

Notifiable Communicable Diseases

Hamilton County Public Health (HCPH) Jurisdiction:

- *Number of cases:* 92
- *Most frequently reported:* chronic hepatitis C (n=22); chronic hepatitis B (n=13); syphilis (n=11); pertussis (n=8); campylobacteriosis (n=6)

Regional (Southwest Ohio):

- *Number of cases:* 419
- *Most frequently reported:* chronic hepatitis C (n=146); syphilis (n=57); chronic hepatitis B (n=28); pertussis (n=27); mycobacterium not TB (n=20)

Summary:

The overall incidence rates of notifiable communicable diseases for HCPH and Southwest Ohio decreased in August by 5% and 14%, respectively, while the state rate increased by 3% (Figure 1). The Southwest Ohio rate was the highest of the three rates; the HCPH rate was the lowest. Neither of the local rates was significantly different from the state rate (Table 1).

Chronic hepatitis C and chronic hepatitis B were among the top five reported diseases in the region (1st and 3rd most frequently reported, respectively) (Table 2). The regional incidence of chronic hepatitis (hepatitis B and hepatitis C, n=174) comprised 42% of the total communicable disease incidence in August. The monthly total for these diseases decreased by 29% from the July total (n=244). The incidence in August was less than the mean for the previous twelve months of 217 cases per month. The August rate of chronic hepatitis within Hamilton County (12.5 per 100,000 residents) was 25% higher than the rate for the region (10.0 per 100,000 residents).

Syphilis was the second most frequently reported disease in the region (Table 2). The regional incidence of syphilis cases (n=57) accounted for 14% of the total communicable disease incidence in August. The monthly total increased by 21% from the July total (n=47). Incidence in August was greater than the mean for the previous twelve months of 40 cases per month. The August rate of syphilis within Hamilton County (6.2 per 100,000 residents) was 90% higher than the rate for region (3.3 per 100,000 residents). Chlamydia and gonorrhea were not considered in this report.

Pertussis was the fourth most frequently reported disease in the region (Table 2). The regional incidence of pertussis (n=27) accounted for 6% of the total communicable disease incidence in August. The monthly total decreased by 50% from the July total (n=54). Incidence in August was greater than the mean for the previous twelve months of 23 cases per month. The August rate of pertussis within Hamilton County (1.2 per 100,000 residents) was comparable to the rate for region (1.6 per 100,000 residents).

Monthly communicable disease incidence by disease category for the last 12 months is presented in Figure 2.

Table 1. Comparison of the Incidence of Notifiable Communicable Diseases Reported in Ohio, Southwest Ohio and HCPH: August 2012

Location	Case Incidence	Rate per 100,000	[†] Rate Ratio	[‡] Confidence Interval (99%)
Ohio**	2567	22.3	-	-
SW Ohio	419	24.1	1.08	0.94 - 1.23
HCPH	92	20.0	0.90	0.66 - 1.14

Data are provisional – suspected, probable, & confirmed cases are included in counts except for cases of arboviral encephalitis of which only probable and confirmed cases are reported and Novel Influenza A of which only confirmed cases are reported. Report reflects time period of August 1-26, 2012 unless otherwise noted. Data accessed from the Ohio Disease Reporting System (ODRS) on 8/27/12. **Chlamydia & Gonorrhea excluded due to a large amount of duplicate records for these diseases in the statewide data. *Adjusted for estimated duplicate records. [†] Ratio of estimated local rate to Ohio rate. [‡] Intervals that exclude the value of one are considered statistically significant. Note that the completeness of reporting varies per region and can impact reported disease incidences.

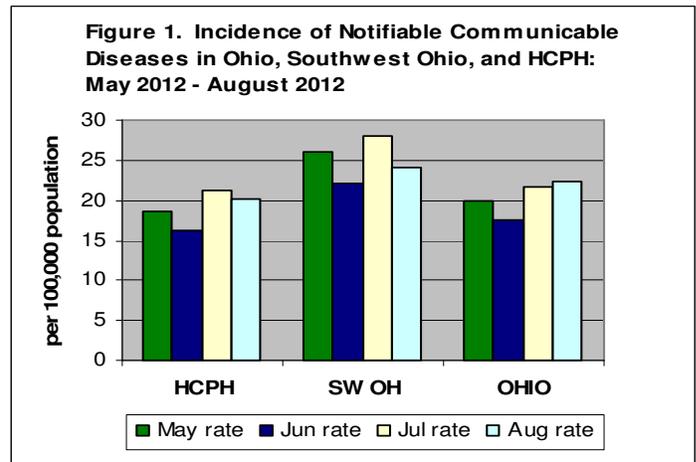


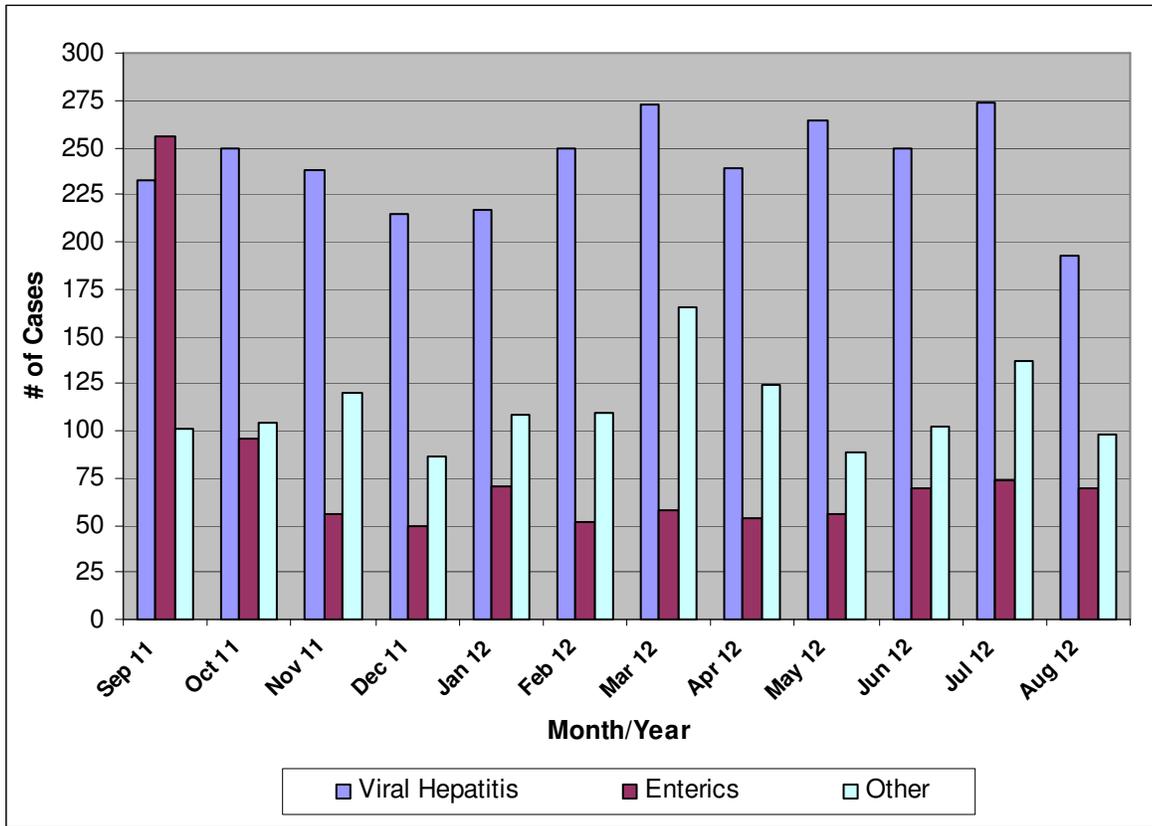
Table 2. *New Cases of Notifiable **Diseases in Southwest Ohio as Reported in *ODRS by ****County: August 2012**

		County								Total
		Adams	Brown	Butler	Clermont	Clinton	Hamilton	Highland	Warren	
Disease name	Campylobacteriosis	0	0	3	4	1	9	0	1	18
	Coccidioidomycosis	0	0	1	0	0	0	0	0	1
	Cryptosporidiosis	0	0	1	1	0	2	0	0	4
	E coli O157:H7	0	0	2	1	1	1	0	3	8
	Encephalitis, arboviral	0	0	1	0	0	4	0	1	6
	Giardiasis	0	0	3	2	0	5	0	2	12
	Haemophilus influenzae	0	0	0	2	0	1	0	0	3
	Hepatitis A	0	1	0	0	1	0	0	0	2
	Hepatitis B, acute	0	0	4	1	1	5	2	1	14
	Hepatitis B, chronic	0	0	5	3	0	20	0	0	28
	Hepatitis C, acute	0	1	0	0	0	2	0	0	3
	Hepatitis C, chronic	2	2	26	16	0	80	8	12	146
	Lyme disease	0	0	3	0	0	2	0	1	6
	Malaria	0	0	0	0	1	1	0	0	2
	Meningitis, aseptic	0	0	0	1	0	5	0	0	6
	Meningitis, bacterial	0	0	0	1	0	2	0	0	3
	Meningococcal disease	0	0	0	0	0	1	0	0	1
	Mycobacterium not TB	3	0	10	0	0	5	0	2	20
	Novel Influenza A	0	0	7	0	0	3	0	1	11
	Pertussis	1	0	4	5	1	10	3	3	27
	Rocky mountain spotted fever	0	0	0	2	0	1	0	0	3
	Salmonellosis	1	0	5	3	0	6	1	1	17
	Shigellosis	0	0	8	0	0	3	0	0	11
Streptococcal, Group A, invasive	0	0	1	0	0	0	0	0	1	
Streptococcus pneumoniae, invasive	0	0	1	0	0	0	0	0	1	
Syphilis	0	0	4	2	0	50	0	1	57	
Syphilis - congenital	0	0	1	0	0	0	0	0	1	
Toxic shock syndrome	0	0	0	0	0	0	0	1	1	
Tuberculosis	0	0	2	0	0	0	0	0	2	
Varicella	0	0	0	0	0	3	1	0	4	
Total		7	4	92	44	6	221	15	30	419

*Suspected, Probable, & Confirmed cases included in counts (data are provisional) – cases counted by month reported to public health. **Chlamydia & Gonorrhea excluded from table.
 Ohio Infectious Disease Reporting System. *Counties with zero notifiable communicable diseases omitted from the table.

NOTES: STD data collected from ODRS are largely incomplete prior to 2009 and due to provisional nature of the data some duplicate cases August be included in reported STD counts. Cases of all syphilis classifications with the exception of congenital cases are reported as “syphilis.” Cases of congenital syphilis are reported as “Syphilis – congenital.” Detailed information regarding syphilis case classifications in Ohio is available at <http://www.odh.ohio.gov/pdf/IDCM/syphilis.pdf>. View state and national statistics at <http://wonder.cdc.gov/mmwr/mmwr morb.asp>

Figure 2. *Notifiable Communicable **Diseases in Southwest Ohio by Disease *Category as Reported in ODRS: September 2011 - August 2012**



*Suspected, Probable, & Confirmed cases included in counts (data are provisional) – cases counted by month reported to public health (Data: September 1, 2011 – August 26, 2012). ** STD's (i.e., Chlamydia, Gonorrhea, and Syphilis) excluded. ***Diseases assigned to mutually exclusive categories; i.e. disease cases are not included in more than one category in Figure 2. All cases are assigned to one of the categories.

Regional Syndromic Surveillance

Emergency Department (ED) Visits: All alerts received for Hamilton County in August are summarized in Table 3. Three syndromic alerts were received in August. There was one alert each for the Neurological, Respiratory, and †Botulinic classifiers. The final dispositions of the Neurological and Botulinic alerts were Indeterminate while the Respiratory alert investigation is still in-progress.

Table 3. ED Visit Anomalies for Hamilton County: August 2012

Anomaly Classifier	Event Date	Alert Category	Analysis Method	Aggregated By	Actual Value	Predicted Value	Threshold Value	Final Disposition
Exacerbation	8/31/12	Infectious Disease	Cusum EMA	Facility Location	18	10.9	16.7	Investigation in-progress
Fever	8/30/12	Infectious Disease	Recursive Least Squares	Home Location	63	43.0	62.5	Indeterminate
Neurological	8/29/12	Syndromic	Cusum EMA	Facility Location	234	196.7	227.5	Indeterminate
Respiratory	8/27/12	Syndromic	Recursive Least Squares	Facility Location	232	175.1	220.7	Investigation in-progress
Botulinic	8/16/12	Syndromic	Recursive Least Squares	Home Location	12	3.8	10.4	Indeterminate
Diarrhea - Not Watery/Bloody	8/16/12	Infectious Disease	Recursive Least Squares	Home Location	22	11.8	21.6	Indeterminate
Diarrhea - Not Watery/Bloody	8/15/12	Infectious Disease	Cusum EMA	Facility Location	27	18.2	23.5	Indeterminate
Diarrhea - Not Watery/Bloody	8/15/12	Infectious Disease	Cusum EMA	Home Location	21	12.1	20.5	Indeterminate
Fever	8/5/12	Infectious Disease	Recursive Least Squares	Home Location	63	39.6	55.7	Indeterminate

† The Botulinic syndromic classifier encompasses a range of chief complaints associated with a general symptomatology reported by the patient related to blurred/impaired vision and/or slurred/impaired speech. NOTE: When investigating Botulinic classifier anomalies, only those in which the majority of the chief complaints indicate both abnormal vision and speech symptoms are considered to be of concern.

School Absenteeism and Illness: As most Hamilton County schools do not begin their school year until mid to late August, school surveillance reports for August were very sparse and limited. This section of the monthly report will resume once most schools are back in session and have re-initiated frequent and consistent reporting of their data.