

Gonorrhea in the City of St. Louis
July 23, 2009



Introduction

Gonorrhea is the second most commonly reported sexually transmitted disease (STD) in the city, state, and U.S. as a whole. In recent years the rate of gonorrhea infections has appeared to decrease in the city, this dramatic decrease has prompted an investigation in to overall testing trends at local clinics and testing centers. Looking at both positive and negative tests that a site generates can help us understand if there is an actual decrease in infection or if a site is conducting less testing than in previous years. This analysis combined with explaining what goes on at the client/counseling level can help us understand dramatic changes in STD figures over time. There are limitations, not all sites have their tests processed at the same lab. Some sites have their tests processed at the Missouri state public health lab while others have their tests processed at private labs like Quest Diagnostics, LabCorp, etc. The city health department is only able to analyze testing data as it is provided to them by request from the state lab and other private labs. Testing data from the Missouri Department of Health and Senior Services (MDHSS) and Quest Diagnostics Labs for 2007 and 2008 have been provided for analysis. Two local clinics, Connectcare and The Spot, have also been included to view local level data.

Current data and analysis

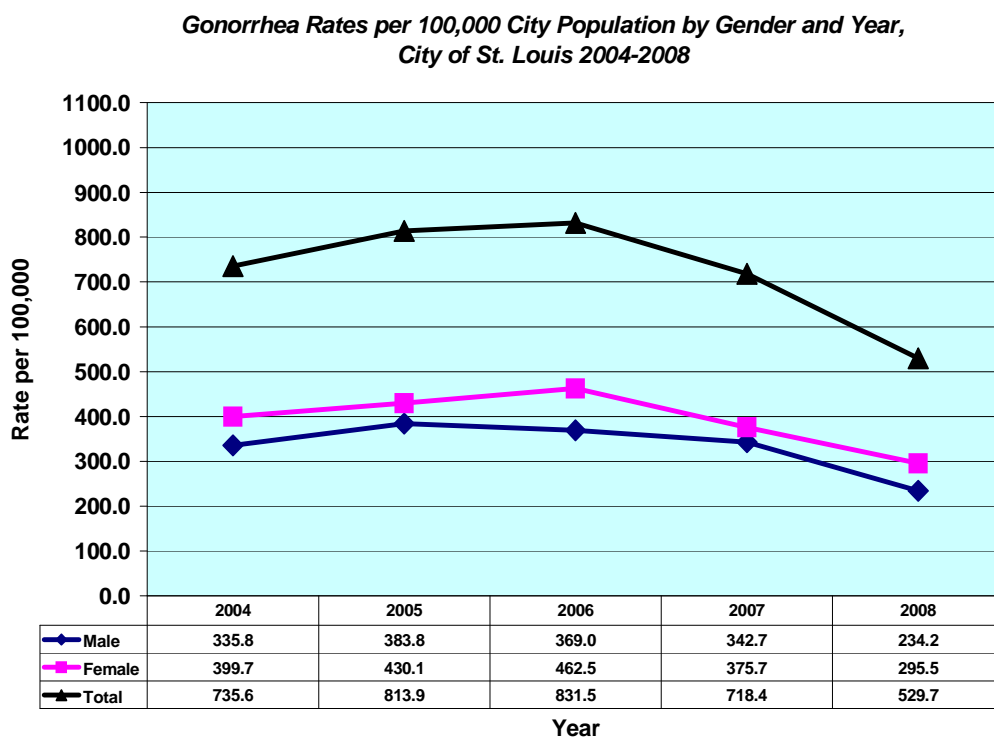


Figure 1

Figure 1 shows a 26% decrease in the rate of gonorrhea between 2007 and 2008 in the city of St. Louis. In order to determine if this is a real decrease in infections or if there is less testing, a comparison between 2007 and 2008 testing data from all lab sources needs to be conducted.

MDHSS Data

City of St. Louis STD & MIPP Testing Sites, Testing Data from MDHSS, 2007 and 2008

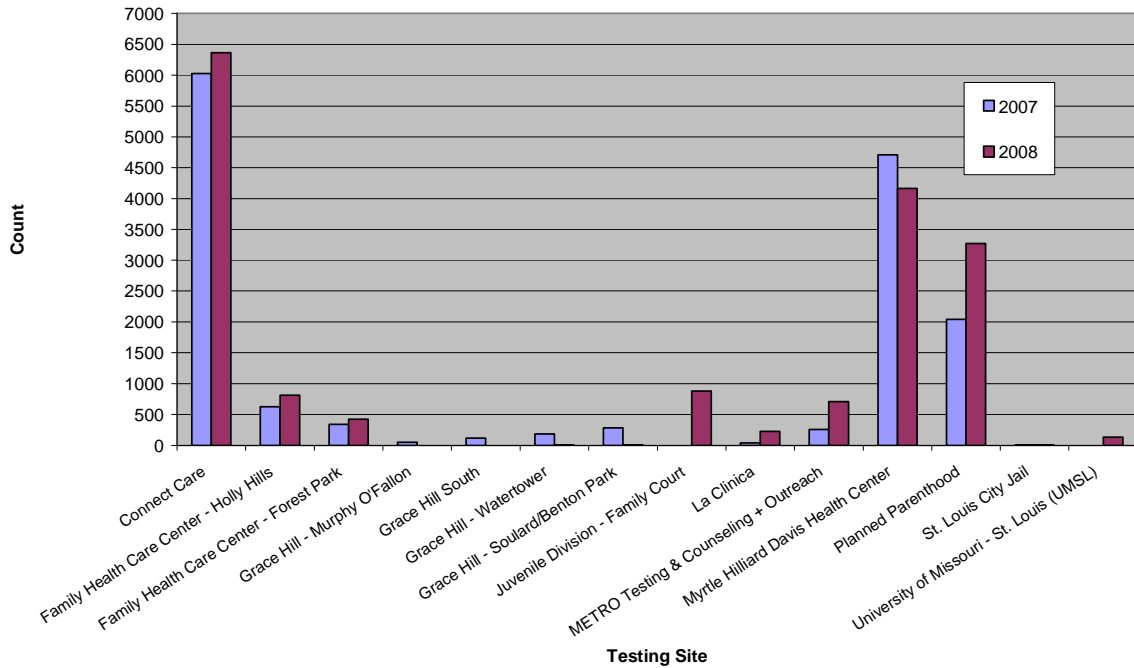


Figure 2

Figure 2 shows total testing numbers for STD and Missouri Infertility Prevention Project (MIPP) sites in the City of St. Louis that were processed at the state lab. It is important to remember that city and other county residents visit testing sites throughout the metro region. Overall, these particular testing locations in the city increased testing by 15.5% according to the MDHSS lab data. The Grace Hill locations and Myrtle Hilliard Davis Health Centers decreased their testing between 2007 and 2008. Currently the DOH is looking in to these decreases at the two health care providers in order to determine if there was less testing or if tests were processed at a different lab. METRO Testing and Counseling began testing the St. Louis City Jail at the end of 2008 in to 2009. (See Appendix Table 1)

Figure 3 shows total testing numbers for STD and MIPP sites in St. Louis County that were processed at the state lab. There was a slight decrease (1.2%) in overall testing at these particular sites according to MDHSS lab data. Some of the MIPP sites in the county began processing their tests at other labs in 2008 which can account for a decrease in testing at some sites. St. Louis County had a 25% decrease in the number of positive gonorrhea cases between 2007 and 2008. (See Appendix Table 2)

St. Louis County STD & MIPP Testing Sites, Testing Data from MDHSS, 2007 and 2008

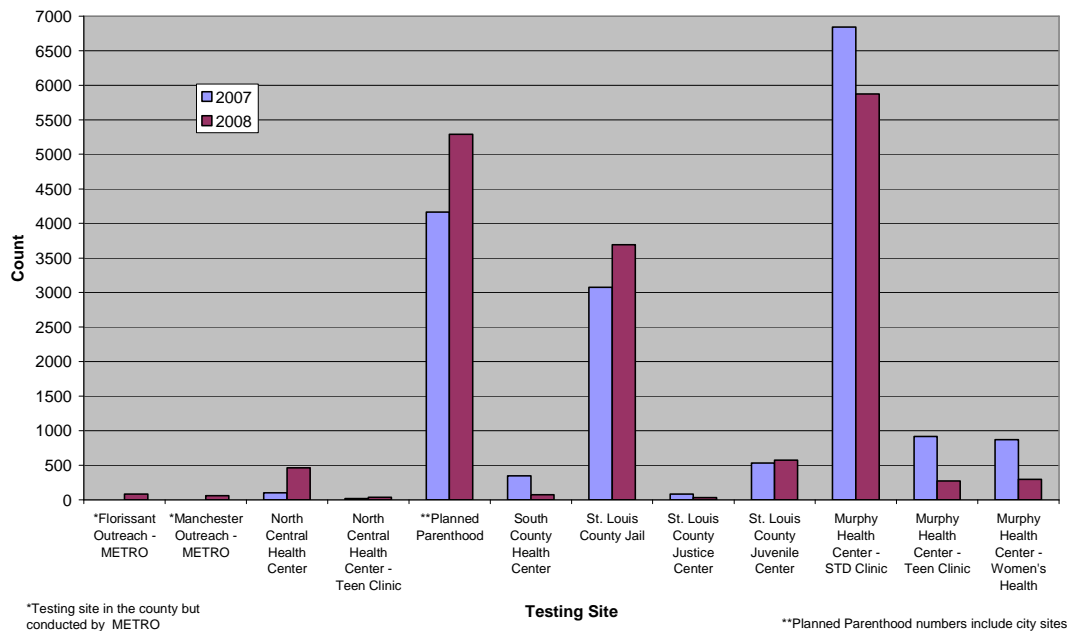


Figure 3

Figure 4 shows testing trends among different age groups in the city and county, of particular concern is the 15-19 age category that accounts for the majority of gonorrhea infections. Most age categories increased slightly or did not change, the only age group to show a decrease in testing was among 20-24 year olds (3.1%). (See Appendix Table 3)

**St. Louis City & County STD & MIPP Testing by Age Group,
Testing Data from MDHSS, 2007 and 2008**

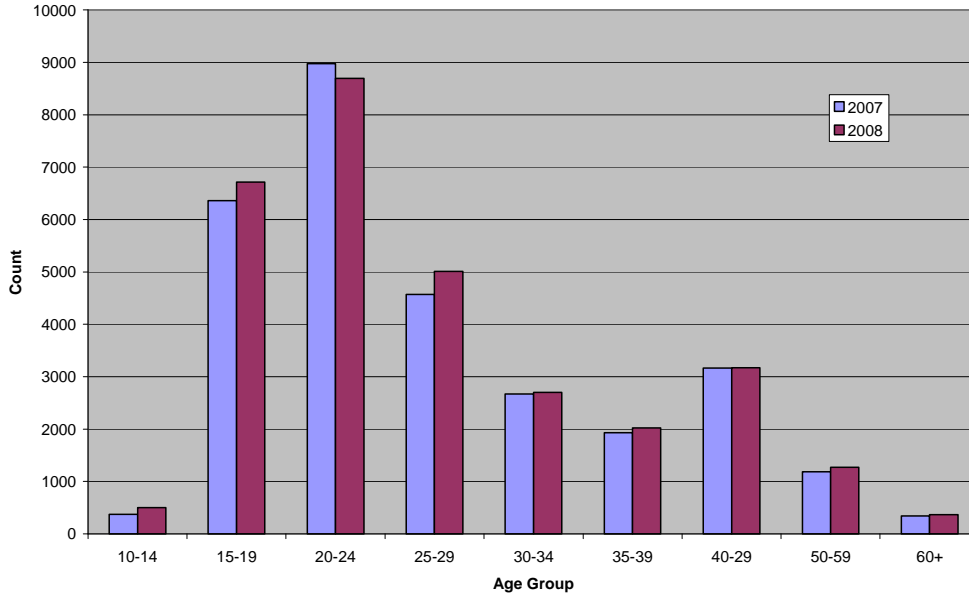


Figure 4

Quest Diagnostics Lab Data

Quest labs process STD and other tests for various clients including doctor’s offices and private clinics. The data presented shows St. Louis City residents that were tested for gonorrhea in 2007 and 2008. Figure 5 shows testing counts for 2007 and 2008 with the number of positives for both years. According to the data, testing increased by 7.8% while positive tests decreased by 23.2%. (See Appendix Tables 4 & 5)

Gonorrhea Testing Trends at Quest Diagnostics, 2007 and 2008, City of St. Louis Residents

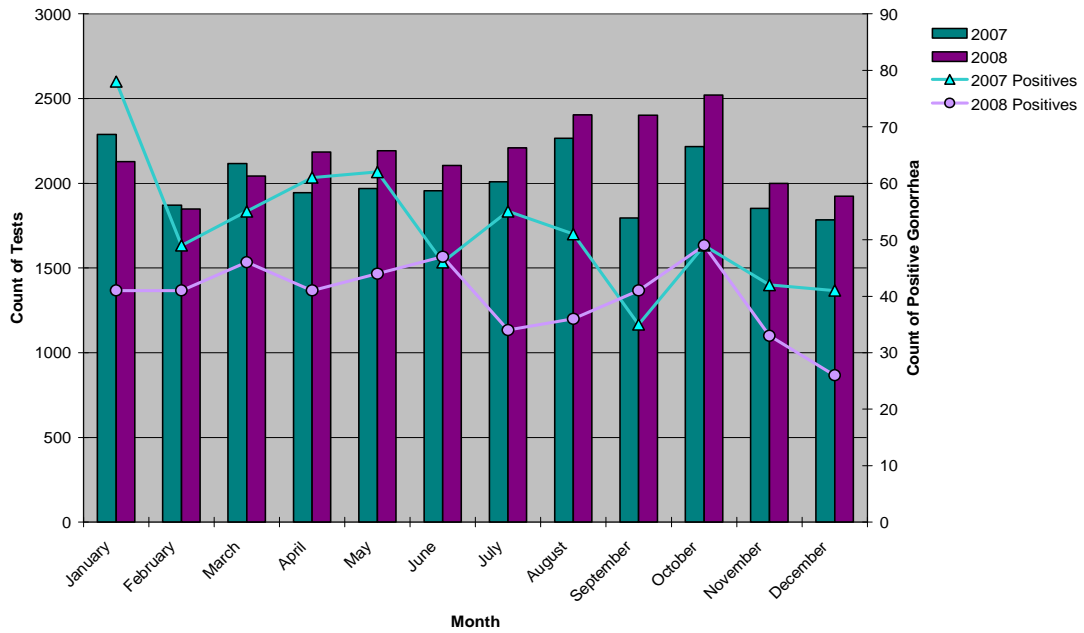


Figure 5

Figure 6 shows gonorrhea testing by age group, there was an increase in testing for every age group except for 10-14 year olds in 2008. Testing for ages 0-9 was negligible for both years.

Gonorrhea Testing at Quest Diagnostics among Age Groups, 2007 and 2008, City of St. Louis Residents

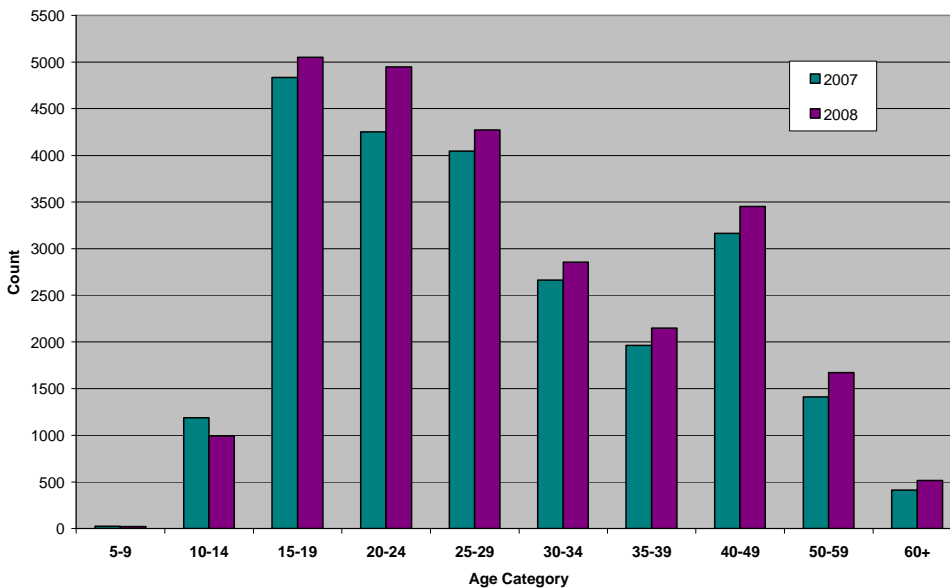


Figure 6

Gonorrhea testing at Connectcare

Figure 7 shows gonorrhea testing trends at ConnectCare between 2007 and 2008. The data included in this chart shows the number of total gonorrhea tests submitted and the number of positives. (See Appendix Table 6)

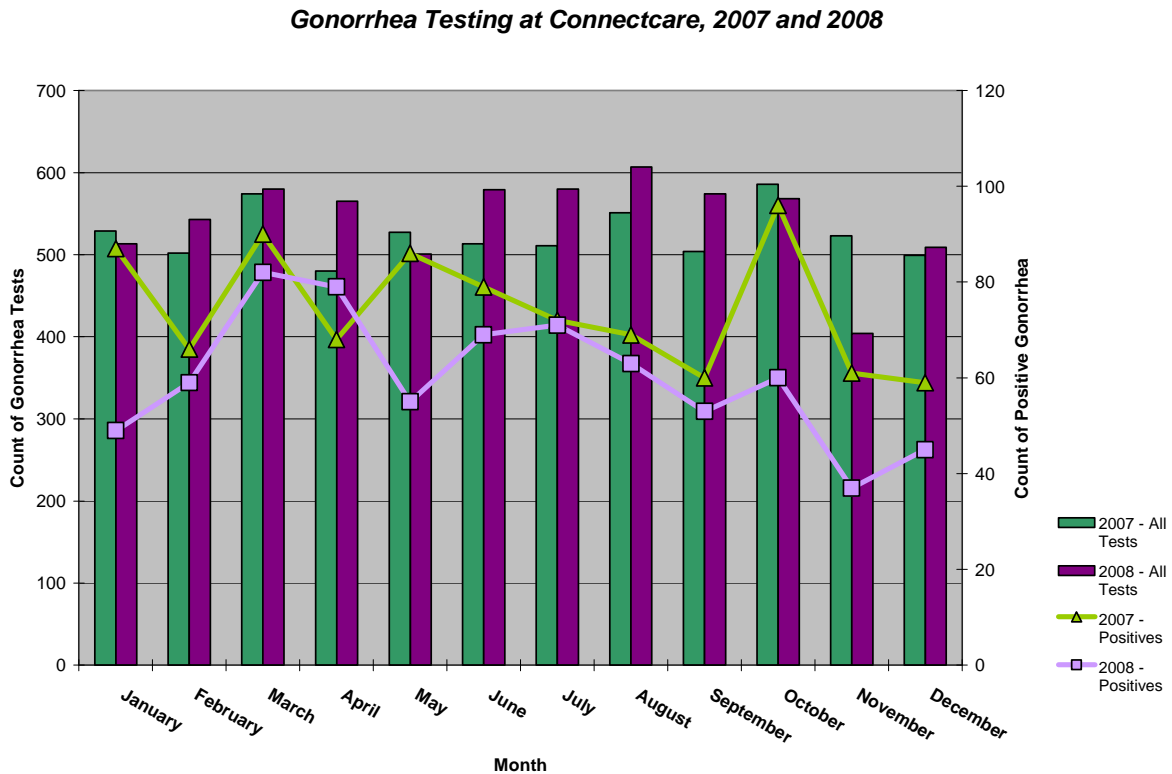


Figure 7

ConnectCare did not appear to have any major changes in testing between 2007 and 2008. Overall gonorrhea testing increased by 3.6% between 2007 and 2008 while positive gonorrhea results decreased by 19%. This trend follows what was seen in overall STD testing from the MDHSS and Quest.

According to The Center for HIV, STD, and Hepatitis Services at the DOH (formerly METRO), each site does their own counseling and testing, traditional clinics and federally qualified health centers (FQHCs) normally provide health counseling at the time of STD testing. It is unknown what type of health counseling, if any, takes place at emergency rooms and private MD offices. Because the DOH works closely with ConnectCare's STD testing services, it is known that thorough health counseling and condoms are provided to clients. The Center outreach staff also began to include more STD testing along with the normal HIV/AIDS testing at outreach events.

The Spot

Number of Gonorrhea Tests with Positives at 'The Spot', 2008 and 2009

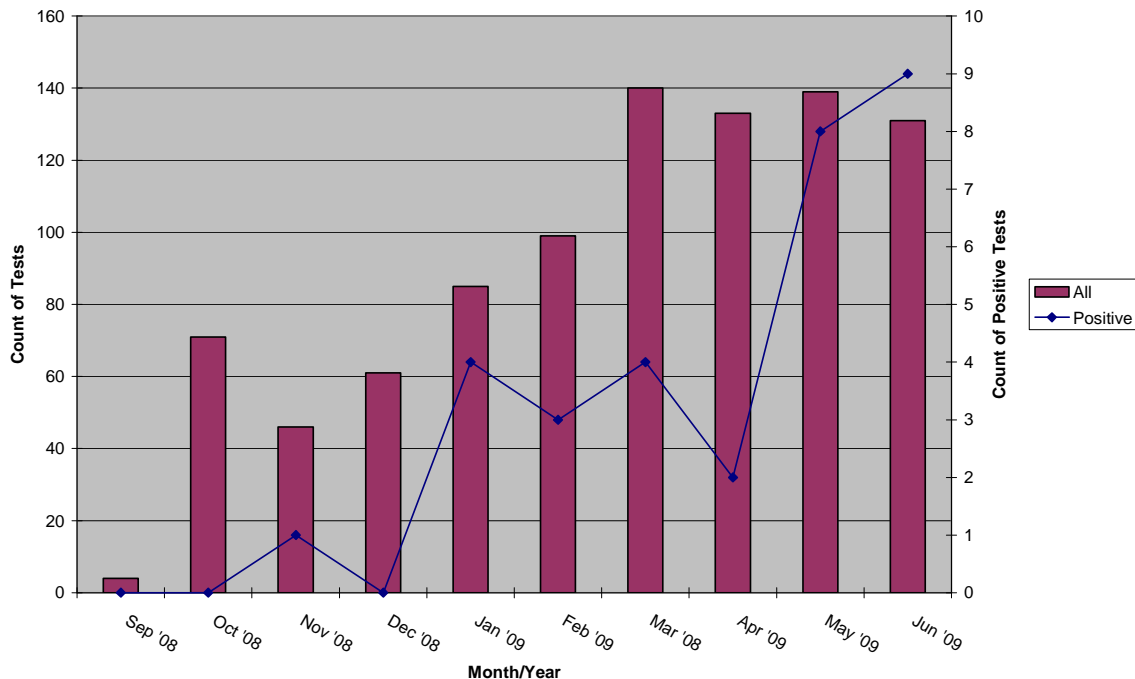


Figure 8

'The Spot' is a teen community and health center that opened in August 2008, youth between the ages of 13 and 24 are welcome to come and hang out to watch TV, have a snack, look for employment and obtain health services. Included in the health services is HIV/AIDS and STD testing. Figure 8 shows the increase in testing at 'The Spot' since they began testing in late summer 2008. Testing at 'The Spot' has increased since knowledge of the center has spread through advertisement and referral from other clinics. Connectcare currently promotes the center with their teenaged clients.

Findings and Next Steps

Based on testing data from the four sources presented here, there appears to be an increase in testing at most sites in the city and county and very few locations experiencing a decrease in testing. The decrease in reported gonorrhea cases does not appear to be linked to a decrease in overall testing in the area. The DOH epidemiology and surveillance staff recognize barriers in obtaining useful STD testing data from both state and private lab sources. Currently, STD diagnosis data from the state is provided to the DOH on a monthly basis, but overall testing (both positives and negatives) is provided on a quarterly basis without site information or client location. Although it is helpful to see overall testing trends, it is difficult to pinpoint where dips

in testing are occurring without these two pieces of information. Datasets that can provide patient zip code and facility location is the ideal solution to continue monitoring testing in the area.

For this particular project, MDHSS was able to provide complete testing datasets for 2007 and 2008 with facility name and patient zip code. Quest Diagnostics was also able to provide 2007 and 2008 testing information for patients living in city zip codes. Site information was not provided in the Quest datasets but viewing testing trends among city residents was valuable and contributed to the overall picture of testing in the metro region. Going forward, it will be important to compare 2009 quarterly data with 2007 and 2008 levels, currently only Connectcare and 'The Spot' have been able to provide early 2009 data.

Other areas of consideration in understanding fluctuations in this type of data would be to determine the level and quality of STD counseling and treatment at the various types of sites and working towards a standard that all sites can use as a guide. The environment in an urban ER is vastly different than a family health clinic and understanding of each site's limitations would need to be addressed.

Conclusion

The data presented here included a state lab, private testing lab, and two local clinics. Based on the findings of this analysis, it does not appear that the decrease in gonorrhea cases in the City of St. Louis is a result of decreased testing. Increased gonorrhea testing was conducted or processed at all three sites while a decrease in gonorrhea diagnoses was observed.

Appendix

Table 1. City of St. Louis STD & MIPP Testing Sites, Testing Data from MDHSS, 2007 and 2008

Facility Name	Year Reported		Total	Increase/Decrease
	2007	2008		
Connect Care	6026	6362	12388	▲
Family Health Care Center - Holly Hills	623	815	1438	▲
Family Health Care Center - Forest Park	341	420	761	▲
Grace Hill - Murphy O'Fallon	51	0	51	▼
Grace Hill South	119	0	119	▼
Grace Hill - Watertower	184	3	187	▼
Grace Hill - Souldard/Benton Park	282	8	290	▼
Juvenile Division - Family Court	0	880	880	▲
La Clinica	39	229	268	▲
METRO Testing & Counseling + Outreach	255	711	966	▲
Myrtle Hilliard Davis Health Center	4708	4163	8871	▼
Planned Parenthood	2044	3271	5315	▲
St. Louis City Jail	4	2	6	▼
University of Missouri - St. Louis (UMSL)	0	130	130	▲
	14676	16994	31670	▲

Table 2. St. Louis County STD & MIPP Testing Sites, Testing Data from MDHSS, 2007 and 2008

Facility Name	Year Reported		Total	Increase/Decrease
	2007	2008		
*Florissant Outreach - METRO	0	83	83	▲
*Manchester Outreach - METRO	0	57	57	▲
North Central Health Center	99	461	560	▲
North Central Health Center - Teen Clinic	17	34	51	▲
**Planned Parenthood	4166	5289	9455	▲
South County Health Center	344	75	419	▼
St. Louis County Jail	3078	3692	6770	▲
St. Louis County Justice Center	84	31	115	▼
St. Louis County Juvenile Center	529	572	1101	▲
Murphy Health Center - STD Clinic	6839	5875	12714	▼
Murphy Health Center - Teen Clinic	919	273	1192	▼
Murphy Health Center - Women's Health	869	297	1166	▼
	16944	16739	33683	▼

*Testing site in the county but conducted by METRO Testing & Counseling

**Planned Parenthood numbers include city sites

Table 3. St. Louis City & County STD & MIPP Testing by Age Group, Testing Data from MDHSS, 2007 and 2008

Age Category	Year Reported		Total	Increase/Decrease
	2007	2008		
5-9	0	1	1	▲
10-14	374	502	876	▲
15-19	6362	6714	13076	▲
20-24	8973	8697	17670	▼
25-29	4571	5011	9582	▲
30-34	2673	2700	5373	▲
35-39	1933	2025	3958	▲
40-29	3163	3171	6334	▲
50-59	1187	1271	2458	▲
60+	340	370	710	▲
	29576	30462	60038	▲

Table 4. Quest Diagnostics Testing by Month, 2007 and 2008, City of St. Louis

Month	2007	2007	Total	Increase/Decrease
January	2288	2128	4416	▼
February	1870	1847	3717	▲
March	2116	2042	4158	▼
April	1943	2183	4126	▲
May	1968	2192	4160	▲
June	1956	2104	4060	▲
July	2009	2208	4217	▲
August	2266	2402	4668	▲
September	1794	2401	4195	▲
October	2216	2520	4736	▲
November	1851	1999	3850	▲
December	1784	1923	3707	▲
	24061	25949	50010	▲

Table 5. Quest Diagnostics Gonorrhea Testing by Age Group, 2007 and 2008, City of St. Louis

Age Category	2007	2008	Total	Increase/Decrease
5-9	23	19	42	▼
10-14	1190	994	2184	▼
15-19	4837	5053	9890	▲
20-24	4251	4948	9199	▲
25-29	4048	4272	8320	▲
30-34	2663	2854	5517	▲
35-39	1964	2149	4113	▲
40-49	3164	3451	6615	▲
50-59	1409	1670	3079	▲
60+	413	516	929	▲
	23986	25945	49931	▲

Table 6. Gonorrhea Testing at Connectcare, 2007 and 2008

Month	2007	2008	Total	Increase/Decrease
January	529	513	1042	▼
February	502	543	1045	▲
March	574	580	1154	▲
April	480	565	1045	▲
May	527	501	1028	▼
June	513	579	1092	▲
July	511	580	1091	▲
August	551	607	1158	▲
September	504	574	1078	▲
October	586	568	1154	▼
November	523	404	927	▼
December	499	509	1008	▲
	6299	6523	12822	▲

Table 7. Gonorrhea Testing at 'The Spot', 2008 and 2009

Month	Gonorrhea Testing	
	All	Positive
Sep '08	4	0
Oct '08	71	0
Nov '08	46	1
Dec '08	61	0
Jan '09	85	4
Feb '09	99	3
Mar '08	140	4
Apr '09	133	2
May '09	139	8
Jun '09	131	9