

## Syphilis

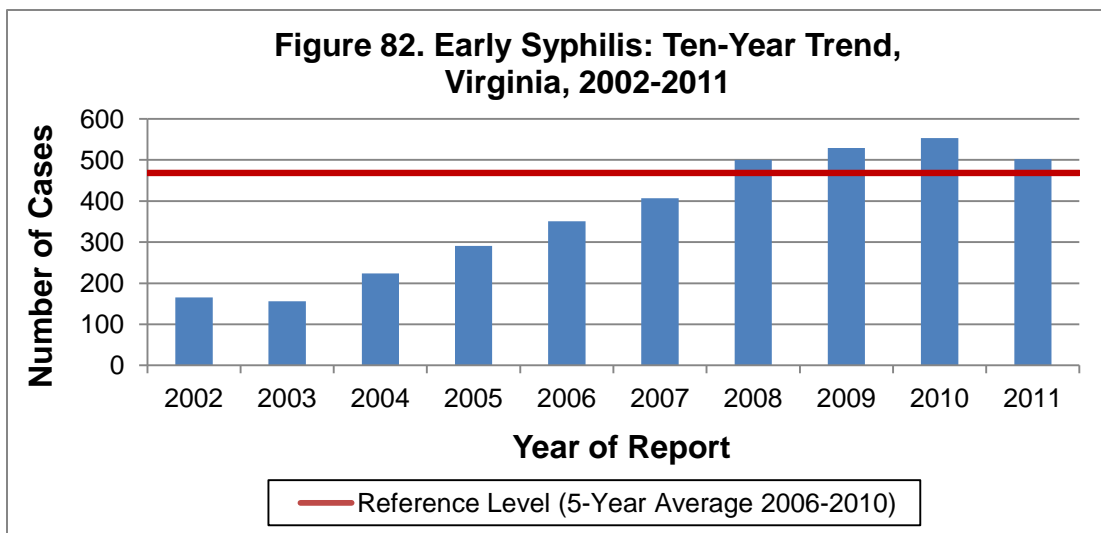
Agent: *Treponema pallidum* (bacteria)

Mode of Transmission: Through sexual intercourse, from mother to child through the placenta, and via blood transfusion from an infected donor in the early stage of disease.

Signs/Symptoms: The primary stage is characterized by a chancre. The secondary stage includes a skin rash and lesions of the mucous membranes. A latent period follows with no clinical symptoms. In late syphilis, the central nervous system may become sufficiently damaged, causing death.

Prevention: Preventive measures include safer sexual practices, screening of all women during early pregnancy to prevent infection of infants, and treatment of infected partners.

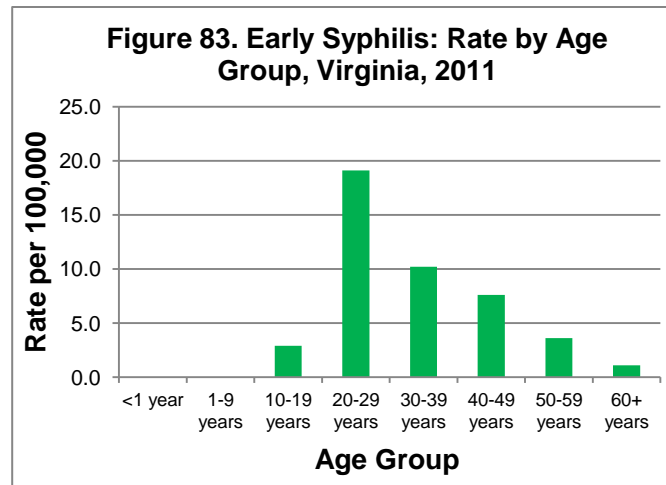
Other Important Information: Nationwide, the rate of primary and secondary syphilis is on the rise for two populations: men who have sex with men (MSM) and persons of black race.



### **Early Syphilis**

Early syphilis includes the primary and secondary stages and early latent syphilis (cases diagnosed without signs and symptoms within one year from the time of infection). There were 502 cases of early syphilis reported in Virginia during 2011 (Figure 82). This is a 9% decrease from the previous year, following annual increases across seven years. Though the most recent year showed a reduction in cases, incidence has tripled in Virginia from 2.1 to 6.3 per 100,000 since 2003. When analyzing morbidity data by date of diagnosis rather than date of report, the case count remained steady between 2010 and 2011. Nationally, the steady overall trend masks declining infections among women and increases among men.

The highest incidence rate occurred in the 20-29 year age group (19.1 per 100,000), followed by the 30-39 year age group (10.2 per 100,000) (Figure 83). No cases were reported in children less than 10 years of age. The rate in the black population (19.9 per 100,000) was over seven times the rate in the white population (2.8 per 100,000), and nearly five times the rate in the “other” race population (4.1 per 100,000). The rate in males was nearly seven times the rate in females (11.1 and 1.6 per 100,000, respectively). The male to female ratio has risen from approximately 1:1 to 7:1 over the past ten years, which is indicative of rising syphilis incidence among MSM. The eastern region leads the state in rate of infection followed by the central region (10.1 and 9.1, respectively). Since 2006, these two regions have had the highest incidence of early syphilis among all other regions.



### Congenital Syphilis

Congenital syphilis is a condition affecting an infant whose mother had untreated syphilis or inadequately treated syphilis at delivery. Diagnosis is based on serologic testing of the mother’s serum because the serologic tests performed on the infected infant serum can be nonreactive if the mother’s serologic test result is of low titer or the mother was infected late in pregnancy. One case of congenital syphilis was reported in Virginia in 2011. This is lower than the average of 2.4 cases per year over the preceding 5 years, when between one and five cases were reported each year.

### Latent Syphilis

Latent syphilis occurs when the disease goes untreated. It is diagnosed when there is no evidence that infection was acquired within the preceding 12 months. In 2011, 224 cases of latent syphilis were reported in Virginia, which is a 9% decrease from the 245 cases reported in 2010. Incidence in the black population was eight times the incidence in the white population (6.7 and 0.8 per 100,000, respectively), and the rate in males was more similar to females than in years past (3.3 and 2.3 per 100,000, respectively). The highest incidence rate was reported in the 40-49 year age group (4.5 per 100,000). Incidence rates were highest in the northern and central regions, at 4.5 and 3.1 per 100,000, respectively.