GONORRHEA

Clinical Features: May manifest as a broad spectrum of clinical features, including asymptomatic and symptomatic local infections, local complicated infections, and systemic dissemination. Asymptomatic infections can occur at the urethra, endocervix, rectum, and pharynx. Symptomatic infections can include urethritis, cervicitis, proctitis, pharyngitis, bartholinitis, and conjunctivitis. Local complications can include salpingitis, epididymitis, Bartholin's Glands abscess, lymphangitis, and prostatitis. Systemic dissemination can result in disseminated gonococcal infection (DGI).

Causative Agent: *Neisseria gonorrheoae*, a gram-negative bacterium.

Mode of Transmission: Contact with exudate from infected mucous membrane of infected individuals through sexual activity. Infected pregnant women can infect their newborn children during childbirth.

Incubation Period:

- *Men*: When symptoms occur (approximately 80% of the time) they usually develop within 3 to 5 days of infection but can take up to 30 days.
- *Women:*When symptoms occur (approximately 30% of the time) they usually develop within 10 days of infection but can take up to 30 days.

Period of Communicability: May extend for months in untreated individuals.

***Public Health Significance*:** Many STDs may be prevented through sexual abstinence or through correct, consistent use of condoms. Gonorrhea infection is associated with an increased risk of acquiring HIV.

Reportable Disease in Kansas Since: 1973

Laboratory Criteria for Surveillance Purposes

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

Surveillance Case Definitions

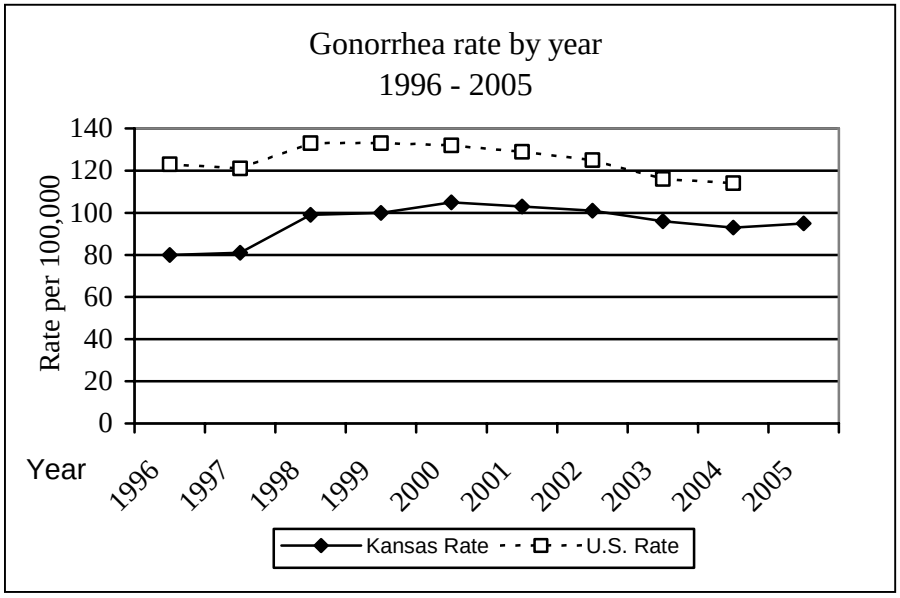
- *Confirmed:* A case that is laboratory confirmed.

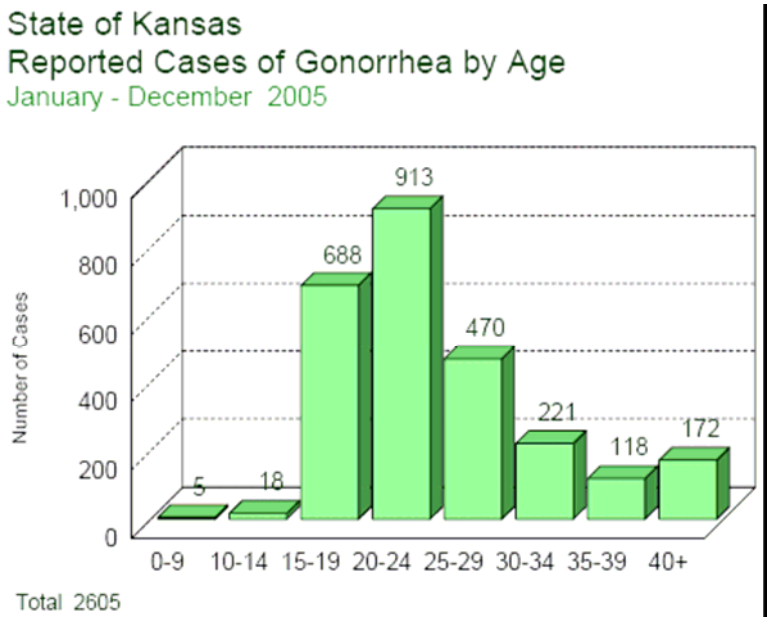
Epidemiology and Trends

2005 Kansas Count: 2605

	Rate per 100,000	*95% CI*
Kansas Rate	95	(89 - 97)
U.S. Rate (2004)	114	*NA*
Gender		
Male	71	(65 - 79)
Female	119	(107 - 121)
Race*		
White	25	(24 - 32)
Black	705	(698 - 816)
Asian/Pacific Islander	6	(0 - 176)
Native American	91	(0 - 475)
Hispanic	64	(22 - 115)
Geographic area		
Urban County	147	(136 - 150)
Non-Urban County	41	(35 - 49)

**The STD program at KDHE designates "Hispanic" as a race category. As a result, analysis by Hispanic ethnicity is not presented.*





In calendar year (CY) 2005, 2,606 cases were reported compared to 2,544 cases reported in CY2004; which is a two percent increase**.** This is the first increase in gonorrhea case reports since CY2000. The gonorrhea case rate for the state was 95/100,000 in CY2005. Twenty-nine percent of reported cases were from public providers in CY2005, which was a three percent increase compared to CY2004.

Like chlamydia, gonorrhea affects more young adults than any other age group. In CY2005, 35 percent (914 cases) of infections were reported in the 20-24 age group, a case rate of 425/100,000, followed by the 15-19 age group with 26 percent of reports (688) and a case rate of 338/100,000. Combined, these two age groups accounted for 61 percent of all reported cases of gonorrhea in CY2005. The 25-29 age group represented 18 percent (470 cases) of all cases and a case rate of 255/100,000 followed by the 30-34 age group with eight percent (221 cases) and case rate of 127/100,000 and the 35-39 age group with five percent (118 cases) and a case rate of 66/100,000 and the 40-44 and 45-54 age groups each with three percent of the cases.

In CY2005, as in previous periods, urban areas continue to report the majority of gonorrhea infections. Sedgwick County (Wichita) reported a case rate of 142/100,000 (657 cases), Wyandotte County (Kansas City) reported a case rate of 397/100,000 (621 cases) and Shawnee County (Topeka) reported a case rate of 230/100,000 (395 cases). Zip codes 66104 (Kansas City) and 67214 (Wichita), recorded 13 percent (350 cases) of the state's total morbidity for CY2005. Three zip codes (66101, 66104, and 66105) in Kansas City represented 17 percent (445 cases) of all infections within the state. Three zip codes within Wichita (67214, 67208 and 67218) accounted for 11 percent (279) of the state's total reported gonorrhea reported in CY2005 and three zip codes within Topeka (66604, 66605 and 66607) accounted for 9 percent (241) of the state's total morbidity. Combined these nine zip codes accounted for 37 percent of all reported gonorrhea

infections throughout Kansas in CY2005. The state of Kansas has four stand alone STD clinics, three of which are located in Sedgwick, Wyandotte and Shawnee Counties.

As reported with chlamydial infections, members of the African-American population continued to be disproportionately affected by gonorrhea. African-Americans accounted for 47 percent (1,222 cases) of all reported gonorrhea infections in CY2005 for a case rate of 705/100,000. Hispanics, with no race elicited, had a case rate of 68/100,000 (142 cases) for five percent. Whites had a case rate of 27/100,000 (627 cases). Native Americans reported 26 cases for a rate of 104/100,000 and Asian/Pacific Islanders had a case rate of 10/100,000 (6 cases). There was no race recorded for 583 cases (22 percent) reported in CY2005. Minorities may be disproportionately represented due to reporting bias (e.g., African-Americans may use public STD and Family Planning clinics more often for health care and be more likely to be screened and reported if positive). However, even when looking within screening sites, the positivity rate of gonorrhea was higher among minorities than among whites.

A breakdown by gender shows that 1,646 females and 960 males were reported with gonorrhea in CY2005, for a female to male ratio of 1.7:1. Compared to the female to male ratio of chlamydia, the gonorrhea ration ratio is not as skewed, even though females are screened for gonorrhea through the KIPP. Males commonly do not have symptoms with chlamydial infections and do not seek medical care; however, males commonly voluntarily present at clinics with symptoms of gonorrhea and are tested and treated.