

Annual
Communicable
Disease Report

2017



Public Health
Prevent. Promote. Protect.

**Dayton &
Montgomery
County**

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Introduction

The 2017 Annual Communicable Disease Report presents a five-year (2013-2017) 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 Montgomery County by age group, demographic characteristics of sexually-transmitted disease cases reported in 2017, and a summary of the 2016-2017 influenza season.

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 2017 Annual Infectious Disease Report was prepared by Public Health - Dayton & Montgomery County's Planning & Preparedness and Epidemiology sections.

Reportable Communicable Diseases Montgomery County, 2013-2017

GENERAL INFECTIOUS DISEASES	2013		2014		2015		2016		2017	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Botulism, infant*	-	-	-	-	1	15.2	-	-	-	-
Campylobacteriosis	29	5.4	24	4.5	28	5.2	32	6.0	18	3.4
Coccidioidomycosis	-	-	-	-	-	-	-	-	-	-
Cryptosporidiosis	1	0.2	-	-	7	1.3	31	5.8	18	3.4
Cytomegalovirus (CMV), congenital*	5	0.9	NA	NA	NA	NA	NA	NA	NA	NA
E. coli O157:H7 and other enterohemorrhagic E. coli	5	0.9	7	1.3	-	-	-	-	-	-
Giardiasis	19	3.6	13	2.4	9	1.7	19	3.6	15	2.8
<i>Haemophilus influenzae</i> , invasive	10	1.9	4	0.7	14	2.6	12	2.2	13	2.4
Hemolytic Uremic Syndrome (HUS)	-	-	-	-	-	-	-	-	1	0.2
Legionnaires' Disease	31	5.8	32	6.0	51	9.5	26	4.9	24	4.5
Listeriosis	1	0.2	-	-	1	0.2	-	-	-	-
Meningitis, aseptic	40	7.5	33	6.2	44	8.2	20	3.7	19	3.6
Meningitis, bacterial	11	2.1	11	2.1	9	1.7	9	1.7	13	2.4
Mycobacterial Disease, other than tuberculosis (MOTT)	35	6.5	30	5.6	33	6.2	19	3.6	NA	NA
Salmonellosis	35	6.5	57	10.7	68	12.7	75	14.0	52	9.7
Shigellosis	32	6.0	5	0.9	23	4.3	90	16.8	32	6.0
<i>Staphylococcus aureus</i> , with resistance or intermediate resistance to vancomycin (VRSA, VISA)	1	0.2	1	0.2	-	-	-	-	-	-
Streptococcal Disease, Group A, invasive	11	2.1	24	4.5	20	3.7	33	6.2	43	8.0
Streptococcal Disease, Group B, newborn*	2	29.9	3	45.5	4	60.9	2	30.9	1	15.5
Streptococcal Toxic Shock Syndrome (STSS)	-	-	-	-	-	-	-	-	-	-
<i>Streptococcus pneumoniae</i> , invasive	57	10.7	63	11.8	48	9.0	58	10.8	59	11.0
Toxic Shock Syndrome (TSS)**	-	-	-	-	-	-	-	-	1	0.7
Tuberculosis	11	2.1	10	1.9	6	1.1	6	1.1	4	0.7
Typhoid Fever	-	-	-	-	-	-	-	-	-	-
Vibriosis	-	-	-	-	-	-	-	-	-	-
Yersiniosis	1	0.2	4	0.7	1	0.2	-	-	1	0.2

Notes:

Rates use 2010 U.S. Census estimates and are per 100,000 Montgomery County Residents

* Rate calculated using infant population under 1 year of age²

** Rate calculated for females of childbearing age (ages 10-50 years)²

Dash (-) indicates no cases were reported for the given category

NA indicates that the disease was not reportable during the year

Data reported through February 2, 2018

Class A	2013	2014	2015	2016	2017
Diphtheria	-	1	-	-	-
Meningococcal Disease	-	-	-	1	-

Notes:
Dash (-) indicates no cases were reported for the given category
Data reported through February 2, 2018

Hepatitis	2013		2014		2015		2016		2017	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Hepatitis A	1	0.2	-	-	1	0.2	-	-	1	0.2
Hepatitis B	*	*	*	*	76	14.2	65	12.1	76	14.2
Hepatitis C	499	93.2	630	117.7	644	120.3	435	81.3	493	92.1
Hepatitis E	-	-	-	-	-	-	-	-	-	-

Notes:
Rates use 2010 U.S. Census estimates and are per 100,000 population.
Asterisk (*) indicates data not available due to data errors at the state level.
Dash (-) indicates no cases were reported for the given category.
Data reported through February 2, 2018.

Vaccine-Preventable	2013		2014		2015		2016		2017	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Influenza-associated Hospitalization	186	34.8	456	85.2	246	46.0	249	46.5	912	170.4
Influenza-associated Pediatric Mortality*	1	0.8	-	-	-	-	-	-	1	0.8
Mumps	-	-	-	-	-	-	24	4.5	4	0.7
Pertussis	185	34.6	73	13.6	50	9.3	45	8.4	92	17.2
Varicella	3	0.6	7	1.3	5	0.9	3	0.6	6	1.1

Notes:
Rates use 2010 U.S. Census estimates and are per 100,000 population.
*Rate calculated using population under 18 years of age.
Dash (-) indicates no cases were reported for the given category.
NA indicates that the disease was not reportable during the year.
Data reported through February 2, 2018.

Zoonotic	2013		2014		2015		2016		2017	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Lyme Disease	5	0.9	9	1.7	4	0.7	5	0.9	3	0.6
Malaria	3	0.6	4	0.7	2	0.4	5	0.9	7	1.3
West Nile virus infection	-	-	-	-	1	0.2	-	-	-	-
Zika virus infection	NA	NA	NA	NA	NA	NA	3	0.6	-	-

Notes:
Rates use 2010 U.S. Census estimates and are per 100,000 population.
Dash (-) indicates no cases were reported for the given category.
Data reported through February 2, 2018.
NA indicates that the disease was not reportable during the year.

HIV	2013		2014		2015		2016		2017*	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Male	14	2.6	12	2.2	10	1.9	16	3.0	9	1.7
Female	52	9.7	46	8.6	48	9.0	40	7.5	53	9.9
Total	66	12.3	58	10.8	58	10.8	56	10.5	62	11.6

Notes:

Data reported through February 2, 2018.

Rates use 2010 U.S. Census estimates and are per 100,000 population.

*Numbers are preliminary and may change based on updated ODRS data.

Sexually Transmitted	2013		2014		2015		2016		2017	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Chlamydia	3,043	568.6	3,182	594.6	3,103	579.8	3,506	655.1	3,081	575.7
Gonorrhea	1,164	217.5	968	180.9	1,079	201.6	1,417	264.8	1,317	246.1
Syphilis										
Congenital*	-	-	-	-	-	-	1	0.7	2	1.5
Primary	5	0.9	1	0.2	8	1.5	11	2.1	7	1.3
Secondary	16	3.0	14	2.6	10	1.9	23	4.3	26	4.9
Early Latent	15	2.8	12	2.2	19	3.6	20	3.7	30	5.6
Late and Late Latent	27	5.0	12	2.2	21	3.9	19	3.6	22	4.1
Unknown Latent	-	-	-	-	-	-	-	-	-	-
Total	63	11.8	39	7.3	58	10.8	73	13.6	85	15.9

Notes:

Rates use 2010 U.S. Census estimates and are per 100,000 population.

Dash (-) indicates no cases were reported for the given category.

*Rate calculated for females of childbearing age² (10-50 years).

Data reported through February 2, 2018.

Outbreaks	2013	2014	2015	2016	2017
Community	-	-	-	-	-
Foodborne	-	1	-	1	-
Healthcare-Associated	2	-	4	-	-
Institutional	1	1	3	5	5
Waterborne	-	1	-	-	-
Zoonotic	-	-	-	-	-

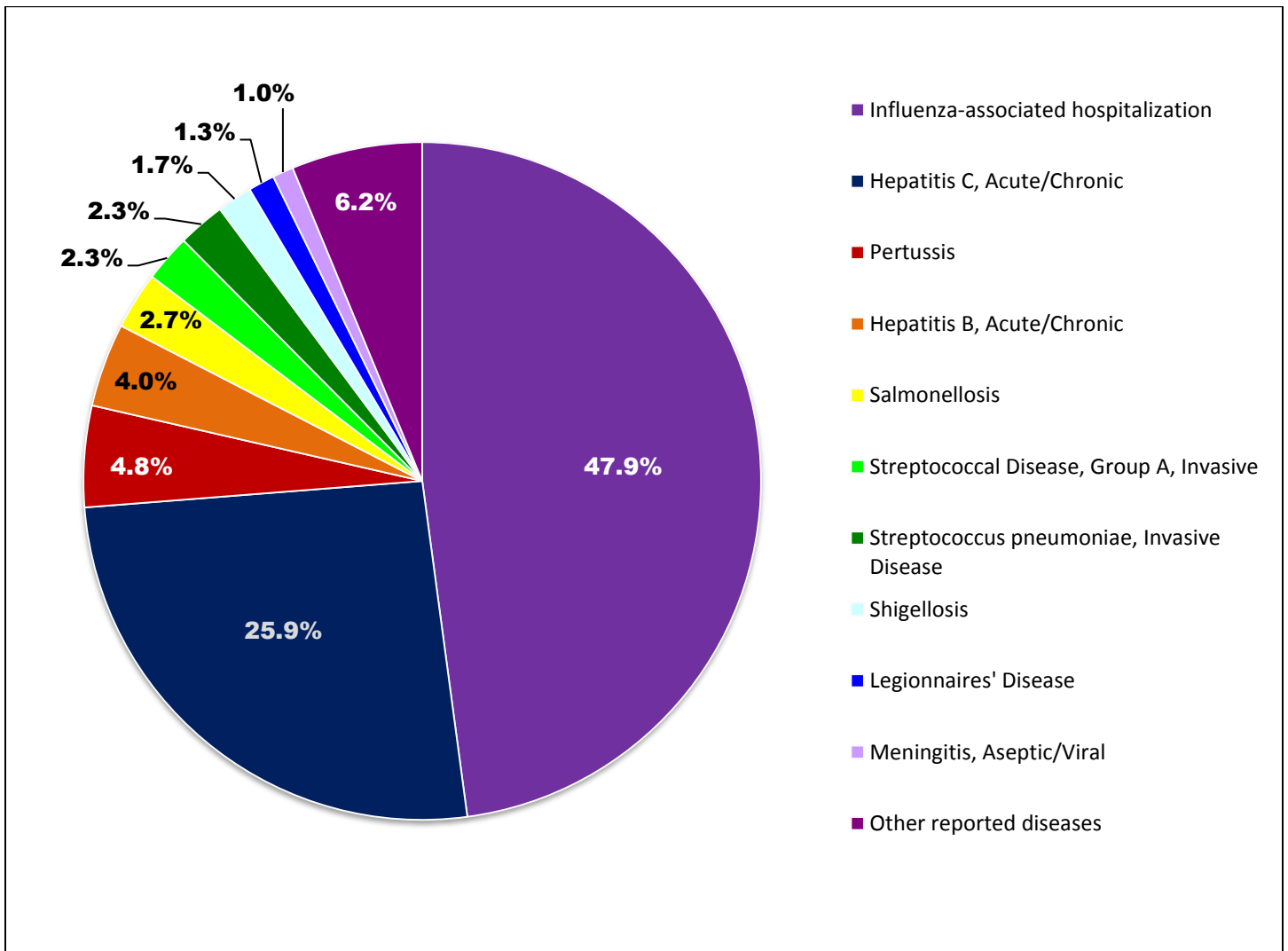
Notes:

Dash (-) indicates no cases were reported for the given category.

Data reported through February 2, 2018.

Top 10 Most Commonly Reported Diseases, All Ages Montgomery County, 2017

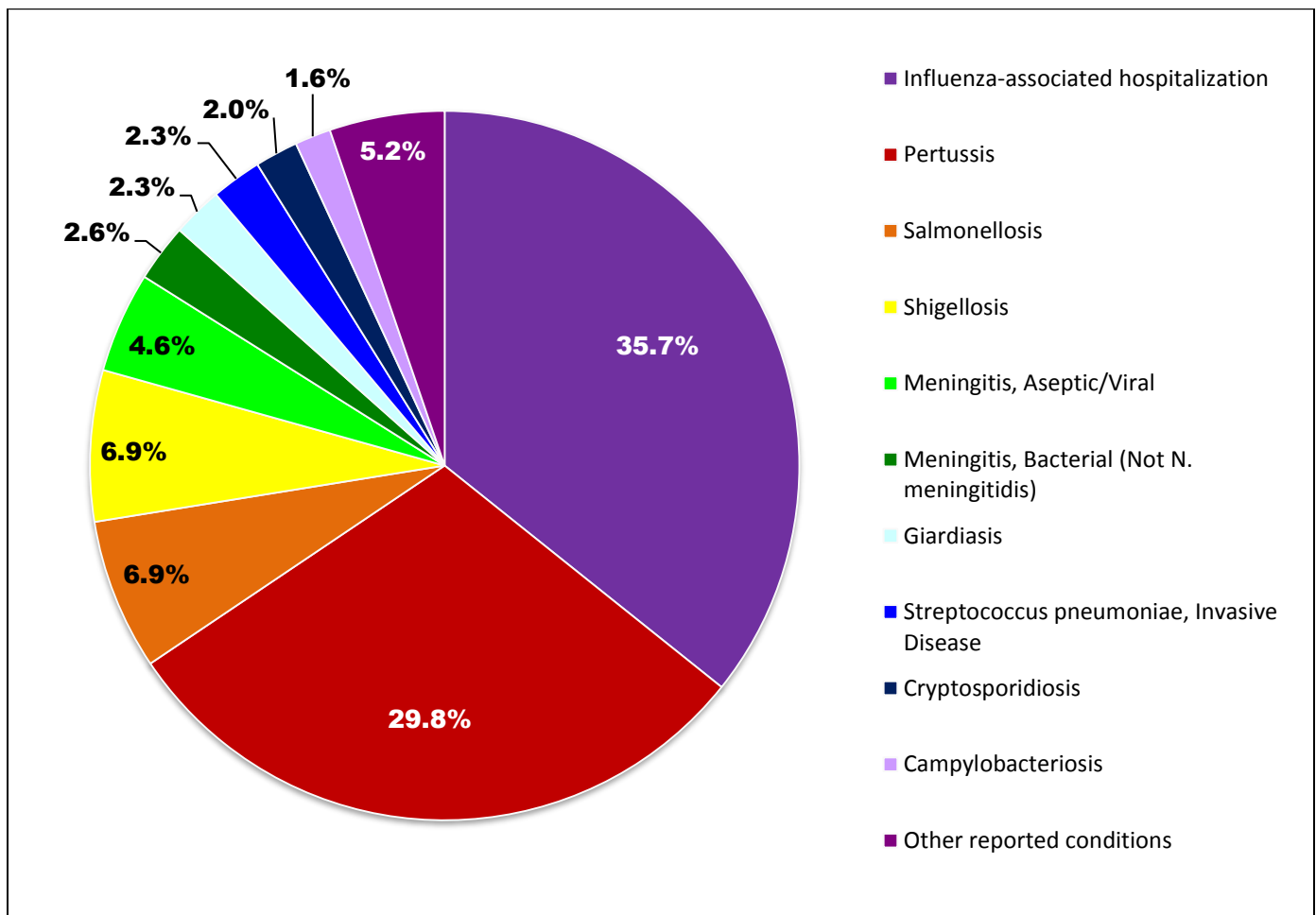
Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	912	47.9%
Hepatitis C, Acute/Chronic	493	25.9%
Pertussis	92	4.8%
Hepatitis B, Acute/Chronic	76	4.0%
Salmonellosis	52	2.7%
Streptococcal Disease, Group A, Invasive	43	2.3%
<i>Streptococcus pneumoniae</i> , Invasive Disease	43	2.3%
Shigellosis	32	1.7%
Legionnaires' Disease	24	1.3%
Meningitis, Aseptic/Viral	19	1.0%
Other reported diseases	119	6.2%
Total Cases for 2017	1,905	100%



Top 10 Most Commonly Reported Diseases for ages 0-18 years Montgomery County, 2017

- The top two reported diseases, influenza-associated hospitalization and pertussis, were vaccine-preventable and accounted for nearly two-thirds (65.5%) of all reported diseases in this age group.

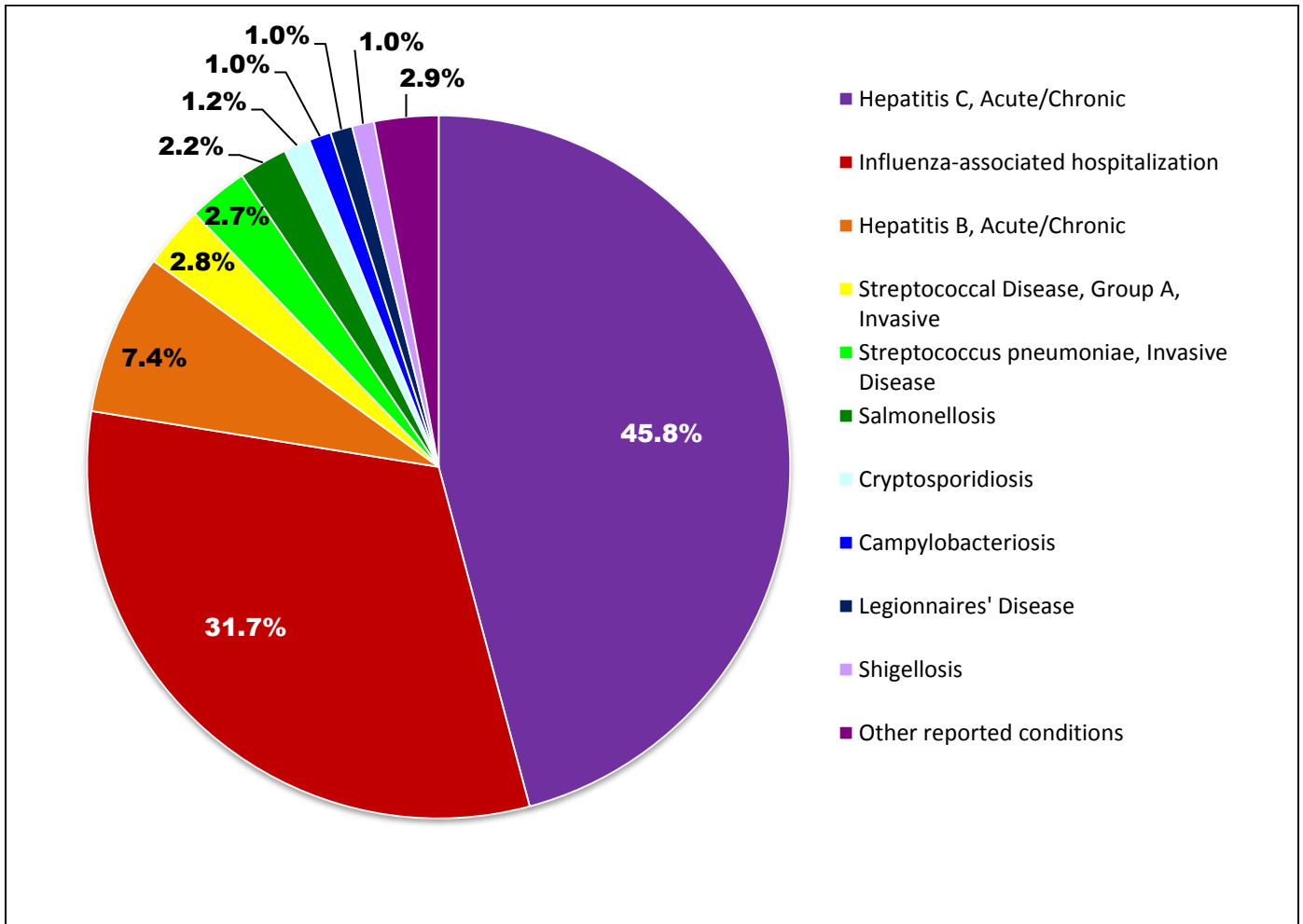
Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	109	35.7%
Pertussis	91	29.8%
Salmonellosis	21	6.9%
Shigellosis	21	6.9%
Meningitis, Aseptic/Viral	14	4.6%
Meningitis, Bacterial (Not N. meningitidis)	8	2.6%
Giardiasis	7	2.3%
<i>Streptococcus pneumoniae</i> , Invasive Disease	7	2.3%
Cryptosporidiosis	6	2.0%
Campylobacteriosis	5	1.6%
Other reported diseases	16	5.2%
Total Cases for 2017	305	100%



Top 10 Most Commonly Reported Diseases for ages 19-64 years Montgomery County, 2017

- The top two conditions, Hepatitis C and influenza-associated hospitalizations, accounted for more than three-fourths (77.5%) of all reported conditions for this age group.

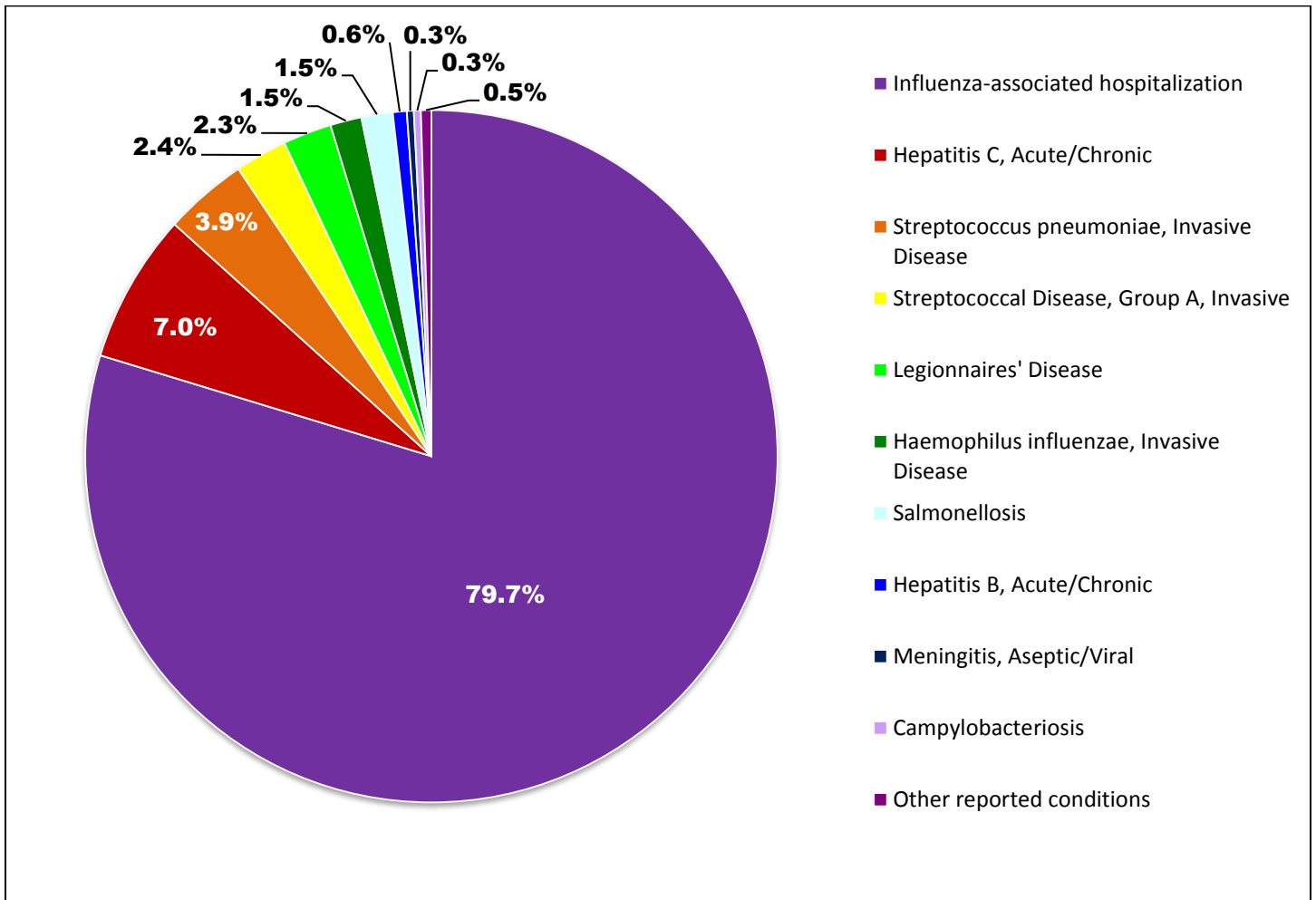
Reportable Condition (Class B)	Cases	Percent
Hepatitis C, Acute/Chronic	451	45.8%
Influenza-associated hospitalization	312	31.7%
Hepatitis B, Acute/Chronic	73	7.4%
Streptococcal Disease, Group A, Invasive	28	2.8%
<i>Streptococcus pneumoniae</i> , Invasive Disease	27	2.7%
Salmonellosis	22	2.2%
Cryptosporidiosis	12	1.2%
Campylobacteriosis	10	1.0%
Legionnaires' Disease	10	1.0%
Shigellosis	10	1.0%
Other reported diseases	29	2.9%
Total Cases in 2017	984	100%



Top 10 Most Commonly Reported Diseases for ages 65 + years Montgomery County, 2017

- In 2017, adults over 65 years of age accounted for 17% of Montgomery County’s population, however, 32% of reportable diseases were for this age group².
- Nearly 80% of these reported diseases were due to influenza-associated hospitalizations.

Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	491	79.7%
Hepatitis C, Acute/Chronic	43	7.0%
<i>Streptococcus pneumoniae</i> , Invasive Disease	24	3.9%
Streptococcal, Group A, Invasive Disease	15	2.4%
Legionnaires’ Disease	14	2.3%
<i>Haemophilus influenzae</i> , Invasive Disease	9	1.5%
Salmonellosis	9	1.5%
Hepatitis B, Acute/Chronic	4	0.6%
Meningitis, Aseptic/Viral	2	0.3%
Campylobacteriosis	2	0.3%
Other reported conditions	3	0.5%
Total Cases in 2017	616	100%



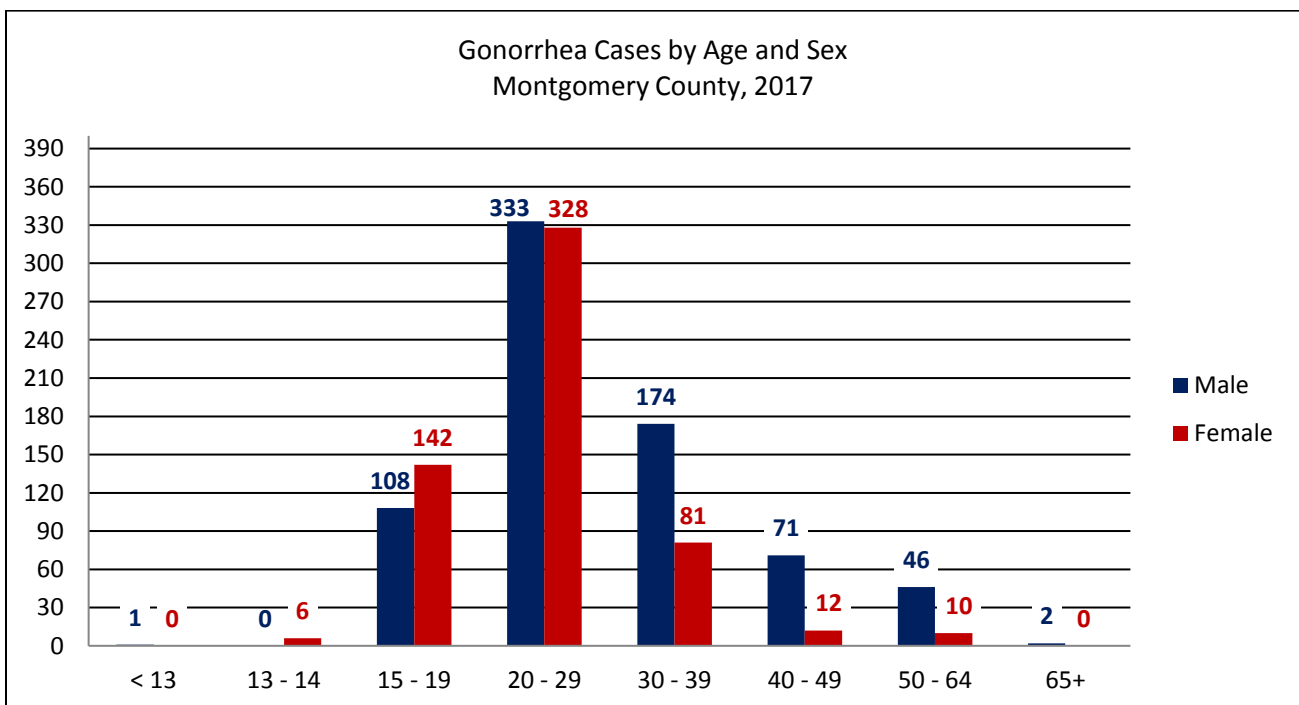
Demographic Characteristics of Sexually Transmitted Diseases Montgomery County, 2017

Gonorrhea

Key points:

- 50% of gonorrhea cases were diagnosed in individuals between the ages of 20 and 29 years.
- The percentage of gonorrhea cases was higher in males (56.0%) vs. females (44.0%).
- In the 30 to 39 years age group, the percentage of male cases (23.6%) was nearly twice as high as the percentage of female cases (14.0%).

Age Range	Total		Male		Female	
	Cases	Percent	Cases	Percent	Cases	Percent
< 13	1	0.1%	1	0.1%	0	0.0%
13 - 14	6	0.5%	0	0.0%	6	1.0%
15 - 19	250	19.0%	108	14.7%	142	24.5%
20 - 29	661	50.2%	333	45.2%	328	56.6%
30 - 39	255	19.4%	174	23.6%	81	14.0%
40 - 49	83	6.3%	71	9.6%	12	2.1%
50 - 64	56	4.3%	46	6.2%	10	1.7%
65+	2	0.2%	2	0.3%	0	0.0%
Unknown	3	0.2%	2	0.3%	1	0.2%
Total	1,317		737		580	

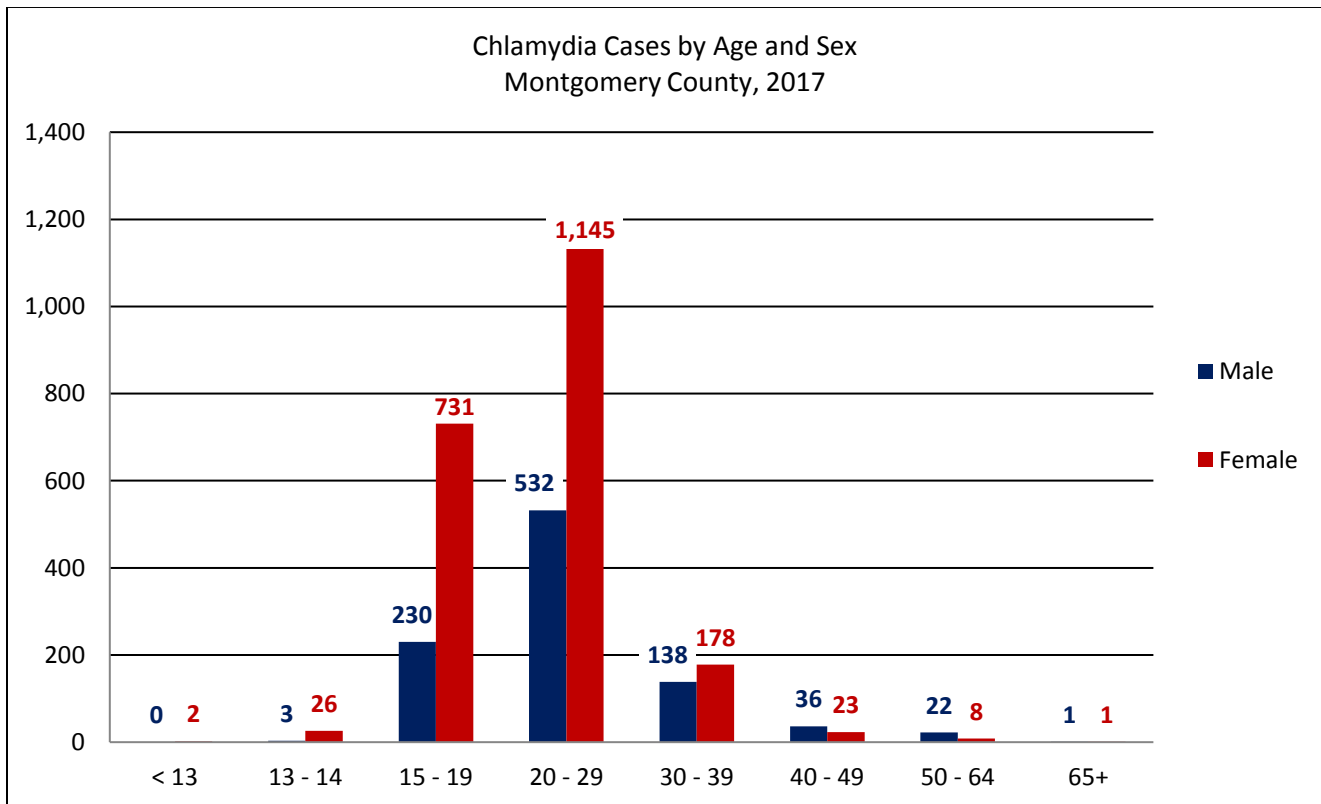


Chlamydia

Key points:

- There were more than twice as many cases of chlamydia in women than in men (2,116 vs. 965).
- More than 85% of chlamydia cases were diagnosed in individuals between 15 and 29 years of age.

Age Range	Total		Male		Female	
	Cases	Percent	Cases	Percent	Cases	Percent
< 13	2	0.1%	0	0.0%	2	0.1%
13 - 14	29	0.9%	3	0.3%	26	1.2%
15 - 19	961	31.2%	230	23.8%	731	34.5%
20 - 29	1,677	54.4%	532	55.1%	1,145	54.1%
30 - 39	316	10.3%	138	14.3%	178	8.4%
40 - 49	59	1.9%	36	3.7%	23	1.1%
50 - 64	30	1.0%	22	2.3%	8	0.4%
65+	2	0.1%	1	0.1%	1	0.0%
Unknown	5	0.2%	3	0.3%	2	0.1%
Total	3,081		965		2,116	



Syphilis

Key points:

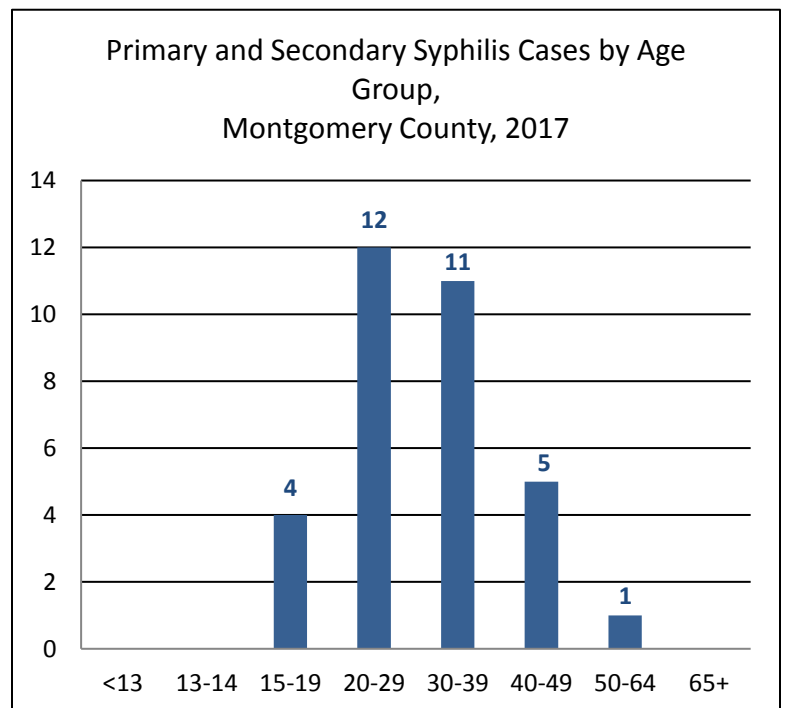
- 86.2% of syphilis cases were diagnosed in men.
- Syphilis was most often reported in people aged 20 to 39 years old (48 cases).
- Secondary and Early Latent syphilis accounted for 64.3% of reported syphilis cases.
- There were 2 cases of congenital syphilis reported in 2017.

Sex	Congenital	Primary	Secondary	Early Latent	Late and Late Latent	Total
Male	2	7	23	26	17	75
Female	0	0	3	4	5	12
Total	2	7	26	30	22	87

Age Range	Congenital	Primary	Secondary	Early Latent	Late and Late Latent	Total
<13	2	0	0	0	0	2
13-14	0	0	0	0	0	0
15-19	0	1	3	3	1	8
20-29	0	2	10	8	6	26
30-39	0	3	8	5	6	22
40-49	0	0	5	7	4	16
50-64	0	1	0	6	5	12
65+	0	0	0	1	0	1
Total	2	7	26	30	22	87

Rate of Syphilis per 100,000 residents	
Montgomery County-2017	15.9
Montgomery County-2016	13.6
Ohio*	13.8
National*	8.7

* Most recent state and national data are 2016 rates



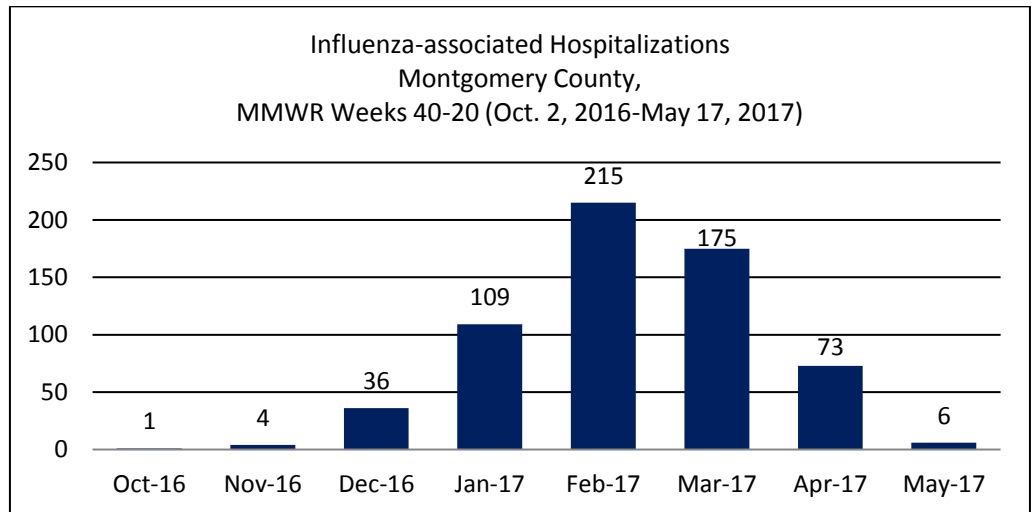
2016-2017 Influenza Season MMWR Week 40 – Week 20 (10/2/16- 5/20/17)

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

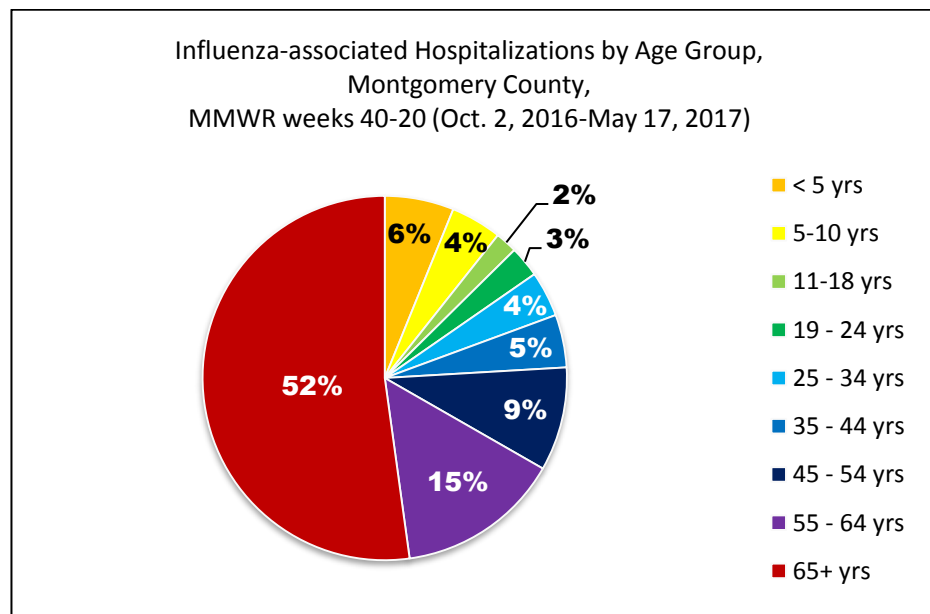
Key points:

- Flu season peaked in February of 2017. Over 80% of admissions were reported between January and March 2017.
- The 2016-2017 Montgomery County rate (115.5 per 100,000) of influenza-associated hospitalization was 54% and 78% higher than the rates for Ohio (75.1) and the U.S. (65.0), respectively.
- 52.2% of influenza-associated hospitalized patients were 65 years of age and older.

Month	Cases	Percent
Oct-16	1	0.2%
Nov-16	4	0.6%
Dec-16	36	5.8%
Jan-17	109	17.6%
Feb-17	215	34.7%
Mar-17	175	28.3%
Apr-17	73	11.8%
May-17	6	1.0%
Total	619	



Age Range	Cases	Percent
< 5	38	6.1%
5 - 10	28	4.5%
11 - 18	12	1.9%
19 - 24	17	2.7%
25 - 34	25	4.0%
35 - 44	29	4.7%
45 - 54	57	9.2%
55 - 64	90	14.5%
65+	323	52.2%
Total	619	



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