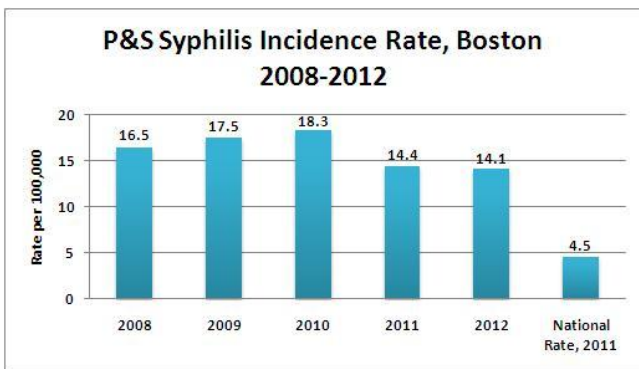


# STIs in Boston: Syphilis Brief | 2012

Syphilis is a Sexually Transmitted Infection (STI) caused by the bacterium *Treponema pallidum* and is most commonly reported among men who have sex with men (MSM) in the United States. Syphilis is usually passed from person to person through direct contact with a syphilis sore and is transmitted during vaginal, anal, or oral sex. Many people infected with syphilis remain at risk for late complications of the infection, including neurological disease and even death, if they are not treated. Pregnant women can pass syphilis to their fetus (congenital syphilis). In this report, newly acquired syphilis infections, categorized as either primary or secondary (P&S) syphilis, are used to describe syphilis transmission data within Boston. The data in this report focus largely on P&S syphilis cases, as these are the communicable stages of the disease.



### Boston Epidemiology:

In 2012, there were 243 total cases of syphilis reported in Boston, marking a 4% reduction in cases since 2011. Of these, 12% of the cases reported were primary syphilis, 24% were secondary syphilis, 64% were latent syphilis, and less than 1% were congenital. There were no neurosyphilis cases reported in 2012. The incidence rate of primary and secondary (P&S) syphilis cases in Boston was 14.1 cases per

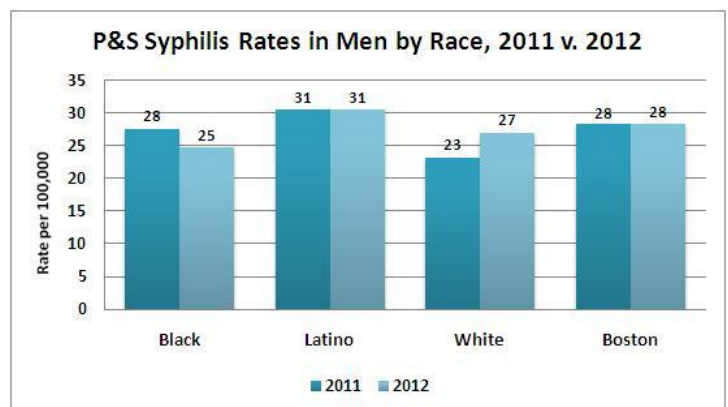
100,000 people. This rate was almost identical to the 2011 rate (14.4), but over three times the national incidence rate for P&S syphilis, according to the CDC's most recent data (2011). Males comprised the majority of P&S syphilis cases in Boston in 2012, accounting for 97% of the total P&S syphilis cases. Over 50% of cases were reported in 30-49 year olds in Boston, reflecting an older age risk group than seen with Chlamydia and gonorrhea.

### By Gender:

The incidence rate of P&S syphilis in males was 28.4 cases per 100,000 persons in 2012, remaining unchanged since 2011. This rate is 3.5 times the national rate in men (8.2 cases per 100,000 in 2011). Women accounted for 3% of the total P&S syphilis cases reported in 2012 with an incidence rate of 0.9 cases per 100,000. This marks a slight decrease in the number of women with P&S syphilis compared to 2011.

### By Race:

For analysis, race and ethnicity were combined into one category. Between 2011 and 2012, the rate of reported P&S syphilis cases decreased slightly among Black men, increased slightly among White men, and remained the same for Latino men. Latino men had the highest incidence rate (30.5 cases per 100,000) in 2012, a trend that has remained constant since 2011.



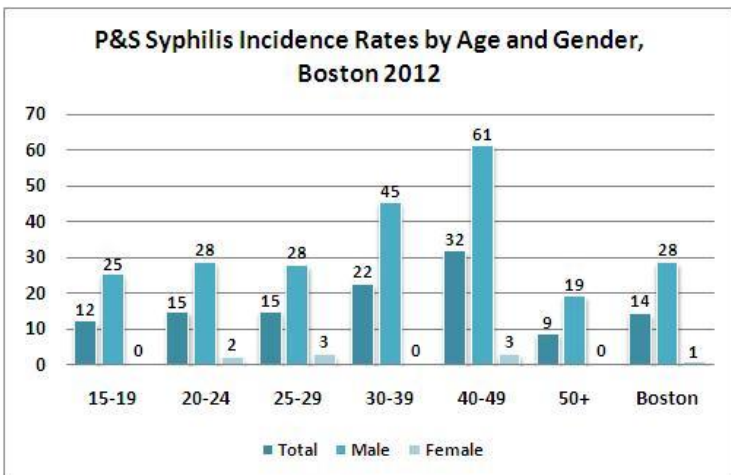
The rate for Latino men was 1.1 times the rate of White men and 1.2 times that of Black men.

In 2012, White males accounted for the largest number of reported cases (51% of total P&S syphilis cases), yet Latinos had the highest incidence rate among men. Among Black, Latino, and White women in 2012, there were fewer than five cases reported in each race category.

highest incidence rate (24.7 per 100,000) in 2012. Much of the rate increase in the South End can be attributed to a 250% rise in cases in men under the age of 40. All other neighborhoods in Boston reported incidence rates less than 20 cases per 100,000. Mattapan, Hyde Park, Roslindale and Roxbury all had slightly increased P&S syphilis rates since 2011. All other neighborhoods experienced declining or stable incidence rates. Fenway and West Roxbury had the lowest incidence rates, with 5 or fewer cases per 100,000.

MSM:

In 2012, the majority of all P&S syphilis cases in Boston (86%) were among MSMs (data not shown). This is reflective of the most recent national syphilis epidemiologic data which reported that 72% of syphilis cases in 2011 were in MSMs. Of the P&S syphilis cases who self-described as MSM, White men comprised the largest proportion compared to any other race (55% of the total MSM cases) and 52% of the MSM cases were between the ages of 30 and 49.



By Age:

From 2011 to 2012, P&S syphilis rates decreased across all age groups except those ages 15-19 and those 50 years and older. Despite the rise in cases, these age categories continue to have the lowest rates. The highest rate continues to be in 40-49 year olds (31.6 cases per 100,000). This is consistent with Boston data since 2008; however, according to the CDC's most recent national data, 20-24 year olds had the highest rates in 2011.

By Neighborhood:

The neighborhood with the highest incidence rate of P&S syphilis was the South End, with 44.3 cases per 100,000. This marks a 25% increase since 2011. The rate is 1.8 times that of East Boston, which experienced the second

Summary:

P&S syphilis has decreased in Boston since 2011, as has the overall syphilis rate. Increased awareness, screening, and prompt treatment may explain this trend. Older men continue to report the highest incidence rate; men over 30 comprise 63% of the total P&S syphilis cases reported in 2012. Syphilis was more common among MSM. Rates in women have continued to remain low with an incidence rate under 5 cases per 100,000.

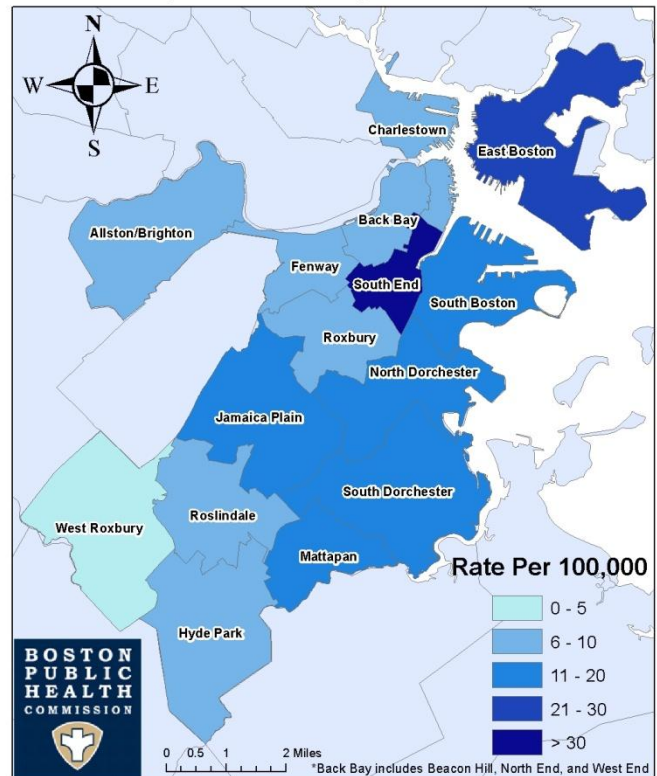
Future Direction:

While the incidence of P&S syphilis is the lowest of the reportable sexually transmitted infections (STI) in Boston, syphilis remains a major concern among high risk groups such as MSM. Additionally, the risk of acquiring HIV and other STIs is higher in those with syphilis. This places added emphasis on early detection and treatment of syphilis cases and their partners. Continued support of initiatives to promote safer sex will be imperative to decrease the number of syphilis cases in Boston in 2013.

Data:

Data for this report were collected by the Massachusetts Department of Public Health and were cleaned and analyzed by the Boston Public Health Commission.

**2012 Primary and Secondary Syphilis Rates by Boston Neighborhood**



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