# Sexually Transmitted Diseases (STDs)

*Most sexually transmitted diseases occur among teenagers and young adults.*

- Young adults had the highest rates of chlamydia and gonorrhea.
- All the primary and secondary syphilis cases were reported among men.

## Chlamydia

From 2005–2007, there were 9,323 cases of chlamydia reported in Contra Costa County. The county had a lower rate of chlamydia (300.3 per 100,000) than the state (365.2 per 100,000).

In Contra Costa, more than two-thirds of the cases (67.8%) occurred among those 15–24. The greatest percentage of chlamydia cases was among those 15–19 (35.3%), followed by 20–24 (32.5%), 25–29 (15.6%), 30–34 (6.0%), 35–44 (5.0%), 45 and older (2.3%), 10–14 (1.0%) and 0–9 (0.1%).

The rates of chlamydia followed a similar age pattern to the cases. The rates were significantly higher among young adults between the ages 15–19 (1,386.6 per 100,000), 20–24 (1,469.5 per 100,000) and 25–29 (862.0 per 100,000) compared to the county overall. The rates were significantly lower than the county overall among those ages 10–14 (39.6 per 100,000), 35–44 (95.7 per 100,000) and 45 and older (17.8 per 100,000).

Table 1 ■ Chlamydia cases by age

Contra Costa, 2005–2007

| | Cases | Percent | Rate |
|---|---|---|---|
| 0–9 years | 11 | 0.1% | NA |
| 10–14 years | 92 | 1.0% | 39.6** |
| 15–19 years | 3,293 | 35.3% | 1,386.6* |
| 20–24 years | 3,026 | 32.5% | 1,469.5* |
| 25–29 years | 1,454 | 15.6% | 862.0* |
| 30–34 years | 557 | 6.0% | 293.7 |
| 35–44 years | 466 | 5.0% | 95.7** |
| 45 years and older | 213 | 2.3% | 17.8** |
| **Total** | **9,323** | **100.0%** | **300.3** |

* Significantly higher rate than the county overall.
** Significantly lower rate than the county overall.
These are age-specific rates per 100,000 residents.
Total includes cases in which age was not reported.

There were more cases among females (6,977) than males (2,276). Females had a significantly higher rate of chlamydia (436.6 per 100,000) compared to males (148.7 per 100,000).

### Table 2 ■ Chlamydia cases by gender

Contra Costa, 2005–2007

| | Cases | Percent | Rate |
|---|---|---|---|
| Females | 6,977 | 74.8% | 436.6* |
| Males | 2,276 | 24.4% | 148.7 |
| **Total** | **9,323** | **100.0%** | **300.3** |

Total includes cases with gender not reported.
* Significantly higher rate than males.
These are crude rates per 100,000 residents.

## Gonorrhea

Rates of gonorrhea were lower than chlamydia. Contra Costa County had a similar rate of gonorrhea (84.0 per 100,000) compared to the state (88.5 per 100,000). There were 2,607 cases of gonorrhea reported in Contra Costa from 2005 to 2007.

The largest percentage of cases of gonorrhea in Contra Costa occurred among those 20–24 years of age (28.5%) and those 15-19 (27.1%), followed by those 25-29 (16.3%), 35–44 (10.2%), 30–34 (8.8%), 45 and above (5.8%) and 10–14 (1.1%).

Young adults also had higher rates of gonorrhea. Those aged 15–19 (297.3 per 100,000), 20–24 (360.8 per 100,000), 25–29 (252.6 per 100,000) and 30–34 (120.7 per 100,000) had significantly higher rates of gonorrhea than the county overall (84.0 per 100,000). Residents ages 10–14 (12.5 per 100,000), 35–44 (54.4 per 100,000) and 45 and above (12.7 per 100,000) had significantly lower rates than the county.

### Table 3 ■ Gonorrhea cases by age

Contra Costa, 2005–2007

| | Cases | Percent | Rate |
|---|---|---|---|
| 10–14 years | 29 | 1.1% | 12.5** |
| 15–19 years | 706 | 27.1% | 297.3* |
| 20–24 years | 743 | 28.5% | 360.8* |
| 25–29 years | 426 | 16.3% | 252.6* |
| 30–34 years | 229 | 8.8% | 120.7* |
| 35–44 years | 265 | 10.2% | 54.4** |
| 45 years and older | 152 | 5.8% | 12.7** |
| **Total** | **2,607** | **100.0%** | **84.0** |

Total includes cases with age not reported and for age groups not listed.
* Significantly higher rate than the county overall.
** Significantly lower rate than the county overall.
These are age-specific rates per 100,000 residents.

Between 2005–2007, 1,521 cases of gonorrhea were reported among females and 1,077 cases among males. The rate among females (95.2 per 100,000) was significantly higher than that of males (70.4 per 100,000).

### Table 4 ■ Gonorrhea cases by gender

Contra Costa, 2005 –2007

| | Cases | Percent | Rate |
|---|---|---|---|
| Females | 1,521 | 58.3% | 95.2* |
| Males | 1,077 | 41.3% | 70.4 |
| **Total** | **2,607** | **100.0%** | **84.0** |

Total includes cases with gender not reported.
* Significantly higher rate than males.
These are crude rates per 100,000 residents.

## Syphilis

There were 58 cases of primary and secondary syphilis reported in Contra Costa County from 2005–2007. The rate for Contra Costa County (1.9 per 100,000) was lower than the state's rate (4.9 per 100,000).

Most of the cases of syphilis (69.0%) occurred among those age 35 and older. All of the syphilis cases reported during this period occurred among males. Data for 2007 cases indicate that two-thirds of all syphilis cases occurred among men who have sex with men (MSM), many of whom were co-infected with HIV.

### Table 5 ■ Syphilis cases by age

Contra Costa, 2005 –2007

| | Cases | Percent | Rate |
|---|---|---|---|
| 20-24 years | 5 | 8.6% | NA |
| 25-29 years | 8 | 13.8% | NA |
| 30-34 years | NA | NA | NA |
| 35-44 years | 20 | 34.5% | 4.1* |
| 45 years and older | 20 | 34.5% | 1.7 |
| **Total** | **58** | **100.0%** | **1.9** |

Total includes cases for unlisted age groups and age groups with cases not listed.
* Significantly higher rate than the county overall.
These are crude rates per 100,000 residents.

## What are sexually transmitted diseases?

The term sexually transmitted disease (STD) refers to the more than 25 bacterial, parasitic and viral infections acquired by sexual contact. A person can contract sexually transmitted diseases any time he/she has unprotected sex with a partner who is already infected. The organisms that cause sexually transmitted diseases may pass from person to person in blood, semen or vaginal fluids or through mucosal contact.[1,2]

## Why are they important?

Sexually transmitted diseases, such as gonorrhea or chlamydia, can often have no symptoms. The symptoms of several other STDs can be easily mistaken for those of other illnesses delaying a correct diagnosis. Serious health consequences can result from STDs if left untreated.

If women are infected while pregnant this may harm the health of their unborn children. If left untreated, these diseases can cause debilitating pain, or irreversible damage, destroying a woman's ability to have children.

There is growing evidence that the presence of other STDs increases the likelihood of both transmitting and acquiring HIV. Individuals who are infected with STDs are at least two to five times more likely than uninfected individuals to acquire HIV infection if they are exposed to the virus through sexual contact. If an HIV-infected individual is also infected with another STD, that person is more likely to transmit HIV through sexual contact than an HIV-infected individual without another STD. Strong STD prevention, testing and treatment can play a vital role in comprehensive programs to prevent sexual transmission of HIV.[3]

Some stds can be cured with a single dose of antibiotics, but some, such as acquired immunodeficiency syndrome (aids) or herpes, are incurable. People with these diseases remain infectious for the rest of their lives.

## Who do they impact most?

A person's risk of contracting an STD depends on his/her sex, age and sexual practices, as well as on the sexual practices and lifestyles of potential partners. It's possible to contract sexually transmitted diseases from people who seem perfectly healthy and people who aren't aware of being infected.[2]

Factors that increase the risk of being infected with a sexually transmitted disease include:

- Having unprotected sex. Vaginal or anal penetration by an infected partner who is not wearing a latex condom increases the risk of contracting an STD.[4]
- Having sex while infected with an STD. Being infected with one std makes it much easier to contract another one.[4]
- Having multiple sex partners.[4]
- Other factors that can lead to increased risk of acquiring an STD include using alcohol or recreational drugs and casual or anonymous sex.[4] Alcohol and recreational drug use can make sexual risk-taking more likely, and casual or anonymous sex can put people at higher risk for exposure to STDs.[4]

Groups that appear to be at higher risk of infection include:

- Almost half of all new STD cases each year are in people between the ages of 15 and 24 years. In teenage girls and young adult women, the cervix is more vulnerable to trauma and infection.[4]
- When exposed, women are more likely to get an STD from men than vice versa[4] due to differences in male/female anatomy.
- Men who have sex with men[4]
- STDs, particularly gonorrhea and syphilis, are reported in a disproportionate number of African Americans. This may be partly because African Americans are more likely to receive care at clinics that report STD statistics, including breakdowns of cases by age, sex and race. Missing race/ethnicity information may skew this number.[4]
- If a person has had one STD, he/she is at increased risk of contracting another one.[4] This is partly because the person may be more likely to engage in behaviors that result in a STD or have sex with people in social networks in which STDs are more prevalent.[4]

### What can we do about them?

Latex condoms, when used consistently and correctly, are highly effective in preventing sexually transmitted infections, including HIV.[5]

Individuals at risk for STDs should be offered counseling regarding methods to eliminate or reduce their risk and testing and treatment so that they can be aware of their status and take steps to protect their own health and that of their partners.

Partner notification, including partner counseling and referral services (PCRS) with strong linkages to prevention and treatment/care services is important.

Prevention efforts for high-risk populations, including teens and young adults, are also critical to reducing the spread of STDs.[6]

## Data Sources: Sexually Transmitted Diseases

#### TEXT

1. Sexually Transmitted Diseases in California, 2008. California Department of Public Health, std Control Branch, November 2009.
2. Mayo Foundation for Medical Education and Research. (2010) Sexually Transmitted Diseases: Definition Retrieved July 14, 2010 from http://www.mayoclinic.com/health/sexually-transmitted-diseases-stds/DS01123
3. Division of std Prevention, National Center for hiv/aids, Viral Hepatitis, std, and tb Prevention. (2010) hiv/aids & stds. Retrieved July 14, 2010 from the cdc website: http://www.cdc.gov/std/hiv/default.htm
4. Mayo Foundation for Medical Education and Research. (2010) Sexually Transmitted Diseases: Risk Factors. Retrieved July 14, 2010 from http://www.mayoclinic.com/health/sexually-transmitted-diseases-stds/DS01123/DSECTION=risk-factors
5. Centers for Disease Control and Prevention. (2008) stds and Pregnancy — cdc Fact Sheet. Retrieved July 14, 2010 from http://www.cdc.gov/std/STDFact-stds&Pregnancy.htm - protect

6. National Center for hiv/aids, Viral Hepatitis, std and tb Prevention. (2006) Components of Comprehensive hiv Prevention. Retrieved July 16, 2010 from the cdc website: http://www.cdc.gov/hiv/resources/reports/comp_hiv_prev/components.htm - identifying

Tables 1-5
Source: California Local Health Jurisdiction std Data Summaries for 2005–2007 from the California Department of Public Health, std Control Branch. Any analyses, interpretations or conclusions of the data have been reached by Community Health Assessment, Planning and Evaluation (chape).

Counts fewer than five are not shown in order to protect anonymity. Rates were not calculated for any group with fewer than 20 cases due to unstable estimates.

The data were not presented by race/ethnicity in this report due to missing race/ethnicity data for a large percentage of reported std cases.