



Public Health
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2010 STD Surveillance Report

A Public Health Surveillance Report for Cleveland and Cuyahoga County, November 2011

This report describes reports of Chlamydia and gonorrhea infections reported to public health officials. These numbers are intended to improve the reports provided by the Ohio Department of Health by more correctly identifying the residence (municipality or Cleveland neighborhood) of those affected. Syphilis and HIV/AIDS were reported elsewhere in separate reports.

Executive Summary

Nearly 9,800 cases of Chlamydia and over 2,700 cases of gonorrhea were reported in Cuyahoga County in 2010. Rates increased 9.2% and 15.9%, respectively over 2009 rates. For Cleveland, Chlamydia rates decreased less than 1%, while gonorrhea rates increased 15.2% for 2010. Nearly two-thirds of all Chlamydia and gonorrhea reports were attributed to Cleveland residents. However, East Cleveland had the highest Chlamydia and gonorrhea rates in Cuyahoga County (2,365.07 and 1,042.43 cases per 100,000 population, respectively.)

Teens and young adults under 30 years of age continue to be the most common group reported having Chlamydia and/or gonorrhea. Since 2002, over 40% and 30% of all Chlamydia and gonorrhea cases, respectively, occur to teens age 15 to 19 years. Overall, 3 in 4 Chlamydia reports are among young adults under 25 years of age. Among Black/African American teen females, Chlamydia is endemic with as many as 10% reporting infections. This trend has not improved in the past decade of surveillance.

In addition, Chlamydia or gonorrhea was reported in nearly 200 children age 10 to 14 for Cuyahoga County in 2010, a trend unchanged from 2009 and 2008.

Chlamydia is often asymptomatic, leading to frequent re-infections; locally, eleven percent (11.2%) of persons infected by Chlamydia had multiple infections during 2010; 7.1% of persons with gonorrhea reported more than one gonorrhea infection. In addition, nearly 10% of all persons were co-infected with both Chlamydia and gonorrhea when diagnosed. These trends have not improved appreciably since 2007. Regrettably, public health officials do not have access to medical record data to quantitatively illustrate the pain, disease, problems with fertility and miscarriages related to these infections.

High rates among teens have not improved since 2002. The cycle of reinfection must stop. Physicians that treat patients must encourage patients to get all partners screened and treated. We anticipate Ohio to join 43 other states in approving Expedited Partner Therapy (EPT), a clinical practice allowing doctors to provide treatment to patients' partners without a face-to-face encounter or patient-provider relationship.

Moreover, increasing access to STD testing and treatment for teens is needed; school-based screenings have been successful elsewhere and should be considered in all middle and high schools in these municipalities with Chlamydia or gonorrhea rates greater than the county average: Bedford, Cleveland, East Cleveland, Euclid, Maple Heights, Newburgh Heights, North Randall, and Warrensville Heights.

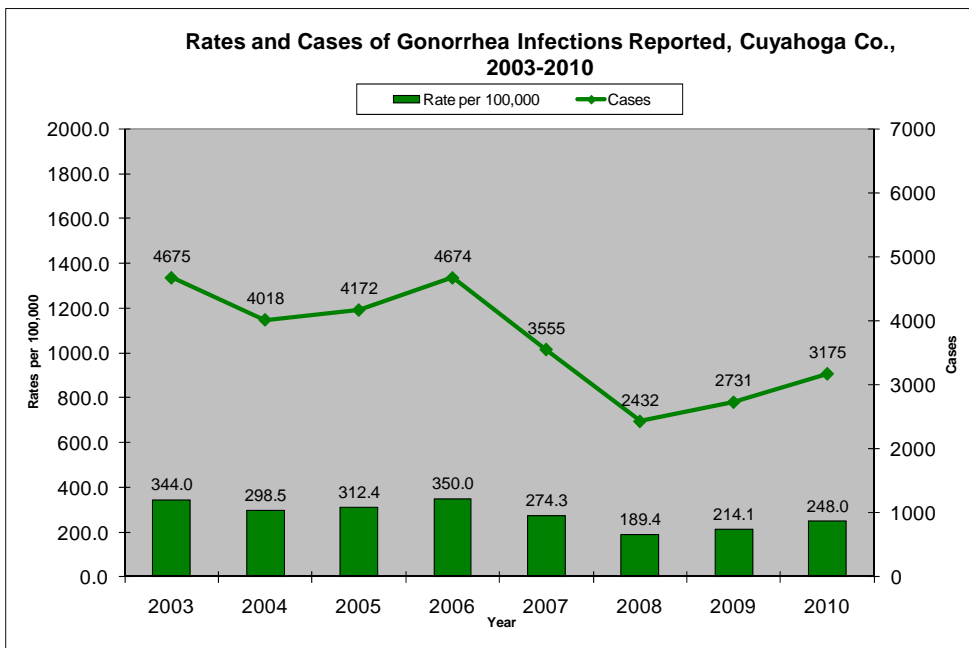
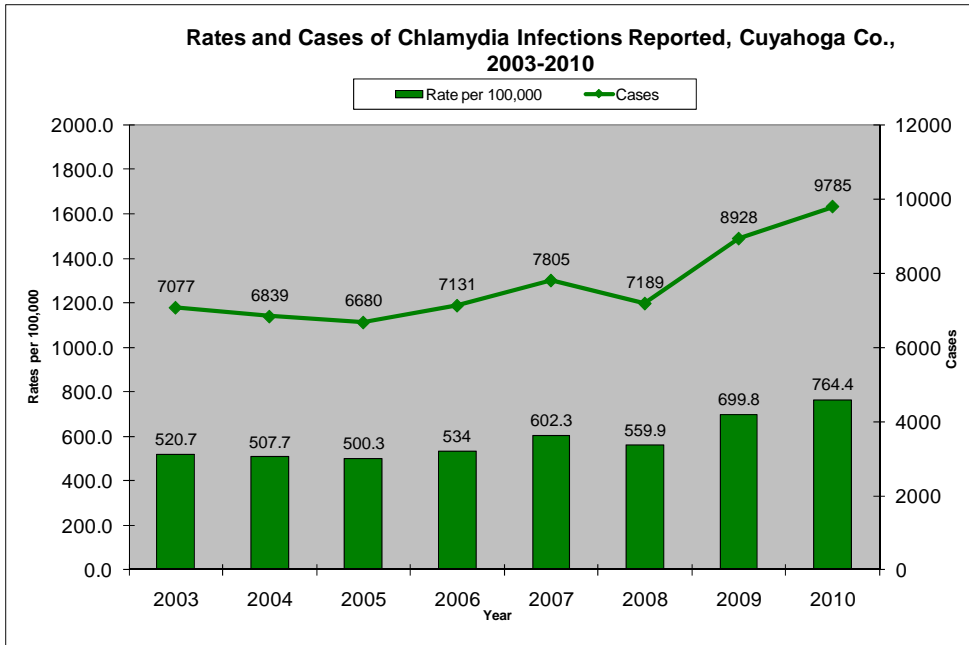
*Preliminary data from the Ohio Department of Health ODRS (Ohio Disease Reporting System) as of August 25, 2011.

Surveillance Results

Chlamydia and gonorrhea rates in Cuyahoga County for 2010 have rebounded from past years.

County rates for Chlamydia increased 9.2% from 699.8 per 100,000 to 764.4 per 100,000 population. County rates for gonorrhea increased 15.9% from 214.1 per 100,000 to 248.0 per 100,000 population. Chlamydia cases increased from 8,928 cases in 2009 to 9,785 cases in 2010, and similarly for gonorrhea, from 2,731 to 3,175 cases. These increases can be seen in Figures 1 and 2.

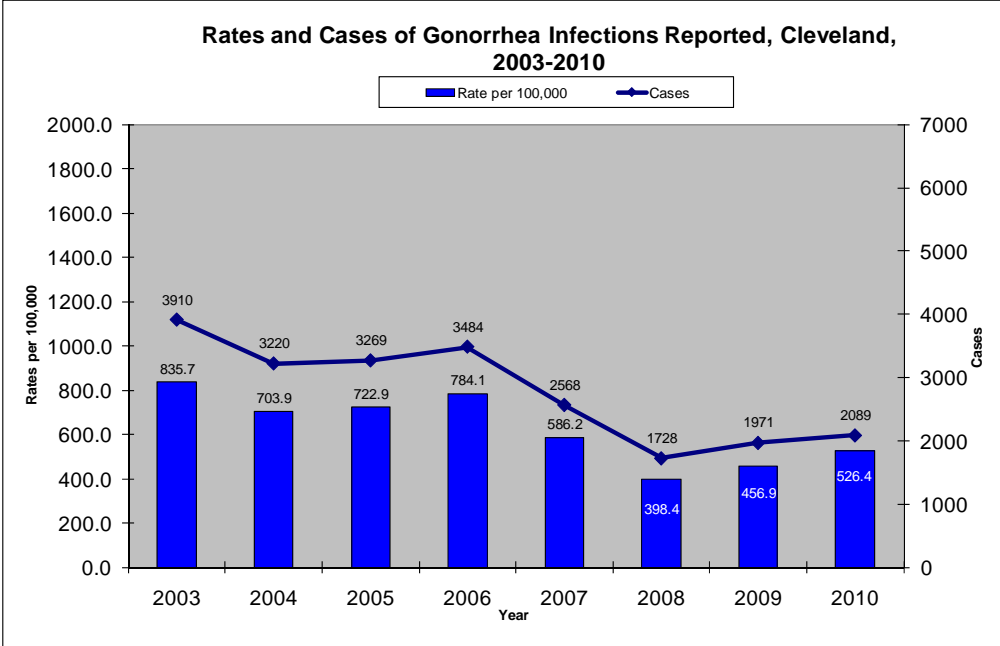
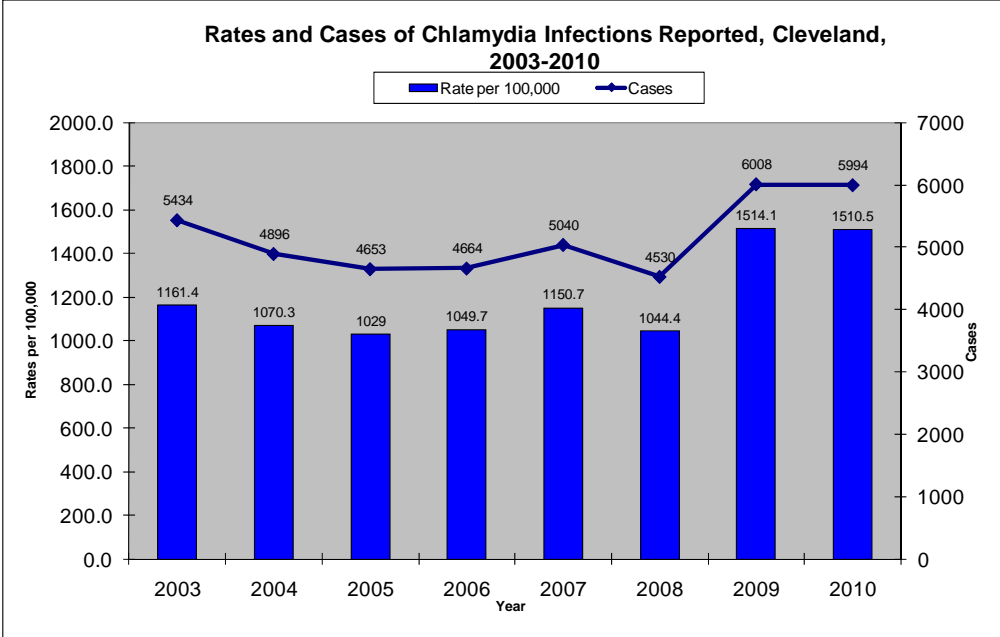
Figures 1 & 2: Chlamydia and gonorrhea rates and case counts for Cuyahoga County



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Rates and cases of Chlamydia for Cleveland decreased only by 0.23% to 1,510.5 per 100,000 population (5,994 cases) as shown in Figure 3. However, rates and cases of gonorrhea increased 15.2% for Cleveland to 526.4 per 100,000 (2,089 cases) from 2009 levels of 456.9 per 100,000 (1,971 cases) as shown in Figure 4.

Figures 3 & 4: Chlamydia and gonorrhea rates and case counts for Cleveland



*Preliminary data from the Ohio Department of Health ODRS (Ohio Disease Reporting System) as of August 25, 2011. Surveillance performed in cooperation with the Cuyahoga County Board of Health, Cleveland Department of Public Health, and the Shaker Heights Health Department. This report was prepared by Cleveland Department of Public Health Office of Biostatistics, 75 Erieview Plaza, 3rd Floor, Cleveland, OH 44114216-664-4353 FAX 420.7741 www.clevelandhealth.org

Demographics

Nearly three-quarters (73.5%) of Chlamydia cases reported in Cuyahoga County were among females, while more than half (58.1%) of gonorrhea cases were reported among females. The first table in Figure 5 illustrates the case counts and percent of cases.

Teens and young adults continue to be most affected by Chlamydia and gonorrhea. More than three-quarters of cases (76.6%, 7,557 of 9,875 cases) of Chlamydia were among persons age 15 to 24 years, with 167 cases were reported among children age 10 to 14 years. Similarly, more than two-thirds of gonorrhea cases (70.5%, 2,238 of 3,175 cases) were among those age 15 to 24 years. Twenty-seven cases of gonorrhea were reported among children age 10 to 14 years.

Prevalence for either infection was highest among non-Hispanic Black/African American residents.

Figure 5. Demographics of Chlamydia and gonorrhea cases reported for Cuyahoga County

By Sex	Chlamydia infection		Gonococcal infection	
	Cases	Percent	Cases	Percent
Female	7259	73.5	1844	58.1
Male	2589	26.2	1324	41.7
Not Specified	27	0.3	7	0.2
All	9875	100.0	3175	100

By Age (years)	Chlamydia infection		Gonococcal infection	
	Cases	Percent	Cases	Percent
0-9	19	0.2	5	0.2
10-14	167	1.7	27	0.9
15-19	4232	42.9	1087	34.2
20-24	3325	33.7	1151	36.3
25-29	1251	12.7	458	14.4
30-34	487	4.9	209	6.6
35-39	208	2.1	113	3.6
40-44	98	1.0	45	1.4
45-54	70	0.7	57	1.8
55-64	16	0.2	18	0.6
65+	2	0.0	5	0.2
All	9875	100.0	3175	100

Race and Ethnicity	Chlamydia infection		Gonococcal infection	
	Cases	Percent	Cases	Percent
AfAm non-Hisp	6273	63.5	2365	74.5
Not specified - unable to determine	2055	20.8	534	16.8
White non-Hisp	1102	11.2	179	5.6
Hispanic or Latino	248	2.5	57	1.8
Other races, non-Hisp	137	1.4	26	0.8
Multiple races, non-Hisp	60	0.6	14	0.4
All	9875	100.0	3175	100

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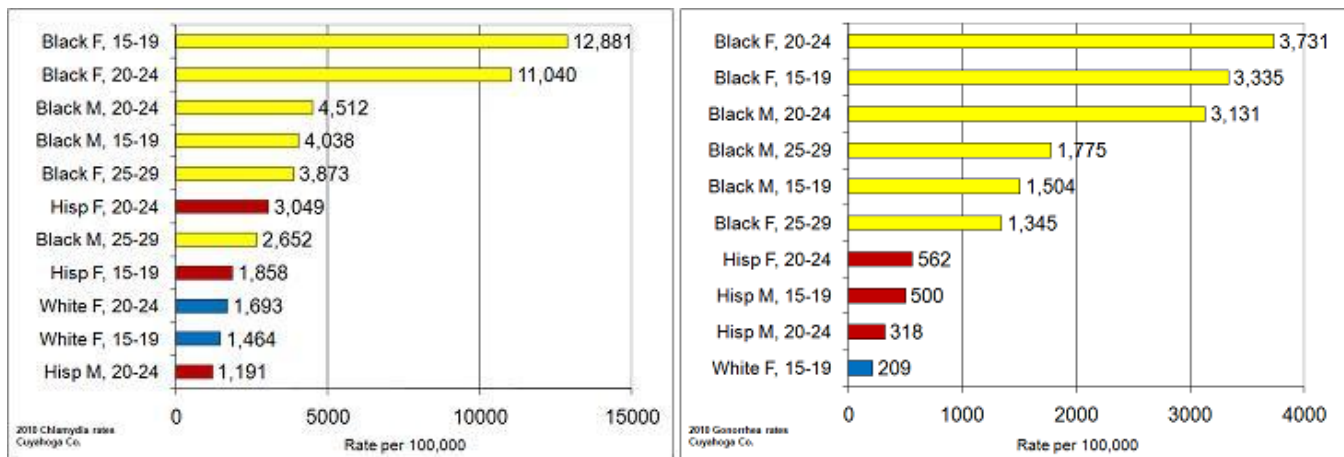
The burden of STDs on young Black/African Americans is illustrated in Figure 6.

Young Black/African American females are the group with the highest Chlamydia and gonorrhea rates.

Chlamydia prevalence for Black teen females is as high as 12.88% of the population (12,881 cases per 100,000). That is the same as saying that more than one in every eight Black teen females age 15 to 19 were reported with Chlamydia in 2010. Rates for this group has ranged from 9.7% to 13.3% this past decade.

Nearly one in nine Black females age 20 to 24 were reported with Chlamydia (11.0%, or 11,040 cases per 100,000 population), consistent with previous years. Black males age 15 to 29 have the highest gonorrhea rates among all males by race/ethnicity and age.

Figure 6. Chlamydia (left) and gonorrhea rates (right) in 2010 for Cuyahoga County, by race/ethnicity, sex and age group.



Co-infection and multiple infections

Eleven percent (11.2%) of persons infected by Chlamydia had multiple infections during 2010; similarly for 7.1% of persons with gonorrhea. Most of these were Black/African American females.

Nearly 10% of all persons were co-infected with both Chlamydia and gonorrhea when diagnosed. These trends have not improved appreciably since 2007. Co-infection increases the risk of pelvic inflammatory disease which increases the likelihood of long term sequela (outcomes) including ectopic pregnancy, chronic pain and infertility among females. Regrettably, public health officials do not have access to medical record data to quantitatively illustrate the pain, disease, problems with fertility and miscarriages related to these infections. With sustained high rates of infection, we suspect that many others remain infected, asymptomatic and unaware. An estimated 10% of females with untreated Chlamydia are impacted with chronic pain and infertility issues.

Co-infection with an STD also increases a person’s risk of being infected with HIV or another STD from an infected partner.

Chlamydia and gonorrhea can be prevented through screening and treatment of patients and their partners, safer sex practices routinely using barrier protection (condoms, dental dams), and avoiding casual or anonymous sex partners whose sexual history and current STD/HIV status is not known.

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Areas in western Cleveland with markedly elevated Chlamydia rates were **Clark-Fulton, Detroit-Shoreway, and Cudell**. For the actual Chlamydia cases and rates, see Figures 9 and 10. These tables list the cases and rates among county municipalities and Cleveland neighborhoods for 2010.

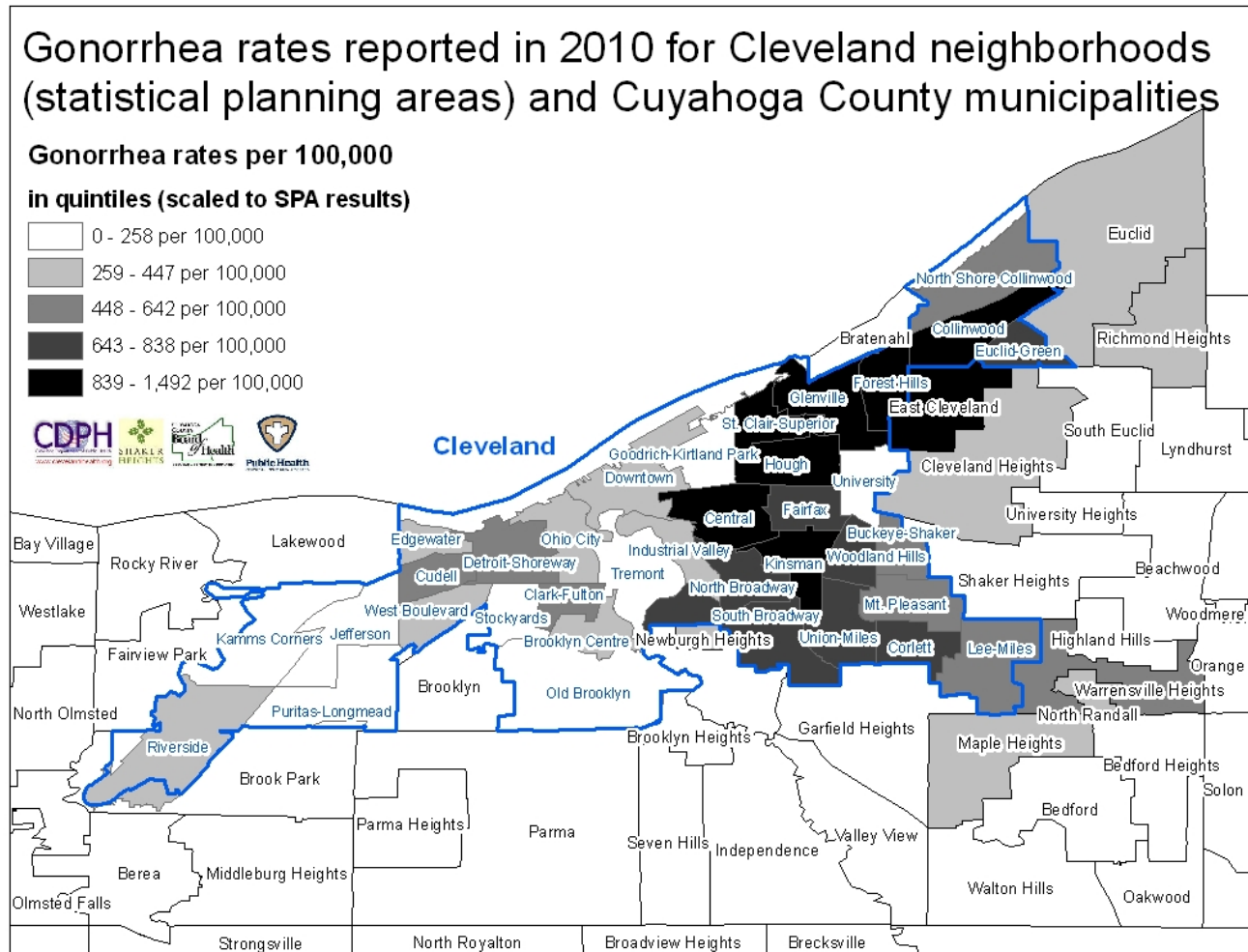
Geographic Distribution of Gonorrhea reports

East Cleveland had the highest gonorrhea rate among all municipalities in the county (1,042 cases per 100,000), double the rate for Cleveland (526 cases per 100,000).

Kinsman (rate: 1,492 cases per 100,000), **Forest Hills** (1,121), **Collinwood** (1,033), **Glenville** (997), **Central** (919), and **St. Clair-Superior** (903) had the highest gonorrhea rates among all Cleveland neighborhoods.

For the gonorrhea actual cases and rates, see Figures 9 and 10. These tables list the cases and rates among municipalities and Cleveland neighborhoods for 2010.

Figure 8. Map of gonorrhea rates in 2010. (Darker shading reflects higher rates. Cleveland neighborhoods or statistical planning areas (SPA) are noted in blue type, with municipalities in black type.)



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Figure 9. Table of 2010 Chlamydia (CT) and gonorrhea (GC) case counts and rates for municipalities. The percent of all cases reported for Cuyahoga County is provided for both infections.

MUNICIPALITY	CT counts	CT %	CT Rate*	GC counts	GC %	GC Rate*
Bay Village	11	0.1%	70.28	4	0.1%	25.56
Beachwood	18	0.2%	150.59	3	0.1%	25.10
Bedford	77	0.8%	588.96	17	0.5%	130.03
Bedford Heights	106	1.1%	985.95	23	0.7%	213.93
Berea	63	0.6%	329.96	12	0.4%	62.85
Bratenahl	2	0.0%	167.08	2	0.1%	167.08
Brecksville	10	0.1%	73.23	1	0.0%	7.32
Broadview Heights	25	0.3%	128.87	5	0.2%	25.77
Brook Park	45	0.5%	234.23	6	0.2%	31.23
Brooklyn	33	0.3%	295.46	9	0.3%	80.58
Brooklyn Heights	4	0.0%	259.24	0	0.0%	0.00
Chagrin Falls	2	0.0%	47.25	2	0.1%	47.25
Cleveland	5,994	60.7%	1510.53	2,089	65.8%	526.44
Cleveland Heights	360	3.6%	780.56	123	3.9%	266.69
East Cleveland	422	4.3%	2365.07	186	5.9%	1042.43
Euclid	511	5.2%	1044.56	158	5.0%	322.98
Fairview Park	28	0.3%	166.41	5	0.2%	29.72
Garfield Heights	242	2.5%	838.85	61	1.9%	211.45
Gates Mills	5	0.1%	220.26	3	0.1%	132.16
Glenwillow	1	0.0%	108.34	0	0.0%	0.00
Highland Heights	12	0.1%	143.80	0	0.0%	0.00
Highland Hills	12	0.1%	1061.95	2	0.1%	176.99
Independence	4	0.0%	56.08	0	0.0%	0.00
Lakewood	210	2.1%	402.83	39	1.2%	74.81
Lyndhurst	17	0.2%	121.42	4	0.1%	28.57
Maple Heights	307	3.1%	1326.82	96	3.0%	414.90
Mayfield	3	0.0%	86.71	1	0.0%	28.90
Mayfield Heights	57	0.6%	297.57	13	0.4%	67.87
Middleburg Heights	23	0.2%	144.24	4	0.1%	25.08
Moreland Hills	4	0.0%	120.48	1	0.0%	30.12
Newburgh Heights	16	0.2%	738.35	6	0.2%	276.88
North Olmsted	43	0.4%	131.43	7	0.2%	21.39
North Randall	12	0.1%	1168.45	4	0.1%	389.48
North Royalton	48	0.5%	157.67	6	0.2%	19.71
Oakwood	32	0.3%	872.65	6	0.2%	163.62
Olmsted Falls	14	0.1%	155.14	1	0.0%	11.08
Orange	5	0.1%	150.47	1	0.0%	30.09
Parma	192	1.9%	235.29	24	0.8%	29.41
Parma Heights	41	0.4%	197.90	7	0.2%	33.79
Pepper Pike	9	0.1%	150.53	3	0.1%	50.18

*Rate per 100,000 population. CT = Chlamydia, GC = Gonorrhea

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Figure 9 (continued)

MUNICIPALITY	CT counts	CT %	CT Rate*	GC counts	GC %	GC Rate*
Richmond Heights	81	0.8%	768.06	32	1.0%	303.43
Rocky River	21	0.2%	103.89	4	0.1%	19.79
Seven Hills	10	0.1%	84.72	4	0.1%	33.89
Shaker Heights	127	1.3%	446.43	43	1.4%	151.15
Solon	42	0.4%	179.89	7	0.2%	29.98
South Euclid	192	1.9%	861.18	42	1.3%	188.38
Strongsville	49	0.5%	109.50	4	0.1%	8.94
University Heights	58	0.6%	428.39	23	0.7%	169.88
Valley View	5	0.1%	245.82	1	0.0%	49.16
Walton Hills	0	0.0%	0.00	1	0.0%	43.84
Warrensville Heights	204	2.1%	1506.42	68	2.1%	502.14
Westlake	31	0.3%	94.72	4	0.1%	12.22
Woodmere	11	0.1%	1244.34	1	0.0%	113.12
Unable to locate	24	0.2%		7	0.2%	
Total	9,875	100.0%	771.41	3,175	100.0%	248.02

*Rate per 100,000 population. CT = Chlamydia, GC = Gonorrhea

Technical note: Because of some concern that the 2009 census estimates were so different than the 2010 Census, we used the same 2010 census populations for both years to calculate rates. Therefore, these percentage differences in rates reported in this report also reflect the percentage increase in Chlamydia and gonorrhea cases reported to public health.

Figure 10. Table of Chlamydia (CT) and gonorrhea (GC) case counts and rates for 2010 across Cleveland neighborhoods. The percent of all cases reported for Cuyahoga County is provided for both infections.

Cleveland Neighborhood	CT cases	CT %	CT rate*	GC cases	GC %	GC rate*
Brooklyn Centre	127	1.3%	1,546.14	36	1.1%	438.28
Buckeye-Shaker	202	2.0%	1,619.89	80	2.5%	641.54
Central	328	3.3%	2,574.97	117	3.7%	918.51
Clark-Fulton	204	2.1%	1,833.54	55	1.7%	494.34
Corlett	232	2.3%	2,003.28	80	2.5%	690.79
Cudell	153	1.5%	1,591.76	52	1.6%	540.99
Detroit-Shoreway	211	2.1%	1,472.95	77	2.4%	537.52
Downtown	78	0.8%	857.33	24	0.8%	263.79
Edgewater	60	0.6%	786.06	29	0.9%	379.93
Euclid-Green	85	0.9%	1,536.24	41	1.3%	741.01
Fairfax	100	1.0%	1,935.36	35	1.1%	677.38
Forest Hills	243	2.5%	2,289.86	119	3.7%	1,121.37
Glenville	413	4.2%	2,590.97	159	5.0%	997.49
Goodrich-Kirtland Park	50	0.5%	1,218.62	6	0.2%	146.23
Hough	262	2.7%	2,046.08	111	3.5%	866.85
Industrial Valley	14	0.1%	1,566.00	4	0.1%	447.43
Jefferson	152	1.5%	836.45	28	0.9%	154.08
Kamms Corners	39	0.4%	213.80	15	0.5%	82.23
Kinsman	200	2.0%	4,973.89	60	1.9%	1,492.17
Lee-Miles	232	2.3%	1,675.82	79	2.5%	570.64
Mt. Pleasant	351	3.6%	2,096.90	105	3.3%	627.28
North Broadway	121	1.2%	2,155.33	43	1.4%	765.94
North Shore Collinwood	217	2.2%	1,294.67	86	2.7%	513.10
Ohio City	121	1.2%	1,313.79	28	0.9%	304.02
Old Brooklyn	190	1.9%	593.58	42	1.3%	131.21
Puritas-Longmead	119	1.2%	849.27	25	0.8%	178.42
Riverside	66	0.7%	1,335.49	16	0.5%	323.76
South Broadway	315	3.2%	1,896.33	126	4.0%	758.53
(South) Collinwood	214	2.2%	2,028.63	109	3.4%	1,033.27
St. Clair-Superior	118	1.2%	1,639.12	65	2.0%	902.90
Stockyards	111	1.1%	1,507.33	19	0.6%	258.01
Tremont	56	0.6%	810.19	11	0.3%	159.14
Union-Miles	198	2.0%	1,928.70	86	2.7%	837.72
University	64	0.6%	809.51	13	0.4%	164.43
West Boulevard	167	1.7%	1,042.64	46	1.4%	287.19
Woodland Hills	180	1.8%	2,095.70	62	2.0%	721.85
Total, Cleveland	5,994	60.7%	1,510.47	2,089	65.8%	526.42
Total, Cuyahoga County	9,875	100.0%	771.41	3,175	100.0%	248.02

*Rate per 100,000 population. CT = Chlamydia, GC = Gonorrhea

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