Sexually Transmitted Disease Surveillance 2000 Supplement

Syphilis Surveillance Report

Division of STD Prevention
December 2001

DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Division of STD Prevention
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Introduction

The Syphilis Surveillance Report, 2000, presents syphilis statistics and trends in the United States through 2000. The surveillance information in this report is based on the following sources of data: case reports for the STD project areas and prevalence of reactive serologic tests for syphilis from the Jail STD Prevalence Monitoring Projects, the Innovations in Syphilis Prevention Project, and from state and local health departments which voluntarily submitted jail screening data to CDC. The STD surveillance systems operated by state and local STD control programs, which provide the case report data on adult and congenital syphilis, are the sources of most of the information in this publication. These systems are an integral part of program management at all levels of STD prevention and control in the United States.

The Syphilis Surveillance Report consists of two parts. The National Profile contains figures and tables that provide an overview of syphilis morbidity in the United States. The State Profile contains figures of syphilis case report trends at the state and county level.

Any comments and suggestions that would improve the usefulness of future publications are appreciated and should be sent to Director, Division of STD Prevention, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention, 1600 Clifton Road, Mailstop E-02, Atlanta, Georgia, 30333.

Methods

Sources of Data

At present, STD case report data are submitted to CDC on a variety of hardcopy summary reports (monthly, quarterly, and annually) and electronically either in summary or individual case-listed format via the National Electronic Telecommunications System for Surveillance (NETSS) – the system that provides notifiable disease information that is published in the Morbidity and Mortality Weekly Report, or MMWR. CDC is currently working with project areas on converting from hardcopy reporting of summary data to electronic submission of line-listed (i.e., case-specific) data through NETSS. Data on reported cases of syphilis in the primary and secondary (P&S) stages were analyzed for this report because these cases best represent incidence of syphilis (i.e., newly acquired infections within the evaluated time period). The data used in this report are based on a combination of aggregated NETSS data and summary hardcopy reports. Monthly reports include summary data for syphilis by county and state. Quarterly reports include summary data for syphilis by gender and source of report (STD clinic or non-STD clinic) for the 50 states, and outlying areas of the United States. Annual reports include summary data for P&S syphilis by age, race, and gender for the 50 states and six large cities. Reports and corrections sent to CDC on hardcopy forms and for NETSS electronic data through May 4, 2001, were used to create the line-graphs, bar charts, and county-level maps in this supplement. Hardcopy data received after these dates will appear in subsequent issues.

Twenty states and the District of Columbia provided syphilis data from persons entering adult and juvenile corrections facilities in 2000. Ten states reported syphilis data from persons entering jails and juvenile detentions facilities as part of the Jail STD Prevalence Monitoring Project. Five states reported syphilis data from persons entering correctional facilities as part of the Syphilis Elimination Initiative. Two states reported syphilis data from jails as part of the Innovations in Syphilis Prevention Project and 5 additional states voluntarily reported their syphilis data from jails to CDC.

Reporting of Congenital Syphilis Cases

In 1988, the surveillance case definition for congenital syphilis was changed. The revised case definition has greater sensitivity than the former definition. In addition, many areas greatly enhanced their active surveillance for congenital syphilis cases during this time. For these reasons, the number of reported congenital syphilis cases increased dramatically during 1989-1991. Following the change in case definition, there was a period of transition during which trends could not be clearly interpreted. However, all reporting areas implemented the new case definition for reporting of congenital syphilis cases as of January 1, 1992. Therefore, it is expected that fluctuations in reporting stabilized after that date and that trends reported after it are reliable. In addition to changing the case definition, CDC introduced a new data collection form (CDC 73.126) in 1990, and this form has been used for reporting all cases of congenital syphilis since 1995. This form collects individual case information, which allows more thorough analysis of cases. Congenital syphilis cases were reported by state and city of residence of the mother during 1995-2000.

Population Denominators and Rate Calculations

Crude incidence rates (new cases/population) were calculated on an annual basis per 100,000 population. In this report, the 2000 rates for all states, cities and outlying areas were calculated by dividing the number of cases reported from each area in 2000 by the estimated area-specific 1999 population. For the United States, rates were calculated using Bureau of the Census population estimates for 1981 through 1989 (Bureau of the Census; United States Population Estimates by Age, Sex and Race: 1980-1989 [Series P-25, No. 1045]; Washington: US Government Printing Office, 1990; and United States Population Estimates by Age, Sex and Race: 1989 [Series P-25, No.1 057]; Washington: US Government Printing Office, 1990). Rates for states and counties were calculated using published intercensal estimates based on Bureau of the Census population estimates for 1980-1989 (Irwin R; 1980-1989 Intercensal Population Estimates by Race, Sex, and Age; Alexandria, [VA]: Demo-Detail, 1992; machine-readable data file). Rates for 1990 were calculated using population data from the 1990 census (Census of Population and Housing, 1990: Summary Tape File 1 (All States) [machine-readable file]; Washington: Bureau of the Census, 1991), which included information on area (county, state), age (5-year age groups), race (White, Black, Asian/Pacific Islander, American Indian/Alaska Native) and ethnicity (Hispanic). Rates for 1991-2000 were updated from previous issues of this report using postcensal population estimates based on the Bureau of the Census data (U.S. Bureau of the Census; 1991-1999 Estimates of the Population of Counties by Age, Sex and Race/Hispanic Origin: 1990 to 1999; machine-readable data files).

The total number of U.S. counties in this report, 3,139, differs from earlier versions of this report which used 3,115 as the total number of U.S. counties. Individual county-level line-listed NETSS electronic data are now available for Alaska. Previously, Alaska syphilis data were collected on the hardcopy reporting forms for only three regions within the state (Southeast, South Central, and North).

Rates of congenital syphilis for 1989-2000 were calculated using live births from the National Center for Health Statistics (NCHS) (Vital Statistics: Natality Tapes 1989-1998 or Vital Statistics Reports, United States 1999, Vol. 48 No.l0-Natality). Race-specific rates for 1996-2000 were calculated using live births for 1998. Rates before 1989 were calculated using published live birth data (NCHS; Vital Statistics Report, United States, 1988 [Vol.l-Natality]).

Calculation of Proportion of Reactive Serologic Tests for Syphilis

Syphilis serologic test data in 2000 are presented for ten states that reported through the Jail STD Prevalence Monitoring Project, 5 states that reported through the Syphilis Elimination Program, two states that reported through the Innovations in Syphilis Prevention Project, and 5 states that voluntarily submitted data to CDC. Serologic test reactivity was calculated by dividing the number of persons with reactive serologic tests for syphilis by the total number of persons tested for syphilis (denominator only includes those with valid test results) and is expressed as a percentage. The denominator may include more than one test from the same individual if that individual was tested more than once in that setting.

Data Limitations

The interpretation of syphilis data is complicated by two factors. First, for syphilis, as for other STDs, differential reporting of cases from public and private sectors may magnify the differences in reported rates by race and ethnicity. Second, prevalence of reactive serology may not reflect the prevalence of infectious syphilis. Confirmatory tests were not available for the majority of reactive serologic tests for syphilis and so biologic false positive results were not excluded from the proportion of reactive tests.

Acknowledgements

Publication of this report would not have been possible without the contributions of the State and Territorial Health Departments and the Sexually Transmitted Disease Control Programs, which provided state and local surveillance data to the Centers for Disease Control and Prevention and to those participating agencies in the Jail STD Prevalence Monitoring Project, the Syphilis Elimination Program, and the Innovations in Syphilis Prevention Project.

This report was prepared by the following staff members of the Surveillance and Special Studies Section of the Epidemiology and Surveillance Branch, and the Statistics and Data Management Branch of the Division of STD Prevention, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention: Susan Bradley, Melinda Flock, Richard Kahn, James Heffelfinger, Kathleen Hutchins, Emmett Swint, and Hillard Weinstock.

National Summary of Syphilis Surveillance Data

Syphilis, a genital ulcerative disease, facilitates the transmission of HIV and may be important in contributing to HIV transmission in those parts of the country, such as the South, where rates of both infections are high. Untreated early syphilis during pregnancy results in perinatal death in up to 40% of cases and, if acquired during the four years preceding pregnancy, may lead to infection of the fetus in over 70% of cases.[1]

The rate of primary and secondary (P&S) syphilis reported in the United States is the lowest since reporting began in 1941. This unprecedented low rate and the concentration of the majority of 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 Surgeon General David Satcher in October 1999.[2] Collaboration with diverse organizations, public health professionals, the private medical community, and other partners working in STD and HIV is essential for the success of this effort.[3]

The rate of P&S syphilis in the United States declined by 89% from 1990 through 2000. Although the 9.6% decline in the number of P&S syphilis cases reported in 2000 and the 5.4% decline in cases reported in 1999 are less than the declines of approximately 20% per year since the last major epidemic peak in 1990, it is possible that the smaller declines during the last two years are in part due to improved case finding and reporting resulting from the national syphilis elimination effort. Syphilis remains an important problem in the South and in some urban areas in other regions of the country. Recently, outbreaks of syphilis among men who have sex with men (MSM) have been reported, possibly reflecting an increase in risky behavior in this population associated with the availability of highly active antiretroviral therapy for HIV infection.[4, 5, 6]

The number of syphilis cases reported to CDC is less than the actual number of cases occurring among the United States population. As a result, for most areas, the number of syphilis cases reported to CDC reflects many factors, only one of which is the occurrence of the disease within the population. In addition, differential reporting of syphilis cases from public and private sectors may magnify the race and ethnicity differences in the reported rates.

- In 2000, P&S syphilis cases reported to CDC declined to 5,979 from 6,617 in 1999, a decline of 9.6% (Figure 1). The number of P&S syphilis cases reported in 2000 is the lowest yearly number of cases ever reported.[7] The reported rate of P&S syphilis in the United States in 2000 (2.2 cases per 100,000 persons) was slightly below the rate reported in 1999 (2.4 cases per 100,000), although it is much greater than the Healthy People 2010 (HP2010) objective of 0.2 case per 100,000 persons.[8]

- Since 1990, the rate of early latent syphilis has exceeded the rate of P&S syphilis. There were approximately 0.9 reported cases of early latent syphilis for every reported case of P&S syphilis in the five years preceding 1990 and 1.6 reported cases of early latent syphilis for every reported case of P&S syphilis in 2000 (Figure 2).

- Since 1993, the rate of late and late latent syphilis has exceeded the rate of P&S syphilis. There were approximately 0.6 reported cases of late and late latent syphilis for every reported case of P&S syphilis in the five years preceding 1993 and 2.6 reported cases of late and late latent syphilis for every reported case of P&S syphilis in 2000.

- The P&S syphilis rate for 2000 in the South (3.8 cases per 100,000 persons) was higher than the rates reported in the Northeast (0.7 cases per 100,000 persons), the Midwest (2.0 cases per 100,000 persons) and the West (1.0 cases per 100,000 persons). The 2000 reported rates in all regions were greater than the HP2010 objective of 0.2 case per 100,000 persons (Figure 3). Of the 5,979 cases of P&S syphilis reported in 2000, 62.0% occurred in the South.

- In 2000, P&S syphilis rates in 14 states were less than or equal to the HP2010 national objective of 0.2 case per 100,000 persons (Figure 4). Fifteen states and two outlying areas reported five or fewer cases of P&S syphilis in 2000.

- In 2000, 2,520 (80%) of 3,139 counties in the United States reported no cases of P&S syphilis compared with 2,473 (79%) of 3,115 counties reporting no cases in 1999. Of 619 counties reporting at least one case of P&S syphilis in 2000, 24 (3.9%) reported rates at or below the HP2010 objective of 0.2 case per 100,000 persons. Rates of P&S syphilis were above the HP2010 objective for 595 counties in 2000 (Figure 5). These 595 counties (18.9% of the total number of counties in the U.S.) accounted for more than 99.5% of the total P&S syphilis cases reported in 2000.

- In 2000, the largest numbers of cases of P&S syphilis were reported from 21 counties and the city of Baltimore, MD. These 22 areas account for half of the total number of P&S syphilis cases that were reported in the United States in 2000.[7]

- In 2000, the rate of P&S syphilis reported in African-Americans (12.8 cases per 100,000 persons) was 21 times greater than the rate reported in whites (0.6 case per 100,000 persons). However, this differential was substantially less than that in 1996, when the rate of P&S syphilis among African-Americans was 50 times greater than the rate reported among whites (Figure 6).

- Between 1996 and 1999, the rates of P&S syphilis declined among African Americans and Asian/Pacific Islanders. They remained constant for non-Hispanic Whites, and they increased for Native Americans/Alaska Natives. Group-specific rates remained relatively constant between 1999 and 2000, with the exception being the rate among African-Americans, which decreased from 15.0 to 12.8 cases per 100,000 persons during this period (Figure 6).

- In 2000, the reported rate of P&S syphilis among men (2.7 cases per 100,000 males) was 1.5 times greater than the rate among women (1.8 cases per 100,000 females) (Figure 7). The overall male to female rate ratio rose steadily between 1994, when it was 1.1, and 1999, when it was 1.5, but was stable between 1999 and 2000. The male to female ratio has increased since 1994 in all racial and ethnic groups except American Indian/Alaska Natives. The male to female ratio of P&S syphilis rates was greater in 2000 than in 1999 for 12 (44%) of the 27 states that reported 25 or more cases in 1999.7 In Los Angeles, New York City, and possibly other cities, the increase in the male to female rate ratio in 2000 coincided with an increase in syphilis among MSM.[6]

- The incidence of P&S syphilis was highest among women aged 20-24 years and among men 25-29 years (Figure 8).[7]

- The median percentage of reactive syphilis tests was 6.5% (range, 0.8% to 30%) for women in 29 adult corrections facilities and 2.5% (range, 1.1% to 7.2%) for men in 30 adult corrections facilities (Figures 9 and 10 and Table 1). The percentage of reactive syphilis tests was higher for women than men in 28 (97%) of 29 adult corrections facilities reporting syphilis test results for both sexes. The percentage of reactive syphilis tests representing cases of syphilis varied from site to site. The median percentage of reactive syphilis tests was comparable among women and men in juvenile corrections facilities (women: 0.5% [range 0%-0.7%]; men: 0.35% [range 0.2%-0.6%]) (Figures 9 and 10 and Table 2).

- Between 1999 and 2000, the overall rate of congenital syphilis decreased by 7.6% in the United States, from 14.5 to 13.4 cases per 100,000 live births (Figure 11). In addition, among the 21 states and outlying areas with five or more reported cases of congenital syphilis in 2000, 10 had rates that decreased since 1999. Three of these states and Puerto Rico had rate decreases of 30% or more between 1999 and 2000.[7]

- The continuing decrease in the rate of congenital syphilis likely reflects the substantial reduction in the rate of P&S syphilis among women that has occurred in the last decade (Figure 11). During the period from 1991 through 2000, the average yearly percentage decrease in the congenital syphilis rate was 22%, similar to the average yearly percentage decrease of 21% in the rate of P&S syphilis reported among women for the years 1991 through 2000.[9]

References

[1]Ingraham NR. The value of penicillin alone in the prevention and treatment of congenital syphilis. Acta Derm Venereol 31 (suppl 24): 60, 1951.

[2]Division of STD Prevention. The National Plan to Eliminate Syphilis from the United States. National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, 1999.

[3]Centers for Disease Control and Prevention. Primary and secondary syphilis – United States, 1999. MMWR 2000;50:113-7.

[4]Centers for Disease Control and Prevention. Resurgent bacterial sexually transmitted disease among men who have sex with men – King County, Washington, 1997-1999. MMWR 1999; 48:773-777.

[5]Miller M, Meyer L, Boufassa F, et al. Sexual behavior changes and protease inhibitor therapy. AIDS 2000;14:F33-9.

[6]CDC. Outbreak of syphilis among men who have sex with men – Southern California, 2000. MMWR 2001;50:117-20.

[7]Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2000. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, September 2001.

[8]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, November 2000.

[9]Centers for Disease Control and Prevention. Congenital Syphilis - United States, 2000. MMWR 2001;50(27):573-7.

Figure 1. Primary and secondary syphilis — Reported rates: United States, 1970–2000 and the Healthy People year 2010 objective

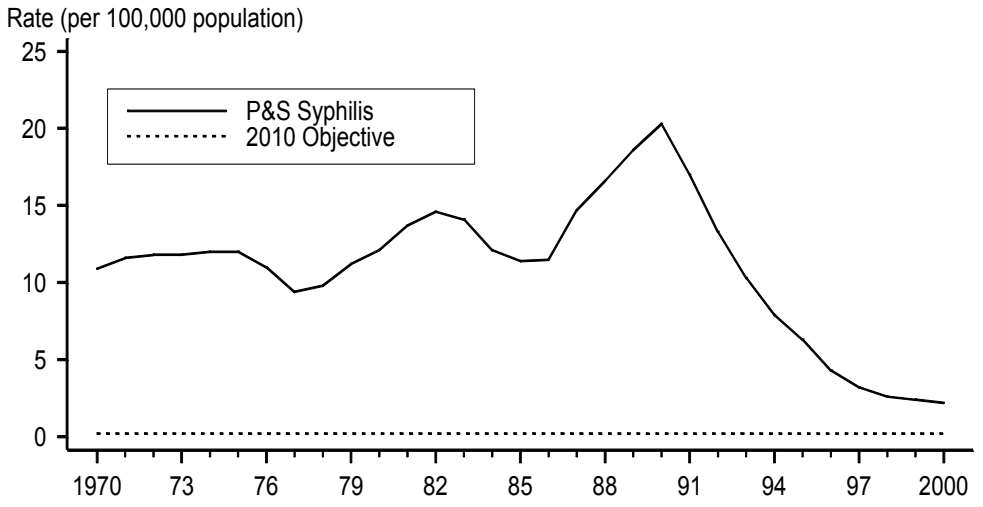


Figure 2. Syphilis — Reported cases by stage of illness: United States, 1941–2000

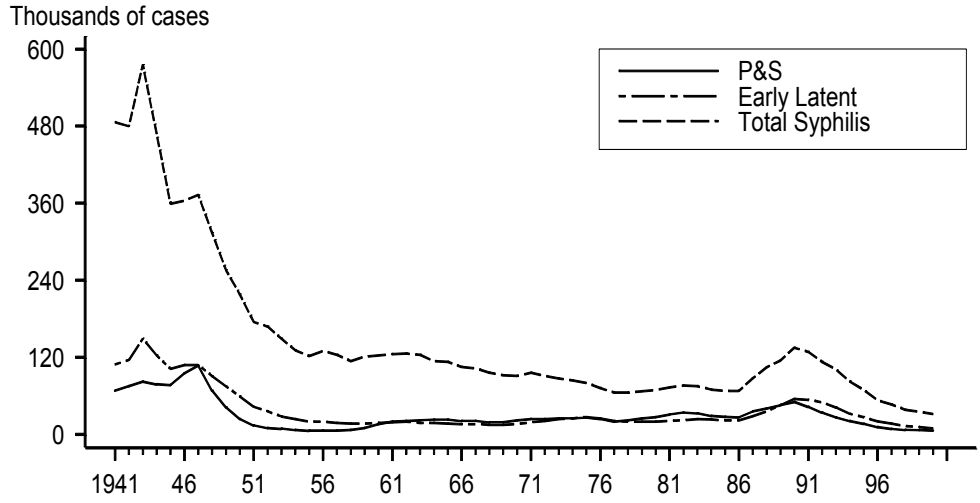


Figure 3. Primary and secondary syphilis — Rates by region: United States, 1981–2000 and the Healthy People year 2010 objective

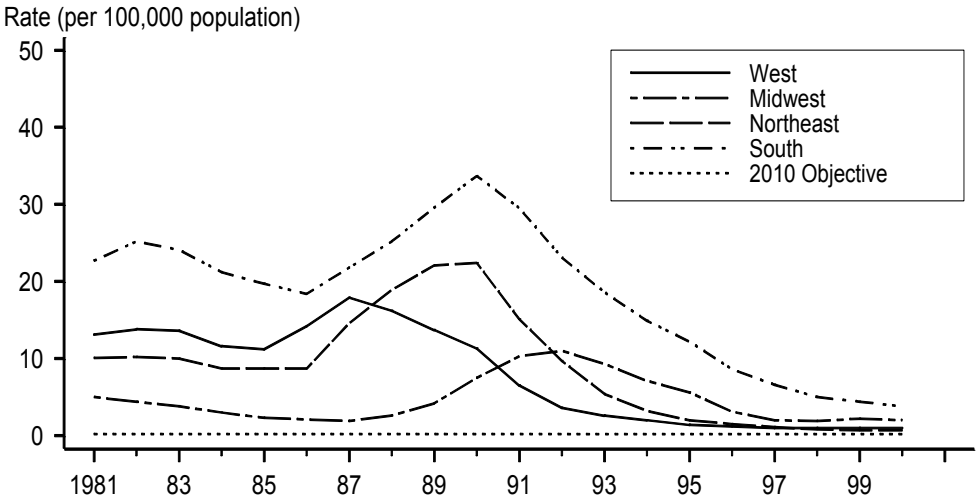
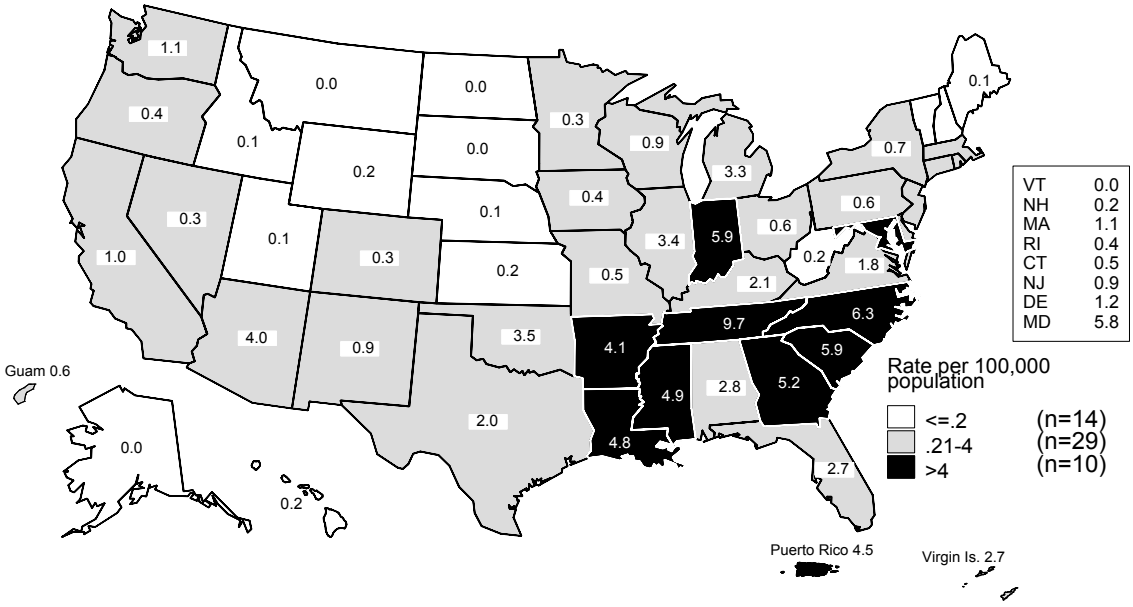


Figure 4. Primary and secondary syphilis — Rates by state: United States and outlying areas, 2000



Note: The total rate of primary and secondary syphilis for the United States and outlying areas (including Guam, Puerto Rico and Virgin Islands) was 2.2 per 100,000 population. The Healthy People year 2010 objective is 0.2 per 100,000 population.

Figure 5. Primary and secondary syphilis — Counties with rates above and counties with rates below the Healthy People year 2010 objective: United States, 2000

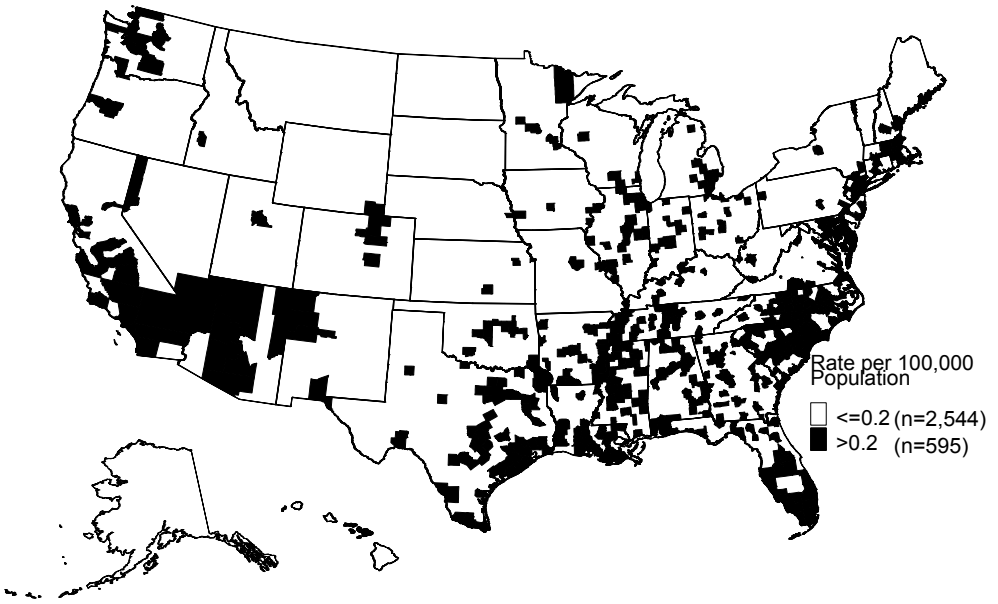


Figure 6. Primary and secondary syphilis — Rates by race and ethnicity: United States, 1981–2000 and the Healthy People year 2010 objective

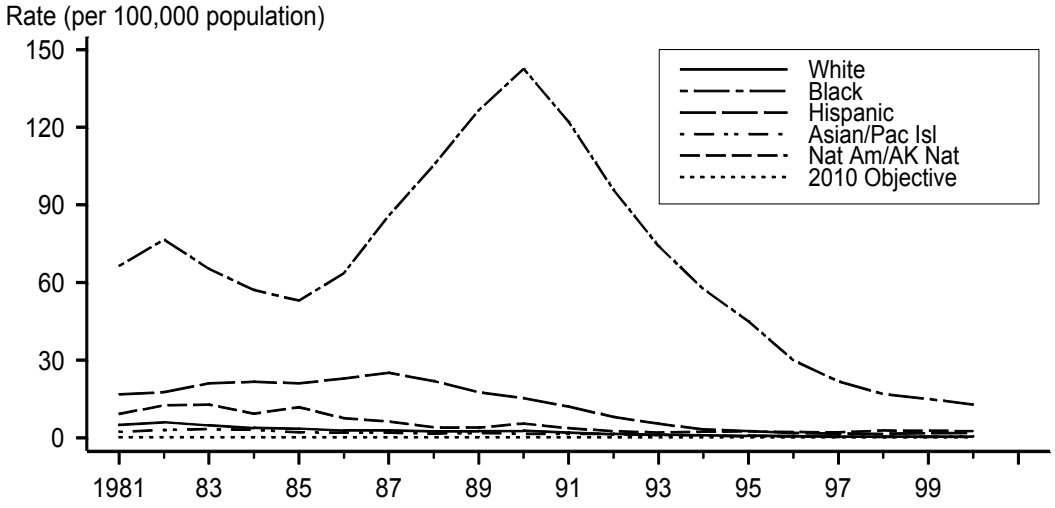
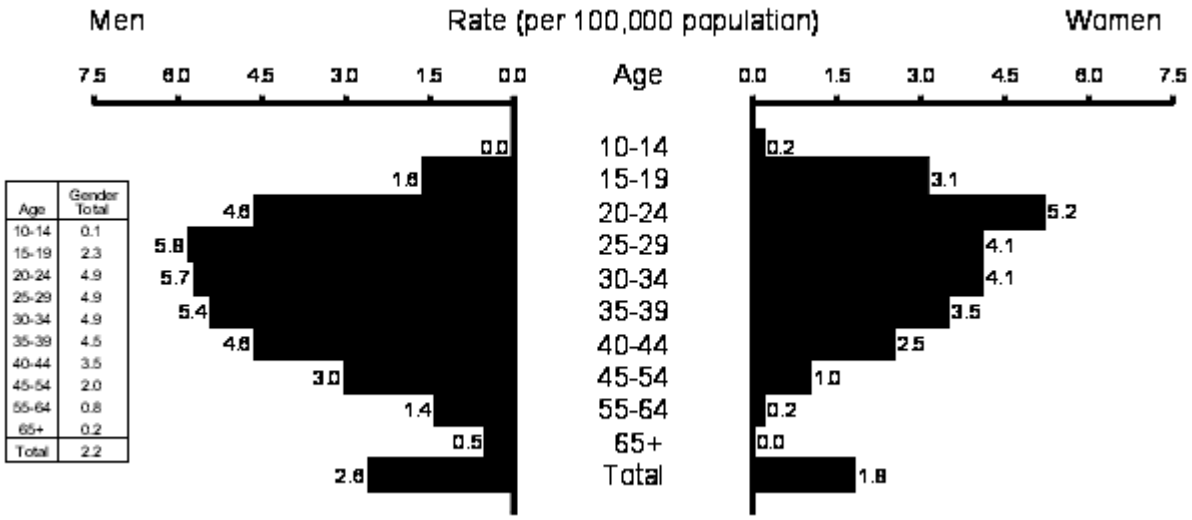


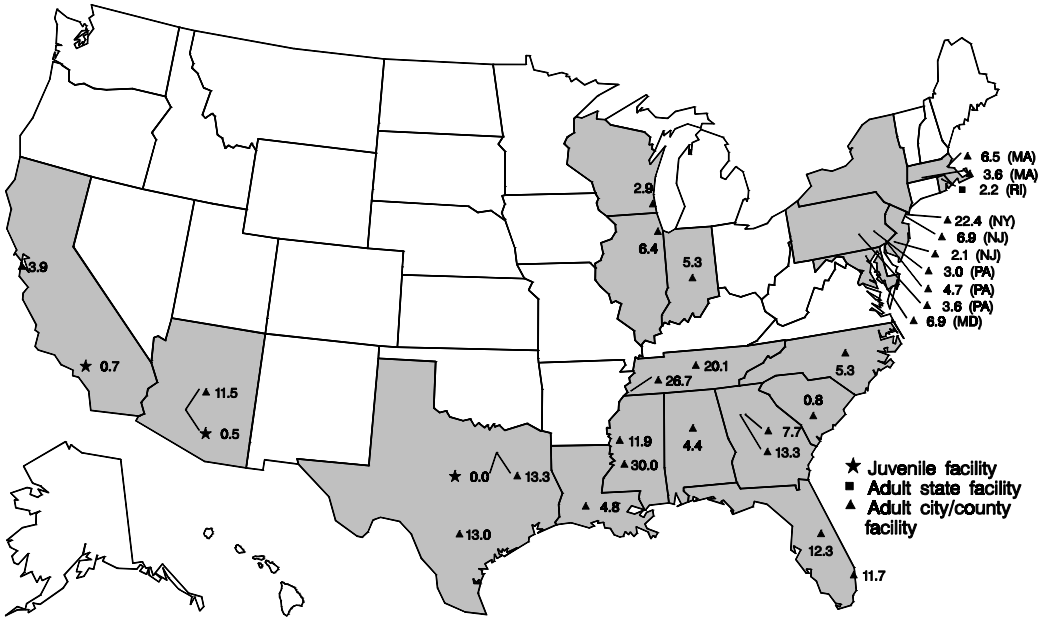
Figure 7. Primary and secondary syphilis — Rates by gender: United States, 1981–2000 and the Healthy People year 2010 objective

Figure 8. Primary and secondary syphilis — Age- and gender-specific rates: United States, 2000



Age	Gender Total
10-14	0.1
15-19	2.3
20-24	4.9
25-29	4.9
30-34	4.9
35-39	4.5
40-44	3.5
45-54	2.0
55-64	0.8
65+	0.2
Total	2.2

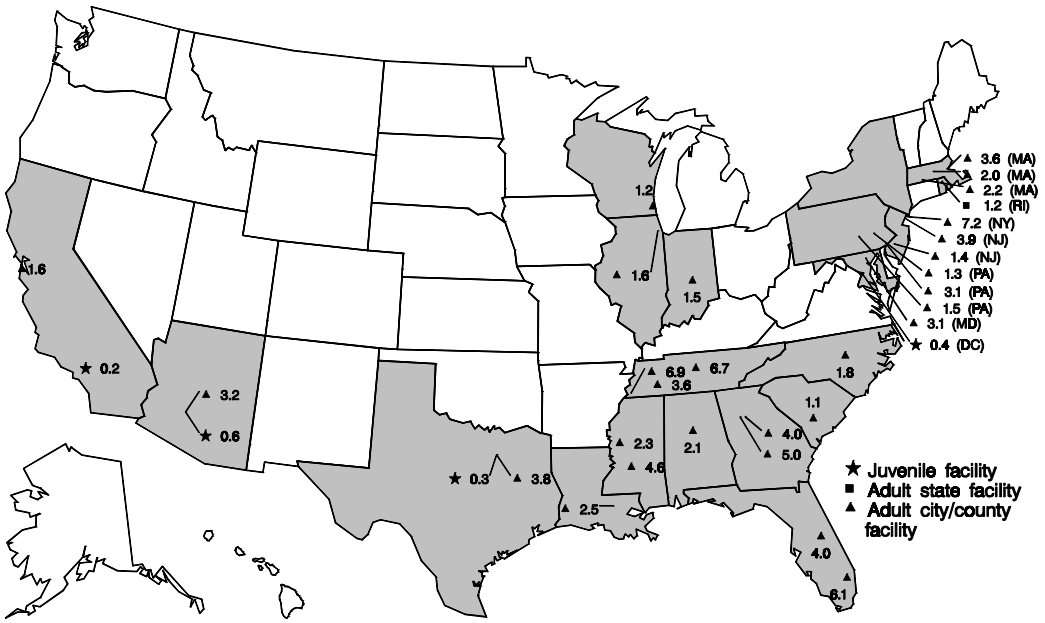
Figure 9. Syphilis serologic tests — Percent seroreactivity in women entering city or county jails or juvenile detention centers†, 2000



†From facilities reporting >100 test results.

SOURCE: Local and State STD Control Programs; Regional Infertility Prevention Programs; Centers for Disease Control and Prevention

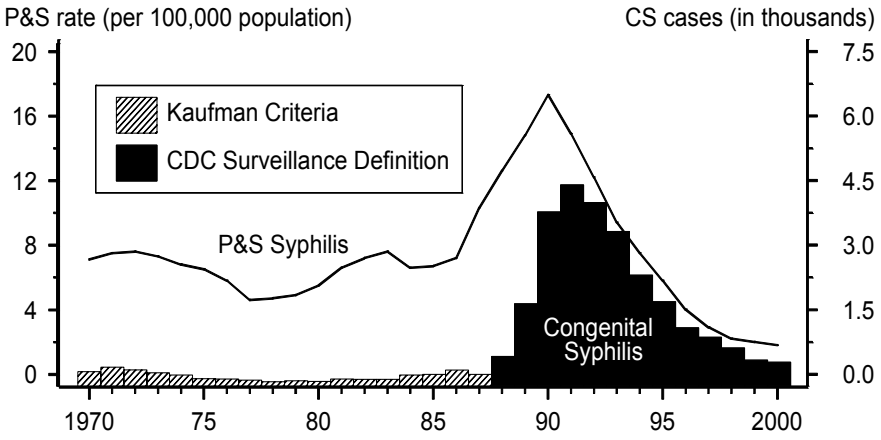
Figure 10. Syphilis serologic tests — Percent seroreactivity in men entering city or county jails or juvenile detention centers†, 2000



†From facilities reporting >100 test results.

SOURCE: Local and State STD Control Programs; Regional Infertility Prevention Programs; Centers for Disease Control and Prevention

Figure 11. Congenital syphilis — Reported cases for infants <1 year of age and rates of primary and secondary syphilis among women: United States, 1970–2000



Note: The surveillance case definition for congenital syphilis changed in 1988.

Table 1. Syphilis Serology among Men and Women in Adult Corrections Facilities, 2000

	Men			*Women*		
State	*No. of Sites*	*No. of Tests*	*Median % Reactive (Range)*	*No. of Sites*	*No. of Tests*	*Median % Reactive (Range)*
Alabama	1	6,740	2.1	1	1,132	4.4
Arizona	1	25,721	3.2	1	575	11.5
California	1	2,858	1.6	1	908	3.9
Florida	2	2,629	5.0 (4.0-6.1)	2	447	12.0 (11.7-12.3)
Georgia	2	11,453	4.5 (4.0-5.0)	2	1,794	10.5 (7.7-13.3)
Illinois	1	80,733	1.6	1	14,925	6.4
Indiana	1	3,707	1.5	1	2,118	5.3
Louisiana	1	1,796	2.5	1	333	4.8
Maryland	1	15,659	3.1	1	5,743	6.9
Massachusetts	3	7,937	2.2 (2.0-3.6)	2	1,161	5.1 (3.6-6.5)
Mississippi	2	2,561	3.5 (2.3-4.6)	2	141	20.1 (11.9-30.0)
New Jersey	2	20,005	2.7 (1.4-3.9)	2	3,497	4.5 (2.1-6.9)
New York	1	23,058	7.2	1	2,193	22.4
North Carolina	1	2,459	2.1	1	378	3.7
Pennsylvania	3	6,777	1.5 (1.3-3.1)	3	1,485	3.6 (3.0-4.7)
Rhode Island	1	16,442	1.2	1	2,250	2.2
South Carolina	1	2,494	1.1	1	2,136	0.8
Tennessee	3	9,944	6.7 (3.6-6.9)	2	1,021	23.1 (20.1-26.7)
Texas	1	1,304	3.8	2	982	13.1 (13.0-13.2)
Wisconsin	1	2,805	1.2	1	1,083	2.9
Total	**30**	**257, 485**	**2.5 (1.1-7.2)**	**29**	**49,466**	**6.5 (0.8-30.0)**

Table 2. Syphilis Serology among Males and Females in Juvenile Corrections Facilities, 2000

	Men			*Women*		
State	*No. of Sites*	*No. of Tests*	*Median % Reactive (Range)*	*No. of Sites*	*No. of Tests*	*Median % Reactive (Range)*
Arizona	1	2,724	0.6	1	733	0.5
California	1	11,928	0.2	1	2,828	0.70
Texas	1	685	0.3	1	301	0.00
District of Columbia	1	468	0.4	---	--	--
Total	**4**	**15,805**	**0.35 (0.2-0.6)**	**3**	**3,862**	**0.5 (0.0-0.7)**

Alabama — 2000

Figure A. P&S syphilis rates among men, 1984—2000

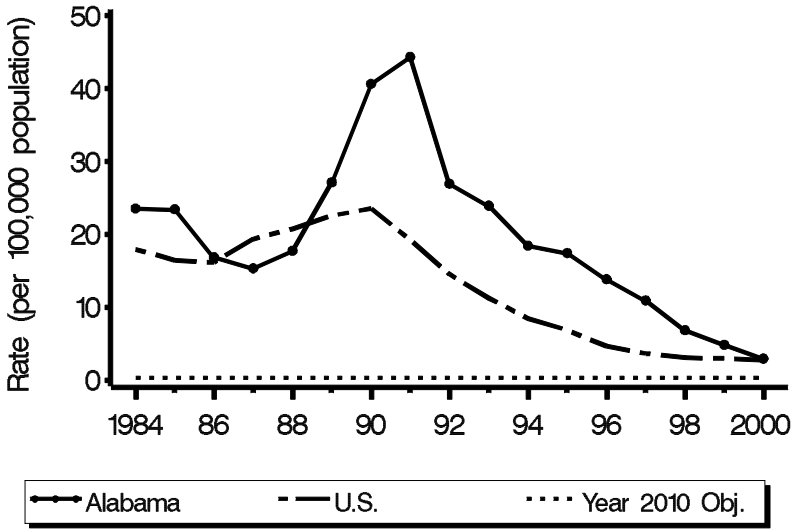


Figure B. P&S syphilis rates among women, 1984—2000

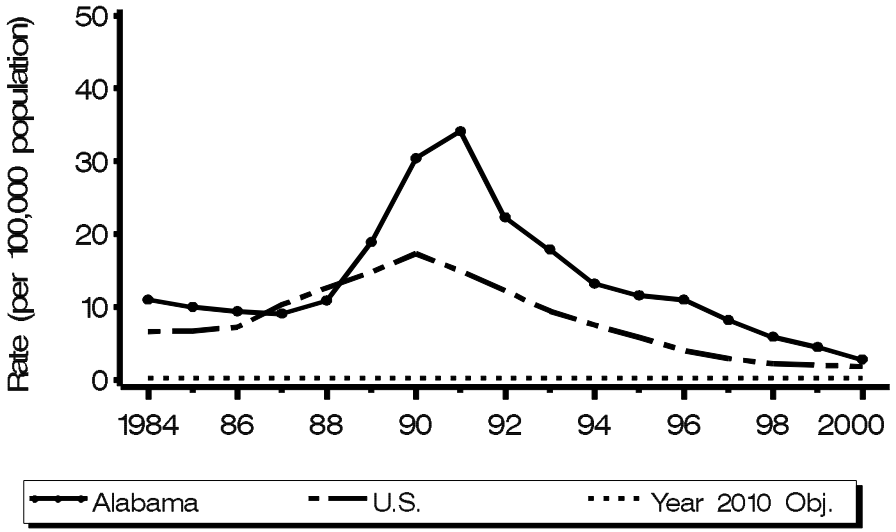


Figure C. P&S syphilis county rates, 2000

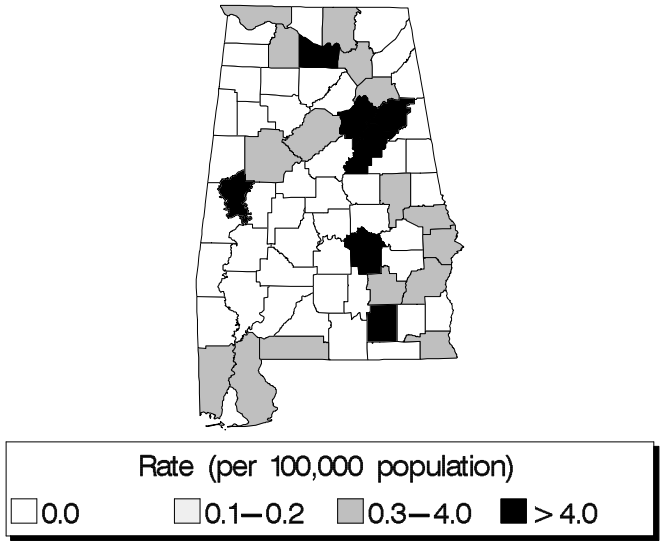
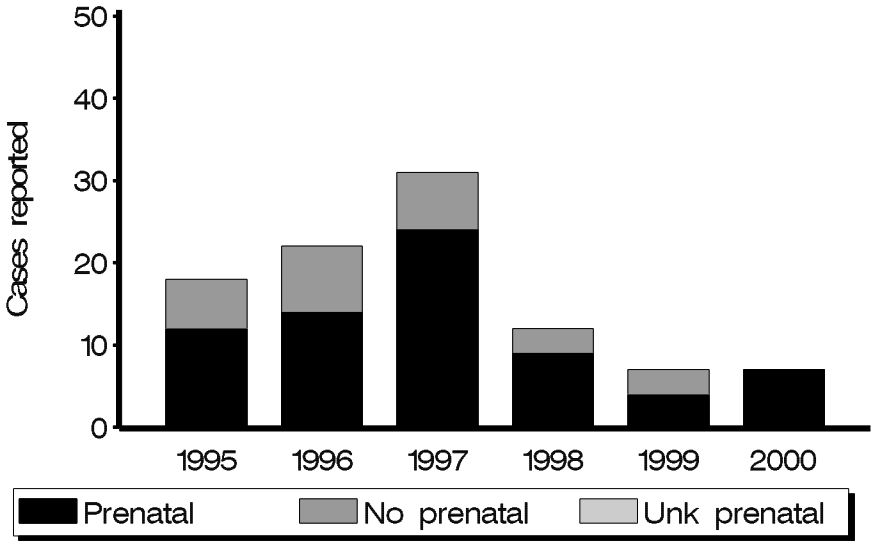


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Alaska — 2000

Figure A. P&S syphilis rates among men, 1984—2000

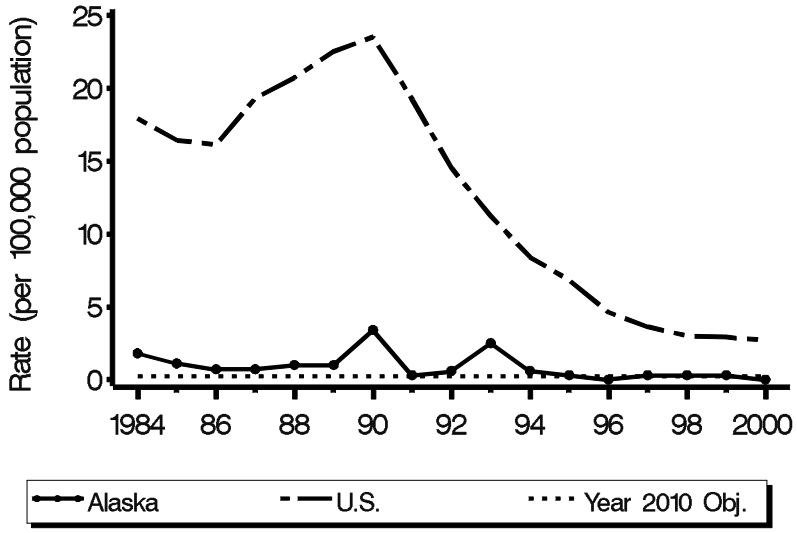


Figure B. P&S syphilis rates among women, 1984—2000

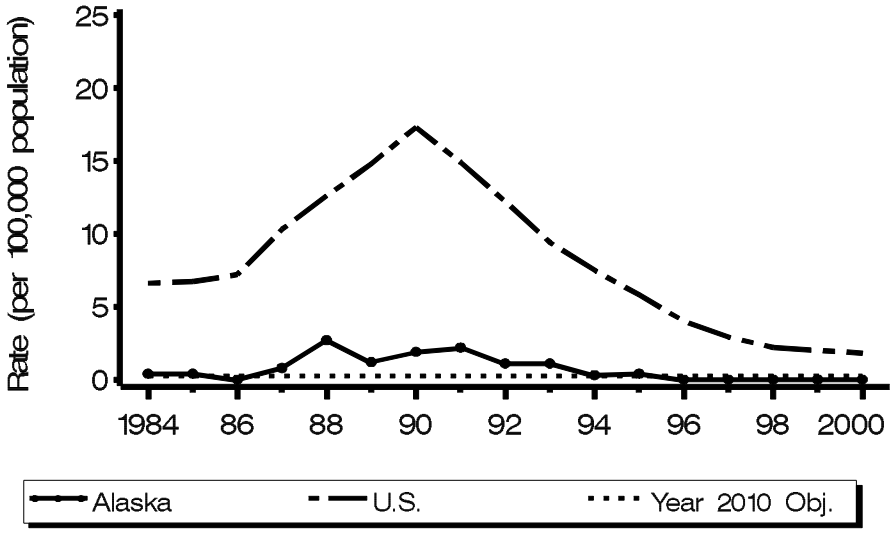


Figure C. P&S syphilis county rates, 2000

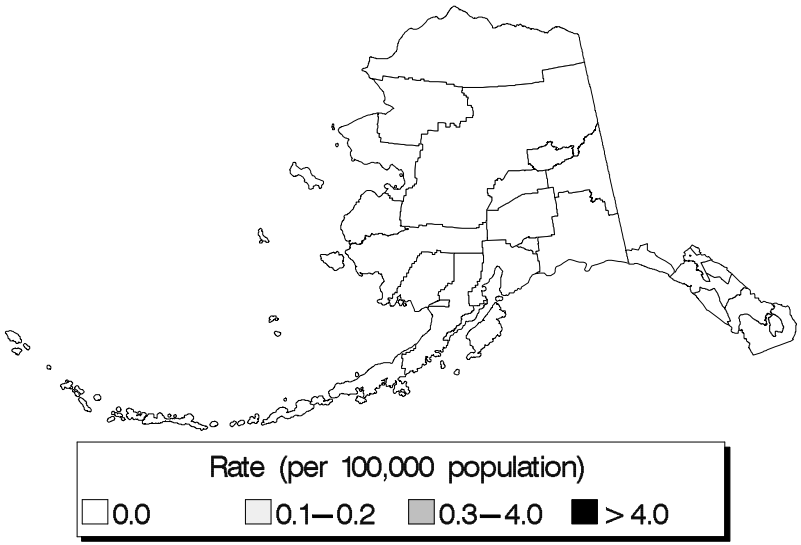
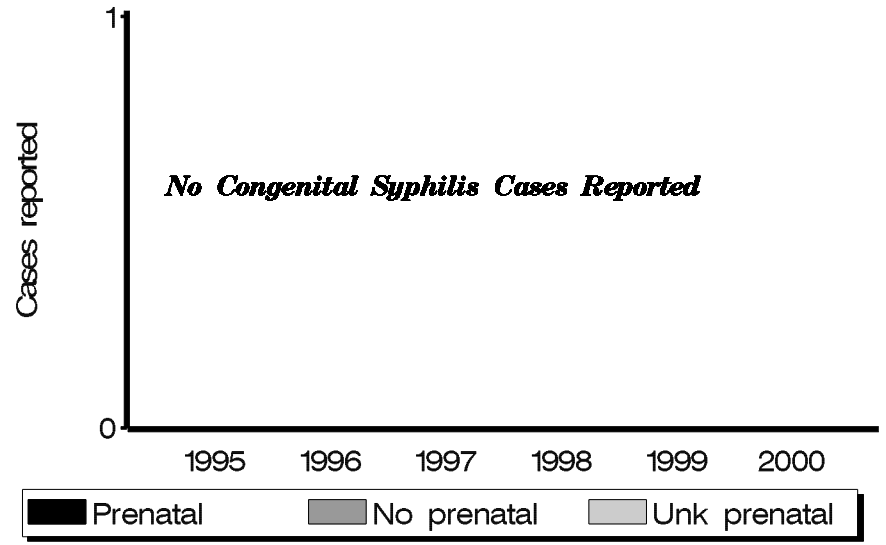


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Arkansas — 2000

Figure A. P&S syphilis rates among men, 1984—2000

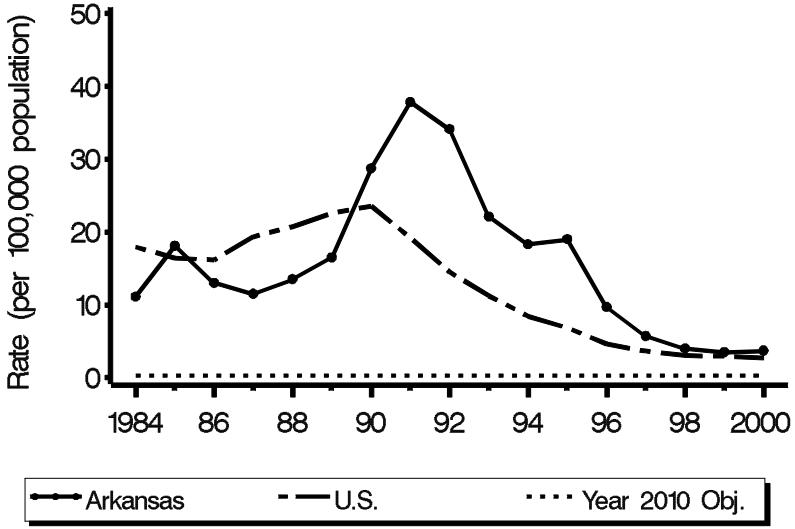


Figure B. P&S syphilis rates among women, 1984—2000

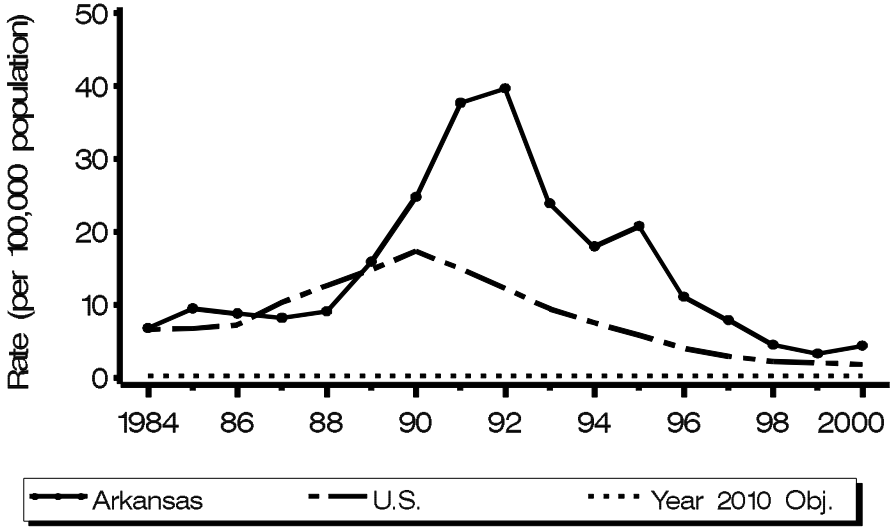


Figure C. P&S syphilis county rates, 2000

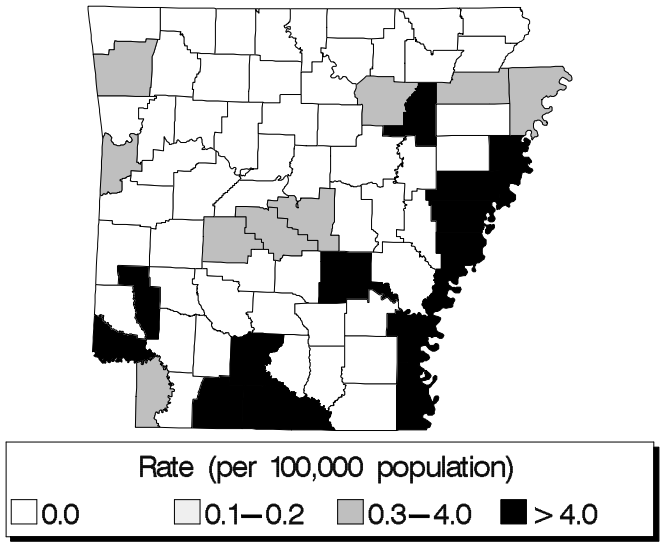
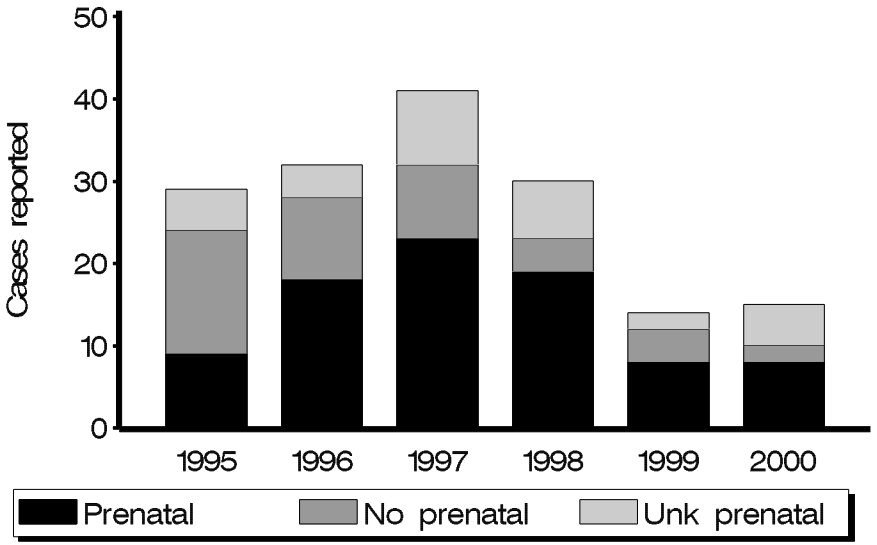


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



California — 2000

Figure A. P&S syphilis rates among men, 1984—2000

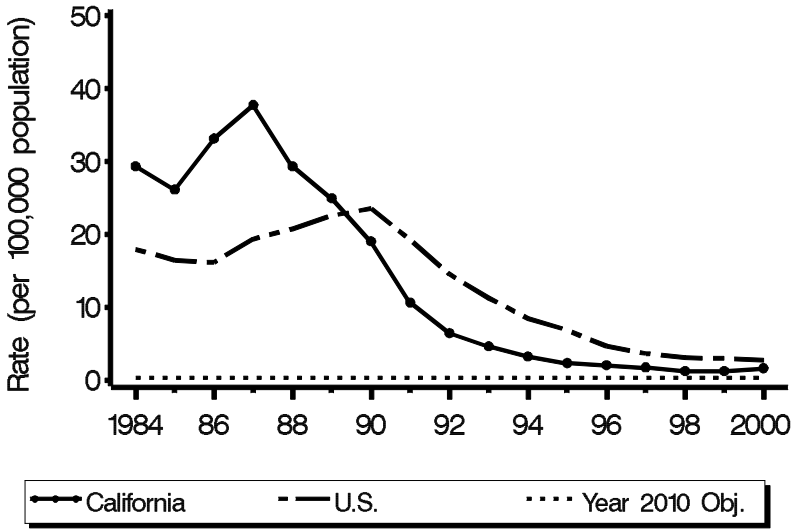


Figure B. P&S syphilis rates among women, 1984—2000

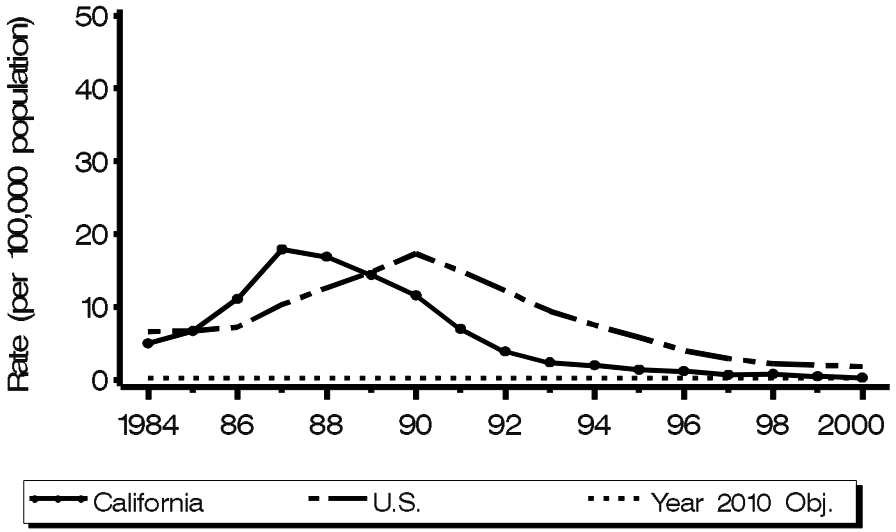


Figure C. P&S syphilis county rates, 2000

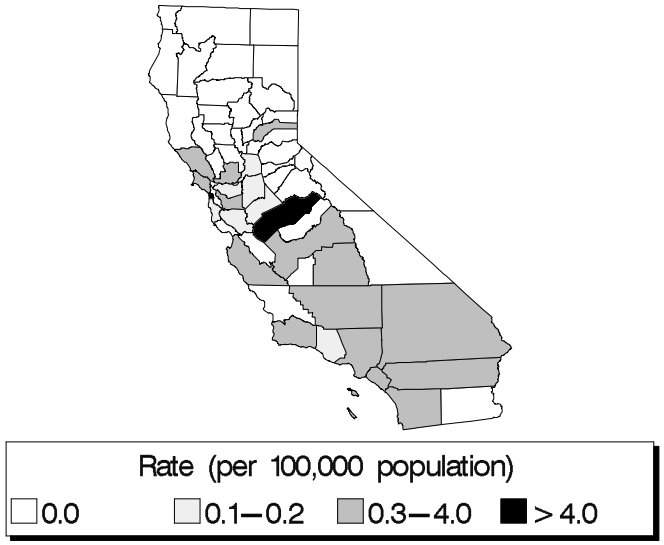
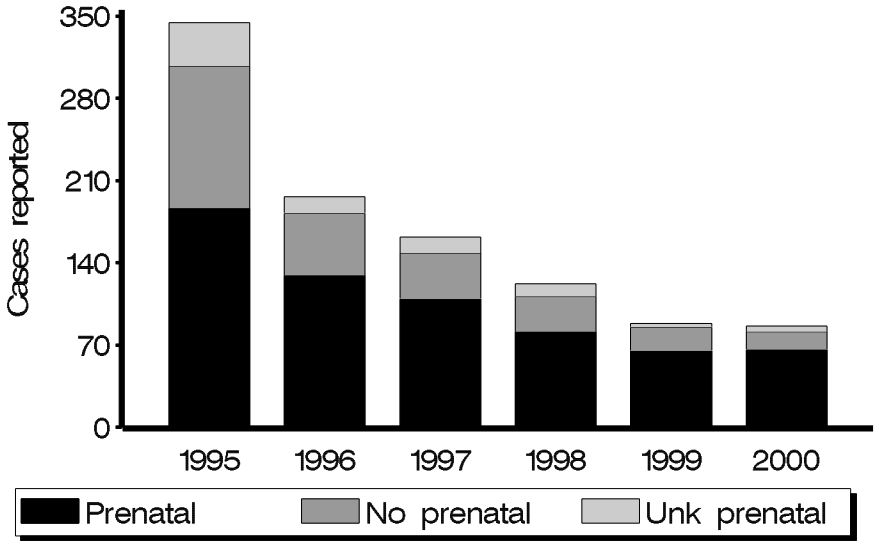


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Colorado — 2000

Figure A. P&S syphilis rates among men, 1984—2000

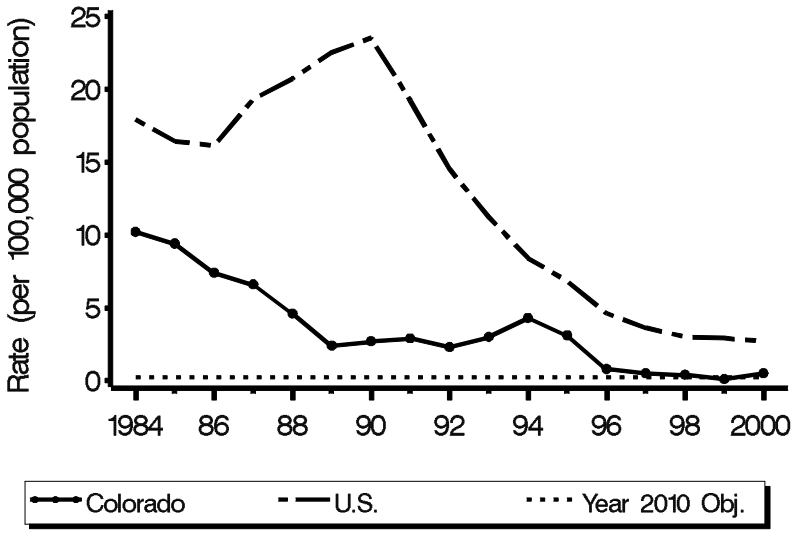


Figure B. P&S syphilis rates among women, 1984—2000

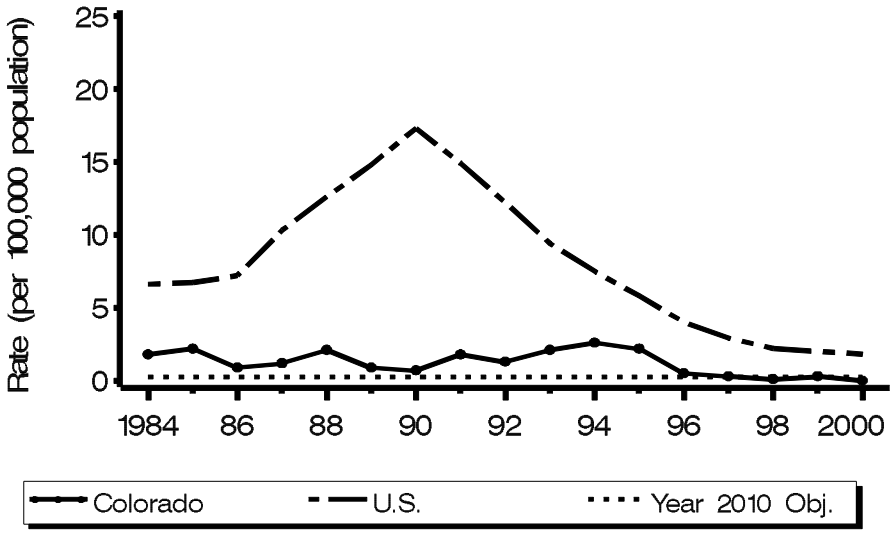


Figure C. P&S syphilis county rates, 2000

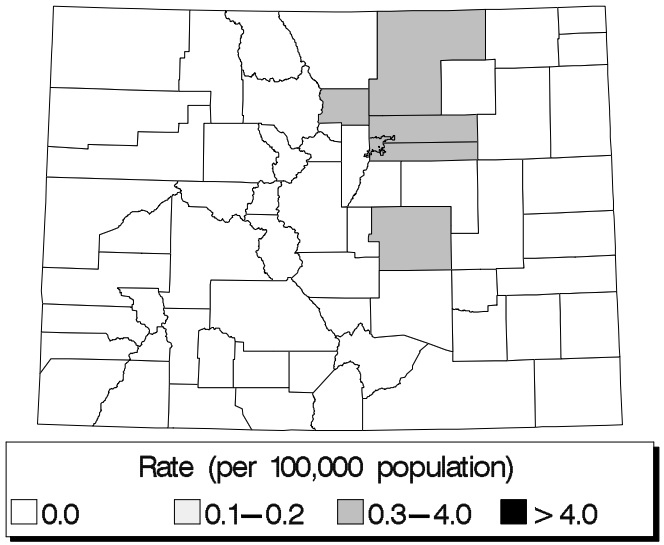
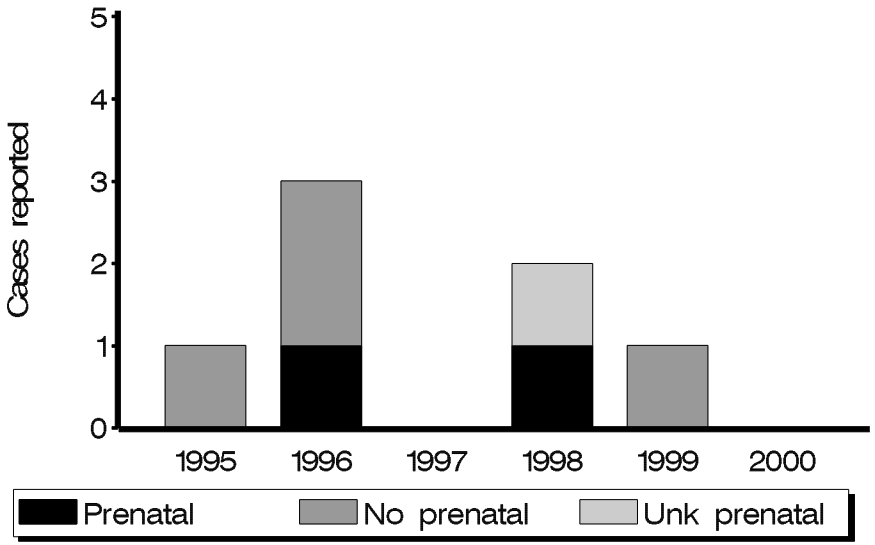


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Connecticut — 2000

Figure A. P&S syphilis rates among men, 1984—2000

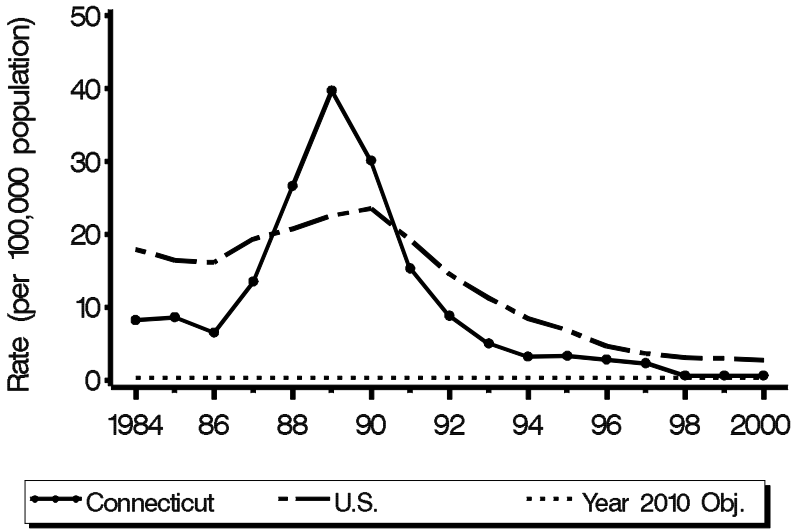


Figure B. P&S syphilis rates among women, 1984—2000

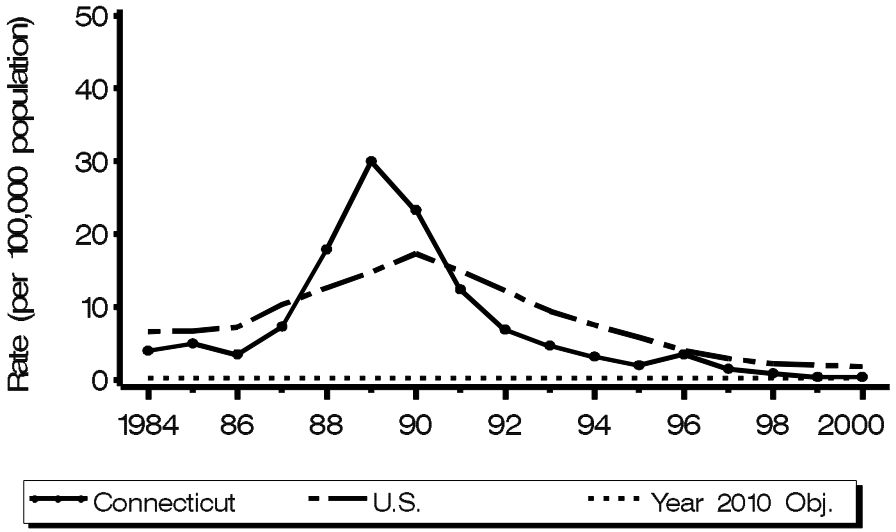


Figure C. P&S syphilis county rates, 2000

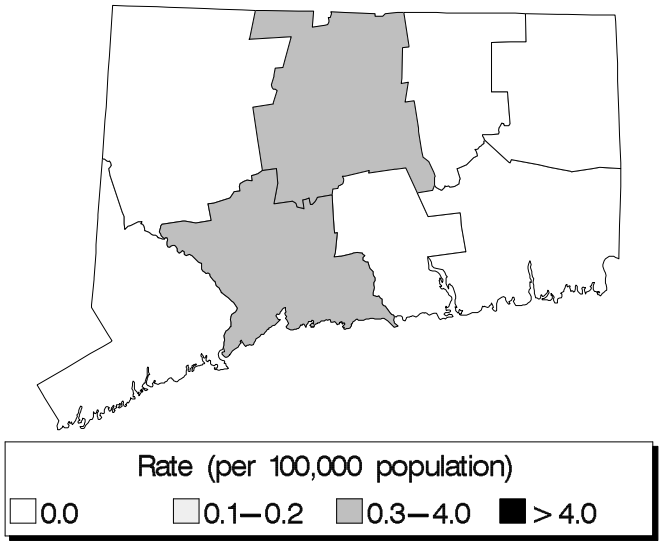
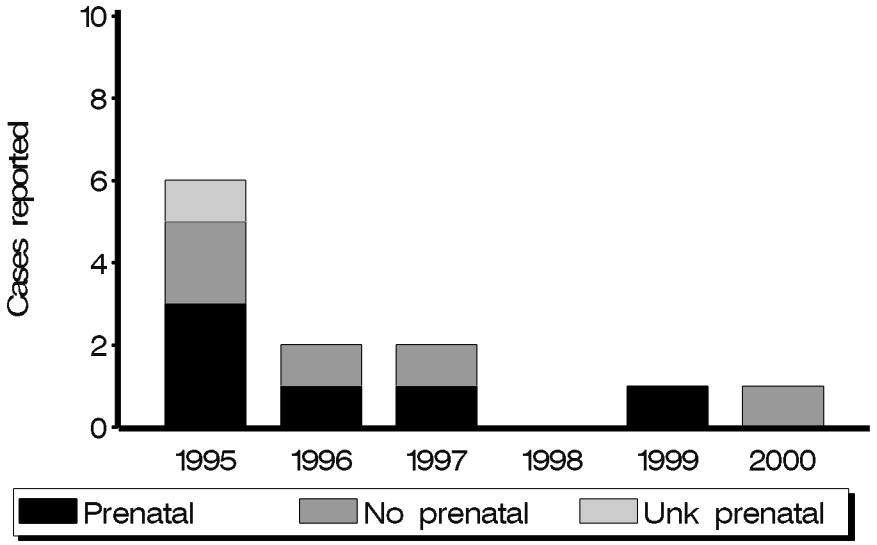


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Delaware — 2000

Figure A. P&S syphilis rates among men, 1984—2000

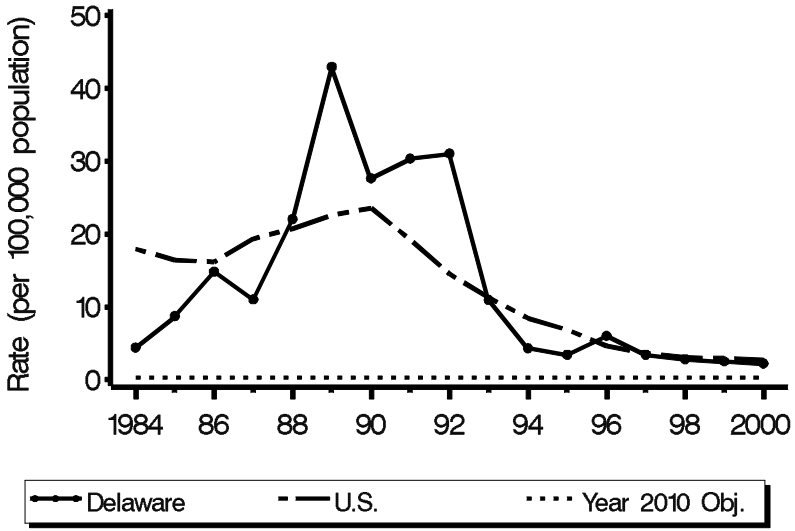


Figure B. P&S syphilis rates among women, 1984—2000

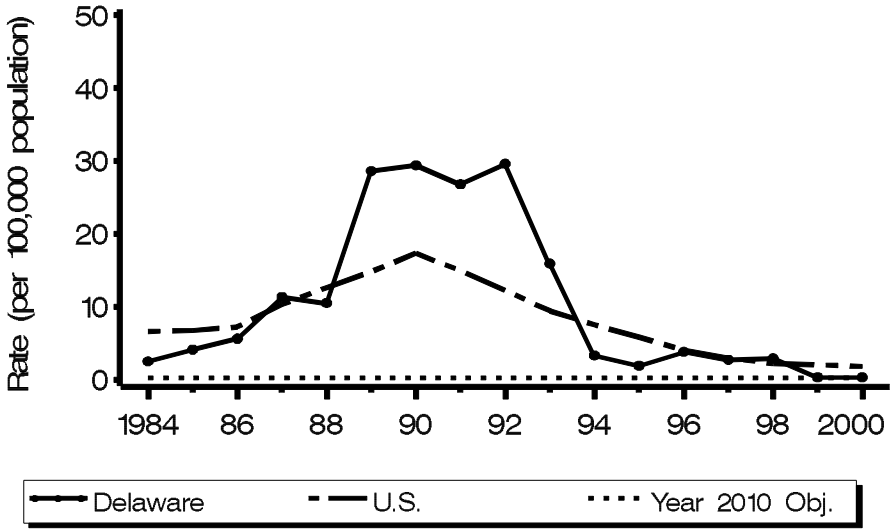


Figure C. P&S syphilis county rates, 2000

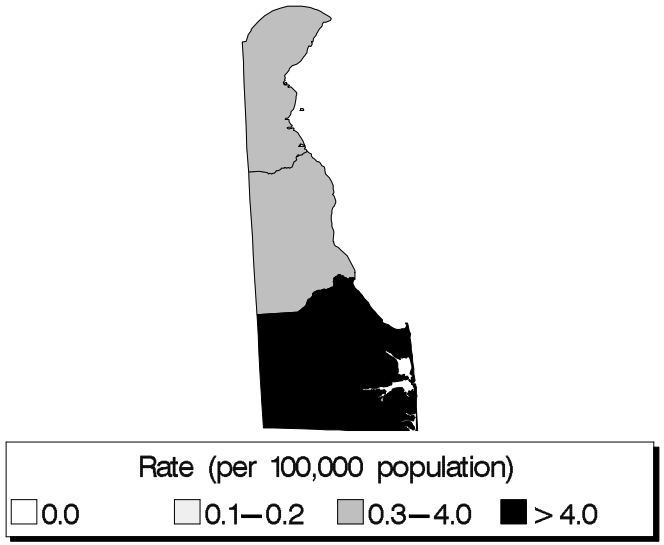
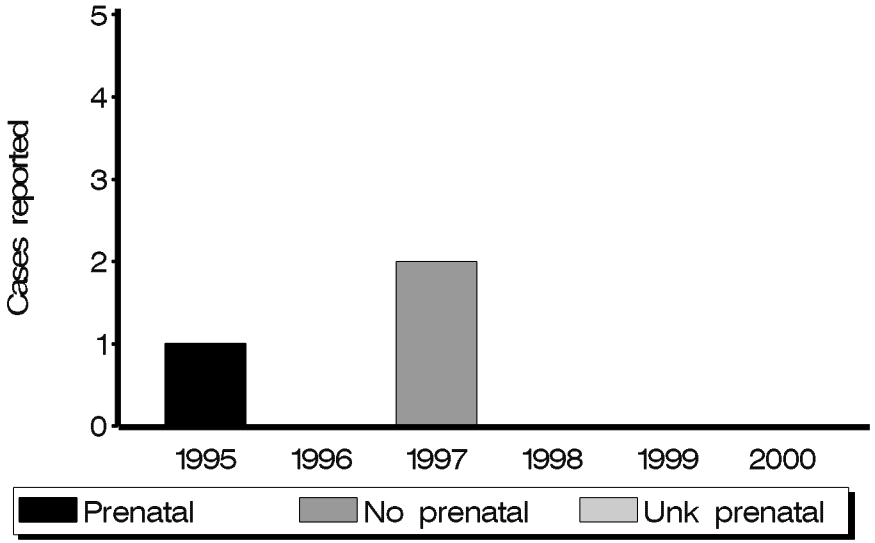


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



District of Columbia — 2000

Figure A. P&S syphilis rates among men, 1984—2000

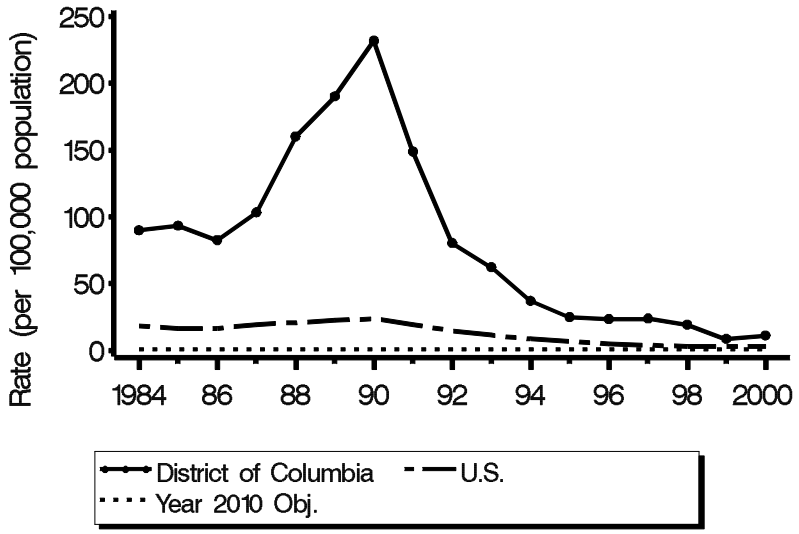


Figure B. P&S syphilis rates among women, 1984—2000

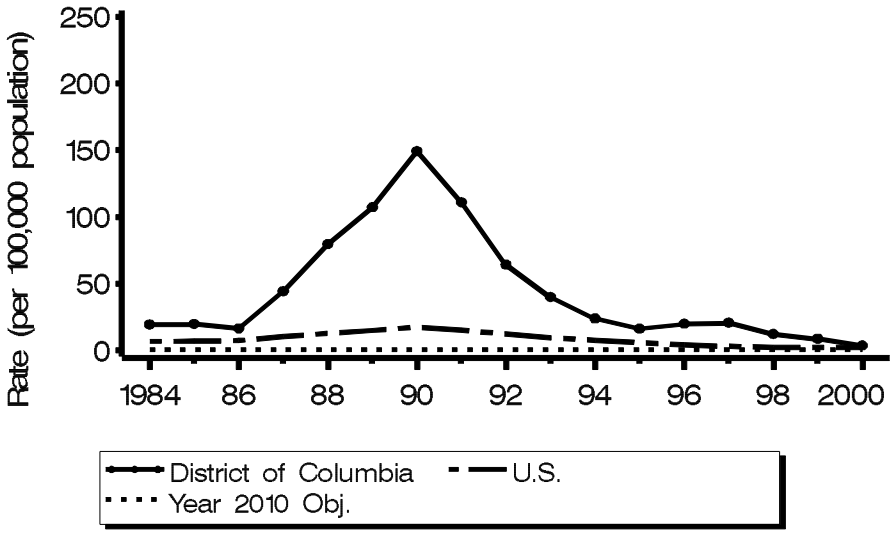
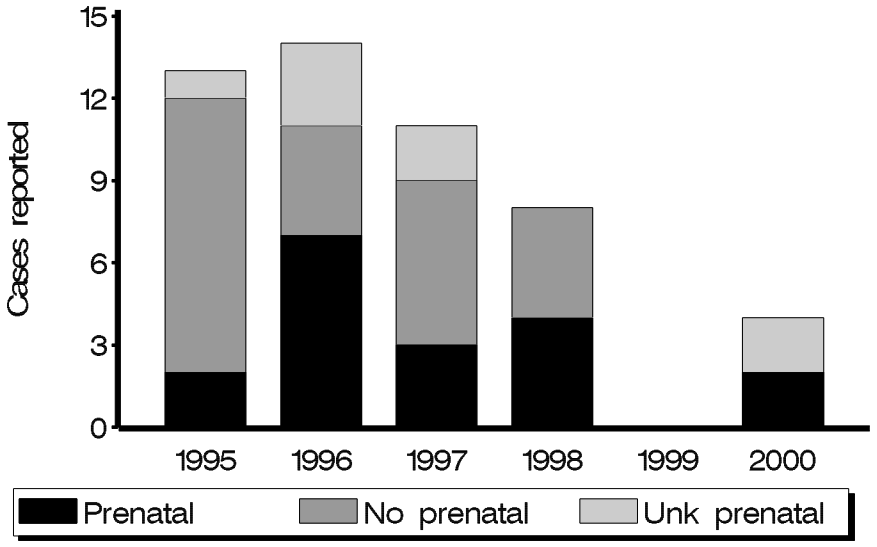


Figure C. P&S syphilis county rates, 2000

Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Florida — 2000

Figure A. P&S syphilis rates among men, 1984—2000

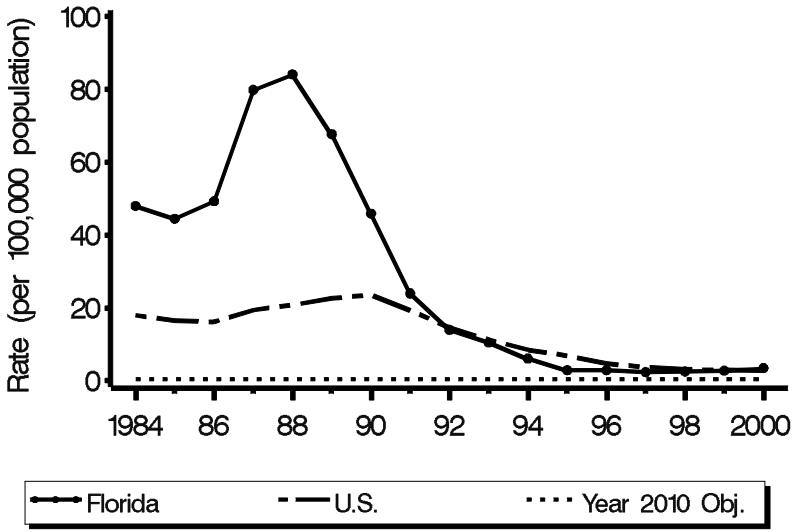


Figure B. P&S syphilis rates among women, 1984—2000

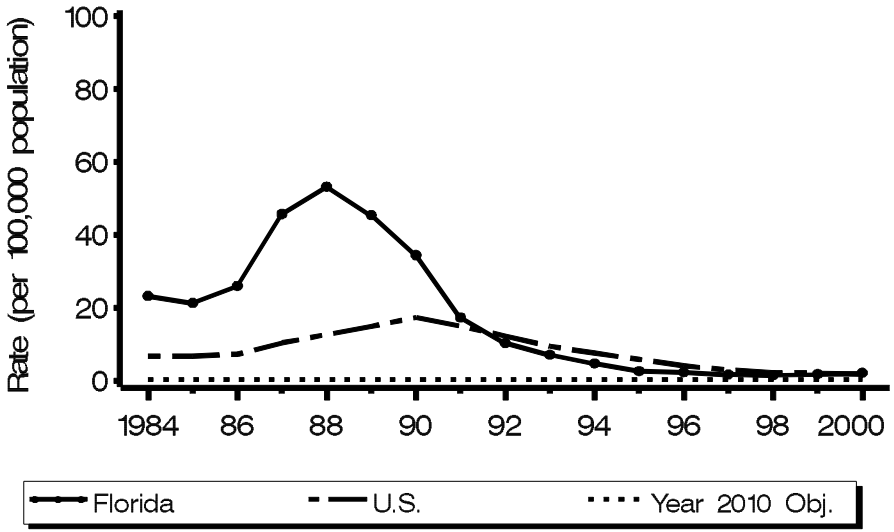


Figure C. P&S syphilis county rates, 2000

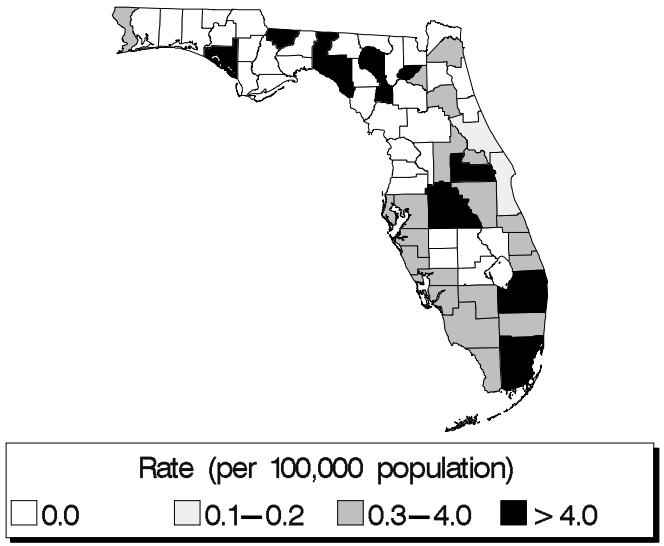
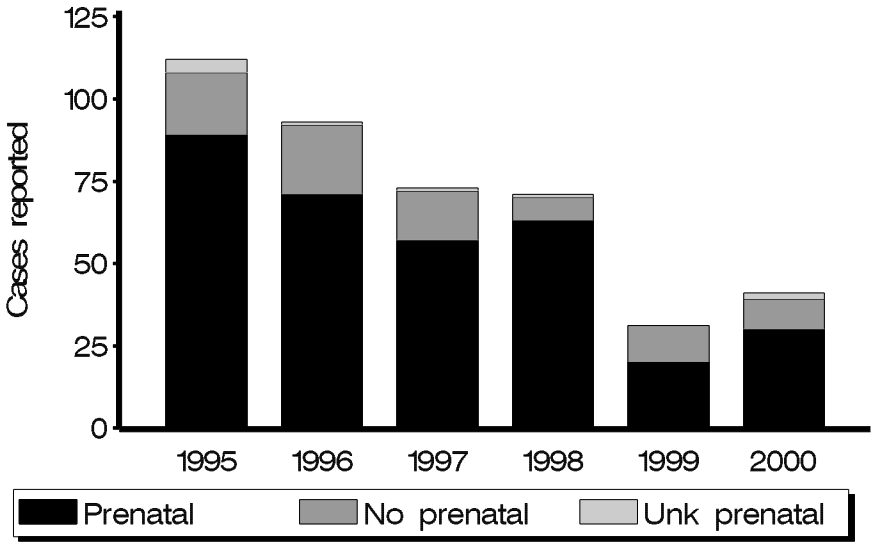


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Georgia — 2000

Figure A. P&S syphilis rates among men, 1984—2000

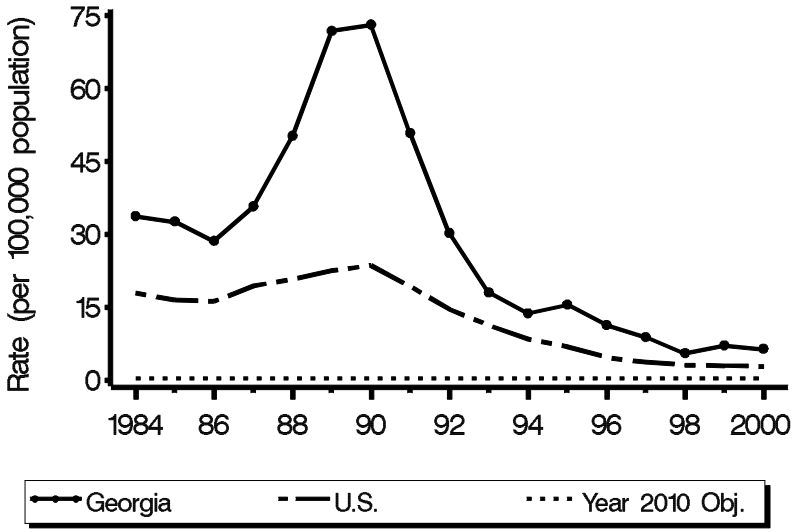


Figure B. P&S syphilis rates among women, 1984—2000

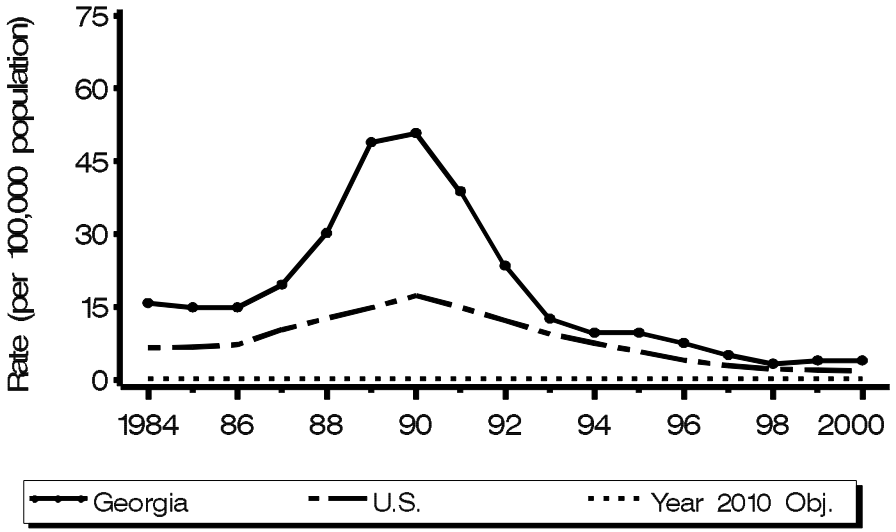


Figure C. P&S syphilis county rates, 2000

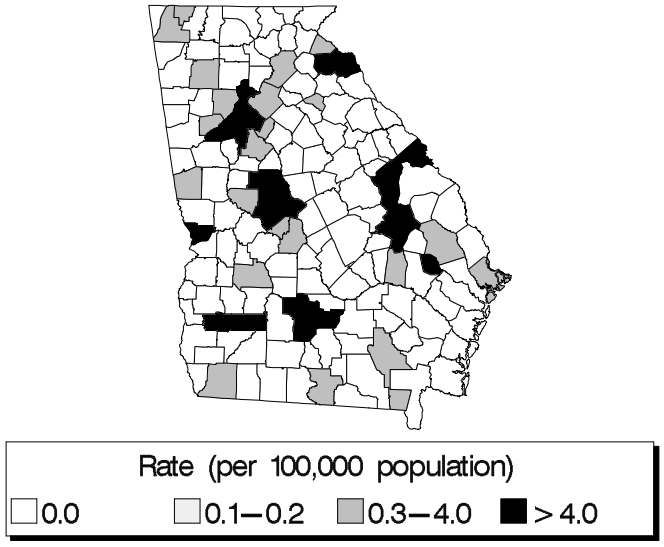
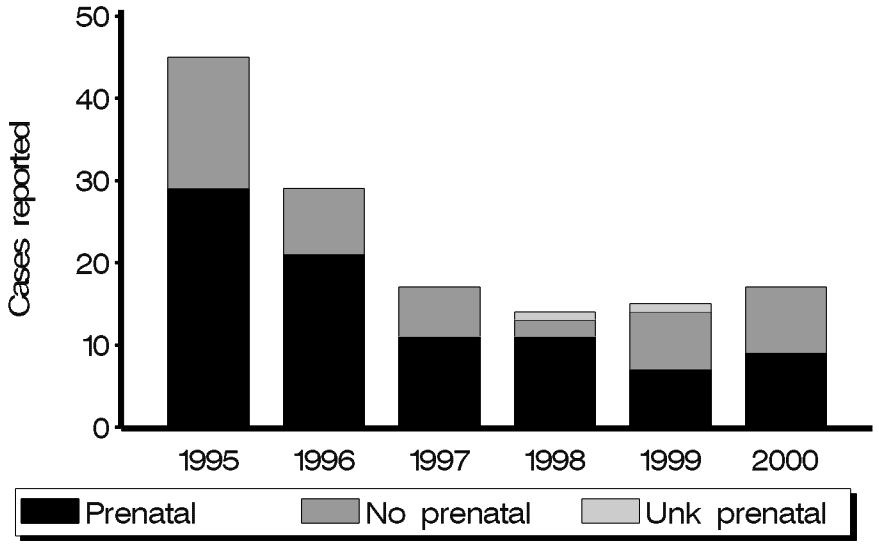


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Guam — 2000

Figure A. P&S syphilis rates among men, 1984—2000

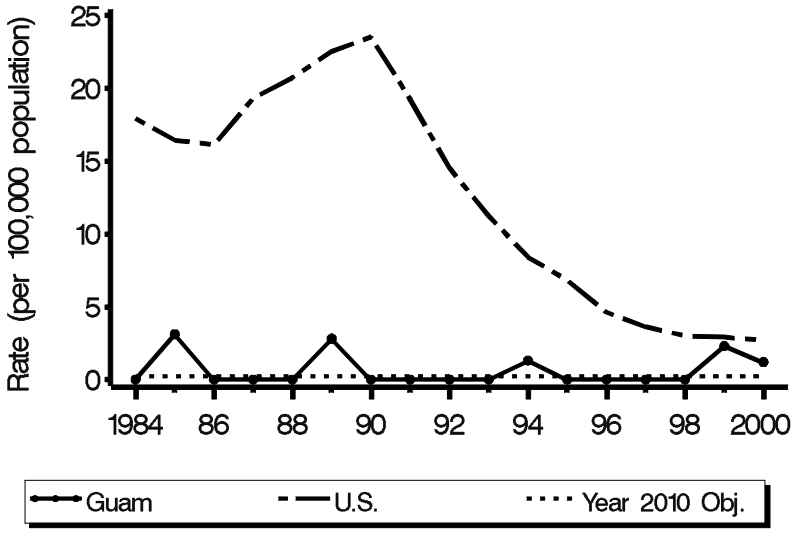


Figure B. P&S syphilis rates among women, 1984—2000

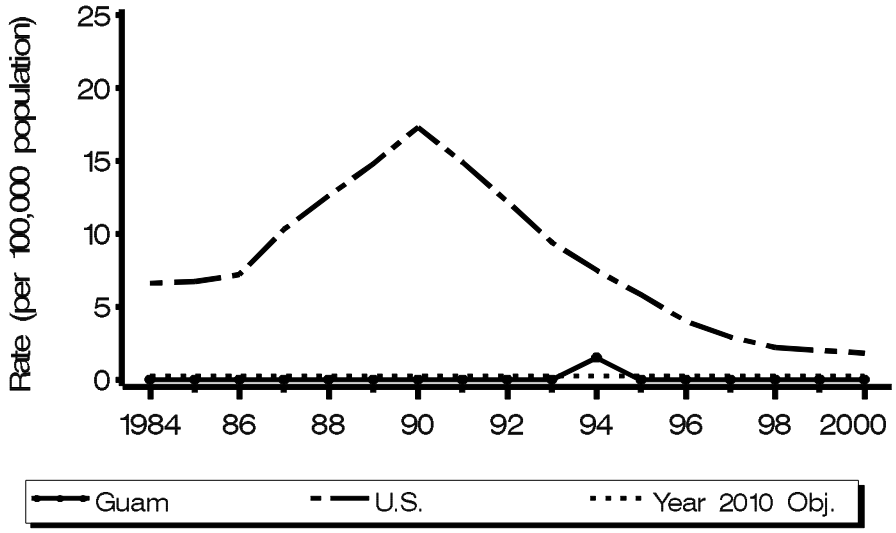
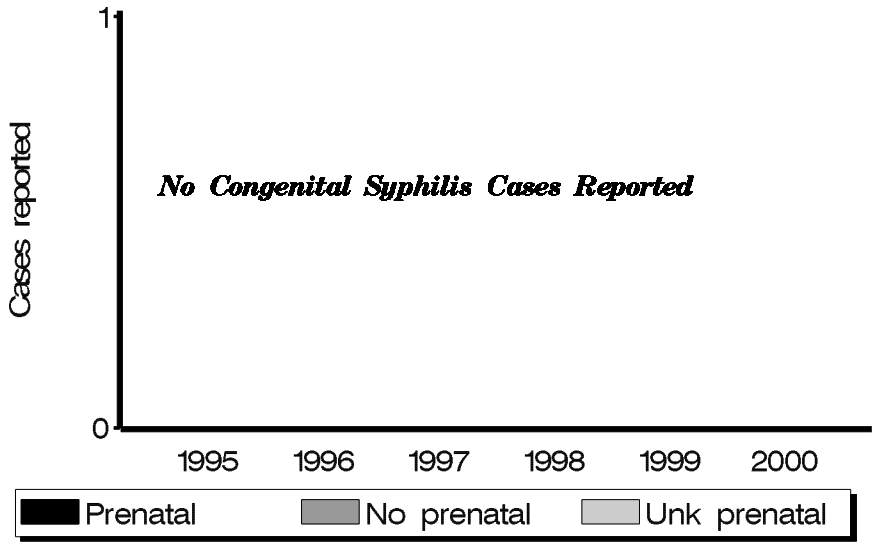


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Hawaii — 2000

Figure A. P&S syphilis rates among men, 1984—2000

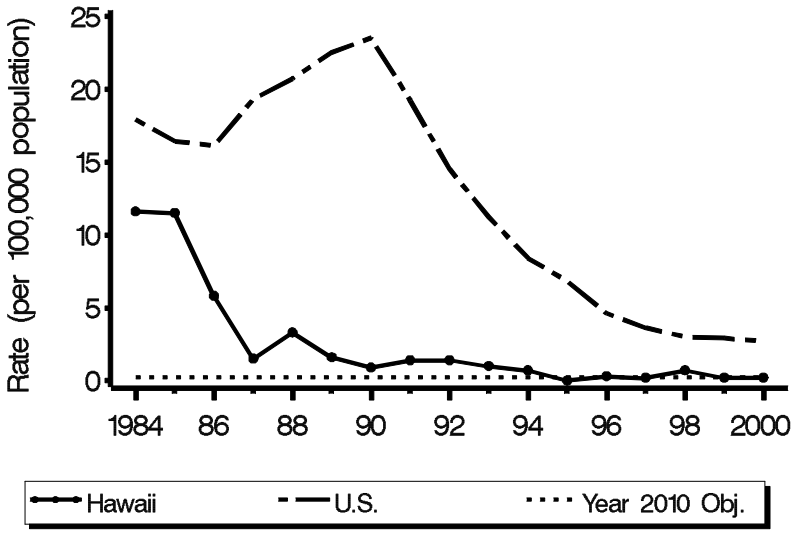


Figure B. P&S syphilis rates among women, 1984—2000

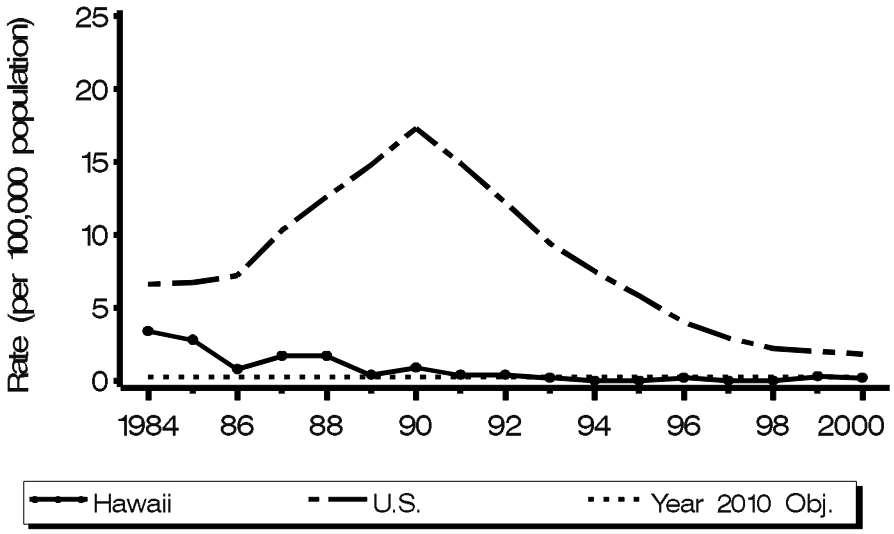


Figure C. P&S syphilis county rates, 2000

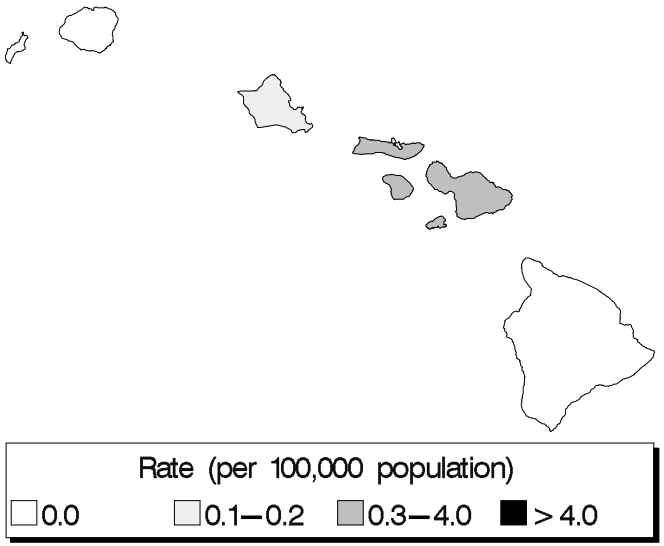
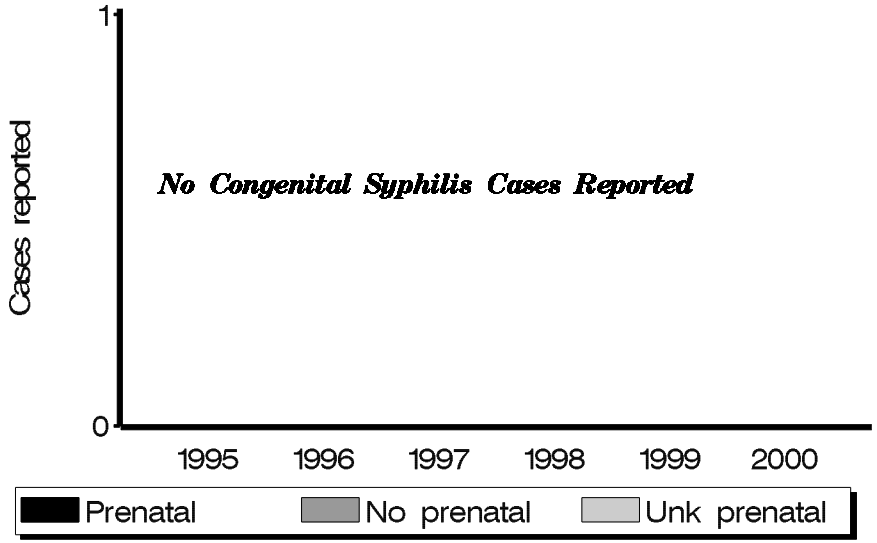


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Idaho — 2000

Figure A. P&S syphilis rates among men, 1984—2000

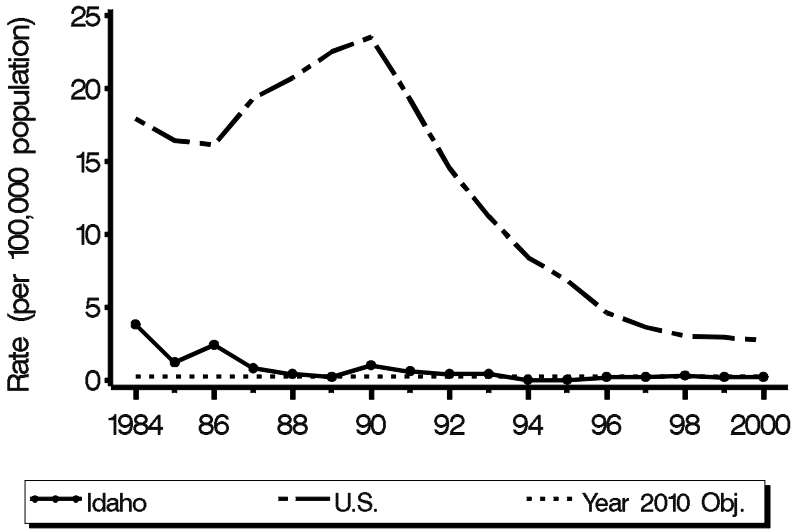


Figure B. P&S syphilis rates among women, 1984—2000

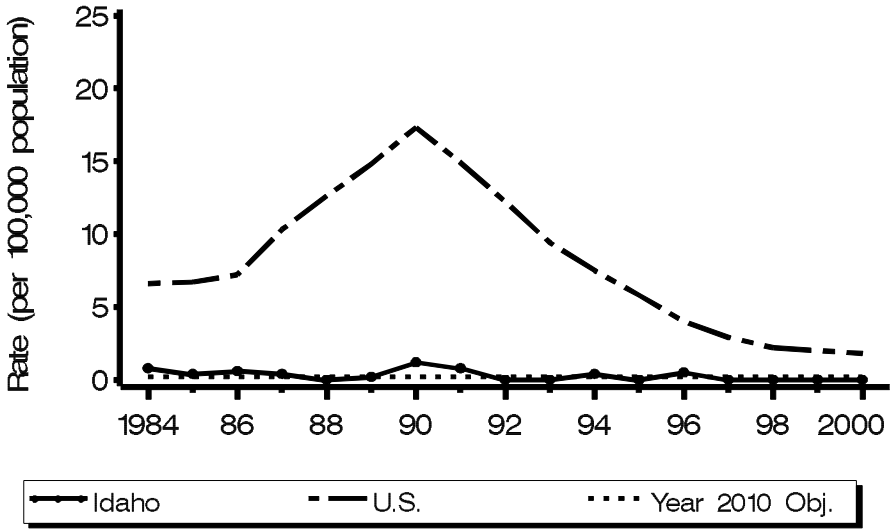


Figure C. P&S syphilis county rates, 2000

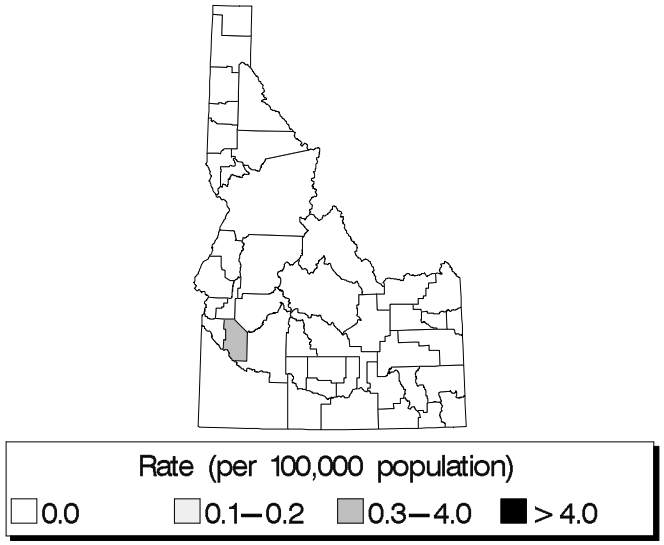
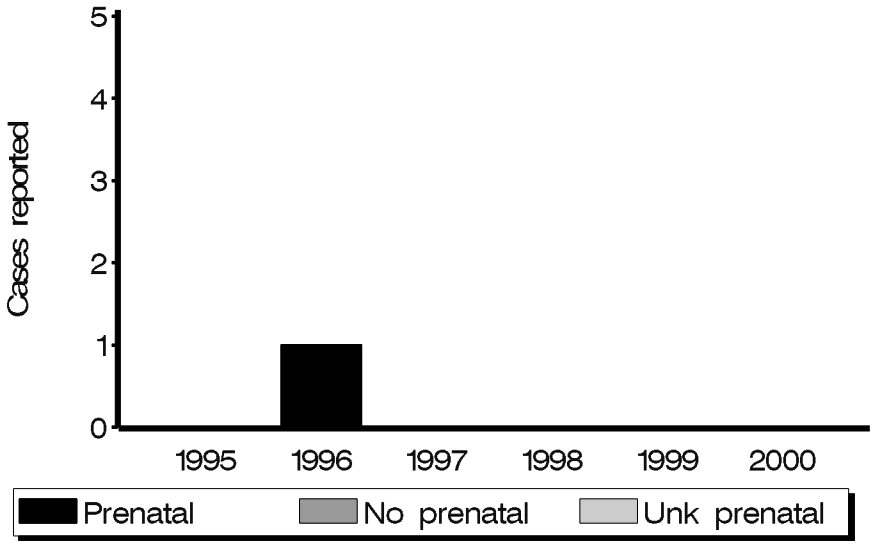


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Illinois — 2000

Figure A. P&S syphilis rates among men, 1984—2000

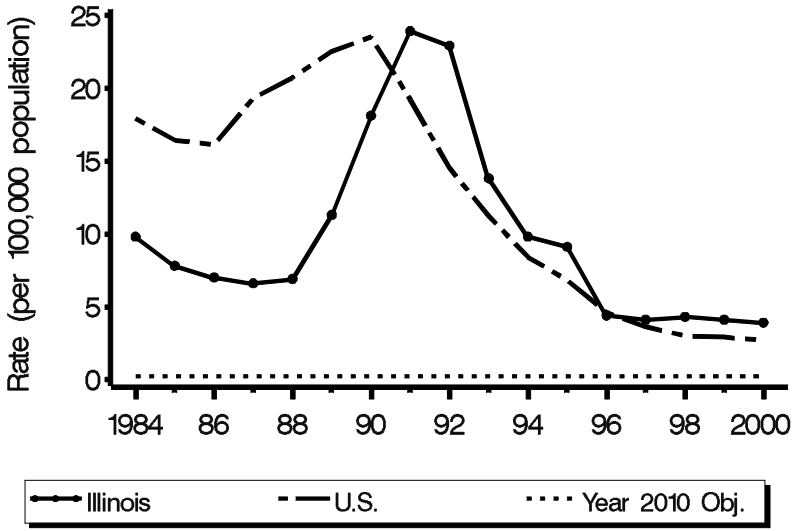


Figure B. P&S syphilis rates among women, 1984—2000

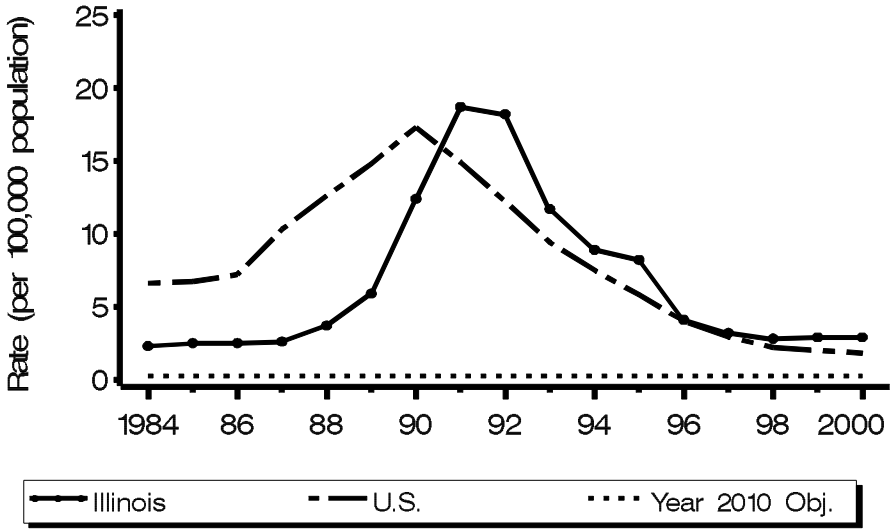


Figure C. P&S syphilis county rates, 2000

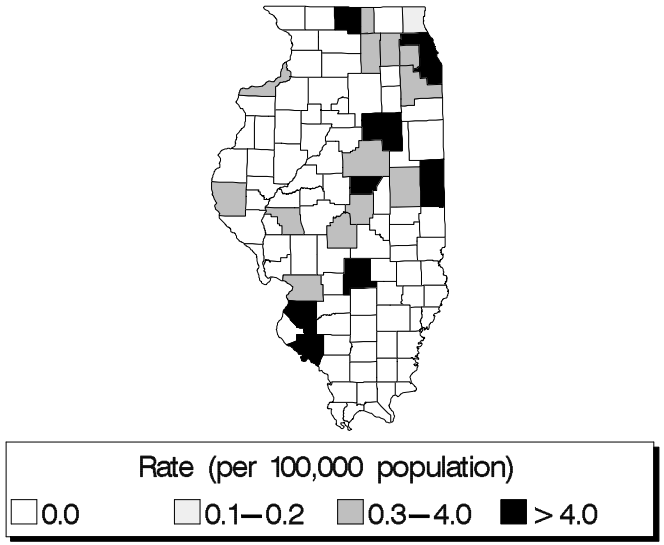
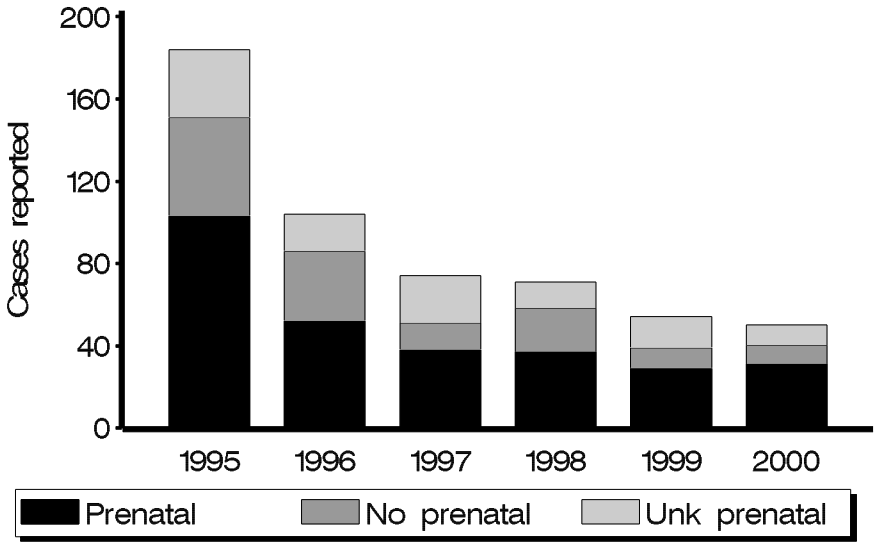


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Indiana — 2000

Figure A. P&S syphilis rates among men, 1984—2000

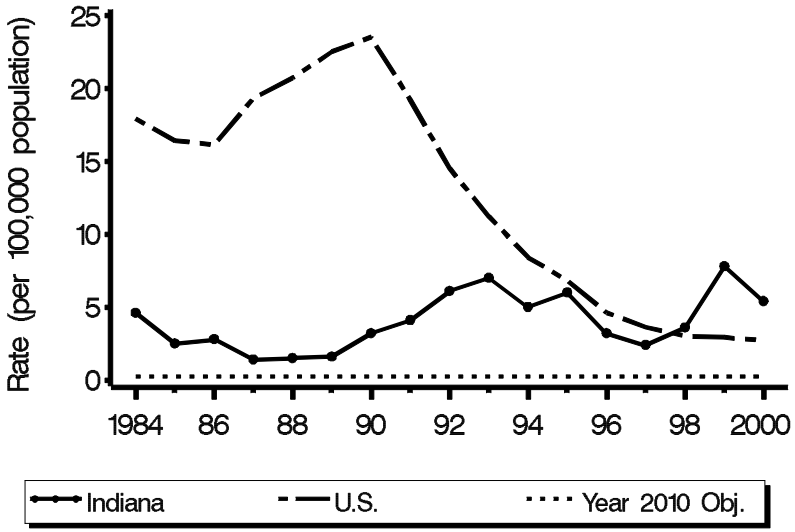


Figure B. P&S syphilis rates among women, 1984—2000

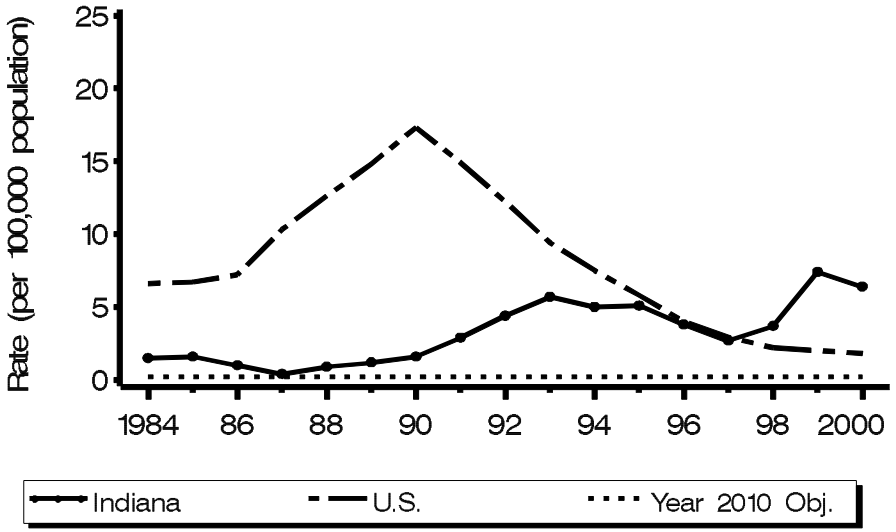


Figure C. P&S syphilis county rates, 2000

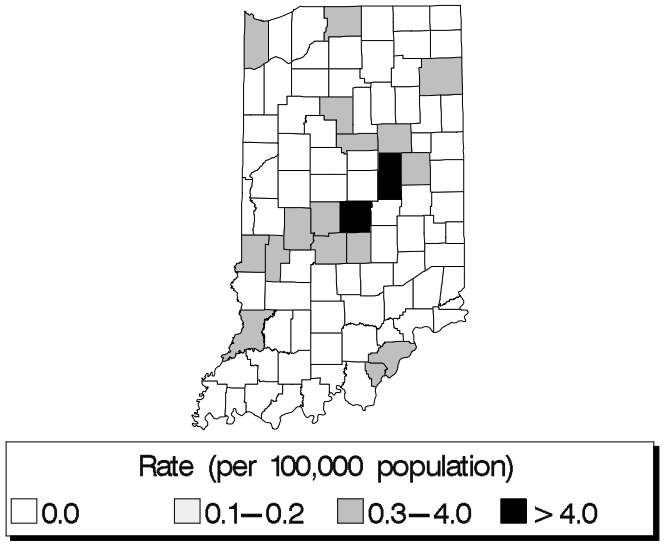
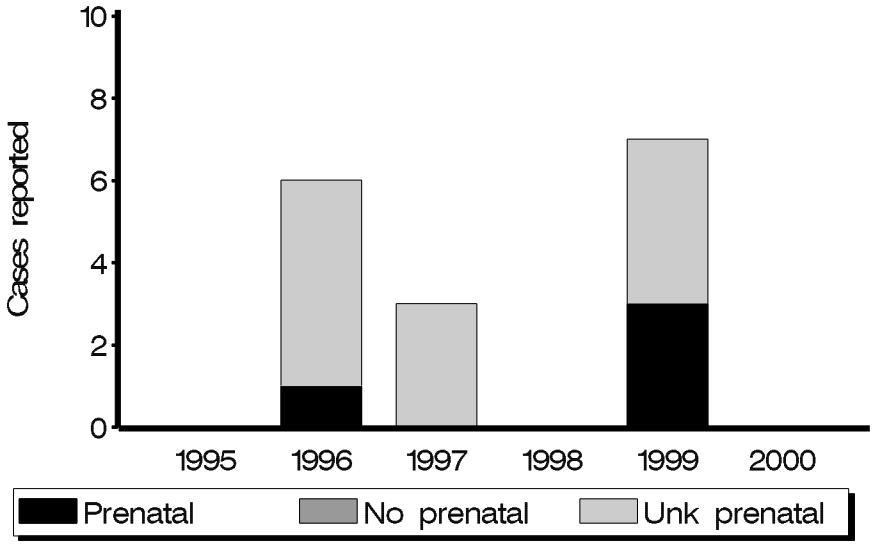


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Iowa — 2000

Figure A. P&S syphilis rates among men, 1984—2000

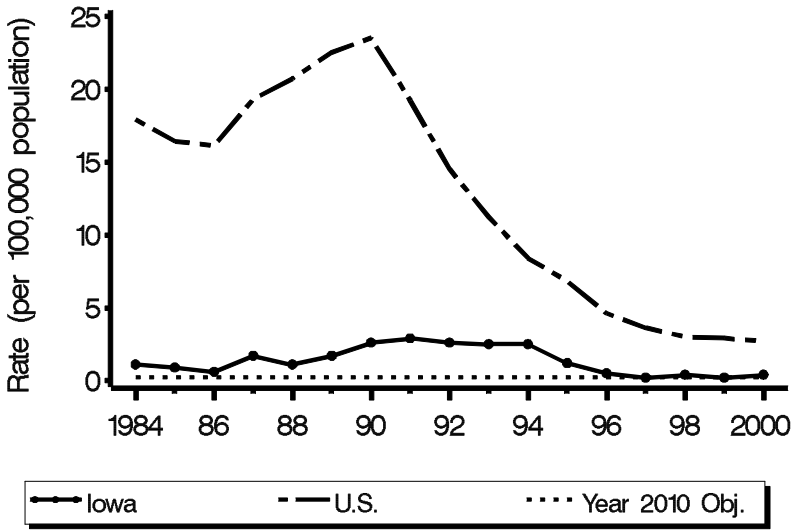


Figure B. P&S syphilis rates among women, 1984—2000

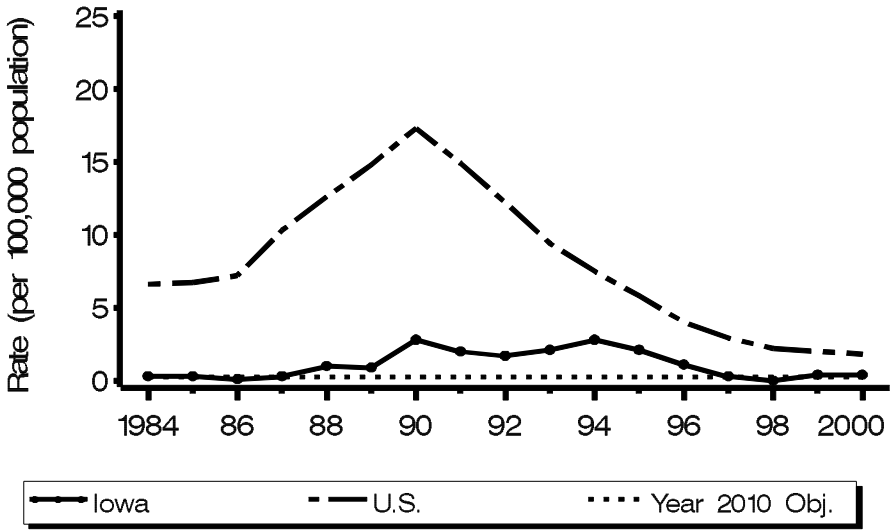


Figure C. P&S syphilis county rates, 2000

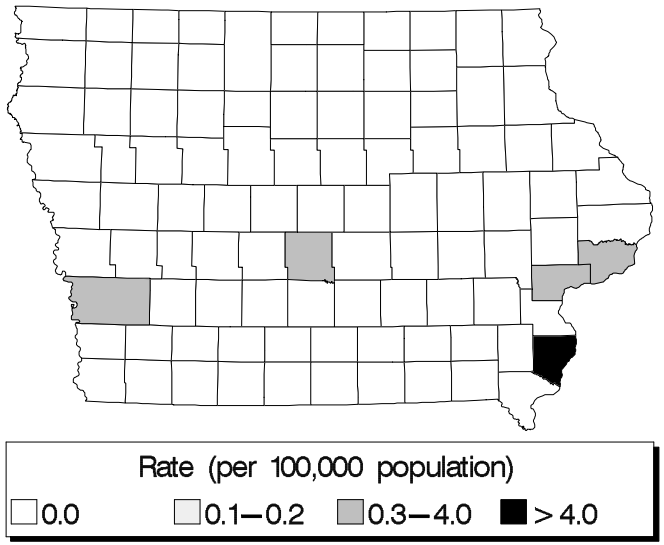
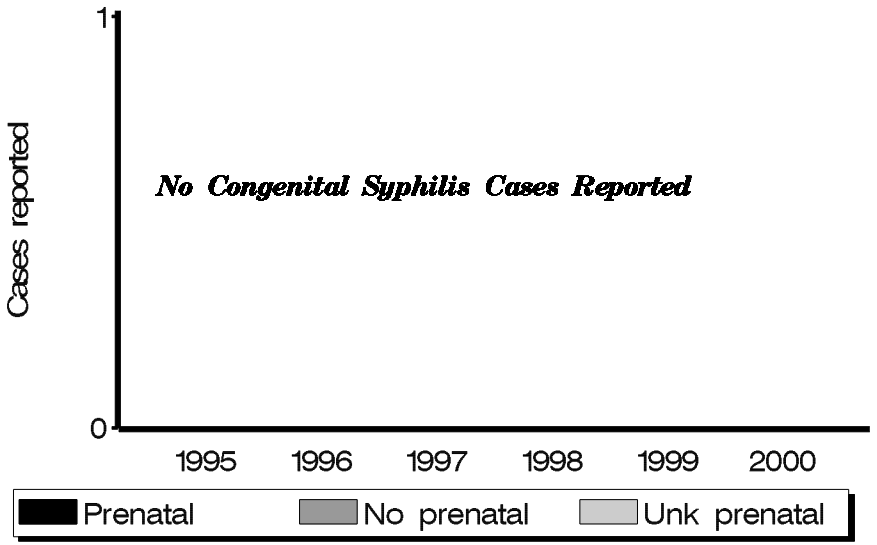


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Kansas — 2000

Figure A. P&S syphilis rates among men, 1984—2000

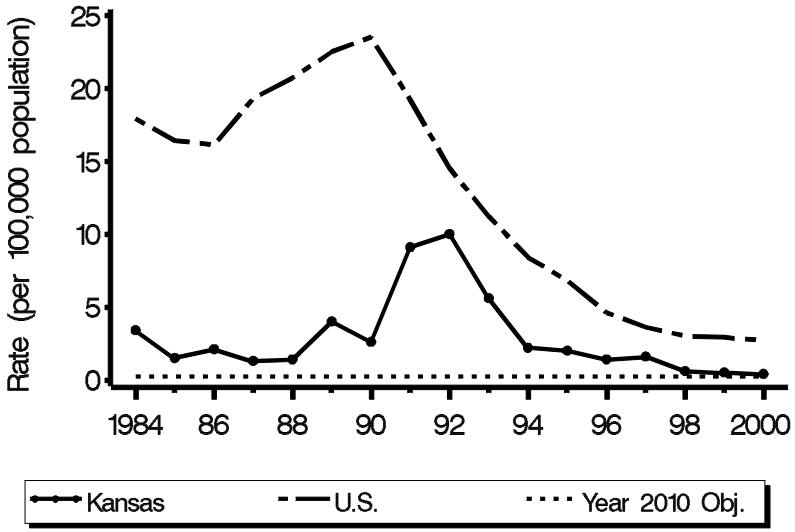


Figure B. P&S syphilis rates among women, 1984—2000

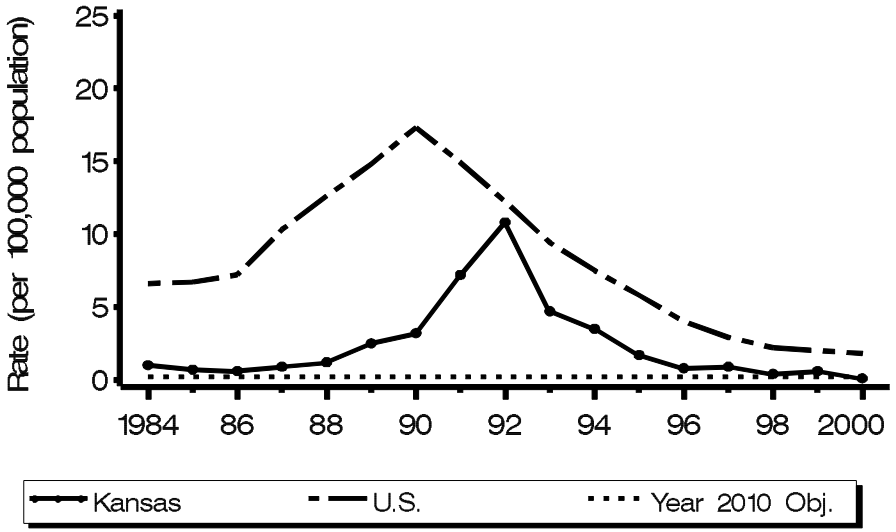


Figure C. P&S syphilis county rates, 2000

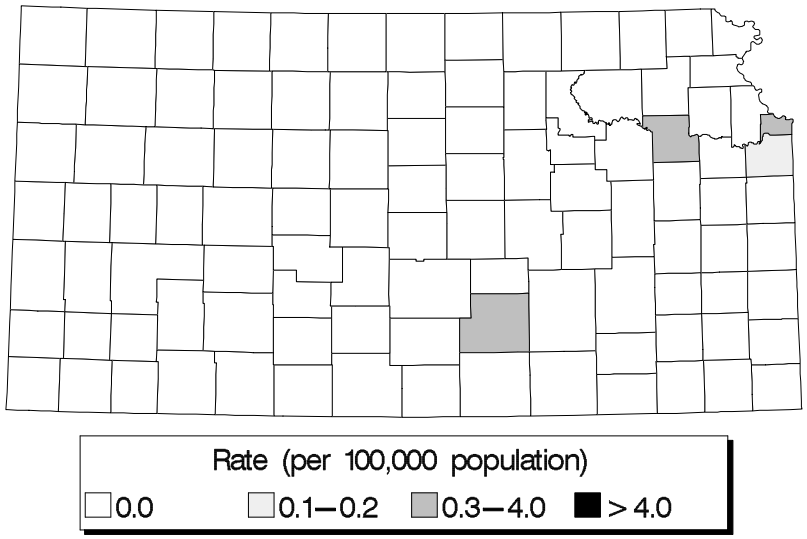
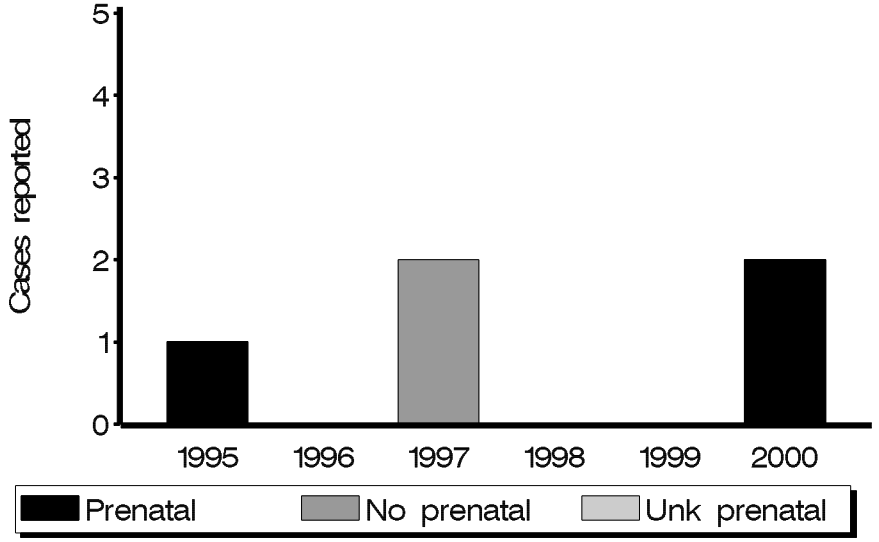


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Kentucky — 2000

Figure A. P&S syphilis rates among men, 1984—2000

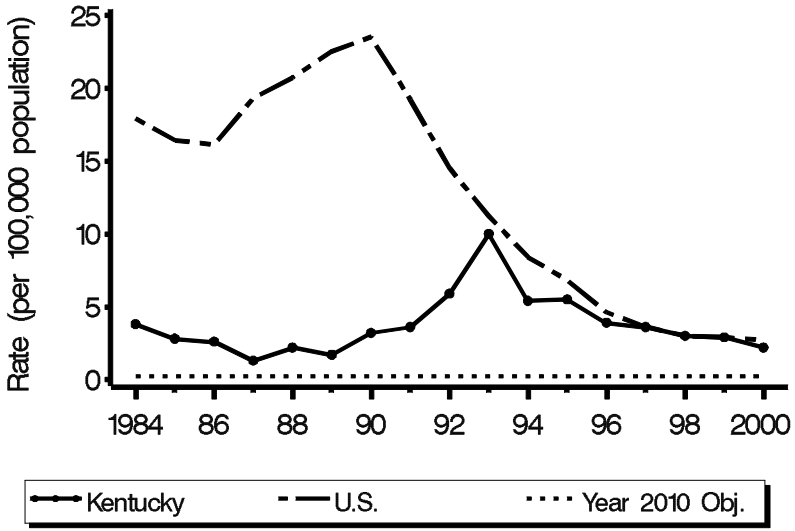


Figure B. P&S syphilis rates among women, 1984—2000

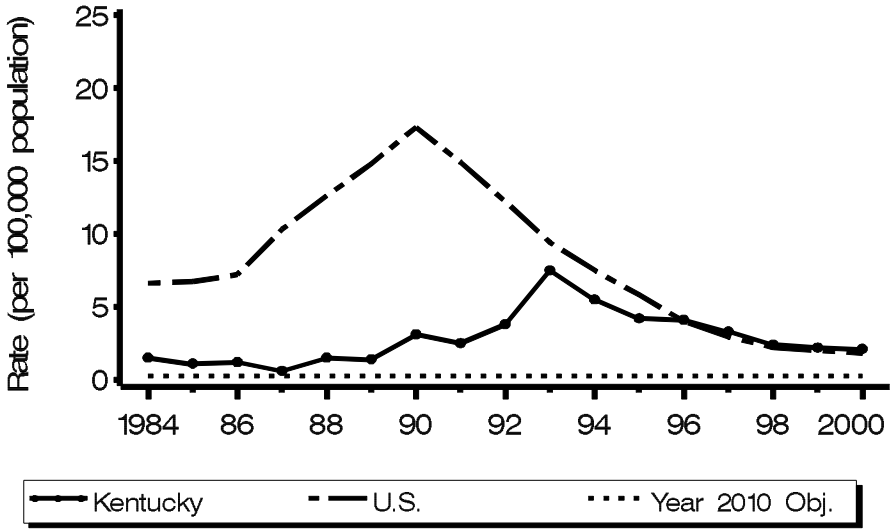


Figure C. P&S syphilis county rates, 2000

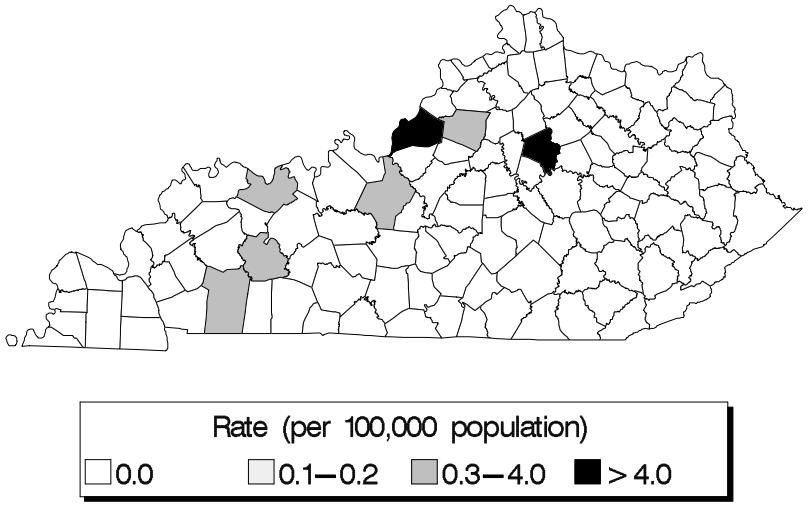
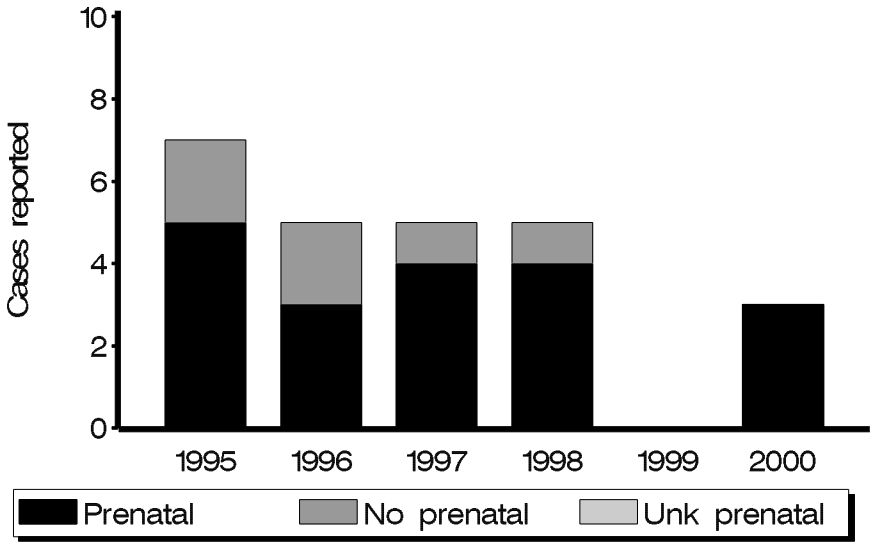


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Louisiana — 2000

Figure A. P&S syphilis rates among men, 1984—2000

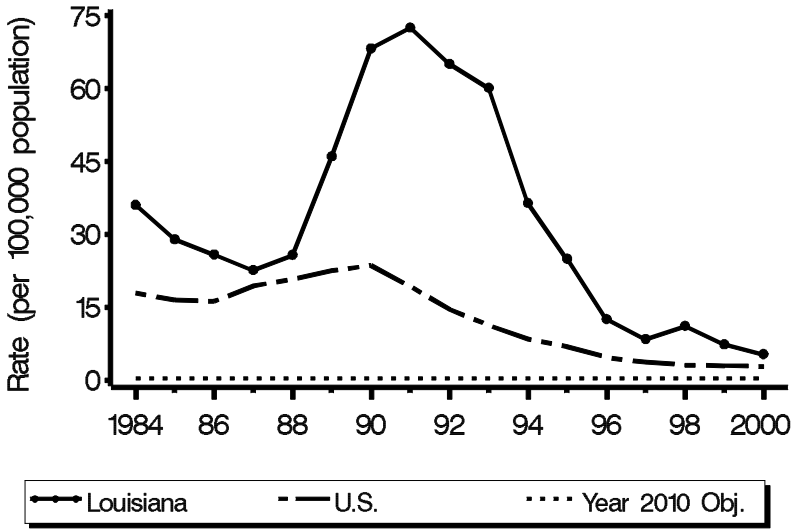


Figure B. P&S syphilis rates among women, 1984—2000

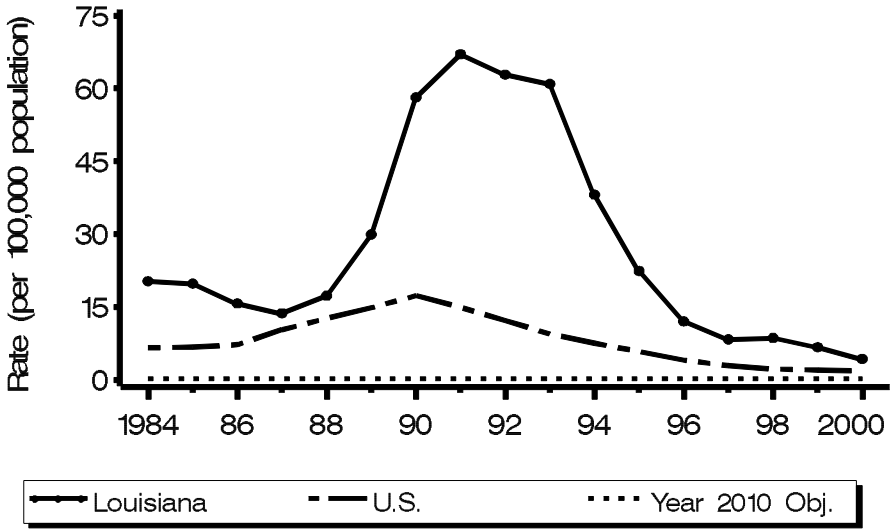


Figure C. P&S syphilis county rates, 2000

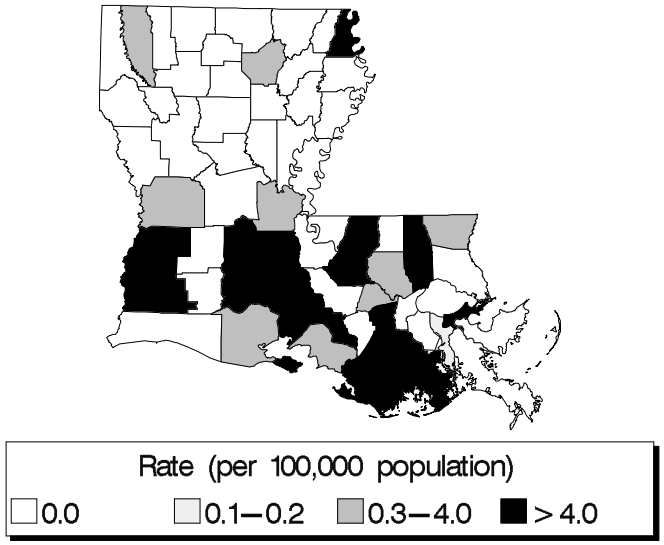
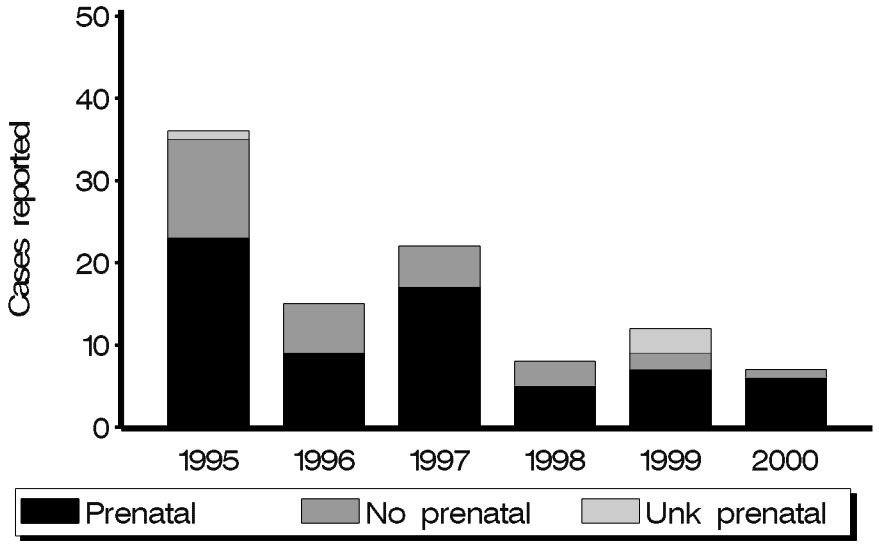


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Maine — 2000

Figure A. P&S syphilis rates among men, 1984—2000

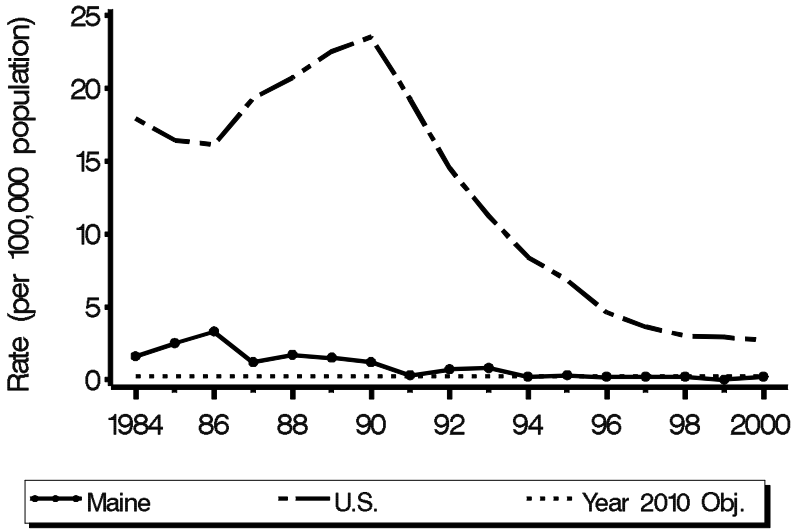


Figure B. P&S syphilis rates among women, 1984—2000

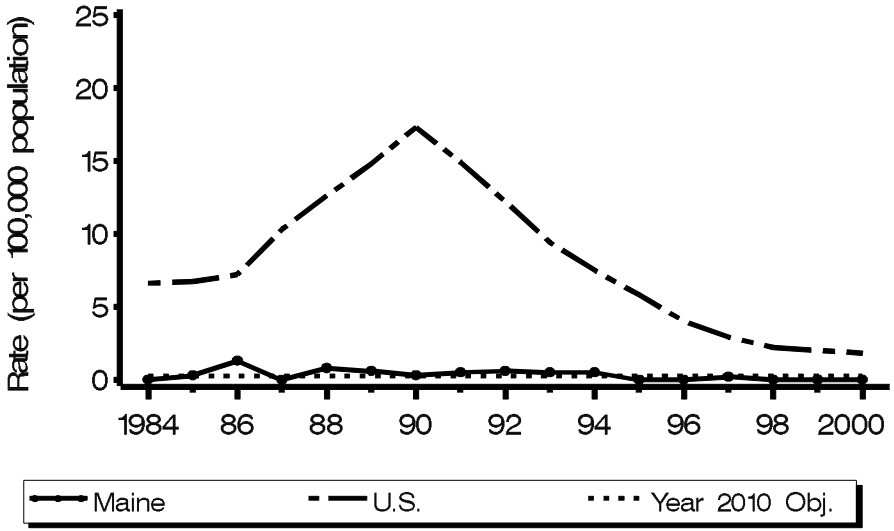


Figure C. P&S syphilis county rates, 2000

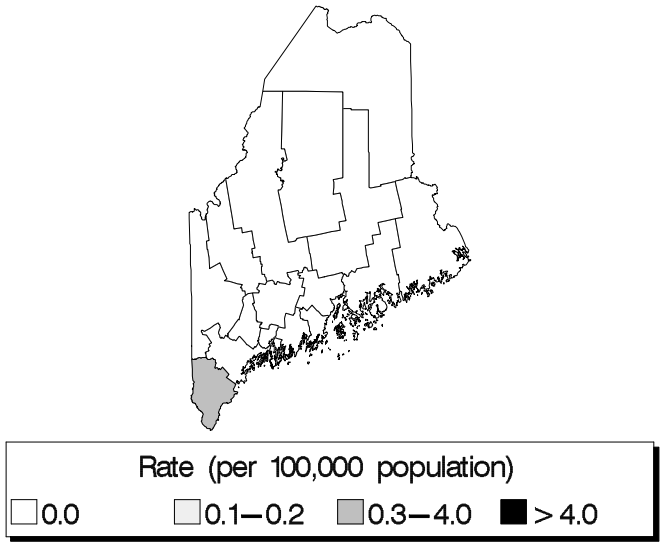
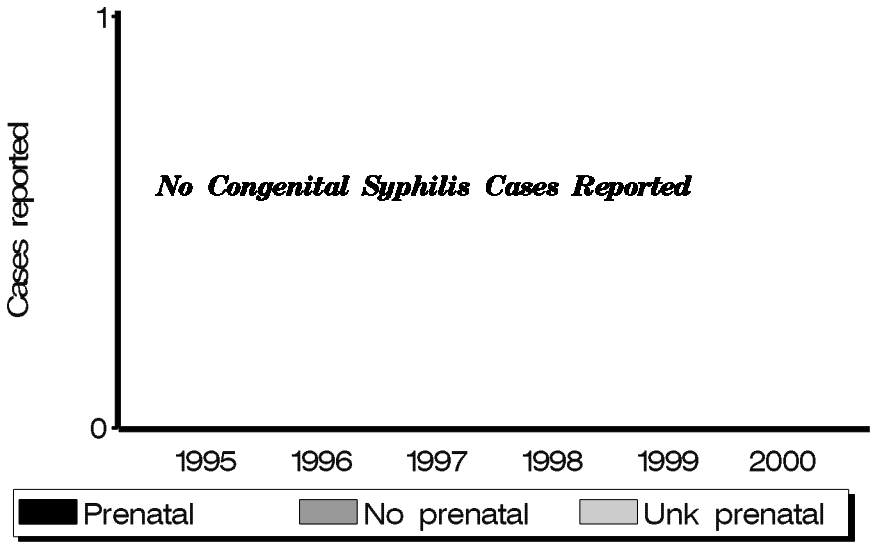


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Maryland — 2000

Figure A. P&S syphilis rates among men, 1984—2000

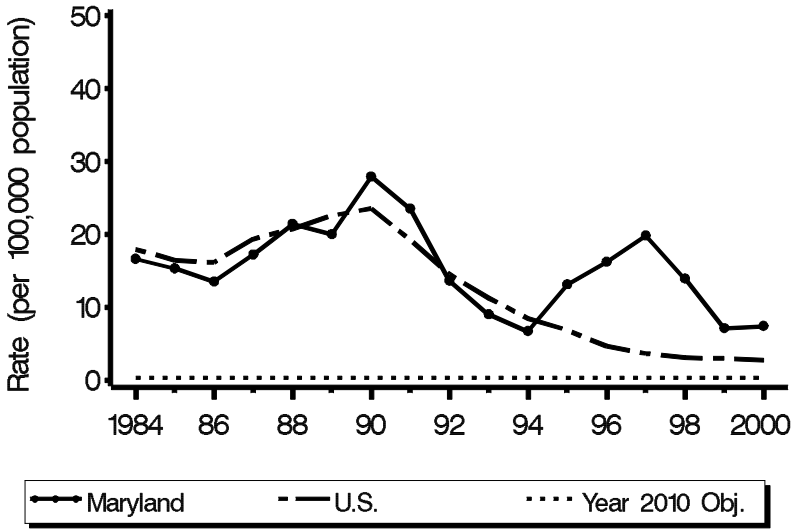


Figure B. P&S syphilis rates among women, 1984—2000

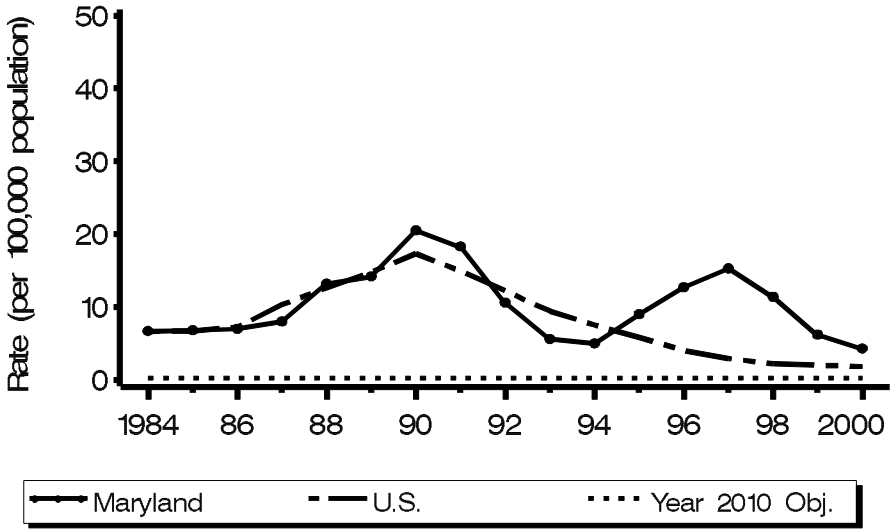


Figure C. P&S syphilis county rates, 2000

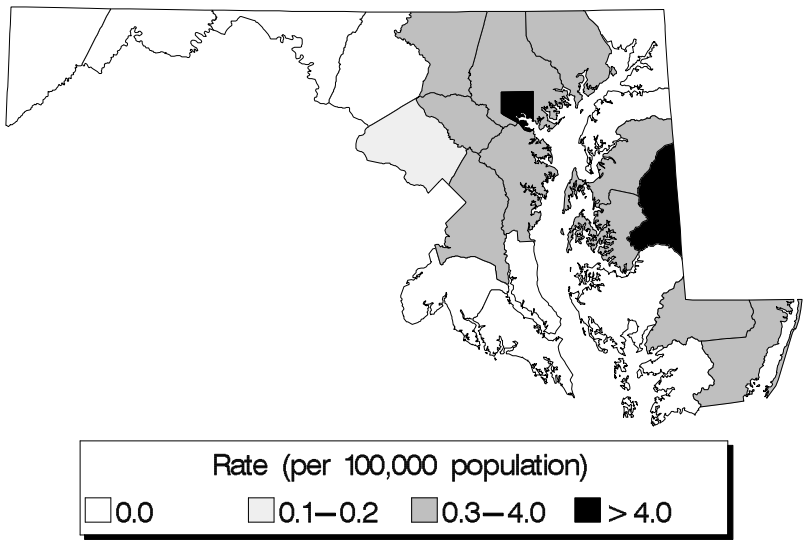
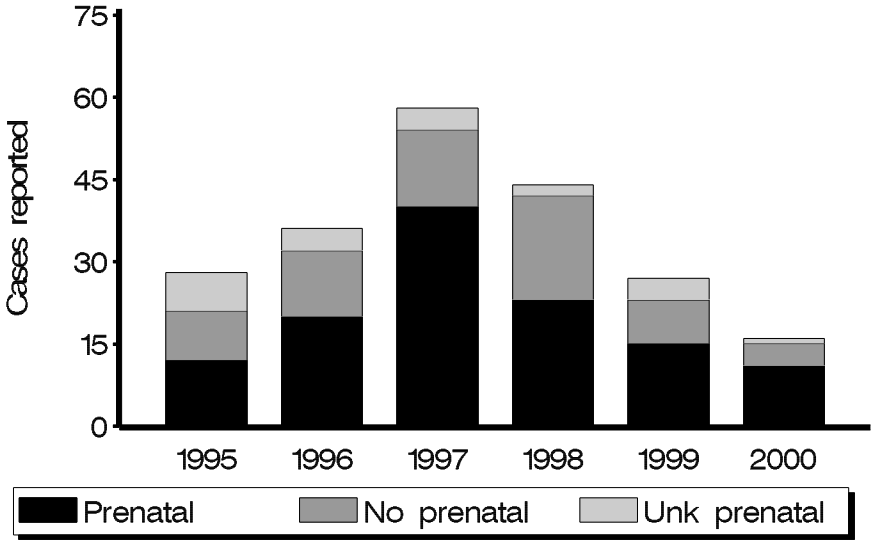


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Massachusetts — 2000

Figure A. P&S syphilis rates among men, 1984—2000

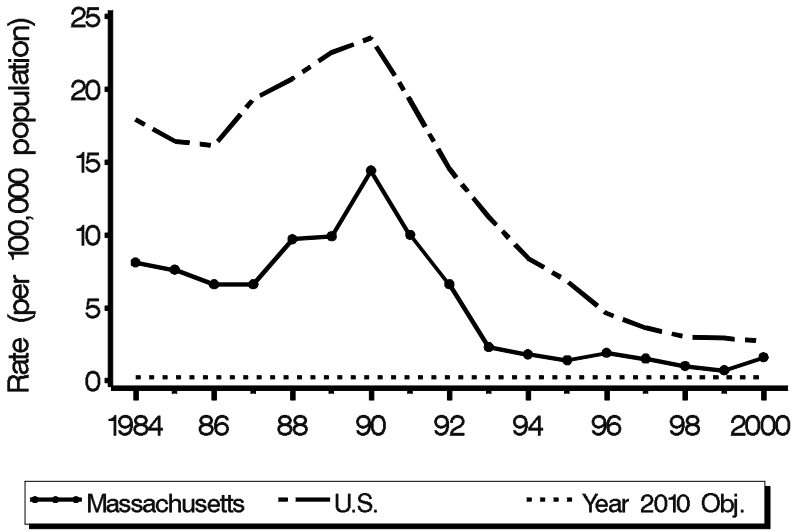


Figure B. P&S syphilis rates among women, 1984—2000

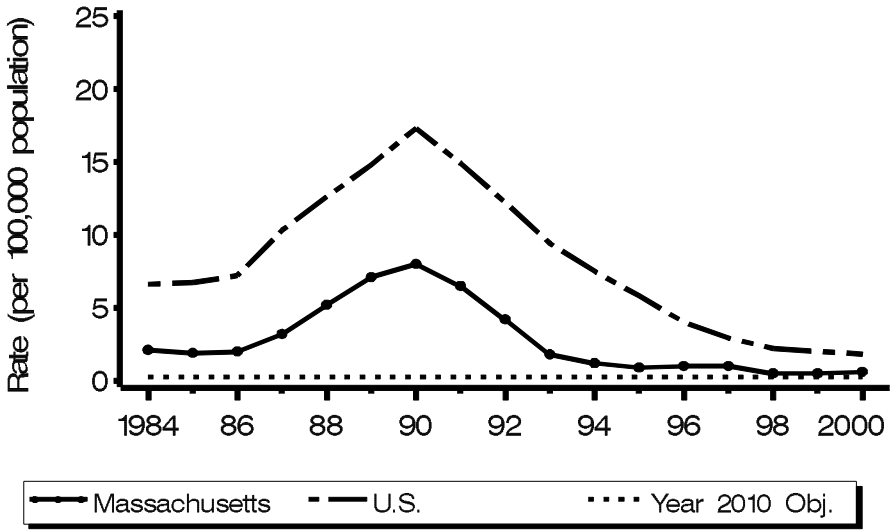


Figure C. P&S syphilis county rates, 2000

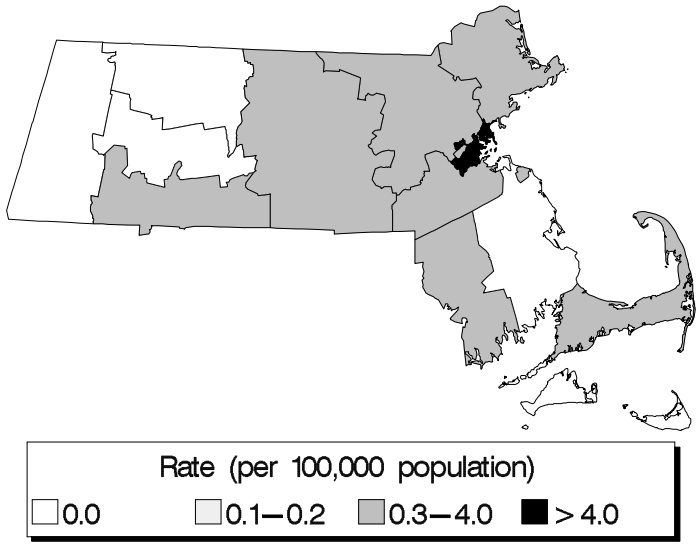
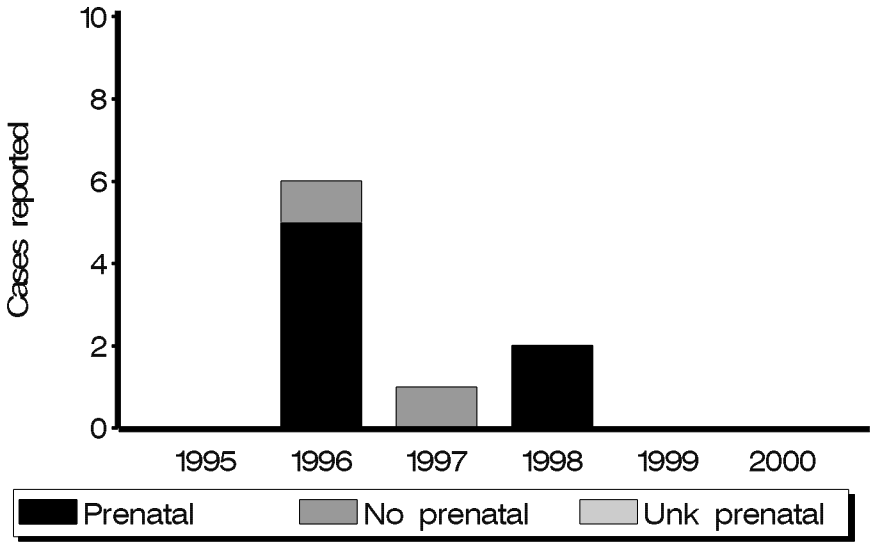


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Michigan — 2000

Figure A. P&S syphilis rates among men, 1984—2000

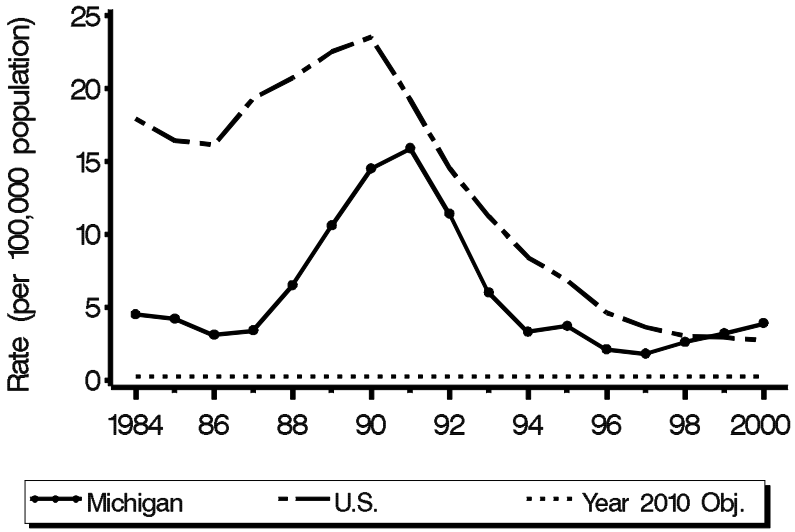


Figure B. P&S syphilis rates among women, 1984—2000

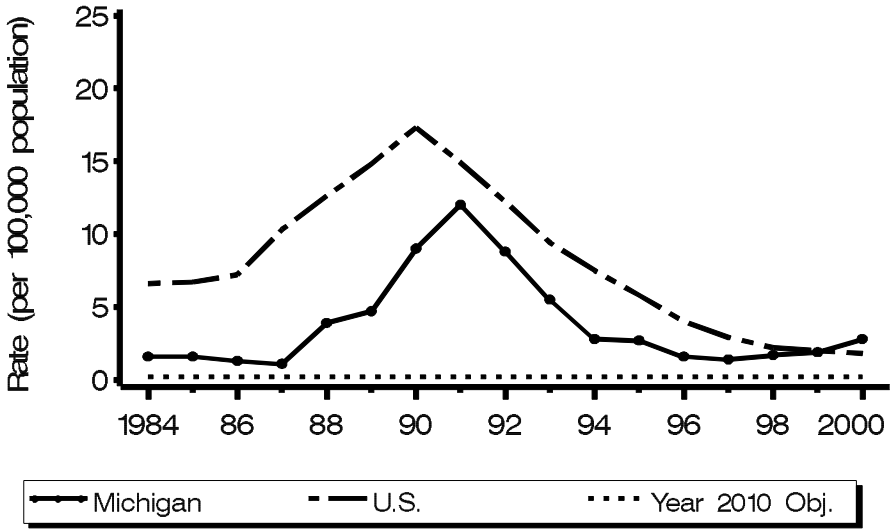


Figure C. P&S syphilis county rates, 2000

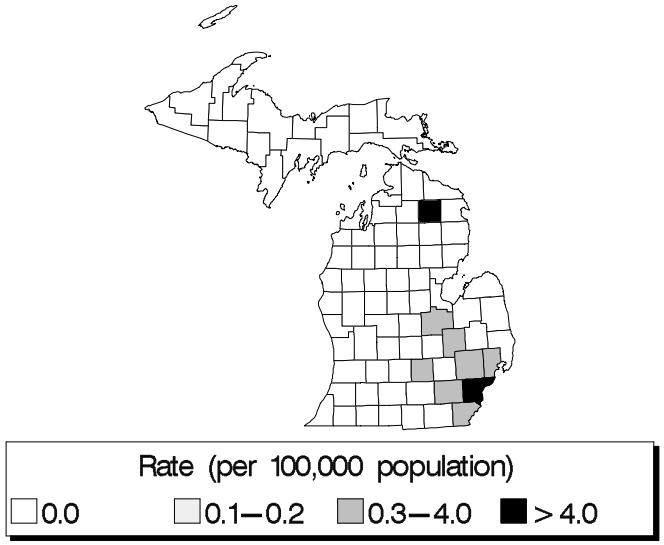
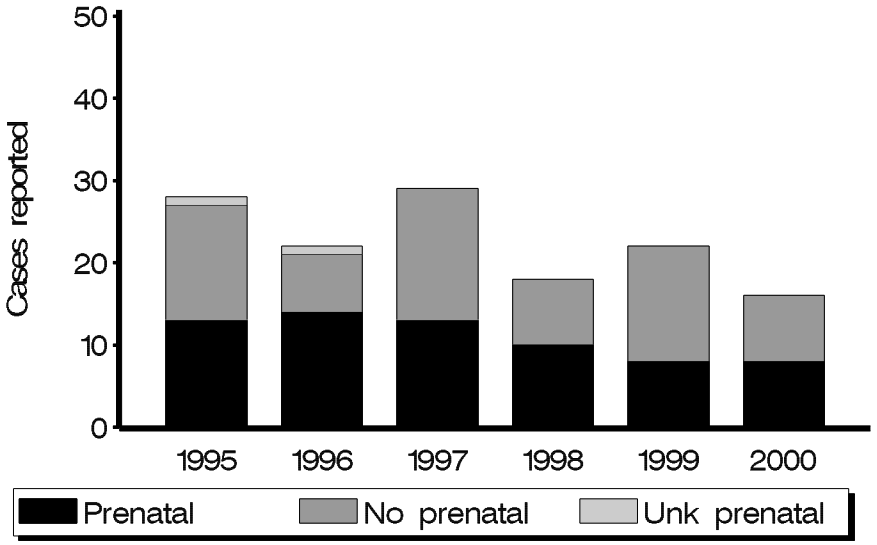


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Minnesota — 2000

Figure A. P&S syphilis rates among men, 1984—2000

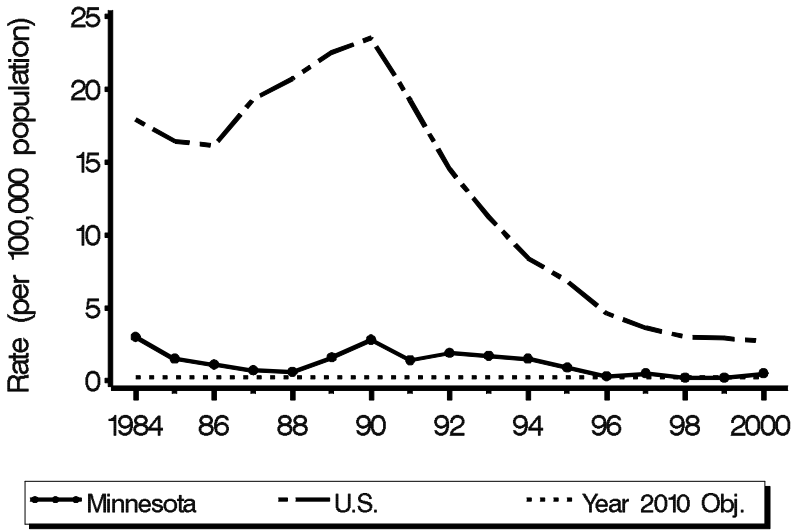


Figure B. P&S syphilis rates among women, 1984—2000

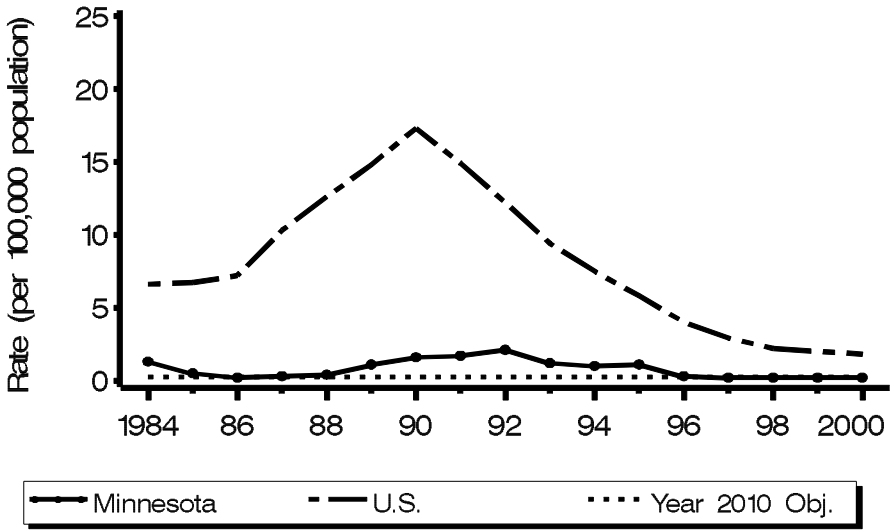


Figure C. P&S syphilis county rates, 2000

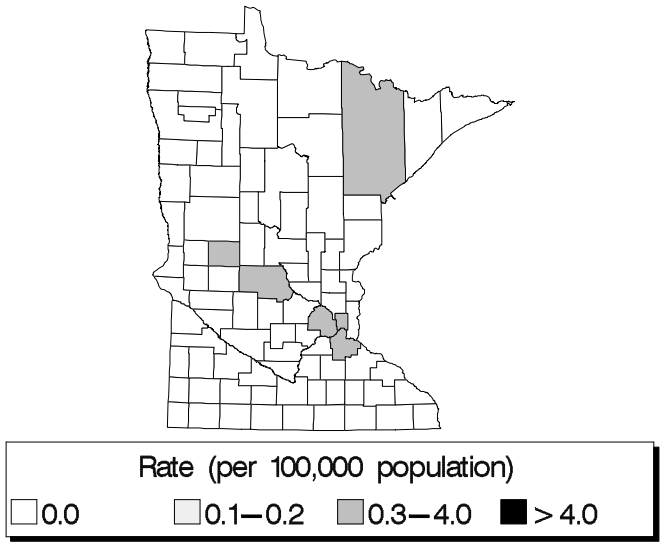
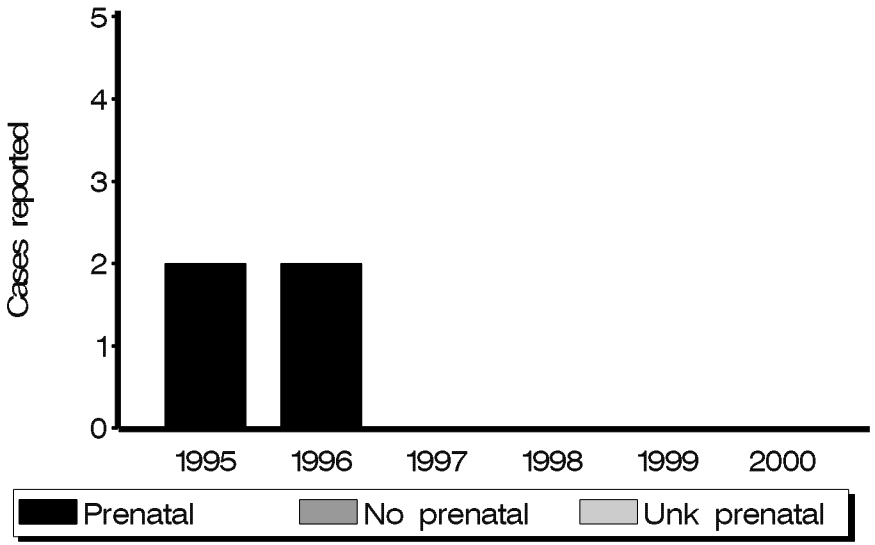


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Mississippi — 2000

Figure A. P&S syphilis rates among men, 1984—2000

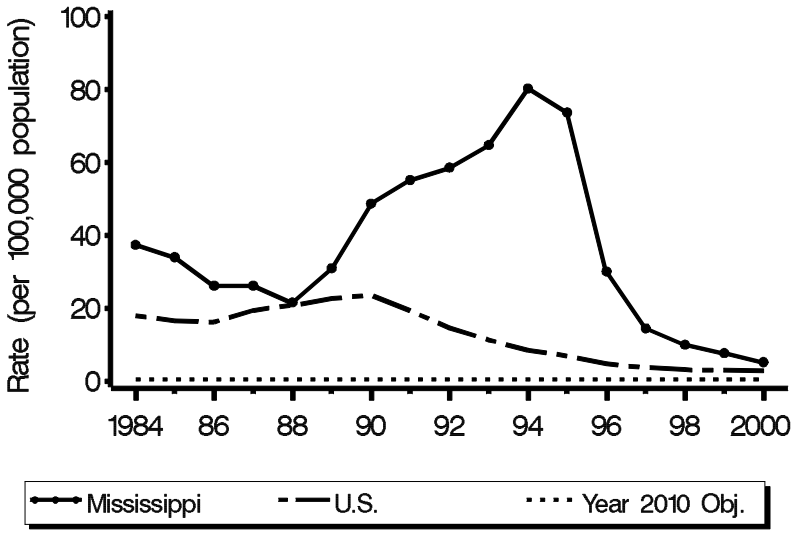


Figure B. P&S syphilis rates among women, 1984—2000

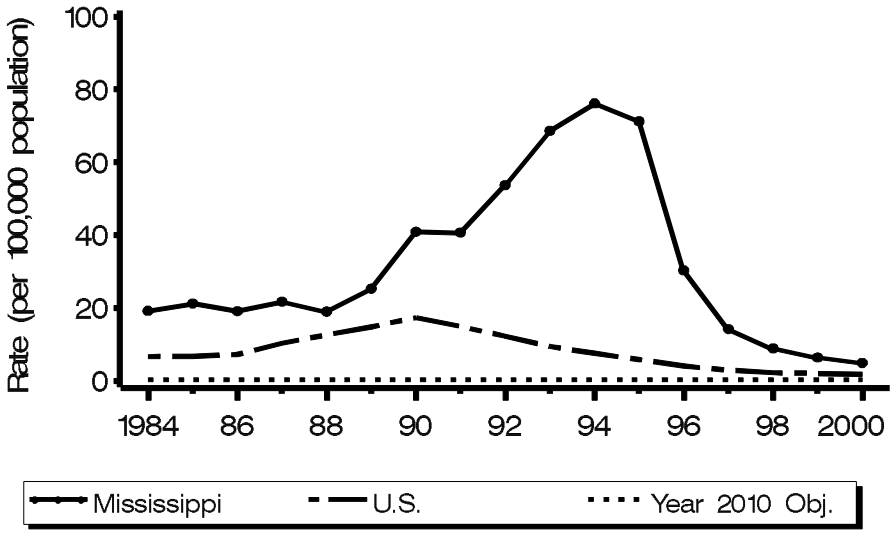


Figure C. P&S syphilis county rates, 2000

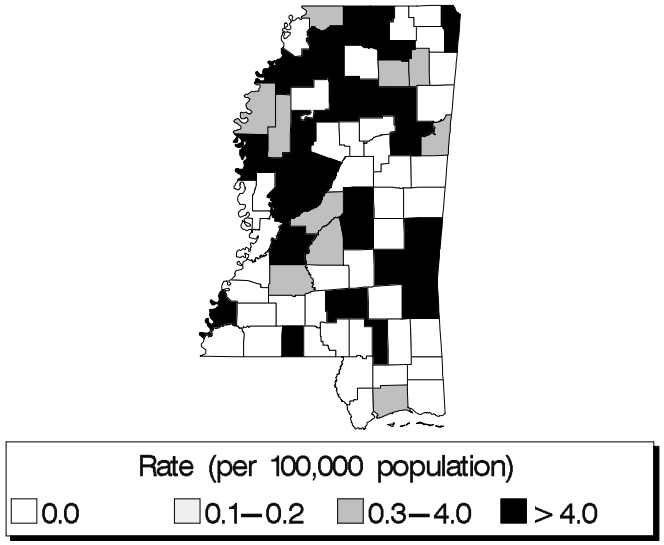
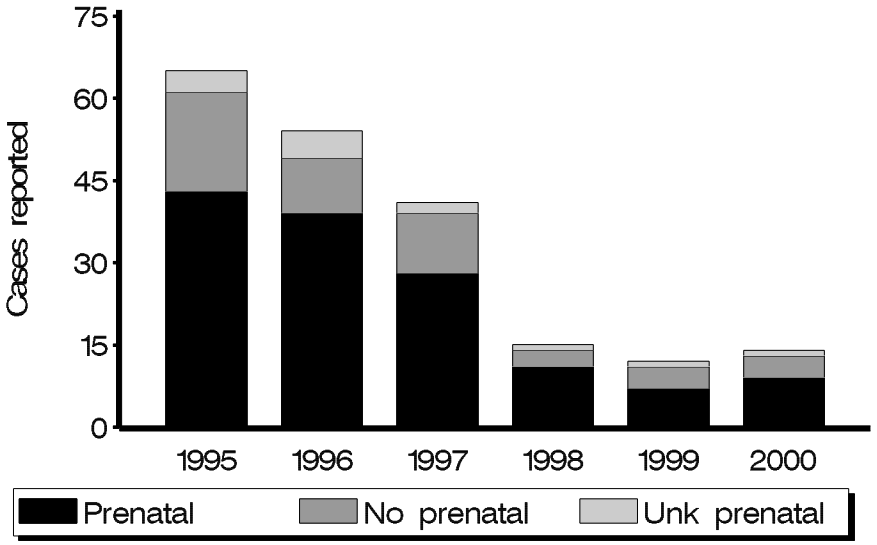


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Missouri — 2000

Figure A. P&S syphilis rates among men, 1984—2000

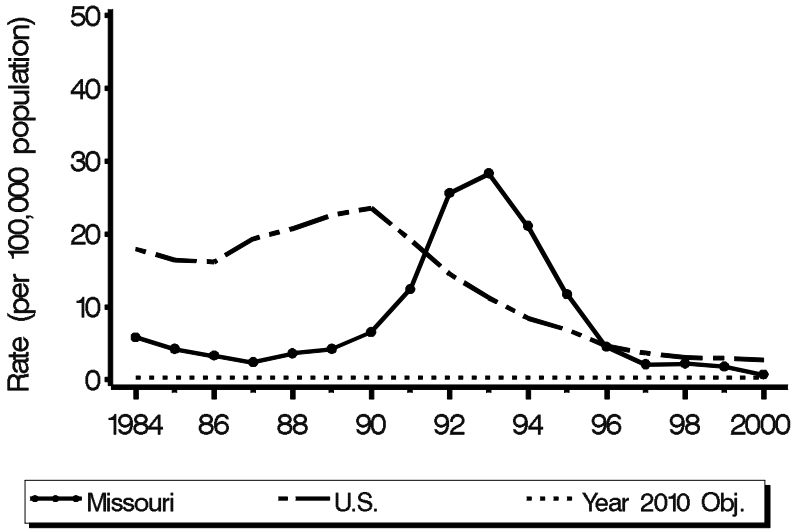


Figure B. P&S syphilis rates among women, 1984—2000

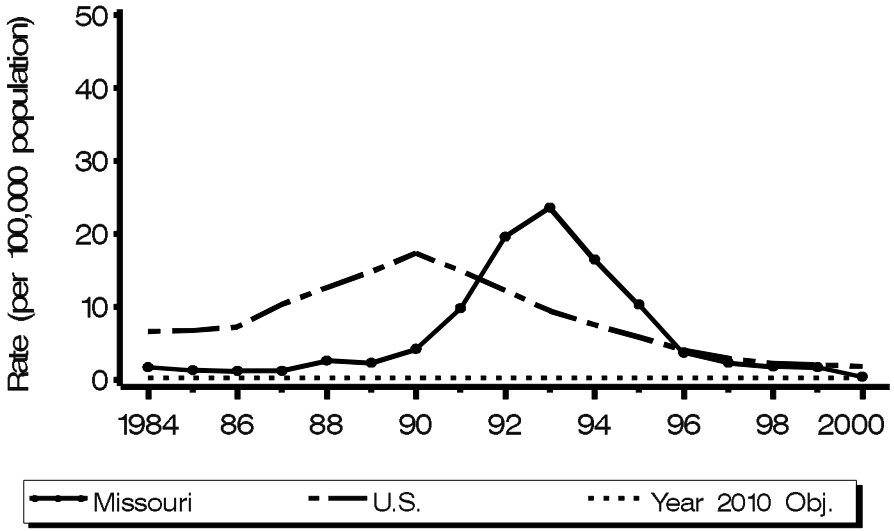


Figure C. P&S syphilis county rates, 2000

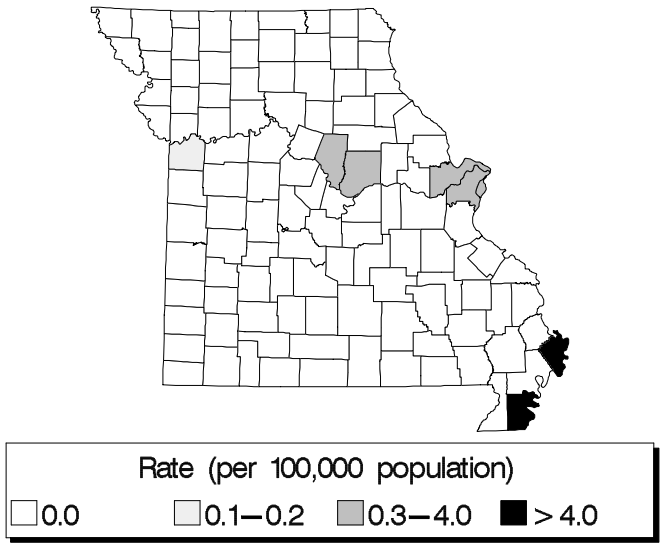
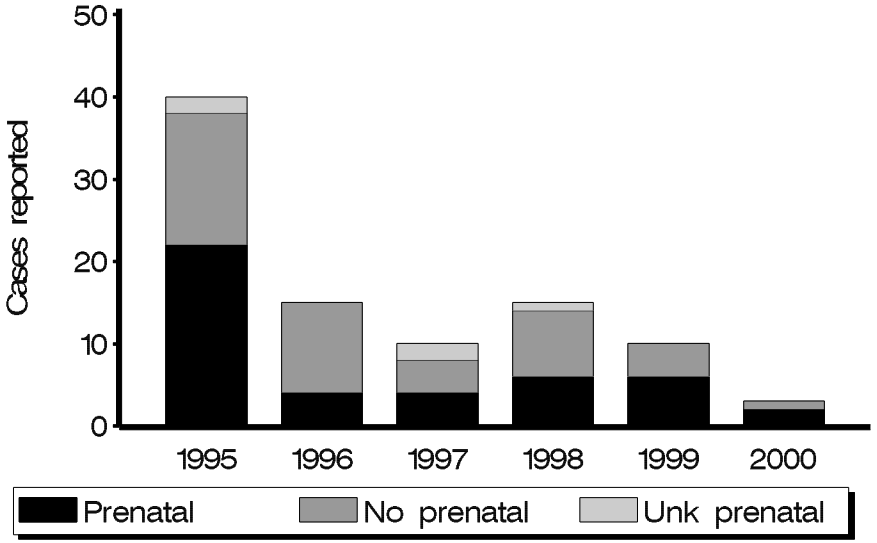


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Montana — 2000

Figure A. P&S syphilis rates among men, 1984—2000

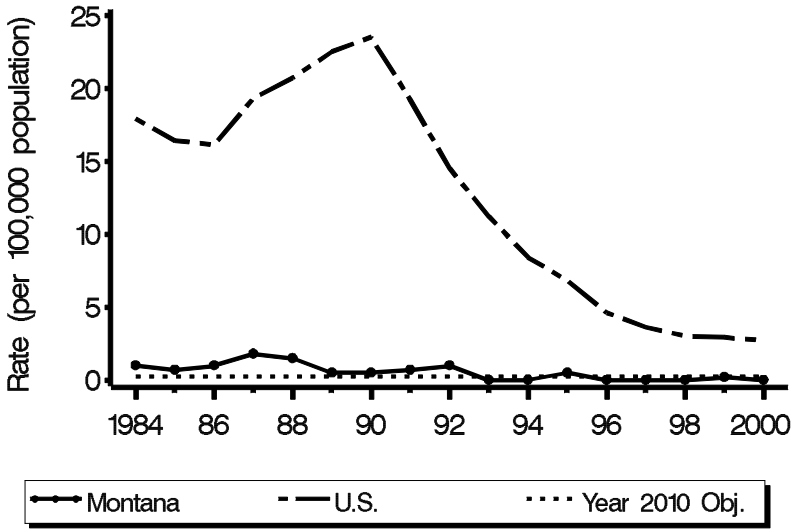


Figure B. P&S syphilis rates among women, 1984—2000

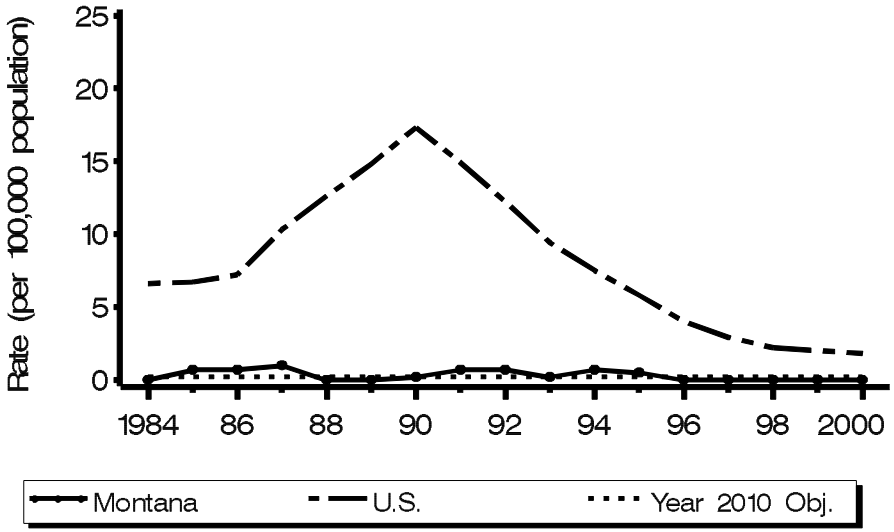


Figure C. P&S syphilis county rates, 2000

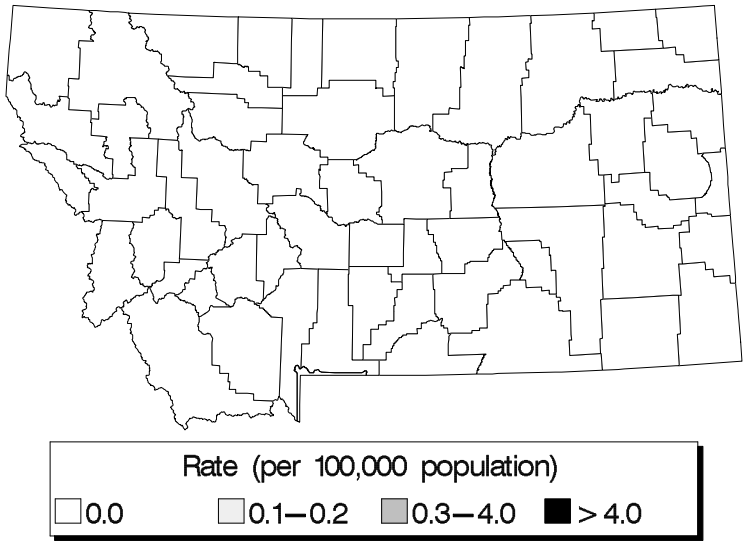
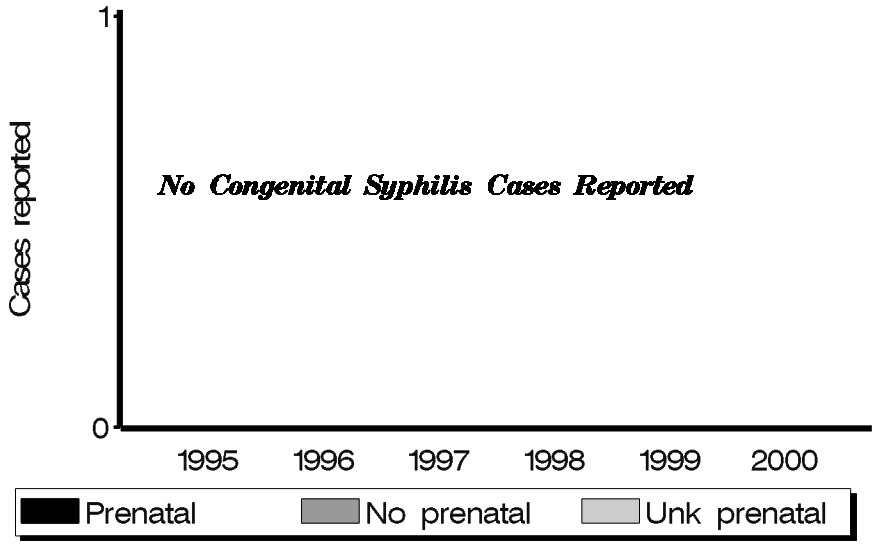


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Nebraska — 2000

Figure A. P&S syphilis rates among men, 1984—2000

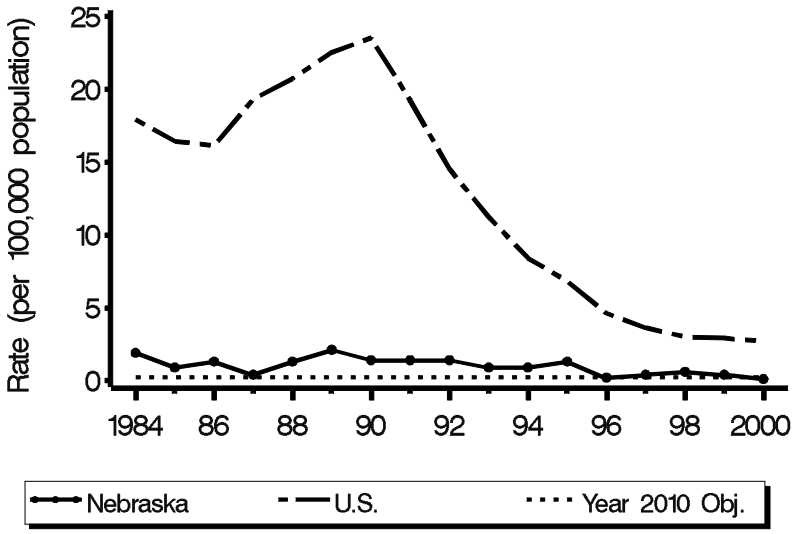


Figure B. P&S syphilis rates among women, 1984—2000

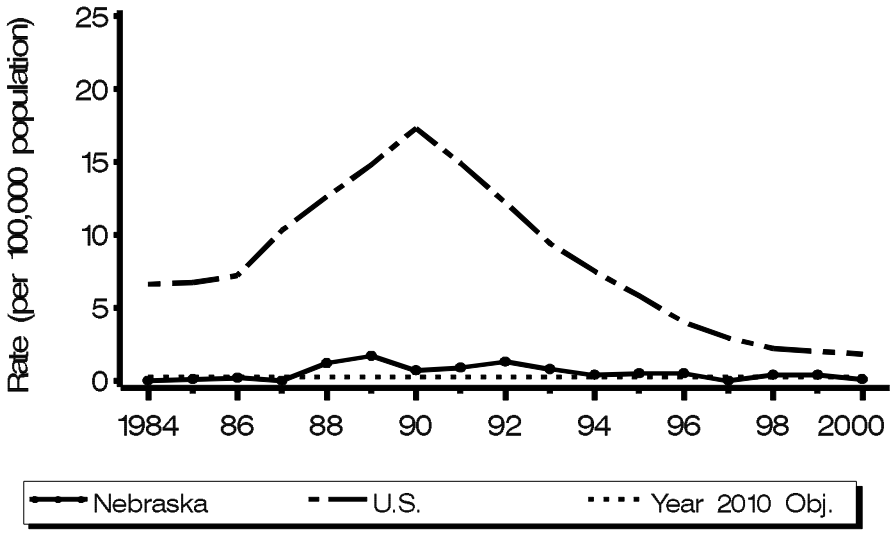


Figure C. P&S syphilis county rates, 2000

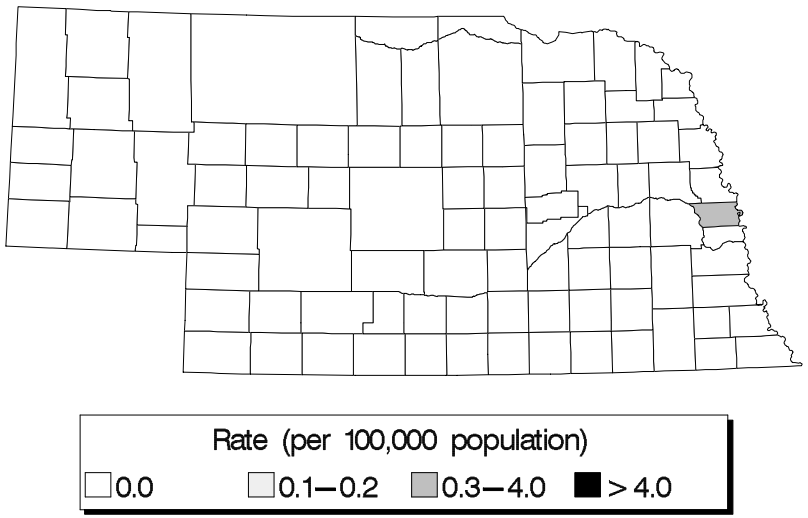
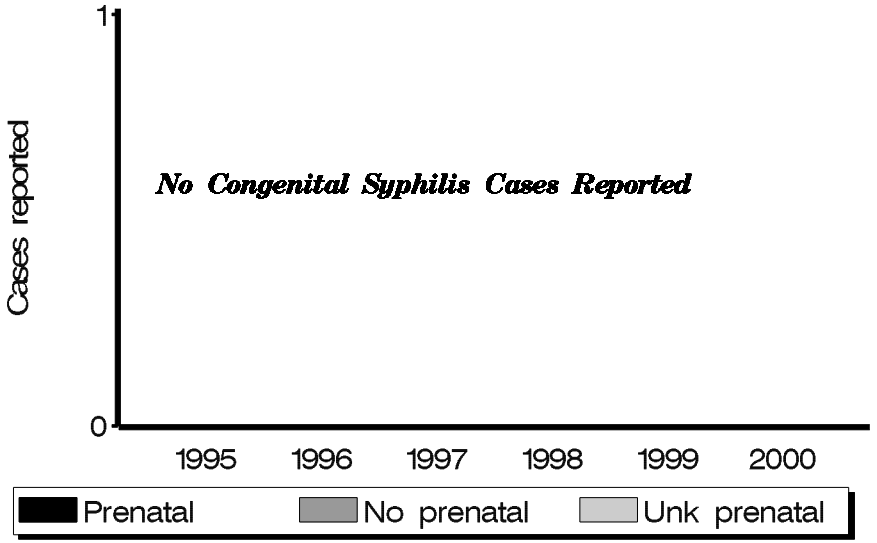


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Nevada — 2000

Figure A. P&S syphilis rates among men, 1984—2000

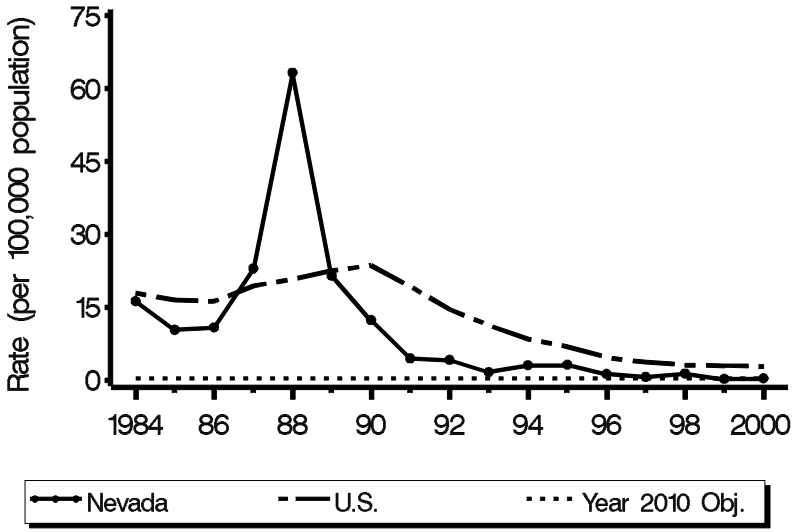


Figure B. P&S syphilis rates among women, 1984—2000

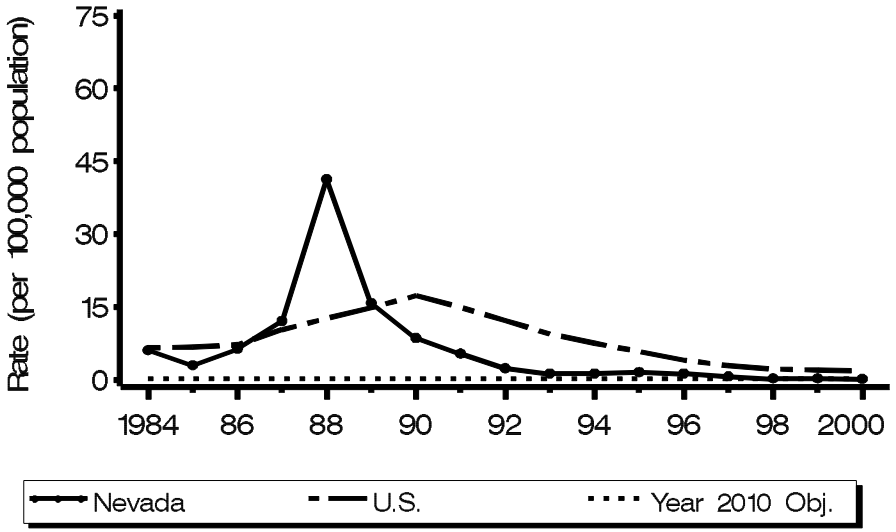


Figure C. P&S syphilis county rates, 2000

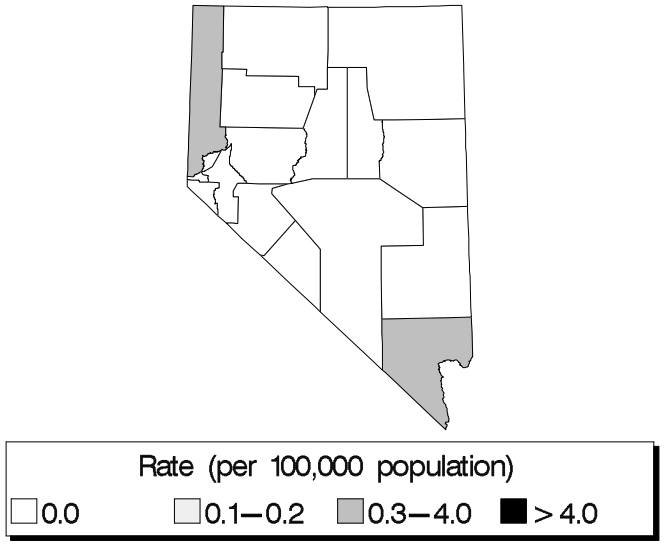
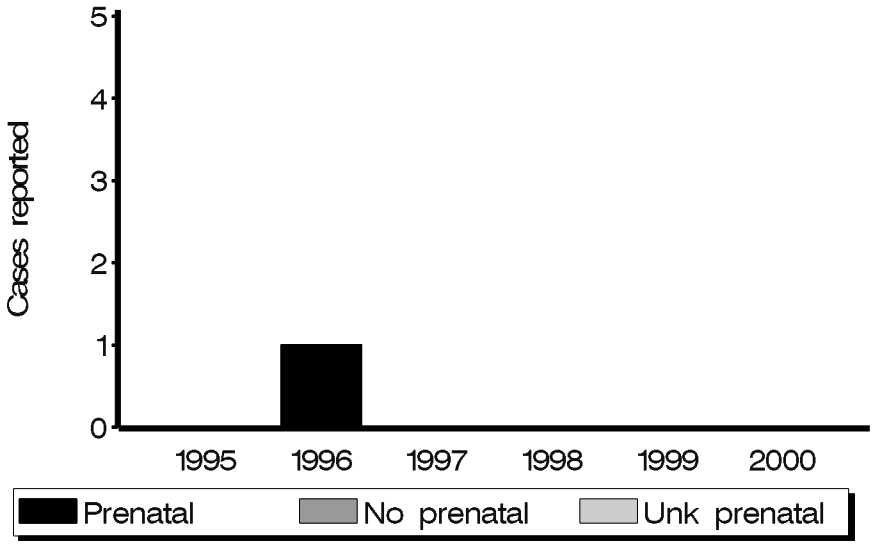


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



New Hampshire — 2000

Figure A. P&S syphilis rates among men, 1984—2000

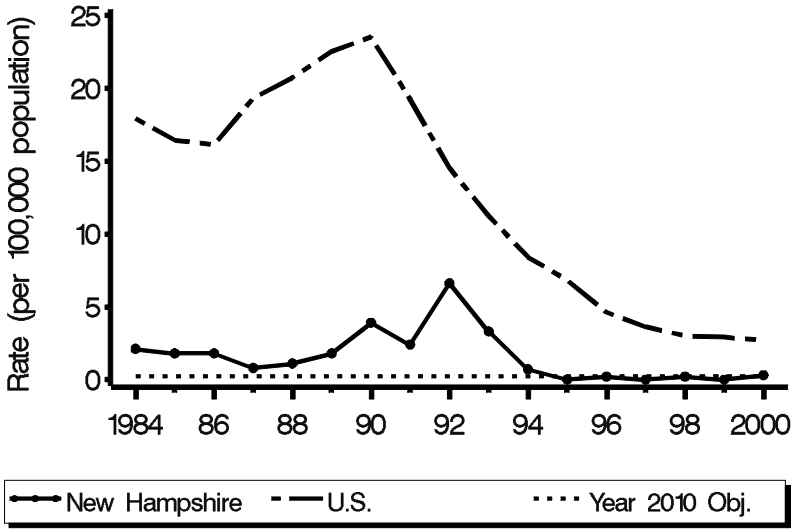


Figure B. P&S syphilis rates among women, 1984—2000

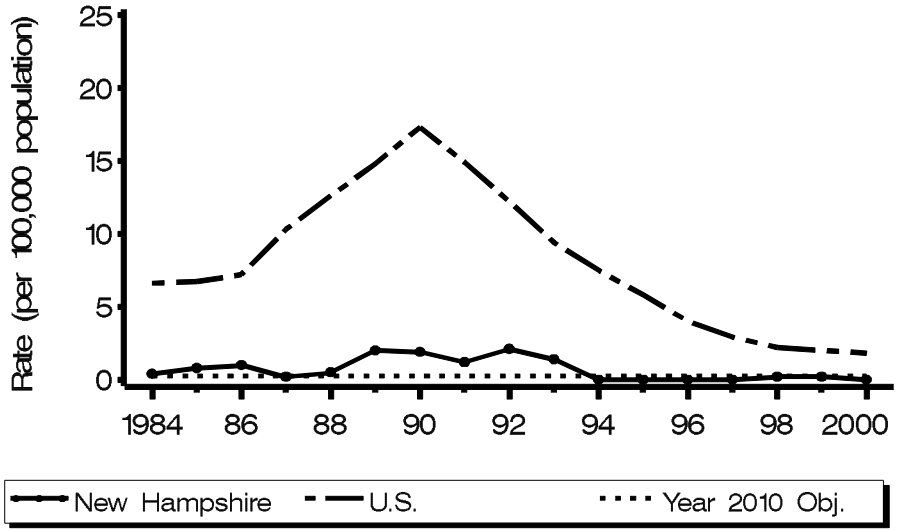


Figure C. P&S syphilis county rates, 2000

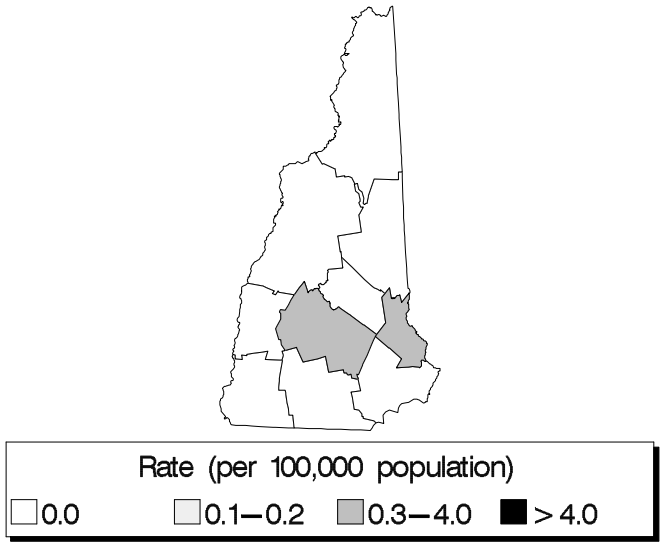
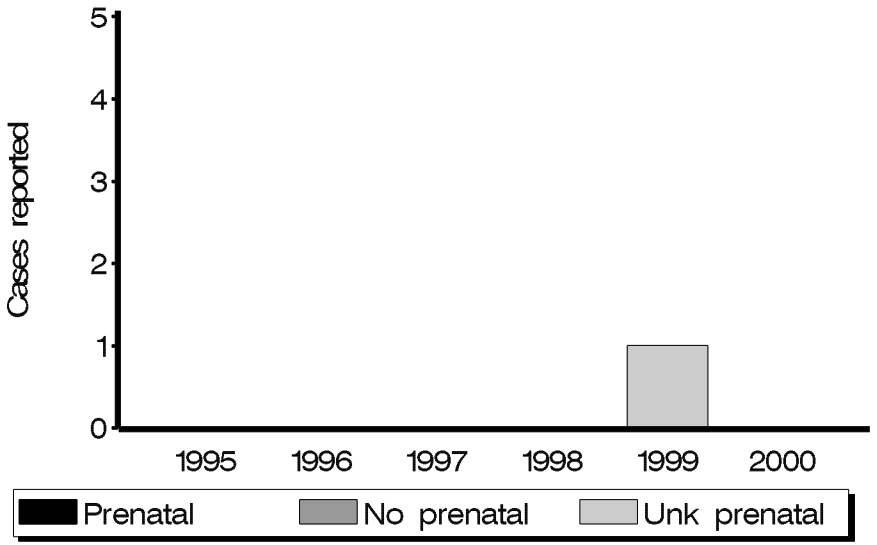


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



New Jersey — 2000

Figure A. P&S syphilis rates among men, 1984—2000

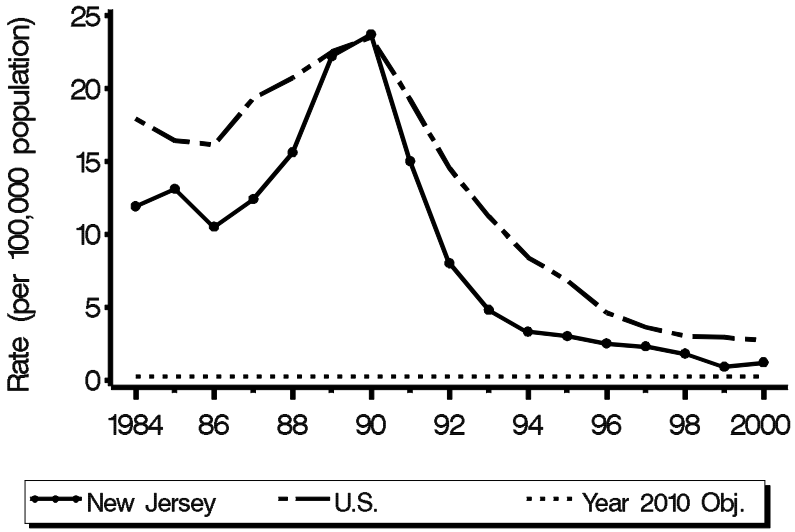


Figure B. P&S syphilis rates among women, 1984—2000

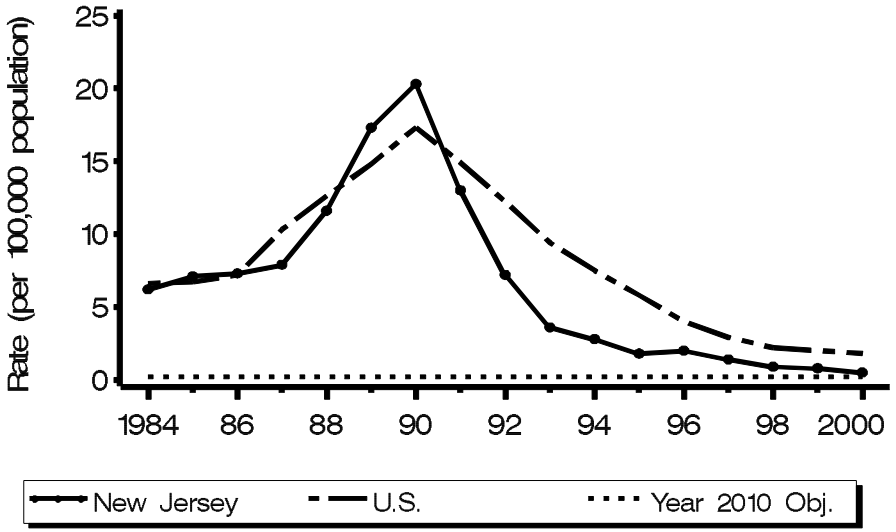


Figure C. P&S syphilis county rates, 2000

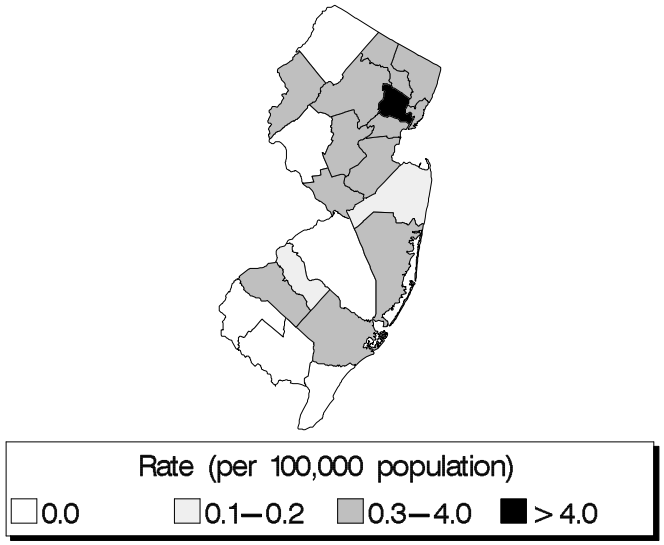
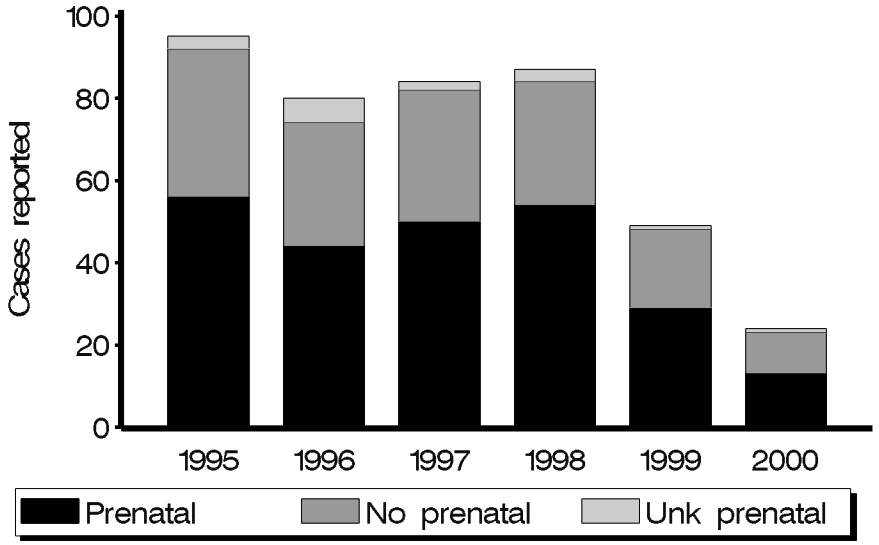


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



New Mexico — 2000

Figure A. P&S syphilis rates among men, 1984—2000

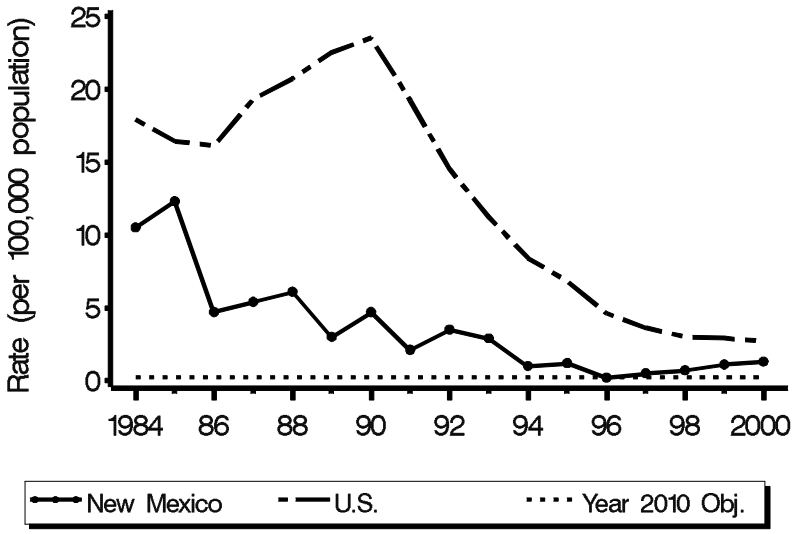


Figure B. P&S syphilis rates among women, 1984—2000

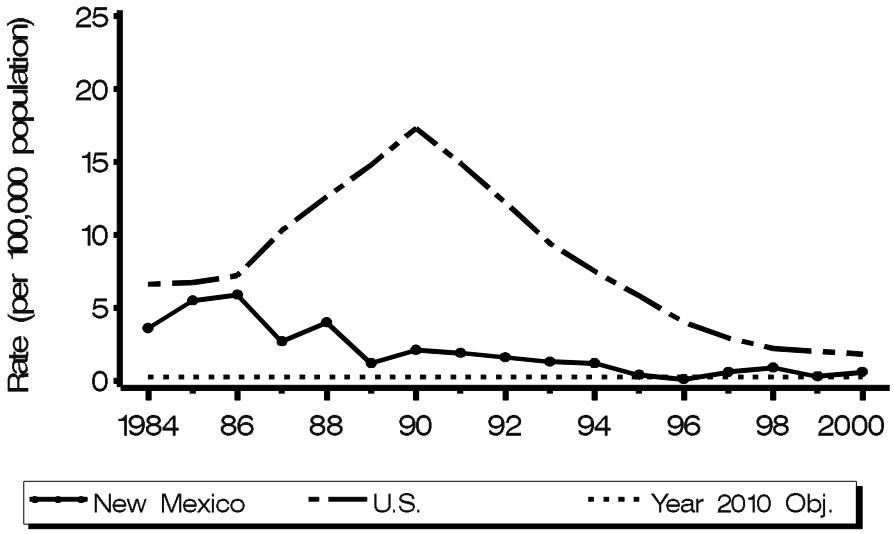


Figure C. P&S syphilis county rates, 2000

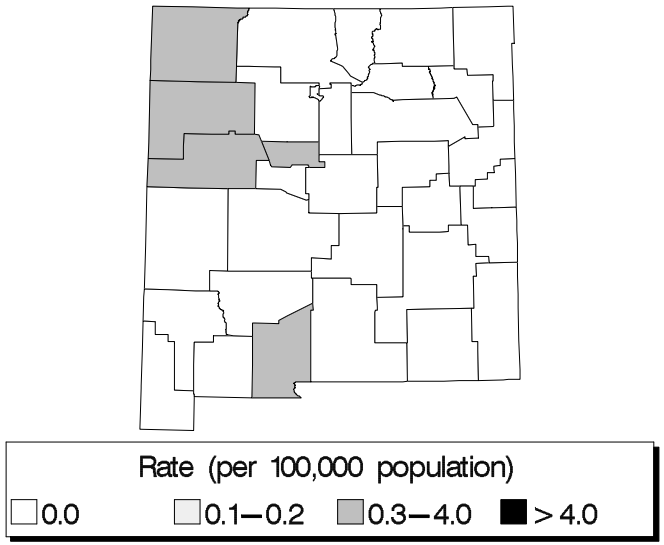
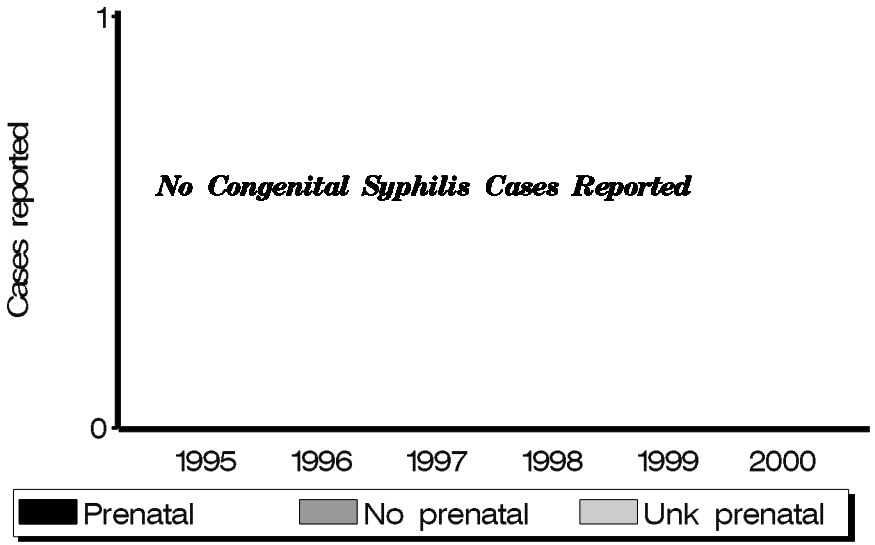


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



New York — 2000

Figure A. P&S syphilis rates among men, 1984—2000

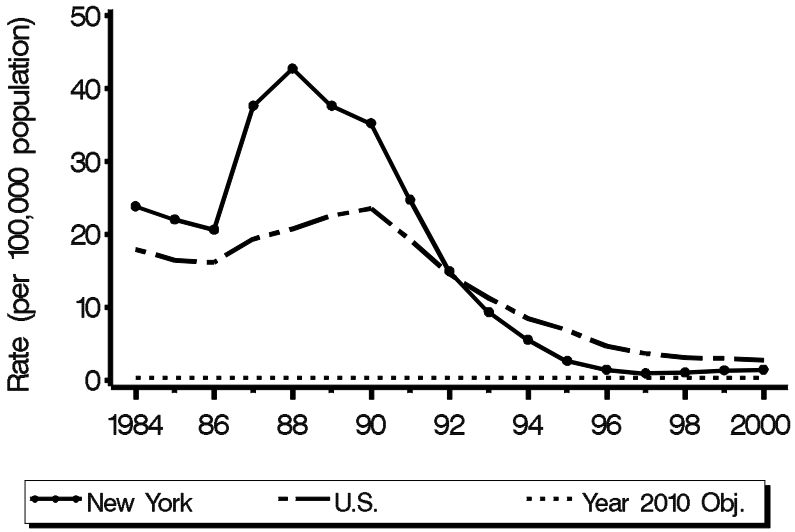


Figure B. P&S syphilis rates among women, 1984—2000

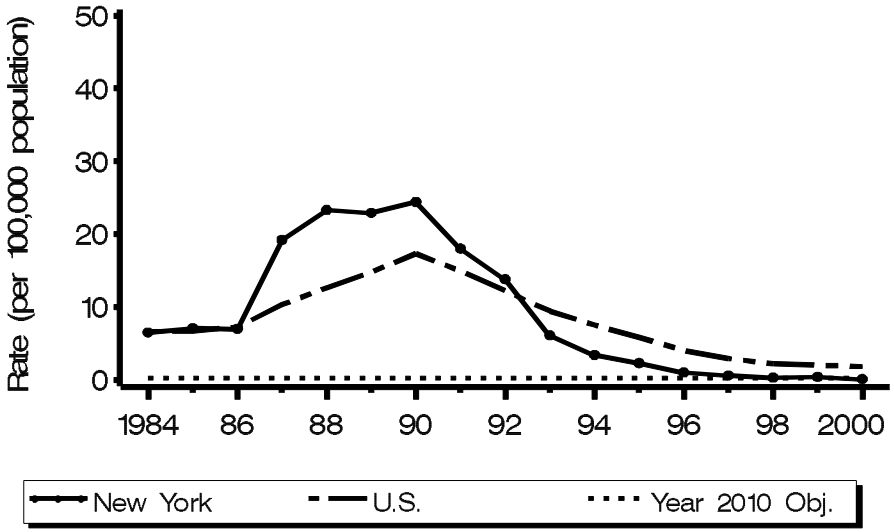


Figure C. P&S syphilis county rates, 2000

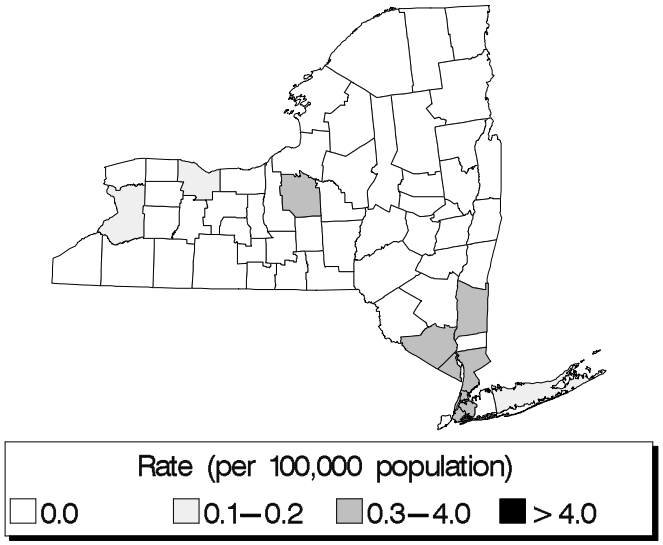
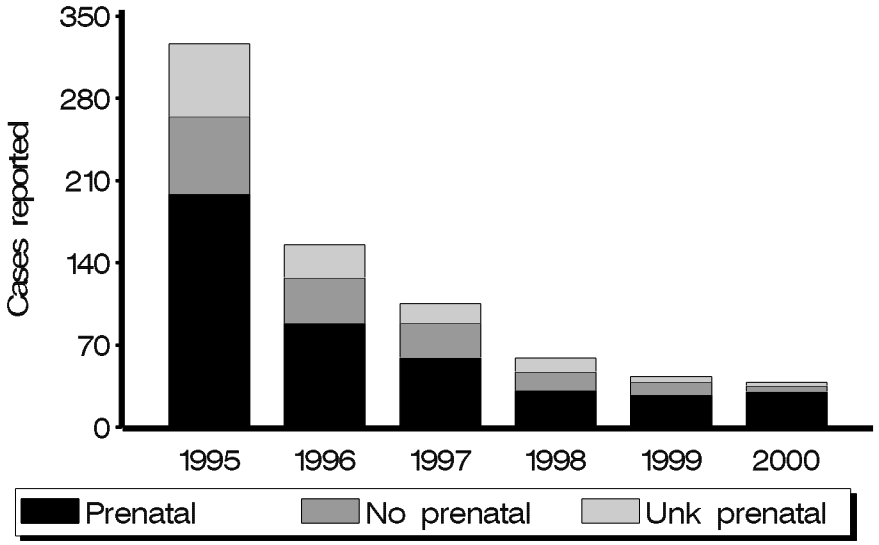


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



North Carolina — 2000

Figure A. P&S syphilis rates among men, 1984—2000

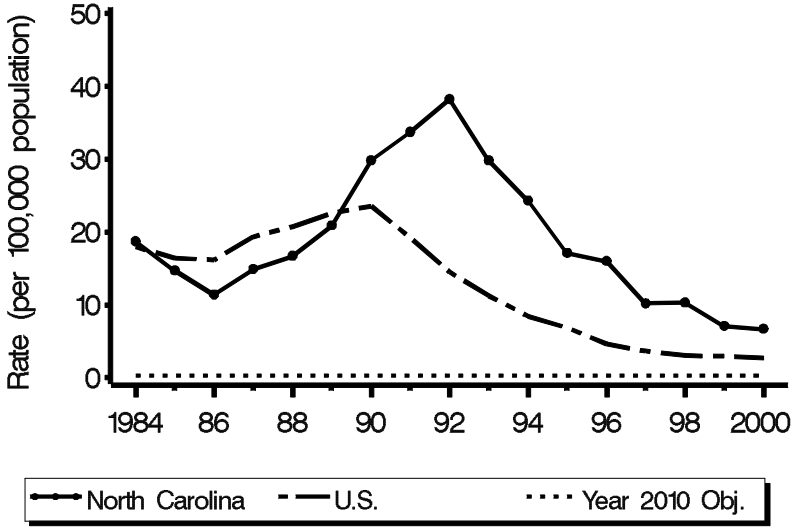


Figure B. P&S syphilis rates among women, 1984—2000

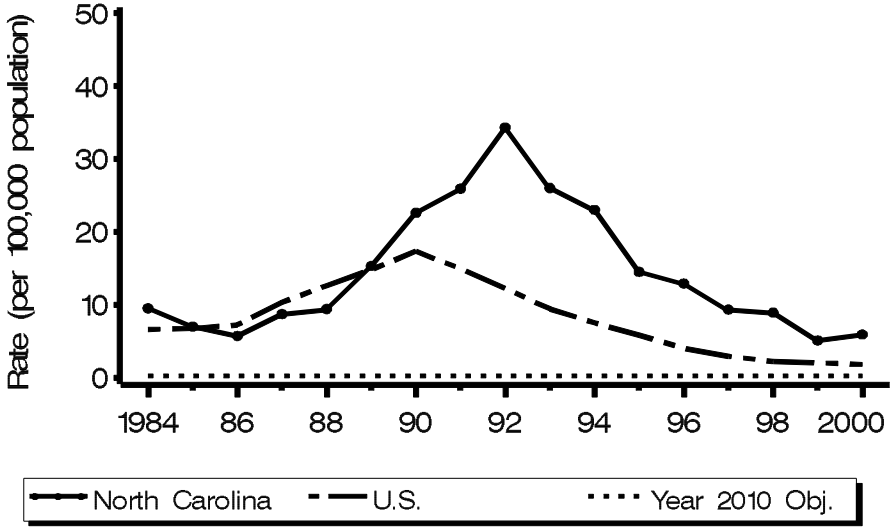


Figure C. P&S syphilis county rates, 2000

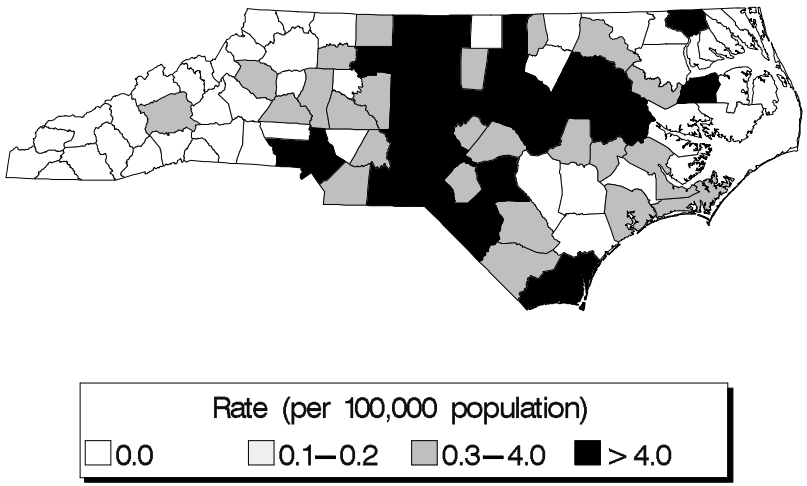
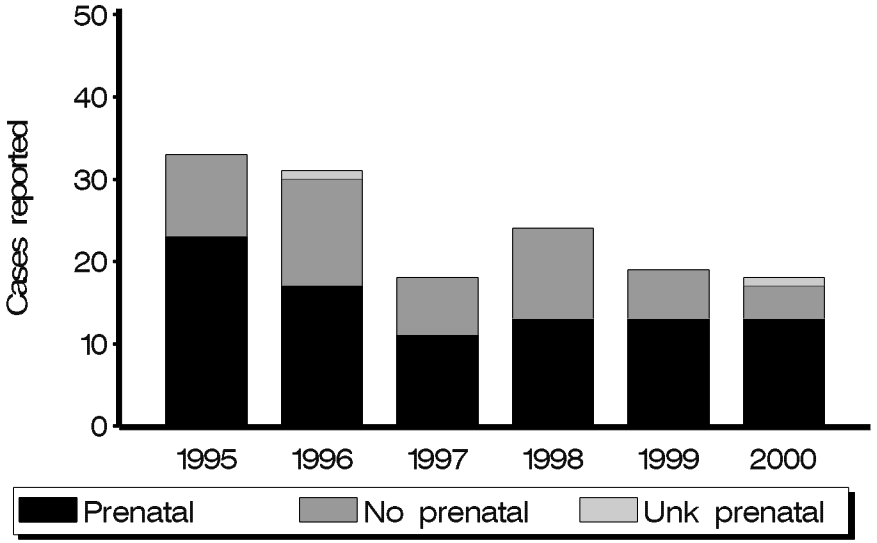


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



North Dakota — 2000

Figure A. P&S syphilis rates among men, 1984—2000

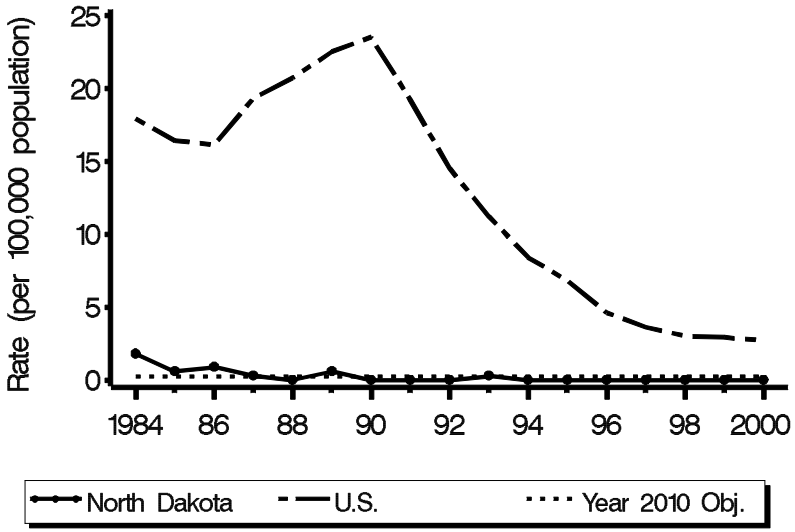


Figure B. P&S syphilis rates among women, 1984—2000

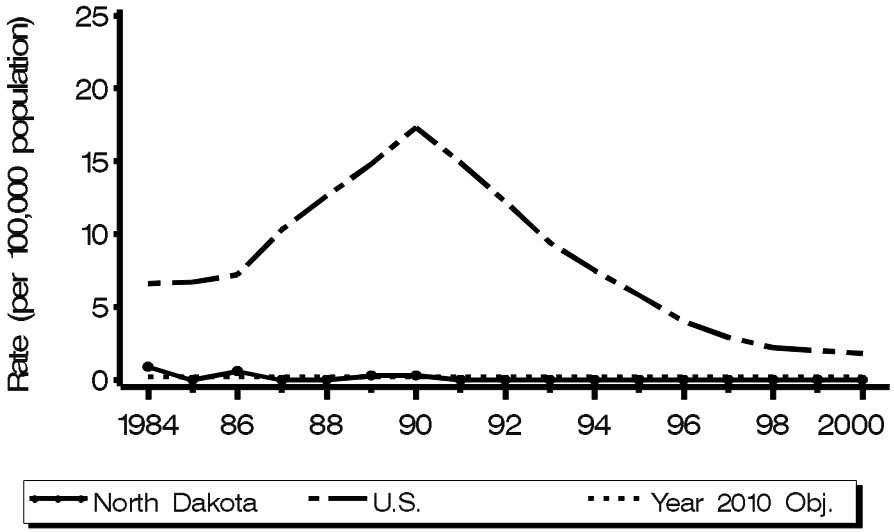


Figure C. P&S syphilis county rates, 2000

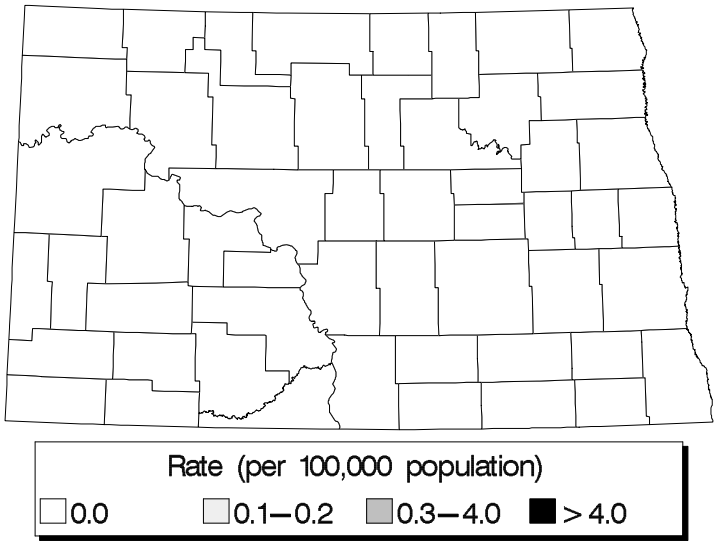
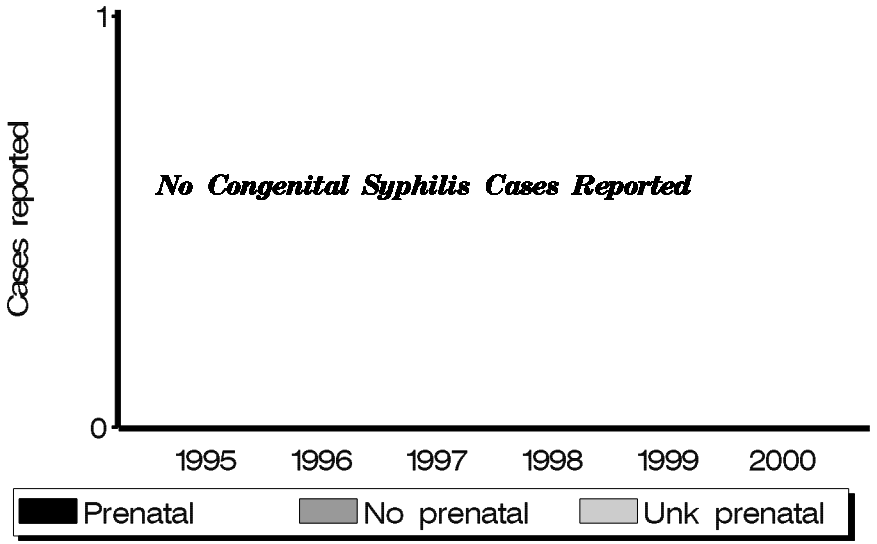


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Ohio — 2000

Figure A. P&S syphilis rates among men, 1984—2000

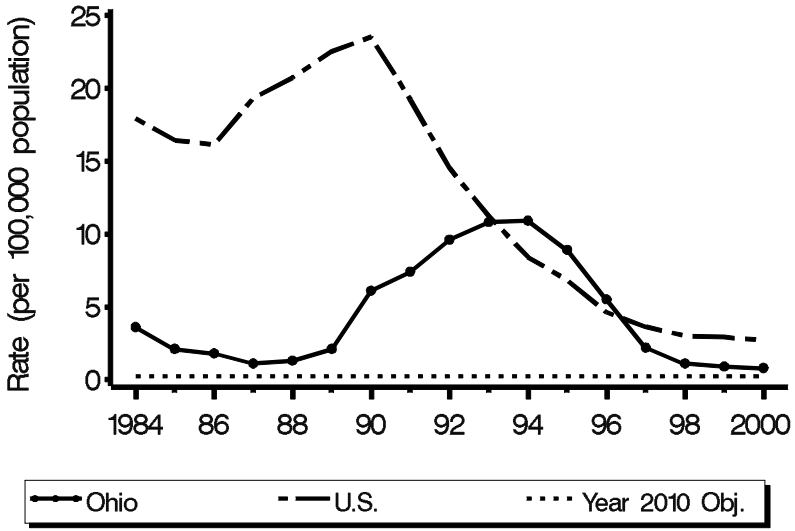


Figure B. P&S syphilis rates among women, 1984—2000

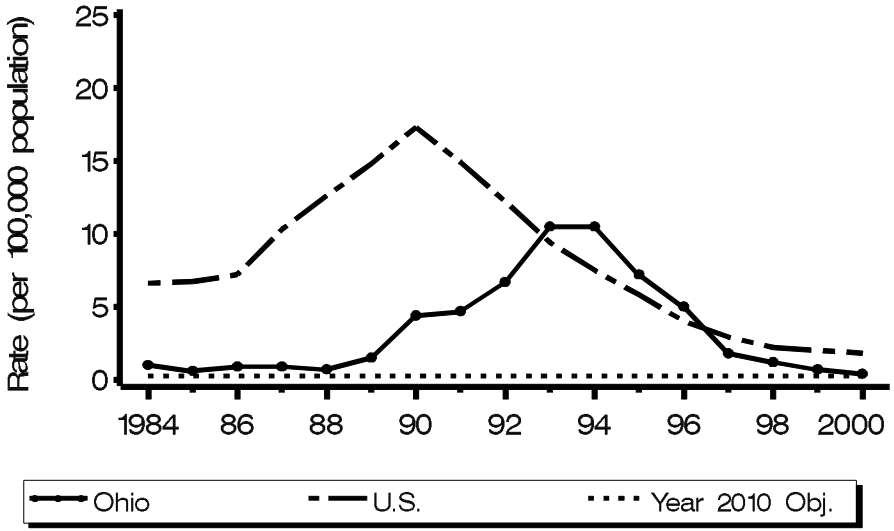


Figure C. P&S syphilis county rates, 2000

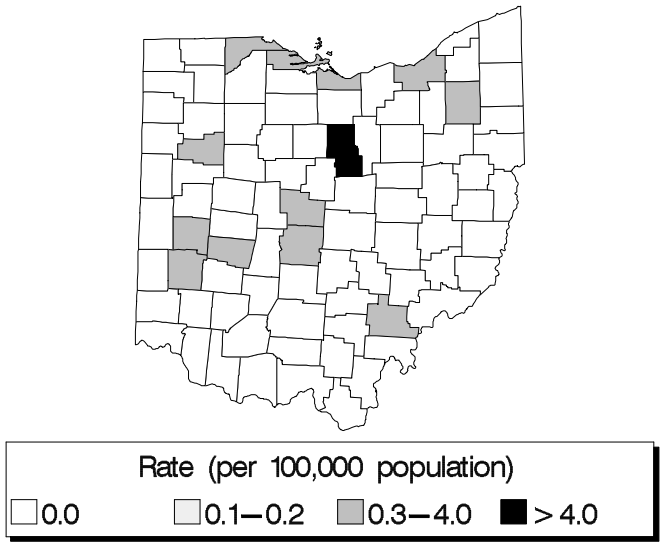
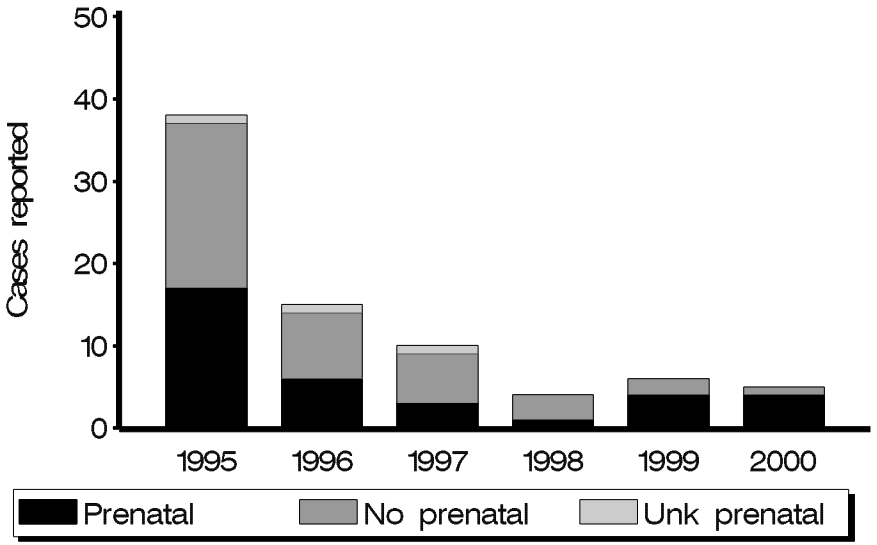


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Oklahoma — 2000

Figure A. P&S syphilis rates among men, 1984—2000

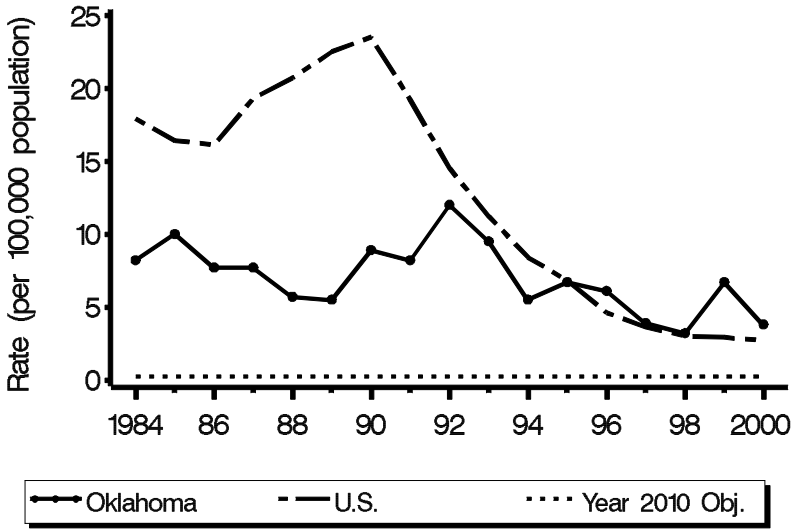


Figure B. P&S syphilis rates among women, 1984—2000

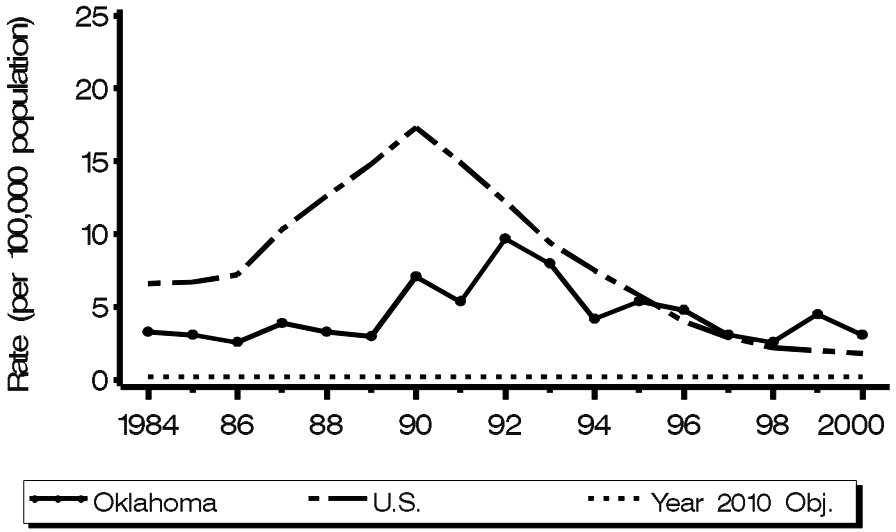


Figure C. P&S syphilis county rates, 2000

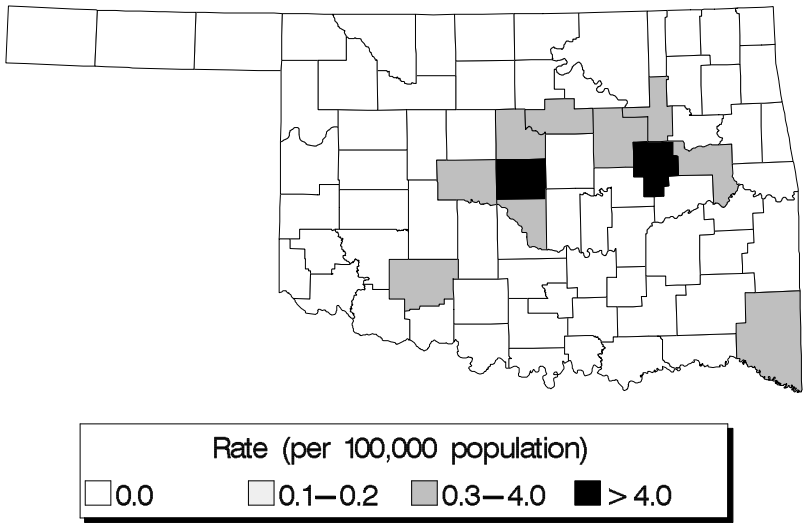
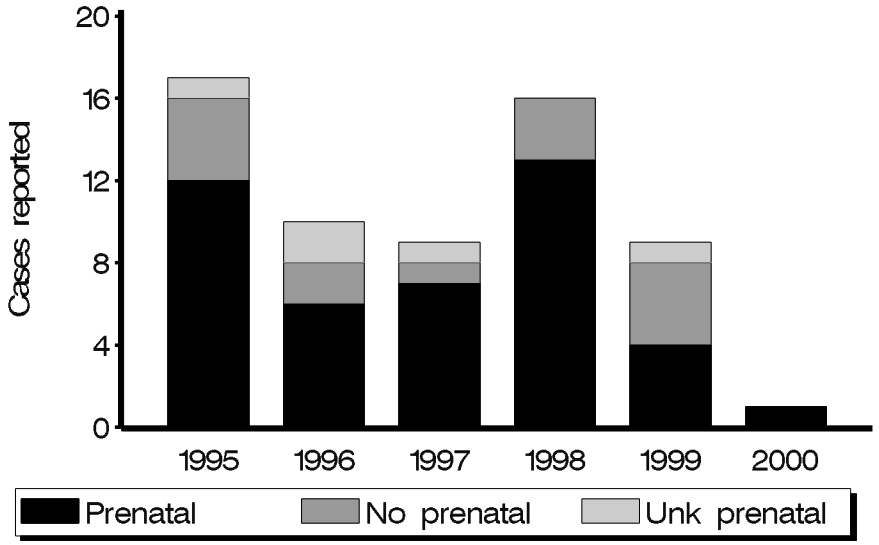


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Oregon — 2000

Figure A. P&S syphilis rates among men, 1984—2000

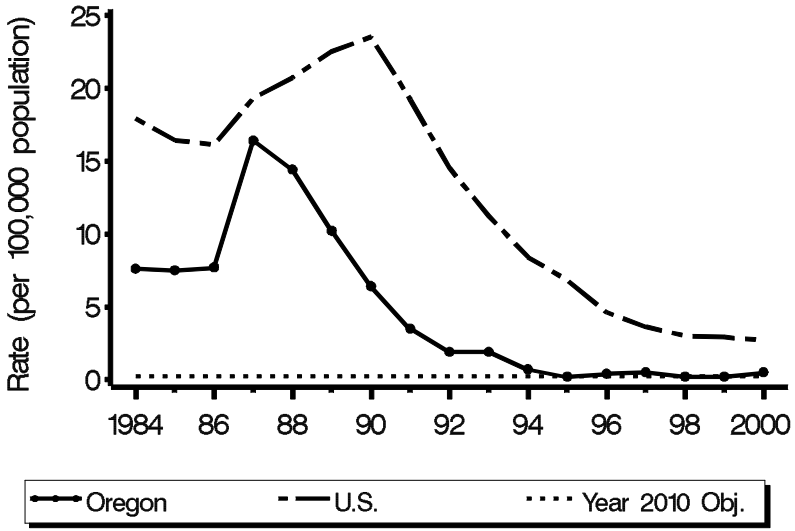


Figure B. P&S syphilis rates among women, 1984—2000

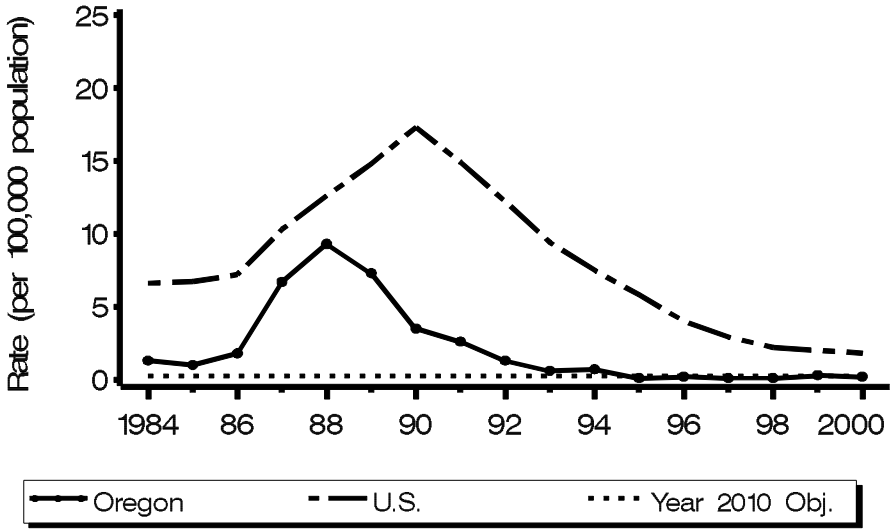


Figure C. P&S syphilis county rates, 2000

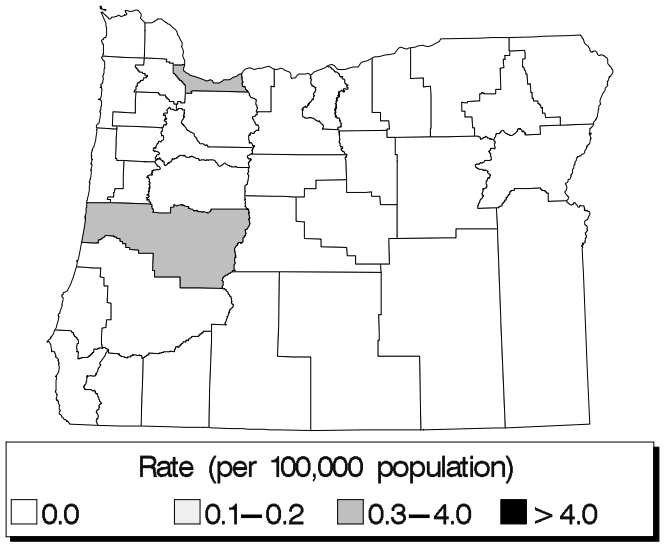
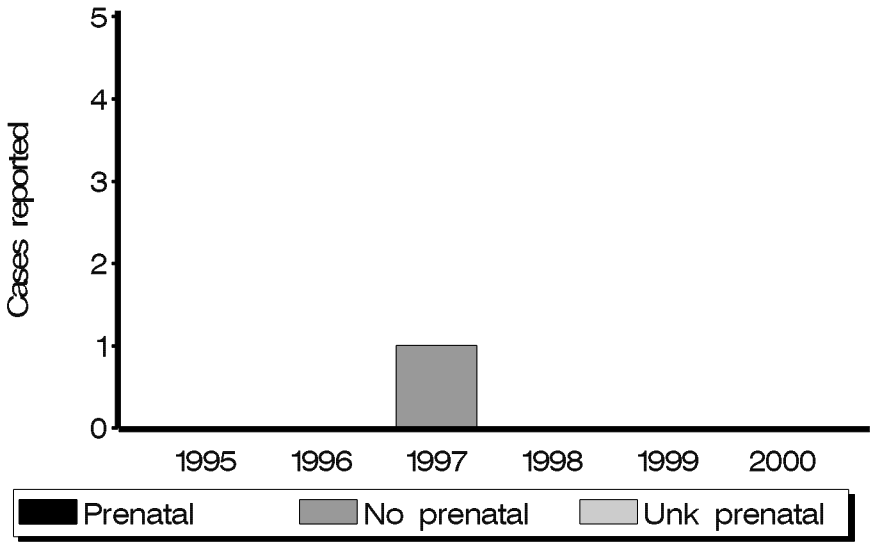


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Pennsylvania — 2000

Figure A. P&S syphilis rates among men, 1984—2000

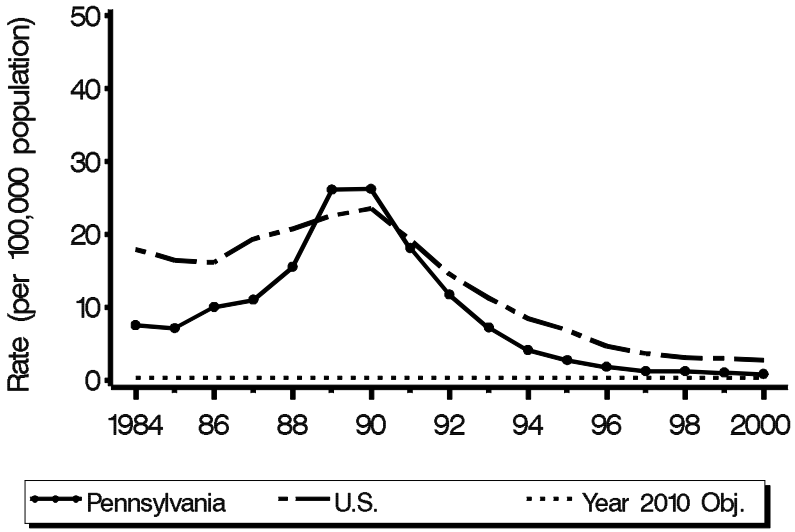


Figure B. P&S syphilis rates among women, 1984—2000

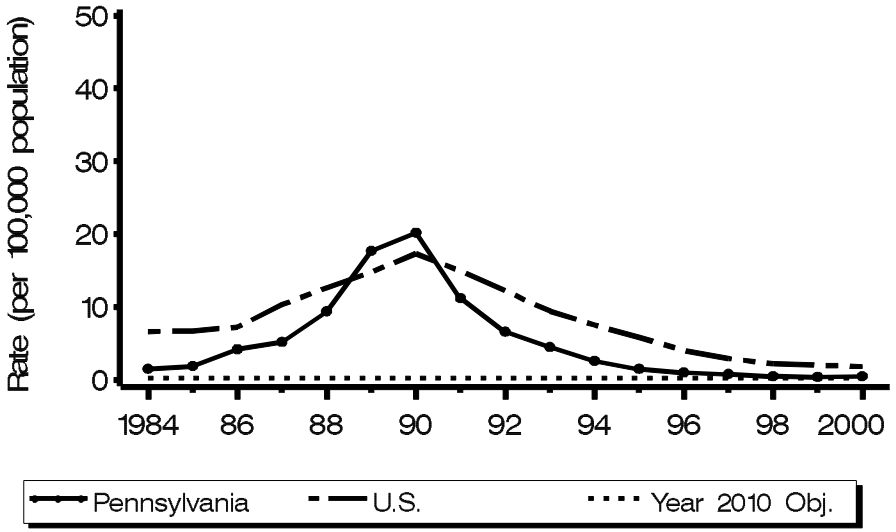


Figure C. P&S syphilis county rates, 2000

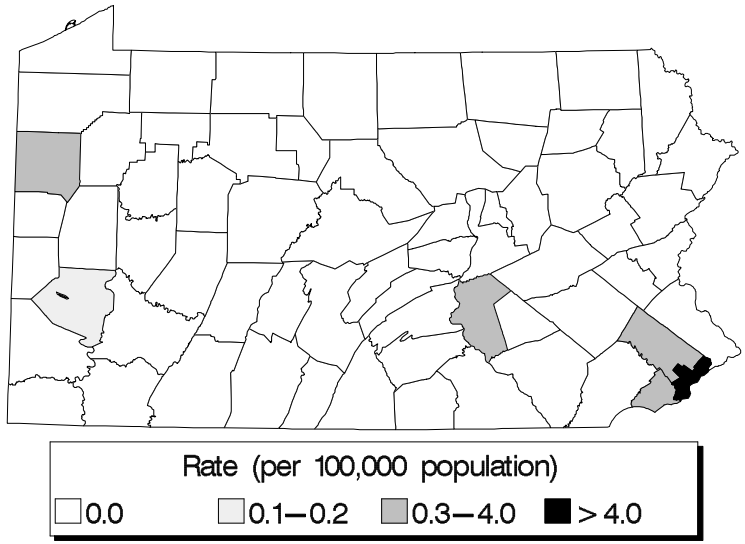
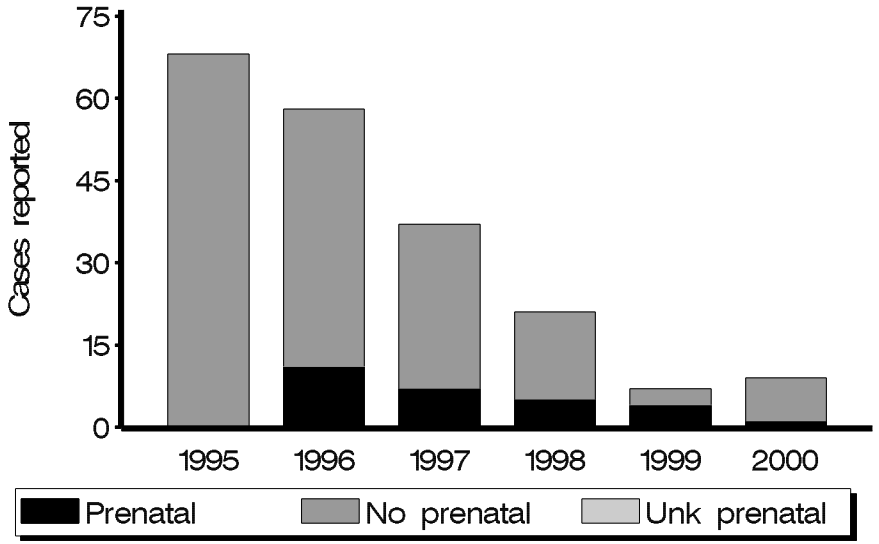


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Puerto Rico — 2000

Figure A. P&S syphilis rates among men, 1984—2000

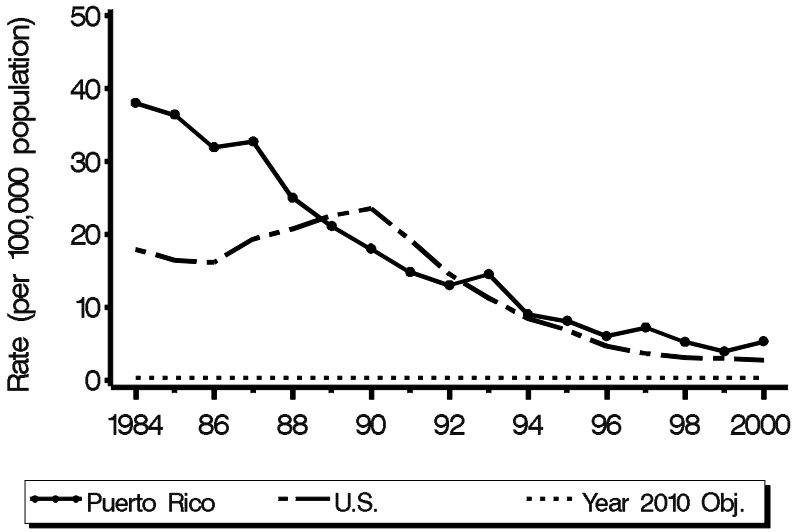


Figure B. P&S syphilis rates among women, 1984—2000

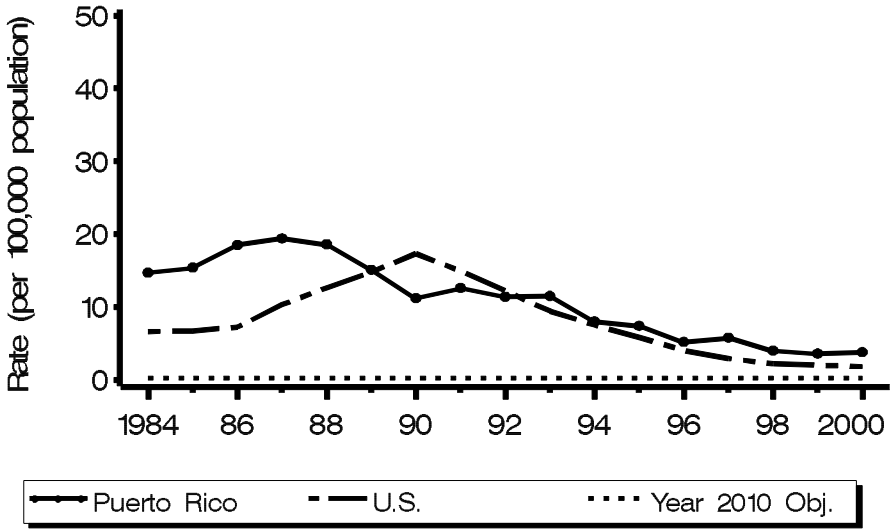
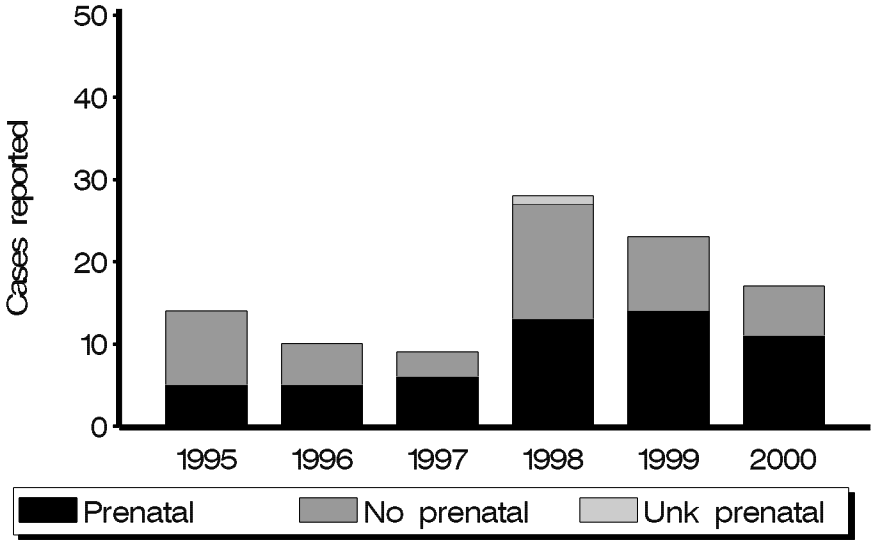


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Rhode Island — 2000

Figure A. P&S syphilis rates among men, 1984—2000

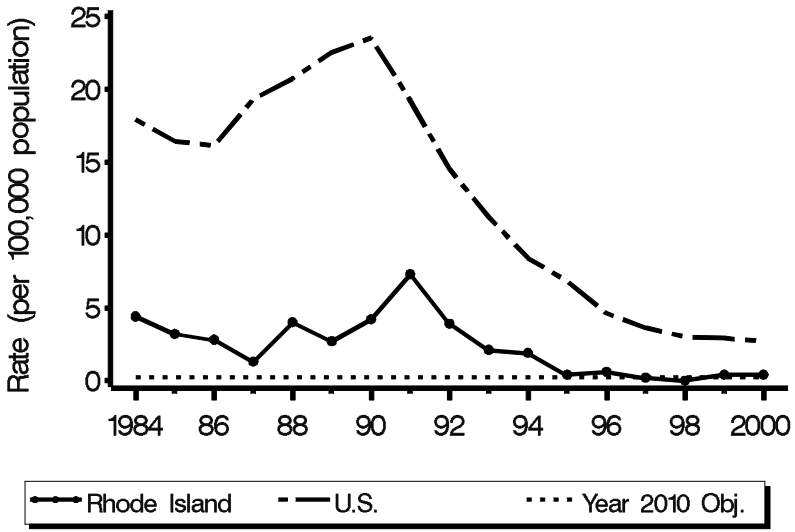


Figure B. P&S syphilis rates among women, 1984—2000

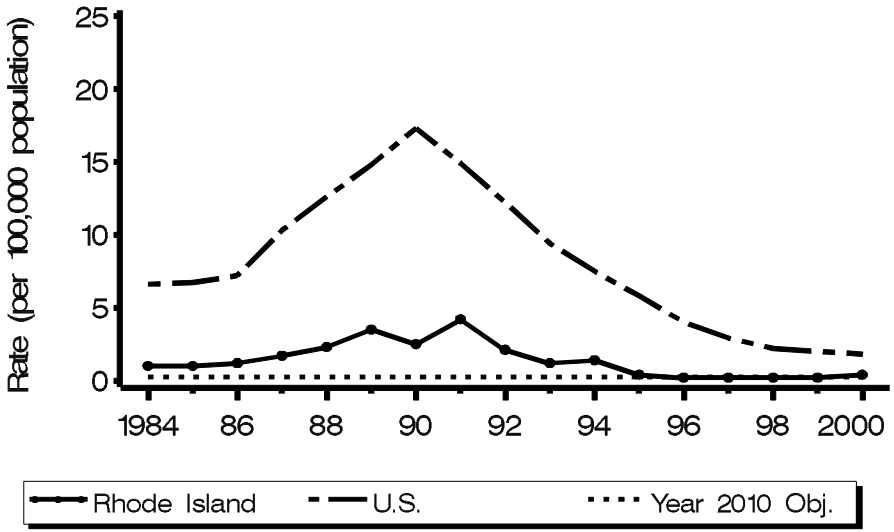


Figure C. P&S syphilis county rates, 2000

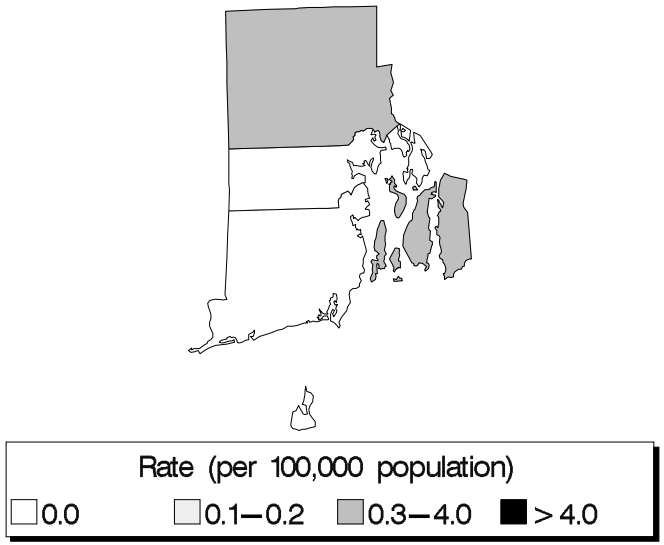
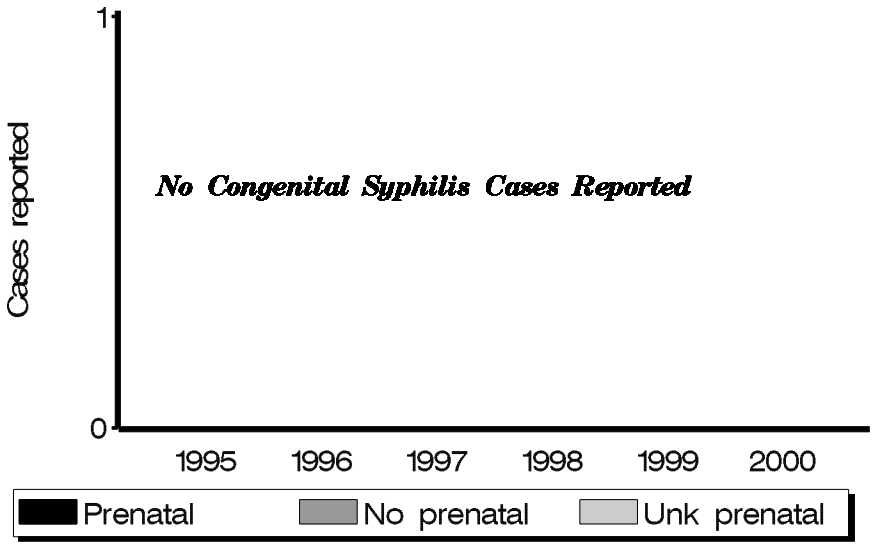


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



South Carolina — 2000

Figure A. P&S syphilis rates among men, 1984—2000

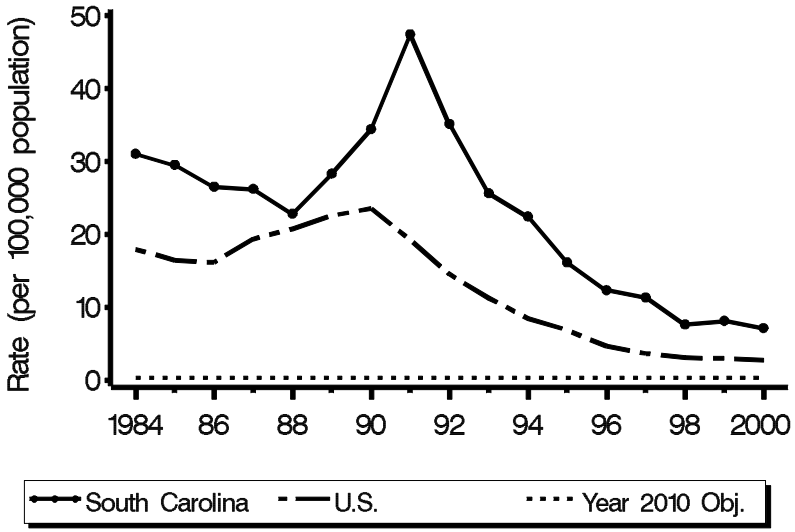


Figure B. P&S syphilis rates among women, 1984—2000

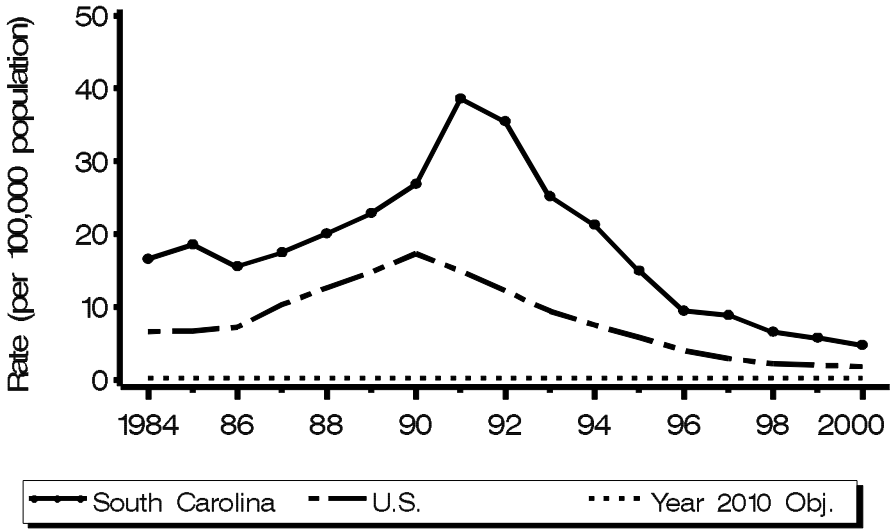


Figure C. P&S syphilis county rates, 2000

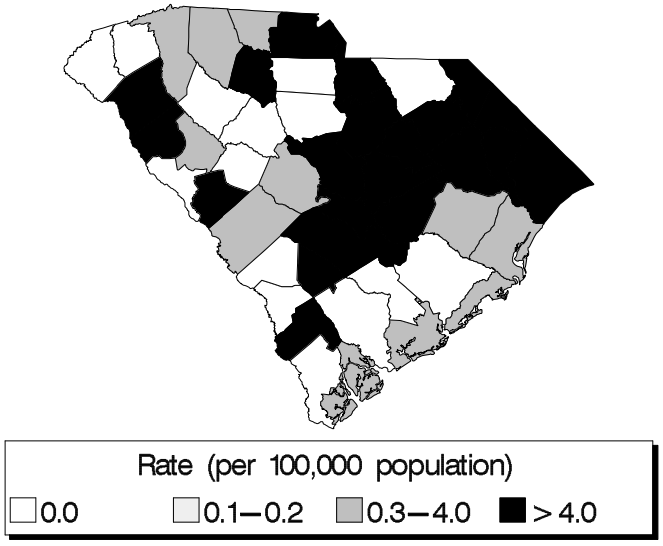
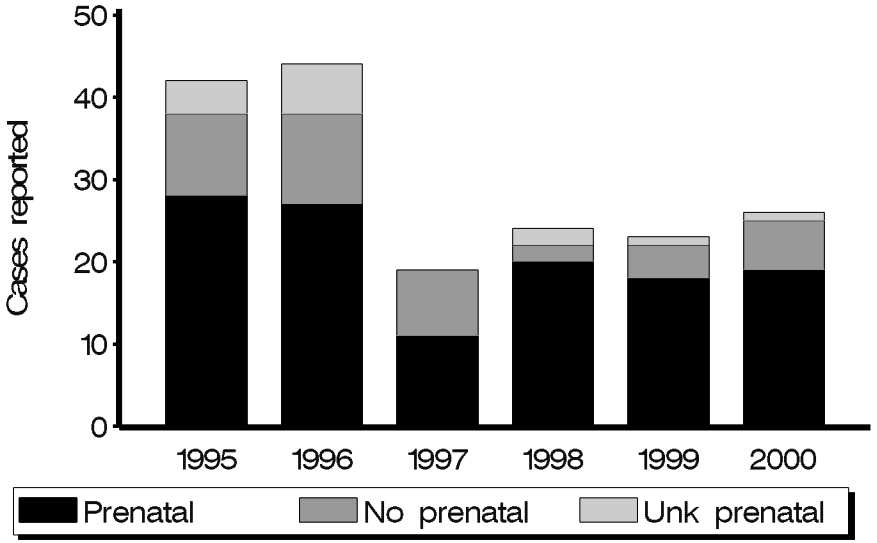


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



South Dakota — 2000

Figure A. P&S syphilis rates among men, 1984—2000

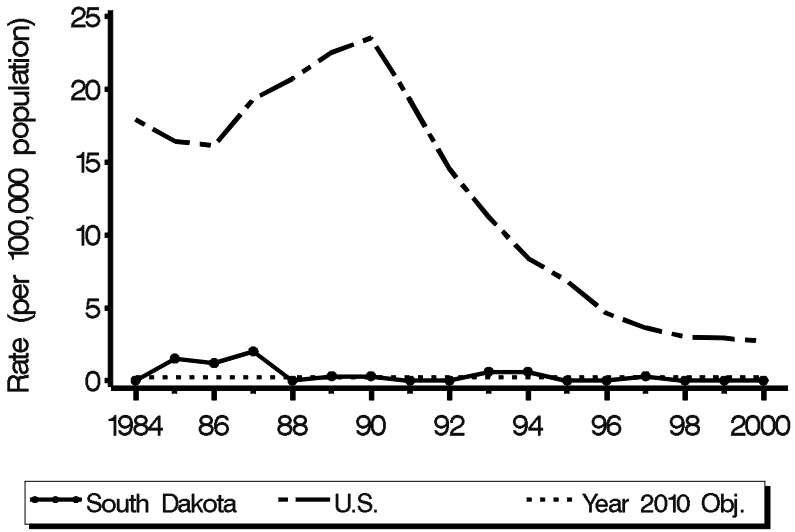


Figure B. P&S syphilis rates among women, 1984—2000

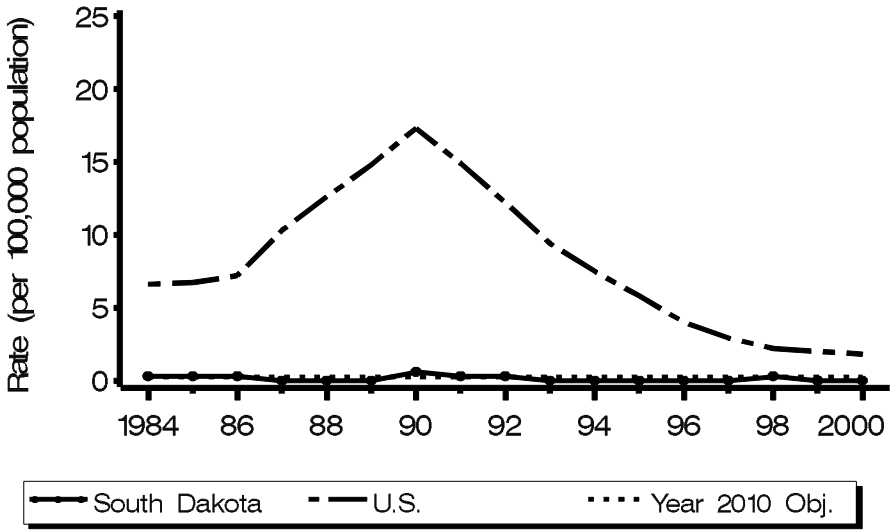


Figure C. P&S syphilis county rates, 2000

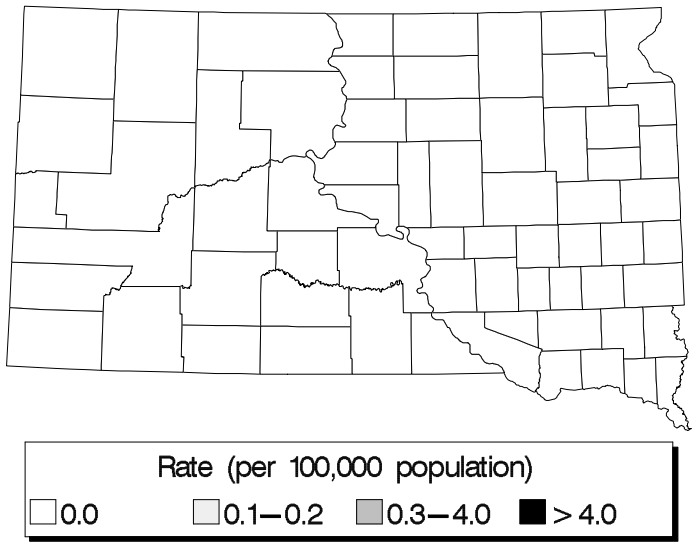
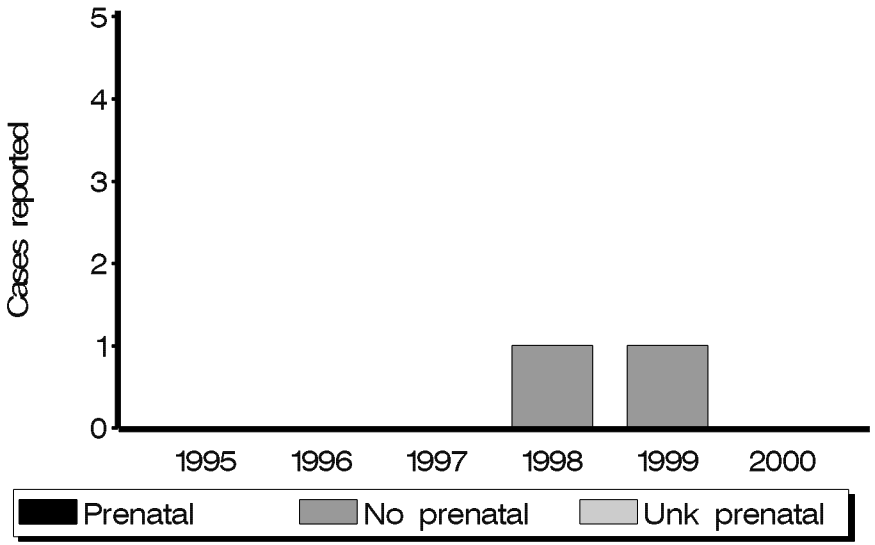


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Tennessee — 2000

Figure A. P&S syphilis rates among men, 1984—2000

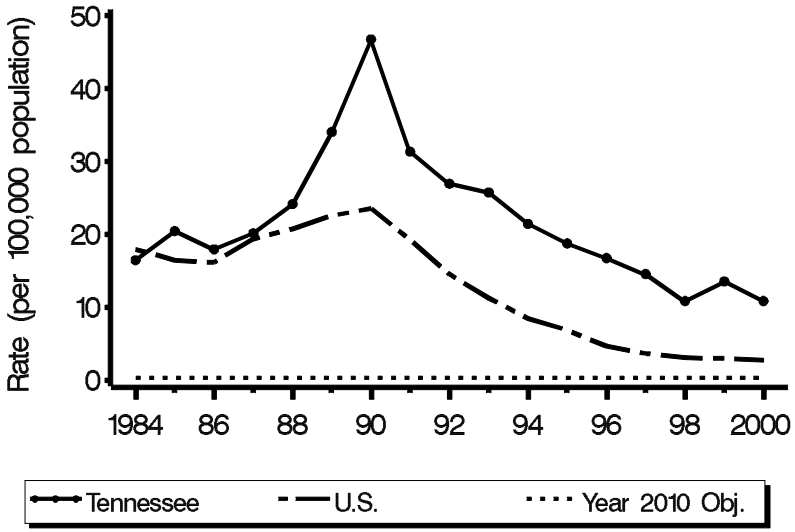


Figure B. P&S syphilis rates among women, 1984—2000

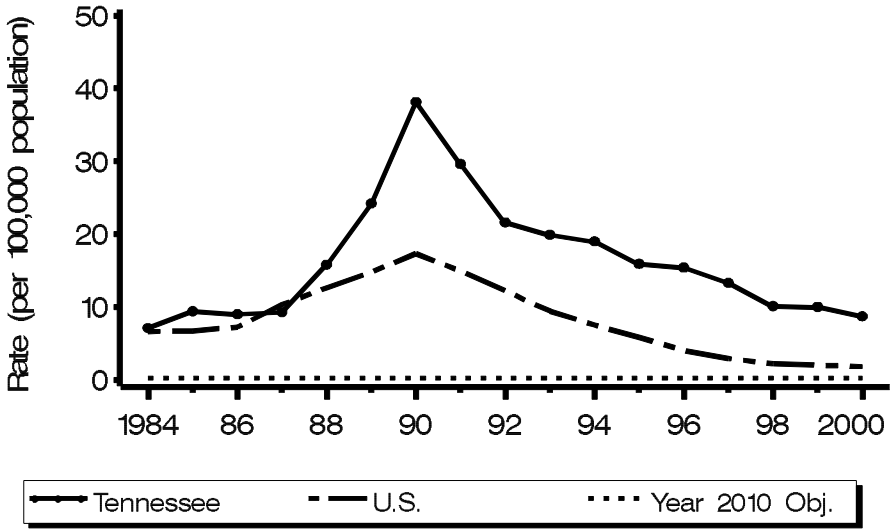


Figure C. P&S syphilis county rates, 2000

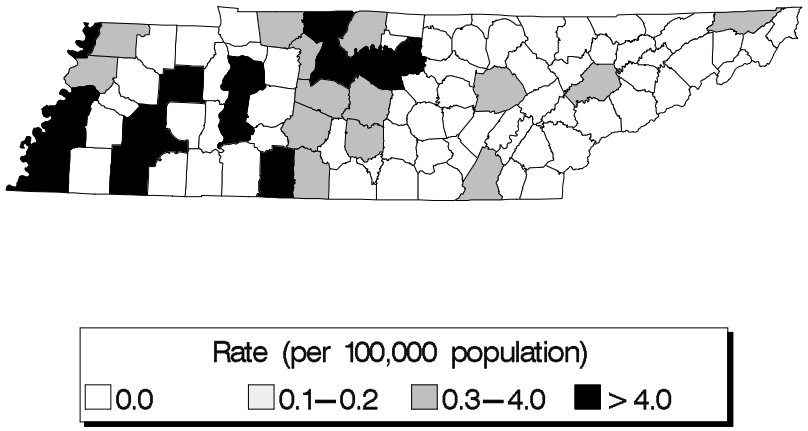
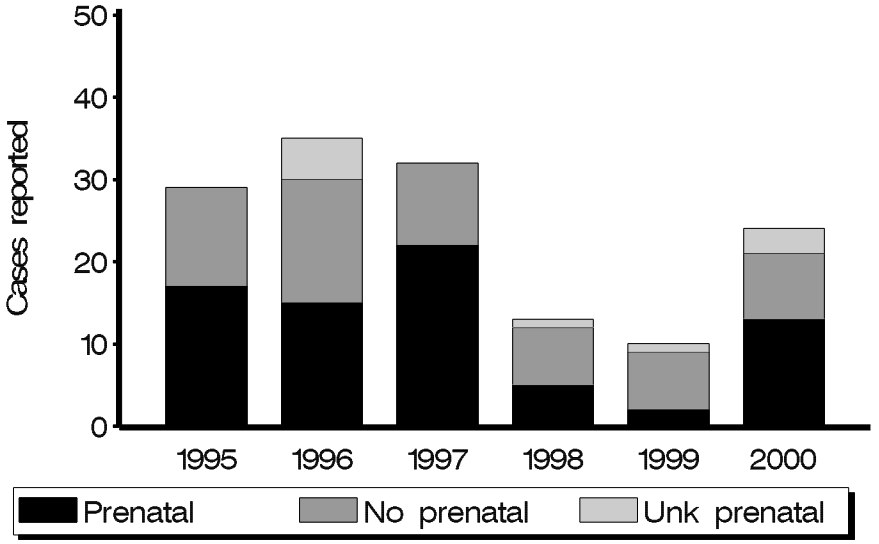


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Texas — 2000

Figure A. P&S syphilis rates among men, 1984—2000

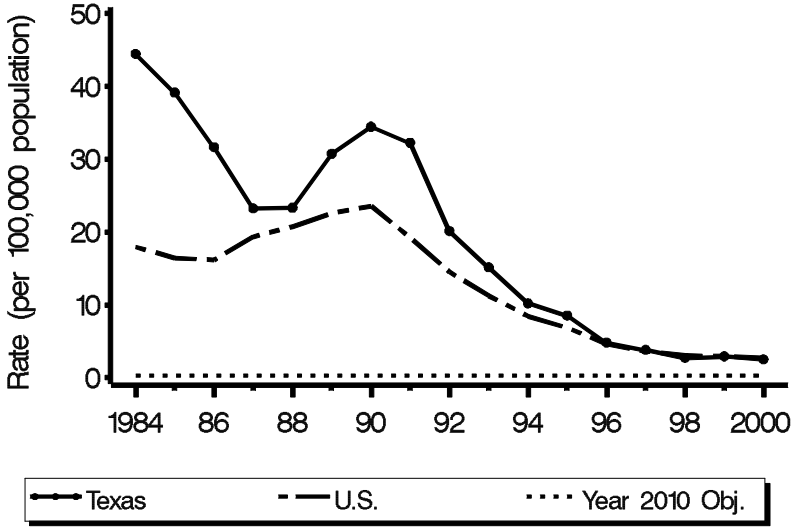


Figure B. P&S syphilis rates among women, 1984—2000

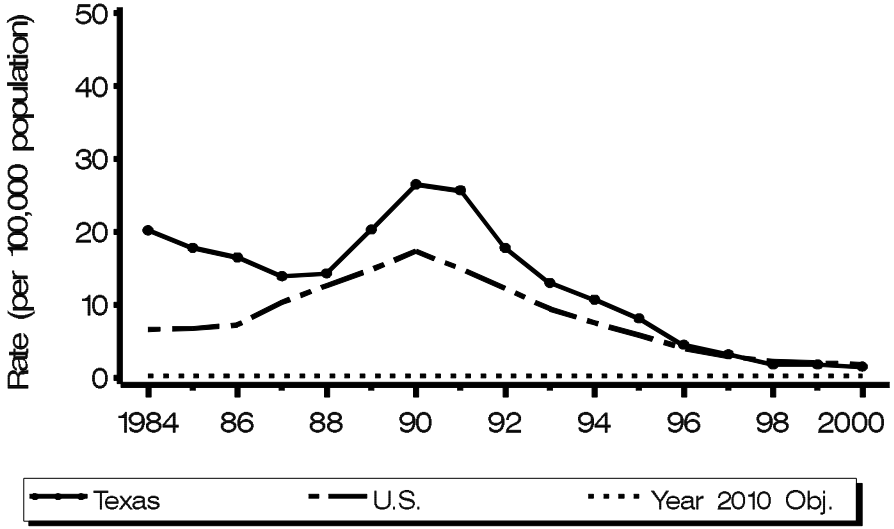


Figure C. P&S syphilis county rates, 2000

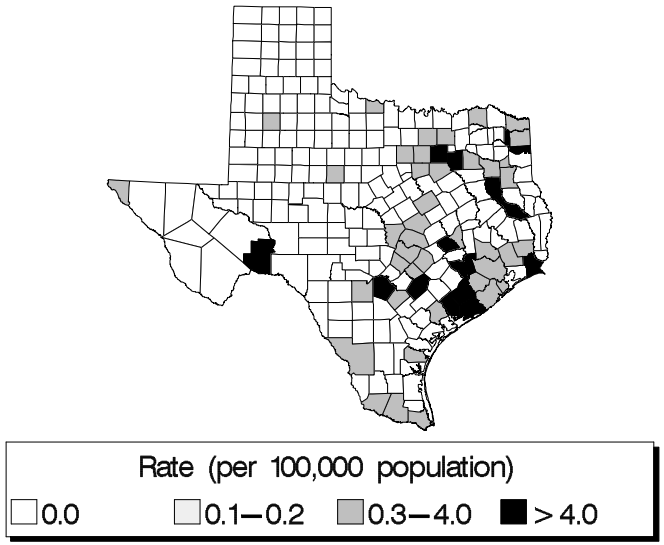
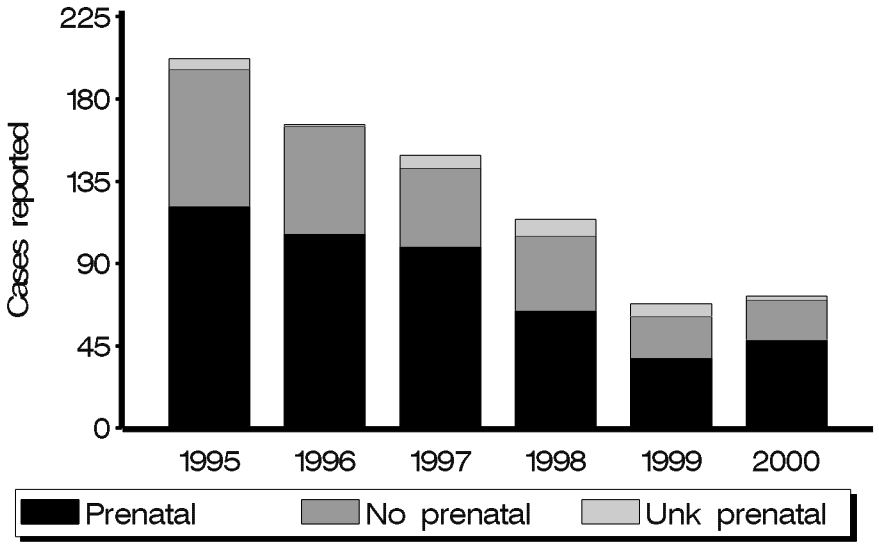


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Utah — 2000

Figure A. P&S syphilis rates among men, 1984—2000

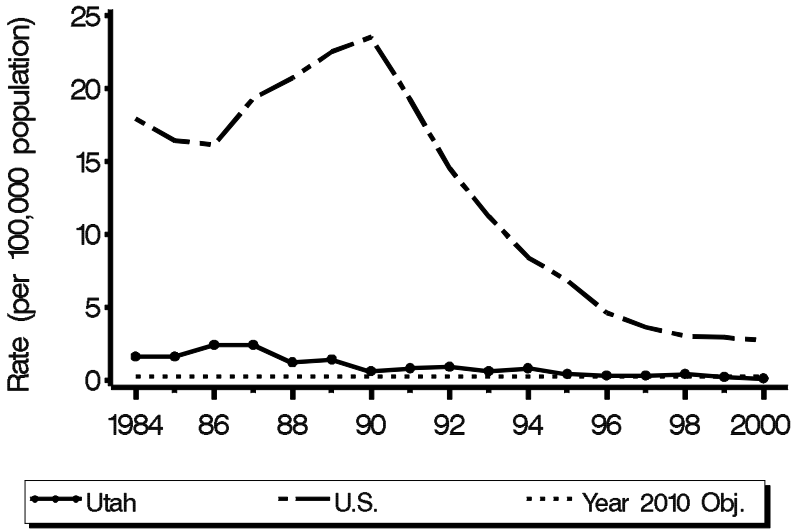


Figure B. P&S syphilis rates among women, 1984—2000

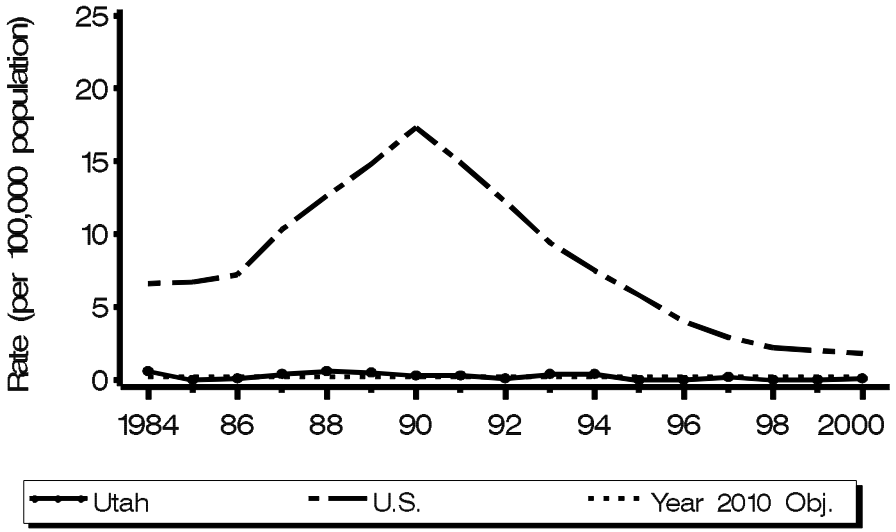


Figure C. P&S syphilis county rates, 2000

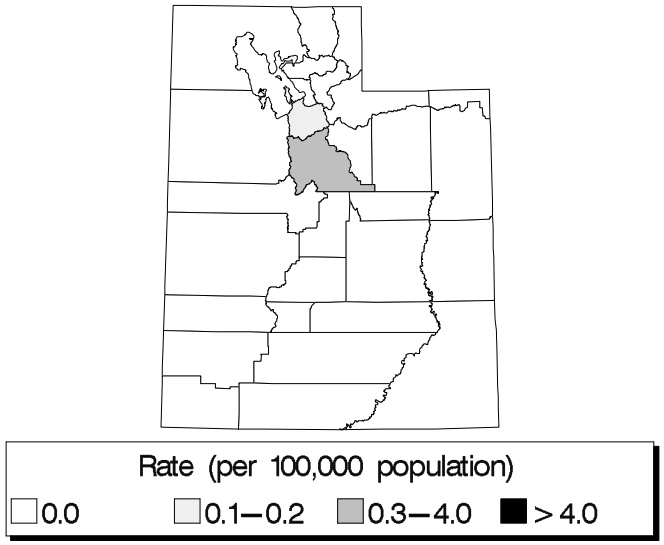
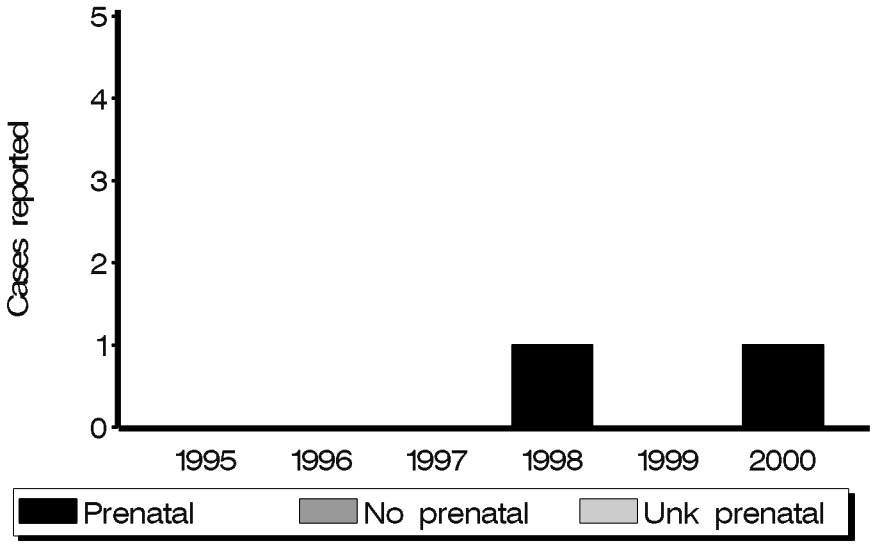


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Vermont — 2000

Figure A. P&S syphilis rates among men, 1984—2000

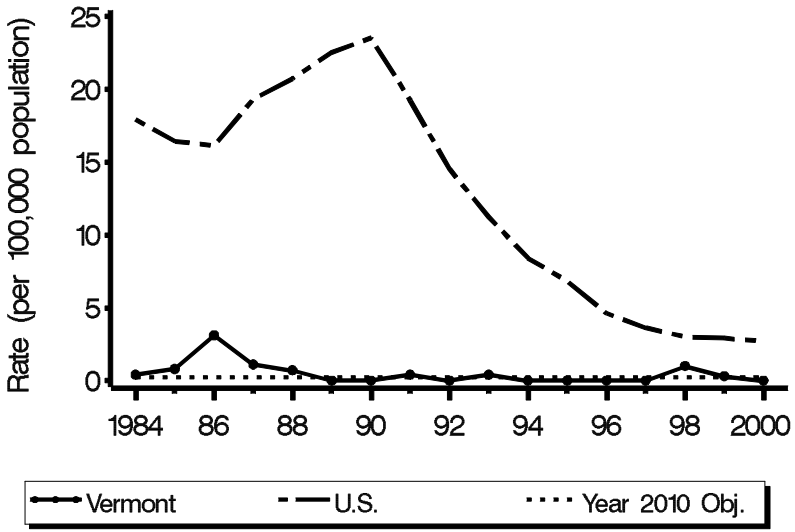


Figure B. P&S syphilis rates among women, 1984—2000

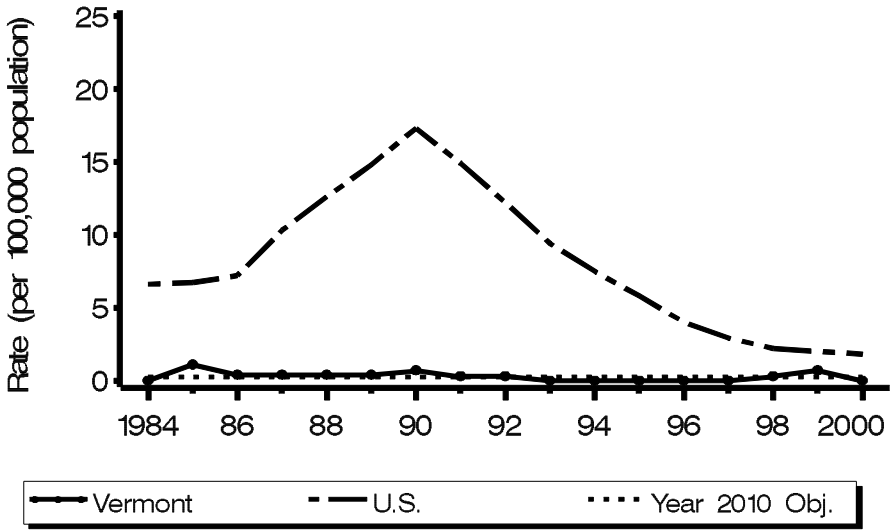


Figure C. P&S syphilis county rates, 2000

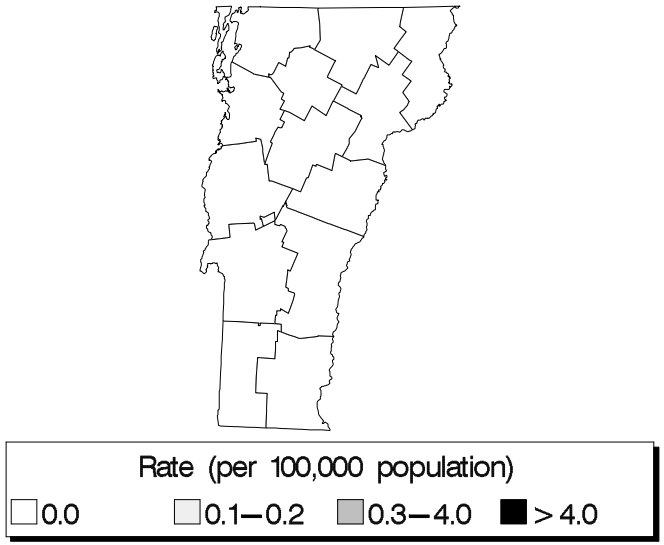
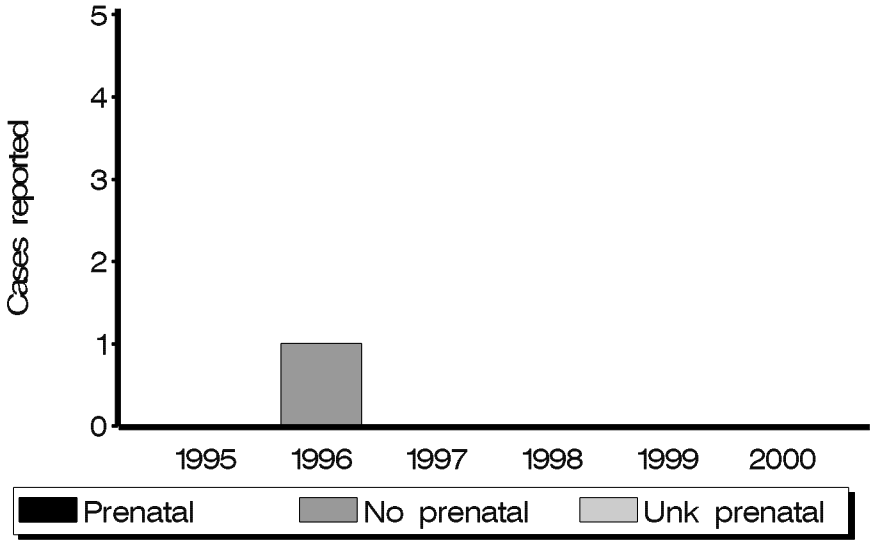


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Virgin Islands — 2000

Figure A. P&S syphilis rates among men, 1984—2000

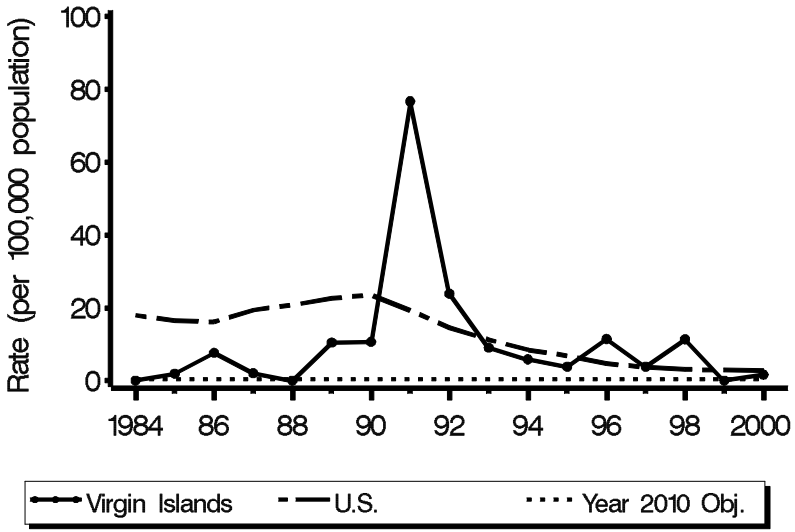


Figure B. P&S syphilis rates among women, 1984—2000

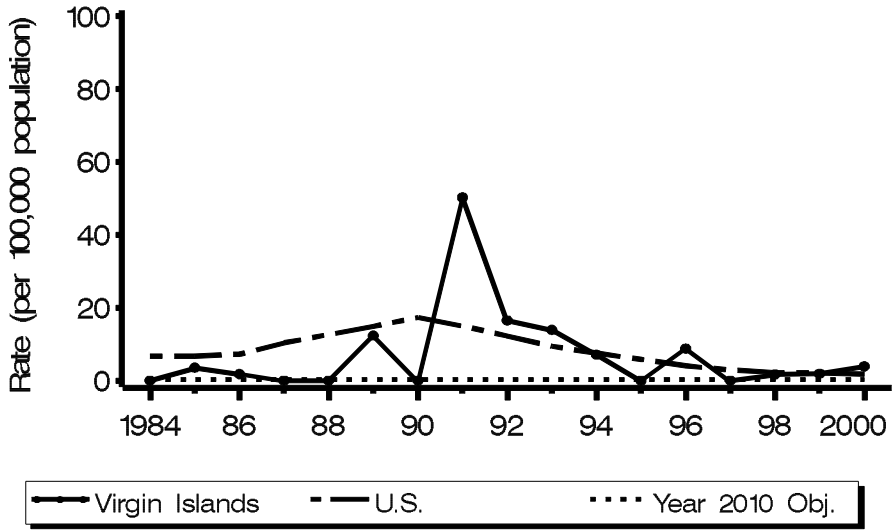
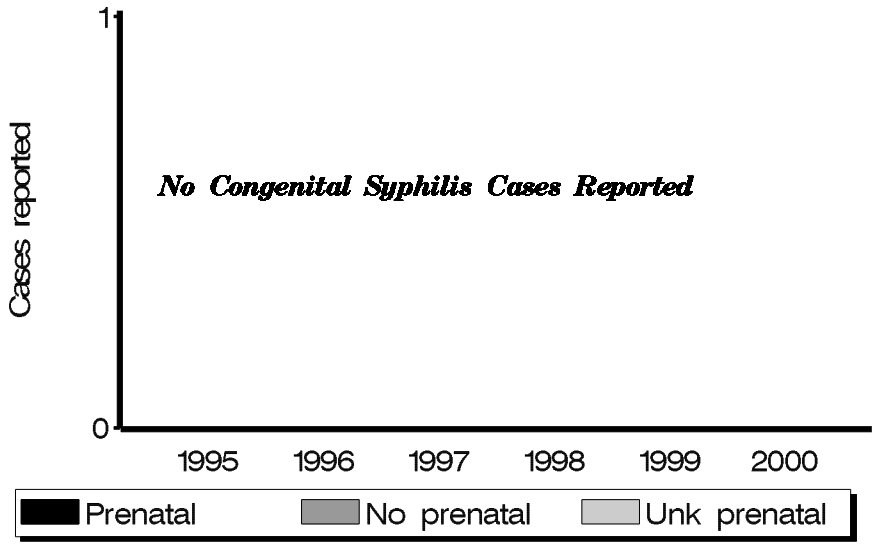


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Virginia — 2000

Figure A. P&S syphilis rates among men, 1984—2000

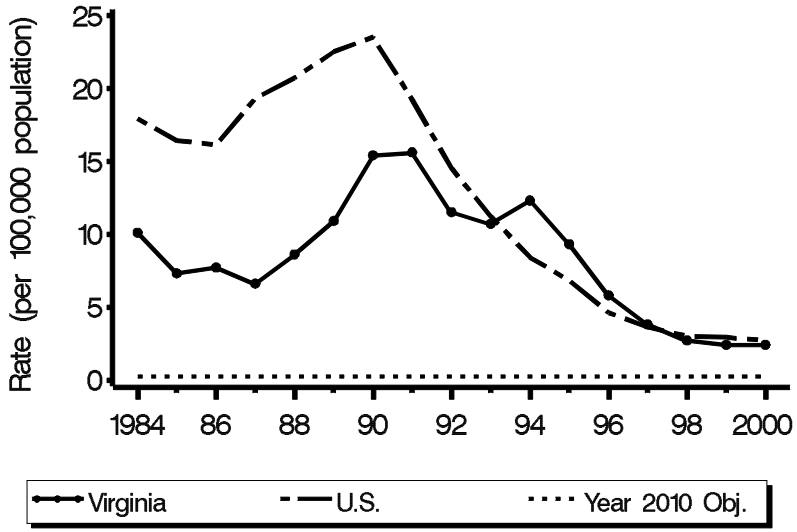


Figure B. P&S syphilis rates among women, 1984—2000

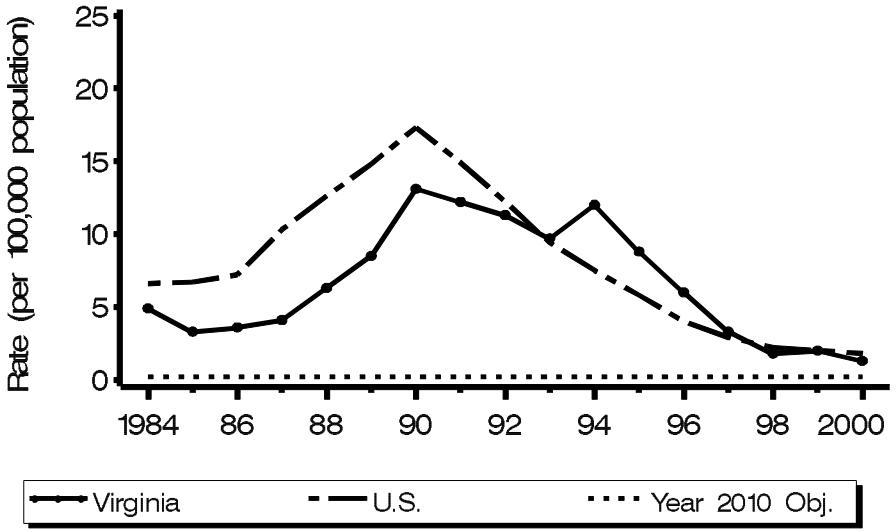


Figure C. P&S syphilis county rates, 2000

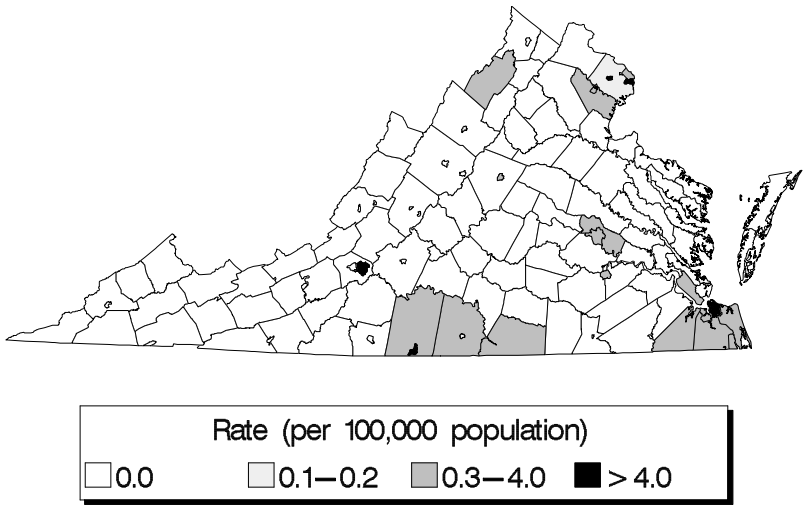
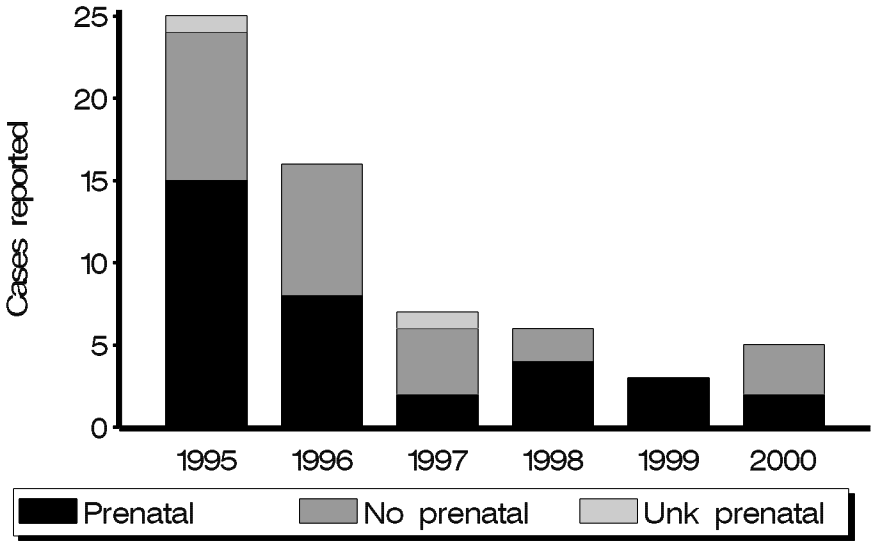


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Washington — 2000

Figure A. P&S syphilis rates among men, 1984—2000

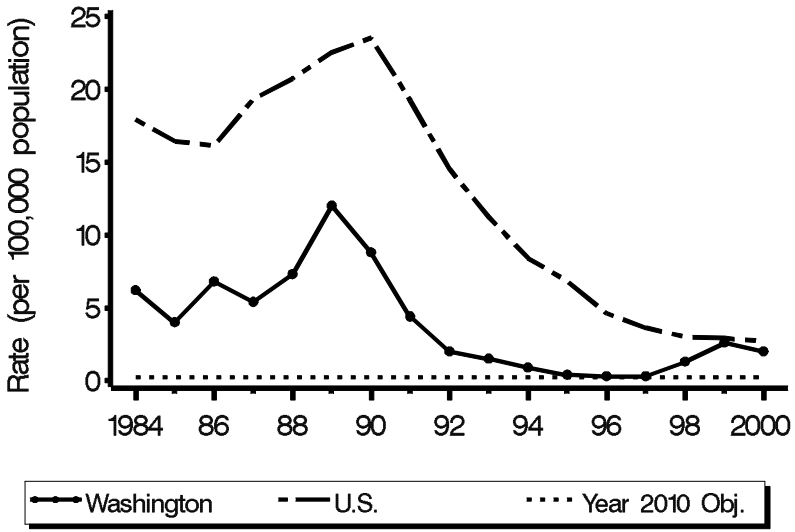


Figure B. P&S syphilis rates among women, 1984—2000

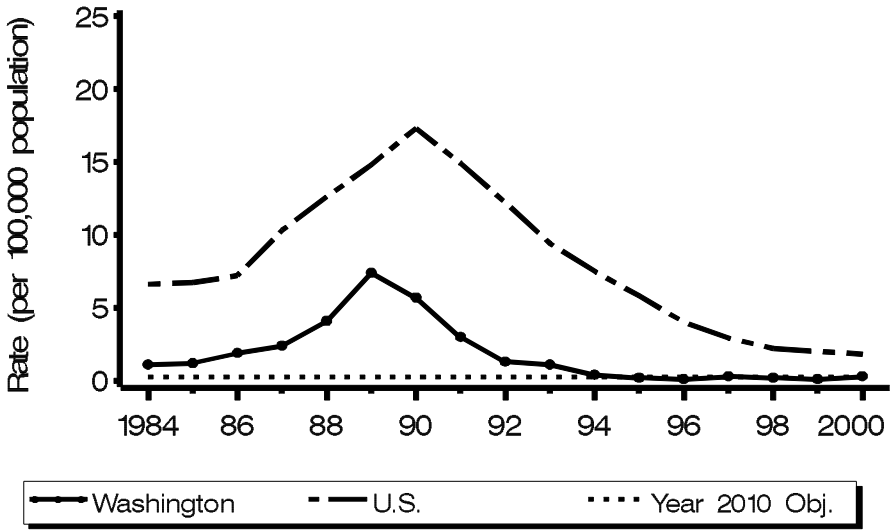


Figure C. P&S syphilis county rates, 2000

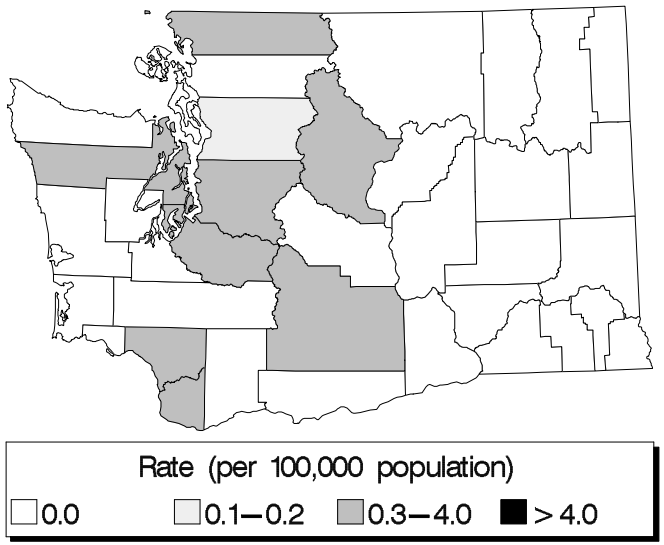
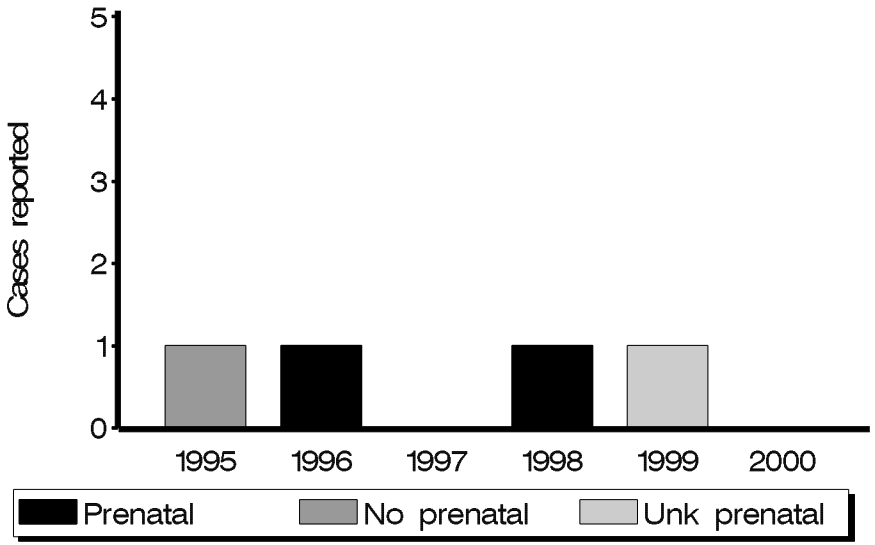


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



West Virginia — 2000

Figure A. P&S syphilis rates among men, 1984—2000

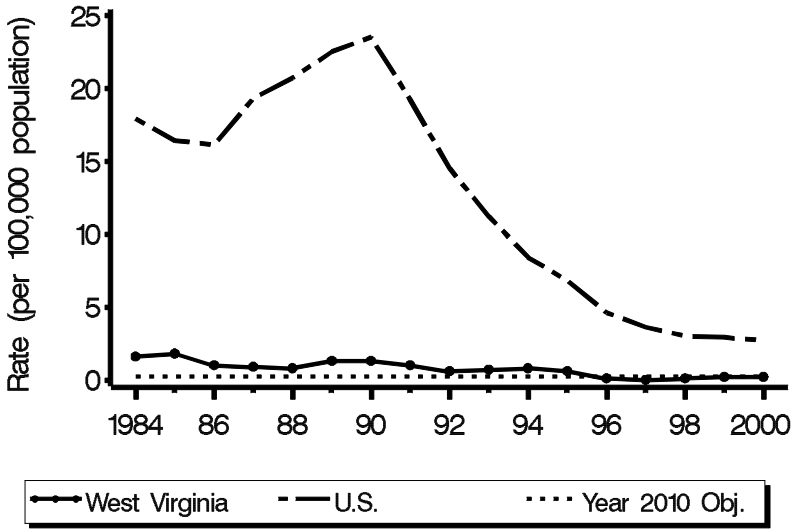


Figure B. P&S syphilis rates among women, 1984—2000

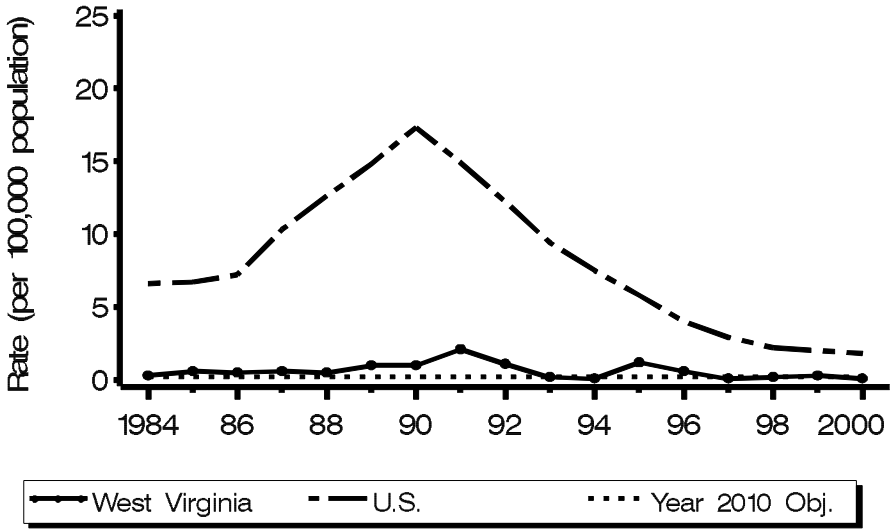


Figure C. P&S syphilis county rates, 2000

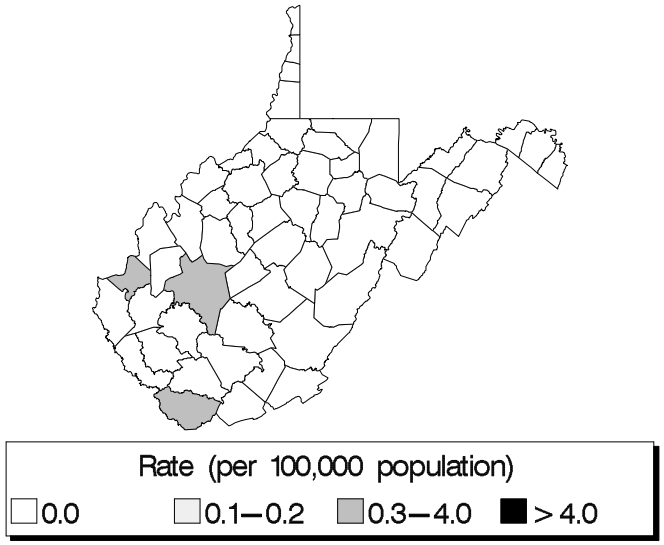
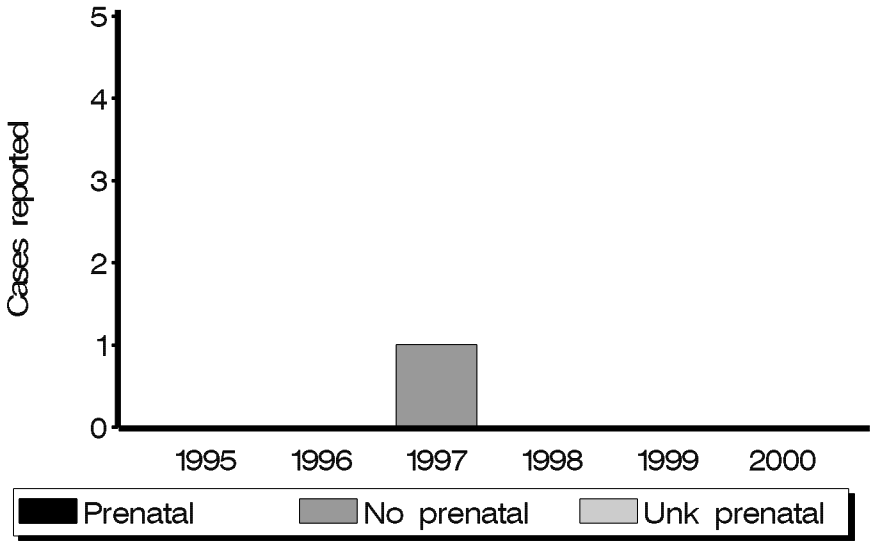


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Wisconsin — 2000

Figure A. P&S syphilis rates among men, 1984—2000

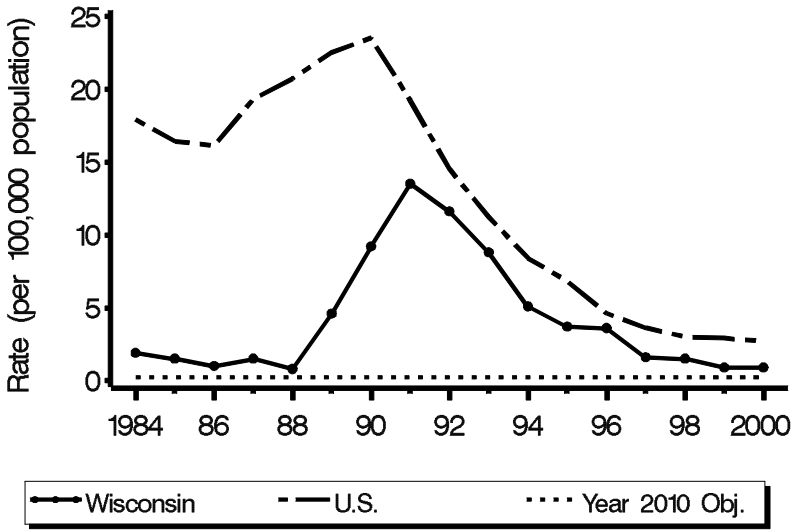


Figure B. P&S syphilis rates among women, 1984—2000

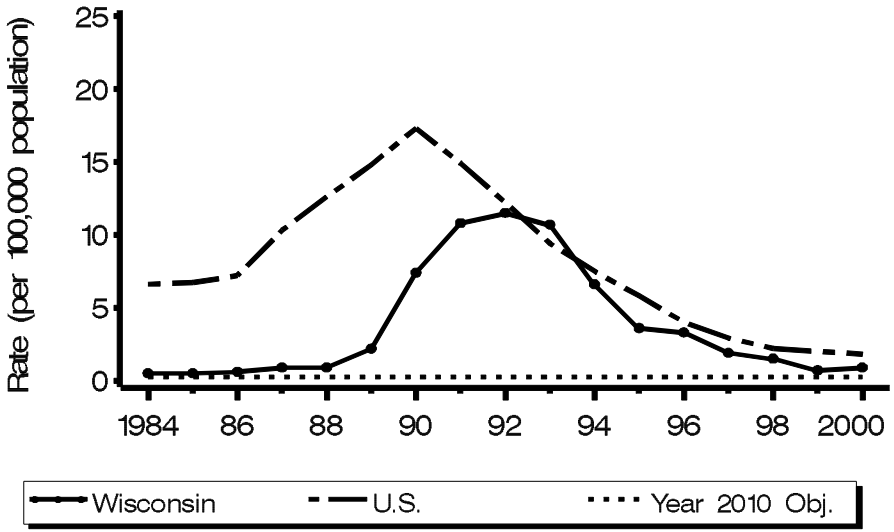


Figure C. P&S syphilis county rates, 2000

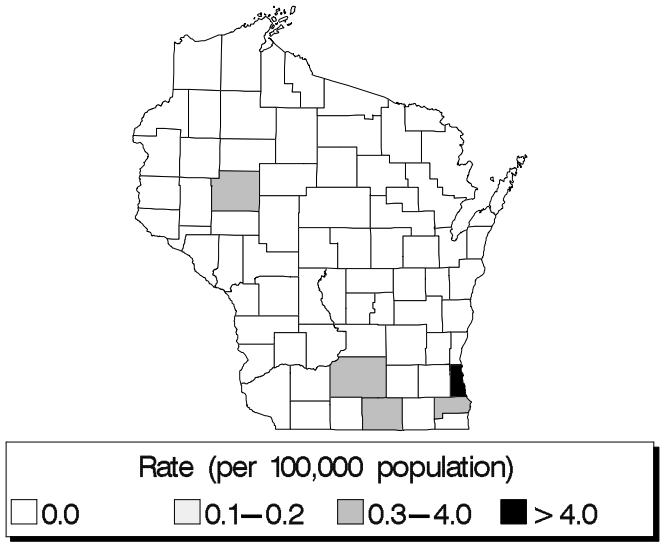
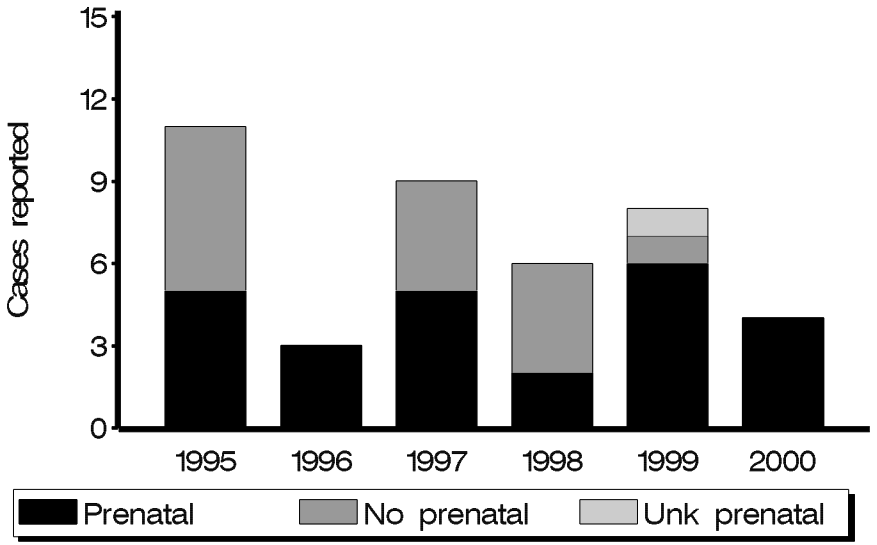


Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000



Wyoming — 2000

Figure A. P&S syphilis rates among men, 1984—2000

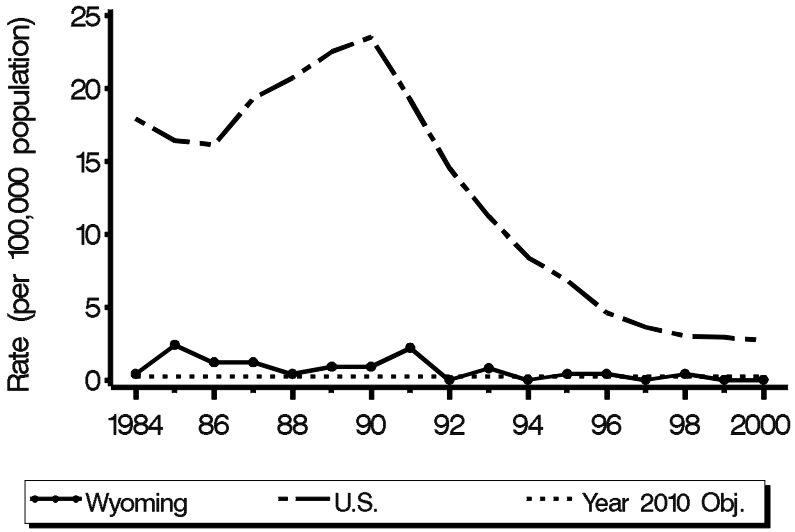


Figure B. P&S syphilis rates among women, 1984—2000

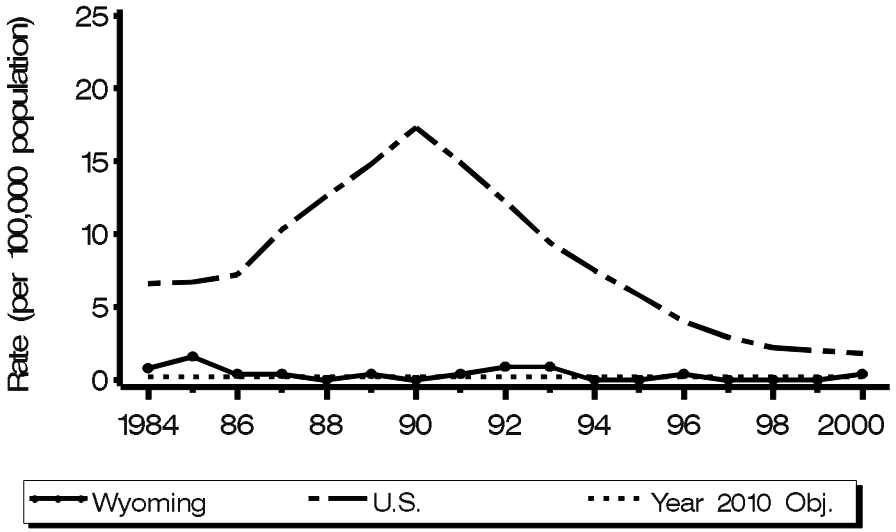


Figure C. P&S syphilis county rates, 2000

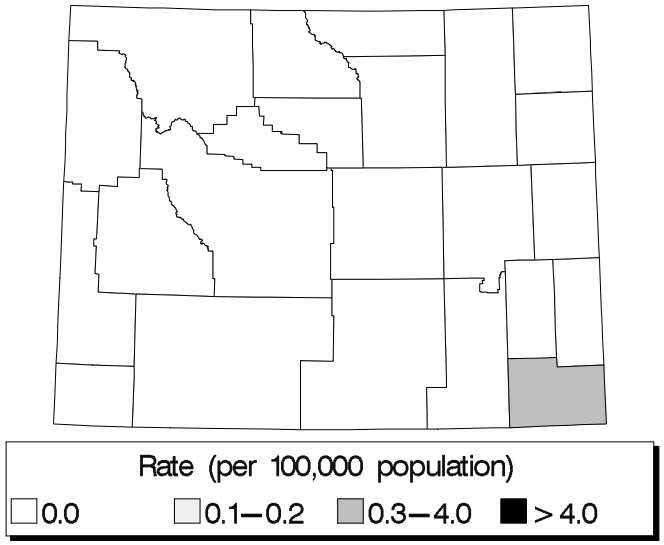
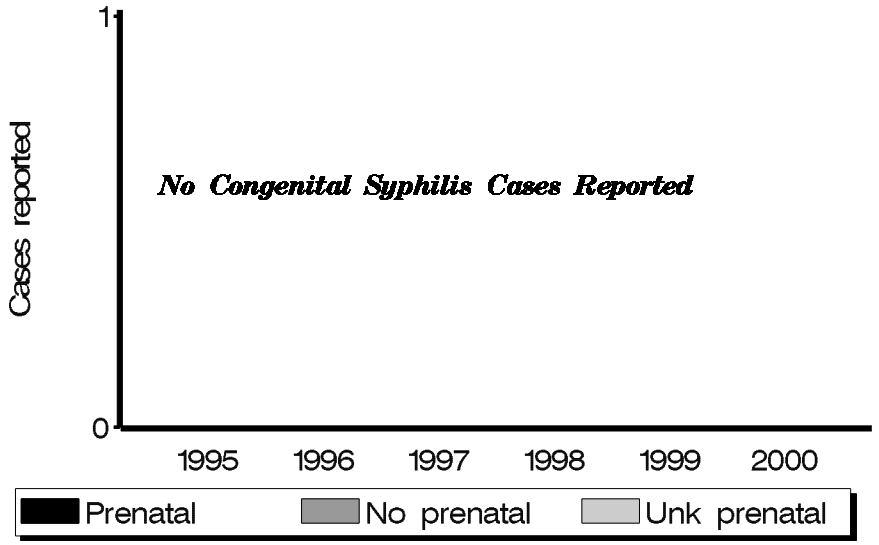



Figure D. Congenital syphilis cases, by prenatal care status, 1995—2000