



HARDIN COUNTY 2018

COMMUNICABLE DISEASE REPORT

The communicable disease summary of reportable infectious diseases for January 2018 - December 2018.

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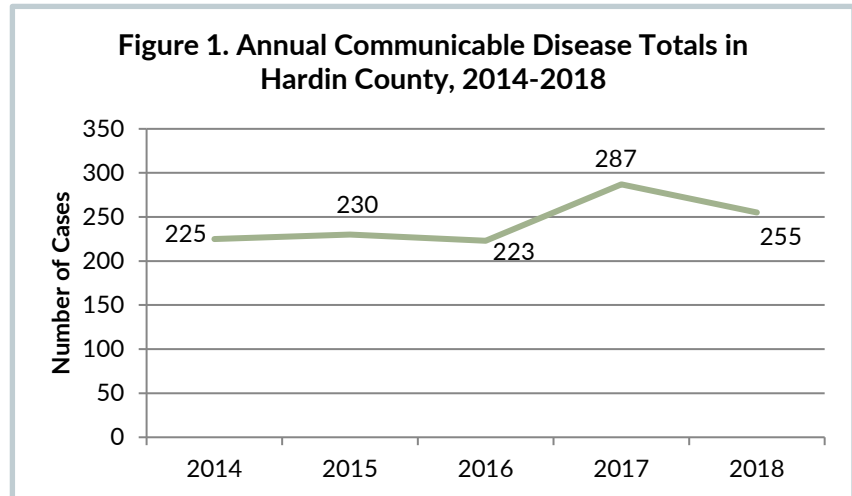
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ANNUAL COMMUNICABLE DISEASES

Annual Communicable Diseases

COMMUNICABLE DISEASES CHANGE

Hardin County saw a 11.2% decrease in communicable disease cases from 2017 to 2018 (287 cases and 255 cases, respectively). **Figure 1.** to the right shows the number of communicable disease cases occurring annually for the last five years.



COMMUNICABLE DISEASE HIGHLIGHTS

Numerous infectious diseases were reported during 2018; however, the most frequently reported illnesses were chlamydia (89 cases), Hepatitis C (51 cases), influenza-associated hospitalizations (31 cases), gonorrhea (19 cases), and campylobacteriosis (14 cases). Chlamydia, Hepatitis C, influenza-associated hospitalizations and gonorrhea have continued to be in the top five most reported diseases since 2015. However, in 2018, campylobacteriosis was replaced by Hepatitis B as the fifth most reported disease. **Table 1.** on Page 2 illustrates all of the diseases reported in the community and the number of cases for each of these illnesses.

The remainder of this document provides epidemiological information for each of the top five illnesses as well as brief demographic information on the cases and disease trends over the past five years.

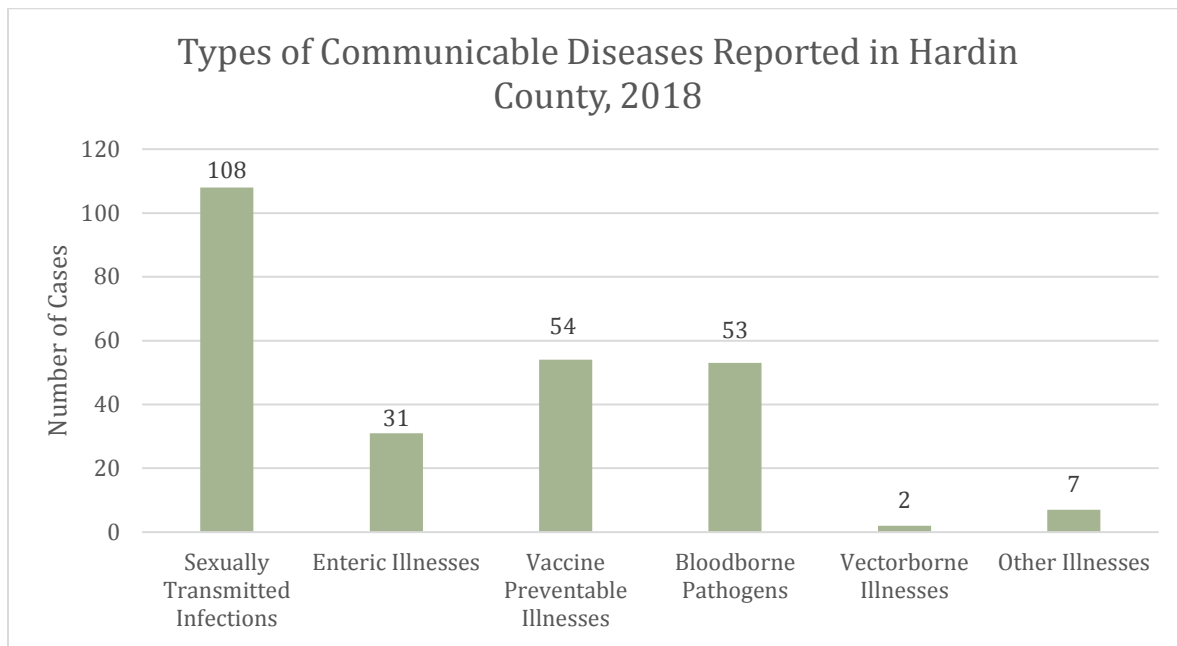
COMMUNICABLE DISEASE TABLE

Communicable Disease Table

Table 1. Communicable Diseases Reported in Hardin County, 2018	
Class B Reportable Diseases	
Campylobacteriosis	14
Chlamydia infection	89
Coccidioidomycosis	1
Carbapenemase Producing Carbapenem-Resistant Enterobacteriaceae (CP-CRE)	1
Creutzfeldt-Jakob Disease	1
Cryptosporidiosis	1
<i>E. coli</i>	5
Ehrlichiosis	1
Giardiasis	3
Gonorrhea	19
<i>Haemophilus influenzae</i>	2
Hepatitis A	2
Hepatitis B	13
Hepatitis C	51
Hepatitis C- Perinatal Infection	2
Influenza- associated hospitalization	31
Legionnaires' Disease	3
Pertussis	3
Salmonellosis	6
Streptococcal disease	1
<i>Streptococcus pneumoniae</i>	2
Varicella	1
West Nile Virus Disease	1
Yersiniosis	2
Total:	255

COMMUNICABLE DISEASE GRAPH

Communicable Disease Graph



Notes:

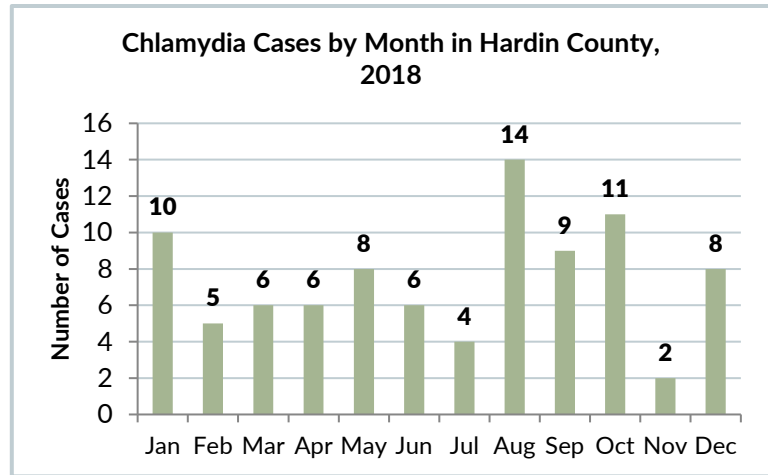
- Sexually transmitted infections include chlamydia, and gonorrhea
- Enteric illnesses include campylobacteriosis, cryptosporidiosis, *E. coli*, giardia, salmonella, and yersiniosis
- Vaccine preventable illnesses include *Haemophilus influenzae*, Hepatitis A, Hepatitis B, influenza-associated hospitalizations, pertussis, *Streptococcus pneumoniae*, and varicella
- Bloodborne pathogens include Hepatitis C and Hepatitis C Perinatal Infections
- Vectorborne illnesses include Ehrlichiosis and West Nile virus disease
- Other illnesses include Coccidioidomycosis, CP-CRE, Creutzfeldt-Jakob disease, Legionnaires' Disease and Streptococcal disease

CHLAMYDIA

Chlamydia

DEMOGRAPHICS

Number of Cases: 89
Average Age: 24.3 years
Median Age: 22 years
Age Range: 14-58 years
Female: 69.7%
Male: 30.3%
Percent Change from 2017: 7.2%



EPIDEMIOLOGY

Infectious Agent: *Chlamydia trachomatis* bacteria

Case Definition: Isolation of *C. trachomatis* by culture or demonstration of *C. trachomatis* in a clinical specimen

Symptoms: Woman may notice abnormal vaginal discharge and/or a burning sensation when urinating while symptoms in men can include a discharge from their penis, a burning sensation while urinating, and/or pain and swelling in one or both testicles.

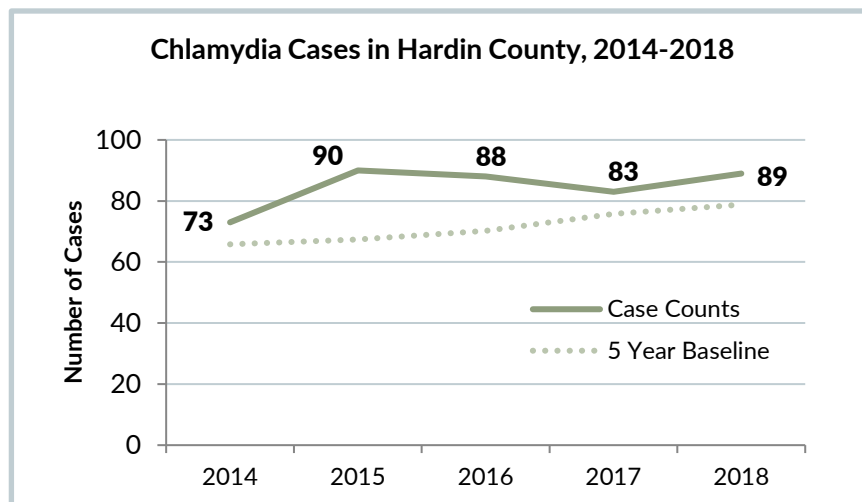
Source: Humans

Mode of Transmission: Sexually transmitted

Incubation Period: 7-21 days

Prevention: Abstinence, appropriate condom use, and identification and treatment of sexual contacts of those proven to be or suspected of being infected with *Chlamydia trachomatis*.

CHLAMYDIA FIVE YEAR TREND

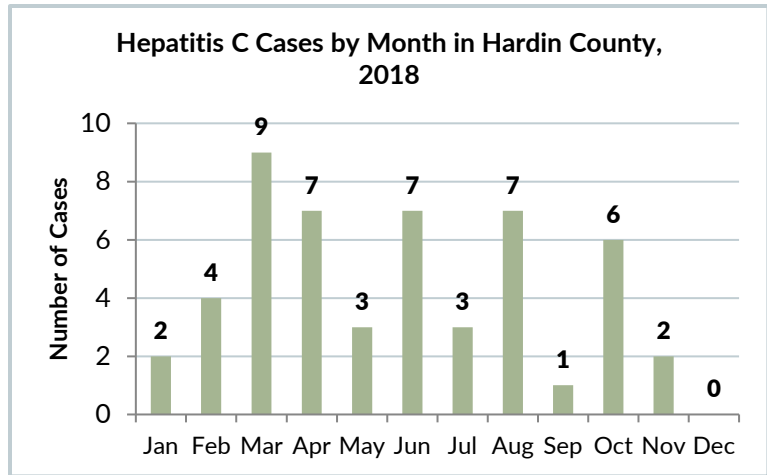


HEPATITIS C

Hepatitis C

DEMOGRAPHICS

Number of Cases: 51
Average Age: 39.4 years
Median Age: 34.0 years
Age Range: 23-76 years
Female: 49.0%
Male: 49.0%
Unknown: 2.0%
Percent Change from 2017: -13.6%



EPIDEMIOLOGY

Infectious Agent: Hepatitis C virus

Case Definition: A positive test for Hepatitis C virus antibodies or detection of the Hepatitis C virus

Symptoms: Most individuals infected with the Hepatitis C virus do not experience any symptoms; however, some may experience nausea, vomiting, abdominal pain, loss of appetite, dark urine, and/or jaundice. If a person has been infected for many years, their liver may be damaged.

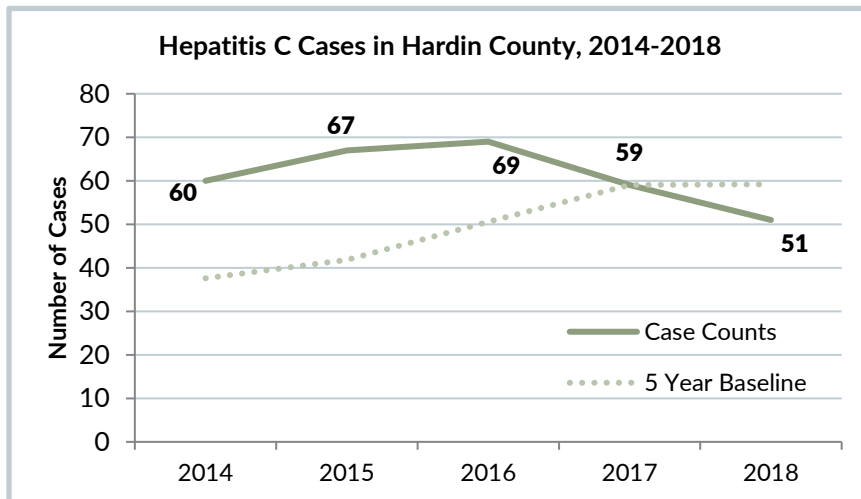
Source: Humans

Mode of Transmission: Sharing needles, syringes, or other equipment to inject drugs, needlestick injuries in health care settings, being born to a mother who has Hepatitis C, sharing personal care items that have come in contact with another person's blood, and having sexual contact with another infected person.

Incubation Period: 2 weeks – 6 months

Prevention: No vaccine currently available

HEPATITIS C FIVE YEAR TREND

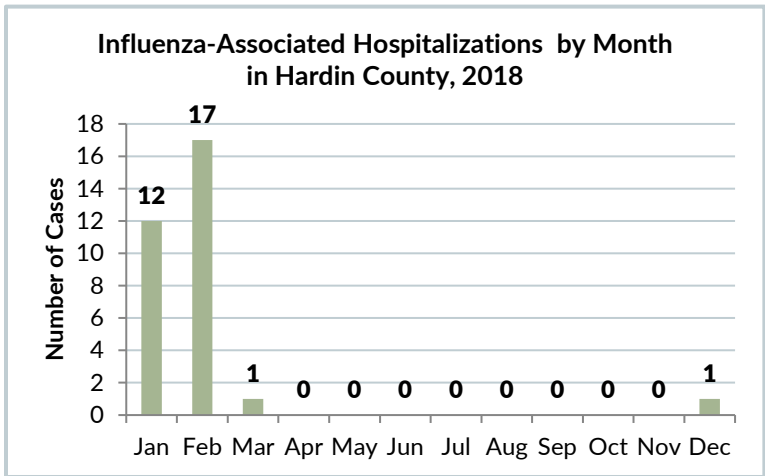


INFLUENZA-ASSOCIATED HOSPITALIZATIONS

Influenza-Associated Hospitalizations

DEMOGRAPHICS

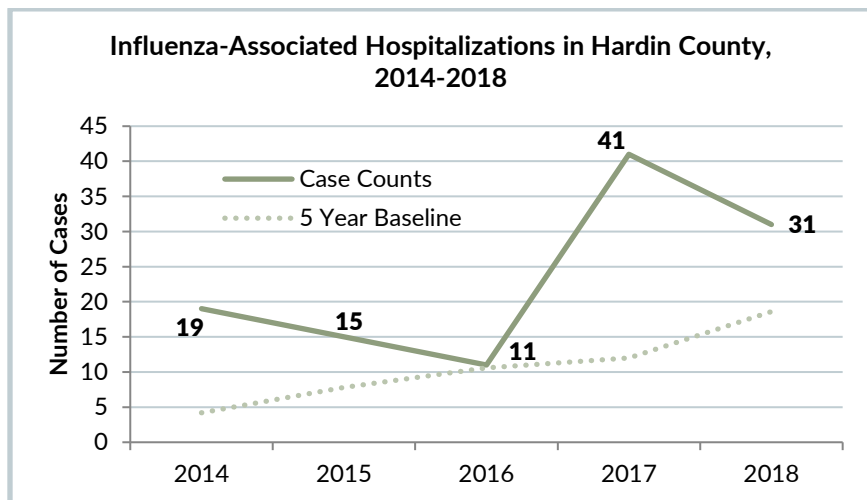
- Number of Cases:** 31
- Average Age:** 68.4 years
- Median Age:** 73.0 years
- Age Range:** 4 months – 90 years
- Female:** 51.6%
- Male:** 45.2%
- Unknown:** 3.2%
- Percent Change from 2016:** -24.4%



EPIDEMIOLOGY

- Infectious Agent:** Two main types of Influenza virus: Influenza A and Influenza B; both types include different strains that tend to change from year to year
- Case Definition:** An illness compatible with influenza virus infection that results in hospitalization
- Symptoms:** Fever, body aches, headache, malaise, nonproductive cough, sore throat, and runny nose
- Source:** Humans
- Mode of Transmission:** Direct person-to-person contact through droplet spread or via articles recently contaminated with nasopharyngeal secretions
- Incubation Period:** 1- 4 days
- Prevention:** The best prevention is annual vaccination; washing hands after sneezing, coughing, or using a tissue; cough into sleeve and not into hands

INFLUENZA-ASSOCIATED HOSPITALIZATION FIVE YEAR TREND

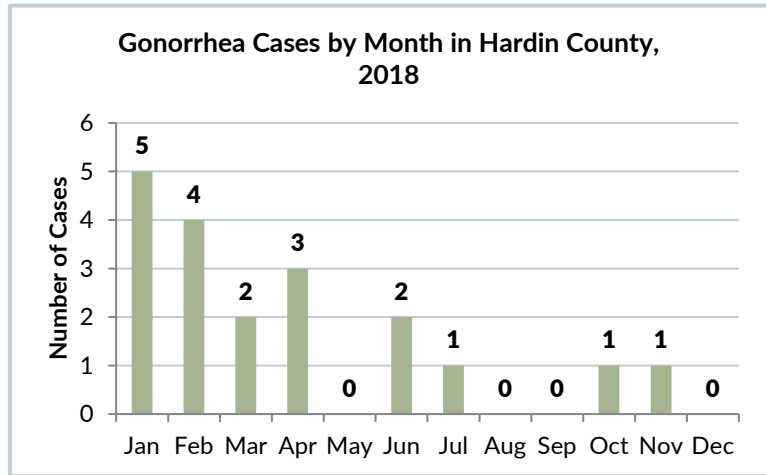


GONORRHEA

Gonorrhea

DEMOGRAPHICS

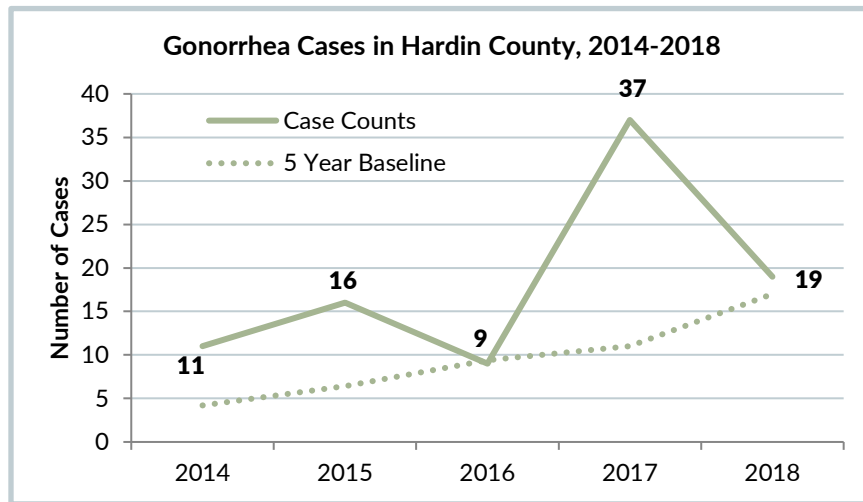
Number of Cases: 19
Average Age: 28.3 years
Median Age: 26.0 years
Age Range: 15-46 years
Female: 68.4%
Male: 31.6%
Percent Change from 2017: -48.7%



EPIDEMIOLOGY

Infectious Agent: *Neisseria gonorrhoeae* bacteria
Case Definition: Isolation of *Neisseria gonorrhoeae* from a clinical specimen
Symptoms: Many people are asymptomatic; however, symptoms for men may include discharge from the penis as well as testicular or scrotal pain while women typically experience mild symptoms that include increased vaginal discharge, or vaginal bleeding between periods.
Source: Humans
Mode of Transmission: Sexually transmitted
Incubation Period: 3-8 days
Prevention: Abstinence, appropriate condom use, and identification and treatment of sexual contacts of those proven to be or suspected of being infected with *Neisseria gonorrhoeae*.

GONORRHEA FIVE YEAR TREND

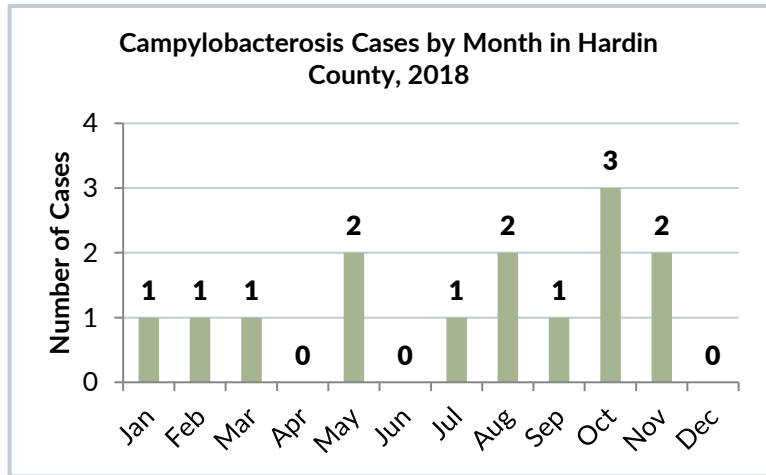


CAMPYLOBACTERIOSIS

Campylobacteriosis

DEMOGRAPHICS

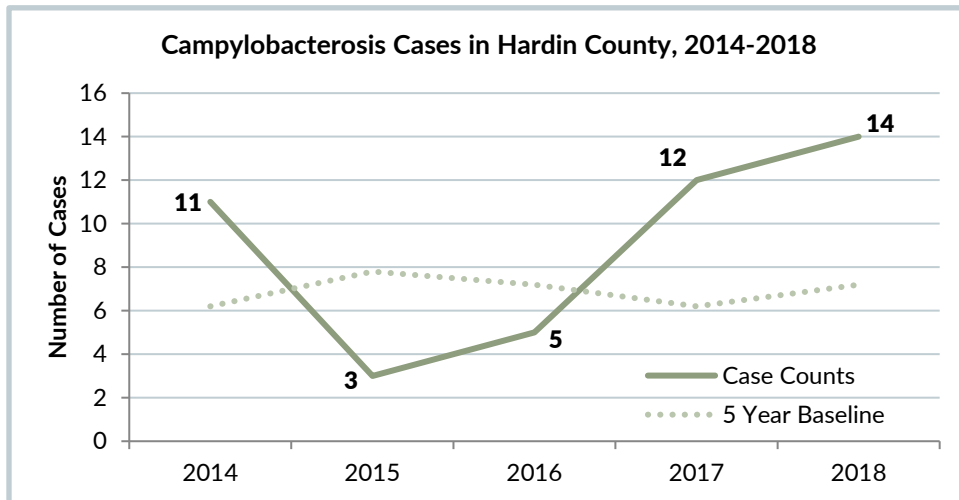
Number of Cases: 14
Average Age: 42.0 years
Median Age: 34.0 years
Age Range: 10-75 years
Female: 35.7%
Male: 64.3%
Percent Change from 2016: 16.7%



EPIDEMIOLOGY

Infectious Agent: *Campylobacter* organisms, most commonly *Campylobacter jejuni*
Case Definition: Isolation of *Campylobacter* spp. from a clinical specimen
Symptoms: Infection is characterized by diarrhea (frequently bloody), abdominal pain, fever, and occasionally nausea and vomiting.
Source: Poultry, cattle, puppies, kittens, swine, sheep, rodents, birds and other wild/domestic animals
Mode of Transmission: Fecal-oral route of contaminated products. Most commonly from eating raw or undercooked poultry or food that was contaminated by raw or undercooked poultry. Direct contact with infected pets, livestock or infants.
Incubation Period: 2-4 days
Prevention: Hand washing, safe food preparation, safe food storage, do not drink unpasteurized milk or untreated water.

CAMPYLOBACTERIOSIS FIVE YEAR TREND



TIMELINESS OF REPORTING

Timeliness of Reporting

Timely reporting of infectious diseases is important in identifying potential outbreaks and in reducing disease burden. Public health relies on health care providers and laboratories for identification and prompt reporting of these infectious diseases. Timeliness requirements for each reportable disease is dependent on the infectious nature and severity of the disease.

Reporting lag is defined as the difference between the date the case was reported to the local health department and the date of diagnosis. For Class A diseases, median and mean lag time values should be less than 1 since these illnesses are required to be reported to the health department immediately, and for Class B and C diseases, mean and median lag time values should be less than 2 since these illnesses should be reported to the health department by the end of the next business day.

Table 2. illustrates the lag time for select Class B reportable diseases reported in Hardin County during 2018.

Table 2. Reporting Lag Time for Select Reportable Diseases in Hardin County, 2018				
Reportable Disease	Reporting Requirement	Cases (N)	Median (Days)	Mean (Days)
Campylobacteriosis	End of next business day	14	1.5	2.7
Cryptosporidiosis	End of next business day	1	6.0	6.0
<i>E. coli</i>	End of next business day	5	1.0	1.0
Giardia	End of next business day	3	2.0	3.3
Influenza-Associated Hospitalization	End of next business day	31	3.0	4.8
Legionnaires' Disease	End of next business day	3	1.0	1.0
Pertussis	End of next business day	3	1.0	1.0
Salmonella	End of next business day	6	2.0	2.2
Shigella	End of next business day	0	N/A	N/A
<p>Note: Reporting lag time is the difference between the date the case was reported to the local health department and the case's date of diagnosis Date of diagnosis defaulted to lab specimen collection date or illness onset date if blank</p>				

EPIDEMIOLOGIST CONTACT INFORMATION

Epidemiologist Contact Information

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