



**Department
of Health**

**AIDS
Institute**

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Chlamydia Diagnoses among Adolescents in New York State School Districts,* 2015-2017

**Bureau of Sexual Health and Epidemiology
Division of Epidemiology, Evaluation, and Partner Services
AIDS Institute
New York State Department of Health (NYSDOH)**

*Excludes New York City

Chlamydia Diagnoses in New York State* School Districts

Introduction

Chlamydia is a sexually transmitted infection (STI) caused by the bacterium *Chlamydia trachomatis*. It is the most common notifiable infection in the United States. Transmission occurs through condomless vaginal, oral, and anal sex. Chlamydia is known as a “silent infection” because most people who are infected have no outward symptoms. Untreated chlamydial infections may lead to pelvic inflammatory disease (PID) in females. PID can cause scar tissue and abscesses to form, increasing the risk of infertility, miscarriage, and ectopic pregnancy. Chlamydia can also increase the likelihood of contracting other STIs, including HIV.

Chlamydia rates are highest among sexually active young people, with nearly two-thirds of new chlamydia infections occurring among youth aged 15-24 years. This is due to a variety of factors including condom use patterns, increased susceptibility to cervical infection in young women, and low rates of screening in this age group.

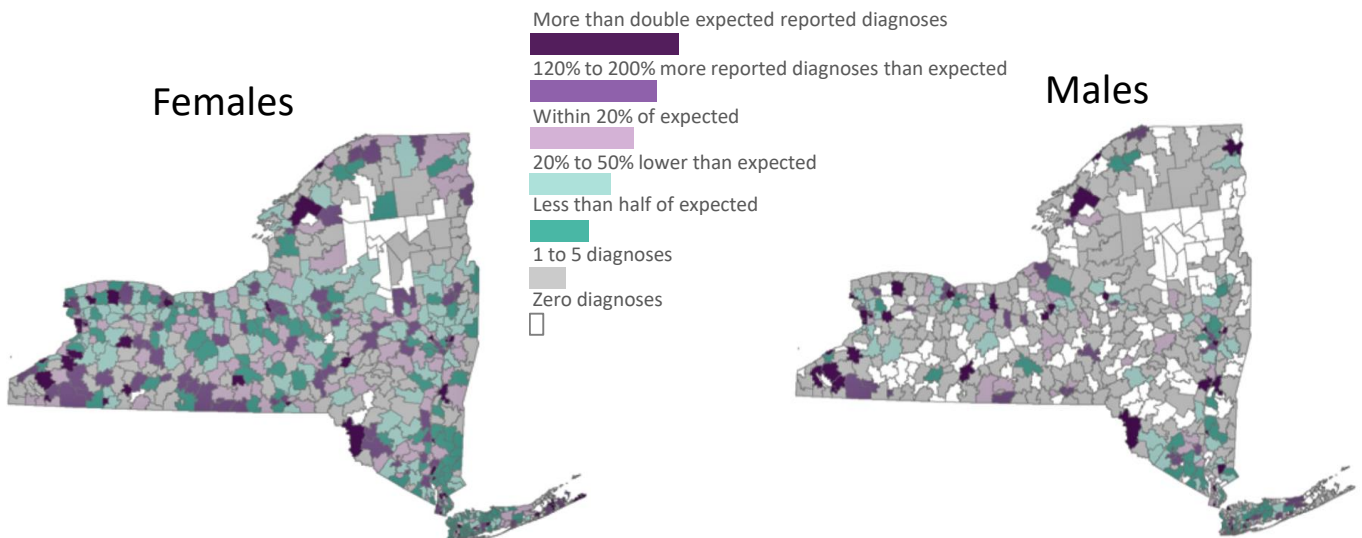
The following maps provide a comparative view of chlamydia diagnoses in school districts, among adolescents aged 10-19 years, relative to reported chlamydia diagnoses in New York State, excluding New York City, during 2015 to 2017.

Summary of Findings

Chlamydia diagnoses among adolescents aged 10-19 from 2015 to 2017 vary by school district across New York State. School districts with higher than expected diagnoses may reflect better screening, rather than higher morbidity. As chlamydia infections are often asymptomatic, detection frequently relies on screening. Data on screening are not readily available, and thus are not included in this report. Therefore, while this methodology provides one mechanism to examine the burden of chlamydia among adolescents, other [measures](#) should be incorporated when determining the most appropriate public health response (for example, the [New York State Community Health Indicators Reports](#), and the [New York State Prevention Agenda](#)).

Compared to a previous iteration of this report that focused solely on adolescent females, this report combines diagnoses among males and females. As mentioned, the CDC recommends screening sexually active females under the age of 25; no similar screening recommendation exists for males though the [CDC recommends](#) considering screening sexually active young males in high prevalence clinical settings or populations. The methodology utilized in this report was applied to sex-specific data to develop the maps below. The sex-specific maps differ from each other, and from the overall map highlighted on page 4. As interventions *may* differ by sex, these maps can additionally be utilized to inform public health programming, intervention(s), and policy.

Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017, by sex:



*Excludes New York City

Chlamydia Diagnoses in New York State* School Districts

Methods

All new chlamydia diagnoses between 2015 and 2017 aged 10 to 19 who lived in New York State* were included in this report. New chlamydia diagnoses were reported by laboratories and health care providers to the New York State Department of Health, as required by public health law. The street address of the individual was used to determine the school district to which each individual was assigned, by comparing the geographic coordinates of the street address to the maps of the specific school districts. As a result, the school district was determined based on the residence of the individual, not actual school attendance. The geographic boundaries of all Unified School Districts and Secondary School Districts for the 2015-2016 school year were obtained from the [National Center for Education Statistics and US Census Bureau](#). These geographic areas are updated yearly based on information provided by the State Education Department. Individuals for whom the geographic coordinates were unknown were assigned to school districts based on other factors, such as zip code.

The number of residents aged 10 to 19 years living within the boundaries of each school district between 2012 and 2016 were collected from the [National Center for Education Statistics and US Census Bureau](#). These population data relate to the residents of the geographic area, regardless of actual school attendance. For example, individuals who are 19 years of age are included even if they have already graduated from high school.

The number of expected chlamydia diagnoses in each school district was calculated based on the number of individuals aged 10 to 19 years that live in the school district, and the proportion of all individuals aged 10 to 19 in New York who are diagnosed with chlamydia per year. The proportion of all individuals aged 10 to 19 in New York State* who were diagnosed with chlamydia per year was the incidence rate. The incidence rate multiplied by the relevant population of the school district provided the number of expected chlamydia diagnoses. Since the incidence rate of chlamydia varies by age, this calculation was done separately for the age groups 10-14, 15-17, and 18-19 years, then the expected number in each of these age groups was combined to determine the total expected number of cases.

The comparisons shown in the maps and charts are a comparison of the actual number of individuals aged 10 to 19 years that were diagnosed with chlamydia in the school district (observed) relative to the number expected. The observed number is divided by the expected number, then multiplied by 100, to develop a percentage ratio of the observed to expected chlamydia diagnoses. A ratio with a value under 100% indicates there were fewer individuals diagnosed with chlamydia than expected when compared to the state rate. A ratio greater than 100% indicates more diagnoses.

For confidentiality reasons, the number of observed and expected diagnoses is not provided for geographic areas with fewer than six reported chlamydia diagnoses from 2015-2017.

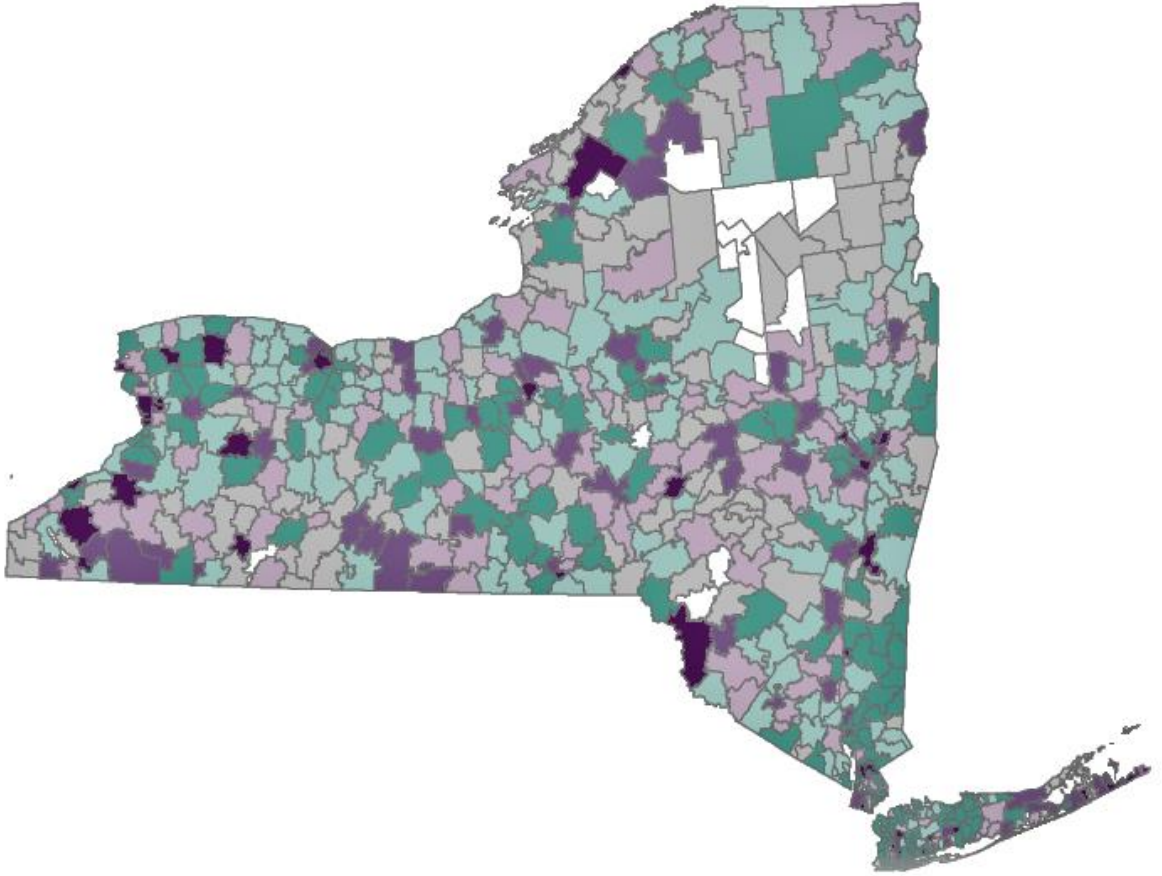
Limitations

These analyses rely on diagnoses reported to the New York State Department of Health, primarily via mandated electronic laboratory reporting system. It is believed that many people may have a chlamydia infection without symptoms. Geographic areas with poorer screening will appear to have lower rates of chlamydia diagnoses, but in fact this would be due to more individuals having undiagnosed infection.

Another limitation of the reported data on chlamydia is related to the geographic location to which individuals are ascribed. As mentioned above, living within the school district geographic boundaries does not mean an individual necessarily attends school in that district.

Chlamydia Diagnoses in New York State* School Districts

Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017



72.6% of New Yorkers support condom availability in High Schools

27,000 New York teens aged 15 to 19 are diagnosed with chlamydia each year

48.6% of high school students report having sexual intercourse by 12th grade

More than double expected reported diagnoses

120% to 200% more reported diagnoses than expected

Within 20% of expected number of diagnoses

20% to 50% lower than expected

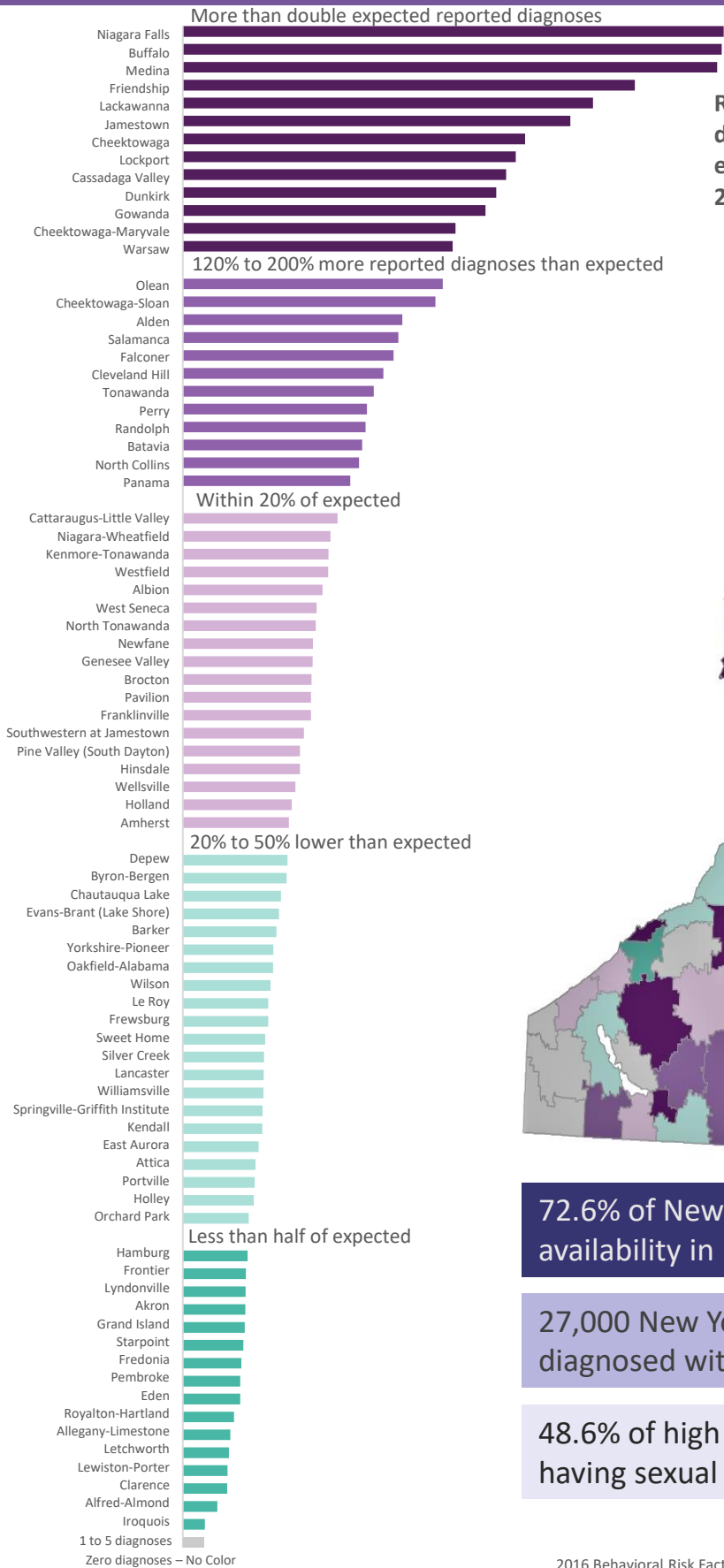
Less than half of expected

1 to 5 diagnoses

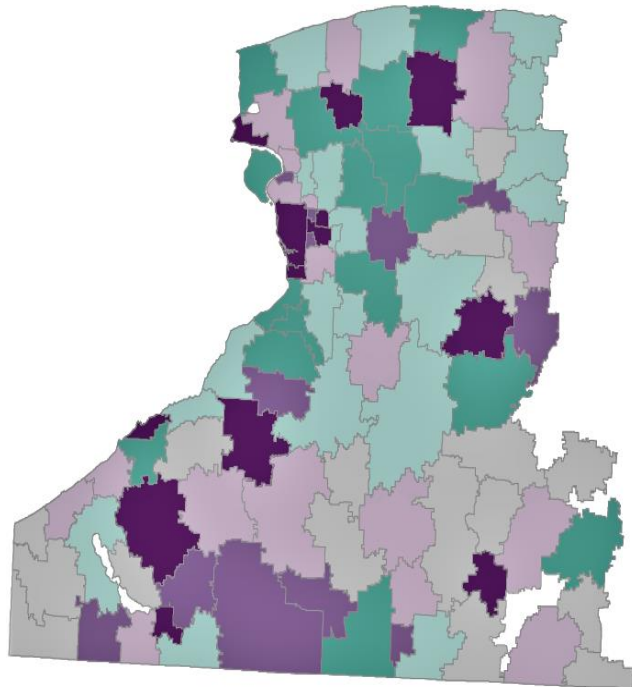
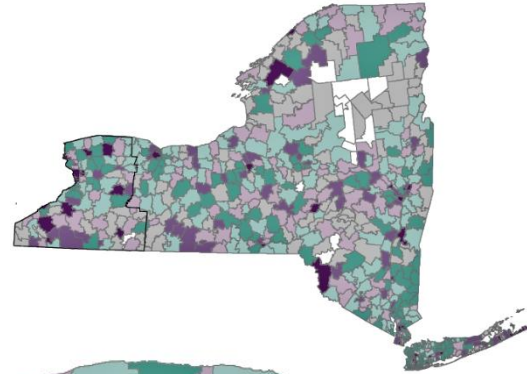
Zero diagnoses



Chlamydia Diagnoses in Buffalo Region School Districts



Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017

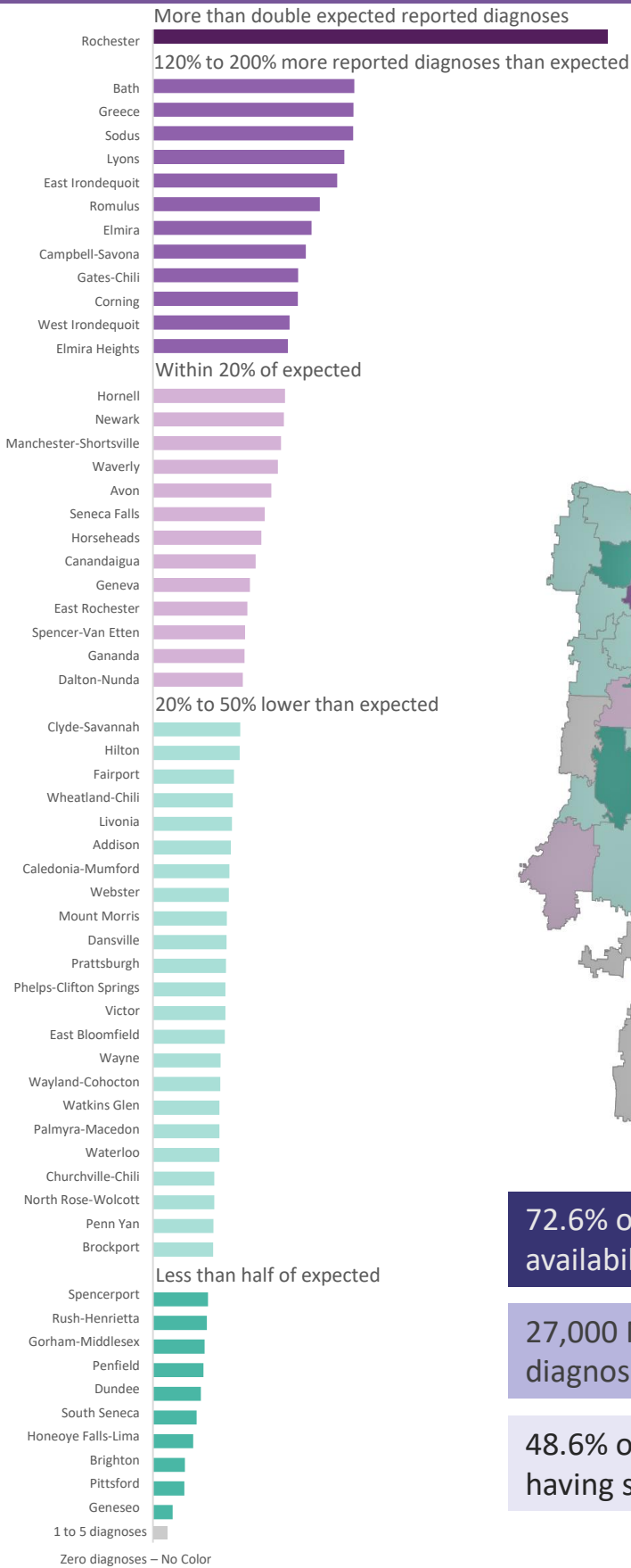


72.6% of New Yorkers support condom availability in High Schools

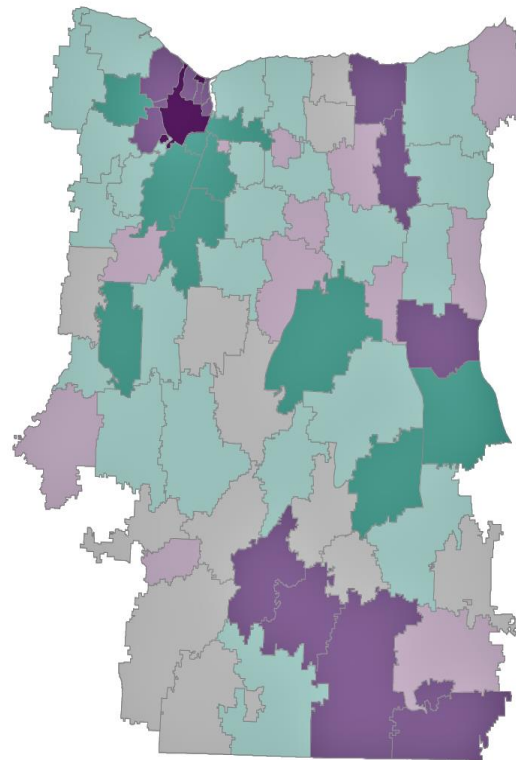
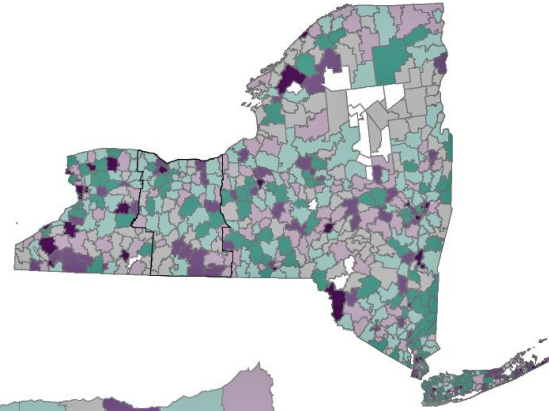
27,000 New York teens aged 15 to 19 are diagnosed with chlamydia each year

48.6% of high school students report having sexual intercourse by 12th grade

Chlamydia Diagnoses in Rochester Region School Districts



Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017



72.6% of New Yorkers support condom availability in High Schools

27,000 New York teens aged 15 to 19 are diagnosed with chlamydia each year

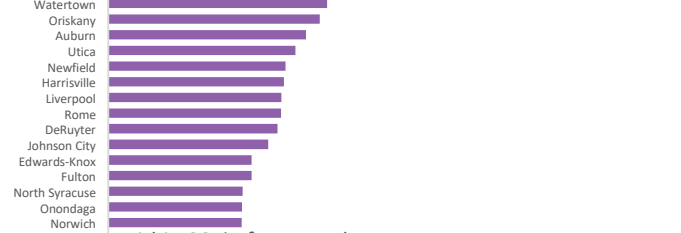
48.6% of high school students report having sexual intercourse by 12th grade

Chlamydia Diagnoses in Central Region School Districts

More than double expected reported diagnoses



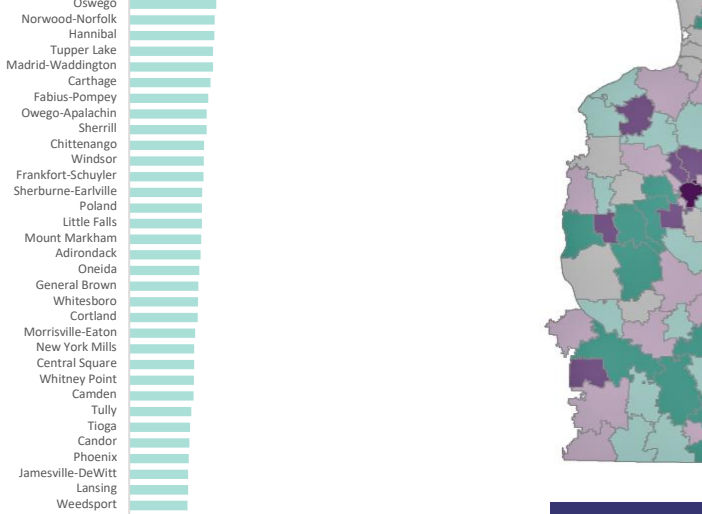
120% to 200% more reported diagnoses than expected



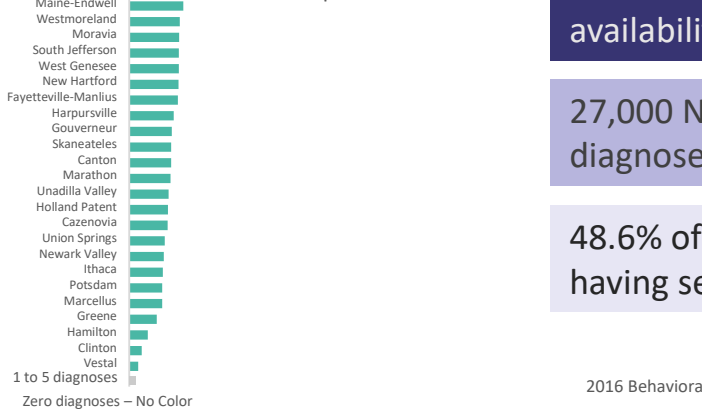
Within 20% of expected



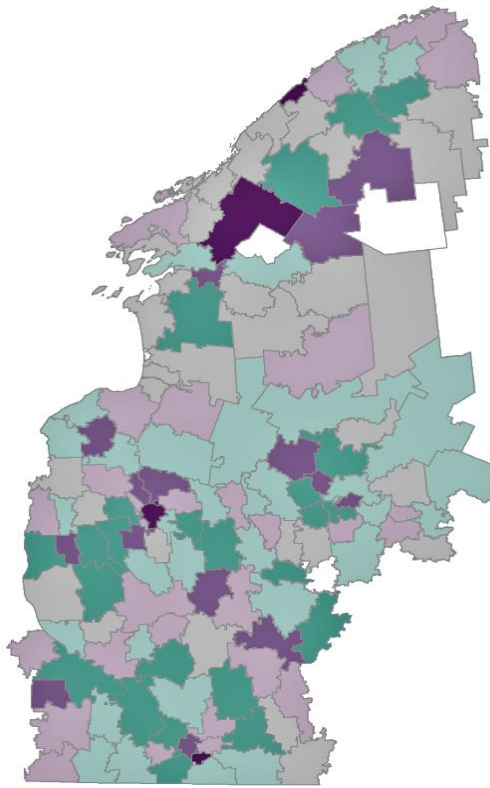
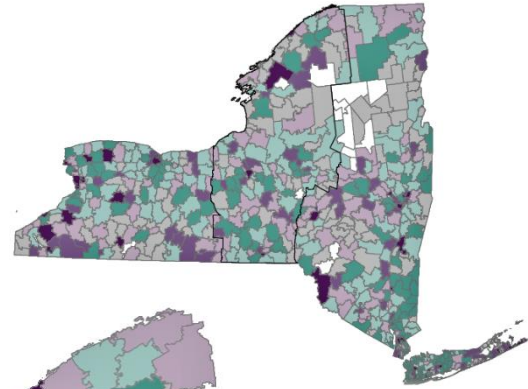
20% to 50% lower than expected



Less than half of expected



Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017

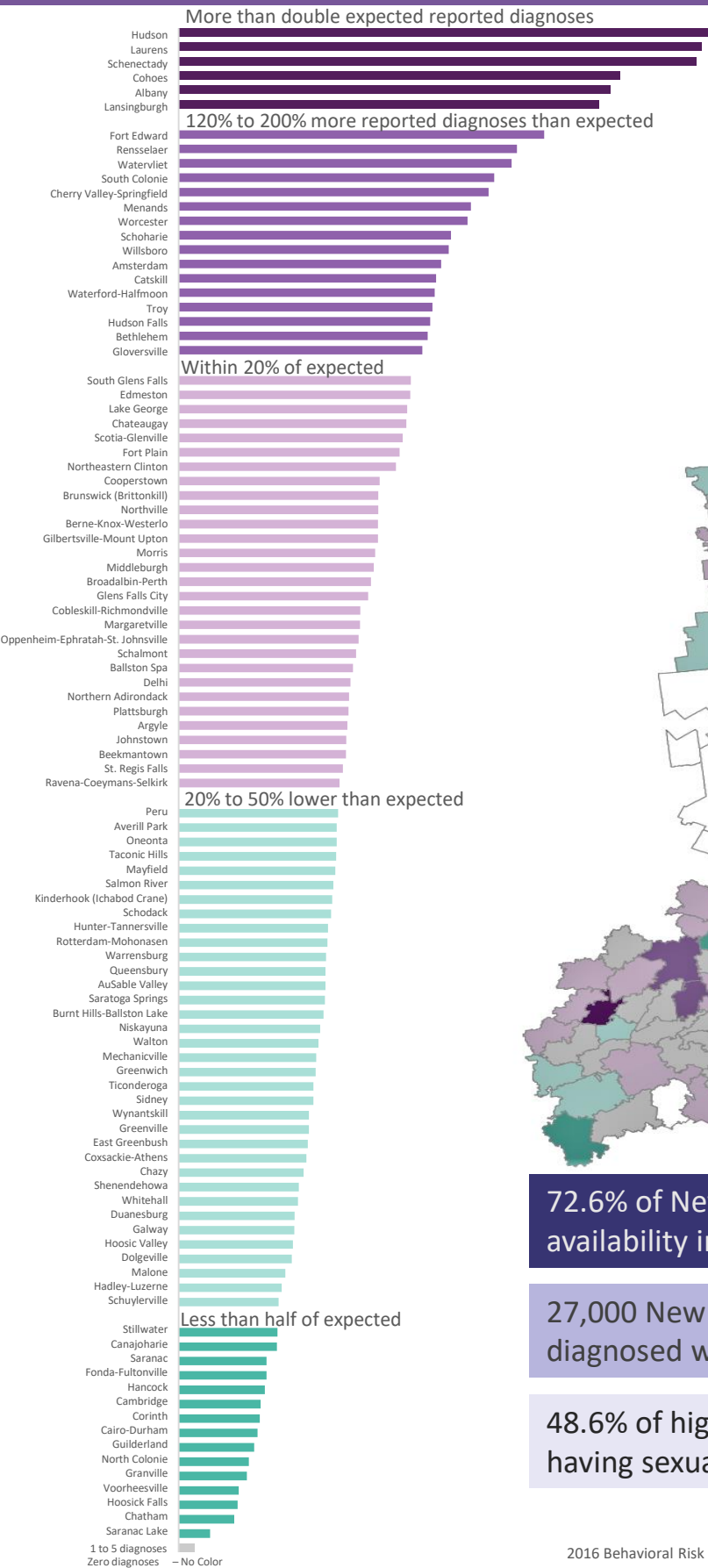


72.6% of New Yorkers support condom availability in High Schools

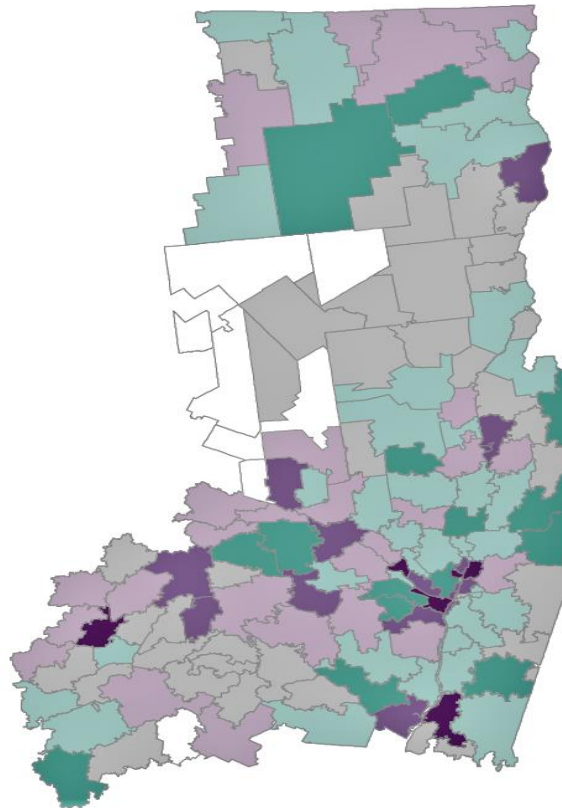
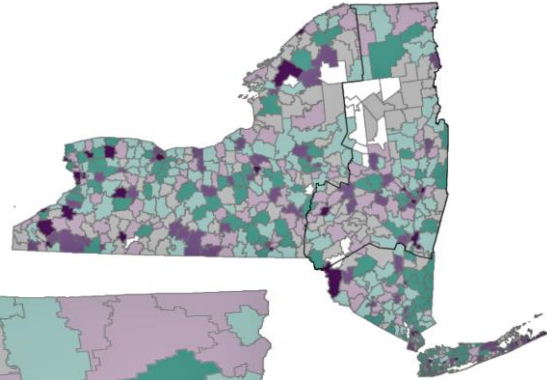
27,000 New York teens aged 15 to 19 are diagnosed with chlamydia each year

48.6% of high school students report having sexual intercourse by 12th grade

Chlamydia Diagnoses in Capital Region School Districts



Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017

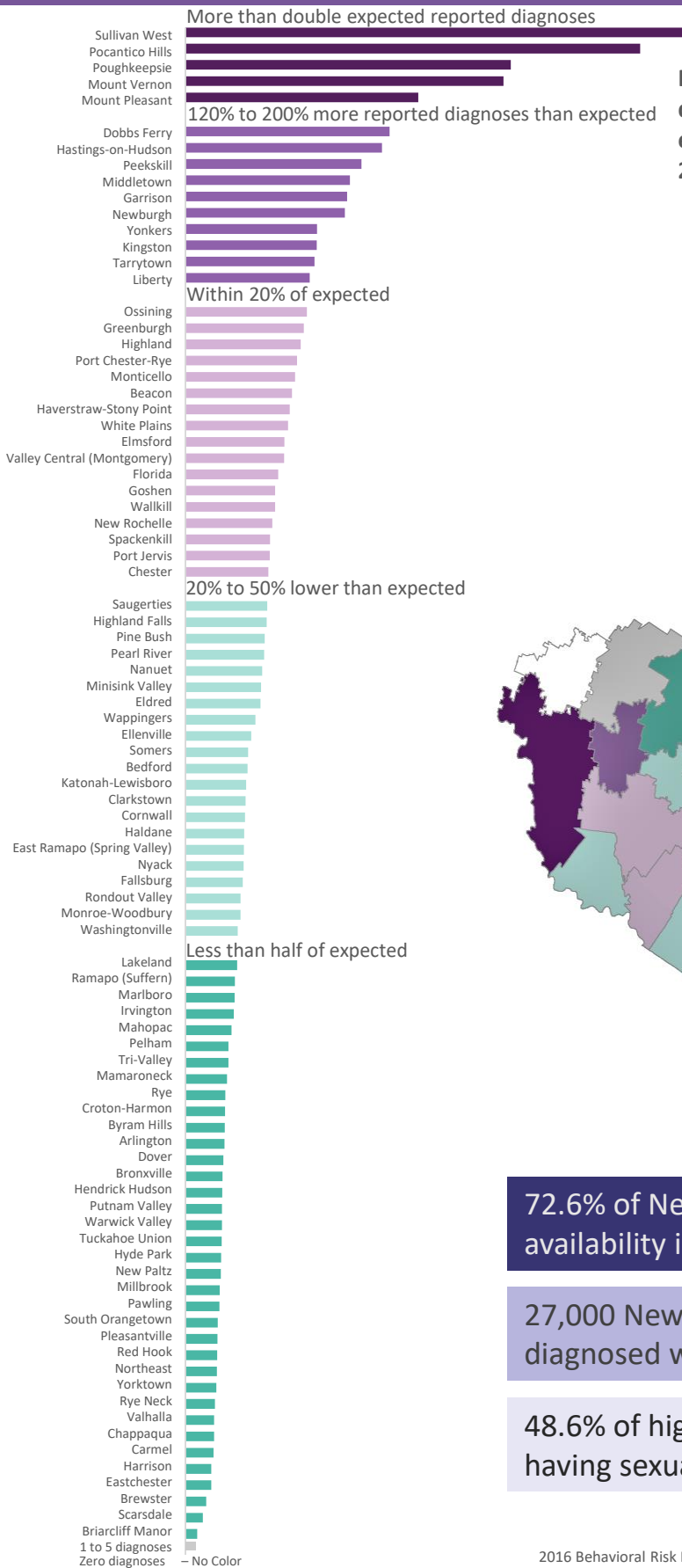


72.6% of New Yorkers support condom availability in High Schools

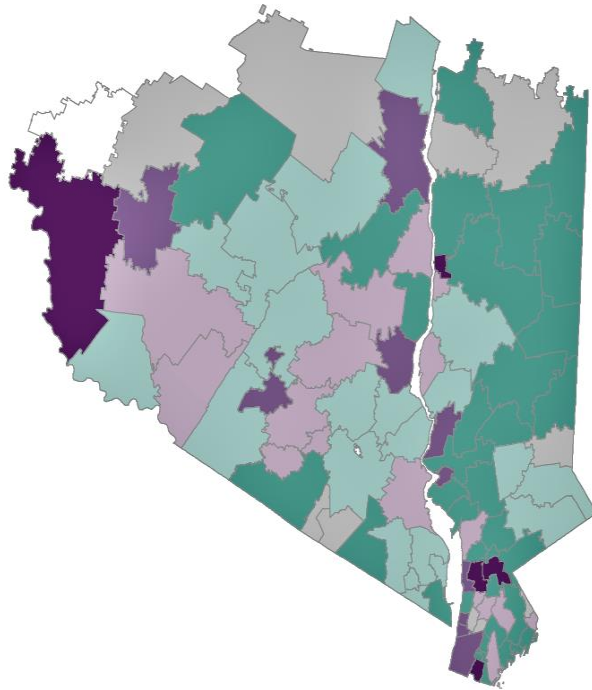
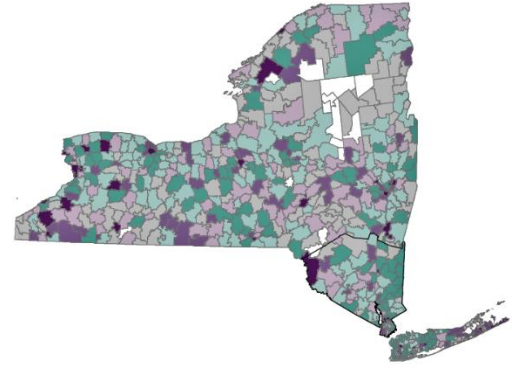
27,000 New York teens aged 15 to 19 are diagnosed with chlamydia each year

48.6% of high school students report having sexual intercourse by 12th grade

Chlamydia Diagnoses in Hudson Valley Region School Districts



Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017

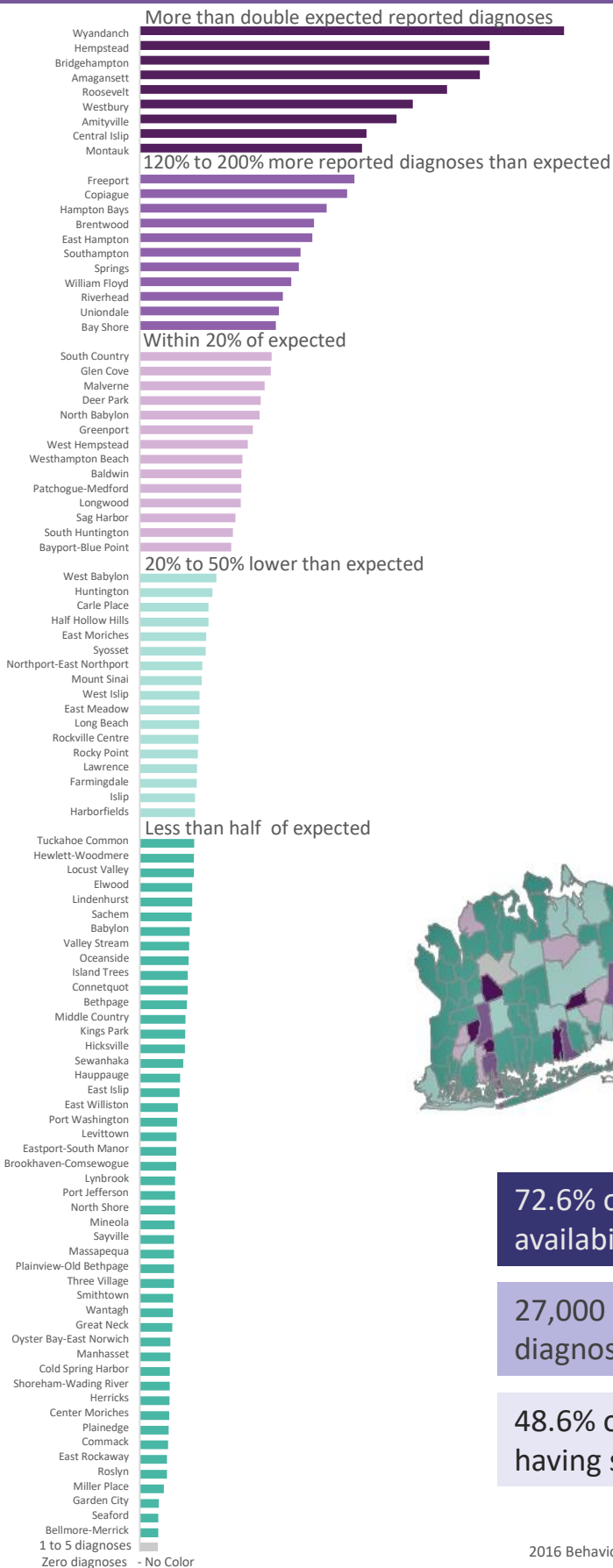


72.6% of New Yorkers support condom availability in High Schools

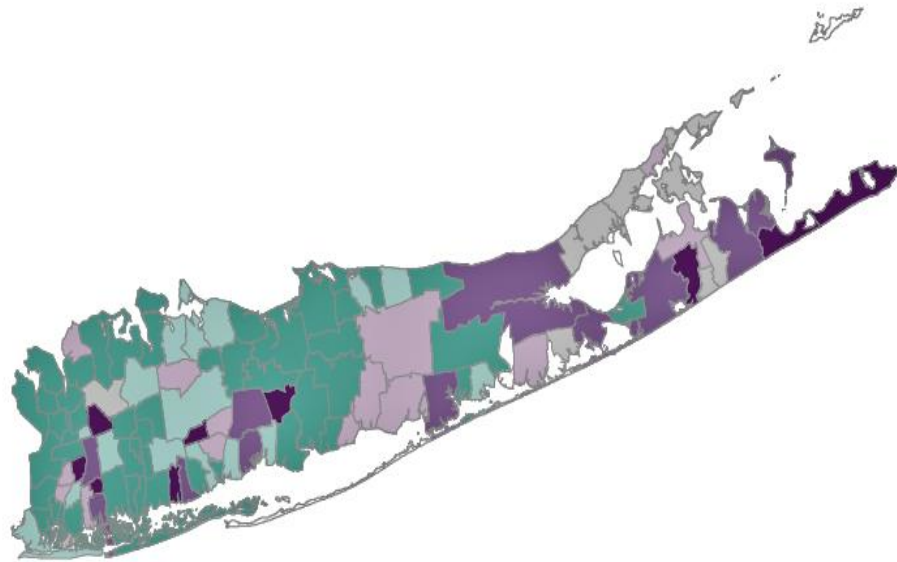
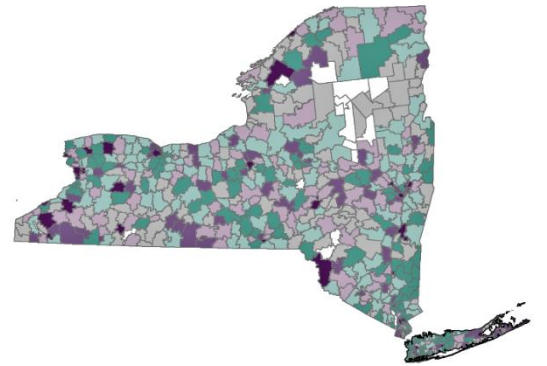
27,000 New York teens aged 15 to 19 are diagnosed with chlamydia each year

48.6% of high school students report having sexual intercourse by 12th grade

Chlamydia Diagnoses in Long Island Region School Districts



Ratio of observed to expected chlamydia diagnoses in New York State school districts, excluding New York City, aged 10 to 19 years, 2015-2017



72.6% of New Yorkers support condom availability in High Schools

27,000 New York teens aged 15 to 19 are diagnosed with chlamydia each year

48.6% of high school students report having sexual intercourse by 12th grade

Chlamydia Diagnoses in New York State* School Districts

Inquiries regarding this report should be directed to:

New York State Department of Health
Bureau of Sexual Health and Epidemiology
Surveillance and Special Projects Unit
ESP, Corning Tower, Rm. 542
Albany, NY 12237
(518) 474-3598
stdc@health.ny.gov

For more information about New York State STI statistics, visit the following website:

<https://www.health.ny.gov/statistics/diseases/communicable/std/>

Suggested citation:

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*Excludes New York City