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Annual Communicable Diseases

Fayette County saw a 7.3% decrease in communicable disease cases from 2017 to 2018 (231 cases and 214 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 (71 cases), Hepatitis C (41 cases), gonorrhea (25 cases), Hepatitis B (20 cases), and influenza-associated hospitalizations (17 cases). Chlamydia, Hepatitis C, Hepatitis B, and gonorrhea have continued to be in the top five most reported diseases since 2015. However, in 2018, campylobacteriosis was replaced by influenza-associated hospitalizations 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

### Table 1. Communicable Diseases Reported in Fayette County, 2018

<table>
<thead>
<tr>
<th>Class B Reportable Diseases</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amebiasis</td>
<td>1</td>
</tr>
<tr>
<td>Campylobacteriosis</td>
<td>5</td>
</tr>
<tr>
<td>Chlamydia infection</td>
<td>71</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>2</td>
</tr>
<tr>
<td><em>E. coli</em></td>
<td>2</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>25</td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em></td>
<td>1</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>11</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>20</td>
</tr>
<tr>
<td>Hepatitis B- Perinatal</td>
<td>2</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>41</td>
</tr>
<tr>
<td>Influenza- associated hospitalization</td>
<td>17</td>
</tr>
<tr>
<td>Legionnaires’ Disease</td>
<td>2</td>
</tr>
<tr>
<td>Meningitis – aseptic/viral</td>
<td>3</td>
</tr>
<tr>
<td>Pertussis</td>
<td>1</td>
</tr>
<tr>
<td>Salmonellosis</td>
<td>7</td>
</tr>
<tr>
<td>Streptococcal disease</td>
<td>2</td>
</tr>
<tr>
<td><em>Streptococcus pneumoniae</em></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>214</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class C Reportable Diseases - Outbreaks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown Gastrointestinal Illness</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>
Communicable Disease Graph

Notes:
- Case counts include confirmed, probable, and suspect disease classifications
- Sexually transmitted infections include chlamydia and gonorrhea
- Enteric illnesses include amebiasis, campylobacteriosis, cryptosporidiosis, *E. coli*, and salmonella
- Vaccine preventable illnesses include *Haemophilus influenzae*, Hepatitis A, Hepatitis B, influenza-associated hospitalizations, pertussis, and *Streptococcus pneumoniae*
- Bloodborne pathogens include Hepatitis C
- Other illnesses include Legionnaires’ disease, aseptic meningitis, and streptococcal disease
Chlamydia

DEMOGRAPHICS
Number of Cases: 71
Average Age: 22.2 years
Median Age: 20 years
Age Range: 15-53 years
Female: 69.0%
Male: 31.0%
Percent Change from 2017: -9.0%

EPIDEMIOLOGY
Infectious Agent: Chlamydia trachomatis bacteria
Case Definition: Isolation of C. trachomatis by culture or demonstration of C. trachomatis in a clinical specimen
Symptoms: Women 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

Chlamydia Cases in Fayette County, 2014-2018

Chlamydia Cases by Month in Fayette County, 2018

Chlamydia Cases by Month in Fayette County, 2018

Chlamydia Cases by Month in Fayette County, 2018
Hepatitis C

**DEMOGRAPHICS**
- **Number of Cases:** 41
- **Average Age:** 36.6 years
- **Median Age:** 35 years
- **Age Range:** 0-85 years
- **Female:** 41.5%
- **Male:** 58.5%
- **Percent Change from 2017:** -32.8%

**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**

![Graph showing Hepatitis C Cases by Month in Fayette County, 2018](image)

![Graph showing Hepatitis C Cases in Fayette County, 2014-2018](image)
Gonorrhea

DEMOGRAPHICS
Number of Cases: 25
Average Age: 23.8 years
Median Age: 23 years
Age Range: 16-37 years
Female: 52.0%
Male: 48.0%
Percent Change from 2017: 47.1%

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
HEPATITIS B

Hepatitis B

DEMOGRAPHICS
Number of Cases: 20
Average Age: 44.3 years
Median Age: 39.0 years
Age Range: 24-79 years
Female: 45.0%
Male: 55.0%
Percent Change from 2017: -33.0%

EPIDEMIOLOGY
Infectious Agent: Hepatitis B virus
Case Definition: A positive test for Hepatitis B virus antibodies or detection of the Hepatitis B virus
Symptoms: Most individuals infected with the Hepatitis B 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: Hepatitis B virus is spread when blood, semen, or other body fluid infected with the virus enters the body of a person who is not infected. High risk activities include; birth (from infected mother), sex, sharing needles or other drug-injection equipment, and contact with blood from an open sore.
Incubation Period: 6 weeks – 6 months
Prevention: Vaccine preventable (3-4 shot series over a 6-month period)

HEPATITIS B FIVE YEAR TREND

Hepatitis B Cases in Fayette, 2014-2018

Hepatitis B Cases by Month in Fayette County, 2018

HEPATITIS B

Page 7
Influenza- Associated Hospitalizations

DEMOGRAPHICS
Number of Cases: 17
Average Age: 57.9 years
Median Age: 64 years
Age Range: 2-86 years
Female: 41.2%
Male: 58.8%
Percent Change from 2017: 88%

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
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 Fayette County during 2018.

<table>
<thead>
<tr>
<th>Reportable Disease</th>
<th>Reporting Requirement</th>
<th>Cases (N)</th>
<th>Median (Days)</th>
<th>Mean (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campylobacteriosis</td>
<td>End of next business day</td>
<td>5</td>
<td>1</td>
<td>2.4</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>End of next business day</td>
<td>2</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td><em>E. coli</em></td>
<td>End of next business day</td>
<td>2</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Giardia</td>
<td>End of next business day</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Influenza-Associated Hospitalization</td>
<td>End of next business day</td>
<td>17</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Legionnaires’ Disease</td>
<td>End of next business day</td>
<td>2</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Pertussis</td>
<td>End of next business day</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Salmonella</td>
<td>End of next business day</td>
<td>7</td>
<td>1.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Shigella</td>
<td>End of next business day</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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.
Contact Information

MARY SALIMBENE MERRIMAN, MPH EPIDEMIOLOGIST

Tel (937) 645-2062
Fax (937) 642-1568
mary.merriman@uchd.net

ALLISON ZANDARSKI, BS EPIDEMIOLOGIST

Tel (937) 645-2028
Fax (937) 642-1568
allison.zandarski@uchd.net

Company Information

Fayette County Health District
317 S. Fayette Street
Washington Court House, Ohio 43160
Tel (740) 335-5910
Fax (740) 333-3528
http://www.faycohd.org/

Fayette County Public Health