



***Epidemiology
Annual Disease
Report, 2019***

Fort Bend Health & Human Services

*Jacquelyn Johnson-Minter, MD
Local Health Authority and Director*

*Nichole Brathwaite-Dingle, MD, MPH
Deputy Director for Public Health Practice*

*Nicolette Janoski, MPH
Epidemiology Division Manager*



This report was produced by the Fort Bend Health & Human Services Epidemiology Department.

4520 Reading Road, Rosenberg, TX 77471 • 281-750-6939

www.fbchhs.org



Epidemiology Disease 2019 Report Team

*Divya Pillendla, MPH
Epidemiologist II*

*Victoria Vatankha, MPH
Epidemiologist Fellow*

*Sameera Taylor, MPH
Epidemiologist Fellow*

Kimberly Plants-Paris, MS
Epidemiologist- Data Analysis

Charlotte Preston
GIS Specialist

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Methodology

Several Texas laws (Health & Safety Code, chapter 81, 84, and 87) require specific information regarding notifiable conditions to be provided to the local health department. Fort Bend HHS is the designated health department for reporting notifiable conditions in Fort Bend County. Health care providers, hospitals, laboratories, schools, and others are required to report individuals who are suspected of having a notifiable condition (chapter 97, Title 25, Texas Administrative Code).

All notifiable conditions in Fort Bend County, as well as Texas, for 2019 are listed in Table 1. In addition to these, any outbreak, exotic diseases, and unusual group expressions of disease must be reported. All diseases must be reported by name, age, gender, race/ethnicity, date of birth, address, telephone number, disease, date of onset, method of diagnosis, and name, address, and telephone number of physician.

Background Information for Statistical Summaries

In this report, Chlamydia, Gonorrhea, Syphilis, Human immunodeficiency virus (HIV), and Tuberculosis (TB) cases were obtained from the Texas Department of State Health Services (DSHS) and reported based on the disease diagnoses date. All other disease data were obtained from National Electronic Disease Surveillance System (NEDSS) and reported based on disease event date. Disease event date uses symptom onset date, diagnoses date, date reported to county, date reported to state, date entered into NEDSS, in that order of priority.

The case counts and incidence rate of notifiable diseases are presented overall, by gender, by race/ethnicity, by age group, and by ZIP code. Top 5 diseases by race/ethnicity were not calculated due to significant number of missing data for that field. Rates based on numerators less than 10 cases were not calculated for the leading communicable disease tables due to the unreliability of using small numbers to predict cases in large populations.

Incidence rates are calculated as follows:

- Numerator – 2019 incidence of disease in Fort Bend County, includes confirmed and probable cases
- Denominator – 2019 Fort Bend County population at risk
 - Population estimates by sex and age group obtained from the Census Bureau¹.
 - Population estimates by County obtained from Census Bureau's American Community Survey (ACS) 2015-2019 five-year population estimates².
 - Salmonellosis ZIP code rates were calculated using only the geographical area of the zip code that is in Fort Bend County. The area of the zip code in Fort Bend County was estimated using 2010 ZCTA to County Relationship File³.
- Incidence Rate – per 100,000 population

Limitations

- The accuracy of this data is based on reporting practices. Reporting might have varied over the years from 2015 through 2019 as technology improved. Factors such as new diagnostic tests and changes in case criteria could also contribute to changes in rates.
- Aggregate data for Chlamydia, Gonorrhea, Syphilis, HIV, and TB were provided by DSHS and could be over-inclusive. Some cases included in this report might be outside of Fort Bend County jurisdiction.
- Because NEDSS surveillance data only contains case counts for notifiable diseases in Fort Bend County cases within a specified zip code, 2010 ZCTA to County Relationship File was used to estimate population of Fort Bend County in the specified zip code. From 2015 to 2019, the percentage of the total zip code population that resides within Fort Bend County might have changed. It is important to view these zip code rates with caution.
- NEDSS surveillance data for race/ethnicity categories had significant missing data. Data quality improvement would be beneficial for future reports.

Texas Notifiable Conditions

Table 1. Notifiable Conditions, Fort Bend County, 2019

A - L	Cases		
Acquired immune deficiency syndrome (AIDS)	0	Malaria	16
Acute Flaccid Myelitis	0	Measles (rubeola)	0
Amebic meningitis and encephalitis	0	Meningococcal infection, invasive (<i>Neisseria meningitidis</i>)	1
Anaplasmosis	0	Multidrug-resistant <i>Acinetobacter</i> (MDR-A)	36
Anthrax	0	Mumps	6
Arboviral infections	4	Paragonimiasis	0
Chikungunya virus disease	1	Pertussis	26
Dengue	3	Pesticide poisoning, acute occupational	0
Encephalitis, West Nile	0	Plague (<i>Yersinia pestis</i>)	0
Asbestosis	0	Poliomyelitis, acute paralytic	0
Ascariasis	0	Poliovirus infection, non-paralytic	0
Babesiosis	0	Prion disease such as Creutzfeldt-Jakob disease (CJD)	0
Botulism (adult and infant)	0	Q fever	0
Brucellosis	0	Rabies, human	0
Campylobacteriosis	43	Rubella (including congenital)	0
Cancer	0	Salmonellosis, excluding typhoid fever	126
Carbapenem-resistant <i>Enterobacteriaceae</i> (CRE)	48	Shiga toxin-producing <i>Escherichia coli</i>	22
Chagas disease	0	Shigellosis	80
Chancroid	0	Silicosis	0
Chickenpox (varicella)	26	Smallpox	0
<i>Chlamydia trachomatis</i> infection	2030	Spinal cord injury	0
Contaminated sharps injury	0	Spotted fever group rickettsioses	0
Controlled substance overdose	0	Streptococcal disease group A, invasive	6
Coronavirus, novel	0	Streptococcal disease group B, invasive	33
Cryptosporidiosis	9	Streptococcal disease <i>S.pneumo.</i> , invasive	21
Cyclosporiasis	48	Syphilis, all stages	134
Cysticercosis	0	<i>Taenia solium</i> and undifferentiated <i>Taenia</i> infection	0
Diphtheria	0	Tetanus	0
Drowning/near drowning	0	Traumatic brain injury	0
Echinococcosis	0	Trichinosis	0
Ehrlichiosis	0	Trichuriasis	0
Fascioliasis	0	Tuberculosis (<i>Mycobacterium tuberculosis</i> complex)	37
Gonorrhea	530	Tuberculosis Infection	0
<i>Haemophilus influenzae</i> , invasive	1	Tularemia	0
Hansen's disease (leprosy)	0	Typhoid Fever (<i>Salmonella</i> Typhi)	6
Hantavirus infection	0	Typhus	1
Hemolytic uremic syndrome (HUS)	1	Vancomycin-intermediate <i>Staph aureus</i> (VISA)	0
Hepatitis A	2	Vancomycin-resistant <i>Staph aureus</i> (VRSA)	0
Hepatitis B acute	2	<i>Vibrio</i> infection, including cholera	0
Hepatitis C acute	0	Viral hemorrhagic fever (including Ebola)	0
Hepatitis E acute	0	Yellow fever	0
		Yersiniosis	11
Hepatitis B infection identified prenatally or at delivery (mother)	0		
Hepatitis B, perinatal (HBsAg+ < 24 months old) (child)	0		
Hookworm (ancylostomiasis)	0		
Human immunodeficiency virus (HIV)	72		
Influenza associated pediatric mortality	1		
Influenza, novel	679		
Lead, child blood, any level & adult blood, any level	0		
Legionellosis	2		
Leishmaniasis	0		
L-Y	Cases		
Listeriosis	0		
Lyme disease	2		

RED indicates immediately reportable conditions; BLUE indicates reportable within one working day; all others are reportable within one week

Note: This table represents communicable conditions that were reportable in 2019

Data source: Fort Bend Health & Human Services (Fort Bend HHS): Texas National Electronic Disease Surveillance System (NEDSS), Texas Department of State Health Services (DSHS)

Communicable Diseases in Fort Bend County

Table 2. Leading Communicable Diseases Overall and by Gender, Fort Bend County, 2019

Rank	Total Population n (rate)	Rank	Female n (rate)	Male n (rate)
1	Chlamydia 2030 (249.8)	1	Chlamydia 1335 (322.4)	Chlamydia 693 (173.8)
2	Gonorrhea 530 (65.2)	2	Gonorrhea 194 (46.8)	Gonorrhea 336 (84.3)
3	Syphilis 134 (16.5)	3	Salmonellosis 56 (14.4)	Syphilis 103 (25.8)
4	Salmonellosis ^h 126 (16.5)	4	Shigellosis 49 (12.6)	Salmonellosis 70 (18.6)
5	Shigellosis 80 (10.5)	5	Syphilis 31 (7.5)	HIV 55 (13.8)
6	HIV 72 (8.6)	6	Campy 25 (6.4)	Shigellosis 31 (8.2)
7	CRE 48 (6.3)	7	CRE 24 (6.2)	Cyclosporiasis 25 (6.7)
8	Cyclosporiasis 48 (6.3)	8	Cyclosporiasis 23 (5.9)	CRE 24 (6.4)
9	Campylobacteriosis 43 (5.6)	9	HIV 17 (4.1)	Tuberculosis 23 (5.8)
10	Tuberculosis 37 (4.6)	10	Tuberculosis 14 (3.4)	Campy 18 (4.8)

This chart ranks the diseases from 1-10 that are most frequently seen in Fort bend County in 2018 by total population and gender

Data source: Fort Bend HHS NEDSS, DSHS

Disease-Specific Definition and Statistics

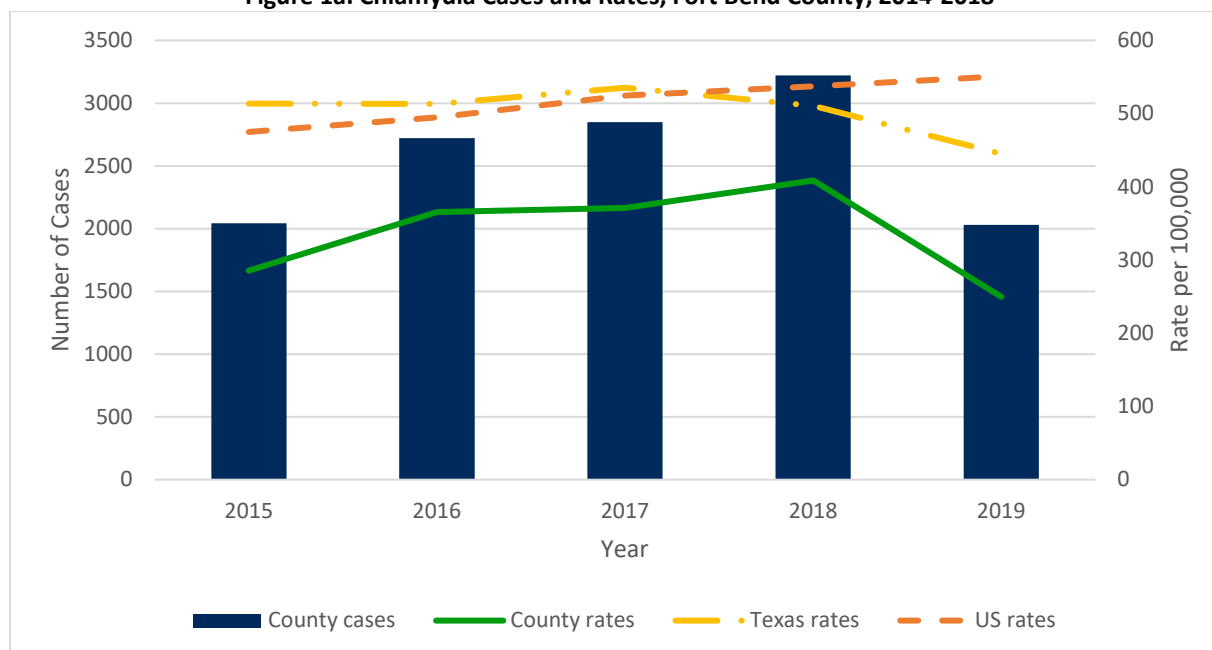
The following pages are comprised of disease-specific definitions and their corresponding statistical breakdown of the top 10 leading communicable diseases in Fort Bend County in 2019. The information obtained regarding the disease's causative agent, signs and symptoms, modes of transmission, incubation period, and period of communicability were obtained from the [Centers for Disease Control and Prevention \(CDC\)](#) and the [Texas Department of State Health Services \(DSHS\)](#). Definitions are as follows:

- ***Causative Agent:*** A bacteria, fungus, virus, parasite, or prion which can cause illness or disease.
- ***Signs/Symptoms:*** The observed or detectable physical manifestations as a result of infection with a causative agent.
- ***Modes of Transmission:*** How a causative agent is spread from one host to another.
- ***Incubation Period:*** The period between exposure to a causative agent and the onset of disease symptoms.
- ***Period of Communicability:*** The period during which a causative agent may be transmitted directly or indirectly from one person to another person.

Chlamydia

- **Causative Agent:** *Chlamydia trachomatis* (bacterial) [Source: [Chlamydia - CDC Fact Sheet](#)]
- **Signs & Symptoms:**
 - **Men:** 90% of men do not develop symptoms. Those who are symptomatic may experience penile discharge, painful urination, itching and burning around the urethra, and pain and swelling of one or both testicles. Complications include potential infertility and urethral infection.
 - **Women:** Up to 70% of women do not develop symptoms. Initially, the bacteria infect the cervix, causing those who are symptomatic to experience vaginal discharge, bleeding of the cervix, and a burning sensation when urinating. Additionally, the infection can spread from the cervix to the upper reproductive tract, harming the uterus and fallopian tubes. Complications include pelvic inflammatory disease and infertility.
- **Modes of Transmission:** Transmission occurs through sexual contact with the penis, vagina, and anus, of an individual infected with chlamydia. Transmission can also occur perinatally when an infected individual gives birth.
- **Incubation Period:** 7-21 days
- **Period of Communicability:** Once the exposure occurs, infected individuals are assumed infectious. Infected individuals should avoid unprotected sexual contact until treatment has been completed and symptoms have fully resolved.

Figure 1a. Chlamydia Cases and Rates, Fort Bend County, 2014-2018



Data Source: DSHS, CDC

The average rate of change of chlamydia cases from 2015 to 2019 in Fort Bend County was -21.1%.

Figure 1b. Geographic Distribution of Chlamydia by Zip Code, Fort Bend County, 2019

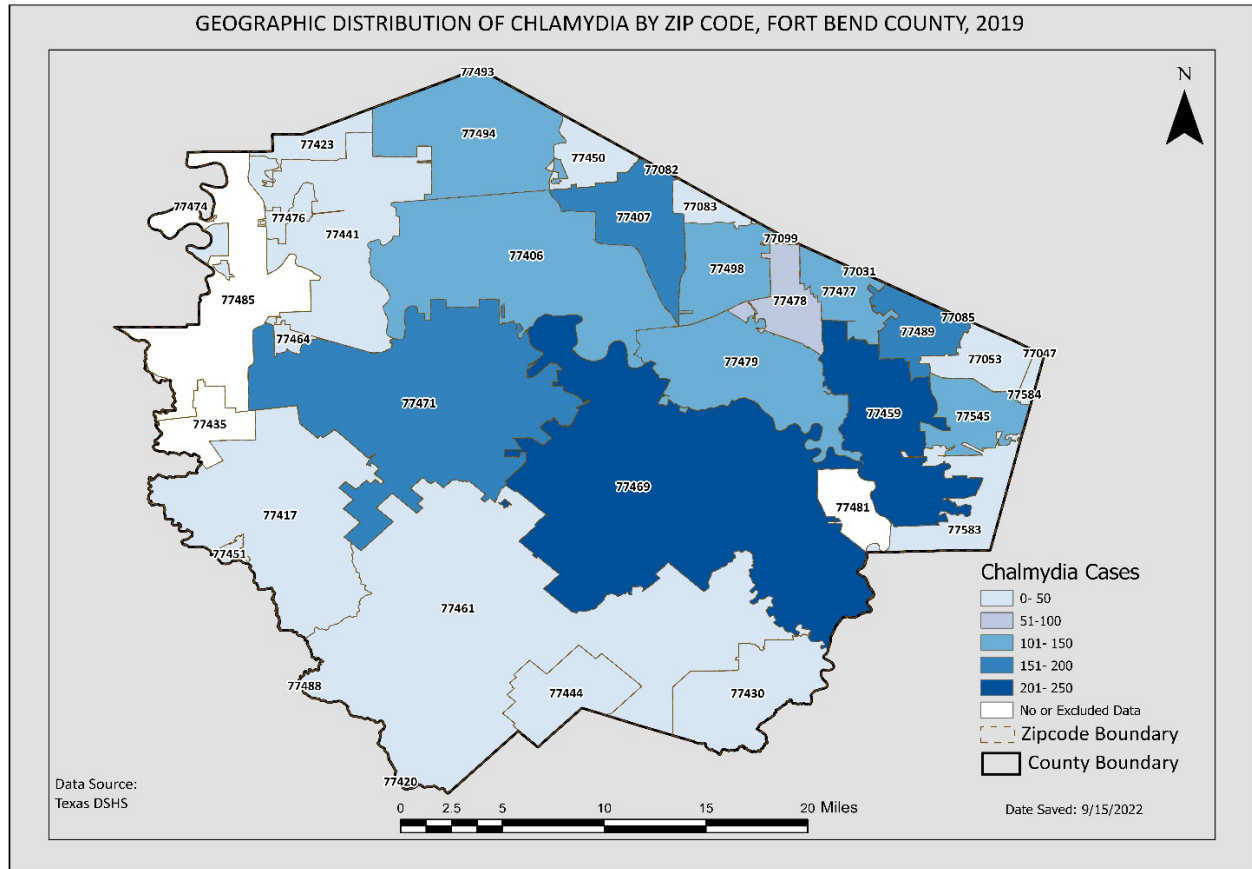


Figure 1c. Chlamydia Rates by Sex, Fort Bend County, 2015-2019

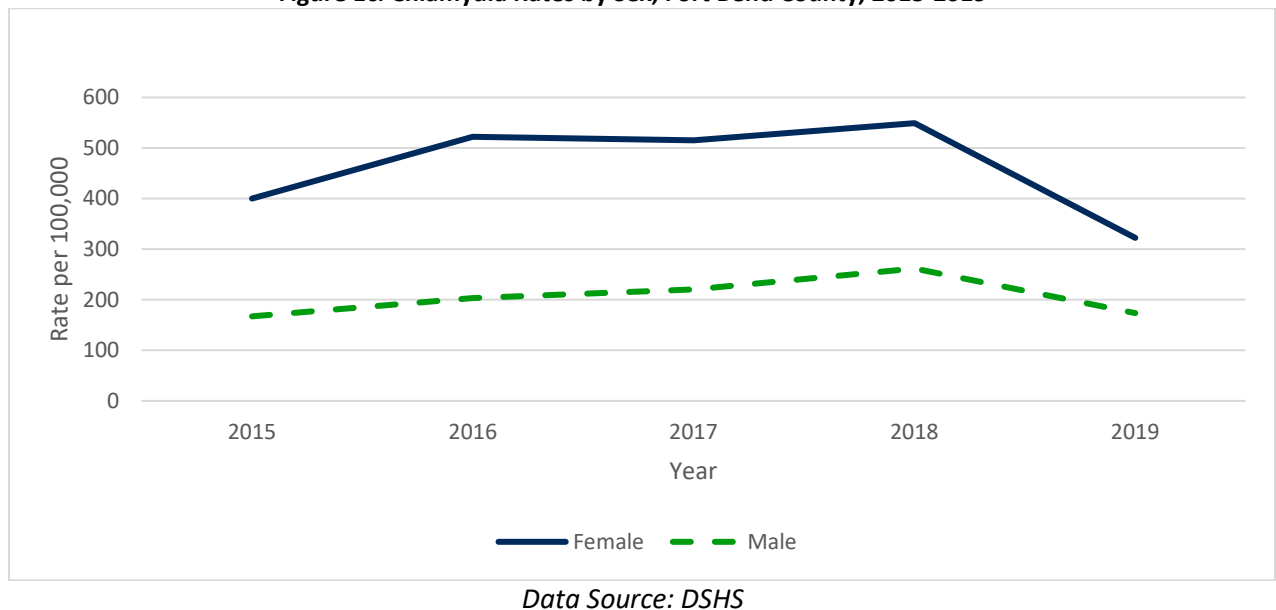
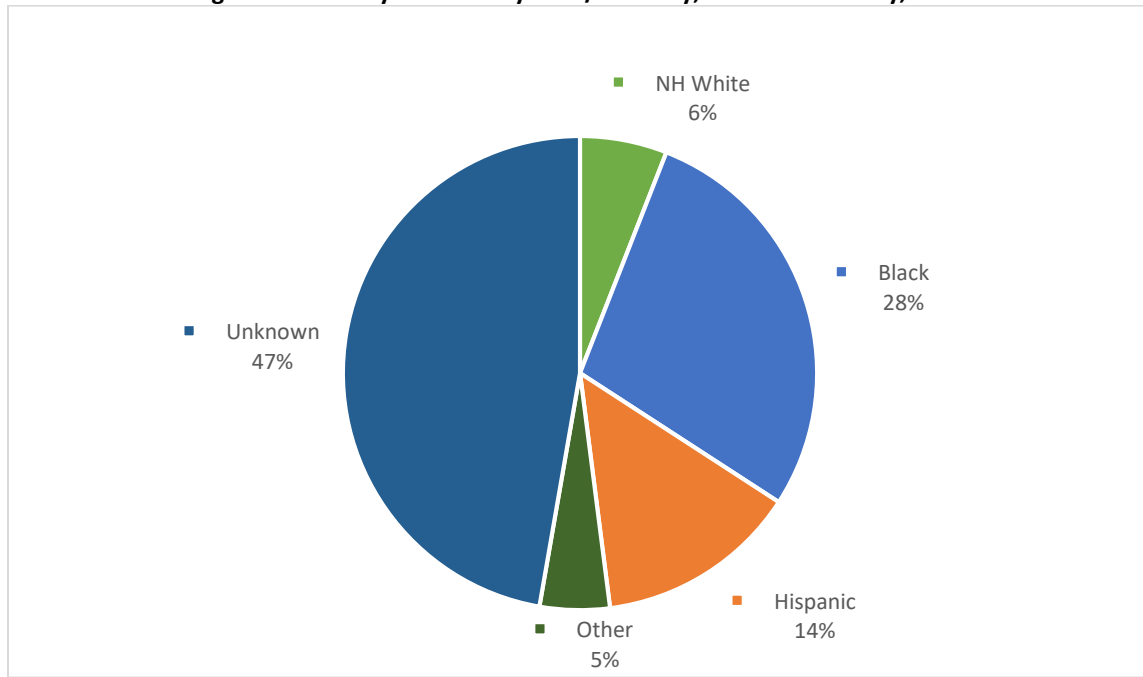
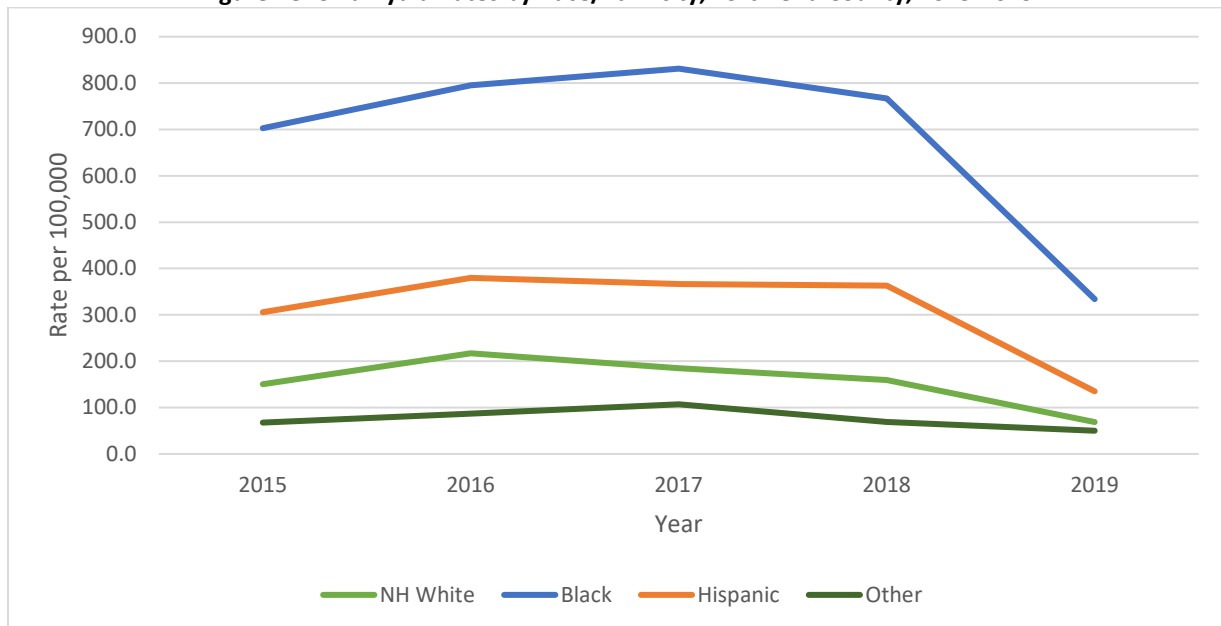


Figure 1d. Chlamydia Cases by Race/Ethnicity, Fort Bend County, 2019



Data Source: DSHS
NH = non-Hispanic

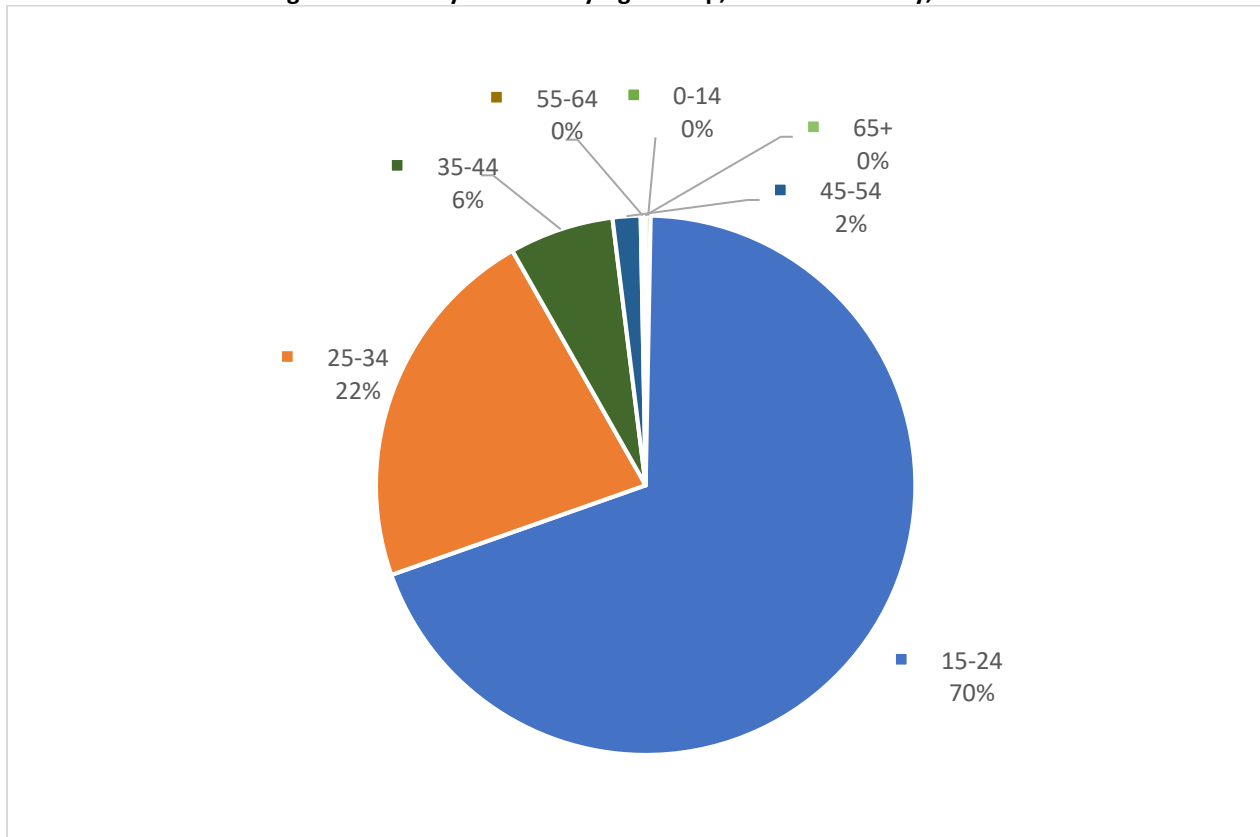
Figure 1e. Chlamydia Rates by Race/Ethnicity, Fort Bend County, 2015-2019



Data Source: DSHS

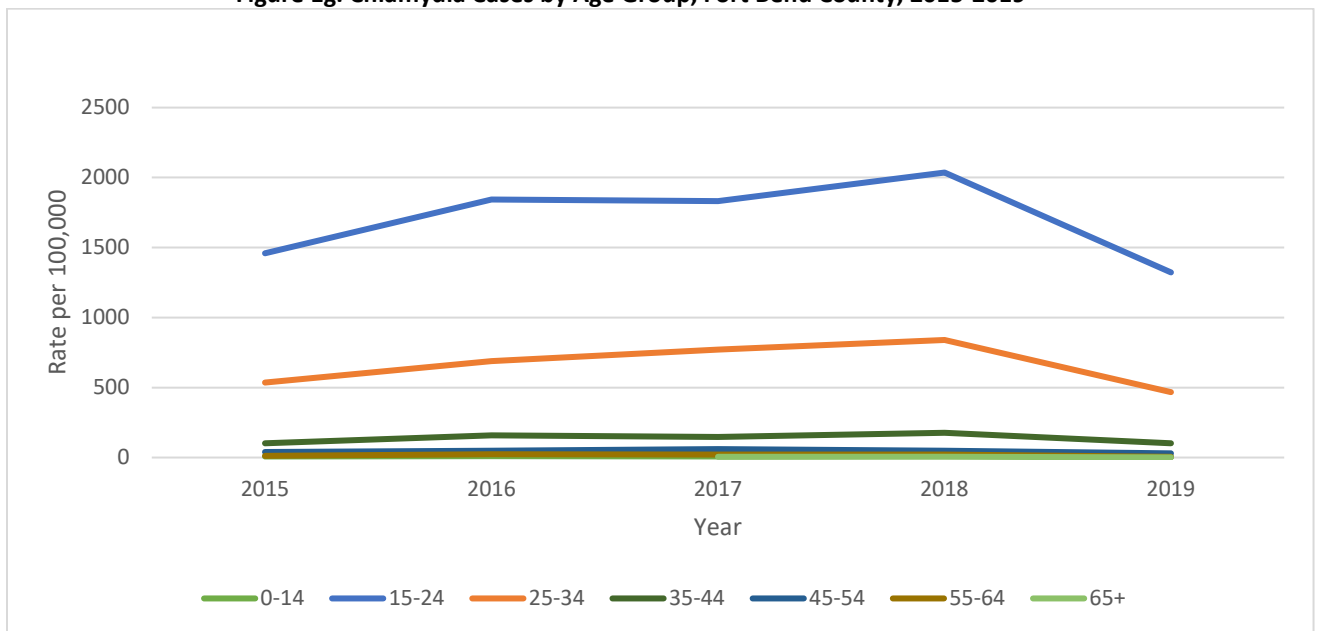
Note: Figure does not include 47% of unknown race/ethnicity data

Figure 1f. Chlamydia Cases by Age Group, Fort Bend County, 2019



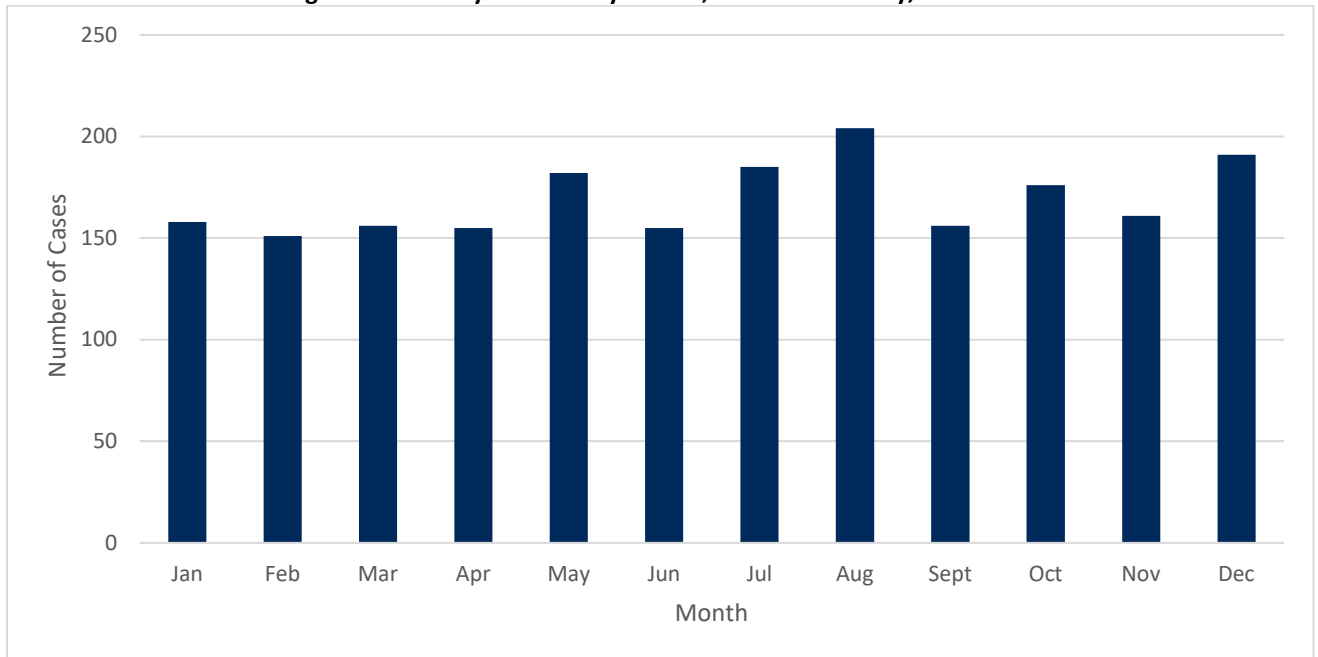
Data Source: DSHS

Figure 1g. Chlamydia Cases by Age Group, Fort Bend County, 2015-2019



Data Source: DSHS

Figure 1h. Chlamydia Cases by Month, Fort Bend County, 2019

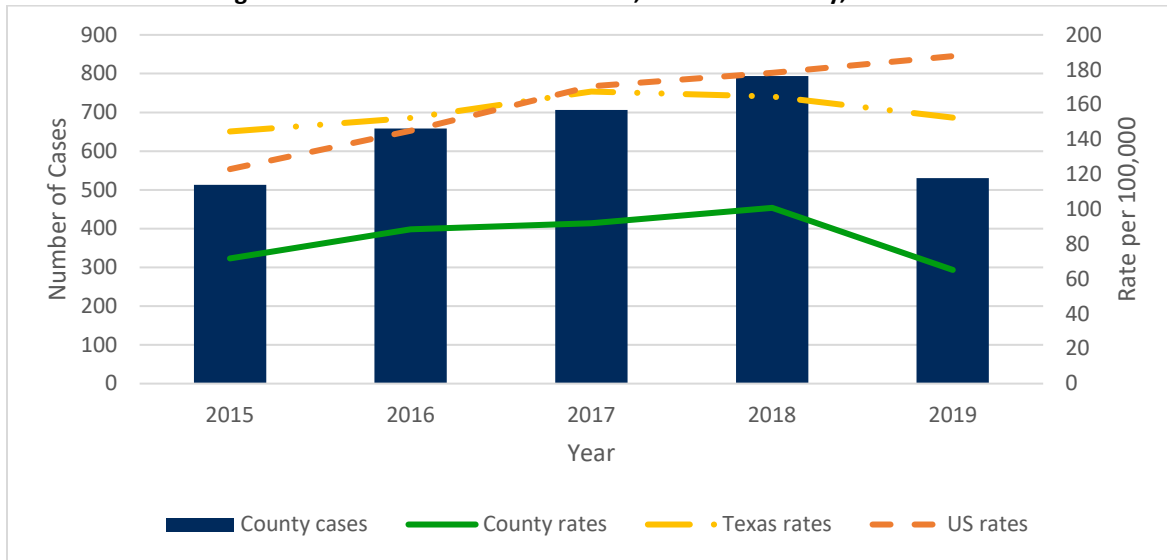


Data Source: DSHS

Gonorrhea

- **Causative Agent:** *Neisseria gonorrhoeae* (bacterial) [source: [Gonorrhea - CDC Fact Sheet](#)]
- **Signs & Symptoms:**
 - **Men:** When present, symptoms include colorful urethral discharge and painful urination. Complications include potential infertility and epididymitis, which may lead to testicular or scrotal pain.
 - **Women:** Most women do not experience symptoms. If a woman is symptomatic, symptoms are typically so mild that they may be mistaken for common bladder or vaginal infections. Symptoms include vaginal discharge, vaginal bleeding, and painful or burning urination. Complications can cause serious and permanent health problems. When untreated, the infection can spread into the uterus or fallopian tubes causing Pelvic Inflammatory Disease and infertility.
 - **Rectal Infection:** Infection of the anus or rectum can be symptomatic or asymptomatic in both men and women. Symptoms include discharge, itching, soreness, painful bowel movements, and bleeding of this area.
 - **Disseminated gonococcal infection (DGI):** When left untreated, the infection can spread to the blood causing a life-threatening condition and mobility issues.
- **Modes of Transmission:** Transmission occurs through sexual contact with the penis, vagina, anus, or orally. Transmission can also occur perinatally when an infected individual gives birth.
- **Incubation Period:** 1-14 days
- **Period of Communicability:** Once the exposure occurs, infected individuals are assumed to be infectious until treatment is completed and symptoms have resolved. It is recommended that individuals who complete treatment wait seven days before having sex. Drug-resistant strains of gonorrhea are increasing, which is why it is important to refrain from sexual contact until symptoms are completely gone. If treatment has been completed and symptoms have continued for more than a few days, the infection may still be present and further medical intervention may be required.

Figure 2a. Gonorrhea Cases and Rates, Fort Bend County, 2015-2019



Data Source: DSHS, CDC

The average rate of change of gonorrhea cases from 2015 to 2019 in Fort Bend County was -17.2%

Figure 2b. Geographic Distribution of Gonorrhea by Zip Code, Fort Bend County, 2019

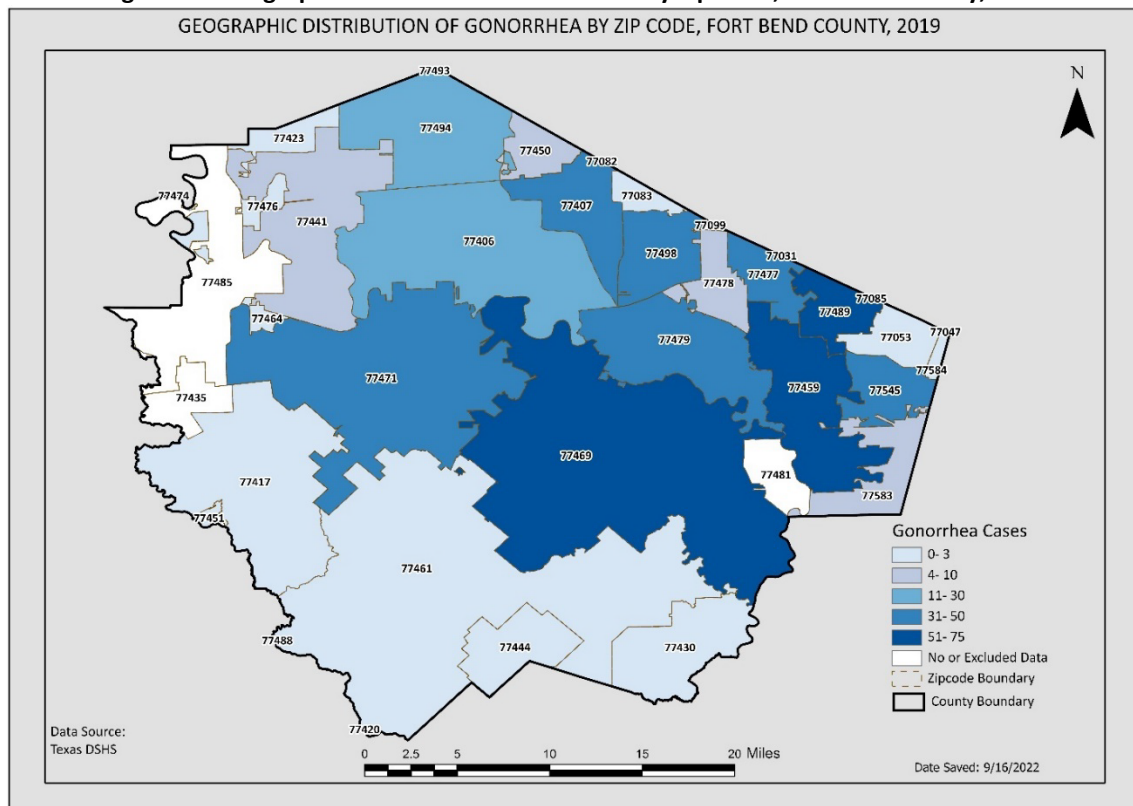
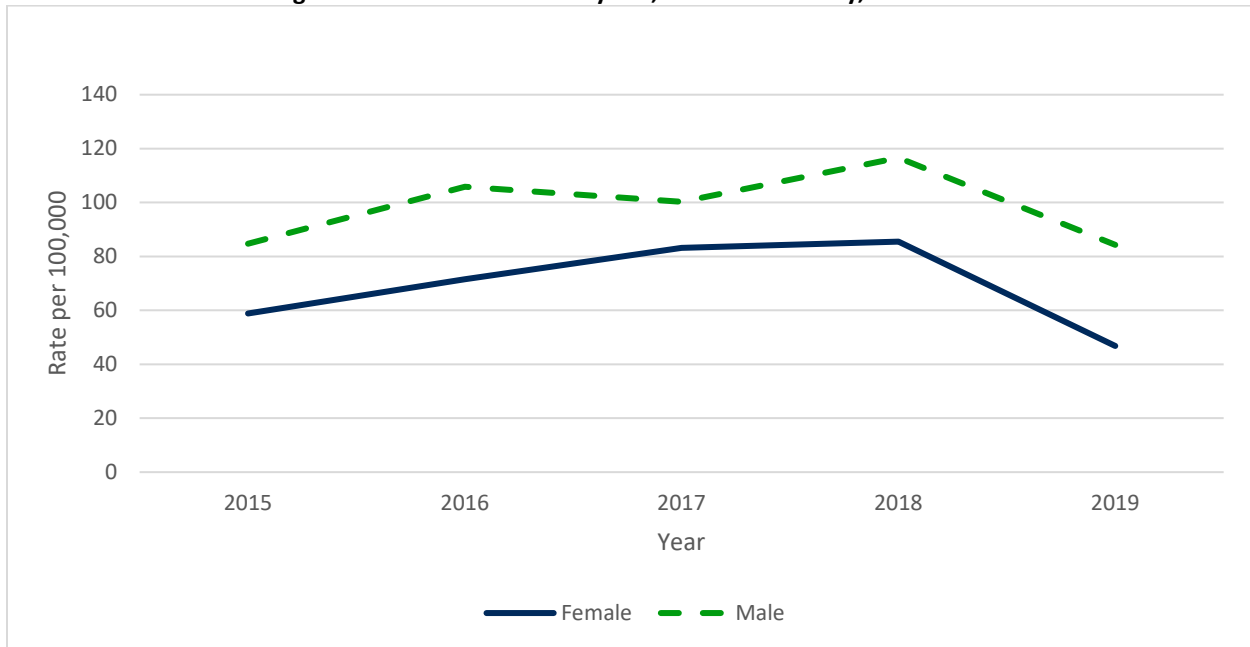
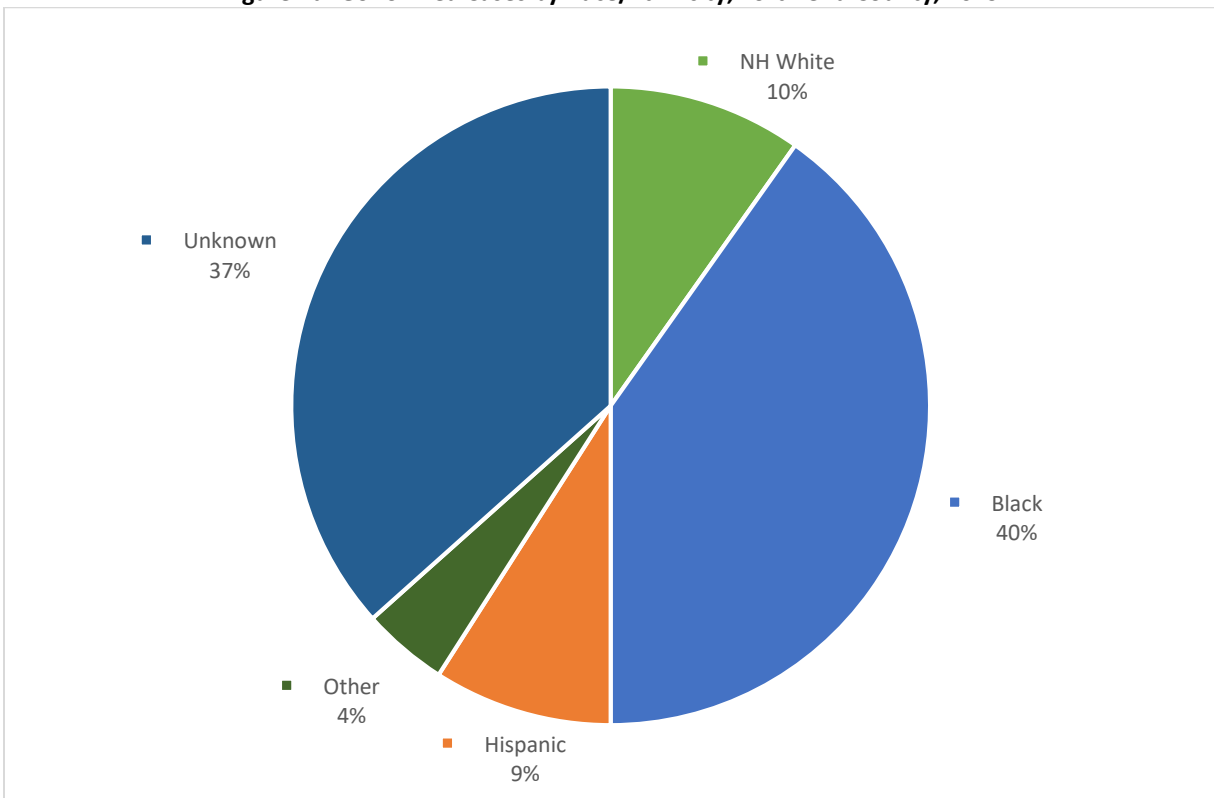


Figure 2c. Gonorrhea Rates by Sex, Fort Bend County, 2015-2019



Data Source: DSHS

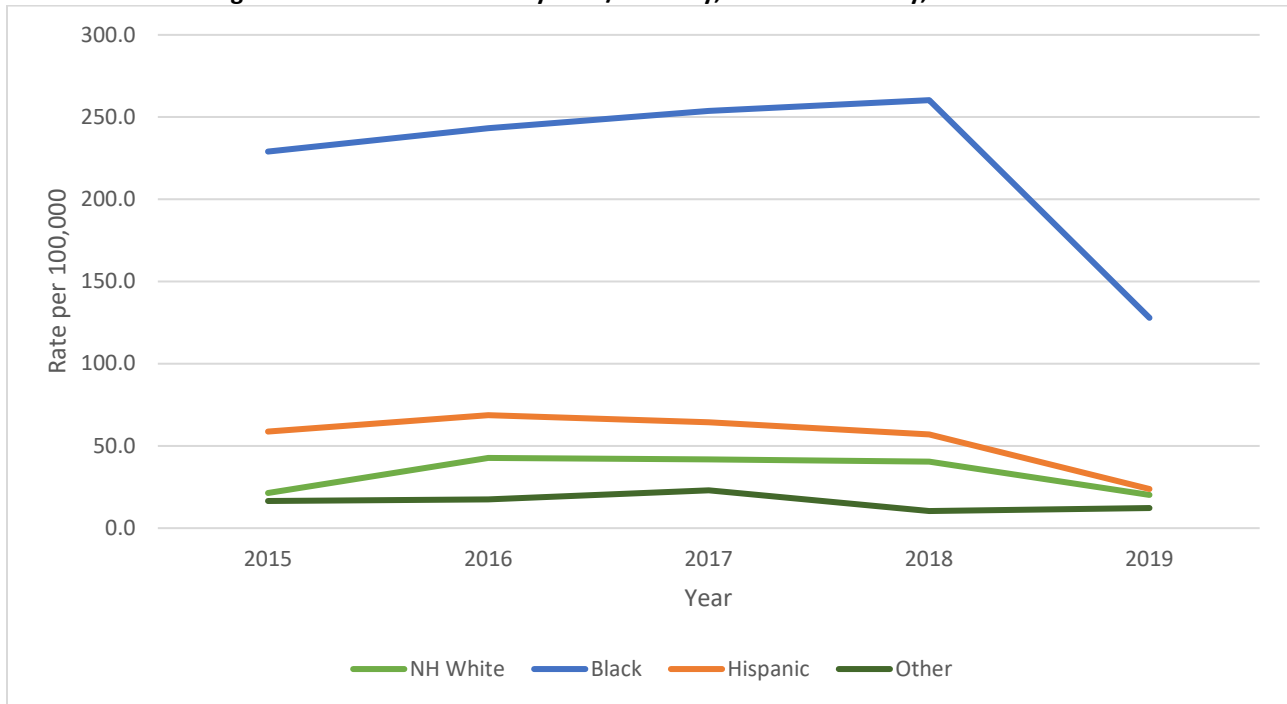
Figure 2d. Gonorrhea Cases by Race/Ethnicity, Fort Bend County, 2019



Data Source: DSHS

NH = non-Hispanic

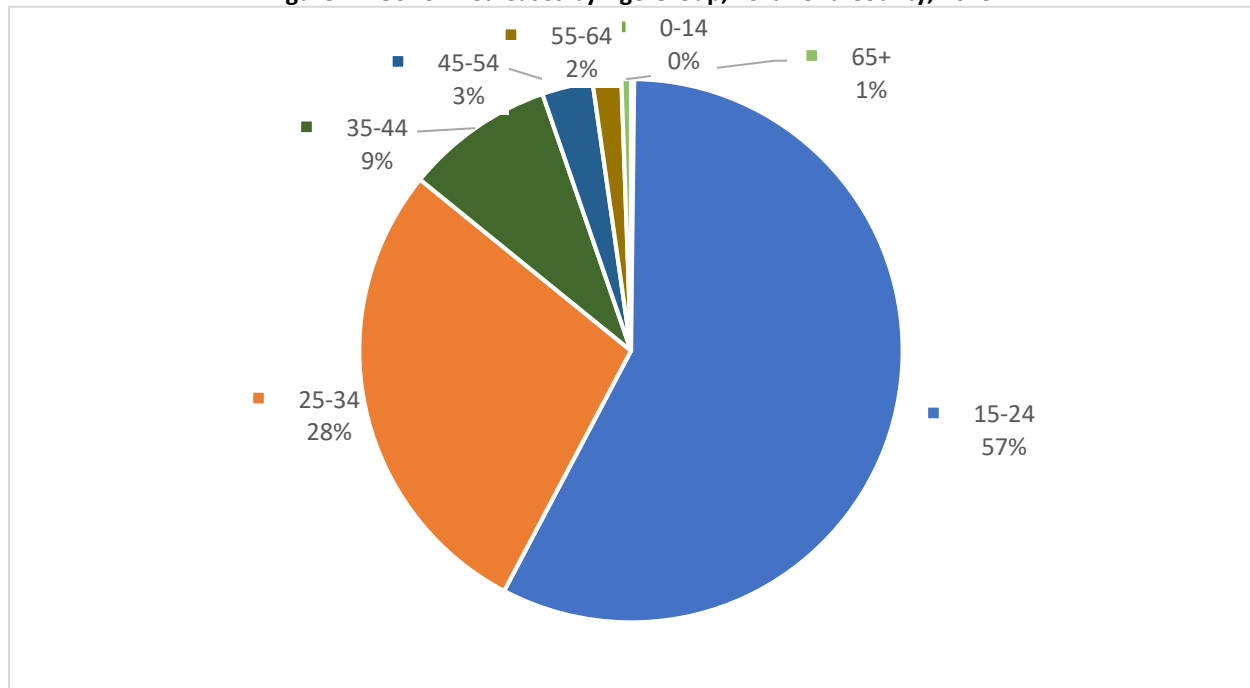
Figure 2e. Gonorrhea Rates by Race/Ethnicity, Fort Bend County, 2015-2019



Data Source: DSHS

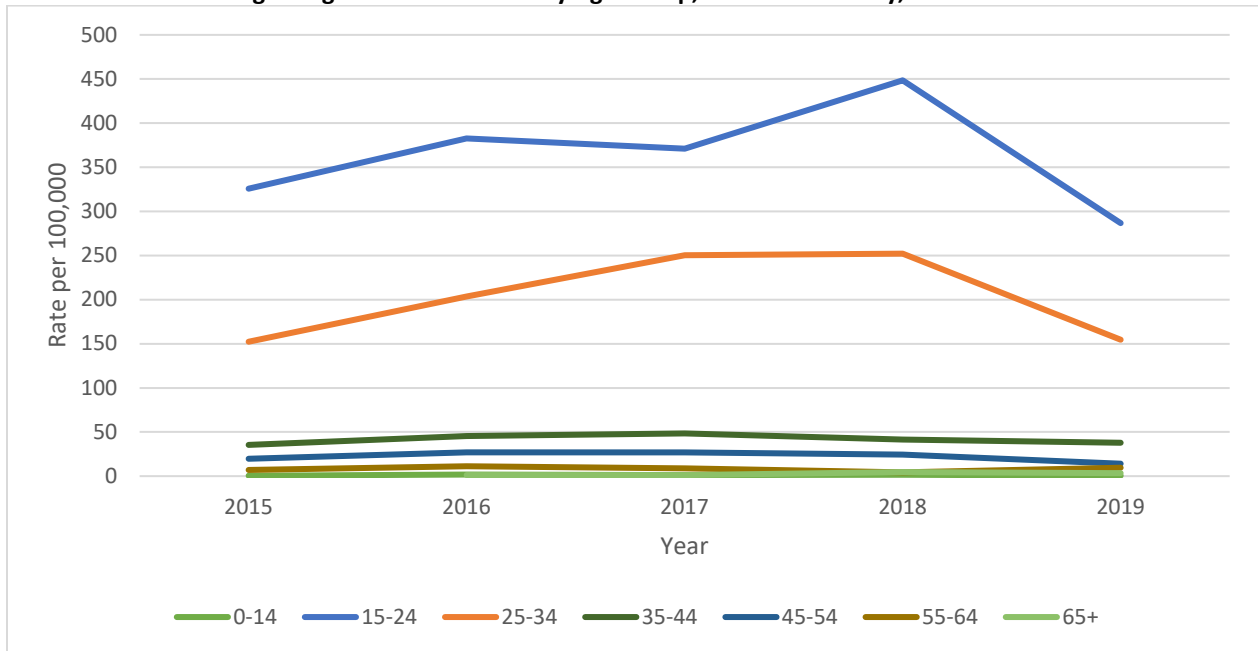
Note: Figure does not include 37% of unknown race/ethnicity data

Figure 2f. Gonorrhea Cases by Age Group, Fort Bend County, 2019



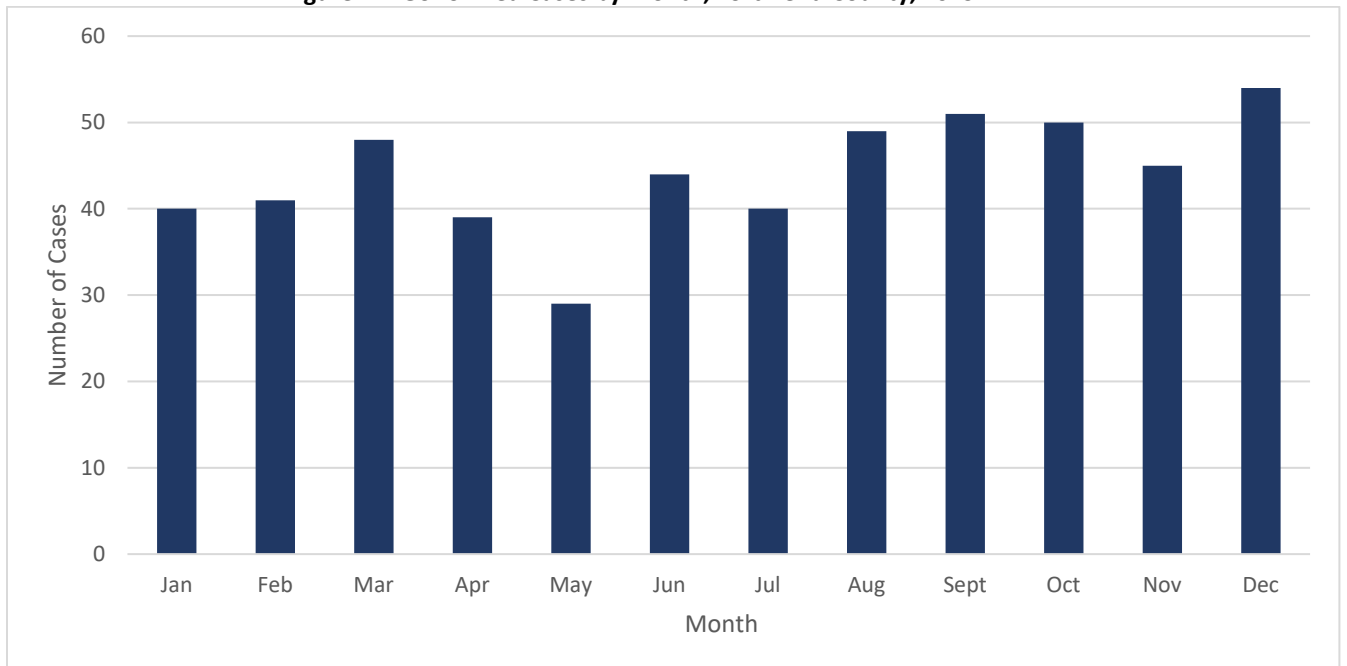
Data Source: DSHS

Figure 2g. Gonorrhea Rates by Age Group, Fort Bend County, 2015-2019



Data Source: DSHS

Figure 2h. Gonorrhea Cases by Month, Fort Bend County, 2019

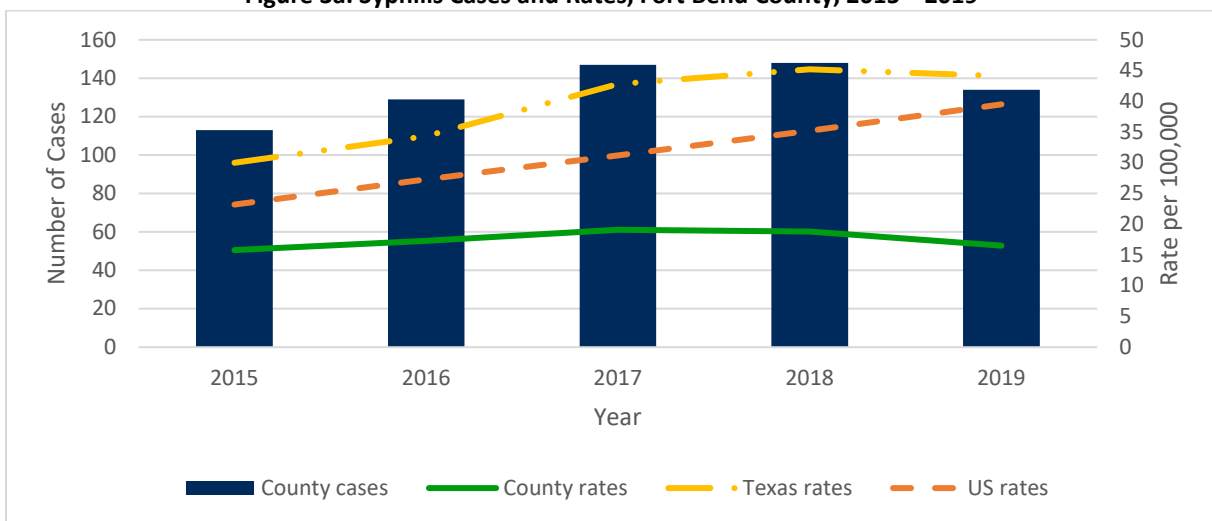


Data Source: DSHS

Syphilis

- **Causative Agent:** *Treponema pallidum* (bacterial) [source: [Syphilis - CDC Fact Sheet](#)]
- **Signs & Symptoms:**
 - **Primary Stage:** Firm, round, and usually painless sore(s) will first appear near the location where syphilis entered the body. These sores, known as chancres, will last 3-6 weeks and will heal on their own regardless of treatment. However, if an infected individual does not receive treatment, the infection will progress into a secondary stage.
 - **Secondary Stage:** This stage will usually begin with the development of a rash and/or sores on the body near the mouth, vagina, or anus. The rash typically does not cause itching but may appear with rough red or brown spots on the palms of the hands and bottoms of the feet. Often the rash will be so faint it goes unnoticed. Other symptoms include fever, sore throat, swollen lymph glands, hair loss, weight loss, headaches, fatigue, and body aches. This stage lasts 2-6 weeks, but in some cases may come and go for up to 2 years. Eventually, the symptoms of this stage will resolve on their own, but without treatment, the infection will progress into a latent stage.
 - **Latent & Late Stages:** This stage is known as the hidden stage because within this period there are no visible signs or symptoms. Without treatment, the infection can remain in the body for a lifetime. Long-term effects of latent syphilis may include coordination issues, sight and sensory deficits, numbness of the body, paralysis, and dementia.
- **Modes of Transmission:** Transmission occurs through sexual contact with the penis, vagina, anus, or orally. Transmission can also occur perinatally when an infected individual gives birth.
- **Incubation Period:** 10 days – 3 months
- **Period of Communicability:** Communicability is highest during the primary and secondary stages, but there is still potential for transmission within the early latent period. To avoid potential exposures, individuals who receive Syphilis treatment should abstain from sexual contact with others until syphilis sores are fully healed.

Figure 3a. Syphilis Cases and Rates, Fort Bend County, 2015–2019



Data Source: DSHS, CDC

The average rate of change of syphilis cases from 2014 to 2018 in Fort Bend County was -0.14%

Figure 3b. Geographic Distribution of Syphilis by Zip Code, Fort Bend County, 2019

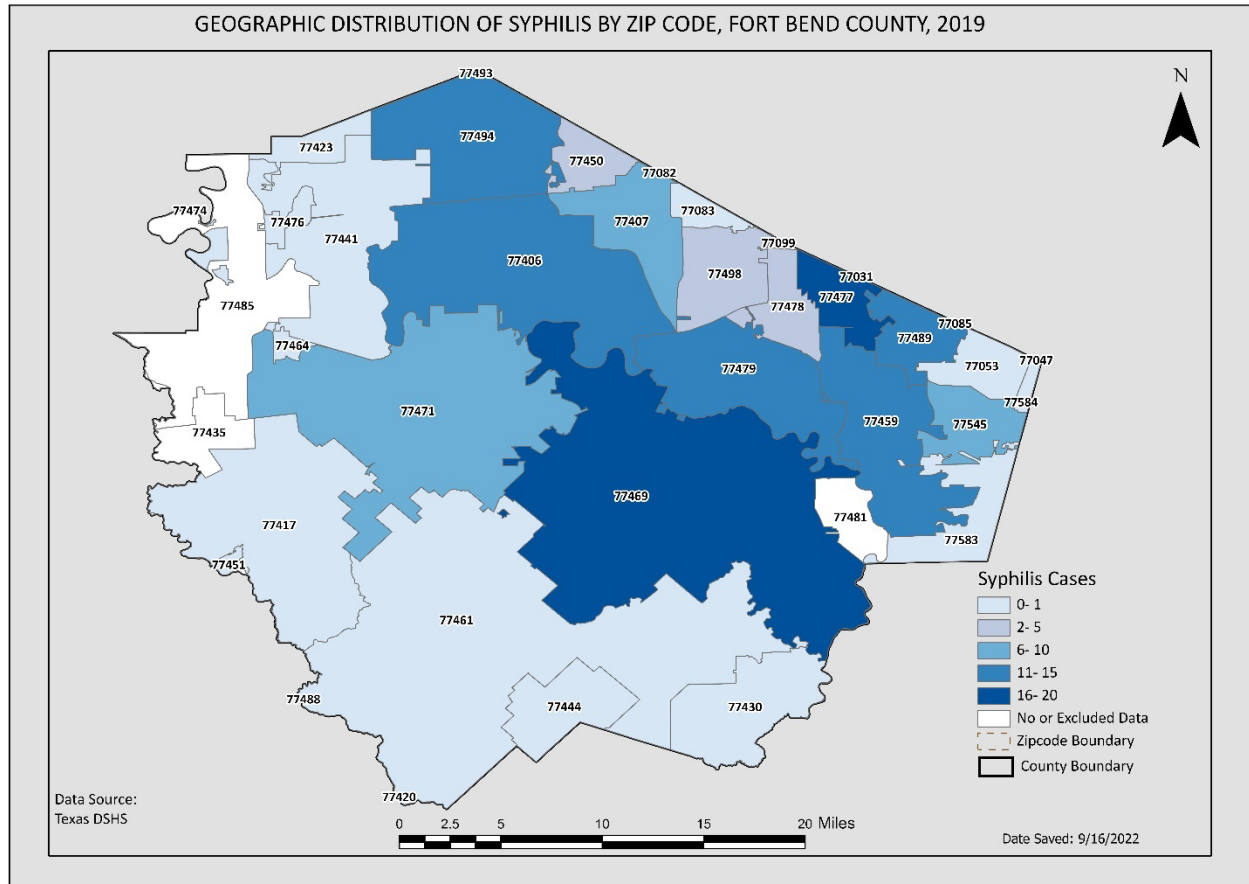
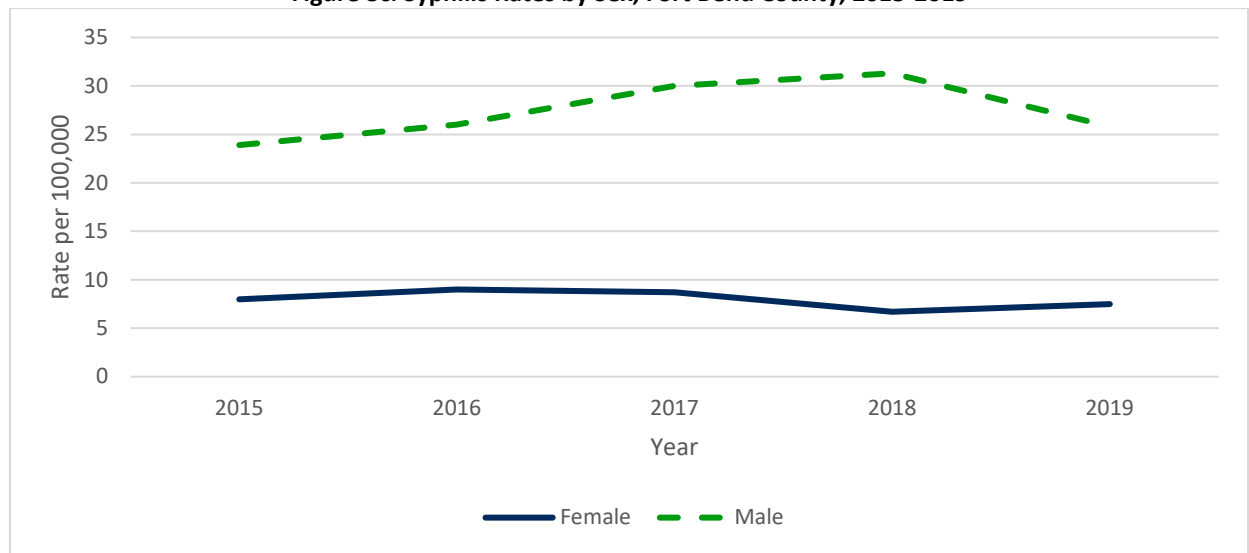
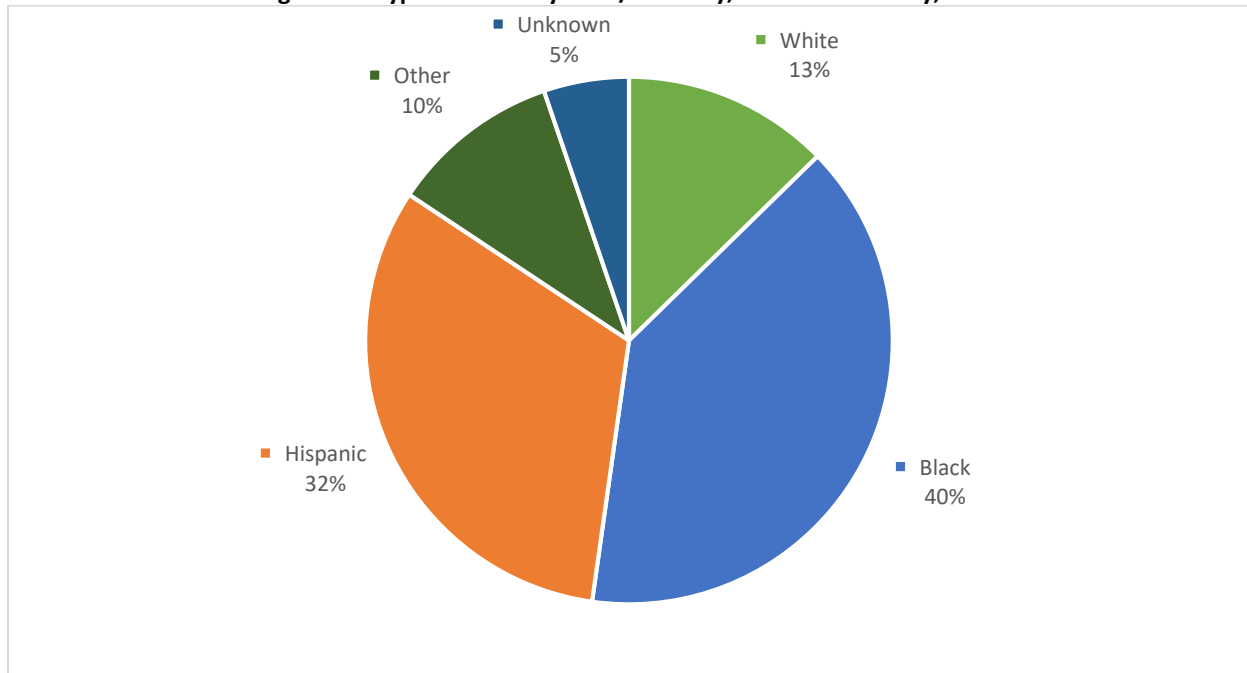


Figure 3c. Syphilis Rates by Sex, Fort Bend County, 2015-2019



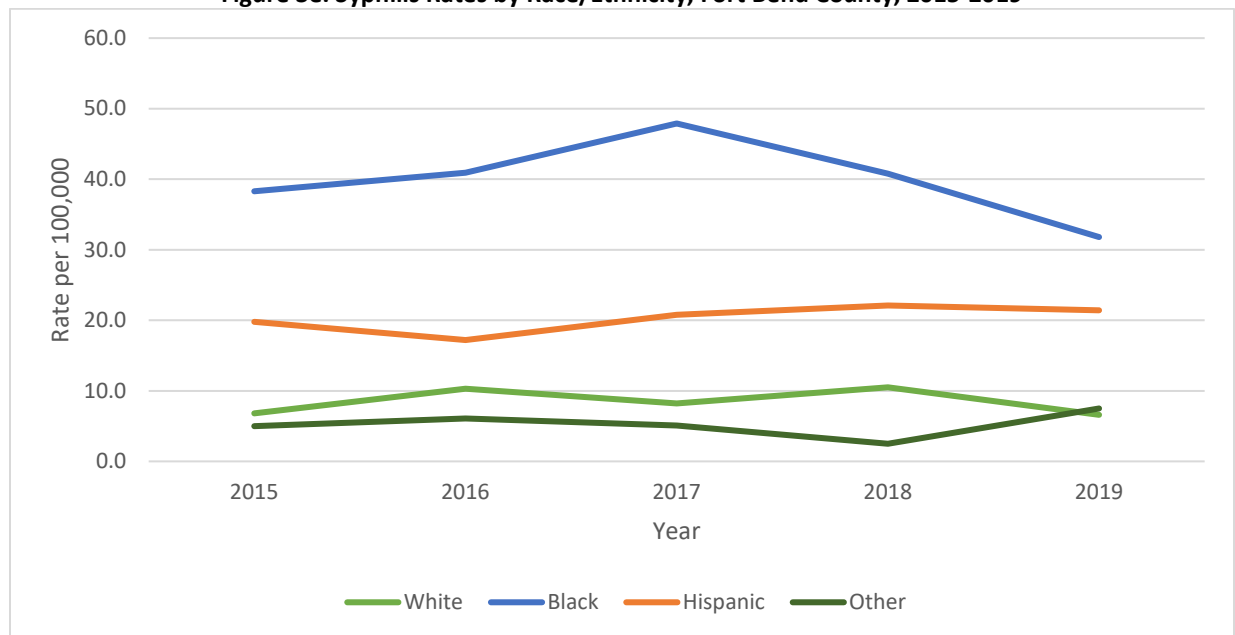
Data Source: DSHS

Figure 3d. Syphilis Cases by Race/Ethnicity, Fort Bend County, 2019



Data Source: DSHS

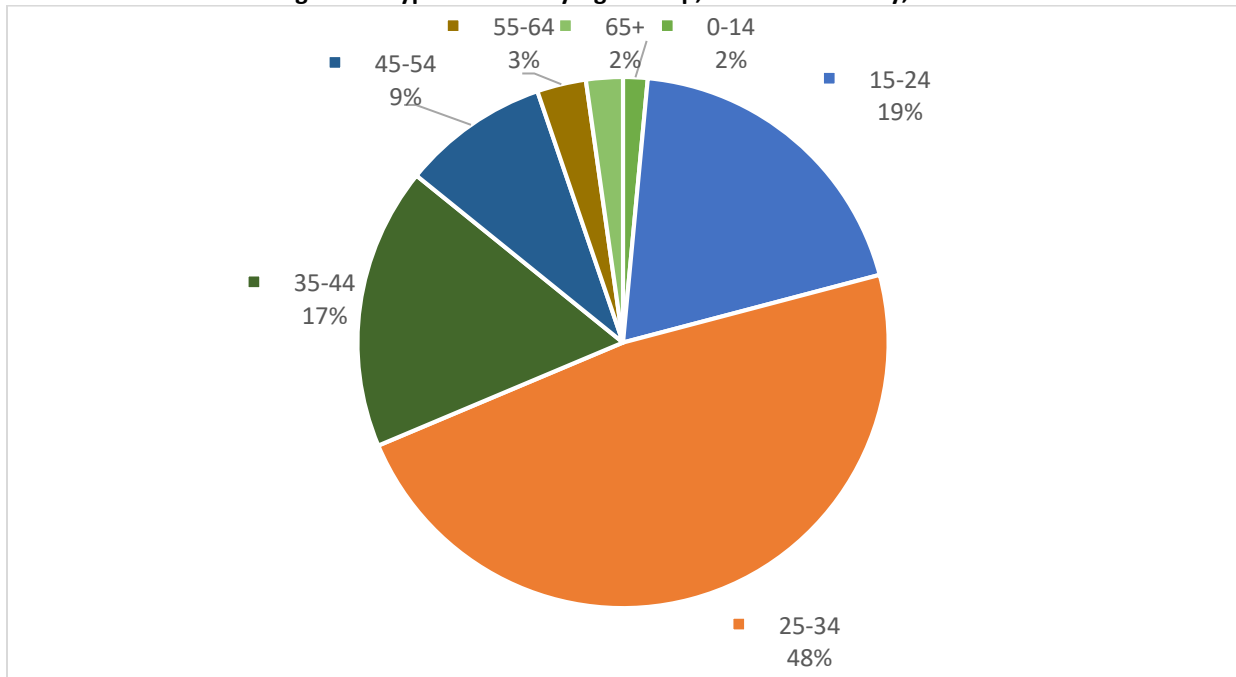
Figure 3e. Syphilis Rates by Race/Ethnicity, Fort Bend County, 2015-2019



Data Source: DSHS

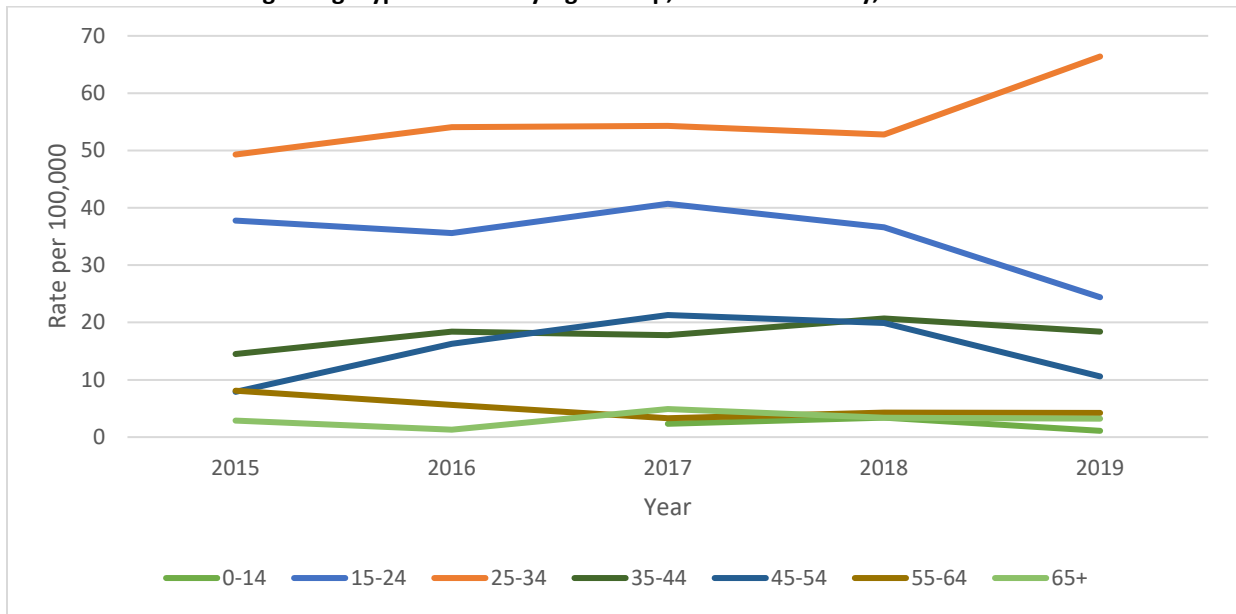
Note: Figure does not include 5% of unknown race/ethnicity data

Figure 3f. Syphilis Cases by Age Group, Fort Bend County, 2019



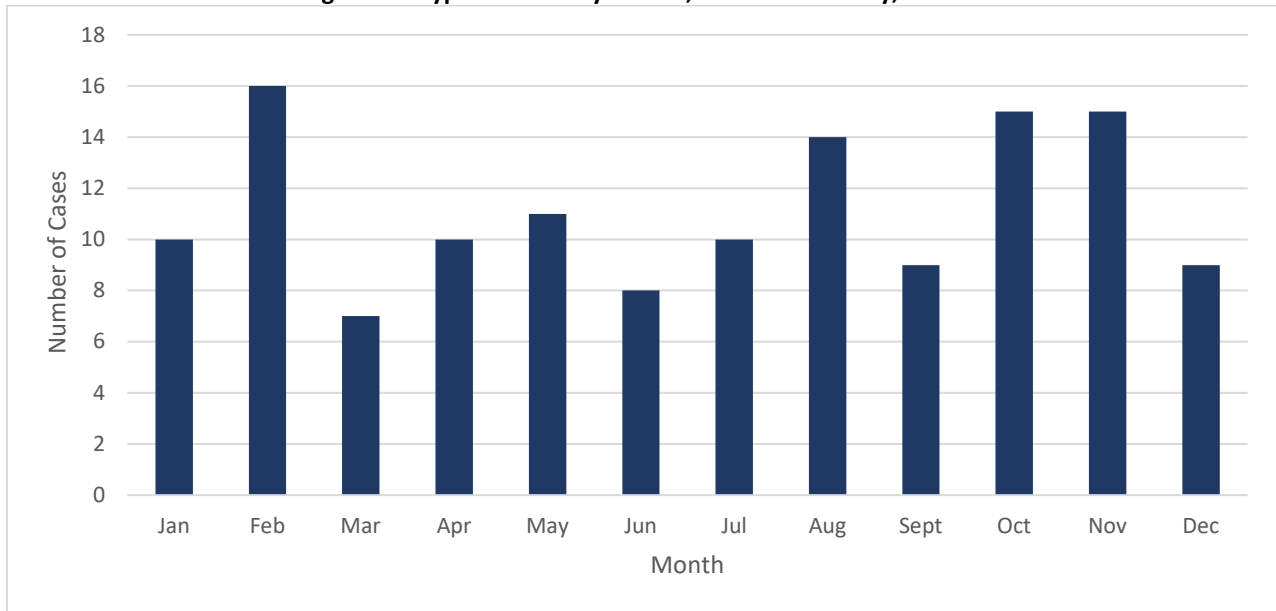
Data Source: DSHS

Figure 3g. Syphilis Rates by Age Group, Fort Bend County, 2015-2019



Data Source: DSHS

Figure 3h. Syphilis Cases by Month, Fort Bend County, 2019

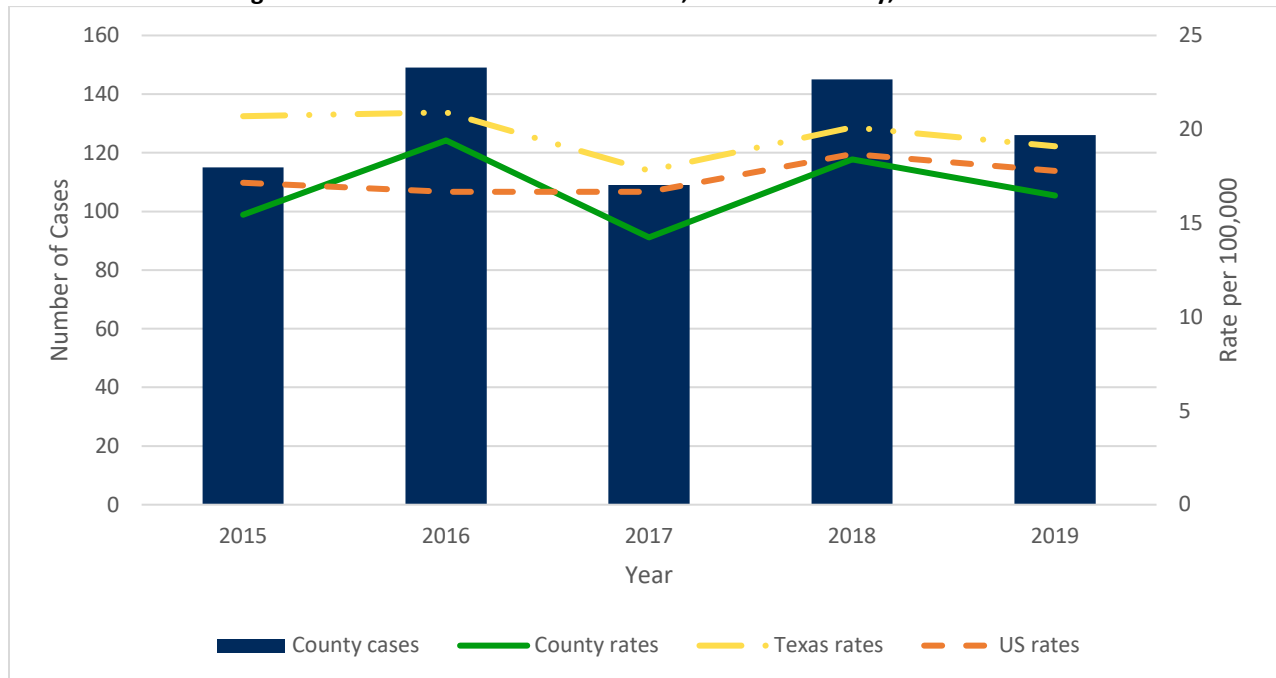


Data Source: DSHS

Salmonellosis

- **Causative Agent:** *Salmonella* Species, excluding *Salmonella Typhi* (bacterial) [source: [Salmonella - CDC](#)]
- **Signs & Symptoms:** Diarrhea, fever, abdominal cramps, nausea, vomiting, and headache. Most individuals can recover without treatment, and symptoms typically resolve in 4-7 days. *Salmonella* infection can lead to complications including infections in the urine, blood, bones, joints, or the nervous system. Children under 5 years and immunocompromised individuals are at higher risk of complications.
- **Modes of Transmission:** Consuming contaminated food or drinking contaminated water. Exposure can also occur when exposed to infected animals, their feces, or their environment.
- **Incubation Period:** Usually 6-72 hours, but symptoms can take up to 6 days to appear.
- **Period of Communicability:** Individuals are considered infectious as long as the bacteria is shed in their stool. Bacteria can be shed for several days to several weeks. The use of antibiotics may prolong the period necessary to excrete the organism. A small proportion of infected individuals will shed the bacteria for over a year.

Figure 4a. Salmonellosis Cases and Rates, Fort Bend County, 2015—2019



Data Source: NEDSS, DSHS, CDC MMWR

The average rate of change of Salmonellosis cases from 2015 to 2019 in Fort Bend County was -2.1%

Figure 4b. Geographic Distribution of Salmonellosis by Zip Code, Fort Bend County, 2019

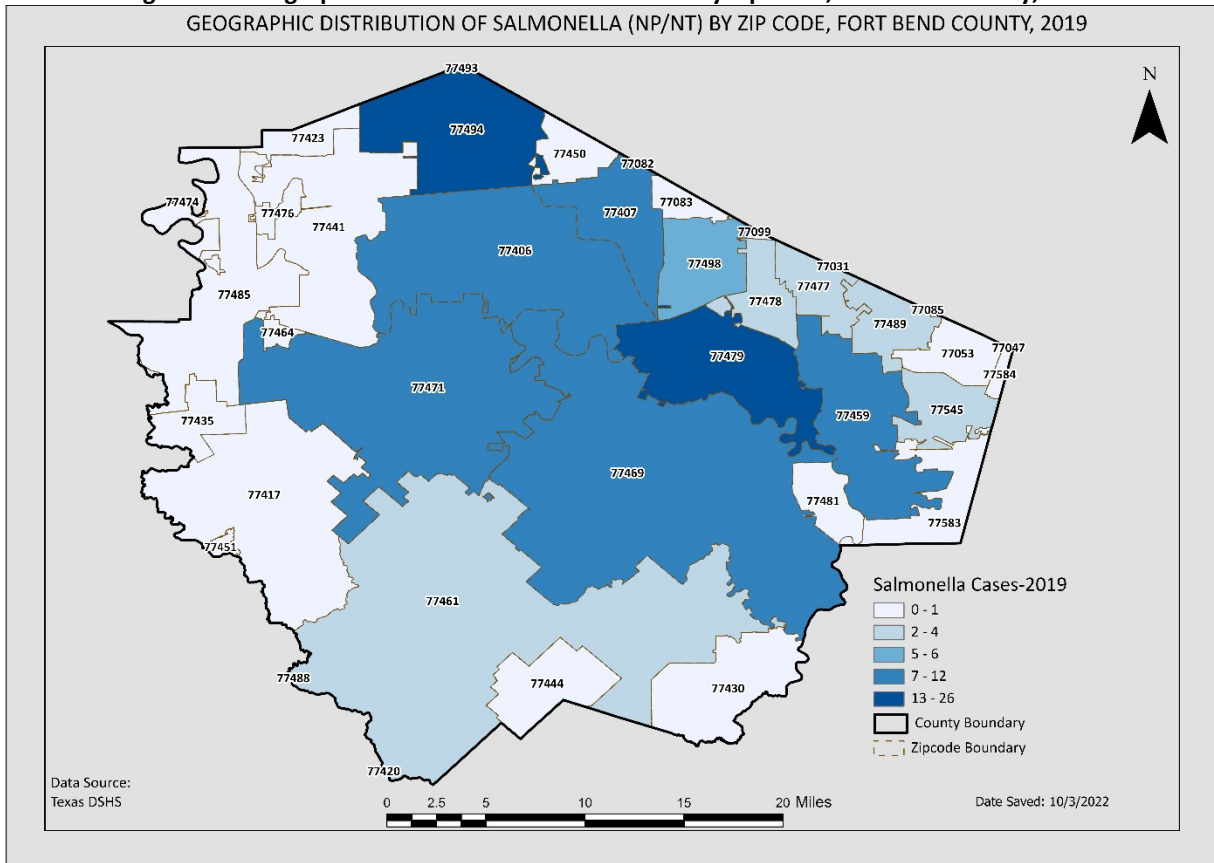
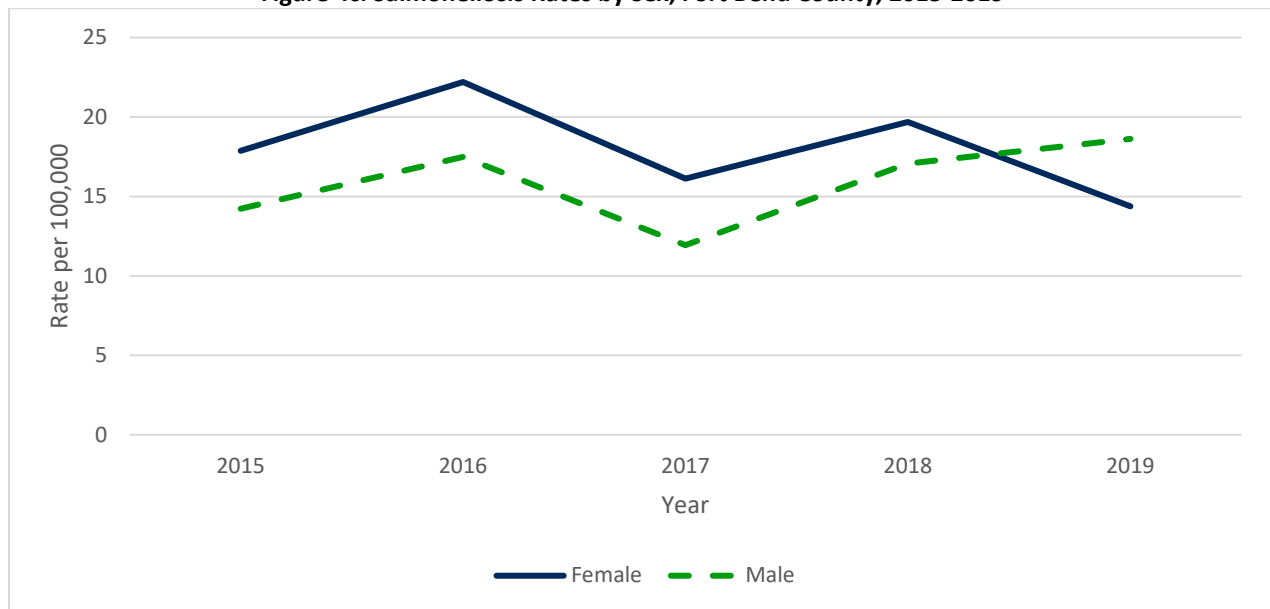
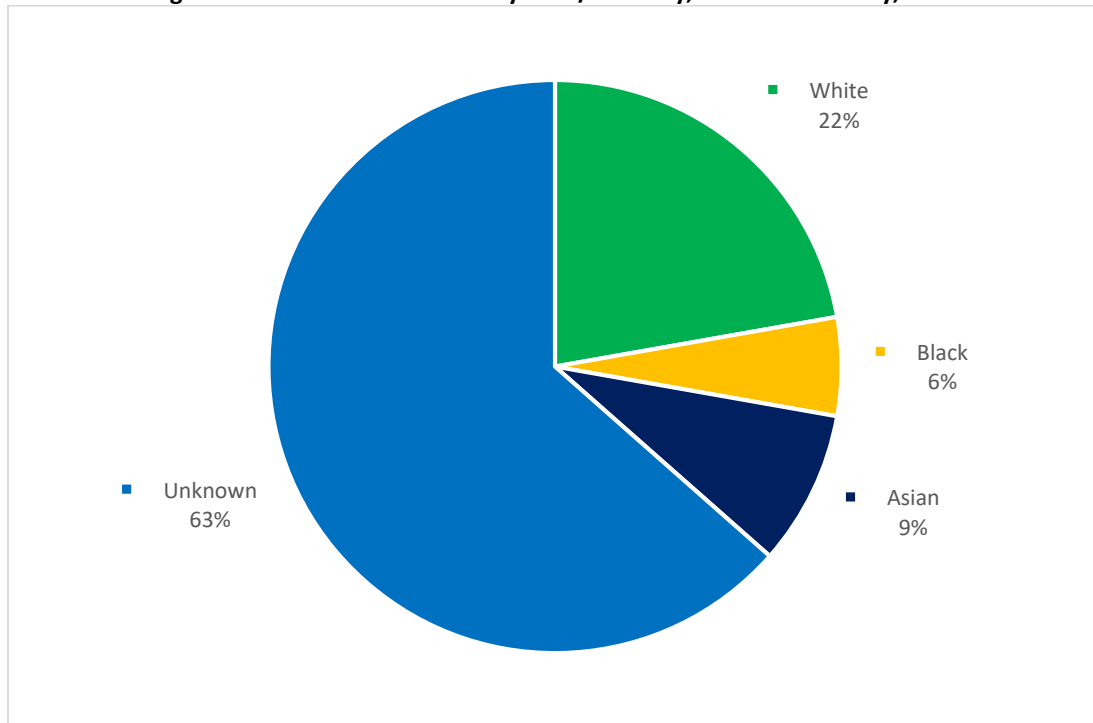


Figure 4c. Salmonellosis Rates by Sex, Fort Bend County, 2015-2019



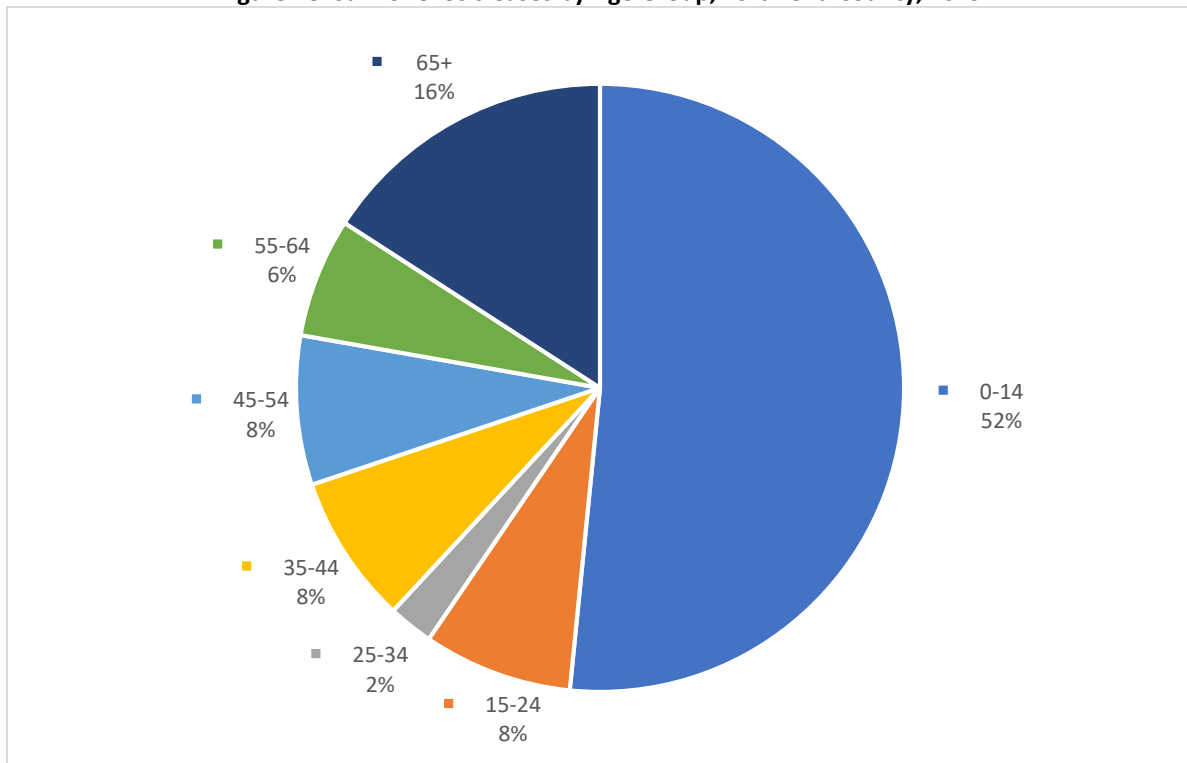
Data Source: NEDSS

Figure 4d. Salmonellosis Cases by Race/Ethnicity, Fort Bend County, 2019



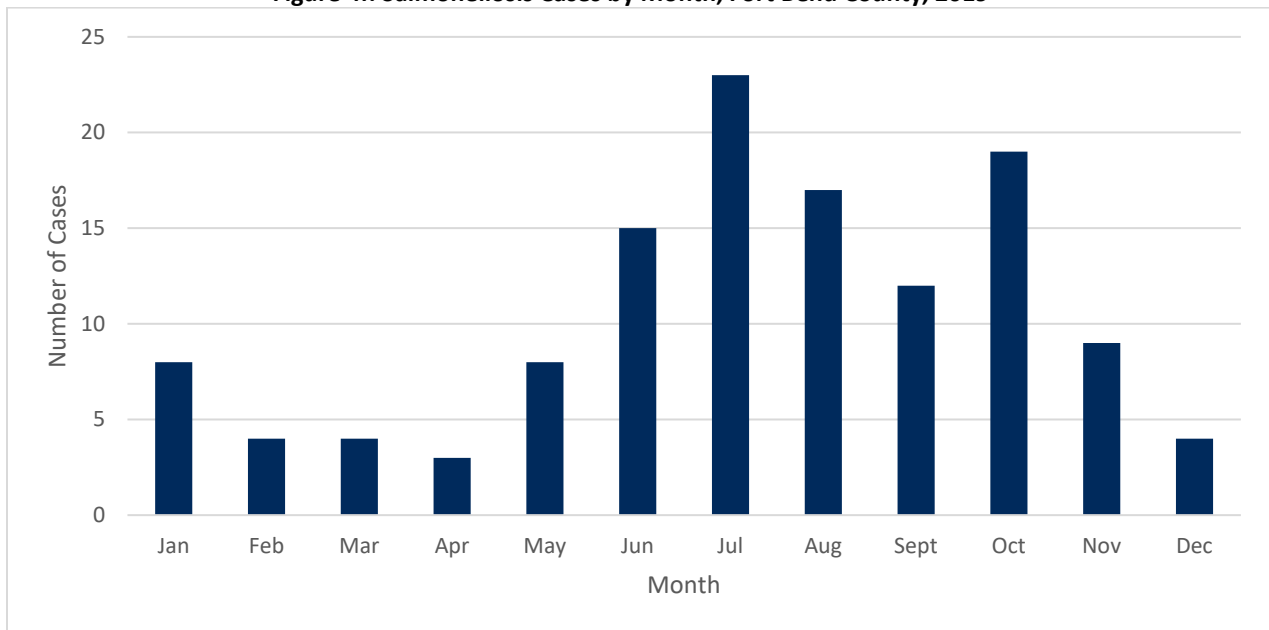
Data Source: NEDSS
NH= non-Hispanic

Figure 4e. Salmonellosis Cases by Age Group, Fort Bend County, 2019



Data Source: NEDSS

Figure 4f. Salmonellosis Cases by Month, Fort Bend County, 2019

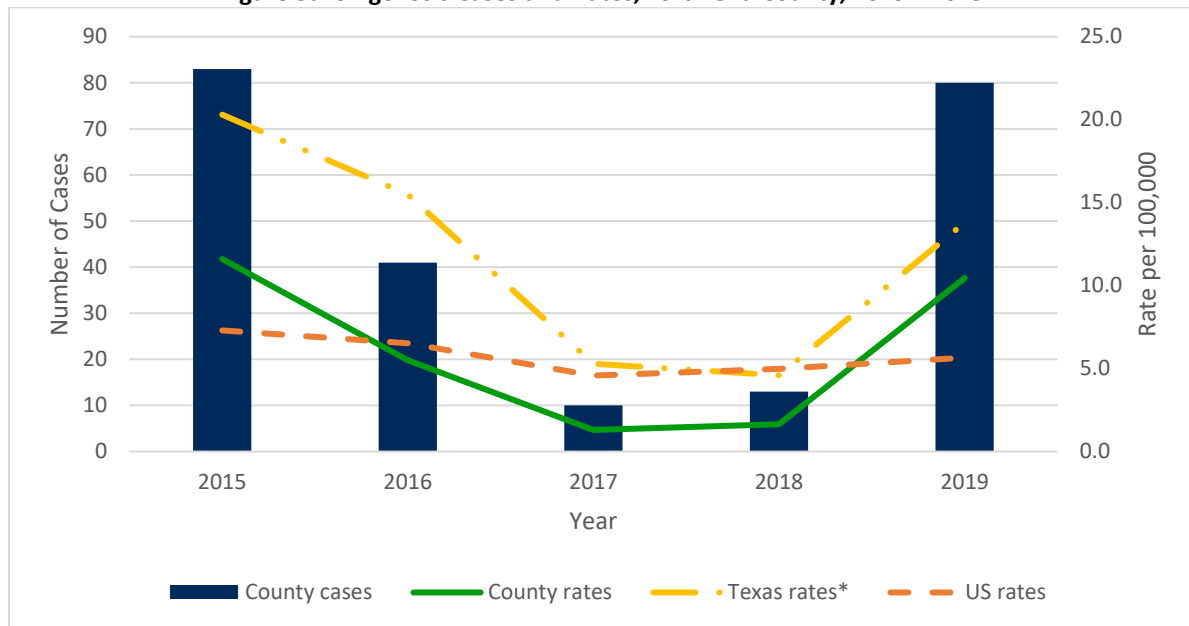


Data Source: NEDSS

Shigellosis

- Causative Agent:** Shigella species. Caused by four species of Shigella: *S. dysenteriae*, *S. flexneri*, *S. boydii*, and *S. sonnei*. *S. sonnei* is the most common cause of shigellosis in the United States. [source: [Shigella – Shigellosis | Shigella – Shigellosis | CDC](#)]
- Signs & Symptoms:** symptoms include diarrhea, dysentery, moderate to high fever, abdominal pain, cramping, nausea, and tenesmus.
- Modes of Transmission:** Direct or indirect fecal-oral transmission from symptomatic or asymptomatic carrier.
- Incubation Period:** Usually 1-3 days (ranges 12 to 96 hours)
- Period of Communicability:** People are infectious as long as bacteria are shed in their stool. Shedding may last 1 to 4 weeks after onset of illness. In rare occasions individuals can be carriers for several months. Period of excretion is usually shortened by antibiotics.

Figure 5a. Shigellosis Cases and Rates, Fort Bend County, 2015–2019



Data Source: NEDSS, DSHS, CDC MMWR

The average rate of change of Shigellosis cases from 2015 to 2019 in Fort Bend County was 76.2%

Figure 5b. Geographic Distribution of Shigellosis by Zip Code, Fort Bend County, 2019

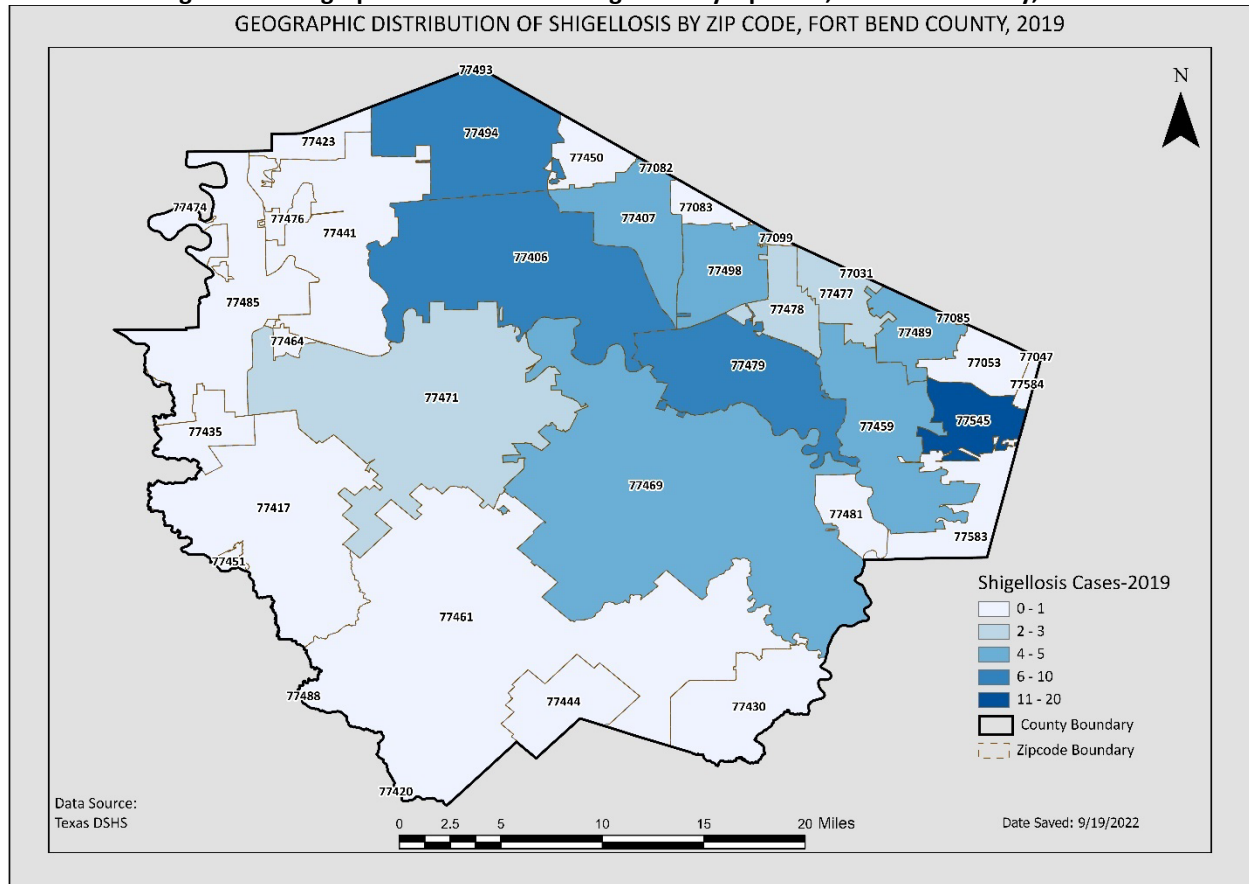


Figure 5c. Shigellosis Rates by Sex, Fort Bend County, 2015-2019

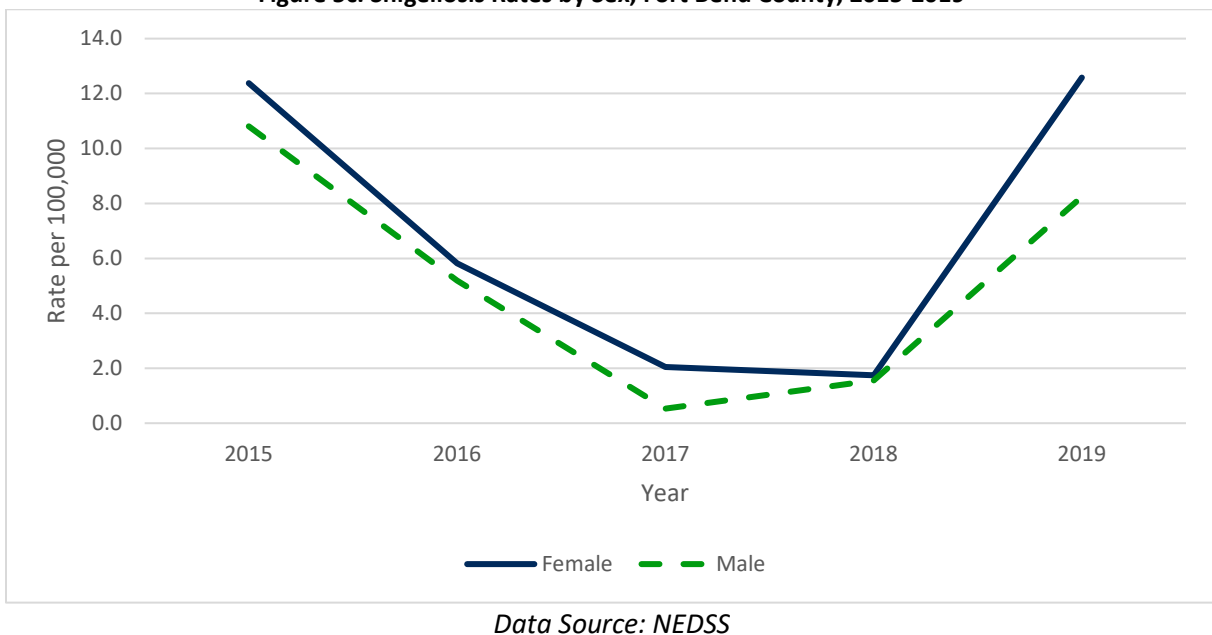
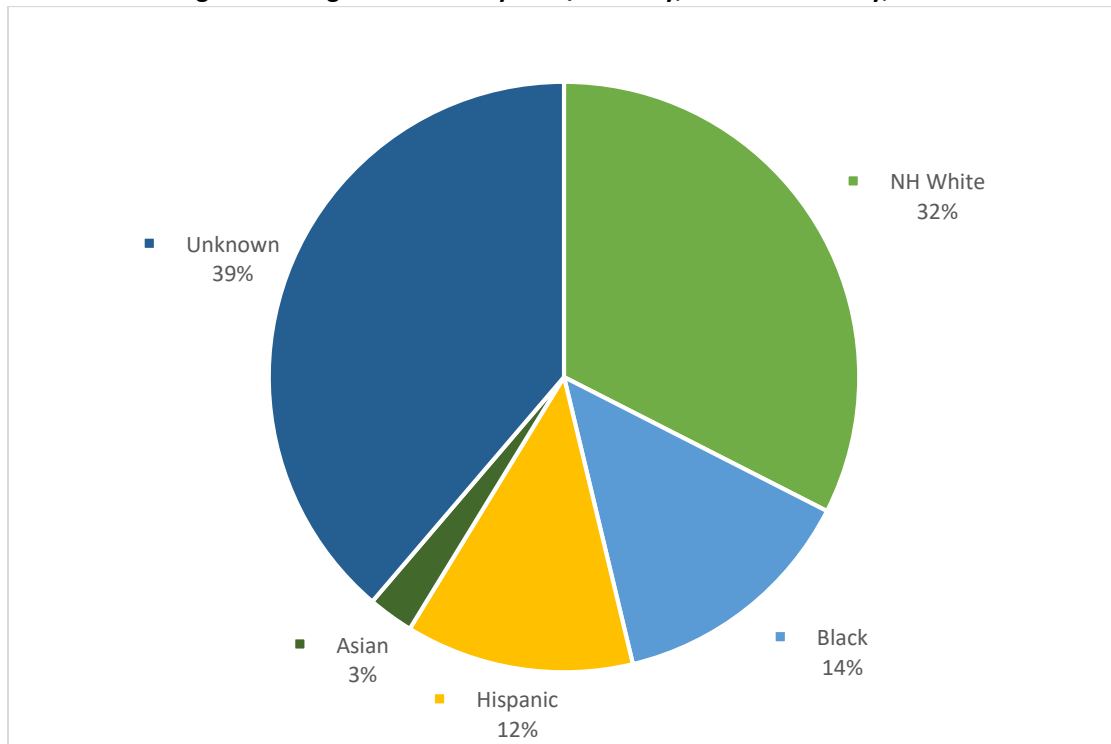
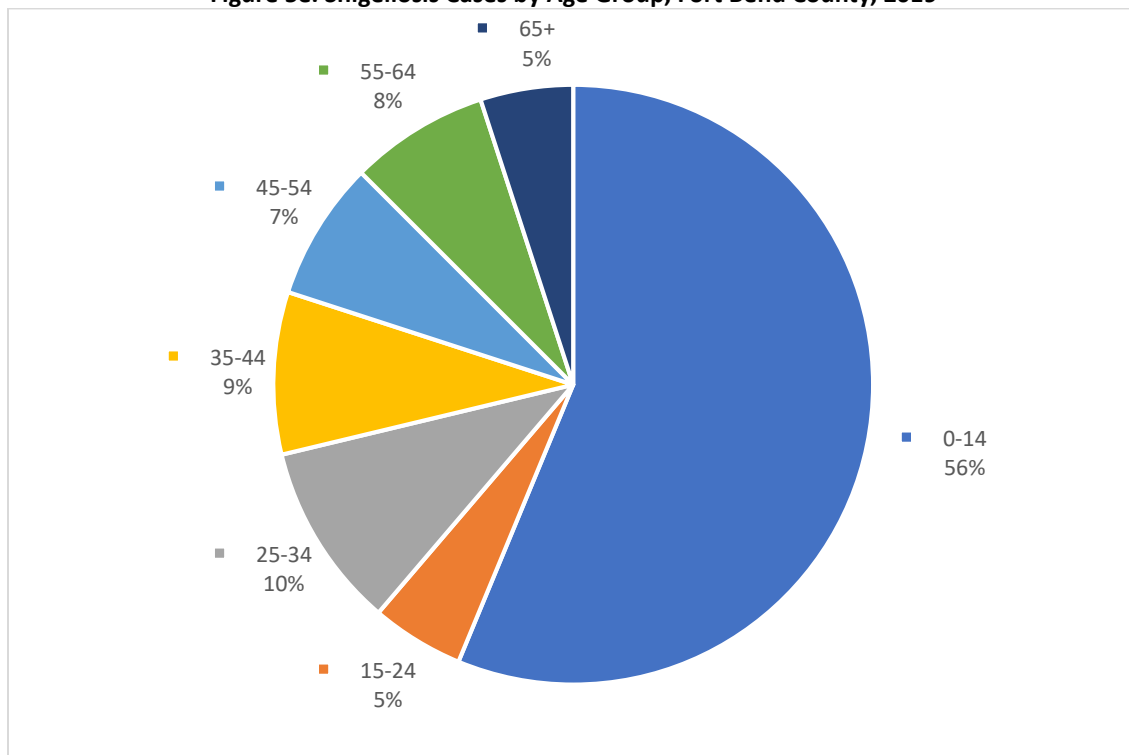


Figure 5d. Shigellosis Cases by Race/Ethnicity, Fort Bend County, 2019



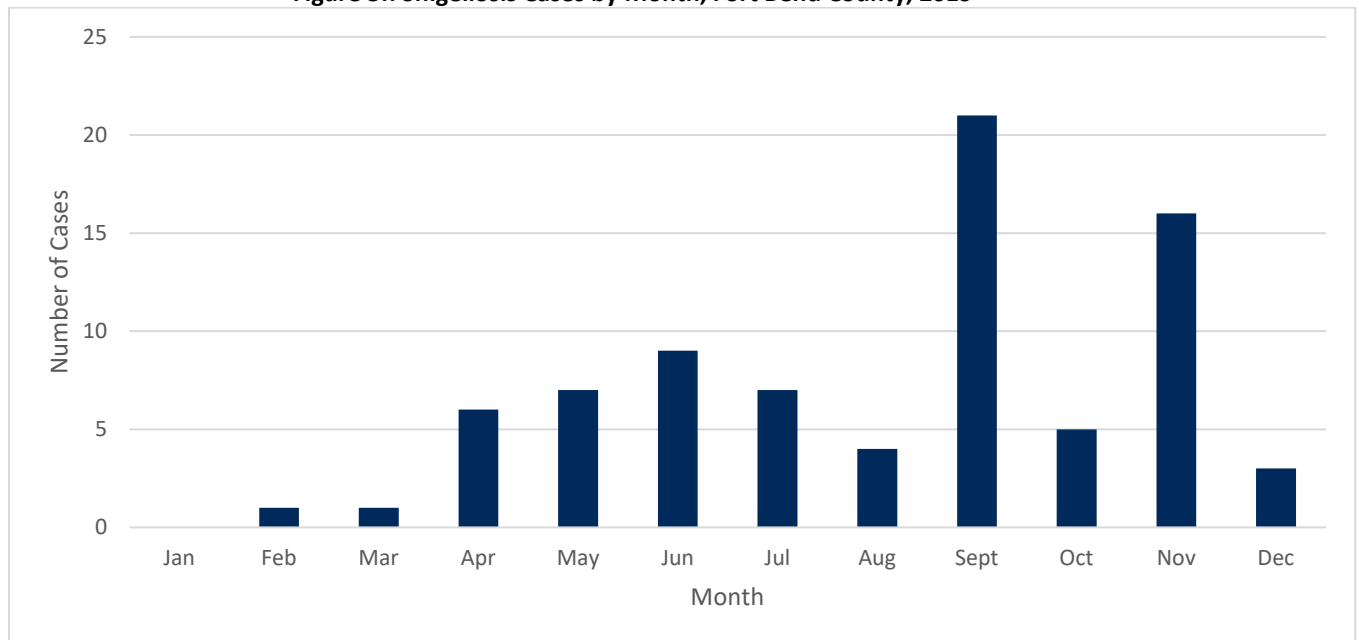
Data Source: NEDSS
NH= non-Hispanic

Figure 5e. Shigellosis Cases by Age Group, Fort Bend County, 2019



Data Source: NEDSS

Figure 5f. Shigellosis Cases by Month, Fort Bend County, 2019

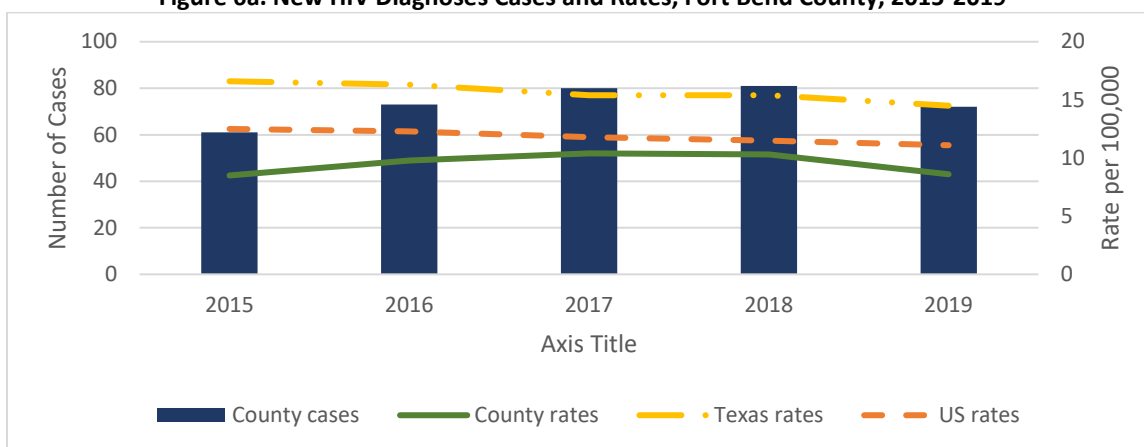


Data Source: NEDSS

HIV & AIDS

- **Causative Agent:** Human Immunodeficiency Virus (viral) [source: [About HIV - CDC](#)]
- **Signs & Symptoms:**
 - **Acute Infection:** 2-4 weeks after infection, many individuals experience flu-like symptoms including fever, fatigue, sore throat, chills, swollen lymph nodes, and mouth ulcers. These symptoms may last up to several weeks. Some infected individuals do not have any symptoms at all. At this stage, there is a high volume of HIV in the blood, causing the CD4 cell count to quickly drop.
 - **Chronic Infection:** This stage begins when the body's immune response naturally stabilizes the viral level. At this point, the virus reproduces at much lower levels, causing many individuals to not have any symptoms. Depending on the body's ability to maintain a low viral load, this stage can last up to 15 years. HIV is still transmittable during this stage. Without medical care, the body will eventually no longer be able to maintain stable viral loads and the infection will progress to the next stage.
 - **Acquired Immunodeficiency Syndrome (AIDS):** At this stage, the immune system is extremely compromised and individuals are vulnerable to infections or diseases, known as opportunistic infections. Individuals will receive an AIDS diagnosis when their CD4 cell count drops below 200 cells/mm, or when they are diagnosed with an opportunistic infection. Without medical treatment, individuals living with AIDS typically survive about 3 years.
- **Modes of Transmission:** Transmitted through blood, semen, vaginal secretions, and breast milk. Sexually transmitted infection occurs through anal or vaginal sex, however, the risk of contracting HIV through oral sex is not zero. Transmission can also occur perinatally when an infected individual gives birth, or when coming in contact with an infected needle, syringe, or other drug-injection equipment.
- **Incubation Period:** 2-4 weeks for acute infection. The period between HIV infection to AIDS diagnoses ranges from 9 months to 15+ years.
- **Period of Communicability:** Infected individuals are infectious through all stages of illness. However, individuals on HIV medication can maintain an undetectable viral load. When there are extremely low levels of the virus in the blood, the virus cannot be transmitted

Figure 6a. New HIV Diagnoses Cases and Rates, Fort Bend County, 2015-2019



Data Source: DSHS, CDC

Figure 6b. Geographic Distribution of Syphilis by Zip Code, Fort Bend County, 2019

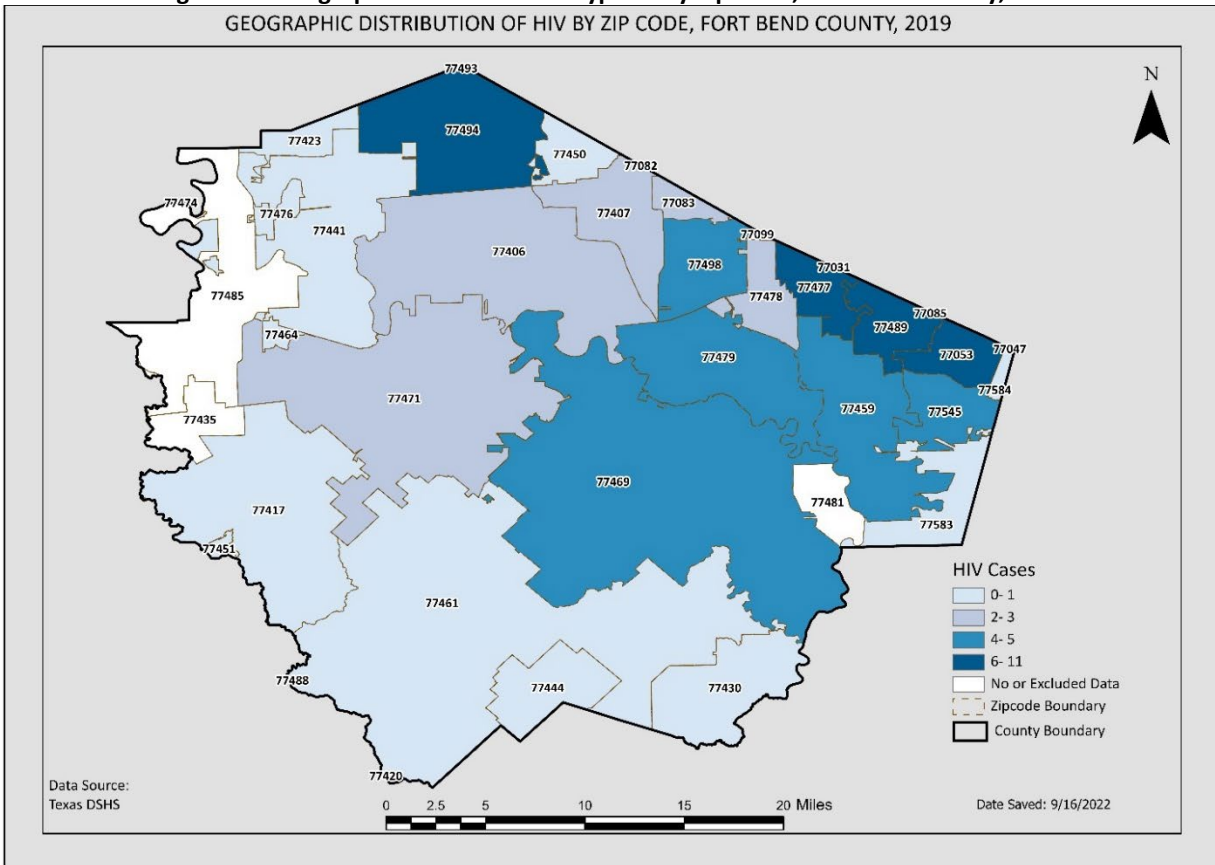
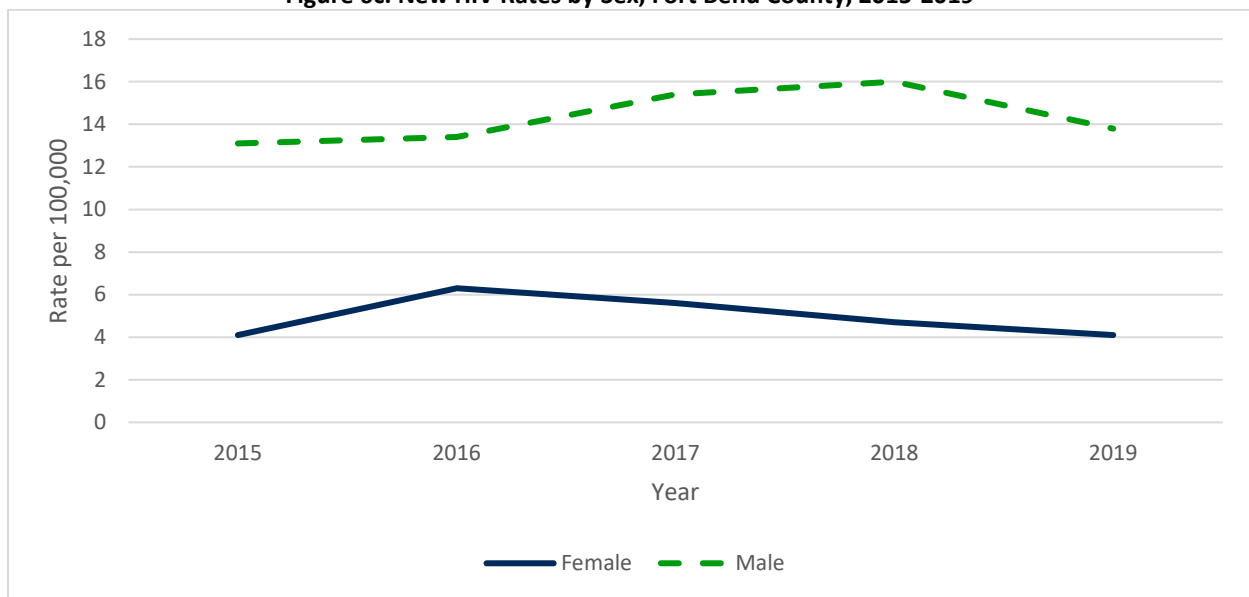
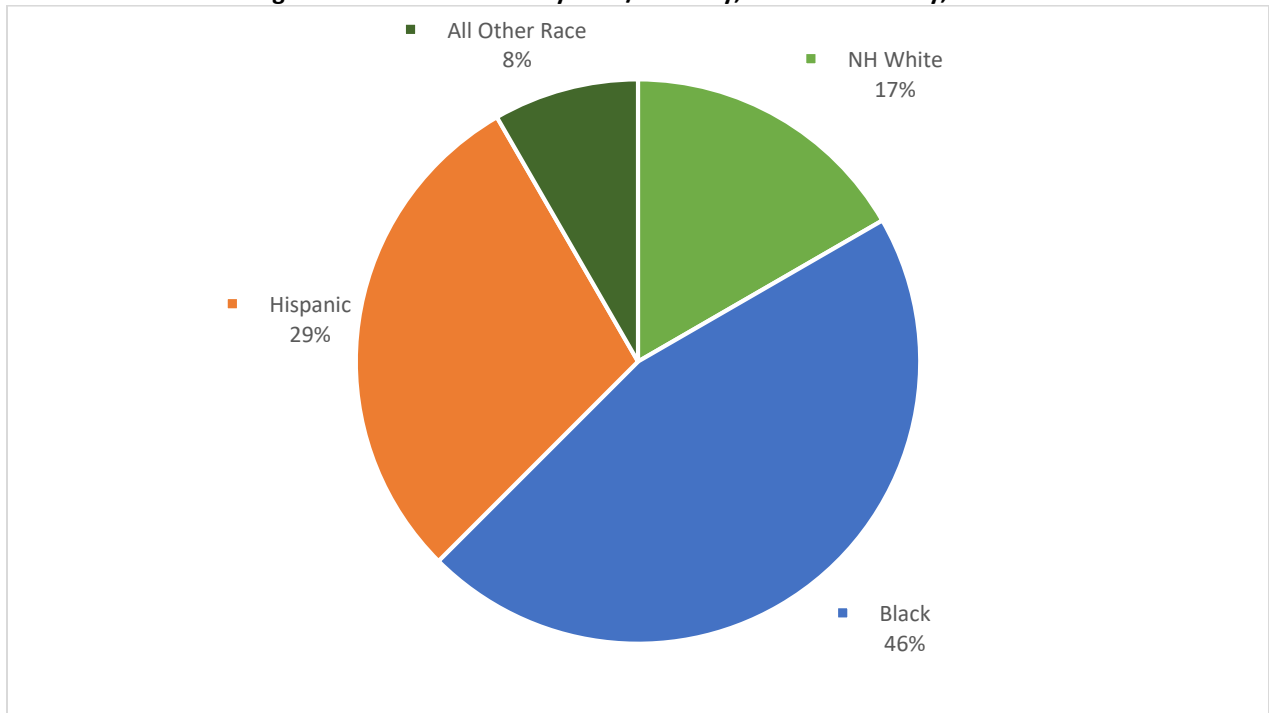


Figure 6c. New HIV Rates by Sex, Fort Bend County, 2015-2019



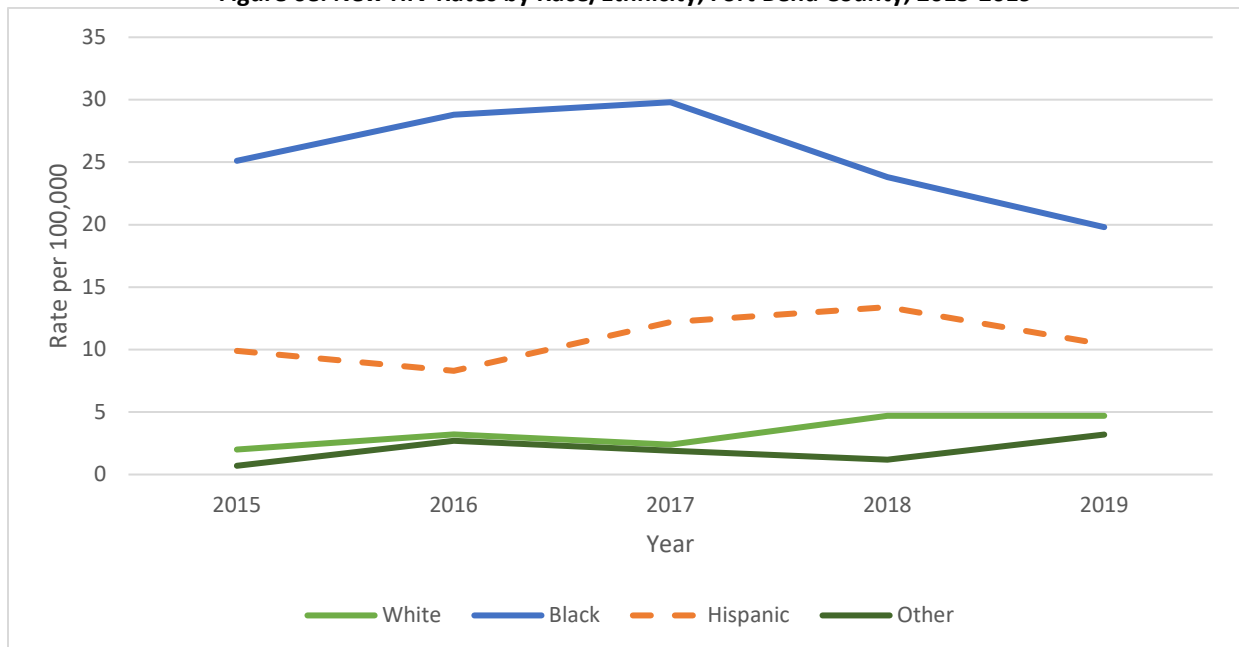
Data Source: DSHS

Figure 6d. New HIV Cases by Race/Ethnicity, Fort Bend County, 2019



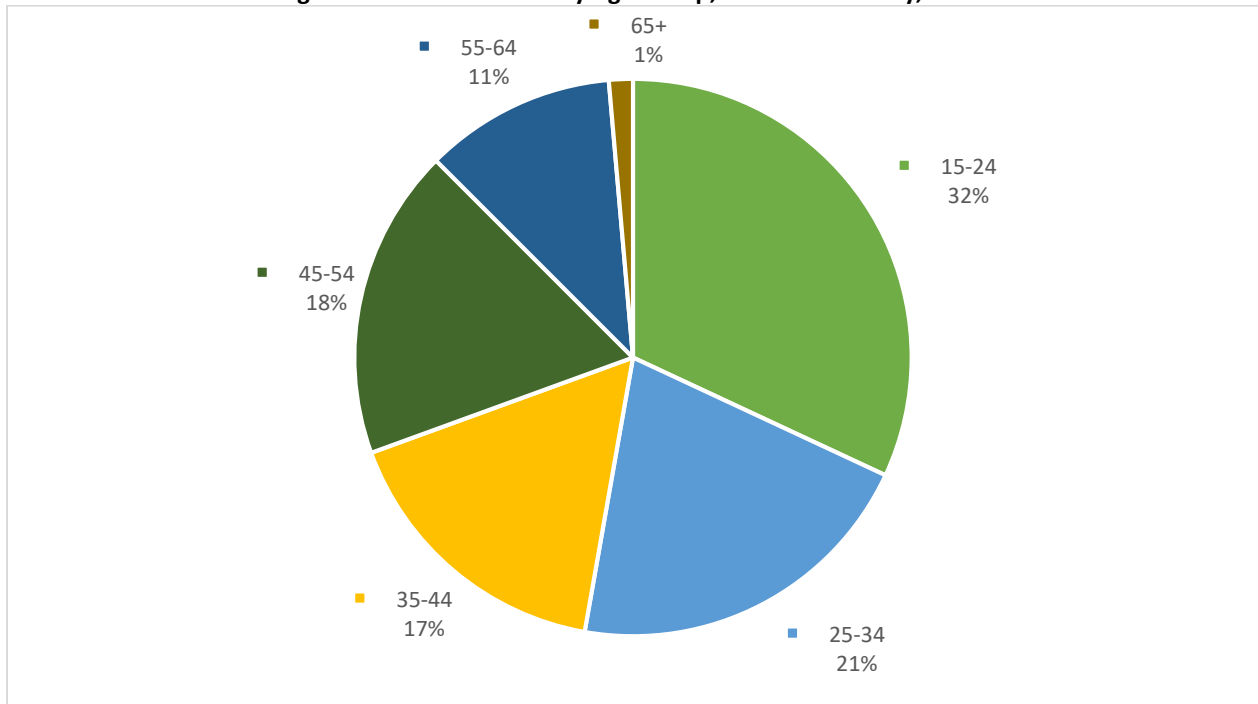
Data Source: DSHS
NH= non-Hispanic

Figure 6e. New HIV Rates by Race/Ethnicity, Fort Bend County, 2015-2019



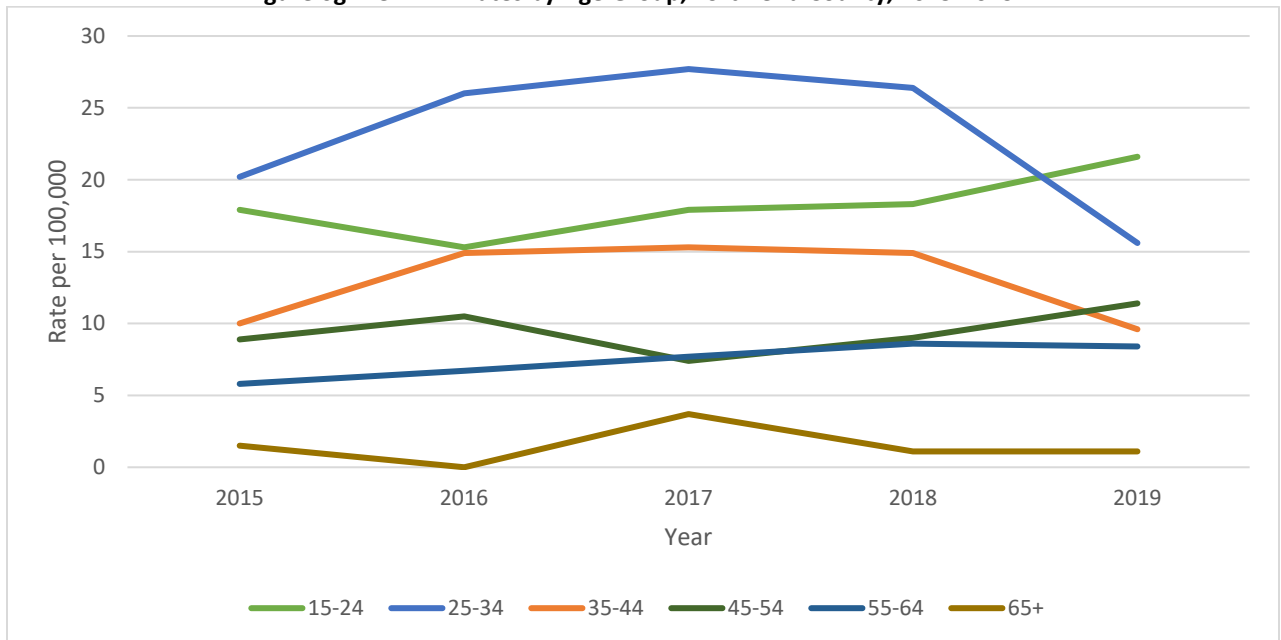
Data Source: DSHS
NH= non-Hispanic

Figure 6f. New HIV Cases by Age Group, Fort Bend County, 2019



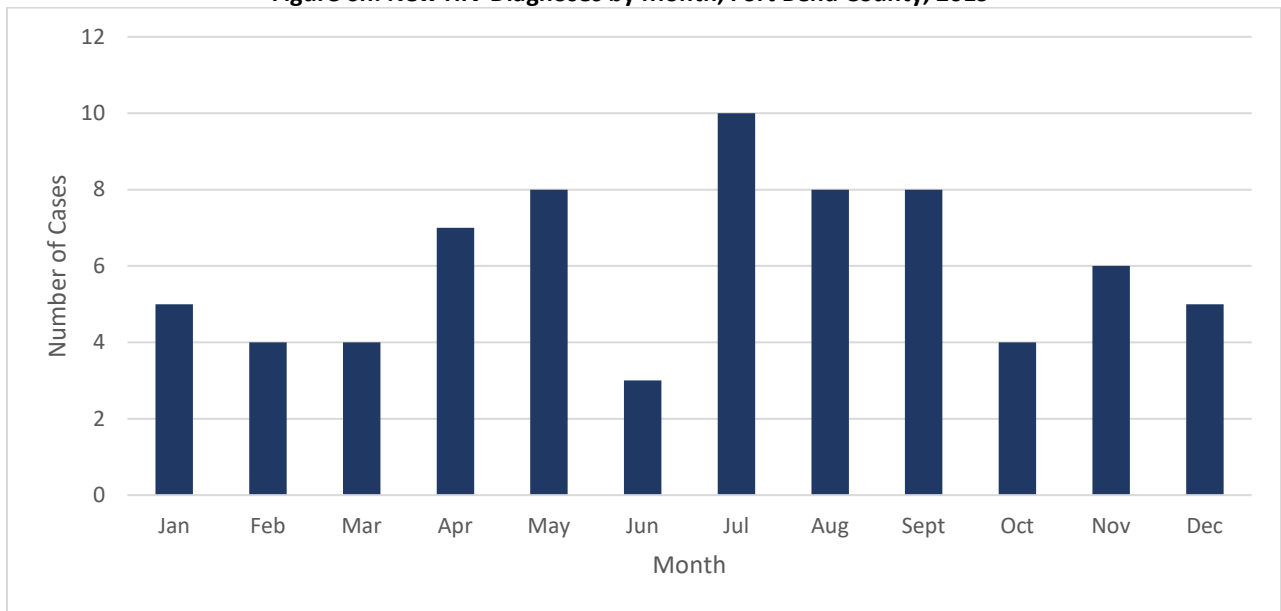
Data Source: DSHS

Figure 6g. New HIV Rates by Age Group, Fort Bend County, 2015-2019



Data Source: DSHS

Figure 6h. New HIV Diagnoses by Month, Fort Bend County, 2019

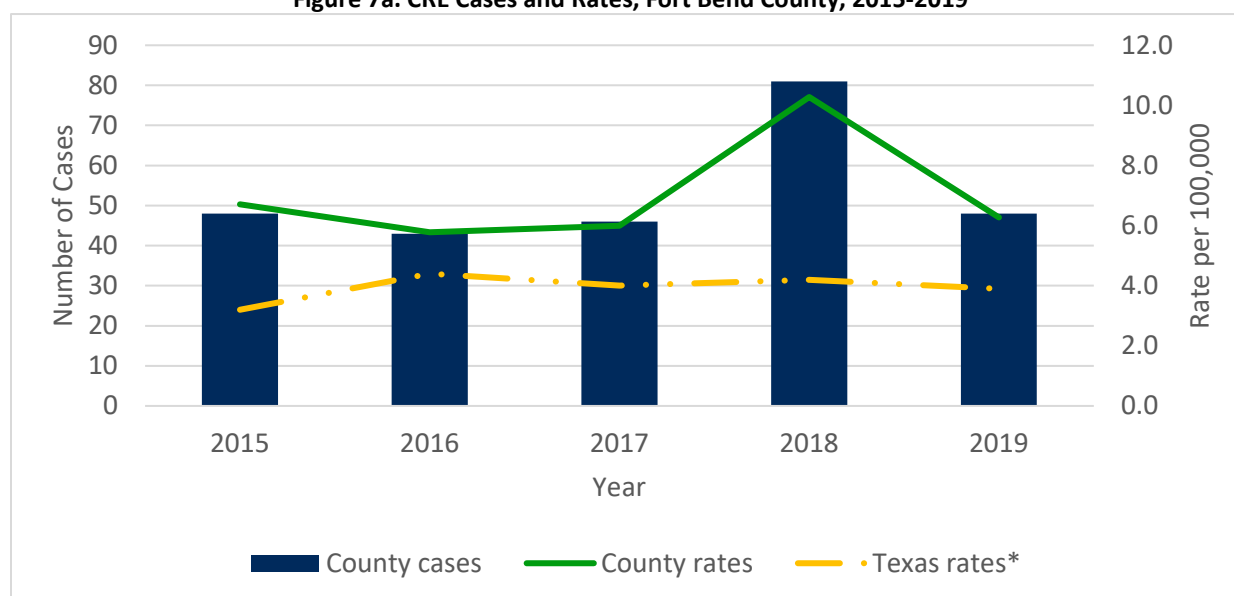


Data Source: DSHS

Carbapenem-Resistance Enterobacteriaceae (CRE)

- **Causative Agent:** Any Enterobacteriaceae that appears resistant to at least one carbapenem antibiotic or produces the carbapenemase enzyme. The most common CRE are *Escherichia coli*, *Klebsiella pneumoniae*, and *Imipenem-hydrolyzing beta-lactamase*. (bacterial) [source: [CRE - CDC](#)]
- **Signs & Symptoms:** Symptoms of a CRE infection vary and will depend on the type of bacteria involved as well as what part of the body is infected. For example, if the lungs are infected, pneumonia may develop, and the individual may experience shortness of breath. Infection in any location may cause fever, chills, and fatigue. Infections with other types of CRE may cause different symptoms. Nearly 1/3 of infected individuals will have the organism present in their body without any symptoms or signs of infection, this is known as colonization. Complications from CRE infection vary depending on the type of bacteria and site of infection.
- **Modes of Transmission:** CRE is typically spread through person-to-person contact with infected individuals, particularly contact with wounds or stool. The risk of exposure to CRE is highest in hospitals and long-term care facilities, and other places where medical devices, equipment, and surfaces may have not been properly cleaned.
- **Incubation Period:** There is no defined incubation period for CRE. The onset of symptoms is dependent on the type of bacteria involved and the site of infection.
- **Period of Communicability:** There is no set period of communicability. Communicability may be as long as the organism is present in the individual's system. About 40% of infected individuals will remain colonized with CRE 1 year from the initial test date.

Figure 7a. CRE Cases and Rates, Fort Bend County, 2015-2019



Data Source: NEDSS, DSHS, CDC MMWR

The average rate of change of CRE cases from 2015 to 2019 in Fort Bend County was -9.7%

Figure 7b. Geographic Distribution of CRE by Zip Code, Fort Bend County, 2019

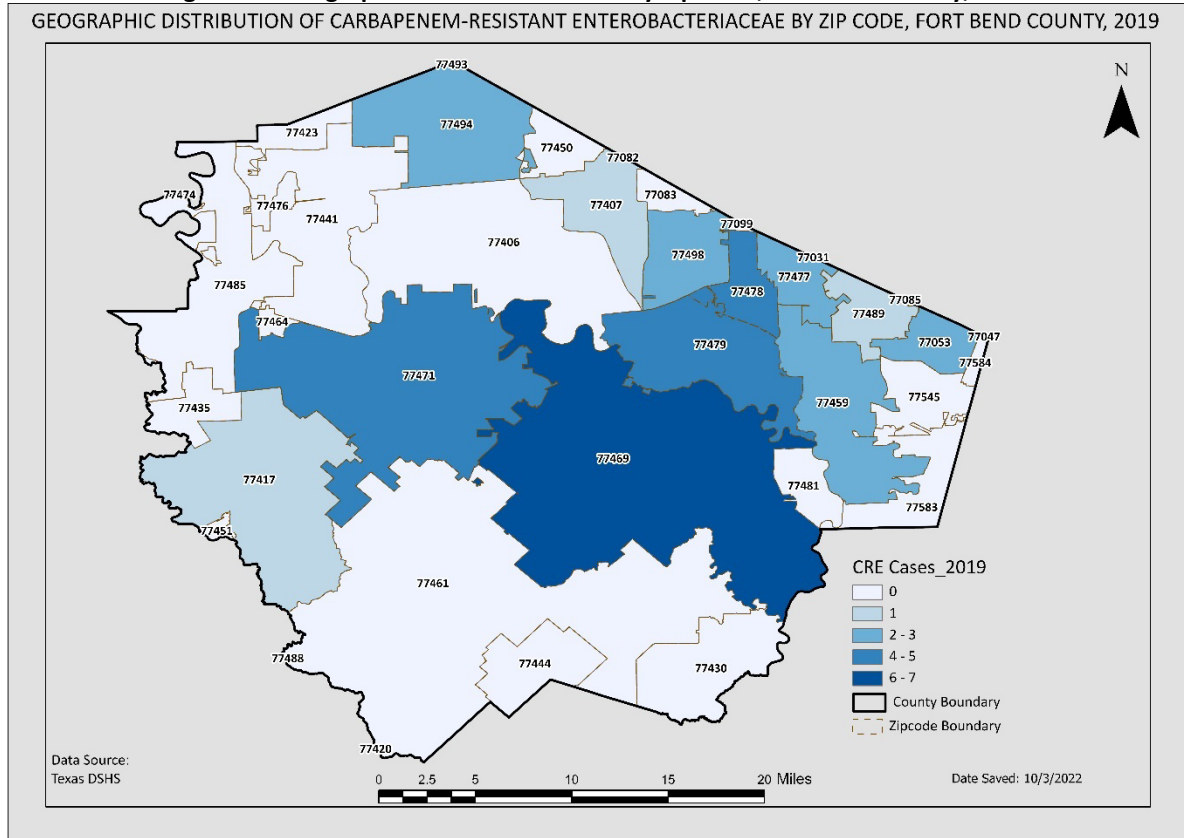
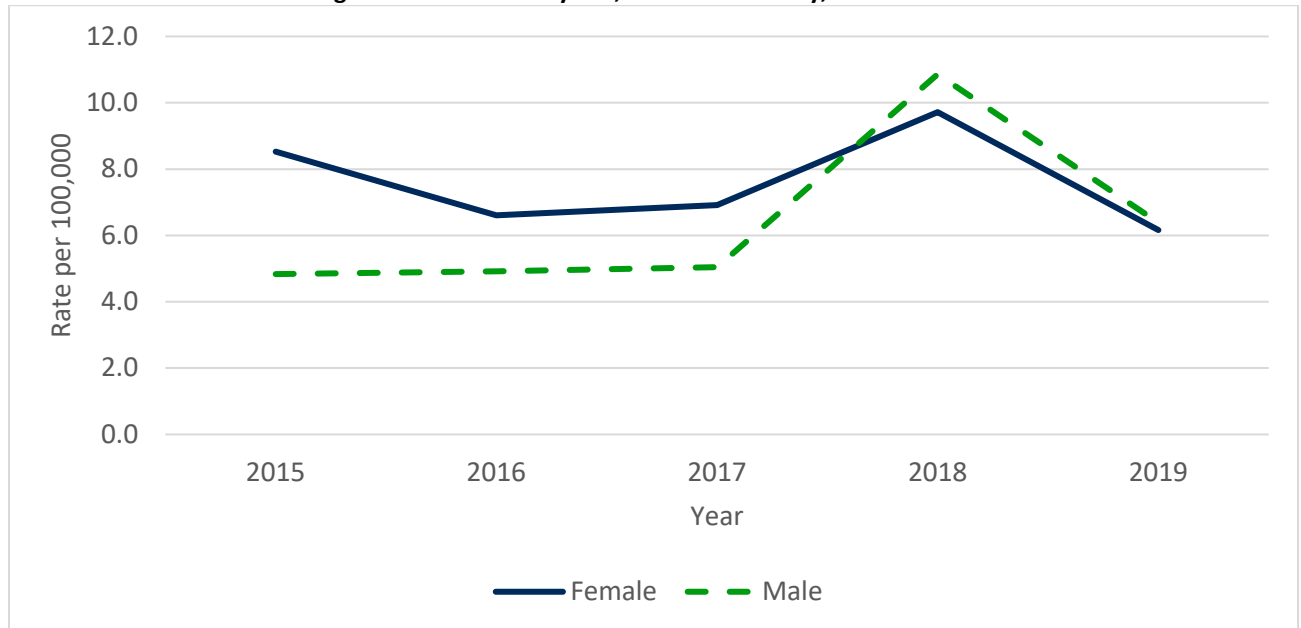
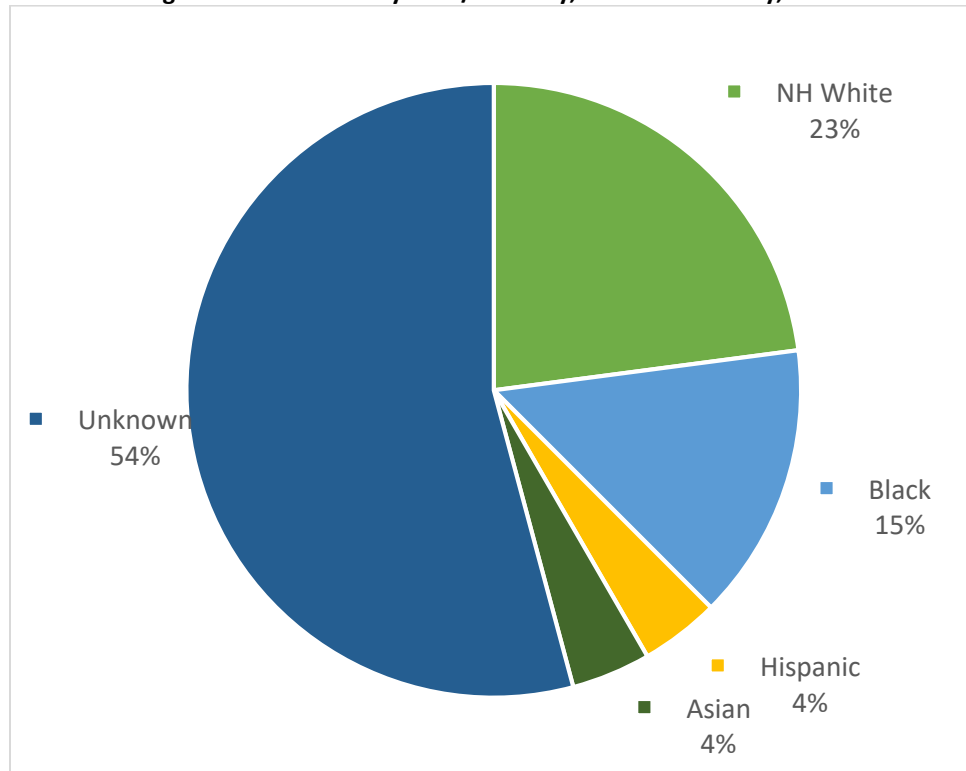


Figure 7c. CRE Rates by Sex, Fort Bend County, 2015-2019



Data Source: NEDSS

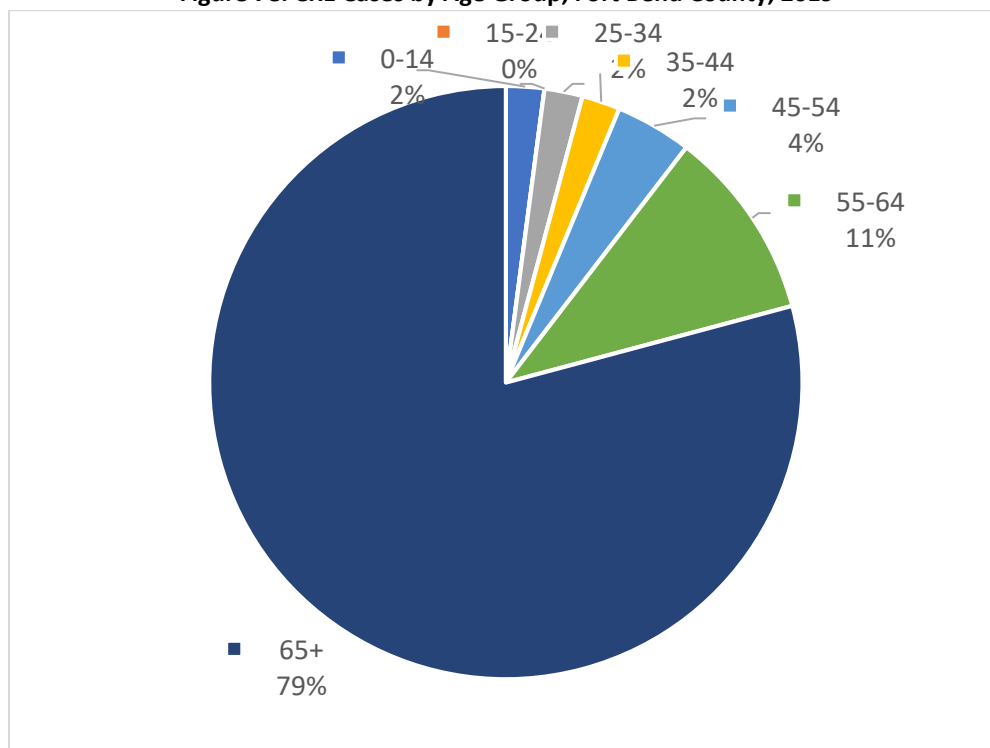
Figure 7d. CRE Cases by Race/Ethnicity, Fort Bend County, 2019



Data Source: NEDSS

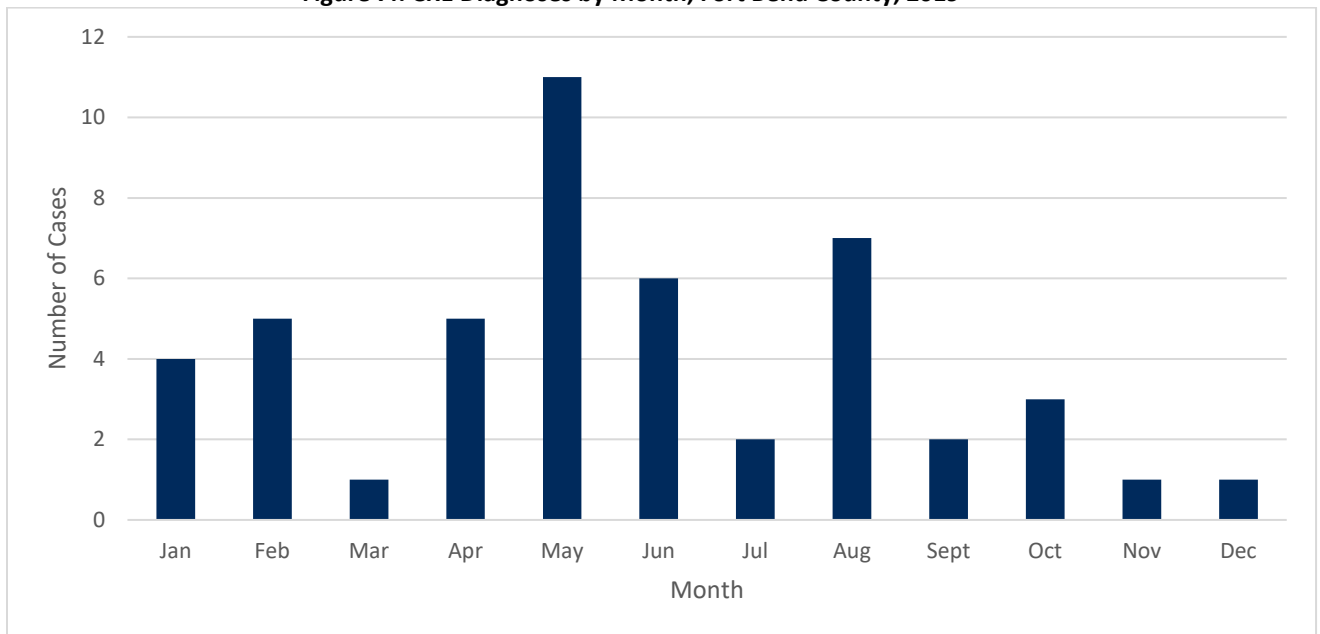
NH= Non-Hispanic

Figure 7e. CRE Cases by Age Group, Fort Bend County, 2019



Data Source: NEDSS

Figure 7f. CRE Diagnoses by Month, Fort Bend County, 2019

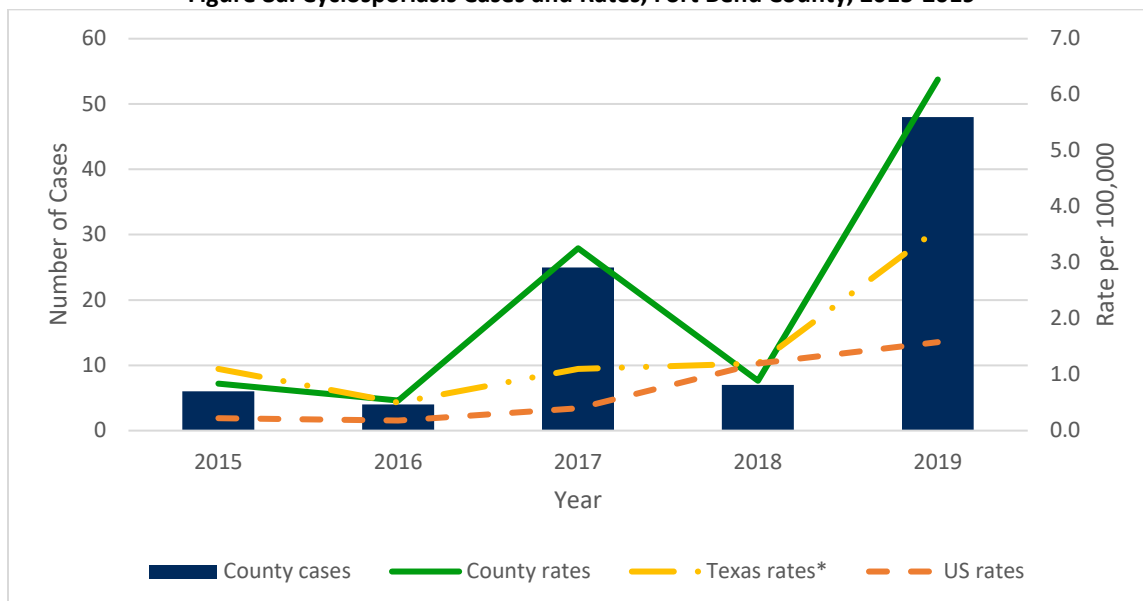


Data Source: NEDSS

Cyclosporiasis

- **Causative Agent:** *Cyclospora cayetanensis* (parasitic) [source: [Cyclosporiasis - CDC Cyclosporiasis](#)]
- **Signs & Symptoms:** The major symptom is watery diarrhea lasting a few days to a few months and may relapse. Additional symptoms may include anorexia, fatigue, weight loss, abdominal cramps, bloating, increased gas, nausea, vomiting, and low-grade fever.
- **Modes of Transmission:** Consuming food or water contaminated with feces (stool) that contains the *Cyclospora* parasite. People living or traveling in countries where cyclosporiasis is endemic may be at increased risk for infection. Past outbreaks in the United States have been associated with consumption of imported fresh produce, including fresh cilantro, pre-packaged salad mix, raspberries, basil, snow peas, and mesclun lettuce. *Cyclospora* does not appear to be spread through direct person-to-person contact.
- **Incubation Period:** 2-14 days
- **Period of Communicability:** *Cyclospora* needs time (typically, at least 1–2 weeks) after being passed in a bowel movement to become infectious for another person. Therefore, it is unlikely that *Cyclospora* is passed directly from one person to another.

Figure 8a. Cyclosporiasis Cases and Rates, Fort Bend County, 2015-2019



Data Source: NEDSS, DSHS, CDC MMWR

The average rate of change of Cyclosporiasis cases from 2015 to 2019 in Fort Bend County was 166.6%

Figure 8b. Geographic Distribution of Cyclosporiasis by Zip Code, Fort Bend County, 2019

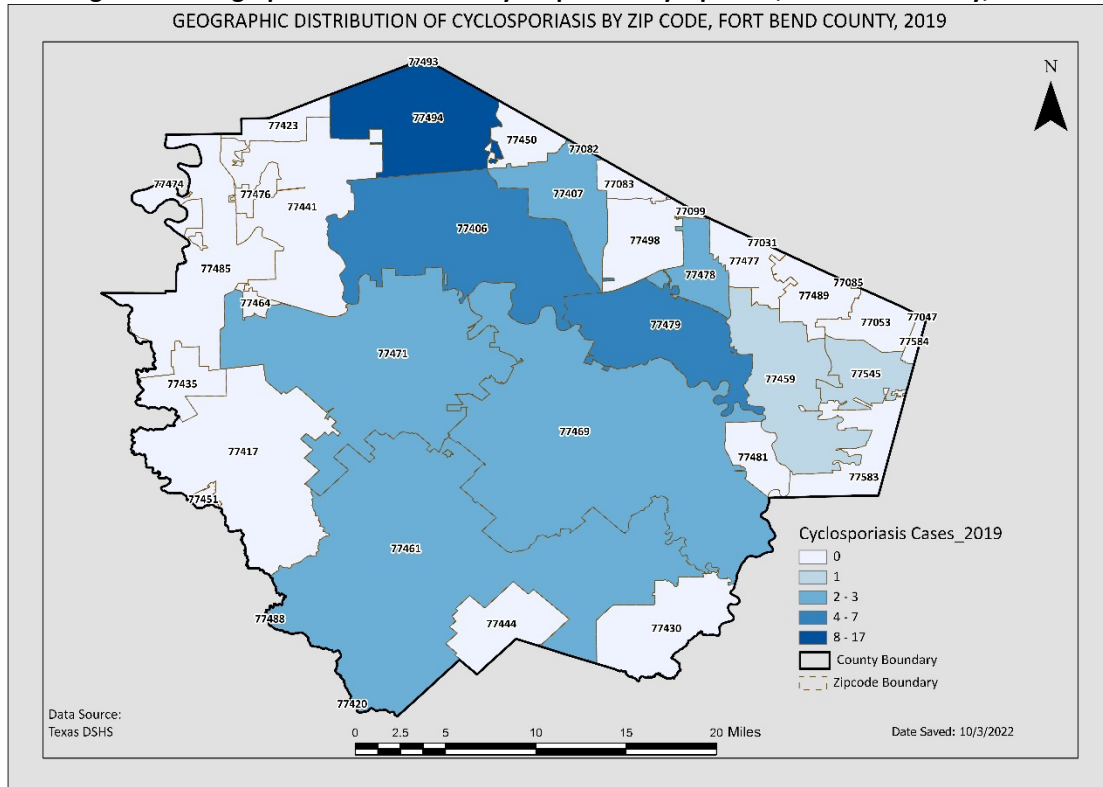
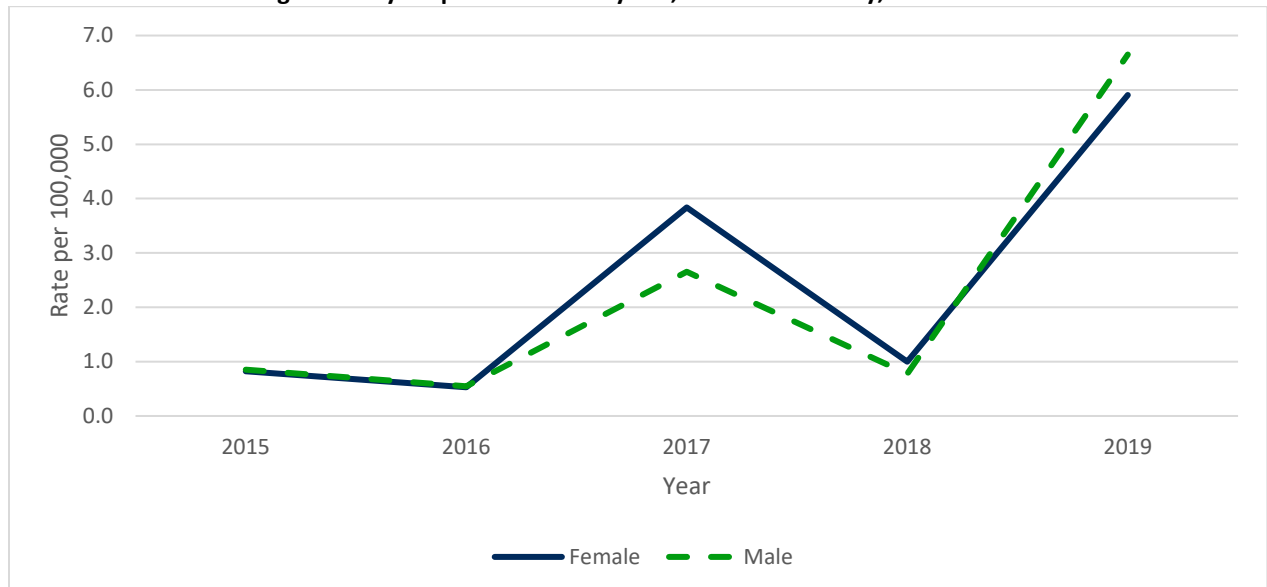
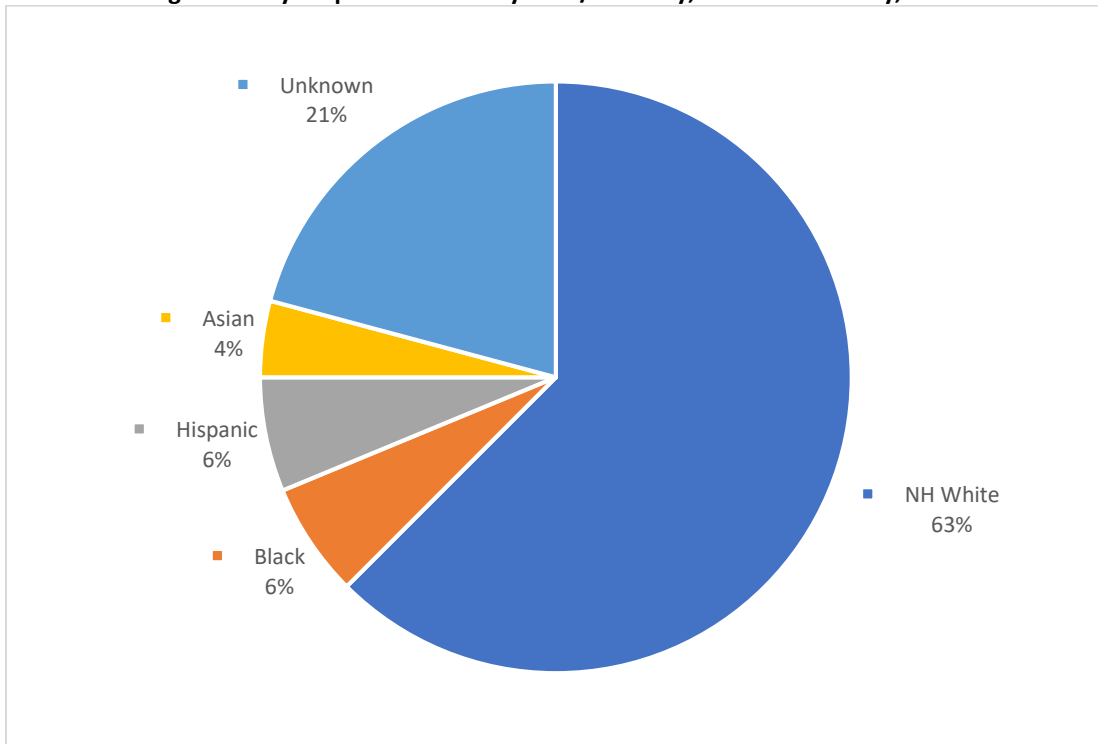


Figure 8c. Cyclosporiasis Rates by Sex, Fort Bend County, 2015-2019



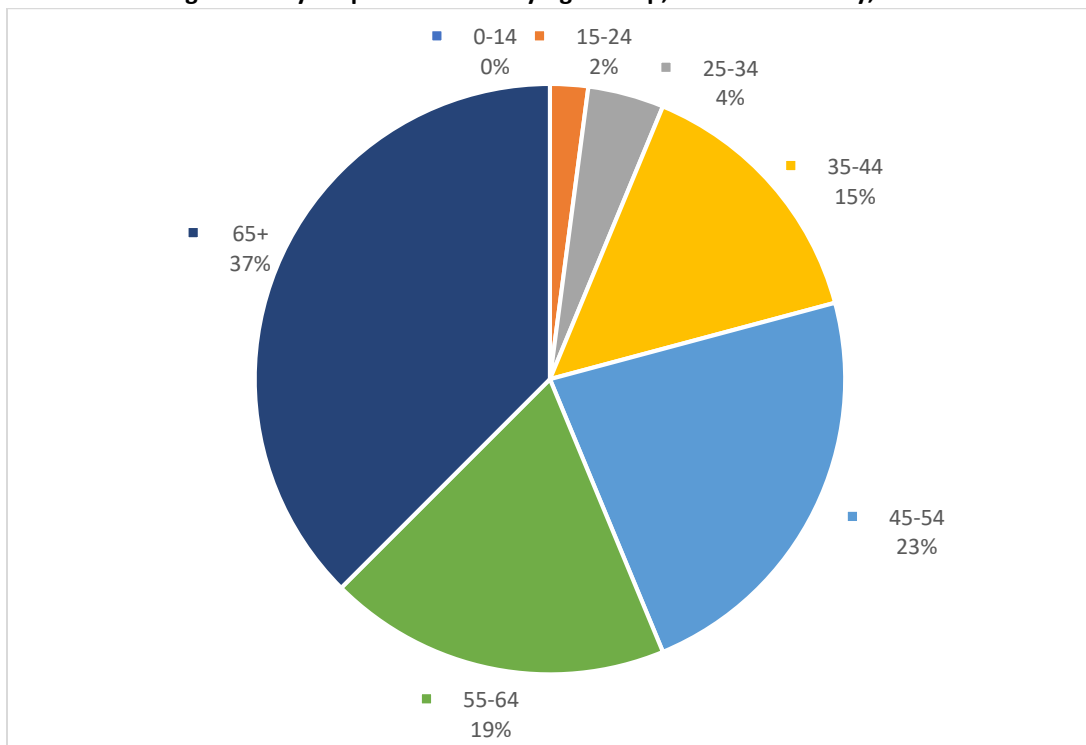
Data Source: NEDSS

Figure 8d. Cyclosporiasis Cases by Race/Ethnicity, Fort Bend County, 2019



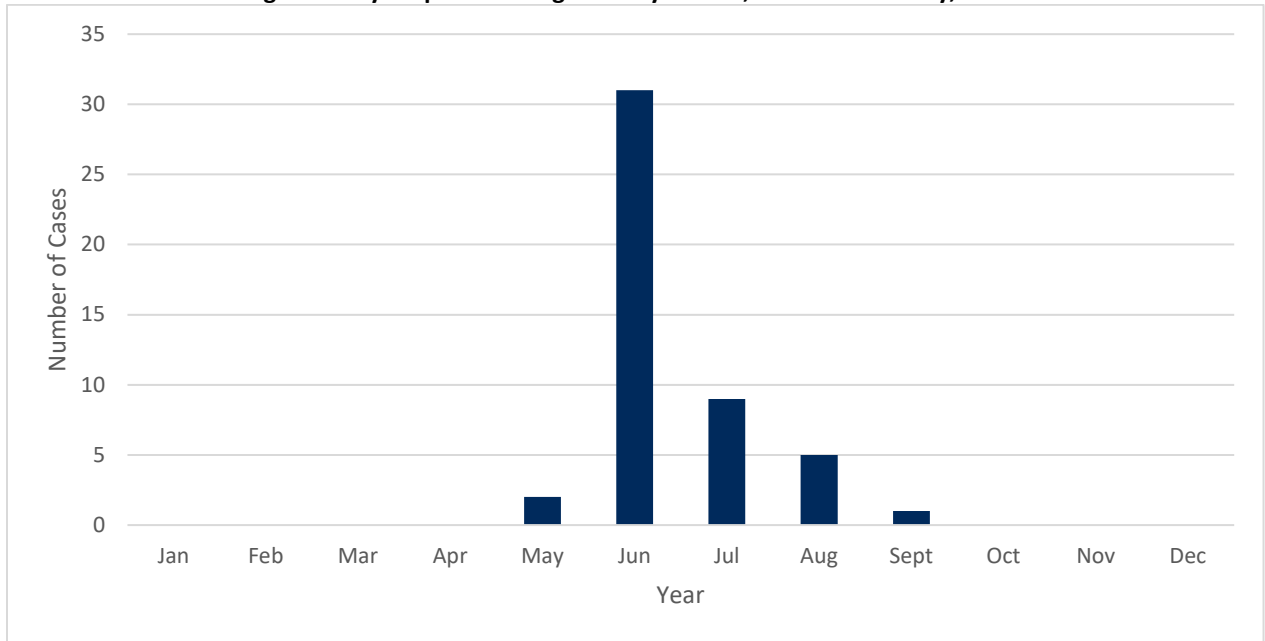
Data Source: NEDSS

Figure 8e. Cyclosporiasis Cases by Age Group, Fort Bend County, 2019



Data Source: NEDSS

Figure 8f. Cyclosporiasis Diagnoses by Month, Fort Bend County, 2019

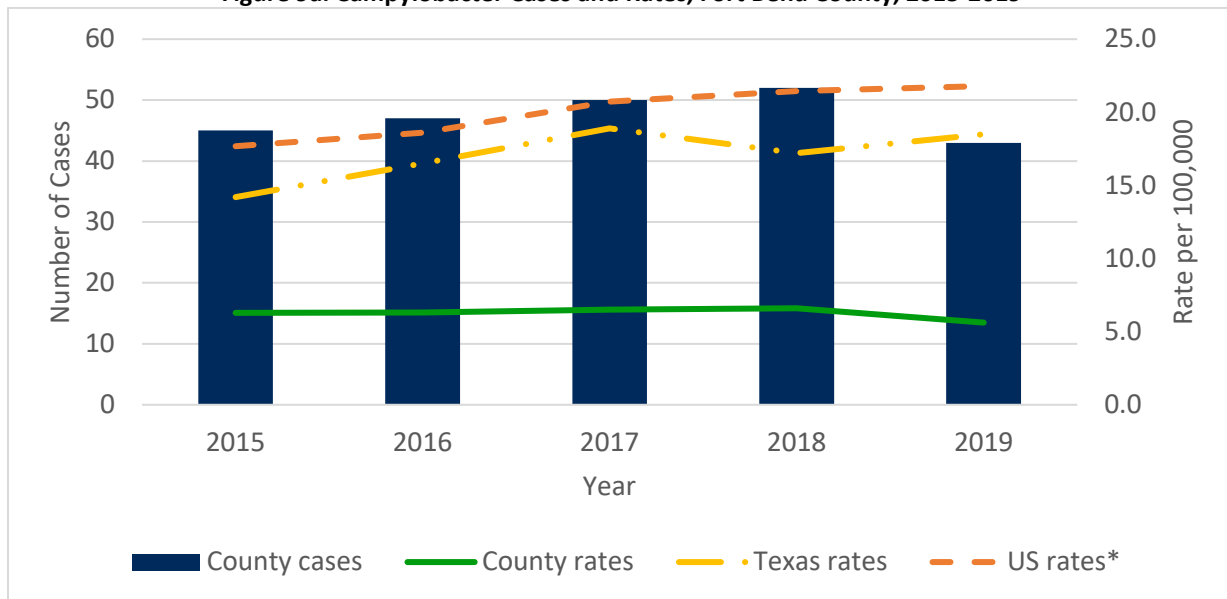


Data Source: NEDSS

Campylobacteriosis

- **Causative Agent:** *Campylobacter* Species (bacterial) [source: [Campylobacter - CDC; Campylobacteriosis](#)]
- **Signs & Symptoms:** Diarrhea (often bloody), fever, nausea, abdominal cramps, and vomiting. Symptoms typically start 2-5 days after the infection and last about one week or less. Complications include irritable bowel syndrome, temporary paralysis, and arthritis. *Campylobacter* infection rarely results in long-term health problems.
- **Modes of Transmission:** Consuming raw or undercooked poultry, or eating meat, seafood, or produce that came in contact with raw poultry. The bacteria may also be ingested by drinking contaminated water.
- **Incubation Period:** 1-10 days
- **Period of Communicability:** Infected individuals may shed the bacteria in the feces for 2-7 weeks. Although not always necessary, antibiotics can be used to treat the infection, which shortens communicability to about 2-3 days. Person-to-person transmission is uncommon.

Figure 9a. *Campylobacter* Cases and Rates, Fort Bend County, 2015-2019



Data Source: NEDSS, DSHS, CDC MMWR

The average rate of change of *Campylobacter* cases from 2015 to 2019 in Fort Bend County was -9.2%

Figure 9b. Geographic Distribution of Campylobacteriosis by Zip Code, Fort Bend County, 2019

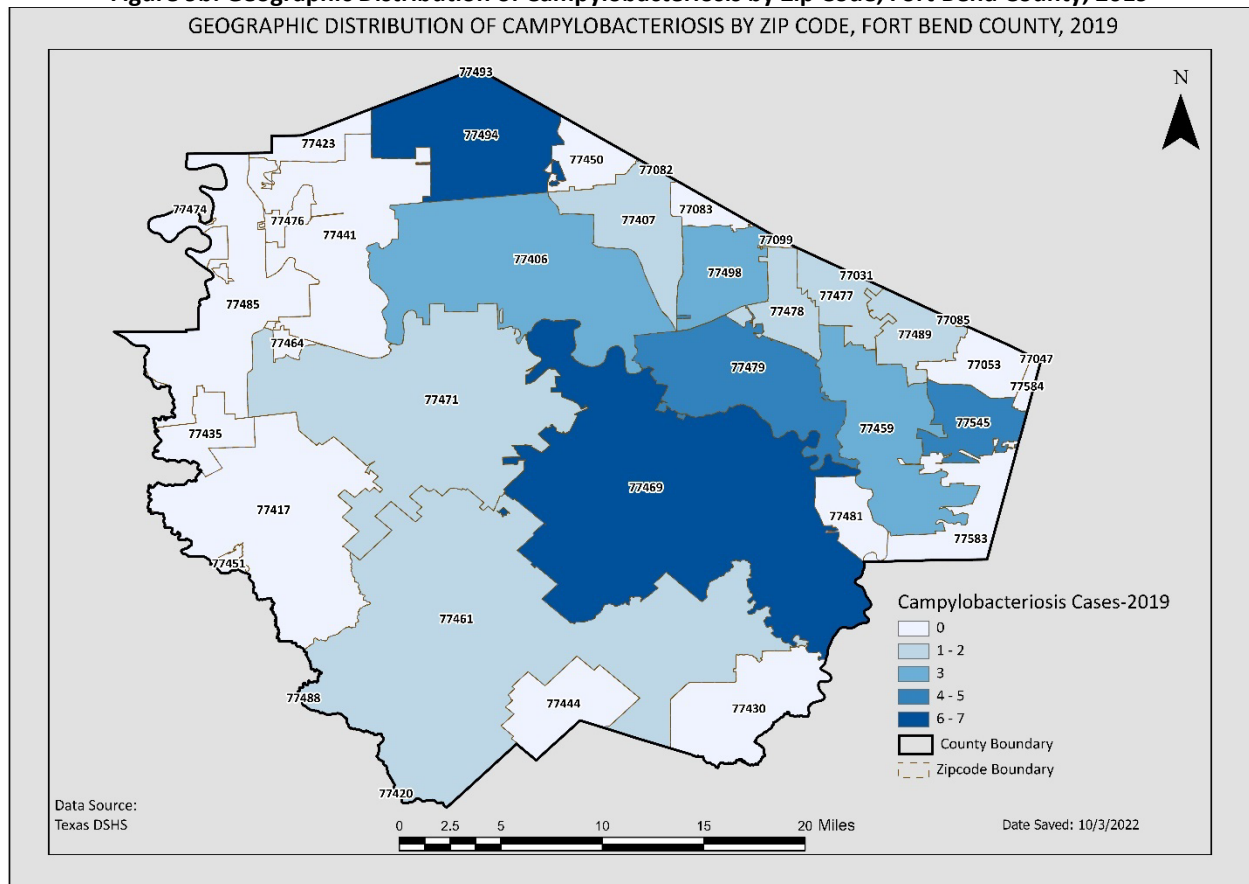
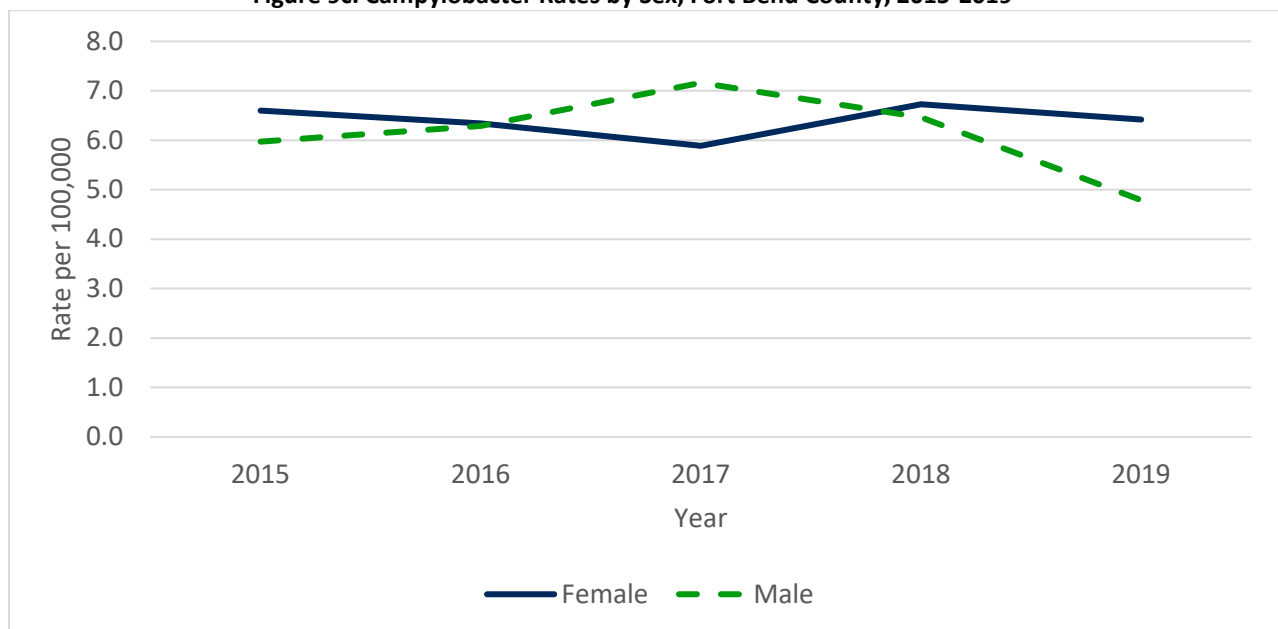
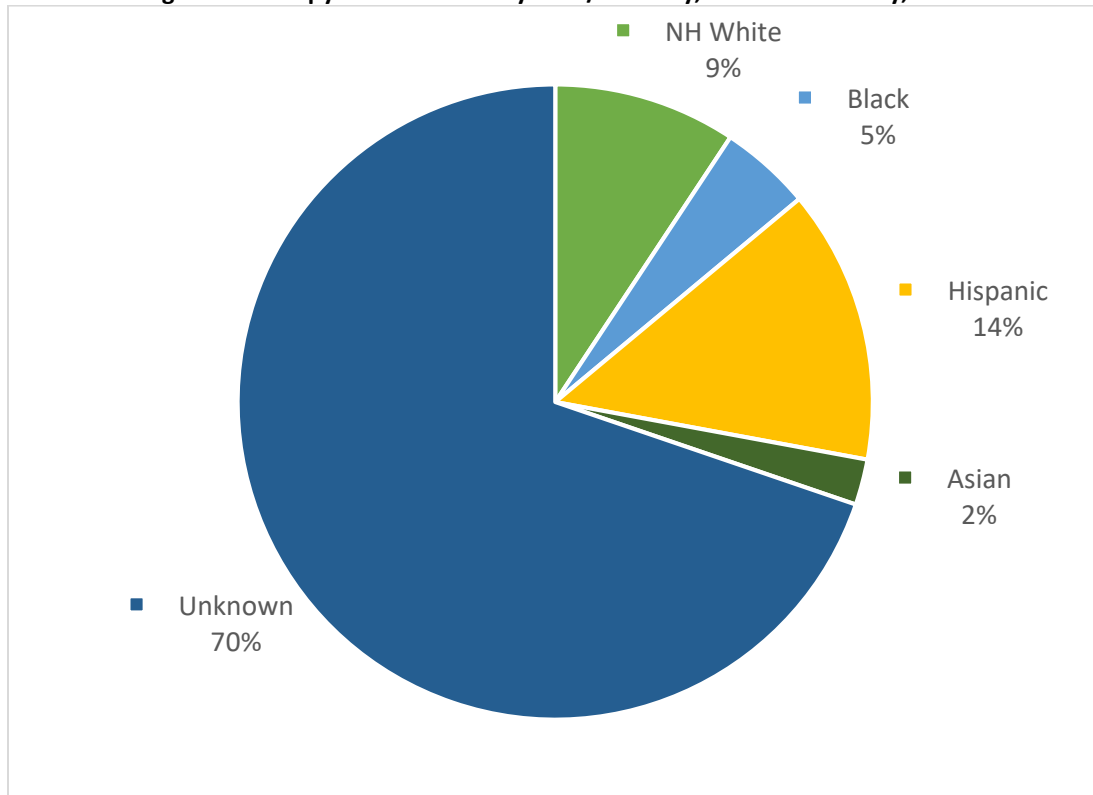


Figure 9c. Campylobacter Rates by Sex, Fort Bend County, 2015-2019



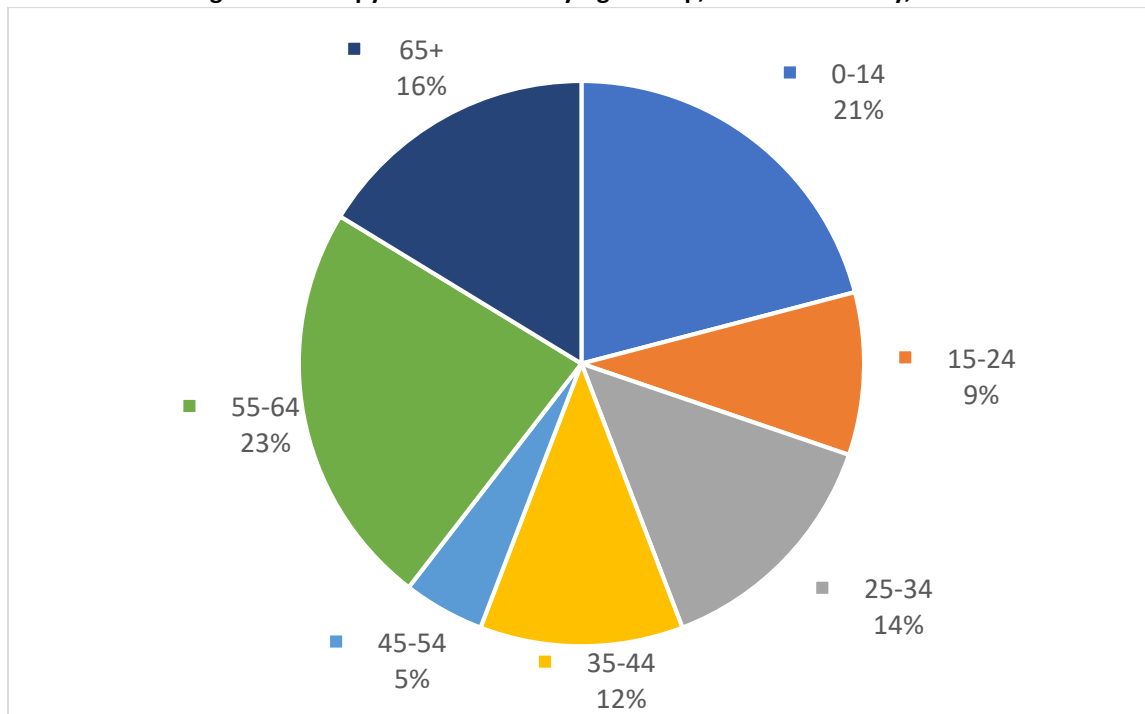
Data Source: NEDSS

Figure 9d. Campylobacter Cases by Race/Ethnicity, Fort Bend County, 2019



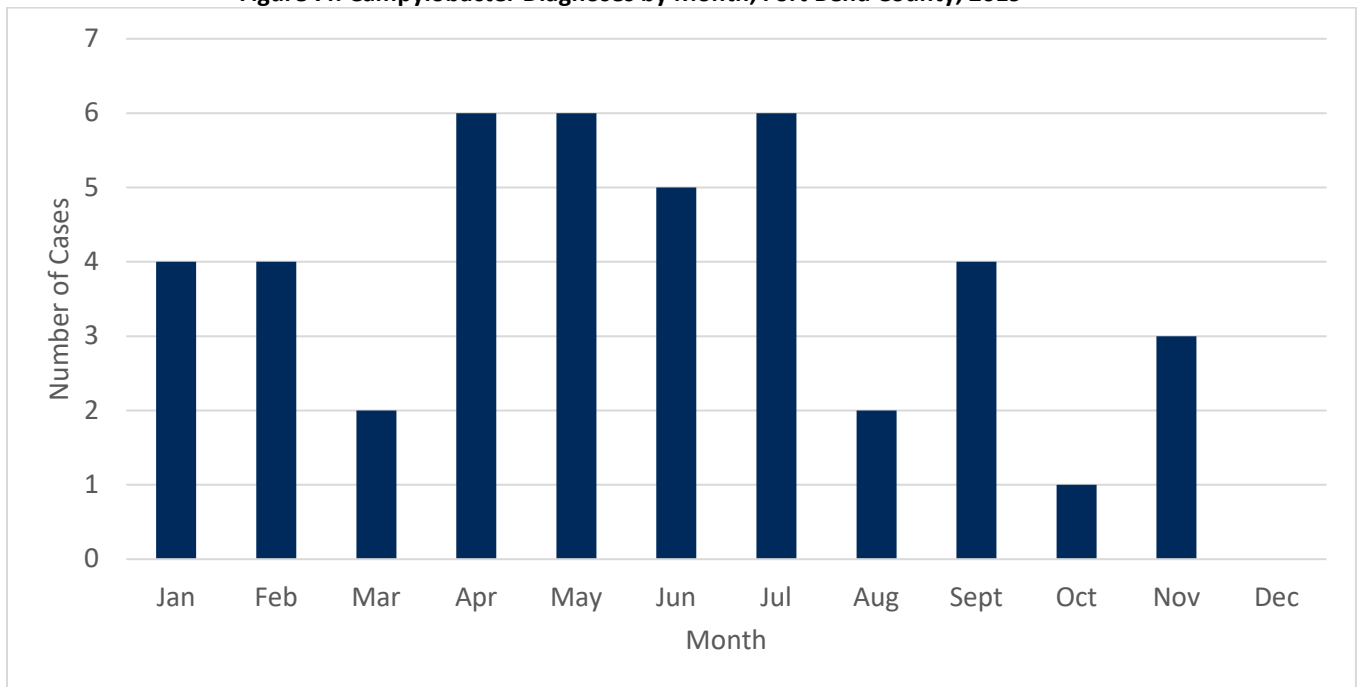
Data Source: NEDSS
NH= Non-Hispanic

Figure 7e. Campylobacter Cases by Age Group, Fort Bend County, 2019



Data Source: NEDSS

Figure 7f. Campylobacter Diagnoses by Month, Fort Bend County, 2019

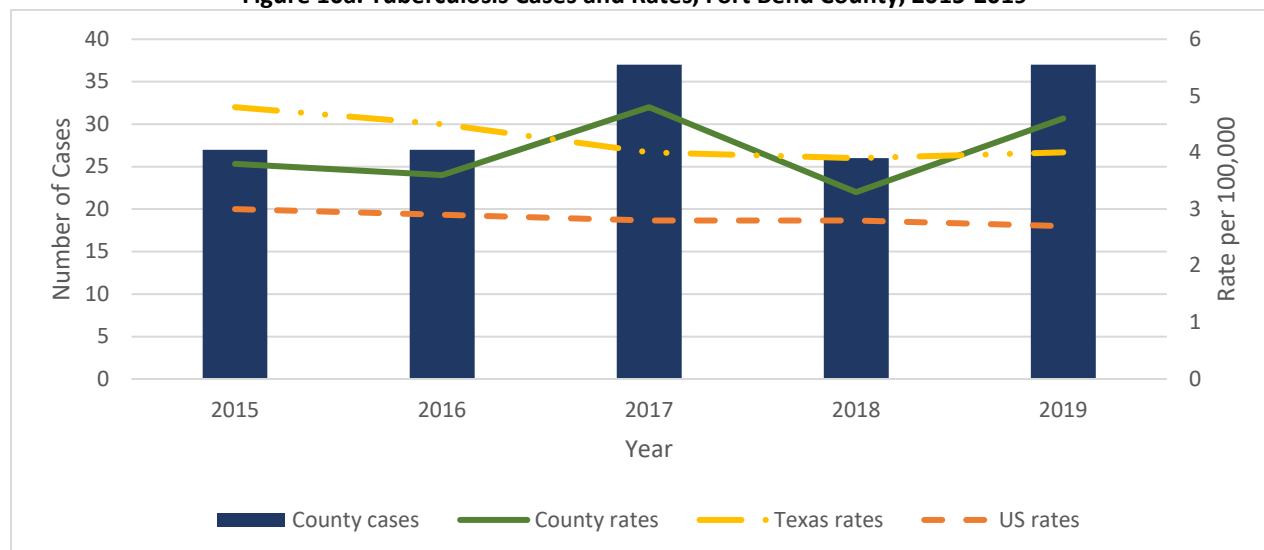


Data Source: NEDSS

Tuberculosis (TB)

- **Causative Agent:** *Mycobacterium tuberculosis* (bacterial) [source: [About Tuberculosis](#)]
- **Signs & Symptoms:**
 - **TB Disease:** Symptoms generally vary based on the site that is infected. Common symptoms include weakness, fatigue, weight loss, chills, fever, loss of appetite, and night sweats. When the TB bacteria are active and multiplying in the body, this is known as TB disease. Only individuals with active TB will experience symptoms.
 - **Latent TB:** This type of TB occurs when the bacteria are alive and present in the body, but the bacteria are inactive and present in small numbers. Individuals with latent TB do not feel sick and do not have any symptoms because the immune system can prevent the bacteria from growing. Most individuals with latent TB infection will never develop TB disease. The infection is more likely to progress in individuals with weak or compromised immune systems.
 - **Pulmonary TB:** This type of TB is most common and is caused when bacteria grow in the lungs. Symptoms of Pulmonary TB include persistent coughing, pain in the chest, and coughing up blood and phlegm from deep inside the lungs.
- **Modes of Transmission:** TB is primarily spread when an uninfected person inhales infected particles from the air. The bacteria are released into the air when an individual with TB disease coughs, speaks, or sneezes. Once a person breathes in TB bacteria, the bacteria may settle in the lungs and begin to grow and spread to other parts of the body.
- **Incubation Period:** The onset of symptoms is dependent on the site of infection. On average, individuals with active TB will experience symptoms between 2-12 weeks.
- **Period of Communicability:** Pulmonary TB and infection in the throat are more infectious than other types of TB. TB in other parts of the body is usually not infectious. Individuals with Pulmonary TB or infection in the throat are considered contagious until TB bacteria is no longer present in the sputum, this typically requires weeks of medical treatment. Individuals with latent TB infection are not infectious and cannot spread the infection to others.

Figure 10a. Tuberculosis Cases and Rates, Fort Bend County, 2015-2019



Data Source: DSHS, CDC

Figure 10b. Geographic Distribution of Tuberculosis by Zip Code, Fort Bend County, 2019

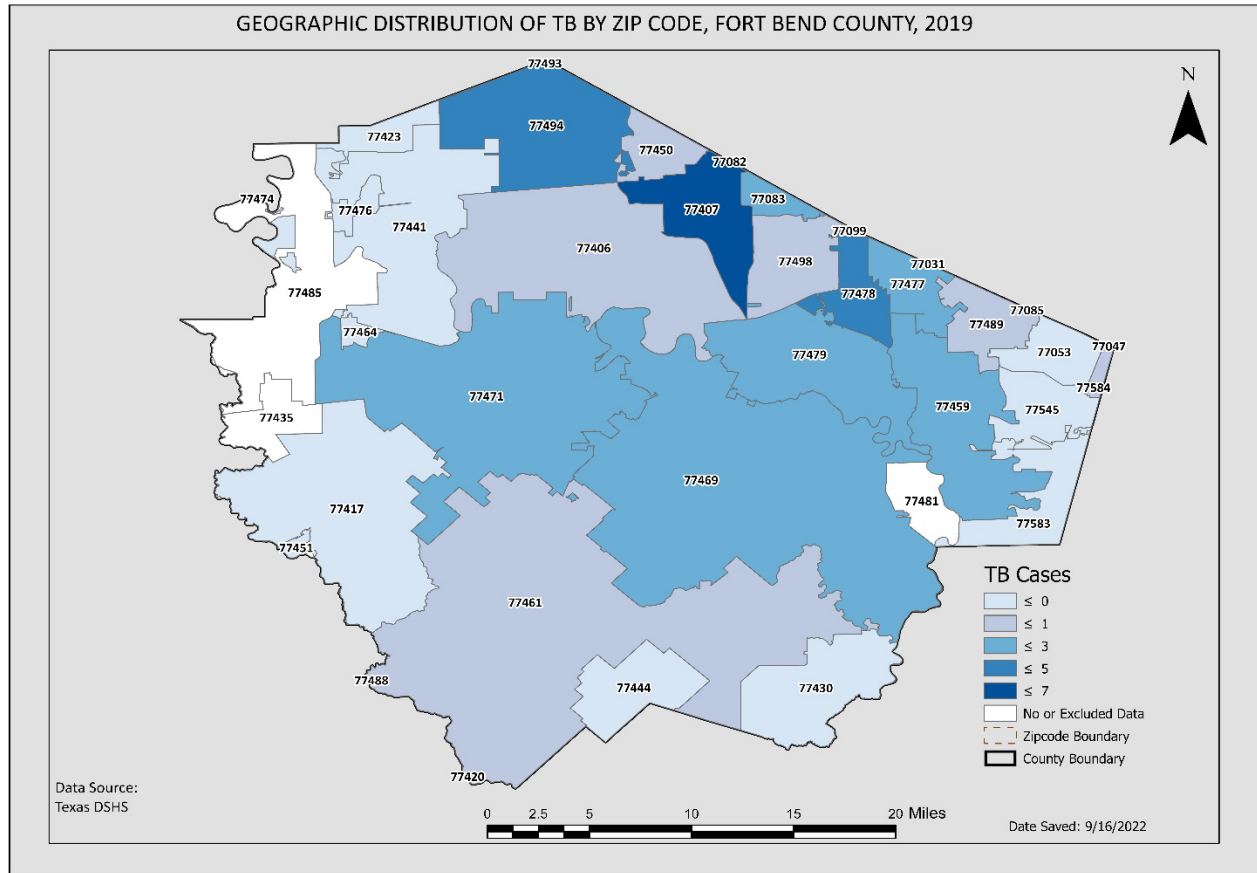
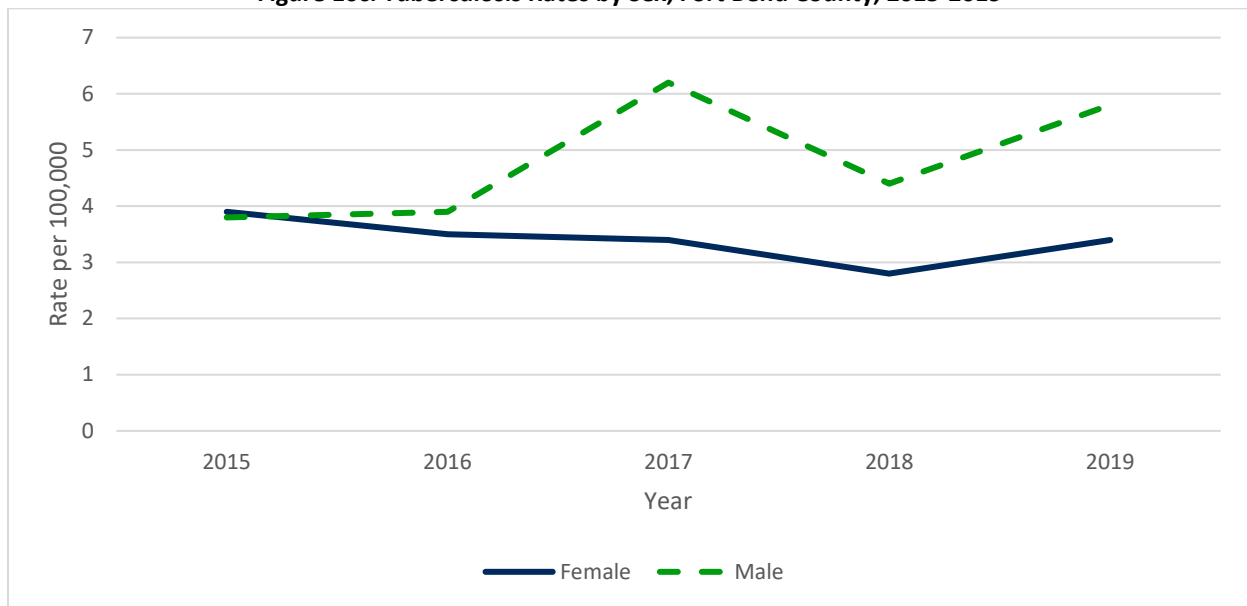
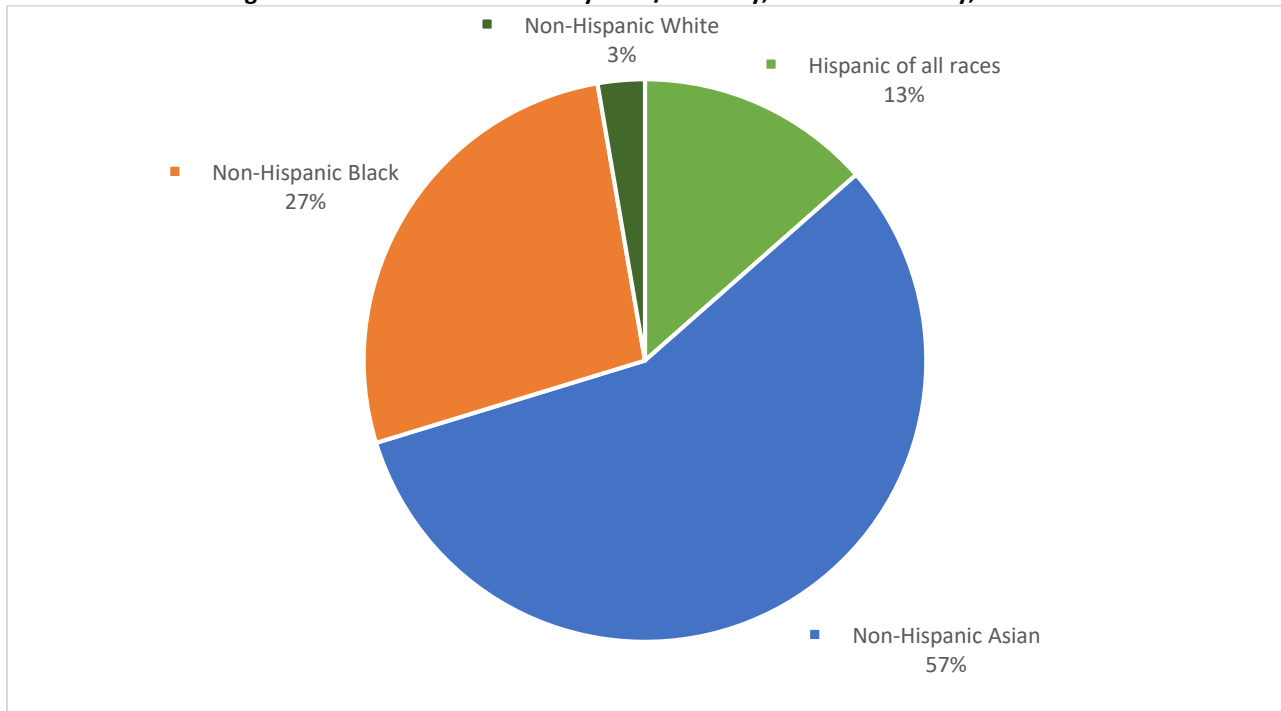


Figure 10c. Tuberculosis Rates by Sex, Fort Bend County, 2015-2019



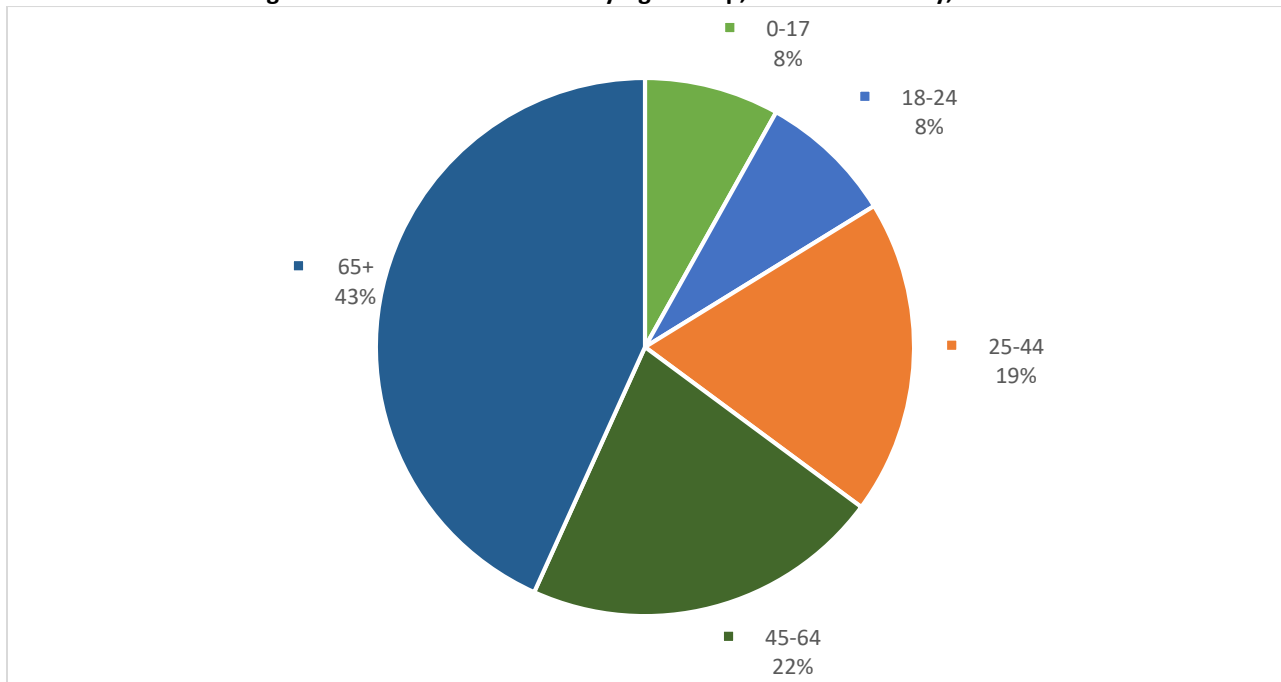
Data Source: DSHS

Figure 10d. Tuberculosis Cases by Race/Ethnicity, Fort Bend County, 2019



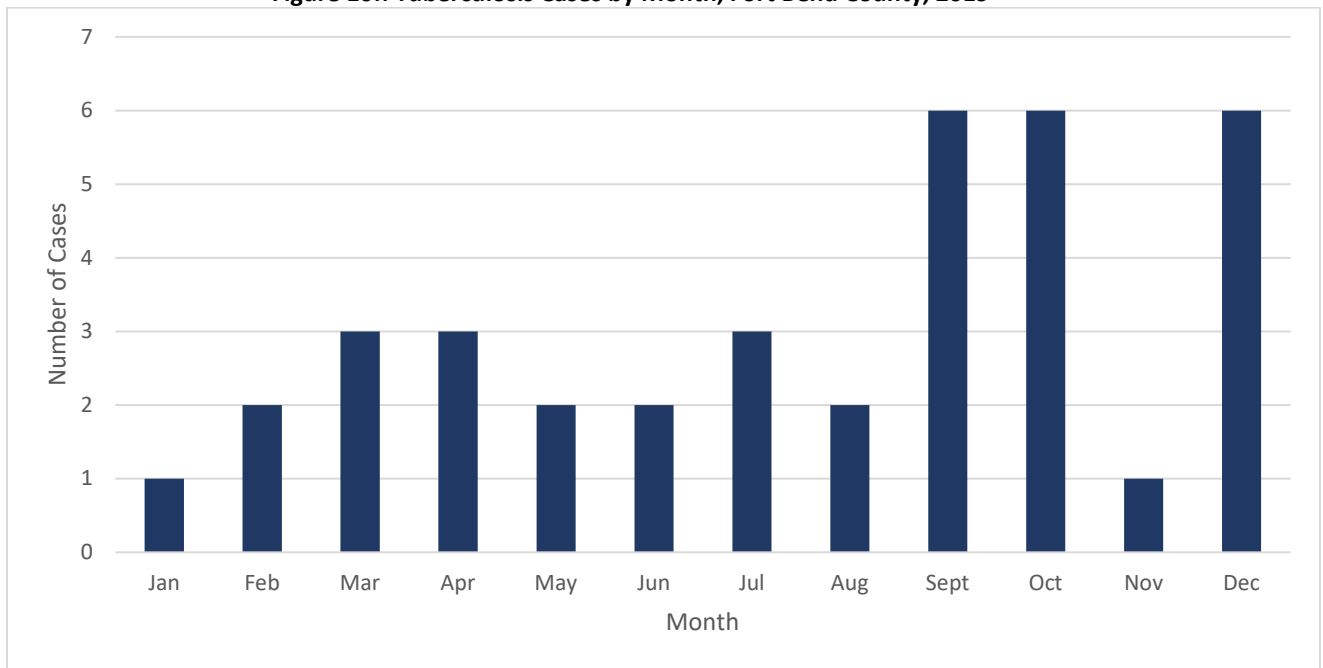
Data Source: DSHS

Figure 10e. Tuberculosis Cases by Age Group, Fort Bend County, 2019



Data Source: DSHS

Figure 10f. Tuberculosis Cases by Month, Fort Bend County, 2019



Data Source: DSHS