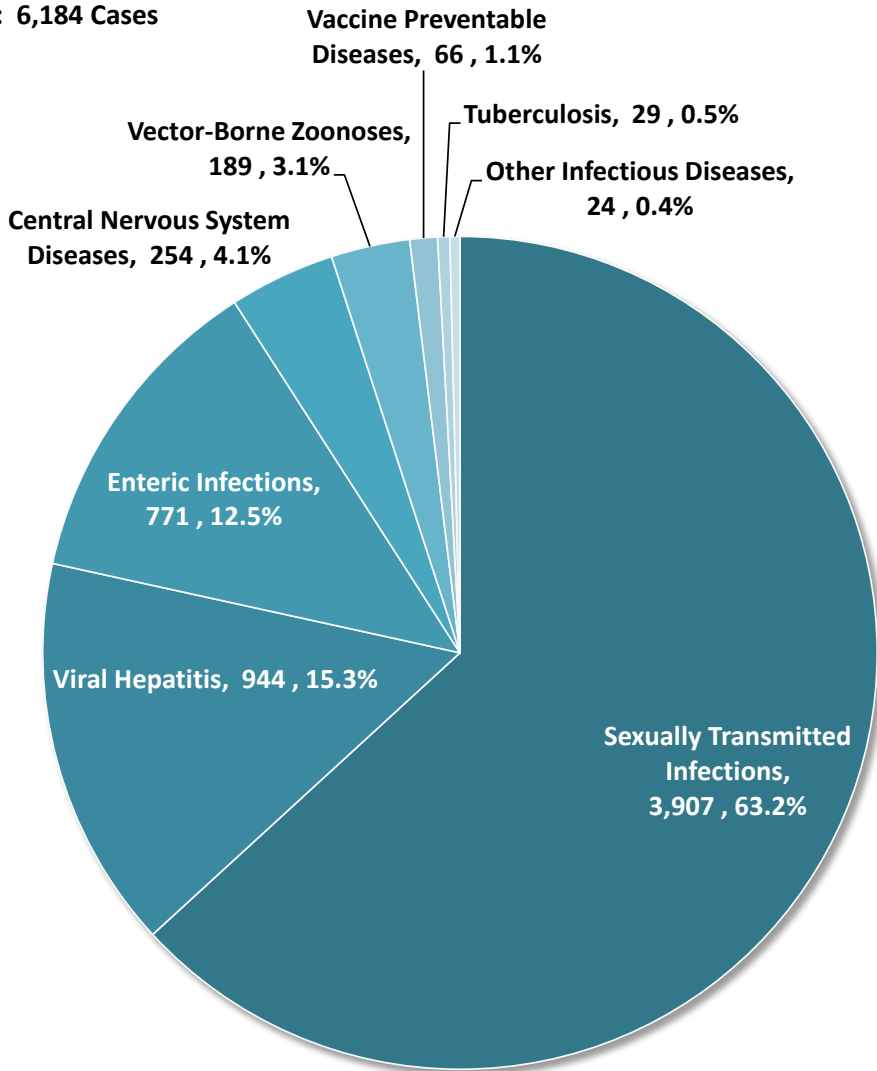




Controlling the Spread of Communicable Diseases

Reported Communicable Diseases*, Westchester County, 2014

Total: 6,184 Cases



*Does not include HIV/AIDS or Flu.

In this issue:

- Reported Communicable Diseases (Page 1)
- Sexually Transmitted Infections (Page 2)
- HIV & AIDS (Page 3)
- Tuberculosis (Page 5)
- Food Borne Illness & Environmental Health (Page 6)
- Hepatitis (Page 7)
- Vaccine Preventable Diseases (Page 7)
- Vector Borne Diseases (Page 8)
- Syndromic Surveillance (Page 9)
- List of Reported Communicable Diseases (Page 10)

Project Directors:

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

Renee Recchia, MPH, Acting Deputy Commissioner of Administration

Project Staff:

Megan Cea, MPH, Medical Data Analyst

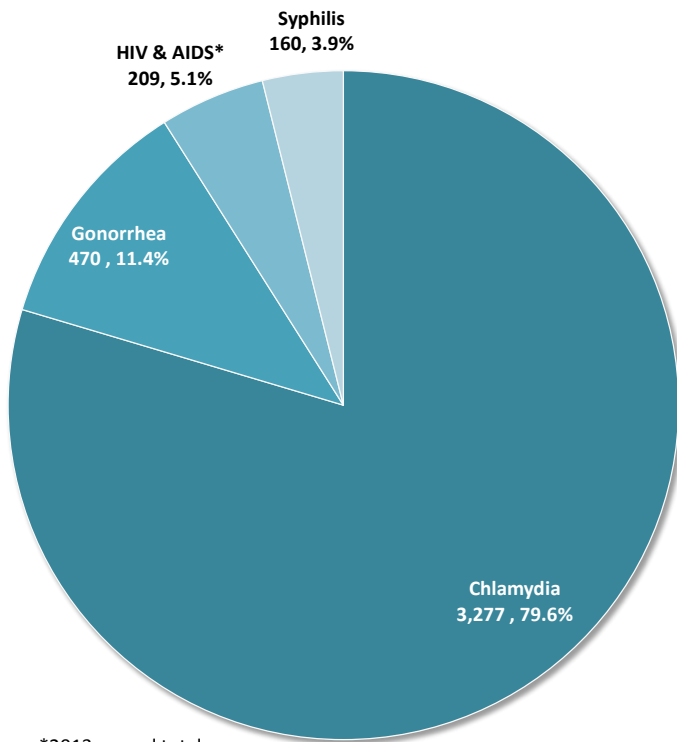
Stan Cho, MPH, Medical Data Analyst

Rosemary James, MPH, MPA, Medical Data Analyst

Graphic Design:
Megan Cea, MPH

Sexually Transmitted Infections

Reported Sexually Transmitted Infections by Disease, Westchester County, 2014



*2013 annual total.

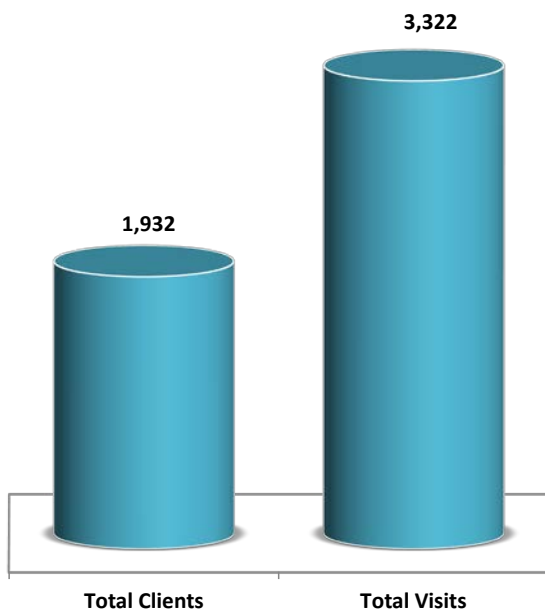
Rate (per 100,000) of Sexually Transmitted Diseases in Westchester County, New York State, and the United States, 2013

	Westchester County	New York State	New York State (excluding NYC)	United States
	Rate	Rate	Rate	Rate
Chlamydia	335.3	495.5	338.5	446.6
Gonorrhea	46.5	103.0	57.7	106.1
Syphilis (All Stages)	17.2	31.9	9.3	18.0
Primary & Secondary	4.2	7.6	2.7	5.5

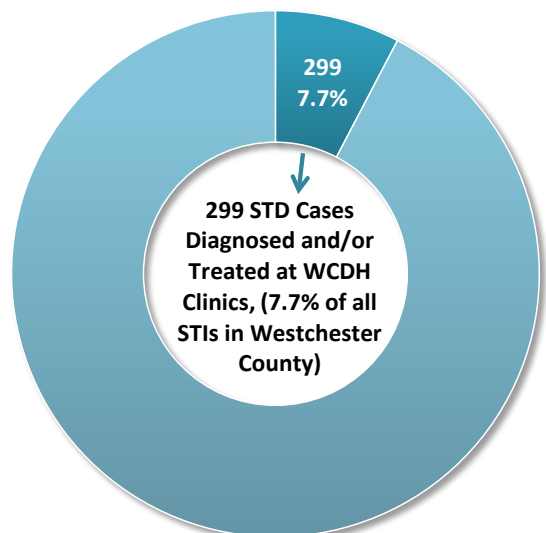
Westchester County Department of Health plays a significant role in controlling the spread of sexually transmitted diseases in the County.

Confidential STD diagnosis, treatment, counseling, partner services, including expedited partner therapy for chlamydia patients (EPT), as well as HIV counseling and testing are provided at the two clinics located in White Plains and Yonkers. Educational materials are available on the Department's website and distributed at community events.

Number of Clients and Visits to Westchester County Health Department STD Clinics, 2014



Number of STD Cases Diagnosed and/or Treated in Westchester County Health Department STD Clinics, 2014

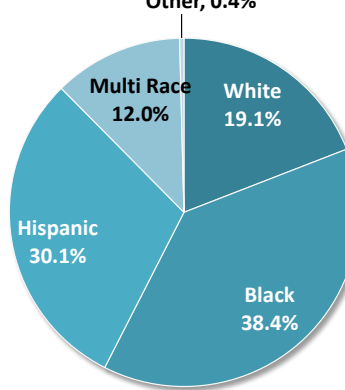
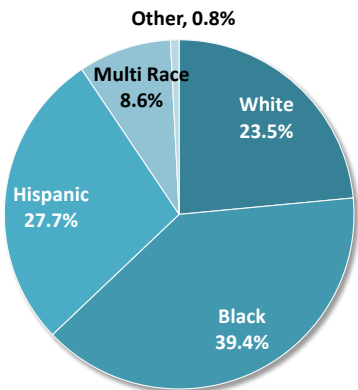
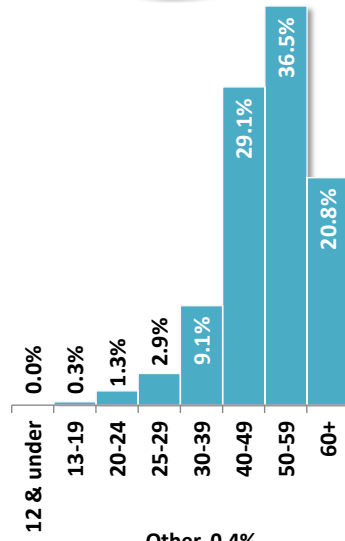
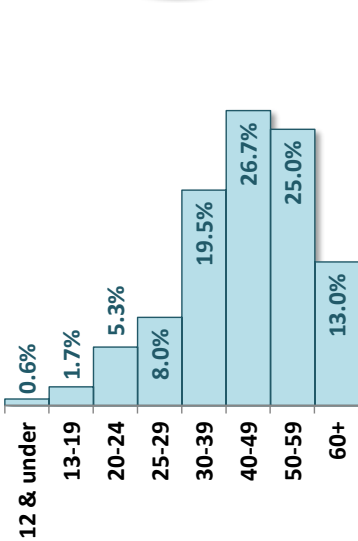
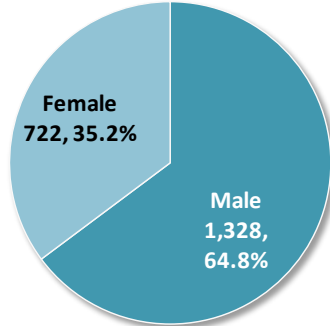
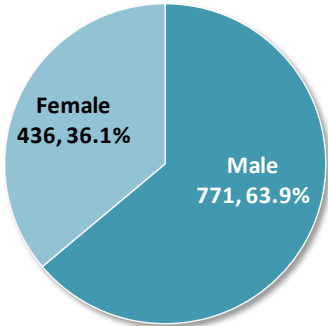


HIV and AIDS

Living HIV & AIDS Cases by Sex, Age and Race/Ethnicity, Westchester County, December 2012

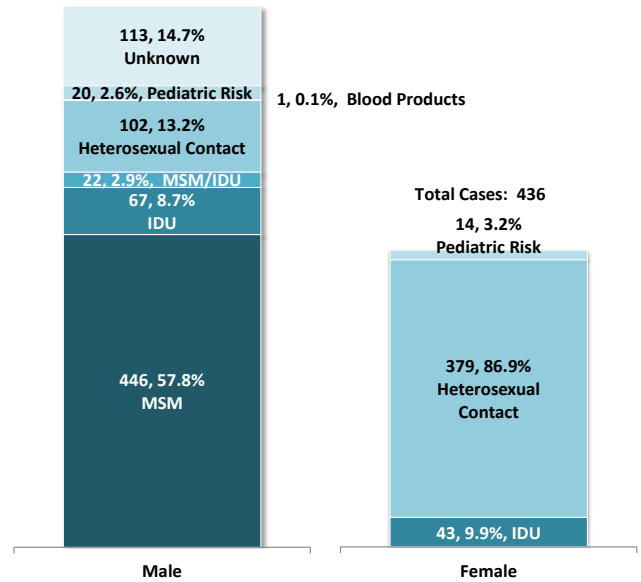
Living HIV Cases: 1,207

Living AIDS Cases: 2,050

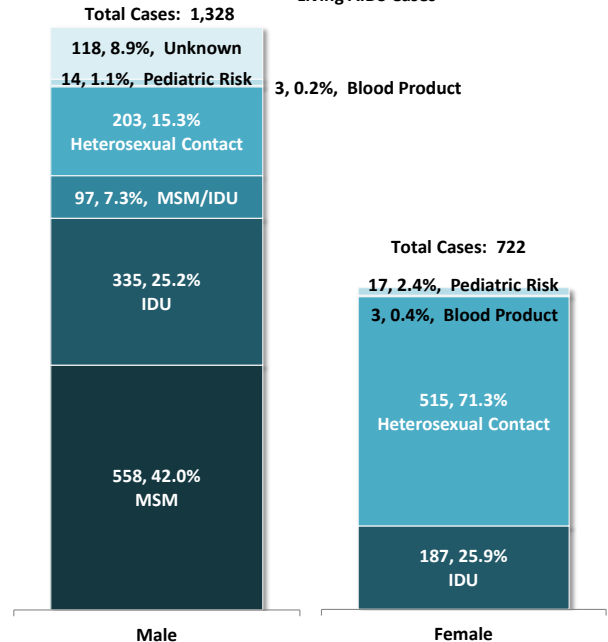


Living HIV & AIDS Cases by Sex and Risk, Westchester County, December 2012

Living HIV Cases



Living AIDS Cases

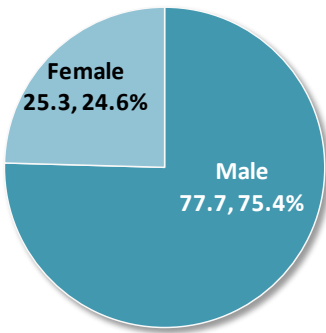


WCDH administers the federal Ryan White Part A program which funds service agencies in Westchester, Rockland and Putnam counties to provide medical care and social supports for people with HIV/AIDS. The program's goal is to provide access to and maintenance in HIV antiretroviral treatment, thereby lessening viral load to minimize the spread of HIV. The Department is funded to provide Expanded Partner Services that identifies HIV-positive individuals who have been out of care for over a year and bring them back into appropriate medical case and provide HIV testing for their partners. In addition, the Department provides Pre-Exposure Prophylaxis of antiretrovirals to prevent high-risk HIV-negative individuals from contracting the virus.

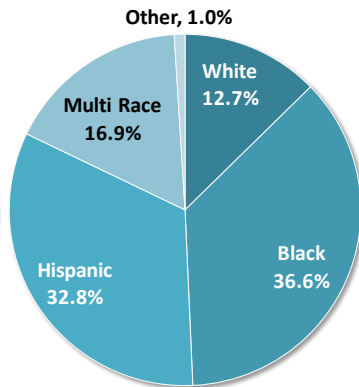
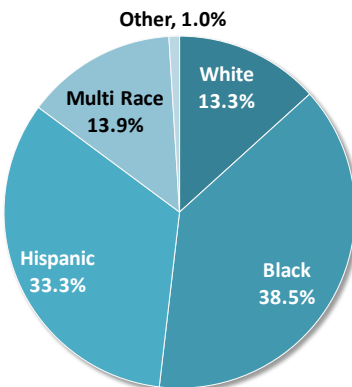
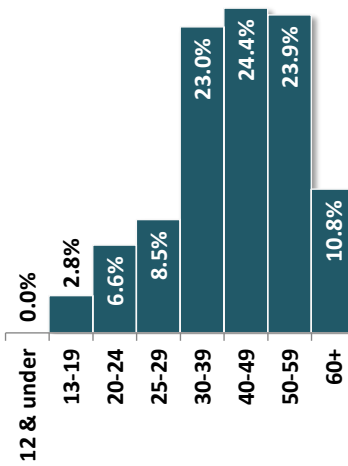
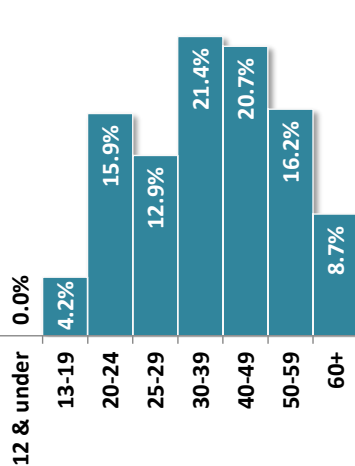
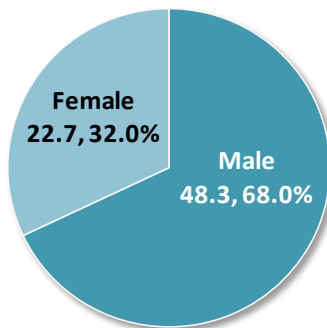
HIV and AIDS

Average Annual Newly Diagnosed HIV & AIDS Cases by Sex, Age, and Race/Ethnicity, Westchester County, 2010-2012

HIV Cases: 103



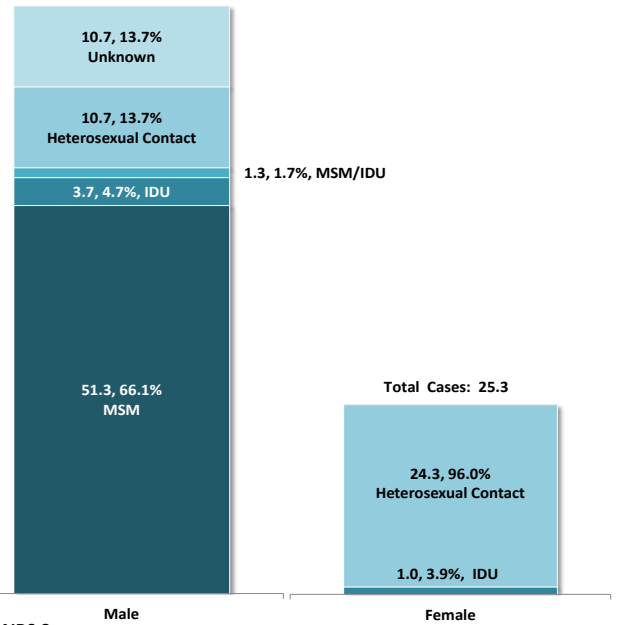
AIDS Cases: 71



Average Annual Newly Diagnosed HIV & AIDS Cases by Sex and Risk, Westchester County, 2010-2012

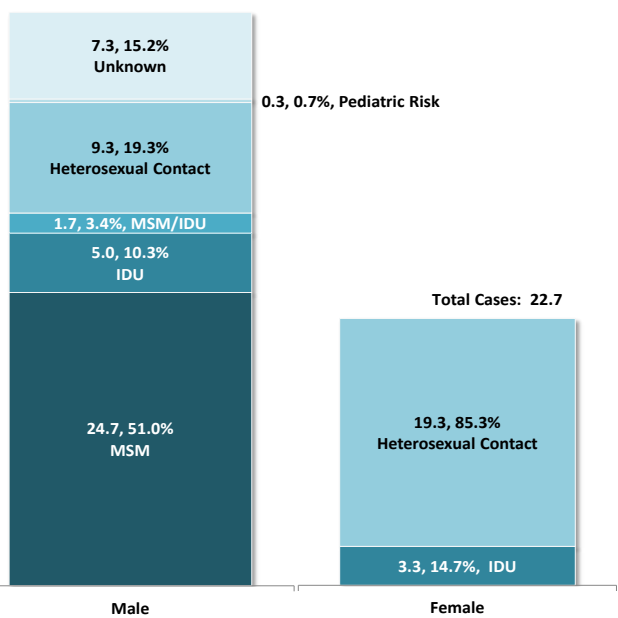
HIV Cases

Total Cases: 77.7



AIDS Cases

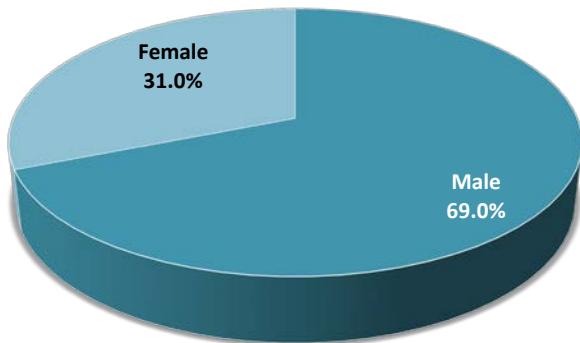
Total Cases: 48.3



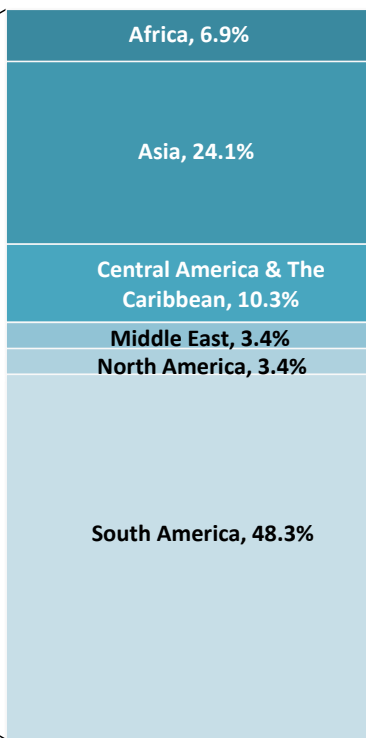
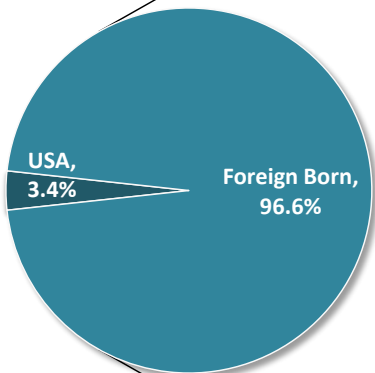
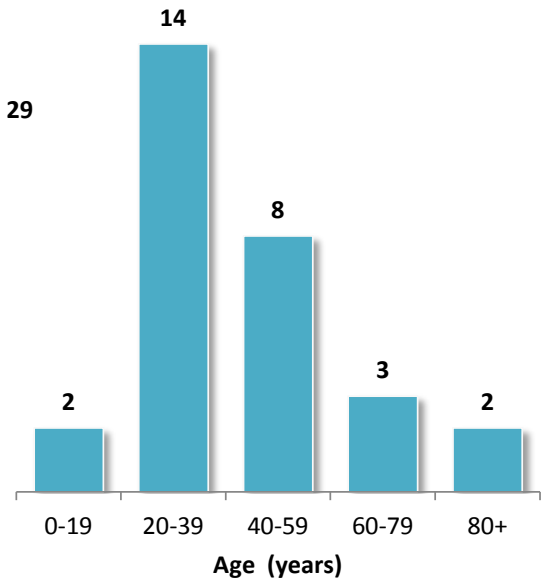
In 2013, the rate of new HIV infections in Westchester County was 12.9 per 100,000 (124 cases) which was higher than the rate for New York State (8.6 per 100,000) excluding New York City. There were 85 new cases of AIDS in Westchester County in 2013, a rate of 8.8 per 100,000, which was also higher than that of New York State excluding New York City (4.7 per 100,000)

Tuberculosis

Confirmed Cases of Tuberculosis by Age, Sex, and Region of Origin, Westchester County, 2014



Total Confirmed Cases = 29



Number of TB Clinic Visits & Additional PPD (Skin Tests) Administered by WCDH in 2014

	TB Clinics	PPD (Skin Test)
Visits	1,867	592
Clients	316	262

Directly Observed Therapy and Directly Observed Preventative Therapy Delivered by WCDH in 2014

Total Visits	5,439
Total Clients (46 TB cases and 40 inactive TB cases)	86

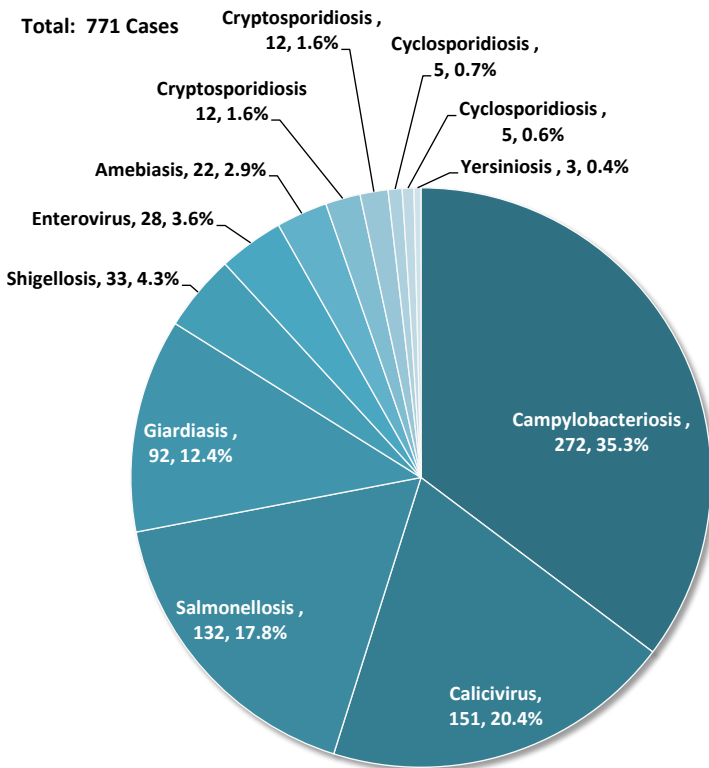
WCDH plays a major role in detecting, treating, and controlling the spread of TB. The Department provides contact investigations and field skin tests to those exposed to possible TB cases. For example, in 2014, active infectious TB was identified in a preschool - 17 children and 24 staff were exposed. WCDH staff went to the location and provided an informational session for staff and families and conducted TB testing for all people who had been in contact with the case. WCDH clinics provide day and evening hours for TB testing, contact investigations, laboratory testing, x-ray referrals, treatment and medications, and Directly Observed Therapy.

Food Borne Illness & Environmental Health

To protect the public from possible food-borne illness, WCDH issues permits and conducts regular field inspections to all restaurants and temporary food service establishments in the County. In addition, WCDH inspects drinking water systems, children’s camps, and beaches and swimming pools.

The WCDH is closely involved in investigating and preventing outbreaks of foodborne and enteric infection. During 2014, WCDH investigated multiple GI Outbreaks (Norovirus outbreaks, Shigellosis cases, salmonella infections, and a Campylobacter outbreak) at multiple facilities and locations.

Reported Enteric Infections, Westchester County, 2014



Inspections & Field Visits Made by Westchester County Department of Health Environmental Health Services, 2014

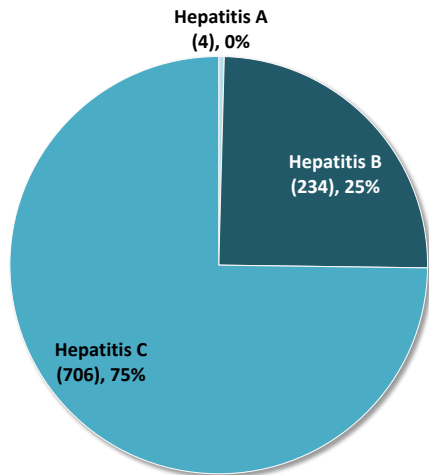
Drinking Water Systems	1,191
Community Systems	512
Non-Community Systems	555
Water Cross Connect	124
Food Services	11,960
Food Service Establishment	11,840
Day Care Centers	88
Temporary Food	32
Recreational, etc.	1,645
Children's Camps	470
Hotels & Motels	67
Camp Site	3
Swimming Pools	981
Bathing Beaches	124

Coxsackie Virus Infection in Camps or Associated with Pools:

Coxsackie virus is a common childhood infection that causes a blister-like rash that involves the hands, feet, and mouth. During 2014, over a dozen children were diagnosed with this infection and/or suspected of being infected while attending day camps or using swimming pools. Other health departments around the area had received similar reports. WCDH developed a letter and provided a fact sheet on this infection to distribute to the families of campers, and an onsite inspection was made to ensure adequate pool chlorination and to review environmental cleaning procedures.

Hepatitis

Reported Number of Hepatitis Cases by Type, Westchester County, 2014



Hepatitis is a disease that affects the liver. Westchester County Department of Health provides free Hepatitis B vaccinations to all Westchester County residents, as well as free Hepatitis C screenings at the Department’s two clinic locations in White Plains and Yonkers. Clients with positive Hepatitis screening results are referred to health care providers for treatment.

Vaccine Preventable Diseases

Reported Vaccine Preventable Diseases, Westchester County, 2014

Disease	Number of Cases
Measles	0
Mumps	6
Pertussis	60
Rubella	0

WCDH investigated/followed up with individuals infected with pertussis and mumps, as well as individuals who were exposed to people infected with these diseases. The Health Department also investigated a Chickenpox outbreak at a residential children’s facility.

In 2014, The Westchester County Department of Health’s clinics administered vaccines to 248 patients.

The WCDH has conducted numerous flu clinics. In 2013, the Health Department held 14 flu clinics during which 1,460 doses of vaccine were administered.

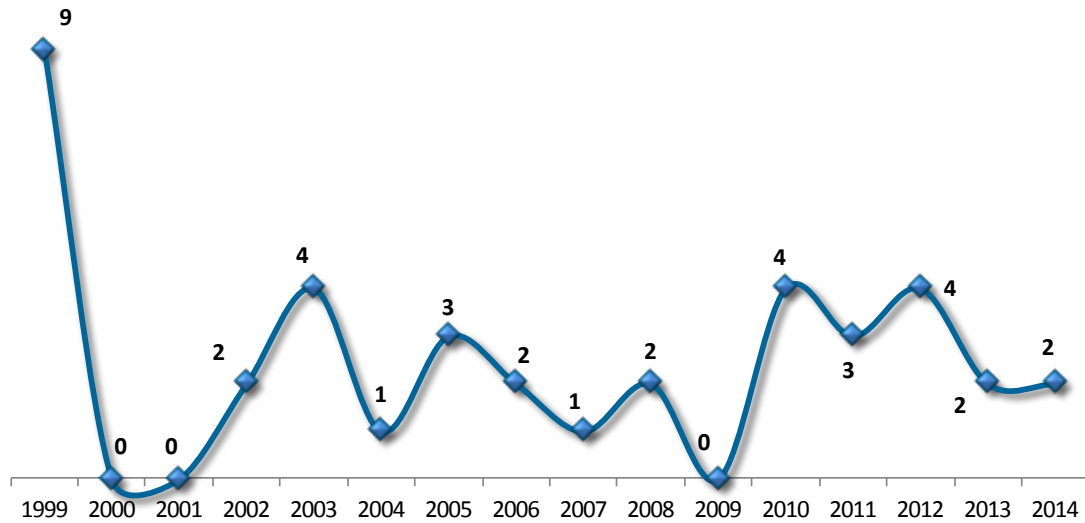
In 2014, WCDH hosted multiple flu clinics throughout the County, during which 1,760 vaccines were administered.

Reported Cases of Influenza by Virus Type, Westchester County, 2014

Influenza Type	Cases
Total	3,075
Influenza A	1,880
Influenza B	1,118
Swine-origin Influenza A (H1N1)	71

Vector Borne Diseases

Reported Cases of West Nile Encephalitis, Westchester County, 1999-2014



West Nile Encephalitis is a potentially serious disease which can cause swelling of the brain and is spread via mosquito bites. Over the last decade, WCDH has made a great effort to prevent the spread of WNV by conducting mosquito surveillance and catch basin larviciding. Every year since 1999, 53,000 to 70,000 catch basins are evaluated and larvicided. In 2014, the Health Department submitted 231 batches of mosquitos for WNV testing. Among these, 6 batches were positive for West Nile Virus.

Rabies Surveillance and Human Post Exposure Prophylaxis, Westchester County, 2010-2014

	2010	2011	2012	2013	2014
Total Reported Animal Bites & Scratches	1,108	1,155	1,249	1,156	1,152
Total Animals Tested	540	590	507	512	630
Animals Confirmed Rabid*	42	61	29	20	37
Bat	7	8	11	10	14
Raccoon	22	23	9	6	15
Skunk	5	21	6	3	2
Cat	7	6	3	1	4
Woodchuck	0	2	0	0	1
Fox	0	1	0	0	1
<i>Confirmed Rabid Animals as Percent of Total Tested</i>	<i>7.8</i>	<i>10.3</i>	<i>5.7</i>	<i>3.9</i>	<i>5.9</i>
Human Post-Exposure Prophylaxis	264	198	202	171	235

Because of the highly virulent nature of the Rabies virus, potential exposures to the disease are closely monitored by the WCDH, with timely testing of suspected animals and prophylactic treatment of individuals who have come in contact with suspected rabid animals. In 2014, 1,152 animal bites and scratches were reported to the Health Department and 630 animals were tested for rabies with 37 being confirmed positive. As a result, 235 Westchester County residents were treated with Post Exposure Prophylaxis.

*In 2014, one woodchuck and one raccoon originated outside of Westchester County.

Syndromic Surveillance

WCDH's Community Health Electronic Syndromic Surveillance (CHES) System is one of the first fully automated syndromic surveillance systems in the Northeastern Region. CHES connects WCDH with all hospitals with emergency rooms to provide "real-time" systematic and statistically valid data to help identify possible disease outbreaks.

The Cumulative Sum (CUSUM) algorithm is used to detect aberrations from an expected mean. Three CUSUM tests are used in CHES: C1-MILD, C2-MODERATE, and C3-ULTRA.

- C1 compares the syndrome rate of the 'event date' with the mean of the syndrome rate for the previous seven days. If the syndrome rate of the 'event date' is more than [mean + 3 standard deviations] of the baseline, C1 is positive. C1 is sensitive to detect one-day spikes of syndrome rates.

- C2 compares the syndrome rate of the 'event date' with a baseline mean of the syndrome rate for the previous seven days, offset by three days. If the syndrome rate of the 'event date' is more than [mean + 3 standard deviations] of the baseline, C2 is positive. C2 is sensitive to detect one-day spikes of disease incidence, but will not be affected by ongoing disease spikes.

- C3 is expressed as " Σ (Syndrome rate of event date and two previous days) > 2 SD". C3 is positive only if there is more than one day when the syndrome rate is greater than the baseline (mean + 1 SD). C3 is sensitive to detect prolonged peaks of disease incidence (across several days).

Number of Visits to Hospital Emergency Rooms and Number and Type of Syndromic Surveillance Event Signals Identified by CHES, Westchester County, 2014

	Total ER Visits	Signals		
		C1	C2	C3
Total	461,634			
Fever				
<13 years	11,413	7	10	26
13+ years	8,897	5	5	23
Total	20,310	5	11	25
Respiratory				
<13 years	6,815	3	5	26
13+ years	33,726	8	3	19
Total	40,541	8	7	25
Vomiting	16,430	7	13	21
GI/Diarrhea	5,577	8	8	20
Sepsis	3,332	11	13	22
Rash	6,044	8	10	21
Hemorrhagic	3,094	4	7	27
Neurological	3,588	11	8	23

Cases & Rates of Reportable Communicable Diseases, Westchester County, 2010-2014

Diseases	Total Annual Cases					Rate (per 100,000 persons)				
	2014	2013	2012	2011	2010	2014	2013	2012	2011	2010
A. Vaccine-Preventable Diseases										
Measles	0	0	0	1	0	0.0	0.0	0.0	0.1	0.0
Mumps	6	0	2	2	4	0.6	0.0	0.2	0.2	0.4
Pertussis	60	49	231	43	40	6.3	5.2	24.3	4.5	4.2
B. CNS Diseases and Bacteremias										
Encephalitis	6	13	8	6	7	0.6	1.4	0.8	0.6	0.7
<i>West Nile Encephalitis (lab positive)</i>	2	2	4	3	4	0.2	0.2	0.4	0.3	0.4
<i>Non-West Nile Encephalitis</i>	4	11	4	3	3	0.4	1.2	0.4	0.3	0.3
Haemophilus Influenzae	7	8	19	10	10	0.7	0.8	2.0	1.1	1.1
Listeriosis	4	6	5	4	6	0.4	0.6	0.5	0.4	0.6
Meningitis	59	54	52	43	37	6.2	5.7	5.5	4.5	3.9
<i>Aseptic Meningitis</i>	51	34	43	37	32	5.4	3.6	4.5	3.9	3.4
<i>Meningococcal Diseases</i>	0	3	1	0	0	0.0	0.3	0.1	0.0	0.0
<i>Other Meningitis/Bacteremias</i>	8	17	8	6	5	0.8	1.8	0.8	0.6	0.5
Group A Strep	31	21	22	21	27	3.3	2.2	2.3	2.2	2.8
Group B Strep	79	63	60	52	56	8.3	6.6	6.3	5.5	5.9
Invasive Strep Pneumoniae	68	70	53	73	90	7.2	7.4	5.6	7.7	9.5
<i>Invasive Strep Pneumoniae</i>	58	64	48	67	88	6.1	6.7	5.1	7.1	9.3
<i>Drug-Resistant Strep Pneumoniae</i>	10	6	5	6	2	1.1	0.6	0.5	0.6	0.2
C. Enteric Infections										
Amebiasis	22	11	17	22	23	2.3	1.2	1.8	2.3	2.4
Calicivirus	151	350	154	9	0	15.9	36.9	16.2	0.9	0.0
Campylobacteriosis	272	297	251	242	179	28.7	31.3	26.4	25.5	18.9
Cryptosporidiosis	12	12	12	13	9	1.3	1.3	1.3	1.4	0.9
Cyclosporidiosis	5	3	2	3	3	0.5	0.3	0.2	0.3	0.3
Enterovirus	28	0	0	0	0	3.0	0.0	0.0	0.0	0.0
Giardiasis	92	69	69	102	94	9.7	7.3	7.3	10.7	9.9
Hemolytic Uremic Syndrome	0	0	1	1	3	0.0	0.0	0.1	0.1	0.3
Salmonellosis	132	121	141	170	180	13.9	12.7	14.9	17.9	19.0
Shigellosis	33	17	22	39	33	3.5	1.8	2.3	4.1	3.5
STEC (E. Coli 0157) ¹	15	16	20	22	21	1.6	1.7	2.1	2.3	2.2
Trichinosis	0	0	0	0	1	0.0	0.0	0.0	0.0	0.1
Typhoid	0	2	4	5	1	0.0	0.2	0.4	0.5	0.1
Vibriosis	6	9	10	4	1	0.6	0.9	1.1	0.4	0.1
Yersiniosis	3	1	3	0	2	0.3	0.1	0.3	0.0	0.2
D. Viral Hepatitis										
Hepatitis A	4	10	9	9	8	0.4	1.1	0.9	0.9	0.8
Hepatitis B	234	318	127	368	103	24.7	33.5	13.4	38.8	10.9
<i>Acute</i>	3	9	6	10	3	0.3	0.9	0.6	1.1	0.3
<i>Chronic</i> ²	231	309	121	358	100	24.3	32.6	12.7	37.7	10.5
Hepatitis C	706	616	852	1,148	312	74.4	64.9	89.8	121.0	32.9
<i>Acute</i>	2	1	1	1	0	0.2	0.1	0.1	0.1	0.0
<i>Chronic</i> ²	704	615	851	1,147	312	74.2	64.8	89.7	120.8	32.9
E. Sexually Transmitted Diseases										
Chlamydia	3,277	3,182	3,035	3,001	2,915	345.3	335.3	319.8	316.2	307.1
Gonorrhea	470	441	623	523	474	49.5	46.5	65.6	55.1	49.9
Herpes Infant	0	0	1	0	4	0.0	0.0	0.1	0.0	0.4
Lymphogranuloma Venereum	0	0	0	0	2	0.0	0.0	0.0	0.0	0.2
Syphilis (All Stages)	159	163	170	139	148	16.8	17.2	17.9	14.6	15.6
<i>Early Syphilis</i>	74	67	78	54	51	7.8	7.1	8.2	5.7	5.4
<i>Primary and Secondary</i>	40	40	48	32	26	4.2	4.2	5.1	3.4	2.7
<i>Early Latent</i>	34	27	30	22	25	3.6	2.8	3.2	2.3	2.6
<i>All other</i>	85	96	92	85	97	9.0	10.1	9.7	9.0	10.2
<i>Congenital Syphilis</i>	1	1	3	0	1	0.1	0.1	0.3	0.0	0.1
F. Tuberculosis										
Tuberculosis (confirmed)	29	33	35	41	36	3.1	3.5	3.7	4.3	3.8
G. Vector-Borne, Zoonoses										
Anaplasmosis	7	21	24	1	15	0.7	2.2	2.5	0.1	1.6
Babesiosis	22	63	12	50	37	2.3	6.6	1.3	5.3	3.9
Chikungunya	40	0	0	0	0	4.2	0.0	0.0	0.0	0.0
Dengue Fever	6	8	6	1	14	0.6	0.8	0.6	0.1	1.5
Ehrlichiosis	1	8	2	1	0	0.1	0.8	0.2	0.1	0.0
Anaplasmosis/Ehrlichiosis Undetermined	0	1	0	0	2	0.0	0.1	0.0	0.0	0.2
Lyme Disease ²	101	83	71	167	114	10.6	8.7	7.5	17.6	12.0
<i>NYSDOH Calculated Incidence</i>	—	247	211	635	404	—	26.0	22.2	66.9	42.6
Malaria	12	10	7	7	9	1.3	1.1	0.7	0.7	0.9
Post-Exposure Prophylaxis for Rabies	235	171	202	198	264	24.8	18.0	21.3	20.9	27.8
Q Fever	0	0	0	0	1	0.0	0.0	0.0	0.0	0.1
Rocky Mountain Spotted Fever	0	0	1	0	0	0.0	0.0	0.1	0.0	0.0
H. Others										
Legionellosis	23	25	25	29	16	2.4	2.6	2.6	3.1	1.7
Toxic Shock Syndrome	1	4	1	0	5	0.1	0.4	0.1	0.0	0.5

¹ Shiga toxin producing E. coli (STEC) may include non-0157 shiga toxin producing strains of E. coli.

² Data may be incomplete due to surveillance limitations.

Data source: New York State's Communicable Disease Electronic Surveillance System (CDESS). Data as of July 2015.