Sexually Transmitted Disease Surveillance 1998 Supplement

Chlamydia Prevalence Monitoring Project Annual Report 1998

Division of STD Prevention

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for HIV, STD, and TB Prevention
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Chlamydia Prevalence Monitoring Project
Annual Report - 1998

The Centers for Disease Control and Prevention's (CDC) Chlamydia Prevalence Monitoring Project is a collaborative effort among Regional Infertility Prevention Projects, STD project areas, state epidemiologists and public health laboratory directors, the U.S. Department of Labor, and researchers for the Department of the Army to monitor the prevalence of genital *Chlamydia trachomatis* infections among women screened for this infection in the U.S. through publicly-funded programs. The data presented on chlamydial infection in this report complement and supplement data presented in CDC's 1998 STD Surveillance Report[1].

Introduction

Since 1988, CDC has supported screening programs for *Chlamydia trachomatis* infections in women and has monitored positivity rates to evaluate program impact. As documented by chlamydia case-reporting (i.e., morbidity) data, case rates following initiation of chlamydia screening and treatment programs have resulted in initial increases in cases detected and reported. To minimize the impact of variation in chlamydia testing and reporting on the interpretation of surveillance data, CDC, states, and Regional Infertility Prevention Projects use screening positivity data to estimate chlamydia prevalence among selected populations. This report compares data on chlamydia prevalence in selected populations with data reported to CDC through the morbidity reporting system.

Sources of Data

Regional Infertility Prevention Projects

Chlamydia screening and prevalence monitoring activities were initiated in PHS Region X in 1988 as a CDC-supported demonstration project. In 1993, as part of the development of the National Infertility Prevention Program, chlamydia screening services for women were initiated in three additional PHS regions (III, VII, VIII) and in 1995 services were implemented in the remaining PHS regions (I, II, IV, V, VI, IX)[2,3]. All Regional Projects, in collaboration with state STD control programs, report their chlamydia positivity data to CDC. In some of the PHS regions, federally-funded chlamydia screening supplements local- and state-funded testing programs. These publicly-funded programs support chlamydia screening primarily in family planning clinics, but also in some STD clinics, antenatal clinics, jails and juvenile detention centers, and other sites.

STD Project Areas

In 1998, 49 states and the District of Columbia (represented by 64 STD project areas) reported chlamydia cases to CDC. Additionally, in 1998, 16 health departments collaborated with CDC to report STD prevalence data from persons entering jails and juvenile detention facilities, as part of the Jail STD Prevalence Monitoring Project.

The U.S. Job Corps

Since 1990, approximately 20,000 female Job Corps entrants have been screened each year for chlamydia, with all tests performed at a central laboratory using a single test type. (Type of test and laboratory changed in mid-1997.) The Job Corps, administered by the U.S. Department of Labor at more than 100 sites throughout the country, is primarly a residential job training program for urban and rural disadvantaged youth aged 16-24 years. The Department of Labor makes these data available to CDC to calculate prevalence in this population.

The U.S. Department of the Army

Since 1996, approximately 22,000 female recruits have been screened at entry into the U.S. Army at basic training in Fort Jackson, SC[4]. All tests are performed at a single research laboratory on urine specimens. The Johns Hopkins University Chlamydia Research Laboratory makes these data available to CDC.

Data Limitations

The interpretation of chlamydia data is complicated by several factors. First, case reports and prevalence data result from the use of several different types of diagnostic tests for chlamydial

infection (e.g., direct fluorescent antibody, EIA, nucleic acid probe assay, DNA amplification); these tests vary in their sensitivity and specificity. Second, chlamydia positivity among women attending clinics is an estimate of prevalence; it is not true prevalence. Crude positivity may include those women who are tested two or more times during a single year. Comparisons of positivity with prevalence have shown that in family planning clinics, positivity is generally similar to or slightly higher than prevalence, and in STD clinics, positivity is somewhat lower than prevalence; however, these differences are usually small, with the relative difference <10%[5]. Third, while all family planning clinics are performing universal screening of all sexually active women <20 years of age, and most clinics for all women <25 years of age, some selective screening is performed in 20-24 year olds and is common for women ≥25 years of age. Fourth, while monitoring prevalence among persons seeking care at clinics provides important information on certain segments of the population, these data cannot be generalized to the population as a whole.

The data from the U.S. Job Corps and U.S. Army are exceptions to the first three caveats. All tests are performed using a single test type. Data are limited to entrance exam testing; therefore, no women are included twice. All women entering the Job Corps are required to be tested. Approximately 80% of women entering the Army in Fort Jackson, SC, volunteer for testing.

Chlamydia Data Reported In 1998

Case reports

In 1998, 607,602 chlamydial infections were reported to CDC from 49 states, the District of Columbia, and New York City (Figure 1). This is the fourth consecutive year that reported cases of chlamydial infection exceeded reported cases of gonorrhea (355,642 gonorrhea cases were reported in 1998). From 1987 through 1998 the reported rate of chlamydial infection among women increased from 50.8 cases per 100,000 population to 382.2. These increases in the reported national chlamydia rate are attributable to increased chlamydia screening, recognition of asymptomatic infection (mainly in women), and improved reporting, as well as the continuing high burden of disease.

In 1998, state-specific chlamydia rates among women ranged from 119.5 per 100,000 population to 647.5 (Figure 2). This variation in rates reflects both state-specific differences in screening practices and in true disease burden.

Chlamydia positivity among women

In 1998, state-specific chlamydia test positivity among 15- to 24-year-old women screened in family planning clinics ranged from 2.4% to 11.3% (Figure 3).

The effectiveness of large-scale screening programs in reducing chlamydia prevalence has been well documented in areas where this intervention has been in place for several years[6,7]. In 1998, chlamydia test positivity in family planning clinics increased in nine of ten regions compared with 1997 (Figure 4). However, these reported increases are most likely due to changes in laboratory test method and associated increases in test sensitivity[8]; expansion of screening programs to populations with higher prevalence of disease may have also contributed to these increases.

In 1998, state-specific chlamydia test positivity among 15 to 24 year old women screened in selected prenatal clinics in 21 states ranged from 3.7% to 14.5% (Figure 5).

Chlamydia prevalence among female Job Corps entrants

Among women entering the Job Corps in 1998, based on their place of residence just before program entry, state-specific chlamydia prevalence ranged from 4.6% to 20.3% (Figure 6). In 23 of 33 states with 100 or more residents tested, chlamydia prevalence was $\geq$10%.

Chlamydia positivity among women entering juvenile and adult corrections facilities

Data on positivity of chlamydial infection among women entering juvenile or adult corrections facilities were reported to CDC from 14 states (Figure 7). Among women entering these juvenile facilities in 1998, chlamydia prevalence ranged from 8.3% to 27.4%, and among those entering adult facilities, prevalence ranged from 0.9% to 11.0%.

Chlamydia positivity among female U.S. Army Recruits

Among female Army recruits, overall chlamydia prevalence was 9.5%. Among women entering the Army in 1998, based on their state of residence before entry, state-specific chlamydia prevalence ranged from 3.9% to 22.8% (Figure 8).

Notes on state-specific Data

Morbidity Surveillance: Reporting of Chlamydia Cases

Figure A. Chlamydia rate per 100,000 women, 1989 -1998.

Crude incidence rates (new cases/population) were calculated on an annual basis per 100,000 population. For the United States, rates were calculated using Bureau of 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. 1057]; 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 1991-1997 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; *1991-1997 Estimates of the Population of*

Counties by Age, Sex and Race/Hispanic Origin: 1990 to 1997; machine-readable data files). Rates for 1998 use population estimates for 1997.

1980-1988 population estimates for areas outside the United States were obtained from the Bureau of the Census (Bureau of the Census; population estimates for Puerto Rico and the outlying areas: 1980 to 1988; *Current Population Reports* [Series P-25, No. 1049]; Washington: US Government Printing Office, 1989). After 1988, population estimates for outlying areas were obtained directly from the health department in these areas. For Puerto Rico and Virgin Islands, current population estimates through 1997 were obtained from their area's data centers. Rates for 1998 were based on the 1997 population estimates. Population estimates for Guam were updated through 1995 and were used to calculate rates for 1995-1998.

Prevalence Monitoring: Reporting of Chlamydia Positivity

Figure B. Chlamydia positivity among women 15 to 24 years of age, by testing site, 1990-1998; Table 1. Chlamydia positivity among women 15 to 44 years of age by testing site, 1998; Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998.

Chlamydia test positivity data are presented from those states reporting results on 500 or more women screened during 1998. Chlamydia test positivity was calculated by dividing the number of women testing positive for chlamydia (numerator) by the total number of women tested for chlamydia (denominator; includes those with valid test results only, excludes unsatisfactory and indeterminate tests) and was expressed as a percentage. The denominator may contain multiple tests from the same individual if that person was tested more than once during the period for which screening data are reported. Various chlamydia laboratory test methods were used and no adjustments of test positivity were made based on test type. Chlamydia prevalence data on female U.S. Job Corps entrants are not presented when the number of persons tested per year per state was fewer than 100. The number of clinics cited in Table 1 for each state represents family planning, STD, prenatal, and other clinics screening 25 or more women and juvenile and adult corrections facilities screening 100 or more women. Chlamydia testing data were published with permission from the Regional Infertility Prevention Programs, state STD Control Programs, the Job Corps, and the U.S. Department of Labor.

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[1] Division of STD Prevention. *Sexually Transmitted Disease Surveillance, 1998*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention (CDC), September 1999.

[2] Hillis S, Black C, Newhall J, Walsh C, Groseclose SL. New opportunities for chlamydia prevention: applications of science to public health practice. *Sex Transm Dis* 1995;22:21:70-5.

[3] Centers for Disease Control and Prevention. *Chlamydia trachomatis* genital infections — United States, 1995. *MMWR* 1997;46:193-8.

[4] Gaydos CA, Howell MR, Pare B, et al. *Chlamydia trachomatis* infection in female military recruits. *N Engl J Med* 1998;339:739-44.

[5] Dicker LW, Mosure DJ, Levine WC. Chlamydia positivity versus prevalence: what's the difference? *Sex Transm Dis* 1998;25:251-3.

[6] Addiss DG, Vaugh ML, Ludka D, Pfister J, Davis JP. Decreased prevalence of *Chlamydia trachomatis* infection associated with a selective screening program in family planning clinics in Wisconsin. *Sex Transm Dis* 1993;20:28-35.

[7] Mertz KJ, Levine WC, Mosure DJ, Berman SM, Dorian KJ. Trends in the prevalence of chlamydial infections: the impact of community-wide testing. *Sex Transm Dis* 1997;24:169-75.

[8] Dicker LW, Mosure DJ, Levine WC, Black CM, Berman SM. The impact of switching laboratory tests on reported trends in *Chlamydia trachomatis* infections. *Am J Epidemiol* (in press).

Acknowledgments

This report would not have been possible without the contributions of the State and Territorial Health Departments, the STD Control Programs, the Regional Infertility Prevention Programs, the Jail STD Prevalence Monitoring Project, and the Job Corps, U.S. Department of Labor, Johns Hopkins University Chlamydia Research Laboratory, and the Department of Army and the Office of Women's Health Research which provided surveillance data to the Centers for Disease Control and Prevention.

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, Jim Braxton, LaZetta Grier, Sharon Hixon, Kathleen Hutchins, William Levine, Kristen Mertz, Debra Mosure, Ray Ransom.

Figure 1. Chlamydia — Rates by gender: United States, 1984–1998

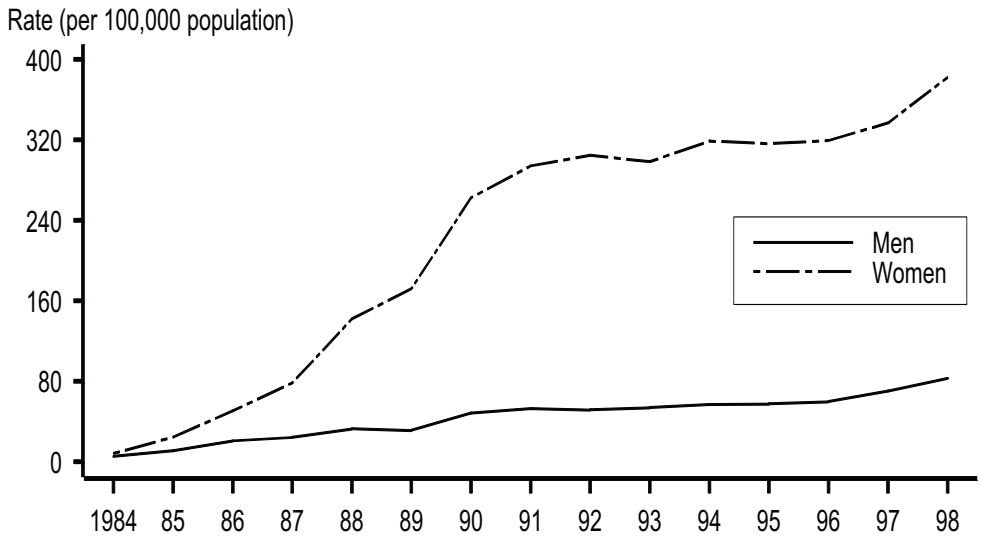
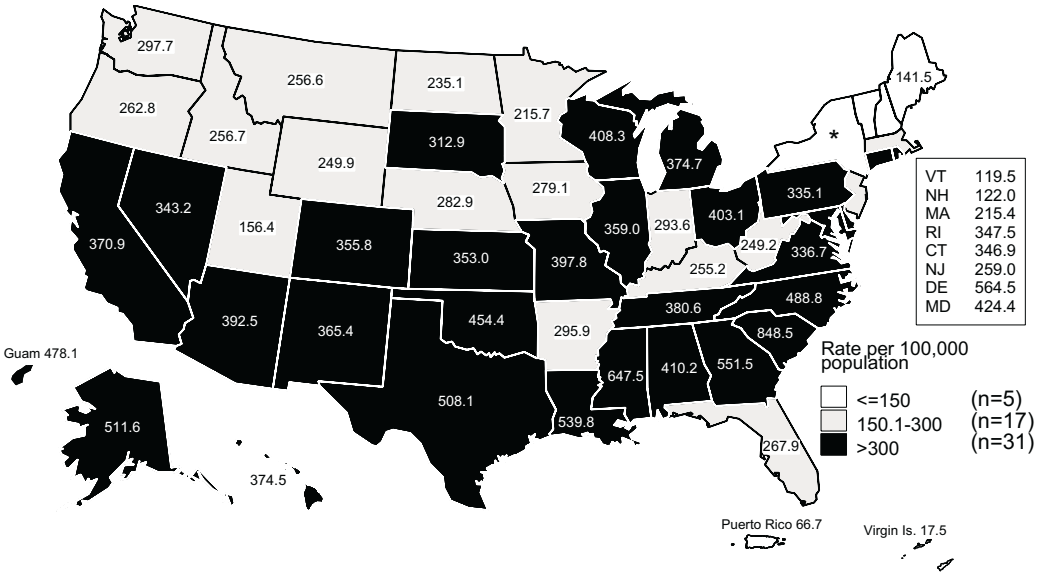


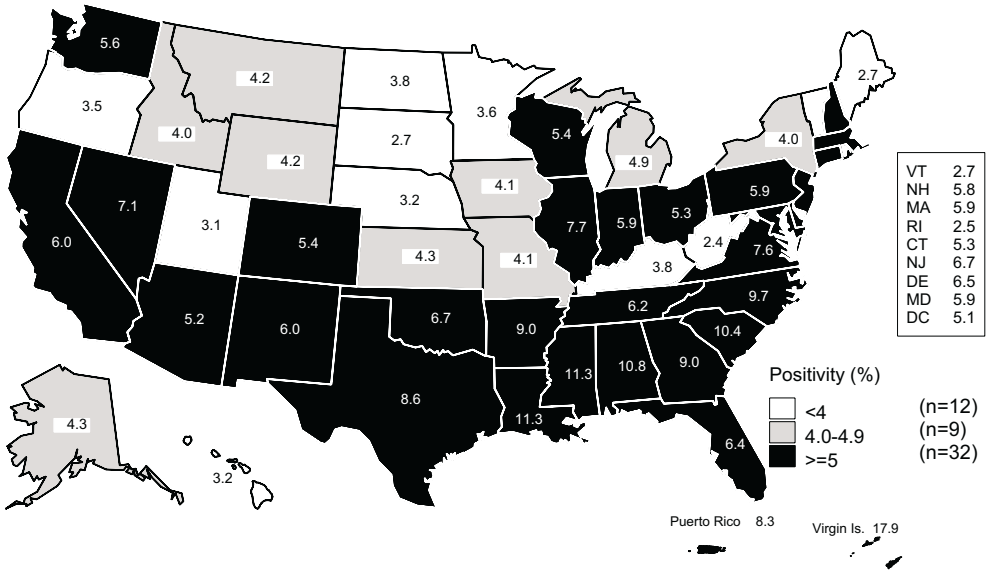
Figure 2. Chlamydia — Rates for women by state: United States and outlying areas, 1998



*The New York City rate was 604.6 per 100,000 population. No cases were reported outside of New York City.

Note: The total rate of chlamydia for women in the United States and outlying areas (including Guam, Puerto Rico and Virgin Islands) was 377.4 per 100,000 population.

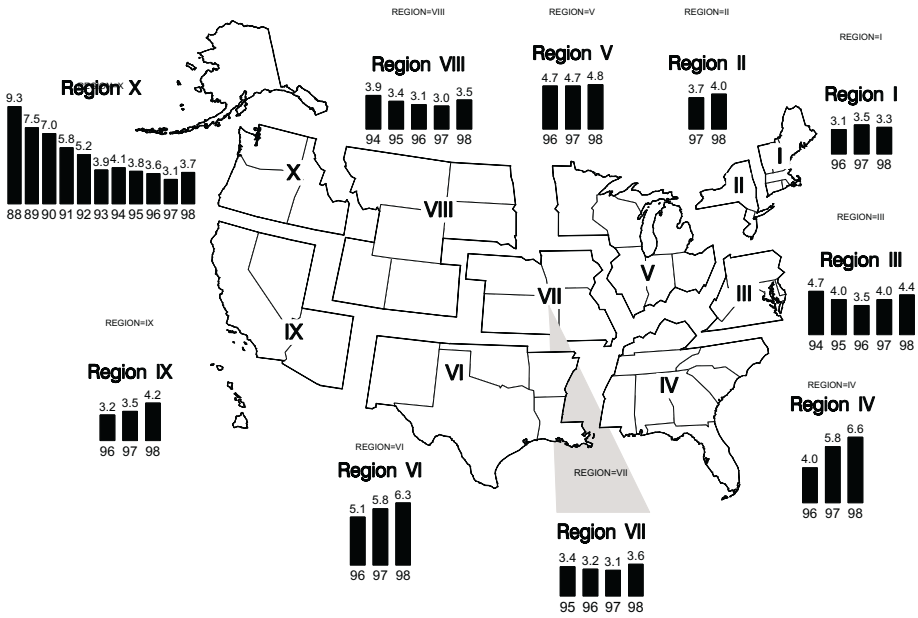
Figure 3. Chlamydia — Positivity among 15-24 year old women tested in family planning clinics by state, 1998



Note: States reported chlamydia positivity data on at least 500 women aged 15-24 years screened during 1998 except for: Rhode Island - chlamydia positivity data reported for July-December only; Puerto Rico - chlamydia positivity data reported for January-April only; and Virgin Islands - chlamydia positivity data reported for April-December only.

SOURCE: Regional Infertility Prevention Programs; Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

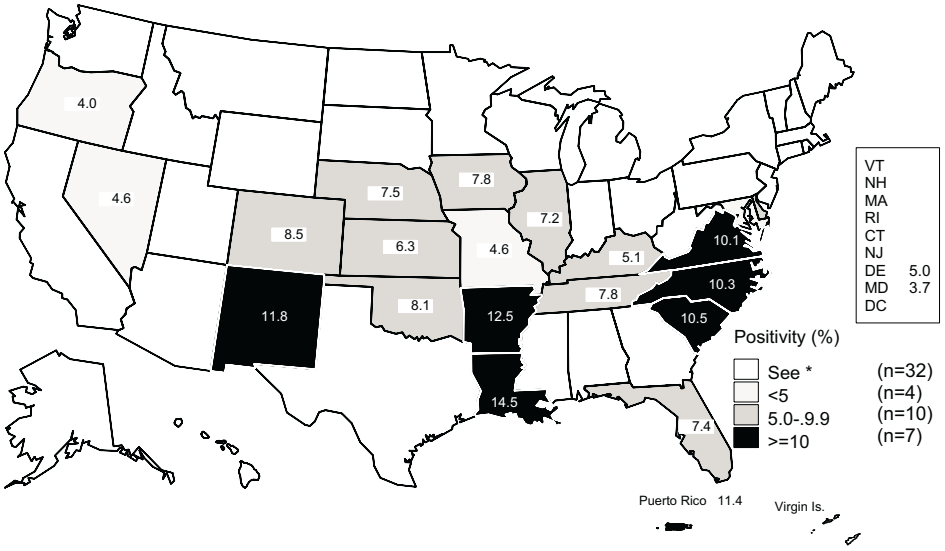
Figure 4. Chlamydia — Trends in positivity among 15-44 year old women tested in family planning clinics by HHS regions, 1988–1998



Note: Trends not adjusted for changes in laboratory test method in 1998 and associated increases in test sensitivity.

SOURCE: Regional Infertility Prevention Programs; Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Figure 5. Chlamydia — Positivity among 15-24 year old women tested in prenatal clinics by state, 1998

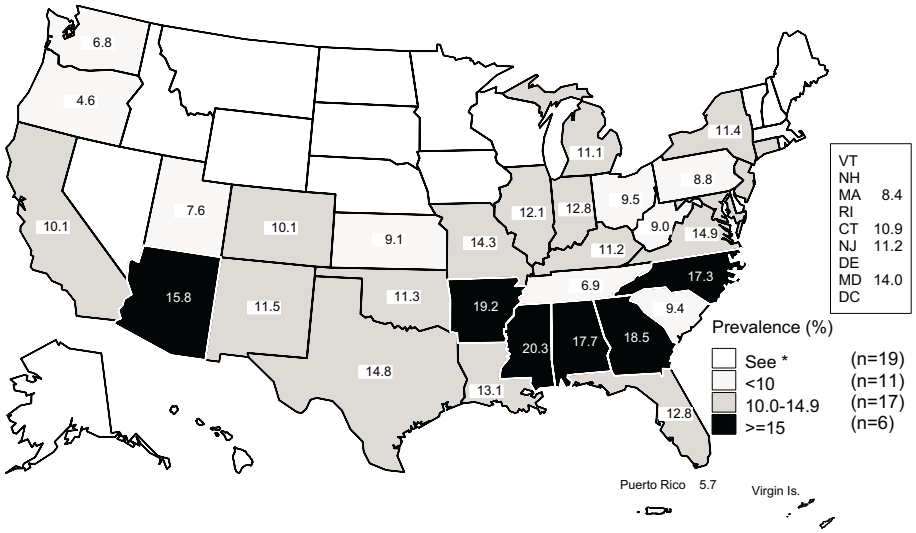


*States not reporting chlamydia positivity data in prenatal clinics.

Note: States reported chlamydia positivity data on at least 500 women aged 15-24 years during 1998 except for Colorado, Nevada, New Mexico, and Oregon. Puerto Rico reported chlamydia positivity data for January - April only.

SOURCE: Regional Infertility Prevention Programs; Office of Population Affairs; Local and State STD Control Programs; Centers for Disease Control and Prevention

Figure 6. Chlamydia — Prevalence among 16-24 year-old women entering the U.S. Job Corps by state of residence, 1998

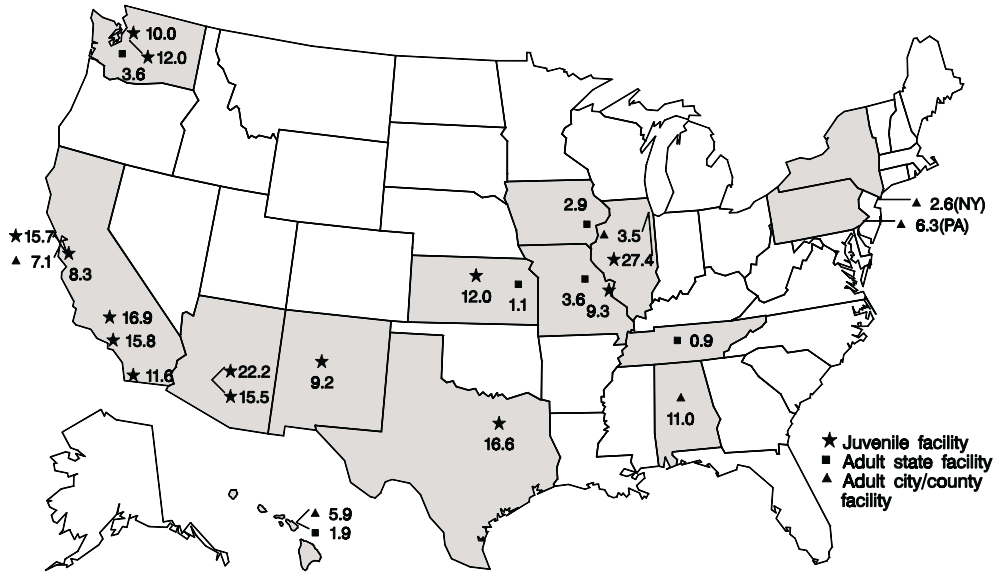


*Fewer than 100 women residing in these states and entering the U.S. Job Corps were screened for chlamydia in 1998.

Note: The overall chlamydia prevalence among female students entering the U.S. Job Corps in 1998 was 11.7%.

SOURCE: U.S. Department of Labor

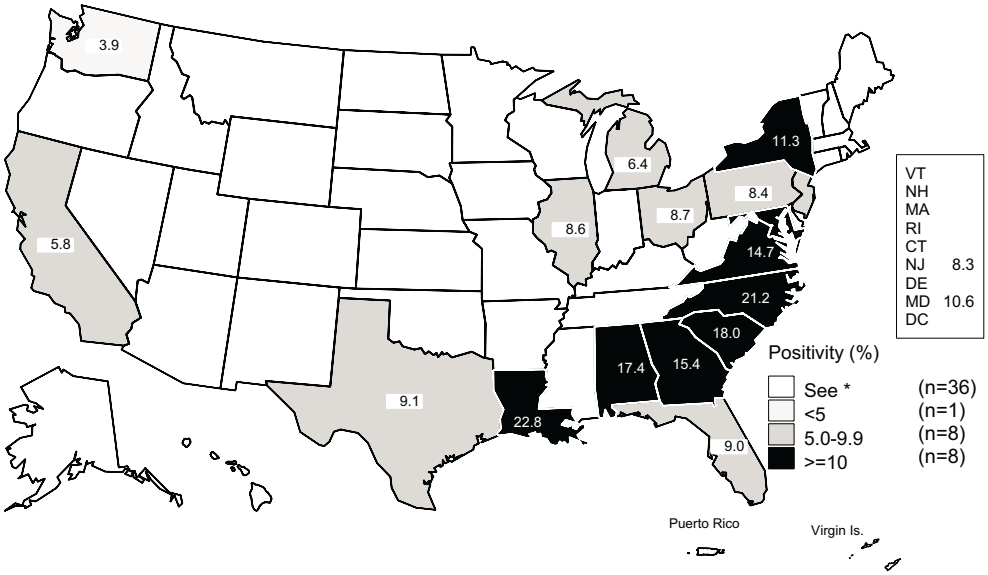
Figure 7. Chlamydia — Positivity in women entering juvenile and adult corrections facilities†, 1998



†From facilities reporting >100 test results.

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

Figure 8. Chlamydia — Positivity among 17-34 year old women entering the U.S. Army by state of residence, 1998



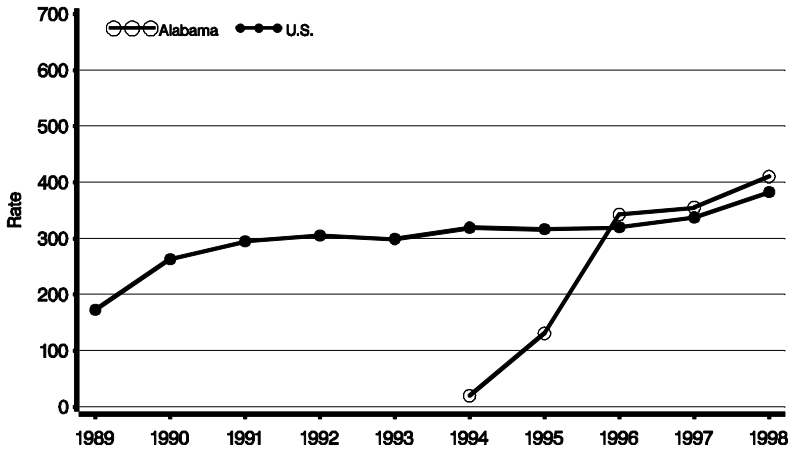
*Fewer than 100 women residing in these states and entering the U.S. Army were screened for chlamydia in 1998.

Note: Overall chlamydia positivity was 9.5%.

SOURCE: Johns Hopkins University Chlamydia Research Laboratory (funding initiative Office of Defense Women's Health Research)

Alabama – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: No data were reported in 1989–1993.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

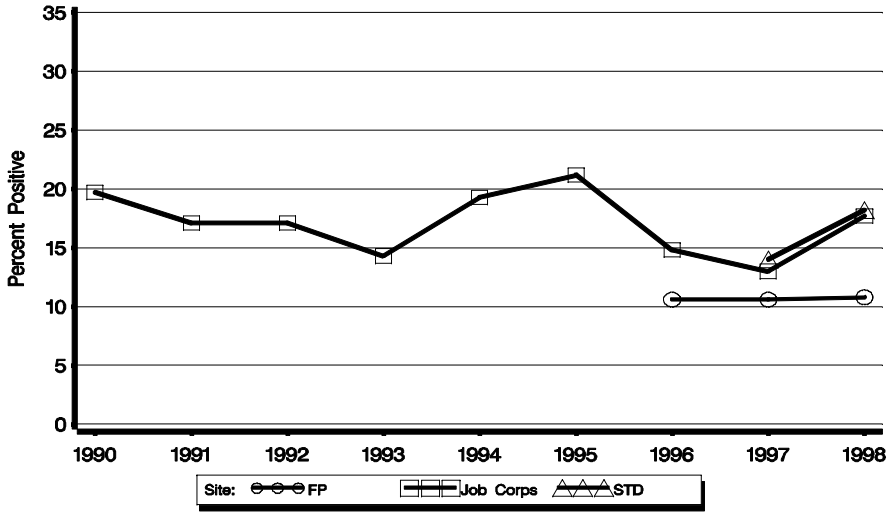
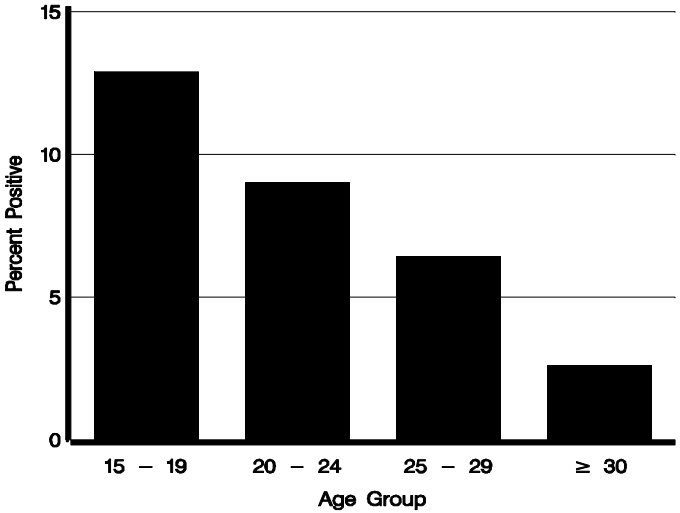


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

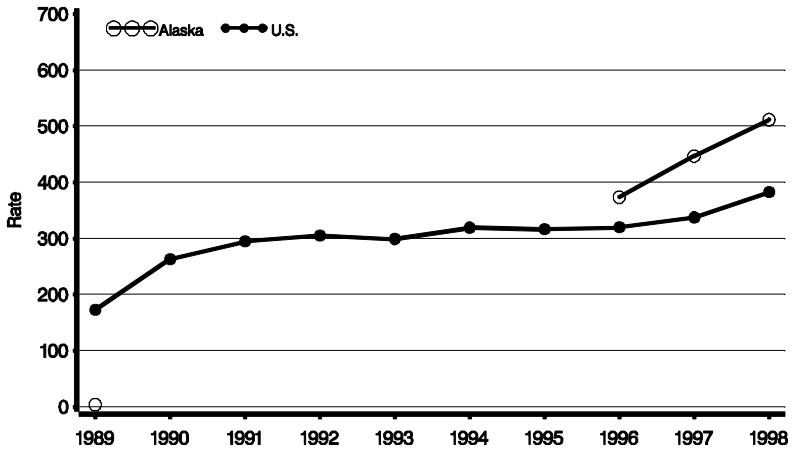
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	NA	13842	10.4
STD	NA	321	10.9
Adult Corrections	1	308	11.0
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Alaska – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: Only 9 female cases were reported in 1989. No data were reported in 1990–1995.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

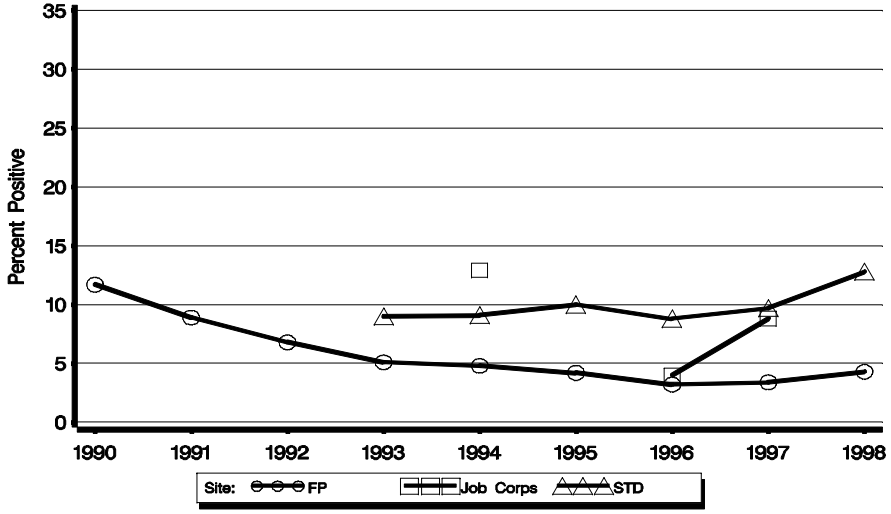
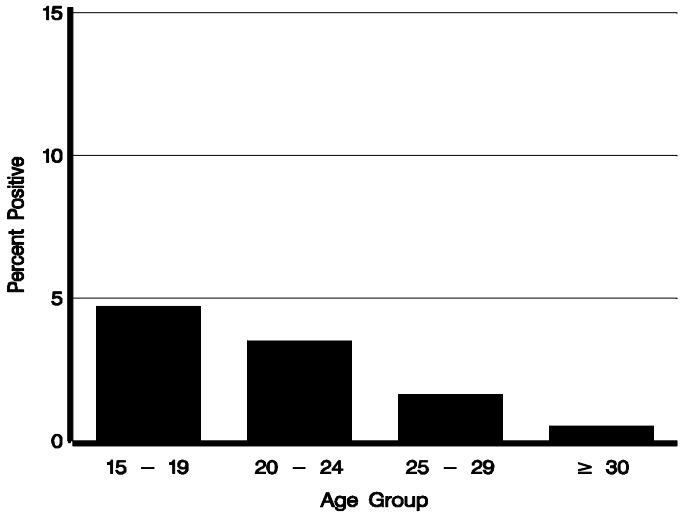


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	2	1282	3.3
STD	1	626	9.6
Other	17	6643	2.9

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Arizona — 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

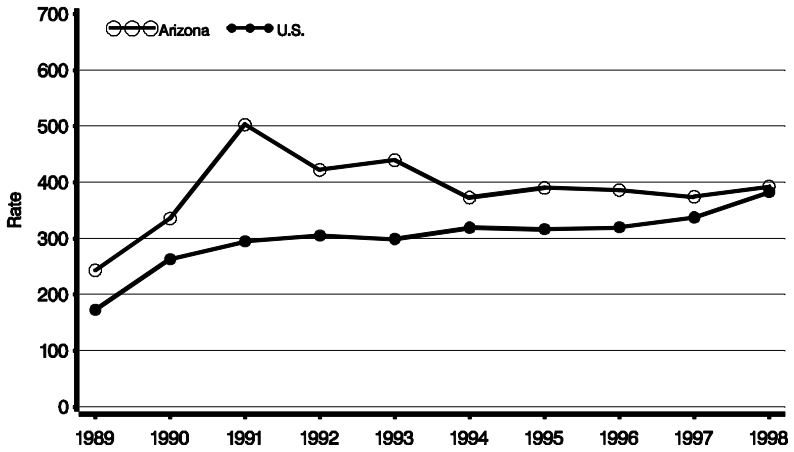


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

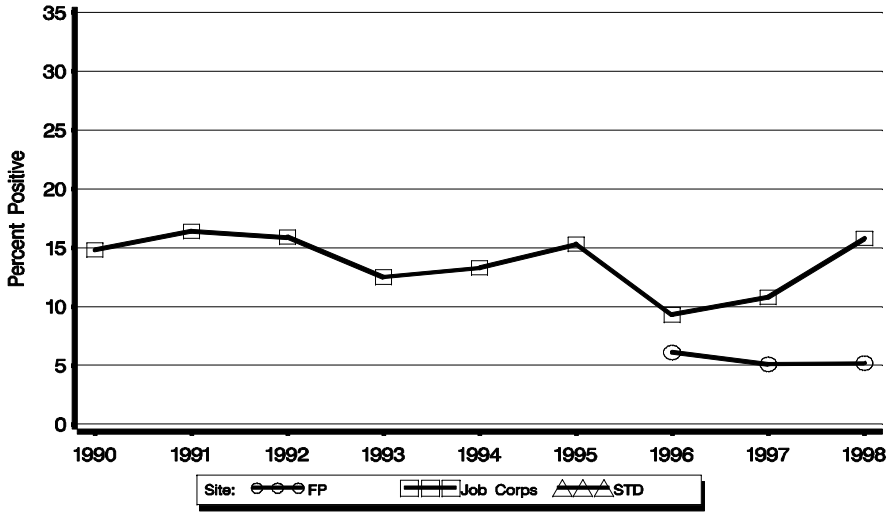
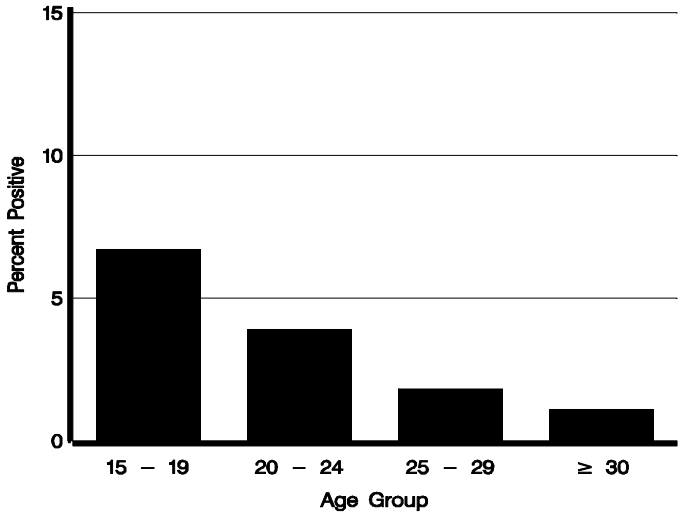


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	4	4306	3.4
STD	NA	NA	NA
Juvenile Detention	2	569	19.1
Other	1	249	8.4

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Arkansas – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

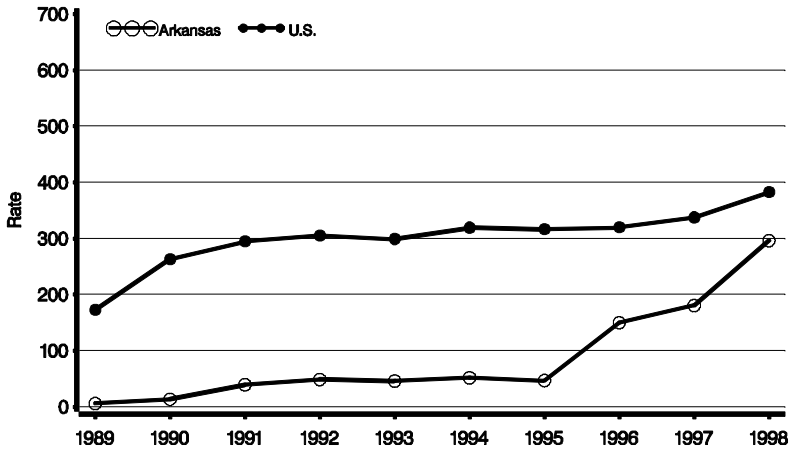


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

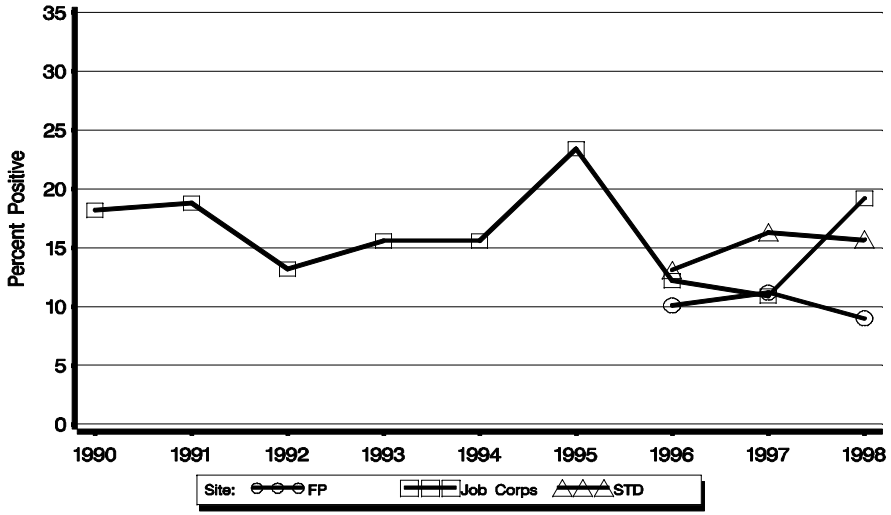
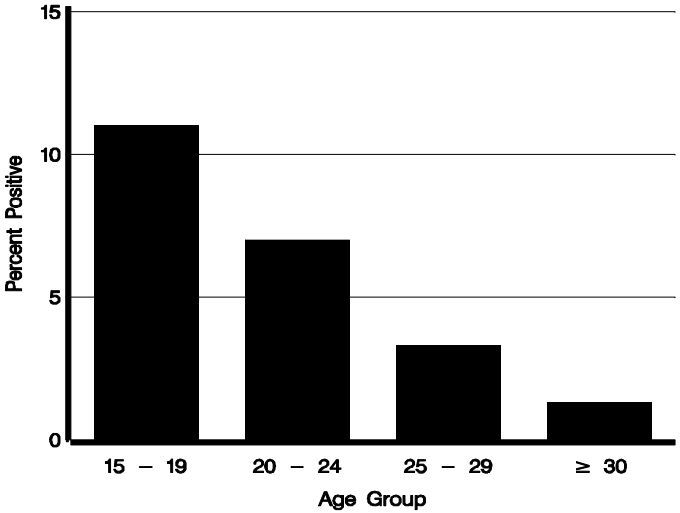


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

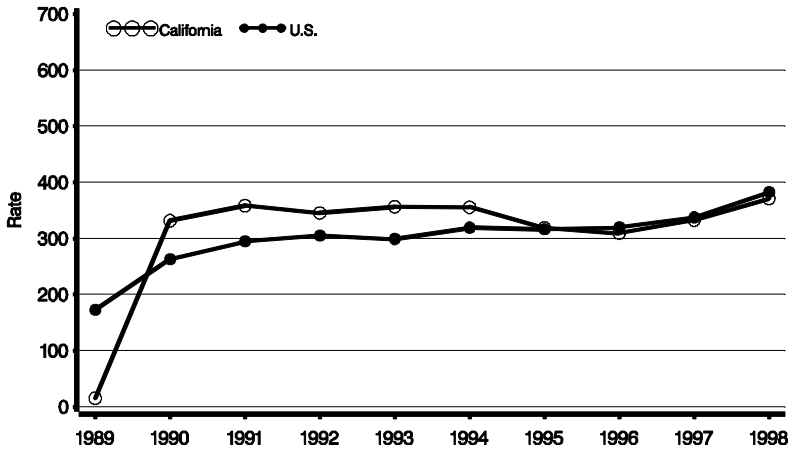
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	101	34867	6.5
STD	35	5537	11.5
Prenatal	22	2328	10.1
Other	1	258	8.1

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



California – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: Gender unknown for 10.4% of cases in 1990 and 32.4% in 1995

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

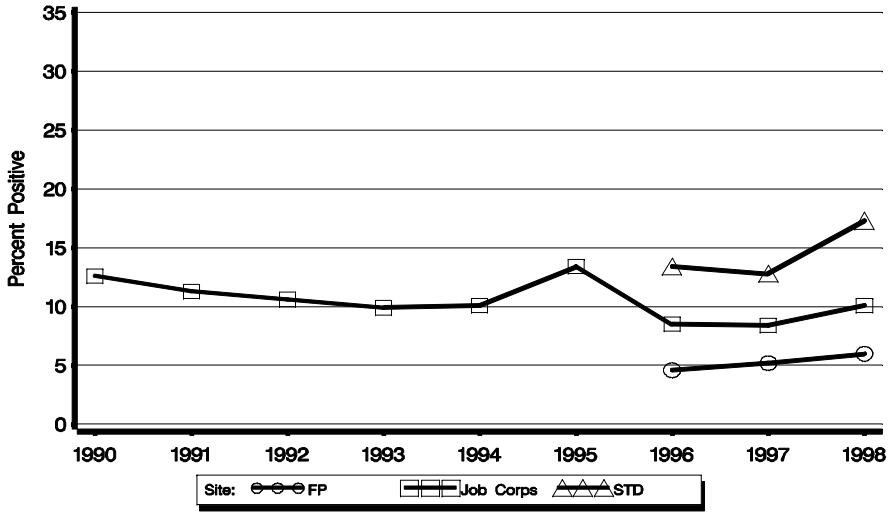
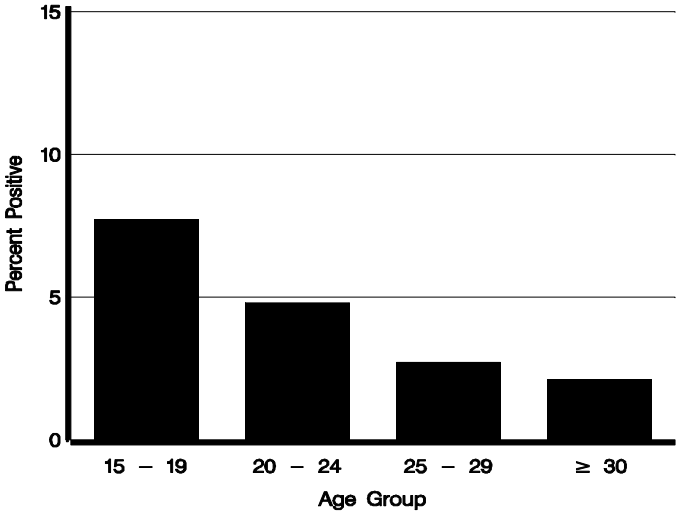


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

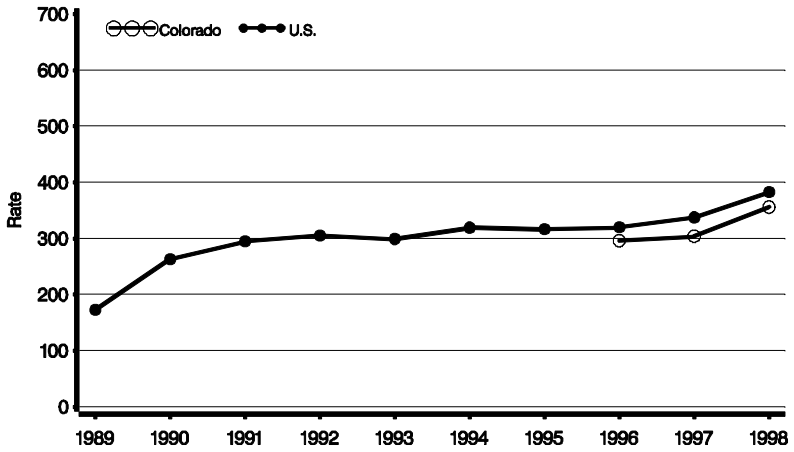
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	14	12995	4.5
STD	14	12156	10.6
Adult Corrections	1	1879	7.1
Juvenile Detention	8	5803	13.9
Other	7	1534	6.5

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Colorado – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: Insufficient data were reported in 1989–1993. Cases were not reported by gender in 1994–1995.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

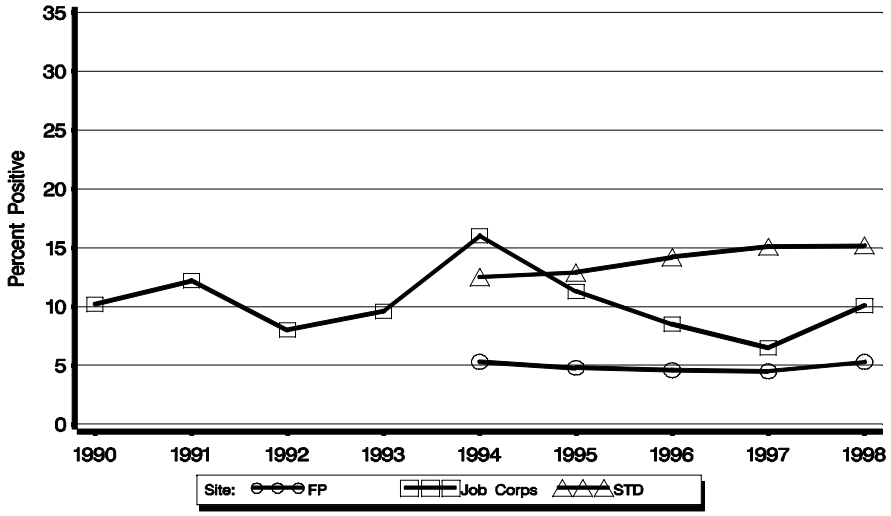
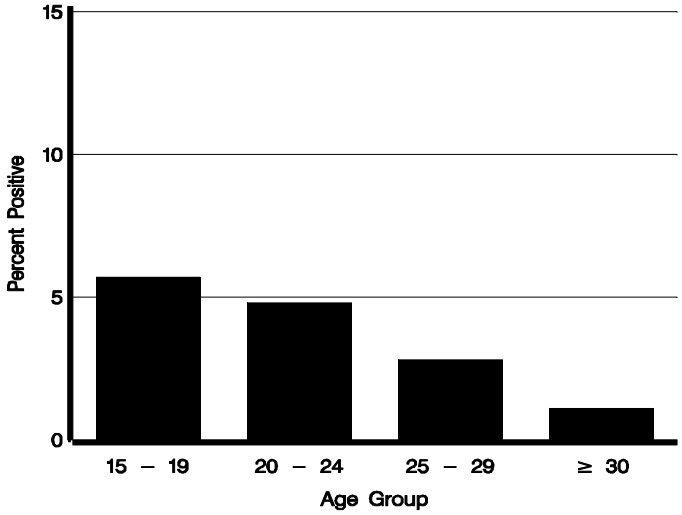


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	46	23205	4.2
STD	7	5919	10.8
Prenatal	5	544	5.9
Other	25	7940	4.7

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Connecticut – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

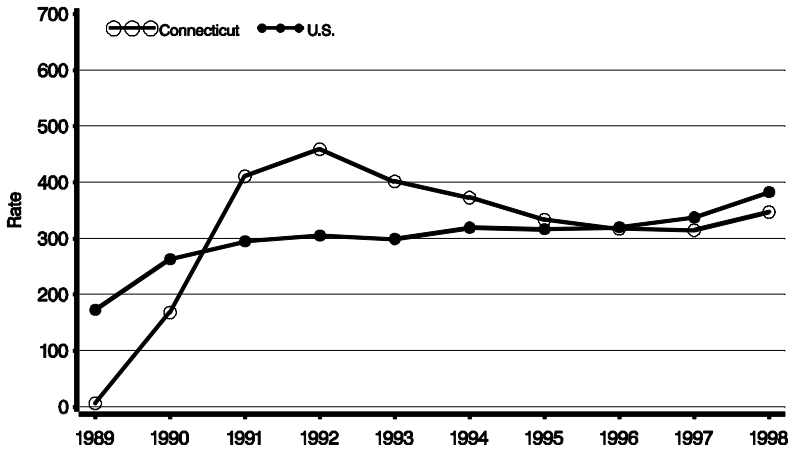


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

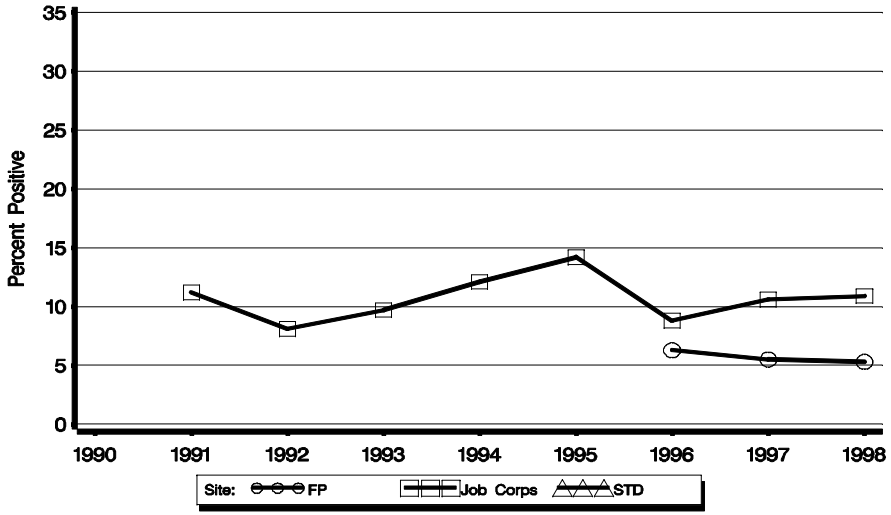
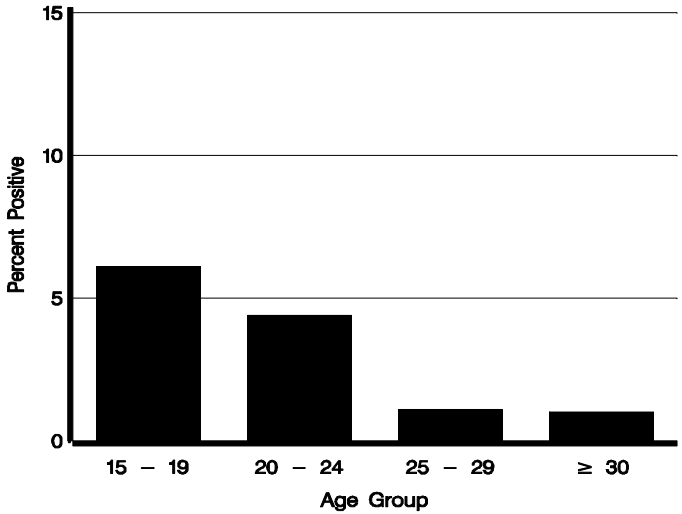


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	4	3174	3.7
STD	NA	NA	NA
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Delaware — 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

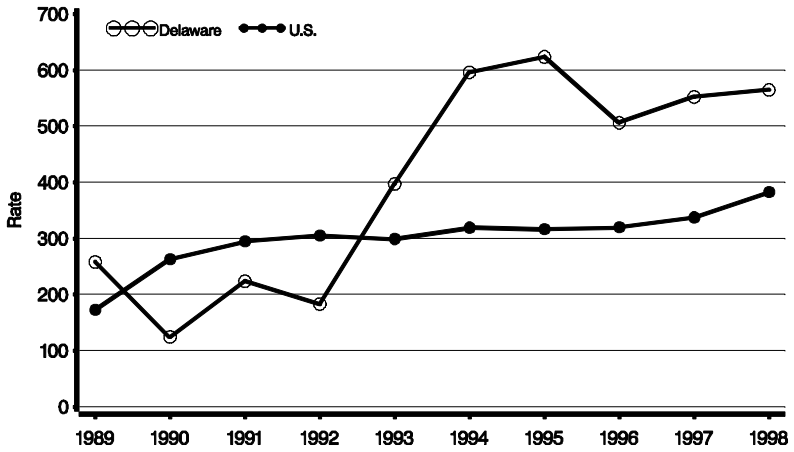


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

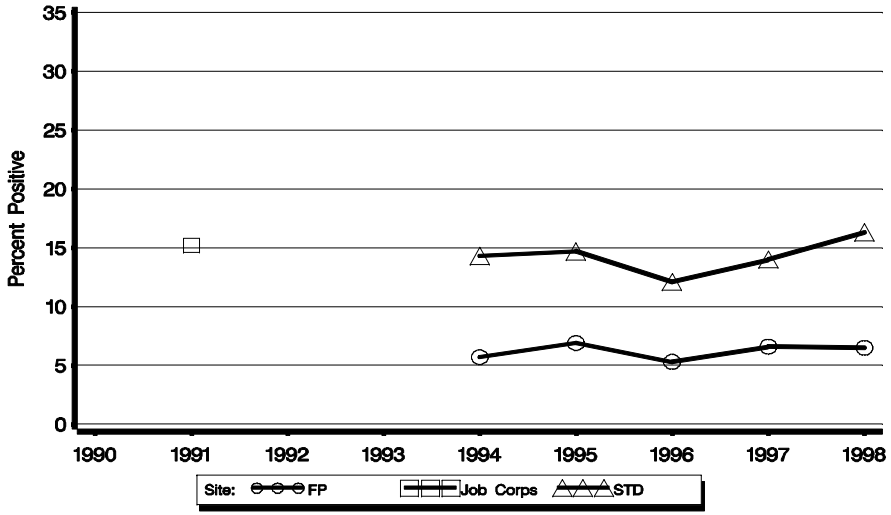
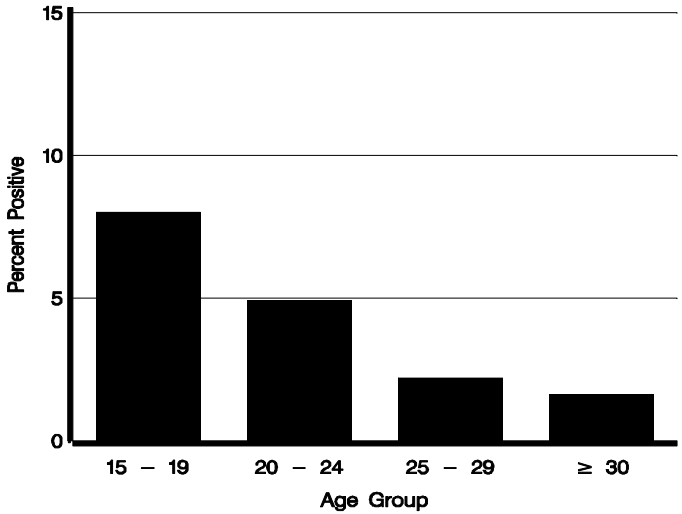


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	12	9767	4.7
STD	2	1005	11.4
Prenatal	2	1450	3.1
Other	6	2010	8.5

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Washington, DC – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

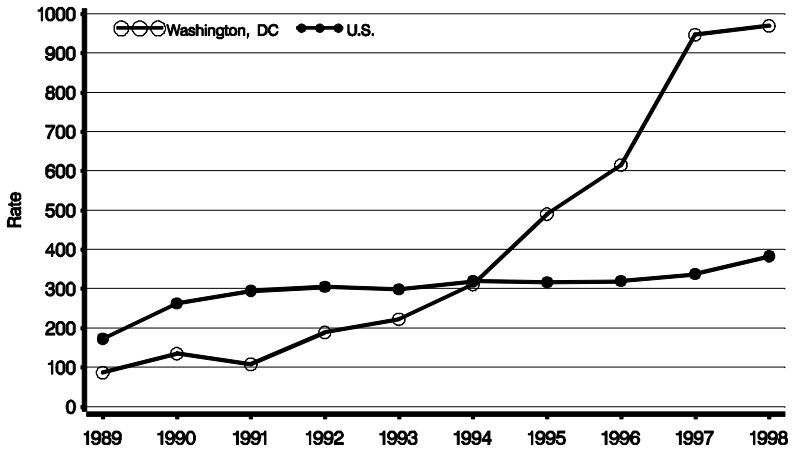


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

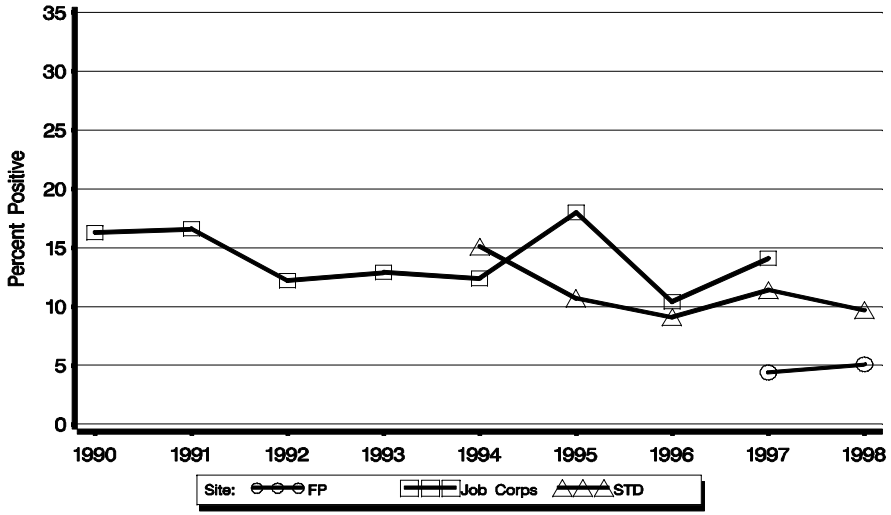
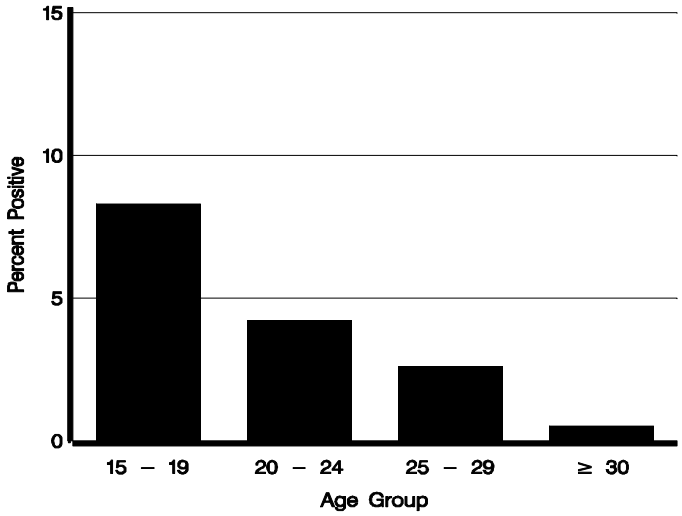


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

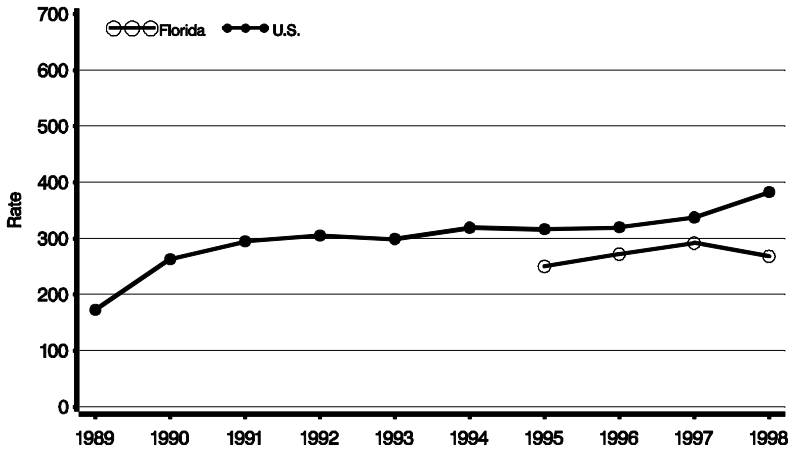
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	3	3514	3.3
STD	1	1791	5.2
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Florida – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: Only 11 female cases were reported in 1990. No data were reported in 1989 and in 1991–1994.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

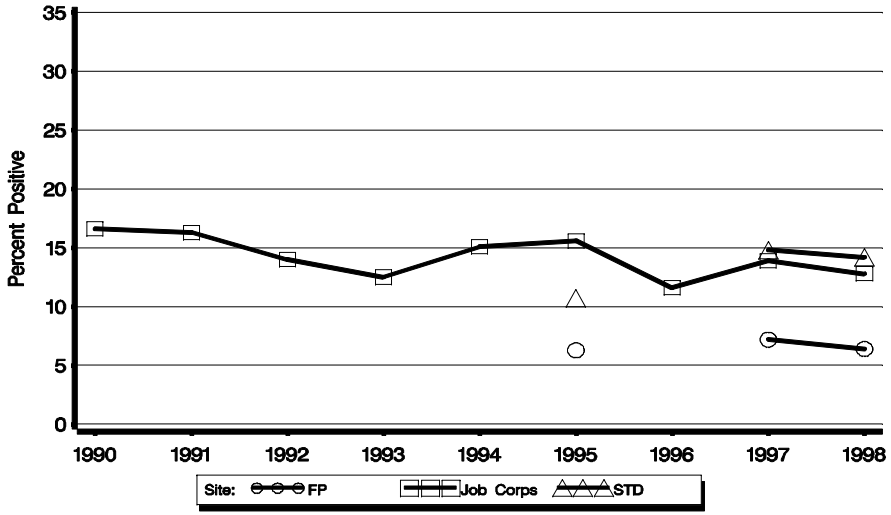
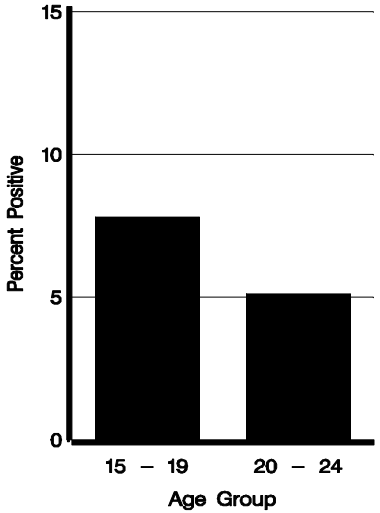


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

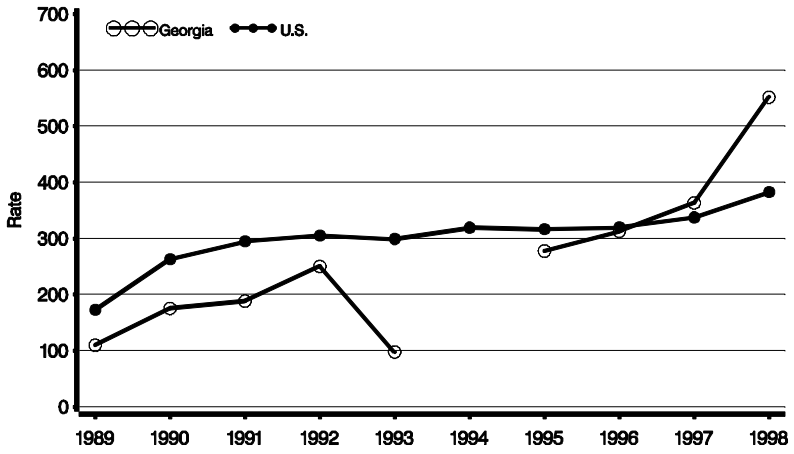
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	26	9245	6.3
STD	16	2697	14.2
Prenatal	12	2528	7.4
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Georgia – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: Only 148 female cases were reported in 1994.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

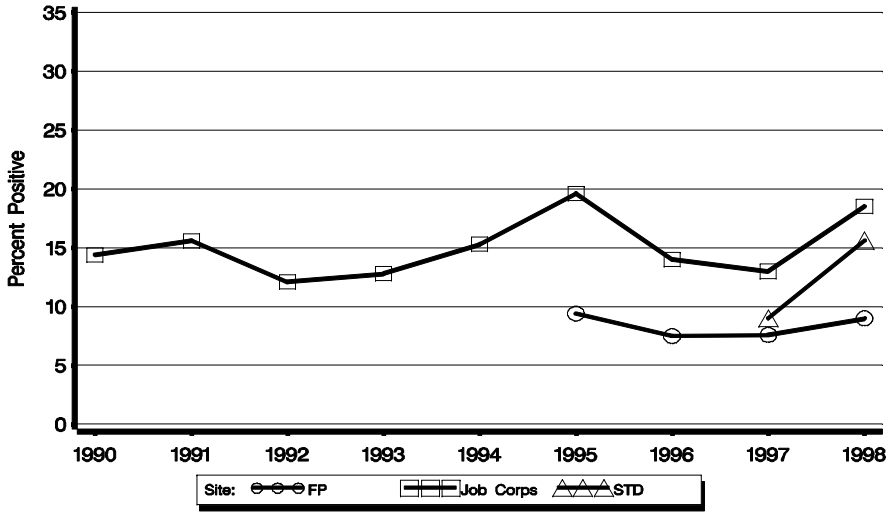
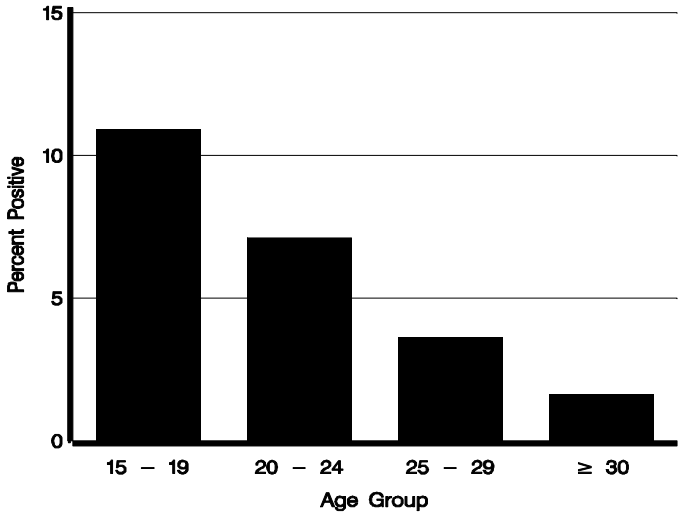


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	163	44888	7.0
STD	15	9462	9.9
Other	1	159	5.7

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Hawaii – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

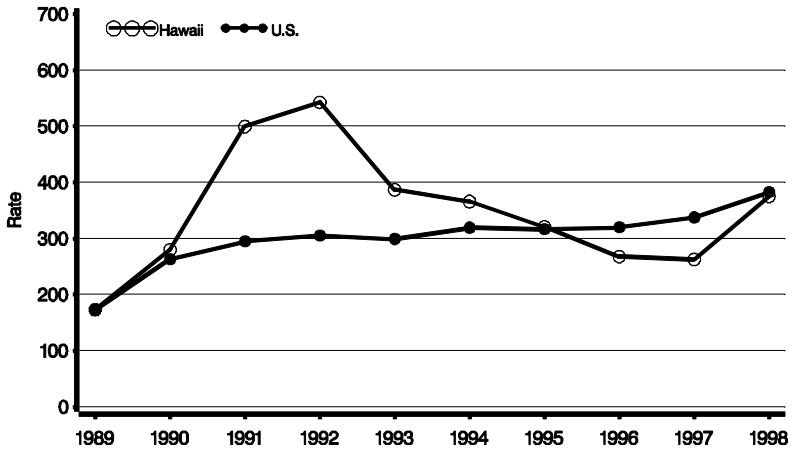


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

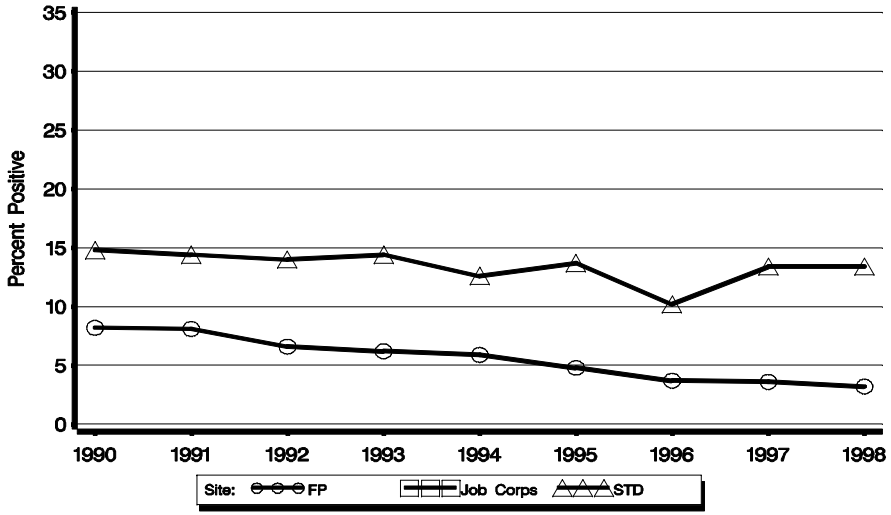
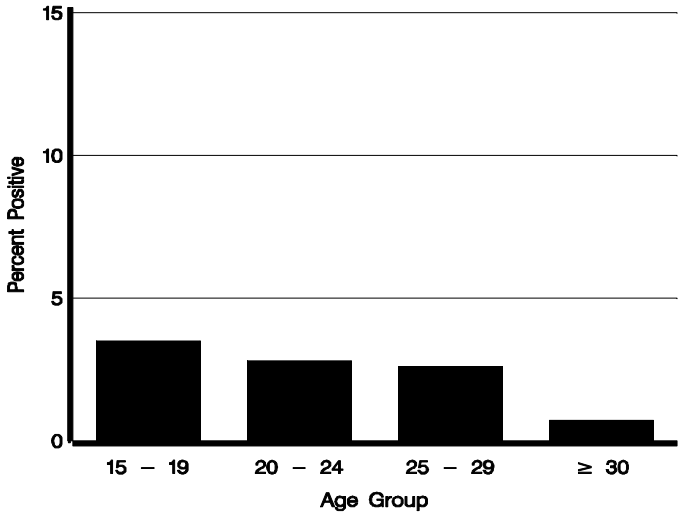


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	7	5045	2.5
STD	1	1290	10.1
Adult Corrections	2	204	3.9
Other	14	11658	3.3

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Idaho – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

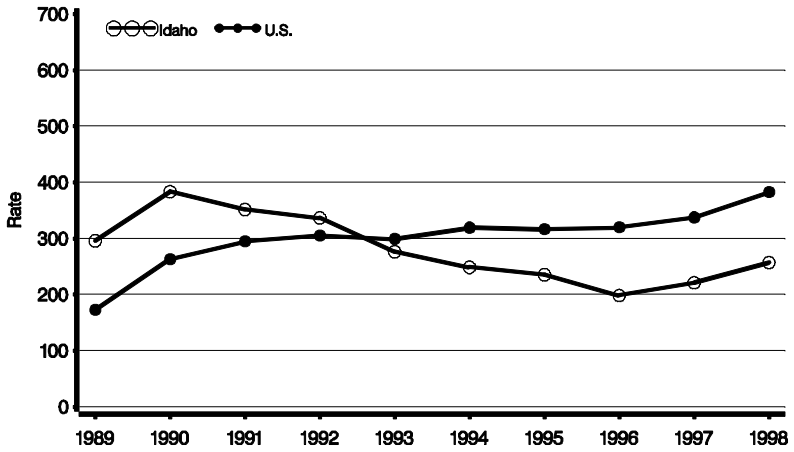


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

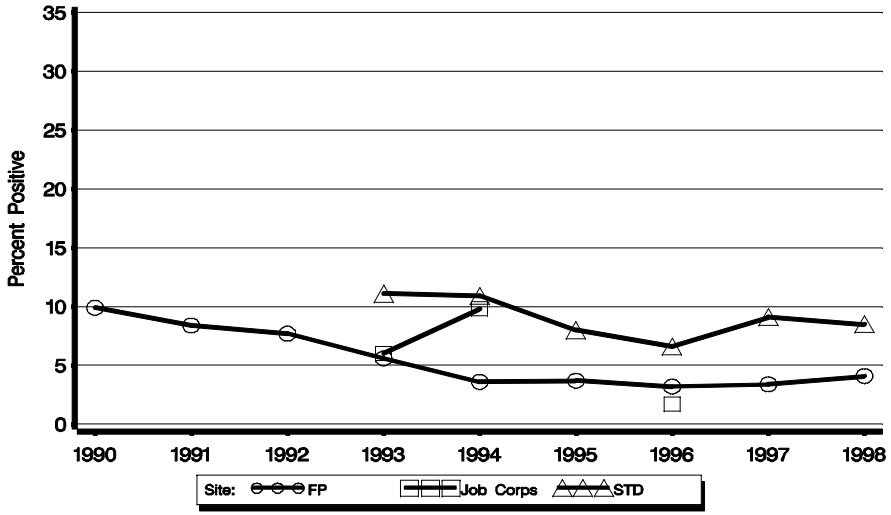
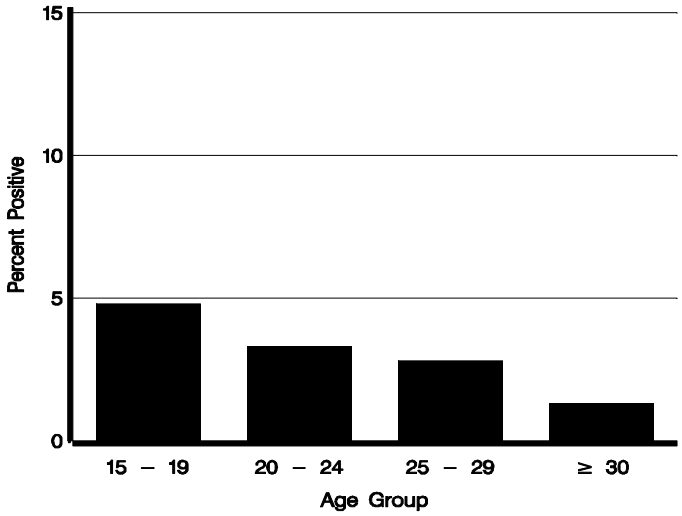


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	39	14728	3.6
STD	6	1177	7.2
Other	10	2151	2.6

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Illinois – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

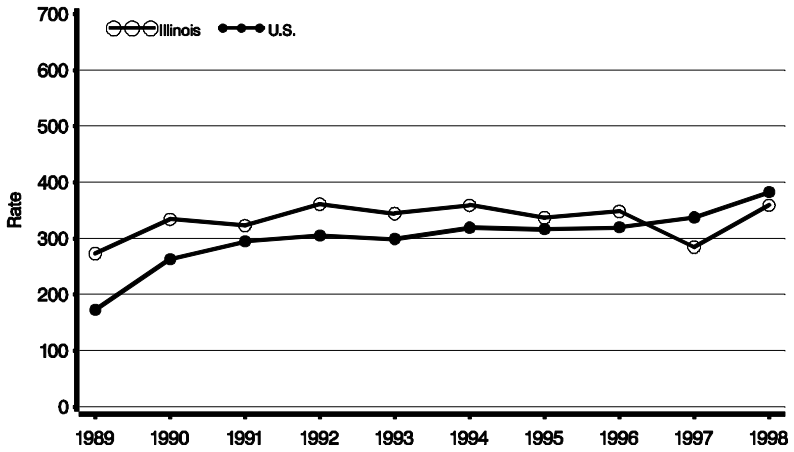


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

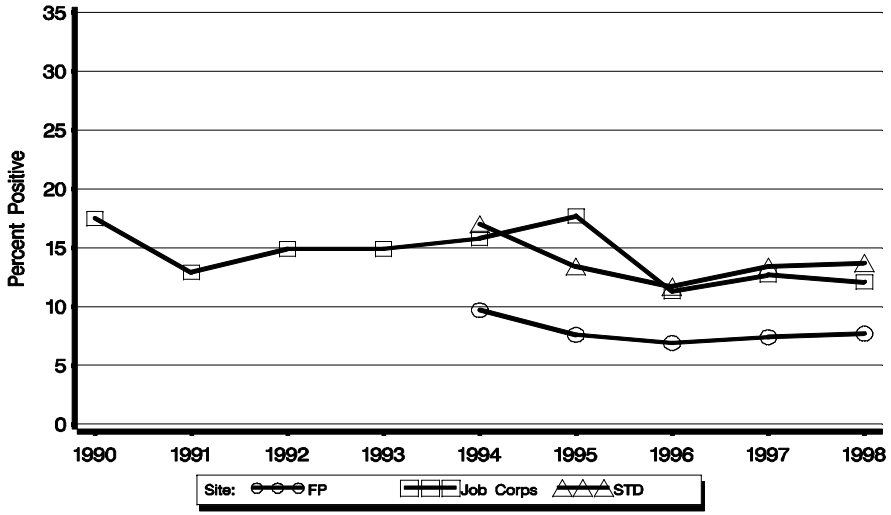
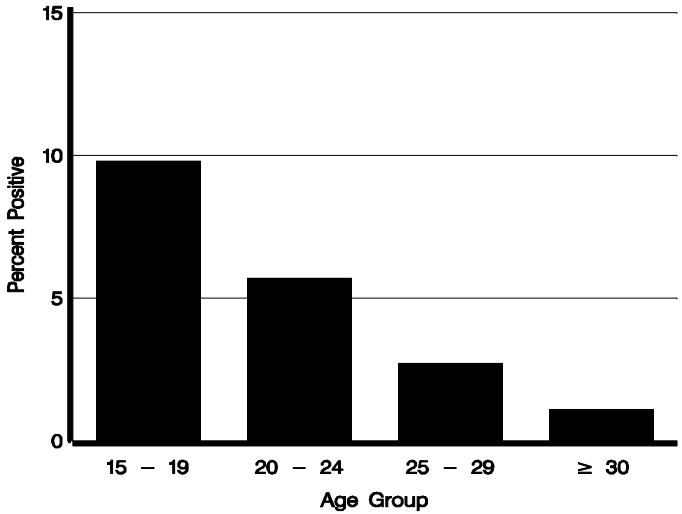


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	101	81951	5.5
STD	32	20286	9.1
Prenatal	10	6876	5.2
Adult Corrections	1	6484	3.5
Juvenile Detention	1	452	27.4
Other	102	37595	5.5

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Indiana — 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

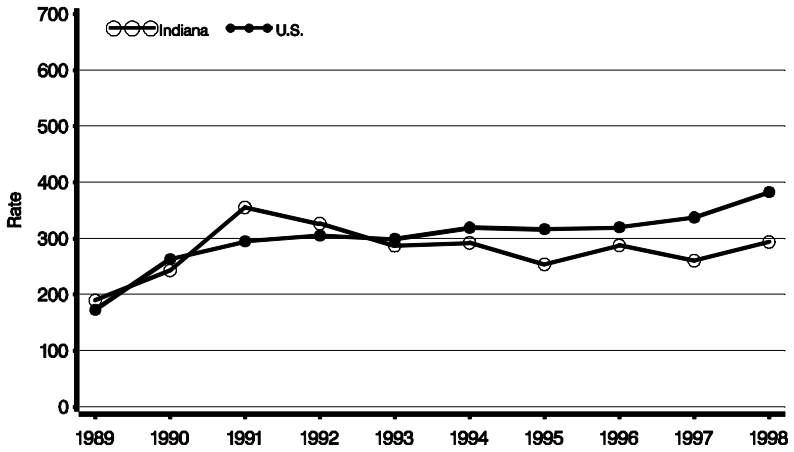


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

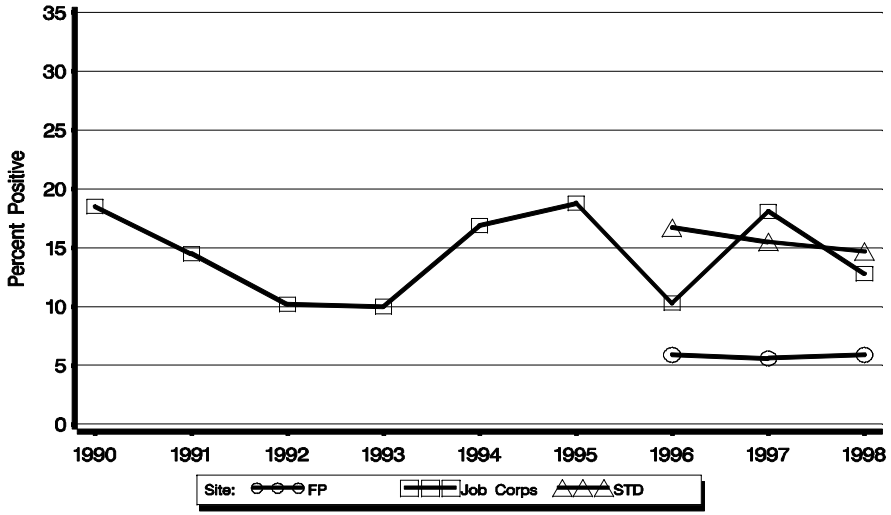
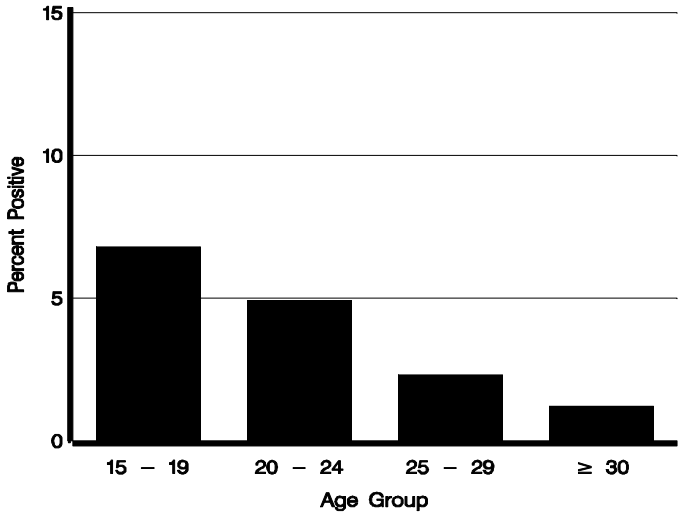


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	54	25308	4.7
STD	8	2348	10.5
Other	15	5574	5.6

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Iowa – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

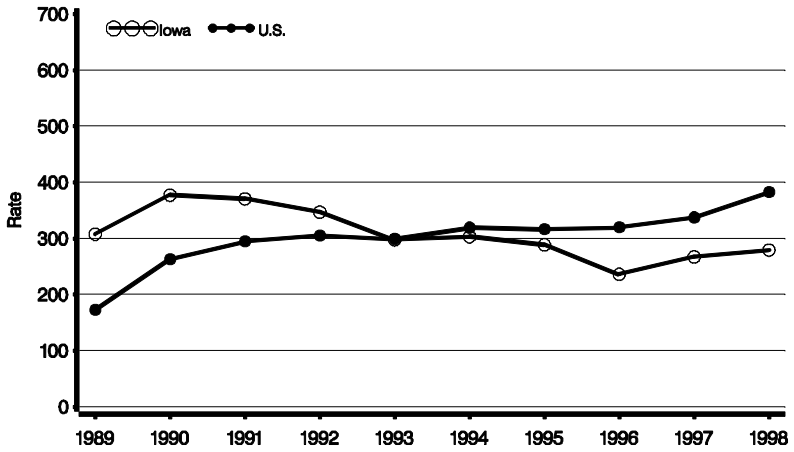


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

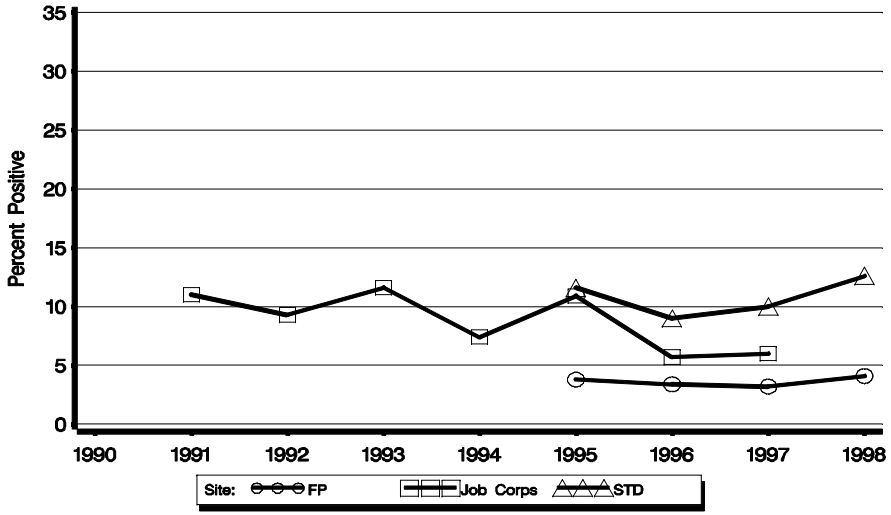
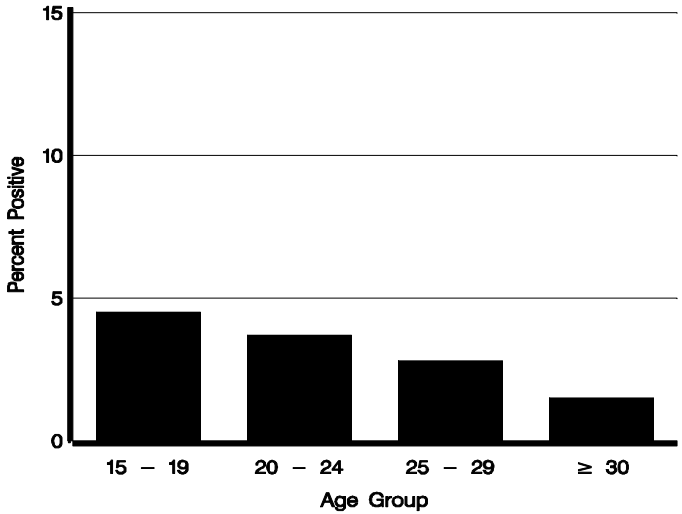


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	46	35814	3.8
STD	8	3576	9.6
Prenatal	4	1321	6.3
Adult Corrections	1	378	2.9
Other	12	5569	3.1

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Kansas – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

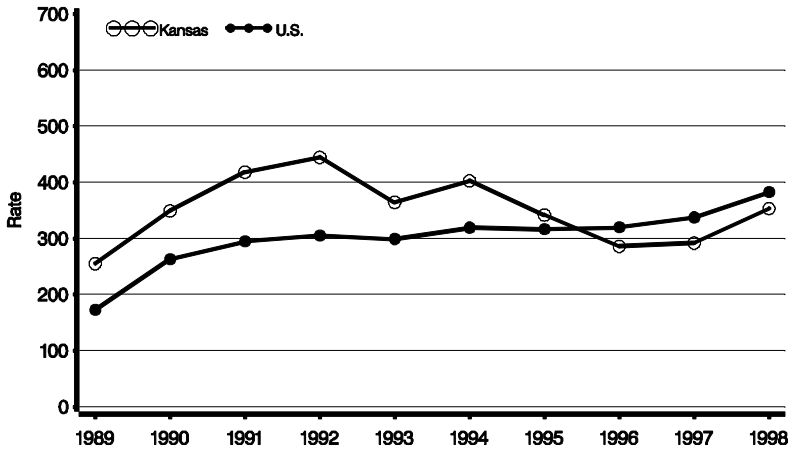


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

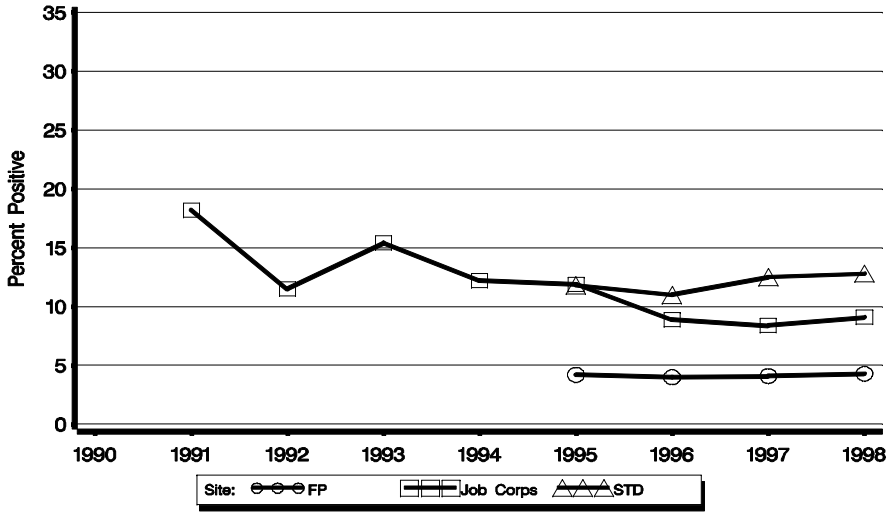
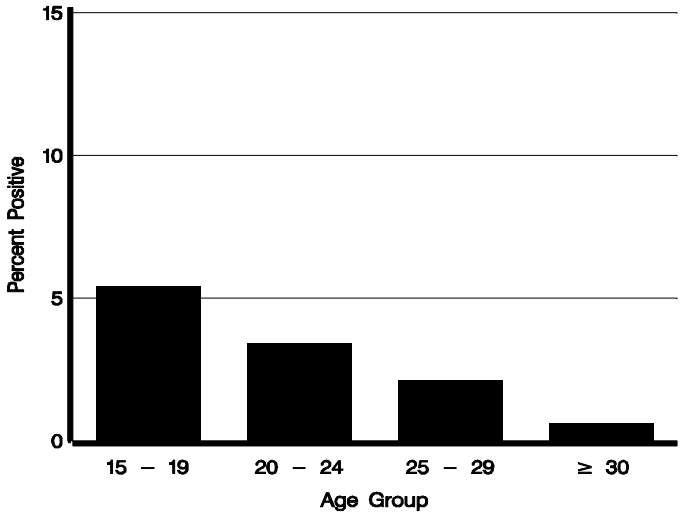


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	78	24310	3.3
STD	17	5443	8.8
Prenatal	9	3617	4.8
Adult Corrections	1	892	1.1
Juvenile Detention	1	133	12.0
Other	11	2661	2.5

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Kentucky – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

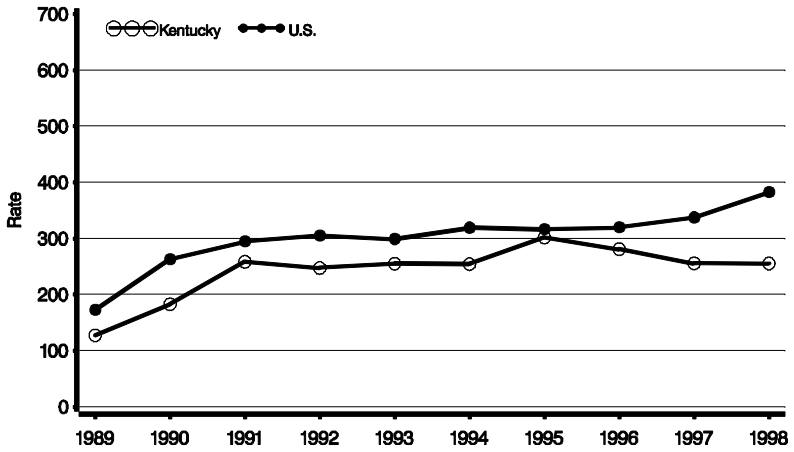


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

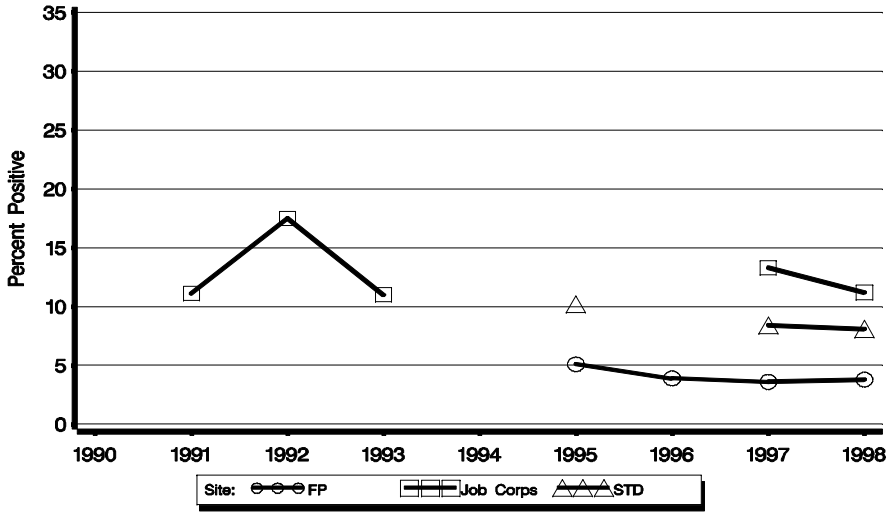
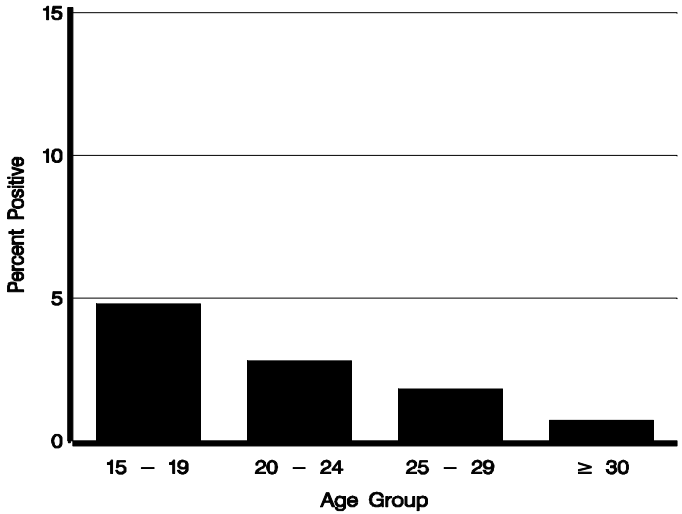


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	NA	48185	3.1
STD	NA	14232	5.2
Prenatal	NA	10830	3.9
Other	NA	8565	3.9

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Louisiana – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

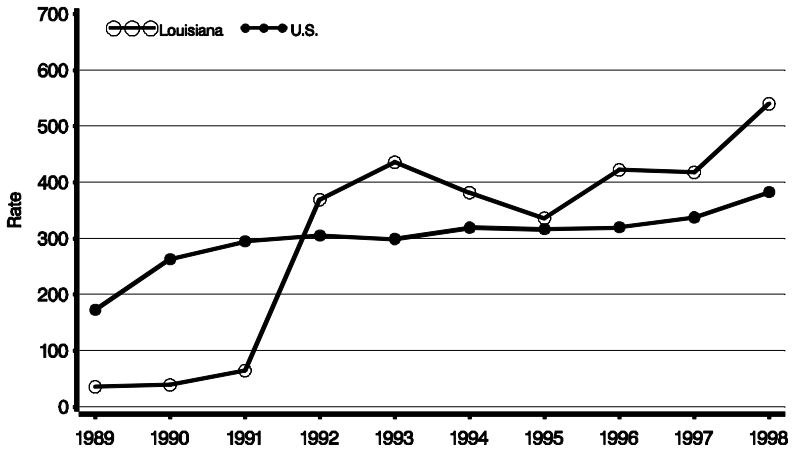


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

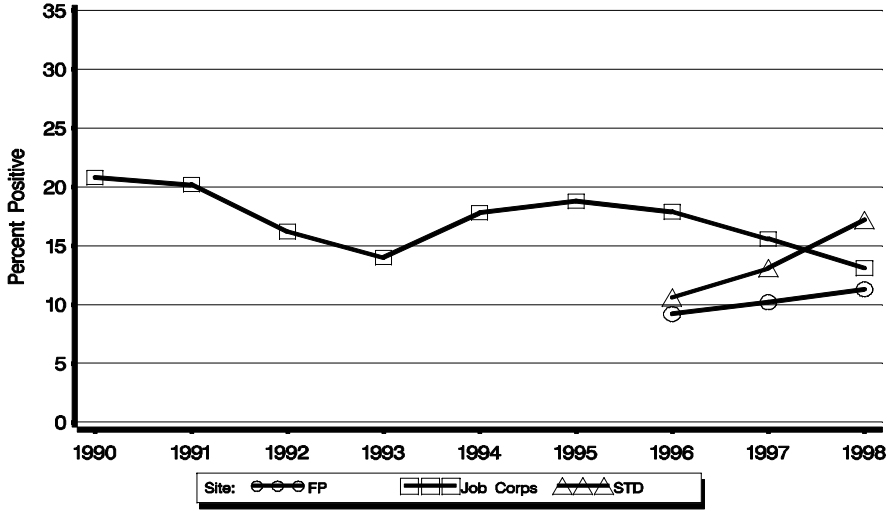
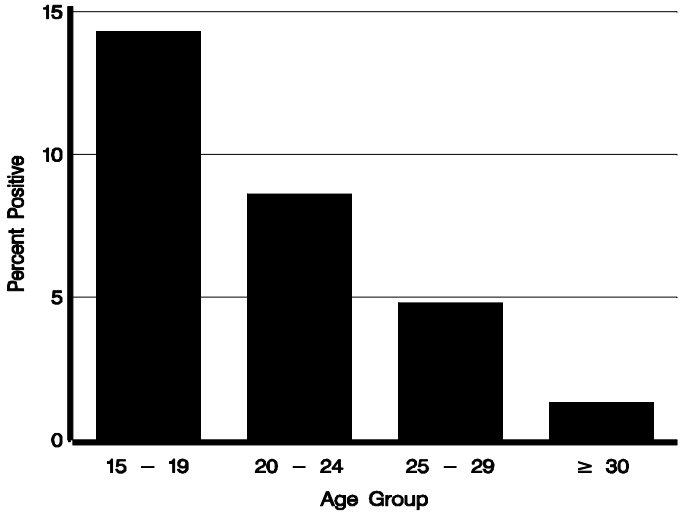


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	35	19393	7.8
STD	21	4861	12.6
Prenatal	23	3033	11.6
Other	8	3070	7.5

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Maine – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

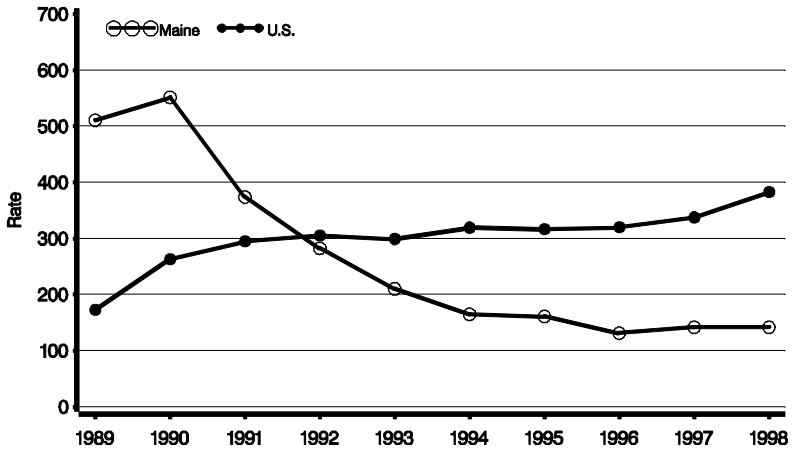


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

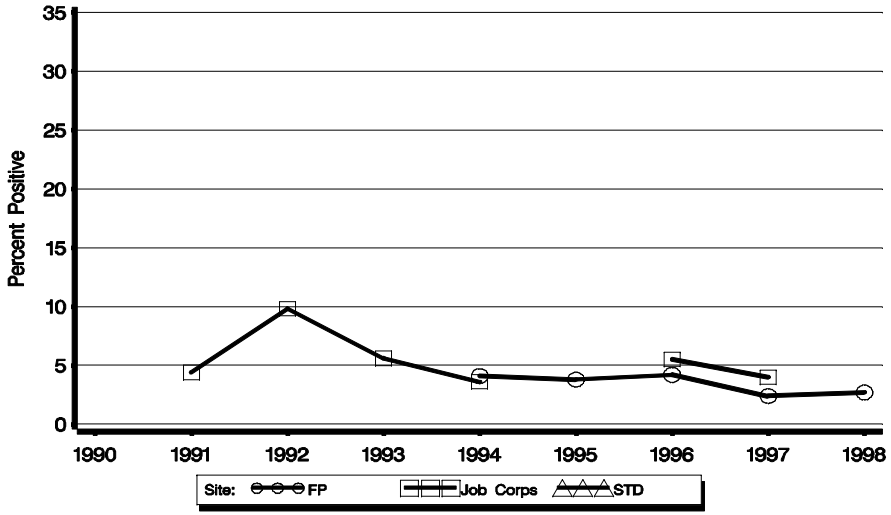
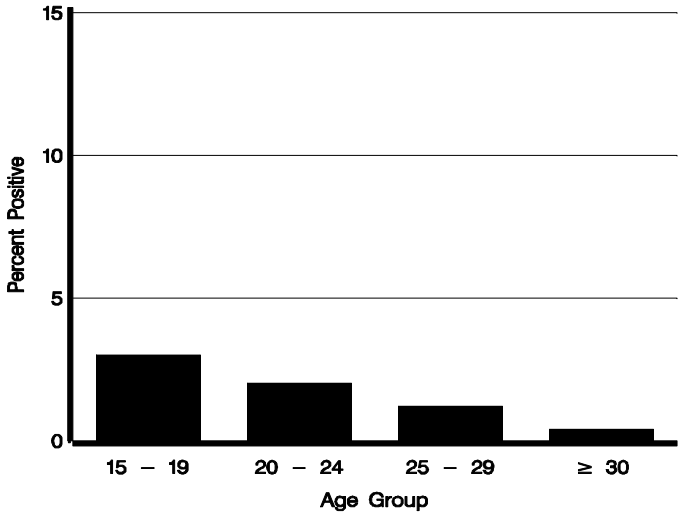


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	13	2929	2.4
STD	NA	NA	NA
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Maryland – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

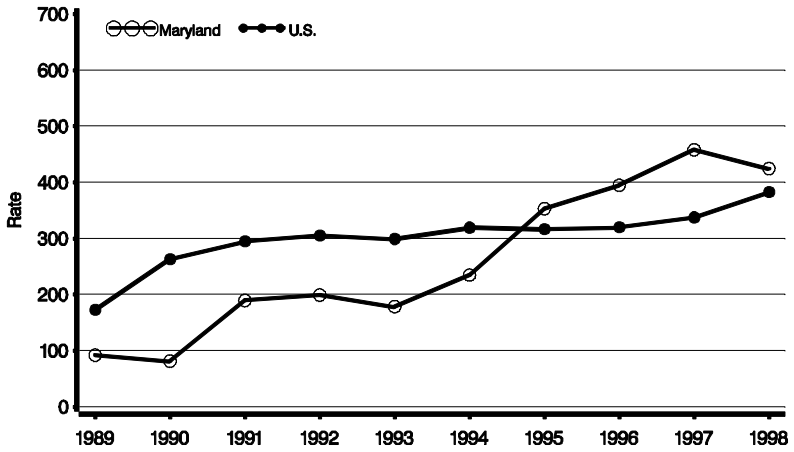


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

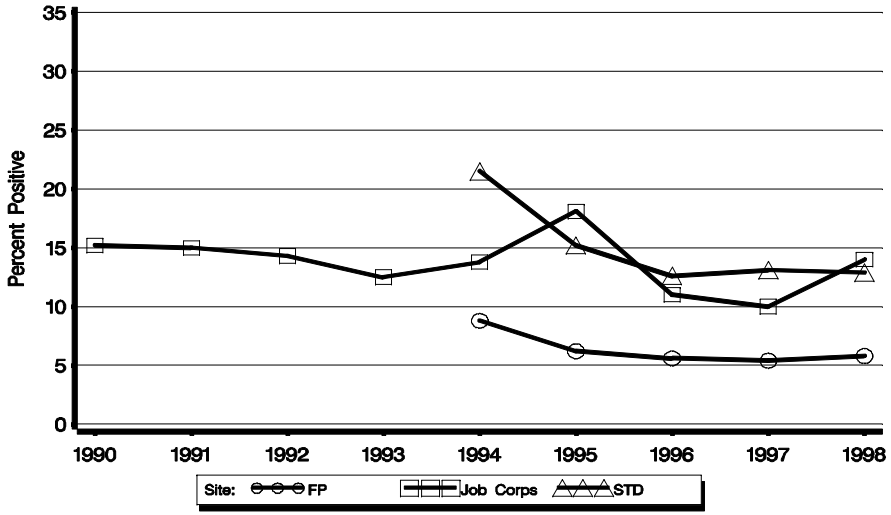
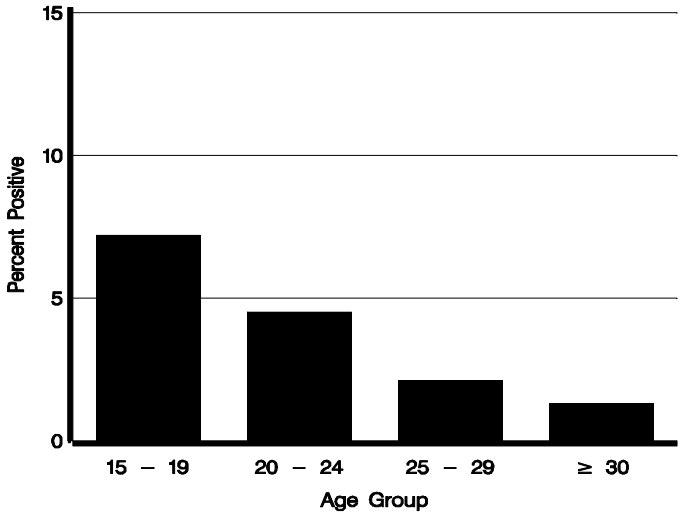


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	58	36495	4.1
STD	24	11716	8.8
Prenatal	9	1931	2.6
Other	13	4367	8.0

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Massachusetts – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

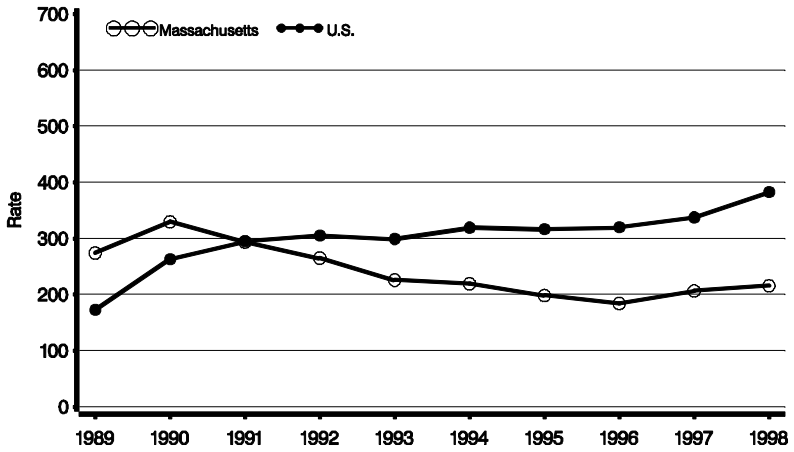


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

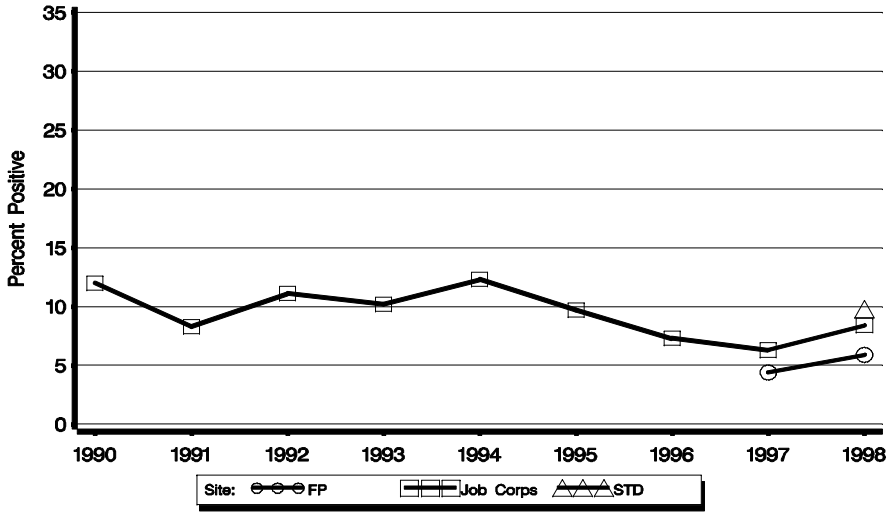
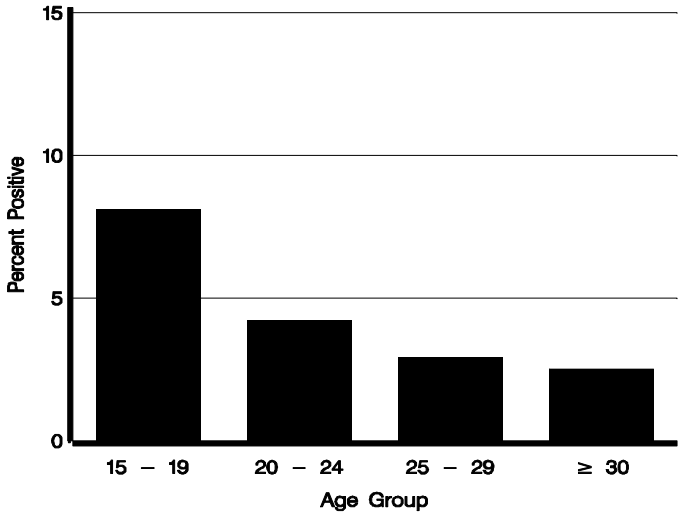


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

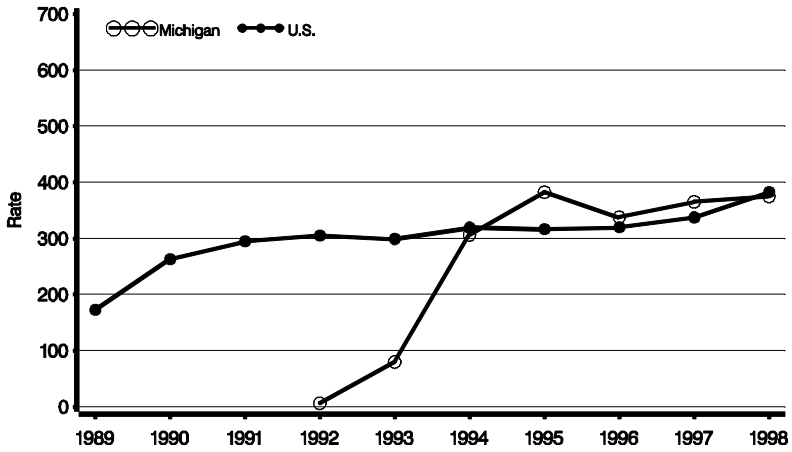
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	5	3287	4.7
STD	12	2388	7.2
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Michigan – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: No data were reported in 1989–1991.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

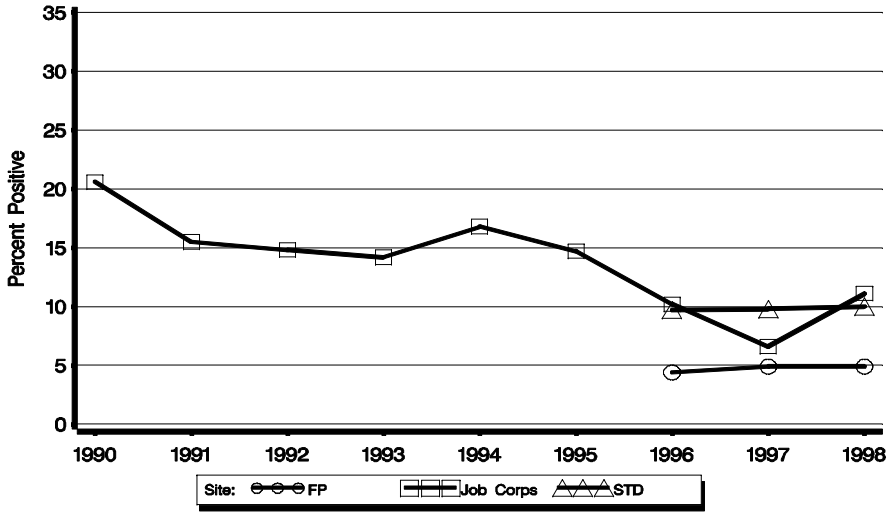
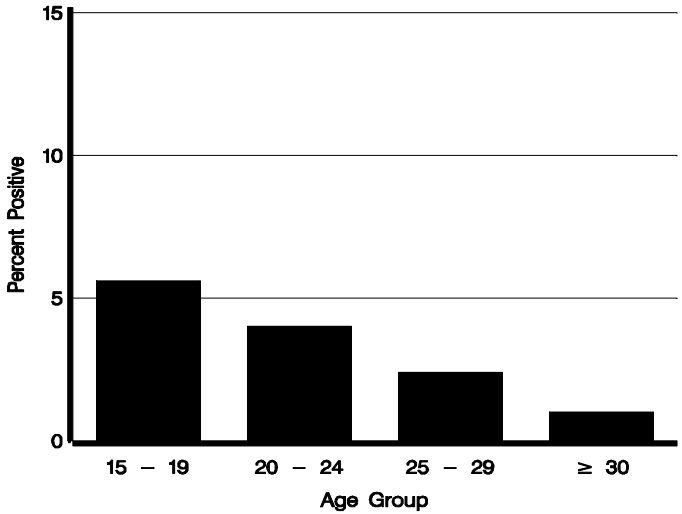


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	96	44307	4.0
STD	1	269	7.1
Other	16	3991	7.7

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Minnesota – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

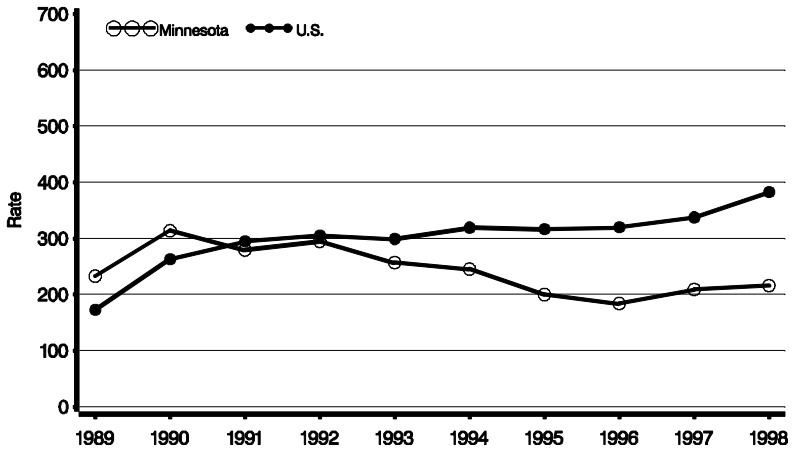


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

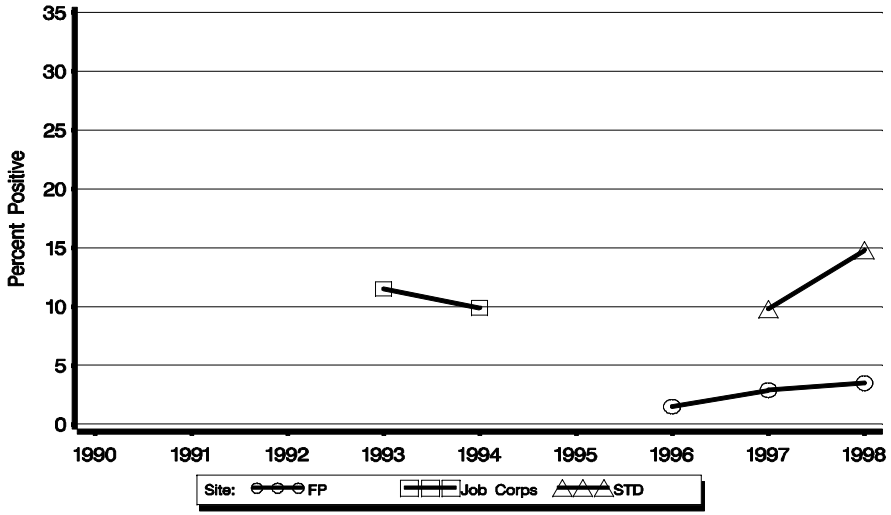
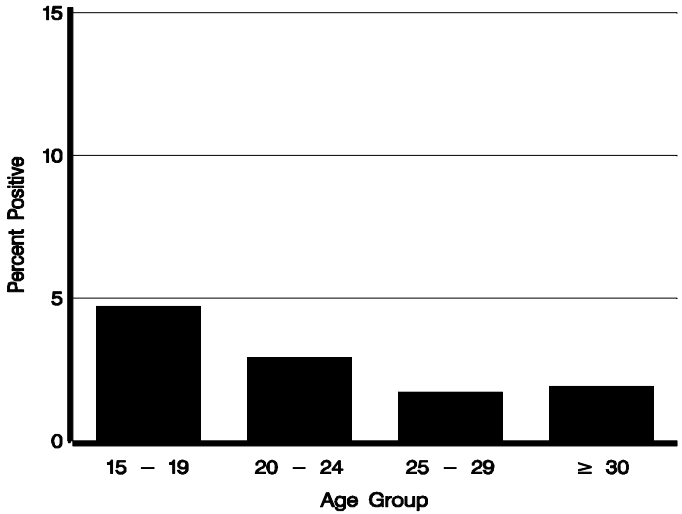


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

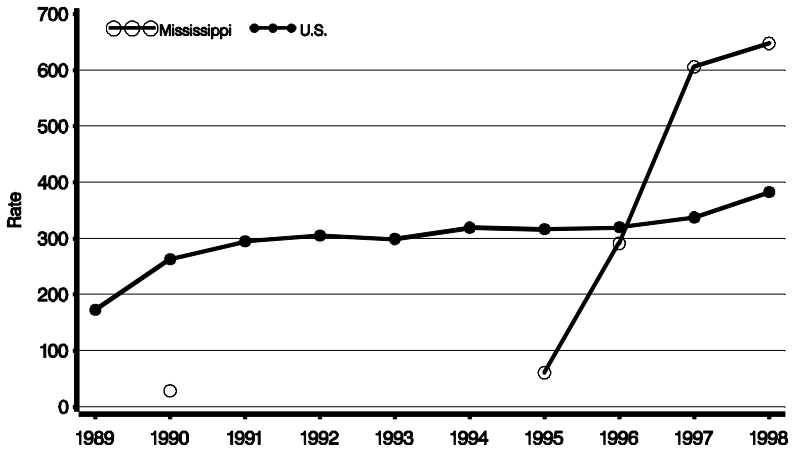
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	5	5056	2.7
STD	1	1139	9.1
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Mississippi – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: No data were reported in 1989 and in 1991–1994.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

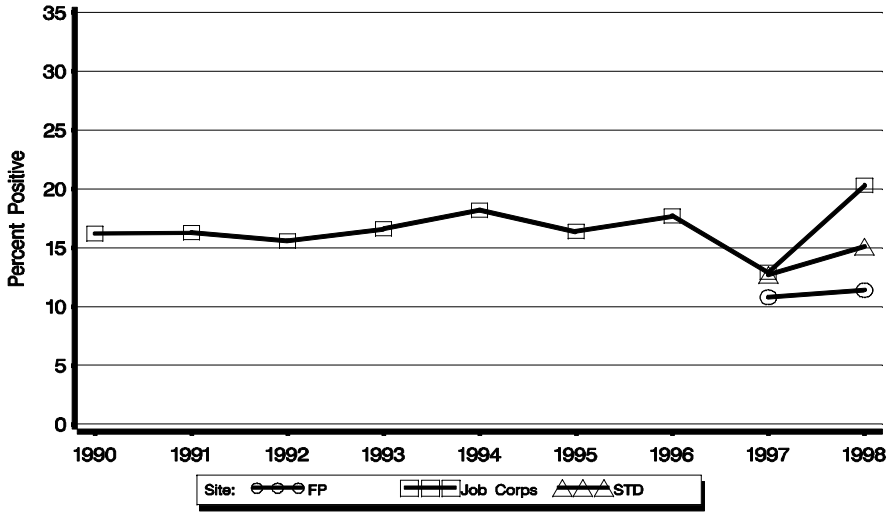
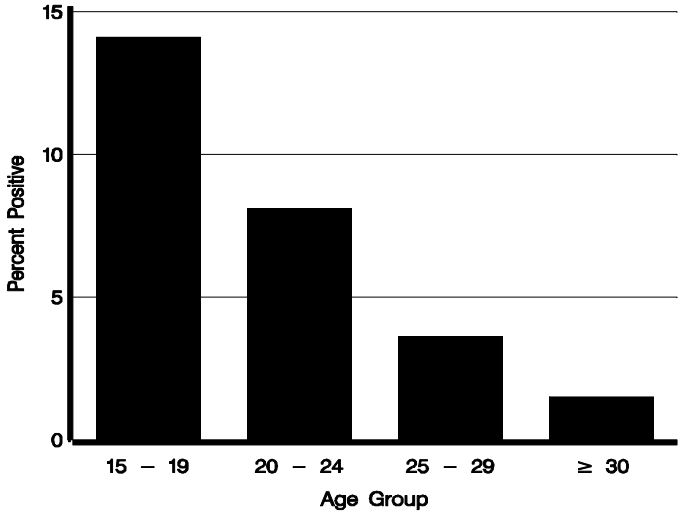


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	6	4134	7.5
STD	4	2694	9.7
Other	2	126	15.1

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Missouri – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

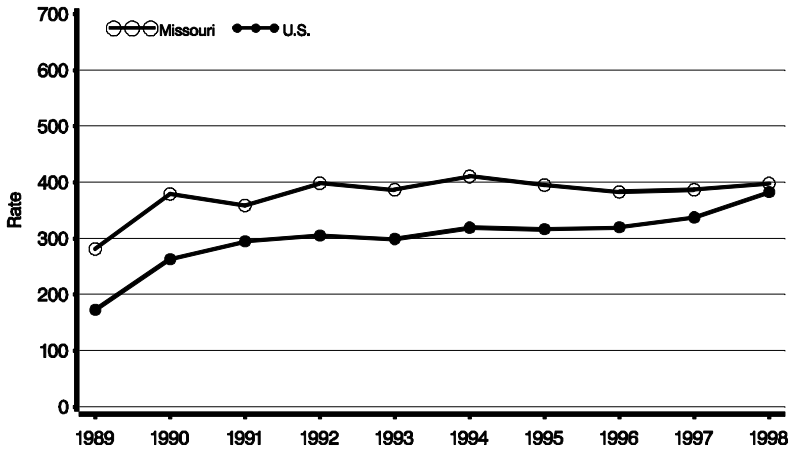


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

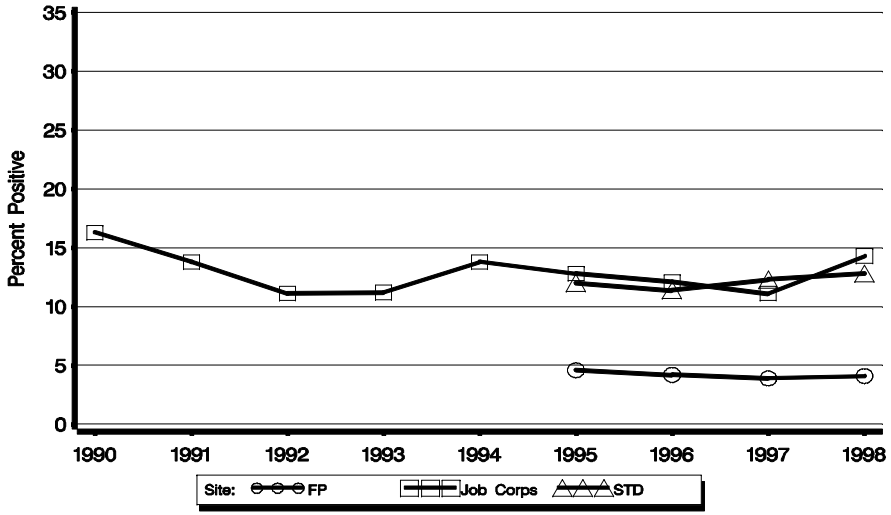
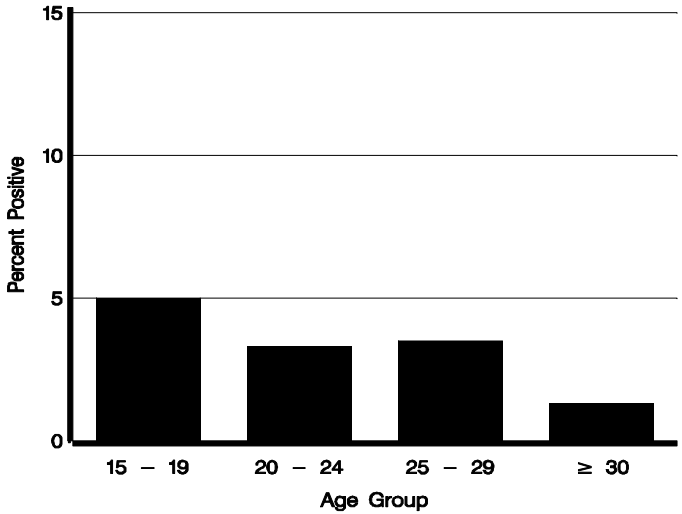


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	85	42363	3.9
STD	10	5274	11.1
Prenatal	7	898	4.2
Adult Corrections	1	563	3.6
Juvenile Detention	1	248	9.3
Other	56	15372	6.1

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Montana – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

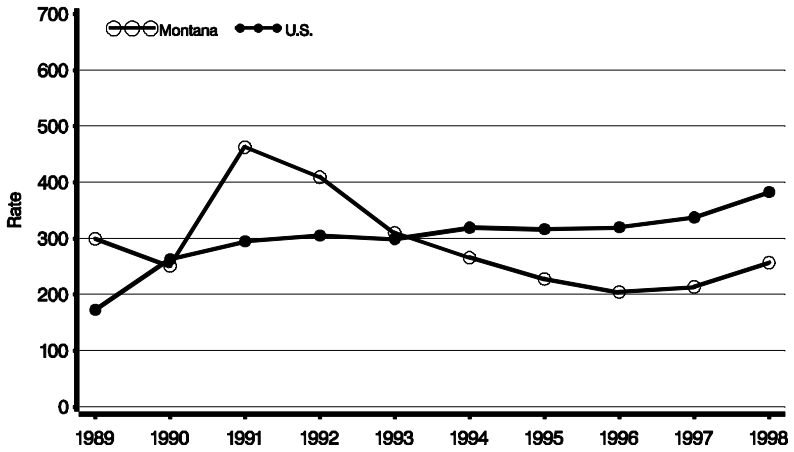


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

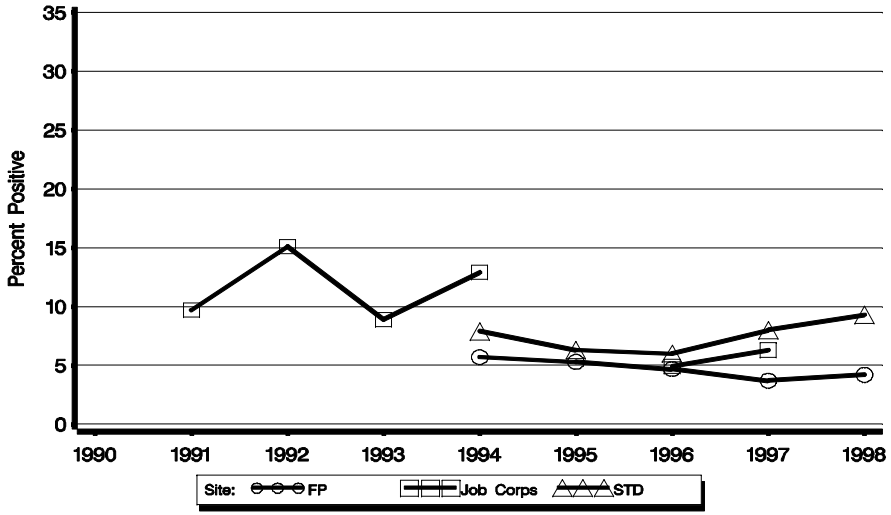
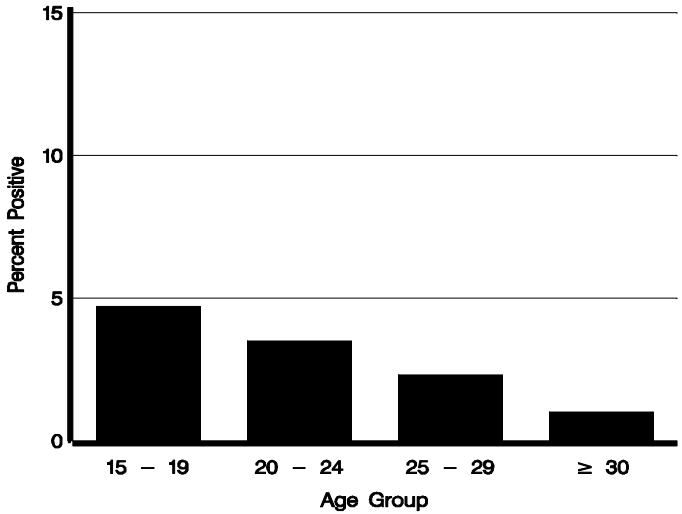


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	19	7511	3.5
STD	5	439	5.0
Other	31	4741	4.9

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Nebraska – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

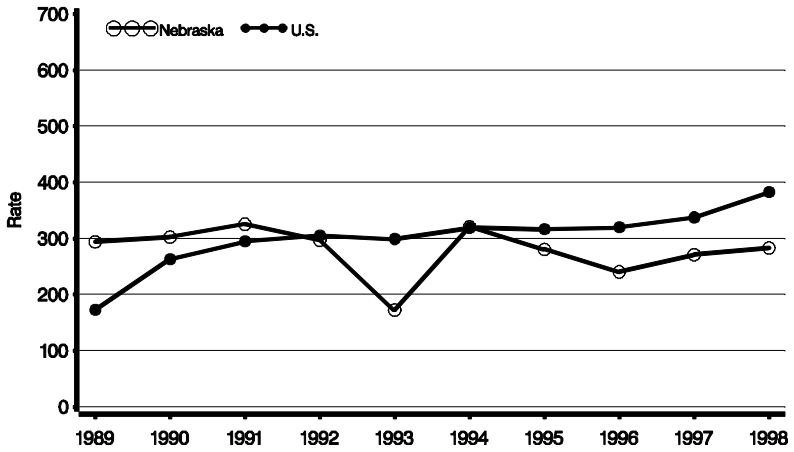


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

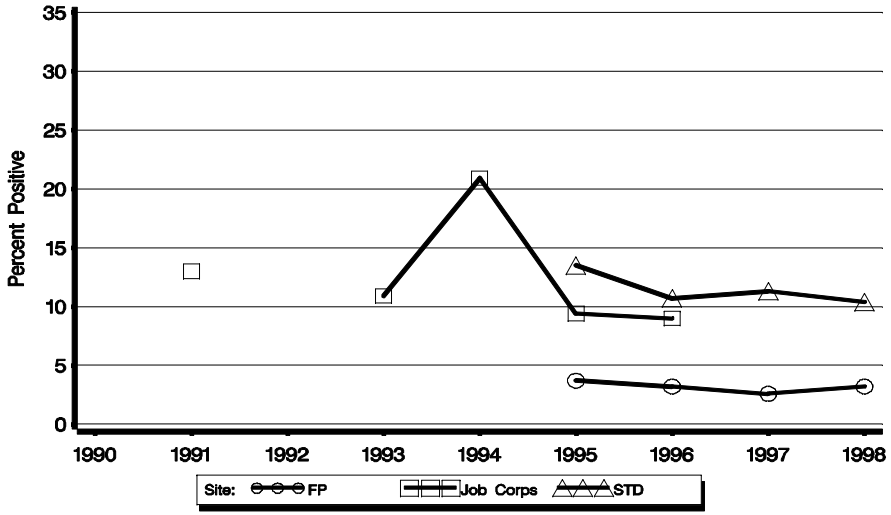
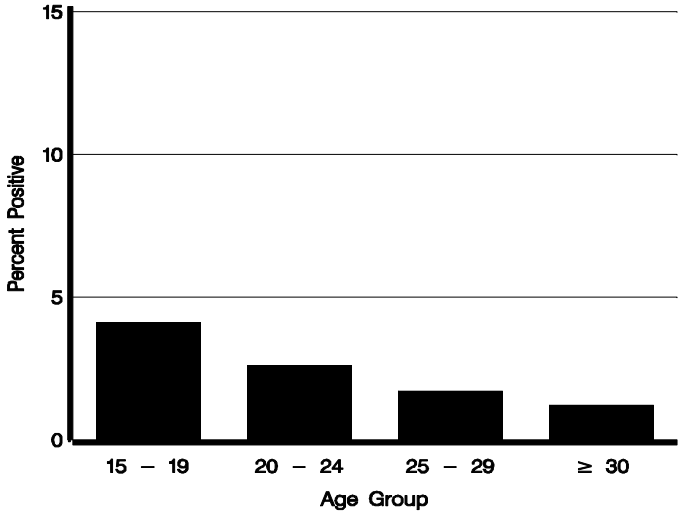


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

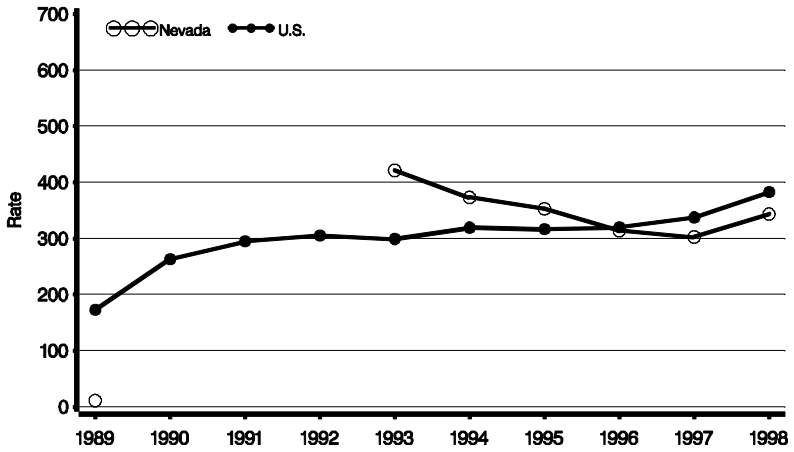
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	22	16586	2.9
STD	2	1145	8.2
Prenatal	3	1118	4.9
Other	28	6789	3.5

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Nevada – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: No data were reported by gender in 1990. Gender unknown for majority of cases in 1991 and 1992

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

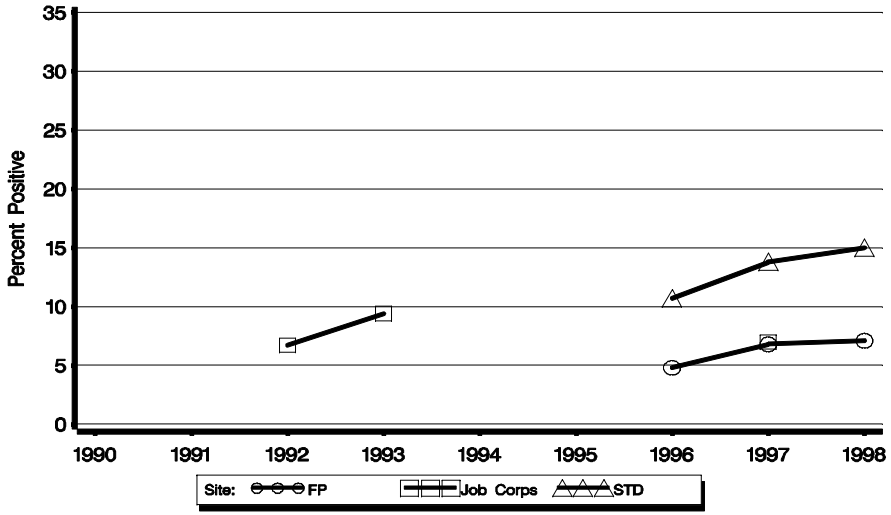
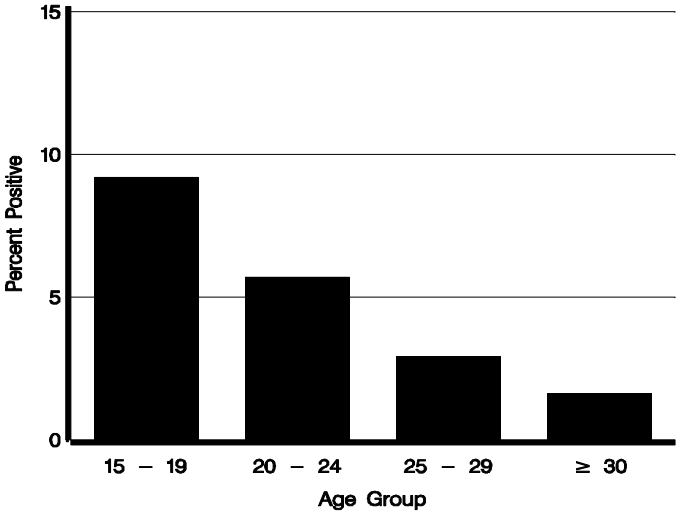


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	4	4325	5.9
STD	2	2690	9.1
Prenatal	1	270	3.7
Other	1	215	12.1

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



New Hampshire – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

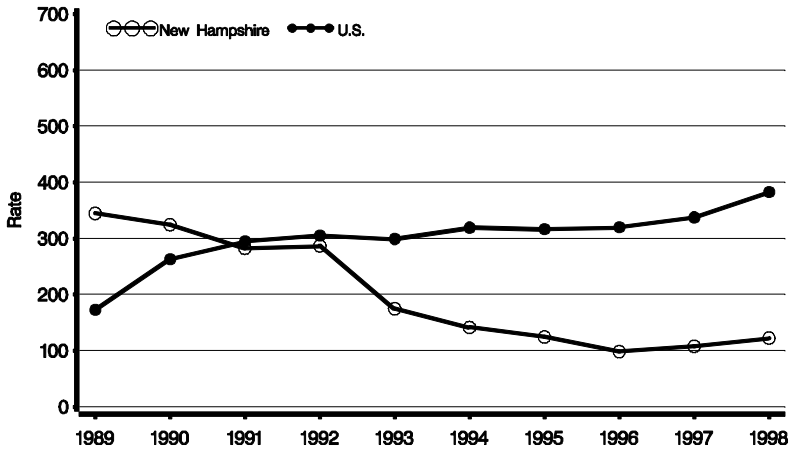


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

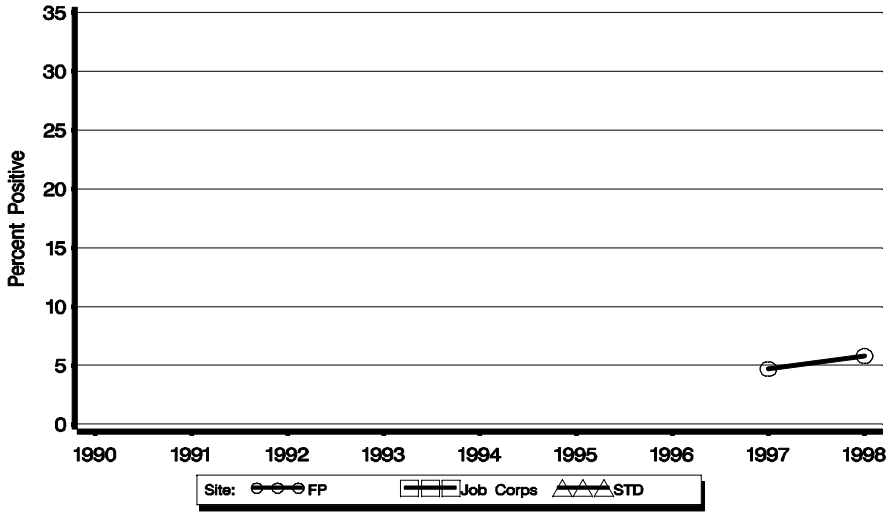
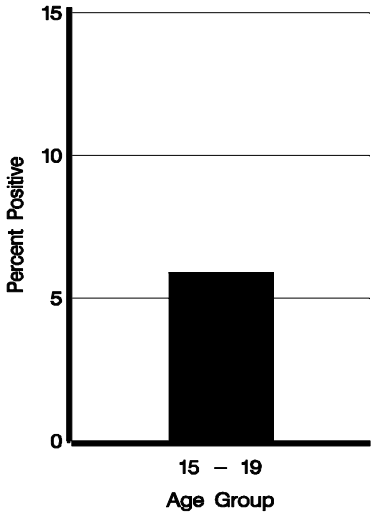


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

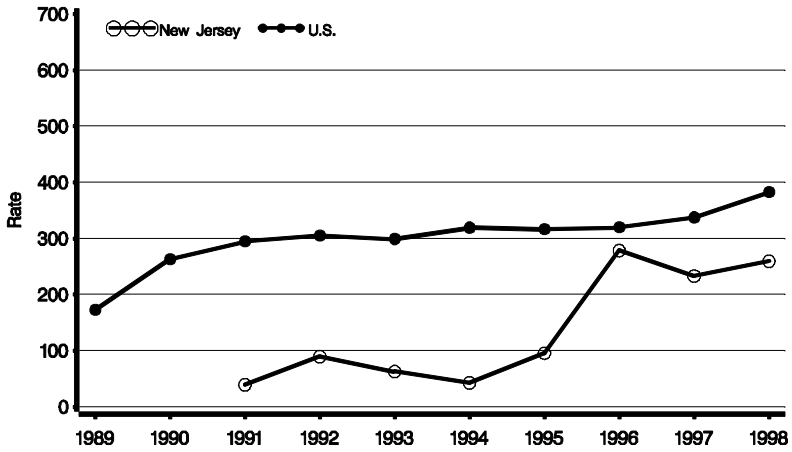
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	5	1039	5.4
STD	NA	NA	NA
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



New Jersey – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: No data were reported in 1989–1990.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

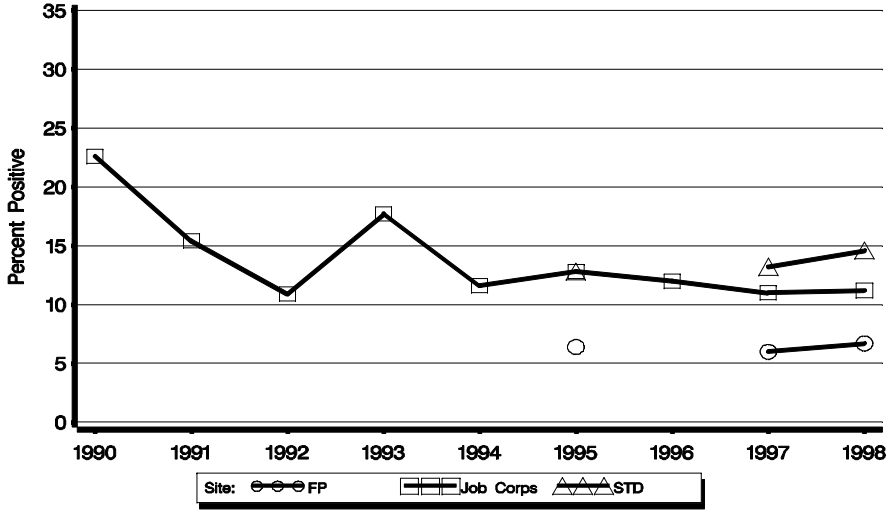
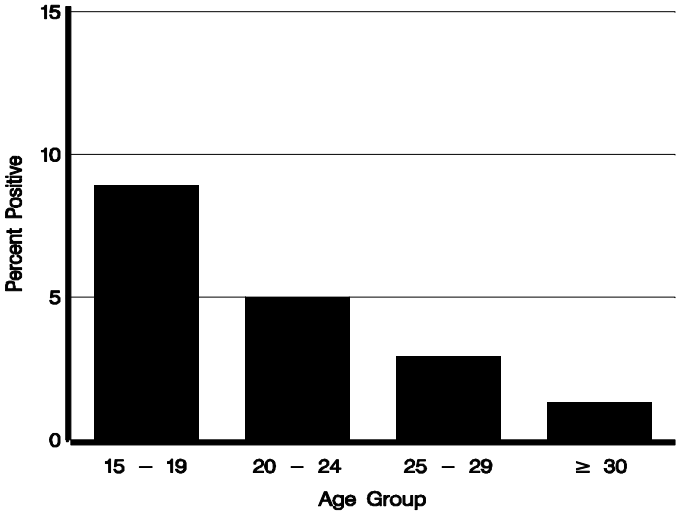


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	43	46842	5.8
STD	9	3699	10.4
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



New Mexico – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

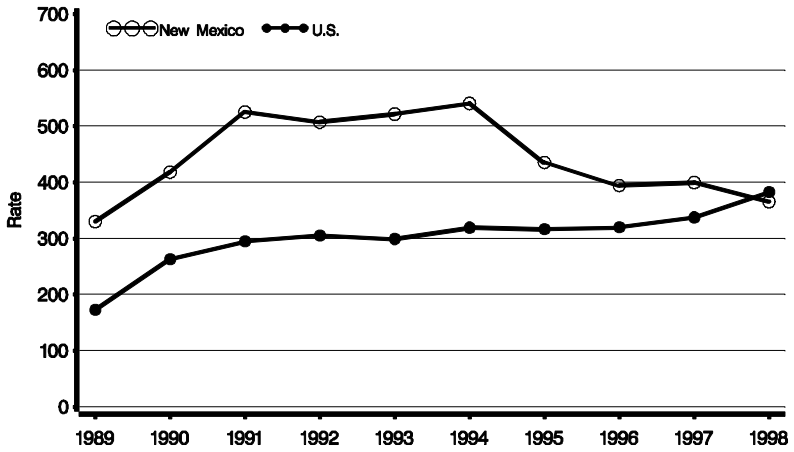


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

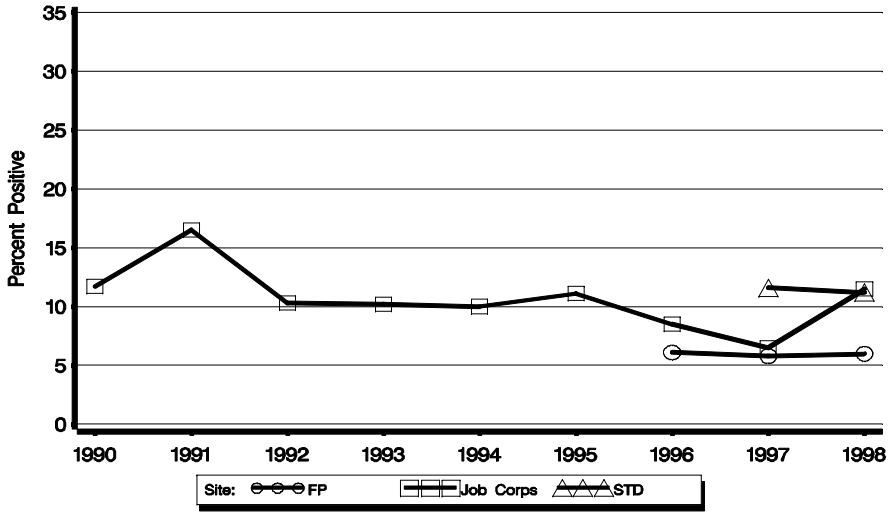
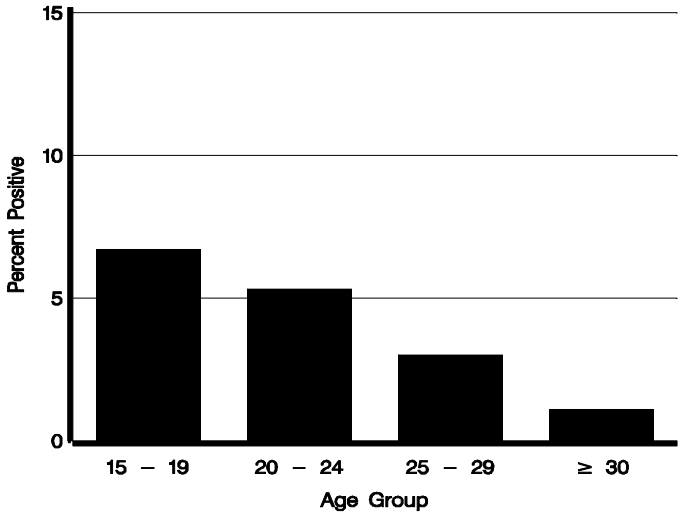


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

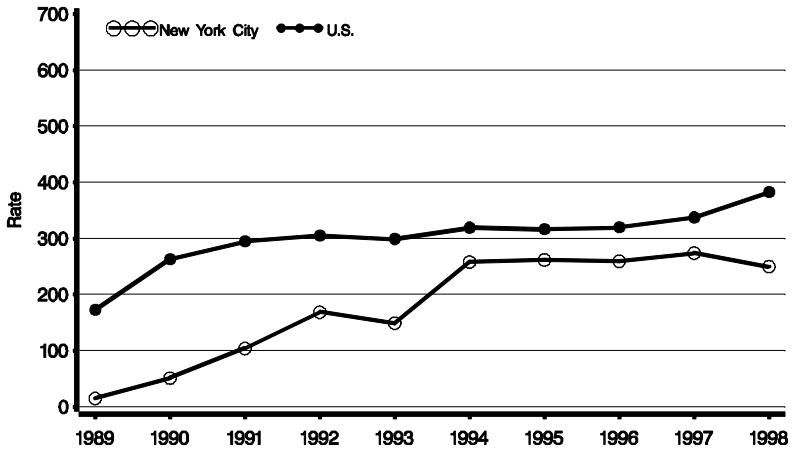
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	51	9740	4.5
STD	28	4039	8.0
Prenatal	7	574	10.5
Juvenile Detention	1	174	9.2
Other	11	1188	5.3

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



New York – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: New York State rates include cases only from New York City in all years.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

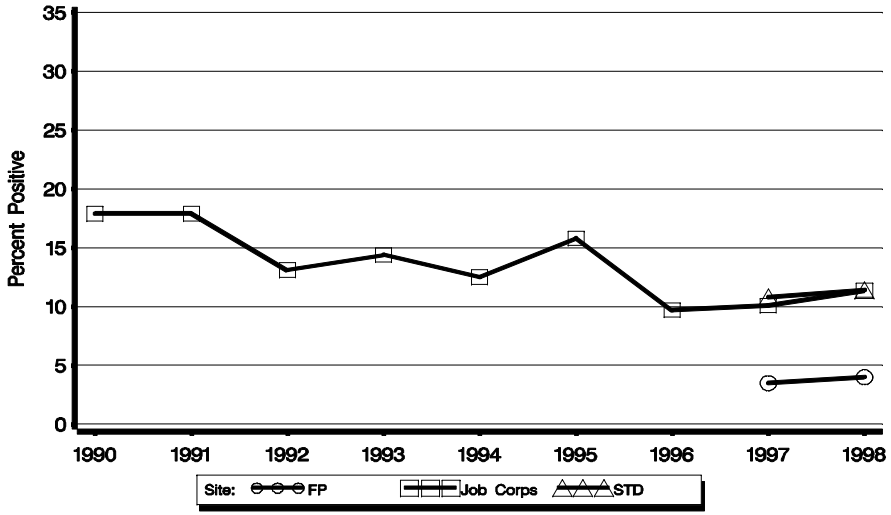
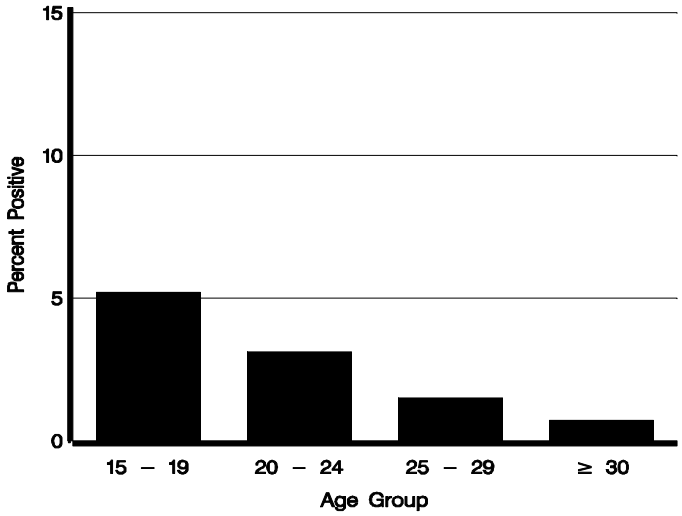


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	76	64918	2.7
STD	21	23320	7.5
Adult Corrections	1	2555	2.6
Other	5	2408	7.3

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



North Carolina – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

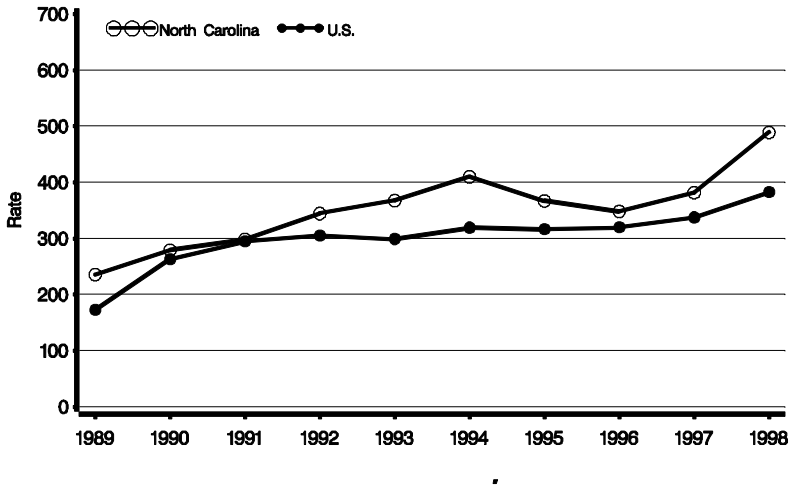


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

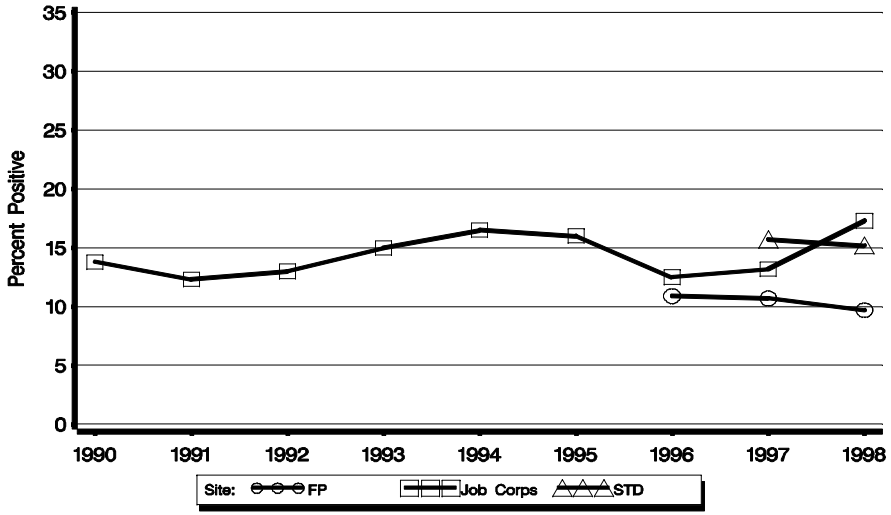
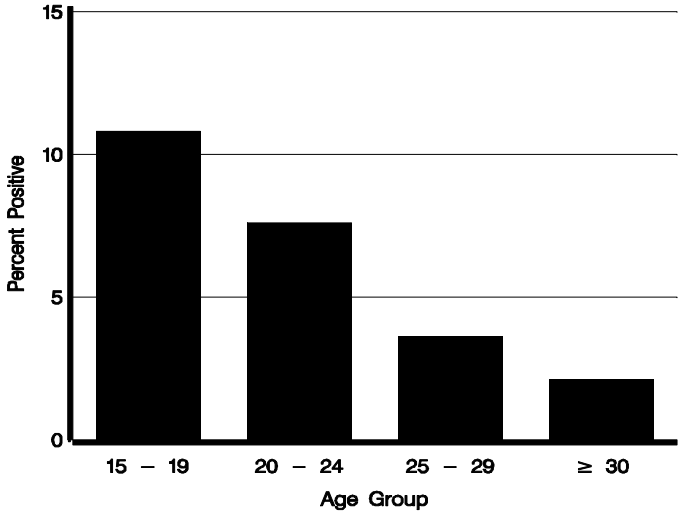


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	95	31679	8.1
STD	73	14488	11.4
Prenatal	85	22299	8.3
Other	50	9402	6.4

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



North Dakota – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

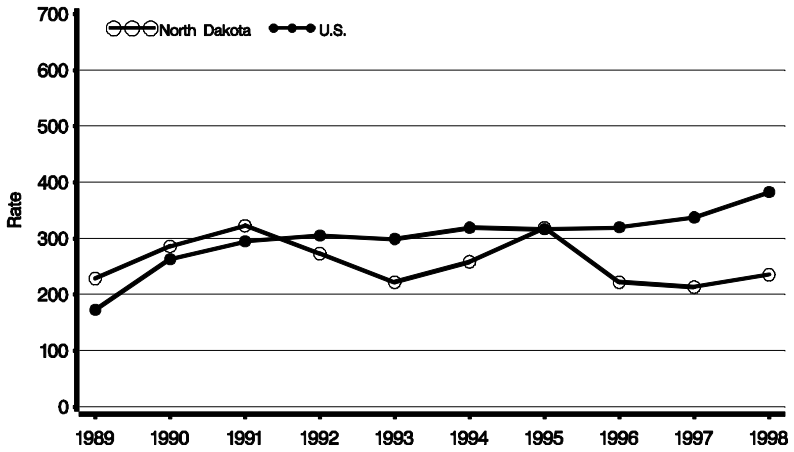


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

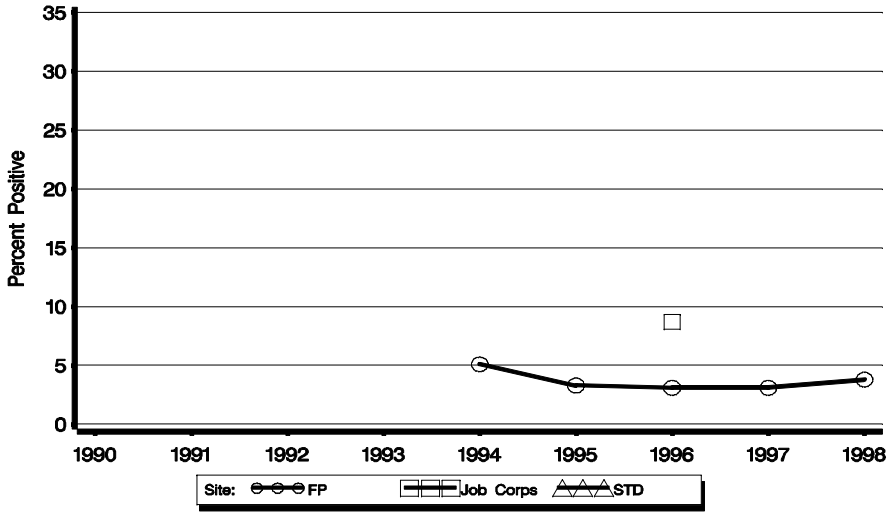
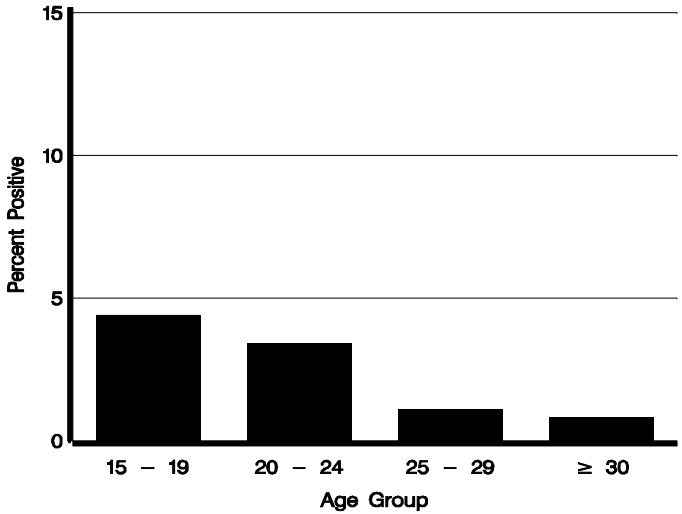


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	10	5790	3.1
STD	NA	NA	NA
Other	15	4169	5.3

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Ohio – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

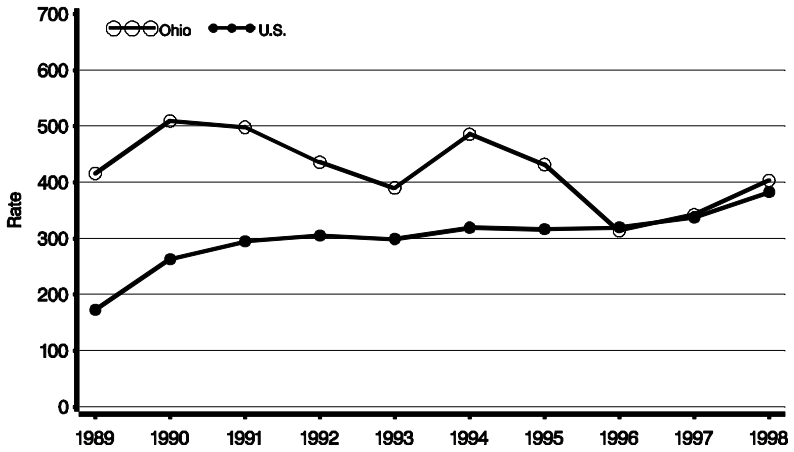


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

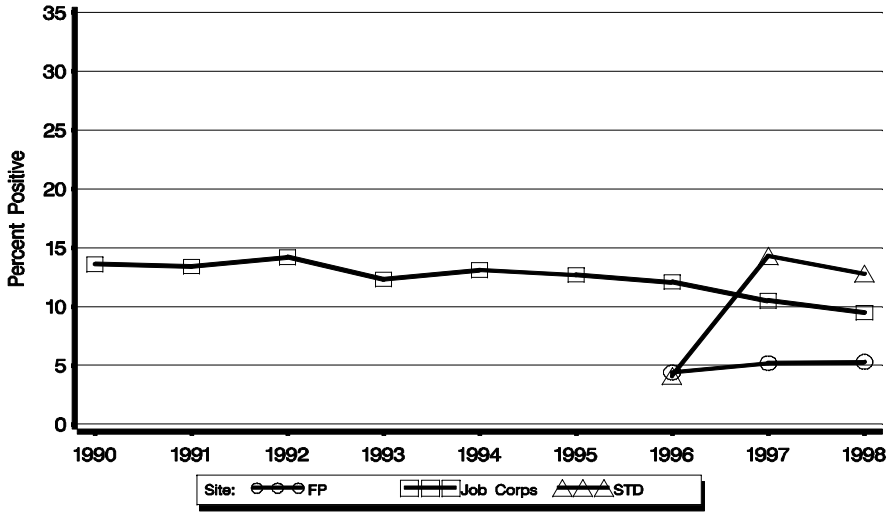
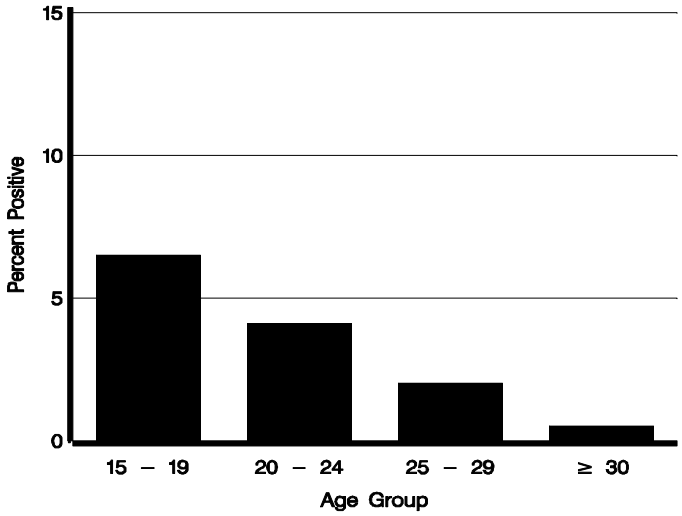


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	9	10563	4.0
STD	6	5170	8.4
Other	1	587	4.4

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Oklahoma – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

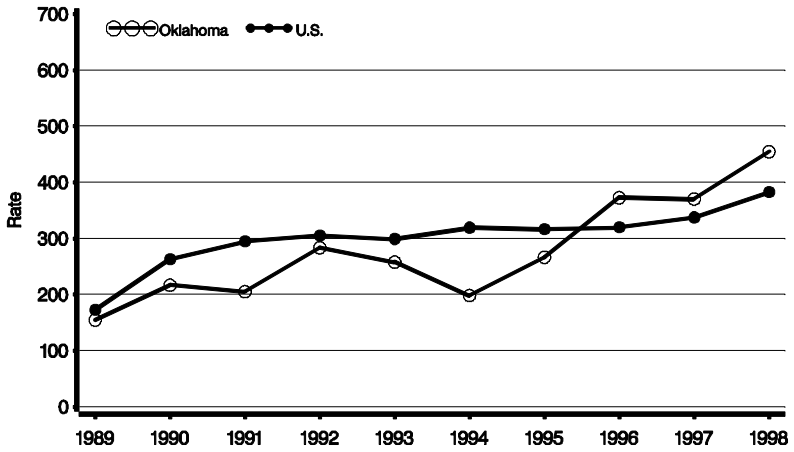


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

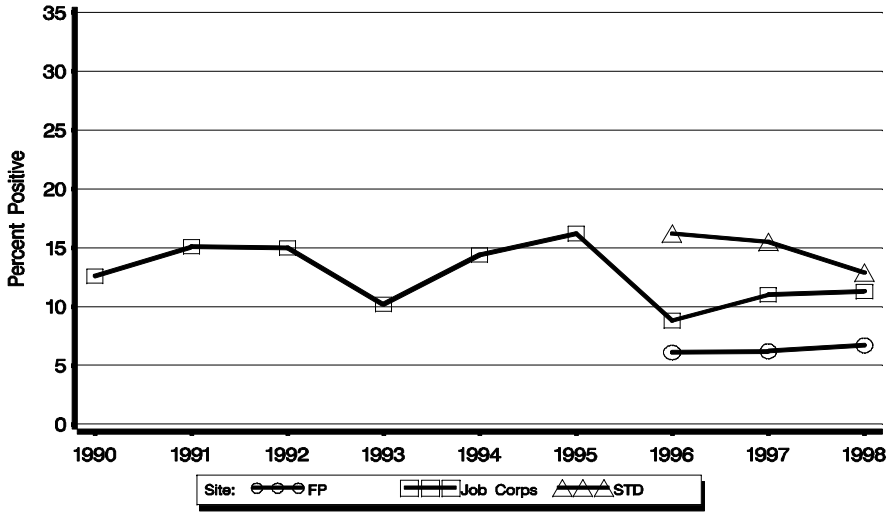
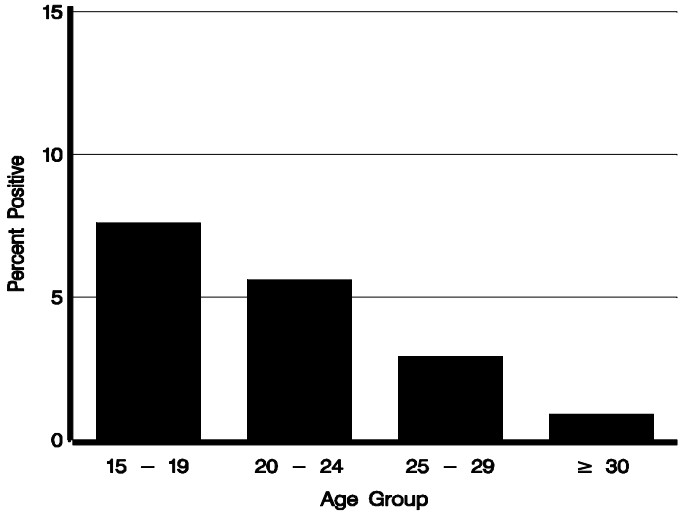


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	74	23122	5.7
STD	52	9939	9.6
Prenatal	31	6151	6.4
Other	5	812	6.7

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Oregon — 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

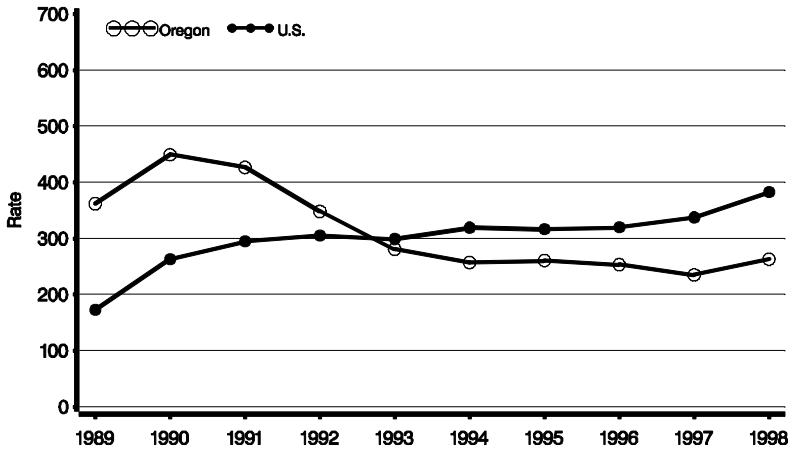


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

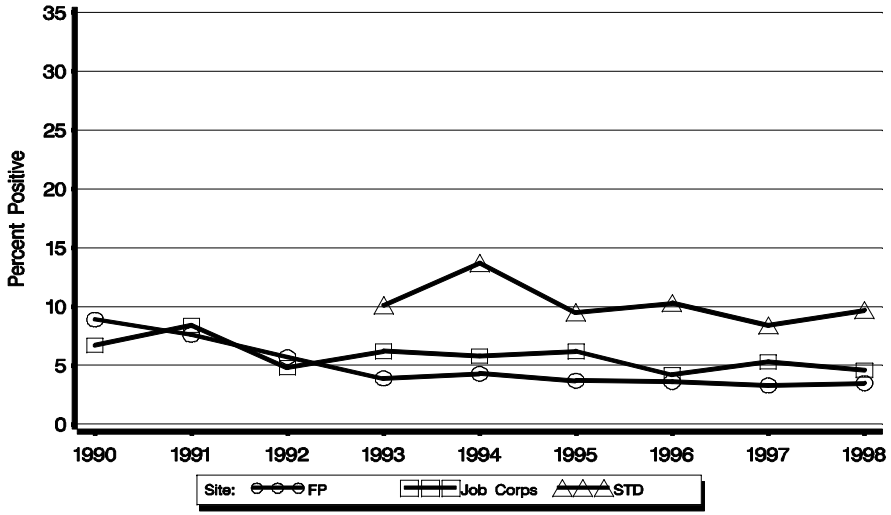
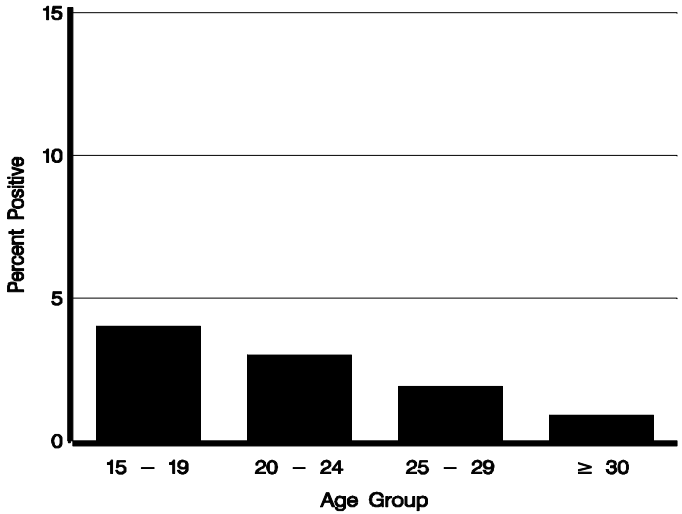


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

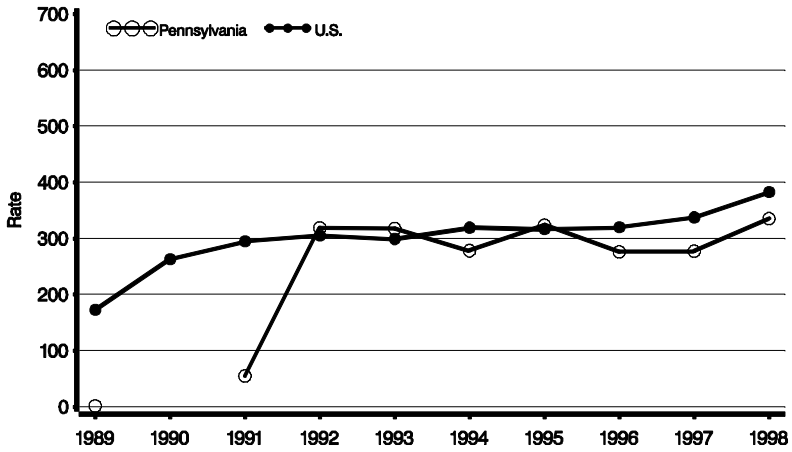
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	67	24765	2.8
STD	25	4984	7.0
Prenatal	1	179	3.4
Other	35	9007	3.6

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Pennsylvania – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: Fewer than 100 female cases were reported in 1989. No data were reported in 1990.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

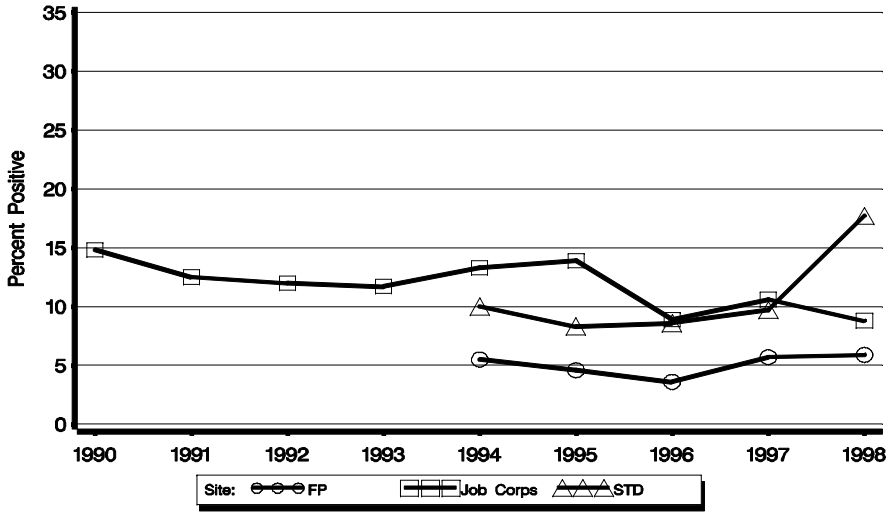
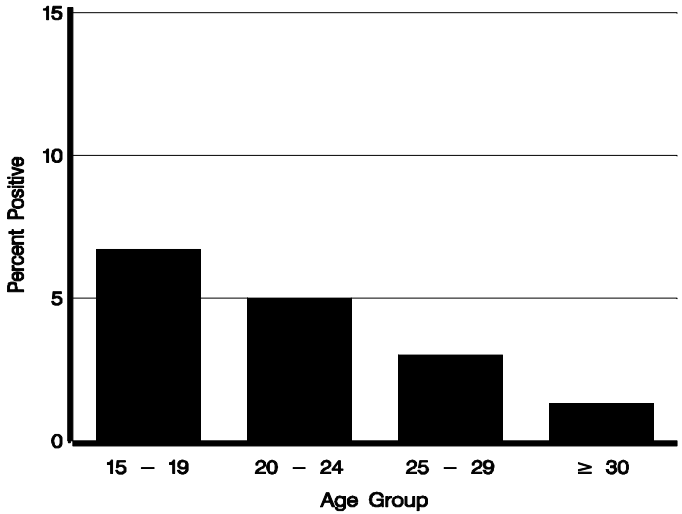


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	151	132453	4.7
STD	3	3970	11.1
Prenatal	1	170	4.1
Adult Corrections	1	1723	6.3
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Puerto Rico – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

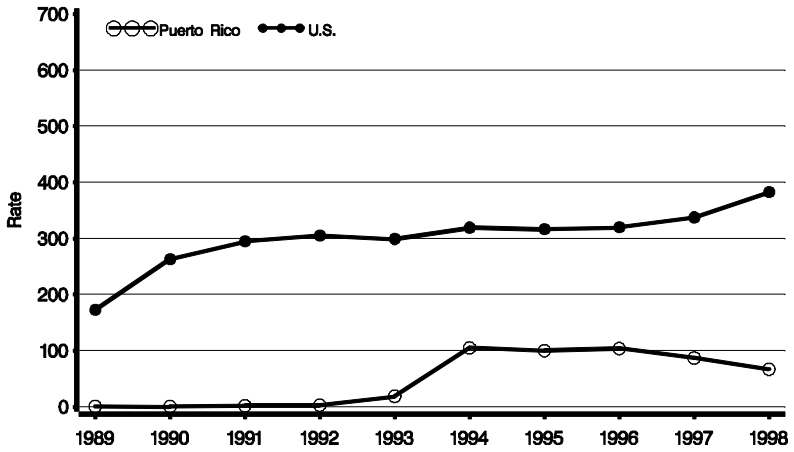


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

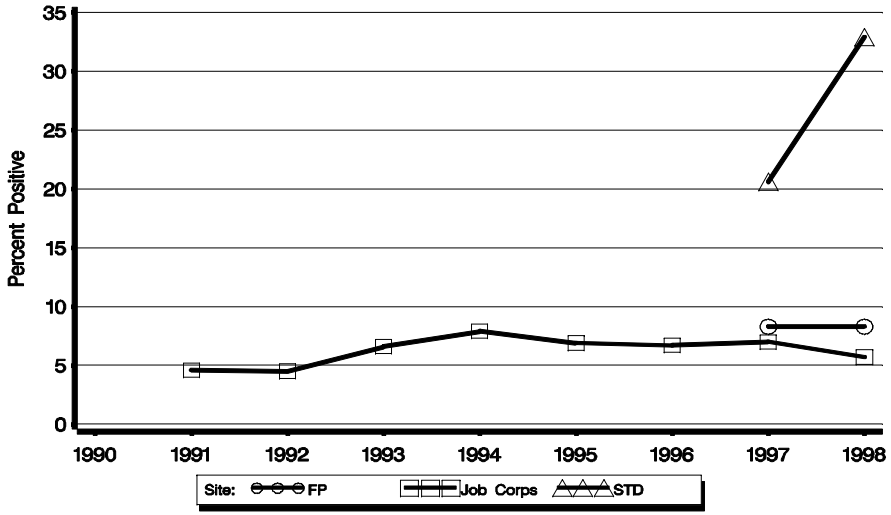
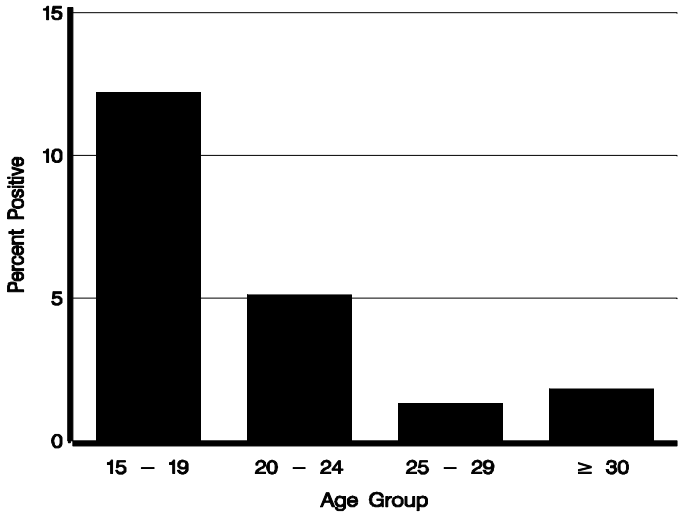


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	5	385	6.0
STD	1	511	21.9
Prenatal	3	251	10.0
Other	5	274	7.3

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Rhode Island – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

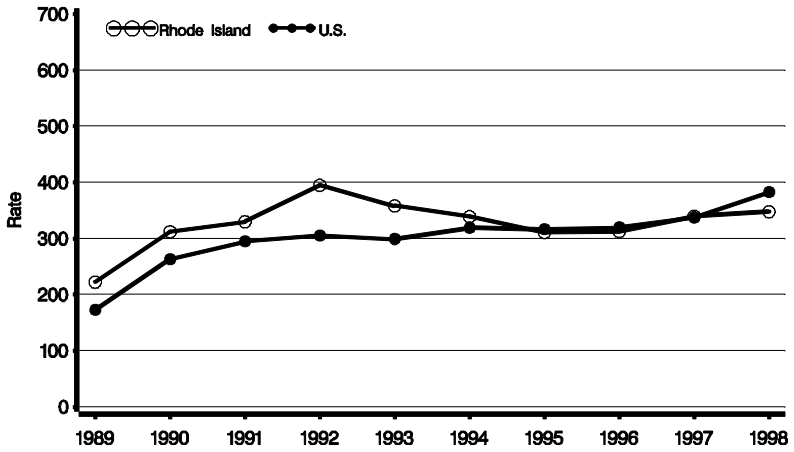


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

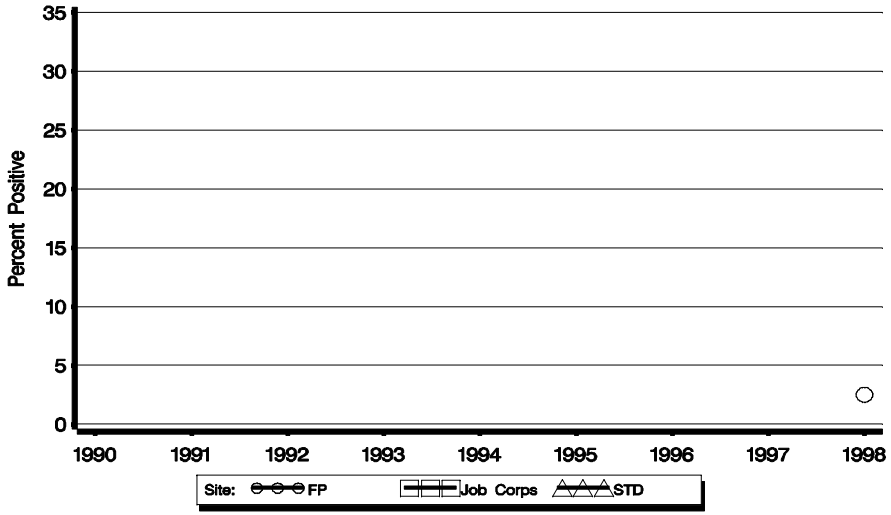
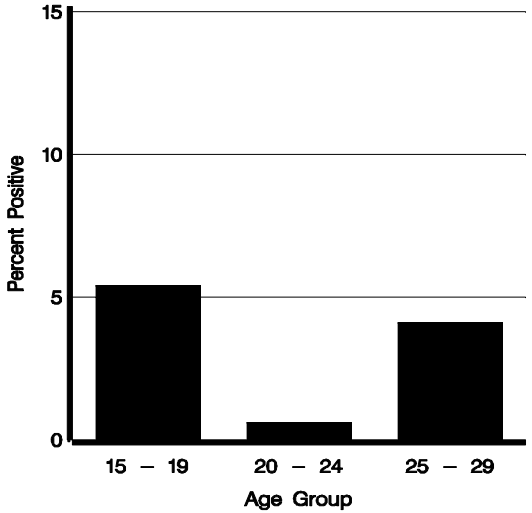


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	5	550	2.2
STD	NA	NA	NA
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



South Carolina – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

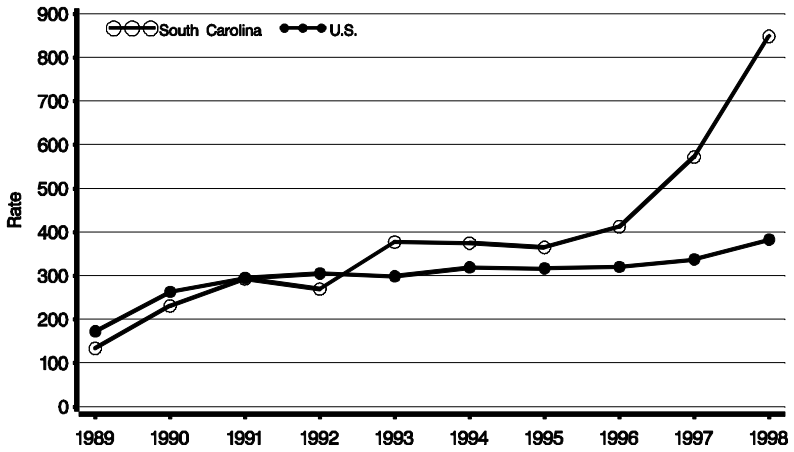


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

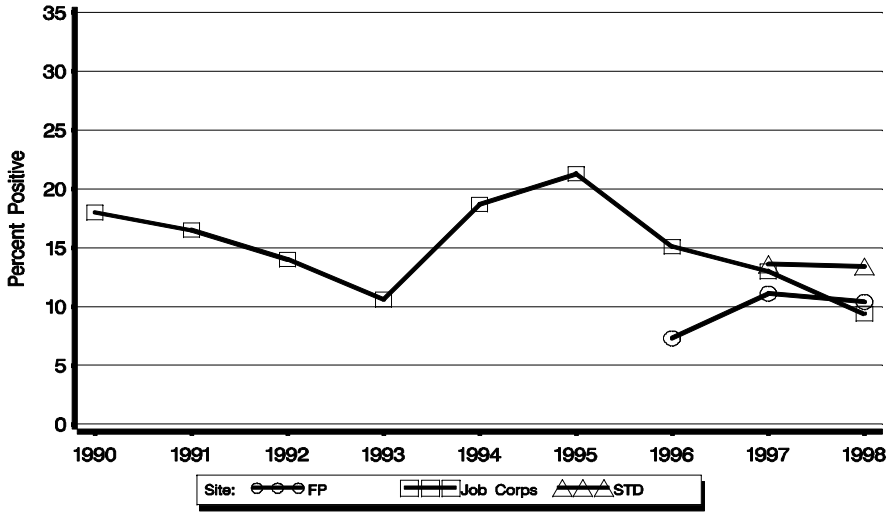
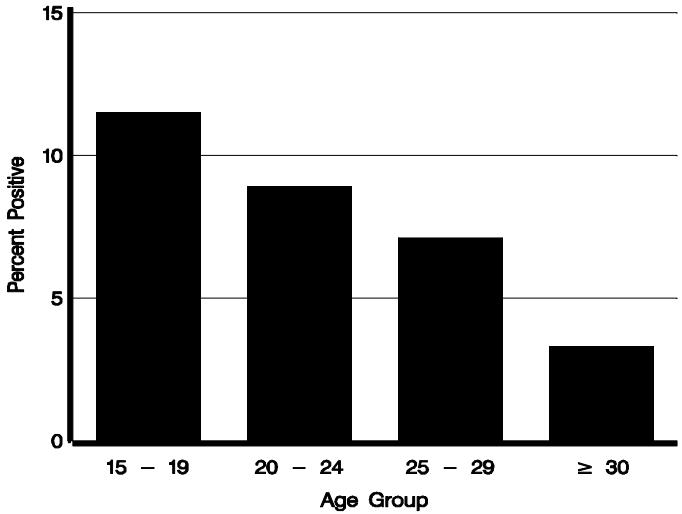


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	79	37113	9.5
STD	44	9469	9.5
Prenatal	11	3123	8.7
Other	1	262	12.6

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



South Dakota – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

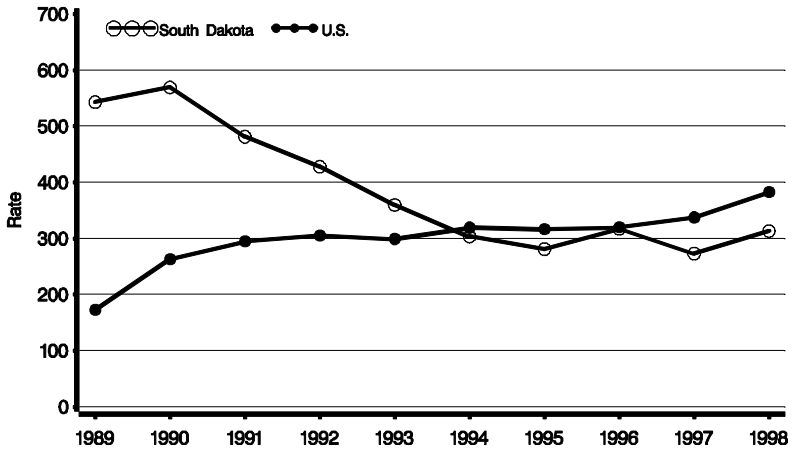


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

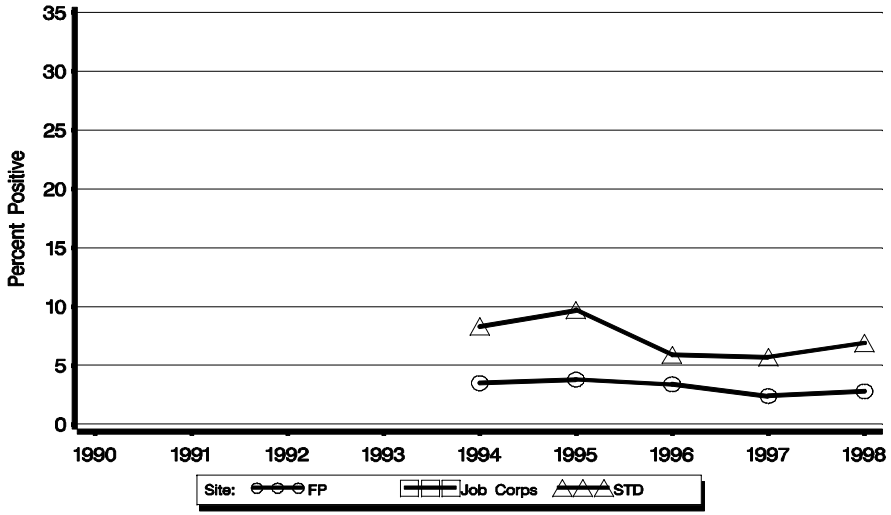
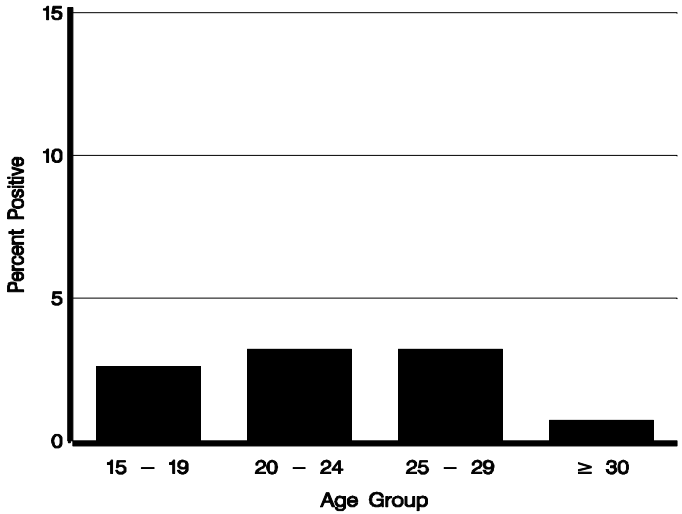


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	14	5073	2.7
STD	4	648	5.1
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Tennessee – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

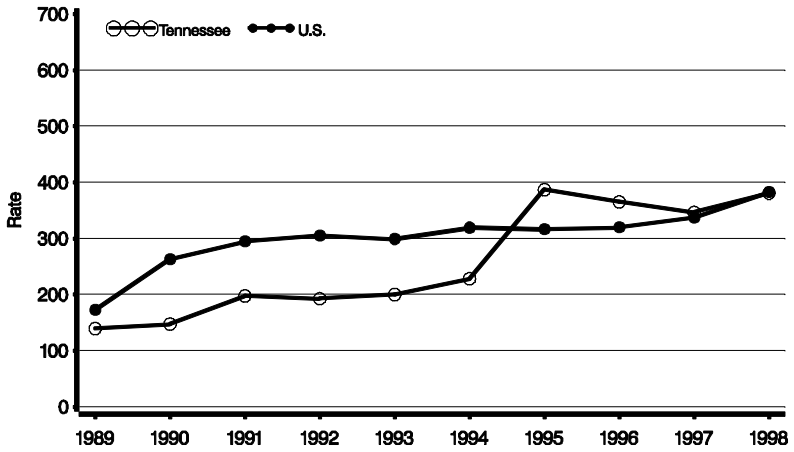


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

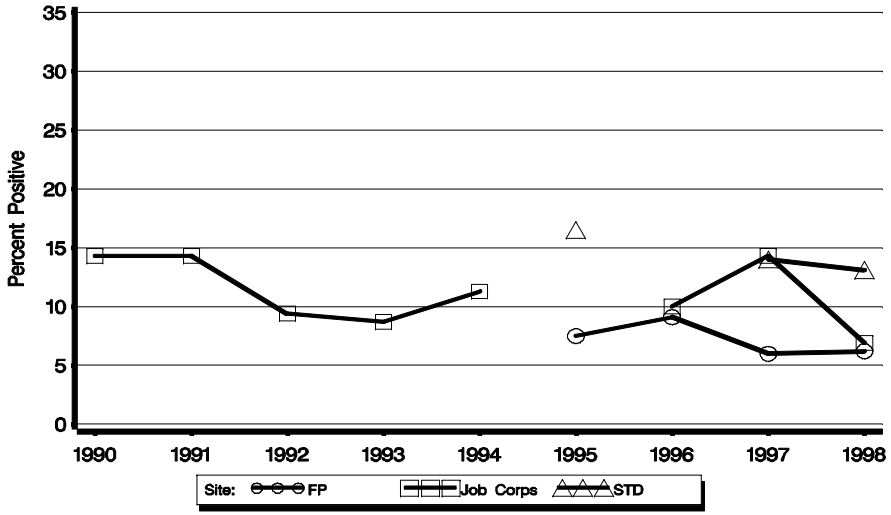
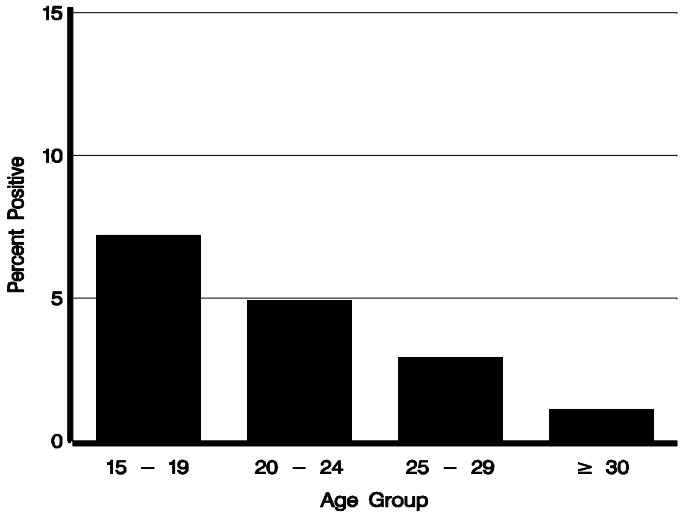


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	123	35569	5.0
STD	63	13068	8.9
Prenatal	12	1310	6.1
Adult Corrections	1	212	0.9
Other	12	2020	6.1

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Texas – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

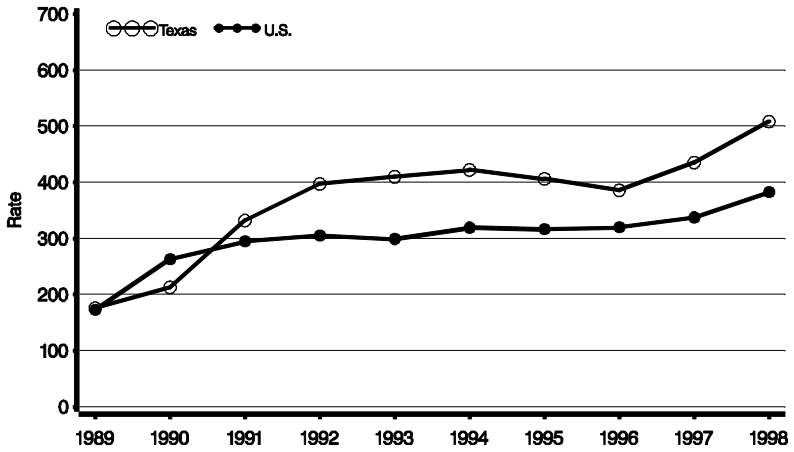


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

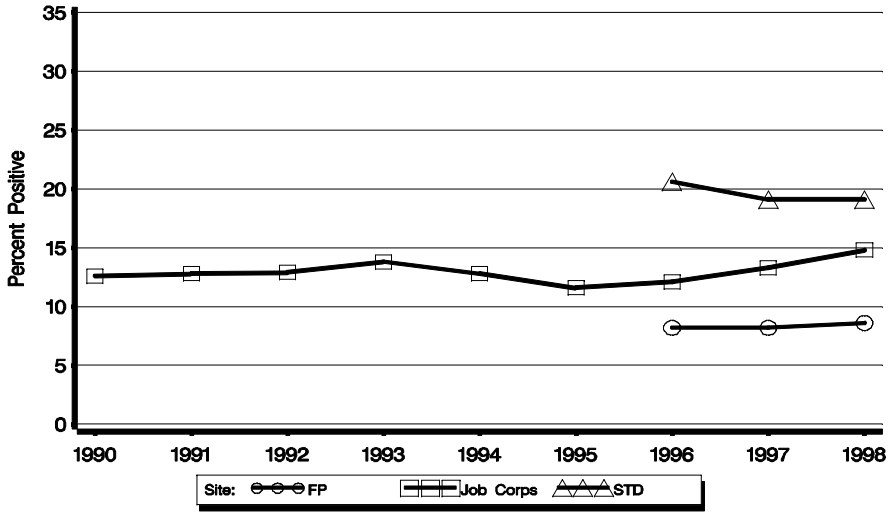
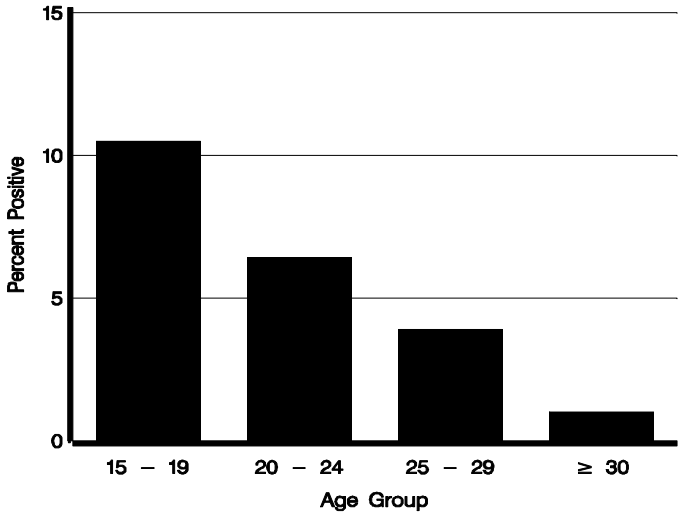


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	9	10486	5.8
STD	9	8875	13.6
Juvenile Detention	1	1049	16.6
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Utah – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

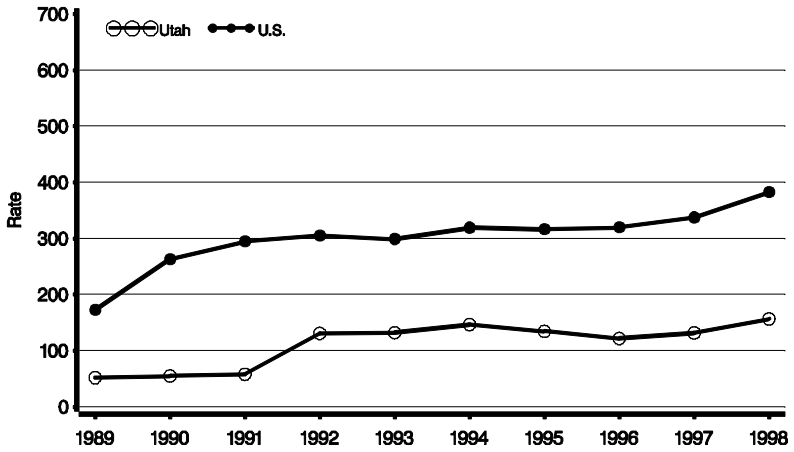


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

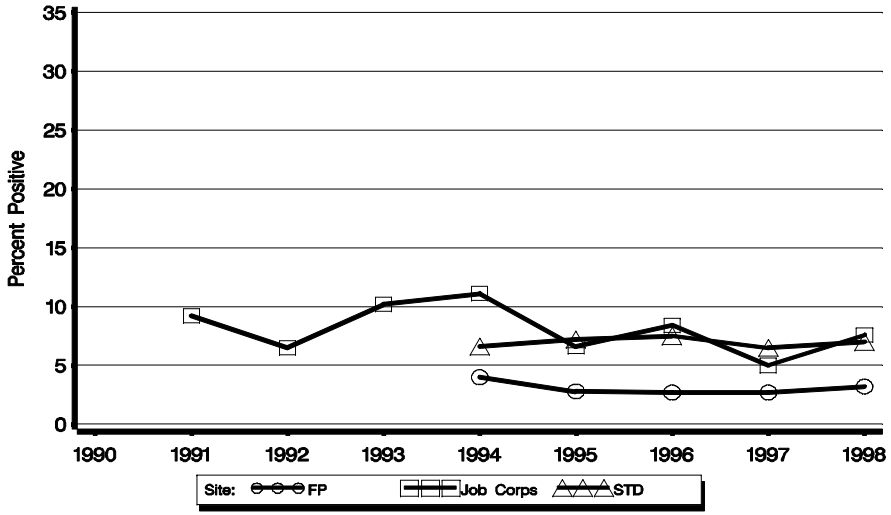
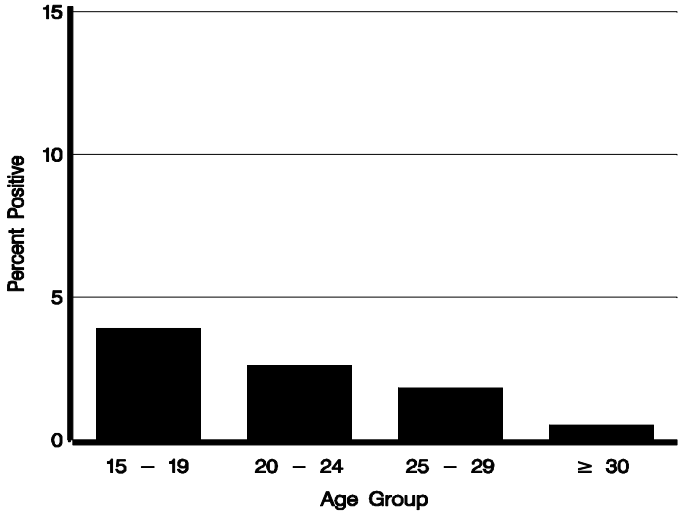


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

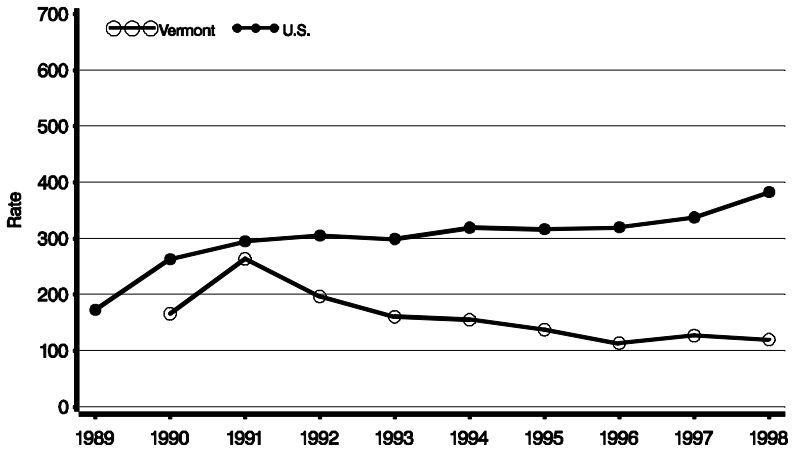
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	9	6643	2.6
STD	10	2275	5.1
Other	15	2614	3.5

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Vermont – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: No data were reported in 1989.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

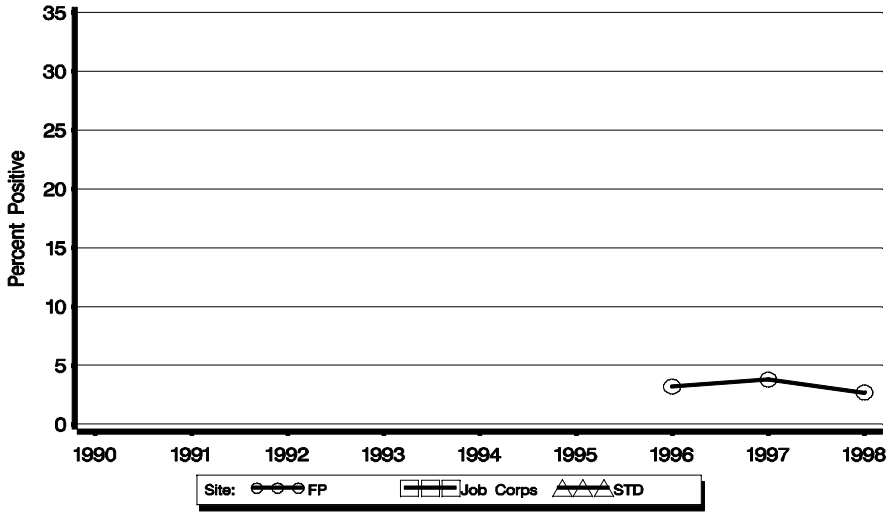
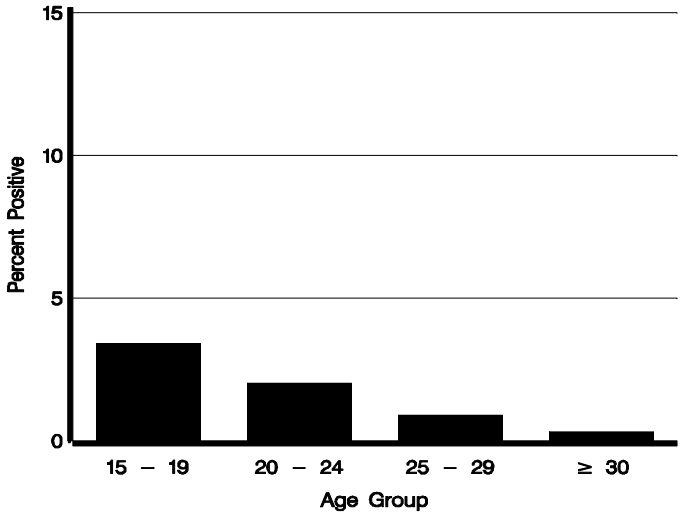


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	15	3689	2.0
STD	NA	NA	NA
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Virgin Islands – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

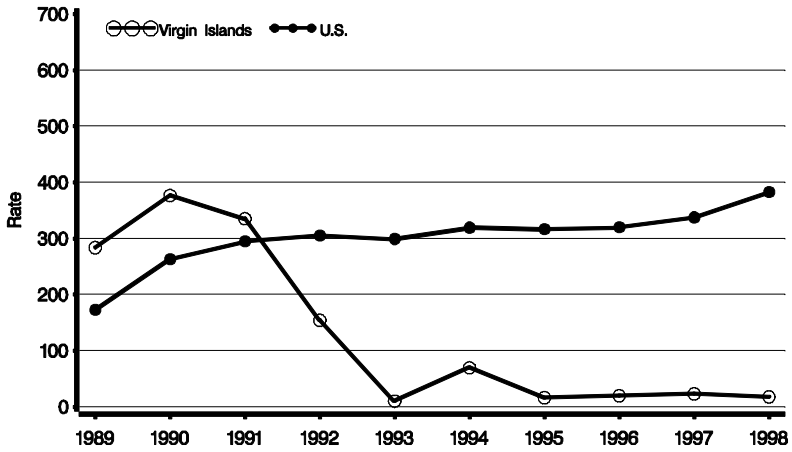


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

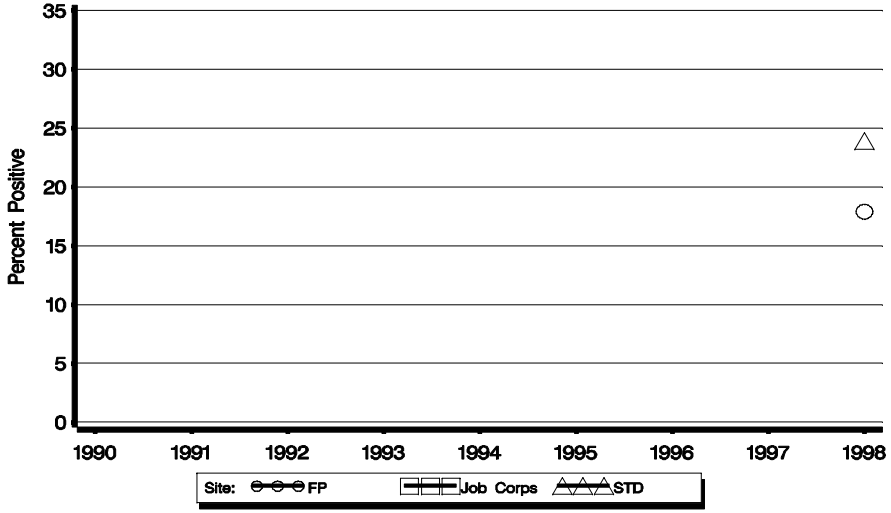
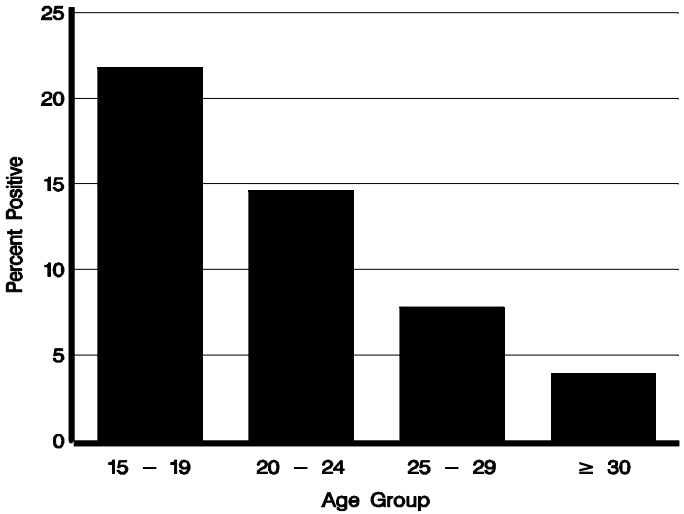


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	3	764	13.5
STD	1	166	11.4
Other	NA	NA	NA

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Virginia – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

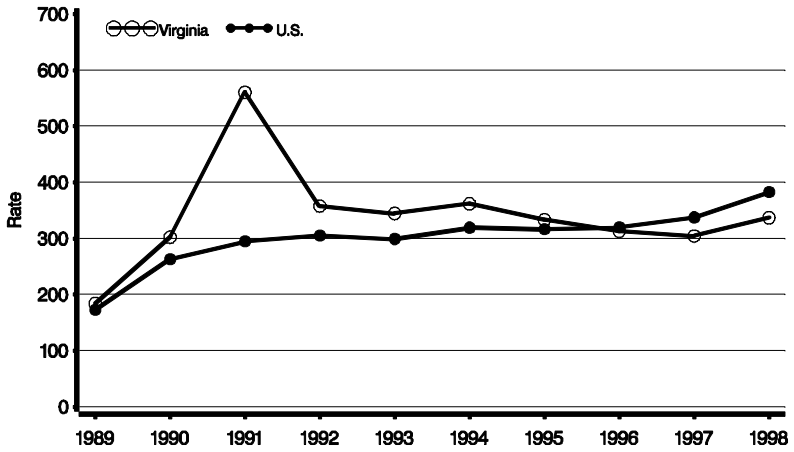


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

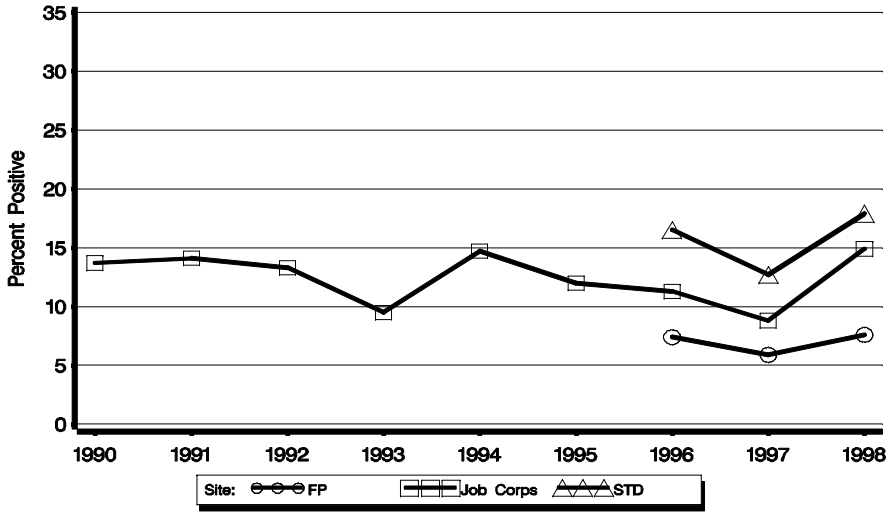
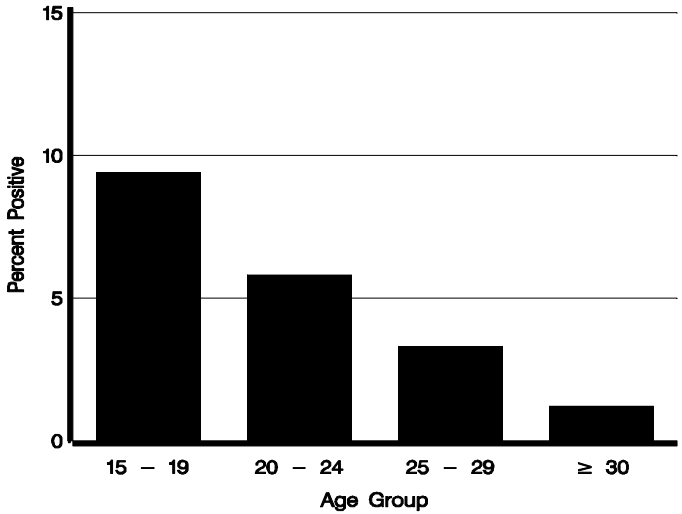


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	97	38244	5.5
STD	37	11564	12.6
Prenatal	56	9151	6.8
Other	31	16875	4.8

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Washington — 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

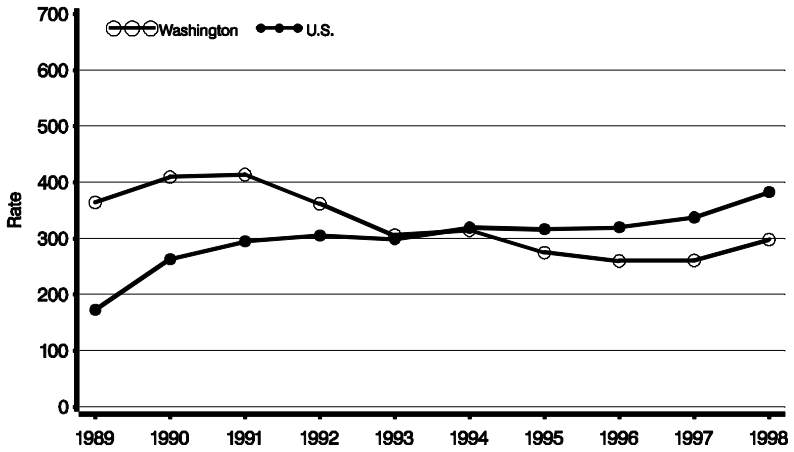


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

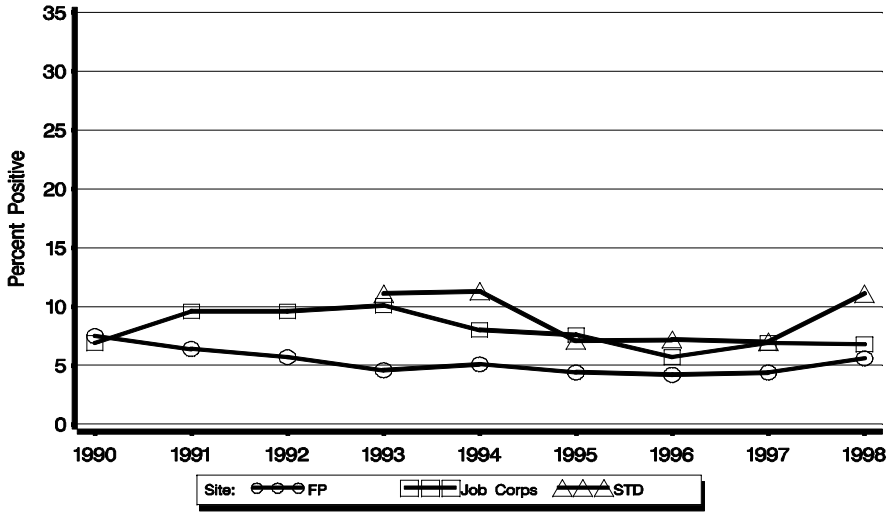
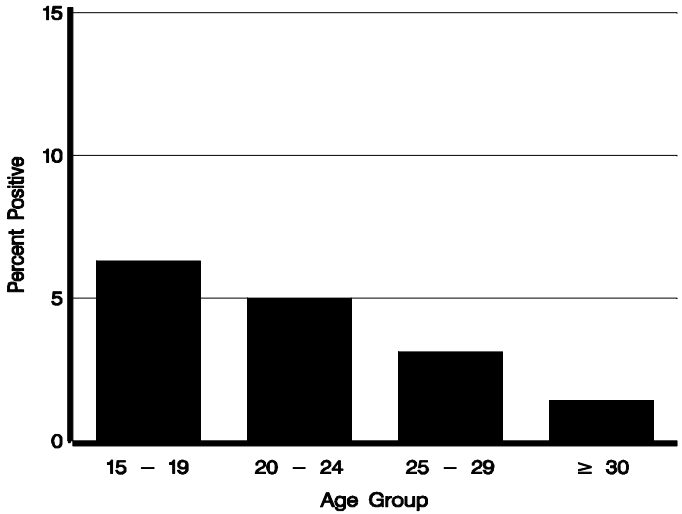


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	43	31611	4.5
STD	15	4989	7.5
Adult Corrections	1	774	3.6
Juvenile Detention	2	228	11.0
Other	52	24694	4.2

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



West Virginia – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

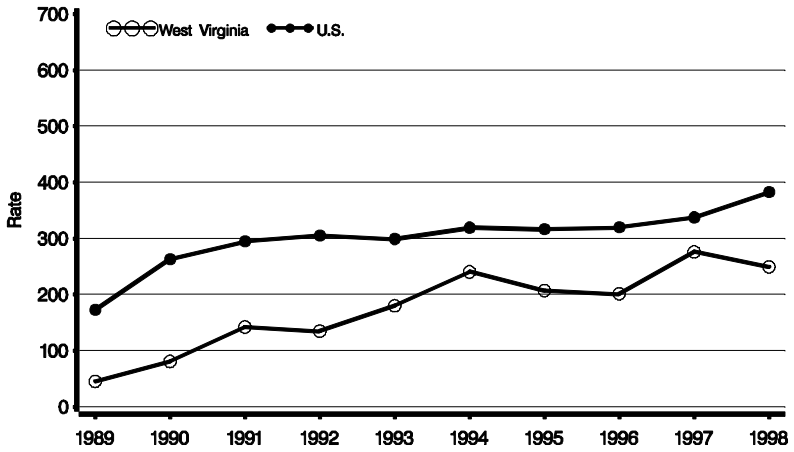


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

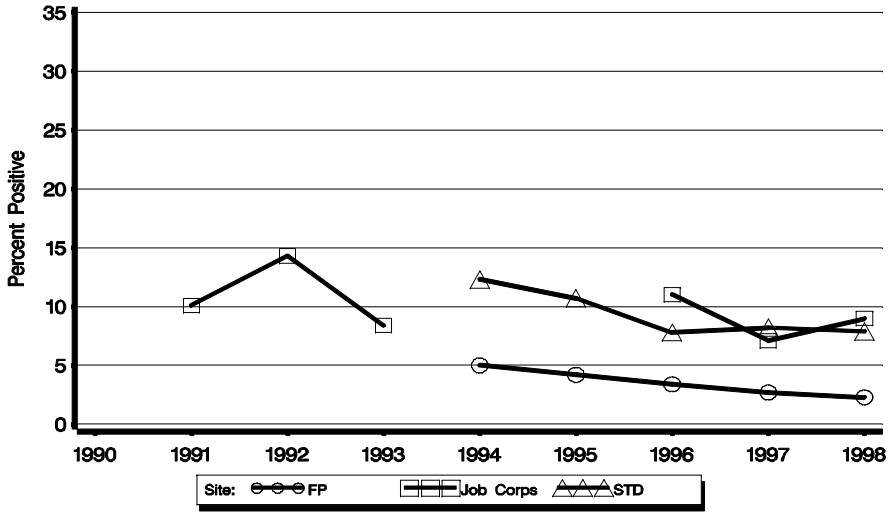
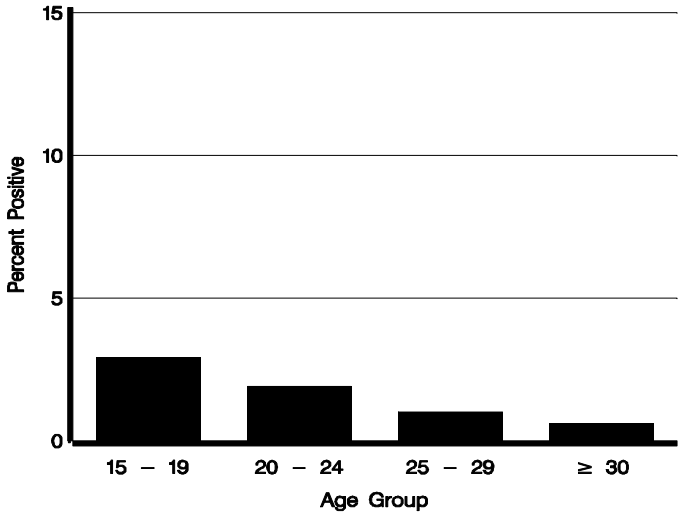


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

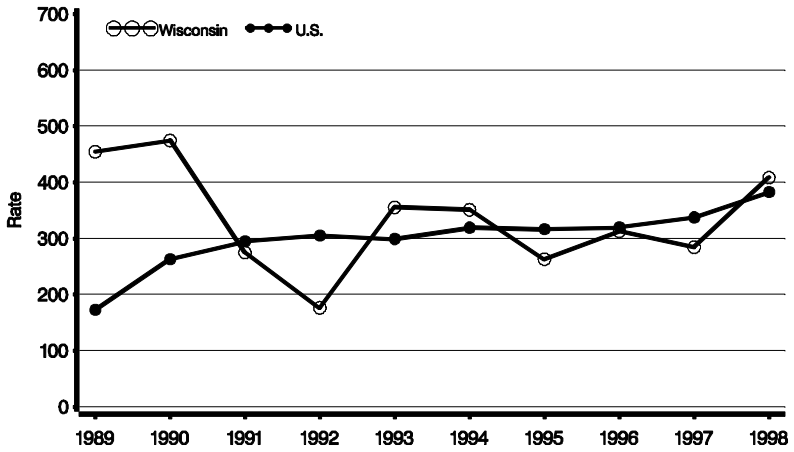
Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	53	33987	1.8
STD	12	2588	5.3
Other	47	16016	2.3

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Wisconsin – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998



NOTE: Gender missing for 24.5% of the cases in 1991. This appears as a decrease in the female rate.

Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

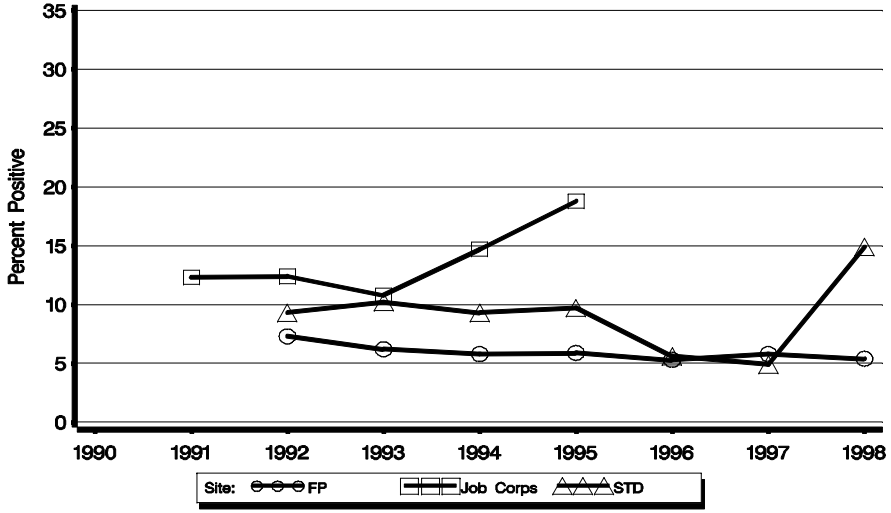
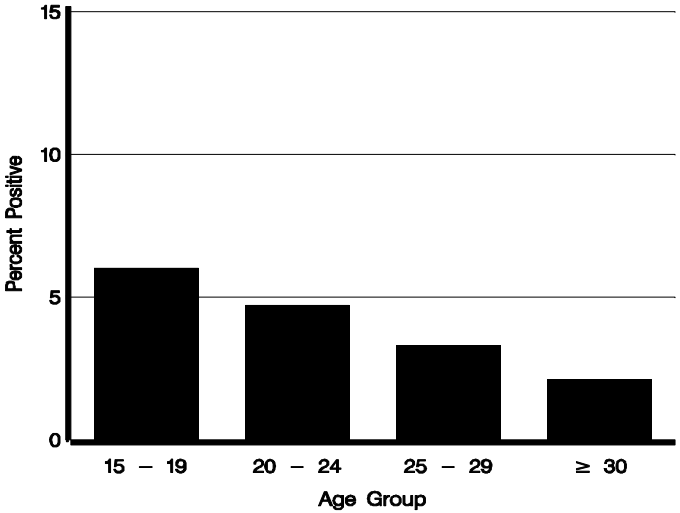


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	18	7463	4.8
STD	1	1150	10.2
Other	7	3890	5.7

Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998



Wyoming – 1998

Figure A. Chlamydia rate per 100,000 women, 1989–1998

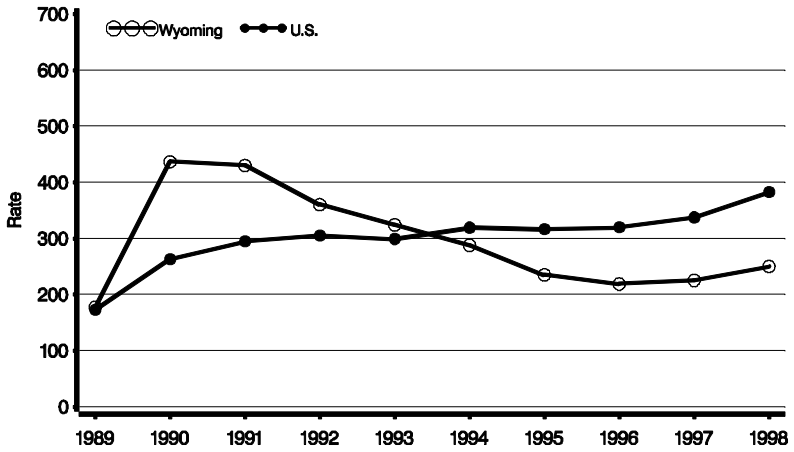


Figure B. Chlamydia positivity among women 15 to 24 years by testing site, 1990–1998

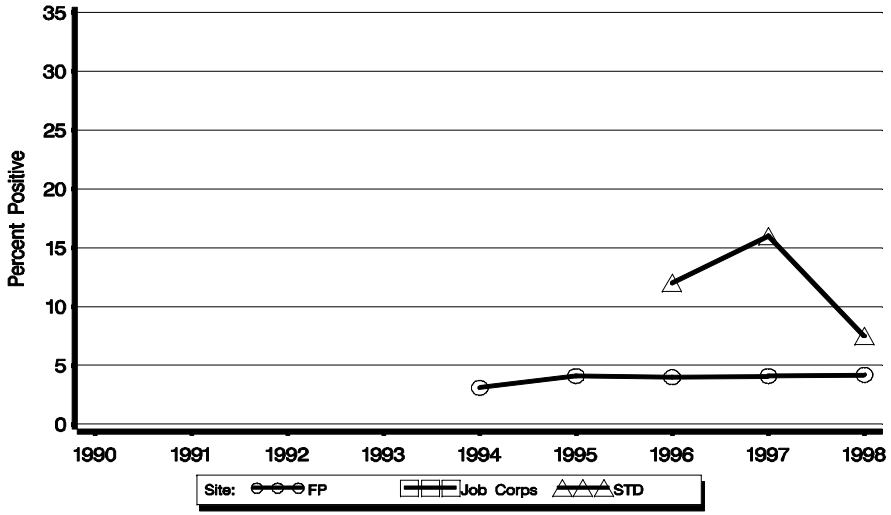


Table 1. Chlamydia positivity among women 15 to 44 years by testing site, 1998

Testing Site	No. Clinics	No. Tested	Percent Positive
Family Planning	16	4756	3.5
STD	1	162	5.6
Other	6	1238	3.2

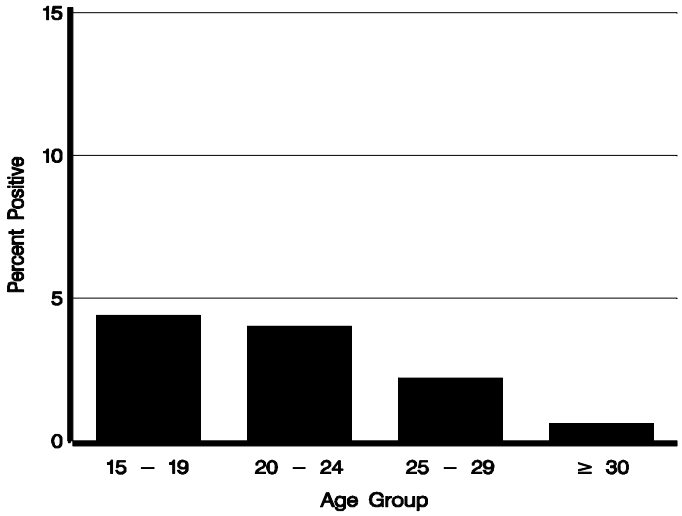



Figure C. Chlamydia positivity by age group among women attending family planning clinics, 1998