Annual Communicable Disease Report

2014

Public Health
Prevent. Promote. Protect.

Dayton & Montgomery County

Prepared by:

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Introduction

The 2014 Annual Communicable Disease Report presents a five year (2010-2014) 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 0 to 17 year olds, 18 to 64 year olds, and for those 65 years of age and older; demographic characteristics of sexually-transmitted disease cases reported in 2014; and a summary of the 2013-2014 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 was gathered from the Ohio Disease Reporting System (ODRS). Annual HIV/AIDS data will be provided in a separate report.

The 2014 Annual Infectious Disease Report was prepared by Public Health - Dayton & Montgomery County's Epidemiology and Communicable Disease sections.

Reportable Communicable Diseases
Montgomery County, 2010-2014

General Communicable Diseases	2010		2011		2012		2013		2014	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Botulism, infant	-	-	-	-	1	0.2	-	-	-	-
Campylobacteriosis	34	6.4	34	6.3	26	4.8	28	5.2	24	4.5
Coccidioidomycosis	1	0.2	-	-	2	0.4	-	-	-	-
Cryptosporidiosis	2	0.4	15	2.8	1	0.2	2	0.4	1	0.2
Cytomegalovirus (CMV), congenital	3	0.6	-	-	2	0.4	5	0.9	NA	NA
E. coli 0157:H7 and other enterohemorrhagic *E. coli*	3	0.6	7	1.3	22	4.1	5	0.9	7	1.3
Giardiasis	23	4.3	16	3.0	21	3.9	20	3.7	13	2.4
Haemophilus influenzae, invasive	11	2.1	16	3.0	14	2.6	10	1.9	4	0.7
Hemolytic Uremic Syndrome (HUS)	-	-	-	-	2	0.4	-	-	-	-
Legionnaires' Disease	12	2.2	25	4.7	10	1.8	31	5.8	32	6.0
Listeriosis	2	0.4	2	0.4	1	0.2	1	0.2	-	-
Meningitis, aseptic	42	7.8	88	16.4	41	7.5	41	7.7	35	6.5
Meningitis, bacterial	7	1.3	10	1.9	10	1.8	11	2.1	11	2.1
Meningococcal Disease	-	-	1	0.2	-	-	-	-	-	-
Mycobacterial disease, other than tuberculosis (MOTT)	40	7.5	43	8.0	51	9.4	43	8.0	34	6.3
Salmonellosis	58	10.8	40	7.4	52	9.6	35	6.5	58	10.8
Shigellosis	4	0.7	15	2.8	163	30.0	32	6.0	5	0.9
Staphylococcus aureus, with resistance or intermediate resistance to vancomycin (VRSA, VISA)	-	-	2	0.4	4	0.7	1	0.2	1	0.2
Streptococcal Disease, Group A, invasive	16	3.0	27	5.0	19	3.5	11	2.1	25	4.7
Streptococcal Disease, Group B, newborn	1	0.2	3	0.6	4	0.7	2	0.4	3	0.6
Streptococcal Toxic Shock Syndrome (STSS)	1	0.2	5	0.9	1	0.2	-	-	-	-
Streptococcus pneumoniae, invasive	98	18.3	106	19.7	76	14.0	57	10.6	64	11.9
Toxic Shock Syndrome (TSS)	-	-	-	-	1	0.2	-	-	-	-
Tuberculosis	6	1.1	10	1.9	8	1.5	12	2.2	9	1.7
Typhoid Fever	-	-	-	-	2	0.4	-	-	-	-
Vibriosis	-	-	-	-	1	0.2	-	-	-	-
Yersiniosis	4	0.7	1	0.2	1	0.2	1	0.2	4	0.7

Notes:
Rates use U.S. Census estimates, except 2010, and are per 100,000 population
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 20, 2015

Hepatitis	2010		2011		2012		2013		2014	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Hepatitis A	10	1.9	1	0.2	1	0.2	1	0.2	-	-
Hepatitis B	40	7.5	29	5.4	16	2.9	51	9.5	39	7.3
Hepatitis C	454	84.8	448	83.3	429	79.0	479	89.4	630	117.6
Hepatitis E	1	0.2	-	-	-	-	-	-	-	-

Notes:
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Dash (-) indicates no cases were reported for the given category
Data reported through February 20, 2015

Vaccine-Preventable	2010		2011		2012		2013		2014	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Diphtheria	-	-	-	-	-	-	-	-	1	0.2
Influenza-Associated Hospitalization	10	1.9	114	21.2	131	24.1	186	34.7	459	85.7
Influenza-Associated Pediatric Mortality	NA	NA	NA	NA	NA	NA	1	0.2	-	-
Influenza A Virus, Novel Human Infection	-	-	-	-	5	0.9	-	-	-	-
Mumps	1	0.2	-	-	-	-	-	-	-	-
Pertussis	37	6.9	2	0.4	30	5.5	187	34.9	74	13.8
Varicella	3	0.6	16	3.0	6	1.1	3	0.6	8	1.5

Notes:
Rates use U.S. Census estimates, except 2010, and are per 100,000 population
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NA indicates that the disease was not reportable during the year
Data reported through February 20, 2015

Zoonotic	2010		2011		2012		2013		2014	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Lyme Disease	1	0.2	-	-	-	-	4	0.7	9	1.7
Malaria	1	0.2	4	0.7	1	0.2	3	0.6	4	0.7
West Nile virus Infection	1	0.2	1	0.2	2	0.4	-	-	-	-

Notes:
Rates use U.S. Census estimates, except 2010, and are per 100,000 population
Dash (-) indicates no cases were reported for the given category
Data reported through February 20, 2015

Sexually Transmitted	2010		2011		2012		2013		2014	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Chlamydia	2,827	528.3	2,866	533.1	2,922	538.0	3,044	568.1	3,182	593.8
Gonorrhea	1,330	248.5	1,175	218.6	1,136	209.2	1,164	217.2	968	180.6
Syphilis										
Primary	1	0.2	4	0.7	3	0.6	5	0.9	1	0.2
Secondary	7	1.3	13	2.4	25	4.6	16	3.0	14	2.6
Early Latent	6	1.1	14	2.6	21	3.9	16	3.0	13	2.4
Late and Late Latent	17	3.2	25	4.7	15	2.8	28	5.2	12	2.2
Total	31	5.8	56	10.4	64	11.8	65	12.1	40	7.5

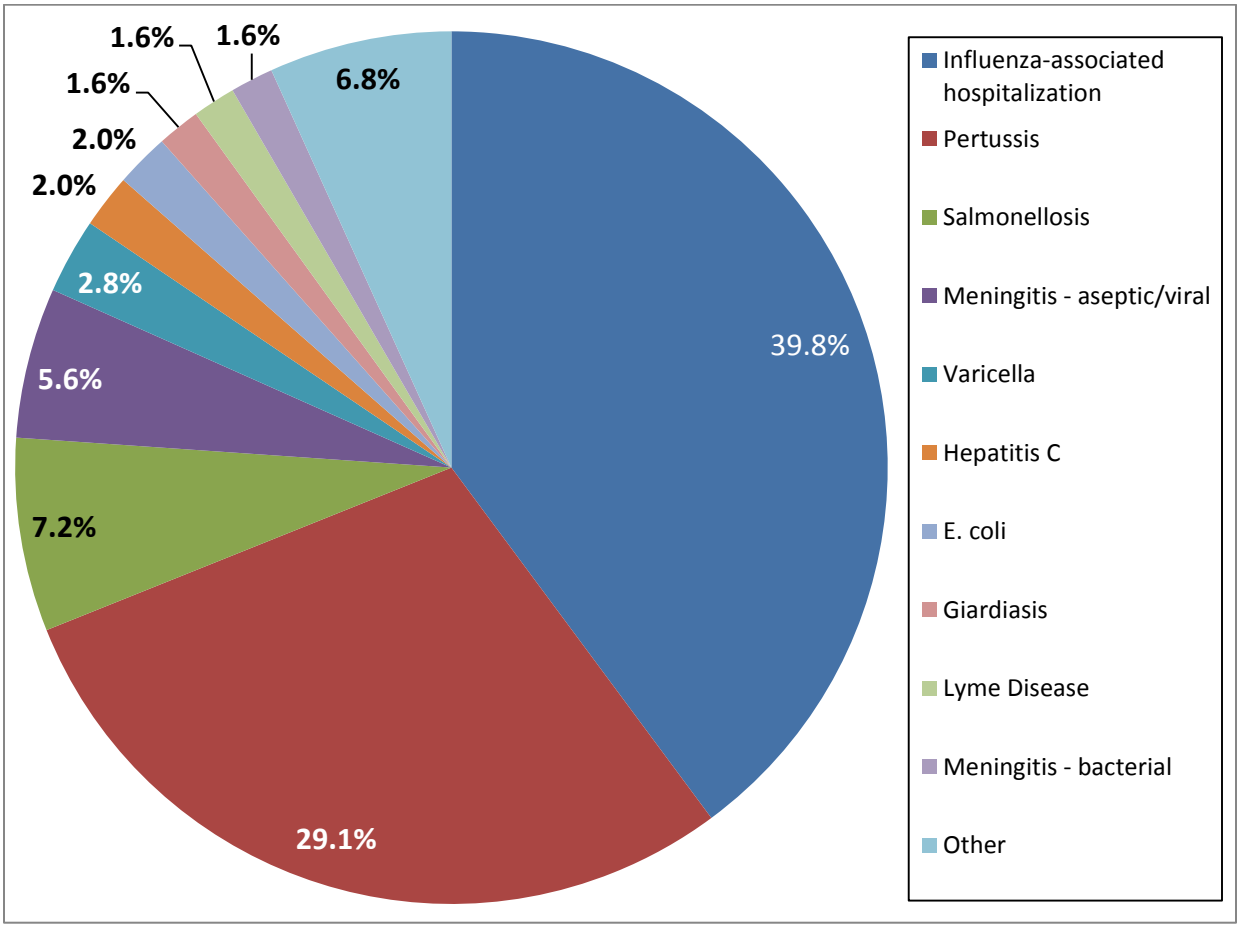
Notes:
Rates use U.S. Census estimates, except 2010, and are per 100,000 population
Data reported through February 20, 2015

OUTBREAKS	2010	2011	2012	2013	2014
Community	-	-	1	-	-
Foodborne	2	-	1	-	2
Healthcare-Associated	3	1	-	2	-
Institutional	2	5	6	1	4
Waterborne	-	1	-	-	1
Zoonotic	-	-	1	-	-

Notes:
Dash (-) indicates no cases were reported for the given category
Data reported through February 20, 2015

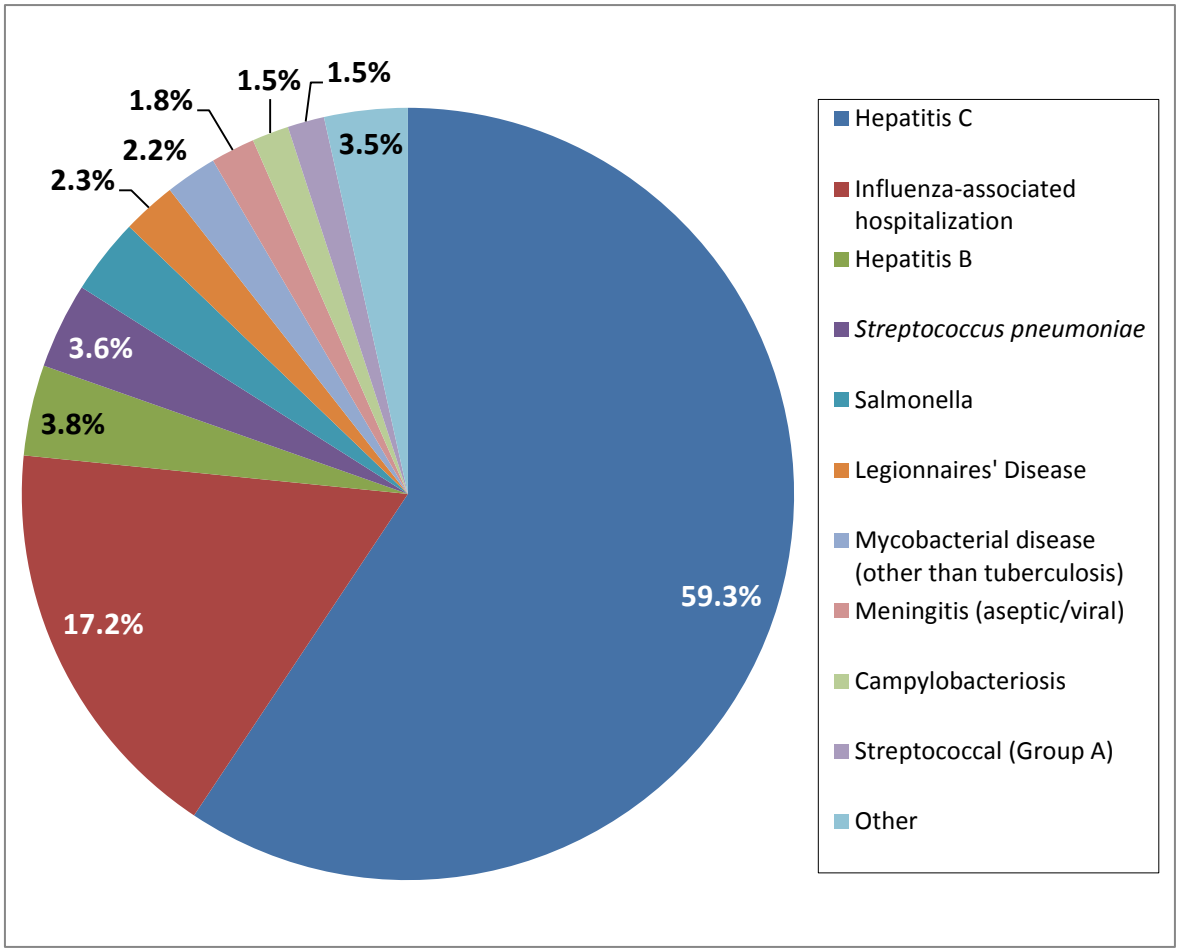
Top 10 Most Reportable Diseases for ages 0-17 years
Montgomery County, 2014

Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	100	39.8%
Pertussis	73	29.1%
Salmonellosis	18	7.2%
Meningitis - aseptic/viral	14	5.6%
Varicella	7	2.8%
Hepatitis C	5	2.0%
E. coli	5	2.0%
Giardiasis	4	1.6%
Lyme Disease	4	1.6%
Meningitis - bacterial	4	1.6%
Total Cases for 2014	**251**	



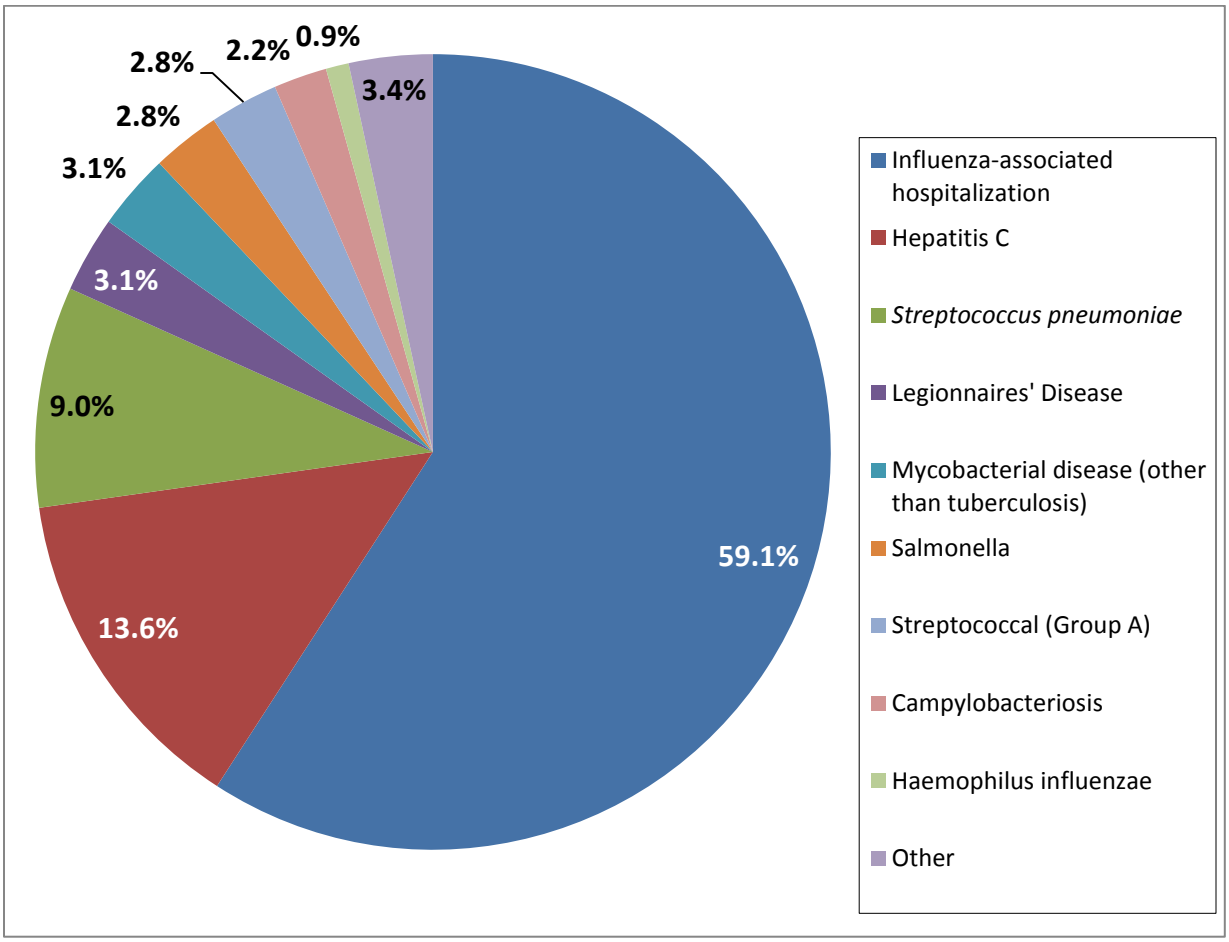
Top 10 Most Reportable Diseases for ages 18-64 years
Montgomery County, 2014

Reportable Condition (Class B)	Cases	Percent
Hepatitis C	578	59.3%
Influenza-associated hospitalization	168	17.2%
Hepatitis B	37	3.8%
Streptococcus pneumoniae	35	3.6%
Salmonella	31	3.2%
Legionnaires' Disease	22	2.3%
Mycobacterial disease (other than tuberculosis)	21	2.2%
Meningitis (aseptic/viral)	18	1.8%
Campylobacteriosis	15	1.5%
Streptococcal (Group A)	15	1.5%
Total Cases for 2014	**974**	



Top 9 Most Reportable Diseases for ages 65 + years
Montgomery County, 2014

Reportable Condition (Class B)	Cases	Percent
Influenza-associated hospitalization	191	59.1%
Hepatitis C	44	13.6%
Streptococcus pneumoniae	29	9.0%
Legionnaires' Disease	10	3.1%
Mycobacterial disease (other than tuberculosis)	10	3.1%
Salmonella	9	2.8%
Streptococcal (Group A)	9	2.8%
Campylobacteriosis	7	2.2%
Haemophilus influenzae	3	0.9%
Total Cases in 2014	**323**	



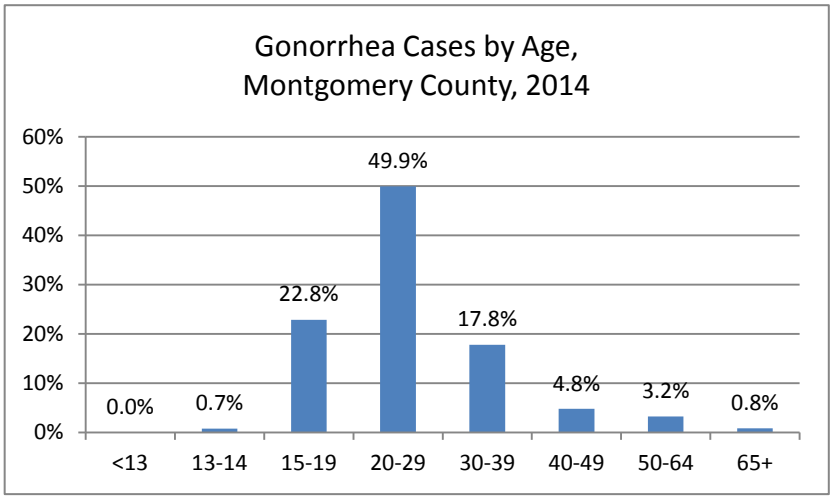
Demographic Characteristics of Sexually Transmitted Diseases
Montgomery County, 2014

Gonorrhea

Key points:
- There were 64 more cases of gonorrhea diagnosed in women (516 cases) than men (452 cases).
- 50% of gonorrhea cases were diagnosed in individuals between the ages of 20 and 29.

Sex	Cases	Percent
Female	516	53.3%
Male	452	46.7%
Total	**968**	

Age Range	Cases	Percent
<13	0	0.0%
13-14	7	0.7%
15-19	221	22.8%
20-29	483	49.9%
30-39	172	17.8%
40-49	46	4.8%
50-64	31	3.2%
65+	8	0.8%
Total	**968**	

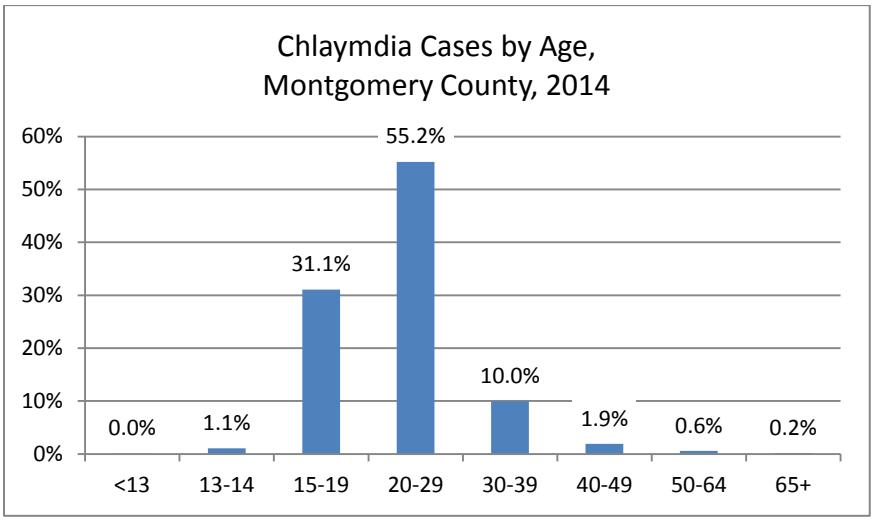


Chlamydia

Key points:
- Approximately three quarters of the chlamydia cases were diagnosed in women.
- More than half of chlamydia cases were diagnosed in individuals between 20 and 29 years of age.

Sex	Cases	Percent
Female	2,335	73.4%
Male	847	26.6%
Total	**3,182**	

Age Range	Cases	Percent
<13	1	0.0%
13-14	34	1.1%
15-19	989	31.1%
20-29	1,757	55.2%
30-39	317	10.0%
40-49	60	1.9%
50-64	18	0.6%
65+	5	0.2%
Unknown	1	0.0%
Total	**3,182**	



Syphilis

Key points:
- Out of the 40 cases of syphilis reported this year, 35 of the cases were men and 5 were women.
- Those between the ages of 20 and 29 are more likely to be diagnosed with early latent syphilis.
- A diagnosis of late and late latent syphilis most often occurs between the ages of 40 and 64.

Type	Male	Female	**Total**
Primary	1	0	**1**
Secondary	13	1	**14**
Early Latent	12	1	**13**
Late and Late Latent	9	3	**12**
Total	**35**	**5**	**40**

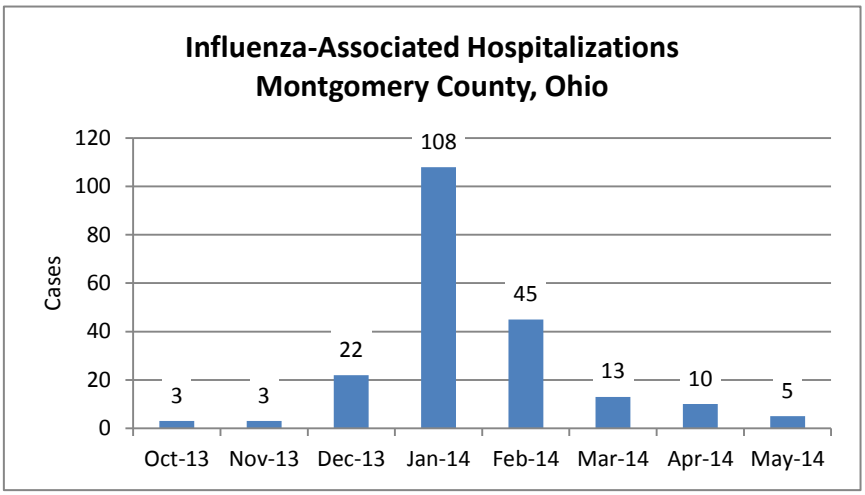
Age Range	Primary	Secondary	Early Latent	Late and Late Latent	**Total**
<13	0	0	0	0	**0**
13-14	0	0	0	0	**0**
15-19	0	0	0	0	**0**
20-29	0	4	11	2	**17**
30-39	1	1	1	1	**4**
40-49	0	4	1	4	**9**
50-64	0	5	0	5	**10**
65+	0	0	0	0	**0**
Total	**1**	**14**	**13**	**12**	**40**

2013-2014 Influenza Season
MMWR Week 40 – Week 20 (9/29/13 - 5/17/14)

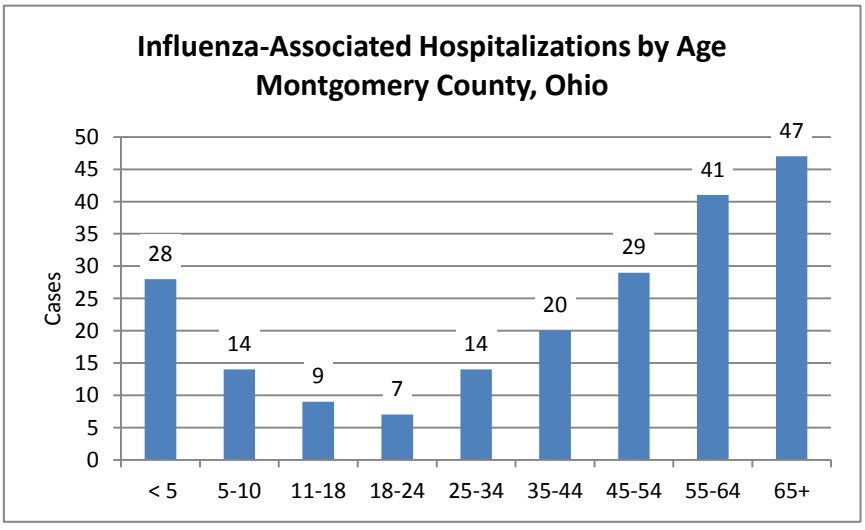
The seasonal flu is a respiratory illness with symptoms that include fever, body aches, tiredness, and cough that last one to two weeks. In addition to practicing good hygiene, the flu vaccine is the best protection against the flu.

Key points:
- Influenza-associated hospitalizations were greatest in January; the peak of the flu season.
- Hospitalizations occurred most frequently among those younger than five and older than 54 years of age.

Month	Cases	Percent
Oct-13	3	1.4%
Nov-13	3	1.4%
Dec-13	22	10.5%
Jan-14	108	51.7%
Feb-14	45	21.5%
Mar-14	13	6.2%
Apr-14	10	4.8%
May-14	5	2.4%
Total	**209**	



Age Range	Cases	Percent
< 5	28	13.4%
5-10	14	6.7%
11-18	9	4.3%
18-24	7	3.3%
25-34	14	6.7%
35-44	20	9.6%
45-54	29	13.9%
55-64	41	19.6%
65+	47	22.5%
Total	**209**	



Reportable Infectious Diseases in Ohio

OAC Chapter 3401-3

Class A

Disease of major public health concern because of the severity of the disease or potential epidemic spread - report immediately via telephone upon recognition.

- Anthrax
- Botulism, foodborne
- Cholera
- Diphtheria
- Influenza A- novel virus
- Measles
- Meningococcal disease
- Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
- Plague
- Rabies, human
- Rubella (not congenital)
- Severe acute respiratory syndrome (SARS)
- Smallpox
- Tularemia
- Viral hemorrhagic fever (VHF)
- Yellow fever

Class B

Disease of public health concern needing timely response because of potential for epidemic spread - report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result exists.

- Amebiasis
- Arboviral neuroinvasive and non-neuroinvasive disease:
  - Eastern equine encephalitis virus disease
  - LaCrosse virus disease (other California serogroup virus disease)
  - Powassan virus disease
  - St. Louis encephalitis virus disease)
  - West Nile virus infection
  - Western equine encephalitis virus disease
  - Other arthropod-borne diseases
- Babesiosis
- Botulism, infant
- Botulism, wound
- Brucellosis
- Campylobacteriosis
- Chancroid
- *Chlamydia trachomatis* infections
- Coccidioidomycosis
- Creutzfeldt-Jakob disease (CJD)
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- *E. coli* O157:H7 and Shiga toxin producing (STEC) *E.coli*
- Ehrlichiosis/anaplasmosis
- Giardiasis
- Gonorrhea *(Neisseria gonorrhoeae)*
- *Haemophilus influenzae* (invasive disease)
- Hantavirus
- Hemolytic uremic syndrome (HUS)
- Hepatitis A
- Hepatitis B, non-perinatal
- Hepatitis C
- Hepatitis D (delta hepatitis)
- Hepatitis E
- Influenza-associated hospitalization
- Influenza-associated pediatric mortality
- Legionnaires' disease
- Leprosy (Hansen disease)
- Leptospirosis
- Listeriosis
- Lyme disease
- Malaria
- Meningitis:
  - Aseptic (viral)
  - Bacterial
- Mumps
- Mycobacterial disease, other than tuberculosis (MOTT)
- Pertussis
- Poliomyelitis (including vaccine associated cases)
- Psittacosis
- Q fever
- Rubella (congenital)
- Salmonellosis
- Shigellosis
- Spotted Fever Rickettsiosis, including Rocky Mountain spotted fever
- *Staphylococcus aureus*, with resistance or immediate resistance to vancomycin
- Streptococcal disease, group A, invasive (IGAS)
- Streptococcal disease, group B, in newborn
- Streptococcal toxic shock syndrome (STSS)
- *Streptococcus pneumonia*, invasive disease (ISP)
- Syphilis
- Tetanus
- Toxic shock syndrome (TSS)
- Trichinellosis
- Tuberculosis, including multi-drug resistant tuberculosis (MDR-TB)
- Typhoid fever
- Typhus fever
- Varicella
- Vibriosis
- Yersiniosis

Class C

Report an outbreak, unusual incident or epidemic of other diseases by the end of the next business day.

- Community
- Foodborne
- Health-care associated
- Institutional
- Waterborne
- Zoonotic

Note:

Cases of AIDS, AIDS-related conditions, HIV infection, perinatal exposure to HIV, and CD4 T-lymphocyte counts <200 or 14% must be reported on forms and in a manner prescribed by the Director.