

Annual
Communicable
Disease Report

2018



Public Health
Prevent. Promote. Protect.

**Dayton &
Montgomery
County**

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Introduction

The 2018 Annual Communicable Disease Report presents a five-year (2014-2018) overview of the incidence and rates of confirmed reportable diseases that occurred in Montgomery County. Also included in this report are the top reportable diseases for all of Montgomery County, 0 to 18 year olds, and 65 years of age and older; demographic characteristics of sexually-transmitted disease cases reported in 2018 and a summary of the 2017-2018 influenza season. Finally, the report contains a summary of the 2018 Hepatitis A outbreak.

Information pertaining to prevention, control, and reporting of suspected or confirmed cases of any communicable disease can be found in the Infectious Disease Control Manual (IDCM) published by the Ohio Department of Health. The IDCM is based on Ohio Administrative Code (OAC) Chapter 3701-3. The OAC designates which diseases are to be reported to the local health department and the time frame in which this must occur.

Data for this report were gathered from the Ohio Disease Reporting System (ODRS).

The 2018 Annual Infectious Disease Report was prepared by Public Health - Dayton & Montgomery County's Epidemiology department.

Reportable Communicable Diseases Montgomery County, 2014-2018

General Infectious Diseases	2014		2015		2016		2017		2018	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Botulism, infant	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0
Campylobacteriosis	24	4.5	28	5.3	32	6.0	18	3.4	24	4.5
Carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE)	*	NA	*	NA	*	NA	*	NA	4	0.8
Cryptosporidiosis	1	0.2	1	0.2	31	5.8	19	3.6	11	2.1
<i>E. coli</i> 0157:H7 and other enterohemorrhagic <i>E. coli</i>	5	0.9	11	2.1	8	1.5	5	0.9	8	1.5
Giardiasis	13	2.4	10	1.9	19	3.6	15	2.8	5	0.9
<i>Haemophilus influenzae</i> (invasive disease)	4	0.8	14	2.6	11	2.1	15	2.8	14	2.6
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0
Legionnaires' Disease	32	6.0	51	9.6	27	5.1	24	4.5	59	11.1
Listeriosis	0	0.0	1	0.2	0	0.0	0	0.0	1	0.2
Meningitis, aseptic (viral)	34	6.4	45	8.5	20	3.8	19	3.6	15	2.8
Meningitis, bacterial	11	2.1	9	1.7	9	1.7	14	2.6	16	3.0
Mycobacterial disease, other than tuberculosis (MOTT)	36	6.8	40	7.5	27	5.1	*	NA	*	NA
Salmonellosis	58	10.9	68	12.8	76	14.3	53	10.0	52	9.8
Shigellosis	5	0.9	23	4.3	90	16.9	32	6.0	12	2.3
<i>Staphylococcus aureus</i>, with resistance or intermediate resistance to vancomycin (VRSA, VISA)	1	0.2	0	0.0	0	0.0	0	0.0	1	0.2
Streptococcal disease, group A, invasive	25	4.7	20	3.8	36	6.8	43	8.1	59	11.1
Streptococcal disease, group B, newborn	3	0.6	5	0.9	3	0.6	2	0.4	1	0.2
<i>Streptococcus pneumoniae</i>, invasive	62	11.7	49	9.2	61	11.5	63	11.9	81	15.2
Toxic shock syndrome	0	0.0	0	0.0	0	0.0	1	0.2	1	0.2
Tuberculosis	8	1.5	6	1.1	7	1.3	5	0.9	5	0.9
Typhoid fever	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2
Yersiniosis	4	0.8	1	0.2	0	0.0	1	0.2	0	0.0

Notes:

* Not reportable this year

Rates use U.S. Census estimates and are per 100,000 population

Data reported through March 8, 2019

Class A	2014	2015	2016	2017	2018
	#	#	#	#	#
Diphtheria	1	0	0	0	0
Meningococcal disease	0	0	1	0	1

Notes:

Data reported through March 8, 2019

Hepatitis	2014		2015		2016		2017		2018	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Hepatitis A*	0	0.0	1	0.2	0	0.0	1	0.2	227	42.7
Hepatitis B	64	12.0	86	16.2	81	15.2	96	18.1	64	12.0
Hepatitis C	817	153.6	946	178.1	735	138.3	727	136.8	442	83.2

Notes:

* Vaccine-preventable

Rates use U.S. Census estimates and are per 100,000 population

Data reported through March 8, 2019

Vaccine-Preventable	2014		2015		2016		2017		2018	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Influenza-associated hospitalization	459	86.3	250	47.1	257	48.4	919	172.9	732	137.7
Influenza-associated pediatric mortality	0	0.0	0	0.0	0	0.0	1	1.9	0	0.0
Mumps	0	0.0	0	0.0	24	4.5	4	0.8	1	0.2
Pertussis	73	13.7	50	9.4	46	8.7	94	17.7	77	14.5
Varicella	8	1.5	5	0.9	3	0.6	6	1.1	11	2.1

Notes:

Rates use U.S. Census estimates and are per 100,000 population

Data reported through March 8, 2019

Zoonotic	2014		2015		2016		2017		2018	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Lyme disease	9	1.7	4	0.8	5	0.9	3	0.6	2	0.4
Malaria	4	0.8	2	0.4	5	0.9	7	1.3	2	0.4
West Nile virus infection	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0
Zika	*	NA	*	NA	3	0.6	0	0.0	0	0.0

Notes:

* Not reportable this year

Rates use U.S. Census estimates and are per 100,000 population

Data reported through March 8, 2019

HIV*	2014	2015	2016	2017	2018
	#	#	#	#	#
Male	43	41	40	54	60
Female	12	7	12	10	4
<i>Total</i>	55	48	52	64	64

Notes:

* Number of cases may be adjusted depending on data received from ODH.
Data reported through March 8, 2019

Sexually Transmitted*	2014		2015		2016		2017		2018	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Chlamydia	3,182	598.1	3,103	584.0	3,503	659.2	3,156	593.7	3,350	630.2
Gonorrhea	968	182.0	1,080	203.3	1,419	267.0	1,346	253.2	1,619	304.6
Syphilis										
Congenital	0	0.0	0	0.0	1	0.2	2	0.3	4	0.6
Primary	1	0.2	8	1.5	11	2.1	7	1.3	17	3.2
Secondary	14	2.6	10	1.9	23	4.3	27	5.1	42	7.9
Early Latent (< 1 year)	12	2.3	19	3.6	20	3.8	33	6.2	39	7.3
Unknown Duration or Late	0	0.0	21	4.0	19	3.6	25	4.7	43	8.1
<i>Total</i>	27		58		74		94		145	

Notes:

* Number of cases may be adjusted depending on data received from ODH.

Rates use U.S. Census estimates and are per 100,000 population or ODH Birth Files and are per 1,000 live births (Congenital)

Data reported through March 8, 2019

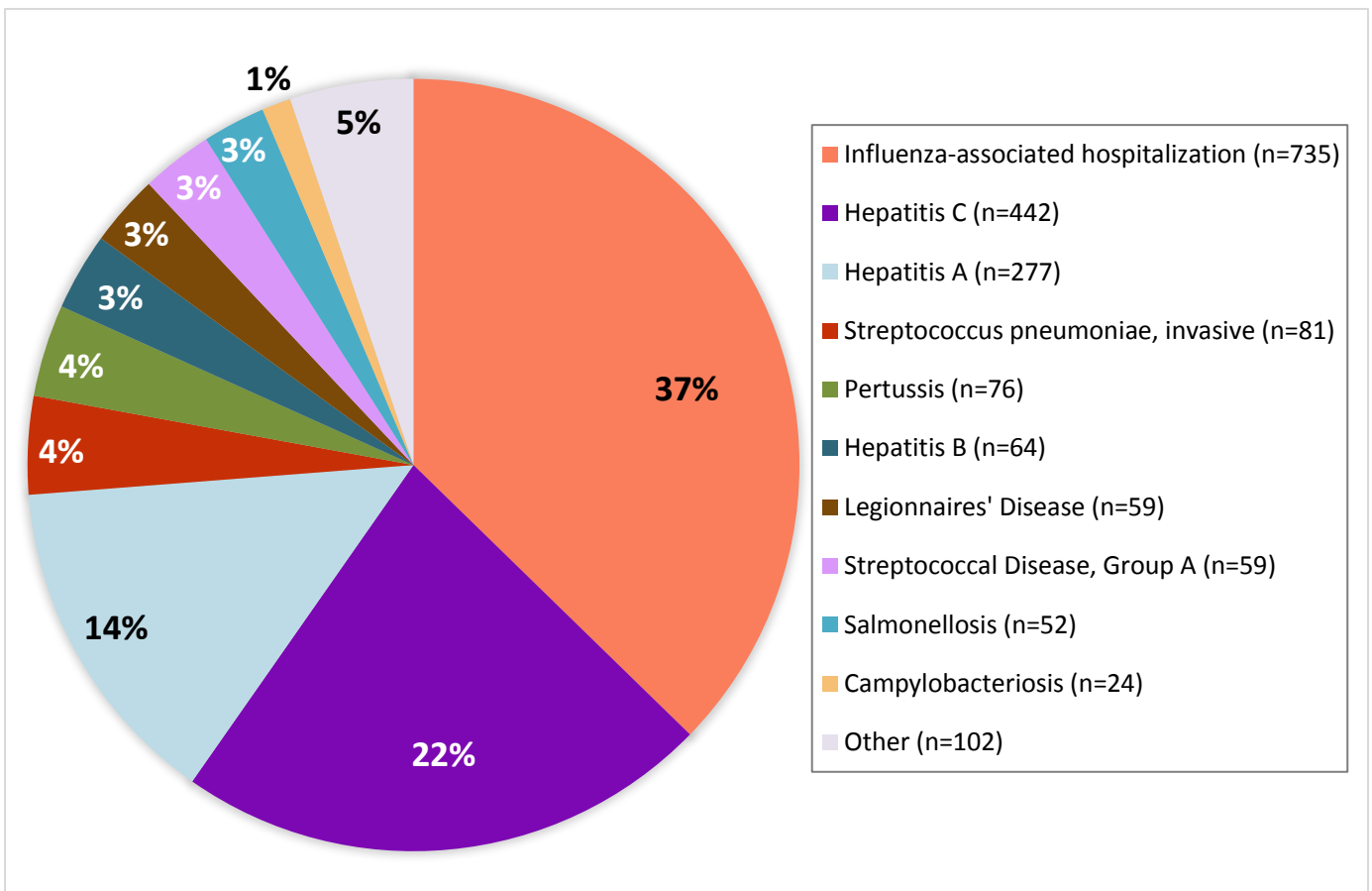
Outbreaks	2014	2015	2016	2017	2018
	#	#	#	#	#
Foodborne	1	0	1	0	0
Healthcare-Associated	0	4	0	0	0
Institutional	1	3	5	6	3
Waterborne	1	1	0	0	0

Notes:

Data reported through March 8, 2019

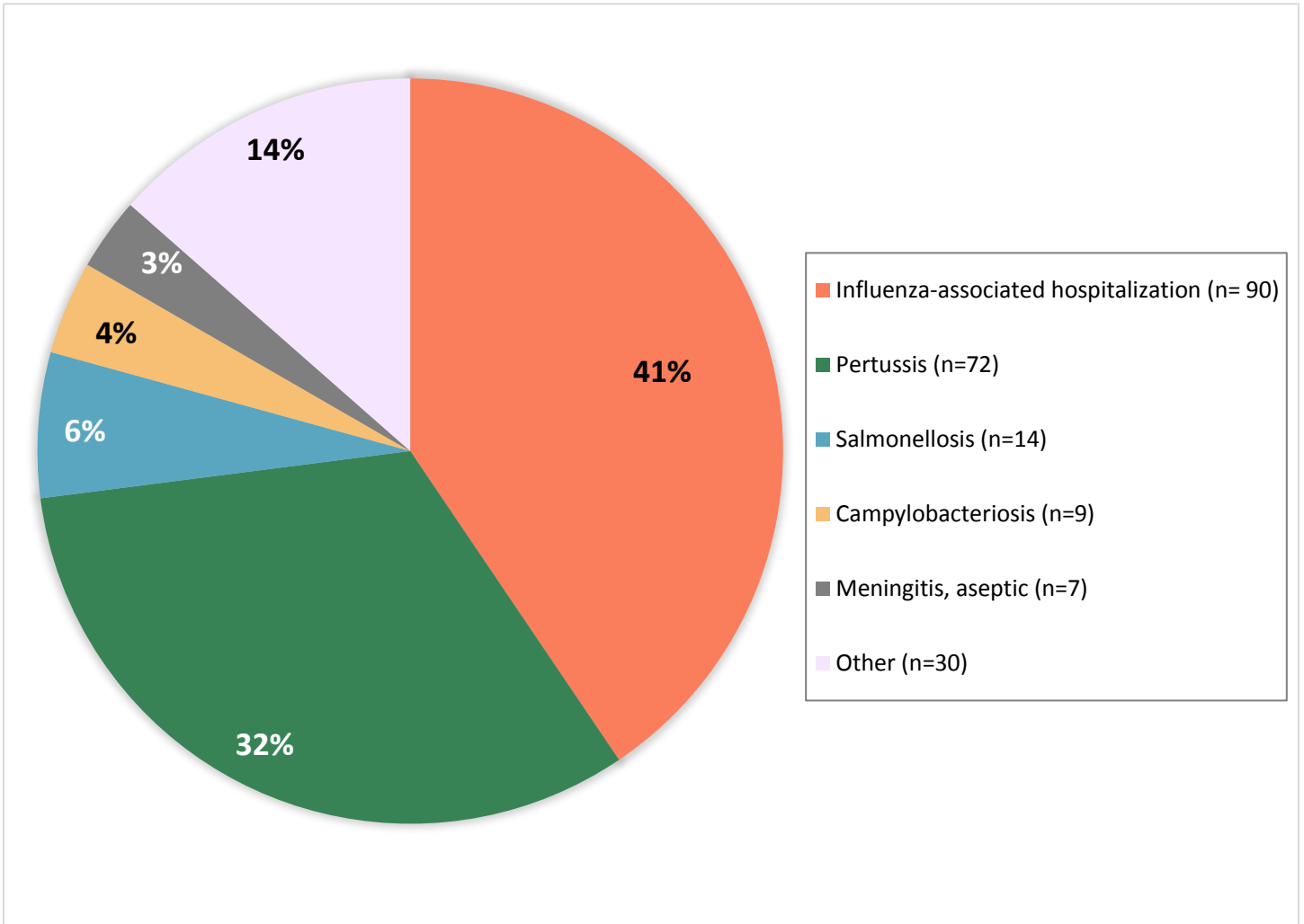
Top 10 Most Reportable Diseases Montgomery County, 2018

Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	735	37.3%
Hepatitis C	442	22.4%
Hepatitis A	277	14.1%
Streptococcus pneumoniae, invasive	81	4.1%
Pertussis	76	3.9%
Hepatitis B	64	3.2%
Legionnaires' Disease	59	3.0%
Streptococcal Disease, Group A	59	3.0%
Salmonellosis	52	2.6%
Campylobacteriosis	24	1.2%
Total Cases for 2018	1,971	



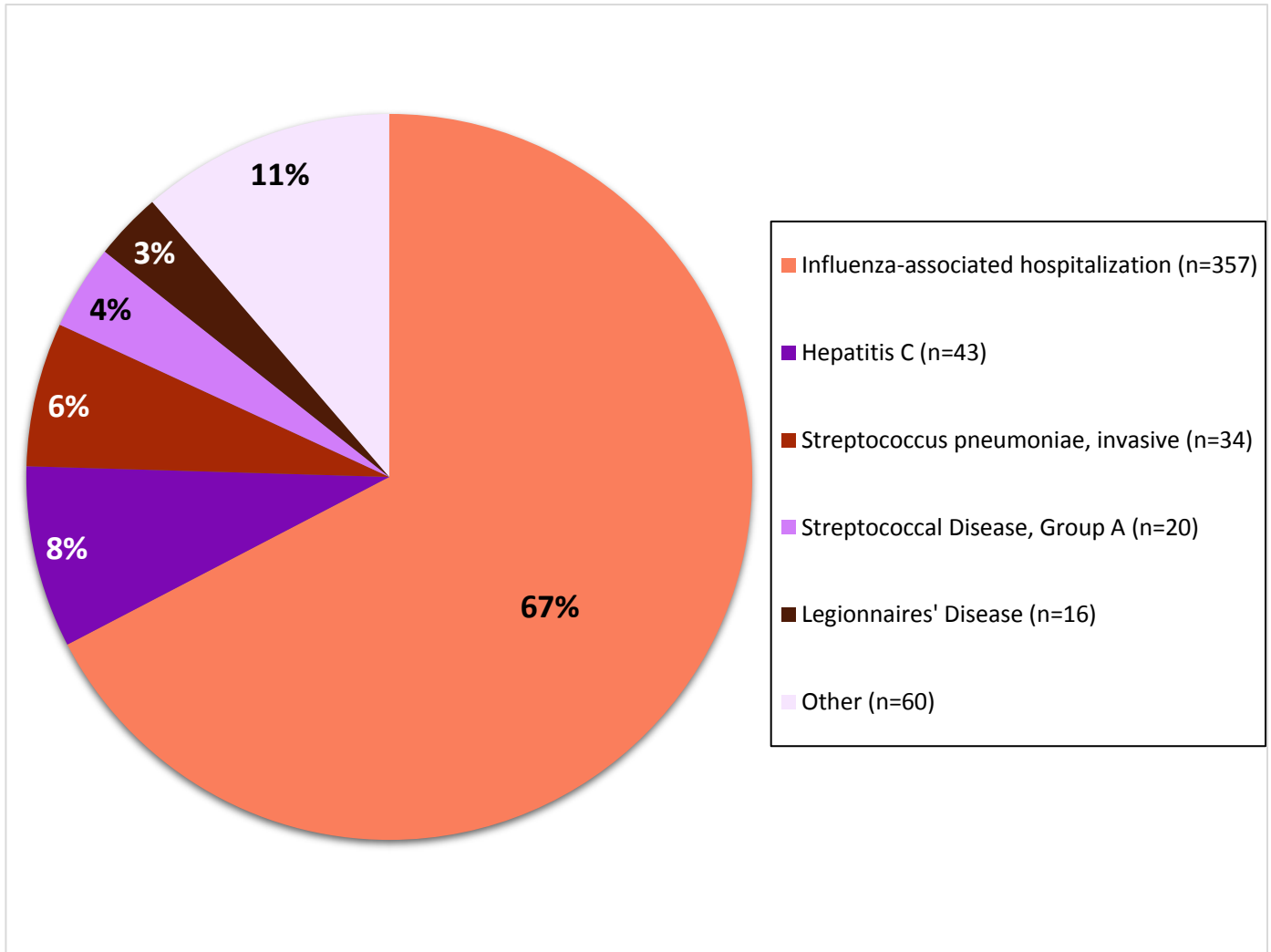
Top 5 Most Reportable Diseases for ages 0-18 years Montgomery County, 2018

Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	90	40.5%
Pertussis	72	32.4%
Salmonellosis	14	6.3%
Campylobacteriosis	9	4.1%
Meningitis, aseptic	7	3.2%
Total Cases for 2018	222	



Top 10 Most Reportable Diseases for ages 65 + years Montgomery County, 2018

Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	357	67.4%
Hepatitis C	43	8.1%
Streptococcus pneumoniae, invasive	34	6.4%
Streptococcal Disease, Group A	20	3.8%
Legionnaires' Disease	16	3.0%
Total Cases for 2018	530	



Hepatitis A

Hepatitis A is a very contagious virus that causes liver infection. The virus can spread through the ingestion of food or drinks contaminated with fecal matter from an infected person or through close contact with a person or object that is infected. Symptoms of an infection include fatigue, fever, stomach pain, nausea and vomiting, loss of appetite, dark urine, clay-colored stools, joint pain, and jaundice (yellowing of the skin and eyes). These symptoms may range from mild to severe and last from a few weeks to several months. The Hepatitis A vaccine is available and is the best method of prevention.

Hepatitis A outbreaks have been occurring in multiple states across the U.S., including several bordering Ohio. In June of 2018, the Ohio Department of Health declared a statewide Hepatitis A outbreak. **From 2013 to 2017, only 3 cases of Hepatitis A were reported in Montgomery County, and in 2018, there were 227.**

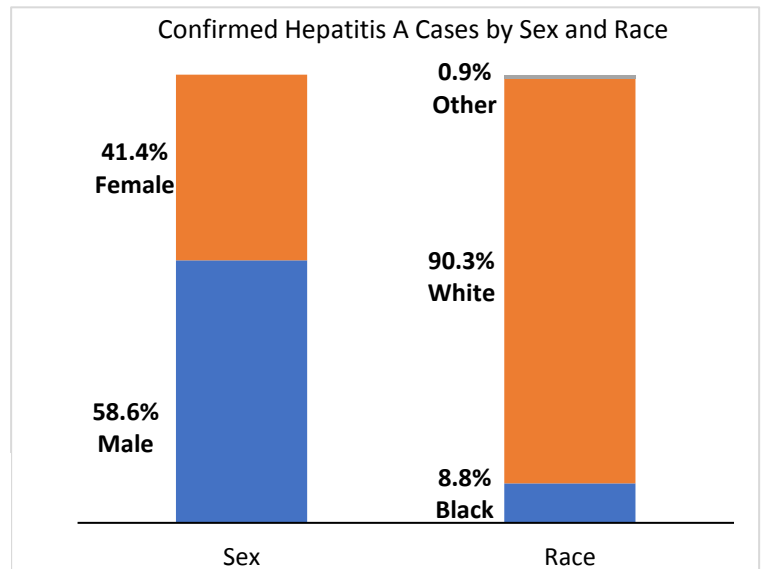
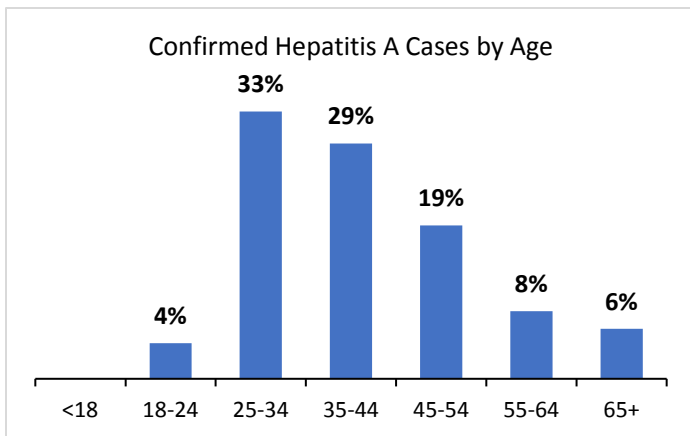
Those most at risk for Hepatitis A include:

- People with direct contact with individuals infected with the virus
- Men who have sex with men (MSM)
- People who use street drugs whether they are injected or not
- People who are incarcerated
- People experiencing homelessness
- People who have traveled to other areas of the U.S. currently experiencing outbreaks

Hospital intake interviews and follow-up investigations were conducted with confirmed Hepatitis A cases within the county to explore common exposure risks.

Exposure Risks	Cases	Percent
Homeless shelter contact	17	7.5%
History of illicit drug use	101	44.5%
History of drug-related crimes	118	52.0%
Jail contact within last 6 months	75	33.0%
MSM*	2	0.9%
Needle sharing	10	4.4%

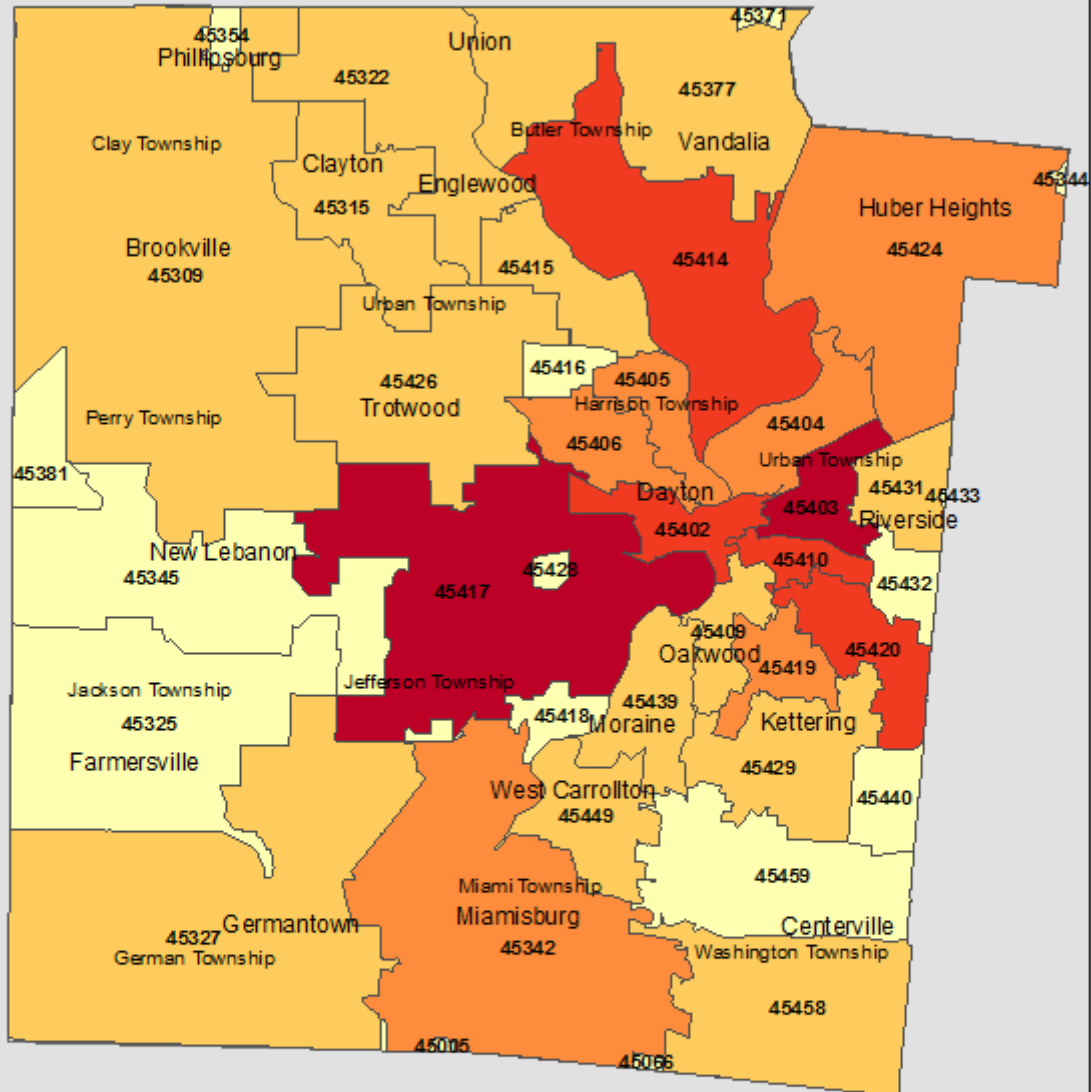
*Men who have sex with men



Key points:

- In Montgomery County, an association with illicit drugs was the most common exposure risk.
- Over 60% of Hepatitis A cases were between the ages of 25 and 44 years (average age of 40.8 years).
- 9 out of 10 confirmed cases were White, and the majority were men (59%).

Confirmed Hepatitis A Cases by Zip Code, Montgomery County, 2018



Confirmed Cases	
0 - 1	(Lightest yellow)
2 - 5	(Light orange)
6 - 11	(Medium orange)
12 - 19	(Red)
20 - 33	(Darkest red)

Source: Ohio Disease Reporting System (ODRS), 2018
 Created by: PHDMC Epidemiology 3/12/19

Additional findings:

- 43% (97) of cases had a history of Hepatitis C, and 13% (29) of cases had a history of Hepatitis B.
- 7 of the cases interviewed were food handlers, and 70 (31%) were unemployed.
- In 2018, 156 (69%) of the confirmed cases' symptoms required hospitalization, and 2 deaths occurred due to complications of the Hepatitis A infection.

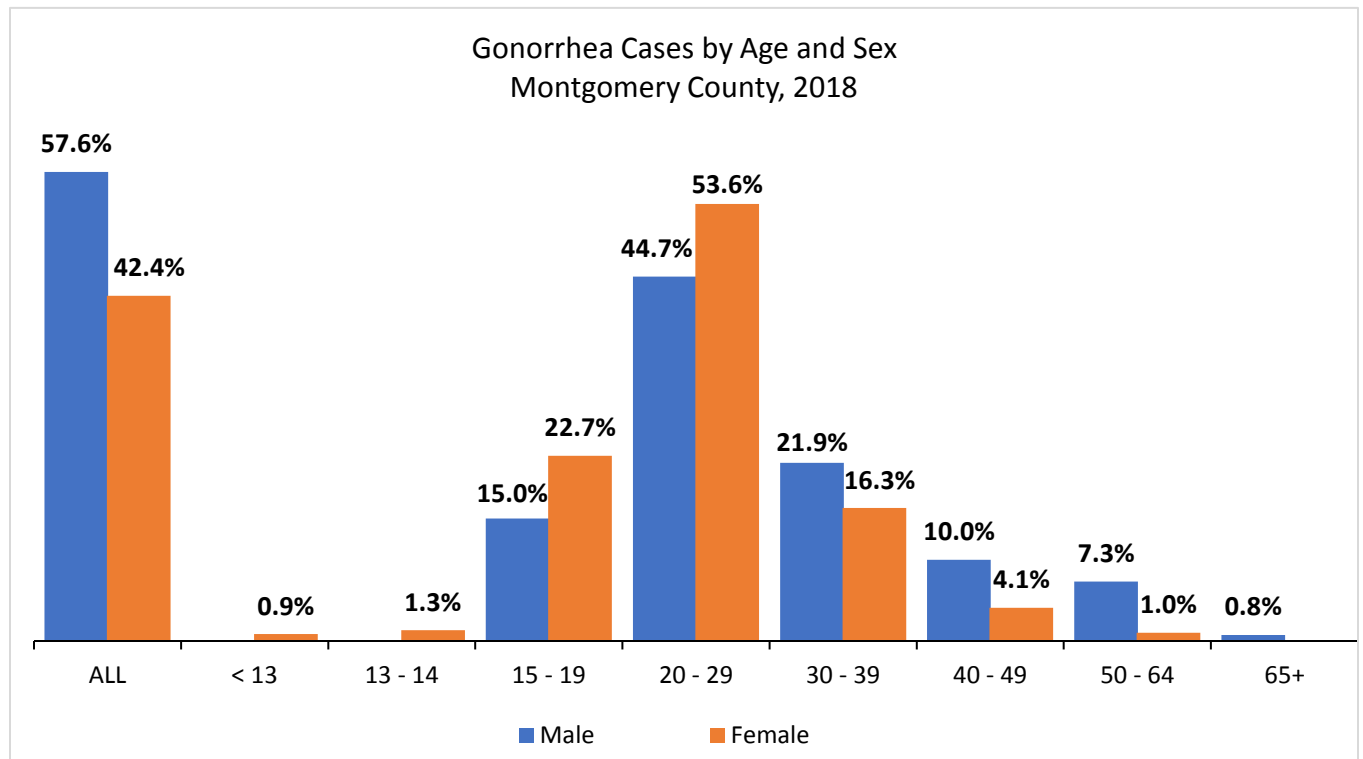
Demographic Characteristics of Sexually Transmitted Diseases Montgomery County, 2018

Gonorrhea

Age Range	Total		Male		Female		Unknown
	Cases	Percent	Cases	Percent	Cases	Percent	Cases
< 13	7	0.4%	1	0.1%	6	0.9%	0
13 - 14	9	0.6%	0	0.0%	9	1.3%	0
15 - 19	296	18.3%	140	15.0%	156	22.7%	0
20 - 29	786	48.5%	417	44.7%	368	53.6%	1
30 - 39	316	19.5%	204	21.9%	112	16.3%	0
40 - 49	121	7.5%	93	10.0%	28	4.1%	0
50 - 64	75	4.6%	68	7.3%	7	1.0%	0
65+	7	0.4%	7	0.8%	0	0.0%	0
Unknown	2	0.1%	2	0.2%	0	0.0%	0
Total	1,619	100%	932	57.6%	686	42.4%	1

Key points:

- Nearly 50% of diagnosed cases of Gonorrhea were between the ages 20 and 29 years (49%).
- Gonorrhea was diagnosed in more men (58%) compared to women (42%).

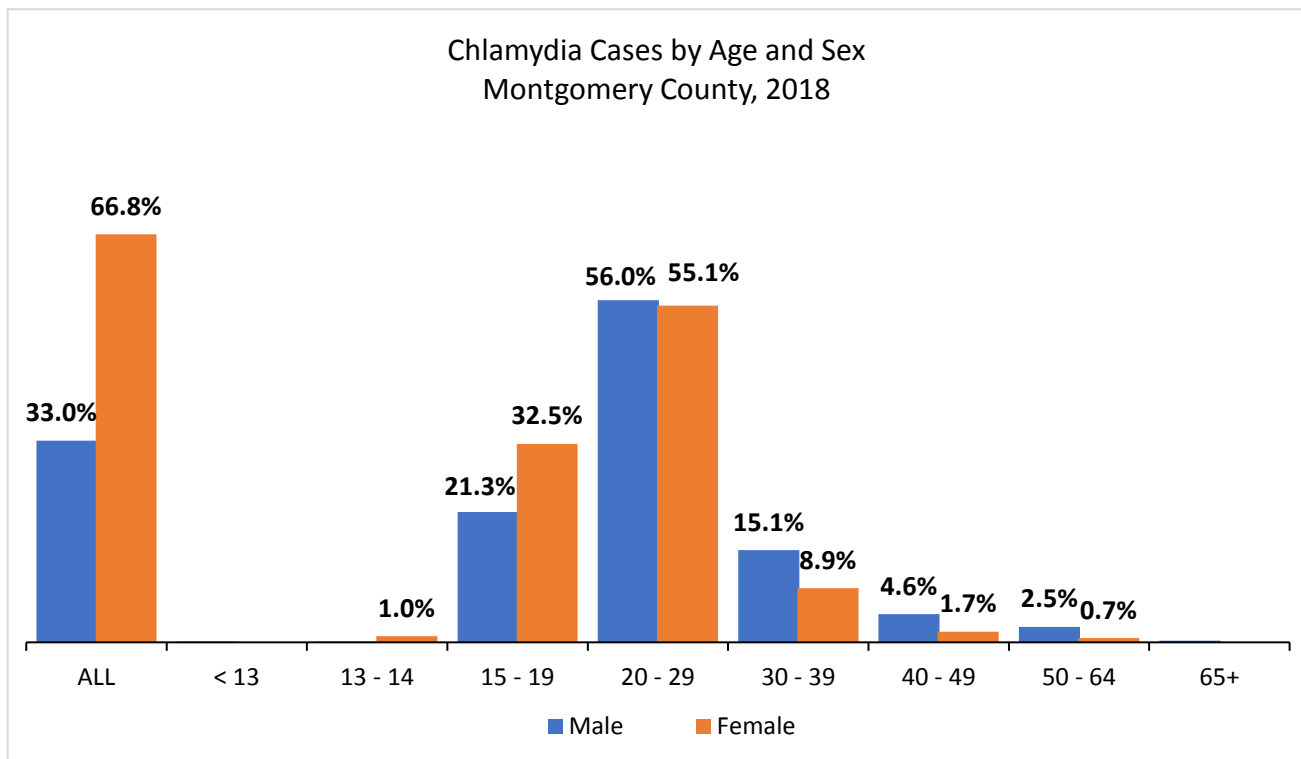


Chlamydia

Age Range	Total		Male		Female		Unknown
	Cases	Percent	Cases	Percent	Cases	Percent	Cases
< 13	2	0.1%	1	0.1%	1	0.0%	0
13 - 14	24	0.7%	1	0.1%	22	1.0%	1
15 - 19	965	28.8%	236	21.3%	728	32.5%	1
20 - 29	1,854	55.3%	620	56.0%	1,234	55.1%	0
30 - 39	367	11.0%	167	15.1%	199	8.9%	1
40 - 49	90	2.7%	51	4.6%	39	1.7%	0
50 - 64	43	1.3%	28	2.5%	15	0.7%	0
65+	4	0.1%	3	0.3%	1	0.0%	0
Unknown	1	0.0%	0	0.0%	0	0.0%	1
Total	3,350	100%	1,107	33.0%	2,239	66.8%	4

Key points:

- More than half of Chlamydia cases in 2018 were diagnosed in those age 20 to 29 years (55%).
- Women made up 67% of Chlamydia cases in 2018.



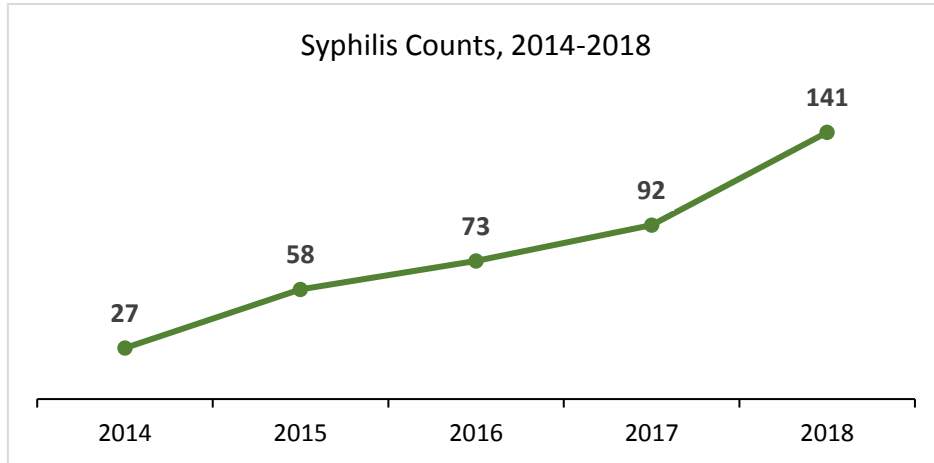
Syphilis

Key points:

- Syphilis counts have increased 422% since 2014.
- In 2018, 35% of cases were diagnosed in those between the ages 20 and 29 years, and 81% of cases were diagnosed in men.

Primary and Secondary, and Early, Late, and Unknown Latency Syphilis Cases

2014		2015		2016		2017		2018	
#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
27	5.1	58	10.9	73	13.7	92	17.3	141	26.5



Age Range	Primary	Secondary	Early Latent	Unknown Duration or Late	Total
<13	0	0	0	0	0
13-14	0	0	0	0	0
15-19	4	3	3	4	14
20-29	4	18	15	13	50
30-39	2	8	14	9	33
40-49	2	8	4	11	25
50-64	3	3	3	5	14
65+	2	2	0	1	5
Total	17	42	39	43	141

Sex	Primary	Secondary	Early Latent	Unknown Duration or Late	Total
Male	15	35	30	32	112
Female	2	7	9	11	29
Total	17	42	39	43	141

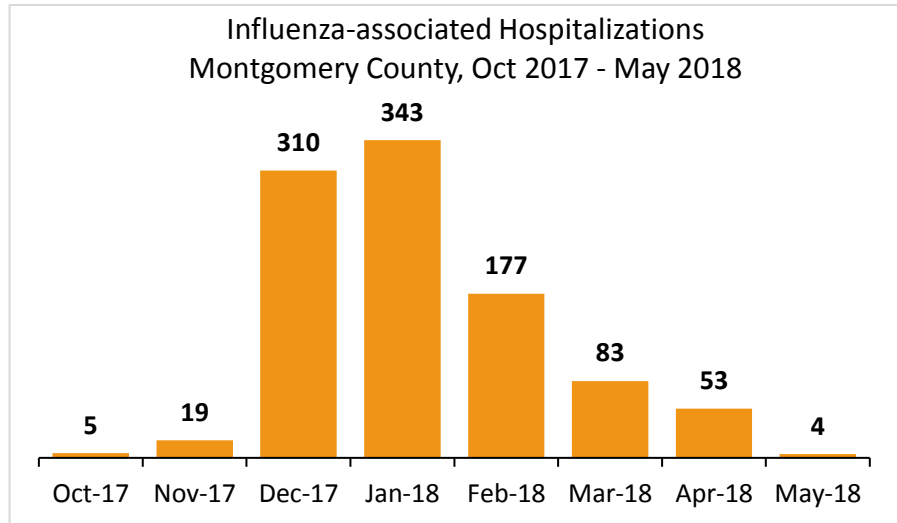
2017-2018 Influenza Season MMWR Week 40 – Week 20 (10/1/17- 5/19/18)

The seasonal flu is a respiratory illness with symptoms that include fever, body aches, tiredness, and cough that last one to two weeks. In addition to practicing good hygiene, the flu vaccine is the best protection against the flu.

Key points:

- Flu season peaked in January of 2018. More than 65% of influenza-associated hospitalizations were reported during December and January.
- More than 50% of influenza-associated hospitalized patients were 65 years of age and older.

Month	Cases	Percent
Oct-17	5	0.5%
Nov-17	19	1.9%
Dec-17	310	31.2%
Jan-18	343	34.5%
Feb-18	177	17.8%
Mar-18	83	8.4%
Apr-18	53	5.3%
May-18	4	0.4%
Total	994	



Age Range	Cases	Percent
< 5	71	7.1%
5 - 10	19	1.9%
11 - 18	13	1.3%
19 - 24	21	2.1%
25 - 34	43	4.3%
35 - 44	1	0.1%
45 - 54	140	14.1%
55 - 64	160	16.1%
65+	526	52.9%
Total	994	

