Gonorrhea is the second most commonly reported sexually transmitted infection (STI) and one of the top five most commonly reported communicable diseases in Boston. There were over 450,000 cases of gonorrhea reported in the US in 2016 (Centers for Disease Control & Prevention, CDC).

**Boston Epidemiology:**
In 2016, there were 652 cases of gonorrhea reported in Boston (106 cases per 100,000), an 11% decrease from 2015. The 2016 citywide rate was lower than the national rate (106 vs. 146 cases per 100,000).

**High Risk Groups:**
Rates were particularly high in men of color ages 20-29 living in South Dorchester, North Dorchester, Hyde Park, and Mattapan.

Unlike chlamydia, where rates are higher in women, men accounted for 71% of reported gonorrhea cases in Boston (stable from 2015). While rates remained highest in men, rates decreased by 11% in both men and women from 2015 to 2016.

For race/ethnicity analyses, Latino ethnicity is considered alongside Asian, Black/African-American, and White racial groups. Despite a 16% decrease in cases from 2015 to 2016, Black residents still had the highest gonorrhea rate with 198 cases per 100,000 in 2016. This rate was 4 times as high as that of White residents (48 per 100,000). Latino residents had a rate (90 per 100,000) almost 2 times as high as that of White residents. Gonorrhea rates were lowest in Asian residents (29 per 100,000).

Rates decreased across all races/ethnicities analyzed from 2015 to 2016 except for Asians, who saw a 33% increase, although overall case counts in this group remain low.

Disparities by race were more pronounced in 15-29 olds; the rates in Black and Latino residents (479 and 201 per 100,000, respectively) were 10 and 4 times that of White residents (48 per 100,000) in this age group, respectively.
Gonorrhea rates were highest in residents 15-29 years old, with 57% of all cases occurring in this age group (174 cases per 100,000). However, there was an 18% decrease in this age group from 2015 to 2016.

White residents were diagnosed at a substantially older age than other races/ethnicities (median age at diagnosis in years: White=34, Black=29, and Latino=20). The median age at diagnosis for men was 7 years older than the median age for women (30 vs. 23, respectively).

Geographically, the overall incidence rate was highest in North Dorchester (188 cases per 100,000). The South End and Roxbury also had rates above 160 cases per 100,000 (183 and 165 cases per 100,000, respectively). Other neighborhoods with rates exceeding the city-wide rate include: Mattapan and South Dorchester (both with rates of 145 cases per 100,000); and Hyde Park and Jamaica Plain (123 and 116 cases per 100,000, respectively).

Map 1 shows rates by neighborhood. Mattapan and South Dorchester had rates higher than 500 cases per 100,000 in all residents 15-29 years old (Map 2).

Repeat infections are, like chlamydia, a common problem with gonorrhea. 4.5% of cases were diagnosed more than once in 2016. 19.1% of all people diagnosed with gonorrhea in 2016 were found to be co-infected with chlamydia at time of diagnosis.
Future Directions:
While the rate of chlamydia infection in Boston is almost six times as high as the rate of gonorrhea, the high gonorrhea rate is of particular concern considering the rise in antibiotic resistant gonorrhea nationwide. Populations at high risk for gonorrhea are not necessarily the same populations at high risk for chlamydia, indicating that outreach methods need to vary. Early detection and treatment of gonorrhea cases and their partners as well as initiatives to promote safer sex are important to decrease the number of gonorrhea cases.

Data:
Data for this report were collected and analyzed by BPHC.

Gonorrhea data from 2008 to 2015 are available online at [http://bphc.org/healthdata/other-reports/Pages/Other-Reports.aspx](http://bphc.org/healthdata/other-reports/Pages/Other-Reports.aspx). Please note: Due to a change in the gonorrhea data source in 2014, BPHC cautions against drawing comparisons of data analyzed prior to the change (2013 and prior) to data analyzed after the change (2014 to present).

Additional information about gonorrhea in Boston can be obtained by emailing infectiousdisease@bphc.org or by calling the BPHC Infectious Disease Bureau at (617) 534-5611.