



# Westchester County Department of Health

2016.02



@wchealthdept  
#keephealthy

## Community Health Assessment Data Update

KEEP  
HEALTHY  
AND  
GET  
THE STATS

### Sexually Transmitted Infections (STIs), 2010-2014

#### In this issue:

- Overview of total STI morbidity in Westchester County
- Chlamydia
- Gonorrhea
- Syphilis
- STI risk factors
- STI testing and treatment in Westchester County DOH clinics and other publicly funded health clinics
- HIV/AIDS

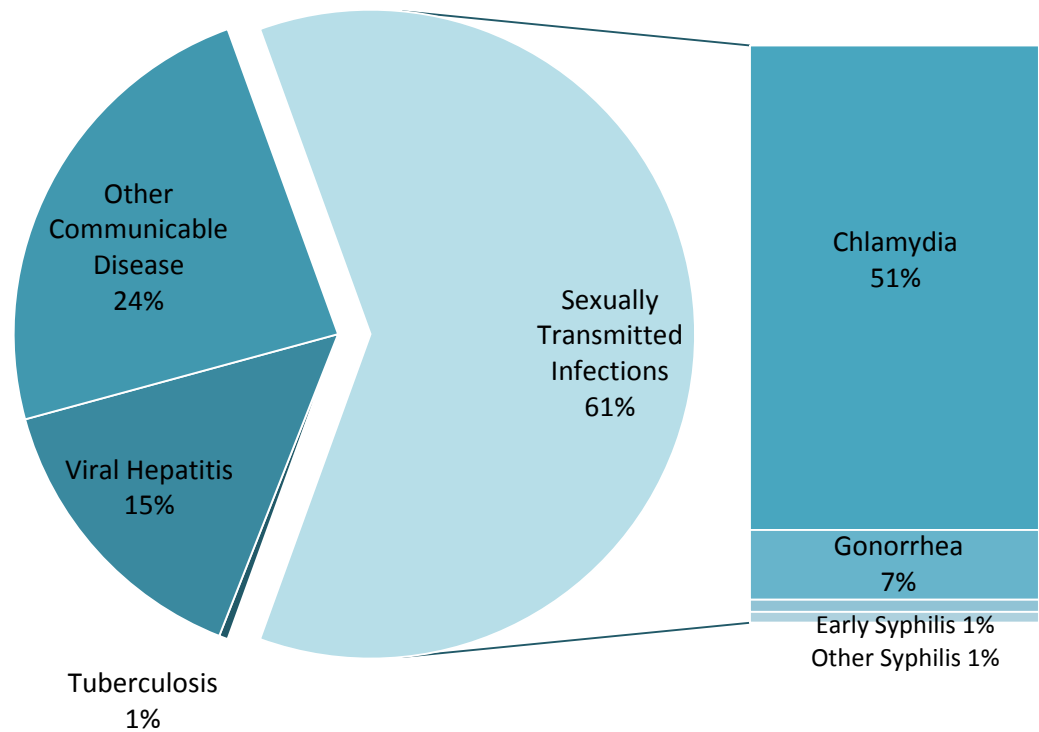
Jiali Li, Ph.D. Director of  
Research & Evaluation  
Planning & Evaluation

Renee Recchia, MPH  
Acting Deputy Commissioner  
of Administration

#### Project Staff:

Bonnie Lam, MPH  
Medical Data Analyst

#### Reported Communicable Diseases\*, Westchester County, 2014



Sexually Transmitted Infections (STIs) made up **more than 60% of all reported communicable diseases** in Westchester County in 2014,

\*not including influenza and HIV/AIDS.

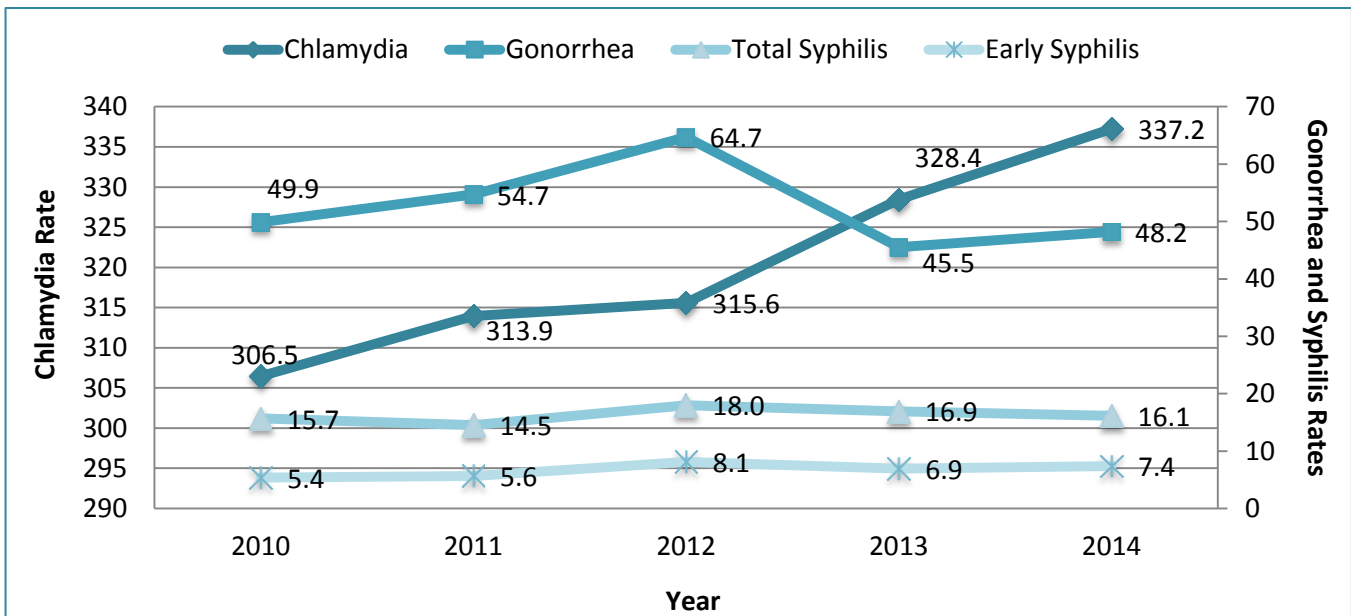
# Overview

- In 2014, Sexually Transmitted Infections (STIs) accounted for 61% of all communicable disease reports (exclusive of influenza and HIV/AIDS) in Westchester.
- This report focuses on the top three reported STIs - chlamydia, gonorrhea, and syphilis – particularly on the most infectious primary, secondary, and early latent stages of early syphilis.
- While gonorrhea and early syphilis rates have remained flat over the 5 year period, chlamydia in Westchester County continues to rise.

**Number and Rate (per 100,000) of Reported Chlamydia, Gonorrhea, and Early Syphilis Cases, Westchester County, 2010-2014**

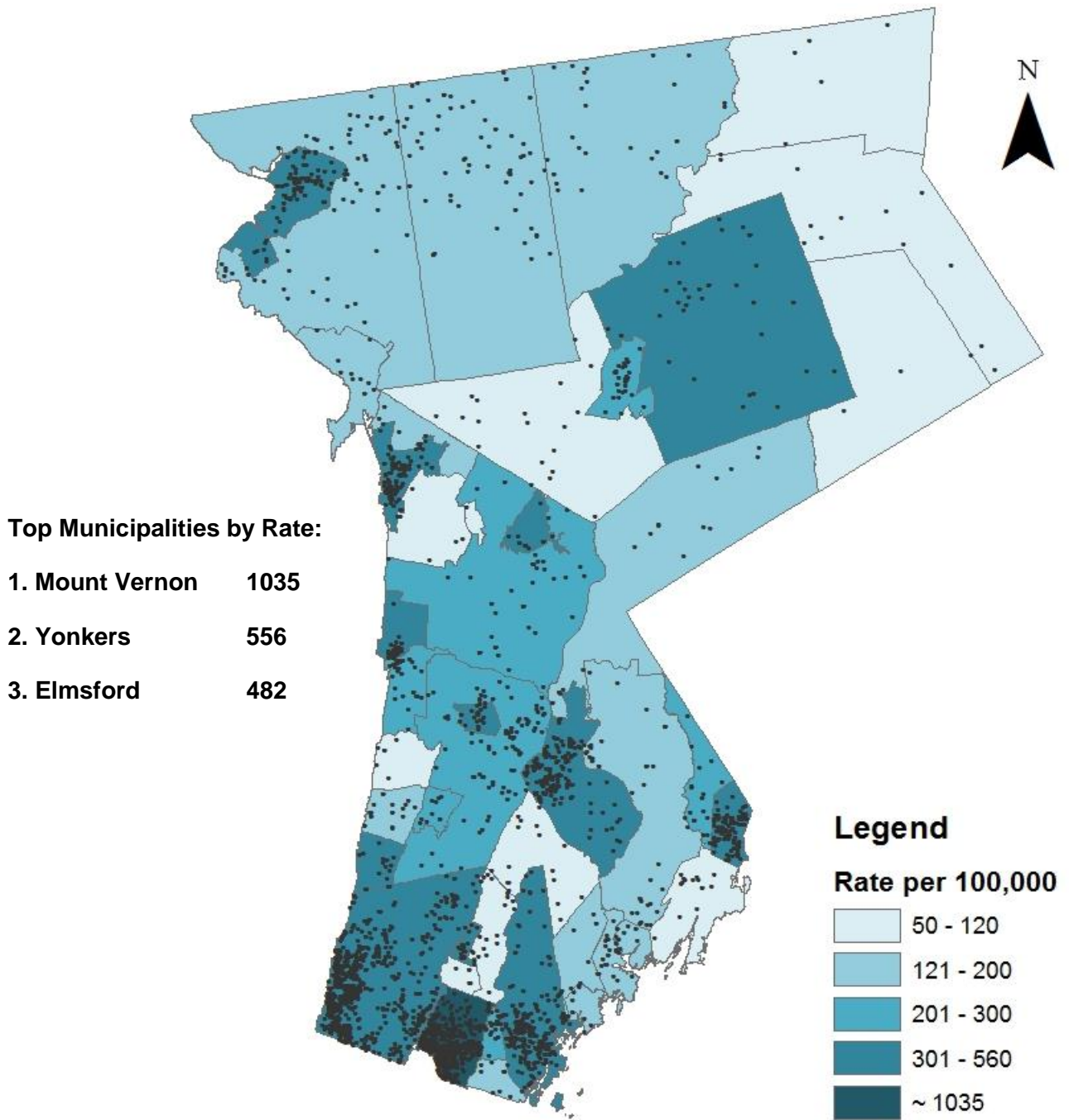
	2010		2011		2012		2013		2014		5-year average	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
<b>Chlamydia</b>	2913	306.5	3001	313.9	3035	315.6	3182	328.4	3280	337.2	3082.2	320.3
<b>Gonorrhea</b>	474	49.9	523	54.7	622	64.7	441	45.5	469	48.2	505.8	52.6
<b>Syphilis</b>	149	15.7	139	14.5	173	18.0	164	16.9	157	16.1	156.4	16.2
<b>Early Syphilis</b>	51	5.4	54	5.6	78	8.1	67	6.9	72	7.4	64.4	6.7

**Reported Chlamydia, Gonorrhea, and Early Syphilis Rates (per 100,000), Westchester County, 2010-2014**



# Overview

Total Reported STI Cases and Rates (per 100,000) by Municipality, Westchester County, 2014

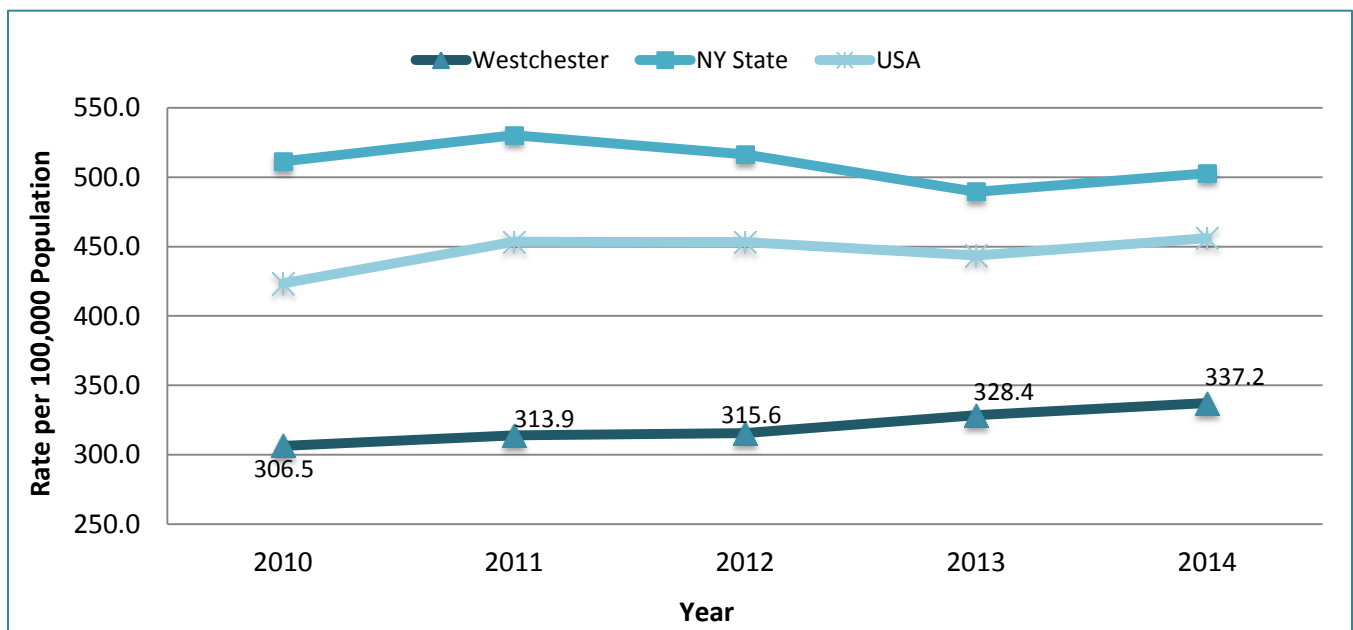


# Chlamydia

Chlamydia is a common sexually transmitted infection (STI) caused by bacteria called *Chlamydia trachomatis*. It affects both men and women, causing infections in the genitals, rectum, and throat. With testing and identification, it can be cured with the right treatment. If left untreated, chlamydia can cause serious reproductive problems, make it difficult for a woman to get pregnant, or be passed to infants during childbirth.

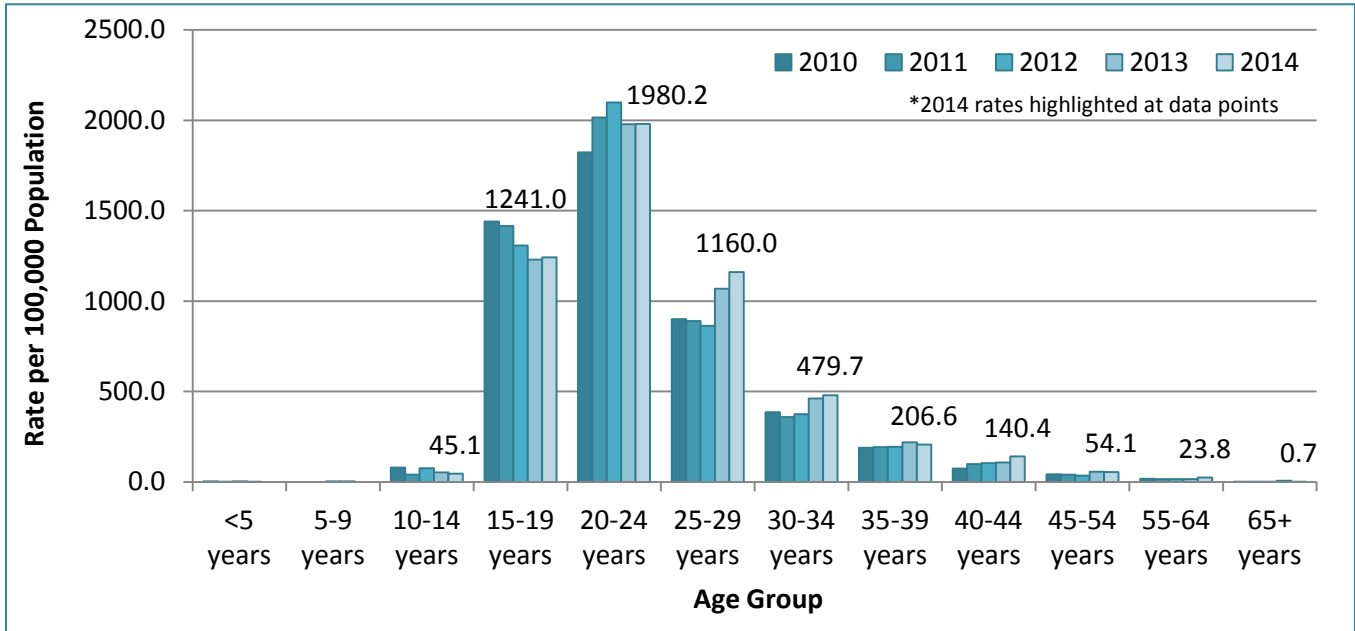
- In Westchester County, the 2014 chlamydia rate was 337.2 per 100,000 population; it has steadily increased over the 5-year period.
- Despite an increase, chlamydia rates in Westchester County remain lower than NY and US rates.
- In 2014, chlamydia rates among females were 2776.0 and 2048.2 per 100,000 population among those aged 20-24 years and 15-19 years, respectively.
- The higher rate of chlamydia among women compared to men mostly reflects the fact that women are far more likely to be screened than men.
- The chlamydia rate for Non-Hispanic Blacks (322.3 per 100,000 population) in 2014 was slightly higher than the rate in Hispanics (281.9 per 100,000 population), and 15 times higher than the rate in Non-Hispanic Whites (21.2 per 100,000 population).

Reported Chlamydia Rates (per 100,000) in Westchester County, New York State, and United States, 2010-2014

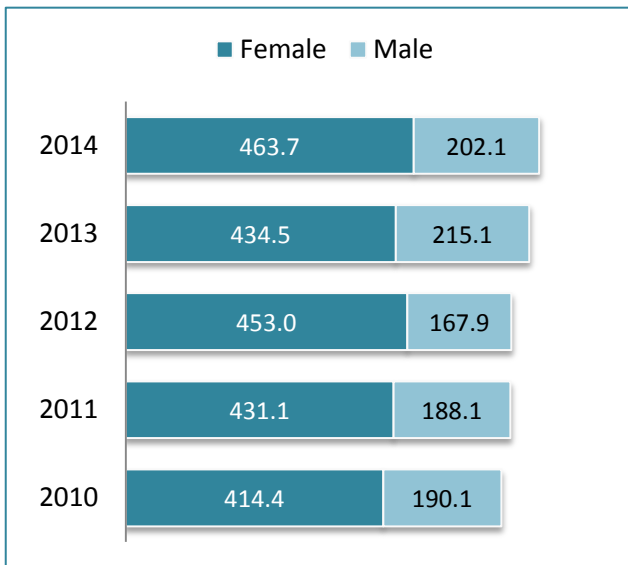


# Chlamydia

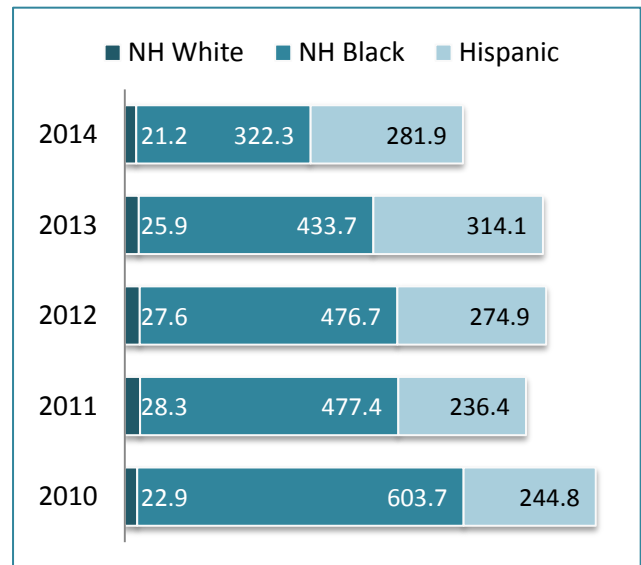
Reported Chlamydia Rates (per 100,000) by Age Group, Westchester County, 2010-2014



Reported Chlamydia Rates by Sex, Westchester County, 2010-2014

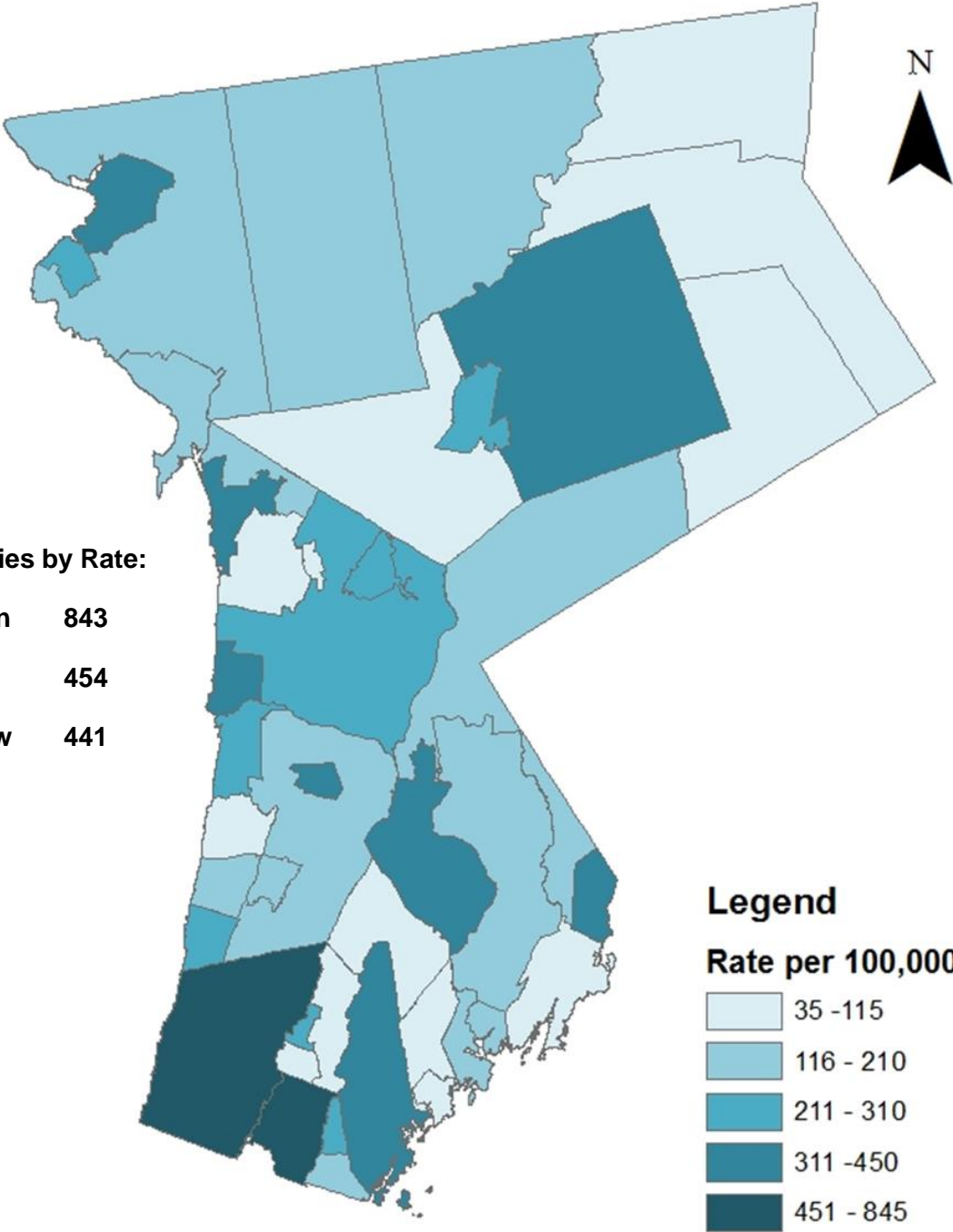


Reported Chlamydia Rates by Race/Ethnicity, Westchester County, 2010-2014



# Chlamydia

Reported Chlamydia Rates (per 100,000) by Municipality, Westchester County, 2014



# Chlamydia

Number, Percentage, and Rate (per 100,000) of Reported Chlamydia Cases  
by Selected Characteristics, Westchester County, 2010-2014

	2010			2011			2012		
	No.	(%)	Rate*	No.	(%)	Rate*	No.	(%)	Rate*
<b>Gender</b>									
Male	870	29.9%	190.1	867	28.9%	188.1	778	25.6%	167.9
Female	2043	70.1%	414.4	2134	71.1%	431.1	2257	74.4%	453.0
<b>Age Group (Years)</b>									
<5 years	2	0.1%	3.5	1	0.0%	1.8	2	0.1%	3.6
5-19 years	991	34.0%	510.3	973	32.4%	499.7	936	30.8%	478.3
20-24 years	984	33.8%	1822.3	1083	36.1%	2015.2	1163	38.3%	2099.0
25-29 years	476	16.3%	900.9	475	15.8%	889.7	466	15.4%	862.6
30-49 years	423	14.5%	160.2	425	14.2%	161.9	426	14.0%	164.3
50+ years	36	1.2%	11.0	44	1.5%	13.1	42	1.4%	12.3
Unknown Age	1	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
<b>Race/Ethnicity</b>									
Non-Hispanic White	125	4.3%	22.9	153	5.1%	28.3	149	4.9%	27.6
Non-Hispanic Black	751	25.8%	603.7	605	20.2%	477.4	614	20.2%	476.7
Hispanic	510	17.5%	244.8	506	16.9%	236.4	604	19.9%	274.9
NH Asian/Pacific Is	10	0.3%	20.0	10	0.3%	19.0	6	0.2%	11.5
NH Multi/Other/Unk	1517	52.1%	n/a	1727	57.5%	n/a	1662	54.8%	n/a
<b>Total</b>	<b>2913</b>			<b>3001</b>			<b>3035</b>		

	2013			2014		
	No.	(%)	Rate*	No.	(%)	Rate*
<b>Gender</b>						
Male	1007	31.6%	215.1	950	29.0%	202.1
Female	2175	68.4%	434.5	2330	71.0%	463.7
<b>Age Group (Years)</b>						
<5 years	1	0.0%	1.8	0	0.0%	0.0
5-19 years	869	27.3%	445.2	866	26.4%	447.5
20-24 years	1142	35.9%	1978.8	1183	36.1%	1980.2
25-29 years	577	18.1%	1067.6	628	19.1%	1160.0
30-49 years	508	16.0%	196.4	533	16.3%	207.8
50+ years	68	2.1%	19.6	70	2.1%	19.8
Unknown Age	17	0.5%	n/a	0	0.0%	n/a
<b>Race/Ethnicity</b>						
Non-Hispanic White	139	4.4%	25.9	113	3.4%	21.2
Non-Hispanic Black	573	18.0%	433.7	423	12.9%	322.3
Hispanic	708	22.3%	314.1	649	19.8%	281.9
NH Asian/Pacific Is	18	0.6%	34.1	6	0.2%	10.5
NH Multi/Other/Unk	1744	54.8%	n/a	2089	63.7%	n/a
<b>Total</b>	<b>3182</b>			<b>3280</b>		

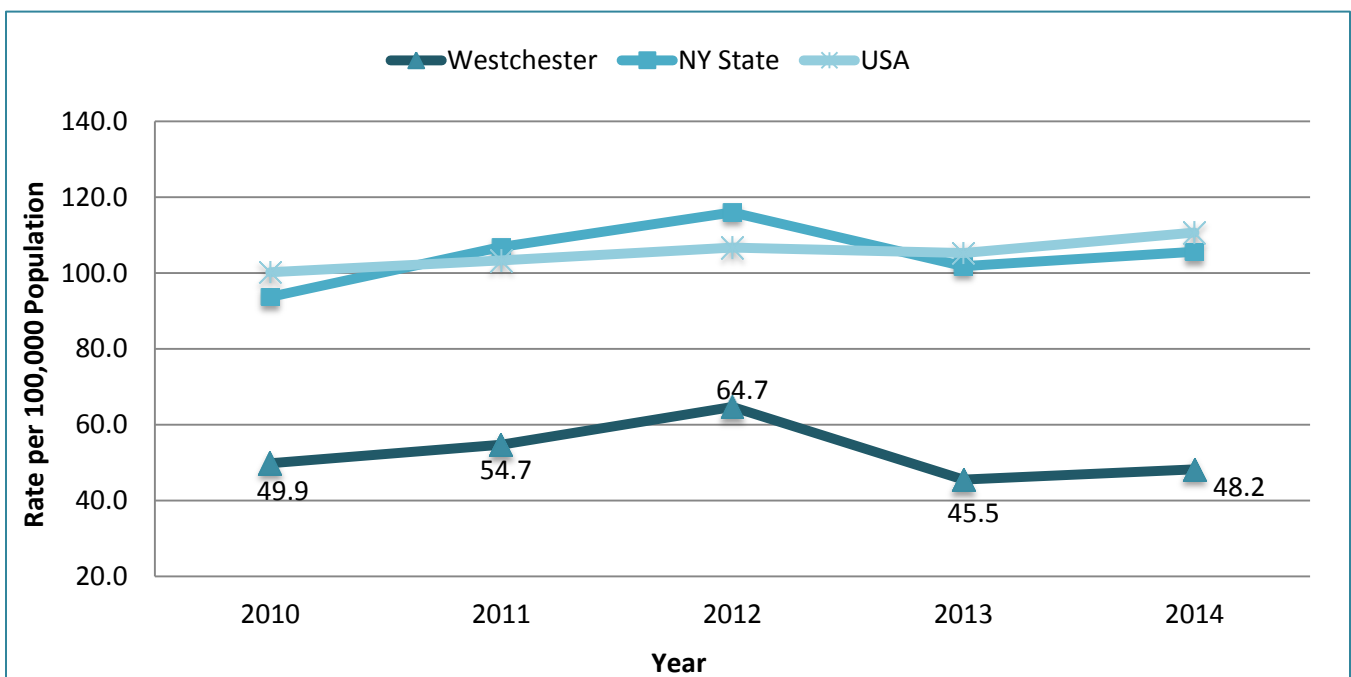
\*Rate per 100,000 population

# Gonorrhea

Gonorrhea is a sexually transmitted infection (STI) that can infect both men and women. It is caused by bacteria called *Neisseria gonorrhoeae* and can cause infections in the genitals, rectum, and throat. With testing and identification, it can be cured with the right treatment. If left untreated, gonorrhea can cause serious reproductive problems, make it difficult for a woman to get pregnant, or be passed to infants during childbirth.

- In Westchester County, the 2014 gonorrhea rate was 48.2 per 100,000 population; this is approximately half of the New York State and US rates.
- In 2014, the gonorrhea rate in females aged 15-44 years was 107.5 per 100,000 population, which is below the HP2020 target for this group (251.9 per 100,000). However, rates were not uniform throughout the age range and were highest in females 15-19 years (208.1 per 100,000).
- In 2014, the gonorrhea rate in males aged 15-44 years was 130.2 per 100,000 population, also lower than the HP2020 goal for this group (194.8 per 100,000). Rates were also not uniform in this range of ages; the highest rate was among males aged 20-24 years (282.4 per 100,000), which is higher than the HP2020 target.
- The 2014 gonorrhea rate in Non-Hispanic Blacks (125.7 per 100,000 population) was 24 times higher than the gonorrhea rate in Non-Hispanic Whites (5.2 per 100,000 population) and over four times higher than the rate in Hispanics (30.4 per 100,000 population).

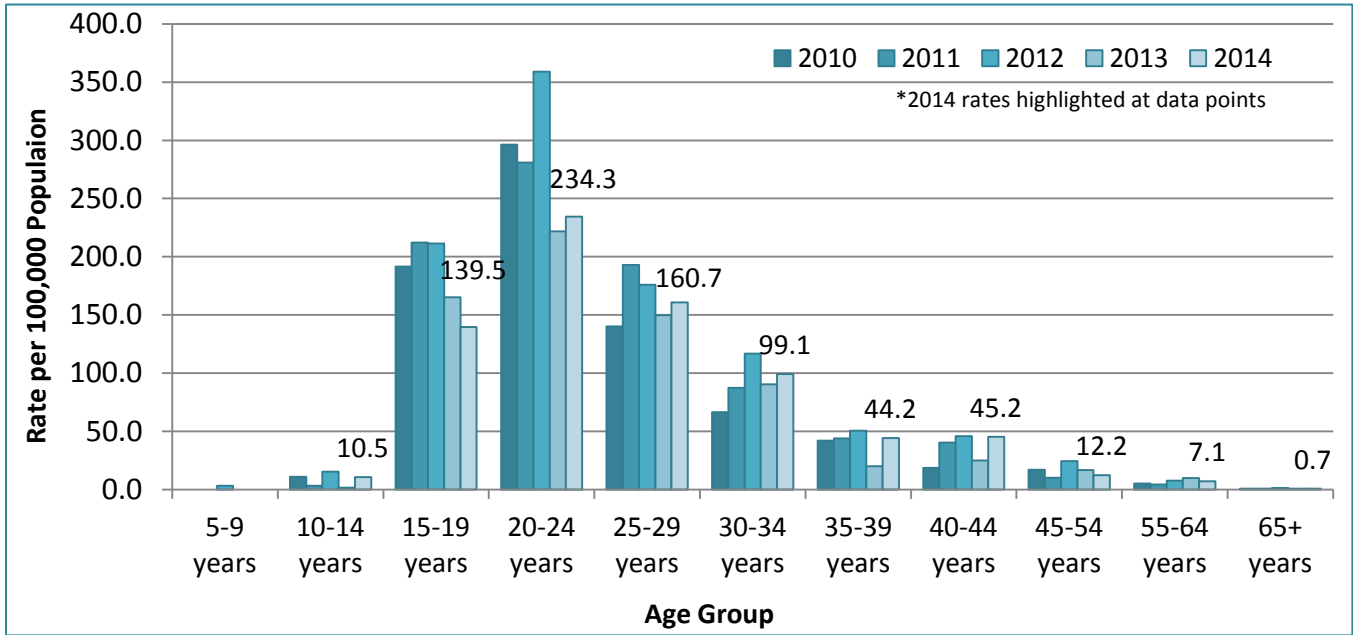
Reported Gonorrhea Rates (per 100,000) in Westchester County, New York State, and United States, 2010-2014



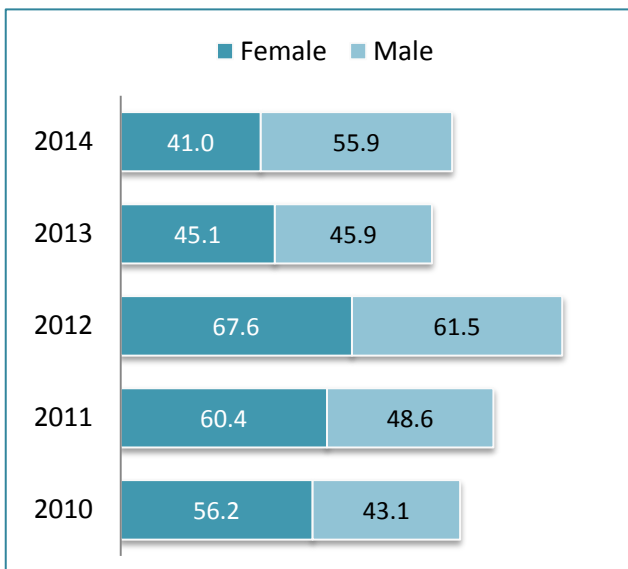


# Gonorrhea

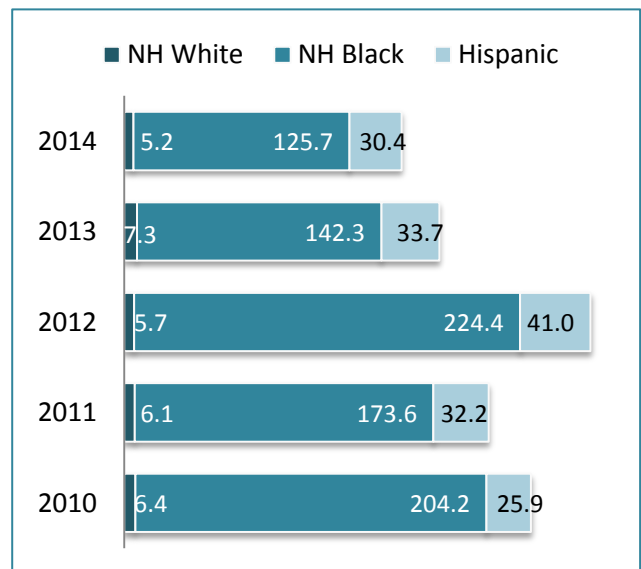
Reported Gonorrhea Rates (per 100,000) by Age Group, Westchester County, 2010-2014



Reported Gonorrhea Rates by Sex, Westchester County, 2010-2014

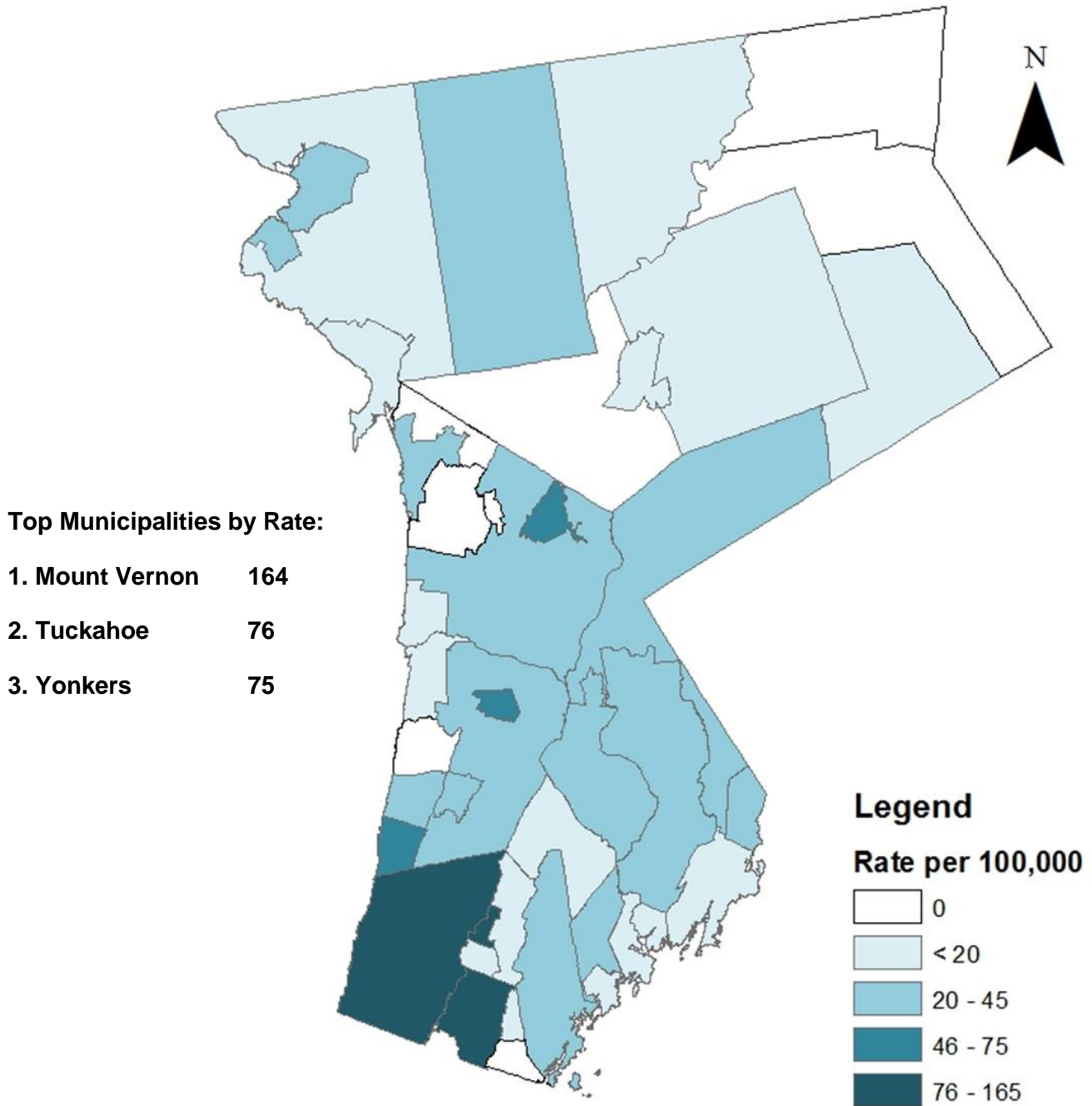


Reported Gonorrhea Rates by Race/Ethnicity, Westchester County, 2010-2014



# Gonorrhea

Reported Gonorrhea Rates (per 100,000) by Municipality, Westchester County, 2014



# Gonorrhea

Number, Percentage, and Rate (per 100,000) of Reported Gonorrhea Cases  
by Selected Characteristics, Westchester County, 2010-2014

	2010			2011			2012		
	No.	(%)	Rate*	No.	(%)	Rate*	No.	(%)	Rate*
<b>Gender</b>									
Male	197	41.6%	43.1	224	42.8%	48.6	285	45.8%	61.5
Female	277	58.4%	56.2	299	57.2%	60.4	337	54.2%	67.6
<b>Age Group (Years)</b>									
<5 years	-	-	-	-	-	-	-	-	-
5-19 years	132	27.8%	68.0	144	27.5%	74.0	155	24.9%	79.2
20-24 years	160	33.8%	296.3	151	28.9%	281.0	199	31.9%	359.2
25-29 years	74	15.6%	140.1	103	19.7%	192.9	95	15.2%	175.8
30-49 years	93	19.6%	35.2	112	21.4%	42.7	149	23.9%	57.5
50+ years	14	3.0%	4.3	13	2.5%	3.9	25	4.0%	7.3
Unknown Age	1	0.2%	n/a	0	0.0%	n/a	0	0.0%	n/a
<b>Race/Ethnicity</b>									
Non-Hispanic White	35	7.4%	6.4	33	6.3%	6.1	31	5.0%	5.7
Non-Hispanic Black	254	53.6%	204.2	220	42.1%	173.6	289	46.4%	224.4
Hispanic	54	11.4%	25.9	69	13.2%	32.2	90	14.4%	41.0
NH Asian/Pacific Is	4	0.8%	8.0	0	0.0%	0.0	1	0.2%	1.9
NH Multi/Other/Unk	127	26.8%	n/a	201	38.4%	n/a	212	34.0%	n/a
<b>Total</b>	474			523			622		

	2013			2014		
	No.	(%)	Rate*	No.	(%)	Rate*
<b>Gender</b>						
Male	215	48.8%	45.9	263	56.1%	55.9
Female	226	51.2%	45.1	206	43.9%	41.0
<b>Age Group (Years)</b>						
<5 years	-	-	-	-	-	-
5-19 years	113	25.6%	57.9	101	21.5%	52.2
20-24 years	128	29.0%	221.8	140	29.9%	234.3
25-29 years	81	18.4%	149.9	87	18.6%	160.7
30-49 years	88	20.0%	34.0	125	26.7%	48.7
50+ years	30	6.8%	8.6	16	3.4%	4.5
Unknown Age	1	0.2%	n/a	0	0.0%	n/a
<b>Race/Ethnicity</b>						
Non-Hispanic White	39	8.8%	7.3	28	6.0%	5.2
Non-Hispanic Black	188	42.6%	142.3	165	35.2%	125.7
Hispanic	76	17.2%	33.7	70	14.9%	30.4
NH Asian/Pacific Is	0	0.0%	0.0	1	0.2%	1.7
NH Multi/Other/Unk	138	31.3%	n/a	205	43.7%	n/a
<b>Total</b>	441			469		

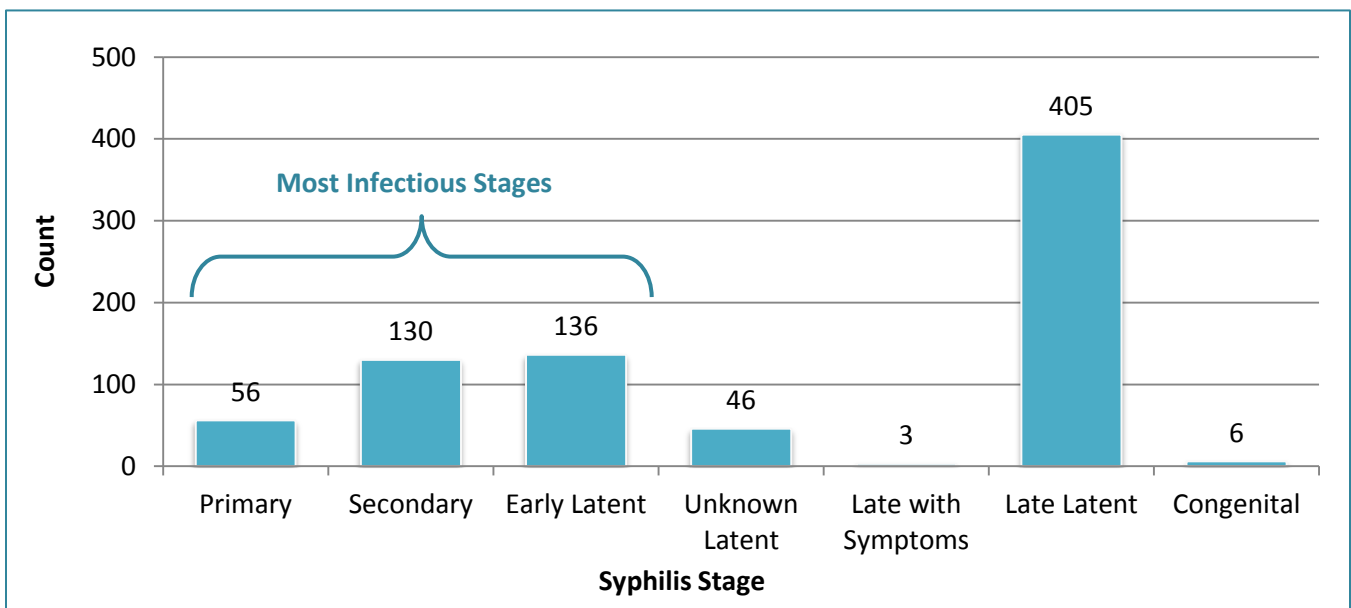
\*Rate per 100,000 population

# Syphilis

Syphilis is a sexually transmitted infection (STI) that can cause long-term complications if not treated. You can get syphilis by direct contact with a syphilis sore during vaginal, anal, or oral sex; it can also be spread from an infected mother to her fetus. Syphilis in adults is classified into primary, secondary, latent, and late stages based on symptoms. Early syphilis (the primary, secondary, and early-latent stages) is the most infectious and is highlighted in this report. Syphilis can be cured with antibiotics, but treatment will not undo damage that the infection has already caused, especially at later stages.

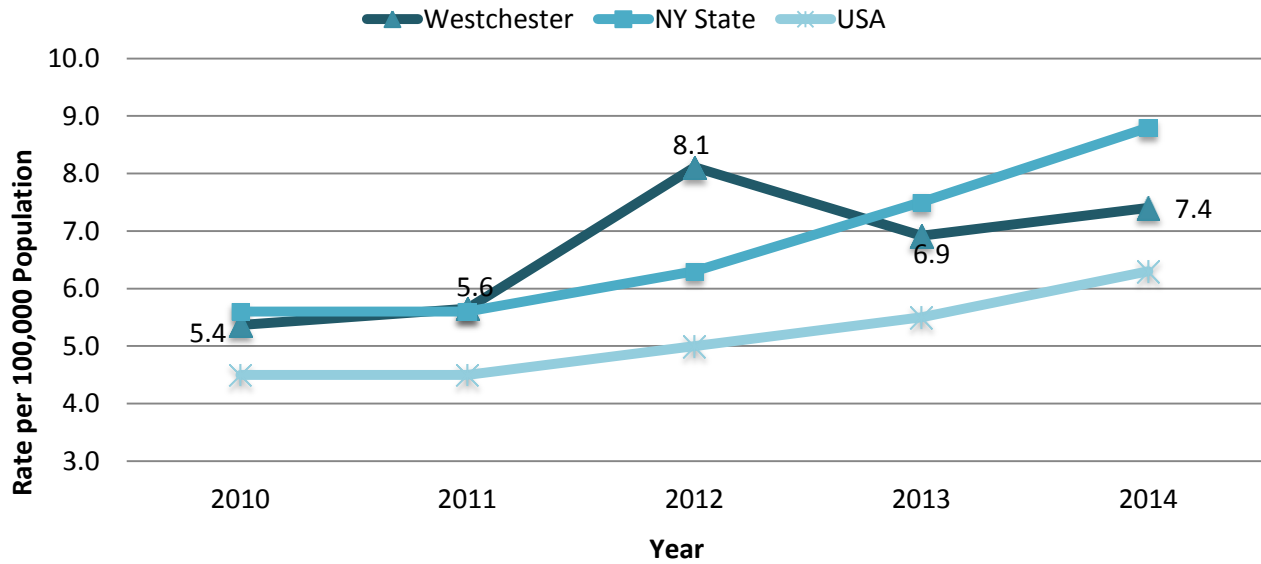
- In Westchester County, the 2014 total syphilis rate was 16.1 per 100,000 population and the early syphilis rate was 7.4 per 100,000.
- Despite a spike in 2012, early syphilis rates in Westchester County are comparable to those in New York State and the US with an upward trend.
- Some demographic trends among early syphilis cases are different from those for other STIs.
  - The age groups most affected are older, with higher rates among 20-24 years (25.1 per 100,000 in 2014), 25-29 years (16.6 per 100,000 in 2014), and 30-49 years (11.7 per 100,000 in 2014) ranges; chlamydia and gonorrhea cases mostly fall in the 15-29 years range.
  - The majority of early syphilis cases are male, not female; the 2014 rates were 14.7 per 100,000 population among men compared to 0.6 per 100,000 population for women.
- Like the other STIs, there is a significant disparity among Non-Hispanic Blacks (20.2 per 100,000) and Hispanics (9.6 per 100,000) when compared to Non-Hispanic Whites (3.2 per 100,000).

**Total Reported Syphilis Cases by Syphilis Stage, Westchester County, 2010-2014**

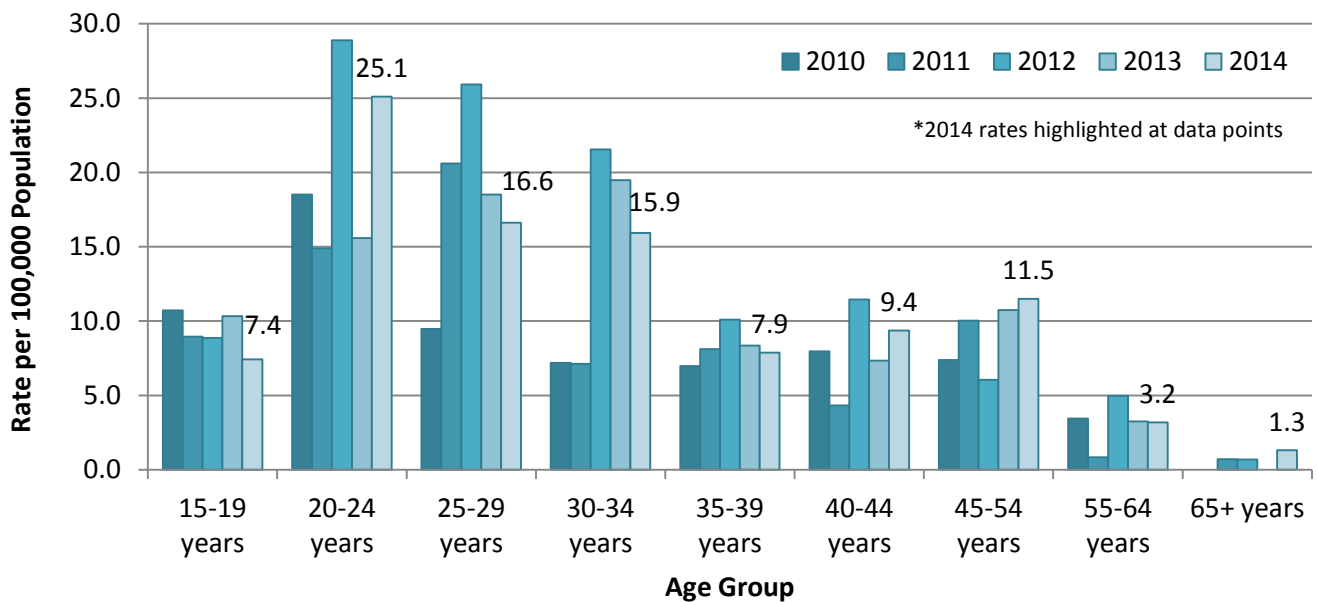


# Early Syphilis

Reported Early Syphilis Rates (per 100,000) in Westchester County, New York State, and United States, 2010-2014

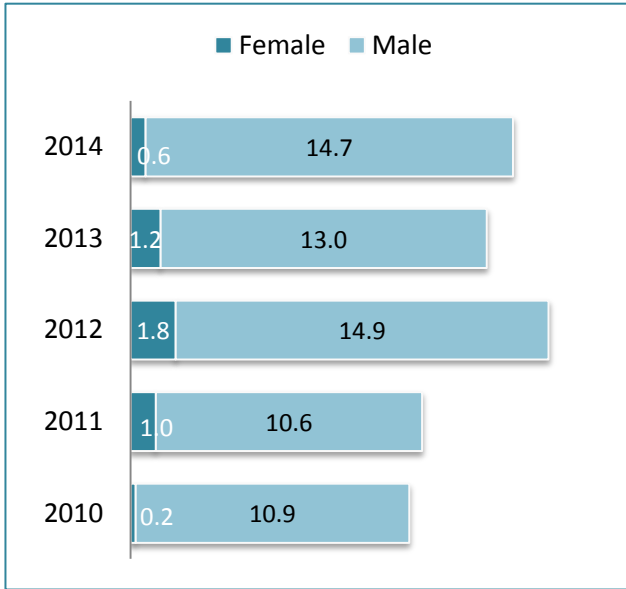


Reported Early Syphilis Rates (per 100,000) by Age Group, Westchester County, 2010-2014

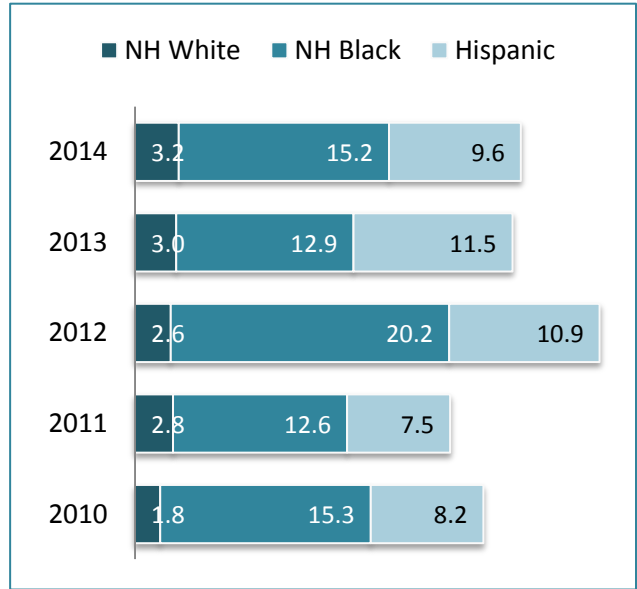


# Early Syphilis

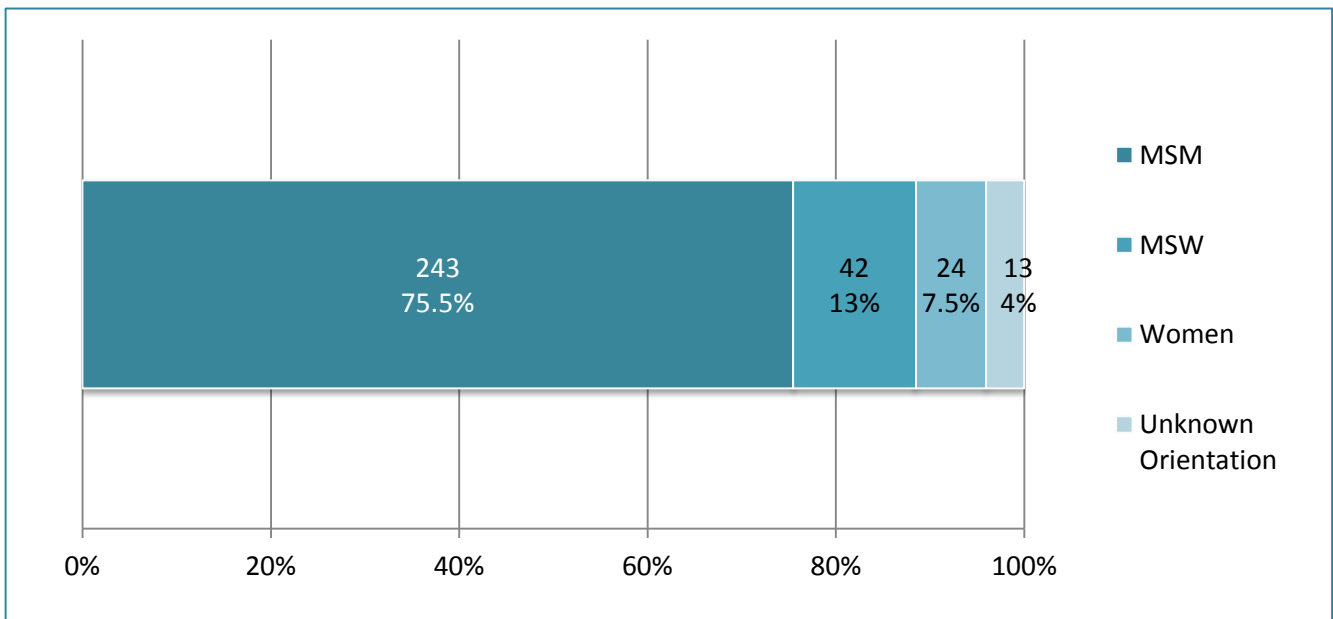
Reported Early Syphilis Rates by Sex, Westchester County, 2010-2014



Reported Early Syphilis Rates by Race/Ethnicity, Westchester County, 2010-2014

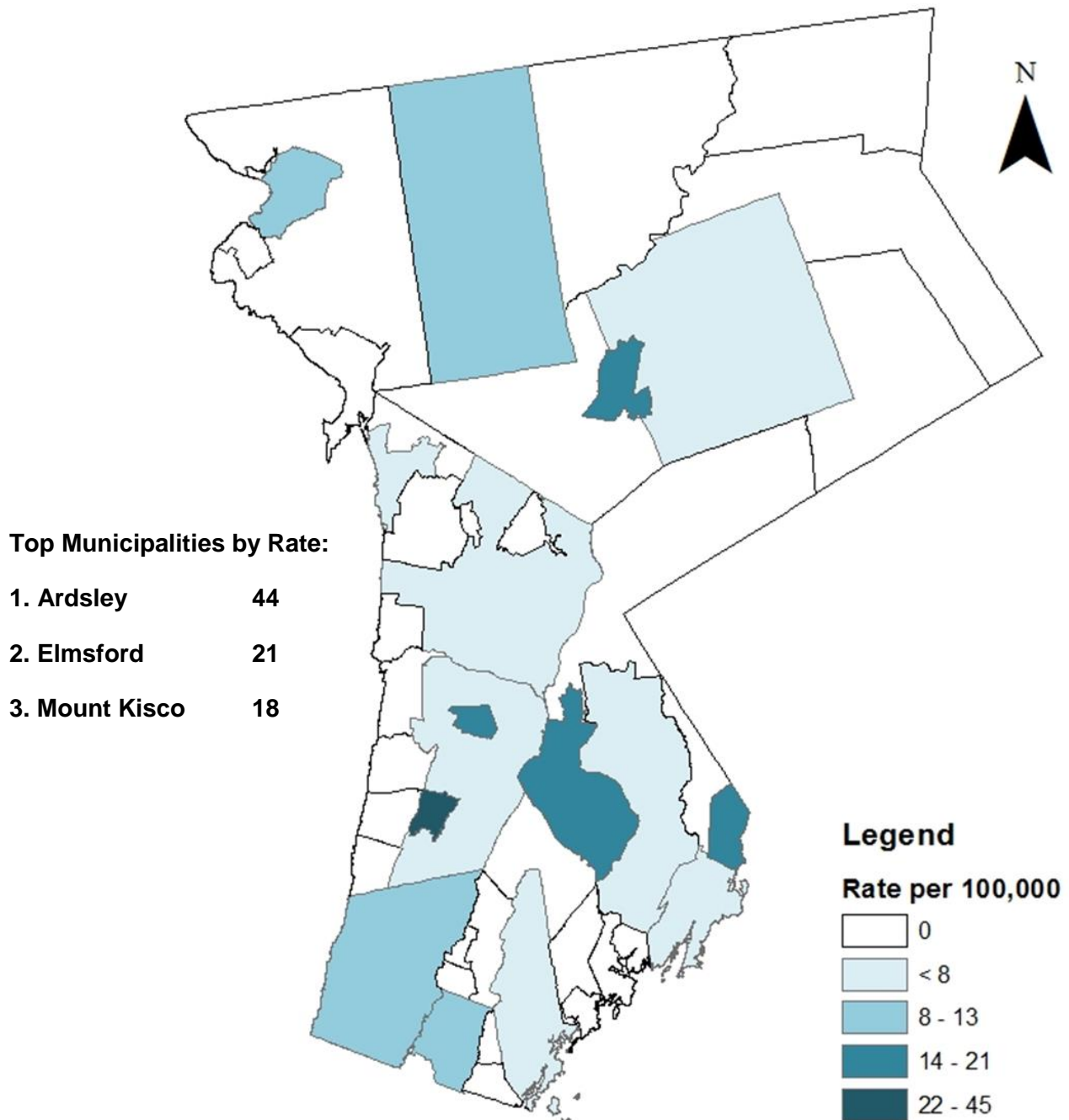


Reported Early Syphilis Cases by Sex Behavior, Westchester County, 2010-2014



# Early Syphilis

Reported Early Syphilis Rates (per 100,000) by Municipality, Westchester County, 2014



# Early Syphilis

Number, Percentage, and Rate (per 100,000) of Reported Early Syphilis Cases  
by Selected Characteristics, Westchester County, 2010-2014

	2010			2011			2012		
	No.	(%)	Rate*	No.	(%)	Rate*	No.	(%)	Rate*
<b>Gender</b>									
Male	50	98.0%	10.9	49	90.7%	10.6	69	88.5%	14.9
Female	1	2.0%	0.2	5	9.3%	1.0	9	11.5%	1.8
<b>Age Group (Years)</b>									
<5 years	-	-	-	-	-	-	-	-	-
5-19 years	7	13.7%	3.6	6	11.1%	3.1	6	7.7%	3.1
20-24 years	10	19.6%	18.5	8	14.8%	14.9	16	20.5%	28.9
25-29 years	5	9.8%	9.5	11	20.4%	20.6	14	17.9%	25.9
30-49 years	22	43.1%	8.3	22	40.7%	8.4	32	41.0%	12.3
50+ years	7	13.7%	2.1	7	13.0%	2.1	10	12.8%	2.9
Unknown Age	-	-	-	-	-	-	-	-	-
<b>Race/Ethnicity</b>									
Non-Hispanic White	10	19.6%	1.8	15	27.8%	2.8	14	17.9%	2.6
Non-Hispanic Black	19	37.3%	15.3	16	29.6%	12.6	26	33.3%	20.2
Hispanic	17	33.3%	8.2	16	29.6%	7.5	24	30.8%	10.9
NH Asian/Pacific Is	1	2.0%	2.0	0	0.0%	0.0	0	0.0%	0.0
NH Multi/Other/Unk	4	7.8%	n/a	7	13.0%	n/a	14	17.9%	n/a
<b>Total</b>	51			54			78		

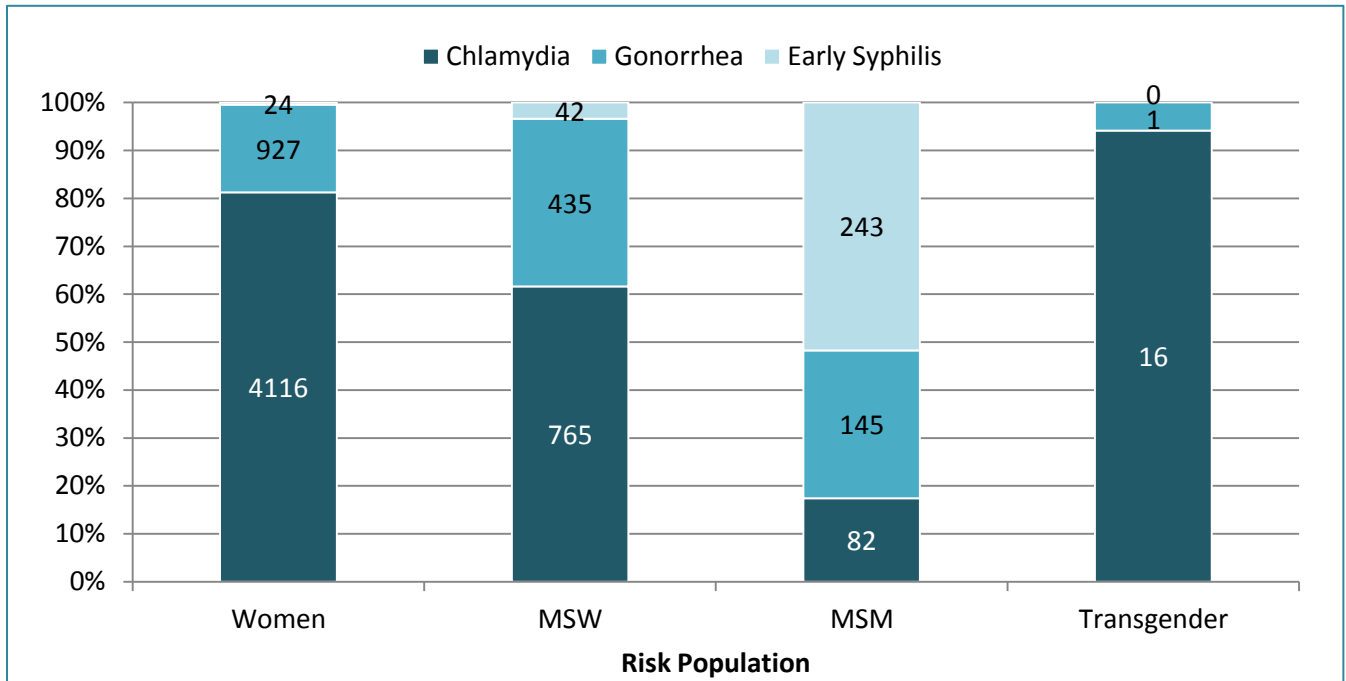
	2013			2014		
	No.	(%)	Rate*	No.	(%)	Rate*
<b>Gender</b>						
Male	61	91.0%	13.0	69	95.8%	14.7
Female	6	9.0%	1.2	3	4.2%	0.6
<b>Age Group (Years)</b>						
<5 years	-	-	-	-	-	-
5-19 years	7	10.4%	3.6	5	6.9%	2.6
20-24 years	9	13.4%	15.6	15	20.8%	25.1
25-29 years	10	14.9%	18.5	9	12.5%	16.6
30-49 years	31	46.3%	12.0	30	41.7%	11.7
50+ years	10	14.9%	2.9	13	18.1%	3.7
Unknown Age	-	-	-	-	-	-
<b>Race/Ethnicity</b>						
Non-Hispanic White	16	23.9%	3.0	17	23.6%	3.2
Non-Hispanic Black	17	25.4%	12.9	20	27.8%	15.2
Hispanic	26	38.8%	11.5	22	30.6%	9.6
NH Asian/Pacific Is	1	1.5%	1.9	2	2.8%	3.5
NH Multi/Other/Unk	7	10.4%	n/a	11	15.3%	n/a
<b>Total</b>	67			72		

\*Rate per 100,000 population



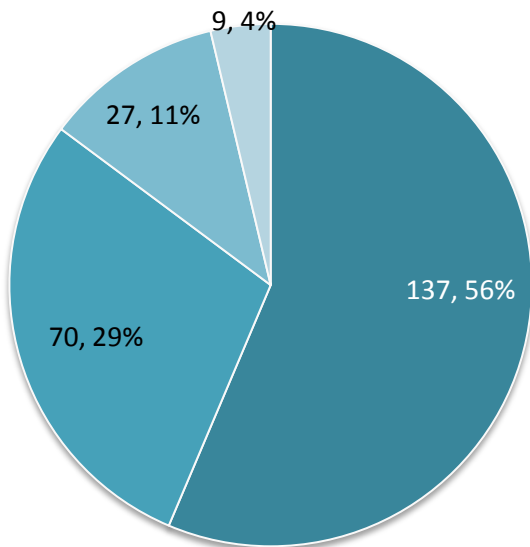
# STI Risk Factors

Reported Chlamydia, Gonorrhea and Early Syphilis Cases by Sex Behavior, Westchester County, 2010-2014



Method of Identification for Early Syphilis Cases Reported in the MSM Population, Westchester County, 2010-2014

■ Symptomatic ■ Screening ■ Referral ■ Other



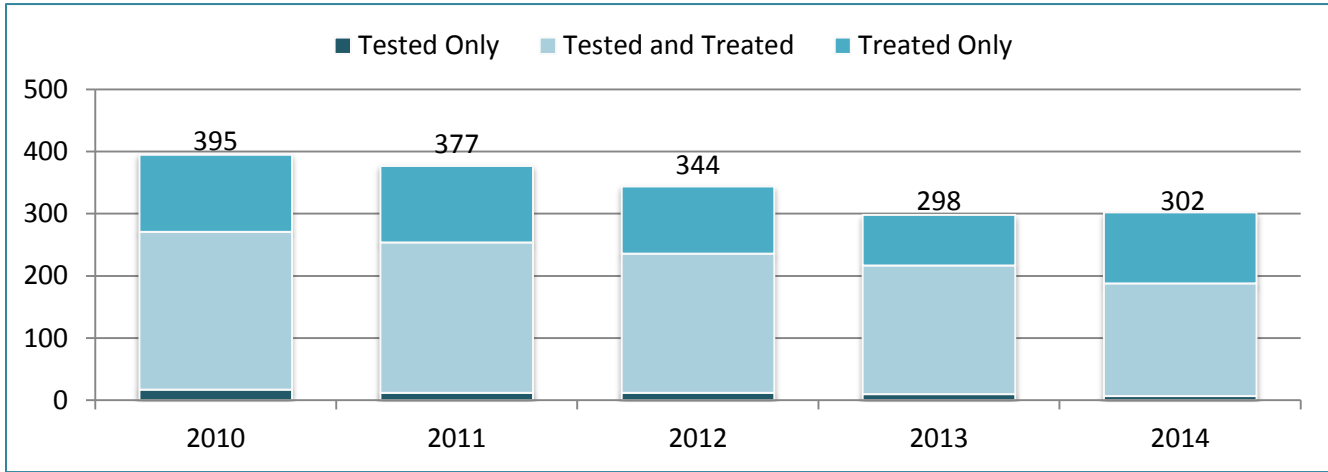
Early syphilis infection disproportionately affects the MSM population in Westchester County, reflecting the US trend. Over half of Westchester syphilis cases among MSM are identified from the presence of symptoms.

It's important to support awareness and testing for high risk sub-populations (like MSM) and to promote partner notification and partner-based campaigns.

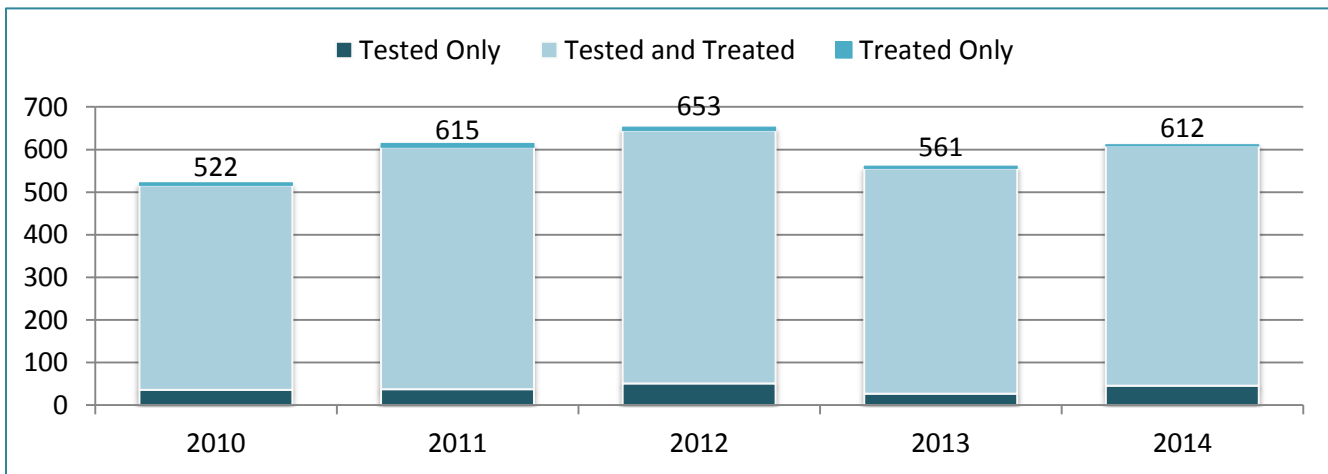
The only way to know if you have syphilis is by getting tested. Many men who are infected with syphilis do not have any symptoms for years, yet they remain at risk for health problems later on if they are not treated.

# Clinic Testing and Treatment Services

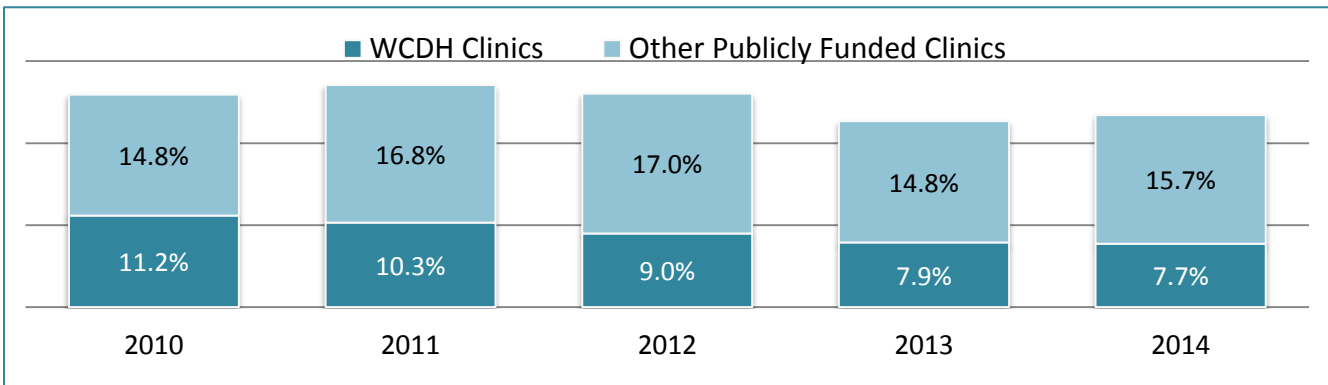
Number of STI Cases Receiving Services from WCDH Clinics, 2010-2014



Number of STI Cases Receiving Services from Other Publicly Funded Health Clinics, 2010-2014

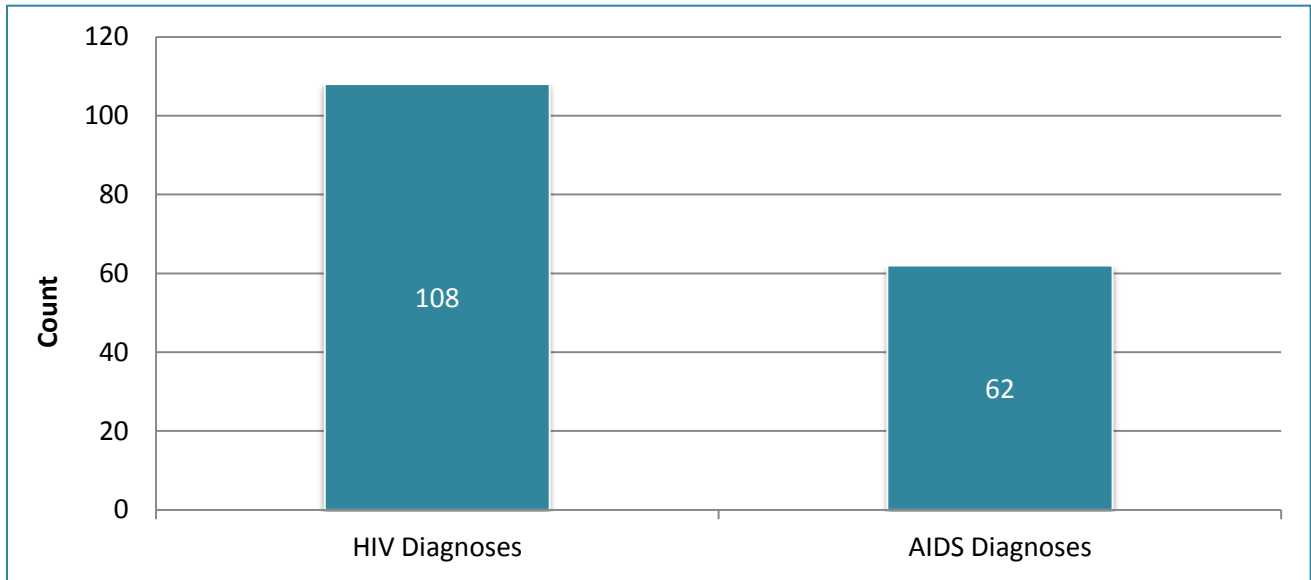


Percentage of Total Reported STI Cases Receiving Services from WCDH Clinics and Other Publicly Funded Health Clinics, Westchester County, 2010-2014

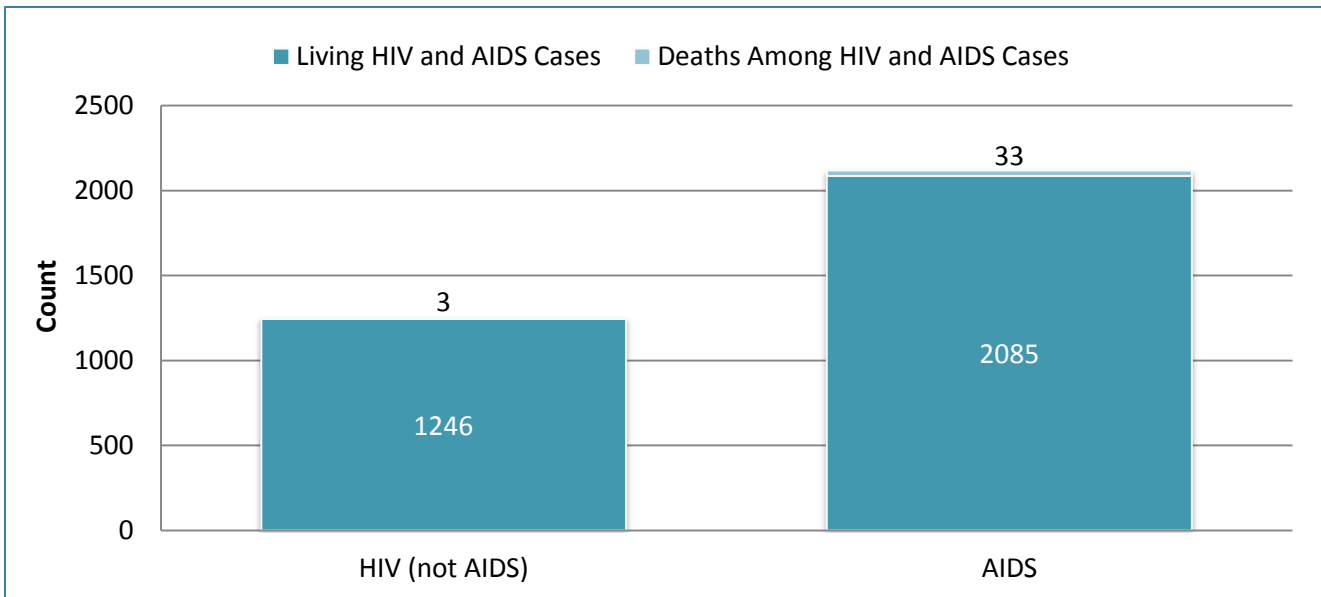


# HIV and AIDS 2013 Summary

## Newly Diagnosed HIV and AIDS Cases, Westchester County, 2013\*



## Living HIV and AIDS Cases and Deaths, Westchester County, 2013\*



\*Counts do not include the prison population in Westchester County

# Data Sources

1. New York State Department of Health:
  - a. Communicable Disease Electronic Surveillance System (CDESS)
  - b. HIV/AIDS Surveillance Annual Report - 2013
2. US Census Bureau – American Community Survey 1-year Estimates for Westchester County – used to calculate rates.

## NOTES

- For this report, persons identified as White, Black, Asian/Pacific Islander, and Multi-racial/Other/Unknown Race are all Non-Hispanic. Persons identified as Hispanic may be of any race.
- The living HIV and AIDS case count includes all individuals diagnosed through December 2013.

## ABBREVIATIONS, ACRONYMS & DEFINITIONS

**EARLY SYPHILIS:** Primary, secondary, and early latent stages of syphilis; highly infectious stages

**HIV:** Human Immunodeficiency Virus, virus that causes Acquired Immunodeficiency Syndrome (AIDS)

**HP2020:** Healthy People 2020. A U.S. Health and Human services-sponsored statement of national health objectives aimed at identifying the most significant preventable threats to health and establishing national goals to reduce these threats

**MSM:** Male-to-male sexual contact, regardless of sexual orientation

**MSW:** Male-to-female sexual contact, exclusively

**NH:** Non-Hispanic

**STI:** Sexually Transmitted Infection. In this report, this refers to chlamydia (*Chlamydia trachomatis*), gonorrhea (*Neisseria gonorrhoea*) or syphilis (*Treponema pallidum*) infection

**WCDH:** Westchester County Department of Health