



Allegheny County Health Department STD/HIV Program

2013 Annual STD Report



3441 Forbes Avenue
Pittsburgh, PA 15213

Tel (412) 578-8081
Fax (412)-578-8300

www.county.allegheny.pa.us/achd/std
info@achd.net

This report has been compiled and prepared by:

Xirun Chen, MS

Barbara Murray, Public Health Administrator III

Margaret Taylor, MPH, Public Health Advisor

Harold C. Wiesenfeld, MD, CM- Director, STD Program

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Please direct any questions or comments regarding this
summary to the above staff at (412) 578-8081

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Executive Summary

Sexually transmitted diseases (STDs) continue to represent a major public health burden nationwide. There are an estimated 20 million new cases of STDs in the United States each year. The direct medical costs of STDs to our healthcare system are approximately \$16 billion yearly. Serious long-term complications from STDs include reproductive health problems (e.g., infertility) and certain cancers including cervical, oral, and liver. STDs passed from a mother to her newborn may cause serious illness to her infant. Infections with certain STDs increase an individual's risk for acquiring or transmitting Human Immunodeficiency Virus (HIV). STDs represent an important threat to the health of residents of Allegheny County and to individuals nationwide.

This report outlines the trends of four nationally notifiable STDs (Chlamydia, Gonorrhea, Syphilis and HIV/AIDS), providing an overview of the descriptive epidemiology of these infections in Allegheny County in 2013. The purpose of this report is to give health care providers, policy makers, residents, and other community partners information needed to understand the impact of STDs in Allegheny County.

Chlamydia continues to be the most commonly reported STD in Allegheny County. Following increases in chlamydia infections reported in years prior, there was a 6% decline in reported cases from 2012 to 2013. (524.0 cases to 494.9 cases per 100,000 population). While chlamydial infections disproportionately affect Blacks, larger reductions in chlamydial infections over the last year were observed among Black individuals than among those of other racial backgrounds. As screening programs focus on younger women, most cases of chlamydia reported in Allegheny County are in women.

In 2013, we observed a slight reversal in the three year trend of increasing cases of gonorrhea. There were 2,170 cases of gonorrhea reported in Allegheny County in 2013, a 9% reduction compared to 2012. The majority of reported cases were among the 15-24 year age group, which accounted for 63% of reported cases.

The overall reported rate of early syphilis declined by 31% in 2013 compared to 2012. (7.8 cases in 2012 to 5.1 cases per 100,000 population in 2013). Reported cases of infection were highest among men. Among younger men, rates of infection were higher in Black men ages 20-34 compared to White men in that age group.

At the time of this report, there were 94 new AIDS cases (7.6 cases per 100,000 population) and 140 new HIV cases (11.4 cases per 100,000 population) reported during 2013. Similarly to other sexually transmitted diseases, higher rates of new HIV infections were observed among Black residents. Men who have sex with men represents the single largest self-identified group, accounting for 73% of newly diagnosed HIV cases.

Risk reduction strategies, and earlier detection and treatment of STDs can lower the risk of acquiring or transmitting an STD. Continuous work of the medical professionals, educators and community leaders is essential to increase public awareness and reduce the burden of STDs and HIV/AIDS in Allegheny County.

Harold Wiesenfeld, M.D., C.M.

Medical Director, STD Program

Allegheny County Health Department

Acronyms

ACHD	Allegheny County Health Department
AIDS	Acquired Immunodeficiency Syndrome
CDC	Centers for Disease Control and Prevention
CT	<i>Chlamydia trachomatis</i>
GC	<i>Neisseria gonorrhoeae</i>
HIV	Human Immunodeficiency Virus
IDU	Injection Drug User
MSM	Men who have sex with men
NAAT	Nucleic Acid Amplification Tests
PA	Pennsylvania
P&S	Primary and Secondary Syphilis
PID	Pelvic Inflammatory Disease
STD	Sexually Transmitted Diseases
U.S.	United States

Chlamydia

Nearly 3 million infections occur annually in the US. Most infections remain undetected and untreated because a large proportion of infected individuals are asymptomatic.

Chlamydia trachomatis (CT) is the most commonly reported notifiable bacterial STD both in Allegheny County and the United States. Nationwide in 2013, 1,401,906 chlamydia cases were reported to the CDC. It is estimated that nearly 3 million infections occur annually in the US, but most infections remain undetected and untreated because a large proportion of infected individuals are asymptomatic. Even though symptoms of chlamydia are usually mild or absent, if left untreated, chlamydial infections can result in pelvic inflammatory disease (PID), which may lead to infertility, ectopic pregnancies and chronic pelvic pain. Pregnant women with chlamydia can pass the infection to their infants during delivery, potentially causing health issues such as conjunctivitis of the newborn's eyes and pneumonia. Sexually active individuals may be at risk of acquiring chlamydia, and the highest incidence rates are seen in young women aged 15-24. Because of the large burden of disease and risks associated with infection, the CDC recommends that all sexually active women aged 25 and under undergo annual chlamydia screening.

In 2013 chlamydial infections in Allegheny County declined by 5.5% compared to 2012

Incidence Rates of Chlamydia

The incidence of chlamydia in Allegheny County has increased from 2006-2012, but declined slightly in 2013 (see Figure 1). The rate of 494.9 cases per 100,000 represents a 5.5% decrease compared to 524.0 cases per 100,000 reported in 2012 (see Figures 1 and 2, and Tables 1 and 2).

Adolescents and young adults are at highest risk for acquiring chlamydia.

Chlamydia Cases by Sex and Age

During 2013, 69.6% of reported chlamydia cases were in women (see Figure 3 and Table 3). The incidence rate among women (663.4 cases per 100,000 women) in Allegheny County was over two times the rate among men (312.0 cases per 100,000 men), reflecting a larger number of women screened for chlamydia, in accordance with screening guidelines.

Similar to nationwide trends, adolescents and young adults are at highest risk for acquiring chlamydia. Among women, the highest age-specific rates of reported chlamydia in 2013 were among those aged 15–19 years (4,233 cases per 100,000 women) (see Figure 3), accounting for 26% of reported cases. Age-specific rates among men, although substantially lower than the rates among women, were highest in those aged 21–24 years (1583 cases per 100,000 men) (see Figure 3). The

disproportionately high infection rates among younger women, compared to older women, shown in Figure 3 may be attributed to several factors, such as screening programs that target testing younger women, greater susceptibility of younger women to chlamydia and risky sexual behavior.

Chlamydia continues to infect thousands of people in Allegheny County. As adolescents and young women have the highest rate of infection, all sexually active women age 25 and under should be screened annually for chlamydia, and more frequently with additional risk factors.

Chlamydia Cases by Race

Chlamydia incidence rates were highest among Blacks in 2013 (see Table 4). The rate among Blacks (2,197.0 cases per 100,000 population) was more than 16 times the rate among Whites (133.8 cases per 100,000 population), and 59% of all cases were reported in Blacks (compared to 62% in 2012). In 2013, we observed a 9% reduction in cases of chlamydia among Blacks, the first such decline in four years.

Black females in the 15-24 years old age group are disproportionately affected, representing 32% of all reported cases of chlamydia in 2013. Although Black females in this age group make up only 14,616 (1.2%) of the total population in Allegheny County, they account for the highest percentage of infection (see Table 6). Of the female cases in the 15-24 year age group, 59% were in Black women. These findings are similar to those observed nationally. Understanding and addressing the STD disparities between Blacks and Whites, particularly among youth, are necessary in order to combat the high burden of STDs.

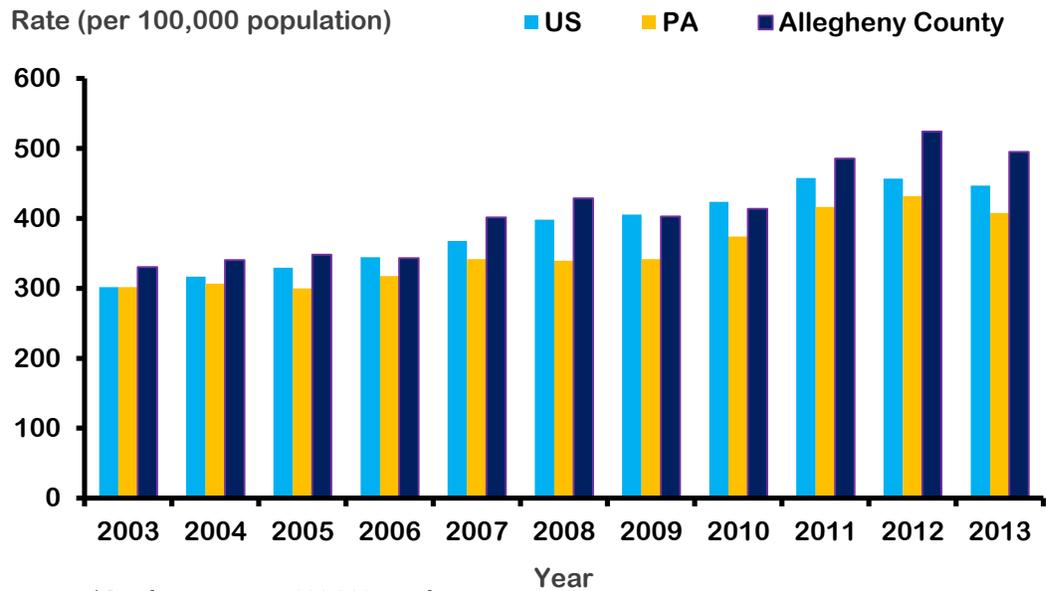
Chlamydia Screening in Allegheny County

As chlamydial infections are mostly asymptomatic, screening programs have been established to detect infections, particularly in women. Chlamydia is especially dangerous to young women of childbearing age because of the possible permanent damage to the reproductive system. Left undetected, chlamydia can cause PID, infertility, and ectopic pregnancy. The Allegheny County Health Department (ACHD) provides screening services at the STD Clinic and at several other community sites in the county. In 2013, the STD program screened 22,663 patients for chlamydia at the ACHD STD clinic and at affiliated screening sites county-wide (see Table 7). Overall, 9.1% of screened individuals tested positive for chlamydia.

Chlamydia incidence rates are 16 times higher in Blacks than in Whites

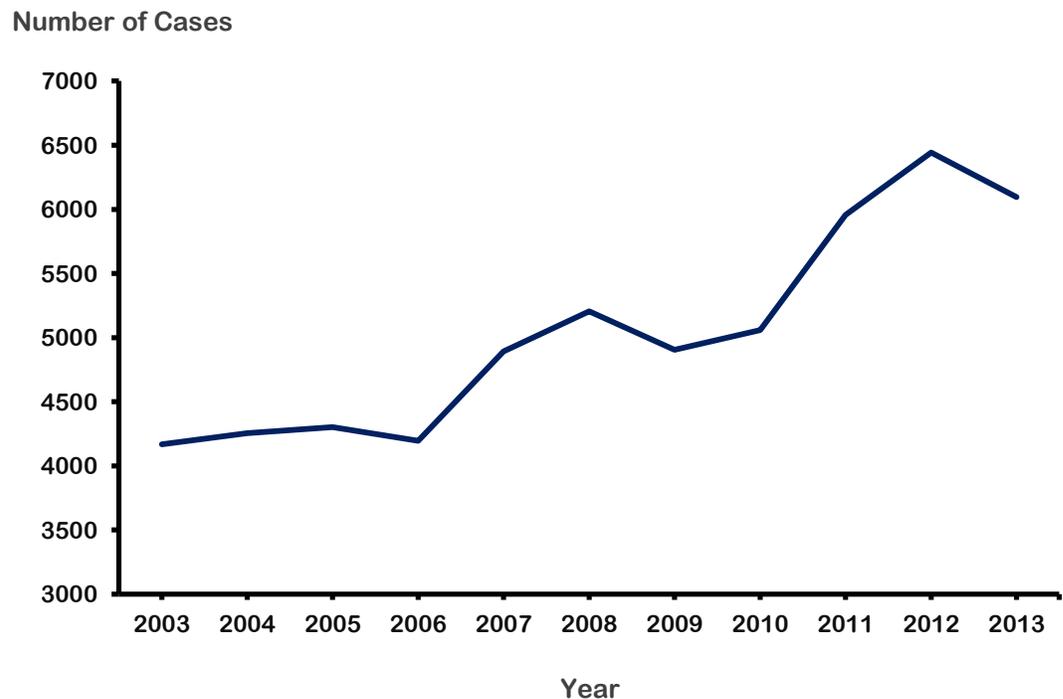
Chlamydia Data Tables and Figures

Figure 1. Chlamydia Incidence Rates* in United States, Pennsylvania and Allegheny County, 2002-2013.



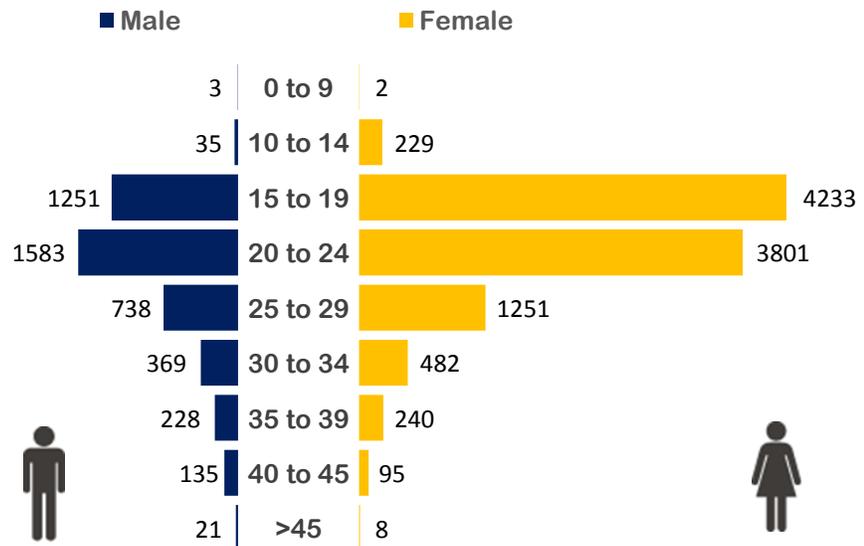
* Incidence rate per 100,000 population
 Note: See Table 1 for actual data.

Figure 2. Number of Reported Chlamydia Cases in Allegheny County, 2003-2013.



Note: See Table 2 for actual data.

Figure 3. Incidence Rates* of Chlamydia Cases by Age and Sex in Allegheny County, 2013.



* Incidence rate per 100,000 population

Note: See Table 6 for actual data.

Table 1. Incidence Rates* of Chlamydia in United States, Pennsylvania and Allegheny County 2003-2013.

Year	United States#	Pennsylvania#	Allegheny County
2003	301.7	301.6	330.5
2004	316.5	306.5	340.2
2005	329.4	299.8	348.2
2006	344.3	317.7	343.0
2007	367.5	341.6	401.2
2008	398.1	339.3	428.4
2009	405.3	341.7	402.6
2010	423.6	374.1	413.6
2011	457.6	416.3	485.5
2012	456.7	431.6	524.0
2013	446.6	407.8	494.9

* Incidence rate per 100,000 population

Source: CDC STD Surveillance Reports

Table 2. Reported Cases and Incidence Rates* of Chlamydia in Allegheny County 2003-2013

Year	Number of Reported Cases	Estimated Population [∞]	Incidence Rate*
2003	4,169	1,261,303	330.5
2004	4,256	1,250,867	340.2
2005	4,303	1,235,841	348.2
2006	4,196	1,223,411	343.0
2007	4,892	1,219,210	401.2
2008	5,206	1,215,103	428.4
2009	4,906	1,218,494	402.6
2010	5,060	1,223,348	413.6
2011	5,958	1,227,066	485.5
2012	6,442	1,229,338	524.0
2013	6,095	1,231,527	494.9

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

Table 3. Reported Cases and Incidence Rates* of Chlamydia by Sex in Allegheny County, 2012-2013

Gender	2012			2013		
	Reported Cases	Estimated Population [∞]	Rate*	Reported Cases	Estimated Population [∞]	Rate*
Female	4,431	638,846	693.6	4,240	639,159	663.4
Male	1,847	588,667	313.8	1,848	592,368	312.0
Total	6,442*	1,229,338	524.0	6,095*	1,231,527	494.9

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

Note: Includes cases for which sex was not recorded

Table 4. Reported Cases and Incidence Rates* of Chlamydia by Race in Allegheny County, 2012-2013

Race	2012			2013		
	Reported Cases	Estimated Population [∞]	Rate*	Reported Cases	Estimated Population [∞]	Rate*
Black	3,983	164,288	2,424.4	3,610	164,316	2,197.0
White	1,368	1,002,035	136.5	1,340	1,001,635	133.8
Unknown/Other	1,091	--	--	1,145	--	--
Total	6,442	1,229,338	524.0	6,095	1,231,527	494.9

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

Table 5. Reported Chlamydia Cases by Race in Allegheny County 2008-2013

Race	2008 Morbidity	2009 Morbidity	2010 Morbidity	2011 Morbidity	2012 Morbidity	2013 Morbidity
Black	3,217 (61.8%)	3,130 (63.7%)	3,427 (68.0%)	3,791 (63.6%)	3,987 (61.9%)	3,610 (59.2%)
White	1,202 (23.1%)	1,146 (23.3%)	1,139 (22.9%)	1,311 (22.0%)	1,368 (21.2%)	1,340 (22.0%)
Unknown/Other	783 (15.1%)	641 (13.0%)	476 (9.4%)	856 (14.4%)	1,087 (16.9%)	1,145 (18.8%)
Total	5,202	4,917	5,042	5,958	6,442	6,095

Table 6. Reported Cases of Chlamydia by Age, Race and Sex in Allegheny County-2013

Age Group	Black		White		Unknown/Other		Total		Totals
	Female	Male	Female	Male	Female	Male	Female	Male	
0-9	0	0	0	0	1	2	1	2	3
10-14	55	11	11	0	7	1	75	12	87
15-19	1,025	368	305	36	267	82	1,603	487	2,093
20-24	909	404	455	125	284	148	1,658	677	2,336
25-29	287	202	192	62	93	77	571	342	914
30-34	98	81	52	34	40	33	191	148	340
35-39	39	48	20	9	21	19	80	76	157
40-44	13	32	17	4	6	14	36	50	86
45 +	12	25	4	14	9	15	25	54	79
Total	2,438	1,171	1,056	284	728	391	4,240	1,848	6,095

Note: Includes cases for which sex was not recorded

Table 7. Chlamydia Screening- ACHD and Affiliated Facilities, Allegheny County

Clinic	Males Screened	Number Positive	Positive %	Females Screened	Number positive	Positive %	Total* Screen	Total Positive	Positive %
2010 STD Clinic	6,801	816	12.0%	4,156	355	8.5%	10,957	1,171	10.7%
2010 All Others	1,966	272	13.8%	12,654	700	5.5%	14,640	972	6.6%
2010 Total	8,767	1,088	12.4%	16,810	1055	6.3%	25,597	2,143	8.3%
2011 STD Clinic	6,961	915	13.1%	4,179	389	9.3%	11,149	1,305	11.7%
2011 All Others	1,837	222	12.1%	8,970	603	6.7%	10,821	825	7.6%
2011 Total	8,798	1,137	12.9%	13,149	992	7.5%	21,947	2,130	9.7%
2012 STD Clinic	6,683	933	14.0%	3,993	365	9.1%	10,679	1,298	12.2%
2012 All Others	2,055	216	10.5%	8,510	596	7.0%	10,566	812	7.7%
2012 Total	8,738	1,149	13.1%	12,503	961	7.7%	21,245	2,110	9.9%
2013 STD Clinic	7,189	883	12.3%	4260	369	8.7%	11,475	1,257	11.0%
2013 All Others	2055	221	10.8%	9108	574	6.3%	11188	796	7.1%
2013 Total	9244	1104	11.9%	13368	943	7.1%	22663	2053	9.1%

Note: Includes cases for which sex was not recorded

Gonorrhea

Gonorrhea is the second most commonly reported notifiable disease in the United States and is caused by the bacterium *Neisseria gonorrhoeae*. The highest reported rates of infection are among sexually active teenagers, young adults, and Blacks aged 15-24 years. Common symptoms in men include a burning sensation when urinating, and a milky discharge from the penis that usually appears 1 to 14 days after acquiring the infection. Symptoms in women include a painful or burning sensation when urinating, increased vaginal discharge, or vaginal bleeding between menstrual periods. Many men and women infected with gonorrhea are asymptomatic. As with chlamydia, untreated gonorrhea infections in women can cause PID, which may lead to infertility, ectopic pregnancies and chronic pelvic pain. In men, untreated infection may result in epididymitis which can lead to sterility.

Incidence Rates of Gonorrhea

From 1975 through 1997, the gonorrhea incidence rate in the United States declined 74.3% following the implementation of the national gonorrhea control program in the mid-1970s. Nationwide in 2013, 333,004 gonorrhea cases were reported to the CDC. This is a rate of 106.1 cases per 100,000, which represents a slight decrease compared to 2012 (see Figure 4 and Table 8). In Pennsylvania, 13,874 cases were reported in 2013, 1516 fewer cases than in 2012 (see Figure 4 and Table 8).

In Allegheny County, the incidence rate of gonorrhea declined by 9.5% from 2012 to 2013

In Allegheny County, gonorrhea cases declined, reversing a trend of increasing cases from 2009-2012 (see Figure 5). During 2013, 2,170 cases were reported, 9.3% fewer cases than in 2012 (see Figure 5 and Table 9). The incidence rate of gonorrhea declined by 9.5% to 176.2 per 100,000 cases in 2013 (Figure 4 and Table 9).

Gonorrhea by Sex and Age

In Allegheny County, the gonorrhea incidence was the higher among women in 2013, with a rate of 200.7 cases per 100,000 (compared to 149.6 cases per 100,000 among men) (see Table 10). As with chlamydia, the majority of reported cases were among women (59.2% of cases). Of the female cases reported, 70.9% were in the 15-24 age-group (see Figure 6 and Table 13). Although women generally have higher rates of gonorrhea than men, the differences have not been as great as seen with chlamydia because a higher proportion of infections, particularly among men, are symptomatic and detected. Among men, 53% of cases were in the 15-24 year olds (see Figure 6 and Table 13).

Gonorrhea by Race

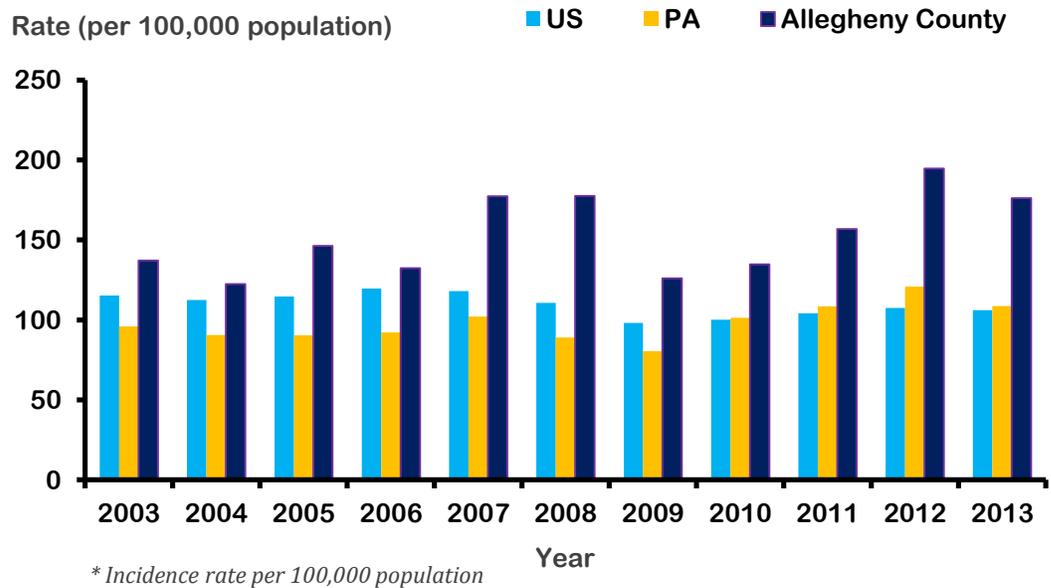
During 2013, 71% of reported gonorrhea cases were in the Black population (a slight decline compared to 2012), 16.5% in the White population and 12.6% in the other or unknown populations (see Tables 11 and 12). Although Blacks comprise only 13.3% of the county's population, the incidence rate among Blacks was more than 26 times the rate among Whites (936.6 and 35.7 cases per 100,000 population, respectively). Infections in young Black women ages 15-24 represent 54% of all female cases of gonorrhea reported in Allegheny County (see Table 13). Education, outreach programs and effective targeted screening programs are important tools to help decrease the morbidity in this population.

Gonorrhea Screening in Allegheny County

In 2013, ACHD screened 22,670 individuals for gonorrhea in the STD Clinic and at several other community sites in the county. Among those screened, 3.9% tested positive for gonorrhea (see Table 14).

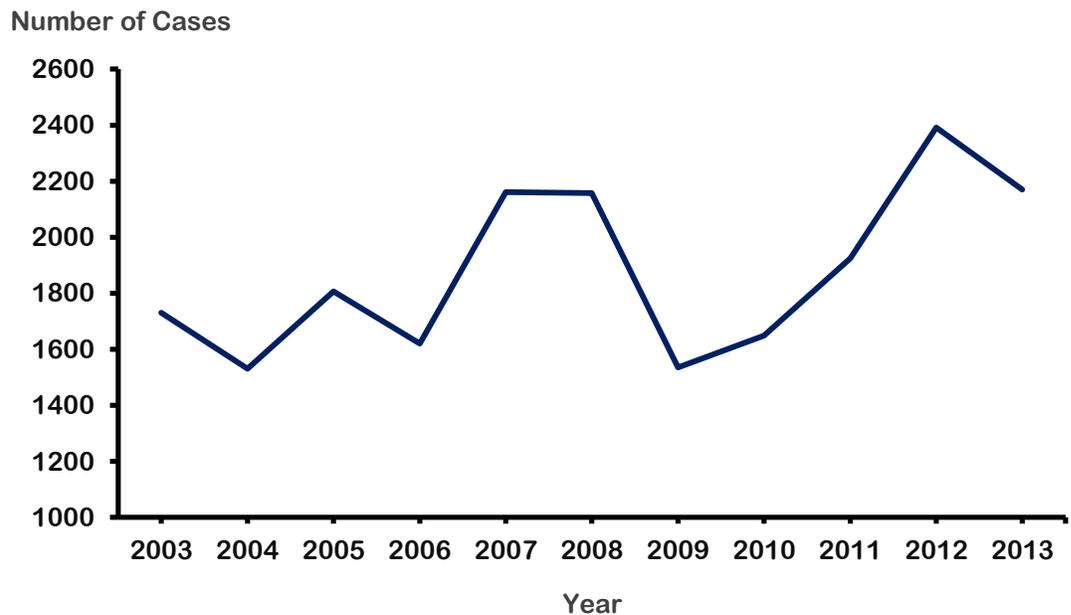
Gonorrhea Data Tables and Figures

Figure 4. Gonorrhea Incidence Rates* in United States, Pennsylvania, and Allegheny County, 2003-2013.



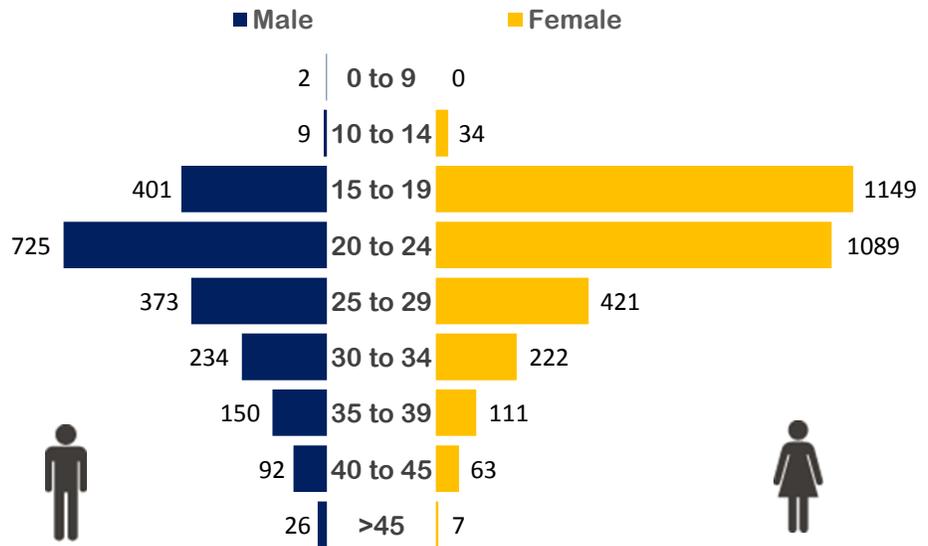
Note: See Table 8 for actual data.

Figure 5. Number of Reported Gonorrhea Cases in Allegheny County, 2003-2013.



Note: See Table 9 for actual data.

Figure 6. Incidence Rates* of Gonorrhea Cases by Age and Sex in Allegheny County, 2013. See Table 13 for actual data.



* Incidence rate per 100,000 population

Table 8. Incidence Rates* of Gonorrhea in United States, Pennsylvania and Allegheny County 2003-2013.

Year	United States#	Pennsylvania#	Allegheny County
2003	115.2	96.0	137.2
2004	112.4	90.6	122.4
2005	114.6	90.3	146.2
2006	119.7	92.2	132.4
2007	118.0	102.2	177.2
2008	110.7	88.9	177.6
2009	98.1	80.4	126.0
2010	100.2	101.4	134.8
2011	104.2	108.4	156.9
2012	107.5	120.8	194.6
2013	106.1	108.7	176.2

* Incidence rate per 100,000 population

Source: CDC STD Surveillance Reports

Table 9. Reported Cases and Incidence Rates* of Gonorrhea in Allegheny County 2003-2013

Year	Number of Reported Cases	Estimated Population ^α	Incidence Rate*
2003	1,730	1,261,303	137.2
2004	1,531	1,250,867	122.4
2005	1,807	1,235,841	146.2
2006	1,620	1,223,411	132.4
2007	2,161	1,219,210	177.2
2008	2,158	1,215,103	178.1
2009	1,535	1,218,494	125.9
2010	1,649	1,223,348	135.1
2011	1,925	1,227,442	156.9
2012	2,392	1,229,338	194.6
2013	2,170	1,231,527	176.2

*Incidence rate per 100,000 population

^αBased on U.S. Census Bureau estimated population data

Table 10. Reported Cases and Incidence Rates* of Gonorrhea by Sex in Allegheny County, 2012-2013

Gender	2012			2013		
	Reported Cases	Estimated Population ^α	Rate*	Reported Cases	Estimated Population ^α	Rate*
Female	1,402	638,846	219.5	1,283	639,159	200.7
Male	990	590,492	167.7	886	592,368	149.6
Total	2,392	1,229,338	194.6	2,169 [^]	1,231,527	176.1

*Incidence rate per 100,000 population

[^]1 case missing (sex not recorded)

^αBased on U.S. Census Bureau estimated population data

Table 11. Reported Cases and Incidence Rates* of Gonorrhea by Race in Allegheny County, 2012-2013

Race	2012			2013		
	Reported Cases	Estimated Population ^α	Rate*	Reported Cases	Estimated Population ^α	Rate*
Black	1,720	164,288	1,046.9	1,539	164,316	936.6
White	393	1,002,035	39.2	358	1,001,635	35.7
Unknown/ Other	279	--	--	273	--	--
Total	2,392	1,229,338	194.6	2,170	1,231,527	176.1

*Incidence rate per 100,000 population

^αBased on U.S. Census Bureau estimated population data**Table 12.** Reported Gonorrhea Cases by Race in Allegheny County 2008-2013

Race	2008 Morbidity	2009 Morbidity	2010 Morbidity	2011 Morbidity	2012 Morbidity	2013 Morbidity
Black	1,622 (75.2%)	1,130 (73.6%)	1,329 (80.6%)	1,421 (73.8%)	1,720 (71.9%)	1,539 (70.9%)
White	349 (16.2%)	267 (17.4%)	239 (14.5%)	324 (16.8%)	393 (16.4%)	358 (16.5%)
Unknown /Other	187 (8.7%)	138 (9.0%)	81 (4.9%)	180 (9.4%)	279 (11.7%)	273 (12.6%)
Total	2,158	1,535	1,649	1,925	2,392	2,170

Table 13. Reported Case of Gonorrhea by Age, Race and Sex in Allegheny County-2013

Age Group	Black		White		Unknown/ Other		Total		Totals
	Female	Male	Female	Male	Female	Male	Female	Male	
0-9	0	1	0	0	0	0	0	1	1
10-14	10	3	1	0	0	0	11	3	14
15-19	337	128	46	10	52	18	435	156	591
20-24	354	238	80	32	41	40	475	310	785
25-29	126	120	47	32	19	21	192	173	365
30-34	50	51	27	23	11	20	88	94	182
35-39	21	31	11	9	5	10	37	50	87
40-44	6	20	11	4	7	10	24	34	58
45 +	12	31	3	22	6	12	21	65	86
Total	916	623	226	132	141	131	1283	886	2169[^]

[^]1 case missing

Table 14. *Gonorrhea Screening, ACHD and Affiliated Facilities, Allegheny County 2010-2013*

Clinic	Males Screened	Number Positive	Positive %	Females Screened	Number positive	Positive %	Total* Screen	Total Positive	Positive %	
2010	STD Clinic	6,801	402	5.9%	4,156	148	3.6%	10,968	551	5.0%
	All Others	1,829	77	4.2%	12,805	183	1.4%	14,461	261	1.8%
	2010 Total	8,630	479	5.6%	16,961	331	2.0%	25,429	812	3.2%
2011	STD Clinic	6,961	449	6.5%	4,180	141	3.4%	11,150	590	5.3%
	All Others	1,835	52	2.8%	8,971	128	1.4%	10,811	180	1.7%
	2011 Total	8,796	501	5.7%	13,151	269	2.0%	21,961	770	3.5%
2012	STD Clinic	6,683	497	7.4%	3,993	175	4.4%	10,679	672	6.3%
	All Others	2,055	58	2.8%	8,510	157	1.8%	10,566	216	2.0%
	2012 Total	8,738	555	6.3%	12,503	332	2.7%	21,245	888	4.2%
2013	STD Clinic	7,192	493	6.9%	4,262	159	3.7%	11,480	656	6.3%
	All Others	2,055	50	2.4%	9,110	167	1.8%	11,190	218	2.0%
	2013 Total	9,247	543	5.9%	13,372	326	2.4%	22,670	874	3.9%

Note: Information on sex missing for some patients

Syphilis

Syphilis is an STD caused by the bacterium *Treponema pallidum*. Syphilis is transmitted from person to person, by direct sexual contact with an infected partner or vertically from an infected mother to her fetus. Syphilis is divided into disease stages—primary, secondary, early latent (within 1 year of infection), late latent (more than 1 year after infection) and tertiary. The term “early syphilis” includes primary, secondary and early latent syphilis. The hallmark symptom of primary syphilis is a round, painless sore called a chancre that usually disappears in about 3 to 6 weeks. In the secondary stage, the most common symptom is a rash on the palms of the hands and the soles of the feet. Without treatment, the infection may progress to the tertiary stage of syphilis which may cause damage to the central nervous system, heart or other organs. Vertical transmission of syphilis to newborns can result in congenital syphilis (stillbirth, deformities, developmental delays, blindness and other permanent damage to the fetus and newborn). Prenatal screening is extremely important to prevent congenital syphilis. Pregnant women should be screened for syphilis at the first prenatal visit and, if indicated, in the third trimester. Importantly, syphilis can increase the risk of HIV transmission. Screening, reporting, intensive investigation, and treatment of sex partners are key to the control of syphilis.

Incidence Rate of Syphilis

Early syphilis cases have decreased in Allegheny County by 34%, from 2012 to 2013

The rate of primary and secondary (P&S) syphilis reported in the U.S. decreased during the 1990s, but in 2001 the rate of syphilis, nationwide, began to increase. Despite efforts toward syphilis elimination, this STD remains an important problem nationwide, particularly in urban areas. In the U.S., the incidence rate of P&S syphilis was 5.5 cases per 100,000 population in 2013, an increase of 10% over 2012 (see Figure 7 and Table 15). In Pennsylvania, there were 471 P&S infections in 2013, with an incidence rate of 3.7 cases per 100,000 population, a five percent reduction from 2012. In Allegheny County 28 cases of primary and secondary syphilis were reported in 2013 (2.3 cases per 100,000 population). There were a total of 63 cases of early syphilis (primary, secondary and early latent), a 34% decrease in cases since 2012 (see Figure 8 and Table 16). This decline in early syphilis cases in Allegheny County is the first decline since 2009.

In 2013, 89% of reported early syphilis cases in Allegheny County were among men

Syphilis by Age and Sex

In contrast to chlamydia and gonorrhea, syphilis is not commonly reported among adolescents. Of the 63 cases reported in 2013 in Allegheny County, 95% were older than 20 years of age, and 40% were 40 and older (see Figure 9 and Table 21). Syphilis is far more common in men than women, with 89% of cases in Allegheny County occurring in men. Further, syphilis cases are more common among men who have sex with men (MSM), with MSM accounting for 71% of male cases and 63% of total cases. The incidence rate of syphilis in men (9.5 cases per 100,000 population) is over eight times higher than the incidence rate of syphilis in women (1.1 cases per 100,000 population) (see Table 17). During 2013, there were no cases of congenital syphilis reported in Allegheny County. The last congenital syphilis case was reported in 2006.

The 2013 early syphilis incidence rate was 4.6 times higher in Blacks than in Whites

Syphilis by Race

During 2013, 51% of reported early syphilis cases were in the White population, 38% were in the Black population, and 11% in the unknown/other population (see Table 18). Despite the large number of cases in the White population, the incidence rate was 4.6 times higher in Blacks than Whites (14.6 vs 3.2 cases per 100,000) (see Table 18).

46% of individuals diagnosed with early syphilis were HIV positive

Syphilis and HIV

Of the 63 reported cases of early syphilis in Allegheny County in 2013, 29 individuals were also infected with HIV (a 46% coinfection rate). All of the coinfection cases were among men, and 86% (n=25) were among MSM. Education and effective prevention messages are needed to be targeted at this population to decrease the rate of coinfection.

Syphilis Data Tables and Figures

Figure 7. P&S Syphilis Incidence Rates* in United States, Pennsylvania and Allegheny County, 2003-2013. See Table 15 for actual data.

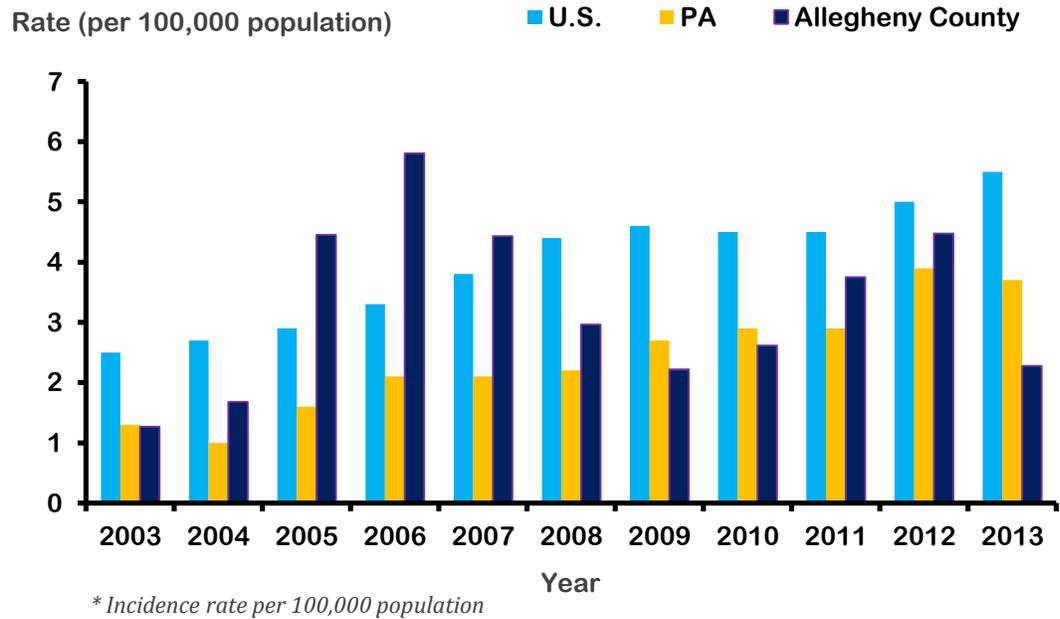
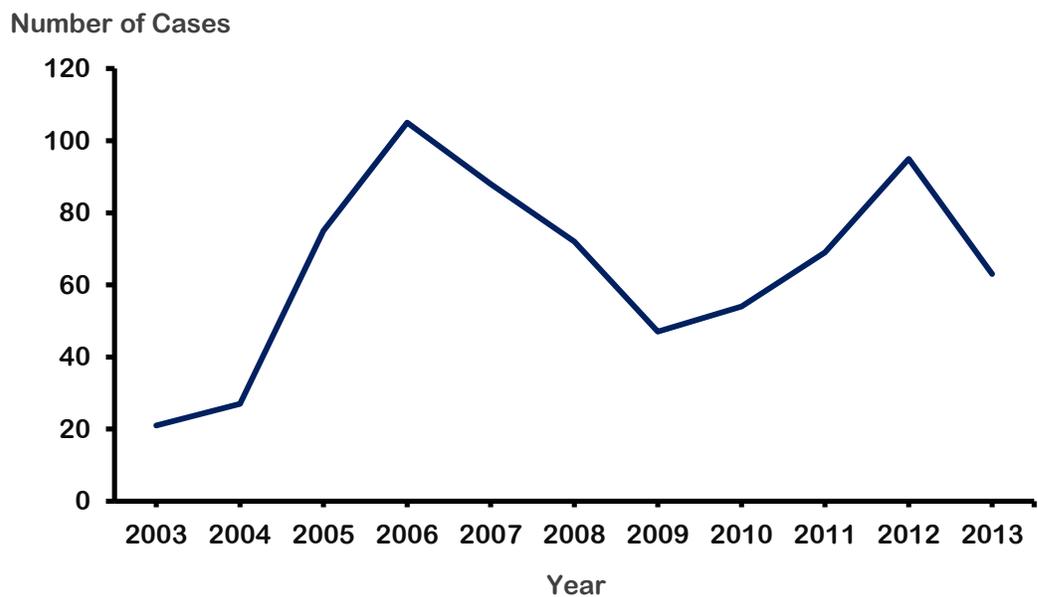


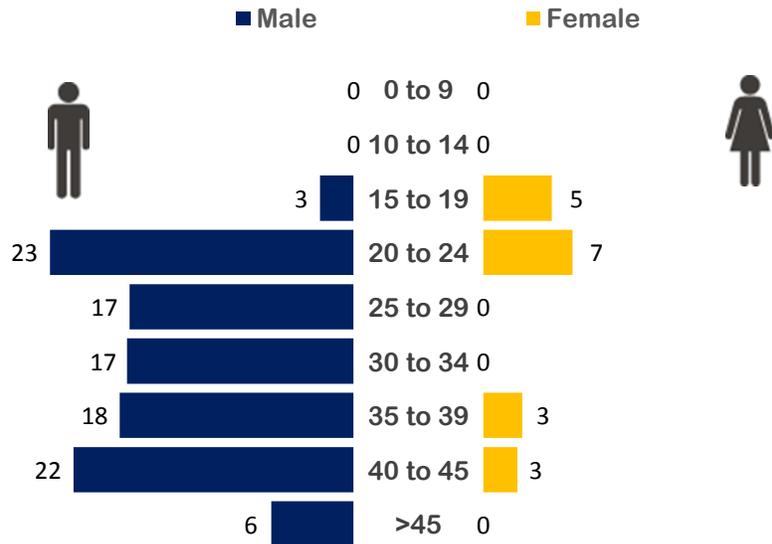
Figure 8. Number of Reported Early Syphilis[‡] Cases in Allegheny County, 2003-2013.



Note: See Table 16 for actual data.

[‡]Primary, Secondary and Early Latent Syphilis

Figure 9. Incidence Rates* of Early Syphilis‡ Cases by Age and Sex in Allegheny County, 2013. See Table 21 for actual data.



* Incidence rate per 100,000 population

‡ Primary, Secondary and Early Latent Syphilis

Table 15. Incidence Rates* of P&S Syphilis in United States, Pennsylvania and Allegheny County 2003-2013.

Year	United States#	Pennsylvania#	Allegheny County
2003	2.5	1.3	1.3
2004	2.7	1	1.7
2005	2.9	1.6	4.5
2006	3.3	2.1	5.8
2007	3.8	2.1	4.4
2008	4.4	2.2	3.0
2009	4.6	2.7	2.2
2010	4.5	2.9	2.6
2011	4.5	2.9	3.7
2012	5.0	3.9	4.5
2013	5.5	3.7	2.3

* Incidence rate per 100,000 population

Source: CDC STD Surveillance Reports

Table 16. Reported Cases and Incidence Rates* of Early Syphilis‡ in Allegheny County 2003-2013

Year	Number of Reported Cases	Estimated Population [∞]	Incidence Rate*
2003	21	1,261,303	1.7
2004	27	1,250,867	2.2
2005	75	1,235,841	6.1
2006	105	1,223,411	8.6
2007	88	1,219,210	7.2
2008	72	1,215,103	5.9
2009	47	1,218,494	3.9
2010	54	1,223,348	4.4
2011	69	1,227,442	5.6
2012	95	1,229,338	7.7
2013	63	1,231,527	5.1

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

‡Primary, Secondary and Early Latent Syphilis

Table 17. Reported Cases and Incidence Rates* of Early Syphilis‡ by Sex in Allegheny County, 2011-2012

Gender	2012			2013		
	Reported Cases	Estimated Population [∞]	Rate*	Reported Cases	Estimated Population [∞]	Rate*
Female	8	638,846	1.3	7	639,159	1.1
Male	87	590,492	14.7	56	592,368	9.5
Total	95	1,229,338	7.7	63	1,231,527	5.1

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

‡Primary, Secondary and Early Latent Syphilis

Table 18. Reported Cases and Incidence Rates* of Early Syphilis[‡] by Race in Allegheny County, 2012-2013

Race	2012			2013		
	Reported Cases	Estimated Population ^α	Rate*	Reported Cases	Estimated Population ^α	Rate*
Black	36	164,288	21.9	24	164,316	14.6
White	52	1,002,035	5.1	32	1,001,635	3.2
Unknown/ Other	7	--	--	7	--	--
Total	95	1,229,338	7.7	63	1,231,527	5.1

*Incidence rate per 100,000 population

^αBased on U.S. Census Bureau estimated population data

[‡]Primary, Secondary and Early Latent Syphilis

Table 19. Early Syphilis[‡] Cases by Disease Category and Year of Diagnosis in Allegheny County

Year	Primary	Secondary	Early Latent	Totals
2003	8	8	5	21
2004	8	13	6	27
2005	22	33	20	75
2006	21	50	34	105
2007	21	33	34	88
2008	6	30	36	72
2009	8	19	20	47
2010	7	25	22	54
2011	7	39	23	69
2012	17	38	40	95
2013	6	22	35	63

[‡]Primary, Secondary and Early Latent Syphilis

Table 20. Early Syphilis[‡] Cases by Sex and Year of Diagnosis in Allegheny County

Year	Male	Female	Total
2003	15 (71%)	6 (29%)	21
2004	17 (63%)	10 (37%)	27
2005	43 (57%)	32 (43%)	75
2006	79 (65%)	42 (35%)	121
2007	53 (60%)	35 (40%)	88
2008	55(76%)	17 (24%)	72
2009	38 (81%)	9 (19%)	47
2010	50(93%)	4 (7%)	54
2011	62 (90%)	7 (10%)	69
2012	87(92%)	8(8%)	95
2013	56(89%)	7(11%)	63

[‡]Primary, Secondary and Early Latent Syphilis

Table 21. Reported Case of Early Syphilis[‡] by Age, Race and Sex in Allegheny County - 2013

Age Group	Black		White		Unknown /Other		Total		
	Female	Male	Female	Male	Female	Male	F	M	TOTAL
0-9	0	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0	0
15-19	1	1	1	0	0	0	2	1	3
20-24	2	6	1	1	0	3	3	10	13
25-29	0	1	0	6	0	1	0	8	8
30-34	0	4	0	3	0	0	0	7	7
35-39	1	1	0	5	0	0	1	6	7
40-44	0	2	0	5	1	1	1	8	9
45 +	0	5	0	11	0	0	0	16	16
Total	4	20	2	31	1	5	7	56	63

[‡]Primary, Secondary and Early Latent Syphilis

Table 22. Risk Factors Associated with Syphilis[&] in Allegheny County - 2013

Exposure Category	Number of Cases		
	Female	Male	Total cases
Sex with female	0	6	6
Sex with male	6	40	46
Sex with MSM	0	38	38
Sex with HIV/AIDS infected person	0	13	13
Sex with anonymous person	0	25	25
Sex with person picked up from Internet	0	7	7
Multiple Sex partners	3	33	36
Non-injection drug (IDU) user	1	6	7
Previous History of STDs	2	20	22

[&]Data based on self-reporting

HIV/AIDS

Human immunodeficiency virus (HIV) is a retrovirus that causes acquired immune deficiency syndrome (AIDS), a disease characterized by progressive deterioration of the immune system. The diminished immune function places infected individuals at risk for opportunistic infections, which may lead to death.

In Allegheny County, the cumulative AIDS cases reported since 1981 to date is 4,386. Since 1981, there have been 36 pediatric AIDS cases and 20 pediatric HIV cases reported in Allegheny County. At the time of this report, there were 94 new adult AIDS cases (7.6 cases per 100,000 population) and 140 new adult HIV cases (11.4 cases per 100,000 population) diagnosed during 2013 (see Tables 25 and 29). The reported cases reflect an increase of seven (7) cases of HIV and three (3) cases of AIDS, compared to 2012. There were two HIV and one AIDS cases reported in children under age 13 during 2013. Note that AIDS cases are reported differently than all other reportable diseases—recorded by date of diagnosis and not by date the disease is reported. Therefore, the case numbers continually change for current and previous years.

AIDS

Overall, 84% of AIDS cases reported in 2013 (79/94), and 85% of those reported since 1981 (3,736/4,386) were in men (see Table 23). Since HIV can be asymptomatic for years, many of these people may have been infected many years earlier. To reduce exposure to HIV infection, prevention education and risk/harm reduction messages should be intensified for all age groups and targeted to specific high risk behaviors.

In 2013, 52 cases, or 55% of the total number of new AIDS cases, were diagnosed in Whites (see Table 24). Blacks comprise approximately 13% of the population in Allegheny County but represent 39% (37 cases) of new AIDS cases.

HIV

On June 1, 2001, the Allegheny County Board of Health authorized the ACHD to implement the reporting of HIV in Allegheny County. Since AIDS was first reportable twenty years earlier (1981), there are more cumulative AIDS cases than HIV cases. Figure 11 represents HIV cases by year of diagnoses from 2003–2013. There were 140 cases of HIV reported in 2013, an increase of 7 cases compared to 2012 (see Table 29). Far more cases occurred in men than in women (see Figure 12). Racial

breakdown of HIV cases reported in 2013 in Allegheny County shows that Whites constituted 45% (63 cases) of the HIV cases; Blacks 50% (71 cases) and Other/Unknown 5% (7 cases) (see Table 28). Black men represent an increasing proportion of new HIV cases—cumulatively from 1998-2013, 590/1584 (37%) cases of male HIV cases were in Blacks. In 2013, 51% of reported HIV cases in men were in Black men (see Tables 27 and 28). In 2013 the incidence rate of HIV infection in Blacks (43.2 cases per 100,000 Black population) was nearly seven times higher than in Whites (6.3 cases per 100,000 White population). Men who have sex with men (MSM) remains the single largest self-identified group among HIV cases (see Table 26).

HIV/AIDS Figures and Tables

AIDS Data Figures and Tables

Figure 10. Number of Reported AIDS Cases in Allegheny County, 2006-2013

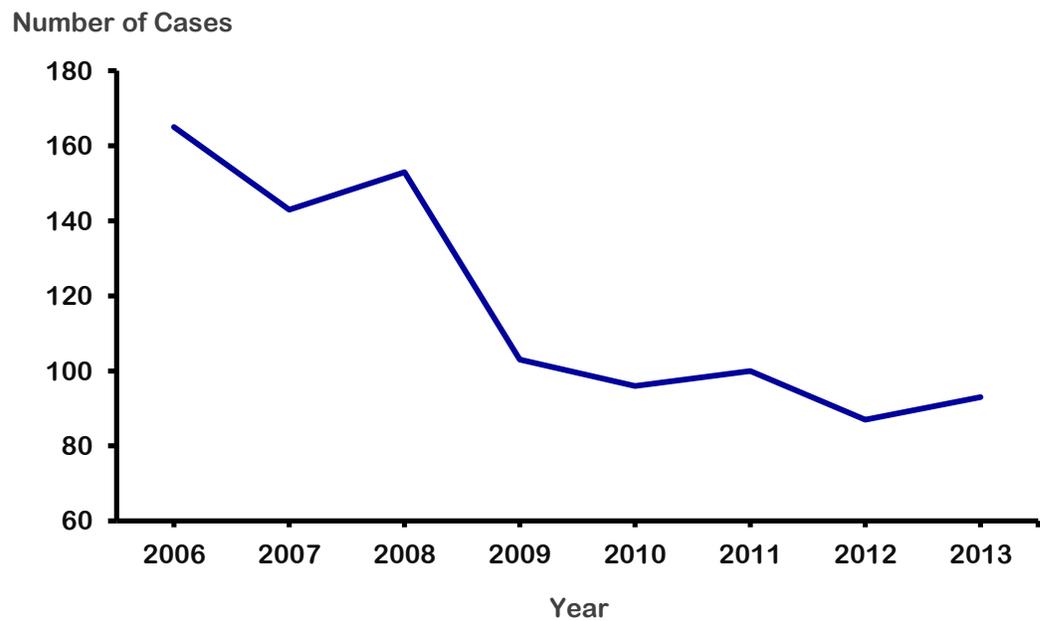


Table 23. Cumulative AIDS Cases by Sex and Race in Allegheny County 1981-2013

Race	Male	Female	Total
Black	1,249	430	1,679
White	2,387	205	2,592
Unknown/Other	100	15	115
Total	3,736	650	4,386

Table 24. 2013 AIDS Reported Cases and Incidence Rates* by Sex and Race in Allegheny County

Race	Male	Estimated Population [∞]	Rate*	Female	Estimated Population [∞]	Rate*	Total Cases
Black	30	75,655	39.7	7	88,633	7.9	37
White	45	483,798	9.3	7	518,237	1.4	52
Unknown /Other	4	31,039	12.9	0	31,976	0.0	4
Total	79	590,492	13.4	14	638,846	2.2	93

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

Table 25. Reported Adult AIDS Cases and Incidence Rates* in Allegheny County, 2003-2013

Year	Reported Cases	Estimated Population [∞]	Incidence Rate*
2003	459	1,261,303	36.4
2004	139	1,250,867	11.1
2005	139	1,235,841	11.2
2006	168	1,223,411	13.7
2007	147	1,219,210	12.0
2008	160	1,215,103	13.1
2009	107	1,218,494	8.8
2010	98	1,223,348	8.0
2011	101	1,227,442	8.2
2012	91	1,229,338	7.4
2013	93	1,231,527	7.6

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

HIV Data Figures and Tables

Figure 11. Number of Reported HIV Cases in Allegheny County, 2004-2013

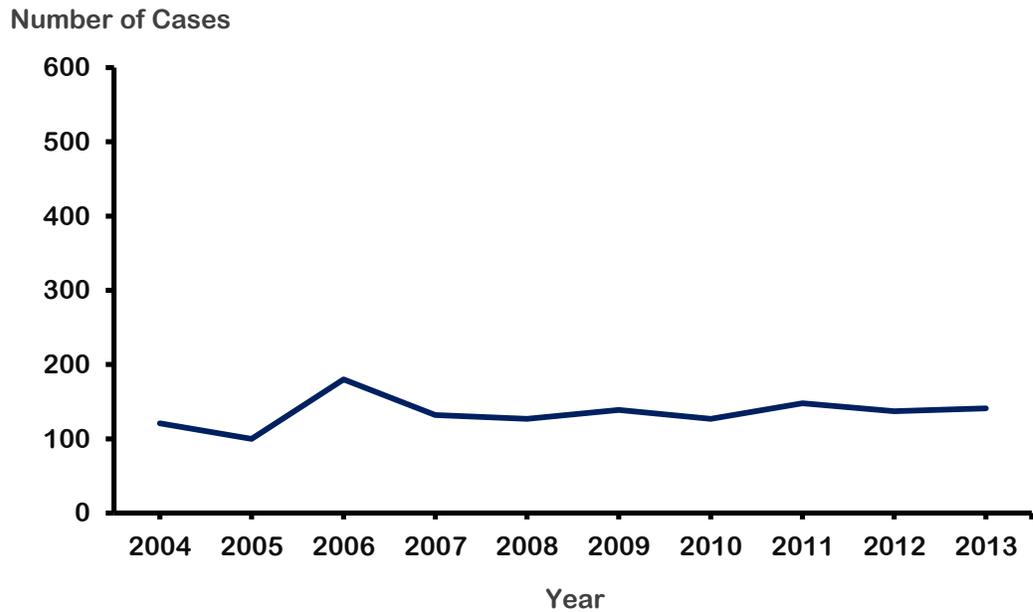


Figure 12. HIV Cases by Age and Sex in Allegheny County 2013

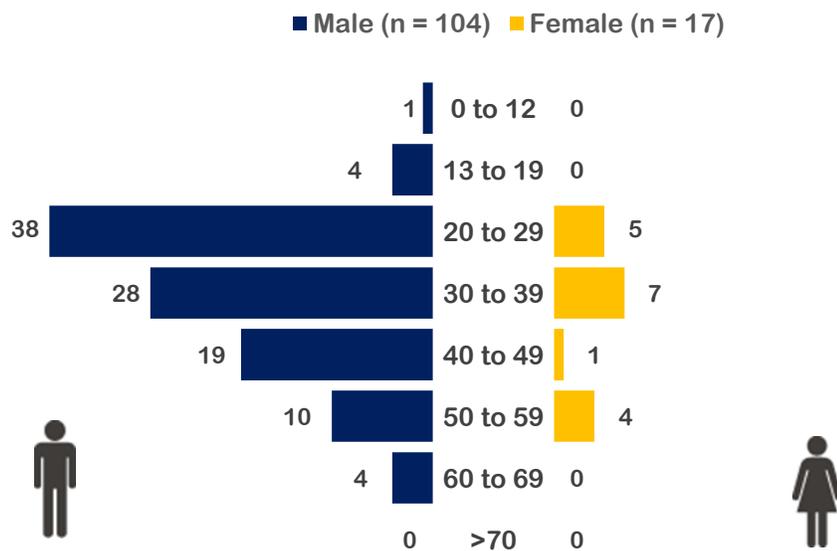


Table 26. Common Identified Risk Factors[&], Cumulative Reported HIV Cases - 2013

Exposure Category	Number of Cases		
	Male N=118	Female N=23	Total N=141
Injected nonprescription drugs	4%	22%	7%
Intravenous/injection drug user	2%	4%	2%
Person w/AIDS or documented HIV infection, risk not specified	6%	30%	10%
Sex with female	14%	13%	14%
Sex with male	87%	78%	86%
Other	3%	0%	3%
Not reported	31%	35%	32%

[&]Data based on self-reporting

Table 27. Cumulative HIV Cases by Sex and Race in Allegheny County 1998-2013

Race	Male	Female	Total
Black	590	247	837
White	926	103	1029
Unknown/Other	68	15	83
Total	1,584	364	1,948

Table 28. New Reported HIV Cases and Incidence Rates* by Sex and Race in Allegheny County - 2013

Race	Male			Female			Total Cases
	Male	Estimated Population [∞]	Rate*	Female	Estimated Population [∞]	Rate*	
Black	60	75,655	79.3	11	88,633	12.4	71
White	52	483,798	10.7	11	518,237	2.1	63
Unknown/Other	6	--	--	1	--	--	7
Total	118	590,492	20.0	23	638,846	3.6	141

*Incidence rate per 100,000 population

[∞]Based on U.S. Census Bureau estimated population data

Table 29. Reported HIV Cases and Incidence Rates* in Allegheny County, 2003-2013

Year	New Cases	Estimated Population ^α	Incidence Rate*
2003	477	1,261,303	37.8
2004	121	1,250,867	9.7
2005	100	1,235,841	8.1
2006	180	1,223,411	14.7
2007	132	1,219,210	10.8
2008	127	1,215,103	10.5
2009	139	1,218,494	11.4
2010	127	1,223,348	10.4
2011	148	1,227,442	12.1
2012	137	1,229,338	11.1
2013	141	1,231,527	11.4

*Incidence rate per 100,000 population

^αBased on U.S. Census Bureau estimated population data

Risk Reduction Guide

- To decrease your risk for STD infection follow the ABC method:
 - **A – ABSTAIN** from sex until married or in a long term committed relationship
 - **B – BE FAITHFUL** in marriage and long term committed relationships
 - **C – USE A CONDOM** consistently and correctly

- Avoid getting drunk or high in situations where sex may be a possibility. When people are under the influence of alcohol or other drugs, they are less likely to abstain from sex or to use condoms.

- People may get infected with STDs through vaginal intercourse, anal intercourse, or oral sex.

- Many individuals who are infected with an STD do not have any symptoms. It is best for all partners to get screened for STDs/HIV prior to any sexual activity.

- If you decide to have sex, use a new LATEX condom for each act of intercourse. The condom forms a barrier between you and your partners' sexual fluids that may transmit STD or HIV. Consistent and correct use of condoms provides a high level of protection.

- Do not share needles for any reason. Clean needles are available through the Prevention Point needle exchange program at the county health department and another site in the Hill District. (<http://www.pppgh.org/>). If you do share needles, learn how to disinfect them with bleach and water. Disinfection with bleach only reduces the risk of getting HIV, it doesn't eliminate the risk.

Glossary

ASYMPTOMATIC	Having no signs or symptoms of a disease. All STDs are asymptomatic at some time during the phase of the disease process. This makes it necessary for high-risk individuals and exposed sex partners to be tested.
INCIDENCE	The proportion of new cases of a disease occurring in a population during a specified time period, usually one year. Incidence is usually described as the number of cases per 100,000 individuals.
MORBIDITY	The number of people in a community who have a specified disease.
MORTALITY	The number of deaths caused by a disease.
PID	Pelvic Inflammatory Disease. Inflammation of the female pelvic organs. Usually the result of gonococcal or chlamydial infection. Treatment of PID may require hospitalization. PID is a major cause of involuntary sterilization in women.
POPULATION	The population statistics used in this report are from the U.S. Census Bureau and the Pennsylvania State Data Center (Penn State Harrisburg) via PA DOH.
PREVALENCE	The number of existing cases of a disease in a given population at a specific time.
PRIMARY SYPHILIS	Primary syphilis is the most infectious stage of the disease. The first clinical sign is the chancre, or lesion, usually on the genitals. Primary syphilis is defined by the presence of the initial syphilitic lesion. The lesion will disappear without treatment within a matter of weeks.
SECONDARY SYPHILIS	Symptoms of secondary syphilis usually occur two to four months after infection, and about a month after the lesions have disappeared. Secondary syphilis can cause a broad spectrum of skin conditions including various rashes, mucous patches, and loss of hair. These symptoms will also disappear. Secondary syphilis is also an infectious stage of the disease.

**EARLY LATENT
SYPHILIS**

An asymptomatic infectious stage within one year of the initial infection.

**LATE LATENT
SYPHILIS**

Late latent syphilis is the stage in which no clinical signs or symptoms are present. This stage is defined as being over one year and can extend beyond 20 years.

**CONGENITAL
SYPHILIS**

Syphilis in the newborn. Infants are infected by their mothers during pregnancy. This is a preventable condition, which is extremely serious and results in syphilitic stillbirth approximately 40% of the time. Pregnant women in Pennsylvania are required to have a syphilis blood test performed on their first prenatal visit and they should be rescreened in the third trimester, if indicated. If detected early enough, the mother's infection can be easily treated, resulting in a healthy pregnancy and baby.

ALLEGHENY COUNTY HEALTH DEPARTMENT

Sexually Transmitted Disease, HIV/AIDS Clinic

3441 Forbes Avenue (Oakland)

Pittsburgh, PA 15213

412-578-8081

Walk-In, Free, Confidential Testing and Treatment

Clinic Hours

Monday	8:30 AM to 3:30 PM
Tuesday	8:30 AM to 3:30 PM
Wednesday	12:30 PM to 7:30 PM
Thursday	8:30 AM to 3:30 PM
Friday	8:30 AM to 3:30 PM

Closed on Holidays