Gonorrhea

Agent: *Neisseria gonorrhoeae* (bacteria)

Mode of Transmission: Sexually transmitted through direct contact with secretions from an infected person.
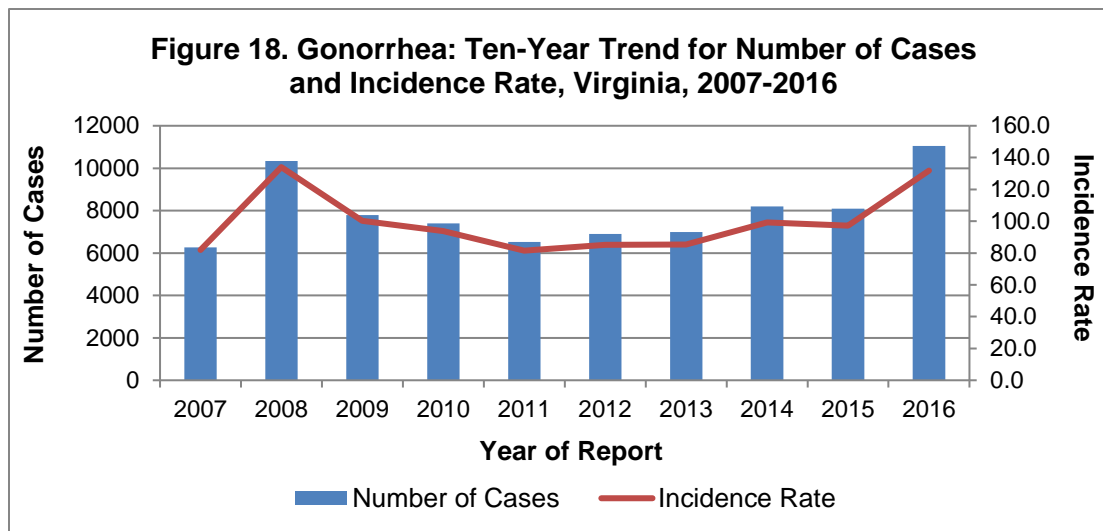
Signs/Symptoms: Infected men may experience a burning sensation while urinating and a yellowish white discharge from the urethra. Infected women are usually asymptomatic, although vaginal discharge, burning while urinating, abdominal pain and/or bleeding after intercourse may occur. Symptoms usually appear within a week, but could take up to 30 days to develop. Untreated gonorrhea among women can lead to pelvic inflammatory disease and infertility.

Prevention: Preventive measures include safe sexual practices and antibiotic treatment of infected sexual contacts.
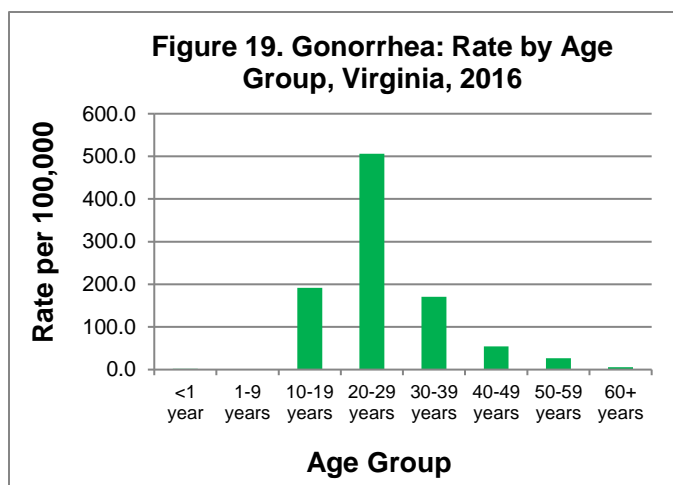
Other Important Information: The progressive development of antibiotic resistance continues to hinder gonorrhea prevention efforts. Antibiotic resistance undermines treatment success, heightens the risk of complications and facilitates transmission of infection. Drug resistant *N. gonorrhoeae* is one of only three organisms currently designated by CDC as an antimicrobial resistance "urgent threat." Since April 2007, CDC has advised against the use of fluoroquinolones for the treatment of gonorrhea, based on data indicating widespread drug resistance in the United States. As of August 2012, CDC no longer recommends cefixime (an oral cephalosporin) at any dose as a first-line regimen for treatment of gonococcal infections. The CDC now recommends combination therapy for gonorrhea with ceftriaxone administered intramuscularly and either azithromycin or doxycycline given orally for seven days.

Gonorrhea: 2016 Data Summary	
Number of Cases:	11,046
5-Year Average Number of Cases:	7,339.6
% Change from 5-Year Average:	+50%
Incidence Rate per 100,000:	131.8

In 2016, 11,046 cases of gonorrhea were reported in Virginia. This represents a 50% increase from the 5-year average of 7,339.6 cases per year (Figure 18). Gonorrhea has increased in almost every geographic region and among almost every demographic. This trend is particularly concerning due to increased antibiotic resistance to *N. gonorrhoeae*. CDC estimates that up to 50% of gonorrhea infections are undiagnosed and remain unreported.

Figure 18. Gonorrhea: Ten-Year Trend for Number of Cases and Incidence Rate, Virginia, 2007-2016

Gonorrhea incidence was substantially higher in the 20-29 year age group compared to other age groups, with a rate of 505.9 cases per 100,000 population. This was followed by the 10-19 year age group (191.4 per 100,000), and the 30-39 year age group (170.4 per 100,000) (Figure 19). This age distribution is consistent with historical trends. Racial disparity in gonorrhea incidence is dramatic; in 2016, the incidence rate among the black population was 376.7 per 100,000, which is more than 15 times higher than the rate seen in the white population (25.1 per 100,000), and more than five times higher than the rate in the "other" race population (67.3 per 100,000). The incidence rate for gonorrhea has historically been higher in

Figure 19. Gonorrhea: Rate by Age Group, Virginia, 2016

females than in males; however, beginning in 2015, the incidence rate in males surpassed that of females. For 2016, incidence among males (144.8 per 100,000) was again higher than females (118.5 per 100,000). This mirrors nationwide trends in the sex distribution of reported cases.

Since 2008, the eastern and central regions have experienced the largest number of reported gonorrhea cases and the highest incidence rates. In 2016, the incidence rate in the central region (239.2 per 100,000) was slightly higher than the rate in the eastern region (238.4 per 100,000). The remaining regions had incidence rates ranging from 97.1 per 100,000 in the southwest region, 55.7 per 100,000 in the northern region, and 41.6 per 100,000 in the northwest region. Incidence by locality can be seen in the map below.

Ophthalmia in infants caused by *Neisseria gonorrhoeae* is reported separately as Ophthalmia Neonatorum in this report; however, no cases of gonorrhea ophthalmia neonatorum were reported in 2016.

Gonorrhea Incidence Rate by Locality
Virginia, 2016