000–2009



* STD = sexually transmitted disease.

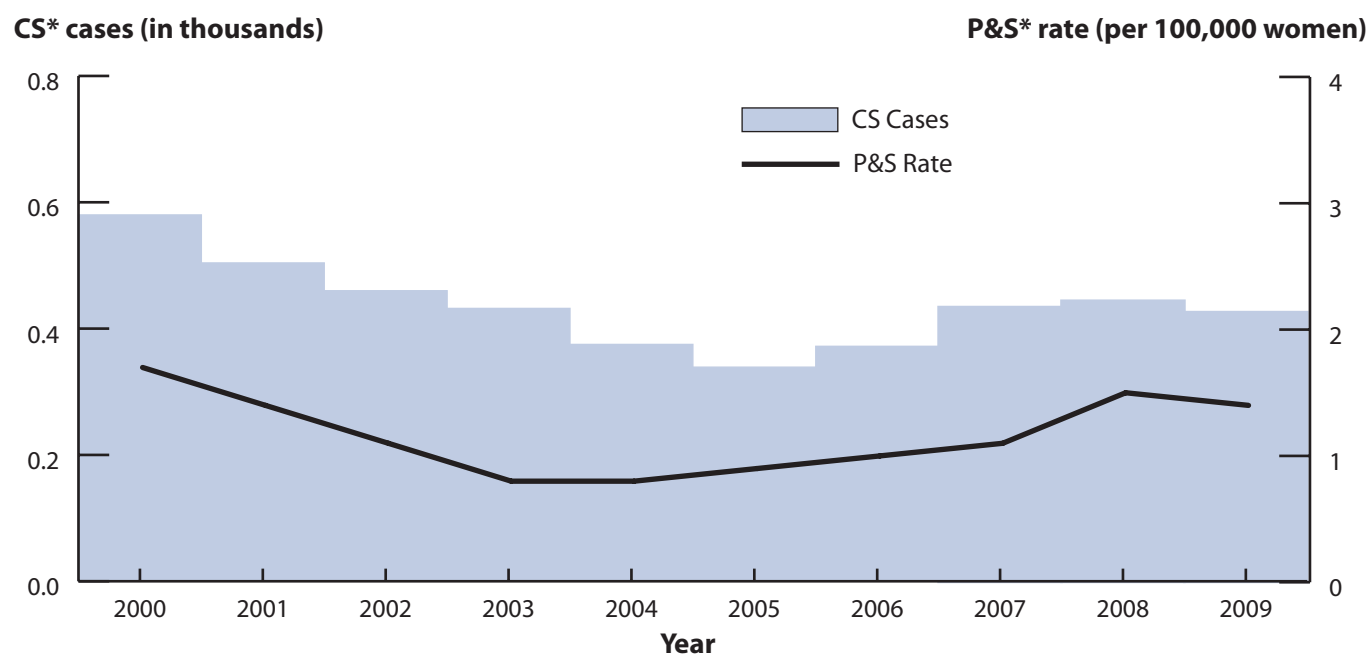
Figure 45. Primary and Secondary Syphilis—Percentage of Reported Cases* by Sex, Sexual Behavior, and Selected Reporting Sources, 2009



* Of the reported male cases of primary and secondary syphilis, 20% were missing sex of sex partner information, and 1.7% of reported male cases with sex of sex partner data were missing source of information data.

[†] HMO = health maintenance organization; STD = sexually transmitted disease; MSW = men who have sex with women only; MSM = men who have sex with men.

Figure 46. Congenital Syphilis—Reported Cases Among Infants by Year of Birth and Rates of Primary and Secondary Syphilis Among Women, United States, 2000–2009



* CS = congenital syphilis; P&S = primary and secondary syphilis.

Other Sexually Transmitted Diseases

Chancroid

Since 1987, reported cases of chancroid had declined steadily until 2001. Since then, the number of cases reported has fluctuated (Figure 47, Table 1). In 2009, a total of 28 cases of chancroid were reported in the United States. Only nine states reported one or more cases of chancroid in 2009 (Table 42).

Although the overall decline in reported chancroid cases most likely reflects a decline in the incidence of this disease, these data should be interpreted with caution because *Haemophilus ducreyi*, the causative organism of chancroid, is difficult to culture, and as a result, this condition may be substantially underdiagnosed.^{1,2}

Human Papillomavirus

Persistent infection with high-risk human papillomavirus (HPV) can lead to development of anogenital cancers (e.g., cervical cancer). In June 2006, a quadrivalent HPV vaccine was licensed for use in the United States. The vaccine provides protection against HPV types 6, 11, 16, and 18. Types 6 and 11 are associated with genital warts, while types 16 and 18 are high-risk oncogenic types associated with anogenital cancers. In October 2009, a bivalent HPV vaccine that provides protection against types 16 and 18 also was licensed.

Sentinel surveillance for cervical infection with high-risk HPV types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, or 68 was conducted in 26 STD, family planning, and primary care clinics in 6 locations (Boston, Baltimore, New Orleans, Denver, Seattle, and Los Angeles) as part of an effort to estimate national burden of disease and guide prevention efforts, such as vaccine programs, in the United States. Testing was performed by using a commercially available test for high-risk HPV DNA (Hybrid Capture 2, Digene, Gaithersburg, Maryland).

Results during 2003–2005 document an overall high-risk HPV prevalence of 23%. Prevalence was 27% in STD clinics, 26% in family planning clinics, and 15% in primary care clinics. Prevalence by age group was 35% in those aged 14–19 years, 29% in those aged 20–29 years, 13% in those aged 30–39 years, 11% in those aged 40–49 years, and 6.3% in those aged 50–65 years.³

National population-based data also were obtained from NHANES to examine the prevalence of both high-risk HPV and low-risk HPV—including types 6 and 11, which are responsible for about 90% of anogenital warts—in the civilian, noninstitutionalized female population during 2003–2004 (Figure 48). The overall HPV prevalence of high- and low-risk types was 26.8% (95% confidence interval [CI]: 23.3–30.9) among U.S. females aged 14–59 years. HPV vaccine-preventable types 6 or 11 (low-risk types) or 16 or 18 (high-risk types) were detected in 3.4% of female participants: HPV-6 in 1.3% (95% CI: 0.8–2.3), HPV-11 in 0.1% (95% CI: 0.03–0.3), HPV-16 in 1.5% (95% CI: 0.9–2.6), and HPV-18 in 0.8% (95% CI: 0.4–1.5).⁴

Data from the National Disease and Therapeutic Index (NDTI) suggest that incidence of genital warts (Figure 49), as measured by initial visits to physicians' offices, may be increasing. NHANES data for 1999–2004 indicated that 5.6% (95% CI: 4.9–6.4) of sexually active adults aged 18–59 years self-reported a history of a genital wart diagnosis.⁵

For data reported in Figure 50, enhanced behavioral and demographic information on patients who presented for care in 2009 at the 42 clinics participating in the STD Surveillance Network (SSuN) was used. Genital warts were identified by provider diagnosis or by documentation from the physical examination. Men who have sex with men (MSM) and men who have sex with women only (MSW) were defined by self-report or by sex of reported sex partners. More detailed information about SSuN methodology can be found in the STD Surveillance Network section of the Appendix, Interpreting STD Surveillance Data.

The prevalence of genital warts in 2009 is presented separately for MSM, MSW, and women by SSuN site. With few exceptions, prevalence was lowest in women for most sites and ranged from 1.0% to 4.0%. Prevalence was higher or similar among MSM compared with MSW in Seattle, Denver, New Orleans, Baltimore, and Philadelphia. Prevalence at these sites ranged from 3.6% to 8.0% for MSM and from 2.3% to 8.6% for MSW. Prevalence was higher in MSW compared with MSM in the remaining areas (San Francisco, Los Angeles, Chicago, and Richmond), ranging from 4.6% to 7.0% for MSW and 1.5% to 5.9% for MSM.

Pelvic Inflammatory Disease

For data on PID, see Special Focus Profiles, STDs in Women and Infants.

Herpes Simplex Virus

Case reporting data for genital herpes simplex virus (HSV) are not available. Trend data are based on estimates of initial visits in physicians' offices for these conditions from the NDTI (Figure 51, Table 43).

National trend data on the seroprevalence of HSV-2 among those aged 14–49 years from NHANES 2005–2008 were compared with NHANES survey years 1988–1994 and 1999–2004. Seroprevalence decreased

from 21% (95% CI: 19.1–23.1) in 1988–1994 to 17.0% (95% CI: 15.8–18.3) in 1999–2004 and 16.2% (95% CI: 14.6–17.9) in 2005–2008. These data, along with data from NHANES survey years 1976–1980, indicate that blacks had higher seroprevalence than whites for each survey period and age group (Figure 52). During 2005–2008, the percentage of NHANES survey participants aged 20–49 years who reported a diagnosis of genital herpes was 18.9%.

Although HSV-2 seroprevalence is decreasing, most persons with HSV-2 have not received a diagnosis. An increase in the number of visits for genital herpes, as suggested by NDTI data, may indicate increased recognition of infection.

Trichomoniasis

Case reporting data are not available for trichomoniasis, and trend data for this infection are limited to estimates of initial physician office visits from NDTI (Figure 53, Table 43). NHANES data from 2001–2004 indicated an overall prevalence of 3.1% (95% CI: 2.3–4.3), with the highest prevalence observed among blacks (13.3%) (95% CI: 10.0–17.7).⁶

¹ Schulte JM, Martich FA, Schmid GP. Chancroid in the United States, 1981–1990: evidence for underreporting of cases. *MMWR Morb Mortal Wkly Rep.* 1992;41(No. SS-3):57-61.

² Mertz KJ, Trees D, Levine WC, Lewis JS, Litchfield B, Pettus KS, et al. Etiology of genital ulcers and prevalence of human immunodeficiency virus coinfection in 10 US cities. *J Infect Dis.* 1998;178:1795-8.

³ Datta SD, Koutsky L, Ratelle S, Unger ER, Shlay J, McClain T, et al. Human papillomavirus infection and cervical cytology in women screened for cervical cancer in the United States, 2003–2005. *Ann Intern Med.* 2008;148(7):493-500.

⁴ Dunne EF, Unger ER, Sternberg M, McQuillan G, Swan DC, Patel SS, et al. Prevalence of HPV infection among females in the United States. *JAMA.* 2007;297(8):813-9.

⁵ Dinh TH, Sternberg M, Dunne EF, Markowitz LE. Genital warts among 18- to 59-year-olds in the United States, National Health and Nutrition Examination Survey, 1999–2004. *Sex Transm Dis.* 2008;35(4):357-60.

⁶ Sutton M, Sternberg M, Koumans EH, McQuillan G, Berman S, Markowitz LE. The prevalence of *Trichomonas vaginalis* infection among reproductive-age women in the United States, 2001–2004. *Clin Infect Dis.* 2007;45(10):1319-26.

Figure 47. Chancroid—Reported Cases, United States, 1981–2009

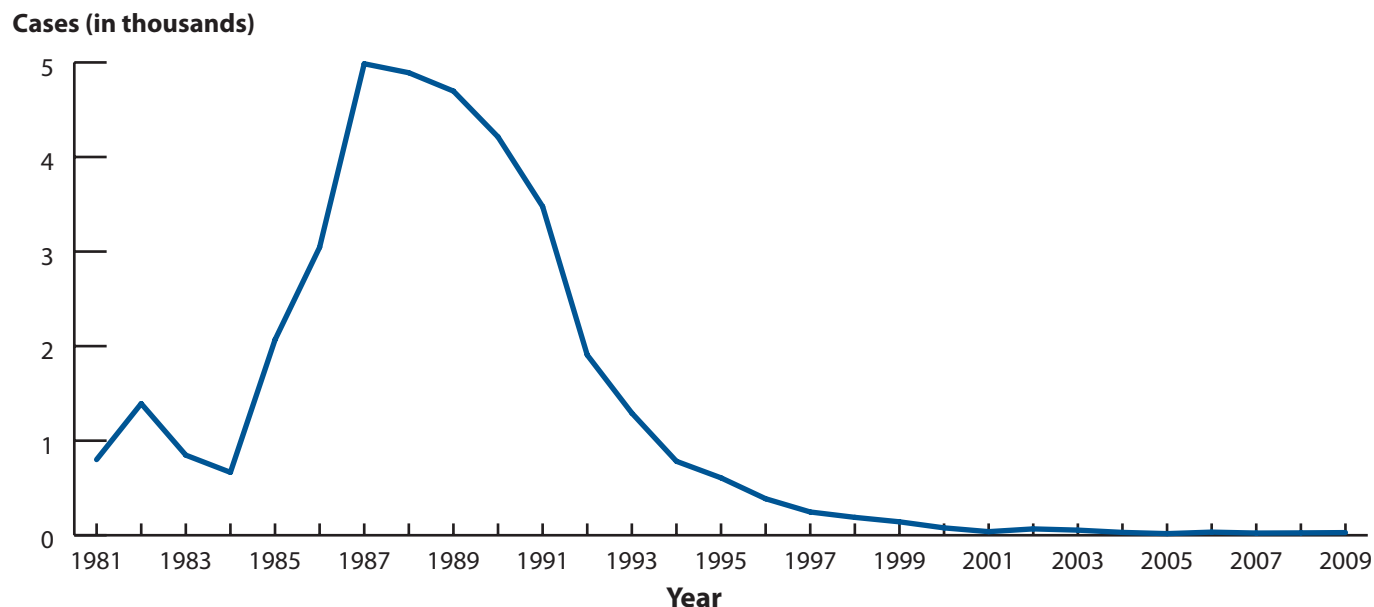
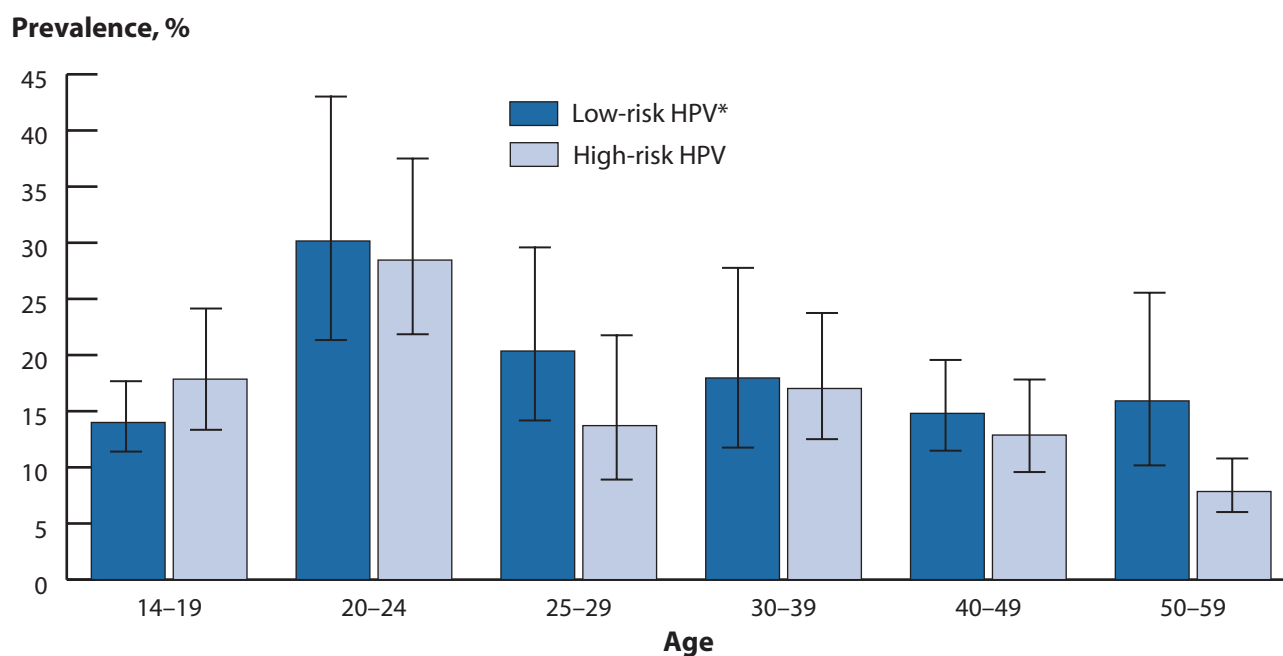


Figure 48. Human Papillomavirus—Prevalence of High-risk and Low-risk Types Among Females Aged 14–59 Years, National Health and Nutrition Examination Survey, 2003–2004

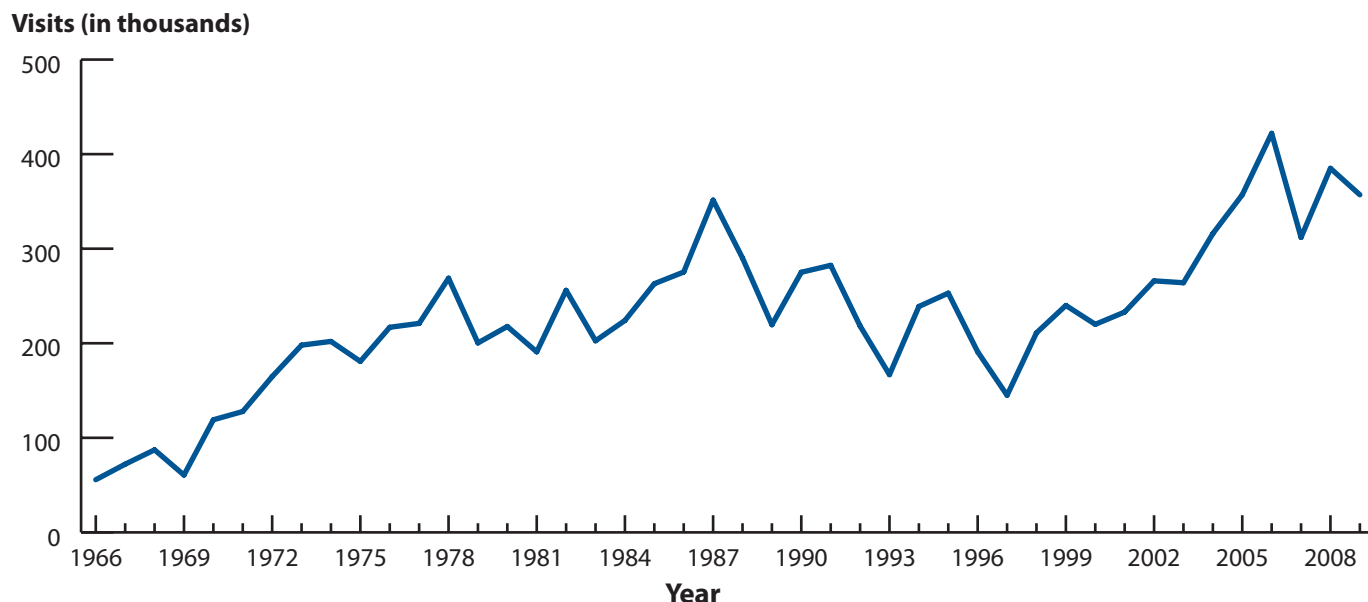


* HPV = human papillomavirus.

NOTE: Error bars indicate 95% confidence intervals. Both high-risk and low-risk HPV types were detected in some females.

SOURCE: Dunne EF, Unger ER, Sternberg M, McQuillan G, Swan DC, Patel SS, et al. Prevalence of HPV infection among females in the United States. JAMA. 2007;297(8):813-9. Copyright ©2007 American Medical Association. All rights reserved.

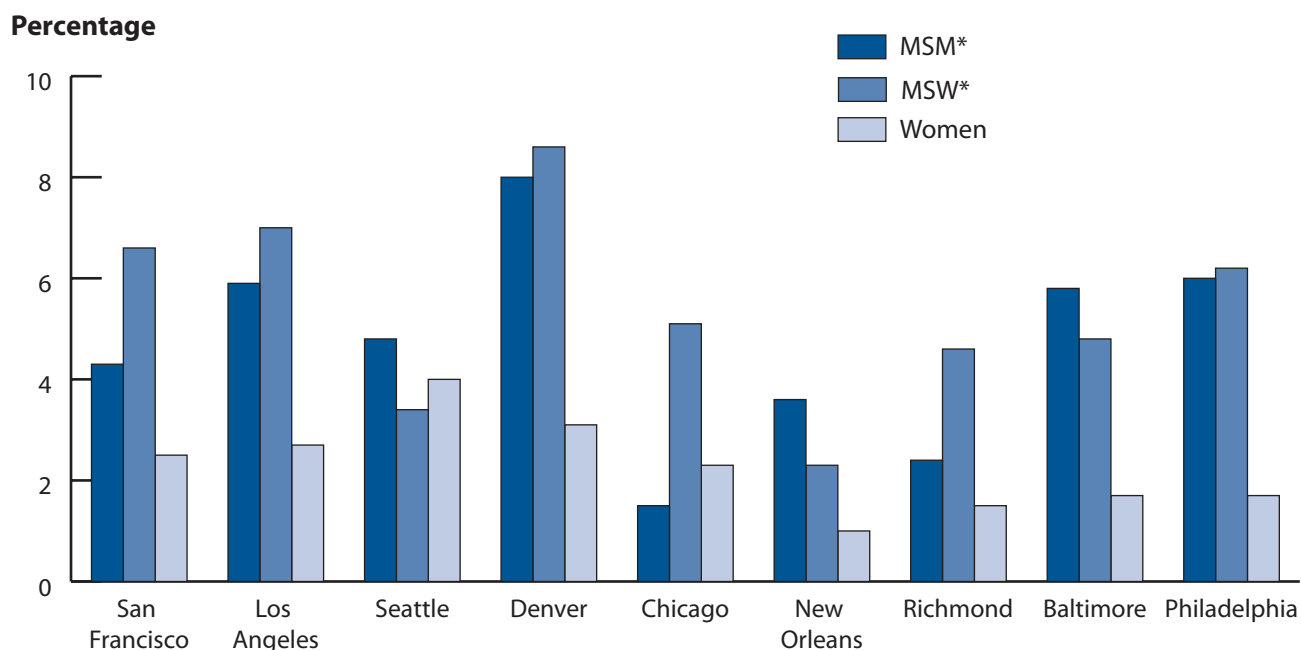
Figure 49. Genital Warts—Initial Visits to Physicians’ Offices, United States, 1966–2009



NOTE: The relative standard errors for genital warts estimates of more than 100,000 range from 18% to 30%. See Other Surveillance Data Sources in the Appendix and Table 43.

SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2009.

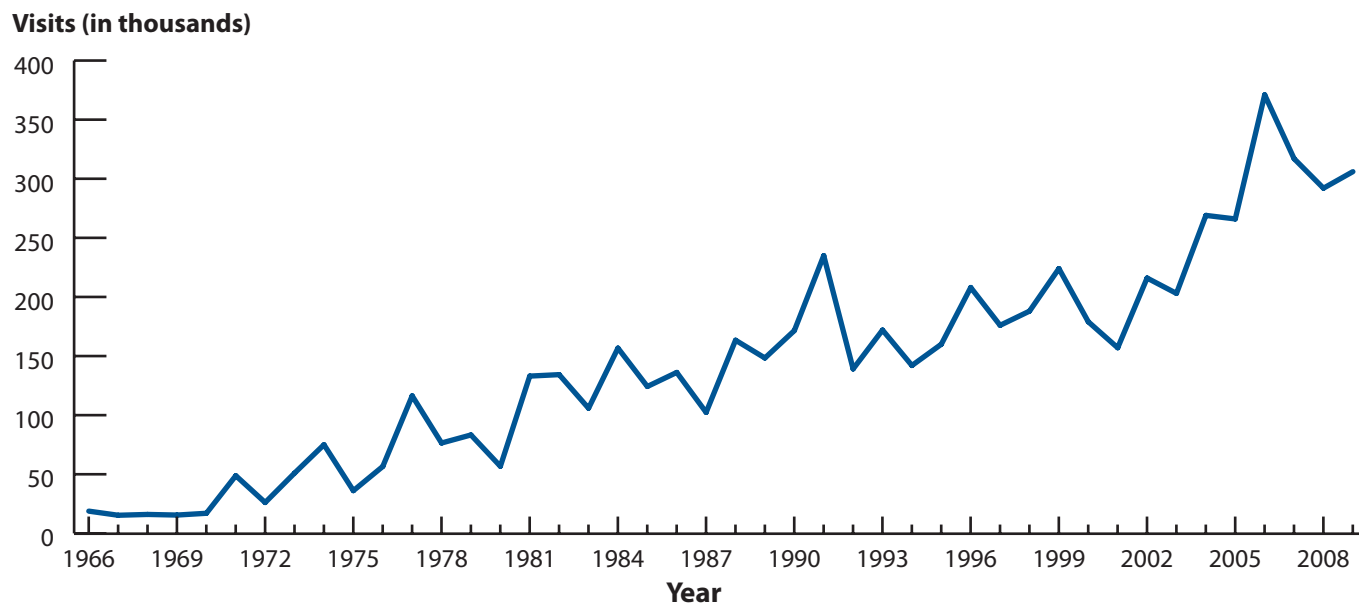
Figure 50. Genital Warts—Prevalence Among Sexually Transmitted Disease (STD) Clinic Patients by Sex, Sex of Partners, and Site, STD Surveillance Network, 2009



* MSM = men who have sex with men; MSW = men who have sex with women only.

NOTE: Data not available for Birmingham, New York City, and Hartford/New Haven STD clinics.

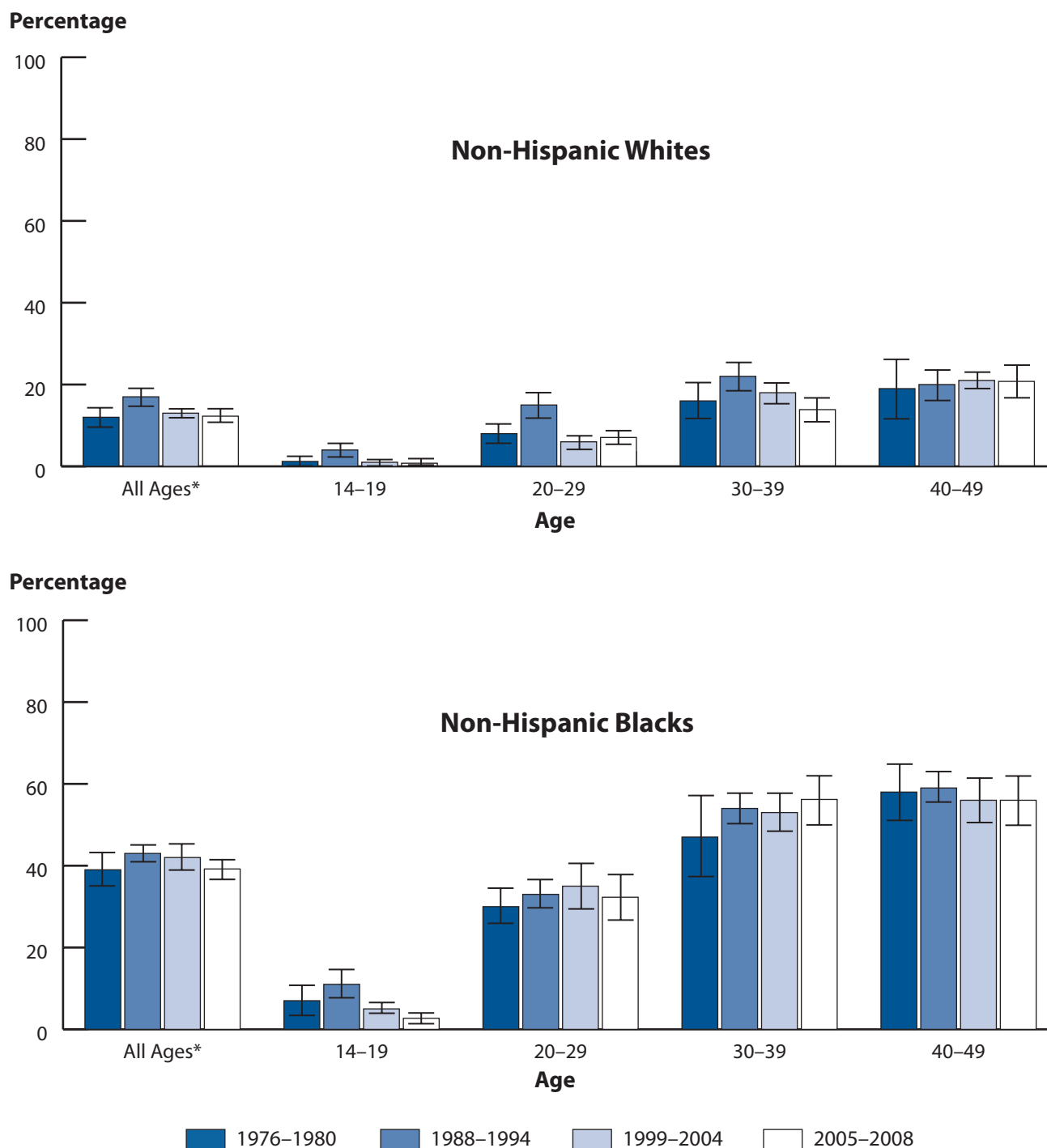
Figure 51. Genital Herpes—Initial Visits to Physicians’ Offices, United States, 1966–2009



NOTE: The relative standard errors for genital herpes estimates of more than 100,000 range from 18% to 30%. See Other Surveillance Data Sources in the Appendix and Table 43.

SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2009.

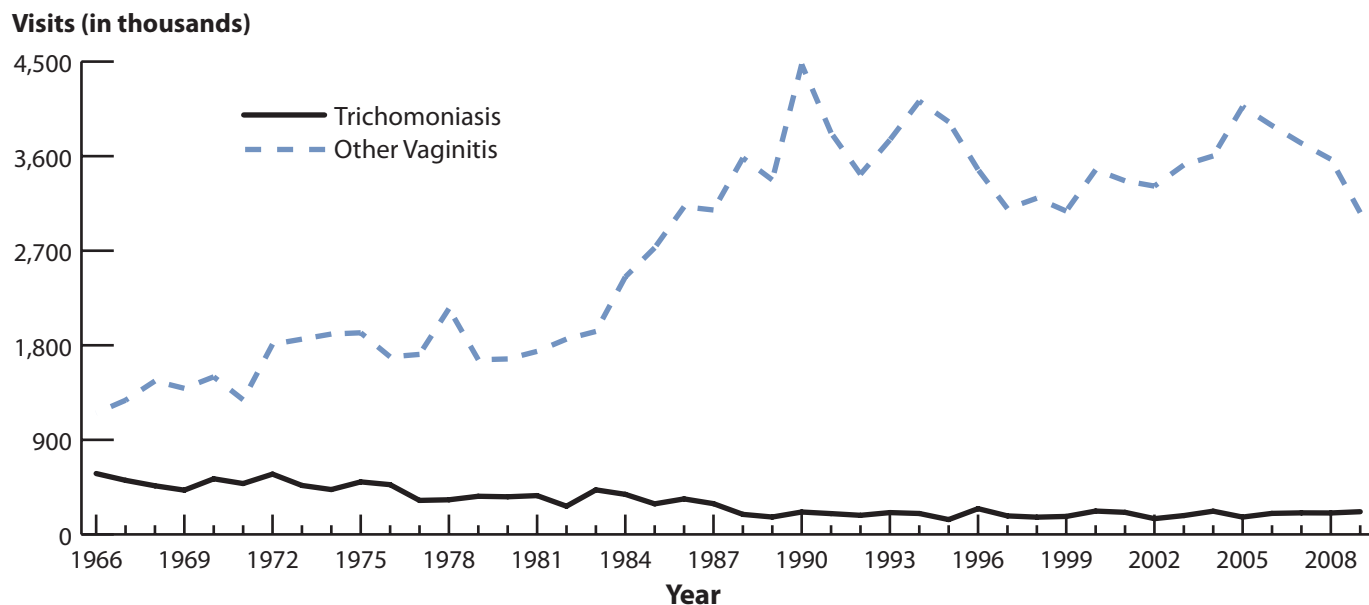
Figure 52. Herpes Simplex Virus Type 2—Seroprevalence in Non-Hispanic Whites and Non-Hispanic Blacks by Age Group, National Health and Nutrition Examination Survey, 1976–1980, 1988–1994, 1999–2004, 2005–2008



* Age-adjusted by using the 2000 U.S. Census civilian, noninstitutionalized population aged 14–49 years as the standard.

NOTE: Error bars indicate 95% confidence intervals.

Figure 53. Trichomoniasis and Other Vaginal Infections—Women—Initial Visits to Physicians' Offices, United States, 1966–2009



NOTE: The relative standard errors for trichomoniasis estimates range from 16% to 27% and for other vaginitis estimates range from 8% to 13%. See Other Data Sources in the Appendix and Table 43.

SOURCE: IMS Health, Integrated Promotional Services™, IMS Health Report, 1966–2009.

SPECIAL FOCUS PROFILES

SPECIAL FOCUS PROFILES

Special Focus Profiles

The Special Focus Profiles highlight trends and distribution of STDs in populations of particular interest for STD and HIV prevention programs in state and local health departments. These populations are most vulnerable to STDs and their consequences. They include women and infants, adolescents and young adults, racial and ethnic minorities, MSM, and persons entering corrections facilities. The figures cited in this section are located in disease-specific sections of the National Profile, as well as throughout this section.

STDs in Women and Infants

Public Health Impact

Women and infants disproportionately bear the long-term consequences of STDs. Women infected with *C. trachomatis* or *N. gonorrhoeae* can develop PID, which, in turn, can lead to reproductive system morbidity such as ectopic pregnancy and tubal factor infertility. An estimated 10%–20% of women with chlamydia or gonorrhea may develop PID if they do not receive adequate treatment.¹ Among women with PID, tubal scarring can cause involuntary infertility in 20% of women, ectopic pregnancy in 9%, and chronic pelvic pain in 18%.²

About 80%–90% of chlamydial infections and 50% of gonococcal infections in women are asymptomatic.^{3–5} These infections are detected primarily through screening. The vague symptoms associated with PID cause 85% of women to delay seeking medical care, thereby increasing the risk for infertility and ectopic pregnancy.⁶ Data from a randomized controlled trial of chlamydia screening in a managed care setting suggest that such screening programs can reduce the incidence of PID by as much as 60%.⁷

HPV infections are highly prevalent in the United States, especially among young sexually active women. Although most HPV infections in women resolve within 1 year, they are a major concern because persistent infection with specific types of the virus are causally related to cervical cancer; these types also cause Papanicolaou (Pap) smear abnormalities. Other types cause genital warts, low-grade Pap smear abnormalities, and, rarely, recurrent respiratory papillomatosis in infants born to infected mothers.⁸

Direct Impact on Pregnancy

Chlamydia and gonorrhea can result in adverse outcomes of pregnancy, including neonatal ophthalmia and in the case of chlamydia, neonatal pneumonia. Although topical prophylaxis of infants at delivery is effective for prevention of gonococcal ophthalmia neonatorum, prevention of neonatal pneumonia requires prenatal detection and treatment.

Genital infections with HSV are extremely common, can cause painful outbreaks, and can have serious consequences for pregnant women.⁹

When a woman has a syphilis infection during pregnancy, she can transmit the infection to the fetus in utero. This transmittal can result in fetal death or an infant born with physical and mental developmental disabilities. Most cases of congenital syphilis are easily preventable if women are screened for syphilis and treated early during prenatal care.¹⁰

Observations

Chlamydia—United States

During 2008–2009, the rate of chlamydial infections in women increased from 579.4 to 592.2 cases per 100,000 females (Figure 1, Table 4). Chlamydia rates exceeded gonorrhea rates among women in all states (Figures A and C, Tables 4 and 14).

Prevalence Monitoring Project

Prenatal Clinics—In 2009, the median state-specific chlamydia test positivity among women aged 15–24 years who were screened in selected prenatal clinics in 18 states, Puerto Rico, and the Virgin Islands was 7.7% (range: 3.6% to 20.4%) (Figure B).

Family Planning Clinics—In 2009, the median state-specific chlamydia test positivity among women aged 15–24 years who were screened during visits to selected family planning clinics in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 7.5% (range: 3.5% to 15.5%) (Figure 11).

Gonorrhea—United States

Like chlamydia, gonorrhea is often asymptomatic in women. Thus, gonorrhea screening is an important strategy for the identification of gonorrhea among women. Large-scale screening programs for gonorrhea in women began in the 1970s. After an initial increase

in cases detected through screening, gonorrhea rates for both women and men declined steadily throughout the 1980s and early 1990s and then reached a plateau (Figure 15). The gonorrhea rate for women (105.5 cases per 100,000 females) decreased in 2009 for the second time in 2 years (Figure 15, Table 14).

Although the gonorrhea rate in men has historically been higher than the rate in women, the gonorrhea rate among women has been slightly higher than the rate among men for 8 consecutive years (Figure 15, Tables 14 and 15).

Prevalence Monitoring Project

Prenatal Clinics—In 2009, the median state-specific gonorrhea test positivity among women aged 15–24 years who were screened in selected prenatal clinics in 18 states, Puerto Rico, and the Virgin Islands was 1.2% (range: 0.0% to 5.5%) (Figure D).

Family Planning Clinics—In 2009, the median state-specific gonorrhea test positivity among women aged 15–24 years who were screened during visits to selected family planning clinics in 46 states, the District of Columbia, Puerto Rico, and the Virgin Islands was 1.0% (range: 0.0% to 3.4%) (Figure 25).

Congenital Syphilis

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of 1–2 years (Figure 46). The rate of P&S syphilis among women declined 95.4% (from 17.3 to 0.8 cases per 100,000 females) during 1990–2004 (Figure 33). The rate of congenital syphilis declined by 92.4% (from a peak of 107.3 cases to 8.2 cases per 100,000 live births) during 1991–2005 (Table 40). However, the rate in women has increased since 2004, and the rate of congenital syphilis has likewise increased since 2005.

The rate of P&S syphilis among women was 1.4 cases per 100,000 women in 2009 (Table 26), and the rate of congenital syphilis was 10.0 cases per 100,000 live births in 2009 (Table 40). The highest rates of P&S syphilis among women and congenital syphilis were observed in the South (Figures E and F, Table 40).

Although most cases of congenital syphilis occur among infants whose mothers have had some prenatal care, late or limited prenatal care has been associated with congenital syphilis. Failure of health care providers to adhere to maternal syphilis screening recommendations also contributes to the occurrence of congenital syphilis.¹¹

Pelvic Inflammatory Disease

Accurate estimates of PID and tubal factor infertility resulting from chlamydial and gonococcal infections are difficult to obtain, in part because definitive diagnoses of these conditions can be complex. Hospitalizations for PID declined steadily throughout the 1980s and early 1990s,^{12,13} but remained relatively constant from 2000 through 2007, the most recent year for which data are available (Figure G).

The estimated number of initial visits to physicians' offices for PID from NDTI generally declined during 2000–2009 (Figure H, Table 43).

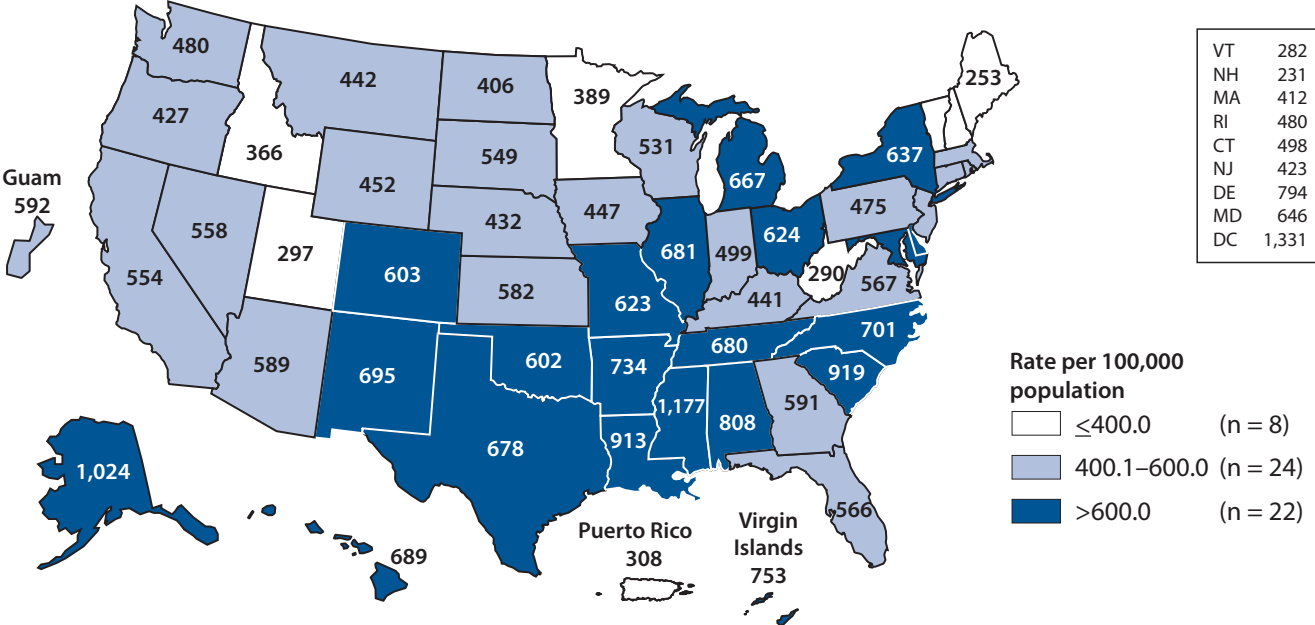
Racial disparities in diagnosed PID have been observed in both ambulatory and hospitalized settings. Disease rates were two to three times higher among black women than among white women. These disparities are consistent with the marked racial disparities observed for chlamydia and gonorrhea. However, because of the subjective methods by which PID is diagnosed, racial disparity data should be interpreted with caution.¹³

Ectopic Pregnancy

Evidence suggests that health care practices associated with clinical management of ectopic pregnancy changed in the late 1980s and early 1990s. Before that time, treatment of ectopic pregnancy usually required admission to a hospital. Hospitalization statistics were therefore useful for monitoring trends in ectopic pregnancy. During 1997–2006, hospitalizations for ectopic pregnancy remained generally stable (Figure I).¹⁴ As of the publication date of this report, 2008 data were not available. The data that are available suggest that nearly half of all ectopic pregnancies are treated on an outpatient basis.¹⁵

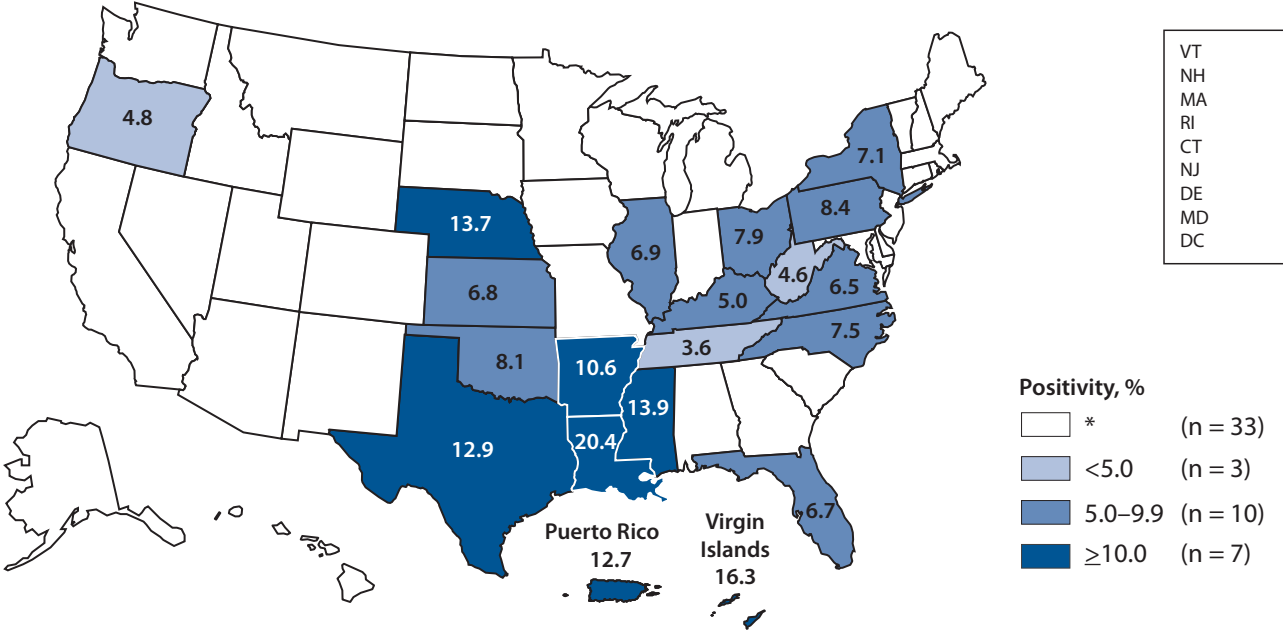
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Figure A. Chlamydia—Women—Rates by State, United States and Outlying Areas, 2009



NOTE: The total chlamydial infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 588.5 per 100,000 female population.

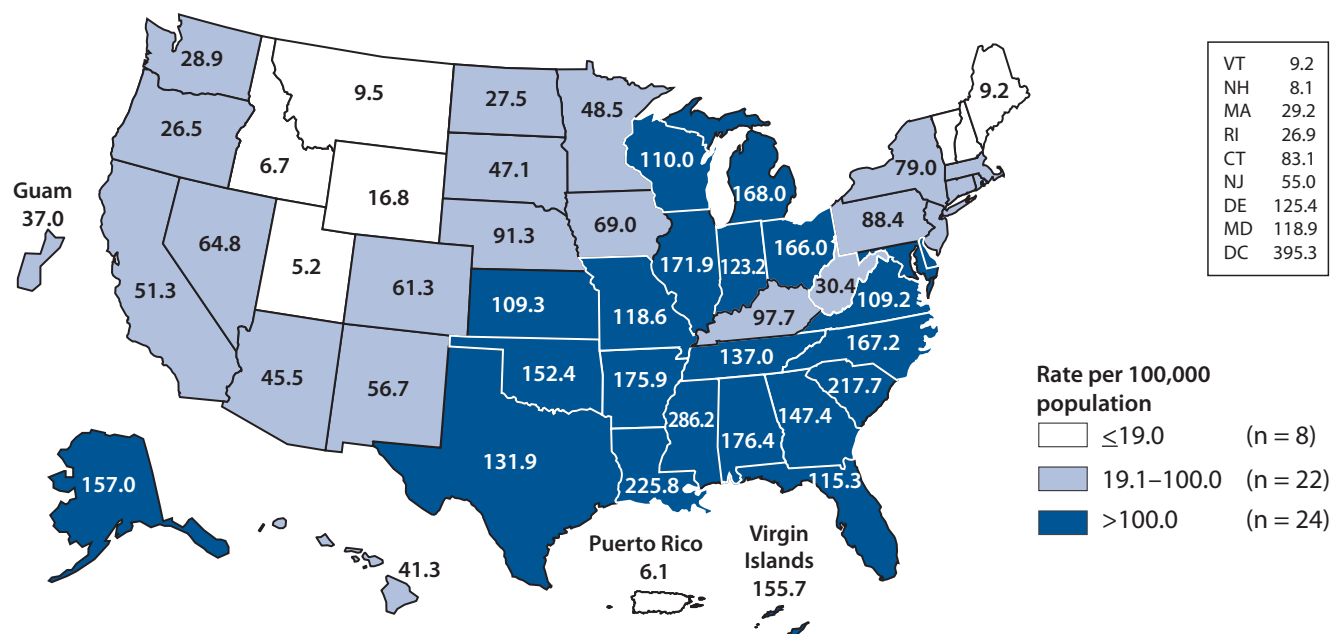
Figure B. Chlamydia—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009



* States/areas not meeting minimum inclusion criteria in prenatal clinics.

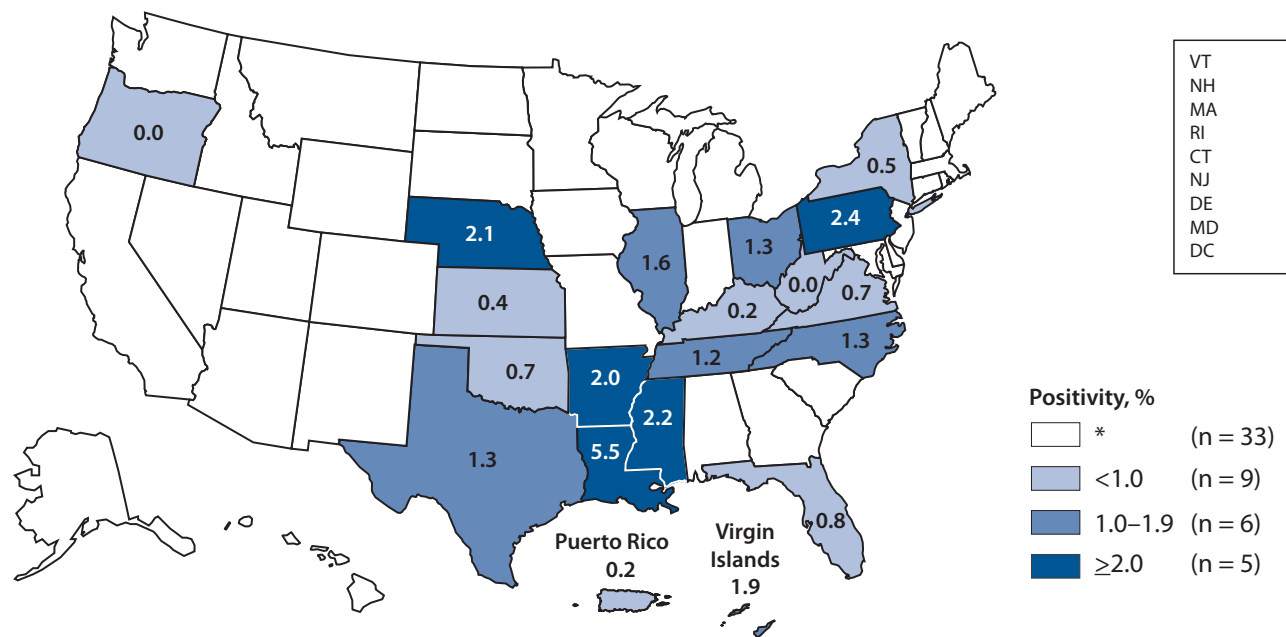
NOTE: Includes states and outlying areas that reported chlamydia positivity data on at least 100 women aged 15–24 years during 2009.

Figure C. Gonorrhea—Women—Rates by State, United States and Outlying Areas, 2009



NOTE: The total gonorrhea infection rate among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 104.1 per 100,000 female population.

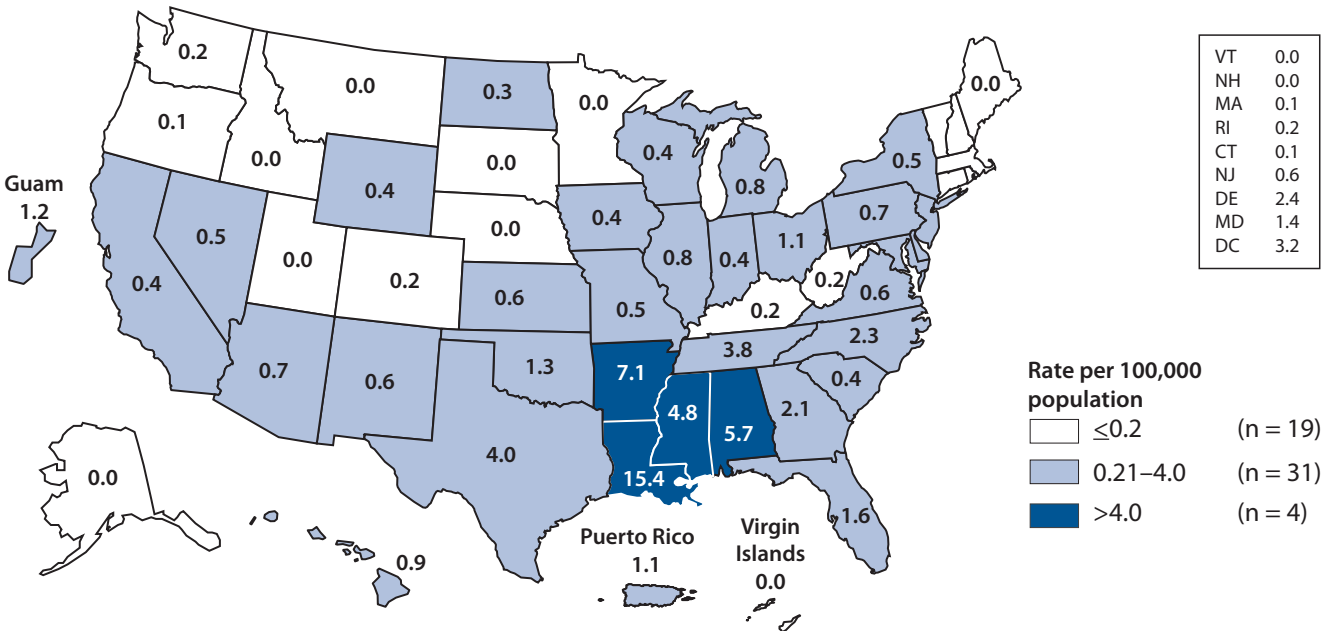
Figure D. Gonorrhea—Positivity Among Women Aged 15–24 Years Tested in Prenatal Clinics, by State, Infertility Prevention Project, United States and Outlying Areas, 2009



* States/areas not meeting minimum inclusion criteria in prenatal clinics.

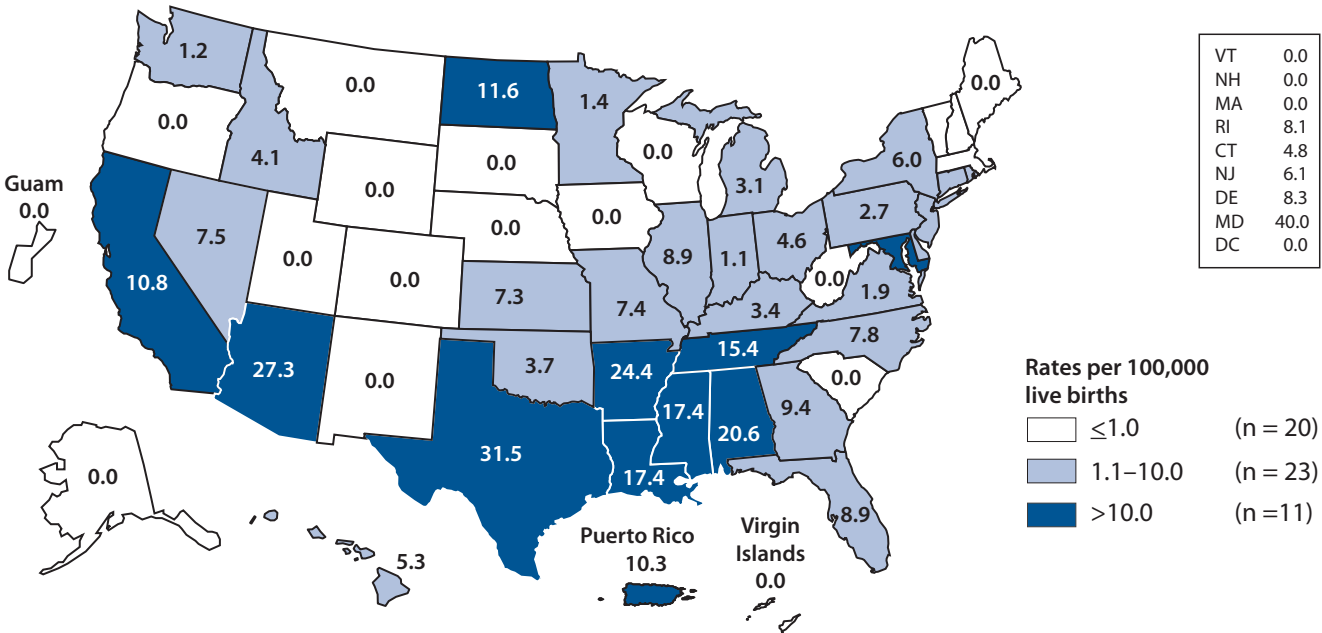
NOTE: Includes states and outlying areas that reported gonorrhea positivity data on at least 100 women aged 15–24 years during 2009.

Figure E. Primary and Secondary Syphilis—Women—Rates by State, United States and Outlying Areas, 2009



NOTE: The total rate of primary and secondary syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.4 per 100,000 females.

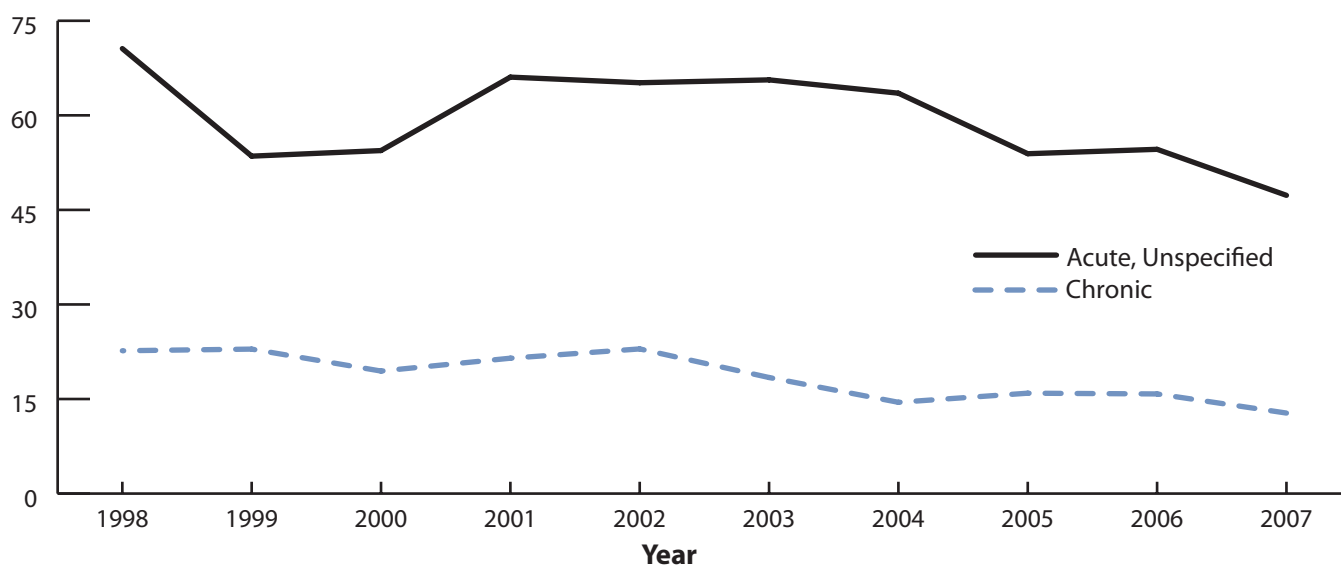
Figure F. Congenital Syphilis—Infants—Rates by Year of Birth and State, United States and Outlying Areas, 2009



NOTE: The total rate of congenital syphilis for infants by year of birth for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 10.0 per 100,000 live births.

Figure G. Pelvic Inflammatory Disease—Hospitalizations of Women Aged 15–44 Years, United States, 1998–2007

Hospitalizations (in thousands)

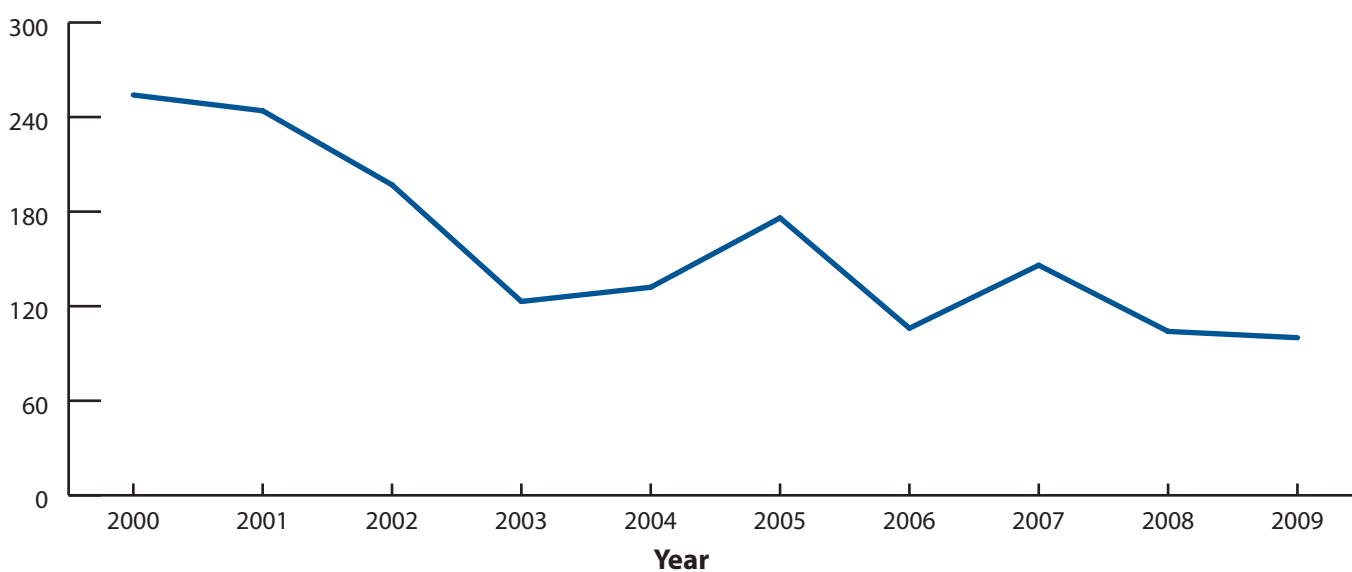


NOTE: The relative standard errors for these estimates of acute unspecified pelvic inflammatory disease (PID) cases are 11.9%–17.2%. The relative standard errors for these estimates of chronic PID cases are 11%–18%. Data only available through 2007.

SOURCE: 2007 National Hospital Discharge Survey [Internet]. Atlanta: Centers for Disease Control and Prevention. Available from: <http://www.cdc.gov/nchs/nhds/about/nhds.htm>.

Figure H. Pelvic Inflammatory Disease—Initial Visits to Physicians' Offices by Women Aged 15–44 Years, United States, 2000–2009

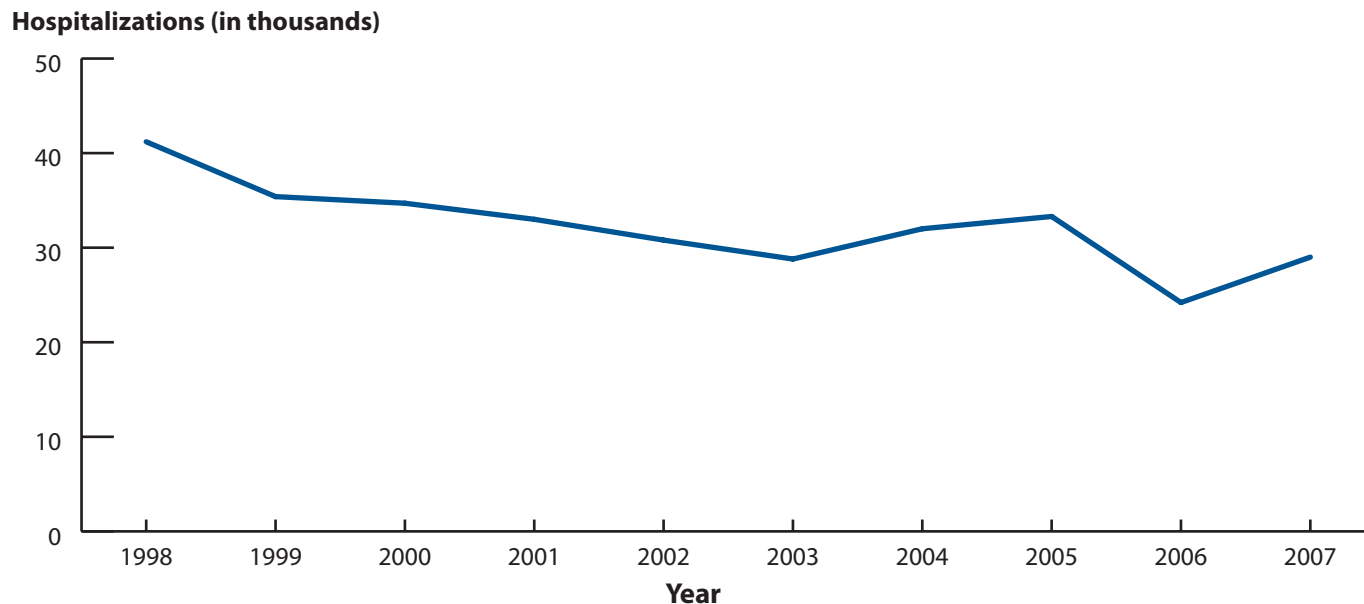
Visits (in thousands)



NOTE: The relative standard errors for these estimates are 21.6%–30%. See Other Data Sources in the Appendix and Table 43.

SOURCE: IMS Health, Integrated Promotional Services™. IMS Health Report, 1966–2009.

Figure I. Ectopic Pregnancy—Hospitalizations of Women Aged 15–44 Years, United States, 1998–2007



NOTE: The relative standard error for these estimates is 14.2%. Data only available through 2007.

SOURCE: 2007 National Hospital Discharge Survey [Internet]. Atlanta: Centers for Disease Control and Prevention. Available from: <http://www.cdc.gov/nchs/nhds/about/nhds.htm>.

STDs in Adolescents and Young Adults

Public Health Impact

Compared with older adults, sexually active adolescents aged 15–19 years and young adults aged 20–24 years are at higher risk of acquiring STDs for a combination of behavioral, biological, and cultural reasons. For some STDs, such as *C. trachomatis*, adolescent females may have a physiologically increased susceptibility to infection because of increased cervical ectopy. The higher prevalence of STDs among adolescents also may reflect multiple barriers to accessing quality STD prevention services, including lack of insurance or other ability to pay, lack of transportation, discomfort with facilities and services designed for adults, and concerns about confidentiality.

Estimates suggest that even though young people aged 15–24 years represent only 25% of the sexually experienced population, they acquire nearly half of all new STDs.¹

Observations

Chlamydia

Chlamydia rates for persons aged 15–19 years and 20–24 years continue to increase. During 2008–2009, the increase was 2.4% for those aged 15–19 years and 4.0% for those aged 20–24 years (Table 10).

15- to 19-Year-Old Women—In 2009, as in previous years, women aged 15–19 years had the highest rate of chlamydia compared with any other age or sex group (Figure 5, Table 10). Chlamydia rates for women in this age group increased 1.8%, from 3,269.5 cases per 100,000 population in 2008 to 3,329.3 cases in 2009.

20- to 24-Year-Old Women—In 2009, as in previous years, women aged 20–24 years had the second highest rate of chlamydia (3,273.9 cases per 100,000 population) compared with any other age or sex group. Chlamydia rates for women in this age group increased 3.3% during 2008–2009.

15- to 19-Year-Old Men—Chlamydia rates for men aged 15–19 years increased 5.0%, from 700.3 cases per 100,000 population in 2008 to 735.5 cases in 2009.

20- to 24-Year-Old Men—In 2009, as in previous years, men aged 20–24 years had the highest rate of chlamydia (1,120.6 cases per 100,000 population). Chlamydia rates for men in this age group increased 6.0% during 2008–2009.

Gonorrhea

In 2009, gonorrhea rates for persons aged 15–19 years and 20–24 years decreased for the second year in a row. During 2008–2009, the gonorrhea rate decreased 10.3% for those aged 15–19 years and decreased 7.4% for those aged 20–24 years (Table 20).

15- to 19-Year-Old Women—In 2009, as in previous years, women aged 15–19 years had the highest rate of gonorrhea (568.8 cases per 100,000 population) compared with any other age or sex group (Figure 20, Table 20). During 2008–2009, gonorrhea rates for women of this age group decreased 10.5%.

20- to 24-Year-Old Women—In 2009, as in previous years, women aged 20–24 years had the second highest rate of gonorrhea (555.3 cases per 100,000 population) compared with any other age or sex group. During 2008–2009, gonorrhea rates for women in this age group decreased 8.5%.

15- to 19-Year-Old Men—In 2009, as in previous years, men aged 15–19 years had the second highest rate of gonorrhea (250.0 cases per 100,000 population). During 2008–2009, gonorrhea rates for men in this age group decreased 10.0% (Figure 21, Table 20).

20- to 24-Year-Old Men—In 2009, as in previous years, men aged 20–24 years had the highest rate of gonorrhea (407.5 cases per 100,000 population). During 2008–2009, gonorrhea rates for men in this age group declined 6.1%.

Primary and Secondary Syphilis

Syphilis rates among women aged 15–19 years have increased annually since 2004, from 1.5 cases per 100,000 population to 3.3 in 2009. Rates in women have been highest each year among those aged 20–24 years, with 5.6 cases per 100,000 population in 2009 (Figures 38 and 39, Table 33).

Rates among men aged 15–19 years are much lower than the rates among men in older age groups (Figure 38). However, rates in this group have increased since 2002, from 1.3 cases per 100,000 population to 6.0 cases in 2009. Men aged 20–24 years had the highest rate of syphilis (20.7 cases per 100,000 population) in 2009 (Figure 38, Table 33).

Prevalence Monitoring

Chlamydia test positivity among women aged 15–19 years screened in family planning clinics fluctuated in all 10 HHS regions during 2005–2009 (Figure J). In 2009, positivity ranged from 5.8% in Region I to 13.2% in Region VI. Test positivity data presented in Figure J are not adjusted for changes in laboratory test methods and associated increases in test sensitivity.

National Job Training Program

Since 1990 about 20,000 female NJTP entrants have been screened each year for chlamydia. Since 2004, about 35,000 male entrants have been screened annually. This educational program for socioeconomically disadvantaged youth aged 16–24 years is administered at more than 100 sites throughout the country. The data presented are from sites where more than 100 persons were screened in 2009.

Chlamydial infection is widespread geographically and highly prevalent among socioeconomically disadvantaged young women and men entering the NJTP.² Specimens from students in each state and outlying area were tested by a single national contract laboratory.*

Among women entering the program in 43 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 11.3% (range: 4.2% to 19.0%) (Figure K).

Among men entering the program in 48 states, the District of Columbia, and Puerto Rico, the median state-specific chlamydia prevalence was 7.0% (range: 2.4% to 11.7%) (Figure L).

The data from NJTP centers that submit gonorrhea specimens from female students aged 16–24 years to the national contract laboratory indicated a high prevalence of gonococcal infection in this population. Among women entering the program in 41 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence in 2009 was 1.6% (range: 0.0% to 5.0%) (Figure M). Among men entering the program in 33 states, the District of Columbia, and Puerto Rico, the median state-specific gonorrhea prevalence was 0.6% (range: 0.0% to 3.4%) (Figure N).

Juvenile Corrections Facilities

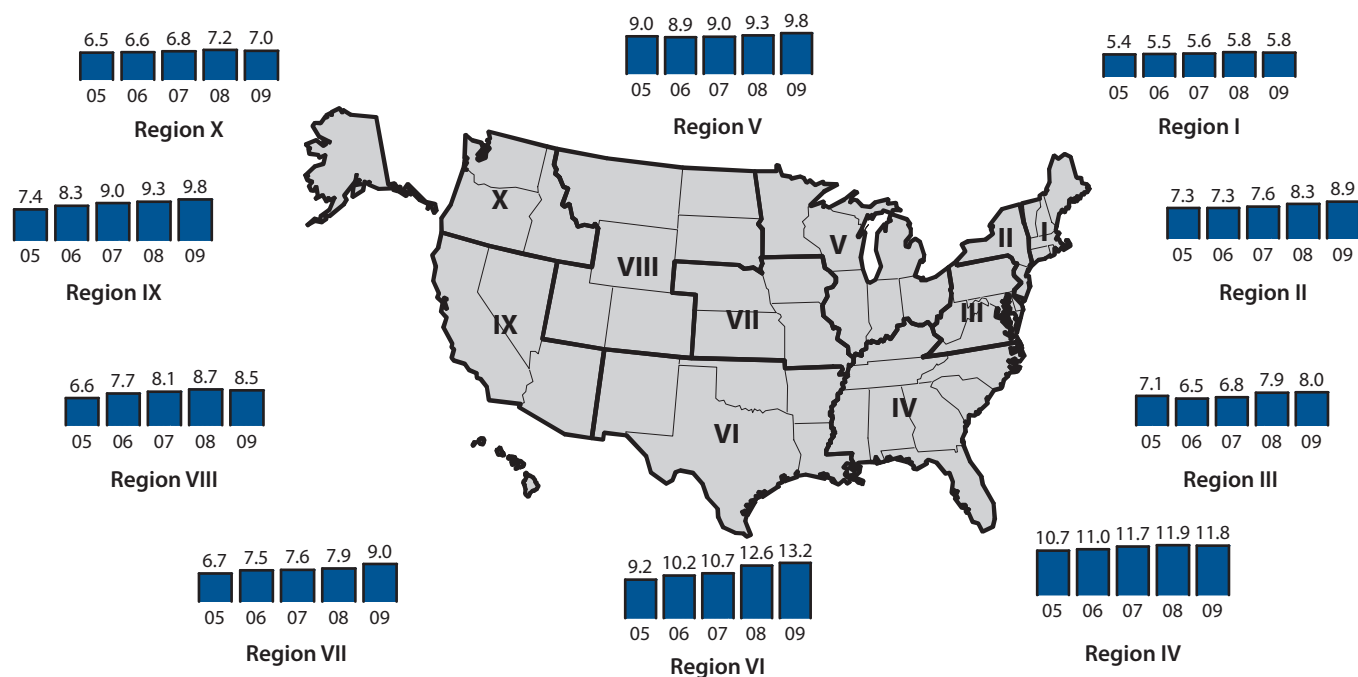
Among adolescent females entering juvenile corrections facilities, the median facility-specific chlamydia positivity was 14.4% (range: 1.8% to 35.7%); the median gonorrhea positivity was 2.9% (range: 0.0% to 13.4%). Among adolescent males entering juvenile corrections facilities, the median facility-specific chlamydia positivity was 6.0% (range: 0.0% to 19.4%); the median gonorrhea positivity rate was 0.7% (range: 0.0% to 6.5%). See the STDs in Persons Entering Corrections Facilities section for more details.

* Laboratory data are provided by the Center for Disease Detection, San Antonio, Texas.

¹ Weinstock H, Berman S, Cates W Jr. Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. *Perspect Sex Reprod Health.* 2004;36(1):6-10.

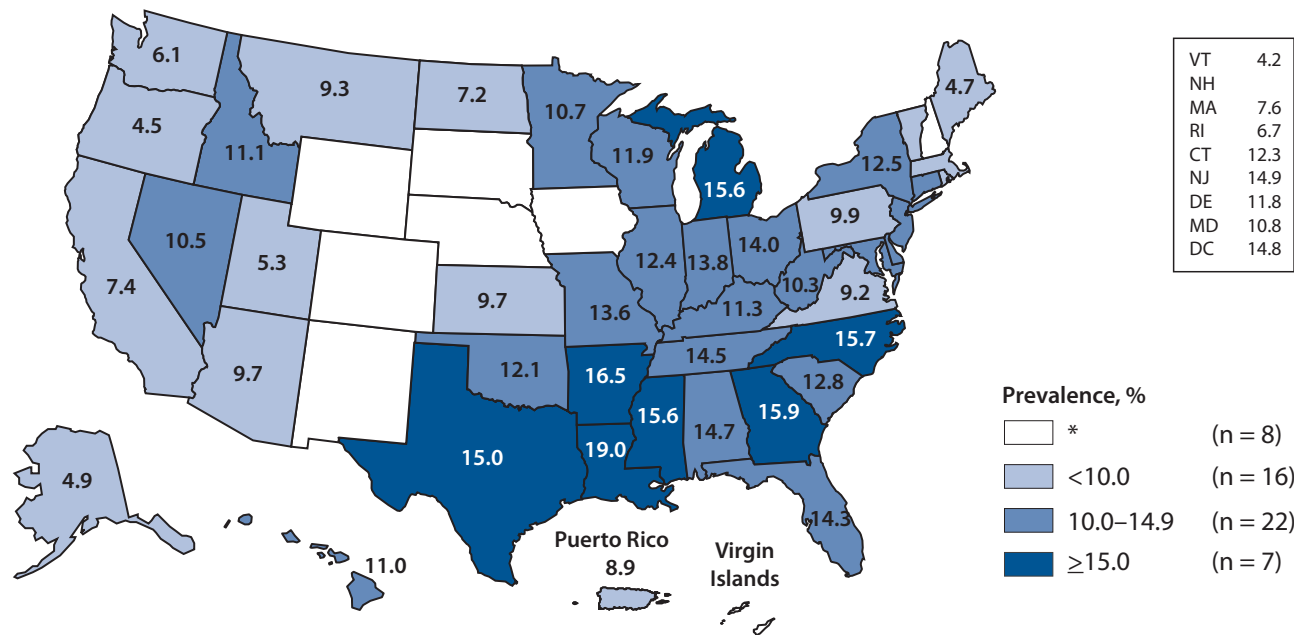
² Satterwhite CL, Tian LH, Braxton J, Weinstock H. Chlamydia prevalence among women and men entering the National Job Training Program: United States, 2003–2007. *Sex Transm Dis.* 2010;37(2):63-7.

Figure J. Chlamydia—Trends in Positivity Among Women Aged 15–19 Years Tested in Family Planning Clinics, by U.S. Department of Health and Human Services (HHS) Region, Infertility Prevention Project, 2005–2009



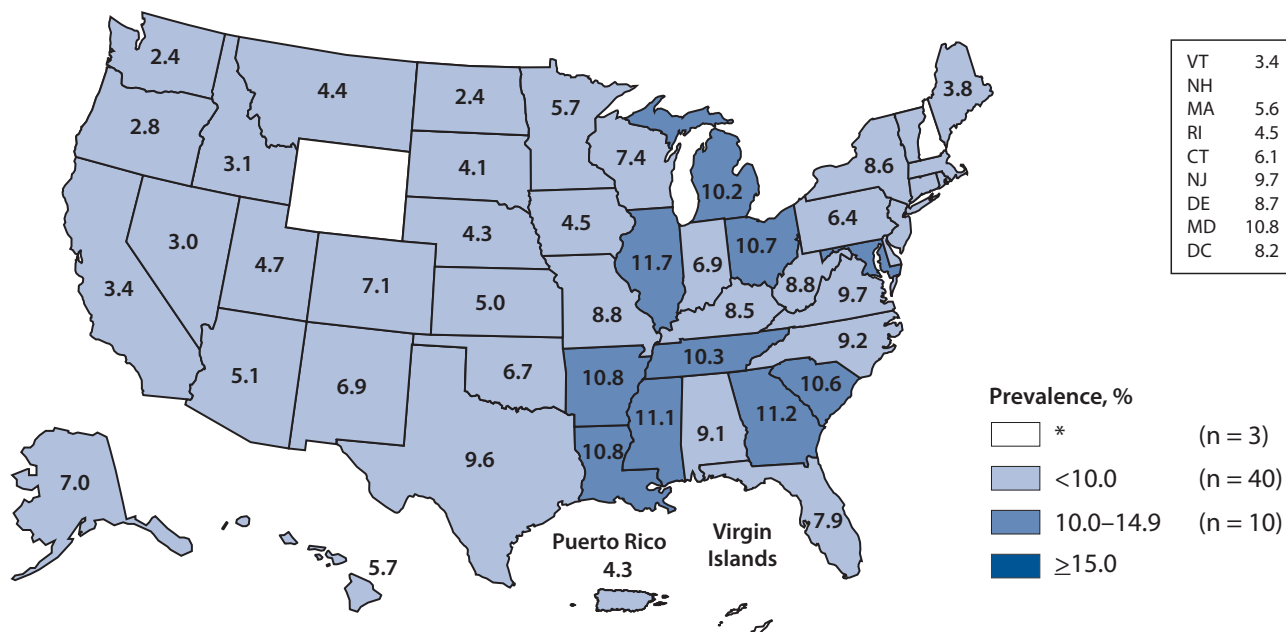
NOTE: See Definition of HHS Regions in the Appendix for definitions.

Figure K. Chlamydia—Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009



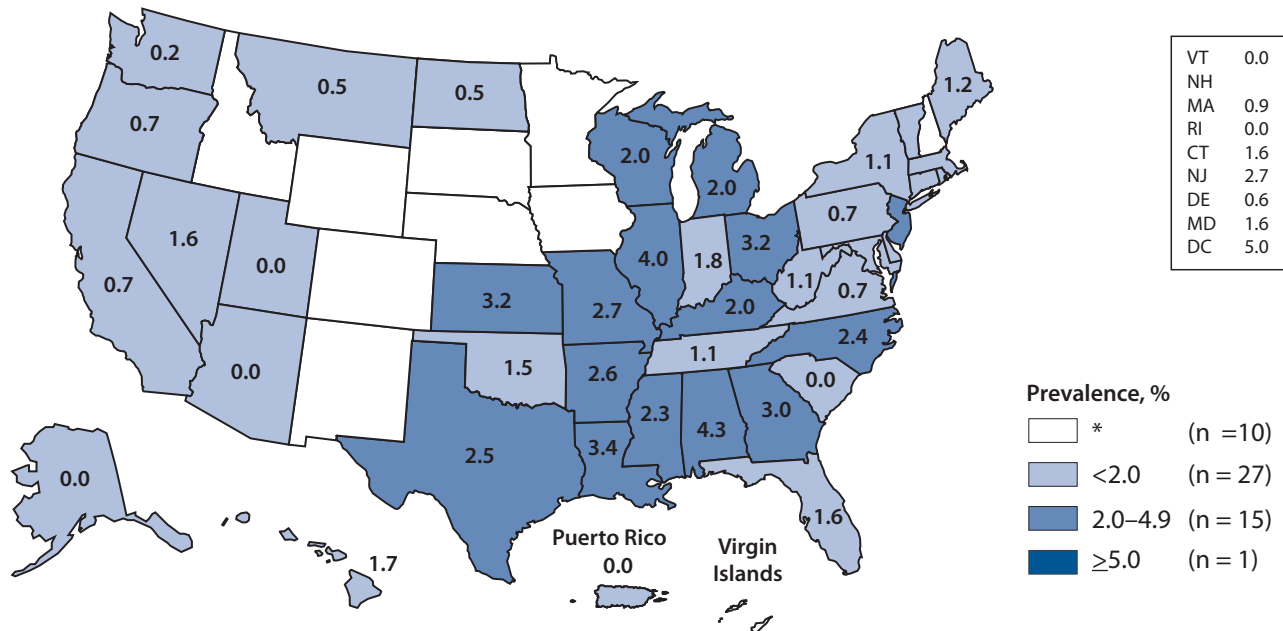
* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2009.

Figure L. Chlamydia—Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009



* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for chlamydia in 2009.

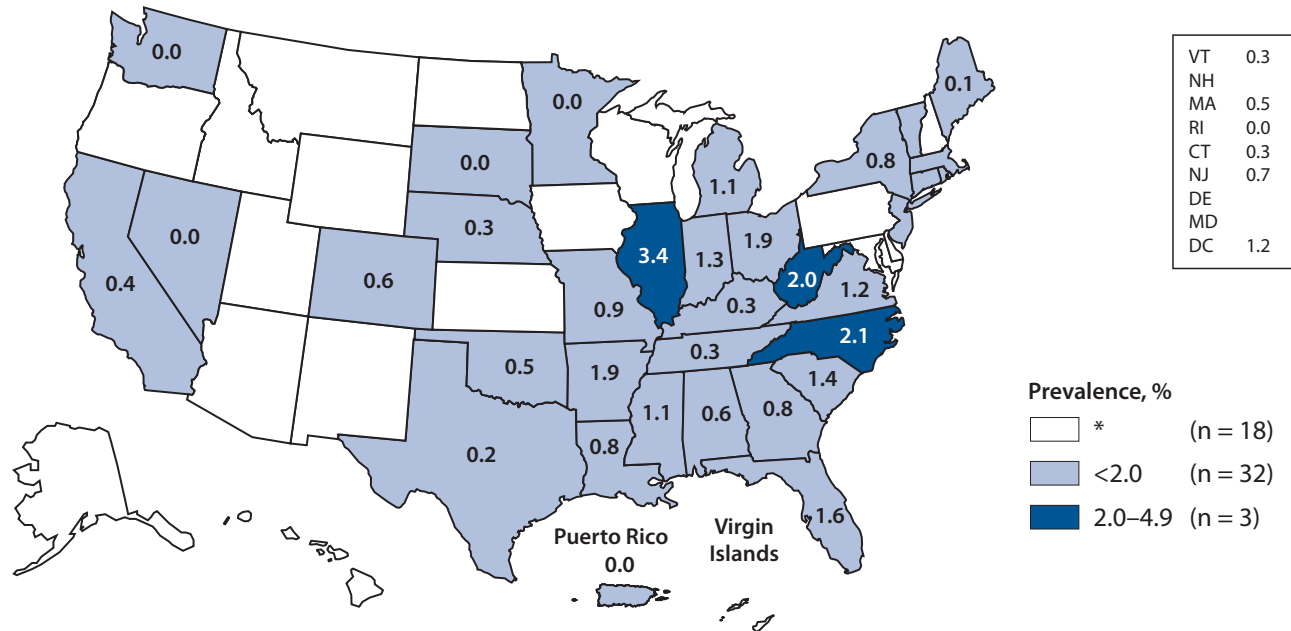
Figure M. Gonorrhea—Prevalence Among Women Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009



* Fewer than 100 women who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2009.

NOTE: Many training centers use local laboratories to test female students for gonorrhea; these results are not available to CDC. For this map, gonorrhea test results for students at centers that submitted specimens to the national contract laboratory were included if the number of gonorrhea tests submitted was greater than 90% of the number of chlamydia tests submitted.

Figure N. Gonorrhea—Prevalence Among Men Aged 16–24 Years Entering the National Job Training Program, by State of Residence, United States and Outlying Areas, 2009



* Fewer than 100 men who resided in these states/areas and entered the National Job Training Program were screened for gonorrhea in 2009.

NOTE: Many training centers use local laboratories to test male students for gonorrhea; these results are not available to CDC. For this map, gonorrhea test results for students at centers that submitted specimens to the national contract laboratory were included if the number of gonorrhea tests submitted was greater than 90% of the number of chlamydia tests submitted.

STDs in Racial and Ethnic Minorities

Public Health Impact

Surveillance data show higher rates of reported STDs among some racial or ethnic minority groups when compared with rates among whites. Race and ethnicity in the United States are risk markers that correlate with other more fundamental determinants of health status, such as poverty, access to quality health care, health care-seeking behavior, illicit drug use, and living in communities with high prevalence of STDs. Acknowledging the disparity in STD rates by race or ethnicity is one of the first steps in empowering affected communities to organize and focus on this problem.

STD Reporting Practices

Surveillance data are based on cases of STDs reported to state and local health departments (see Interpreting STD Surveillance Data in the Appendix). In many state and local health jurisdictions, reporting from public sources (e.g., STD clinics) is thought to be more complete than reporting from private sources. Because minority populations may use public clinics more than whites, differences in rates between minorities and whites may be increased by this reporting bias.¹ However, prevalence data from population-based surveys, such as NHANES and Add Health, confirm the existence of marked STD disparities in some minority populations.^{2,3}

Completeness of Race/Ethnicity Data

Cases for which information is unknown are redistributed according to the distribution of cases in which race or ethnicity is known to adjust for missing case report data. This process may exacerbate any reporting bias.

Chlamydia—In 2009, 26.0% of chlamydia case reports were missing race or ethnicity data, ranging by state from 0.1% to 59.5% (Table A1).

Gonorrhea—In 2009, 20.1% of gonorrhea case reports were missing information on race or ethnicity data, ranging by state from 0.0% to 41.8% (Table A1).

Syphilis—In 2009, 2.0% of syphilis case reports were missing information on race or ethnicity data, ranging from 0.0% to 19.7% among states with 10 or more cases of P&S syphilis (Table A1).

Observations

Chlamydia

Chlamydia rates based on reported cases increased during 2008–2009 among blacks, whites, and Hispanics (Table 11B). Among Asians/Pacific Islanders and American Indians/Alaska Natives, rates decreased slightly. During 2005–2009, chlamydia rates increased by 26.3% among blacks, 3.9% among American Indians/Alaska Natives, 13.4% among Hispanics, 0.4% among Asians/Pacific Islanders, and 17.9% among whites.

Blacks—In 2009, about 48% of all reported chlamydia cases occurred among blacks (Table 11A). Overall, the rate of chlamydia among blacks in the United States was more than eight times that among whites. The rate of chlamydia among black women was nearly eight times higher than the rate among white women (2,095.5 and 270.2 per 100,000 women, respectively) (Figure O, Table 11B). The chlamydia rate among black men was almost 12 times as high as the rate among white men (970.0 and 84.0 cases per 100,000 men, respectively).

American Indians/Alaska Natives—In 2009, the chlamydia rate among American Indians/Alaska Natives was 776.5 cases per 100,000 population, a decrease of 1.5% from the 2008 rate of 788.3. Overall, the rate of chlamydia among American Indians/Alaska Natives in the United States was more than four times that among whites.

Asians/Pacific Islanders—In 2009, the chlamydia rate among Asians/Pacific Islanders was 149.0 cases per 100,000 population, a slight decrease from the 2008 rate of 149.3. The overall rate among Asians/Pacific Islanders was lower than the rate among whites.

Hispanics—In 2009, the chlamydia rate among Hispanics was 504.2 cases per 100,000 population, which is a small increase from the 2008 rate of 494.8 cases and nearly three times higher than the rate among whites (178.8).

Gonorrhea

During 2008–2009, gonorrhea rates decreased 12.0% in whites, 10.6% in blacks, 9.6% in Hispanics, and 8.1% in Asians/Pacific Islanders. The gonorrhea rate in American Indians/Alaska Natives increased 5.5% (Figure 22, Table 21B).

Blacks—In 2009, about 71% of all reported cases of gonorrhea occurred among blacks (Table 21A). The rate of gonorrhea among blacks in 2009 was 556.4 cases per 100,000 population (Table 21B), which was 20.5 times higher than the rate among whites. This disparity has changed little in recent years (17.6 times higher in 2005 and 20.1 times higher in 2008) (Figure P, Table 21B). This disparity was larger for black men (25.8 times higher) than for black women (17.0 times higher) (Figure Q).

As in 2008, the disparity in gonorrhea rates for blacks in 2009 was larger in the Midwest and Northeast (28.4 and 26.7 times higher, respectively) than in the South or the West (16.2 and 13.9 times higher, respectively) (Figure R).

Considering all racial, ethnic, and age categories, gonorrhea rates were highest for blacks aged 15–19 and 20–24 years in 2009. Black women aged 15–19 years had a gonorrhea rate of 2,613.8 cases per 100,000 women. This rate was 16.7 times higher than the rate among white women in the same age group (156.7).

Black men aged 15–19 years had a gonorrhea rate of 1,316.4 cases per 100,000 men, which was 38.3 times higher than the rate among white men in the same age group (34.4). Among men and women aged 20–24 years, the gonorrhea rate among blacks was 17.8 times higher than the rate among whites (2,356.7 and 132.2, respectively) (Table 21B).

American Indians/Alaska Natives—In 2009, the gonorrhea rate among American Indians/Alaska Natives was 113.3 cases per 100,000 population, which was 4.2 times higher than the rate among whites. This disparity

was similar to that in recent years (3.7 times higher in 2005) (Figure P, Table 21B). The disparity between gonorrhea rates for American Indians/Alaska Natives and whites was larger for American Indian/Alaska Native women (4.5 times higher) than for American Indian/Alaska Native men (3.6 times higher) (Figure Q).

In 2009, the disparity in gonorrhea rates for American Indians/Alaska Natives was slightly larger in the West and Midwest (4.7 times higher in both regions) than in the Northeast or South (3.5 and 3.0 times higher, respectively) (Figure R).

Asians/Pacific Islanders—In 2009, the gonorrhea rate among Asians/Pacific Islanders was 18.1 cases per 100,000 population, which was lower than the rate among whites (Figure P, Table 21B). This difference is larger for Asian/Pacific Islander women than for Asian/Pacific Islander men (Figure Q). In 2009, rates among Asians/Pacific Islanders were again lower than rates among whites in all four regions of the United States (Figure R).

Hispanics—In 2009, the gonorrhea rate among Hispanics was 58.6 cases per 100,000 population, which was higher than the rate among whites. This disparity was similar to that in recent years (Figure P, Table 21B) and was higher for Hispanic men than for Hispanic women. The disparity in gonorrhea rates for Hispanics was larger in the Northeast (4.1 times higher) than in the South (2.2 times higher), the Midwest (1.9 times higher), or the West (1.7 times higher) (Figure R).

Primary and Secondary Syphilis

The syphilis epidemic in the late 1980s occurred primarily among men who have sex with women only (MSW) and minority populations.^{4,5} During the 1990s, the rate of P&S syphilis declined among all racial and ethnic groups (Figure 33). During 2005–2009, the rate increased among all racial and ethnic groups except American Indians/Alaska Natives (Table 34B).

Blacks—During 2008–2009, the rate of P&S syphilis among blacks increased 11.6% (from 17.2 to 19.2 cases per 100,000 population). In 2009, 52.4% of all cases reported to CDC were among blacks and 30.4% of all cases were among whites (Table 34A).

Compared with whites, the overall 2009 rate for blacks was 9.1 times higher, while the 2008 rate was 7.8 times higher (Table 34B). In 2009, the rate of P&S syphilis among black men was 8 times higher than the rate among white men; the rate among black women was more than 20 times higher than the rate among white women (Figure S).

In some age groups, particularly black men and women aged 15–19 years and 20–24 years, disparities have increased markedly in recent years as rates of disease have increased (Figures T and U). During 2005–2009, rates among men aged 15–19 years increased the most among black men (167%) (Table 34B). During the same period, rates among black men aged 20–24 years increased 212% (from 30.2 to 94.2 cases per 100,000 population); this increase was the highest reported regardless of age, sex, or race/ethnicity. The 2009 rate among men aged 15–19 years was 26 times higher for blacks than for whites.

Among black women aged 15–24 years, rates increased more than twofold during 2005–2009. In 2009, rates were 29 times higher for black women aged 15–19 years than for white women of the same age.

Recent trends in syphilis rates in young black men are of particular concern given data indicating high HIV incidence in this population.⁶

American Indians/Alaska Natives—During 2008–2009, the rate of P&S syphilis among American Indians/Alaska Natives increased 4.3% (from 2.3 to 2.4 cases per 100,000 population). In 2009, 0.4% of all cases reported to CDC were among American Indians/Alaska Natives (Table 34A). Compared with whites, the 2009 rate of P&S syphilis for American Indians/Alaska Natives was 1.1 times higher (Table 34B).

Asians/Pacific Islanders—During 2008–2009, the rate of P&S syphilis among Asians/Pacific Islanders increased 6.7% (from 1.5 to 1.6 cases per 100,000 population). In 2009, 1.6% of all cases reported to CDC were among Asians/Pacific Islanders (Table 34A). Compared with whites, the 2009 rate of P&S syphilis for Asians/Pacific Islanders was 0.8 times higher (Table 34B).

Hispanics—During 2008–2009, the rate of P&S syphilis among Hispanics decreased 2.2% (from 4.6 to 4.5 cases per 100,000 population). In 2009, 15.1% of all cases reported to CDC were among Hispanics (Table 34A). Compared with whites, the 2009 rate of P&S syphilis for Hispanics was 2.1 times higher (Table 34B).

Congenital Syphilis

In 2009, the rate of congenital syphilis (which is based on the mother's race/ethnicity) was 34.9 cases per 100,000 live births among blacks and 12.0 cases per 100,000 live births among Hispanics. These rates are 12.9 and 4.4 times higher, respectively, than the rate among whites (2.7 cases per 100,000 live births) (Figure V, Table 41).

¹ Miller WC. Epidemiology of chlamydial infection: are we losing ground? *Sex Transm Infect.* 2008;84:82-6.

² Datta SD, Sternberg M, Johnson RE, Berman S, Papp JR, McQuillan G, et al. Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. *Ann Intern Med.* 2007;147(2):89-96.

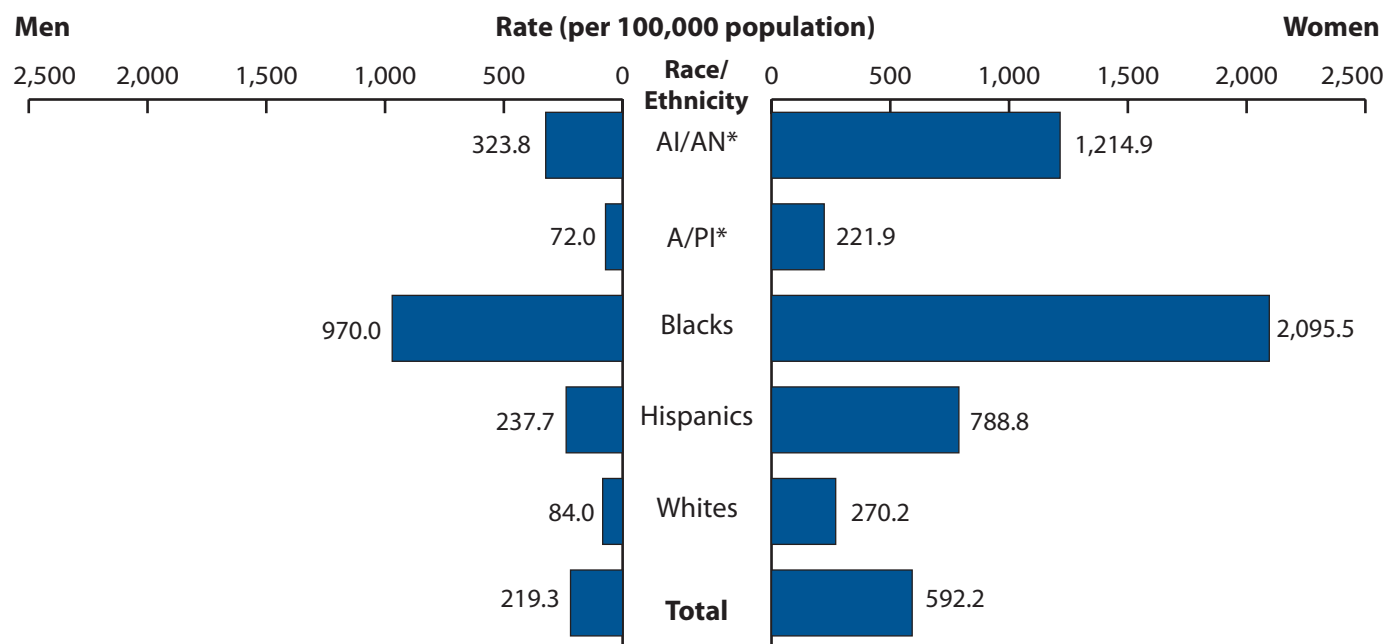
³ Miller WC, Ford CA, Morris M, Handcock MS, Schmitz JL, Hobbs MM, et al. Prevalence of chlamydial and gonococcal infections among young adults in the United States. *JAMA.* 2004;291(18):2229-36.

⁴ Nakashima AK, Rolfs RT, Flock ML, Kilmarx P, Greenspan JR. Epidemiology of syphilis in the United States, 1941 through 1993. *Sex Transm Dis.* 1996;23:16-23.

⁵ Peterman TA, Heffelfinger JD, Swint EB, Groseclose SL. The changing epidemiology of syphilis. *Sex Transm Dis.* 2005;32(Suppl 10):S4-10.

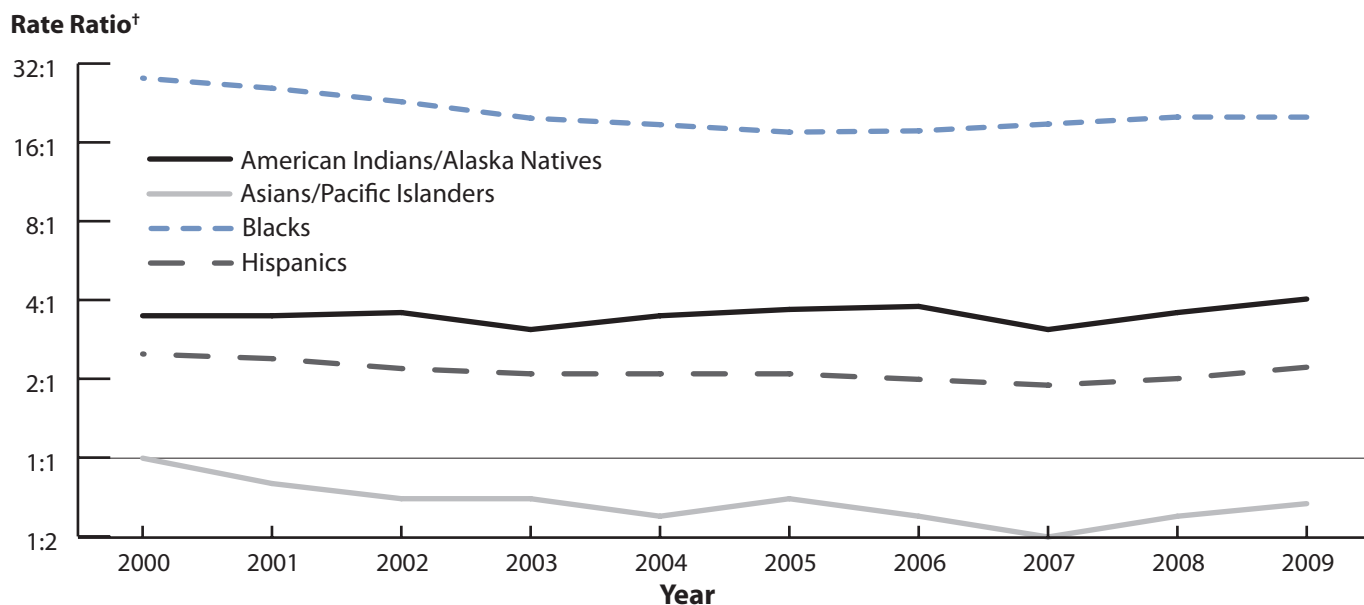
⁶ Centers for Disease Control and Prevention. Subpopulation estimates from the HIV incidence surveillance system — United States, 2006. *MMWR Morb Mortal Wkly Rep.* 2008;57:985-9.

Figure O. Chlamydia—Rates by Race/Ethnicity and Sex, United States, 2009



* AI/AN = American Indians/Alaska Natives; A/PI = Asians/Pacific Islanders.

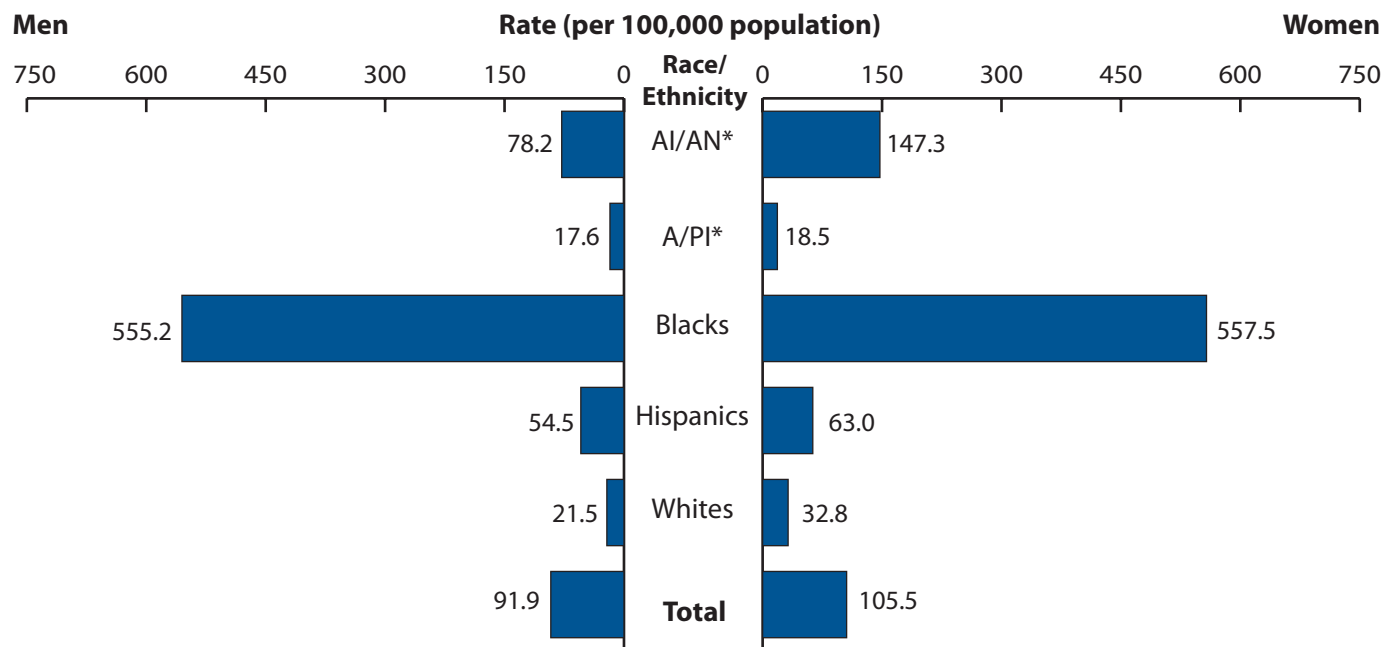
Figure P. Gonorrhea—Rate Ratios* by Race/Ethnicity, United States, 2000–2009



* Rate ratios are calculated as the gonorrhea rate per 100,000 population for a given racial or ethnic minority population divided by the gonorrhea rate per 100,000 population for non-Hispanic whites. Any population with a lower rate of gonorrhea than the non-Hispanic white population will have a rate ratio of less than 1:1.

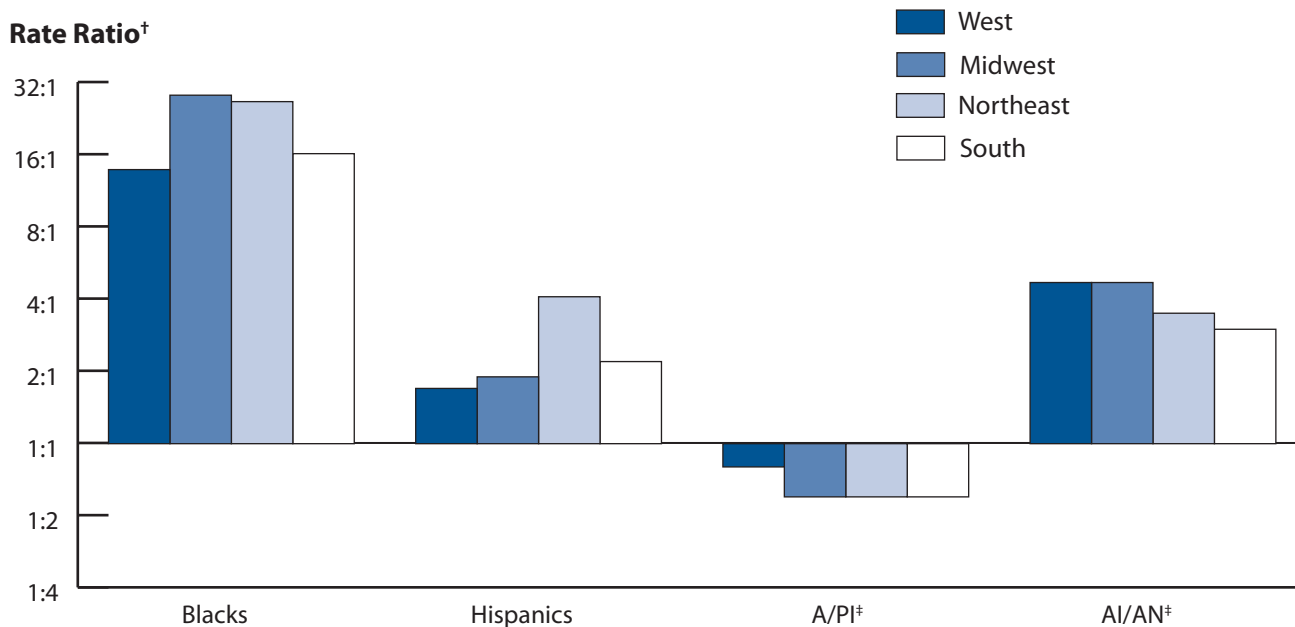
† Y-axis is log scale.

Figure Q. Gonorrhea—Rates by Race/Ethnicity and Sex, United States, 2009



* AI/AN = American Indians/Alaska Natives; A/PI = Asians/Pacific Islanders.

Figure R. Gonorrhea—Rate Ratios* by Race/Ethnicity and Region, United States, 2009

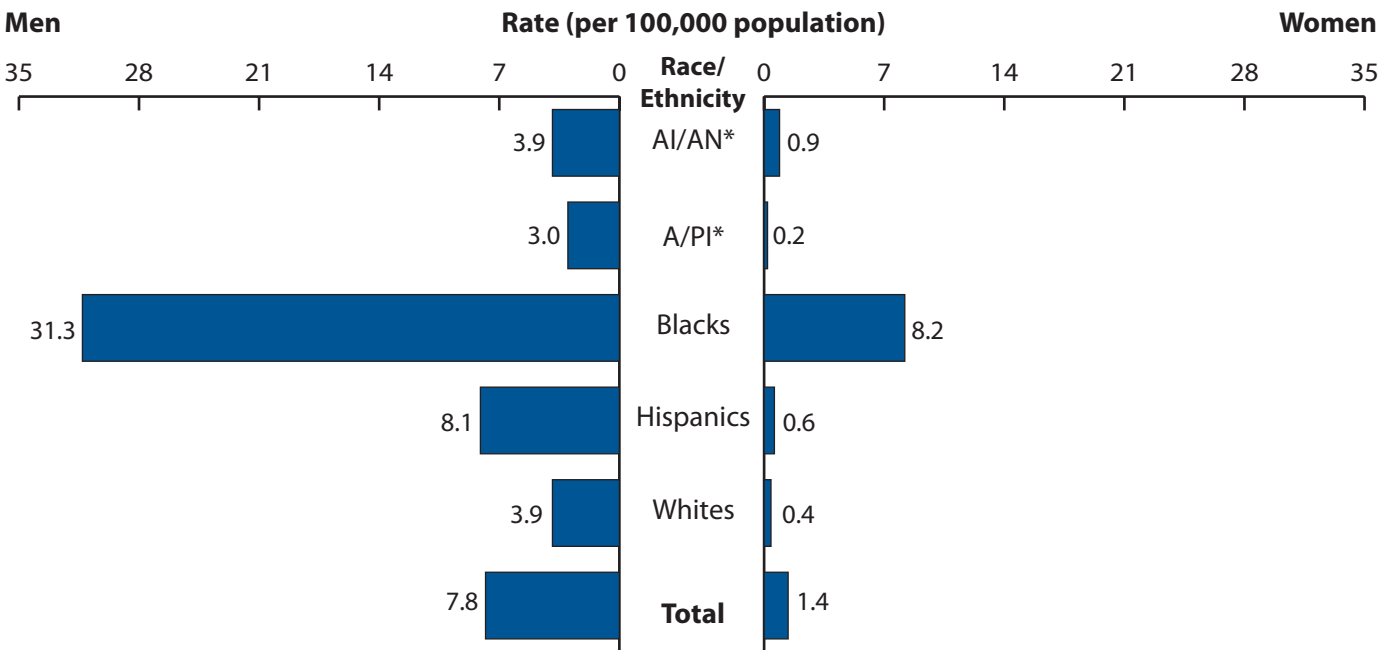


* Rate ratios are calculated as the gonorrhea rate per 100,000 population for a given racial or ethnic minority population divided by the gonorrhea rate per 100,000 population for non-Hispanic whites. Any population with a lower rate of gonorrhea than the non-Hispanic white population will have a rate ratio of less than 1:1.

† Y-axis is log scale.

‡ A/PI = Asians/Pacific Islanders; AI/AN = American Indians/Alaska Natives.

Figure S. Primary and Secondary Syphilis—Rates by Race/Ethnicity and Sex, United States, 2009



* AI/AN = American Indians/Alaska Natives; A/PI = Asians/Pacific Islanders.

Figure T. Primary and Secondary Syphilis—Rates Among Females Aged 15–19 Years by Race/Ethnicity, United States, 2000–2009

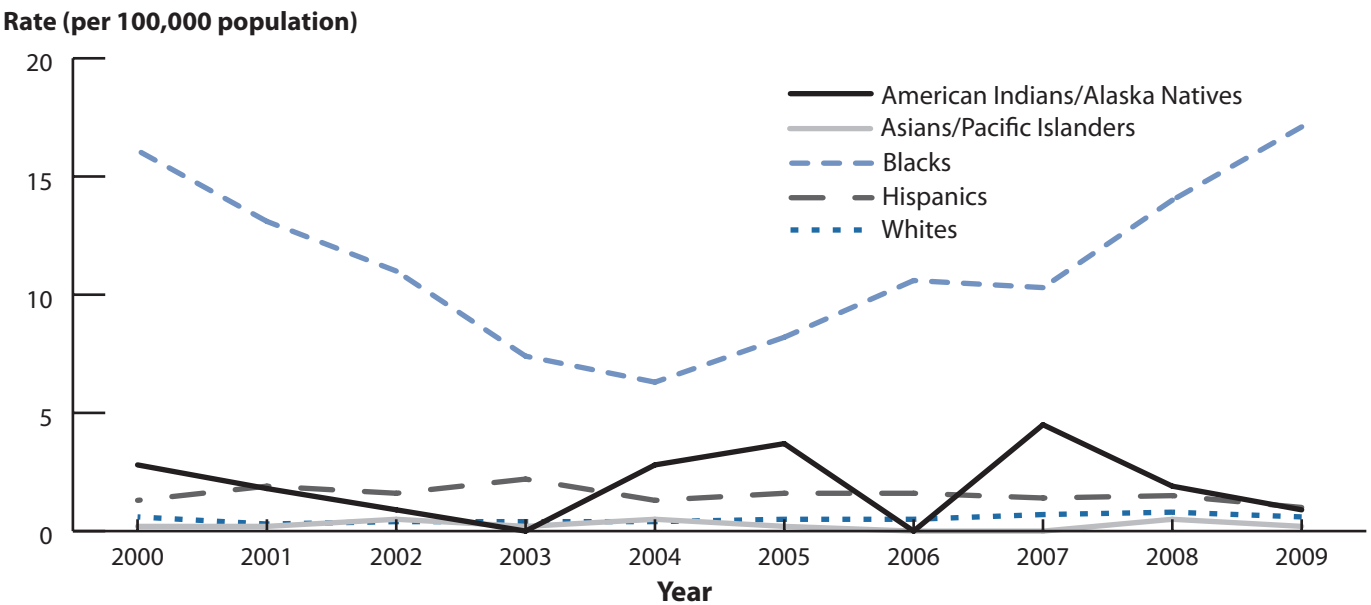


Figure U. Primary and Secondary Syphilis—Rates Among Males Aged 15–19 Years by Race/Ethnicity, United States, 2000–2009

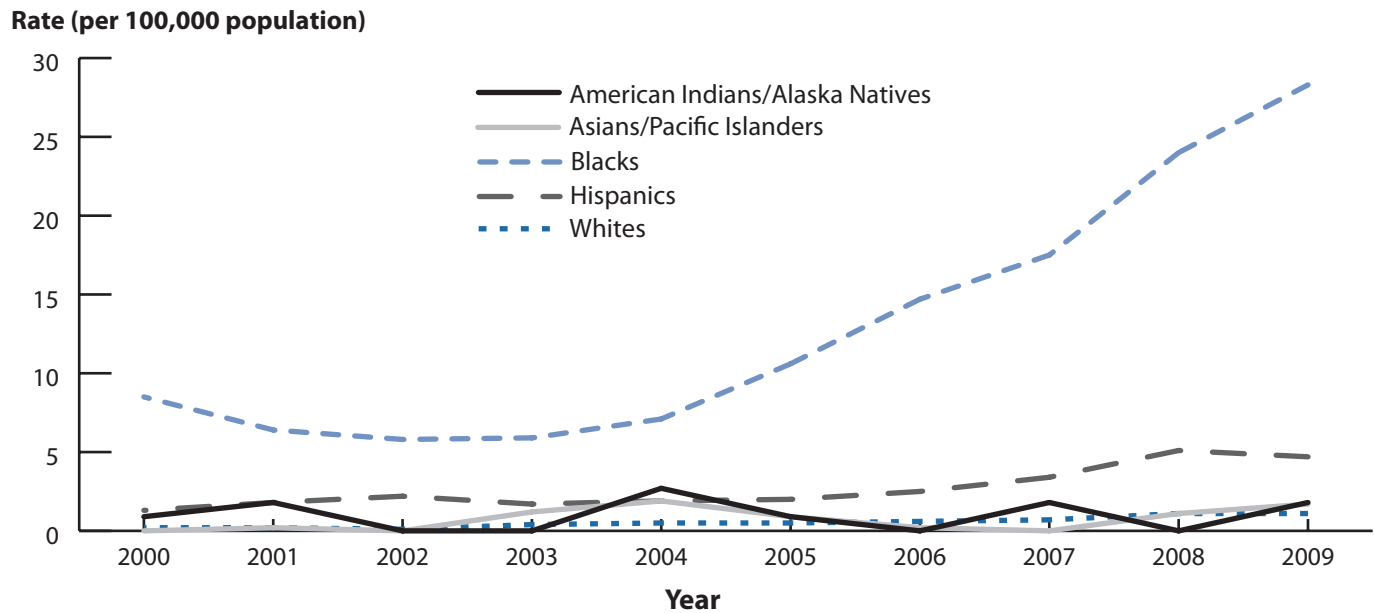
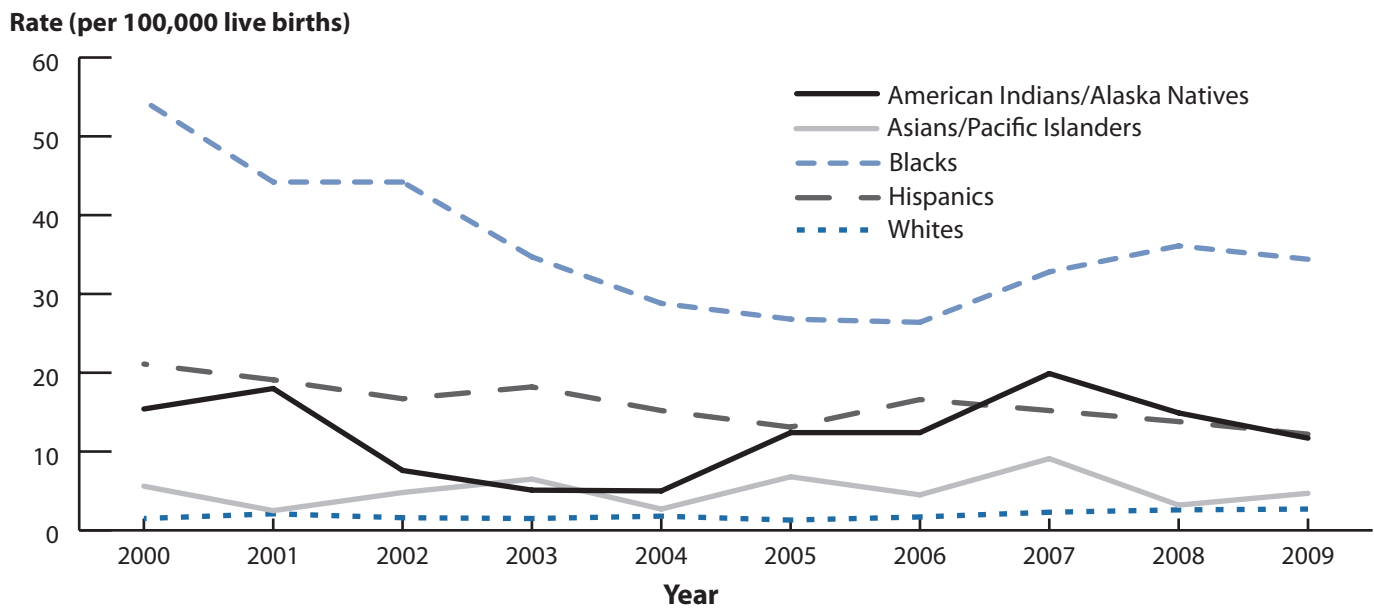


Figure V. Congenital Syphilis—Infants—Rates by Year of Birth and Mother’s Race/Ethnicity, United States, 2000–2009



NOTE: Less than 1% of cases had missing maternal race/ethnicity information and were excluded.

STDs in Men Who Have Sex with Men

Public Health Impact

Notifiable disease surveillance data on syphilis and data from GISP suggest that some STDs in MSM, including men who have sex with both women and men, are increasing.¹⁻⁴ Because STDs and the behaviors associated with acquiring them increase the likelihood of acquiring and transmitting HIV infection,⁵ the rise in STDs among MSM may be associated with an increase in HIV diagnoses among MSM.⁶

With the exception of reported syphilis cases, most nationally notifiable STD surveillance data do not include information on sexual behaviors; therefore, data on national trends in STDs among MSM in the United States are not currently available. Furthermore, testing strategies are often suboptimal for detecting STDs in MSM. Testing for gonorrhea and chlamydia in MSM largely focuses on detecting urethral infections, which are more likely to be symptomatic than pharyngeal or rectal infections.⁷ Data from enhanced surveillance projects are presented in this section to provide information on STDs in MSM.

STD Surveillance Network—Monitoring Trends in Prevalence of STDs Among MSM Who Visit STD Clinics, 2009

In 2005, SSuN was established to improve the capacity of national, state, and local STD programs to detect, monitor, and respond rapidly to trends in STDs through enhanced collection, reporting, analysis, visualization, and interpretation of disease information.⁸ SSuN currently includes 12 collaborating local and state health departments. In 2009, a total of 42 STD clinics at these 12 sites collected enhanced behavioral and demographic information on patients who presented for care to these clinics. During 1999–2008, similar enhanced surveillance data were collected in eight STD clinics, including three community-based gay men's health clinics, through the MSM Prevalence Monitoring Project.⁹

For data reported in this section, MSM were defined as men who either reported having sex with another man in the 3 months before STD testing or who self-reported as gay/homosexual or bisexual. MSW were defined as men who reported having sex with women only within the 3 months before STD testing or who did not report the sex of their sex partner, but reported that they considered themselves straight/heterosexual. More detailed information about SSuN methodology can be found in the STD Surveillance Network section of the Appendix, Interpreting STD Surveillance Data.

Gonorrhea and Chlamydial Infection

In 2009, the proportion of MSM who tested positive for gonorrhea and chlamydia at SSuN STD clinics varied by city (Figure W). A larger proportion of MSM who visited SSuN STD clinics tested positive for gonorrhea than tested positive for chlamydia in all cities except New Orleans (where the proportions were equal) and Birmingham (where the proportion for chlamydia was higher).

Across the participating sites, about the same number of MSM were tested for gonorrhea (17,007) and chlamydia (16,615). The median site-specific gonorrhea prevalence was 14.9% (range by site: 6.5%–27.9%). The median site-specific chlamydia prevalence was 11.2% (range by site: 4.5%–18.5%). For this report, a person who tested positive for gonorrhea or chlamydia more than one time was counted only once.

Co-infection with P&S Syphilis and HIV

In 2009, the proportion of MSM who presented to SSuN clinics with P&S syphilis infection who also were infected with HIV ranged from 30% in Birmingham to 74% in Baltimore (Figure X). The median site-specific proportion was 44.4%. P&S syphilis was identified by provider diagnosis and HIV was identified by laboratory report, self-report, or provider diagnosis.

Nationally Notifiable Syphilis Surveillance Data

P&S syphilis increased in the United States during 2005–2009, with a 59.3% increase in the number of P&S syphilis cases among men and a 66.7% increase among women (Tables 26 and 27). In 2009, the rate of reported P&S syphilis among men (7.8 cases per 100,000 males) was 5.6 times higher than the rate among women (1.4 cases per 100,000 females) (Tables 26 and 27). Higher rates were observed in men than in women for all racial and ethnic groups.

In 2009, MSM accounted for 62% of all P&S syphilis cases in the United States. MSM accounted for more cases than MSW or women in all racial and ethnic groups (Figure 43). More information about syphilis can be found in the Syphilis section of the National Profile.

Gonococcal Isolate Surveillance Project

GISP is a national sentinel surveillance system designed to monitor trends in antimicrobial susceptibilities of strains of *N. gonorrhoeae* in the United States.^{4,10} GISP also reports the percentage of *N. gonorrhoeae* isolates obtained from MSM. Overall, the proportion of isolates from MSM in selected STD clinics from GISP sentinel sites has increased steadily, from 4.6% in 1990 to 25.3% in 2009 (Figure Y). The proportion of isolates from MSM varies geographically, with the largest proportion reported from the West Coast (Figure Z).

More information on GISP can be found in the Gonorrhea section of the National Profile.

¹ Fox KK, del Rio C, Holmes KK, Hook EW 3rd, Judson FN, Knapp JS, et al. Gonorrhea in the HIV era: a reversal in trends among men who have sex with men. *Am J Public Health*. 2001;91:959–64.

² Centers for Disease Control and Prevention. Primary and secondary syphilis among men who have sex with men — New York City, 2001. *MMWR Morb Mortal Wkly Rep*. 2002;51: 853–6.

³ Helms DJ, Weinstock HS, Asbel LE, Ciesielski C, Cherneskie T, Furness BW, et al. Increases in syphilis among men who have sex with men attending STD clinics, 2000–2005. In: Program and abstracts of the 17th Biennial Meeting of the ISSTD; 2007 Jul 29–Aug 1; Seattle, WA. Abstract No. P-608.

⁴ Centers for Disease Control and Prevention. Sexually transmitted disease surveillance 2007 supplement: Gonococcal Isolate Surveillance Project (GISP) annual report 2007. Atlanta: U.S. Department of Health and Human Services; 2009.

⁵ Fleming DT, Wasserheit JN. From epidemiologic synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect*. 1999;75:3–17.

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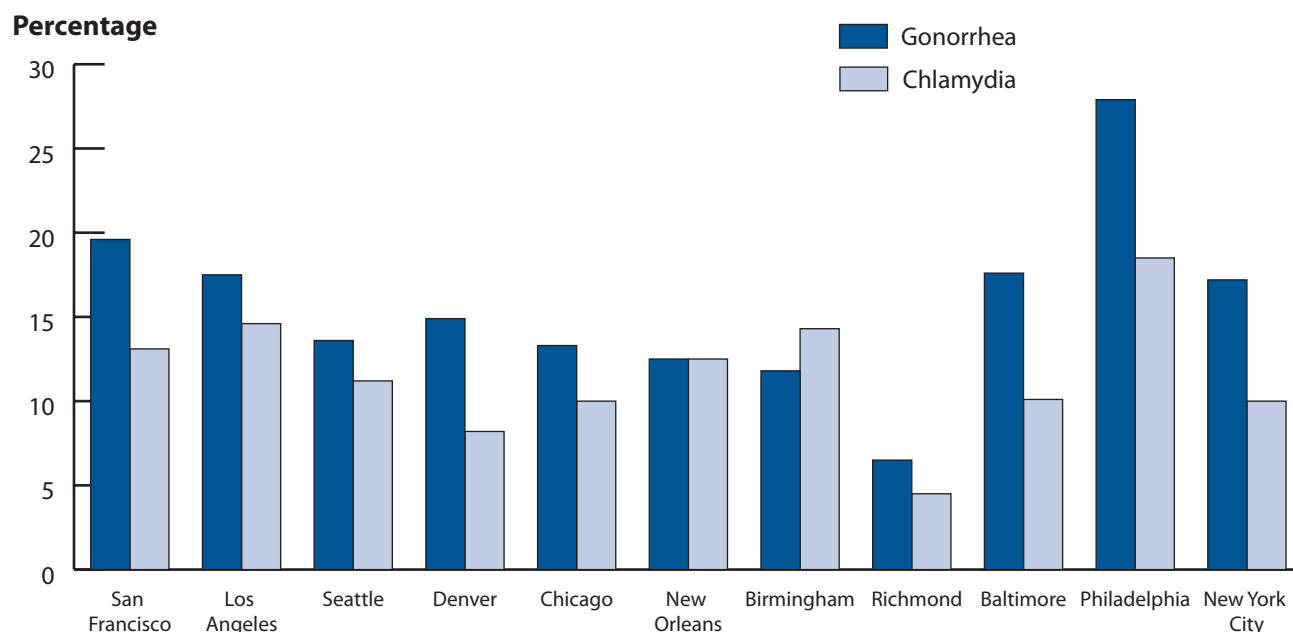
⁷ Mahle KC, Helms DJ, Golden MR, Asbel LE, Cherneskie T, Gratz B, et al. Missed gonorrhea infections by anatomic site among asymptomatic men who have sex with men (MSM) attending U.S. STD clinics, 2002–2006. In: Program and abstracts of the 2008 National STD Prevention Conference; 2008 March 10–13; Chicago, IL. Abstract No. A1d.

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⁹ Centers for Disease Control and Prevention. Sexually transmitted disease surveillance 2008. Atlanta: U.S. Department of Health and Human Services; 2009.

¹⁰ Schwarcz S, Zenilman J, Schnell D, Knapp JS, Hook EW 3rd, Thompson S, et al. National surveillance of antimicrobial resistance in *Neisseria gonorrhoeae*. *JAMA*. 1990;264(11):1413–7.

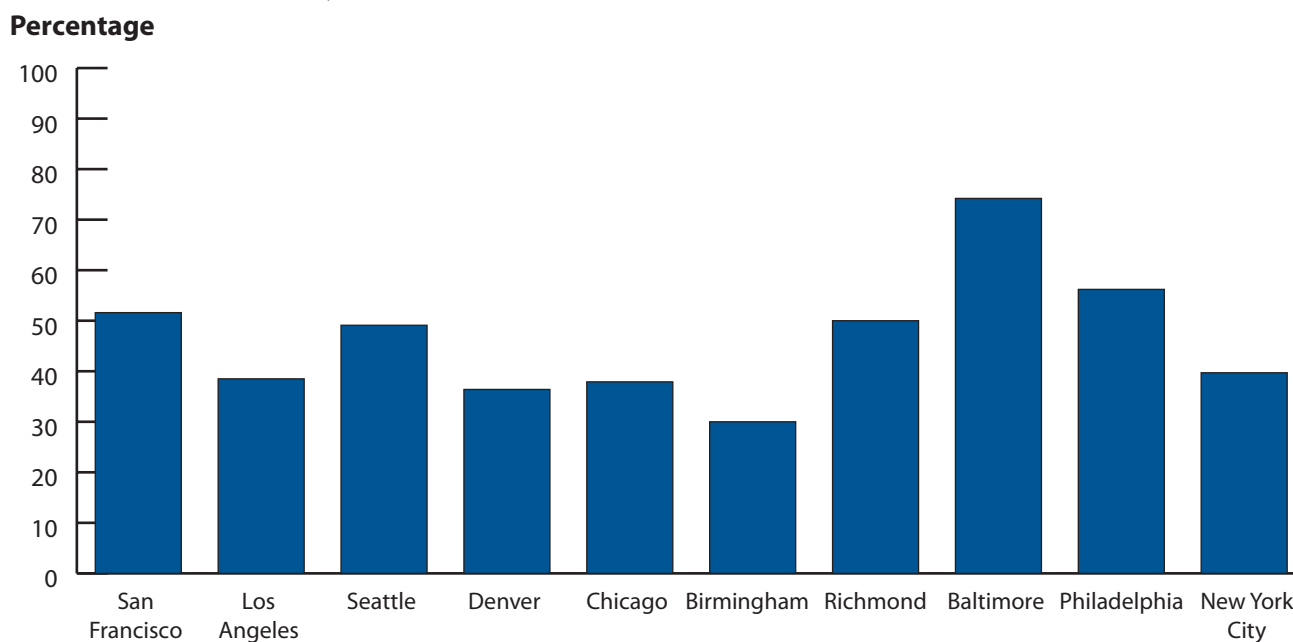
Figure W. Gonorrhea and Chlamydia—Proportion of MSM* Testing Positive for Gonorrhea and Chlamydia, by Site, STD* Surveillance Network, 2009



* MSM = men who have sex with men; STD = sexually transmitted disease.

NOTE: Data not available for Hartford/New Haven STD clinics.

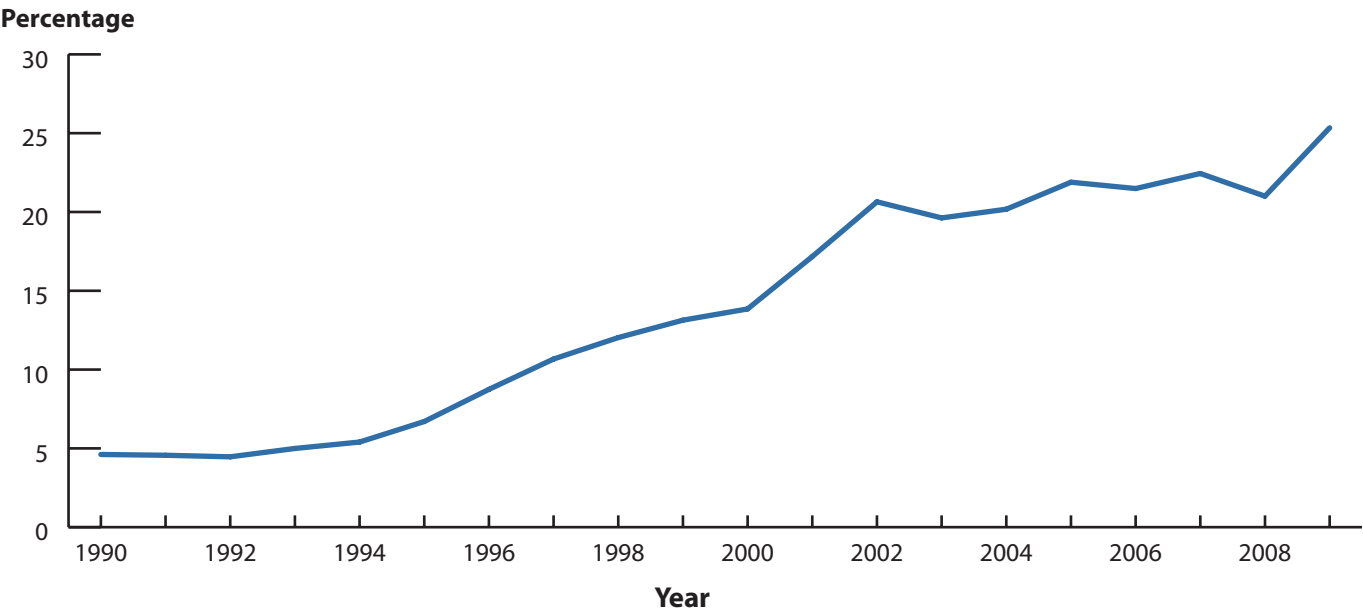
Figure X. Primary and Secondary Syphilis and HIV—Proportion of MSM* with Primary and Secondary Syphilis Who Are Co-infected with HIV, by Site, STD* Surveillance Network, 2009



* MSM = men who have sex with men; STD = sexually transmitted disease.

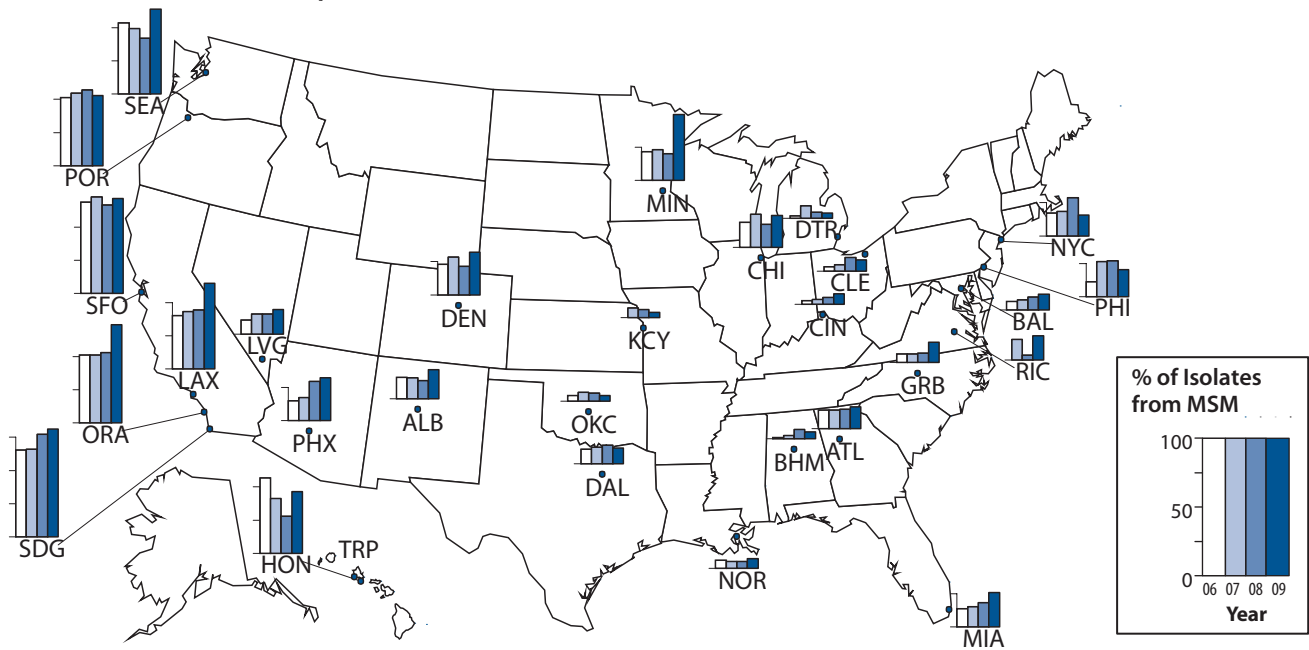
NOTE: Data not available for New Orleans and Hartford/New Haven STD clinics.

Figure Y. Gonococcal Isolate Surveillance Project (GISP)—Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD* Clinics, 1990–2009



* MSM = men who have sex with men; STD = sexually transmitted disease.

Figure Z. Gonococcal Isolate Surveillance Project (GISP)—Percentage of Urethral *Neisseria gonorrhoeae* Isolates Obtained from MSM* Attending STD* Clinics, by Site, 2006–2009



* MSM = men who have sex with men; STD = sexually transmitted disease.

NOTE: Not all sites participated in GISP for the last 4 years. Participating sites include ALB = Albuquerque, NM; ATL = Atlanta, GA; BAL = Baltimore, MD; BHM = Birmingham, AL; CHI = Chicago, IL; CIN = Cincinnati, OH; CLE = Cleveland, OH; DAL = Dallas, TX; DEN = Denver, CO; DTR = Detroit, MI; GRB = Greensboro, NC; HON = Honolulu, HI; KCY = Kansas City, MO; LAX = Los Angeles, CA; LVG = Las Vegas, NV; MIA = Miami, FL; MIN = Minneapolis, MN; NOR = New Orleans, LA; NYC = New York City, NY; OKC = Oklahoma City, OK; ORA = Orange County, CA; PHI = Philadelphia, PA; PHX = Phoenix, AZ; POR = Portland, OR; RIC = Richmond, VA; SDG = San Diego, CA; SEA = Seattle, WA; SFO = San Francisco, CA; and TRP = Tripler Army Medical Center, HI (does not provide sexual risk behavior data).

STDs in Persons Entering Corrections Facilities

Public Health Impact

Multiple studies and surveillance projects have demonstrated a high prevalence of STDs in persons entering jails and juvenile corrections facilities.^{1–4} Prevalence rates for chlamydia and gonorrhea in these settings are consistently among the highest observed in any venue.⁴ Screening for chlamydia, gonorrhea, and syphilis at intake offers an opportunity to identify infections, prevent complications, and reduce transmission in the general community.

For example, data from one study in a location with high syphilis incidence suggested that screening and treatment of female inmates for syphilis may reduce syphilis in the general community.⁵ In some locations, a substantial proportion of all early syphilis cases are reported from corrections facilities.⁶

Description of Population

In 2009, STD screening data from corrections facilities were reported in 37 states and Puerto Rico for chlamydia, 36 states and Puerto Rico for gonorrhea, and 19 states for syphilis. Line-listed (i.e., case-specific) data for chlamydia and gonorrhea are provided to CDC through the Infertility Prevention Project (IPP). Aggregate syphilis data are reported to CDC by local and state STD prevention programs. The figures and tables presented in this section represent 50,968 chlamydia tests of women, 129,548 chlamydia tests of men, 42,124 gonorrhea tests of women, and 114,984 gonorrhea tests of men.

Chlamydia

Overall, chlamydia positivity was higher in women than in men for all age groups.

Males in Juvenile Corrections Facilities—Among males aged 12–18 years entering 123 juvenile corrections facilities, the overall chlamydia positivity was 6.6%

(Figure AA). Chlamydia positivity increased from 1.2% for adolescent males aged 12 years to 10.1% for those aged 18 years.

Females in Juvenile Corrections Facilities—Among females aged 12–18 years entering 83 juvenile corrections facilities, the overall chlamydia positivity was 14.8% (Figure AA). Positivity increased from 4.7% for females aged 12 years to 16.2% for those aged 16 years and remained high for women aged 17–18 years.

Men in Adult Corrections Facilities—Among men entering 59 adult corrections facilities in 2009, positivity in men younger than aged 20 years (10.8%) was higher than the overall prevalence observed in adolescent males entering juvenile facilities (6.6%) (Figure BB). Chlamydia positivity decreased with age, from 10.8% for those younger than aged 20 years to 1.8% for those older than 34 years. Overall positivity among adult men entering corrections facilities in 2009 was 6.6%.

Women in Adult Corrections Facilities—Among women entering 31 adult corrections facilities in 2009, positivity was 7.2% (Figure BB). Chlamydia positivity decreased with age, from 16.6% for those younger than aged 20 years to 2.3% for those older than aged 34 years. Overall chlamydia positivity in women entering adult corrections facilities (7.2%) was substantially lower than that in adolescent females entering juvenile corrections facilities (14.8%). However, chlamydia positivity among women younger than aged 20 years entering adult corrections facilities was higher than that among women entering juvenile corrections facilities.

Gonorrhea

Overall, gonorrhea positivity in women was uniformly higher than in men for all age groups.

Males in Juvenile Corrections Facilities—The overall gonorrhea positivity for adolescent males entering 118 juvenile corrections facilities in 2009 was 1.0% (Figure CC). Positivity increased with age, from 0.1% for those aged 12 years to 1.4% for those aged 18 years.

Females in Juvenile Corrections Facilities—The overall gonorrhea positivity for adolescent females entering 71 juvenile corrections facilities in 2009 was 3.9% (Figure CC). Positivity increased with age, from 1.8% for those aged 12 years to 4.4% for those aged 16 years and remained high for women aged 17–18 years.

Men in Adult Corrections Facilities—The overall gonorrhea positivity for men entering 57 adult corrections facilities in 2009 was 1.2% (Figure DD). Positivity was highest in men younger than aged 20 years (2.2%) and declined with age to 0.4% in men older than aged 34 years. Men younger than aged 20 years entering adult facilities had higher gonorrhea positivity than males entering juvenile corrections facilities.

Women in Adult Corrections Facilities—Among women entering 29 adult corrections facilities in 2009, overall gonorrhea positivity was 1.6% (Figure DD). Positivity decreased with age, from 3.1% among those younger than aged 20 years to 0.7% among those older than aged 34 years. Women younger than aged 20 years entering adult facilities had lower gonorrhea positivity than females entering juvenile corrections facilities.

Syphilis

In 2008, reports of P&S syphilis from correctional facilities accounted for 7% of P&S syphilis among men who have sex with women only (MSW), 5% among women, and 1% among men who have sex with men (MSM). In 2009, reports of P&S syphilis from correctional facilities accounted for 5% of P&S syphilis among MSW, 4% among women, and 1% among MSM (Figure 45).

¹ Heimberger TS, Chang HG, Birkhead GS, DiFerdinando GD, Greenberg AJ, Gunn R, et al. High prevalence of syphilis detected through a jail screening program. A potential public health measure to address the syphilis epidemic. *Arch Intern Med*. 1993;153:1799-804.

² Kahn RH, Mosure DJ, Blank S, Kent CK, Chow JM, Boudov MR, et al. *Chlamydia trachomatis* and *Neisseria gonorrhoeae* prevalence and coinfection in adolescents entering selected US juvenile detention centers, 1997–2002. *Sex Transm Dis*. 2005;29:255-59.

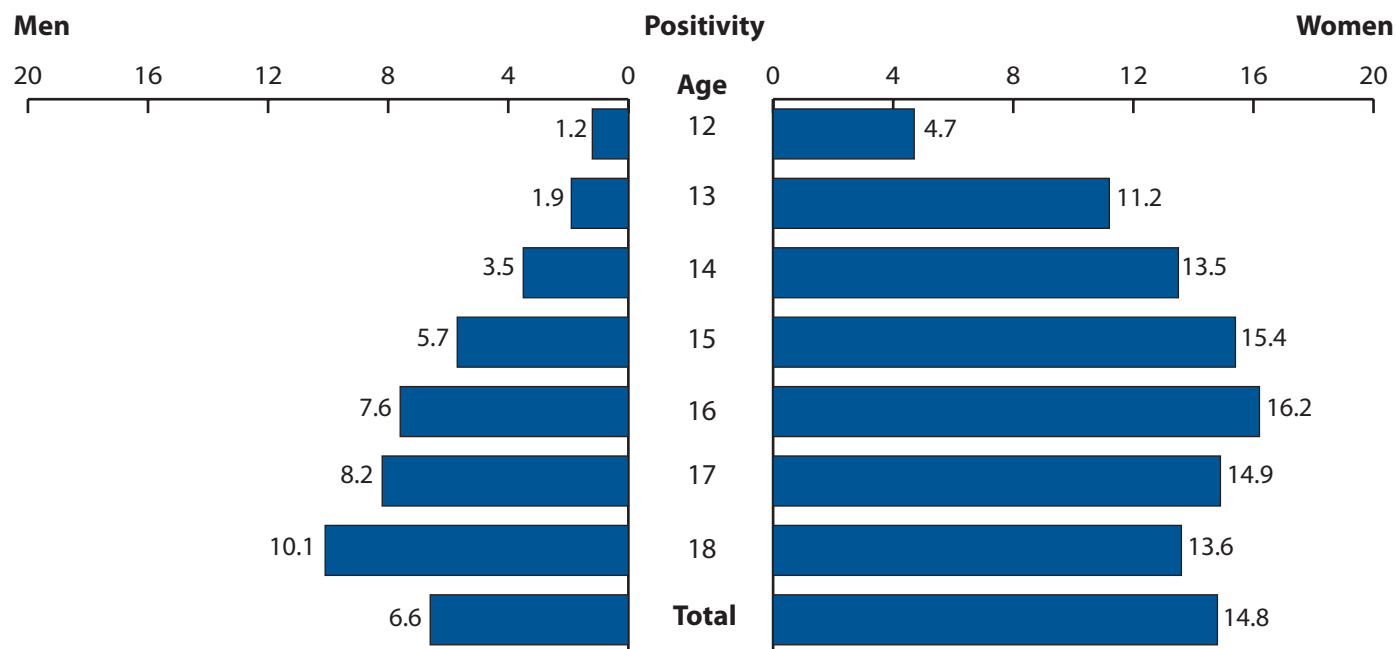
³ Joesoef MR, Weinstock HS, Kent CK, Chow JM, Boudov MR, Parvez FM, et al. Sex and age correlates of chlamydia prevalence in adolescents and adults entering correctional facilities, 2005: implications for screening policy. *Sex Transm Dis*. 2009;36(Suppl 2):S67-71.

⁴ Satterwhite CL, Joesoef MR, Datta SD, Weinstock H. Estimates of *Chlamydia trachomatis* infections among men: United States. *Sex Transm Dis*. 2008;35(Suppl 11):S3-7.

⁵ Blank S, McDonnell DD, Rubin SR, Neal JJ, Brome MW, Masterson MB, et al. New approaches to syphilis control. Finding opportunities for syphilis treatment and congenital syphilis prevention in a women's correctional setting. *Sex Transm Dis*. 1997;24:218-26.

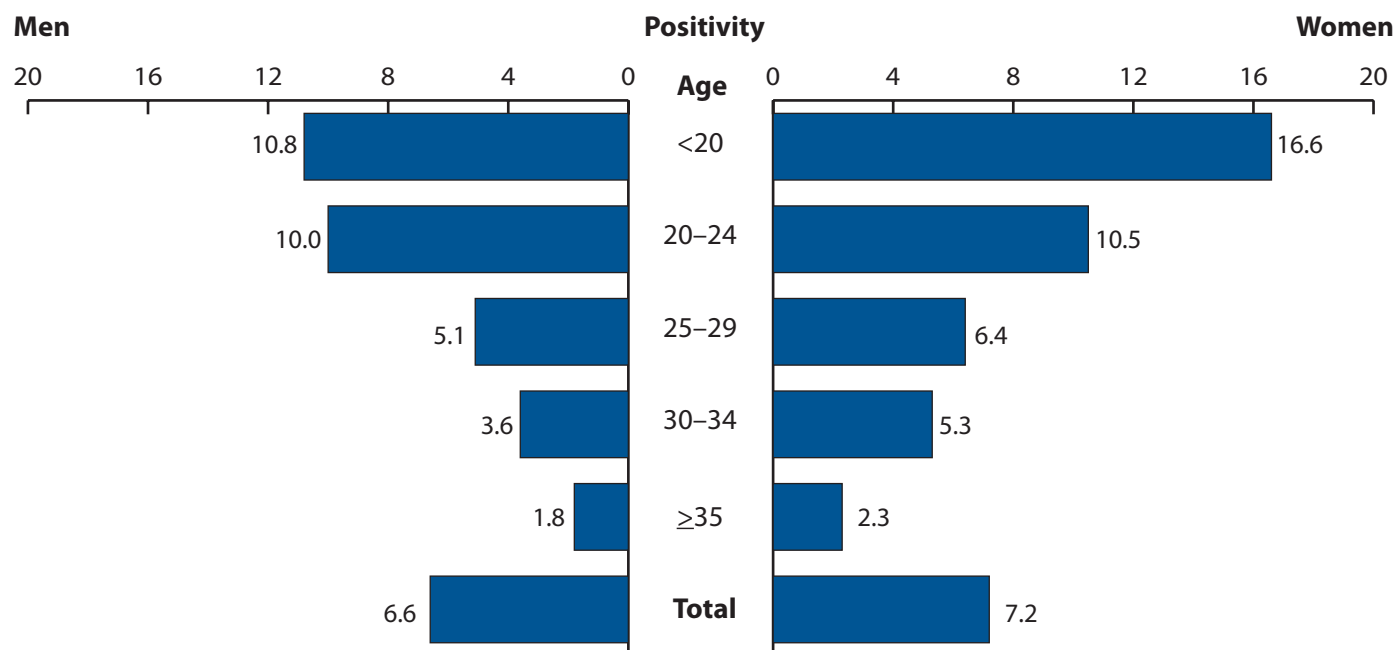
⁶ Kahn R, Voigt R, Swint E, Weinstock H. Early syphilis in the United States identified in corrections facilities, 1999–2002. *Sex Transm Dis*. 2004;29:271-76.

Figure AA. Chlamydia—Positivity by Age and Sex, Juvenile Corrections Facilities, 2009



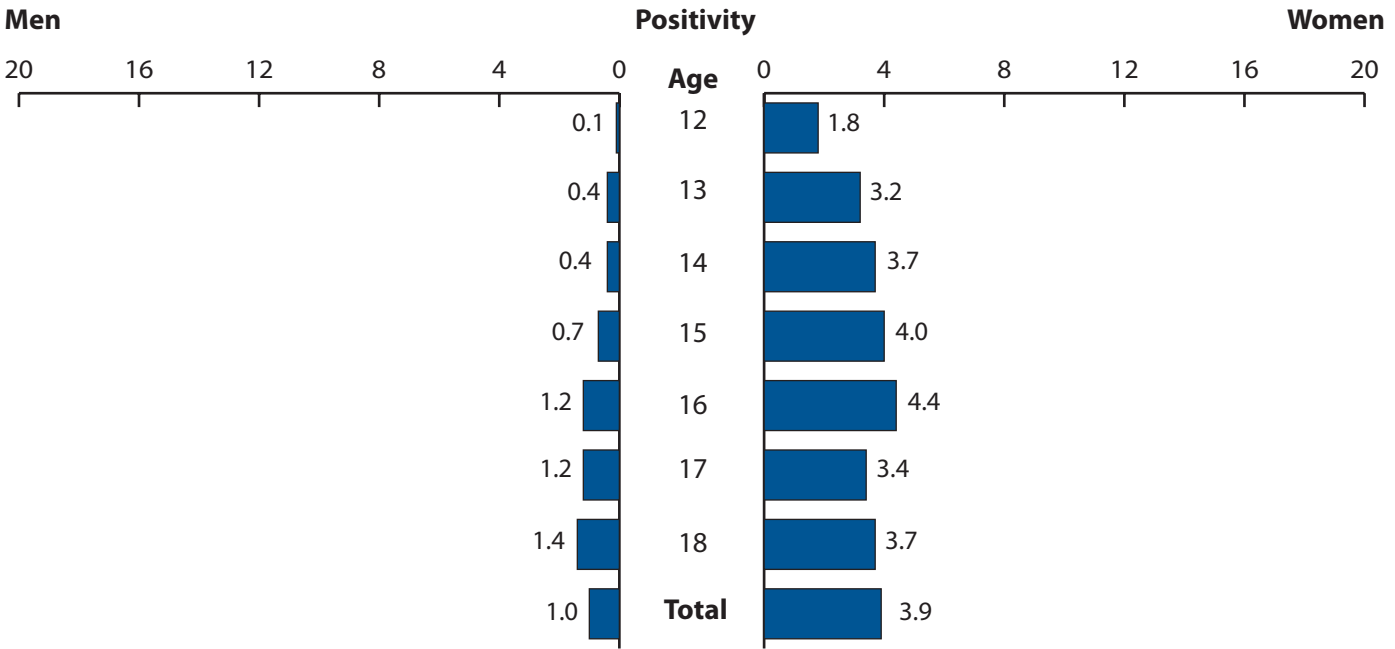
NOTE: Positivity percentage is presented from facilities reporting more than 100 test results.

Figure BB. Chlamydia—Positivity by Age Group and Sex, Adult Corrections Facilities, 2009



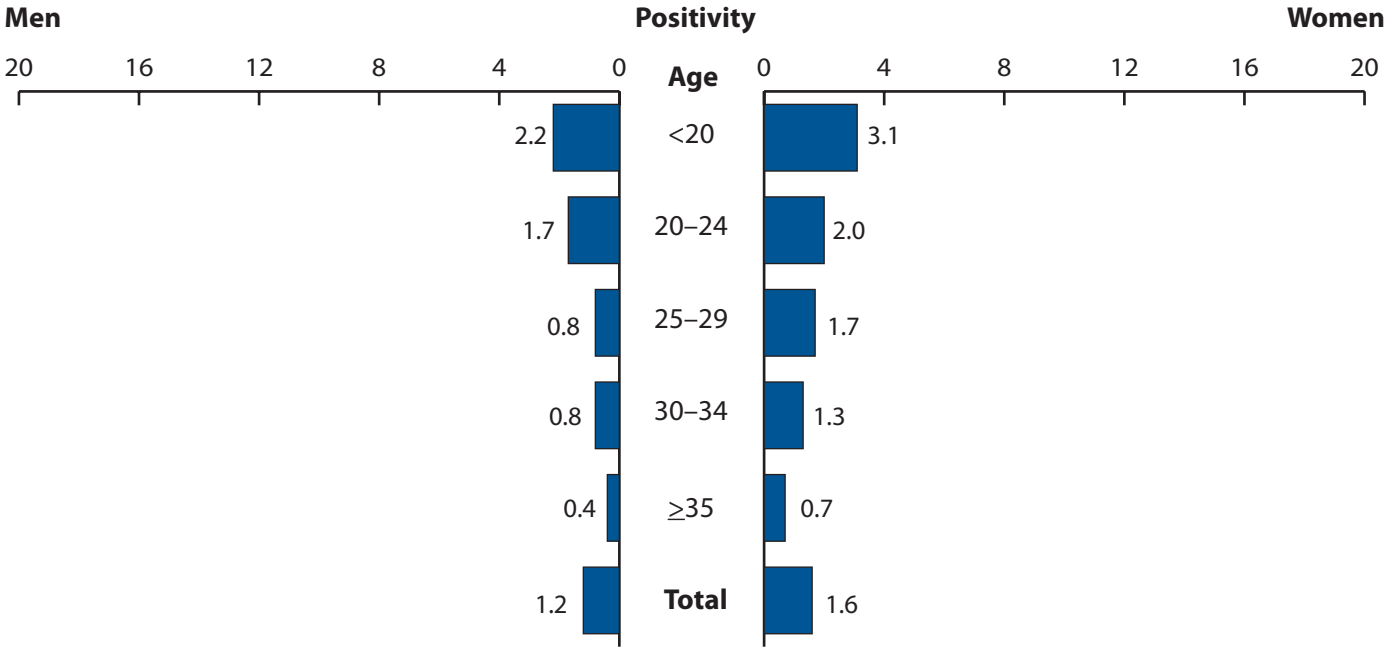
NOTE: Positivity percentage is presented from facilities reporting more than 100 test results.

Figure CC. Gonorrhea—Positivity by Age and Sex, Juvenile Corrections Facilities, 2009



NOTE: Positivity percentage is presented from facilities reporting more than 100 test results.

Figure DD. Gonorrhea—Positivity by Age Group and Sex, Adult Corrections Facilities, 2009



NOTE: Positivity percentage is presented from facilities reporting more than 100 test results.

TABLES

TABLES

Table 1. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2009

Year*	Syphilis															
	Primary and Secondary				Late and Late Latent†				Congenital		Chlamydia		Gonorrhea		Chancroid	
	All Stages		Early Latent		Latent†		Congenital		Chlamydia		Gonorrhea		Chancroid			
Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate*	Cases	Rate	Cases	Rate	Cases	Rate	
1941	485,560	368.2	68,231	51.7	109,018	82.6	202,984	153.9	17,600	651.1	NR	—	193,468	146.7	3,384	2.5
1942	479,601	363.4	75,312	57.0	116,245	88.0	202,064	153.1	16,918	566.0	NR	—	212,403	160.9	5,477	4.1
1943	575,593	447.0	82,204	63.8	149,390	116.0	251,958	195.7	16,164	520.7	NR	—	275,070	213.6	8,354	6.4
1944	467,755	367.9	78,443	61.6	123,038	96.7	202,848	159.6	13,578	462.0	NR	—	300,676	236.5	7,878	6.1
1945	359,114	282.3	77,007	60.5	101,719	79.9	142,187	111.8	12,339	431.7	NR	—	287,181	225.8	5,515	4.3
1946	363,647	271.7	94,957	70.9	107,924	80.6	125,248	93.6	12,106	354.9	NR	—	368,020	275.0	7,091	5.2
1947	355,592	252.3	93,545	66.4	104,124	73.9	122,089	86.6	12,200	319.6	NR	—	380,666	270.0	9,515	6.7
1948	314,313	218.2	68,174	47.3	90,598	62.9	123,312	85.6	13,931	383.0	NR	—	345,501	239.8	7,661	5.3
1949	256,463	175.3	41,942	28.7	75,045	51.3	116,397	79.5	13,952	382.4	NR	—	317,950	217.3	6,707	4.6
1950	217,558	146.0	23,939	16.7	59,256	39.7	113,569	70.2	13,377	368.3	NR	—	286,746	192.5	4,977	3.3
1951	174,924	116.1	14,485	9.6	43,316	28.7	98,311	65.2	11,094	290.4	NR	—	254,470	168.9	4,233	2.8
1952	167,762	110.2	10,449	6.9	36,454	24.0	105,238	69.1	8,553	218.8	NR	—	244,957	160.8	3,738	2.5
1953	148,573	95.9	8,637	5.6	28,295	18.3	98,870	63.8	7,675	193.9	NR	—	238,340	153.9	3,338	2.2
1954	130,697	82.9	7,147	4.5	23,861	15.1	89,123	56.5	6,676	164.0	NR	—	242,050	153.5	3,003	1.9
1955	122,392	76.2	6,454	4.0	20,054	12.5	86,526	53.8	5,354	130.7	NR	—	236,197	147.0	2,649	1.7
1956	130,201	78.7	6,392	3.9	19,783	12.0	95,097	57.5	5,491	130.4	NR	—	224,346	135.7	2,135	1.3
1957	123,758	73.5	6,576	3.9	17,796	10.6	91,309	54.2	5,288	123.0	NR	—	214,496	127.4	1,637	1.0
1958	113,884	66.4	7,176	4.2	16,556	9.7	83,027	48.4	4,866	114.6	NR	—	232,386	135.6	1,595	0.9
1959	120,824	69.2	9,799	5.6	17,025	9.8	86,740	49.7	5,130	119.7	NR	—	240,254	137.6	1,537	0.9
1960	122,538	68.8	16,145	9.1	18,017	10.1	81,798	45.9	4,416	103.7	NR	—	258,933	145.4	1,680	0.9
1961	124,658	68.8	19,851	11.0	19,486	10.8	79,304	43.8	4,163	97.5	NR	—	264,158	145.8	1,438	0.8
1962	126,245	68.7	21,067	11.5	19,585	10.7	79,533	43.3	4,070	97.7	NR	—	263,714	143.6	1,344	0.7
1963	124,137	66.5	22,251	11.9	18,235	9.8	78,076	41.8	4,031	98.4	NR	—	278,289	149.0	1,220	0.7
1964	114,325	60.4	22,969	12.1	17,781	9.4	68,629	36.3	3,516	87.3	NR	—	300,666	158.9	1,247	0.7
1965	112,842	58.9	23,338	12.2	17,458	9.1	67,317	35.1	3,564	94.8	NR	—	324,925	169.5	982	0.5
1966	105,159	54.2	21,414	11.0	15,950	8.2	63,541	32.7	3,170	87.9	NR	—	351,738	181.2	838	0.4
1967	102,581	52.2	21,053	10.7	15,554	7.9	61,975	31.5	2,894	82.2	NR	—	404,836	205.9	784	0.4
1968	96,271	48.4	19,019	9.6	15,150	7.6	58,564	29.4	2,381	68.0	NR	—	464,543	233.4	845	0.4
1969	92,162	45.7	19,130	9.5	15,402	7.6	54,587	27.1	2,074	57.6	NR	—	534,872	265.4	1,104	0.5
1970	91,382	44.8	21,982	10.8	16,311	8.0	50,348	24.7	1,953	52.3	NR	—	600,072	294.2	1,416	0.7
1971	95,997	46.4	23,783	11.5	19,417	9.4	49,993	24.2	2,052	57.7	NR	—	670,268	324.1	1,320	0.6
1972	91,149	43.6	24,429	11.7	20,784	9.9	43,456	20.8	1,758	54.0	NR	—	767,215	366.6	1,414	0.7
1973	87,469	41.4	24,825	11.7	23,584	11.2	37,054	17.5	1,527	48.7	NR	—	842,621	398.7	1,165	0.6
1974	83,771	39.3	25,385	11.9	25,124	11.8	31,854	14.9	1,138	36.0	NR	—	906,121	424.7	945	0.4
1975	80,356	37.3	25,561	11.9	26,569	12.3	27,096	12.6	916	29.1	NR	—	999,937	464.1	700	0.3
1976	71,761	33.0	23,731	10.9	25,363	11.7	21,905	10.1	626	19.8	NR	—	1,001,994	460.6	628	0.3
1977	64,621	29.4	20,399	9.3	21,329	9.7	22,313	10.2	463	13.9	NR	—	1,002,219	456.0	455	0.2
1978	64,875	29.2	21,656	9.8	19,628	8.8	23,038	10.4	434	13.0	NR	—	1,013,436	456.3	521	0.2
1979	67,049	29.9	24,874	11.1	20,459	9.1	21,301	9.5	332	9.5	NR	—	1,004,058	447.1	840	0.4
1980	68,832	30.3	27,204	12.0	20,297	8.9	20,979	9.2	277	7.7	NR	—	1,004,029	442.1	788	0.3
1981	72,799	31.7	31,266	13.6	21,033	9.2	20,168	8.8	287	7.9	NR	—	990,864	431.8	850	0.4
1982	75,579	32.6	33,613	14.5	21,894	9.5	19,799	8.5	259	7.0	NR	—	960,633	414.7	1,392	0.6
1983	74,637	31.9	32,698	14.0	23,738	10.2	17,896	7.7	239	6.6	NR	—	900,435	385.1	847	0.4
1984	69,872	29.6	28,607	12.1	23,131	9.8	17,829	7.6	305	8.3	7,594	6.5	878,556	372.5	665	0.3
1985	67,563	28.4	27,131	11.4	21,689	9.1	18,414	7.7	329	8.7	25,848	17.4	911,419	383.0	2,067	0.9
1986	67,779	28.2	27,667	11.5	21,656	9.0	18,046	7.5	410	10.9	58,001	35.2	892,229	371.5	3,045	1.3
1987	87,286	36.0	35,585	14.7	28,233	11.7	22,988	9.5	480	12.6	91,913	50.8	787,532	325.0	4,986	2.1
1988	104,546	42.8	40,474	16.6	35,968	14.7	27,363	11.2	741	19.0	157,854	87.1	738,160	301.9	4,891	2.0
1989	115,089	46.6	45,826	18.6	45,394	18.4	22,032	8.9	1,837	45.5	200,904	102.5	733,294	297.1	4,697	1.9
1990	135,590	54.3	50,578	20.3	55,397	22.2	25,750	10.3	3,865	92.9	323,663	160.2	690,042	276.4	4,212	1.7
1991	128,719	50.9	42,950	17.0	53,855	21.3	27,490	10.9	4,424	107.6	381,228	179.7	621,918	245.8	3,476	1.4
1992	114,730	44.7	34,009	13.3	49,929	19.5	26,725	10.4	4,067	100.0	409,694	182.3	502,858	196.0	1,906	0.7
1993	102,612	39.5	26,527	10.2	41,919	16.1	30,746	11.8	3,420	85.5	405,332	178.0	444,649	171.1	1,292	0.5
1994	82,713	31.4	20,641	7.8	32,017	12.2	27,603	10.5	2,452	62.0	451,785	192.5	419,602	163.9	782	0.3
1995	69,359	26.0	16,543	6.2	26,657	10.0	24,296	9.1	1,863	47.8	478,577	187.8	392,651	147.5	607	0.2
1996	53,240	19.8	11,405	4.2	20,187	7.5	20,366	7.6	1,282	32.9	492,631	190.6	328,169	121.8	386	0.1
1997	46,716	17.1	8,556	3.1	16,631	6.1	20,447	7.5	1,082	27.9	537,904	205.5	327,665	120.2	246	0.1
1998	38,289	13.9	7,007	2.5	12,696	4.6	17,743	6.4	843	21.4	614,250	231.8	356,492	129.2	189	0.1
1999	35,385	12.7	6,617	2.4	11,534	4.1	16,655	6.0	579	14.6	662,647	247.2	360,813	129.3	110	0.0

Table 1. Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Population, United States, 1941–2009 (continued)

Year*	Syphilis															
	All Stages		Primary and Secondary		Early Latent		Late and Late Latent†		Congenital		Chlamydia		Gonorrhea		Chancroid	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate‡	Cases	Rate	Cases	Rate	Cases	Rate
2000	31,618	11.2	5,979	2.1	9,465	3.4	15,594	5.5	580	14.3	709,452	251.4	363,136	128.7	78	0.0
2001	32,284	11.3	6,103	2.1	8,701	3.0	16,976	5.9	504	12.5	783,242	274.5	361,705	126.8	38	0.0
2002	32,919	11.4	6,862	2.4	8,429	2.9	17,168	6.0	460	11.4	834,555	289.4	351,852	122.0	48	0.0
2003	34,289	11.8	7,177	2.5	8,361	2.9	18,319	6.3	432	10.6	877,478	301.7	335,104	115.2	54	0.0
2004	33,423	11.4	7,980	2.7	7,768	2.6	17,300	5.9	375	9.1	929,462	316.5	330,132	112.4	30	0.0
2005	33,288	11.2	8,724	2.9	8,176	2.8	16,049	5.4	339	8.2	976,445	329.4	339,593	114.6	17	0.0
2006	36,958	12.3	9,756	3.3	9,186	3.1	17,644	5.9	372	8.7	1,030,911	344.3	358,366	119.7	19	0.0
2007	40,925	13.6	11,466	3.8	10,768	3.6	18,256	6.1	435	10.2	1,108,374	367.5	355,991	118.0	23	0.0
2008	46,291	15.2	13,500	4.4	12,401	4.1	19,945	6.6	445	10.4	1,210,523	398.1	336,742	110.7	25	0.0
2009	44,828	14.7	13,997	4.6	13,066	4.3	17,338	5.7	427	10.0	1,244,180	409.2	301,174	99.1	28	0.0

* For 1941–1946, data were reported for the federal fiscal year ending June 30 of the year indicated. From 1947 to present, data were reported for the calendar year ending December 31. For 1941–1958, data for Alaska and Hawaii were not included.

† Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, and late syphilis with clinical manifestations other than neurosyphilis.

‡ Rates include all cases of congenitally acquired syphilis per 100,000 live births. As of 1995, cases of congenital syphilis are obtained in hard copy and electronic format on the basis of case reporting form CDC 73.126.

NR = No report.

NOTE: Adjustments to the number of cases reported from state health departments were made for hard copy forms and for electronic data submissions through June 9, 2010 (see Appendix). The number of cases and the rates shown here supersede those published in previous reports. For more information regarding reporting, see Interpreting STD Surveillance Data in the Appendix. Cases and rates shown in this table exclude the outlying areas of Guam, Puerto Rico, and Virgin Islands.

Table 2. Chlamydia—Reported Cases and Rates by State, Ranked by Rates, United States, 2009

Rank*	State	Cases	Rates per 100,000 Population
1	Mississippi	23,589	802.7
2	Alaska	5,166	752.7
3	Louisiana	27,628	626.4
4	South Carolina	26,654	595.0
5	Alabama	25,929	556.2
6	Delaware	4,718	540.4
7	Arkansas	14,354	502.7
8	New Mexico	9,493	478.4
9	Tennessee	29,711	478.1
10	New York	92,069	472.4
11	Illinois	60,542	469.3
12	Hawaii	6,026	467.8
13	Michigan	45,714	457.0
14	North Carolina	41,045	445.1
15	Missouri	25,868	437.6
16	Texas	105,910	435.4
17	Maryland	23,747	421.5
18	Ohio	48,239	420.0
19	Oklahoma	15,023	412.5
20	Georgia	39,828	411.2
	U.S. TOTAL†	1,244,180	409.2
21	Colorado	19,998	404.9
22	Arizona	26,002	400.0
23	California	146,796	399.4
24	Florida	72,931	397.9
25	Virginia	30,903	397.8
26	Nevada	10,045	386.3
27	Kansas	10,510	375.1
28	South Dakota	3,015	374.9
29	Wisconsin	20,906	371.5
30	Wyoming	1,963	368.5
31	Connecticut	12,127	346.4
32	Pennsylvania	43,068	346.0
33	Rhode Island	3,615	344.0
34	Indiana	21,732	340.8
35	Washington	21,387	326.6
36	Iowa	9,406	313.3
37	Kentucky	13,293	311.4
38	Montana	2,988	308.9
39	Nebraska	5,443	305.2
40	North Dakota	1,957	305.1
41	Oregon	11,497	303.3
42	Massachusetts	19,315	297.2
43	New Jersey	23,974	276.1
44	Minnesota	14,197	272.0
45	Idaho	3,842	252.1
46	Utah	6,145	224.6
47	West Virginia	3,604	198.6
48	Vermont	1,186	190.9
49	Maine	2,431	184.7
50	New Hampshire	2,102	159.7

* States were ranked in descending order by rate, number of cases, and alphabetically.

† Total includes cases reported by the District of Columbia with 6,549 cases and a rate of 1,106.6 but excludes outlying areas (Guam with 620 cases and rate of 352.3, Puerto Rico with 7,302 cases and rate of 184.7, and Virgin Islands with 488 cases and rate of 444.3).

Table 3. Chlamydia—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	17,109	22,915	25,153	24,760	25,929	375.4	498.3	543.5	531.1	556.2
Alaska	4,355	4,525	4,911	4,861	5,166	656.2	675.3	718.5	708.3	752.7
Arizona	21,264	24,090	24,866	24,769	26,002	358.0	390.7	392.3	381.1	400.0
Arkansas	8,507	8,259	9,954	14,136	14,354	306.1	293.8	351.1	495.1	502.7
California	130,716	135,827	141,928	148,798	146,796	361.8	372.6	388.3	404.8	399.4
Colorado	15,432	16,313	17,186	19,180	19,998	330.8	343.2	353.5	388.3	404.9
Connecticut	11,039	10,946	11,454	12,519	12,127	314.5	312.3	327.0	357.6	346.4
Delaware	3,392	3,615	3,479	3,868	4,718	402.1	423.6	402.3	443.0	540.4
District of Columbia	3,678	3,368	6,029	6,924	6,549	668.1	579.2	1,024.8	1,169.9	1,106.6
Florida	43,372	48,955	57,575	71,017	72,931	243.8	270.6	315.5	387.5	397.9
Georgia	33,562	38,972	42,913	42,629	39,828	369.9	416.2	449.6	440.1	411.2
Hawaii	5,489	5,548	5,659	5,982	6,026	430.4	431.6	440.9	464.4	467.8
Idaho	2,799	3,345	3,722	4,194	3,842	195.9	228.1	248.2	275.2	252.1
Illinois	50,559	53,586	55,470	59,169	60,542	396.1	417.6	431.6	458.6	469.3
Indiana	20,063	19,859	20,712	22,154	21,732	319.9	314.5	326.4	347.4	340.8
Iowa	7,390	8,390	8,643	9,372	9,406	249.1	281.3	289.3	312.1	313.3
Kansas	7,419	7,829	8,180	9,208	10,510	270.3	283.2	294.7	328.6	375.1
Kentucky	8,351	8,940	8,798	12,163	13,293	200.1	212.5	207.4	284.9	311.4
Louisiana	17,227	17,885	19,362	22,659	27,628	380.8	417.1	451.0	513.7	626.4
Maine	2,254	2,306	2,541	2,608	2,431	170.6	174.5	192.9	198.1	184.7
Maryland	18,291	21,859	23,150	24,669	23,747	326.6	389.2	412.0	437.9	421.5
Massachusetts	14,411	15,394	16,145	17,503	19,315	225.2	239.1	250.3	269.4	297.2
Michigan	38,730	36,753	37,353	44,923	45,714	382.7	364.0	370.9	449.1	457.0
Minnesota	12,189	12,935	13,413	14,351	14,197	237.5	250.3	258.1	274.9	272.0
Mississippi	21,268	19,002	21,686	21,253	23,589	728.1	652.9	743.0	723.2	802.7
Missouri	22,371	22,982	23,308	24,817	25,868	385.7	393.3	396.5	419.8	437.6
Montana	2,400	2,650	2,748	3,101	2,988	256.5	280.5	286.9	320.5	308.9
Nebraska	5,098	5,428	5,132	5,573	5,443	289.9	307.0	289.2	312.5	305.2
Nevada	7,321	8,398	9,514	9,670	10,045	303.2	336.5	370.9	371.9	386.3
New Hampshire	1,842	1,997	2,055	2,109	2,102	140.6	151.9	156.2	160.3	159.7
New Jersey	19,152	20,194	21,536	22,405	23,974	219.7	231.5	247.9	258.0	276.1
New Mexico	8,456	9,829	9,460	9,262	9,493	438.5	502.9	480.2	466.8	478.4
New York	63,966	68,720	80,717	88,359	92,069	332.2	355.9	418.3	453.3	472.4
North Carolina	31,183	33,615	30,611	37,516	41,045	359.1	379.6	337.8	406.8	445.1
North Dakota	1,667	1,820	1,789	1,921	1,957	261.8	286.2	279.7	299.5	305.1
Ohio	43,806	40,106	47,434	47,117	48,239	382.1	349.4	413.7	410.2	420.0
Oklahoma	13,407	12,992	12,529	14,803	15,023	377.9	363.0	346.4	406.4	412.5
Oregon	9,018	9,577	9,849	10,744	11,497	247.7	258.8	262.8	283.5	303.3
Pennsylvania	37,261	39,487	42,469	42,233	43,068	299.8	317.4	341.6	339.3	346.0
Rhode Island	3,269	3,142	3,177	3,317	3,615	303.8	294.3	300.3	315.7	344.0
South Carolina	18,296	22,351	26,431	26,323	26,654	430.0	517.2	599.7	587.6	595.0
South Dakota	2,701	2,633	2,620	2,956	3,015	348.1	336.7	329.1	367.6	374.9
Tennessee	23,084	25,320	26,866	28,038	29,711	387.1	419.3	436.4	451.1	478.1
Texas	71,860	75,543	85,786	100,870	105,910	314.3	321.4	358.9	414.6	435.4
Utah	4,602	5,092	5,721	6,021	6,145	186.3	199.7	216.3	220.0	224.6
Vermont	957	1,191	1,057	1,190	1,186	153.6	190.9	170.1	191.5	190.9
Virginia	22,668	24,087	24,579	31,218	30,903	299.5	315.2	318.7	401.8	397.8
Washington	18,616	17,819	18,784	21,402	21,387	296.1	278.6	290.4	326.8	326.6
West Virginia	2,944	2,910	3,168	3,316	3,604	162.0	160.0	174.8	182.8	198.6
Wisconsin	20,461	20,190	19,555	20,996	20,906	369.6	363.4	349.1	373.1	371.5
Wyoming	1,173	1,422	1,197	1,577	1,963	230.3	276.1	228.9	296.1	368.5
U.S. TOTAL	976,445	1,030,911	1,108,374	1,210,523	1,244,180	329.4	344.3	367.5	398.1	409.2
Northeast	154,151	163,377	181,151	192,243	199,887	282.1	298.5	331.3	350.0	363.9
Midwest	232,454	232,511	243,609	262,557	267,529	352.4	351.1	366.9	394.5	401.9
South	358,199	390,588	428,069	486,162	505,416	333.2	358.1	387.6	435.2	452.4
West	231,641	244,435	255,545	269,561	271,348	339.2	352.4	364.6	380.4	383.0
Guam	807	832	822	687	620	478.7	486.5	473.7	390.4	352.3
Puerto Rico	3,714	5,102	7,909	6,874	7,302	94.9	129.9	200.6	173.8	184.7
Virgin Islands	235	203	348	587	488	216.2	186.9	316.9	534.4	444.3
OUTLYING AREAS	4,756	6,137	9,079	8,148	8,410	113.5	145.8	214.8	192.2	198.4
TOTAL	981,201	1,037,048	1,117,453	1,218,671	1,252,590	326.4	341.6	365.4	395.3	406.3

Table 4. Chlamydia—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	14,532	17,915	19,186	18,744	19,413	619.4	756.0	804.2	779.8	807.6
Alaska	2,908	3,067	3,295	3,253	3,364	907.4	947.7	1,002.6	989.7	1,023.5
Arizona	16,201	18,485	18,794	18,358	19,097	546.2	600.1	593.7	566.0	588.8
Arkansas	6,823	6,604	7,893	10,643	10,689	481.8	460.8	546.0	730.6	733.8
California	93,646	97,170	101,175	104,201	101,716	517.8	532.9	553.6	567.3	553.7
Colorado	11,219	12,037	12,707	13,825	14,765	485.8	510.0	527.1	564.7	603.0
Connecticut	8,383	8,205	8,577	9,239	8,937	464.4	456.2	477.7	515.0	498.2
Delaware	2,493	2,625	2,554	2,789	3,573	576.8	597.6	573.3	620.1	794.4
District of Columbia	2,976	2,510	3,970	4,438	4,153	1,028.4	812.7	1,279.9	1,422.7	1,331.3
Florida	34,850	38,536	42,173	52,206	52,747	384.4	418.6	454.3	560.0	565.8
Georgia	26,317	30,546	31,827	31,515	29,074	574.0	642.7	656.1	640.4	590.8
Hawaii	4,093	4,161	4,228	4,422	4,399	640.1	648.0	663.1	692.4	688.8
Idaho	2,162	2,435	2,660	3,048	2,768	303.6	334.4	357.1	402.5	365.5
Illinois	37,672	39,705	41,733	43,112	44,560	580.3	609.5	640.2	659.0	681.2
Indiana	15,263	14,907	15,576	16,513	16,150	479.4	465.4	483.9	510.6	499.3
Iowa	5,400	6,157	6,310	6,882	6,785	358.7	407.9	416.9	452.9	446.5
Kansas	6,054	6,286	6,629	7,401	8,209	438.4	451.4	473.6	524.8	582.1
Kentucky	6,041	6,336	6,184	8,622	9,621	284.5	295.4	285.9	395.3	441.1
Louisiana	13,395	14,290	15,334	17,260	20,719	576.4	649.0	694.6	760.4	912.7
Maine	1,644	1,672	1,831	1,847	1,705	243.2	247.6	271.5	274.0	252.9
Maryland	14,653	17,339	18,230	19,337	18,782	507.5	598.1	628.7	665.4	646.3
Massachusetts	10,587	11,175	11,671	12,646	13,786	321.0	336.6	351.2	378.1	412.2
Michigan	30,079	27,915	28,341	33,719	33,860	584.6	544.6	554.4	663.8	666.6
Minnesota	8,820	9,243	9,681	10,266	10,204	341.3	355.7	371.0	391.8	389.4
Mississippi	16,684	14,853	16,718	16,323	17,829	1,110.4	989.4	1,110.8	1,077.6	1,177.0
Missouri	16,580	16,938	17,080	18,116	18,825	559.3	566.9	567.9	599.1	622.6
Montana	1,776	1,932	2,024	2,227	2,134	378.9	409.3	423.2	461.1	441.9
Nebraska	3,713	3,956	3,755	4,123	3,884	417.6	443.7	419.5	458.5	432.0
Nevada	5,362	6,185	7,044	7,131	7,112	452.3	504.2	559.7	559.0	557.6
New Hampshire	1,343	1,484	1,533	1,548	1,542	202.2	222.7	230.0	232.2	231.3
New Jersey	15,826	16,560	17,355	18,001	18,757	354.1	371.1	391.1	406.3	423.3
New Mexico	6,333	7,456	7,044	6,986	6,987	646.2	753.3	705.7	694.4	694.5
New York	45,391	48,568	56,590	61,280	63,882	457.2	488.1	569.5	611.1	637.0
North Carolina	25,702	27,301	25,110	30,693	33,002	582.6	604.6	541.9	652.3	701.4
North Dakota	1,091	1,231	1,194	1,291	1,297	342.1	389.0	374.7	404.0	405.9
Ohio	33,312	30,483	36,143	35,021	36,724	566.9	518.4	615.1	595.4	624.3
Oklahoma	10,608	9,678	9,130	11,117	11,101	591.1	533.3	499.0	603.0	602.2
Oregon	6,194	6,585	6,890	7,433	8,136	338.4	353.8	365.5	389.7	426.6
Pennsylvania	27,131	28,503	30,511	30,509	30,335	424.0	445.8	477.9	477.6	474.9
Rhode Island	2,396	2,175	2,282	2,400	2,603	430.7	394.5	418.0	442.7	480.2
South Carolina	15,694	19,055	20,793	20,492	21,124	719.6	859.3	919.8	891.5	919.0
South Dakota	1,924	1,923	1,894	2,185	2,214	492.9	491.4	474.2	541.7	548.9
Tennessee	16,453	18,352	19,604	20,479	21,655	540.8	594.3	622.2	642.8	679.7
Texas	58,668	60,327	67,966	79,002	82,551	511.4	511.5	567.4	648.4	677.6
Utah	3,081	3,457	3,926	3,982	4,019	250.6	272.7	299.8	293.8	296.6
Vermont	725	897	812	896	889	229.3	283.1	257.4	284.0	281.7
Virginia	16,805	17,682	18,136	23,172	22,390	437.2	455.0	461.8	586.3	566.5
Washington	13,471	13,021	13,793	15,581	15,741	427.8	406.1	425.0	475.1	480.0
West Virginia	2,272	2,208	2,423	2,490	2,684	244.9	238.0	262.0	269.0	289.9
Wisconsin	14,751	14,606	14,438	15,229	15,038	527.9	522.5	512.4	538.1	531.3
Wyoming	874	1,051	913	1,011	1,187	346.0	413.8	354.2	385.2	452.2
U.S. TOTAL	740,371	775,788	825,660	893,004	912,718	492.2	510.8	539.8	579.4	592.2
Northeast	113,426	119,239	131,162	138,366	142,436	403.5	423.8	467.1	490.9	505.4
Midwest	174,659	173,350	182,774	193,858	197,750	521.0	515.8	542.6	574.2	585.7
South	284,966	306,157	327,231	369,322	381,107	521.5	551.6	582.3	649.8	670.6
West	167,320	177,042	184,493	191,458	191,425	490.2	511.0	527.2	541.5	541.5
Guam	667	692	669	574	512	807.0	824.7	785.4	664.1	592.3
Puerto Rico	3,366	4,091	6,781	5,834	6,336	165.6	200.3	330.8	283.7	308.1
Virgin Islands	189	144	267	448	435	332.5	253.6	462.5	775.2	752.7
OUTLYING AREAS	4,222	4,927	7,717	6,856	7,283	194.4	225.7	351.9	311.5	330.9
TOTAL	744,593	780,715	833,377	899,860	920,001	488.0	506.7	537.1	575.6	588.5

NOTE: Cases reported with unknown sex are not included in this table.

Table 5. Chlamydia—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	2,507	4,985	5,955	6,007	6,508	113.4	223.6	265.6	266.0	288.2
Alaska	1,447	1,458	1,616	1,608	1,802	421.6	420.9	455.4	449.7	503.9
Arizona	5,058	5,588	6,055	6,401	6,904	170.1	181.1	190.8	196.5	212.0
Arkansas	1,684	1,655	2,060	3,491	3,664	123.6	120.1	148.3	249.6	262.0
California	36,449	38,003	40,213	44,060	44,592	202.0	208.5	220.0	239.6	242.5
Colorado	4,213	4,276	4,479	5,319	5,228	178.8	178.7	182.8	213.5	209.9
Connecticut	2,656	2,741	2,877	3,264	3,190	155.8	160.7	168.5	191.2	186.8
Delaware	899	990	925	1,079	1,145	218.6	239.0	220.6	254.9	270.5
District of Columbia	681	819	2,034	2,438	2,390	260.8	300.4	731.4	871.1	853.9
Florida	8,522	10,410	15,376	18,593	20,069	97.7	117.2	171.4	206.5	222.9
Georgia	6,793	8,089	10,808	10,690	10,513	151.4	175.4	230.3	224.3	220.6
Hawaii	1,396	1,384	1,431	1,560	1,626	219.6	215.1	221.6	240.2	250.3
Idaho	616	895	1,030	1,133	1,051	85.9	121.2	136.5	147.8	137.1
Illinois	12,886	13,881	13,736	16,052	15,964	205.5	219.7	216.9	252.4	251.0
Indiana	4,703	4,849	5,032	5,572	5,502	152.3	155.9	160.9	177.3	175.1
Iowa	1,990	2,233	2,333	2,490	2,621	136.2	151.6	158.2	167.9	176.8
Kansas	1,365	1,543	1,551	1,807	2,301	100.1	112.5	112.7	129.8	165.3
Kentucky	2,285	2,580	2,605	3,508	3,647	111.5	125.2	125.3	168.0	174.7
Louisiana	3,583	3,372	3,758	5,226	6,841	162.9	161.7	180.2	244.1	319.6
Maine	606	634	708	761	726	93.9	98.1	110.1	118.5	113.0
Maryland	3,627	4,439	4,907	5,307	4,885	133.7	163.4	180.5	194.6	179.1
Massachusetts	3,809	4,193	4,457	4,839	5,490	122.8	134.5	142.6	153.5	174.1
Michigan	8,525	8,724	8,845	11,007	11,675	171.3	175.5	178.3	223.5	237.1
Minnesota	3,369	3,692	3,732	4,085	3,993	132.2	143.7	144.2	157.1	153.6
Mississippi	4,584	4,149	4,968	4,930	5,760	323.1	294.4	351.4	346.2	404.5
Missouri	5,791	6,044	6,228	6,701	7,043	204.2	211.7	216.9	232.0	243.9
Montana	619	709	716	865	851	132.6	150.0	149.3	178.5	175.7
Nebraska	1,378	1,401	1,363	1,441	1,549	158.4	159.8	155.0	163.0	175.2
Nevada	1,955	2,211	2,460	2,539	2,931	159.0	174.2	188.3	191.7	221.3
New Hampshire	499	513	522	561	560	77.3	79.1	80.4	86.4	86.3
New Jersey	3,323	3,606	4,169	4,390	5,200	78.2	84.6	98.1	103.3	122.3
New Mexico	2,121	2,368	2,415	2,272	2,500	223.6	245.4	248.5	232.2	255.5
New York	18,547	20,148	24,045	27,056	28,171	198.9	215.4	256.9	285.9	297.7
North Carolina	5,481	6,314	5,493	6,656	7,798	128.3	145.4	124.1	147.4	172.6
North Dakota	574	588	594	629	654	180.6	184.1	185.0	195.4	203.1
Ohio	9,139	9,039	10,852	10,847	10,978	163.6	161.5	194.1	193.6	195.9
Oklahoma	2,799	3,314	3,399	3,606	3,879	159.6	187.8	190.2	200.5	215.6
Oregon	2,824	2,992	2,959	3,311	3,361	155.9	162.6	158.9	175.9	178.5
Pennsylvania	10,128	10,981	11,934	11,722	12,700	168.0	181.6	197.3	193.4	209.6
Rhode Island	868	962	892	915	1,012	167.0	186.4	174.3	179.9	198.9
South Carolina	2,572	3,272	5,549	5,723	5,418	124.0	155.5	258.4	262.4	248.4
South Dakota	774	709	725	767	788	200.7	181.5	182.7	191.3	196.6
Tennessee	6,619	6,968	7,262	7,559	8,055	226.6	236.1	241.6	249.5	265.9
Texas	13,138	15,178	17,687	21,812	23,302	115.4	129.6	148.3	179.6	191.9
Utah	1,521	1,635	1,795	2,039	2,126	122.6	127.5	134.4	147.6	153.9
Vermont	232	294	245	294	297	75.6	95.8	80.1	96.2	97.1
Virginia	5,823	6,384	6,433	7,985	8,442	156.4	169.9	170.0	209.2	221.2
Washington	5,145	4,798	4,991	5,767	5,645	163.9	150.4	154.9	176.4	172.6
West Virginia	671	698	744	825	920	75.5	78.4	83.9	92.8	103.5
Wisconsin	5,688	5,551	5,090	5,707	5,740	207.5	201.1	182.8	204.0	205.2
Wyoming	299	371	284	563	776	116.5	142.1	107.2	208.4	287.2
U.S. TOTAL	232,781	252,630	280,337	313,779	328,783	159.4	171.3	188.6	209.3	219.3
Northeast	40,668	44,072	49,849	53,802	57,346	153.3	165.6	187.4	201.2	214.5
Midwest	56,182	58,254	60,081	67,105	68,808	173.2	178.6	183.7	204.6	209.8
South	72,268	83,616	99,963	115,435	123,236	136.7	156.0	184.3	210.3	224.5
West	63,663	66,688	70,444	77,437	79,393	186.4	192.1	200.7	218.1	223.6
Guam	140	140	153	113	108	162.9	160.7	173.1	126.2	120.6
Puerto Rico	348	1,007	1,125	1,034	957	18.5	53.4	59.4	54.5	50.4
Virgin Islands	46	55	81	139	53	88.7	106.1	155.5	267.1	101.8
OUTLYING AREAS	534	1,202	1,359	1,286	1,118	26.5	59.3	66.8	63.1	54.8
TOTAL	233,315	253,832	281,696	315,065	329,901	157.6	169.7	186.9	207.3	217.1

NOTE: Cases reported with unknown sex are not included in this table.

Table 6. Chlamydia—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	16,748	20,979	21,609	20,722	20,292	340.6	408.3	409.3	385.4	377.4
Austin-Round Rock, TX	5,103	7,325	6,814	8,413	8,456	351.3	484.0	426.4	509.1	511.7
Baltimore-Towson, MD	11,071	11,617	13,053	13,537	12,883	416.9	437.0	489.2	507.6	483.0
Birmingham-Hoover, AL	4,720	5,338	6,913	6,690	6,120	433.0	485.3	623.8	598.6	547.6
Boston-Cambridge-Quincy, MA-NH	9,368	9,918	10,697	11,854	13,285	212.3	222.6	238.6	262.1	293.7
Buffalo-Cheektowaga-Tonawanda, NY	5,013	4,992	5,078	5,561	5,769	436.8	438.8	450.1	494.6	513.1
Charlotte-Gastonia-Concord, NC-SC	5,830	5,076	4,216	7,046	8,869	383.2	320.7	255.3	414.0	521.2
Chicago-Naperville-Joliet, IL-IN-WI	38,966	41,521	41,403	45,803	46,505	412.6	436.8	434.7	478.6	486.0
Cincinnati-Middletown, OH-KY-IN	8,516	8,616	10,080	10,016	8,872	411.3	409.5	472.4	464.8	411.7
Cleveland-Elyria-Mentor, OH	8,181	7,462	9,351	8,731	10,439	384.7	353.0	446.0	418.1	499.9
Columbus, OH	5,902	5,843	7,157	8,314	9,015	345.4	338.6	408.0	468.9	508.4
Dallas-Fort Worth-Arlington, TX	18,005	17,035	22,292	26,090	27,142	309.4	283.7	362.8	414.1	430.8
Denver-Aurora, CO	8,534	7,934	9,539	10,996	11,803	361.6	329.4	387.0	438.7	470.9
Detroit-Warren-Livonia, MI	20,497	17,201	17,934	24,987	25,347	456.7	384.9	401.4	564.7	572.8
Hartford-West Hartford-East Hartford, CT	3,815	3,799	4,300	4,781	4,467	321.1	319.6	361.6	401.6	375.2
Houston-Baytown-Sugar Land, TX	13,476	14,641	17,196	21,100	21,032	255.2	264.3	305.5	368.4	367.2
Indianapolis, IN	8,226	7,780	8,173	8,814	7,716	501.4	467.0	482.2	513.8	449.8
Jacksonville, FL	5,246	5,582	6,501	7,318	6,745	420.2	436.8	499.8	557.3	513.6
Kansas City, MO-KS	7,900	7,825	8,358	9,559	9,892	405.6	397.7	421.0	477.5	494.1
Las Vegas-Paradise, NV	5,623	6,592	7,333	7,753	8,177	328.7	370.8	399.3	415.5	438.3
Los Angeles-Long Beach-Santa Ana, CA	50,703	50,913	52,352	55,276	54,892	392.3	393.1	406.6	429.4	426.4
Louisville, KY-IN	3,143	3,319	3,493	4,953	5,294	260.1	271.6	283.1	397.9	425.3
Memphis, TN-MS-AR	9,457	10,224	11,349	11,896	13,368	750.0	802.1	886.3	925.2	1,039.7
Miami-Fort Lauderdale-Miami Beach, FL	10,403	12,142	13,761	18,128	19,101	191.9	222.2	254.2	334.8	352.8
Milwaukee-Waukesha-West Allis, WI	10,368	10,498	10,150	1,441	10,588	685.3	695.2	657.2	93.0	683.4
Minneapolis-St. Paul-Bloomington, MN-WI	8,513	9,271	9,514	10,093	9,925	270.9	292.0	296.6	312.5	307.3
Nashville-Davidson-Murfreesboro, TN	4,538	4,910	4,972	5,574	5,816	319.0	337.4	326.8	359.4	375.0
New Orleans-Metairie-Kenner, LA	4,761	3,401	4,573	5,109	6,701	360.9	331.9	443.8	450.5	590.9
New York-Newark-Edison, NY-NJ-PA	58,134	62,334	74,071	80,306	83,904	310.1	331.2	393.7	422.5	441.4
Oklahoma City, OK	4,798	4,627	4,646	5,650	5,475	414.8	394.7	389.4	468.4	453.9
Orlando, FL	5,862	6,579	6,825	8,287	9,199	303.2	331.5	335.8	403.3	447.7
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	24,913	27,417	28,116	28,749	30,449	427.8	470.5	482.4	492.4	521.5
Phoenix-Mesa-Scottsdale, AZ	11,984	15,278	15,245	14,314	15,615	310.1	378.2	364.8	334.3	364.7
Pittsburgh, PA	5,880	5,789	6,616	6,920	6,597	246.4	244.2	280.8	294.3	280.6
Portland-Vancouver-Beaverton, OR-WA	5,636	5,654	5,970	6,499	7,215	268.9	264.5	274.5	294.4	326.8
Providence-New Bedford-Fall River, RI-MA	4,316	4,197	4,297	4,551	4,865	266.0	260.2	268.4	285.0	304.7
Richmond, VA	4,710	5,044	5,294	6,783	6,681	400.6	422.4	436.4	553.4	545.1
Riverside-San Bernardino-Ontario, CA	12,179	12,472	14,316	13,557	16,934	311.5	309.8	350.8	329.4	411.4
Rochester, NY	3,850	4,168	4,833	5,294	5,767	370.5	402.5	469.0	511.9	557.7
Sacramento-Arden-Arcade-Roseville, CA	8,175	9,094	8,770	8,395	6,320	400.3	439.9	419.4	397.9	299.5
Salt Lake City, UT	2,642	2,910	3,395	3,562	3,424	255.4	272.5	308.6	319.3	306.9
San Antonio, TX	8,049	8,338	8,727	9,734	11,555	425.9	429.3	438.4	479.2	568.8
San Diego-Carlsbad-San Marcos, CA	11,520	11,980	12,693	14,373	14,169	392.7	407.3	426.7	478.9	472.1
San Francisco-Oakland-Fremont, CA	13,988	15,565	16,710	17,555	16,642	336.8	372.4	397.5	410.7	389.3
San Jose-Sunnyvale-Santa Clara, CA	5,374	5,898	5,892	5,796	5,537	306.2	330.0	326.7	318.6	304.4
Seattle-Tacoma-Bellevue, WA	10,588	9,778	10,397	11,532	11,533	330.5	299.6	314.2	344.8	344.8
St. Louis, MO-IL	13,328	13,509	13,710	14,092	14,546	479.7	483.1	489.0	500.3	516.4
Tampa-St. Petersburg-Clearwater, FL	6,315	7,475	9,501	11,230	11,835	238.5	277.1	348.8	410.8	432.9
Virginia Beach-Norfolk-Newport News, VA-NC	8,414	9,139	9,383	11,867	11,954	510.8	554.1	565.7	715.6	720.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	12,827	15,456	18,069	20,943	20,116	246.0	292.2	340.5	390.9	375.4
U.S. MSAs TOTAL	563,318	592,216	643,582	698,755	727,082	353.2	367.1	395.5	425.4	442.6

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis, WI.

Table 7. Chlamydia—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	12,995	16,165	15,553	14,898	14,208	524.8	622.2	582.4	547.7	522.3
Austin-Round Rock, TX	3,720	5,170	4,753	5,933	6,020	522.7	699.1	609.2	735.3	746.1
Baltimore-Towson, MD	8,927	9,344	10,416	10,774	10,187	649.4	677.9	753.5	779.9	737.4
Birmingham-Hoover, AL	3,709	4,277	5,165	4,948	4,530	657.7	751.3	900.4	855.2	782.9
Boston-Cambridge-Quincy, MA-NH	6,663	7,140	7,721	8,458	9,369	293.8	311.7	335.2	364.3	403.5
Buffalo-Cheektowaga-Tonawanda, NY	3,849	3,762	3,818	4,076	4,254	646.3	637.8	653.5	700.2	730.8
Charlotte-Gastonia-Concord, NC-SC	4,878	4,189	3,430	5,469	6,747	631.9	520.7	407.4	631.5	779.1
Chicago-Naperville-Joliet, IL-IN-WI	28,860	30,600	31,134	33,220	34,202	600.4	633.8	644.2	684.4	704.6
Cincinnati-Middletown, OH-KY-IN	6,580	6,871	8,082	8,031	7,243	621.4	638.2	740.4	728.5	657.0
Cleveland-Elyria-Mentor, OH	6,066	5,458	7,023	6,487	7,755	548.7	497.2	645.2	598.6	715.6
Columbus, OH	4,445	4,549	5,428	6,027	6,619	513.4	520.7	611.1	671.6	737.6
Dallas-Fort Worth-Arlington, TX	14,641	13,466	17,251	20,125	21,235	504.7	450.4	564.5	642.8	678.2
Denver-Aurora, CO	6,122	5,827	7,020	7,824	8,617	521.7	485.8	572.1	627.4	691.0
Detroit-Warren-Livonia, MI	16,172	13,096	13,580	18,826	18,870	703.4	572.9	594.5	831.9	833.9
Hartford-West Hartford-East Hartford, CT	2,842	2,786	3,122	3,474	3,250	464.3	456.5	511.7	569.4	532.7
Houston-Baytown-Sugar Land, TX	11,539	12,178	14,170	17,287	16,737	437.0	439.8	504.4	605.0	585.7
Indianapolis, IN	5,949	5,596	5,808	6,352	5,430	712.5	660.3	673.8	727.9	622.3
Jacksonville, FL	4,021	4,273	4,627	5,392	4,874	630.6	654.9	695.7	803.3	726.1
Kansas City, MO-KS	5,930	5,791	6,231	7,115	7,278	598.8	578.2	616.2	698.4	714.4
Las Vegas-Paradise, NV	4,319	5,014	5,620	5,842	5,874	513.8	573.3	623.0	637.5	641.0
Los Angeles-Long Beach-Santa Ana, CA	36,044	35,826	36,520	38,100	36,965	552.9	549.2	563.3	588.0	570.5
Louisville, KY-IN	2,232	2,344	2,482	3,504	3,821	360.6	374.3	392.6	548.5	598.1
Memphis, TN-MS-AR	7,150	7,935	8,846	9,199	10,170	1,098.1	1,202.2	1,332.7	1,377.8	1,523.2
Miami-Fort Lauderdale-Miami Beach, FL	8,492	9,553	9,985	13,144	13,788	304.2	340.1	359.0	472.2	495.4
Milwaukee-Waukesha-West Allis, WI	7,558	7,761	7,653	1,116	7,747	973.0	1,004.8	968.8	140.9	978.3
Minneapolis-St. Paul-Bloomington, MN-WI	6,022	6,462	6,727	7,037	7,028	380.0	404.3	417.2	433.7	433.1
Nashville-Davidson-Murfreesboro, TN	3,122	3,413	3,445	3,916	4,136	433.4	462.7	446.5	497.1	525.0
New Orleans-Metairie-Kenner, LA	3,563	2,673	3,503	3,722	4,875	519.8	503.2	653.5	630.1	825.3
New York-Newark-Edison, NY-NJ-PA	42,214	45,007	52,815	56,829	59,274	435.0	462.7	543.6	579.7	604.6
Oklahoma City, OK	3,744	3,394	3,262	4,119	3,912	638.7	570.1	539.5	673.4	639.5
Orlando, FL	4,667	5,326	5,203	6,160	6,740	477.4	531.7	507.6	594.1	650.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	18,236	19,813	20,132	20,708	21,297	605.3	658.0	668.7	686.9	706.5
Phoenix-Mesa-Scottsdale, AZ	9,338	11,859	11,675	10,725	11,405	487.7	592.7	564.2	506.4	538.5
Pittsburgh, PA	4,398	4,267	4,870	5,092	4,884	354.2	346.5	398.4	417.7	400.7
Portland-Vancouver-Beaverton, OR-WA	3,816	3,769	4,109	4,468	5,069	363.1	351.7	376.7	403.7	458.0
Providence-New Bedford-Fall River, RI-MA	3,225	2,967	3,116	3,327	3,503	384.3	355.8	376.8	403.6	425.0
Richmond, VA	3,425	3,617	3,778	4,981	4,843	566.7	590.0	605.1	790.6	768.7
Riverside-San Bernardino-Ontario, CA	9,257	9,426	10,773	10,009	12,305	474.3	468.5	528.4	486.8	598.5
Rochester, NY	2,670	2,890	3,337	3,594	3,859	501.5	544.7	632.2	679.0	729.1
Sacramento-Arden-Arcade-Roseville, CA	5,890	6,614	6,310	5,997	4,589	567.4	629.1	594.0	559.6	428.2
Salt Lake City, UT	1,709	1,941	2,299	2,254	2,173	334.4	368.8	425.3	411.0	396.3
San Antonio, TX	6,105	6,232	6,567	7,206	8,566	633.1	628.0	646.8	695.8	827.1
San Diego-Carlsbad-San Marcos, CA	8,210	8,620	9,187	10,257	10,050	565.1	590.4	620.4	688.0	674.1
San Francisco-Oakland-Fremont, CA	9,217	10,418	11,118	11,514	10,618	439.6	495.3	525.7	536.0	494.3
San Jose-Sunnyvale-Santa Clara, CA	3,752	4,128	4,232	4,218	3,989	435.6	472.4	480.4	475.3	449.5
Seattle-Tacoma-Bellevue, WA	7,411	6,915	7,412	7,975	8,062	462.5	423.6	447.2	477.1	482.3
St. Louis, MO-IL	9,804	9,952	10,012	10,166	10,481	683.2	689.2	691.6	699.4	721.1
Tampa-St. Petersburg-Clearwater, FL	5,184	5,936	6,841	8,099	8,323	380.8	428.6	489.4	577.2	593.1
Virginia Beach-Norfolk-Newport News, VA-NC	6,016	6,651	6,884	8,789	8,503	720.5	789.6	811.7	1,037.4	1,003.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	10,086	11,722	13,194	14,967	14,429	378.3	432.7	485.5	545.7	526.1
U.S. MSAs TOTAL	420,153	438,711	472,138	507,910	524,772	518.0	535.1	571.2	609.0	629.3

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis, WI.

Table 8. Chlamydia—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	3,463	4,574	5,896	5,585	5,923	141.8	180.1	226.0	210.3	223.0
Austin-Round Rock, TX	1,357	2,147	2,053	2,472	2,430	183.2	277.4	251.0	292.3	287.3
Baltimore-Towson, MD	2,139	2,250	2,624	2,754	2,665	167.0	175.8	204.1	214.2	207.3
Birmingham-Hoover, AL	1,005	1,058	1,745	1,740	1,588	191.0	199.4	326.4	322.8	294.6
Boston-Cambridge-Quincy, MA-NH	2,697	2,762	2,966	3,383	3,891	125.8	127.6	136.1	153.7	176.8
Buffalo-Cheektowaga-Tonawanda, NY	1,164	1,229	1,260	1,485	1,515	210.8	224.4	231.7	273.9	279.4
Charlotte-Gastonia-Concord, NC-SC	951	887	786	1,549	2,102	126.9	113.9	97.1	185.3	251.5
Chicago-Naperville-Joliet, IL-IN-WI	10,075	10,905	10,259	12,578	12,273	217.3	233.1	218.7	266.7	260.3
Cincinnati-Middletown, OH-KY-IN	1,746	1,691	1,935	1,963	1,565	172.6	164.6	185.7	186.5	148.7
Cleveland-Elyria-Mentor, OH	1,986	1,953	2,285	2,216	2,579	194.6	192.2	226.7	220.6	256.7
Columbus, OH	1,377	1,272	1,706	2,275	2,319	163.4	149.3	197.0	259.8	264.8
Dallas-Fort Worth-Arlington, TX	3,346	3,558	4,987	5,962	5,903	114.6	118.0	161.5	188.1	186.3
Denver-Aurora, CO	2,412	2,107	2,519	3,161	3,184	203.3	174.2	203.5	250.9	252.8
Detroit-Warren-Livonia, MI	4,256	4,027	4,220	5,996	6,329	194.4	184.5	193.3	277.3	292.7
Hartford-West Hartford-East Hartford, CT	973	1,013	1,178	1,303	1,217	168.9	175.1	203.5	224.5	209.7
Houston-Baytown-Sugar Land, TX	1,930	2,449	2,963	3,776	4,259	73.1	88.4	105.1	131.5	148.4
Indianapolis, IN	2,242	2,167	2,340	2,451	2,275	278.3	264.7	280.9	290.8	269.9
Jacksonville, FL	1,225	1,309	1,873	1,912	1,868	200.6	209.3	294.6	297.8	291.0
Kansas City, MO-KS	1,970	2,034	2,127	2,444	2,614	205.8	210.6	218.3	248.5	265.8
Las Vegas-Paradise, NV	1,301	1,576	1,704	1,911	2,301	149.6	174.5	182.4	201.3	242.4
Los Angeles-Long Beach-Santa Ana, CA	14,585	14,921	15,639	16,886	17,728	227.7	232.2	244.7	264.1	277.3
Louisville, KY-IN	909	961	1,011	1,436	1,460	154.2	161.3	168.1	237.0	241.0
Memphis, TN-MS-AR	2,307	2,289	2,503	2,697	3,197	378.3	372.4	405.8	436.4	517.3
Miami-Fort Lauderdale-Miami Beach, FL	1,911	2,588	3,771	4,934	5,304	72.6	97.5	143.3	187.5	201.6
Milwaukee-Waukesha-West Allis, WI	2,804	2,720	2,473	321	2,767	380.9	368.8	327.8	42.4	365.3
Minneapolis-St. Paul-Bloomington, MN-WI	2,491	2,809	2,787	3,056	2,897	159.9	178.2	174.6	190.1	180.3
Nashville-Davidson-Murfreesboro, TN	1,415	1,497	1,527	1,658	1,680	201.5	208.6	203.7	217.3	220.2
New Orleans-Metairie-Kenner, LA	1,100	676	985	1,349	1,804	173.5	137.0	199.3	248.3	332.0
New York-Newark-Edison, NY-NJ-PA	15,890	17,301	21,165	23,441	24,602	175.7	190.3	232.6	254.7	267.3
Oklahoma City, OK	1,054	1,233	1,384	1,473	1,536	184.7	213.7	235.2	247.8	258.4
Orlando, FL	1,195	1,252	1,620	2,117	2,452	125.0	127.3	160.8	208.0	240.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6,677	7,600	7,972	8,040	9,129	237.6	269.9	283.0	284.7	323.3
Phoenix-Mesa-Scottsdale, AZ	2,646	3,410	3,569	3,586	4,210	135.7	167.3	169.1	165.7	194.5
Pittsburgh, PA	1,482	1,522	1,745	1,828	1,712	129.5	133.6	154.0	161.4	151.2
Portland-Vancouver-Beaverton, OR-WA	1,820	1,885	1,861	2,029	2,146	174.2	176.9	171.6	184.3	195.0
Providence-New Bedford-Fall River, RI-MA	1,085	1,223	1,178	1,222	1,360	138.5	157.0	152.2	158.2	176.1
Richmond, VA	1,281	1,423	1,514	1,793	1,817	224.2	244.9	257.2	301.0	305.1
Riverside-San Bernardino-Ontario, CA	2,913	3,029	3,532	3,548	4,622	148.8	150.4	172.9	172.2	224.4
Rochester, NY	1,180	1,278	1,496	1,700	1,908	232.9	253.1	297.6	336.8	378.0
Sacramento-Arden-Arcade-Roseville, CA	2,220	2,431	2,387	2,346	1,682	221.1	239.3	232.0	226.0	162.0
Salt Lake City, UT	933	969	1,096	1,308	1,251	178.2	179.0	195.9	230.6	220.5
San Antonio, TX	1,942	2,104	2,160	2,527	2,986	209.8	221.5	221.5	253.8	299.9
San Diego-Carlsbad-San Marcos, CA	3,022	3,134	3,457	4,078	4,097	204.1	211.6	231.4	270.0	271.3
San Francisco-Oakland-Fremont, CA	4,686	5,058	5,465	5,968	5,909	227.9	243.6	261.6	280.7	277.9
San Jose-Sunnyvale-Santa Clara, CA	1,575	1,723	1,633	1,558	1,513	176.2	188.7	177.0	167.2	162.4
Seattle-Tacoma-Bellevue, WA	3,177	2,863	2,985	3,538	3,471	198.5	175.5	180.7	211.4	207.4
St. Louis, MO-IL	3,524	3,557	3,698	3,925	4,065	262.3	263.0	272.7	287.9	298.2
Tampa-St. Petersburg-Clearwater, FL	1,131	1,535	2,652	3,050	3,441	87.9	116.9	200.0	229.2	258.6
Virginia Beach-Norfolk-Newport News, VA-NC	2,375	2,481	2,494	3,064	3,422	292.4	307.4	307.7	377.8	421.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,706	3,637	4,849	5,897	5,623	106.2	140.9	187.3	225.5	215.0
U.S. MSAs TOTAL	141,491	152,049	170,076	189,336	200,758	180.5	191.7	212.4	234.1	248.3

*MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis, WI.

Table 9. Chlamydia—Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2009

Rank [†]	County/Independent City	Cases	Rates per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	46,977	476.3	3
2	Cook County, IL	35,531	671.1	6
3	Wayne County, MI	18,778	963.0	8
4	Kings County, NY	18,693	731.2	9
5	Philadelphia County, PA	18,104	1,250.8	11
6	Bronx County, NY	17,174	1,233.9	12
7	Harris County, TX	16,751	420.4	13
8	Maricopa County, AZ	14,665	370.8	15
9	Dallas County, TX	14,333	594.0	16
10	San Diego County, CA	14,169	472.1	17
11	Shelby County, TN	10,827	1,193.9	18
12	Queens County, NY	10,757	469.1	19
13	Bexar County, TX	10,639	655.6	19
14	New York County, NY	10,520	643.5	20
15	Milwaukee County, WI	9,917	1,040.3	21
16	Cuyahoga County, OH	8,902	693.3	22
17	San Bernardino County, CA	8,654	429.4	22
18	Miami-Dade County, FL	8,318	346.8	23
19	Riverside County, CA	8,280	394.2	24
20	Clark County, NV	8,177	438.3	24
21	Orange County, CA	7,915	262.9	25
22	Tarrant County, TX	7,834	447.6	26
23	Baltimore (City), MD	7,822	1,228.1	26
24	Franklin County, OH	7,730	684.6	27
25	Broward County, FL	6,949	396.8	28
26	Alameda County, CA	6,778	459.7	28
27	Marion County, IN	6,630	753.1	29
28	Hillsborough County, FL	6,611	559.9	29
29	Washington, D.C.	6,549	1,106.6	30
30	Orange County, FL	6,016	560.8	30
31	Travis County, TX	5,981	599.0	31
32	King County, WA	5,908	315.0	31
33	Fulton County, GA	5,876	579.0	32
34	Mecklenburg County, NC	5,822	653.8	32
35	Suffolk County, MA	5,703	778.4	32
36	Denver County, CO	5,670	947.0	33
37	Hamilton County, OH	5,606	658.4	33
38	Duval County, FL	5,539	650.9	34
39	Jackson County, MO	5,493	821.8	34
40	Fresno County, CA	5,416	595.7	35
41	Santa Clara County, CA	5,392	305.6	35
42	Jefferson County, AL	5,284	801.2	36
43	St. Louis County, MO	5,264	530.7	36
44	Prince George's County, MD	5,224	636.4	36
45	Monroe County, NY	5,118	698.5	37
46	Essex County, NJ	5,014	650.6	37
47	Erie County, NY	4,990	548.4	38
48	Kern County, CA	4,987	623.0	38
49	Sacramento County, CA	4,924	353.2	38
50	Allegheny County, PA	4,916	404.6	39
51	Honolulu County, HI	4,740	523.7	39
52	Hennepin County, MN	4,737	415.2	40
53	St. Louis (City), MO	4,390	1,238.8	40
54	Oklahoma County, OK	4,231	598.8	40

* Accounting for 40% of reported chlamydia cases.

† Counties and independent cities were ranked in descending order by the number of cases reported in 2009.

Table 10. Chlamydia—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2005–2009

Age Group	Cases			Rates		
	Total	Male	Female	Total	Male	Female
10–14	14,124	1,200	12,924	67.7	11.2	127.0
15–19	336,036	53,734	282,302	1,597.2	498.0	2,754.5
20–24	360,574	86,931	273,643	1,713.9	800.7	2,687.8
25–29	148,059	44,712	103,347	737.9	435.4	1,054.8
30–34	60,065	21,102	38,964	299.2	207.8	392.6
35–39	28,509	11,700	16,809	135.7	110.8	161.0
40–44	14,397	6,940	7,458	63.0	61.0	64.9
45–54	10,105	5,203	4,902	23.8	24.9	22.7
55–64	2,191	1,169	1,021	7.2	8.0	6.5
65+	885	402	483	2.4	2.6	2.3
TOTAL	976,445	233,553	742,892	329.4	160.0	493.9
10–14	13,601	1,238	12,364	65.9	11.7	122.8
15–19	352,212	58,820	293,392	1,651.7	537.9	2,824.0
20–24	377,798	93,035	284,763	1,789.6	852.7	2,791.5
25–29	161,178	49,369	111,809	778.3	466.4	1,104.3
30–34	63,810	22,558	41,252	323.8	226.0	424.1
35–39	30,947	12,763	18,184	146.1	119.8	172.6
40–44	15,329	7,410	7,919	68.2	66.2	70.2
45–54	11,351	5,818	5,533	26.2	27.3	25.2
55–64	2,411	1,334	1,077	7.6	8.8	6.6
65+	894	424	469	2.4	2.7	2.2
TOTAL	1,030,911	253,236	777,675	344.3	171.7	512.0
10–14	13,629	1,251	12,378	67.1	12.0	124.8
15–19	379,416	67,247	312,169	1,766.9	611.0	2,982.5
20–24	402,597	101,782	300,815	1,914.2	937.8	2,955.1
25–29	174,826	54,889	119,938	830.2	509.4	1,166.5
30–34	69,417	24,633	44,785	355.4	248.7	465.2
35–39	33,654	13,838	19,816	158.9	129.9	188.3
40–44	16,617	7,992	8,625	75.6	72.9	78.3
45–54	13,141	6,881	6,261	30.0	31.9	28.1
55–64	2,842	1,531	1,311	8.7	9.7	7.7
65+	812	417	395	2.1	2.6	1.8
TOTAL	1,108,374	280,931	827,443	367.5	189.0	540.9
10–14	14,333	1,450	12,883	71.5	14.1	131.6
15–19	420,101	77,226	342,875	1,952.7	700.3	3,269.5
20–24	438,311	114,615	323,696	2,081.3	1,056.8	3,169.3
25–29	188,535	60,985	127,550	883.7	557.4	1,227.3
30–34	74,939	26,911	48,027	382.4	270.2	498.3
35–39	36,637	15,004	21,633	174.5	142.0	207.5
40–44	18,041	8,585	9,457	83.9	79.9	87.9
45–54	14,311	7,437	6,874	32.3	34.0	30.5
55–64	3,073	1,642	1,430	9.1	10.1	8.2
65+	889	432	458	2.3	2.6	2.0
TOTAL	1,210,523	314,752	895,771	398.1	209.9	581.2
10–14	13,934	1,414	12,520	69.5	13.8	127.9
15–19	430,255	81,110	349,145	1,999.9	735.5	3,329.3
20–24	455,918	121,536	334,382	2,165.0	1,120.6	3,273.9
25–29	190,970	62,721	128,249	895.2	573.3	1,234.0
30–34	77,806	28,481	49,325	397.0	286.0	511.7
35–39	36,380	14,930	21,450	173.3	141.3	205.8
40–44	18,311	8,796	9,514	85.1	81.9	88.4
45–54	15,072	7,856	7,216	34.0	36.0	32.0
55–64	3,374	1,795	1,579	10.0	11.0	9.1
65+	948	475	474	2.4	2.9	2.1
TOTAL	1,244,180	329,490	914,690	409.2	219.8	593.4

NOTE: This table should be used only for age comparisons. If age was not specified, cases were prorated according to the distribution of cases for which age was known. Differences between total cases from this table and others in the report are due to different reporting formats. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 11A. Chlamydia—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009

	Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
2005	10–14	2,986	126	2,860	7,355	723	6,631	2,069	183	1,886	112	14	98	332	24	309
	15–19	93,876	9,636	84,240	153,777	30,214	123,563	52,224	8,526	43,698	3,761	646	3,115	5,964	882	5,082
	20–24	114,066	24,303	89,763	142,156	39,355	102,801	64,259	14,772	49,487	6,315	1,416	4,899	6,148	1,295	4,853
	25–29	40,477	11,580	28,897	57,704	19,824	37,879	31,795	8,528	23,267	3,107	896	2,211	2,829	715	2,114
	30–34	14,600	4,739	9,861	23,142	9,740	13,402	14,349	4,132	10,217	1,849	638	1,211	1,177	270	906
	35–39	7,143	3,024	4,119	10,768	5,300	5,468	6,539	2,001	4,538	1,057	337	720	625	181	444
	40–44	3,986	2,045	1,941	5,662	3,148	2,515	2,656	908	1,748	559	213	346	345	92	254
	45–54	2,875	1,639	1,236	4,032	2,338	1,693	1,674	575	1,100	443	158	286	240	82	158
	55–64	657	408	250	791	467	324	334	123	211	148	47	101	50	21	30
	65+	253	123	130	345	168	177	141	53	87	35	18	17	15	4	12
TOTAL	281,268	57,709	223,559	406,423	111,513	294,910	176,271	39,885	136,386	17,408	4,388	13,020	17,762	3,571	14,191	
2006	10–14	2,732	84	2,648	8,187	891	7,296	2,088	233	1,856	98	3	95	309	18	290
	15–19	97,442	10,379	87,063	180,893	36,692	144,201	58,312	9,483	48,829	3,387	413	2,974	6,259	1,016	5,243
	20–24	120,835	26,260	94,575	164,045	45,448	118,597	71,991	16,675	55,316	5,836	1,129	4,707	6,646	1,309	5,337
	25–29	46,643	13,506	33,137	67,691	23,107	44,584	36,568	9,968	26,600	3,206	826	2,381	3,103	708	2,395
	30–34	16,327	5,518	10,809	26,296	11,044	15,253	16,281	4,596	11,685	1,876	523	1,354	1,421	329	1,092
	35–39	8,102	3,265	4,837	12,686	6,367	6,319	7,570	2,319	5,251	998	292	706	709	171	538
	40–44	4,253	2,131	2,122	6,436	3,639	2,797	3,211	1,157	2,054	633	197	437	413	106	307
	45–54	3,296	1,792	1,504	5,049	2,901	2,148	1,938	695	1,242	486	190	296	271	82	189
	55–64	796	474	322	943	588	355	392	157	234	133	47	86	64	16	48
	65+	285	147	139	337	177	161	176	56	119	26	14	12	28	6	22
TOTAL	301,064	63,675	237,389	473,235	131,077	342,159	198,783	45,432	153,351	16,701	3,640	13,061	19,267	3,773	15,493	
2007	10–14	2,586	96	2,490	8,301	894	7,407	2,139	214	1,925	125	7	119	249	17	232
	15–19	102,471	11,768	90,703	199,686	42,634	157,052	60,919	10,273	50,647	3,919	555	3,364	5,801	909	4,893
	20–24	127,025	27,910	99,114	181,659	52,169	129,490	73,166	17,063	56,103	6,127	1,232	4,895	6,212	1,281	4,930
	25–29	50,642	14,958	35,684	75,660	26,692	48,967	37,779	10,367	27,412	3,661	941	2,720	2,992	651	2,342
	30–34	17,687	5,926	11,761	29,957	12,456	17,501	16,772	4,754	12,018	1,948	579	1,368	1,299	319	979
	35–39	9,118	3,531	5,587	14,181	7,024	7,158	7,721	2,438	5,283	1,144	369	775	638	152	486
	40–44	4,626	2,243	2,383	7,190	3,983	3,207	3,366	1,214	2,152	649	254	395	371	108	263
	45–54	3,916	2,225	1,691	5,955	3,440	2,515	2,183	800	1,383	510	192	317	249	71	178
	55–64	924	574	350	1,196	688	508	430	138	292	181	76	105	30	8	22
	65+	279	171	108	318	157	162	145	56	89	31	14	17	12	5	7
TOTAL	319,675	69,524	250,151	524,817	150,384	374,433	204,855	47,389	157,467	18,310	4,223	14,087	17,872	3,525	14,348	
2008	10–14	2,686	143	2,543	8,714	1,020	7,694	2,380	235	2,144	94	8	86	215	14	201
	15–19	110,221	13,270	96,951	223,088	49,101	173,987	68,593	12,020	56,573	4,187	544	3,643	6,397	1,003	5,394
	20–24	135,198	30,684	104,514	199,298	58,689	140,609	80,714	19,741	60,973	6,888	1,469	5,419	6,912	1,443	5,468
	25–29	54,253	16,559	37,694	81,611	29,326	52,286	40,786	11,731	29,056	4,073	1,076	2,997	3,434	790	2,643
	30–34	19,540	6,668	12,872	31,778	13,256	18,522	18,211	5,355	12,855	2,191	666	1,525	1,436	344	1,093
	35–39	9,742	3,833	5,910	15,044	7,438	7,607	8,912	2,765	6,147	1,306	433	873	708	169	539
	40–44	5,016	2,464	2,552	7,619	4,128	3,491	3,923	1,418	2,505	633	240	394	392	124	268
	45–54	4,245	2,362	1,883	6,374	3,655	2,718	2,427	915	1,513	614	249	365	328	83	245
	55–64	1,007	606	401	1,277	743	534	457	175	282	210	68	142	51	11	40
	65+	303	181	122	331	155	175	161	54	108	53	22	31	20	9	11
TOTAL	342,555	76,880	265,675	575,822	167,755	408,067	226,793	54,487	172,306	20,274	4,780	15,493	19,917	3,997	15,920	
2009	10–14	2,479	124	2,355	8,553	1,003	7,550	2,340	242	2,098	91	8	83	235	21	214
	15–19	112,894	14,452	98,442	229,139	51,652	177,487	70,229	12,231	57,998	4,132	542	3,590	6,127	971	5,156
	20–24	140,776	32,450	108,326	209,146	62,987	146,159	82,236	20,465	61,771	6,975	1,531	5,443	7,044	1,527	5,517
	25–29	55,639	17,291	38,348	82,144	30,062	52,082	41,275	12,080	29,195	4,041	1,065	2,976	3,306	744	2,562
	30–34	20,922	7,333	13,588	32,936	13,867	19,069	18,465	5,624	12,841	2,062	572	1,490	1,442	371	1,070
	35–39	9,543	3,836	5,707	15,082	7,402	7,679	8,869	2,761	6,109	1,266	421	845	708	158	550
	40–44	5,058	2,429	2,629	7,648	4,289	3,360	4,098	1,526	2,572	739	263	476	367	102	264
	45–54	4,689	2,719	1,970	6,394	3,582	2,812	2,701	1,032	1,670	658	251	407	287	91	196
	55–64	1,136	709	427	1,401	773	628	524	188	337	186	68	118	61	20	42
	65+	321	190	131	371	175	196	158	60	98	62	33	29	16	7	9
TOTAL	353,798	81,619	272,179	593,428	175,990	417,438	231,090	56,271	174,819	20,221	4,760	15,461	19,618	4,024	15,594	

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 10 for age-specific cases and rates and Tables 3–5 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. For the following years, the states listed did not report age or race/ethnicity for most cases, and their case data and population denominators were excluded: 2005 (Colorado, the District of Columbia, Georgia, Hawaii, New Jersey); 2006 (Colorado, Hawaii); 2007 (Colorado, Hawaii); 2008 (Colorado, Hawaii); 2009 (Colorado, Hawaii). Differences between total cases from this table and others in the report are due to different reporting formats and the exclusions listed above. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 11B. Chlamydia—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009

Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10–14	25.6	2.1	50.5	251.4	48.7	460.9	57.2	9.9	106.8	14.8	3.6	26.7	157.4	22.1	295.9
15–19	766.1	153.2	1,412.8	5,348.8	2,073.2	8,716.3	1,613.2	511.2	2,784.1	492.4	164.2	840.9	2,665.3	775.9	4,617.5
20–24	938.3	391.5	1,508.7	5,324.4	2,927.8	7,754.4	1,854.2	782.9	3,134.6	727.6	321.8	1,144.8	2,920.5	1,215.3	4,669.1
25–29	364.1	206.5	524.5	2,432.2	1,722.3	3,101.1	855.5	414.0	1,404.5	307.6	180.5	430.5	1,635.7	817.9	2,472.6
30–34	130.1	83.9	176.8	1,028.3	911.8	1,133.5	409.4	219.0	631.4	159.6	112.7	204.4	738.5	340.3	1,135.0
35–39	57.1	48.1	66.2	467.7	487.3	450.1	208.5	119.9	309.5	100.7	65.9	133.7	390.9	229.4	548.5
40–44	27.4	28.2	26.7	229.3	272.4	191.5	95.5	62.6	131.2	58.6	46.1	70.2	193.8	106.0	276.6
45–54	10.0	11.5	8.5	93.1	116.9	72.8	42.2	28.7	55.9	27.5	20.9	33.4	75.5	54.2	94.9
55–64	3.0	3.8	2.2	30.1	39.8	22.3	15.1	11.7	18.2	14.4	10.0	18.2	24.8	21.2	28.1
65+	0.9	1.0	0.8	12.6	16.0	10.5	6.6	5.9	7.1	3.6	4.4	3.0	8.8	4.8	11.8
TOTAL	151.7	63.4	236.7	1,234.3	709.9	1,712.6	444.5	194.9	710.5	148.4	77.0	215.9	747.0	305.3	1,174.6
10–14	22.5	1.4	44.9	255.3	54.7	462.2	54.2	11.8	98.6	11.7	0.7	23.2	149.4	17.6	284.7
15–19	748.9	155.4	1,374.9	5,483.0	2,195.4	8,858.2	1,646.6	519.5	2,845.8	402.3	95.2	729.3	2,748.8	879.6	4,672.9
20–24	940.2	398.9	1,508.7	5,435.0	2,980.0	7,942.6	1,964.5	838.3	3,301.5	627.9	238.5	1,032.1	3,066.6	1,187.9	5,008.6
25–29	385.5	221.9	550.9	2,425.6	1,705.6	3,105.1	900.9	440.4	1,481.2	288.6	151.1	421.5	1,696.7	767.3	2,642.2
30–34	142.2	95.6	189.4	1,046.0	926.6	1,153.6	424.6	220.7	666.9	146.1	83.3	206.2	889.7	411.4	1,368.0
35–39	61.0	49.0	73.1	482.4	514.6	453.7	219.1	125.8	325.9	82.5	49.5	113.9	434.9	211.8	653.6
40–44	28.5	28.6	28.4	231.8	280.4	189.1	105.0	72.1	141.3	58.7	37.5	78.8	232.5	121.8	338.0
45–54	10.7	11.7	9.7	101.4	126.3	80.1	43.9	31.1	57.0	26.8	22.3	30.8	81.9	52.3	108.8
55–64	3.3	4.1	2.6	30.3	42.5	20.6	15.8	13.2	18.1	11.2	8.6	13.5	29.7	15.5	42.6
65+	1.0	1.2	0.8	10.9	14.8	8.4	7.5	5.6	8.8	2.4	3.0	2.0	14.9	7.4	20.7
TOTAL	152.8	65.9	236.6	1,261.3	733.3	1,741.8	459.2	203.0	733.6	127.2	57.0	193.6	790.1	314.5	1,250.8
10–14	21.8	1.6	43.1	266.0	56.4	482.4	55.2	10.8	101.7	14.8	1.5	28.5	125.3	17.1	236.6
15–19	789.6	176.7	1,435.6	5,953.3	2,509.0	9,490.0	1,664.0	544.9	2,852.4	461.4	126.7	817.8	2,547.7	789.2	4,346.9
20–24	988.8	423.8	1,583.1	5,987.0	3,400.4	8,632.6	2,030.1	882.8	3,356.8	681.1	268.5	1,111.3	2,843.3	1,153.4	4,592.0
25–29	409.8	240.4	581.4	2,640.6	1,905.9	3,343.1	928.1	457.4	1,519.3	334.4	174.1	490.9	1,579.4	680.4	2,495.6
30–34	156.7	104.4	209.6	1,198.3	1,049.4	1,332.9	430.7	223.9	678.4	155.0	94.5	212.8	809.4	397.4	1,222.6
35–39	69.6	53.7	85.7	537.5	565.5	512.7	216.9	128.2	318.6	90.7	60.0	120.0	390.0	187.6	589.3
40–44	32.1	31.2	33.0	263.7	312.6	220.8	107.5	73.8	145.0	59.2	47.7	70.2	214.6	127.7	297.5
45–54	12.6	14.5	10.8	117.2	146.7	91.9	47.0	33.9	60.6	27.4	21.9	32.4	73.7	43.8	100.7
55–64	3.7	4.8	2.8	36.8	47.6	28.2	16.3	10.9	21.4	14.5	13.2	15.6	13.1	7.4	18.2
65+	0.9	1.3	0.6	10.1	12.9	8.3	5.9	5.4	6.3	2.7	2.8	2.7	6.0	6.1	5.8
TOTAL	162.0	71.8	248.9	1,384.7	832.6	1,887.3	461.0	206.4	733.3	137.1	65.0	205.4	725.7	291.0	1,146.4
10–14	23.0	2.4	44.7	286.2	65.9	513.6	61.1	11.8	112.7	11.1	2.0	20.4	110.6	14.3	209.9
15–19	855.7	200.7	1,546.1	6,586.2	2,858.9	10,420.1	1,822.9	620.9	3,096.7	490.8	123.7	881.0	2,837.4	880.7	4,833.1
20–24	1,050.8	465.2	1,667.0	6,481.4	3,779.0	9,239.2	2,256.2	1,039.6	3,632.2	775.5	323.3	1,248.9	3,144.4	1,292.0	5,059.1
25–29	430.5	260.2	604.3	2,780.3	2,026.4	3,513.4	1,010.2	524.0	1,615.3	378.9	201.6	553.8	1,730.0	787.9	2,692.9
30–34	172.7	117.2	228.8	1,262.4	1,105.4	1,405.3	462.0	247.8	722.0	179.8	111.9	244.6	883.4	422.0	1,346.4
35–39	76.0	59.6	92.6	572.1	600.4	546.8	244.5	141.8	362.8	101.3	68.6	132.5	433.3	208.1	655.8
40–44	36.1	35.4	36.7	284.6	329.8	245.0	122.3	83.7	165.5	57.0	44.4	69.0	233.6	151.1	312.4
45–54	13.6	15.3	12.0	123.1	153.0	97.4	49.8	36.8	63.4	32.1	27.5	36.3	95.6	50.8	136.5
55–64	4.0	4.9	3.1	37.7	49.3	28.4	16.4	13.0	19.6	15.9	11.2	20.0	21.5	9.4	32.4
65+	1.0	1.4	0.7	10.2	12.4	8.8	6.2	4.8	7.2	4.4	4.3	4.5	9.4	9.4	9.3
TOTAL	173.2	79.2	263.8	1,512.8	924.7	2,048.5	494.8	230.2	777.5	149.3	72.4	222.3	788.3	321.5	1,240.3
10–14	21.2	2.1	41.4	280.9	64.9	504.0	60.1	12.1	110.3	10.7	1.9	19.7	120.8	21.0	223.8
15–19	876.5	218.6	1,569.9	6,764.9	3,007.5	10,629.7	1,866.4	631.8	3,174.7	484.3	123.3	868.0	2,717.5	852.8	4,619.3
20–24	1,094.2	491.9	1,727.8	6,801.7	4,055.7	9,603.9	2,298.7	1,077.8	3,679.7	785.3	337.1	1,254.5	3,204.8	1,367.0	5,104.4
25–29	441.5	271.7	614.8	2,798.5	2,077.3	3,499.7	1,022.3	539.6	1,623.0	375.9	199.6	549.9	1,665.8	741.6	2,610.5
30–34	184.9	128.9	241.5	1,308.4	1,156.3	1,446.9	468.5	260.3	721.2	169.2	96.0	239.0	886.8	456.0	1,319.2
35–39	74.5	59.6	89.5	573.5	597.6	552.0	243.4	141.6	360.5	98.2	66.7	128.2	433.3	194.8	669.1
40–44	36.4	34.9	37.8	285.7	342.6	235.8	127.8	90.1	170.0	66.5	48.8	83.4	218.3	124.5	307.8
45–54	15.1	17.6	12.6	123.5	150.0	100.8	55.5	41.5	70.0	34.4	27.7	40.5	83.7	55.6	109.3
55–64	4.5	5.7	3.3	41.4	51.3	33.4	18.8	14.0	23.3	14.1	11.2	16.5	25.9	17.5	33.4
65+	1.0	1.4	0.7	11.4	14.0	9.8	6.1	5.4	6.6	5.1	6.3	4.2	7.8	8.0	7.6
TOTAL	178.8	84.0	270.2	1,559.1	970.0	2,095.5	504.2	237.7	788.8	149.0	72.0	221.9	776.5	323.8	1,214.9

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 10 for age-specific cases and rates and Tables 3–5 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. For the following years, the states listed did not report age or race/ethnicity for most cases, and their case data and population denominators were excluded: 2005 (Colorado, the District of Columbia, Georgia, Hawaii, New Jersey); 2006 (Colorado, Hawaii); 2007 (Colorado, Hawaii); 2008 (Colorado, Hawaii); 2009 (Colorado, Hawaii). Differences between total rates from this table and others in the report are due to different reporting formats and the exclusions listed above. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 12. Gonorrhea—Reported Cases and Rates by State, Ranked by Rates, United States, 2009

Rank*	State	Cases	Rates per 100,000 Population
1	Mississippi	7,241	246.4
2	Louisiana	8,996	204.0
3	South Carolina	8,318	185.7
4	Alabama	7,498	160.8
5	Arkansas	4,460	156.2
6	Illinois	19,962	154.7
7	North Carolina	13,870	150.4
8	Michigan	14,704	147.0
9	Alaska	990	144.3
10	Georgia	13,687	141.3
11	Ohio	15,988	139.2
12	Oklahoma	4,673	128.3
13	Tennessee	7,926	127.5
14	Texas	29,295	120.4
15	Florida	20,878	113.9
16	Maryland	6,395	113.5
17	Delaware	971	111.2
18	Missouri	6,488	109.8
19	Indiana	6,835	107.2
20	Virginia	7,789	100.3
	U.S. TOTAL[†]	301,174	99.1
21	Wisconsin	5,201	92.4
22	Kentucky	3,827	89.6
23	Kansas	2,505	89.4
24	New York	17,004	87.2
25	Pennsylvania	10,138	81.4
26	Nebraska	1,376	77.2
27	Connecticut	2,558	73.1
28	Nevada	1,726	66.4
29	California	23,228	63.2
30	Colorado	2,823	57.2
31	Iowa	1,658	55.2
32	New Jersey	4,762	54.8
33	New Mexico	1,082	54.5
34	Arizona	3,250	50.0
35	Hawaii	631	49.0
36	Minnesota	2,303	44.1
37	South Dakota	344	42.8
38	Washington	2,285	34.9
39	Rhode Island	322	30.6
40	Massachusetts	1,976	30.4
41	Oregon	1,113	29.4
42	West Virginia	475	26.2
43	North Dakota	151	23.5
	YEAR 2010 TARGET		19.0
44	Wyoming	74	13.9
45	Utah	341	12.5
46	Maine	143	10.9
47	New Hampshire	113	8.6
48	Montana	80	8.3
49	Vermont	50	8.0
50	Idaho	110	7.2

* States were ranked in descending order by rate, number of cases, and alphabetically.

[†] Total includes cases reported by the District of Columbia, with 2,561 cases and a rate of 432.7, but excludes outlying areas (Guam with 59 cases and rate of 33.5, Puerto Rico with 230 cases and rate of 5.8, and Virgin Islands with 115 cases and rate of 104.7).

Table 13. Gonorrhea—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	9,406	10,665	10,885	9,740	7,498	206.4	231.9	235.2	208.9	160.8
Alaska	600	630	579	578	990	90.4	94.0	84.7	84.2	144.3
Arizona	4,951	5,949	5,062	3,449	3,250	83.4	96.5	79.9	53.1	50.0
Arkansas	4,476	4,306	4,168	4,514	4,460	161.1	153.2	147.0	158.1	156.2
California	34,338	33,740	31,294	25,787	23,228	95.0	92.5	85.6	70.2	63.2
Colorado	3,224	3,695	3,376	3,757	2,823	69.1	77.7	69.4	76.1	57.2
Connecticut	2,750	2,610	2,327	2,801	2,558	78.3	74.5	66.4	80.0	73.1
Delaware	913	1,485	1,293	1,045	971	108.2	174.0	149.5	119.7	111.2
District of Columbia	2,146	1,887	2,373	2,656	2,561	389.8	324.5	403.4	448.8	432.7
Florida	20,225	23,976	23,327	23,326	20,878	113.7	132.5	127.8	127.3	113.9
Georgia	15,860	19,669	17,835	16,272	13,687	174.8	210.1	186.9	168.0	141.3
Hawaii	1,024	885	659	610	631	80.3	68.8	51.3	47.4	49.0
Idaho	119	206	269	187	110	8.3	14.0	17.9	12.3	7.2
Illinois	20,019	20,186	20,813	20,674	19,962	156.8	157.3	161.9	160.2	154.7
Indiana	8,094	8,732	8,790	8,769	6,835	129.1	138.3	138.5	137.5	107.2
Iowa	1,606	1,966	1,928	1,700	1,658	54.1	65.9	64.5	56.6	55.2
Kansas	2,605	2,210	2,282	2,274	2,505	94.9	80.0	82.2	81.2	89.4
Kentucky	2,935	3,277	3,449	4,548	3,827	70.3	77.9	81.3	106.5	89.6
Louisiana	9,572	10,883	11,137	9,455	8,996	211.6	253.8	259.4	214.4	204.0
Maine	142	137	118	96	143	10.7	10.4	9.0	7.3	10.9
Maryland	7,035	7,328	6,768	6,666	6,395	125.6	130.5	120.5	118.3	113.5
Massachusetts	2,537	2,429	2,695	2,129	1,976	39.6	37.7	41.8	32.8	30.4
Michigan	17,684	15,677	15,482	17,064	14,704	174.7	155.3	153.7	170.6	147.0
Minnesota	3,482	3,303	3,459	3,037	2,303	67.8	63.9	66.5	58.2	44.1
Mississippi	7,171	7,511	8,314	7,494	7,241	245.5	258.1	284.8	255.0	246.4
Missouri	9,455	10,204	9,876	8,014	6,488	163.0	174.6	168.0	135.6	109.8
Montana	158	194	122	122	80	16.9	20.5	12.7	12.6	8.3
Nebraska	1,158	1,433	1,434	1,460	1,376	65.8	81.0	80.8	81.9	77.2
Nevada	2,880	2,791	2,357	2,172	1,726	119.3	111.8	91.9	83.5	66.4
New Hampshire	177	180	138	100	113	13.5	13.7	10.5	7.6	8.6
New Jersey	5,722	5,492	6,076	5,298	4,762	65.6	62.9	70.0	61.0	54.8
New Mexico	1,552	1,733	1,796	1,403	1,082	80.5	88.7	91.2	70.7	54.5
New York	17,717	17,459	17,697	17,108	17,004	92.0	90.4	91.7	87.8	87.2
North Carolina	15,072	17,312	16,666	15,972	13,870	173.6	195.5	183.9	173.2	150.4
North Dakota	128	153	116	143	151	20.1	24.1	18.1	22.3	23.5
Ohio	20,985	19,190	21,066	16,803	15,988	183.1	167.2	183.7	146.3	139.2
Oklahoma	5,228	4,951	4,827	5,185	4,673	147.4	138.3	133.4	142.4	128.3
Oregon	1,562	1,461	1,236	1,225	1,113	42.9	39.5	33.0	32.3	29.4
Pennsylvania	11,222	11,466	12,706	11,071	10,138	90.3	92.2	102.2	88.9	81.4
Rhode Island	438	508	402	307	322	40.7	47.6	38.0	29.2	30.6
South Carolina	8,561	10,320	10,326	9,442	8,318	201.2	238.8	234.3	210.8	185.7
South Dakota	351	367	261	375	344	45.2	46.9	32.8	46.6	42.8
Tennessee	8,605	9,694	9,564	8,780	7,926	144.3	160.5	155.3	141.3	127.5
Texas	26,110	30,449	32,073	32,199	29,295	114.2	129.5	134.2	132.4	120.4
Utah	727	888	821	477	341	29.4	34.8	31.0	17.4	12.5
Vermont	60	72	64	37	50	9.6	11.5	10.3	6.0	8.0
Virginia	8,346	6,476	6,269	10,337	7,789	110.3	84.7	81.3	133.1	100.3
Washington	3,739	4,231	3,653	3,127	2,285	59.5	66.2	56.5	47.7	34.9
West Virginia	770	953	930	746	475	42.4	52.4	51.3	41.1	26.2
Wisconsin	5,869	6,927	6,752	6,087	5,201	106.0	124.7	120.5	108.2	92.4
Wyoming	87	120	81	124	74	17.1	23.3	15.5	23.3	13.9
U.S. TOTAL	339,593	358,366	355,991	336,742	301,174	114.6	119.7	118.0	110.7	99.1
Northeast	40,765	40,353	42,223	38,947	37,066	74.6	73.7	77.2	70.9	67.5
Midwest	91,436	90,348	92,259	86,400	77,515	138.6	136.4	139.0	129.8	116.5
South	152,431	171,142	170,204	168,377	148,860	141.8	156.9	154.1	150.7	133.2
West	54,961	56,523	51,305	43,018	37,733	80.5	81.5	73.2	60.7	53.3
Guam	106	98	141	109	59	62.9	57.3	81.2	61.9	33.5
Puerto Rico	328	302	323	273	230	8.4	7.7	8.2	6.9	5.8
Virgin Islands	30	34	69	120	115	27.6	31.3	62.8	109.2	104.7
OUTLYING AREAS	464	434	533	502	404	11.1	10.3	12.6	11.8	9.5
TOTAL	340,057	358,800	356,524	337,244	301,578	113.1	118.2	116.6	109.4	97.8

Table 14. Gonorrhea—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	4,494	5,983	6,095	5,582	4,240	191.5	252.5	255.5	232.2	176.4
Alaska	349	356	326	321	516	108.9	110.0	99.2	97.7	157.0
Arizona	2,338	2,847	2,342	1,577	1,475	78.8	92.4	74.0	48.6	45.5
Arkansas	2,252	2,182	2,275	2,520	2,562	159.0	152.3	157.4	173.0	175.9
California	15,827	15,688	14,533	11,625	9,430	87.5	86.0	79.5	63.3	51.3
Colorado	1,619	1,879	1,807	1,978	1,502	70.1	79.6	75.0	80.8	61.3
Connecticut	1,590	1,478	1,372	1,686	1,491	88.1	82.2	76.4	94.0	83.1
Delaware	515	829	699	606	564	119.2	188.7	156.9	134.7	125.4
District of Columbia	1,029	808	1,077	1,259	1,233	355.6	261.6	347.2	403.6	395.3
Florida	10,204	12,427	11,793	12,279	10,745	112.6	135.0	127.0	131.7	115.3
Georgia	7,819	10,002	9,334	8,687	7,253	170.5	210.4	192.4	176.5	147.4
Hawaii	619	476	295	298	264	96.8	74.1	46.3	46.7	41.3
Idaho	57	113	152	90	51	8.0	15.5	20.4	11.9	6.7
Illinois	10,998	10,926	11,312	11,342	11,248	169.4	167.7	173.5	173.4	171.9
Indiana	4,453	4,806	4,884	5,056	3,985	139.9	150.0	151.7	156.3	123.2
Iowa	885	1,179	1,121	1,024	1,049	58.8	78.1	74.1	67.4	69.0
Kansas	1,645	1,327	1,401	1,459	1,541	119.1	95.3	100.1	103.5	109.3
Kentucky	1,530	1,709	1,887	2,511	2,132	72.1	79.7	87.2	115.1	97.7
Louisiana	4,761	5,605	5,822	5,177	5,125	204.9	254.5	263.7	228.1	225.8
Maine	61	54	45	43	62	9.0	8.0	6.7	6.4	9.2
Maryland	3,620	3,850	3,529	3,604	3,457	125.4	132.8	121.7	124.0	118.9
Massachusetts	1,320	1,214	1,282	1,100	976	40.0	36.6	38.6	32.9	29.2
Michigan	10,161	8,900	8,984	10,047	8,536	197.5	173.6	175.7	197.8	168.0
Minnesota	1,909	1,814	1,930	1,657	1,270	73.9	69.8	74.0	63.2	48.5
Mississippi	4,234	4,400	4,901	4,357	4,335	281.8	293.1	325.6	287.6	286.2
Missouri	5,334	5,752	5,481	4,542	3,585	179.9	192.5	182.3	150.2	118.6
Montana	102	123	75	92	46	21.8	26.1	15.7	19.0	9.5
Nebraska	688	865	847	891	821	77.4	97.0	94.6	99.1	91.3
Nevada	1,343	1,257	1,066	1,012	826	113.3	102.5	84.7	79.3	64.8
New Hampshire	97	97	63	49	54	14.6	14.6	9.5	7.3	8.1
New Jersey	3,077	2,829	3,059	2,813	2,435	68.9	63.4	68.9	63.5	55.0
New Mexico	884	1,003	974	783	570	90.2	101.3	97.6	77.8	56.7
New York	9,031	8,479	8,324	8,349	7,927	91.0	85.2	83.8	83.3	79.0
North Carolina	7,545	8,718	8,941	8,876	7,868	171.0	193.1	193.0	188.6	167.2
North Dakota	76	86	66	93	88	23.8	27.2	20.7	29.1	27.5
Ohio	11,592	10,508	11,771	9,784	9,766	197.3	178.7	200.3	166.3	166.0
Oklahoma	3,018	2,780	2,606	2,964	2,809	168.2	153.2	142.4	160.8	152.4
Oregon	661	609	564	553	505	36.1	32.7	29.9	29.0	26.5
Pennsylvania	6,271	6,219	6,945	6,210	5,650	98.0	97.3	108.8	97.2	88.4
Rhode Island	227	273	169	135	146	40.8	49.5	31.0	24.9	26.9
South Carolina	4,601	5,406	5,640	5,704	5,004	211.0	243.8	249.5	248.2	217.7
South Dakota	196	215	153	247	190	50.2	54.9	38.3	61.2	47.1
Tennessee	4,395	5,104	5,247	4,801	4,365	144.5	165.3	166.5	150.7	137.0
Texas	13,827	15,619	16,192	17,029	16,071	120.5	132.4	135.2	139.8	131.9
Utah	319	369	345	137	70	25.9	29.1	26.3	10.1	5.2
Vermont	26	39	30	19	29	8.2	12.3	9.5	6.0	9.2
Virginia	4,402	3,287	3,369	5,847	4,314	114.5	84.6	85.8	147.9	109.2
Washington	1,622	1,938	1,858	1,522	949	51.5	60.4	57.2	46.4	28.9
West Virginia	427	488	504	425	281	46.0	52.6	54.5	45.9	30.4
Wisconsin	3,433	4,047	4,066	3,744	3,113	122.9	144.8	144.3	132.3	110.0
Wyoming	54	71	41	71	44	21.4	28.0	15.9	27.0	16.8
U.S. TOTAL	177,537	187,033	187,594	182,577	162,568	118.0	123.1	122.6	118.5	105.5
Northeast	21,700	20,682	21,289	20,404	18,770	77.2	73.5	75.8	72.4	66.6
Midwest	51,370	50,425	52,016	49,886	45,192	153.2	150.0	154.4	147.7	133.8
South	78,673	89,197	89,911	92,228	82,358	144.0	160.7	160.0	162.3	144.9
West	25,794	26,729	24,378	20,059	16,248	75.6	77.2	69.7	56.7	46.0
Guam	71	49	66	58	32	85.9	58.4	77.5	67.1	37.0
Puerto Rico	194	152	165	128	126	9.5	7.4	8.0	6.2	6.1
Virgin Islands	18	23	51	86	90	31.7	40.5	88.3	148.8	155.7
OUTLYING AREAS	283	224	282	272	248	13.0	10.3	12.9	12.4	11.3
TOTAL	177,820	187,257	187,876	182,849	162,816	116.5	121.5	121.1	117.0	104.1

NOTE: Cases reported with unknown sex are not included in this table.

Table 15. Gonorrhea—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	4,892	4,678	4,786	4,151	3,250	221.2	209.8	213.5	183.8	143.9
Alaska	251	274	253	257	474	73.1	79.1	71.3	71.9	132.5
Arizona	2,610	3,097	2,718	1,869	1,775	87.8	100.4	85.7	57.4	54.5
Arkansas	2,223	2,122	1,890	1,993	1,898	163.1	154.0	136.0	142.5	135.7
California	18,348	17,856	16,632	14,025	13,705	101.7	98.0	91.0	76.3	74.5
Colorado	1,605	1,816	1,569	1,777	1,319	68.1	75.9	64.0	71.3	52.9
Connecticut	1,160	1,132	955	1,113	1,067	68.0	66.3	55.9	65.2	62.5
Delaware	398	656	594	439	407	96.8	158.4	141.7	103.7	96.1
District of Columbia	1,113	1,072	1,284	1,383	1,328	426.2	393.2	461.7	494.1	474.5
Florida	10,021	11,546	11,527	10,995	10,099	114.9	130.0	128.5	122.1	112.1
Georgia	7,885	9,510	8,401	7,465	6,368	175.7	206.2	179.0	156.7	133.6
Hawaii	405	409	364	312	367	63.7	63.6	56.4	48.0	56.5
Idaho	60	92	112	97	58	8.4	12.5	14.8	12.7	7.6
Illinois	9,020	9,260	9,501	9,331	8,710	143.8	146.6	150.0	146.7	137.0
Indiana	3,616	3,895	3,880	3,693	2,831	117.1	125.2	124.1	117.5	90.1
Iowa	721	787	807	676	609	49.4	53.4	54.7	45.6	41.1
Kansas	960	883	881	815	964	70.4	64.4	64.0	58.6	69.3
Kentucky	1,399	1,561	1,559	2,030	1,690	68.2	75.7	75.0	97.2	80.9
Louisiana	4,744	5,186	5,201	4,233	3,849	215.7	248.6	249.4	197.7	179.8
Maine	81	83	73	53	81	12.5	12.8	11.4	8.3	12.6
Maryland	3,410	3,461	3,238	3,054	2,922	125.7	127.4	119.1	112.0	107.1
Massachusetts	1,216	1,212	1,412	1,026	996	39.2	38.9	45.2	32.5	31.6
Michigan	7,468	6,738	6,447	6,876	6,004	150.1	135.6	130.0	139.6	121.9
Minnesota	1,573	1,489	1,529	1,380	1,033	61.7	58.0	59.1	53.1	39.7
Mississippi	2,937	3,111	3,413	3,135	2,906	207.0	220.7	241.4	220.2	204.1
Missouri	4,121	4,452	4,395	3,472	2,903	145.3	156.0	153.1	120.2	100.5
Montana	56	71	47	29	34	12.0	15.0	9.8	6.0	7.0
Nebraska	467	552	583	568	553	53.7	63.0	66.3	64.2	62.5
Nevada	1,535	1,533	1,291	1,160	900	124.9	120.8	98.8	87.6	67.9
New Hampshire	80	83	75	51	59	12.4	12.8	11.6	7.9	9.1
New Jersey	2,645	2,657	3,014	2,483	2,326	62.3	62.3	70.9	58.4	54.7
New Mexico	668	730	822	619	512	70.4	75.7	84.6	63.3	52.3
New York	8,680	8,976	9,363	8,751	9,072	93.1	95.9	100.0	92.5	95.9
North Carolina	7,527	8,594	7,725	7,023	5,902	176.2	198.0	174.5	155.5	130.7
North Dakota	52	67	50	50	62	16.4	21.0	15.6	15.5	19.3
Ohio	9,035	8,493	9,164	6,693	6,068	161.7	151.7	163.9	119.4	108.3
Oklahoma	2,210	2,171	2,221	2,212	1,857	126.0	123.0	124.3	123.0	103.2
Oregon	901	852	672	672	608	49.8	46.3	36.1	35.7	32.3
Pennsylvania	4,950	5,247	5,758	4,860	4,484	82.1	86.8	95.2	80.2	74.0
Rhode Island	211	235	232	172	176	40.6	45.5	45.3	33.8	34.6
South Carolina	3,925	4,899	4,665	3,712	3,289	189.2	232.9	217.3	170.2	150.8
South Dakota	155	152	107	128	153	40.2	38.9	27.0	31.9	38.2
Tennessee	4,209	4,590	4,317	3,979	3,560	144.1	155.5	143.6	131.4	117.5
Texas	12,269	14,812	15,819	15,150	13,215	107.7	126.4	132.6	124.8	108.8
Utah	408	519	476	340	271	32.9	40.5	35.6	24.6	19.6
Vermont	34	33	34	18	21	11.1	10.7	11.1	5.9	6.9
Virginia	3,939	3,187	2,895	4,477	3,465	105.8	84.8	76.5	117.3	90.8
Washington	2,117	2,293	1,795	1,600	1,334	67.4	71.9	55.7	48.9	40.8
West Virginia	343	465	426	321	194	38.6	52.2	48.0	36.1	21.8
Wisconsin	2,431	2,870	2,673	2,332	2,061	88.7	104.0	96.0	83.4	73.7
Wyoming	33	49	40	53	30	12.9	18.8	15.1	19.6	11.1
U.S. TOTAL	161,117	170,508	167,685	153,103	137,819	110.4	115.6	112.8	102.1	91.9
Northeast	19,057	19,658	20,916	18,527	18,282	71.8	73.9	78.6	69.3	68.4
Midwest	39,619	39,638	40,017	36,014	31,951	122.1	121.5	122.4	109.8	97.4
South	73,444	81,621	79,961	75,752	66,199	138.9	152.3	147.4	138.0	120.6
West	28,997	29,591	26,791	22,810	21,387	84.9	85.3	76.3	64.3	60.2
Guam	35	49	75	51	27	40.7	56.2	84.9	56.9	30.1
Puerto Rico	134	150	158	145	104	7.1	8.0	8.3	7.6	5.5
Virgin Islands	12	11	18	34	25	23.1	21.2	34.6	65.3	48.0
OUTLYING AREAS	181	210	251	230	156	9.0	10.4	12.3	11.3	7.7
TOTAL	161,298	170,718	167,936	153,333	137,975	109.0	114.2	111.4	100.9	90.8

NOTE: Cases reported with unknown sex are not included in this table.

Table 16. Gonorrhea—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	7,838	10,223	9,060	8,084	7,466	159.4	199.0	171.6	150.4	138.9
Austin-Round Rock, TX	1,706	2,446	2,075	2,388	1,973	117.5	161.6	129.8	144.5	119.4
Baltimore-Towson, MD	4,779	4,653	4,156	4,146	3,869	180.0	175.0	155.8	155.4	145.1
Birmingham-Hoover, AL	2,381	2,444	3,129	2,891	1,970	218.4	222.2	282.3	258.7	176.3
Boston-Cambridge-Quincy, MA-NH	1,684	1,542	1,770	1,464	1,352	38.2	34.6	39.5	32.4	29.9
Buffalo-Cheektowaga-Tonawanda, NY	1,926	2,068	2,289	1,898	1,574	167.8	181.8	202.9	168.8	140.0
Charlotte-Gastonia-Concord, NC-SC	3,330	3,388	2,388	3,249	3,165	218.9	214.0	144.6	190.9	186.0
Chicago-Naperville-Joliet, IL-IN-WI	14,857	15,127	14,979	16,181	15,864	157.3	159.1	157.3	169.1	165.8
Cincinnati-Middletown, OH-KY-IN	3,927	3,862	4,583	3,926	3,219	189.7	183.5	214.8	182.2	149.4
Cleveland-Elyria-Mentor, OH	4,641	4,663	4,286	2,770	3,089	218.3	220.6	204.4	132.6	147.9
Columbus, OH	3,445	3,303	4,136	3,853	3,192	201.6	191.4	235.8	217.3	180.0
Dallas-Fort Worth-Arlington, TX	8,416	8,365	10,064	9,197	7,930	144.6	139.3	163.8	146.0	125.9
Denver-Aurora, CO	2,147	2,253	2,238	2,625	1,995	91.0	93.5	90.8	104.7	79.6
Detroit-Warren-Livonia, MI	10,766	8,535	8,554	10,850	9,366	239.9	191.0	191.5	245.2	211.7
Hartford-West Hartford-East Hartford, CT	993	988	920	1,029	961	83.6	83.1	77.4	86.4	80.7
Houston-Baytown-Sugar Land, TX	5,213	7,318	7,757	7,290	6,232	98.7	132.1	137.8	127.3	108.8
Indianapolis, IN	4,142	4,410	4,543	4,194	2,975	252.5	264.7	268.0	244.5	173.4
Jacksonville, FL	2,578	2,954	3,113	2,979	2,015	206.5	231.1	239.3	226.8	153.4
Kansas City, MO-KS	3,769	3,822	3,683	3,268	3,192	193.5	194.3	185.5	163.2	159.4
Las Vegas-Paradise, NV	2,487	2,478	2,112	1,918	1,553	145.4	139.4	115.0	102.8	83.2
Los Angeles-Long Beach-Santa Ana, CA	12,697	12,210	11,059	9,832	9,774	98.2	94.3	85.9	76.4	75.9
Louisville, KY-IN	1,551	1,749	1,908	2,300	2,125	128.3	143.1	154.7	184.8	170.7
Memphis, TN-MS-AR	3,782	4,665	4,756	4,475	4,536	299.9	366.0	371.4	348.1	352.8
Miami-Fort Lauderdale-Miami Beach, FL	4,497	5,356	5,152	5,471	5,239	82.9	98.0	95.2	101.0	96.8
Milwaukee-Waukesha-West Allis, WI	4,031	5,006	4,960	446	3,588	266.4	331.5	321.2	28.8	231.6
Minneapolis-St. Paul-Bloomington, MN-WI	2,920	2,780	2,834	2,345	1,800	92.9	87.6	88.3	72.6	55.7
Nashville-Davidson-Murfreesboro, TN	1,474	1,734	1,692	1,541	1,225	103.6	119.2	111.2	99.4	79.0
New Orleans-Metairie-Kenner, LA	2,609	1,962	2,713	2,045	2,082	197.7	191.5	263.3	180.3	183.6
New York-Newark-Edison, NY-NJ-PA	15,533	14,949	15,396	15,116	15,254	82.9	79.4	81.8	79.5	80.3
Oklahoma City, OK	2,548	2,315	2,373	2,403	2,066	220.3	197.5	198.9	199.2	171.3
Orlando, FL	2,848	3,393	2,743	2,704	2,663	147.3	170.9	135.0	131.6	129.6
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	7,719	8,163	8,669	7,724	7,407	132.6	140.1	148.7	132.3	126.9
Phoenix-Mesa-Scottsdale, AZ	3,133	4,260	3,333	2,211	2,317	81.1	105.5	79.7	51.6	54.1
Pittsburgh, PA	2,157	2,057	2,599	2,569	1,866	90.4	86.8	110.3	109.3	79.4
Portland-Vancouver-Beaverton, OR-WA	1,393	1,128	1,053	1,033	826	66.5	52.8	48.4	46.8	37.4
Providence-New Bedford-Fall River, RI-MA	650	693	621	455	427	40.1	43.0	38.8	28.5	26.7
Richmond, VA	2,361	1,778	2,199	2,698	1,900	200.8	148.9	181.3	220.1	155.0
Riverside-San Bernardino-Ontario, CA	3,012	2,994	3,166	2,199	1,921	77.0	74.4	77.6	53.4	46.7
Rochester, NY	1,899	1,457	1,207	1,345	1,465	182.8	140.7	117.1	130.1	141.7
Sacramento-Arden-Arcade-Roseville, CA	2,450	2,235	2,315	1,771	1,124	120.0	108.1	110.7	83.9	53.3
Salt Lake City, UT	460	623	573	346	244	44.5	58.3	52.1	31.0	21.9
San Antonio, TX	2,300	2,701	2,601	3,113	3,697	121.7	139.1	130.7	153.2	182.0
San Diego-Carlsbad-San Marcos, CA	2,695	2,767	2,385	2,066	1,829	91.9	94.1	80.2	68.8	60.9
San Francisco-Oakland-Fremont, CA	5,713	6,029	5,695	5,065	4,375	137.6	144.2	135.5	118.5	102.4
San Jose-Sunnyvale-Santa Clara, CA	1,055	1,065	893	712	563	60.1	59.6	49.5	39.1	30.9
Seattle-Tacoma-Bellevue, WA	2,704	3,079	2,572	2,182	1,700	84.4	94.3	77.7	65.2	50.8
St. Louis, MO-IL	6,391	6,547	6,483	5,003	3,620	230.0	234.1	231.2	177.6	128.5
Tampa-St. Petersburg-Clearwater, FL	2,910	3,667	3,819	3,852	3,818	109.9	135.9	140.2	140.9	139.7
Virginia Beach-Norfolk-Newport News, VA-NC	3,355	2,544	2,504	4,935	3,647	203.7	154.2	151.0	297.6	219.9
Washington-Arlington-Alexandria, DC-VA-MD-WV	4,497	4,358	4,665	5,557	5,321	86.2	82.4	87.9	103.7	99.3
U.S. MSAs TOTAL	202,369	209,106	208,773	197,714	181,371	126.9	129.6	128.3	120.4	110.4

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis, WI.

Table 17. Gonorrhea—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	3,567	5,026	4,515	3,967	3,633	144.1	193.5	169.1	145.8	133.6
Austin-Round Rock, TX	830	1,134	992	1,177	980	116.6	153.3	127.1	145.9	121.5
Baltimore-Towson, MD	2,426	2,470	2,179	2,302	2,181	176.5	179.2	157.6	166.6	157.9
Birmingham-Hoover, AL	1,133	1,511	1,761	1,655	1,056	200.9	265.4	307.0	286.0	182.5
Boston-Cambridge-Quincy, MA-NH	793	728	773	720	624	35.0	31.8	33.6	31.0	26.9
Buffalo-Cheektowaga-Tonawanda, NY	1,079	1,153	1,258	1,059	878	181.2	195.5	215.3	181.9	150.8
Charlotte-Gastonia-Concord, NC-SC	1,604	1,584	1,188	1,697	1,750	207.8	196.9	141.1	196.0	202.1
Chicago-Naperville-Joliet, IL-IN-WI	7,948	7,853	7,813	8,594	8,712	165.3	162.7	161.7	177.1	179.5
Cincinnati-Middletown, OH-KY-IN	2,274	2,465	2,884	2,696	2,181	214.8	229.0	264.2	244.5	197.8
Cleveland-Elyria-Mentor, OH	2,264	2,277	2,180	1,469	1,808	204.8	207.4	200.3	135.5	166.8
Columbus, OH	1,896	1,758	2,142	2,062	1,873	219.0	201.2	241.1	229.8	208.7
Dallas-Fort Worth-Arlington, TX	4,135	4,129	4,905	4,953	4,556	142.6	138.1	160.5	158.2	145.5
Denver-Aurora, CO	996	1,044	1,128	1,345	1,035	84.9	87.0	91.9	107.9	83.0
Detroit-Warren-Livonia, MI	6,079	4,613	4,721	6,226	5,204	264.4	201.8	206.7	275.1	230.0
Hartford-West Hartford-East Hartford, CT	520	521	522	609	551	85.0	85.4	85.6	99.8	90.3
Houston-Baytown-Sugar Land, TX	3,016	3,806	3,805	3,749	3,302	114.2	137.5	135.5	131.2	115.6
Indianapolis, IN	2,163	2,297	2,385	2,290	1,603	259.1	271.1	276.7	262.4	183.7
Jacksonville, FL	1,240	1,506	1,532	1,587	1,048	194.5	230.8	230.4	236.4	156.1
Kansas City, MO-KS	2,035	2,099	2,040	1,888	1,821	205.5	209.6	201.8	185.3	178.8
Las Vegas-Paradise, NV	1,163	1,123	954	880	746	138.4	128.4	105.8	96.0	81.4
Los Angeles-Long Beach-Santa Ana, CA	5,687	5,657	5,001	4,214	3,641	87.2	86.7	77.1	65.0	56.2
Louisville, KY-IN	740	887	1,026	1,228	1,133	119.6	141.6	162.3	192.2	177.4
Memphis, TN-MS-AR	1,990	2,548	2,789	2,472	2,537	305.6	386.0	420.2	370.2	380.0
Miami-Fort Lauderdale-Miami Beach, FL	2,317	2,708	2,444	2,661	2,439	83.0	96.4	87.9	95.6	87.6
Milwaukee-Waukesha-West Allis, WI	2,298	2,923	2,972	300	2,098	295.8	378.4	376.2	37.9	264.9
Minneapolis-St. Paul-Bloomington, MN-WI	1,548	1,486	1,500	1,210	928	97.7	93.0	93.0	74.6	57.2
Nashville-Davidson-Murfreesboro, TN	661	794	800	783	625	91.8	107.6	103.7	99.4	79.3
New Orleans-Metairie-Kenner, LA	1,287	965	1,322	984	1,098	187.8	181.7	246.6	166.6	185.9
New York-Newark-Edison, NY-NJ-PA	7,784	7,015	6,979	7,089	6,886	80.2	72.1	71.8	72.3	70.2
Oklahoma City, OK	1,486	1,275	1,202	1,294	1,188	253.5	214.2	198.8	211.5	194.2
Orlando, FL	1,286	1,688	1,377	1,424	1,364	131.6	168.5	134.3	137.3	131.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	4,219	4,257	4,416	4,098	3,811	140.0	141.4	146.7	135.9	126.4
Phoenix-Mesa-Scottsdale, AZ	1,456	2,014	1,497	988	1,022	76.0	100.7	72.3	46.7	48.3
Pittsburgh, PA	1,216	1,174	1,530	1,524	1,161	97.9	95.3	125.2	125.0	95.2
Portland-Vancouver-Beaverton, OR-WA	551	436	446	420	322	52.4	40.7	40.9	38.0	29.1
Providence-New Bedford-Fall River, RI-MA	365	374	282	209	196	43.5	44.9	34.1	25.4	23.8
Richmond, VA	1,256	824	1,122	1,436	1,010	207.8	134.4	179.7	227.9	160.3
Riverside-San Bernardino-Ontario, CA	1,572	1,602	1,705	1,237	1,024	80.5	79.6	83.6	60.2	49.8
Rochester, NY	1,006	748	608	744	744	188.9	141.0	115.2	140.6	140.6
Sacramento-Arden-Arcade-Roseville, CA	1,307	1,164	1,190	917	557	125.9	110.7	112.0	85.6	52.0
Salt Lake City, UT	183	246	229	88	37	35.8	46.7	42.4	16.0	6.7
San Antonio, TX	1,155	1,412	1,279	1,557	1,921	119.8	142.3	126.0	150.3	185.5
San Diego-Carlsbad-San Marcos, CA	1,108	1,158	961	803	620	76.3	79.3	64.9	53.9	41.6
San Francisco-Oakland-Fremont, CA	2,052	2,122	2,174	1,863	1,421	97.9	100.9	102.8	86.7	66.2
San Jose-Sunnyvale-Santa Clara, CA	457	488	385	312	248	53.1	55.8	43.7	35.2	27.9
Seattle-Tacoma-Bellevue, WA	1,060	1,300	1,205	965	604	66.1	79.6	72.7	57.7	36.1
St. Louis, MO-IL	3,638	3,718	3,539	2,756	1,908	253.5	257.5	244.5	189.6	131.3
Tampa-St. Petersburg-Clearwater, FL	1,542	2,064	1,973	2,006	1,907	113.3	149.0	141.1	143.0	135.9
Virginia Beach-Norfolk-Newport News, VA-NC	1,717	1,305	1,355	2,875	2,008	205.6	154.9	159.8	339.3	237.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,269	2,048	2,268	2,711	2,637	85.1	75.6	83.5	98.8	96.2
U.S. MSAs TOTAL	102,374	105,497	105,253	102,093	92,637	126.2	128.7	127.3	122.4	111.1

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis, WI.

Table 18. Gonorrhea—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	4,183	5,083	4,484	4,054	3,786	171.3	200.1	171.9	152.6	142.5
Austin-Round Rock, TX	870	1,310	1,081	1,208	991	117.4	169.2	132.2	142.8	117.2
Baltimore-Towson, MD	2,352	2,180	1,976	1,841	1,675	183.6	170.3	153.7	143.2	130.3
Birmingham-Hoover, AL	1,243	932	1,367	1,235	913	236.2	175.6	255.7	229.1	169.4
Boston-Cambridge-Quincy, MA-NH	890	812	996	742	726	41.5	37.5	45.7	33.7	33.0
Buffalo-Cheektowaga-Tonawanda, NY	847	913	1,031	839	696	153.4	166.7	189.6	154.7	128.4
Charlotte-Gastonia-Concord, NC-SC	1,726	1,804	1,199	1,542	1,405	230.4	231.7	148.1	184.5	168.1
Chicago-Naperville-Joliet, IL-IN-WI	6,900	7,267	7,161	7,586	7,141	148.8	155.4	152.6	160.9	151.4
Cincinnati-Middletown, OH-KY-IN	1,616	1,373	1,674	1,224	1,019	159.7	133.6	160.6	116.3	96.8
Cleveland-Elyria-Mentor, OH	2,329	2,366	2,091	1,295	1,254	228.2	232.8	207.4	128.9	124.8
Columbus, OH	1,531	1,537	1,985	1,788	1,289	181.6	180.4	229.2	204.2	147.2
Dallas-Fort Worth-Arlington, TX	4,276	4,230	5,123	4,243	3,374	146.5	140.3	165.9	133.9	106.5
Denver-Aurora, CO	1,151	1,209	1,110	1,278	958	97.0	100.0	89.7	101.5	76.1
Detroit-Warren-Livonia, MI	4,657	3,890	3,786	4,502	4,005	212.7	178.2	173.4	208.2	185.2
Hartford-West Hartford-East Hartford, CT	473	467	398	418	410	82.1	80.7	68.7	72.0	70.6
Houston-Baytown-Sugar Land, TX	2,194	3,504	3,930	3,525	2,926	83.1	126.4	139.4	122.8	101.9
Indianapolis, IN	1,972	2,106	2,150	1,902	1,369	244.8	257.3	258.1	225.7	162.4
Jacksonville, FL	1,338	1,448	1,581	1,392	966	219.1	231.5	248.7	216.8	150.5
Kansas City, MO-KS	1,734	1,723	1,643	1,380	1,371	181.1	178.4	168.6	140.3	139.4
Las Vegas-Paradise, NV	1,322	1,354	1,158	1,038	807	152.0	149.9	123.9	109.3	85.0
Los Angeles-Long Beach-Santa Ana, CA	6,985	6,505	6,023	5,543	6,081	109.1	101.2	94.2	86.7	95.1
Louisville, KY-IN	811	858	881	1,070	990	137.6	144.0	146.5	176.6	163.4
Memphis, TN-MS-AR	1,792	2,117	1,967	2,003	1,998	293.9	344.4	318.9	324.1	323.3
Miami-Fort Lauderdale-Miami Beach, FL	2,180	2,648	2,706	2,801	2,799	82.9	99.7	102.8	106.4	106.4
Milwaukee-Waukesha-West Allis, WI	1,731	2,080	1,975	145	1,470	235.2	282.0	261.8	19.1	194.1
Minneapolis-St. Paul-Bloomington, MN-WI	1,372	1,294	1,334	1,135	872	88.1	82.1	83.6	70.6	54.3
Nashville-Davidson-Murfreesboro, TN	813	940	892	758	600	115.8	131.0	119.0	99.4	78.6
New Orleans-Metairie-Kenner, LA	1,299	981	1,352	1,050	976	204.9	198.8	273.5	193.2	179.6
New York-Newark-Edison, NY-NJ-PA	7,744	7,929	8,406	8,017	8,363	85.6	87.2	92.4	87.1	90.9
Oklahoma City, OK	1,062	1,040	1,171	1,103	876	186.1	180.2	199.0	185.5	147.4
Orlando, FL	1,562	1,704	1,366	1,277	1,297	163.4	173.3	135.6	125.5	127.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3,500	3,904	4,250	3,626	3,593	124.5	138.6	150.9	128.4	127.2
Phoenix-Mesa-Scottsdale, AZ	1,676	2,242	1,834	1,222	1,295	85.9	110.0	86.9	56.5	59.8
Pittsburgh, PA	941	883	1,069	1,045	704	82.2	77.5	94.3	92.3	62.2
Portland-Vancouver-Beaverton, OR-WA	842	692	607	611	504	80.6	64.9	56.0	55.5	45.8
Providence-New Bedford-Fall River, RI-MA	285	318	338	246	231	36.4	40.8	43.7	31.9	29.9
Richmond, VA	1,105	954	1,074	1,261	886	193.4	164.2	182.4	211.7	148.8
Riverside-San Bernardino-Ontario, CA	1,440	1,390	1,450	961	895	73.5	69.0	71.0	46.7	43.4
Rochester, NY	893	709	599	601	721	176.3	140.4	119.2	119.1	142.8
Sacramento-Arden-Arcade-Roseville, CA	1,123	1,046	1,098	835	558	111.8	103.0	106.7	80.4	53.7
Salt Lake City, UT	277	377	344	258	207	52.9	69.6	61.5	45.5	36.5
San Antonio, TX	1,145	1,289	1,322	1,556	1,775	123.7	135.7	135.5	156.3	178.3
San Diego-Carlsbad-San Marcos, CA	1,500	1,531	1,415	1,254	1,206	101.3	103.4	94.7	83.0	79.9
San Francisco-Oakland-Fremont, CA	3,644	3,882	3,493	3,179	2,933	177.2	186.9	167.2	149.5	137.9
San Jose-Sunnyvale-Santa Clara, CA	597	570	506	398	314	66.8	62.4	54.8	42.7	33.7
Seattle-Tacoma-Bellevue, WA	1,644	1,779	1,367	1,216	1,094	102.7	109.1	82.7	72.7	65.4
St. Louis, MO-IL	2,753	2,829	2,944	2,247	1,712	204.9	209.2	217.1	164.8	125.6
Tampa-St. Petersburg-Clearwater, FL	1,368	1,602	1,842	1,822	1,887	106.3	122.0	138.9	136.9	141.8
Virginia Beach-Norfolk-Newport News, VA-NC	1,636	1,237	1,148	2,058	1,633	201.4	153.3	141.6	253.7	201.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	2,220	2,291	2,385	2,823	2,681	87.1	88.8	92.1	107.9	102.5
U.S. MSAs TOTAL	99,544	103,129	103,082	95,153	88,232	127.0	130.0	128.8	117.7	109.1

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

NOTE: 2008 Milwaukee County STD morbidity data were misclassified, resulting in incomplete case counts for MSA-Milwaukee-Waukesha-West Allis, WI.

Table 19. Gonorrhea—Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2009

Rank [†]	County/Independent City	Cases	Rates per 100,000 Population	Cumulative Percentage
1	Cook County, IL	13,330	251.8	4
2	Los Angeles County, CA	9,020	91.5	7
3	Wayne County, MI	7,654	392.5	9
4	Harris County, TX	5,209	130.7	11
5	Philadelphia County, PA	4,823	333.2	13
6	Dallas County, TX	4,472	185.3	14
7	Shelby County, TN	3,827	422.0	16
8	Kings County, NY	3,510	137.3	17
9	Milwaukee County, WI	3,507	367.9	18
10	Bexar County, TX	3,458	213.1	19
11	Bronx County, NY	3,029	217.6	20
12	Franklin County, OH	2,922	258.8	21
13	Fulton County, GA	2,906	286.3	22
14	Baltimore (City), MD	2,882	452.5	23
15	Marion County, IN	2,824	320.8	24
16	Cuyahoga County, OH	2,723	212.1	25
17	Washington, D.C.	2,561	432.7	26
18	Hamilton County, OH	2,459	288.8	26
19	Tarrant County, TX	2,459	140.5	27
20	New York County, NY	2,355	144.1	28
21	Miami-Dade County, FL	2,338	97.5	29
22	Maricopa County, AZ	2,258	57.1	30
23	Jackson County, MO	2,179	326.0	30
24	Mecklenburg County, NC	2,031	228.1	31
25	Hillsborough County, FL	2,015	170.6	32
26	Broward County, FL	1,968	112.4	32
27	Orange County, FL	1,895	176.6	33
28	Jefferson County, KY	1,874	262.5	34
29	San Diego County, CA	1,829	60.9	34
30	Duval County, FL	1,825	214.5	35
31	Queens County, NY	1,808	78.8	35
32	San Francisco County, CA	1,799	222.4	36
33	Jefferson County, AL	1,790	271.4	37
34	Oklahoma County, OK	1,768	250.2	37
35	DeKalb County, GA	1,761	238.0	38
36	Alameda County, CA	1,653	112.1	38
37	Clark County, NV	1,553	83.2	39
38	Allegheny County, PA	1,535	126.3	39
39	Pinellas County, FL	1,509	165.8	40
40	Travis County, TX	1,461	146.3	40
41	Essex County, NJ	1,457	189.1	41
42	Prince George's County, MD	1,428	174.0	41
43	Tulsa County, OK	1,419	239.7	42
44	Monroe County, NY	1,414	193.0	42
45	Erie County, NY	1,409	154.9	43
46	Pulaski County, AR	1,351	358.5	43
47	Hinds County, MS	1,344	542.7	44
48	St. Louis County, MO	1,330	134.1	44
49	Orleans County, LA	1,316	422.0	44
50	St. Louis (City), MO	1,296	365.7	45
51	Caddo County, LA	1,284	507.7	45
52	Bell County, TX	1,176	412.5	46
53	Denver County, CO	1,169	195.3	46
54	San Bernardino County, CA	1,163	57.7	46
55	Genesee County, MI	1,125	262.4	47
56	King County, WA	1,103	58.8	47
57	Norfolk (City), VA	1,091	465.8	48
58	Hennepin County, MN	1,050	92.0	48
59	Montgomery County, OH	1,049	196.2	48
60	Richland County, SC	1,043	286.5	49
61	Lucas County, OH	1,043	236.8	49
62	Guilford County, NC	1,013	214.5	49
63	Sacramento County, CA	985	70.7	50
64	Leon County, FL	977	370.0	50
65	Oakland County, MI	976	81.2	50

* Accounting for 50% of reported gonorrhea cases.

† Counties and independent cities were ranked in descending order by the number of cases reported in 2009.

Table 20. Gonorrhea—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2005–2009

	Age Group	Cases			Rates		
		Total	Male	Female	Total	Male	Female
2005	10–14	4,278	646	3,631	20.5	6.0	35.7
	15–19	90,840	27,781	63,060	431.8	257.5	615.3
	20–24	106,280	47,187	59,093	505.2	434.6	580.4
	25–29	57,195	30,631	26,565	285.0	298.3	271.1
	30–34	30,044	18,244	11,800	149.6	179.7	118.9
	35–39	19,948	13,413	6,535	95.0	127.0	62.6
	40–44	14,346	10,406	3,940	62.8	91.5	34.3
	45–54	12,636	10,063	2,573	29.7	48.2	11.9
	55–64	2,777	2,399	378	9.1	16.4	2.4
	65+	763	631	132	2.1	4.1	0.6
	TOTAL	339,593	161,557	178,036	114.6	110.7	118.4
2006	10–14	4,250	675	3,574	20.6	6.4	35.5
	15–19	96,524	30,119	66,405	452.6	275.4	639.2
	20–24	110,969	49,304	61,665	525.6	451.9	604.5
	25–29	61,843	32,946	28,897	298.6	311.3	285.4
	30–34	31,313	18,858	12,455	158.9	188.9	128.1
	35–39	20,674	13,813	6,861	97.6	129.7	65.1
	40–44	14,534	10,636	3,898	64.6	95.0	34.6
	45–54	13,847	11,064	2,782	32.0	52.0	12.7
	55–64	3,137	2,686	451	9.9	17.6	2.8
	65+	800	648	152	2.1	4.1	0.7
	TOTAL	358,366	170,902	187,464	119.7	115.9	123.4
2007	10–14	3,958	623	3,335	19.5	6.0	33.6
	15–19	98,579	31,270	67,309	459.1	284.1	643.1
	20–24	111,788	49,101	62,687	531.5	452.4	615.8
	25–29	61,364	32,296	29,068	291.4	299.7	282.7
	30–34	30,294	18,114	12,180	155.1	182.9	126.5
	35–39	19,094	12,724	6,370	90.2	119.4	60.5
	40–44	13,184	9,704	3,480	60.0	88.5	31.6
	45–54	13,346	10,690	2,656	30.4	49.5	11.9
	55–64	3,179	2,692	487	9.7	17.1	2.9
	65+	710	620	89	1.9	3.9	0.4
	TOTAL	355,991	168,012	187,979	118.0	113.0	122.9
2008	10–14	3,668	598	3,070	18.3	5.8	31.3
	15–19	97,293	30,637	66,656	452.2	277.8	635.6
	20–24	109,005	47,053	61,951	517.6	433.9	606.6
	25–29	56,791	29,089	27,701	266.2	265.9	266.5
	30–34	27,629	16,177	11,452	141.0	162.4	118.8
	35–39	16,419	10,615	5,804	78.2	100.4	55.7
	40–44	11,048	7,859	3,189	51.4	73.1	29.6
	45–54	11,152	8,659	2,493	25.1	39.6	11.1
	55–64	2,629	2,203	426	7.8	13.6	2.4
	65+	657	552	104	1.7	3.4	0.5
	TOTAL	336,742	153,599	183,143	110.7	102.5	118.8
2009	10–14	2,991	509	2,482	14.9	5.0	25.3
	15–19	87,221	27,573	59,648	405.4	250.0	568.8
	20–24	100,902	44,190	56,712	479.1	407.5	555.3
	25–29	49,981	26,142	23,840	234.3	238.9	229.4
	30–34	24,669	14,437	10,232	125.9	145.0	106.2
	35–39	14,006	9,049	4,957	66.7	85.6	47.6
	40–44	8,997	6,538	2,459	41.8	60.8	22.9
	45–54	9,317	7,352	1,965	21.0	33.6	8.7
	55–64	2,217	1,853	364	6.6	11.4	2.1
	65+	555	447	108	1.4	2.7	0.5
	TOTAL	301,174	138,187	162,987	99.1	92.2	105.7

NOTE: This table should be used only for age comparisons. If age was not specified, cases were prorated according to the distribution of cases for which age was known. Differences between total cases from this table and others in the report are due to different reporting formats. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

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Table 21A. Gonorrhea—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009

	Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
2005	10-14	691	35	655	3,154	549	2,604	355	52	304	25	1	23	45	8	37
	15-19	15,758	2,679	13,079	66,165	22,563	43,602	7,299	2,134	5,165	606	176	430	845	196	650
	20-24	20,892	6,509	14,383	73,365	35,373	37,991	9,742	4,438	5,303	960	418	542	1,012	344	668
	25-29	11,681	4,667	7,013	38,213	22,200	16,013	5,915	3,126	2,790	633	341	293	569	216	353
	30-34	6,790	3,405	3,385	19,172	12,540	6,632	3,248	1,830	1,418	405	281	124	314	137	177
	35-39	5,384	3,256	2,127	12,004	8,570	3,433	2,009	1,270	739	268	180	88	193	97	97
	40-44	4,255	2,863	1,392	8,606	6,593	2,012	1,153	776	377	146	93	53	119	44	75
	45-54	3,535	2,668	867	7,993	6,667	1,325	831	561	270	118	79	39	93	46	46
	55-64	853	721	132	1,653	1,490	163	191	134	57	44	28	16	24	17	6
	65+	242	203	39	452	386	66	55	36	19	8	4	4	3	1	2
	TOTAL	70,209	27,050	43,159	231,076	117,025	114,050	30,845	14,374	16,471	3,214	1,602	1,612	3,225	1,112	2,113
2006	10-14	596	53	543	3,227	549	2,678	367	70	297	23	1	21	36	1	34
	15-19	16,038	2,612	13,426	70,992	24,675	46,317	8,055	2,451	5,603	556	125	431	877	251	626
	20-24	21,590	6,684	14,906	77,200	37,200	40,000	10,340	4,739	5,601	809	335	474	1,045	356	689
	25-29	12,907	5,147	7,760	41,339	23,863	17,477	6,408	3,424	2,985	558	278	280	634	238	396
	30-34	6,948	3,313	3,636	20,334	13,363	6,971	3,340	1,861	1,478	365	207	157	325	114	211
	35-39	5,570	3,281	2,289	12,565	9,018	3,547	2,097	1,270	827	246	154	93	193	89	103
	40-44	4,231	2,800	1,432	8,798	6,831	1,967	1,241	843	398	144	102	42	117	59	59
	45-54	3,952	2,875	1,077	8,744	7,427	1,317	896	619	277	125	69	56	128	74	55
	55-64	1,019	836	183	1,886	1,699	187	172	116	55	32	14	18	27	19	8
	65+	269	226	44	450	370	80	65	44	21	8	3	5	8	6	2
	TOTAL	73,200	27,848	45,353	245,855	125,102	120,753	33,044	15,460	17,584	2,869	1,290	1,579	3,398	1,208	2,189
2007	10-14	477	20	457	3,066	537	2,529	364	64	300	22	0	22	30	3	27
	15-19	15,620	2,700	12,920	74,252	25,860	48,392	7,536	2,439	5,097	498	122	376	668	147	521
	20-24	20,828	6,344	14,485	79,557	37,666	41,891	9,761	4,544	5,217	767	297	470	884	256	628
	25-29	12,481	4,997	7,484	42,001	23,643	18,358	5,880	3,188	2,692	519	285	234	485	186	299
	30-34	6,516	3,006	3,510	20,077	12,995	7,082	3,120	1,822	1,298	354	207	146	227	85	143
	35-39	4,984	2,778	2,206	11,915	8,578	3,337	1,843	1,170	673	187	120	67	164	78	86
	40-44	3,680	2,451	1,228	8,238	6,433	1,805	1,048	710	339	119	82	37	98	28	70
	45-54	3,786	2,808	979	8,540	7,176	1,364	824	594	230	114	64	50	81	48	33
	55-64	1,010	833	177	1,908	1,680	228	196	133	63	49	33	16	15	13	2
	65+	275	244	31	367	318	49	50	44	6	13	10	3	4	4	0
	TOTAL	69,753	26,209	43,544	250,260	125,010	125,250	30,676	14,729	15,947	2,643	1,221	1,422	2,659	850	1,809
2008	10-14	448	37	411	2,847	507	2,340	312	44	268	27	4	23	33	6	27
	15-19	14,141	2,484	11,657	74,285	25,450	48,835	7,651	2,410	5,240	529	130	399	681	159	522
	20-24	19,542	5,774	13,768	78,084	36,182	41,902	9,637	4,454	5,183	842	349	493	906	300	606
	25-29	11,213	4,326	6,887	38,706	21,221	17,486	5,814	3,086	2,727	552	279	273	509	180	329
	30-34	5,692	2,575	3,117	18,355	11,619	6,736	3,016	1,725	1,291	322	169	153	243	90	154
	35-39	3,967	2,165	1,802	10,258	7,093	3,165	1,834	1,149	685	211	144	67	148	65	83
	40-44	2,987	1,946	1,041	6,725	5,017	1,708	1,096	751	345	134	100	34	105	45	60
	45-54	3,158	2,288	870	6,933	5,642	1,290	796	562	233	162	111	51	103	55	48
	55-64	804	671	133	1,588	1,372	215	168	112	56	47	29	18	22	19	3
	65+	270	224	46	317	281	35	45	32	13	14	6	7	11	9	2
	TOTAL	62,306	22,518	39,788	238,410	114,496	123,915	30,412	14,339	16,073	2,849	1,327	1,522	2,764	926	1,838
2009	10-14	346	31	314	2,369	428	1,942	234	44	190	16	1	15	25	4	20
	15-19	12,317	2,317	10,000	66,650	22,751	43,899	6,986	2,222	4,764	537	118	419	726	165	562
	20-24	17,366	5,447	11,919	72,968	33,947	39,021	8,919	4,198	4,721	750	325	425	906	279	628
	25-29	9,858	4,202	5,656	34,021	18,670	15,351	5,096	2,811	2,284	498	263	234	513	197	316
	30-34	5,193	2,555	2,638	16,158	9,996	6,162	2,729	1,602	1,127	292	165	128	296	121	175
	35-39	3,442	1,921	1,521	8,641	5,963	2,678	1,544	946	598	195	140	55	183	79	103
	40-44	2,536	1,748	788	5,227	3,938	1,290	991	701	290	135	100	35	107	51	56
	45-54	2,891	2,231	660	5,405	4,395	1,010	766	562	204	142	98	44	112	64	48
	55-64	742	611	130	1,239	1,087	153	157	106	51	44	23	21	35	26	10
	65+	231	198	33	262	208	54	45	27	17	10	9	2	6	4	2
	TOTAL	54,961	21,273	33,688	213,165	101,459	111,706	27,512	13,229	14,283	2,621	1,242	1,378	2,917	991	1,925

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 20 for age-specific cases and rates and Tables 13–15 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. In 2005, Hawaii did not report age or race/ethnicity for most cases and their case data and population denominators were excluded. Differences between total cases from this table and others in the report are due to different reporting formats. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 21B. Gonorrhea—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009

Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10–14	5.5	0.5	10.7	95.5	32.8	160.2	9.2	2.6	16.1	3.0	0.3	5.8	20.9	7.4	34.7
15–19	119.3	39.5	203.6	2,044.5	1,376.4	2,730.3	211.5	119.9	308.9	73.1	41.2	107.1	367.8	167.5	575.2
20–24	160.0	97.6	225.1	2,437.0	2,333.5	2,542.0	261.7	218.3	314.0	102.5	88.0	117.4	466.7	312.9	625.0
25–29	97.5	77.2	118.1	1,412.1	1,692.4	1,148.5	147.1	139.7	156.5	57.7	63.1	52.4	317.6	238.4	398.8
30–34	55.7	55.5	55.9	742.3	1,024.0	488.3	85.7	89.3	81.4	31.8	45.1	19.0	189.8	165.9	213.7
35–39	39.7	47.7	31.5	455.3	688.7	246.6	59.4	70.3	46.9	23.2	31.9	14.9	116.5	117.7	115.3
40–44	27.1	36.5	17.7	305.6	500.6	134.3	38.5	49.6	26.3	13.9	18.3	9.9	64.6	49.5	79.0
45–54	11.4	17.3	5.5	163.3	294.9	50.3	19.5	26.1	12.8	6.7	9.6	4.2	28.2	29.5	26.9
55–64	3.6	6.3	1.1	55.7	112.7	9.9	8.1	11.9	4.6	3.9	5.4	2.6	11.3	17.2	5.8
65+	0.8	1.6	0.2	14.7	32.8	3.5	2.4	3.7	1.5	0.8	1.0	0.7	1.9	1.8	1.9
TOTAL	35.1	27.6	42.4	619.4	658.0	584.2	72.4	65.3	80.1	25.2	25.8	24.6	131.5	92.1	169.7
10–14	4.8	0.8	9.0	100.0	33.5	168.6	9.3	3.5	15.4	2.6	0.3	4.9	17.1	1.4	33.2
15–19	121.0	38.4	208.3	2,139.5	1,467.6	2,829.6	222.3	131.3	319.2	61.8	27.0	98.7	379.0	214.1	548.9
20–24	164.6	99.4	233.2	2,540.8	2,421.0	2,663.3	275.6	232.6	326.7	82.1	66.8	97.9	473.3	317.3	634.8
25–29	104.3	82.7	126.2	1,471.2	1,748.0	1,209.6	153.9	147.5	162.1	47.5	48.1	46.9	339.5	252.5	428.2
30–34	59.2	56.1	62.4	803.0	1,111.7	524.0	85.0	87.2	82.4	27.0	31.5	22.8	199.1	139.7	258.6
35–39	41.1	48.2	33.9	474.4	722.8	253.2	59.4	67.3	50.2	19.3	24.7	14.2	115.7	108.4	123.0
40–44	27.8	36.8	18.8	314.8	522.4	132.3	39.7	51.4	26.8	12.5	18.3	7.1	64.7	66.2	63.3
45–54	12.6	18.4	6.8	174.6	321.3	48.8	19.8	27.1	12.4	6.4	7.5	5.5	38.0	45.9	30.9
55–64	4.2	7.0	1.5	60.4	122.1	10.8	6.8	9.6	4.2	2.5	2.3	2.6	12.4	18.2	7.0
65+	0.9	1.8	0.2	14.4	30.8	4.2	2.7	4.3	1.5	0.6	0.6	0.7	4.3	7.2	2.1
TOTAL	36.5	28.3	44.4	651.2	695.1	611.3	74.6	67.4	82.2	20.4	18.9	21.9	136.9	98.9	173.7
10–14	3.9	0.3	7.8	97.6	33.6	163.6	9.2	3.1	15.5	2.4	0.0	4.9	14.7	2.7	27.1
15–19	118.2	39.8	200.9	2,200.9	1,512.6	2,907.9	201.2	126.4	280.5	54.8	26.1	85.4	288.5	125.4	455.4
20–24	158.9	94.3	226.9	2,604.2	2,436.3	2,776.2	264.5	229.4	305.1	80.4	61.1	100.5	396.9	226.0	574.3
25–29	98.7	78.5	119.2	1,455.2	1,674.3	1,245.4	140.8	137.1	145.6	44.9	50.0	40.0	250.4	190.3	311.8
30–34	56.5	51.8	61.2	797.3	1,085.4	536.1	78.1	83.7	71.5	26.8	32.2	21.7	138.6	103.3	174.1
35–39	37.3	41.3	33.1	448.3	684.5	237.6	50.6	60.1	39.7	14.0	18.4	9.8	98.0	93.8	102.2
40–44	25.0	33.4	16.7	300.2	500.9	123.6	32.8	42.2	22.3	10.2	14.4	6.2	55.4	32.1	77.6
45–54	12.0	17.9	6.1	167.0	303.9	49.6	17.3	24.6	9.8	5.7	6.8	4.7	23.6	29.4	18.3
55–64	4.0	6.8	1.4	58.5	115.6	12.6	7.3	10.3	4.5	3.6	5.2	2.2	6.5	11.9	1.5
65+	0.9	1.9	0.2	11.5	26.0	2.5	2.0	4.1	0.4	1.0	1.8	0.4	2.2	5.0	0.0
TOTAL	34.7	26.5	42.5	656.0	687.1	627.7	67.4	62.6	72.6	18.5	17.6	19.4	106.0	68.8	142.0
10–14	3.8	0.6	7.1	92.9	32.5	155.2	7.8	2.2	13.7	3.0	0.9	5.2	16.6	5.7	27.8
15–19	107.8	36.9	182.6	2,179.9	1,472.5	2,907.8	198.7	121.7	280.3	58.1	27.7	90.3	296.9	137.1	460.0
20–24	148.8	85.7	215.3	2,521.9	2,311.7	2,736.9	263.1	228.9	301.8	89.4	72.4	107.1	404.1	263.3	550.1
25–29	86.9	66.4	107.9	1,308.8	1,453.9	1,167.4	140.4	134.4	147.9	48.6	49.5	47.8	250.9	175.0	328.6
30–34	49.2	44.2	54.2	723.8	960.6	507.9	74.6	77.8	70.7	25.2	27.1	23.3	146.2	107.4	185.3
35–39	30.3	32.9	27.7	387.1	567.4	226.2	49.2	57.5	39.5	15.5	21.7	9.7	88.8	78.0	99.5
40–44	21.1	27.4	14.7	249.6	397.6	119.2	33.4	43.4	22.3	11.4	17.5	5.7	61.4	53.4	69.0
45–54	9.9	14.5	5.4	133.1	234.6	46.0	16.0	22.1	9.6	7.9	11.4	4.8	29.5	32.9	26.4
55–64	3.1	5.3	1.0	46.6	90.5	11.4	5.9	8.1	3.8	3.3	4.5	2.3	9.1	16.3	2.5
65+	0.9	1.7	0.3	9.7	22.4	1.8	1.7	2.8	0.9	1.0	1.0	1.0	5.2	9.8	1.6
TOTAL	30.9	22.7	38.8	622.3	626.5	618.4	64.8	59.1	70.8	19.7	18.8	20.5	107.4	73.1	140.6
10–14	2.9	0.5	5.4	77.3	27.5	128.7	5.9	2.2	9.8	1.8	0.3	3.4	12.5	4.3	20.9
15–19	93.9	34.4	156.7	1,955.8	1,316.4	2,613.8	181.4	112.2	254.8	59.0	25.2	94.8	316.9	142.4	494.9
20–24	132.2	80.8	186.4	2,356.7	2,168.9	2,548.7	243.5	215.7	274.9	79.6	67.5	92.2	404.3	244.4	570.0
25–29	76.4	64.5	88.6	1,150.4	1,279.1	1,024.9	123.1	122.4	123.9	43.8	46.7	41.0	252.7	191.5	315.3
30–34	44.9	43.9	45.9	637.2	826.3	464.6	67.5	72.3	61.8	22.8	26.3	19.5	178.1	145.0	211.3
35–39	26.3	29.2	23.4	326.1	477.0	191.4	41.4	47.4	34.5	14.4	21.1	7.9	109.5	95.6	123.2
40–44	17.9	24.6	11.1	194.0	312.1	90.0	30.2	40.4	18.8	11.5	17.5	5.8	62.4	60.5	64.1
45–54	9.1	14.1	4.1	103.8	182.8	36.0	15.4	22.1	8.3	6.9	10.1	4.1	32.0	38.4	26.1
55–64	2.9	4.9	1.0	36.4	71.7	8.1	5.5	7.7	3.4	3.1	3.5	2.7	14.6	22.5	7.5
65+	0.7	1.5	0.2	8.0	16.6	2.7	1.7	2.4	1.1	0.8	1.5	0.2	2.9	4.6	1.5
TOTAL	27.2	21.5	32.8	556.4	555.2	557.5	58.6	54.5	63.0	18.1	17.6	18.5	113.3	78.2	147.3

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 20 for age-specific cases and rates and Tables 13–15 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. In 2005, Hawaii did not report age or race/ethnicity for most cases and their case data, and population denominators were excluded. Differences between total rates from this table and others in the report are due to different reporting formats. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 22. All Stages of Syphilis* — Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	551	931	1,006	1,187	1,138	12.1	20.2	21.7	25.5	24.4
Alaska	22	25	16	9	4	3.3	3.7	2.3	1.3	0.6
Arizona	792	926	1,245	1,394	1,084	13.3	15.0	19.6	21.4	16.7
Arkansas	231	246	371	508	552	8.3	8.8	13.1	17.8	19.3
California	5,340	6,046	6,323	6,911	6,031	14.8	16.6	17.3	18.8	16.4
Colorado	144	182	157	352	269	3.1	3.8	3.2	7.1	5.4
Connecticut	166	197	148	173	179	4.7	5.6	4.2	4.9	5.1
Delaware	35	74	63	60	87	4.1	8.7	7.3	6.9	10.0
District of Columbia	365	314	416	370	431	66.3	54.0	70.7	62.5	72.8
Florida	2,888	2,945	3,918	4,585	3,863	16.2	16.3	21.5	25.0	21.1
Georgia	1,924	1,933	2,254	2,833	2,717	21.2	20.6	23.6	29.2	28.1
Hawaii	57	66	58	68	88	4.5	5.1	4.5	5.3	6.8
Idaho	54	12	14	26	31	3.8	0.8	0.9	1.7	2.0
Illinois	1,608	1,473	1,220	1,565	1,915	12.6	11.5	9.5	12.1	14.8
Indiana	288	250	216	351	324	4.6	4.0	3.4	5.5	5.1
Iowa	28	68	65	75	65	0.9	2.3	2.2	2.5	2.2
Kansas	88	87	97	125	151	3.2	3.1	3.5	4.5	5.4
Kentucky	129	188	153	218	239	3.1	4.5	3.6	5.1	5.6
Louisiana	1,239	1,390	1,808	2,024	1,964	27.4	32.4	42.1	45.9	44.5
Maine	6	22	21	27	15	0.5	1.7	1.6	2.1	1.1
Maryland	1,005	1,038	1,171	1,088	993	17.9	18.5	20.8	19.3	17.6
Massachusetts	398	378	399	479	473	6.2	5.9	6.2	7.4	7.3
Michigan	488	384	473	546	635	4.8	3.8	4.7	5.5	6.3
Minnesota	208	189	186	265	217	4.1	3.7	3.6	5.1	4.2
Mississippi	371	520	708	745	745	12.7	17.9	24.3	25.4	25.4
Missouri	372	430	484	542	514	6.4	7.4	8.2	9.2	8.7
Montana	7	2	8	10	5	0.7	0.2	0.8	1.0	0.5
Nebraska	18	34	30	36	45	1.0	1.9	1.7	2.0	2.5
Nevada	343	389	396	325	306	14.2	15.6	15.4	12.5	11.8
New Hampshire	33	35	52	41	37	2.5	2.7	4.0	3.1	2.8
New Jersey	813	799	926	1,009	890	9.3	9.2	10.7	11.6	10.3
New Mexico	183	237	180	189	208	9.5	12.1	9.1	9.5	10.5
New York	3,853	4,586	5,001	5,515	4,623	20.0	23.8	25.9	28.3	23.7
North Carolina	713	962	1,093	999	1,524	8.2	10.9	12.1	10.8	16.5
North Dakota	1	3	2	4	8	0.2	0.5	0.3	0.6	1.2
Ohio	502	491	549	763	794	4.4	4.3	4.8	6.6	6.9
Oklahoma	159	251	216	257	296	4.5	7.0	6.0	7.1	8.1
Oregon	109	99	59	97	132	3.0	2.7	1.6	2.6	3.5
Pennsylvania	712	888	844	902	1,027	5.7	7.1	6.8	7.2	8.3
Rhode Island	64	71	76	55	64	5.9	6.7	7.2	5.2	6.1
South Carolina	549	397	411	412	507	12.9	9.2	9.3	9.2	11.3
South Dakota	4	29	12	6	10	0.5	3.7	1.5	0.7	1.2
Tennessee	917	1,015	1,212	1,284	1,317	15.4	16.8	19.7	20.7	21.2
Texas	4,289	4,956	5,506	6,336	6,973	18.8	21.1	23.0	26.0	28.7
Utah	50	68	45	40	55	2.0	2.7	1.7	1.5	2.0
Vermont	1	7	11	18	1	0.2	1.1	1.8	2.9	0.2
Virginia	655	701	736	789	755	8.7	9.2	9.5	10.2	9.7
Washington	359	423	367	438	322	5.7	6.6	5.7	6.7	4.9
West Virginia	18	30	27	44	32	1.0	1.6	1.5	2.4	1.8
Wisconsin	138	170	170	187	166	2.5	3.1	3.0	3.3	2.9
Wyoming	1	1	6	9	7	0.2	0.2	1.1	1.7	1.3
U.S. TOTAL	33,288	36,958	40,925	46,291	44,828	11.2	12.3	13.6	15.2	14.7
Northeast	6,046	6,983	7,478	8,219	7,309	11.1	12.8	13.7	15.0	13.3
Midwest	3,743	3,608	3,504	4,465	4,844	5.7	5.4	5.3	6.7	7.3
South	16,038	17,891	21,069	23,739	24,133	14.9	16.4	19.1	21.2	21.6
West	7,461	8,476	8,874	9,868	8,542	10.9	12.2	12.7	13.9	12.1
Guam	19	13	37	45	12	11.3	7.6	21.3	25.6	6.8
Puerto Rico	1,223	1,068	1,269	797	724	31.3	27.2	32.2	20.2	18.3
Virgin Islands	13	5	5	1	2	12.0	4.6	4.6	0.9	1.8
OUTLYING AREAS	1,255	1,086	1,311	843	738	30.0	25.8	31.0	19.9	17.4
TOTAL	34,543	38,044	42,236	47,134	45,566	11.5	12.5	13.8	15.3	14.8

* See Syphilis Morbidity Reporting in the Appendix for definition.

Table 23. All Stages of Syphilis* – Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)[†] in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	1,626	1,641	1,904	2,243	2,187	33.1	31.9	36.1	41.7	40.7
Austin-Round Rock, TX	193	212	234	344	352	13.3	14.0	14.6	20.8	21.3
Baltimore-Towson, MD	679	642	650	685	567	25.6	24.1	24.4	25.7	21.3
Birmingham-Hoover, AL	243	561	483	504	412	22.3	51.0	43.6	45.1	36.9
Boston-Cambridge-Quincy, MA-NH	339	329	324	383	411	7.7	7.4	7.2	8.5	9.1
Buffalo-Cheektowaga-Tonawanda, NY	14	42	28	20	40	1.2	3.7	2.5	1.8	3.6
Charlotte-Gastonia-Concord, NC-SC	235	303	301	224	345	15.4	19.1	18.2	13.2	20.3
Chicago-Naperville-Joliet, IL-IN-WI	1,541	1,386	1,116	1,452	1,797	16.3	14.6	11.7	15.2	18.8
Cincinnati-Middletown, OH-KY-IN	55	58	77	105	226	2.7	2.8	3.6	4.9	10.5
Cleveland-Elyria-Mentor, OH	52	53	83	127	170	2.4	2.5	4.0	6.1	8.1
Columbus, OH	227	229	222	311	252	13.3	13.3	12.7	17.5	14.2
Dallas-Fort Worth-Arlington, TX	1,495	1,678	1,643	1,780	2,146	25.7	27.9	26.7	28.3	34.1
Denver-Aurora, CO	111	141	120	269	223	4.7	5.9	4.9	10.7	8.9
Detroit-Warren-Livonia, MI	390	284	339	304	411	8.7	6.4	7.6	6.9	9.3
Hartford-West Hartford-East Hartford, CT	57	65	51	71	67	4.8	5.5	4.3	6.0	5.6
Houston-Baytown-Sugar Land, TX	1,188	1,570	2,048	2,088	2,038	22.5	28.3	36.4	36.5	35.6
Indianapolis, IN	134	121	95	189	156	8.2	7.3	5.6	11.0	9.1
Jacksonville, FL	151	165	198	308	235	12.1	12.9	15.2	23.5	17.9
Kansas City, MO-KS	193	228	268	237	220	9.9	11.6	13.5	11.8	11.0
Las Vegas-Paradise, NV	300	355	364	299	273	17.5	20.0	19.8	16.0	14.6
Los Angeles-Long Beach-Santa Ana, CA	3,159	3,594	3,581	3,572	3,278	24.4	27.8	27.8	27.7	25.5
Louisville, KY-IN	102	101	77	91	123	8.4	8.3	6.2	7.3	9.9
Memphis, TN-MS-AR	585	612	761	748	777	46.4	48.0	59.4	58.2	60.4
Miami-Fort Lauderdale-Miami Beach, FL	1,444	1,455	1,863	2,408	1,972	26.6	26.6	34.4	44.5	36.4
Milwaukee-Waukesha-West Allis, WI	77	100	127	138	117	5.1	6.6	8.2	8.9	7.6
Minneapolis-St. Paul-Bloomington, MN-WI	187	161	170	223	182	6.0	5.1	5.3	6.9	5.6
Nashville-Davidson-Murfreesboro, TN	189	194	240	277	302	13.3	13.3	15.8	17.9	19.5
New Orleans-Metairie-Kenner, LA	350	352	560	491	462	26.5	34.4	54.3	43.3	40.7
New York-Newark-Edison, NY-NJ-PA	4,318	4,924	5,503	6,097	5,087	23.0	26.2	29.2	32.1	26.8
Oklahoma City, OK	87	116	114	161	210	7.5	9.9	9.6	13.3	17.4
Orlando, FL	413	403	583	460	408	21.4	20.3	28.7	22.4	19.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	583	773	778	812	959	10.0	13.3	13.3	13.9	16.4
Phoenix-Mesa-Scottsdale, AZ	595	757	866	857	682	15.4	18.7	20.7	20.0	15.9
Pittsburgh, PA	112	152	122	98	70	4.7	6.4	5.2	4.2	3.0
Portland-Vancouver-Beaverton, OR-WA	94	74	51	64	114	4.5	3.5	2.3	2.9	5.2
Providence-New Bedford-Fall River, RI-MA	75	92	100	71	76	4.6	5.7	6.2	4.4	4.8
Richmond, VA	87	106	129	226	207	7.4	8.9	10.6	18.4	16.9
Riverside-San Bernardino-Ontario, CA	399	376	340	452	416	10.2	9.3	8.3	11.0	10.1
Rochester, NY	36	90	76	51	52	3.5	8.7	7.4	4.9	5.0
Sacramento-Arden-Arcade-Roseville, CA	39	136	117	243	212	1.9	6.6	5.6	11.5	10.0
Salt Lake City, UT	35	41	35	35	40	3.4	3.8	3.2	3.1	3.6
San Antonio, TX	458	473	420	598	739	24.2	24.4	21.1	29.4	36.4
San Diego-Carlsbad-San Marcos, CA	448	572	788	828	493	15.3	19.4	26.5	27.6	16.4
San Francisco-Oakland-Fremont, CA	719	741	783	1,044	932	17.3	17.7	18.6	24.4	21.8
San Jose-Sunnyvale-Santa Clara, CA	121	94	159	156	141	6.9	5.3	8.8	8.6	7.8
Seattle-Tacoma-Bellevue, WA	285	356	309	359	256	8.9	10.9	9.3	10.7	7.7
St. Louis, MO-IL	173	186	252	322	294	6.2	6.7	9.0	11.4	10.4
Tampa-St. Petersburg-Clearwater, FL	326	428	612	680	631	12.3	15.9	22.5	24.9	23.1
Virginia Beach-Norfolk-Newport News, VA-NC	246	245	232	248	236	14.9	14.9	14.0	15.0	14.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	894	928	1,163	956	1,004	17.1	17.5	21.9	17.8	18.7
U.S. MSAs TOTAL	25,859	28,695	31,459	34,709	33,000	16.2	17.8	19.3	21.1	20.1

* See Syphilis Morbidity Reporting in the Appendix for definition.

[†] MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 24. Primary and Secondary Syphilis—Reported Cases and Rates by State, Ranked by Rates, United States, 2009

Rank*	State	Cases	Rates per 100,000 Population
1	Louisiana	741	16.8
2	Georgia	953	9.8
3	Arkansas	275	9.6
4	Alabama	417	8.9
5	Mississippi	237	8.1
6	Texas	1,644	6.8
7	Tennessee	403	6.5
8	North Carolina	579	6.3
9	New York	1,182	6.1
10	Illinois	750	5.8
11	Florida	1,041	5.7
12	Maryland	314	5.6
13	California	1,900	5.2
	U.S. TOTAL†	13,997	4.6
14	Virginia	299	3.8
15	Massachusetts	238	3.7
16	Arizona	231	3.6
17	Nevada	91	3.5
18	Ohio	360	3.1
19	Delaware	27	3.1
20	New Mexico	61	3.1
21	Missouri	173	2.9
22	South Carolina	123	2.7
23	Pennsylvania	341	2.7
24	Oklahoma	97	2.7
25	Hawaii	33	2.6
26	Indiana	158	2.5
27	New Jersey	212	2.4
28	Michigan	230	2.3
29	Kentucky	92	2.2
30	Colorado	105	2.1
31	Washington	139	2.1
32	Rhode Island	20	1.9
33	Connecticut	65	1.9
34	Oregon	57	1.5
35	Minnesota	71	1.4
36	Kansas	32	1.1
37	Utah	31	1.1
38	New Hampshire	14	1.1
39	Wisconsin	44	0.8
40	Iowa	23	0.8
41	North Dakota	4	0.6
42	Wyoming	3	0.6
43	West Virginia	8	0.4
44	Montana	4	0.4
45	Maine	4	0.3
46	Nebraska	5	0.3
	YEAR 2010 TARGET		0.2
47	Idaho	3	0.2
	Alaska	0	0.0
	South Dakota	0	0.0
	Vermont	0	0.0

* States were ranked in descending order by rate, number of cases, and alphabetically.

† Total includes cases reported by the District of Columbia, with 163 cases and a rate of 27.5, but excludes outlying areas (Guam with 2 cases and rate of 1.1, Puerto Rico with 227 cases and rate of 5.7, and Virgin Islands with 0 cases and rate of 0.0).

Table 25. Primary and Secondary Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	169	319	380	449	417	3.7	6.9	8.2	9.6	8.9
Alaska	9	11	7	1	0	1.4	1.6	1.0	0.1	0.0
Arizona	175	203	296	317	231	2.9	3.3	4.7	4.9	3.6
Arkansas	52	77	122	206	275	1.9	2.7	4.3	7.2	9.6
California	1,585	1,835	2,038	2,204	1,900	4.4	5.0	5.6	6.0	5.2
Colorado	46	69	57	128	105	1.0	1.5	1.2	2.6	2.1
Connecticut	58	64	39	34	65	1.7	1.8	1.1	1.0	1.9
Delaware	11	20	18	16	27	1.3	2.3	2.1	1.8	3.1
District of Columbia	114	116	178	146	163	20.7	19.9	30.3	24.7	27.5
Florida	724	719	913	1,044	1,041	4.1	4.0	5.0	5.7	5.7
Georgia	645	581	680	914	953	7.1	6.2	7.1	9.4	9.8
Hawaii	11	18	9	29	33	0.9	1.4	0.7	2.3	2.6
Idaho	20	3	1	7	3	1.4	0.2	0.1	0.5	0.2
Illinois	525	431	464	554	750	4.1	3.4	3.6	4.3	5.8
Indiana	62	93	54	140	158	1.0	1.5	0.9	2.2	2.5
Iowa	9	19	21	16	23	0.3	0.6	0.7	0.5	0.8
Kansas	19	27	28	30	32	0.7	1.0	1.0	1.1	1.1
Kentucky	52	73	56	93	92	1.2	1.7	1.3	2.2	2.2
Louisiana	278	342	533	707	741	6.1	8.0	12.4	16.0	16.8
Maine	1	9	9	10	4	0.1	0.7	0.7	0.8	0.3
Maryland	313	300	345	378	314	5.6	5.3	6.1	6.7	5.6
Massachusetts	125	124	155	216	238	2.0	1.9	2.4	3.3	3.7
Michigan	105	118	123	210	230	1.0	1.2	1.2	2.1	2.3
Minnesota	70	47	59	116	71	1.4	0.9	1.1	2.2	1.4
Mississippi	49	86	133	184	237	1.7	3.0	4.6	6.3	8.1
Missouri	147	168	239	224	173	2.5	2.9	4.1	3.8	2.9
Montana	7	1	8	7	4	0.7	0.1	0.8	0.7	0.4
Nebraska	4	7	4	15	5	0.2	0.4	0.2	0.8	0.3
Nevada	109	137	111	77	91	4.5	5.5	4.3	3.0	3.5
New Hampshire	16	13	30	20	14	1.2	1.0	2.3	1.5	1.1
New Jersey	133	173	227	226	212	1.5	2.0	2.6	2.6	2.4
New Mexico	56	79	46	44	61	2.9	4.0	2.3	2.2	3.1
New York	705	736	1,068	1,217	1,182	3.7	3.8	5.5	6.2	6.1
North Carolina	274	309	323	287	579	3.2	3.5	3.6	3.1	6.3
North Dakota	1	1	1	0	4	0.2	0.2	0.2	0.0	0.6
Ohio	211	184	194	351	360	1.8	1.6	1.7	3.1	3.1
Oklahoma	44	70	65	86	97	1.2	2.0	1.8	2.4	2.7
Oregon	41	29	18	26	57	1.1	0.8	0.5	0.7	1.5
Pennsylvania	199	264	263	272	341	1.6	2.1	2.1	2.2	2.7
Rhode Island	24	14	36	18	20	2.2	1.3	3.4	1.7	1.9
South Carolina	84	66	91	98	123	2.0	1.5	2.1	2.2	2.7
South Dakota	2	13	7	1	0	0.3	1.7	0.9	0.1	0.0
Tennessee	217	249	367	413	403	3.6	4.1	6.0	6.6	6.5
Texas	873	1,064	1,160	1,405	1,644	3.8	4.5	4.9	5.8	6.8
Utah	10	21	20	25	31	0.4	0.8	0.8	0.9	1.1
Vermont	1	3	10	11	0	0.2	0.5	1.6	1.8	0.0
Virginia	143	190	230	266	299	1.9	2.5	3.0	3.4	3.8
Washington	152	182	154	181	139	2.4	2.8	2.4	2.8	2.1
West Virginia	3	11	6	13	8	0.2	0.6	0.3	0.7	0.4
Wisconsin	41	68	66	65	44	0.7	1.2	1.2	1.2	0.8
Wyoming	0	0	4	3	3	0.0	0.0	0.8	0.6	0.6
U.S. TOTAL	8,724	9,756	11,466	13,500	13,997	2.9	3.3	3.8	4.4	4.6
Northeast	1,262	1,400	1,837	2,024	2,076	2.3	2.6	3.4	3.7	3.8
Midwest	1,196	1,176	1,260	1,722	1,850	1.8	1.8	1.9	2.6	2.8
South	4,045	4,592	5,600	6,705	7,413	3.8	4.2	5.1	6.0	6.6
West	2,221	2,588	2,769	3,049	2,658	3.3	3.7	4.0	4.3	3.8
Guam	2	3	8	6	2	1.2	1.8	4.6	3.4	1.1
Puerto Rico	224	150	169	167	227	5.7	3.8	4.3	4.2	5.7
Virgin Islands	1	1	0	0	0	0.9	0.9	0.0	0.0	0.0
OUTLYING AREAS	227	154	177	173	229	5.4	3.7	4.2	4.1	5.4
TOTAL	8,951	9,910	11,643	13,673	14,226	3.0	3.3	3.8	4.4	4.6

Table 26. Primary and Secondary Syphilis—Women—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	69	116	143	171	137	2.9	4.9	6.0	7.1	5.7
Alaska	1	2	1	0	0	0.3	0.6	0.3	0.0	0.0
Arizona	49	33	64	56	22	1.7	1.1	2.0	1.7	0.7
Arkansas	21	35	50	81	104	1.5	2.4	3.5	5.6	7.1
California	121	128	115	110	79	0.7	0.7	0.6	0.6	0.4
Colorado	2	5	2	3	6	0.1	0.2	0.1	0.1	0.2
Connecticut	2	2	2	0	1	0.1	0.1	0.1	0.0	0.1
Delaware	2	4	1	6	11	0.5	0.9	0.2	1.3	2.4
District of Columbia	11	6	5	7	10	3.8	1.9	1.6	2.2	3.2
Florida	100	98	153	193	147	1.1	1.1	1.6	2.1	1.6
Georgia	47	41	53	96	101	1.0	0.9	1.1	2.0	2.1
Hawaii	0	1	1	7	6	0.0	0.2	0.2	1.1	0.9
Idaho	6	2	1	1	0	0.8	0.3	0.1	0.1	0.0
Illinois	47	37	39	38	55	0.7	0.6	0.6	0.6	0.8
Indiana	10	10	8	16	13	0.3	0.3	0.2	0.5	0.4
Iowa	1	6	3	3	6	0.1	0.4	0.2	0.2	0.4
Kansas	2	2	6	5	9	0.1	0.1	0.4	0.4	0.6
Kentucky	3	7	9	14	4	0.1	0.3	0.4	0.6	0.2
Louisiana	112	123	209	307	349	4.8	5.6	9.5	13.5	15.4
Maine	0	2	0	0	0	0.0	0.3	0.0	0.0	0.0
Maryland	88	61	47	77	42	3.0	2.1	1.6	2.6	1.4
Massachusetts	4	7	10	6	5	0.1	0.2	0.3	0.2	0.1
Michigan	20	26	27	60	40	0.4	0.5	0.5	1.2	0.8
Minnesota	2	4	1	5	0	0.1	0.2	0.0	0.2	0.0
Mississippi	12	36	35	66	73	0.8	2.4	2.3	4.4	4.8
Missouri	12	19	27	29	15	0.4	0.6	0.9	1.0	0.5
Montana	1	0	2	1	0	0.2	0.0	0.4	0.2	0.0
Nebraska	0	1	0	3	0	0.0	0.1	0.0	0.3	0.0
Nevada	24	34	12	14	7	2.0	2.8	1.0	1.1	0.5
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	17	12	16	21	26	0.4	0.3	0.4	0.5	0.6
New Mexico	16	22	15	6	6	1.6	2.2	1.5	0.6	0.6
New York	28	29	32	52	55	0.3	0.3	0.3	0.5	0.5
North Carolina	58	67	60	44	108	1.3	1.5	1.3	0.9	2.3
North Dakota	0	0	0	0	1	0.0	0.0	0.0	0.0	0.3
Ohio	40	43	28	63	63	0.7	0.7	0.5	1.1	1.1
Oklahoma	17	19	24	25	24	0.9	1.0	1.3	1.4	1.3
Oregon	2	0	2	2	1	0.1	0.0	0.1	0.1	0.1
Pennsylvania	34	34	34	21	42	0.5	0.5	0.5	0.3	0.7
Rhode Island	6	0	2	0	1	1.1	0.0	0.4	0.0	0.2
South Carolina	17	11	10	12	10	0.8	0.5	0.4	0.5	0.4
South Dakota	0	5	2	1	0	0.0	1.3	0.5	0.2	0.0
Tennessee	64	73	113	119	122	2.1	2.4	3.6	3.7	3.8
Texas	243	261	297	450	490	2.1	2.2	2.5	3.7	4.0
Utah	1	3	0	1	0	0.1	0.2	0.0	0.1	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	19	23	16	25	22	0.5	0.6	0.4	0.6	0.6
Washington	5	4	6	5	6	0.2	0.1	0.2	0.2	0.2
West Virginia	0	1	2	4	2	0.0	0.1	0.2	0.4	0.2
Wisconsin	3	3	6	14	10	0.1	0.1	0.2	0.5	0.4
Wyoming	0	0	1	2	1	0.0	0.0	0.4	0.8	0.4
U.S. TOTAL	1,339	1,458	1,692	2,242	2,232	0.9	1.0	1.1	1.5	1.4
Northeast	91	86	96	100	130	0.3	0.3	0.3	0.4	0.5
Midwest	137	156	147	237	212	0.4	0.5	0.4	0.7	0.6
South	883	982	1,227	1,697	1,756	1.6	1.8	2.2	3.0	3.1
West	228	234	222	208	134	0.7	0.7	0.6	0.6	0.4
Guam	1	1	4	1	1	1.2	1.2	4.7	1.2	1.2
Puerto Rico	81	46	56	29	23	4.0	2.3	2.7	1.4	1.1
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	82	47	60	30	24	3.8	2.2	2.7	1.4	1.1
TOTAL	1,421	1,505	1,752	2,272	2,256	0.9	1.0	1.1	1.5	1.4

NOTE: Cases reported with unknown sex are not included in this table.

Table 27. Primary and Secondary Syphilis—Men—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	100	203	237	278	280	4.5	9.1	10.6	12.3	12.4
Alaska	8	9	6	1	0	2.3	2.6	1.7	0.3	0.0
Arizona	125	166	230	261	208	4.2	5.4	7.2	8.0	6.4
Arkansas	31	42	72	125	171	2.3	3.0	5.2	8.9	12.2
California	1,463	1,706	1,921	2,092	1,821	8.1	9.4	10.5	11.4	9.9
Colorado	44	64	55	125	99	1.9	2.7	2.2	5.0	4.0
Connecticut	56	62	37	34	64	3.3	3.6	2.2	2.0	3.7
Delaware	9	16	17	10	16	2.2	3.9	4.1	2.4	3.8
District of Columbia	103	110	173	139	153	39.4	40.3	62.2	49.7	54.7
Florida	624	621	760	850	894	7.2	7.0	8.5	9.4	9.9
Georgia	598	540	626	818	852	13.3	11.7	13.3	17.2	17.9
Hawaii	11	17	8	22	27	1.7	2.6	1.2	3.4	4.2
Idaho	14	1	0	6	3	2.0	0.1	0.0	0.8	0.4
Illinois	478	394	425	516	695	7.6	6.2	6.7	8.1	10.9
Indiana	52	83	46	124	145	1.7	2.7	1.5	3.9	4.6
Iowa	8	13	18	13	17	0.5	0.9	1.2	0.9	1.1
Kansas	17	25	22	25	23	1.2	1.8	1.6	1.8	1.7
Kentucky	49	66	47	79	88	2.4	3.2	2.3	3.8	4.2
Louisiana	166	219	324	400	392	7.5	10.5	15.5	18.7	18.3
Maine	1	7	9	10	4	0.2	1.1	1.4	1.6	0.6
Maryland	225	239	298	301	272	8.3	8.8	11.0	11.0	10.0
Massachusetts	121	117	145	210	233	3.9	3.8	4.6	6.7	7.4
Michigan	85	92	96	150	190	1.7	1.9	1.9	3.0	3.9
Minnesota	68	43	58	111	71	2.7	1.7	2.2	4.3	2.7
Mississippi	37	50	98	118	164	2.6	3.5	6.9	8.3	11.5
Missouri	135	149	212	195	158	4.8	5.2	7.4	6.8	5.5
Montana	6	1	6	6	4	1.3	0.2	1.3	1.2	0.8
Nebraska	4	6	4	12	5	0.5	0.7	0.5	1.4	0.6
Nevada	85	103	99	63	84	6.9	8.1	7.6	4.8	6.3
New Hampshire	16	13	30	20	14	2.5	2.0	4.6	3.1	2.2
New Jersey	116	161	211	205	186	2.7	3.8	5.0	4.8	4.4
New Mexico	40	57	31	38	55	4.2	5.9	3.2	3.9	5.6
New York	677	707	1,036	1,165	1,127	7.3	7.6	11.1	12.3	11.9
North Carolina	216	242	263	243	471	5.1	5.6	5.9	5.4	10.4
North Dakota	1	1	1	0	3	0.3	0.3	0.3	0.0	0.9
Ohio	171	141	166	288	297	3.1	2.5	3.0	5.1	5.3
Oklahoma	27	51	41	61	73	1.5	2.9	2.3	3.4	4.1
Oregon	39	29	16	24	56	2.2	1.6	0.9	1.3	3.0
Pennsylvania	165	230	229	251	299	2.7	3.8	3.8	4.1	4.9
Rhode Island	18	14	34	18	19	3.5	2.7	6.6	3.5	3.7
South Carolina	67	55	81	86	113	3.2	2.6	3.8	3.9	5.2
South Dakota	2	8	5	0	0	0.5	2.0	1.3	0.0	0.0
Tennessee	153	176	254	294	281	5.2	6.0	8.4	9.7	9.3
Texas	630	803	863	955	1,154	5.5	6.9	7.2	7.9	9.5
Utah	9	18	20	24	31	0.7	1.4	1.5	1.7	2.2
Vermont	1	3	10	11	0	0.3	1.0	3.3	3.6	0.0
Virginia	124	167	214	241	277	3.3	4.4	5.7	6.3	7.3
Washington	147	178	148	176	133	4.7	5.6	4.6	5.4	4.1
West Virginia	3	10	4	9	6	0.3	1.1	0.5	1.0	0.7
Wisconsin	38	65	60	51	34	1.4	2.4	2.2	1.8	1.2
Wyoming	0	0	3	1	2	0.0	0.0	1.1	0.4	0.7
U.S. TOTAL	7,383	8,293	9,769	11,255	11,764	5.1	5.6	6.6	7.5	7.8
Northeast	1,171	1,314	1,741	1,924	1,946	4.4	4.9	6.5	7.2	7.3
Midwest	1,059	1,020	1,113	1,485	1,638	3.3	3.1	3.4	4.5	5.0
South	3,162	3,610	4,372	5,007	5,657	6.0	6.7	8.1	9.1	10.3
West	1,991	2,349	2,543	2,839	2,523	5.8	6.8	7.2	8.0	7.1
Guam	1	2	4	5	1	1.2	2.3	4.5	5.6	1.1
Puerto Rico	143	104	113	138	204	7.6	5.5	6.0	7.3	10.8
Virgin Islands	1	1	0	0	0	1.9	1.9	0.0	0.0	0.0
OUTLYING AREAS	145	107	117	143	205	7.2	5.3	5.8	7.0	10.1
TOTAL	7,528	8,400	9,886	11,398	11,969	5.1	5.6	6.6	7.5	7.9

NOTE: Cases reported with unknown sex are not included in this table.

Table 28. Primary and Secondary Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	598	529	608	765	809	12.2	10.3	11.5	14.2	15.0
Austin-Round Rock, TX	44	84	74	107	99	3.0	5.5	4.6	6.5	6.0
Baltimore-Towson, MD	244	213	211	270	204	9.2	8.0	7.9	10.1	7.6
Birmingham-Hoover, AL	101	244	189	188	145	9.3	22.2	17.1	16.8	13.0
Boston-Cambridge-Quincy, MA-NH	106	117	131	173	203	2.4	2.6	2.9	3.8	4.5
Buffalo-Cheektowaga-Tonawanda, NY	7	18	11	3	10	0.6	1.6	1.0	0.3	0.9
Charlotte-Gastonia-Concord, NC-SC	103	121	103	58	138	6.8	7.6	6.2	3.4	8.1
Chicago-Naperville-Joliet, IL-IN-WI	510	416	427	535	732	5.4	4.4	4.5	5.6	7.6
Cincinnati-Middletown, OH-KY-IN	24	13	34	62	124	1.2	0.6	1.6	2.9	5.8
Cleveland-Elyria-Mentor, OH	22	18	29	64	71	1.0	0.9	1.4	3.1	3.4
Columbus, OH	109	107	76	135	115	6.4	6.2	4.3	7.6	6.5
Dallas-Fort Worth-Arlington, TX	305	320	265	328	502	5.2	5.3	4.3	5.2	8.0
Denver-Aurora, CO	38	56	46	103	92	1.6	2.3	1.9	4.1	3.7
Detroit-Warren-Livonia, MI	77	82	91	100	151	1.7	1.8	2.0	2.3	3.4
Hartford-West Hartford-East Hartford, CT	14	23	15	8	25	1.2	1.9	1.3	0.7	2.1
Houston-Baytown-Sugar Land, TX	279	396	501	456	432	5.3	7.1	8.9	8.0	7.5
Indianapolis, IN	35	47	26	80	81	2.1	2.8	1.5	4.7	4.7
Jacksonville, FL	50	41	44	67	57	4.0	3.2	3.4	5.1	4.3
Kansas City, MO-KS	89	112	149	102	80	4.6	5.7	7.5	5.1	4.0
Las Vegas-Paradise, NV	103	132	102	72	86	6.0	7.4	5.6	3.9	4.6
Los Angeles-Long Beach-Santa Ana, CA	806	945	1,061	920	858	6.2	7.3	8.2	7.1	6.7
Louisville, KY-IN	46	41	32	36	57	3.8	3.4	2.6	2.9	4.6
Memphis, TN-MS-AR	138	145	208	234	189	10.9	11.4	16.2	18.2	14.7
Miami-Fort Lauderdale-Miami Beach, FL	395	369	414	509	518	7.3	6.8	7.6	9.4	9.6
Milwaukee-Waukesha-West Allis, WI	22	38	53	45	28	1.5	2.5	3.4	2.9	1.8
Minneapolis-St. Paul-Bloomington, MN-WI	68	43	57	105	67	2.2	1.4	1.8	3.3	2.1
Nashville-Davidson-Murfreesboro, TN	34	40	84	85	92	2.4	2.7	5.5	5.5	5.9
New Orleans-Metairie-Kenner, LA	88	90	168	170	138	6.7	8.8	16.3	15.0	12.2
New York-Newark-Edison, NY-NJ-PA	773	811	1,208	1,353	1,301	4.1	4.3	6.4	7.1	6.8
Oklahoma City, OK	23	24	36	61	70	2.0	2.0	3.0	5.1	5.8
Orlando, FL	106	94	145	126	109	5.5	4.7	7.1	6.1	5.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	127	173	205	214	289	2.2	3.0	3.5	3.7	4.9
Phoenix-Mesa-Scottsdale, AZ	113	157	193	211	169	2.9	3.9	4.6	4.9	3.9
Pittsburgh, PA	69	91	60	38	29	2.9	3.8	2.5	1.6	1.2
Portland-Vancouver-Beaverton, OR-WA	39	25	11	21	53	1.9	1.2	0.5	1.0	2.4
Providence-New Bedford-Fall River, RI-MA	28	18	44	25	28	1.7	1.1	2.7	1.6	1.8
Richmond, VA	13	28	38	92	97	1.1	2.3	3.1	7.5	7.9
Riverside-San Bernardino-Ontario, CA	121	108	95	157	115	3.1	2.7	2.3	3.8	2.8
Rochester, NY	6	14	16	9	11	0.6	1.4	1.6	0.9	1.1
Sacramento-Arden-Arcade-Roseville, CA	16	32	59	102	73	0.8	1.5	2.8	4.8	3.5
Salt Lake City, UT	9	15	19	23	28	0.9	1.4	1.7	2.1	2.5
San Antonio, TX	129	136	157	195	216	6.8	7.0	7.9	9.6	10.6
San Diego-Carlsbad-San Marcos, CA	194	235	347	345	190	6.6	8.0	11.7	11.5	6.3
San Francisco-Oakland-Fremont, CA	331	363	308	478	438	8.0	8.7	7.3	11.2	10.2
San Jose-Sunnyvale-Santa Clara, CA	44	52	56	42	59	2.5	2.9	3.1	2.3	3.2
Seattle-Tacoma-Bellevue, WA	125	160	138	153	115	3.9	4.9	4.2	4.6	3.4
St. Louis, MO-IL	50	65	112	121	83	1.8	2.3	4.0	4.3	2.9
Tampa-St. Petersburg-Clearwater, FL	85	110	195	191	180	3.2	4.1	7.2	7.0	6.6
Virginia Beach-Norfolk-Newport News, VA-NC	60	84	88	98	102	3.6	5.1	5.3	5.9	6.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	233	250	377	297	324	4.5	4.7	7.1	5.5	6.0
U.S. MSAs TOTAL	7,149	7,845	9,116	10,132	10,182	4.5	4.9	5.6	6.2	6.2

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 29. Primary and Secondary Syphilis—Women—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	36	33	40	51	59	1.5	1.3	1.5	1.9	2.2
Austin-Round Rock, TX	3	11	12	16	14	0.4	1.5	1.5	2.0	1.7
Baltimore-Towson, MD	84	53	40	70	33	6.1	3.8	2.9	5.1	2.4
Birmingham-Hoover, AL	35	94	80	77	44	6.2	16.5	13.9	13.3	7.6
Boston-Cambridge-Quincy, MA-NH	1	7	10	4	3	0.0	0.3	0.4	0.2	0.1
Buffalo-Cheektowaga-Tonawanda, NY	0	2	0	0	0	0.0	0.3	0.0	0.0	0.0
Charlotte-Gastonia-Concord, NC-SC	20	28	20	9	14	2.6	3.5	2.4	1.0	1.6
Chicago-Naperville-Joliet, IL-IN-WI	50	43	31	40	46	1.0	0.9	0.6	0.8	0.9
Cincinnati-Middletown, OH-KY-IN	0	5	6	14	26	0.0	0.5	0.5	1.3	2.4
Cleveland-Elyria-Mentor, OH	1	2	5	13	14	0.1	0.2	0.5	1.2	1.3
Columbus, OH	22	30	11	19	15	2.5	3.4	1.2	2.1	1.7
Dallas-Fort Worth-Arlington, TX	100	112	93	116	153	3.4	3.7	3.0	3.7	4.9
Denver-Aurora, CO	1	3	1	1	3	0.1	0.3	0.1	0.1	0.2
Detroit-Warren-Livonia, MI	17	20	22	27	26	0.7	0.9	1.0	1.2	1.1
Hartford-West Hartford-East Hartford, CT	0	1	1	0	0	0.0	0.2	0.2	0.0	0.0
Houston-Baytown-Sugar Land, TX	61	65	108	114	113	2.3	2.3	3.8	4.0	4.0
Indianapolis, IN	4	1	3	8	6	0.5	0.1	0.3	0.9	0.7
Jacksonville, FL	20	11	11	16	11	3.1	1.7	1.7	2.4	1.6
Kansas City, MO-KS	5	17	25	20	8	0.5	1.7	2.5	2.0	0.8
Las Vegas-Paradise, NV	21	32	11	11	7	2.5	3.7	1.2	1.2	0.8
Los Angeles-Long Beach-Santa Ana, CA	63	72	58	31	22	1.0	1.1	0.9	0.5	0.3
Louisville, KY-IN	3	3	2	3	1	0.5	0.5	0.3	0.5	0.2
Memphis, TN-MS-AR	50	52	87	71	67	7.7	7.9	13.1	10.6	10.0
Miami-Fort Lauderdale-Miami Beach, FL	43	40	60	74	54	1.5	1.4	2.2	2.7	1.9
Milwaukee-Waukesha-West Allis, WI	1	2	5	11	9	0.1	0.3	0.6	1.4	1.1
Minneapolis-St. Paul-Bloomington, MN-WI	3	3	1	5	0	0.2	0.2	0.1	0.3	0.0
Nashville-Davidson-Murfreesboro, TN	2	2	13	14	23	0.3	0.3	1.7	1.8	2.9
New Orleans-Metairie-Kenner, LA	23	25	51	53	36	3.4	4.7	9.5	9.0	6.1
New York-Newark-Edison, NY-NJ-PA	37	31	42	60	69	0.4	0.3	0.4	0.6	0.7
Oklahoma City, OK	9	6	13	16	16	1.5	1.0	2.2	2.6	2.6
Orlando, FL	14	14	13	21	19	1.4	1.4	1.3	2.0	1.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	13	6	14	17	37	0.4	0.2	0.5	0.6	1.2
Phoenix-Mesa-Scottsdale, AZ	23	18	29	24	8	1.2	0.9	1.4	1.1	0.4
Pittsburgh, PA	25	28	25	6	4	2.0	2.3	2.0	0.5	0.3
Portland-Vancouver-Beaverton, OR-WA	0	0	1	0	0	0.0	0.0	0.1	0.0	0.0
Providence-New Bedford-Fall River, RI-MA	7	0	2	0	1	0.8	0.0	0.2	0.0	0.1
Richmond, VA	1	1	3	6	3	0.2	0.2	0.5	1.0	0.5
Riverside-San Bernardino-Ontario, CA	12	10	4	5	5	0.6	0.5	0.2	0.2	0.2
Rochester, NY	1	0	1	0	1	0.2	0.0	0.2	0.0	0.2
Sacramento-Arden-Arcade-Roseville, CA	0	3	2	18	16	0.0	0.3	0.2	1.7	1.5
Salt Lake City, UT	1	1	0	1	0	0.2	0.2	0.0	0.2	0.0
San Antonio, TX	34	32	35	58	42	3.5	3.2	3.4	5.6	4.1
San Diego-Carlsbad-San Marcos, CA	25	12	12	12	6	1.7	0.8	0.8	0.8	0.4
San Francisco-Oakland-Fremont, CA	8	7	12	12	9	0.4	0.3	0.6	0.6	0.4
San Jose-Sunnyvale-Santa Clara, CA	2	7	4	3	5	0.2	0.8	0.5	0.3	0.6
Seattle-Tacoma-Bellevue, WA	4	2	4	2	4	0.2	0.1	0.2	0.1	0.2
St. Louis, MO-IL	5	3	9	16	9	0.3	0.2	0.6	1.1	0.6
Tampa-St. Petersburg-Clearwater, FL	8	15	52	54	29	0.6	1.1	3.7	3.8	2.1
Virginia Beach-Norfolk-Newport News, VA-NC	15	18	10	12	11	1.8	2.1	1.2	1.4	1.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	13	11	12	15	19	0.5	0.4	0.4	0.5	0.7
U.S. MSAs TOTAL	926	994	1,106	1,246	1,120	1.1	1.2	1.3	1.5	1.3

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 30. Primary and Secondary Syphilis—Men—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	562	496	567	714	750	23.0	19.5	21.7	26.9	28.2
Austin-Round Rock, TX	41	73	62	91	85	5.5	9.4	7.6	10.8	10.1
Baltimore-Towson, MD	160	160	171	200	171	12.5	12.5	13.3	15.6	13.3
Birmingham-Hoover, AL	66	150	109	111	101	12.5	28.3	20.4	20.6	18.7
Boston-Cambridge-Quincy, MA-NH	105	110	121	169	200	4.9	5.1	5.6	7.7	9.1
Buffalo-Cheektowaga-Tonawanda, NY	7	16	11	3	10	1.3	2.9	2.0	0.6	1.8
Charlotte-Gastonia-Concord, NC-SC	83	93	83	49	124	11.1	11.9	10.3	5.9	14.8
Chicago-Naperville-Joliet, IL-IN-WI	460	373	396	495	686	9.9	8.0	8.4	10.5	14.5
Cincinnati-Middletown, OH-KY-IN	24	8	28	48	98	2.4	0.8	2.7	4.6	9.3
Cleveland-Elyria-Mentor, OH	21	16	24	51	57	2.1	1.6	2.4	5.1	5.7
Columbus, OH	87	77	65	116	100	10.3	9.0	7.5	13.2	11.4
Dallas-Fort Worth-Arlington, TX	205	208	172	212	349	7.0	6.9	5.6	6.7	11.0
Denver-Aurora, CO	37	53	45	102	89	3.1	4.4	3.6	8.1	7.1
Detroit-Warren-Livonia, MI	60	62	69	73	125	2.7	2.8	3.2	3.4	5.8
Hartford-West Hartford-East Hartford, CT	14	22	14	8	25	2.4	3.8	2.4	1.4	4.3
Houston-Baytown-Sugar Land, TX	218	331	393	342	319	8.3	11.9	13.9	11.9	11.1
Indianapolis, IN	31	46	23	72	75	3.8	5.6	2.8	8.5	8.9
Jacksonville, FL	30	30	33	51	46	4.9	4.8	5.2	7.9	7.2
Kansas City, MO-KS	84	95	124	82	72	8.8	9.8	12.7	8.3	7.3
Las Vegas-Paradise, NV	82	100	91	61	79	9.4	11.1	9.7	6.4	8.3
Los Angeles-Long Beach-Santa Ana, CA	743	873	1,002	889	836	11.6	13.6	15.7	13.9	13.1
Louisville, KY-IN	43	38	30	33	56	7.3	6.4	5.0	5.4	9.2
Memphis, TN-MS-AR	88	93	121	163	122	14.4	15.1	19.6	26.4	19.7
Miami-Fort Lauderdale-Miami Beach, FL	352	329	354	435	464	13.4	12.4	13.5	16.5	17.6
Milwaukee-Waukesha-West Allis, WI	21	36	48	34	19	2.9	4.9	6.4	4.5	2.5
Minneapolis-St. Paul-Bloomington, MN-WI	65	40	56	100	67	4.2	2.5	3.5	6.2	4.2
Nashville-Davidson-Murfreesboro, TN	32	38	71	71	69	4.6	5.3	9.5	9.3	9.0
New Orleans-Metairie-Kenner, LA	65	65	117	117	102	10.3	13.2	23.7	21.5	18.8
New York-Newark-Edison, NY-NJ-PA	736	780	1,166	1,293	1,232	8.1	8.6	12.8	14.0	13.4
Oklahoma City, OK	14	18	23	45	54	2.5	3.1	3.9	7.6	9.1
Orlando, FL	92	80	132	105	90	9.6	8.1	13.1	10.3	8.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	114	167	191	197	252	4.1	5.9	6.8	7.0	8.9
Phoenix-Mesa-Scottsdale, AZ	89	136	162	187	161	4.6	6.7	7.7	8.6	7.4
Pittsburgh, PA	44	63	35	32	25	3.8	5.5	3.1	2.8	2.2
Portland-Vancouver-Beaverton, OR-WA	39	25	10	21	53	3.7	2.3	0.9	1.9	4.8
Providence-New Bedford-Fall River, RI-MA	21	18	42	25	27	2.7	2.3	5.4	3.2	3.5
Richmond, VA	12	27	35	86	94	2.1	4.6	5.9	14.4	15.8
Riverside-San Bernardino-Ontario, CA	108	98	90	150	110	5.5	4.9	4.4	7.3	5.3
Rochester, NY	5	14	15	9	10	1.0	2.8	3.0	1.8	2.0
Sacramento-Arden-Arcade-Roseville, CA	16	29	57	84	57	1.6	2.9	5.5	8.1	5.5
Salt Lake City, UT	8	14	19	22	28	1.5	2.6	3.4	3.9	4.9
San Antonio, TX	95	104	122	137	174	10.3	10.9	12.5	13.8	17.5
San Diego-Carlsbad-San Marcos, CA	169	223	335	333	184	11.4	15.1	22.4	22.1	12.2
San Francisco-Oakland-Fremont, CA	323	355	296	466	429	15.7	17.1	14.2	21.9	20.2
San Jose-Sunnyvale-Santa Clara, CA	42	45	52	39	54	4.7	4.9	5.6	4.2	5.8
Seattle-Tacoma-Bellevue, WA	121	158	134	151	111	7.6	9.7	8.1	9.0	6.6
St. Louis, MO-IL	45	62	103	105	74	3.3	4.6	7.6	7.7	5.4
Tampa-St. Petersburg-Clearwater, FL	77	95	143	137	151	6.0	7.2	10.8	10.3	11.3
Virginia Beach-Norfolk-Newport News, VA-NC	45	66	78	86	91	5.5	8.2	9.6	10.6	11.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	220	239	365	282	305	8.6	9.3	14.1	10.8	11.7
U.S. MSAs TOTAL	6,221	6,847	8,005	8,884	9,062	7.9	8.6	10.0	11.0	11.2

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 31. Primary and Secondary Syphilis—Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2009

Rank [†]	County/Independent City	Cases	Rates per 100,000 Population	Cumulative Percentage
1	Los Angeles County, CA	768	7.8	5
2	Cook County, IL	634	12.0	10
3	New York County, NY	439	26.9	13
4	Fulton County, GA	396	39.0	15
5	Harris County, TX	327	8.2	18
6	San Francisco County, CA	314	38.8	20
7	Miami-Dade County, FL	313	13.1	22
8	Kings County, NY	308	12.0	24
9	Dallas County, TX	294	12.2	27
10	Philadelphia County, PA	218	15.1	28
11	Bexar County, TX	212	13.1	30
12	DeKalb County, GA	207	28.0	31
13	San Diego County, CA	190	6.3	33
14	Tarrant County, TX	182	10.4	34
15	Shelby County, TN	175	19.3	35
16	Bronx County, NY	175	12.6	36
17	Broward County, FL	172	9.8	38
18	Maricopa County, AZ	165	4.2	39
19	Washington, D.C.	163	27.5	40
20	Jefferson County, TX	158	65.0	41
21	Caddo County, LA	141	55.8	42
22	Baltimore (City), MD	141	22.1	43
23	Wayne County, MI	126	6.5	44
24	Forsyth County, NC	122	35.6	45
25	Queens County, NY	119	5.2	46
26	Mecklenburg County, NC	116	13.0	46
27	Jefferson County, AL	115	17.4	47
28	Suffolk County, MA	113	15.4	48
29	Franklin County, OH	107	9.5	49
30	Hamilton County, OH	105	12.3	50
31	Hillsborough County, FL	101	8.6	50
32	King County, WA	99	5.3	51
33	Orleans County, LA	96	30.8	52
34	Riverside County, CA	91	4.3	52
35	Orange County, CA	90	3.0	53
36	Travis County, TX	88	8.8	54
37	Clark County, NV	86	4.6	54
38	Knox County, TN	80	18.6	55
39	Orange County, FL	78	7.3	55
40	Wake County, NC	72	8.3	56
41	Prince George's County, MD	71	8.6	56
42	Marion County, IN	70	8.0	57
43	Cuyahoga County, OH	69	5.4	57
44	Alameda County, CA	69	4.7	58
45	Pulaski County, AR	68	18.0	58
46	Davidson County, TN	68	10.9	59
47	Cobb County, GA	68	9.7	59
48	Denver County, CO	67	11.2	60
49	Pinellas County, FL	67	7.4	60
50	Sacramento County, CA	67	4.8	61
51	Oklahoma County, OK	65	9.2	61
52	Hinds County, MS	60	24.2	62
53	Jackson County, MO	59	8.8	62
54	Santa Clara County, CA	59	3.3	63
55	Miller County, AR	54	124.9	63
56	Pima County, AZ	54	5.3	63
57	Bowie County, TX	53	57.4	64
58	Duval County, FL	52	6.1	64
59	Hudson County, NJ	49	8.2	64
60	Essex County, NJ	49	6.4	65
61	St. Landry County, LA	48	52.1	65
62	Hennepin County, MN	48	4.2	65

Table 31. Primary and Secondary Syphilis—Counties and Independent Cities* Ranked by Number of Reported Cases, United States, 2009 (continued)

Rank [†]	County/Independent City	Cases	Rates per 100,000 Population	Cumulative Percentage
63	Clayton County, GA	47	17.2	66
64	Lafayette County, LA	46	22.2	66
65	Guilford County, NC	46	9.7	66
66	Montgomery County, AL	44	19.6	67
67	Richland County, SC	44	12.1	67
68	Madison County, AL	43	13.5	67
69	Gwinnett County, GA	43	5.4	68
70	Ouachita County, LA	41	27.3	68
71	Jefferson County, KY	41	5.7	68
72	Tangipahoa County, LA	40	34.2	69
73	Galveston County, TX	40	13.9	69
74	Norfolk (City), VA	39	16.7	69
75	St. Louis (City), MO	39	11.0	69
76	East Baton Rouge County, LA	39	9.1	70
77	Multnomah County, OR	38	5.3	70
78	Richmond (City), VA	37	18.3	70
79	Wayne County, NC	33	29.0	70

* Accounting for 70% of reported primary and secondary syphilis cases.

† Counties and independent cities were ranked in descending order by number of cases reported in 2009.

Table 32. Primary and Secondary Syphilis—Reported Cases and Rates* Among Men and Women and Male-to-Female Rate Ratios in the Counties and Independent Cities Ranked in the Top 30 for Cases in 2009, United States, 2008–2009

County/Independent City [†]	Male				Female				Male-to-Female Rate Ratio	
	2008		2009		2008		2009		2008	2009
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates		
Jefferson County, AL	107	34.3	78	25.0	76	21.9	37	10.7	1.6	2.3
Maricopa County, AZ	185	9.3	157	7.9	22	1.1	8	0.4	8.5	19.8
Los Angeles County, CA	793	16.2	747	15.3	29	0.6	21	0.4	27.0	38.3
San Diego County, CA	333	22.1	184	12.2	12	0.8	6	0.4	27.6	30.5
San Francisco County, CA	338	82.0	310	75.2	6	1.5	4	1.0	54.7	75.2
Washington, D.C.	139	49.7	153	54.7	7	2.2	10	3.2	22.6	17.1
Broward County, FL	194	22.8	154	18.1	21	2.3	18	2.0	9.9	9.1
Miami-Dade County, FL	207	17.8	280	24.1	47	3.8	33	2.7	4.7	8.9
DeKalb County, GA	166	46.1	187	51.9	16	4.2	20	5.3	11.0	9.8
Fulton County, GA	368	73.5	368	73.5	18	3.5	28	5.4	21.0	13.6
Cook County, IL	456	17.6	594	23.0	32	1.2	40	1.5	14.7	15.3
Caddo County, LA	71	59.1	66	55.0	59	44.4	75	56.5	1.3	1.0
Baltimore (City), MD	140	47.1	118	39.7	58	17.1	23	6.8	2.8	5.8
Suffolk County, MA	100	28.1	112	31.5	1	0.3	1	0.3	93.7	105.0
Wayne County, MI	62	6.6	104	11.1	24	2.4	22	2.2	2.8	5.0
Bronx County, NY	163	25.0	164	25.2	11	1.5	11	1.5	16.7	16.8
Kings County, NY	259	21.4	282	23.3	16	1.2	26	1.9	17.8	12.3
New York County, NY	482	61.6	430	55.0	9	1.1	9	1.1	56.0	50.0
Queens County, NY	118	10.6	118	10.6	4	0.3	1	0.1	35.3	106.0
Forsyth County, NC	20	12.1	85	51.5	6	3.4	37	20.8	3.6	2.5
Mecklenburg County, NC	44	10.1	106	24.2	4	0.9	10	2.2	11.2	11.0
Franklin County, OH	111	20.0	92	16.6	18	3.1	15	2.6	6.5	6.4
Hamilton County, OH	37	9.1	79	19.3	12	2.7	26	5.9	3.4	3.3
Philadelphia County, PA	142	21.0	191	28.2	8	1.0	27	3.5	21.0	8.1
Shelby County, TN	138	31.9	113	26.1	60	12.6	62	13.1	2.5	2.0
Bexar County, TX	130	16.4	172	21.7	54	6.5	40	4.8	2.5	4.5
Dallas County, TX	136	11.1	206	16.8	77	6.5	88	7.4	1.7	2.3
Harris County, TX	291	14.6	256	12.8	89	4.5	71	3.6	3.2	3.6
Jefferson County, TX	74	60.1	85	69.0	67	55.8	73	60.8	1.1	1.1
Tarrant County, TX	66	7.6	122	14.0	37	4.2	60	6.8	1.8	2.1

* Cases per 100,000 population.

† Counties and independent cities are in alphabetical order by state.

Table 33. Primary and Secondary Syphilis—Reported Cases and Rates per 100,000 Population by Age Group and Sex, United States, 2005–2009

	Age Group	Cases			Rates		
		Total	Male	Female	Total	Male	Female
2005	10–14	10	2	8	0.0	0.0	0.1
	15–19	443	251	192	2.1	2.3	1.9
	20–24	1,181	875	306	5.6	8.1	3.0
	25–29	1,214	1,008	206	6.0	9.8	2.1
	30–34	1,329	1,178	150	6.6	11.6	1.5
	35–39	1,574	1,394	179	7.5	13.2	1.7
	40–44	1,418	1,253	164	6.2	11.0	1.4
	45–54	1,192	1,080	111	2.8	5.2	0.5
	55–64	304	284	20	1.0	1.9	0.1
	65+	59	57	2	0.2	0.4	0.0
	TOTAL	8,724	7,385	1,339	2.9	5.1	0.9
2006	10–14	13	2	11	0.1	0.0	0.1
	15–19	565	332	233	2.7	3.0	2.2
	20–24	1,382	1,083	299	6.5	9.9	2.9
	25–29	1,574	1,333	241	7.6	12.6	2.4
	30–34	1,221	1,058	163	6.2	10.6	1.7
	35–39	1,581	1,427	154	7.5	13.4	1.5
	40–44	1,516	1,363	153	6.7	12.2	1.4
	45–54	1,443	1,278	165	3.3	6.0	0.8
	55–64	375	340	35	1.2	2.2	0.2
	65+	81	79	2	0.2	0.5	0.0
	TOTAL	9,756	8,297	1,459	3.3	5.6	1.0
2007	10–14	13	5	8	0.1	0.0	0.1
	15–19	664	416	248	3.1	3.8	2.4
	20–24	1,818	1,462	356	8.6	13.5	3.5
	25–29	1,841	1,576	265	8.7	14.6	2.6
	30–34	1,500	1,306	193	7.7	13.2	2.0
	35–39	1,721	1,530	191	8.1	14.4	1.8
	40–44	1,745	1,553	192	7.9	14.2	1.7
	45–54	1,664	1,464	200	3.8	6.8	0.9
	55–64	409	379	30	1.3	2.4	0.2
	65+	91	82	9	0.2	0.5	0.0
	TOTAL	11,466	9,773	1,693	3.8	6.6	1.1
2008	10–14	27	8	19	0.1	0.1	0.2
	15–19	903	585	318	4.2	5.3	3.0
	20–24	2,398	1,878	520	11.4	17.3	5.1
	25–29	2,257	1,853	404	10.6	16.9	3.9
	30–34	1,734	1,490	244	8.8	15.0	2.5
	35–39	1,810	1,569	241	8.6	14.8	2.3
	40–44	1,777	1,575	202	8.3	14.7	1.9
	45–54	2,028	1,792	236	4.6	8.2	1.0
	55–64	458	412	46	1.4	2.5	0.3
	65+	105	97	8	0.3	0.6	0.0
	TOTAL	13,500	11,258	2,242	4.4	7.5	1.5
2009	10–14	19	4	15	0.1	0.0	0.2
	15–19	1,005	661	344	4.7	6.0	3.3
	20–24	2,812	2,242	570	13.4	20.7	5.6
	25–29	2,405	2,028	377	11.3	18.5	3.6
	30–34	1,857	1,571	286	9.5	15.8	3.0
	35–39	1,612	1,409	203	7.7	13.3	1.9
	40–44	1,643	1,476	167	7.6	13.7	1.6
	45–54	2,033	1,815	218	4.6	8.3	1.0
	55–64	517	475	42	1.5	2.9	0.2
	65+	90	83	7	0.2	0.5	0.0
	TOTAL	13,997	11,765	2,232	4.6	7.8	1.4

NOTE: This table should be used only for age comparisons. If age was not specified, cases were prorated according to the distribution of cases for which age was known. Differences between total cases from this table and others in the report are due to different reporting formats. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

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Table 34A. Primary and Secondary Syphilis—Reported Cases by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009

Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/ Alaska Natives		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
2005	10–14	0	0	0	9	1	8	1	1	0	0	0	0	0	0
	15–19	67	36	30	304	173	131	62	36	26	5	4	1	5	4
	20–24	281	230	51	660	459	201	216	167	49	15	11	4	8	7
	25–29	331	299	32	612	480	132	236	198	38	27	25	2	8	6
	30–34	491	456	35	554	455	99	230	216	14	43	42	1	12	10
	35–39	761	712	49	518	415	103	268	244	24	19	19	0	8	4
	40–44	741	700	40	446	350	97	193	172	21	26	24	2	12	7
	45–54	660	631	29	385	320	65	126	111	14	15	14	1	6	4
	55–64	167	162	5	102	90	13	30	28	2	4	4	0	0	0
	65+	26	26	0	23	21	2	8	8	0	2	2	0	0	0
	TOTAL	3,524	3,254	270	3,615	2,764	850	1,370	1,182	188	156	145	11	60	40
2006	10–14	1	0	1	11	2	9	0	0	0	0	0	0	1	0
	15–19	71	39	33	419	246	173	74	46	28	1	1	0	0	0
	20–24	291	247	44	853	630	223	218	187	31	12	11	1	8	7
	25–29	431	381	50	795	641	154	304	271	34	37	35	2	7	6
	30–34	433	395	38	497	398	99	243	223	20	34	31	3	14	11
	35–39	720	676	44	532	447	85	282	263	18	33	32	1	14	9
	40–44	802	756	46	443	356	87	227	213	14	30	29	1	15	10
	45–54	766	729	38	500	394	107	143	129	14	24	22	2	9	5
	55–64	194	186	8	139	115	24	35	33	2	2	2	0	5	4
	65+	34	34	0	25	23	2	17	17	0	0	0	0	5	5
	TOTAL	3,744	3,443	301	4,215	3,253	962	1,543	1,381	162	173	163	10	80	57
2007	10–14	0	0	0	13	5	8	0	0	0	0	0	0	0	0
	15–19	95	49	46	470	299	171	91	66	26	0	0	0	7	2
	20–24	338	271	67	1,124	883	240	328	289	40	15	12	2	13	6
	25–29	486	431	54	954	784	170	352	319	33	35	34	1	15	7
	30–34	506	455	51	612	504	108	325	298	27	38	35	3	19	15
	35–39	699	650	49	683	559	125	293	280	12	31	31	0	15	10
	40–44	841	783	58	605	486	119	265	254	11	27	26	1	6	4
	45–54	824	773	51	620	489	132	187	171	16	24	24	0	10	7
	55–64	213	210	3	154	130	24	41	38	3	2	2	0	0	0
	65+	47	45	2	38	31	7	5	5	0	1	1	0	0	0
	TOTAL	4,049	3,668	381	5,274	4,170	1,104	1,887	1,720	167	171	164	7	85	52
2008	10–14	2	1	1	23	7	16	2	0	2	0	0	0	0	0
	15–19	123	72	50	645	411	235	126	98	29	7	5	2	2	0
	20–24	453	366	87	1,543	1,161	381	357	308	49	34	34	0	11	8
	25–29	583	500	83	1,203	926	277	412	375	37	45	41	4	15	11
	30–34	552	499	53	772	617	155	349	317	33	49	49	0	12	8
	35–39	688	615	73	742	607	134	345	317	28	30	27	2	5	2
	40–44	781	718	63	684	562	122	282	267	15	24	23	1	5	4
	45–54	996	935	61	779	624	155	225	206	19	22	22	0	5	4
	55–64	229	219	9	185	151	33	36	34	2	7	7	0	2	1
	65+	62	59	3	30	25	5	11	11	0	2	2	0	0	0
	TOTAL	4,469	3,983	486	6,607	5,093	1,514	2,146	1,931	214	220	211	9	58	40
2009	10–14	1	0	1	16	3	13	2	1	1	0	0	0	0	0
	15–19	108	70	37	774	489	286	111	92	19	9	8	1	3	2
	20–24	440	360	80	1,922	1,470	452	400	366	34	37	35	2	12	10
	25–29	516	452	64	1,436	1,152	284	403	381	22	35	32	3	13	10
	30–34	527	469	58	929	723	206	346	327	19	45	43	2	9	7
	35–39	592	531	62	671	557	114	290	269	22	47	43	4	11	9
	40–44	737	694	43	610	499	111	268	256	12	23	22	1	5	5
	45–54	1,003	931	71	755	625	130	241	229	12	28	26	2	5	3
	55–64	286	276	9	184	156	28	43	38	5	2	2	0	1	1
	65+	48	48	0	36	29	7	6	6	0	0	0	0	0	0
	TOTAL	4,256	3,831	425	7,335	5,703	1,632	2,112	1,965	147	225	210	15	61	49

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 33 for age-specific cases and rates and Tables 25–27 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. For the following years, the states listed did not report age or race/ethnicity for most cases, and their case data and population denominators were excluded: 2007 (Idaho) and 2009 (Nebraska, Wyoming). Differences between total cases from this table and others in the report are due to different reporting formats and above listed exclusions. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 34B. Primary and Secondary Syphilis—Rates per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States, 2005–2009

Age Group	Whites, Non-Hispanic			Blacks, Non-Hispanic			Hispanics			Asians/Pacific Islanders			American Indians/Alaska Natives		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
10–14	0.0	0.0	0.0	0.3	0.1	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.5	0.5	0.5	9.4	10.6	8.2	1.8	2.0	1.6	0.6	0.9	0.2	2.3	0.9	3.7
20–24	2.1	3.4	0.8	21.9	30.2	13.5	5.8	8.2	2.9	1.6	2.3	0.8	3.8	6.6	0.9
25–29	2.8	4.9	0.5	22.6	36.5	9.5	5.8	8.8	2.1	2.4	4.5	0.4	4.6	6.6	2.6
30–34	4.0	7.4	0.6	21.4	37.1	7.3	6.0	10.5	0.8	3.2	6.5	0.2	7.1	11.6	2.5
35–39	5.6	10.4	0.7	19.6	33.3	7.4	7.9	13.5	1.5	1.5	3.2	0.0	5.1	5.3	4.9
40–44	4.7	8.9	0.5	15.8	26.5	6.4	6.4	11.0	1.5	2.3	4.4	0.4	6.2	8.3	4.3
45–54	2.1	4.1	0.2	7.9	14.1	2.5	2.9	5.2	0.7	0.8	1.6	0.1	1.9	2.7	1.2
55–64	0.7	1.4	0.0	3.5	6.8	0.8	1.3	2.5	0.2	0.3	0.7	0.0	0.0	0.0	0.0
65+	0.1	0.2	0.0	0.7	1.8	0.1	0.4	0.9	0.0	0.2	0.4	0.0	0.0	0.0	0.0
TOTAL	1.8	3.3	0.3	9.7	15.5	4.4	3.2	5.4	0.9	1.1	2.2	0.2	2.4	3.3	1.6
10–14	0.0	0.0	0.0	0.3	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0
15–19	0.5	0.6	0.5	12.6	14.7	10.6	2.0	2.5	1.6	0.1	0.2	0.0	0.0	0.0	0.0
20–24	2.2	3.7	0.7	28.1	41.0	14.8	5.8	9.2	1.8	1.3	2.3	0.2	3.7	6.3	1.1
25–29	3.5	6.1	0.8	28.3	46.9	10.7	7.3	11.7	1.8	3.1	6.0	0.3	3.9	6.7	1.1
30–34	3.7	6.7	0.6	19.6	33.1	7.4	6.2	10.4	1.1	2.5	4.7	0.4	8.4	13.0	3.7
35–39	5.3	9.9	0.7	20.1	35.8	6.1	8.0	14.0	1.1	2.6	5.2	0.2	8.3	10.5	6.1
40–44	5.3	9.9	0.6	15.9	27.3	5.8	7.3	13.0	1.0	2.6	5.1	0.2	8.1	10.8	5.5
45–54	2.4	4.7	0.2	10.0	17.0	4.0	3.2	5.6	0.6	1.2	2.4	0.2	2.8	3.3	2.3
55–64	0.8	1.6	0.1	4.5	8.3	1.4	1.4	2.7	0.2	0.2	0.4	0.0	2.4	4.0	0.9
65+	0.1	0.3	0.0	0.8	1.9	0.1	0.7	1.6	0.0	0.0	0.0	0.0	2.7	6.3	0.0
TOTAL	1.9	3.5	0.3	11.2	18.1	4.9	3.5	6.0	0.8	1.2	2.4	0.1	3.2	4.7	1.9
10–14	0.0	0.0	0.0	0.4	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.7	0.7	0.7	13.9	17.5	10.3	2.4	3.4	1.4	0.0	0.0	0.0	3.1	1.8	4.5
20–24	2.6	4.1	1.1	36.8	57.2	15.9	8.9	14.6	2.3	1.5	2.6	0.4	6.0	5.5	6.5
25–29	3.9	6.8	0.9	33.1	55.5	11.5	8.5	13.8	1.8	3.0	5.9	0.2	7.6	7.6	7.6
30–34	4.4	7.9	0.9	24.3	42.1	8.2	8.2	13.7	1.5	2.9	5.4	0.5	11.6	18.1	5.1
35–39	5.3	9.7	0.7	25.7	44.6	8.9	8.1	14.4	0.7	2.3	4.8	0.0	8.9	11.7	6.2
40–44	5.8	10.7	0.8	22.0	37.8	8.2	8.3	15.1	0.7	2.3	4.5	0.2	3.6	5.0	2.3
45–54	2.6	4.9	0.3	12.1	20.7	4.8	3.9	7.1	0.7	1.2	2.5	0.0	2.8	4.6	1.2
55–64	0.9	1.7	0.0	4.7	8.9	1.3	1.5	2.9	0.2	0.2	0.3	0.0	0.0	0.0	0.0
65+	0.2	0.3	0.0	1.2	2.5	0.4	0.2	0.5	0.0	0.1	0.2	0.0	0.0	0.0	0.0
TOTAL	2.0	3.7	0.4	13.8	22.9	5.5	4.2	7.3	0.8	1.2	2.4	0.1	3.4	4.2	2.6
10–14	0.0	0.0	0.0	0.7	0.4	1.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.9	1.1	0.8	18.9	23.8	14.0	3.3	4.9	1.5	0.8	1.1	0.5	0.9	0.0	1.9
20–24	3.5	5.4	1.4	49.8	74.2	24.9	9.7	15.8	2.8	3.6	7.1	0.0	5.1	7.2	2.9
25–29	4.5	7.7	1.3	40.7	63.5	18.5	9.9	16.3	2.0	3.9	7.2	0.7	7.3	11.2	3.3
30–34	4.8	8.6	0.9	30.4	51.0	11.7	8.6	14.3	1.8	3.8	7.8	0.0	7.0	10.1	3.9
35–39	5.3	9.3	1.1	28.0	48.6	9.6	9.2	15.9	1.6	2.2	4.1	0.3	3.2	2.5	3.9
40–44	5.5	10.1	0.9	25.4	44.6	8.5	8.6	15.4	1.0	2.1	4.1	0.2	3.1	5.1	1.2
45–54	3.1	5.9	0.4	15.0	26.0	5.5	4.5	8.1	0.8	1.1	2.3	0.0	1.5	2.5	0.6
55–64	0.9	1.7	0.1	5.4	10.0	1.8	1.2	2.4	0.1	0.5	1.1	0.0	0.9	0.9	0.9
65+	0.2	0.4	0.0	0.9	2.0	0.2	0.4	0.9	0.0	0.2	0.4	0.0	0.0	0.0	0.0
TOTAL	2.2	4.0	0.5	17.2	27.9	7.6	4.6	8.0	0.9	1.5	3.0	0.1	2.3	3.1	1.4
10–14	0.0	0.0	0.0	0.5	0.2	0.9	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.8	1.1	0.6	22.8	28.3	17.1	2.9	4.7	1.0	1.0	1.7	0.2	1.3	1.8	0.9
20–24	3.4	5.4	1.3	62.2	94.2	29.6	11.0	18.9	2.0	3.9	7.2	0.4	5.5	9.1	1.9
25–29	4.0	7.0	1.0	48.7	79.2	19.0	9.8	16.7	1.2	3.1	5.7	0.5	6.6	10.1	3.1
30–34	4.6	8.1	1.0	36.7	59.9	15.5	8.6	14.8	1.0	3.5	6.8	0.3	5.7	8.8	2.5
35–39	4.6	8.1	1.0	25.4	44.6	8.2	7.8	13.5	1.2	3.5	6.5	0.6	6.9	11.4	2.5
40–44	5.2	9.9	0.6	22.7	39.6	7.7	8.2	14.8	0.8	2.0	3.8	0.2	3.1	6.3	0.0
45–54	3.2	6.0	0.4	14.5	26.0	4.7	4.9	9.0	0.5	1.4	2.7	0.2	1.5	1.9	1.1
55–64	1.1	2.2	0.1	5.4	10.3	1.5	1.5	2.8	0.3	0.1	0.3	0.0	0.4	0.9	0.0
65+	0.2	0.4	0.0	1.1	2.3	0.3	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.1	3.9	0.4	19.2	31.3	8.2	4.5	8.1	0.6	1.6	3.0	0.2	2.4	3.9	0.9

NOTE: These tables should be used only for race/ethnicity comparisons. See Table 33 for age-specific cases and rates and Tables 25–27 for total and sex-specific cases and rates. If age or race/ethnicity was not specified, cases were prorated according to the distribution of cases for which these variables were specified. For the following years, the states listed did not report age or race/ethnicity for most cases, and their case data and population denominators were excluded: 2007 (Idaho) and 2009 (Nebraska, Wyoming). Differences between total rates from this table and others in the report are due to different reporting formats and above listed exclusions. The 0- to 9-year age group is not shown because some of these cases may not be due to sexual transmission; however, they are included in the totals.

Table 35. Early Latent Syphilis—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	184	341	363	440	419	4.0	7.4	7.8	9.4	9.0
Alaska	8	6	3	2	0	1.2	0.9	0.4	0.3	0.0
Arizona	134	186	269	258	196	2.3	3.0	4.2	4.0	3.0
Arkansas	48	67	115	144	172	1.7	2.4	4.1	5.0	6.0
California	1,153	1,369	1,421	1,648	1,621	3.2	3.8	3.9	4.5	4.4
Colorado	27	38	35	91	63	0.6	0.8	0.7	1.8	1.3
Connecticut	19	27	20	28	40	0.5	0.8	0.6	0.8	1.1
Delaware	9	16	14	23	23	1.1	1.9	1.6	2.6	2.6
District of Columbia	103	77	84	77	158	18.7	13.2	14.3	13.0	26.7
Florida	726	760	1,155	1,252	1,254	4.1	4.2	6.3	6.8	6.8
Georgia	380	366	423	563	768	4.2	3.9	4.4	5.8	7.9
Hawaii	4	2	11	9	15	0.3	0.2	0.9	0.7	1.2
Idaho	13	3	3	6	3	0.9	0.2	0.2	0.4	0.2
Illinois	397	267	224	271	344	3.1	2.1	1.7	2.1	2.7
Indiana	42	46	39	83	55	0.7	0.7	0.6	1.3	0.9
Iowa	6	6	6	11	9	0.2	0.2	0.2	0.4	0.3
Kansas	18	18	25	54	58	0.7	0.7	0.9	1.9	2.1
Kentucky	23	36	34	47	64	0.6	0.9	0.8	1.1	1.5
Louisiana	252	481	722	809	799	5.6	11.2	16.8	18.3	18.1
Maine	2	7	5	10	10	0.2	0.5	0.4	0.8	0.8
Maryland	289	193	320	313	261	5.2	3.4	5.7	5.6	4.6
Massachusetts	105	82	116	149	135	1.6	1.3	1.8	2.3	2.1
Michigan	69	43	73	99	155	0.7	0.4	0.7	1.0	1.5
Minnesota	46	58	55	47	46	0.9	1.1	1.1	0.9	0.9
Mississippi	162	197	269	232	312	5.5	6.8	9.2	7.9	10.6
Missouri	108	93	120	145	146	1.9	1.6	2.0	2.5	2.5
Montana	0	0	0	1	0	0.0	0.0	0.0	0.1	0.0
Nebraska	2	1	3	0	6	0.1	0.1	0.2	0.0	0.3
Nevada	64	119	174	168	137	2.7	4.8	6.8	6.5	5.3
New Hampshire	0	2	13	4	6	0.0	0.2	1.0	0.3	0.5
New Jersey	289	314	343	415	401	3.3	3.6	3.9	4.8	4.6
New Mexico	53	85	66	45	40	2.7	4.3	3.4	2.3	2.0
New York	1,084	993	1,149	1,372	1,266	5.6	5.1	6.0	7.0	6.5
North Carolina	215	294	247	221	357	2.5	3.3	2.7	2.4	3.9
North Dakota	0	0	0	2	0	0.0	0.0	0.0	0.3	0.0
Ohio	136	115	135	224	221	1.2	1.0	1.2	2.0	1.9
Oklahoma	64	121	115	117	172	1.8	3.4	3.2	3.2	4.7
Oregon	16	19	6	18	29	0.4	0.5	0.2	0.5	0.8
Pennsylvania	204	286	309	309	361	1.6	2.3	2.5	2.5	2.9
Rhode Island	5	6	10	7	14	0.5	0.6	0.9	0.7	1.3
South Carolina	222	174	143	192	284	5.2	4.0	3.2	4.3	6.3
South Dakota	0	6	4	3	2	0.0	0.8	0.5	0.4	0.2
Tennessee	203	233	304	312	333	3.4	3.9	4.9	5.0	5.4
Texas	1,013	1,312	1,467	1,733	1,932	4.4	5.6	6.1	7.1	7.9
Utah	7	7	2	10	7	0.3	0.3	0.1	0.4	0.3
Vermont	0	2	1	6	1	0.0	0.3	0.2	1.0	0.2
Virginia	148	165	177	238	233	2.0	2.2	2.3	3.1	3.0
Washington	63	81	76	98	64	1.0	1.3	1.2	1.5	1.0
West Virginia	3	6	9	16	8	0.2	0.3	0.5	0.9	0.4
Wisconsin	58	60	91	78	66	1.0	1.1	1.6	1.4	1.2
Wyoming	0	0	0	1	0	0.0	0.0	0.0	0.2	0.0
U.S. TOTAL	8,176	9,186	10,768	12,401	13,066	2.8	3.1	3.6	4.1	4.3
Northeast	1,708	1,719	1,966	2,300	2,234	3.1	3.1	3.6	4.2	4.1
Midwest	882	713	775	1,017	1,108	1.3	1.1	1.2	1.5	1.7
South	4,044	4,839	5,961	6,729	7,549	3.8	4.4	5.4	6.0	6.8
West	1,542	1,915	2,066	2,355	2,175	2.3	2.8	2.9	3.3	3.1
Guam	0	3	3	2	1	0.0	1.8	1.7	1.1	0.6
Puerto Rico	432	368	408	241	164	11.0	9.4	10.3	6.1	4.1
Virgin Islands	7	0	1	0	0	6.4	0.0	0.9	0.0	0.0
OUTLYING AREAS	439	371	412	243	165	10.5	8.8	9.7	5.7	3.9
TOTAL	8,615	9,557	11,180	12,644	13,231	2.9	3.1	3.7	4.1	4.3

Table 36. Early Latent Syphilis—Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)* in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	314	293	363	402	613	6.4	5.7	6.9	7.5	11.4
Austin-Round Rock, TX	59	51	66	109	135	4.1	3.4	4.1	6.6	8.2
Baltimore-Towson, MD	211	136	185	214	153	7.9	5.1	6.9	8.0	5.7
Birmingham-Hoover, AL	82	220	196	199	150	7.5	20.0	17.7	17.8	13.4
Boston-Cambridge-Quincy, MA-NH	84	65	95	124	116	1.9	1.5	2.1	2.7	2.6
Buffalo-Cheektowaga-Tonawanda, NY	3	14	6	10	3	0.3	1.2	0.5	0.9	0.3
Charlotte-Gastonia-Concord, NC-SC	71	98	63	62	78	4.7	6.2	3.8	3.6	4.6
Chicago-Naperville-Joliet, IL-IN-WI	395	269	209	251	324	4.2	2.8	2.2	2.6	3.4
Cincinnati-Middletown, OH-KY-IN	13	7	12	23	42	0.6	0.3	0.6	1.1	1.9
Cleveland-Elyria-Mentor, OH	21	11	21	48	70	1.0	0.5	1.0	2.3	3.4
Columbus, OH	41	55	47	89	64	2.4	3.2	2.7	5.0	3.6
Dallas-Fort Worth-Arlington, TX	381	532	468	496	592	6.5	8.9	7.6	7.9	9.4
Denver-Aurora, CO	22	32	30	68	57	0.9	1.3	1.2	2.7	2.3
Detroit-Warren-Livonia, MI	59	34	47	45	88	1.3	0.8	1.1	1.0	2.0
Hartford-West Hartford-East Hartford, CT	7	10	8	10	13	0.6	0.8	0.7	0.8	1.1
Houston-Baytown-Sugar Land, TX	207	291	468	555	421	3.9	5.3	8.3	9.7	7.3
Indianapolis, IN	19	18	20	56	27	1.2	1.1	1.2	3.3	1.6
Jacksonville, FL	56	56	51	86	82	4.5	4.4	3.9	6.5	6.2
Kansas City, MO-KS	51	41	70	79	64	2.6	2.1	3.5	3.9	3.2
Las Vegas-Paradise, NV	57	112	170	166	135	3.3	6.3	9.3	8.9	7.2
Los Angeles-Long Beach-Santa Ana, CA	666	851	893	910	1,070	5.2	6.6	6.9	7.1	8.3
Louisville, KY-IN	16	18	12	20	17	1.3	1.5	1.0	1.6	1.4
Memphis, TN-MS-AR	171	174	222	199	259	13.6	13.7	17.3	15.5	20.1
Miami-Fort Lauderdale-Miami Beach, FL	302	304	440	563	644	5.6	5.6	8.1	10.4	11.9
Milwaukee-Waukesha-West Allis, WI	36	46	65	60	46	2.4	3.0	4.2	3.9	3.0
Minneapolis-St. Paul-Bloomington, MN-WI	43	52	54	43	45	1.4	1.6	1.7	1.3	1.4
Nashville-Davidson-Murfreesboro, TN	29	42	56	54	64	2.0	2.9	3.7	3.5	4.1
New Orleans-Metairie-Kenner, LA	68	127	222	239	243	5.2	12.4	21.5	21.1	21.4
New York-Newark-Edison, NY-NJ-PA	1,281	1,178	1,360	1,628	1,530	6.8	6.3	7.2	8.6	8.0
Oklahoma City, OK	36	74	65	72	123	3.1	6.3	5.4	6.0	10.2
Orlando, FL	124	91	160	148	132	6.4	4.6	7.9	7.2	6.4
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	171	280	310	305	362	2.9	4.8	5.3	5.2	6.2
Phoenix-Mesa-Scottsdale, AZ	97	166	165	160	131	2.5	4.1	3.9	3.7	3.1
Pittsburgh, PA	28	43	45	43	25	1.2	1.8	1.9	1.8	1.1
Portland-Vancouver-Beaverton, OR-WA	12	9	5	11	22	0.6	0.4	0.2	0.5	1.0
Providence-New Bedford-Fall River, RI-MA	10	9	12	13	16	0.6	0.6	0.7	0.8	1.0
Richmond, VA	24	29	45	81	59	2.0	2.4	3.7	6.6	4.8
Riverside-San Bernardino-Ontario, CA	64	64	49	89	88	1.6	1.6	1.2	2.2	2.1
Rochester, NY	13	8	5	5	6	1.3	0.8	0.5	0.5	0.6
Sacramento-Arden-Arcade-Roseville, CA	11	23	16	39	38	0.5	1.1	0.8	1.8	1.8
Salt Lake City, UT	3	5	2	10	4	0.3	0.5	0.2	0.9	0.4
San Antonio, TX	144	172	115	203	290	7.6	8.9	5.8	10.0	14.3
San Diego-Carlsbad-San Marcos, CA	117	123	156	179	80	4.0	4.2	5.2	6.0	2.7
San Francisco-Oakland-Fremont, CA	220	220	200	281	253	5.3	5.3	4.8	6.6	5.9
San Jose-Sunnyvale-Santa Clara, CA	18	18	25	25	22	1.0	1.0	1.4	1.4	1.2
Seattle-Tacoma-Bellevue, WA	60	74	70	91	56	1.9	2.3	2.1	2.7	1.7
St. Louis, MO-IL	34	30	57	70	90	1.2	1.1	2.0	2.5	3.2
Tampa-St. Petersburg-Clearwater, FL	101	177	294	275	225	3.8	6.6	10.8	10.1	8.2
Virginia Beach-Norfolk-Newport News, VA-NC	78	74	54	69	78	4.7	4.5	3.3	4.2	4.7
Washington-Arlington-Alexandria, DC-VA-MD-WV	208	171	265	224	306	4.0	3.2	5.0	4.2	5.7
U.S. MSAs TOTAL	6,338	6,997	8,034	9,201	9,551	4.0	4.3	4.9	5.6	5.8

* MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 37. Late and Late Latent Syphilis*—Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	193	262	254	286	289	4.2	5.7	5.5	6.1	6.2
Alaska	5	8	6	6	4	0.8	1.2	0.9	0.9	0.6
Arizona	455	521	650	789	629	7.7	8.4	10.3	12.1	9.7
Arkansas	124	92	122	149	95	4.5	3.3	4.3	5.2	3.3
California	2,527	2,773	2,777	2,995	2,449	7.0	7.6	7.6	8.1	6.7
Colorado	70	73	63	133	101	1.5	1.5	1.3	2.7	2.0
Connecticut	88	106	87	109	72	2.5	3.0	2.5	3.1	2.1
Delaware	15	38	31	20	36	1.8	4.5	3.6	2.3	4.1
District of Columbia	148	120	153	147	110	26.9	20.6	26.0	24.8	18.6
Florida	1,422	1,445	1,830	2,272	1,547	8.0	8.0	10.0	12.4	8.4
Georgia	898	977	1,142	1,345	982	9.9	10.4	12.0	13.9	10.1
Hawaii	42	46	38	30	39	3.3	3.6	3.0	2.3	3.0
Idaho	21	6	10	13	24	1.5	0.4	0.7	0.9	1.6
Illinois	663	760	522	720	805	5.2	5.9	4.1	5.6	6.2
Indiana	182	111	121	128	110	2.9	1.8	1.9	2.0	1.7
Iowa	13	43	37	48	33	0.4	1.4	1.2	1.6	1.1
Kansas	51	41	44	41	58	1.9	1.5	1.6	1.5	2.1
Kentucky	54	78	63	77	81	1.3	1.9	1.5	1.8	1.9
Louisiana	696	551	516	485	413	15.4	12.9	12.0	11.0	9.4
Maine	3	6	7	7	1	0.2	0.5	0.5	0.5	0.1
Maryland	387	526	482	374	387	6.9	9.4	8.6	6.6	6.9
Massachusetts	168	172	128	114	100	2.6	2.7	2.0	1.8	1.5
Michigan	297	210	262	227	246	2.9	2.1	2.6	2.3	2.5
Minnesota	89	83	72	102	99	1.7	1.6	1.4	2.0	1.9
Mississippi	160	237	305	320	188	5.5	8.1	10.4	10.9	6.4
Missouri	114	166	124	171	189	2.0	2.8	2.1	2.9	3.2
Montana	0	1	0	2	1	0.0	0.1	0.0	0.2	0.1
Nebraska	12	26	23	21	34	0.7	1.5	1.3	1.2	1.9
Nevada	169	117	104	71	75	7.0	4.7	4.1	2.7	2.9
New Hampshire	17	20	9	17	17	1.3	1.5	0.7	1.3	1.3
New Jersey	375	297	345	364	270	4.3	3.4	4.0	4.2	3.1
New Mexico	68	66	62	96	107	3.5	3.4	3.1	4.8	5.4
New York	2,054	2,833	2,766	2,903	2,160	10.7	14.7	14.3	14.9	11.1
North Carolina	213	352	516	480	578	2.5	4.0	5.7	5.2	6.3
North Dakota	0	2	1	2	3	0.0	0.3	0.2	0.3	0.5
Ohio	153	192	219	185	206	1.3	1.7	1.9	1.6	1.8
Oklahoma	50	58	33	51	25	1.4	1.6	0.9	1.4	0.7
Oregon	52	51	33	53	46	1.4	1.4	0.9	1.4	1.2
Pennsylvania	308	335	264	313	321	2.5	2.7	2.1	2.5	2.6
Rhode Island	35	51	30	30	29	3.3	4.8	2.8	2.9	2.8
South Carolina	239	155	176	120	100	5.6	3.6	4.0	2.7	2.2
South Dakota	2	10	1	2	8	0.3	1.3	0.1	0.2	1.0
Tennessee	493	527	537	548	568	8.3	8.7	8.7	8.8	9.1
Texas	2,336	2,501	2,780	3,071	3,271	10.2	10.6	11.6	12.6	13.4
Utah	33	38	23	5	17	1.3	1.5	0.9	0.2	0.6
Vermont	0	2	0	1	0	0.0	0.3	0.0	0.2	0.0
Virginia	361	343	328	281	221	4.8	4.5	4.3	3.6	2.8
Washington	144	160	135	159	118	2.3	2.5	2.1	2.4	1.8
West Virginia	12	13	11	14	16	0.7	0.7	0.6	0.8	0.9
Wisconsin	37	42	12	43	56	0.7	0.8	0.2	0.8	1.0
Wyoming	1	1	2	5	4	0.2	0.2	0.4	0.9	0.8
U.S. TOTAL	16,049	17,644	18,256	19,945	17,338	5.4	5.9	6.1	6.6	5.7
Northeast	3,048	3,822	3,636	3,858	2,970	5.6	7.0	6.6	7.0	5.4
Midwest	1,613	1,686	1,438	1,690	1,847	2.4	2.5	2.2	2.5	2.8
South	7,801	8,275	9,279	10,040	8,907	7.3	7.6	8.4	9.0	8.0
West	3,587	3,861	3,903	4,357	3,614	5.3	5.6	5.6	6.1	5.1
Guam	16	7	24	37	9	9.5	4.1	13.8	21.0	5.1
Puerto Rico	554	535	682	381	328	14.2	13.6	17.3	9.6	8.3
Virgin Islands	5	4	4	1	2	4.6	3.7	3.6	0.9	1.8
OUTLYING AREAS	575	546	710	419	339	13.7	13.0	16.8	9.9	8.0
TOTAL	16,624	18,190	18,966	20,364	17,677	5.5	6.0	6.2	6.6	5.7

* Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, and late syphilis with clinical manifestations other than neurosyphilis.

Table 38. Late and Late Latent Syphilis* — Reported Cases and Rates in Selected Metropolitan Statistical Areas (MSAs)[†] in Alphabetical Order, United States, 2005–2009

MSAs	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Atlanta-Sandy Springs-Marietta, GA	714	814	929	1,068	756	14.5	15.8	17.6	19.9	14.1
Austin-Round Rock, TX	89	74	94	127	116	6.1	4.9	5.9	7.7	7.0
Baltimore-Towson, MD	209	283	236	186	193	7.9	10.6	8.8	7.0	7.2
Birmingham-Hoover, AL	57	94	93	110	112	5.2	8.5	8.4	9.8	10.0
Boston-Cambridge-Quincy, MA-NH	149	147	98	86	92	3.4	3.3	2.2	1.9	2.0
Buffalo-Cheektowaga-Tonawanda, NY	4	7	9	7	27	0.3	0.6	0.8	0.6	2.4
Charlotte-Gastonia-Concord, NC-SC	61	83	133	100	127	4.0	5.2	8.1	5.9	7.5
Chicago-Naperville-Joliet, IL-IN-WI	611	687	469	650	727	6.5	7.2	4.9	6.8	7.6
Cincinnati-Middletown, OH-KY-IN	18	37	31	20	58	0.9	1.8	1.5	0.9	2.7
Cleveland-Elyria-Mentor, OH	9	24	33	15	29	0.4	1.1	1.6	0.7	1.4
Columbus, OH	76	67	99	84	71	4.4	3.9	5.6	4.7	4.0
Dallas-Fort Worth-Arlington, TX	792	809	881	934	1,020	13.6	13.5	14.3	14.8	16.2
Denver-Aurora, CO	51	51	43	98	74	2.2	2.1	1.7	3.9	3.0
Detroit-Warren-Livonia, MI	238	155	187	154	171	5.3	3.5	4.2	3.5	3.9
Hartford-West Hartford-East Hartford, CT	35	32	27	51	29	2.9	2.7	2.3	4.3	2.4
Houston-Baytown-Sugar Land, TX	685	856	1,032	1,024	1,139	13.0	15.5	18.3	17.9	19.9
Indianapolis, IN	80	56	49	53	48	4.9	3.4	2.9	3.1	2.8
Jacksonville, FL	41	63	102	153	95	3.3	4.9	7.8	11.7	7.2
Kansas City, MO-KS	53	75	49	55	70	2.7	3.8	2.5	2.7	3.5
Las Vegas-Paradise, NV	139	95	85	52	49	8.1	5.3	4.6	2.8	2.6
Los Angeles-Long Beach-Santa Ana, CA	1,649	1,759	1,588	1,722	1,332	12.8	13.6	12.3	13.4	10.3
Louisville, KY-IN	40	42	33	34	48	3.3	3.4	2.7	2.7	3.9
Memphis, TN-MS-AR	272	287	326	306	316	21.6	22.5	25.5	23.8	24.6
Miami-Fort Lauderdale-Miami Beach, FL	742	773	997	1,326	797	13.7	14.1	18.4	24.5	14.7
Milwaukee-Waukesha-West Allis, WI	18	16	9	32	43	1.2	1.1	0.6	2.1	2.8
Minneapolis-St. Paul-Bloomington, MN-WI	74	65	59	75	70	2.4	2.0	1.8	2.3	2.2
Nashville-Davidson-Murfreesboro, TN	126	112	100	138	145	8.9	7.7	6.6	8.9	9.4
New Orleans-Metairie-Kenner, LA	190	133	157	75	78	14.4	13.0	15.2	6.6	6.9
New York-Newark-Edison, NY-NJ-PA	2,241	2,905	2,913	3,089	2,237	12.0	15.4	15.5	16.3	11.8
Oklahoma City, OK	28	18	12	26	16	2.4	1.5	1.0	2.2	1.3
Orlando, FL	183	217	277	184	165	9.5	10.9	13.6	9.0	8.0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	284	315	253	287	304	4.9	5.4	4.3	4.9	5.2
Phoenix-Mesa-Scottsdale, AZ	363	424	486	468	368	9.4	10.5	11.6	10.9	8.6
Pittsburgh, PA	15	18	17	17	16	0.6	0.8	0.7	0.7	0.7
Portland-Vancouver-Beaverton, OR-WA	43	40	34	32	39	2.1	1.9	1.6	1.4	1.8
Providence-New Bedford-Fall River, RI-MA	37	65	44	33	31	2.3	4.0	2.7	2.1	1.9
Richmond, VA	50	49	46	53	50	4.3	4.1	3.8	4.3	4.1
Riverside-San Bernardino-Ontario, CA	208	203	194	202	210	5.3	5.0	4.8	4.9	5.1
Rochester, NY	17	68	55	37	34	1.6	6.6	5.3	3.6	3.3
Sacramento-Arden-Arcade-Roseville, CA	8	78	40	100	94	0.4	3.8	1.9	4.7	4.5
Salt Lake City, UT	23	21	14	2	8	2.2	2.0	1.3	0.2	0.7
San Antonio, TX	178	156	142	190	221	9.4	8.0	7.1	9.4	10.9
San Diego-Carlsbad-San Marcos, CA	133	202	273	292	211	4.5	6.9	9.2	9.7	7.0
San Francisco-Oakland-Fremont, CA	165	156	263	277	239	4.0	3.7	6.3	6.5	5.6
San Jose-Sunnyvale-Santa Clara, CA	56	22	76	84	58	3.2	1.2	4.2	4.6	3.2
Seattle-Tacoma-Bellevue, WA	100	122	99	115	84	3.1	3.7	3.0	3.4	2.5
St. Louis, MO-IL	86	89	82	129	120	3.1	3.2	2.9	4.6	4.3
Tampa-St. Petersburg-Clearwater, FL	139	140	119	212	223	5.2	5.2	4.4	7.8	8.2
Virginia Beach-Norfolk-Newport News, VA-NC	105	85	89	80	55	6.4	5.2	5.4	4.8	3.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	453	496	514	425	362	8.7	9.4	9.7	7.9	6.8
U.S. MSAs TOTAL	12,137	13,585	13,990	15,069	12,977	7.6	8.4	8.6	9.2	7.9

* Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, and late syphilis with clinical manifestations other than neurosyphilis.

[†] MSAs were selected on the basis of the largest population in the 2000 U.S. Census.

Table 39. Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth, by State, Ranked by Rates, United States, 2009

Rank*	State†	Cases	Rates per 100,000 Live Births
1	Maryland	31	40.0
2	Texas	126	31.5
3	Arizona	28	27.3
4	Arkansas	10	24.4
5	Alabama	13	20.6
6	Mississippi	8	17.4
7	Louisiana	11	17.4
8	Tennessee	13	15.4
9	North Dakota	1	11.6
10	California	61	10.8
	U.S. TOTAL‡	427	10.0
11	Georgia	14	9.4
12	Florida	21	8.9
13	Illinois	16	8.9
14	Delaware	1	8.3
15	Rhode Island	1	8.1
16	North Carolina	10	7.8
17	Nevada	3	7.5
18	Missouri	6	7.4
19	Kansas	3	7.3
20	New Jersey	7	6.1
21	New York	15	6.0
22	Hawaii	1	5.3
23	Connecticut	2	4.8
24	Ohio	7	4.6
25	Idaho	1	4.1
26	Oklahoma	2	3.7
27	Kentucky	2	3.4
28	Michigan	4	3.1
29	Pennsylvania	4	2.7
30	Virginia	2	1.9
31	Minnesota	1	1.4
32	Washington	1	1.2
33	Indiana	1	1.1
	YEAR 2010 TARGET		1.0
	Alaska	0	0.0
	Colorado	0	0.0
	Iowa	0	0.0
	Maine	0	0.0
	Massachusetts	0	0.0
	Montana	0	0.0
	Nebraska	0	0.0
	New Hampshire	0	0.0
	New Mexico	0	0.0
	Oregon	0	0.0
	South Carolina	0	0.0
	South Dakota	0	0.0
	Utah	0	0.0
	Vermont	0	0.0
	West Virginia	0	0.0
	Wisconsin	0	0.0
	Wyoming	0	0.0

* States were ranked in descending order by rate, number of cases, and alphabetically. States with no cases were not ranked.

† Mother's state of residence was used to assign case.

‡ Total includes cases reported by the District of Columbia, with 0 cases and a rate of 0.0, but excludes outlying areas (Guam with 0 cases and rate of 0.0, Puerto Rico with 5 cases and rate of 10.3, and Virgin Islands with 0 cases and rate of 0.0).

Table 40. Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth by State/Area and Region in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area*	Cases					Rates per 100,000 Live Births				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	5	9	9	12	13	8.3	14.2	14.2	19.0	20.6
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	28	16	30	30	28	29.1	15.6	29.3	29.3	27.3
Arkansas	7	10	12	9	10	17.9	24.4	29.3	22.0	24.4
California	75	69	87	64	61	13.7	12.3	15.5	11.4	10.8
Colorado	1	2	2	0	0	1.5	2.8	2.8	0.0	0.0
Connecticut	1	0	2	2	2	2.4	0.0	4.8	4.8	4.8
Delaware	0	0	0	1	1	0.0	0.0	0.0	8.3	8.3
District of Columbia	0	1	1	0	0	0.0	11.7	11.7	0.0	0.0
Florida	16	21	20	17	21	7.1	8.9	8.4	7.2	8.9
Georgia	1	9	9	11	14	0.7	6.1	6.1	7.4	9.4
Hawaii	0	0	0	0	1	0.0	0.0	0.0	0.0	5.3
Idaho	0	0	0	0	1	0.0	0.0	0.0	0.0	4.1
Illinois	23	15	10	20	16	12.8	8.3	5.5	11.1	8.9
Indiana	2	0	2	0	1	2.3	0.0	2.3	0.0	1.1
Iowa	0	0	1	0	0	0.0	0.0	2.5	0.0	0.0
Kansas	0	1	0	0	3	0.0	2.4	0.0	0.0	7.3
Kentucky	0	1	0	1	2	0.0	1.7	0.0	1.7	3.4
Louisiana	13	16	37	23	11	21.3	25.2	58.4	36.3	17.4
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	16	19	24	23	31	21.3	24.5	31.0	29.7	40.0
Massachusetts	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Michigan	17	13	15	10	4	13.3	10.2	11.8	7.8	3.1
Minnesota	3	1	0	0	1	4.2	1.4	0.0	0.0	1.4
Mississippi	0	0	1	9	8	0.0	0.0	2.2	19.5	17.4
Missouri	3	3	1	2	6	3.8	3.7	1.2	2.5	7.4
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nevada	1	16	7	9	3	2.7	40.0	17.5	22.5	7.5
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	16	15	11	4	7	14.1	13.0	9.6	3.5	6.1
New Mexico	6	7	6	4	0	20.8	23.4	20.0	13.4	0.0
New York	10	24	18	23	15	4.1	9.6	7.2	9.2	6.0
North Carolina	11	7	7	11	10	8.9	5.5	5.5	8.6	7.8
North Dakota	0	0	0	0	1	0.0	0.0	0.0	0.0	11.6
Ohio	2	0	1	3	7	1.3	0.0	0.7	2.0	4.6
Oklahoma	1	2	3	3	2	1.9	3.7	5.6	5.6	3.7
Oregon	0	0	2	0	0	0.0	0.0	4.1	0.0	0.0
Pennsylvania	1	3	8	8	4	0.7	2.0	5.4	5.4	2.7
Rhode Island	0	0	0	0	1	0.0	0.0	0.0	0.0	8.1
South Carolina	4	2	1	2	0	6.9	3.2	1.6	3.2	0.0
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	4	6	4	11	13	4.9	7.1	4.7	13.0	15.4
Texas	67	79	99	127	126	17.4	19.8	24.8	31.8	31.5
Utah	0	2	0	0	0	0.0	3.7	0.0	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	3	3	1	4	2	2.9	2.8	0.9	3.7	1.9
Washington	0	0	2	0	1	0.0	0.0	2.3	0.0	1.2
West Virginia	0	0	1	1	0	0.0	0.0	4.8	4.8	0.0
Wisconsin	2	0	1	1	0	2.8	0.0	1.4	1.4	0.0
Wyoming	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
U.S. TOTAL	339	372	435	445	427	8.2	8.7	10.2	10.4	10.0
Northeast	28	42	39	37	29	4.2	6.2	5.7	5.4	4.3
Midwest	52	33	31	36	39	5.9	3.7	3.4	4.0	4.3
South	148	185	229	265	264	9.6	11.5	14.2	16.4	16.4
West	111	112	136	107	95	10.8	10.5	12.7	10.0	8.9
Guam	1	0	2	0	0	31.4	0.0	59.0	0.0	0.0
Puerto Rico	13	15	10	8	5	25.7	30.9	20.6	16.5	10.3
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	14	15	12	8	5	25.3	27.9	22.4	14.9	9.3
TOTAL	353	387	447	453	432	8.4	9.0	10.3	10.5	10.0

* Mother's state of residence was used to assign case.

Table 41. Congenital Syphilis—Reported Cases and Rates in Infants by Year of Birth by Race/Ethnicity of Mother, United States, 2005–2009

Year of Birth	Race/Ethnicity	Cases	Rates per 100,000 Live Births
2005	Whites, Non-Hispanic	31	1.3
	Blacks, Non-Hispanic	156	26.6
	Hispanics	124	12.6
	Asians/Pacific Islanders	15	6.8
	American Indians/Alaska Natives	5	12.2
	Other	2	NA
	Unknown	6	NA
	TOTAL	339	8.2
2006	Whites, Non-Hispanic	39	1.7
	Blacks, Non-Hispanic	151	24.3
	Hispanics	151	14.5
	Asians/Pacific Islanders	10	4.3
	American Indians/Alaska Natives	5	11.7
	Other	5	NA
	Unknown	11	NA
	TOTAL	372	8.7
2007	Whites, Non-Hispanic	53	2.3
	Blacks, Non-Hispanic	192	30.9
	Hispanics	144	13.9
	Asians/Pacific Islanders	20	8.6
	American Indians/Alaska Natives	8	18.7
	Other	4	NA
	Unknown	14	NA
	TOTAL	435	10.2
2008	Whites, Non-Hispanic	67	2.9
	Blacks, Non-Hispanic	225	36.2
	Hispanics	135	13.0
	Asians/Pacific Islanders	7	3.0
	American Indians/Alaska Natives	6	14.0
	Other	1	NA
	Unknown	4	NA
	TOTAL	445	10.4
2009	Whites, Non-Hispanic	64	2.7
	Blacks, Non-Hispanic	217	34.9
	Hispanics	125	12.0
	Asians/Pacific Islanders	11	4.7
	American Indians/Alaska Natives	5	11.7
	Other	2	NA
	Unknown	3	NA
	TOTAL	427	10.0

NA = Not applicable.

Table 42. Chancroid—Reported Cases and Rates by State/Area in Alphabetical Order, United States and Outlying Areas, 2005–2009

State/Area	Cases					Rates per 100,000 Population				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Alabama	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Alaska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arizona	1	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Arkansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
California	1	0	1	2	1	0.0	0.0	0.0	0.0	0.0
Colorado	0	0	0	2	0	0.0	0.0	0.0	0.0	0.0
Connecticut	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Delaware	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Florida	1	1	3	0	1	0.0	0.0	0.0	0.0	0.0
Georgia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Hawaii	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Idaho	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Illinois	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Indiana	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0
Iowa	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kansas	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Kentucky	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Louisiana	4	1	4	0	0	0.1	0.0	0.1	0.0	0.0
Maine	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Maryland	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Massachusetts	1	0	1	4	3	0.0	0.0	0.0	0.1	0.0
Michigan	0	1	0	0	0	0.0	0.0	0.0	0.0	0.0
Minnesota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Mississippi	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Missouri	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Montana	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nebraska	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Nevada	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Hampshire	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Jersey	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New Mexico	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
New York	1	5	5	2	0	0.0	0.0	0.0	0.0	0.0
North Carolina	5	5	2	4	6	0.1	0.1	0.0	0.0	0.1
North Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Ohio	1	0	0	1	0	0.0	0.0	0.0	0.0	0.0
Oklahoma	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Oregon	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Pennsylvania	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Rhode Island	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
South Carolina	0	0	0	1	1	0.0	0.0	0.0	0.0	0.0
South Dakota	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Tennessee	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Texas	1	5	5	8	8	0.0	0.0	0.0	0.0	0.0
Utah	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Vermont	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Virginia	0	1	0	0	1	0.0	0.0	0.0	0.0	0.0
Washington	0	0	0	1	0	0.0	0.0	0.0	0.0	0.0
West Virginia	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Wisconsin	0	0	2	0	6	0.0	0.0	0.0	0.0	0.1
Wyoming	1	0	0	0	0	0.2	0.0	0.0	0.0	0.0
U.S. TOTAL	17	19	23	25	28	0.0	0.0	0.0	0.0	0.0
Guam	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Puerto Rico	3	0	0	0	0	0.1	0.0	0.0	0.0	0.0
Virgin Islands	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
OUTLYING AREAS	3	0	0	0	0	0.1	0.0	0.0	0.0	0.0
TOTAL	20	19	23	25	28	0.0	0.0	0.0	0.0	0.0

Table 43. Selected STDs and Complications—Initial Visits To Physicians' Offices, National Disease and Therapeutic Index, United States, 1966–2009

Year	Genital Herpes	Genital Warts	Vaginal Trichomoniasis*	Other Vaginitis*	Pelvic Inflammatory Disease†
1966	19,000	56,000	579,000	1,155,000	NA
1967	15,000	72,000	515,000	1,277,000	NA
1968	16,000	87,000	463,000	1,460,000	NA
1969	15,000	61,000	421,000	1,390,000	NA
1970	17,000	119,000	529,000	1,500,000	NA
1971	49,000	128,000	484,000	1,281,000	NA
1972	26,000	165,000	574,000	1,810,000	NA
1973	51,000	198,000	466,000	1,858,000	NA
1974	75,000	202,000	427,000	1,907,000	NA
1975	36,000	181,000	500,000	1,919,000	NA
1976	57,000	217,000	473,000	1,690,000	NA
1977	116,000	221,000	324,000	1,713,000	NA
1978	76,000	269,000	329,000	2,149,000	NA
1979	83,000	200,000	363,000	1,662,000	NA
1980	57,000	218,000	358,000	1,670,000	423,000
1981	133,000	191,000	369,000	1,742,000	283,000
1982	134,000	256,000	268,000	1,859,000	374,000
1983	106,000	203,000	424,000	1,932,000	424,000
1984	157,000	224,000	381,000	2,450,000	381,000
1985	124,000	263,000	291,000	2,728,000	425,000
1986	136,000	275,000	338,000	3,118,000	457,000
1987	102,000	351,000	293,000	3,087,000	403,000
1988	163,000	290,000	191,000	3,583,000	431,000
1989	148,000	220,000	165,000	3,374,000	413,000
1990	172,000	275,000	213,000	4,474,000	358,000
1991	235,000	282,000	198,000	3,822,000	377,000
1992	139,000	218,000	182,000	3,428,000	335,000
1993	172,000	167,000	207,000	3,755,000	407,000
1994	142,000	239,000	199,000	4,123,000	332,000
1995	160,000	253,000	141,000	3,927,000	262,000
1996	208,000	191,000	245,000	3,472,000	286,000
1997	176,000	145,000	176,000	3,100,000	260,000
1998	188,000	211,000	164,000	3,200,000	233,000
1999	224,000	240,000	171,000	3,077,000	250,000
2000	179,000	220,000	222,000	3,470,000	254,000
2001	157,000	233,000	210,000	3,365,000	244,000
2002	216,000	266,000	150,000	3,315,000	197,000
2003	203,000	264,000	179,000	3,516,000	123,000
2004	269,000	316,000	221,000	3,602,000	132,000
2005	266,000	357,000	165,000	4,071,000	176,000
2006	371,000	422,000	200,000	3,891,000	106,000
2007	317,000	312,000	205,000	3,723,000	146,000
2008	292,000	385,000	204,000	3,571,000	104,000
2009	306,000	357,000	216,000	3,063,000	100,000

* Women only.

† Women aged 15–44 years only.

NA = Not available.

NOTE: Standard errors for estimates under 100,000 are not available. The relative standard errors for estimates 100,000–300,000 range from 20% to 30%; 300,000–600,000 range from 16% to 20%; 600,000–1,000,000 range from 13% to 16%; and 1,000,000–5,000,000 range from 9% to 13%.

SOURCE: National Disease and Therapeutic Index (IMS Health). See Other Data Sources in the Appendix for more information.

APPENDIX

APPENDIX

Interpreting STD Surveillance Data

Sexually Transmitted Disease Surveillance 2009 presents surveillance information derived from the official statistics for the reported occurrence of nationally notifiable sexually transmitted diseases (STDs) in the United States, test positivity and prevalence data from numerous prevalence monitoring initiatives, sentinel surveillance of gonococcal antimicrobial resistance, and national health care services surveys.

Nationally Notifiable STD Surveillance

Nationally notifiable STD surveillance data are collected and compiled from reports sent by the STD control programs and health departments in all 50 states, the District of Columbia, selected cities, U.S. dependencies and possessions, and independent nations in free association with the United States to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC). Included among the dependencies, possessions, and independent nations are Guam, Puerto Rico, and the Virgin Islands. These entities are identified as “outlying areas” of the United States in selected figures and tables.

Reporting Formats

STD morbidity data presented in this report are compiled from a combination of data reported on standardized hard copy reporting forms and electronic data received through the National Electronic Telecommunications System for Surveillance (NETSS).

Summary Report Forms

The following hard copy forms were used to report national STD morbidity data:

1. FORM CDC 73.998: *Monthly Surveillance Report of Early Syphilis*. This monthly hard copy reporting form was used during 1984–2002 to report summary data for primary and secondary syphilis and early latent syphilis by county and state.
2. FORM CDC 73.688: *Sexually Transmitted Disease Morbidity Report*. This quarterly hard copy reporting form was used during 1963–2002 to report summary data for all stages of syphilis, congenital syphilis, gonorrhea, chancroid, chlamydia, and other STDs by sex and source of report (private versus public) for all 50 states, the District of Columbia, 64 selected cities (including San Juan, Puerto Rico), and outlying areas of the United States.

Note: Chlamydial infection became a nationally notifiable condition in 1996, and the form was modified to support reporting of chlamydia that year. Congenital syphilis was dropped from this aggregate form in 1995 and replaced by the case-specific CDC 73.126 form described later in this section.
3. FORM CDC 73.2638: *Report of Civilian Cases of Primary & Secondary Syphilis, Gonorrhea, and Chlamydia by Reporting Source, Sex, Race/Ethnicity, and Age Group*. This annual hard copy form was used during 1981–2002 to report summary data for P&S syphilis, gonorrhea, and chlamydia by age, race, sex, and source (public versus private) for all 50 states, seven large cities (Baltimore, Chicago, New York City, Los Angeles, Philadelphia, San Francisco, and the District of Columbia), and outlying areas of the United States.

Note: Chlamydial infection became a nationally notifiable condition in 1996, and the form was modified to support reporting of chlamydia that year.
4. FORM CDC 73.126: *Congenital Syphilis (CS) Case Investigation and Reporting*. This case-specific hard copy form was first used in 1983 and continues to be used to report detailed case-specific data for congenital syphilis in some areas.

National Electronic Telecommunications System for Surveillance

Notifiable STD data reported electronically through NETSS make up the nationally notifiable disease information published in CDC's *Morbidity and Mortality Weekly Report*.

As of December 31, 2003, all 50 states and the District of Columbia had converted from summary hard copy reporting to electronic submission of line-listed (i.e., case-specific) STD data through NETSS (42 reporting areas submit congenital syphilis surveillance data through NETSS). Puerto Rico converted to electronic reporting in 2006. Guam and the Virgin Islands continue to report STD data through summary hard copy forms.

Jurisdictions differ in their ability to resolve differences in total cases derived from summary hard copy monthly, quarterly, and annual reports, as well as from electronically submitted line-listed data. Thus, depending on the database used, discrepancies may exist in the total number of cases reported in the figures and tables in earlier STD surveillance reports. In most instances, these discrepancies are less than 5% of total reported cases and have minimal effect on national case totals and rates. However, for a specific jurisdiction, the discrepancies may be larger.

Surveillance data and updates sent to CDC through NETSS and on hard copy forms through June 9, 2010, are included in this report. Data received after this date will appear in subsequent STD surveillance reports. The data presented in the figures and tables in this report supersede those in all earlier publications.

Population Denominators and Rate Calculations

2000–2009 Rates and Population

CDC's National Center for Health Statistics (NCHS) released bridged-race population counts for the 2000–2008 U.S. resident populations that are based on counts from the 2000 U.S. Census. These estimates resulted from bridging the 31 race categories used in the 2000

census, as specified in the 1997 Office of Management and Budget (OMB) standards, to the five race/ethnicity groups specified in the 1977 OMB standards.

Population estimates for Guam, Puerto Rico, and the Virgin Islands were obtained from the U.S. Census Bureau Web site at <http://www.census.gov/ipc/www/idb/tables.html>. The 2008–2009 rates for outlying areas were calculated by using the 2008 population estimates.

Because of the use of the updated population data, rates for 2000–2008 may be different from those presented in previous STD surveillance reports.

1990–1999 Rates and Population

The population counts for 1990 through 1999 incorporated the bridged single-race estimates of the April 1, 2000, U.S. resident population. These files were prepared by the U.S. Census Bureau with support from the National Cancer Institute.

1981–1989 Rates and Population

For the United States, rates were calculated by using U.S. Census Bureau population estimates for 1981 through 1989.^{1,2}

1941–1980 Rates and Population

Rates for 1941 through 1980 were based on population estimates from the U.S. Census Bureau and are currently maintained by CDC's Division of STD Prevention.

1941–2009 Congenital Syphilis Rates and Live Births

The congenital syphilis data in Table 1 of this report represent the number of congenital syphilis cases per 100,000 live births for all years during 1941–2009. Previous publications presented congenital syphilis rates per 100,000 population during 1941–1994 and rates for cases diagnosed at younger than 1 year of age per 100,000 live births during 1995–2005. To allow for trends in congenital syphilis rates to be compared for the period 1941 through 2009, live births are used as the denominator for congenital syphilis, and case counts

are no longer limited to those diagnosed within the first year of life. Congenital syphilis morbidity (i.e., case reports) is assigned by year of birth. Rates of congenital syphilis for 1963 through 1988 were calculated by using published live birth data.³ Congenital syphilis rates for 1989 through 2005 were calculated by using live birth data that are based on information coded by the states and provided to the NCHS through the Vital Statistics Cooperative Program. Rates for 2006 through 2009 were calculated by using live birth data for 2006.

Reporting Practices

Although most state and local STD programs generally adhere to the national notifiable STD case definitions collaboratively developed by the Council of State and Territorial Epidemiologists and CDC, differences in policies and systems for collecting surveillance data may exist. Thus, comparisons of case numbers and rates between jurisdictions should be interpreted with caution.

However, because case definitions and surveillance activities within a given area remain relatively stable over time, trends should be minimally affected by these differences. In many state and local STD jurisdictions, the reporting from publicly supported institutions (e.g., STD clinics) has been more complete than from other sources (e.g., private practitioners). Thus, trends may not be representative of all segments of the population.

Reporting of Surveillance Data by Metropolitan Statistical Area

Sexually Transmitted Disease Surveillance 2009 continues the presentation of STD incidence data and rates for the 50 metropolitan statistical areas (MSAs) with the largest populations according to 2000 census data. STD surveillance reports published before 2005 presented data by selected cities; these data were derived from county data, which were used to estimate city-specific disease rates. Because county data were used to estimate city-specific morbidity and because current STD project areas' reporting practices do not support direct identification of city-specific morbidity reports, MSAs were chosen as a geographic unit smaller than a state or territory for presentation of STD morbidity data.

MSAs are defined by the OMB to provide nationally consistent definitions for collecting, tabulating, and publishing federal statistics for a set of geographic areas.⁴ An MSA is associated with at least one urbanized area that has a population of at least 50,000. The MSA comprises the central county or counties containing the central county, plus adjacent, outlying counties that have a high degree of social and economic integration with the central county as measured through commuting.

The title of an MSA includes the name of the principal city with the largest 2000 census population. If there are multiple principal cities, the names of the second largest and third largest principal cities appear in the title in order of descending population size.

The MSA concept has been used as a statistical representation of the social and economic links between urban cores and outlying, integrated areas. However, MSAs do not equate to an urban-rural classification; all counties included in MSAs and many other counties contain both urban and rural territory and populations. STD programs that treat all parts of an MSA as if they were as urban as the densely settled core ignore the rural conditions that may exist in some parts of the area. In short, MSAs are not intended to be a general purpose geographic framework for nonstatistical activities or for use in program funding formulas.

For more information on the MSA definitions used in this report, go to <http://www.census.gov/population/estimates/metro-city/03mfips.txt>.

Management of Unknown, Missing, or Invalid Data for Age Group, Race/Ethnicity, and Sex

The percentage of unknown, missing, or invalid data for age group, race/ethnicity, and sex varies from year to year, state to state, and by disease for reported STDs (Table A1).

When the percentage of unknown, missing, or invalid data for age group, race/ethnicity, and sex exceeds 50% for any state, the state's incidence and population data are excluded from the tables that present data stratified by one or more of these variables. For the states for which 50% or more of their data are valid for age group,

race/ethnicity, and sex, the values for unknown, missing, or invalid data are redistributed on the basis of the state's distribution of known age group, race/ethnicity, and sex data.

As a result, incidence and rate data that are stratified by one or more of these variables may not accurately reflect total national incidence or rates.

Classification of STD Morbidity Reporting Sources

Before 1996, states classified the source of case reports as either private source (including private physicians, hospitals, and institutions) or public source (primarily STD clinics). As states began reporting morbidity data electronically in 1996, the classification categories for source of case reports expanded to include the following data sources: STD clinics, HIV counseling and testing sites, drug treatment clinics, family planning clinics, prenatal/obstetrics clinics, tuberculosis clinics, private physicians/health maintenance organizations, hospitals (inpatient), emergency rooms, correctional facilities, laboratories, blood banks, the National Job Training Program (NJTP), school-based clinics, mental health providers, the military, the Indian Health Service, and other unspecified sources.

Analysis of the data reported electronically after 1996 confirmed that the new STD clinic source of report data corresponded to the earlier public source category. Therefore, source of case report data during 1984–2009 are presented as STD clinic or non-STD clinic only (Table A2).

Definition of HHS Regions

The 10 regions of the U.S. Department of Health and Human Services (HHS) include the following jurisdictions: Region I = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Region II = New Jersey, New York, Puerto Rico, and U.S. Virgin Islands; Region III = Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia; Region IV = Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; Region V = Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; Region

VI = Arkansas, Louisiana, New Mexico, Oklahoma, and Texas; Region VII = Iowa, Kansas, Missouri, and Nebraska; Region VIII = Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; Region IX = Arizona, California, Guam, Hawaii, and Nevada; and Region X = Alaska, Idaho, Oregon, and Washington.

Chlamydia Morbidity

Trends in chlamydia morbidity reporting from many state and local jurisdictions are more reflective of changes in diagnostic, screening, and reporting practices than of actual trends in disease incidence. In particular, morbidity trends are likely to be influenced by changes in test technology as laboratories expand their use of more sensitive tests (e.g., nucleic acid amplification tests). As more jurisdictions develop chlamydia prevention and control programs, including improved surveillance systems to monitor trends, the data should improve and become more representative of true trends in disease.

Syphilis Morbidity Reporting

The category of “total syphilis” or “all stages of syphilis” includes primary, secondary, latent (including early latent, late latent, and latent syphilis of unknown duration), neurosyphilis, late (including late syphilis with clinical manifestations other than neurosyphilis), and congenital syphilis.

In 1996, the syphilis stage “late syphilis with clinical manifestations other than neurosyphilis (late benign and cardiovascular syphilis)” was added to the syphilis case definition (see STD Surveillance Case Definitions in the Appendix). Although neurosyphilis can occur at almost any stage of syphilis, during 1996–2005, it was classified and reported as one of several mutually exclusive stages of syphilis. Beginning in 2005, neurosyphilis was no longer classified or reported as a distinct stage of syphilis.

Congenital Syphilis Morbidity Reporting

In 1988, the surveillance case definition for congenital syphilis was changed. This case definition has greater sensitivity than the former definition.⁵ In addition, many

state and local STD programs have greatly enhanced active case finding for congenital syphilis since 1988. For these reasons, as well as because of increasing morbidity, the number of reported cases increased dramatically during 1989–1991. All reporting areas had implemented the new case definition for reporting congenital syphilis by January 1, 1992.

In addition to changing the case definition for congenital syphilis, CDC introduced a new data collection form (CDC 73.126) in 1990 (revised October 2003). Since 1995, the data collected on this form have been used for reporting congenital syphilis cases and associated rates. This form is used to collect individual case information, which allows more thorough analysis of case characteristics. For the purpose of analyzing race/ethnicity, cases are classified by the race/ethnicity of the mother. Congenital syphilis cases were reported by state and city of residence of the mother during 1995–2009.

Congenital syphilis reporting may be delayed as a result of case investigation and validation. Cases for previous years are added to CDC's surveillance databases throughout the year. Congenital syphilis data reported after publication of the current annual STD surveillance report will appear in subsequent reports and are assigned by the case patient's year of birth.

Chlamydia and Gonorrhea Prevalence Monitoring

Chlamydia and gonorrhea test positivity or prevalence were calculated for women visiting family planning clinics and prenatal clinics, men and women entering NJTP, and men and women entering corrections facilities. Except for the screening data from NJTP, these data sources may include more than one test from the same person if that person was tested more than once during a year.

To increase the stability of the annual prevalence estimates from NJTP, chlamydia or gonorrhea prevalence data are presented when valid test results for 100 or more students per year are available for the population subgroup and state. The majority of NJTP's chlamydia screening tests are conducted by a single national contract laboratory, which provides these data to CDC. Gonorrhea screening tests for male and female

students in many training centers are conducted by local laboratories; these data are not available to CDC. To ensure that the state-specific gonorrhea screening data presented here are representative of all students entering training centers, test results for students at centers that submit specimens to the national contract laboratory are included only if the number of gonorrhea tests submitted is greater than 90% of the number of chlamydia tests submitted from the same center for the same period.

Various laboratory test methods were used for all of these data sources. No adjustments for laboratory test type and sensitivity were made to any figures that present test positivity or prevalence data.

Prevalence data for region- and state-specific figures were published with permission from the Infertility Prevention Project (IPP), selected state STD prevention programs, and NJTP.

STD Surveillance Network

In 2005, CDC established the STD Surveillance Network (SSuN) as a dynamic STD surveillance network comprised of local enhanced STD surveillance systems that follow common protocols. The purpose of SSuN is to improve the capacity of national, state, and local STD programs to detect, monitor, and respond rapidly to trends in STDs through enhanced collection, reporting, analysis, visualization, and interpretation of disease information.

Twelve collaborating local or state health departments participate in SSuN: Alabama Department of Public Health, Baltimore City Health Department, Chicago Department of Public Health, Colorado Department of Public Health and Environment, Connecticut Department of Public Health, County of Los Angeles Department of Public Health (in collaboration with California State Department of Public Health), Louisiana Office of Public Health, New York City Department of Health and Mental Hygiene, Philadelphia Department of Public Health, San Francisco Department of Public Health, Virginia Department of Health, and Washington State Department of Health.

The SSuN data contained in this report include demographic, behavioral, clinical, and laboratory information collected from all patients at 42 STD clinics within the jurisdictions of SSuN health departments. These clinics are located in San Francisco, CA (San Francisco City Clinic); Los Angeles, CA (12 STD clinics in Los Angeles County); Seattle, WA (Seattle-King County Clinic); Denver, CO (Denver Metro Health Clinic); Chicago, IL (6 public STD clinics in Cook County); New Orleans, LA (Delgado Personal Health Center); Birmingham, AL (Jefferson County STD Clinic); Richmond, VA (Richmond City, Henrico County and Chesterfield County Clinics); Baltimore, MD (Druid STD Clinic and Eastern STD Clinic); Philadelphia, PA (Philadelphia STD Clinics 1 and 5); New York City, NY (10 public STD clinics in 5 boroughs); Hartford, CT (Hartford STD Clinic); and New Haven, CT (New Haven STD Clinic).

Men who have sex with men (MSM) were defined as men who either reported having sex with another man in the 3 months before STD testing (asked at all SSuN sites) or who did not report sex with men but reported that they considered themselves gay/homosexual or bisexual (asked at 8 of the 12 sites). Men who have sex with women (MSW) were defined as men who reported having sex with women only within the 3 months before STD testing or who did not report the sex of their sex partner, but reported that they considered themselves straight/heterosexual (asked at 8 of the 12 sites).

Gonococcal Isolate Surveillance Project

Data on antimicrobial susceptibility in *Neisseria gonorrhoeae* were collected through the Gonococcal Isolate Surveillance Project (GISP), a sentinel system of selected STD clinics located at 25–30 GISP sentinel sites and 4–5 regional laboratories in the United States. For more details on findings from GISP, go to <http://www.cdc.gov/std/GISP>.

For 2009, the antimicrobial agents tested by GISP were ceftriaxone, cefixime, cefpodoxime, azithromycin, spectinomycin, ciprofloxacin, penicillin, and tetracycline.

The antimicrobial susceptibility criteria used in GISP for 2009 are as follows:

- Ceftriaxone, minimum inhibitory concentration (MIC) ≥ 0.5 $\mu\text{g/ml}$ (decreased susceptibility).*
- Cefixime, MIC ≥ 0.5 $\mu\text{g/ml}$ (decreased susceptibility).*
- Cefpodoxime, MIC ≥ 1.0 $\mu\text{g/ml}$ (decreased susceptibility).*
- Azithromycin, MIC ≥ 2.0 $\mu\text{g/ml}$ (decreased susceptibility).*
- Spectinomycin, MIC ≥ 128.0 $\mu\text{g/ml}$ (resistance).
- Ciprofloxacin, MIC 0.125–0.5 $\mu\text{g/ml}$ (intermediate resistance).
- Ciprofloxacin, MIC ≥ 1.0 $\mu\text{g/ml}$ (resistance).
- Penicillin, MIC ≥ 2.0 $\mu\text{g/ml}$ (resistance).
- Tetracycline, MIC ≥ 2.0 $\mu\text{g/ml}$ (resistance).

The majority of these criteria are also recommended by the Clinical and Laboratory Standards Institute (CLSI).⁶

Other Surveillance Data Sources

National Health and Nutrition Examination Survey

The National Health and Nutrition Examination Survey (NHANES) is a series of cross-sectional surveys designed to provide national statistics on the health and nutritional status of the general household population in the United States. Data are collected through household interviews, standardized physical examinations, and the collection of biological samples in special mobile examination centers. In 1999, NHANES became a continuous survey with data released every 2 years. The sampling plan of the survey is a stratified, multistage, probability cluster design that selects a sample representative of the U.S. civilian, noninstitutionalized population.

* The Clinical Laboratory Standards Institute criteria for decreased susceptibility and resistance to ceftriaxone, cefixime, cefpodoxime, and azithromycin and for susceptibility to azithromycin have not been established for *N. gonorrhoeae*.

National Disease and Therapeutic Index

The information on the number of initial visits to private physicians' offices for STDs was based on analysis of data from the National Disease and Therapeutic Index (NDTI) (machine-readable files or summary statistics for 1966 through 2009). NDTI is a probability sample survey of private physicians' clinical management practices. For more information on this database, contact IMS Health, 660 W. Germantown Pike, Plymouth Meeting, PA 19462; Telephone: (800) 523-5333.

National Hospital Discharge Survey

The information on patients hospitalized for pelvic inflammatory disease (PID) or ectopic pregnancy was based on analysis of data from the National Hospital Discharge Survey (NHDS) (machine-readable files for 1980 through 2007). NHDS, which is conducted by NCHS, is an ongoing, nationwide sample survey of medical records of patients discharged from acute care hospitals in the United States. For more information, see Graves EJ. 1988 summary: National Hospital Discharge Survey. *Adv Data.* 1990;185:1-11.

The estimates generated by using NHDS data are based on statistical surveys and therefore have sampling variability associated with the estimates.

Healthy People 2010 Objectives

Healthy People 2010 (HP2010) is a set of health objectives for the United States to achieve over the first decade of the new century.⁷ It is used by people, states, communities, professional organizations, and others to help develop programs to improve health. HP2010 builds on initiatives pursued over the past 2 decades.

The 1979 Surgeon General's Report, *Healthy People, and Healthy People 2000: National Health Promotion and Disease Prevention Objectives* established national health objectives and served as the basis for the development of state and community plans. Like its predecessors, HP2010 was developed through a broad consultation process, built on the best scientific knowledge, and designed to measure programs over time.

HP2010 is organized into 28 focus areas, each with objectives and measures designed to drive action that will support two overarching goals: (1) increasing the quality and years of healthy life and (2) eliminating health disparities.

Focus area 25, Sexually Transmitted Diseases, contains objectives and measures related to STDs. Baselines, HP2010 targets, and annual progress toward the targets are reported in Table A3. The year 2010 targets for the diseases addressed in this report are as follows: P&S syphilis, 0.2 case per 100,000 population; congenital syphilis, 1.0 case per 100,000 live births; and gonorrhea, 19.0 cases per 100,000 population.

An additional target is to reduce the *Chlamydia trachomatis* test positivity to 3% among females aged 15–24 years who visit family planning and STD clinics and among males aged 15–24 years who visit STD clinics.

HP2010 targets were based on a national baseline. For most of the objectives, one target was set for all population groups to reach by the year 2010, and this target was set as a “better than the best” measure for any racial or ethnic group at the baseline.

For example, at the 1997 baseline for objective 25-2 (gonorrhea rate per 100,000 population), Asians/Pacific Islanders had the “best” rate of 20 cases per 100,000 population. Using the “better than the best” methodology resulted in the target for that objective being set at 19 per 100,000 population, even though the overall rate for the United States in 1997 was 123 cases per 100,000 population.

Government Performance and Results Act of 1993

The Government Performance and Results Act (GPRA) of 1993 was enacted by Congress to increase confidence in the capability of the federal government to increase the effectiveness and accountability of federal programs, to improve service delivery, to provide federal agencies a uniform tool for internal management, and to help Congress make decisions.

GPRA requires each agency to have a performance plan with long-term outcomes and annual, measurable performance goals and to report on these plans annually, comparing results with annual goals. There are two GPRA goals for STD: reducing PID and eliminating syphilis. Each of these goals has specific measures of progress, which are outlined in Table A4.

¹ U.S. Census Bureau. United States population estimates by age, sex and race: 1980–1988. In: Current population reports [Series P-25, No. 1045]. Washington, DC: U.S. Government Printing Office; 1990.

² U.S. Census Bureau. United States population estimates by age, sex and race: 1989. In: Current population reports [Series P-25, No. 1057]. Washington, DC: U.S. Government Printing Office; 1990.

³ Centers for Disease Control and Prevention. Vital statistics of the United States 1988. vol.1 - natality. Hyattsville (MD): U.S. Department of Health and Human Services; 1990.

⁴ Office of Management and Budget. Standards for defining metropolitan and micropolitan statistical areas. Federal Register. 2000;65(249):82228-38.

⁵ Kaufman RE, Jones OG, Blount JH, Wiesner PJ. Questionnaire survey of reported early congenital syphilis: problems in diagnosis, prevention, and treatment. Sex Transm Dis. 1977;4:135-9.

⁶ Clinical and Laboratory Standards Institute. Performance standards for antimicrobial susceptibility testing; twentieth informational supplement. M100-S20, 30(1). Wayne (PA): Clinical and Laboratory Standards Institute; 2010.

⁷ U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office; 2000.

Table A1. Selected STDs—Percentage of Unknown, Missing, or Invalid Values for Selected Variables by State and by Nationally Notifiable STD, 2009

State	Primary and Secondary Syphilis				Gonorrhea			Chlamydia		
	Percentage Unknown Race/Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown Sex Partner	Percentage Unknown Race/Ethnicity	Percentage Unknown Age	Percentage Unknown Sex	Percentage Unknown Race/Ethnicity	Percentage Unknown Age	Percentage Unknown Sex
Alabama	1.9	0.2	0.0	3.6	29.4	0.2	0.1	32.5	0.2	0.0
Alaska*	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Arizona	0.0	0.0	0.4	47.6	17.9	0.0	0.0	22.2	0.0	0.0
Arkansas	0.4	0.0	0.0	18.9	7.5	0.2	0.0	9.3	0.1	0.0
California	2.8	0.1	0.0	7.3	29.2	0.3	0.4	32.0	0.3	0.3
Colorado	6.7	0.0	0.0	7.6	40.0	0.0	0.1	59.5	0.1	0.0
Connecticut	0.0	0.0	0.0	1.5	25.8	0.4	0.0	34.8	0.5	0.0
Delaware	0.0	0.0	0.0	92.6	3.0	0.0	0.0	3.7	0.0	0.0
District of Columbia	3.7	0.0	0.0	14.1	17.0	0.0	0.0	27.1	0.1	0.1
Florida	4.0	0.0	0.0	2.6	11.2	0.0	0.2	13.8	0.1	0.2
Georgia	0.4	0.0	0.0	20.9	37.0	0.5	0.5	43.9	0.6	0.6
Hawaii	3.0	0.0	0.0	6.1	39.0	0.0	0.0	51.2	0.1	0.0
Idaho*	0.0	0.0	0.0	0.0	41.8	1.8	0.9	33.2	0.1	0.6
Illinois	3.2	0.0	0.0	26.0	11.2	0.0	0.0	15.0	0.0	0.0
Indiana	5.1	0.0	0.0	3.8	14.3	0.3	0.3	18.2	0.5	0.4
Iowa	0.0	0.0	0.0	0.0	8.1	0.0	0.0	11.4	0.1	0.0
Kansas	0.0	0.0	0.0	3.1	19.8	0.1	0.0	35.2	0.1	0.0
Kentucky	0.0	0.0	0.0	6.5	25.4	0.1	0.1	31.2	0.2	0.2
Louisiana	0.5	0.0	0.0	100.0	16.9	0.3	0.2	22.2	0.3	0.2
Maine*	0.0	0.0	0.0	0.0	5.6	1.4	0.0	21.7	0.3	0.0
Maryland	2.2	0.0	0.0	9.9	25.4	0.2	0.3	34.1	0.4	0.3
Massachusetts	4.6	0.0	0.0	23.5	29.9	0.5	0.2	38.9	0.6	0.2
Michigan	1.3	0.0	0.0	10.9	34.6	0.2	1.1	39.3	0.2	0.4
Minnesota	0.0	0.0	0.0	2.8	13.2	0.0	0.0	16.8	0.0	0.0
Mississippi	0.8	0.0	0.0	4.2	17.6	0.1	0.0	21.3	0.1	0.0
Missouri	0.0	0.0	0.0	4.0	13.7	0.0	0.0	22.5	0.0	0.0
Montana*	25.0	0.0	0.0	0.0	20.0	0.0	0.0	13.7	0.2	0.1
Nebraska*	60.0	0.0	0.0	40.0	23.3	0.1	0.1	31.9	0.3	0.2
Nevada	13.2	0.0	0.0	1.1	36.3	0.1	0.0	42.5	0.1	0.0
New Hampshire	0.0	0.0	0.0	21.4	15.0	0.0	0.0	12.1	0.0	0.0
New Jersey	1.4	0.0	0.0	8.0	25.6	0.8	0.0	42.0	0.7	0.1
New Mexico	19.7	0.0	0.0	8.2	18.6	0.2	0.0	29.1	0.4	0.1
New York	0.4	0.0	0.0	14.2	32.5	0.3	0.0	43.2	0.4	0.0
North Carolina	0.3	0.0	0.0	100.0	9.0	0.3	0.7	13.7	0.2	0.6
North Dakota*	25.0	0.0	0.0	0.0	19.9	0.7	0.7	34.0	0.2	0.3
Ohio	0.3	0.0	0.0	8.6	37.2	1.6	1.0	43.3	1.5	1.1
Oklahoma	1.0	0.0	0.0	5.2	9.0	0.1	0.1	13.2	0.1	0.3
Oregon	3.5	0.0	0.0	100.0	9.0	0.0	0.0	19.5	0.0	0.0
Pennsylvania	2.3	0.0	0.0	11.4	26.7	0.1	0.0	28.0	0.1	0.1
Rhode Island	10.0	0.0	0.0	15.0	19.3	0.0	0.0	21.7	0.0	0.0
South Carolina	0.0	0.0	0.0	2.4	31.6	0.0	0.3	37.0	0.1	0.4
South Dakota*	0.0	0.0	0.0	0.0	6.7	0.3	0.3	9.7	0.2	0.4
Tennessee	0.2	0.0	0.0	1.5	2.2	0.0	0.0	2.5	0.0	0.0
Texas	0.4	0.0	0.0	2.7	4.8	0.1	0.0	6.0	0.1	0.1
Utah	0.0	0.0	0.0	19.4	3.5	0.0	0.0	1.6	0.0	0.0
Vermont*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0
Virginia	0.0	0.0	0.0	5.0	17.1	0.1	0.1	29.4	0.2	0.2
Washington	19.4	0.0	0.0	3.6	20.4	0.0	0.1	22.2	0.0	0.0
West Virginia*	0.0	0.0	0.0	25.0	12.6	0.0	0.0	16.3	0.0	0.0
Wisconsin	9.1	0.0	0.0	2.3	0.1	0.4	0.5	0.1	0.4	0.6
Wyoming*	66.7	0.0	0.0	66.7	14.9	0.0	0.0	24.6	0.1	0.0
U.S. TOTAL	2.0	0.0	0.0	19.1	20.1	0.3	0.3	26.0	0.3	0.2

* Percentages for primary and secondary syphilis are based on less than 10 cases.

NOTE: Unknown includes unknown, missing, or invalid data values.

Table A2. Reported Cases of STDs by Reporting Source and Sex, United States, 2009

Disease	Non-STD Clinic			STD Clinic			Total		
	Male	Female	Total*	Male	Female	Total*	Male†	Female†	Total†
Chlamydia	200,168	730,657	932,687	99,005	94,668	193,833	328,783	912,718	1,244,180
Gonorrhea	81,292	120,284	202,043	43,834	24,159	68,028	137,819	162,568	301,174
Primary syphilis	1,891	187	2,078	1,309	162	1,472	3,265	355	3,621
Secondary syphilis	5,782	1,218	7,000	2,578	635	3,213	8,499	1,877	10,376
Early latent syphilis	6,553	2,187	8,742	3,052	1,055	4,107	9,773	3,291	13,066
Late and late latent syphilis [§]	8,876	4,619	13,503	2,398	1,174	3,573	11,446	5,883	17,338
Chancroid	8	11	20	1	1	2	10	17	28

* Total includes unknown sex.

† Total includes unknown reporting source.

‡ Total includes unknown sex and reporting source.

§ Late and late latent syphilis includes late latent syphilis, latent syphilis of unknown duration, neurosyphilis, and late syphilis with clinical manifestations other than neurosyphilis.

Table A3. Healthy People 2010 (HP 2010) Sexually Transmitted Diseases Objective Status

HP2010 Objectives		Baseline Year	Baseline	2005	2006	2007	2008	2009	HP 2010 Target
25-1	Reduce the proportion of adolescents and young adults with <i>Chlamydia trachomatis</i> infections								
	a. Females aged 15 to 24 years attending family planning clinics*	1997	5.0%	6.9%	7.1%	7.5%	7.8%	8.1%	3.0%
	b. Females aged 15 to 24 years attending STD clinics*	1997	12.2%	15.4%	14.8%	15.3%	16.3%	16.4%	3.0%
	c. Males aged 15 to 24 years attending STD clinics*	1997	15.7%	20.5%	20.8%	22.4%	23.7%	24.0%	3.0%
	d. Females aged 24 years or less enrolled in National Job Training Program	2002	10.1%	9.2%	13.1%	13.2%	12.8%	11.3%	6.8%
25-2	Reduce the incidence of gonorrhea (new cases per 100,000 population)								
	a. Reduce gonorrhea incidence per 100,000 population	1997	123.0	114.6	119.7	118.0	111.6	99.1	19.0
	b. Females aged 15 to 44 years	2002	279.0	275.0	289.0	291.0	285.0	255.0	42.0
25-3	Eliminate sustained domestic transmission of primary and secondary syphilis (cases per 100,000 population)	1997	3.2	2.9	3.3	3.8	4.5	4.6	0.2
25-4	Reduce the proportion of adults aged 20 to 29 years with genital herpes infection	1988-94	17.0%	NA	NA	NA	NA	NA	14.0%
25-6	Reduce the proportion of females aged 15 to 44 years who have ever required treatment for pelvic inflammatory disease (PID)	1995	8.0%	NA	NA	NA	NA	NA	5.0%
25-7	Reduce the proportion of childless females with fertility problems who have had a sexually transmitted disease or who have required treatment for pelvic inflammatory disease (PID)	1995	27.0%	NA	NA	NA	NA	NA	15.0%
25-9	Reduce congenital syphilis (cases per 100,000 live births)	1997	27.0	8.2	8.7	10.1	10.1	10.0	1.0
25-11	Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active (grades 9 through 12)								
	a. Adolescents (grade 9) who never had sexual intercourse	1999	50.0%	53.0%	NA	52.0%	NA	54.0%	56.0%
	b. Adolescents (grade 9) who had sexual intercourse but not in the past 3 months	1999	27.0%	27.0%	NA	27.0%	NA	26.0%	30.0%
	c. Adolescents (grades 9 through 12) who used condoms at last intercourse	1999	58.0%	63.0%	NA	62.0%	NA	61.0%	65.0%
25-13	Increase the proportion of Tribal, state, and local sexually transmitted disease programs that routinely offer hepatitis B vaccines to all STD clients	1998	5.0%	NA	NA	NA	NA	NA	90.0%
25-16	Increase the proportion of sexually active females aged 25 years and under who are screened annually for genital chlamydia infections								
	a. Females aged 25 years and under enrolled in commercial MCOs	2003	25%	35%	37%	38%	42%	43%	62%
	b. Females aged 25 years and under enrolled in Medicaid MCOs	2003	41%	51%	52%	51%	55%	57%	62%

HP2010 Objective	Data Source
25-1 a, b, c	Regional Infertility Prevention Projects (IPP), STD Surveillance System (STDSS), NCHHSTP, CDC
25-1 d	National Job Training Program, STD Surveillance System (STDSS), NCHHSTP, CDC
25-2 a, b	STD Surveillance System (STDSS), NCHHSTP, CDC
25-3	STD Surveillance System (STDSS), NCHHSTP, CDC
25-4	National Health and Nutrition Examination Survey (NHANES), NCHS, CDC
25-6	National Survey of Family Growth (NSFG), NCHS, CDC
25-7	National Survey of Family Growth (NSFG), NCHS, CDC
25-9	STD Surveillance System, NCHHSTP, CDC, National Vital Statistics System- Natality (NVSS-N), NCHS, CDC
25-11 a, b, c	Youth Risk Behavior Surveillance System (YRBSS), NCCDPHP, CDC
25-13	Survey of STD Programs, National Coalition of STD Directors (NCSDD); IHS
25-16 a, b	Healthcare Effectiveness Data and Information Set (HEDIS), National Committee for Quality Assurance (NCQA)

* Overall chlamydia positivity.

NA = Not available; HP 2010 = *Healthy People 2010*; MCOs = managed care organizations.

NOTE: *Healthy People 2010* developmental objectives are not addressed in this report.

Table A4. Government Performance and Results Act (GPRA) Sexually Transmitted Diseases Goals and Measures

GPRA Goals	Baseline	Actual Performance		Long-Term Goal
	2002	2008	2009	2010**
Goal 1: Reduction in PID (as measured by initial visits to physicians in women 15–44-years of age)	197,000	104,000	100,000	94,000
a. Prevalence of chlamydia in women ≤25 years at high-risk*	10.1%	12.8%	11.3%	12%
b. Prevalence of chlamydia in women ≤25 years in family planning clinics*	5.6%	7.4%	7.5%	7.9%
c. Incidence of gonorrhea/100,000 population in women 15–44 years of age	278	285	255	288
Goal 2: Elimination of Syphilis (as measured by incidence of P&S Syphilis/100,000 population)	2.4	4.5	4.6	5.5
a. Incidence of P&S syphilis/100,000 population, men	3.8	7.6	7.8	9.4
b. Incidence of P&S syphilis/100,000 population, women	1.1	1.5	1.4	2.0
c. Incidence of congenital syphilis/100,000 live births	10.2	10.1	10.0	16.2
d. Black:white rate ratio of P&S syphilis	8:1	8:1	9:1	9:1

GPRA Goals	Data Source
1	National Disease and Therapeutic Index (IMS Health)
1–a	National Job Training Program
1–b	Regional Infertility Prevention Projects (IPP), STD Surveillance System (STDSS), NCHHSTP, CDC
1–c	STD Surveillance System (STDSS), NCHHSTP, CDC
2	STD Surveillance System (STDSS), NCHHSTP, CDC
2–a	STD Surveillance System (STDSS), NCHHSTP, CDC
2–b	STD Surveillance System (STDSS), NCHHSTP, CDC
2–c	STD Surveillance System (STDSS), NCHHSTP, CDC
2–d	STD Surveillance System (STDSS), NCHHSTP, CDC

* Median state-specific chlamydia prevalence/positivity.

** Reflects 05/24/11 modification to Long-Term 2010 GPRA Goals since the November 2010 publication of the 2009 STD Surveillance Report.

GPRA = Government Performance and Results Act; PID = pelvic inflammatory disease; P&S = primary and secondary.

STD Surveillance Case Definitions

PART 1. CASE DEFINITIONS¹ FOR NATIONALLY NOTIFIABLE INFECTIOUS DISEASES

Chancroid (Revised 9/96)

Clinical description

A sexually transmitted disease characterized by painful genital ulceration and inflammatory inguinal adenopathy. The disease is caused by infection with *Haemophilus ducreyi*.

Laboratory criteria for diagnosis

- Isolation of *H. ducreyi* from a clinical specimen

Case classification

Probable: a clinically compatible case with both a) no evidence of *Treponema pallidum* infection by darkfield microscopic examination of ulcer exudate or by a serologic test for syphilis performed ≥ 7 days after onset of ulcers and b) either a clinical presentation of the ulcer(s) not typical of disease caused by herpes simplex virus (HSV) or a culture negative for HSV.

Confirmed: a clinically compatible case that is laboratory confirmed

Chlamydia trachomatis, Infection (Revised 6/09)

Clinical description

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see Lymphogranuloma Venereum) and trachoma.

Laboratory criteria for diagnosis

- Isolation of *C. trachomatis* by culture or
- Demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid

Case classification

Confirmed: a case that is laboratory confirmed

Gonorrhea (Revised 9/96)

Clinical description

A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salpingitis. Infection may be asymptomatic.

Laboratory criteria for diagnosis

- Isolation of typical gram-negative, oxidase-positive diplococci (presumptive *Neisseria gonorrhoeae*) from a clinical specimen, or
- Demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or nucleic acid, or
- Observation of gram-negative intracellular diplococci in a urethral smear obtained from a male

Case classification

Probable: a) demonstration of gram-negative intracellular diplococci in an endocervical smear obtained from a female or b) a written morbidity report of gonorrhea submitted by a physician

Confirmed: a case that is laboratory confirmed

Syphilis (All Definitions Revised 9/96)

Syphilis is a complex sexually transmitted disease that has a highly variable clinical course. Classification by a clinician with expertise in syphilis may take precedence over the following case definitions developed for surveillance purposes.

Syphilis, primary

Clinical description

A stage of infection with *Treponema pallidum* characterized by one or more chancres (ulcers); chancres might differ considerably in clinical appearance.

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, direct fluorescent antibody (DFA-TP), or equivalent methods

Case classification

Probable: a clinically compatible case with one or more ulcers (chancres) consistent with primary syphilis and a reactive serologic test (nontreponemal: Venereal Disease Research Laboratory [VDRL] or rapid plasma reagin [RPR]; treponemal: fluorescent treponemal antibody absorbed [FTA-ABS] or microhemagglutination assay for antibody to *T. pallidum* [MHA-TP])

Confirmed: a clinically compatible case that is laboratory confirmed

Syphilis, secondary

Clinical description

A stage of infection caused by *T. pallidum* and characterized by localized or diffuse mucocutaneous lesions, often with generalized lymphadenopathy. The primary chancre may still be present.

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, DFA-TP, or equivalent methods

Case classification

Probable: a clinically compatible case with a nontreponemal (VDRL or RPR) titer ≥ 4

Confirmed: a clinically compatible case that is laboratory confirmed

Syphilis, latent

Clinical description

A stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs. Latent syphilis is subdivided into early, late, and unknown categories based on the duration of infection.

Case classification

Probable: no clinical signs or symptoms of syphilis and the presence of one of the following:

- No past diagnosis of syphilis, a reactive nontreponemal test (i.e., VDRL or RPR), and a reactive treponemal test (i.e., FTA-ABS or MHA-TP)
- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer

Syphilis, early latent

Clinical description

A subcategory of latent syphilis. When initial infection has occurred within the previous 12 months, latent syphilis is classified as early latent.

Case classification

Probable: latent syphilis (see Syphilis, latent) in a person who has evidence of having acquired the infection within the previous 12 months based on one or more of the following criteria:

- Documented seroconversion or fourfold or greater increase in titer of a nontreponemal test during the previous 12 months
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- A history of sexual exposure to a partner who had confirmed or probable primary or secondary syphilis or probable early latent syphilis (documented independently as duration <1 year)
- Reactive nontreponemal and treponemal tests from a person whose only possible exposure occurred within the preceding 12 months

Syphilis, late latent

Clinical description

A subcategory of latent syphilis. When initial infection has occurred >1 year previously, latent syphilis is classified as late latent.

Case classification

Probable: latent syphilis (see Syphilis, latent) in a patient who has no evidence of having acquired the disease within the preceding 12 months (see Syphilis, early latent) and whose age and titer do not meet the criteria specified for latent syphilis of unknown duration.

Syphilis, latent, of unknown duration

Clinical description

A subcategory of latent syphilis. When the date of initial infection cannot be established as having occurred within the previous year and the patient's age and titer meet criteria described below, latent syphilis is classified as latent syphilis of unknown duration.

Case classification

Probable: latent syphilis (see Syphilis, latent) that does not meet the criteria for early latent syphilis, and the patient is aged 13–35 years and has a nontreponemal titer ≥ 32

Neurosyphilis

Note

Since neurosyphilis can occur at almost any stage of syphilis, between 1996 and 2005, it was classified and reported as one of several mutually exclusive stages of syphilis. In 2005, the Division of STD Prevention requested that STD control programs discontinue classifying and reporting neurosyphilis as a distinct stage of syphilis. Since 2005, if the patient has confirmed or probably neurosyphilis, the case should be reported as the appropriate state of syphilis and neurological manifestations should be noted.

Clinical description

Evidence of central nervous system infection with *T. pallidum*

Laboratory criteria for diagnosis

- A reactive serologic test for syphilis and reactive VDRL in cerebrospinal fluid (CSF) Case classification

Case classification

Probable: syphilis of any stage, a negative VDRL in CSF, and both of the following:

- Elevated CSF protein or leukocyte count in the absence of other known causes of these abnormalities
- Clinical symptoms or signs consistent with neurosyphilis without other known causes for these clinical abnormalities

Confirmed: syphilis of any stage that meets the laboratory criteria for neurosyphilis

Syphilis, late, with clinical manifestations other than neurosyphilis (late benign syphilis and cardiovascular syphilis)

Clinical description

Clinical manifestations of late syphilis other than neurosyphilis may include inflammatory lesions of the cardiovascular system, skin, and bone. Rarely, other structures (e.g., the upper and lower respiratory tracts, mouth, eye, abdominal organs, reproductive organs, lymph nodes, and skeletal muscle) may be involved. Late syphilis usually becomes clinically manifest only after a period of 15–30 years of untreated infection.

Laboratory criteria for diagnosis

Demonstration of *T. pallidum* in late lesions by fluorescent antibody or special stains (although organisms are rarely visualized in late lesions)

Case classification

Probable: characteristic abnormalities or lesions of the cardiovascular system, skin, bone, or other structures with a reactive treponemal test, in the absence of other known causes of these abnormalities, and without CSF abnormalities and clinical symptoms or signs consistent with neurosyphilis

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Analysis of CSF for evidence of neurosyphilis is necessary in the evaluation of late syphilis with clinical manifestations.

Syphilitic Stillbirth

Clinical description

A fetal death that occurs after a 20-week gestation or in which the fetus weighs >500 g and the mother had untreated or inadequately treated* syphilis at delivery

Comment

For reporting purposes, syphilitic stillbirths should be reported as cases of congenital syphilis.

Syphilis, Congenital (Revised 9/96)

Clinical description

A condition caused by infection in utero with *Treponema pallidum*. A wide spectrum of severity exists, and only severe cases are clinically apparent at birth. An infant or child (aged <2 years) may have signs such as hepatosplenomegaly, rash, condyloma lata, snuffles, jaundice (nonviral hepatitis), pseudoparalysis, anemia, or edema (nephrotic syndrome and/or malnutrition). An older child may have stigmata (e.g., interstitial keratitis, nerve deafness, anterior bowing of shins, frontal bossing, mulberry molars, Hutchinson teeth, saddle nose, rhagades, or Clutton joints).

Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* by darkfield microscopy, fluorescent antibody, or other specific stains in specimens from lesions, placenta, umbilical cord, or autopsy material

Case classification

Probable: a condition affecting an infant whose mother had untreated or inadequately treated* syphilis at delivery, regardless of signs in the infant, or an infant or child who has a reactive treponemal test for syphilis and any one of the following:

- Any evidence of congenital syphilis on physical examination
- Any evidence of congenital syphilis on radiographs of long bones
- A reactive cerebrospinal fluid (CSF) venereal disease research laboratory (VDRL)
- An elevated CSF cell count or protein (without other cause)
- A reactive fluorescent treponemal antibody absorbed—19S-IgM antibody test or IgM enzyme-linked immunosorbent assay

Confirmed: a case that is laboratory confirmed

Comment

Congenital and acquired syphilis may be difficult to distinguish when a child is seropositive after infancy. Signs of congenital syphilis may not be obvious, and stigmata may not yet have developed. Abnormal values for CSF VDRL, cell count, and protein, as well as IgM antibodies, may be found in either congenital or acquired syphilis. Findings on radiographs of long bones may help because radiographic changes in the metaphysis and epiphysis are considered classic signs of congenitally acquired syphilis. The decision may ultimately be based on maternal history and clinical judgment. In a young child, the possibility of sexual abuse should be considered as a cause of acquired rather than congenital syphilis, depending on the clinical picture. For reporting purposes, congenital syphilis includes cases of congenitally acquired syphilis among infants and children as well as syphilitic stillbirths.

* Inadequate treatment consists of any nonpenicillin therapy or penicillin administered <30 days before delivery.

¹ Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance, 1997. MMWR Morb Mortal Wkly Rep. 1997;46(No. RR-10).

PART 2. CASE DEFINITIONS¹ FOR NON-NOTIFIABLE INFECTIOUS DISEASES

Genital Herpes (Herpes Simplex Virus) (Revised 9/96)

Clinical description

A condition characterized by visible, painful genital or anal lesions

Laboratory criteria for diagnosis

- Isolation of herpes simplex virus from cervix, urethra, or anogenital lesion, or
- Demonstration of virus by antigen detection technique in clinical specimens from cervix, urethra, or anogenital lesion, or
- Demonstration of multinucleated giant cells on a Tzanck smear of scrapings from an anogenital lesion

Case classification

Probable: a clinically compatible case (in which primary and secondary syphilis have been excluded by appropriate serologic tests and darkfield microscopy, when available) with either a diagnosis of genital herpes based on clinical presentation (without laboratory confirmation) or a history of one or more previous episodes of similar genital lesions

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Genital herpes should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

Genital Warts (Revised 9/96)

Clinical description

An infection characterized by the presence of visible, exophytic (raised) growths on the internal or external genitalia, perineum, or perianal region

Laboratory criteria for diagnosis

- Histopathologic changes characteristic of human papillomavirus infection in specimens obtained by biopsy or exfoliative cytology or
- Demonstration of virus by antigen or nucleic acid detection in a lesion biopsy

Case classification

Probable: a clinically compatible case without histopathologic diagnosis and without microscopic or serologic evidence that the growth is the result of secondary syphilis

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Genital warts should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

Granuloma Inguinale

Clinical description

A slowly progressive ulcerative disease of the skin and lymphatics of the genital and perianal area caused by infection with *Calymmatobacterium granulomatis*. A clinically compatible case would have one or more painless or minimally painful granulomatous lesions in the anogenital area.

Laboratory criteria for diagnosis

- Demonstration of intracytoplasmic Donovan bodies in Wright or Giemsa-stained smears or biopsies of granulation tissue

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Lymphogranuloma Venereum

Clinical description

Infection with L1, L2, or L3 serovars of *Chlamydia trachomatis* may result in a disease characterized by genital lesions, suppurative regional lymphadenopathy, or hemorrhagic proctitis. The infection is usually sexually transmitted.

Laboratory criteria for diagnosis

- Isolation of *C. trachomatis*, serotype L1, L2, or L3 from clinical specimen, or
- Demonstration by immunofluorescence of inclusion bodies in leukocytes of an inguinal lymph node (bubo) aspirate, or
- Positive microimmunofluorescent serologic test for a lymphogranuloma venereum strain of *C. trachomatis*

Case classification

Probable: a clinically compatible case with one or more tender fluctuant inguinal lymph nodes or characteristic proctogenital lesions with supportive laboratory findings of a single *C. trachomatis* complement fixation titer of >64

Confirmed: a clinically compatible case that is laboratory confirmed

Mucopurulent Cervicitis (Revised 9/96)

Clinical description

Cervical inflammation that is not the result of infection with *Neisseria gonorrhoeae* or *Trichomonas vaginalis*. Cervical inflammation is defined by the presence of one of the following criteria:

- Mucopurulent secretion (from the endocervix) that is yellow or green when viewed on a white, cotton-tipped swab (positive swab test)
- Induced endocervical bleeding (bleeding when the first swab is placed in the endocervix)

Laboratory criteria for diagnosis

- No evidence of *N. gonorrhoeae* by culture, Gram stain, or antigen or nucleic acid detection, and no evidence of *T. vaginalis* on wet mount

Case classification

Confirmed: a clinically compatible case in a female who does not have either gonorrhea or trichomoniasis

Comment

Mucopurulent cervicitis (MPC) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see *Chlamydia trachomatis*, Genital Infections). If gonorrhea, trichomoniasis, and chlamydia are excluded, a clinically compatible illness should be classified as MPC. An illness in a female that meets the case definition of MPC and *C. trachomatis* infection should be classified as chlamydia.

Nongonococcal Urethritis (Revised 9/96)

Clinical description

Urethral inflammation that is not the result of infection with *Neisseria gonorrhoeae*. Urethral inflammation may be diagnosed by the presence of one of the following criteria:

- A visible abnormal urethral discharge, or
- A positive leukocyte esterase test from a male aged <60 years who does not have a history of kidney disease or bladder infection, prostate enlargement, urogenital anatomic anomaly, or recent urinary tract instrumentation, or
- Microscopic evidence of urethritis (≥ 5 white blood cells per high-power field) on a Gram stain of a urethral smear

Laboratory criteria for diagnosis

- No evidence of *N. gonorrhoeae* infection by culture, Gram stain, or antigen or nucleic acid detection

Case classification

Confirmed: a clinically compatible case in a male in whom gonorrhea is not found, either by culture, Gram stain, or antigen or nucleic acid detection

Comment

Nongonococcal urethritis (NGU) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see *Chlamydia trachomatis*, Genital Infection). If gonorrhea and chlamydia are excluded, a clinically compatible illness should be classified as NGU. An illness in a male that meets the case definition of NGU and *C. trachomatis* infection should be classified as chlamydia.

Pelvic Inflammatory Disease (Revised 9/96)

Clinical case definition

A clinical syndrome resulting from the ascending spread of microorganisms from the vagina and endocervix to the endometrium, fallopian tubes, and/or contiguous structures. In a female who has lower abdominal pain and who has not been diagnosed as having an established cause other than pelvic inflammatory disease (PID) (e.g., ectopic pregnancy, acute appendicitis, and functional pain), all the following clinical criteria must be present:

- Lower abdominal tenderness, and
- Tenderness with motion of the cervix, and
- Adnexal tenderness

In addition to the preceding criteria, at least one of the following findings must also be present:

- Meets the surveillance case definition of *C. trachomatis* infection or gonorrhea
- Temperature >100.4 F (>38.0 C)
- Leukocytosis >10,000 white blood cells/mm³
- Purulent material in the peritoneal cavity obtained by culdocentesis or laparoscopy
- Pelvic abscess or inflammatory complex detected by bimanual examination or by sonography
- Patient is a sexual contact of a person known to have gonorrhea, chlamydia, or nongonococcal urethritis

Case classification

Confirmed: a case that meets the clinical case definition

Comment

For reporting purposes, a clinician's report of PID should be counted as a case.

¹ Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance, 1997. MMWR Morb Mortal Wkly Rep. 1997;46(No. RR-10).

Contributors

We gratefully acknowledge the contributions of state STD project directors, STD program managers, state and territorial epidemiologists and laboratory directors. The persons listed were in the positions shown as of August 9, 2010.

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Oklahoma	Jan Fox	Kristen Eberly	Kristy Bradley	Garry McKee
Oregon	Vada Latin	Doug Harger	Katrina Hedberg	Michael Skeels
Pennsylvania	Weston Ruhrig	Steve Kowalewski	Veronica Urdaneta	S.I. Shahied
Philadelphia	Caroline Johnson	Melinda Salmon	Veronica Urdaneta	Kerry Buchs
Rhode Island	Utpala Bandy	Michael Gosciminski	Utpala Bandy	Ewa King
South Carolina	Wayne Duffas	Bernard Gillard (Acting)	James Gibson	Arthur Wozniak
South Dakota	Laurie Gill	David Morgan	Lon Kightlinger	Michael Smith
Tennessee	Jeanee Seals	Jane Russell	Tim Jones	David Smalley
Texas	Ann Robbins	Jim Lee	Adolfo Valadez	Susan Neill
Utah	Emily Holmes	Lynn Meinor	Robert Rolfs	Patrick Luedtke
Vermont	Daniel Daltry	Daniel Daltry	Patsy Kelso	Mary Celotti
Virginia	Kathryn Hafford	Theresa Henry	Keri Hall	James Pearson
Washington	Mark Aubin	Mark Aubin	Juliet Van Eenwyk	Romesh Gautom
West Virginia	Caroline Williams	Caroline Williams	Loretta Haddy	Andrea Labik
Wisconsin	Sandra Breitborde	Anthony Wade	Jeffrey Davis	Charles Brokopp
Wyoming	Brownen Anderson	Canyon Hardesty	Tracy Murphy	Richard Harris
American Samoa	Laumoli Salamo	Fara Utu	Sharmain Edwards	Utoofil Mago
Federated States of Micronesia	Vita Skilling	Maylean Ekiek	Vita Skilling	
Government of the Marshall Islands	Justina Langidrik	Zachraias Zachraias		Paul Lalita
Northern Marianas (CNMI)	Joseph Villagomez	John Moreno	James Hosfschneider	Kevin Villagomez
Guam	Josie O'Mallan	Bernadette Schumann	Lourdes Duguies	Josie O'Mallan
Puerto Rico	Gredudel Duran-Guzman	Trinidad Garcia	John Rullan	Maritza Muniz
Republic of Palau	Victor Yano	Johana Ngiruchelbad	Julie Erb-Alvarez	Francis Permeteet
Virgin Islands	Darlene Carty	Gritell Martinez	Eugene Tull	Joseph Mark