



2017

Epidemiology Annual Report



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Acknowledgments

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In addition, we wish to thank Denton County Public Health staff and Medical Reserve Corp for their assistance in disease surveillance and investigations along with our colleagues at the Texas Department of State Health Services for providing data used in this report.

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Summary of Notifiable Diseases 2013 - 2017

Case counts refer to confirmed and probable cases

Notifiable Condition	Total Cases in Previous Years				2017
	2013	2014	2015	2016	
Acute Flaccid Myelitis (AFM)	0	0	0	0	2
Amebiasis	1	5	3	2	4
Anaplasma phagocytophilum	0	0	0	0	0
Brucellosis	0	1	0	3	0
Campylobacteriosis	45	46	84	57	65
Carbapenem-resistant Enterobacteriaceae ^a	-	2	2	3	10
Chagas, chronic indeterminate	0	0	0	0	1
Chikungunya virus diseases	0	8	1	0	1
Creutzfeldt-Jakob Disease	0	0	0	3	1
Cryptosporidiosis	17	7	21	9	24
Cyclosporiasis	25	8	14	11	12
Cysticercosis	0	1	0	1	0
Dengue	3	2	2	1	3
Haemophilus influenzae, invasive ^a	0	0	1	9	12
Hemolytic uremic synd,postdiarrheal	0	0	1	0	1
Hepatitis A, acute	1	2	10	3	0
Hepatitis B, acute	3	2	6	6	5
Hepatitis C, acute	2	2	1	4	1
Hepatitis E, acute	0	1	1	1	0
Influenza-associated pediatric mortality	0	2	1	0	1
Legionellosis	4	8	5	5	8
Leishmaniasis	1	1	1	1	0
Listeriosis	0	2	0	1	1
Lyme disease	1	1	0	3	3
Malaria	1	1	2	7	2
Measles (Rubeola)	7	0	0	0	0
Multidrug-resistant organisms (MDRA) ^a	-	3	10	11	9
Mumps	0	0	1	8	12
Neisseria meningitidis, invasive (Mening. disease)	1	0	0	1	0
Pertussis	320	102	78	68	99
Q fever, Acute	0	0	0	0	0
Salmonellosis	138	118	175	142	118
Shiga toxin-producing Escherichia coli (STEC)	18	30	26	27	29
Shigellosis	19	93	58	77	23
Spotted Fever Rickettsiosis	1	1	0	4	0
Streptococcus pneumoniae, invasive disease (IPD)	20	34	38	49	47
Streptococcus, invasive Group A	6	14	13	14	19
Streptococcus, invasive Group B	21	24	26	39	37
Typhoid fever (Salmonella typhi)	0	0	2	1	1
Varicella (Chickenpox)	70	64	51	49	61
Vibrio vulnificus infection	0	0	0	0	0
Vibriosis, other or unspecified	3	1	3	1	1
West Nile Virus	9	4	10	20	12
Yersiniosis	0	0	1	0	0
Zika	0	0	0	9	2

Case counts reflective of MMWR year in Texas Department of State Health Services NEDSS database

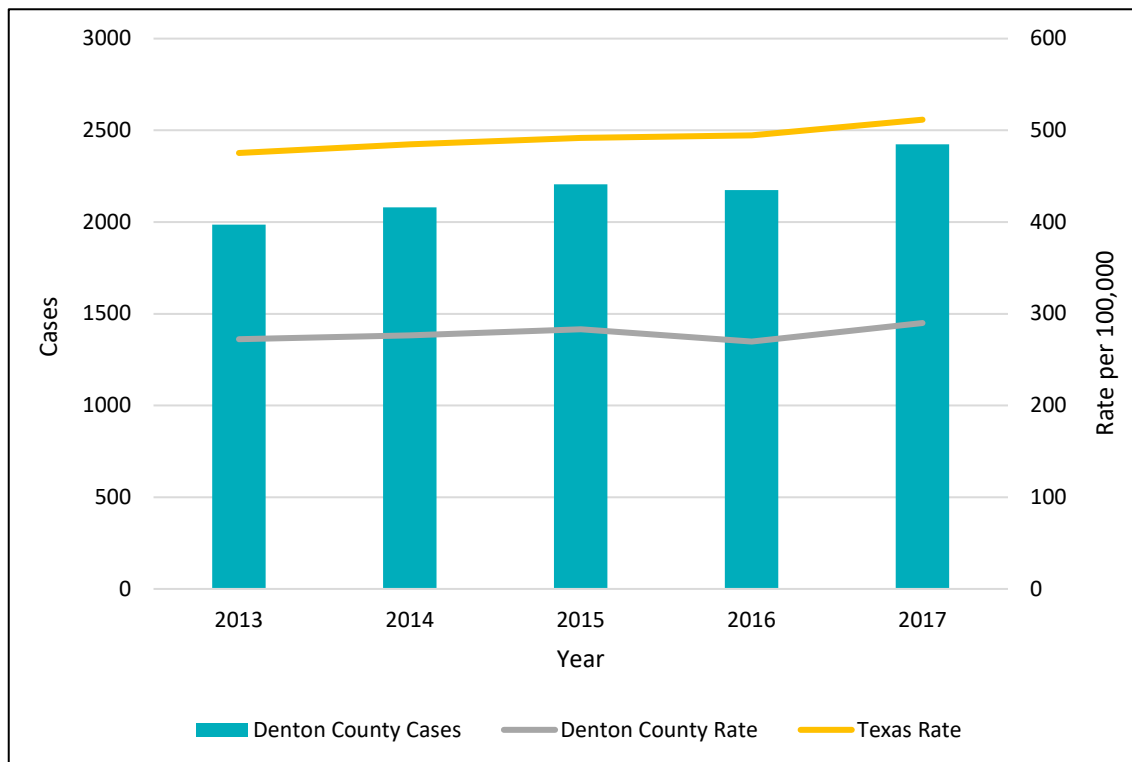
a. Reporting requirements variations during represented time frame

Chlamydia

Denton County 2013-2017

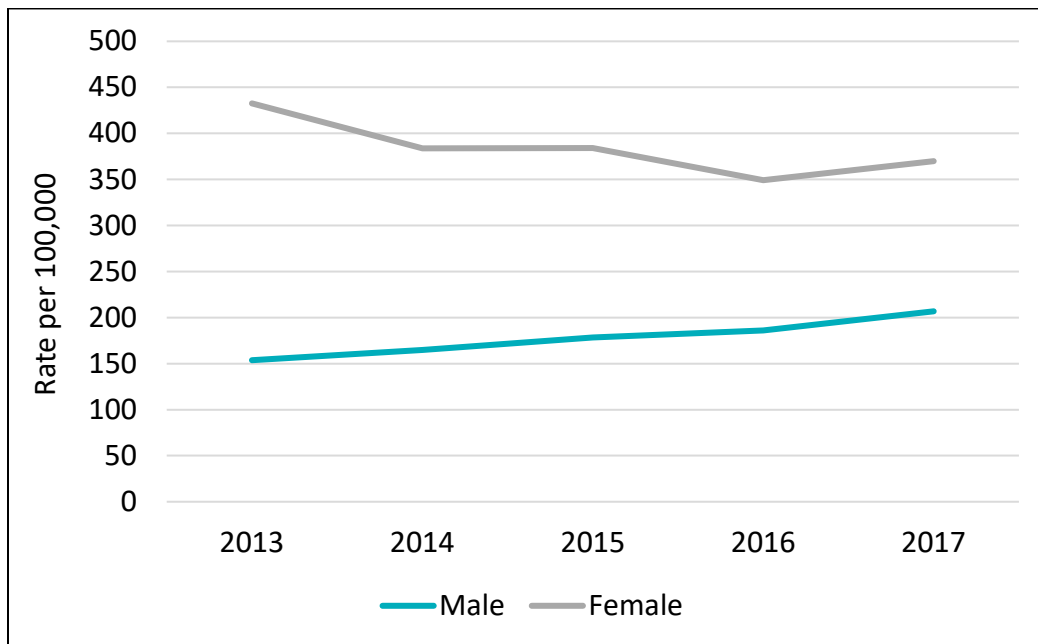
- **Causative Agent:** (bacterial) *Chlamydia trachomatis*
- **Signs/Symptoms:**
 - **Men:** Most men do not exhibit symptoms. Symptoms – penile discharge, urethral itching, burning sensation when urinating, pain and swelling in one or both testicles. Complications – rarely infertility.
 - **Women:** Up to 70% of infected women do not exhibit symptoms. Symptoms – abnormal vaginal discharge, burning sensation when urinating. Infants born to infected women may develop eye or pneumonic infections. Complications – PID, chronic pelvic pain, infertility, ectopic pregnancy.
 - **Rectal infection** – rectal pain, discharge, bleeding.
 - Untreated chlamydia may increase the chance of acquiring or transmitting HIV.
- **Mode(s) of Transmission:** Perinatally or sexually transmitted infection
- **Incubation Period:** 7-14 days or longer
- **Period of Communicability:** Infected individuals are assumed to be infectious.

Figure 1. Chlamydia in Denton County and Texas



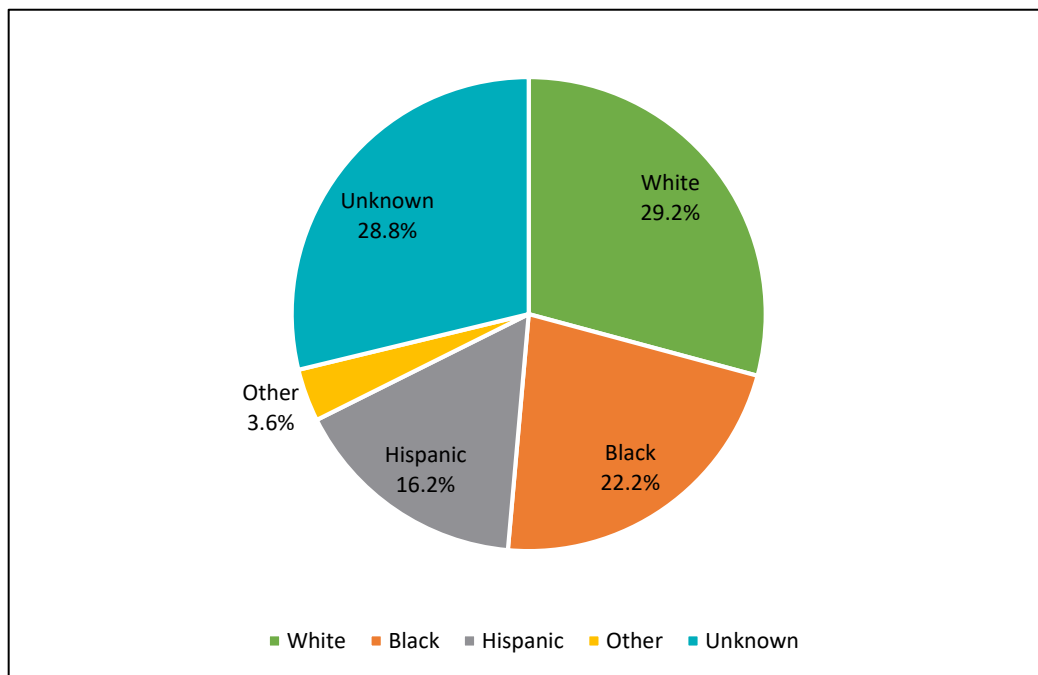
Data Source: Texas Department of State Health Services

Figure 2. Chlamydia by Gender, Denton County 2013-2017



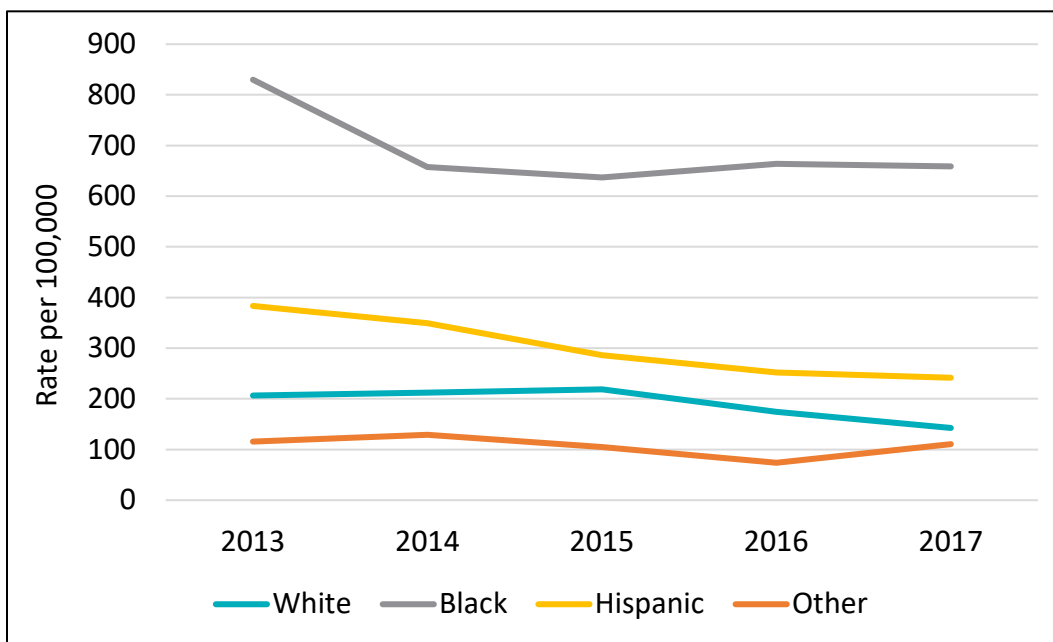
Data Source: Texas Department of State Health Services

Figure 3. Chlamydia by Race/Ethnicity, Denton County New Cases 2017



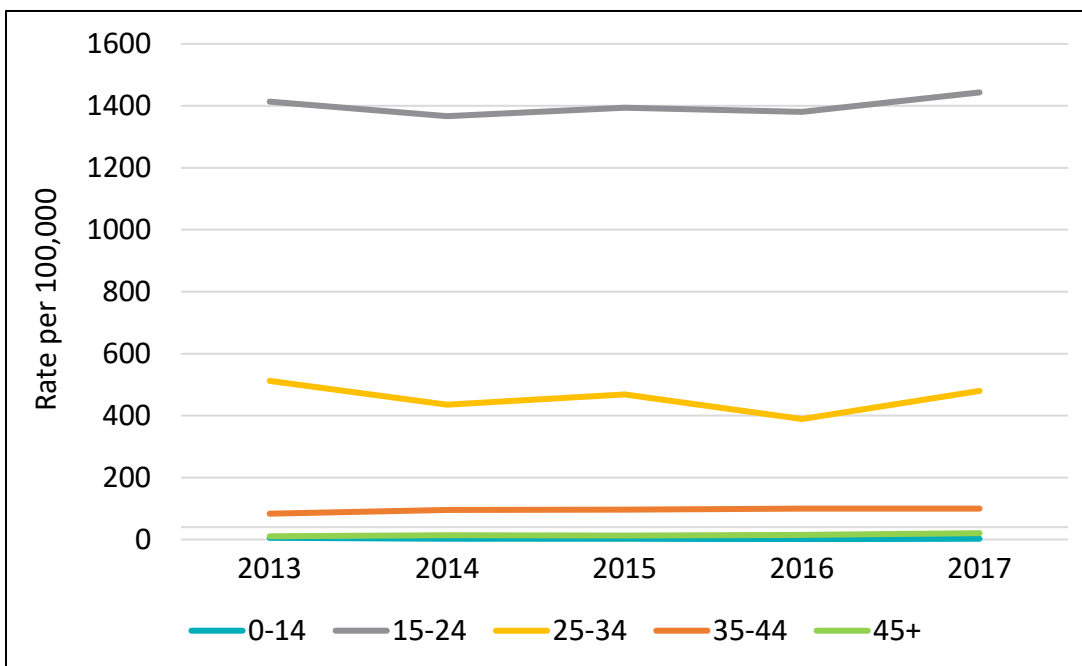
Data Source: Texas Department of State Health Services

Figure 4. Chlamydia by Race/Ethnicity, Denton County 2013-2017



*Graph does not represent unknown or missing Race/Ethnicity
Data Source: Texas Department of State Health Services

Figure 5. Chlamydia by Age Group, Denton County 2013-2017



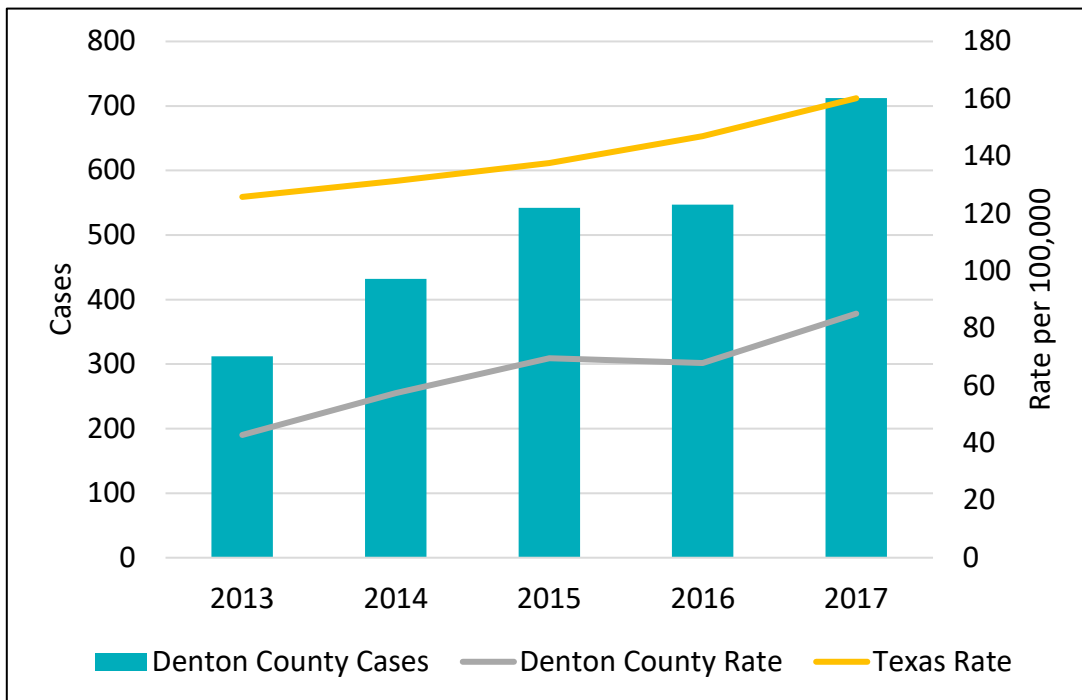
Data Source: Texas Department of State Health Services

Gonorrhea

Denton County 2013-2017

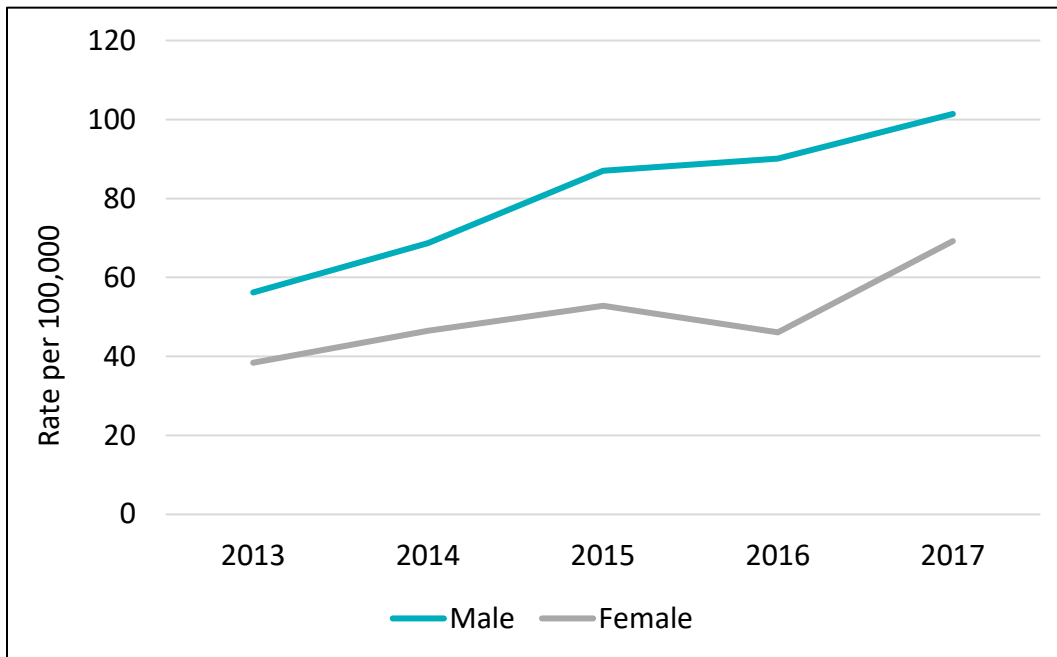
- **Causative Agent:** (bacterial) *Neisseria gonorrhoeae*
- **Signs & Symptoms:**
 - **Men:** Many infected men are asymptomatic. Symptoms – burning sensation when urinating, or a white, yellow, or green urethral discharge. Complications – Epididymitis which causes testicular or scrotal pain. In rare cases men may become infertile.
 - **Women:** Most infected women are asymptomatic. If a women develops symptoms, they are often so mild and nonspecific that they are mistaken for a bladder or vaginal infection. Symptoms - painful or burning sensation when urinating, increased vaginal discharge, or vaginal bleeding between periods. Regardless of symptom severity, infected women are at risk of developing serious complications. Complications - pelvic inflammatory disease (PID) or infertility.
 - **Rectal Infections:** Can be asymptomatic or cause symptoms in both men and women. Symptoms – discharge, anal itching, soreness, bleeding, painful bowel movements.
 - **Disseminated gonococcal infection:** untreated gonorrhea can spread to the blood and cause a life-threatening condition.
- **Mode(s) of Transmission:** perinatally or sexually transmitted infection
- **Incubation period:** 1-14 days
- **Period of Communicability:** months in untreated people

Figure 1. Gonorrhea in Denton County and Texas



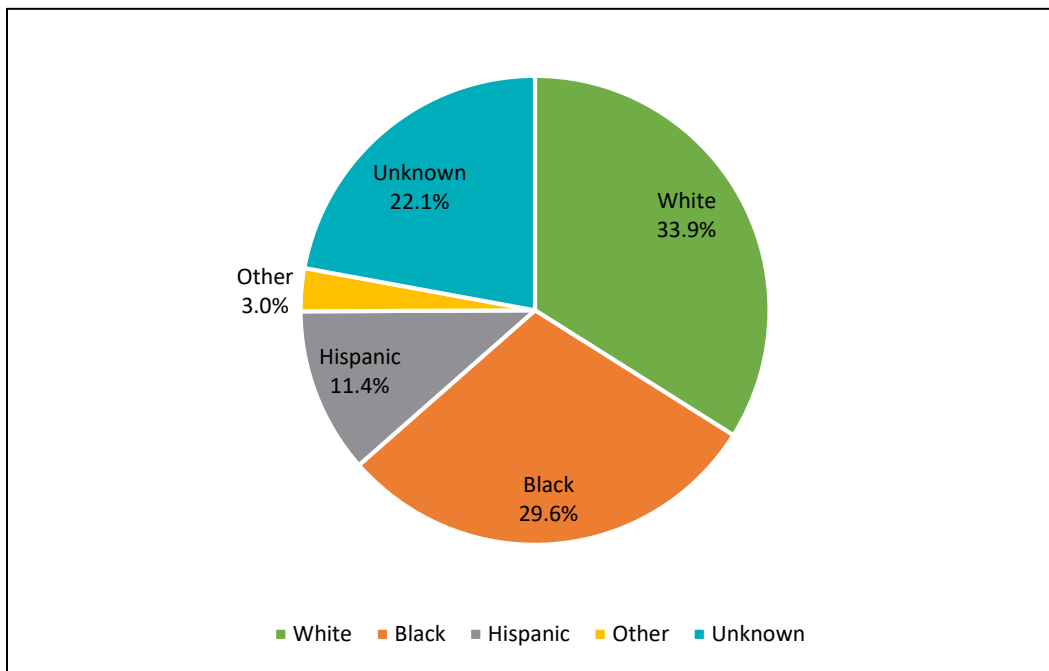
Data Source: Texas Department of State Health Services

Figure 2. Gonorrhea by Gender, Denton County 2013-2017



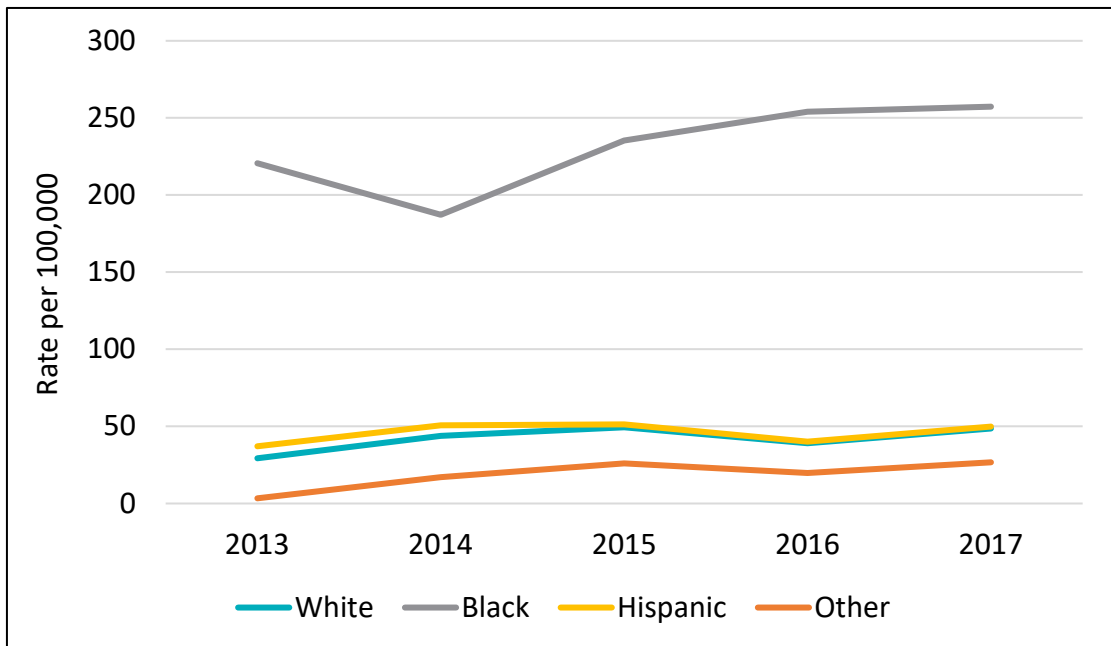
Data Source: Texas Department of State Health Services

Figure 3. Gonorrhea by Race/Ethnicity, Denton County New Cases 2017



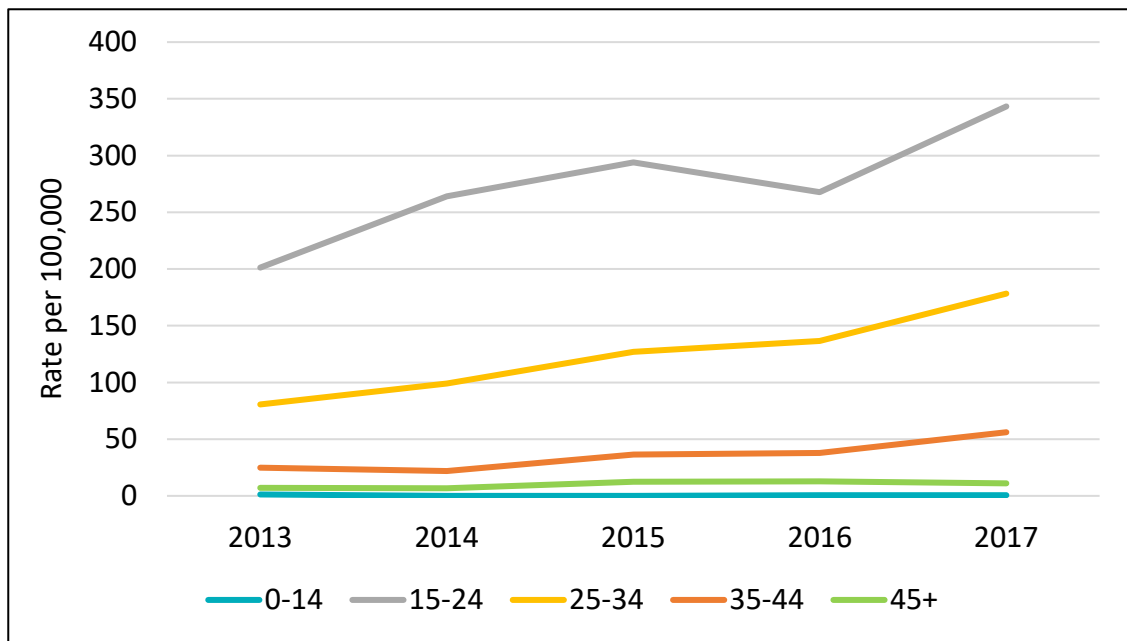
Data Source: Texas Department of State Health Services

Figure 4. Gonorrhea by Race/Ethnicity, Denton County 2013-2017



*Graph does not represent unknown or missing Race/Ethnicity
 Data Source: Texas Department of State Health Services

Figure 5. Gonorrhea by Age Group, Denton County 2013-2017



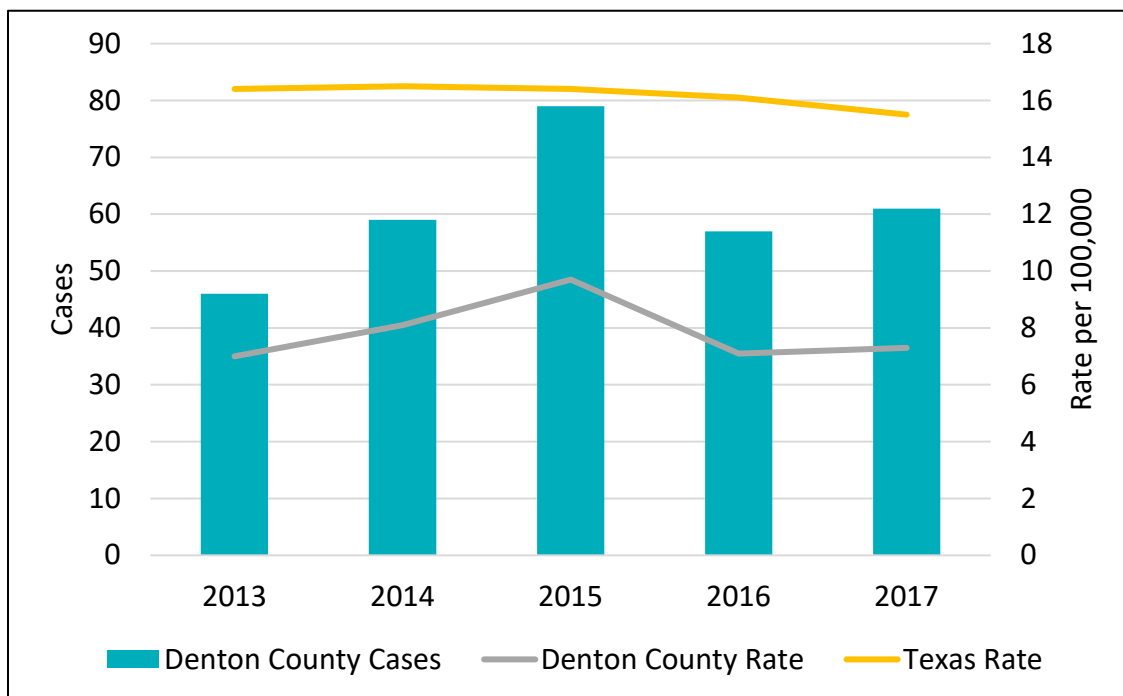
Data Source: Texas Department of State Health Services

HIV

Denton County 2013-2017

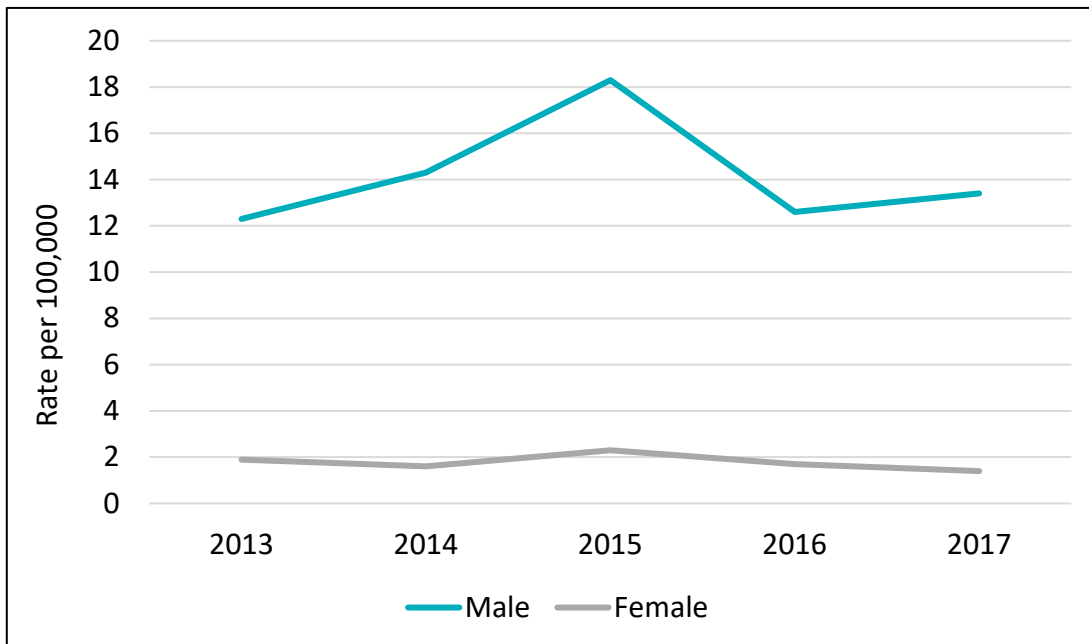
- **Causative Agent:** (viral) human immunodeficiency virus
- **Signs & Symptoms:**
 - **Acute infection:** Flu-like symptoms. Some people have no symptoms. Large amounts of HIV are produced in the body and the CD4 cell count rapidly falls. Then the immune response stabilizes the virus level.
 - **Clinical latency:** HIV reproduces at very low levels. People may not have any symptoms. Toward the middle and end of this period, viral load begins to rise and CD4 cell count begins to drop. As this happens, people may begin to have symptoms of HIV infection because the immune system is too weak to protect them.
 - **AIDS (acquired immunodeficiency syndrome):** Immune system is badly damaged so the infected person is vulnerable to infections and infection-related cancers. Medical treatment is needed to avoid death.
- **Mode(s) of Transmission:** Spread through blood, semen, vaginal secretions, and breast milk. Sexual transmission, perinatal transmission, or sharing needles or syringes.
- **Incubation period:** Variable. Time from HIV infection to AIDS diagnosis ranges from <1 yr to >15 yrs.
- **Period of Communicability:** infected individuals are infectious during all stages of illness

Figure 1. New HIV Diagnoses in Denton County and Texas



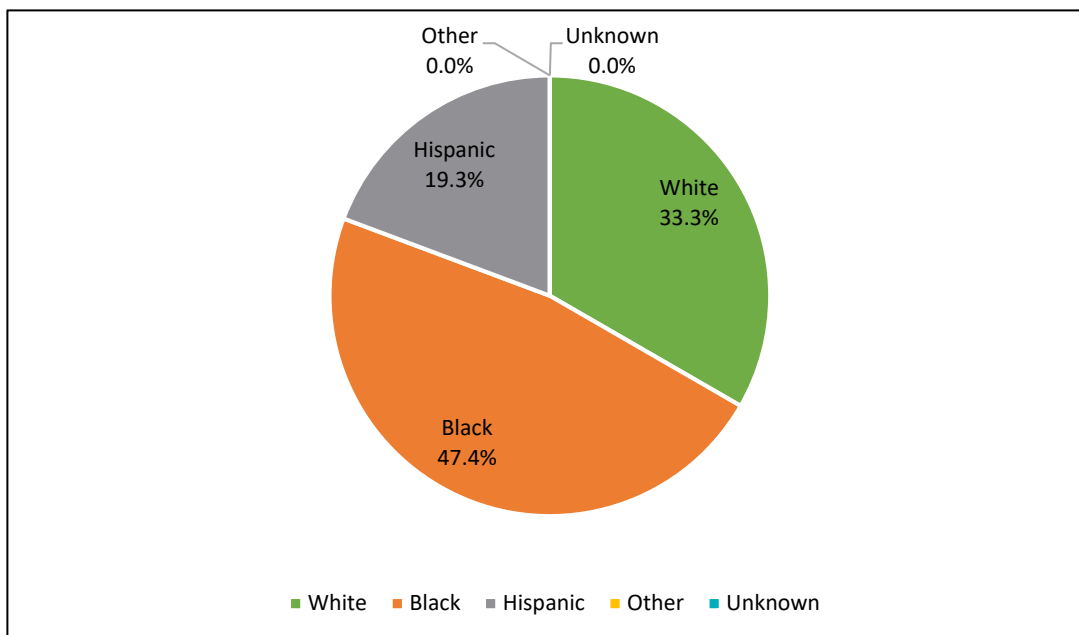
Data Source: Texas Department of State Health Services

Figure 2. New HIV Diagnoses by Gender, Denton County 2013-2017



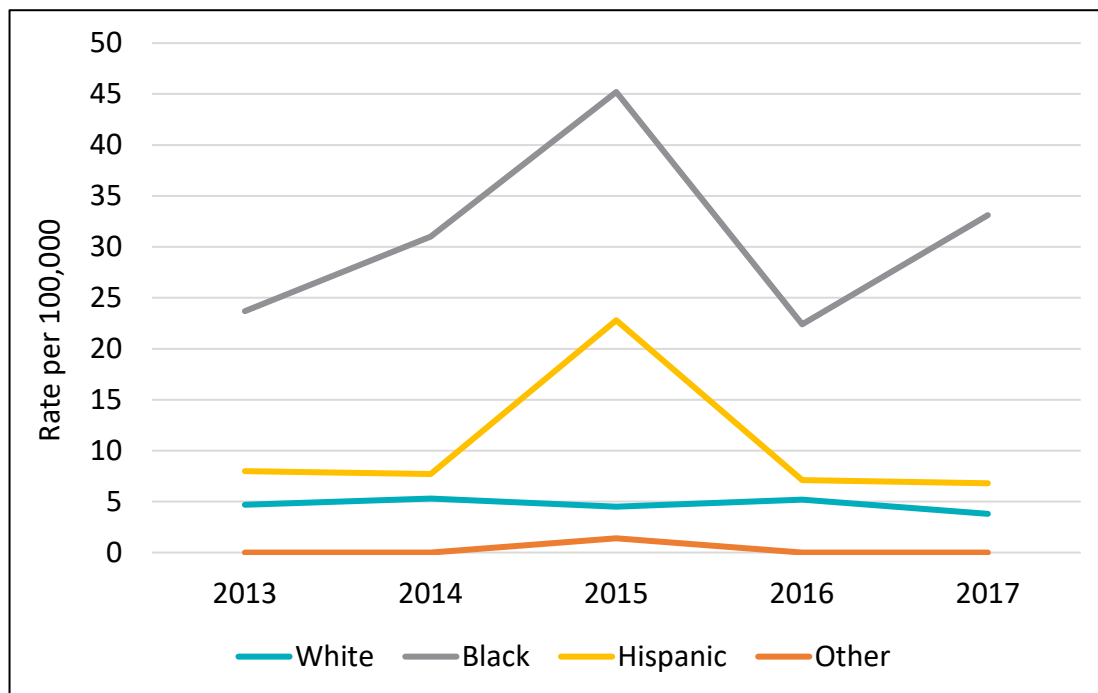
Data Source: Texas Department of State Health Services

Figure 3. New HIV Diagnoses by Race/Ethnicity, Denton County New Cases 2017



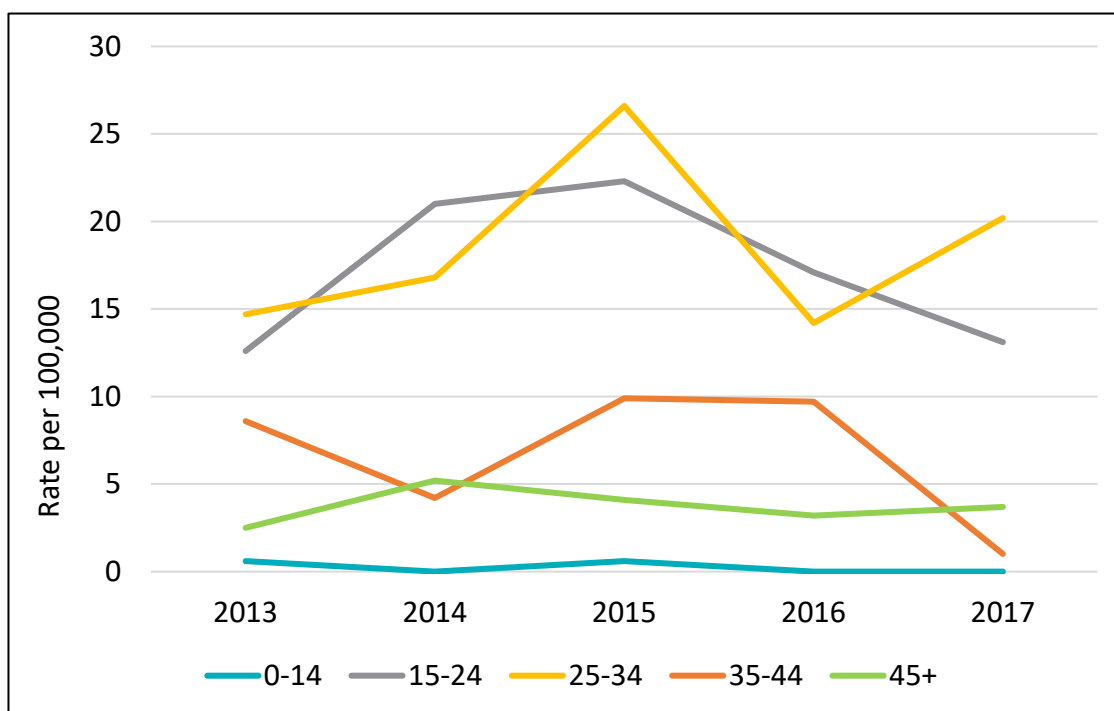
Data Source: Texas Department of State Health Services

Figure 4. New HIV Diagnoses by Race/Ethnicity, Denton County 2013-2017



*Graph does not represent unknown or missing Race/Ethnicity
Data Source: Texas Department of State Health Services

Figure 5. New HIV Diagnoses by Age Group, Denton County 2013-2017



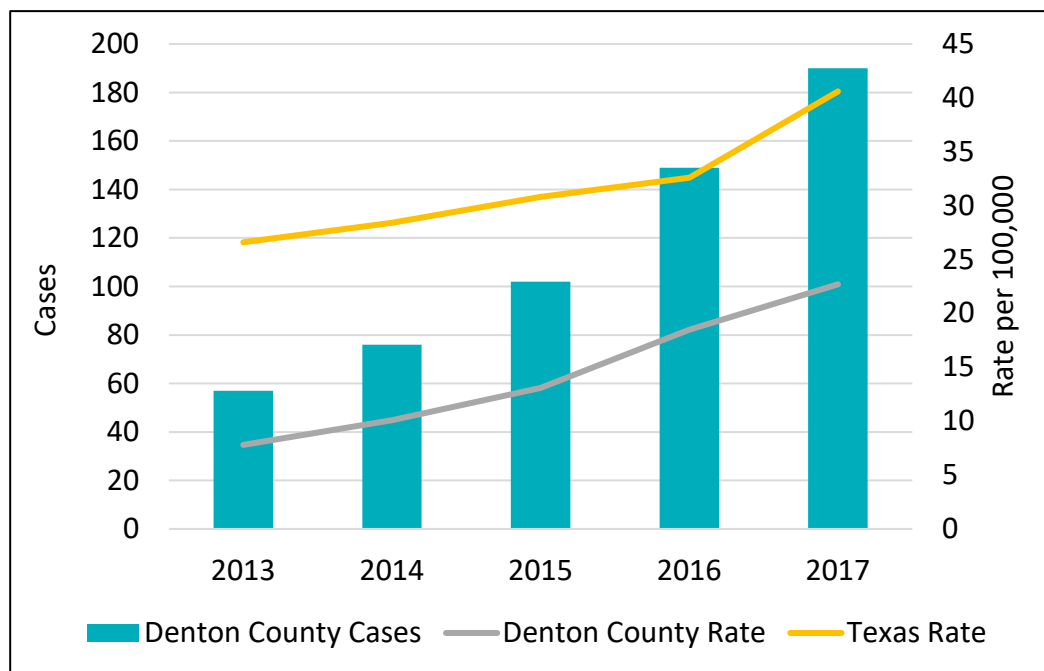
Data Source: Texas Department of State Health Services

Syphilis

Denton County 2013-2017

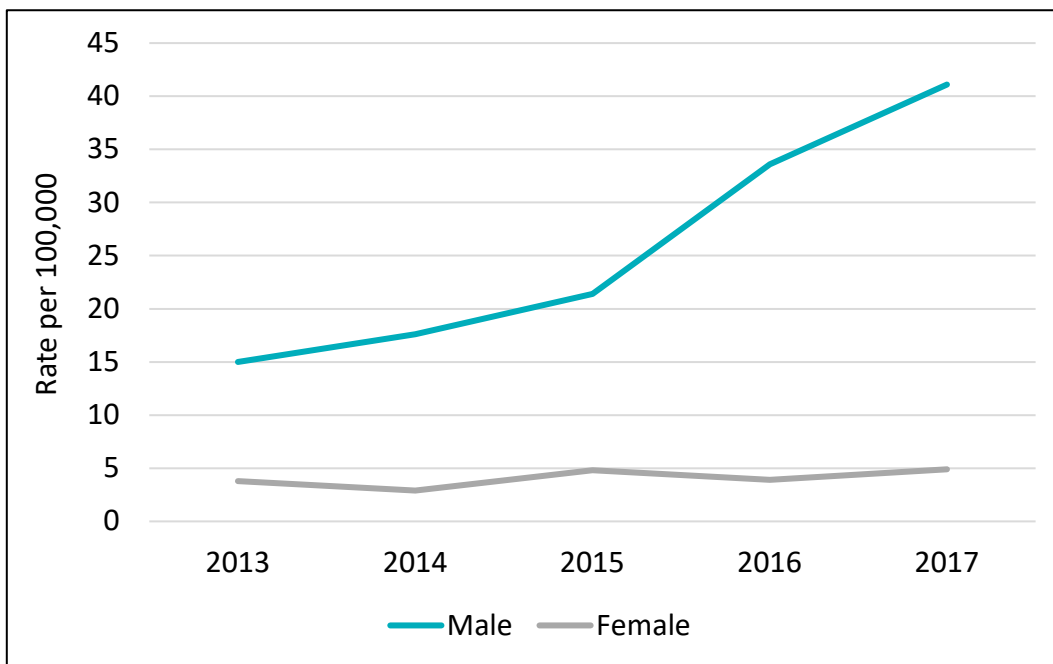
- **Causative Agent:** (bacterial) *Treponema pallidum*
- **Signs & Symptoms:**
 - **Primary:** Firm, round, painless sore(s). The sore lasts 3 to 6 weeks.
 - **Secondary:** Skin rashes and/or sores in the mouth, vagina, or anus. The rash can look like rough, red, or reddish brown spots on the palms of hands and the bottoms of the feet. The rash usually won't itch and is sometimes so faint that it is not noticed. Other symptoms may include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue.
 - **Latent & Late Stages:** The latent (hidden) stage of syphilis begins when primary and secondary symptoms disappear. Without treatment, the infected person can continue to have syphilis infection in the body without any signs or symptoms. Latent syphilis can last for years. Late stages of syphilis can develop in about 15% of people who have not been treated for syphilis, and can appear 10–20 years after infection was first acquired. Symptoms of the late stage of syphilis include difficulty coordinating muscle movements, paralysis, numbness, gradual blindness, and dementia. The disease damages internal organs and may be serious enough to cause death.
- **Mode(s) of Transmission:** perinatally or sexually transmitted infection
- **Incubation period:** 10 days to 3 months
- **Period of Communicability:** most contagious during primary and secondary stages

Figure 1. Syphilis in Denton County and Texas



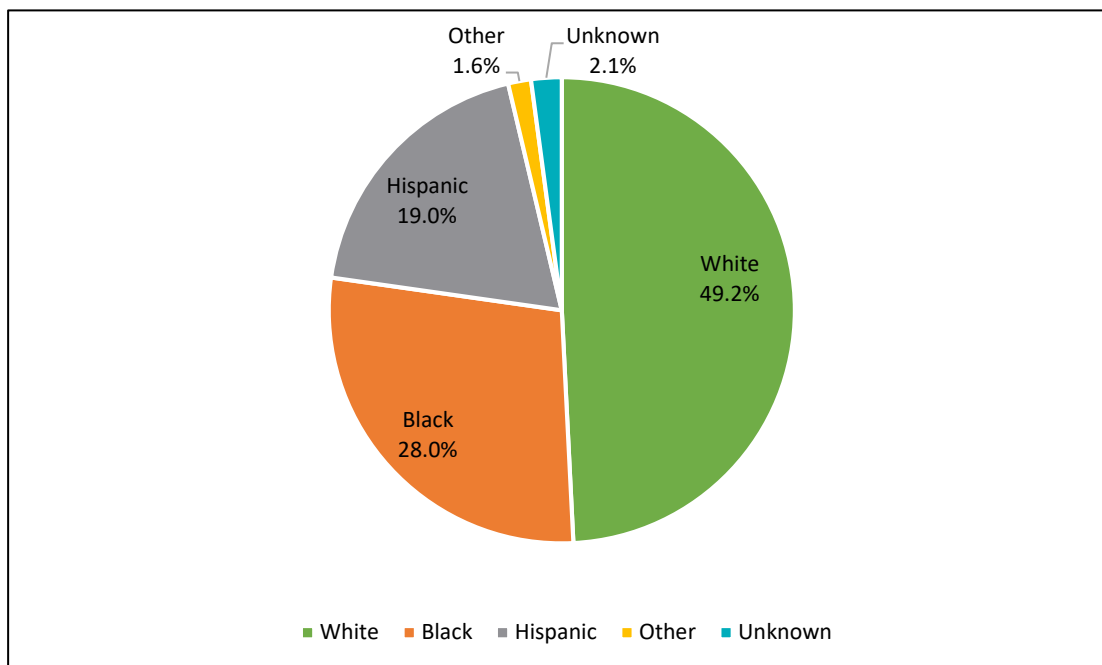
Data Source: Texas Department of State Health Services

Figure 2. Syphilis by Gender, Denton County 2013-2017



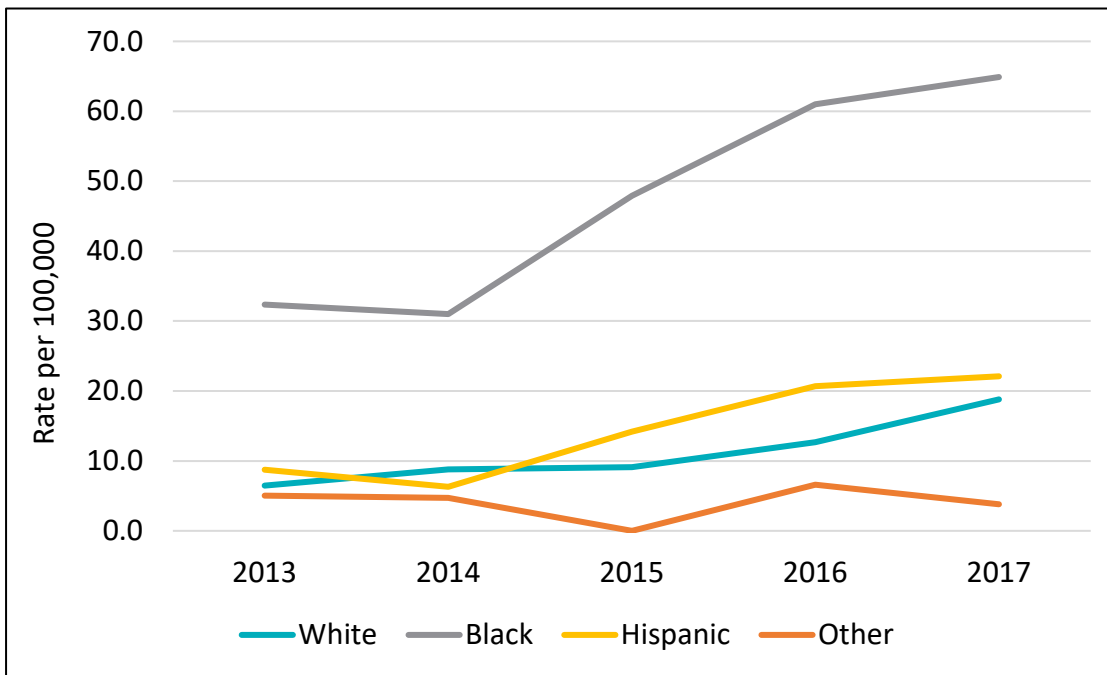
Data Source: Texas Department of State Health Services

Figure 3. Syphilis by Race/Ethnicity, Denton County New Cases 2017



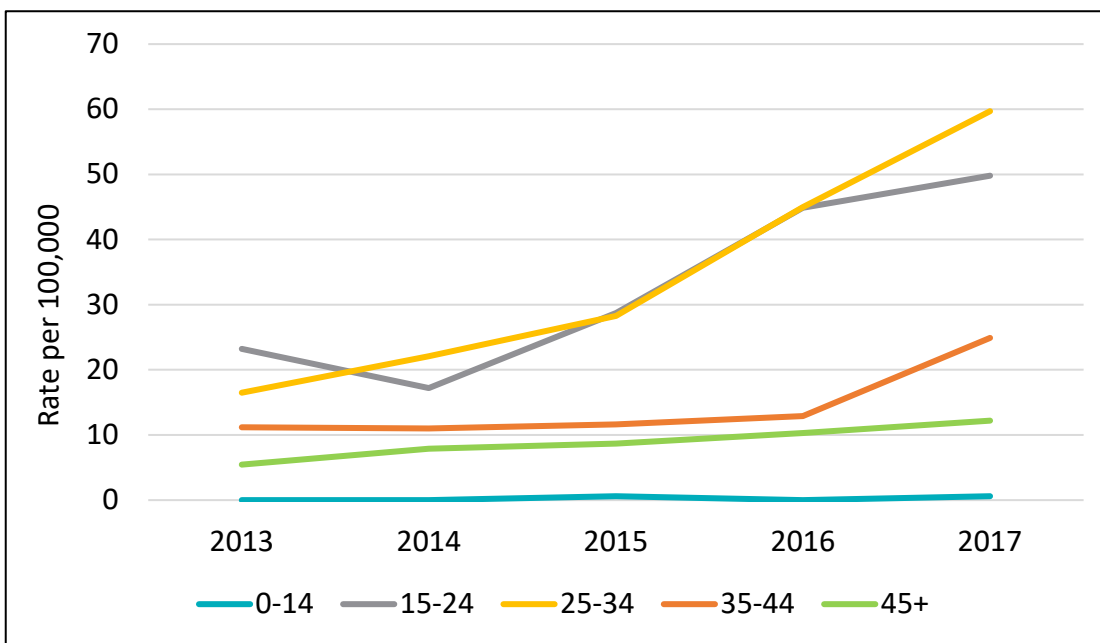
Data Source: Texas Department of State Health Services

Figure 4. Syphilis by Race/Ethnicity, Denton County 2013-2017



*Graph does not represent unknown or missing Race/Ethnicity
 Data Source: Texas Department of State Health Services

Figure 5. Syphilis by Age Group, Denton County 2013-2017



Data Source: Texas Department of State Health Services

Pertussis

Denton County 2013-2017

- **Causative Agent:** (bacterial) *Bordetella pertussis*
- **Signs & Symptoms:**
 - **Catarrhal Stage:** Runny nose, sneezing, low-grade fever, and slight cough. The cough gradually becomes more severe and after 1-2 weeks, the next stage develops.
 - **Paroxysmal Stage:** Coughing fits (paroxysms), which may be followed by inspiratory whooping sound, vomiting, or apnea. Usually lasts 1-6 weeks, but may continue for 10 weeks.
 - **Convalescent Stage:** Gradual resolution of paroxysmal coughing. The coughing may last a few weeks or continue for months
 - Pertussis in infants may be atypical with a short catarrhal stage, followed by gagging, gasping, bradycardia, or apnea as early symptoms and an absence of whoop. Older children, adolescents, and adults usually experience milder pertussis symptoms.
 - **Complications:**
 - Infants – About half of infants with pertussis are hospitalized. Complications include apnea, pneumonia, pulmonary hypertension, seizures, encephalopathy, and death.
 - Adults – fainting, weight loss, sleep disturbance, incontinence, rib fractures, and pneumonia.
- **Mode(s) of Transmission:** person-to-person through direct contact with respiratory secretions, most commonly airborne droplets from infectious individuals
- **Incubation period:** 4-21 days; average 7-10 days
- **Period of Communicability:** Most infectious during catarrhal period and for 21 days after cough onset.

Figure 1. Pertussis in Denton County

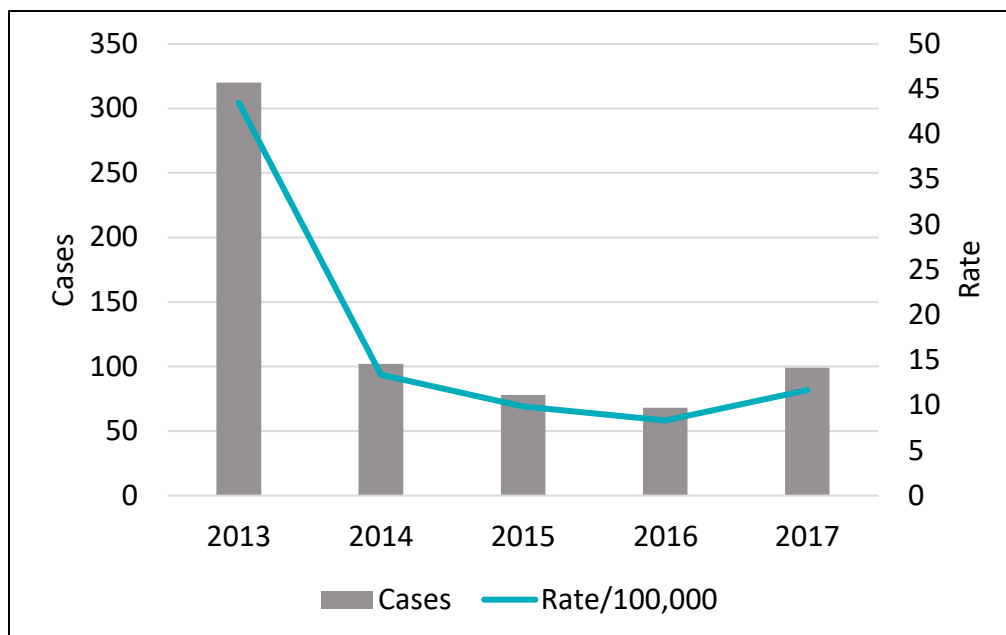


Figure 2. Pertussis by Sex, Denton County New Cases 2017

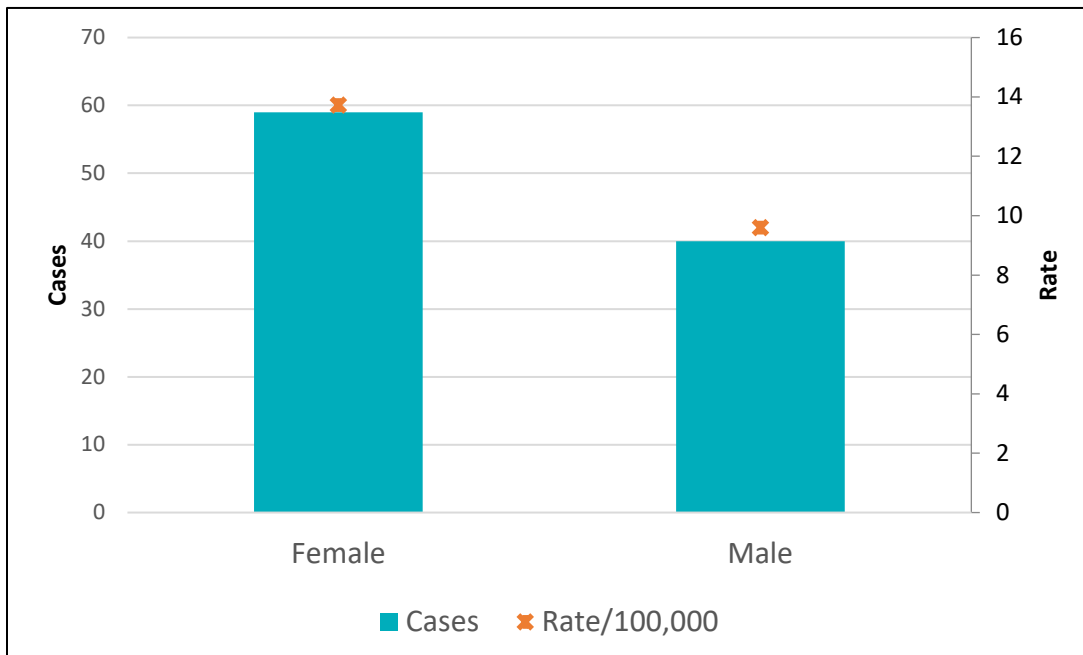
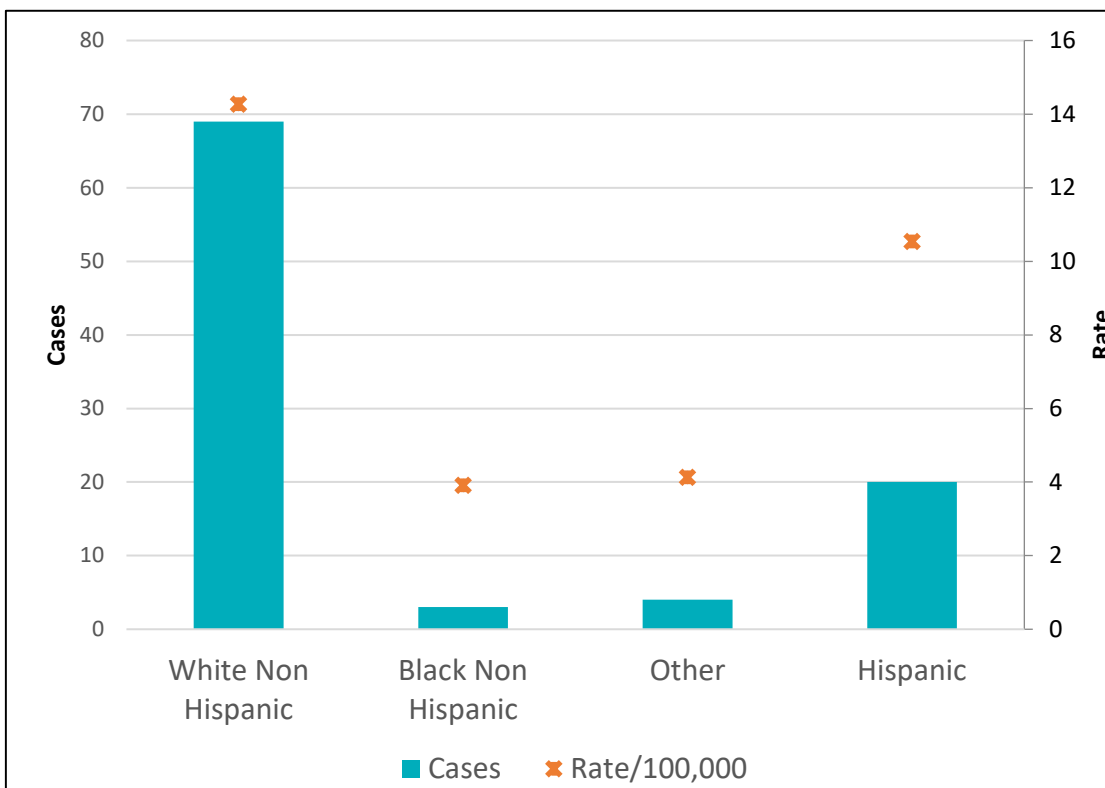
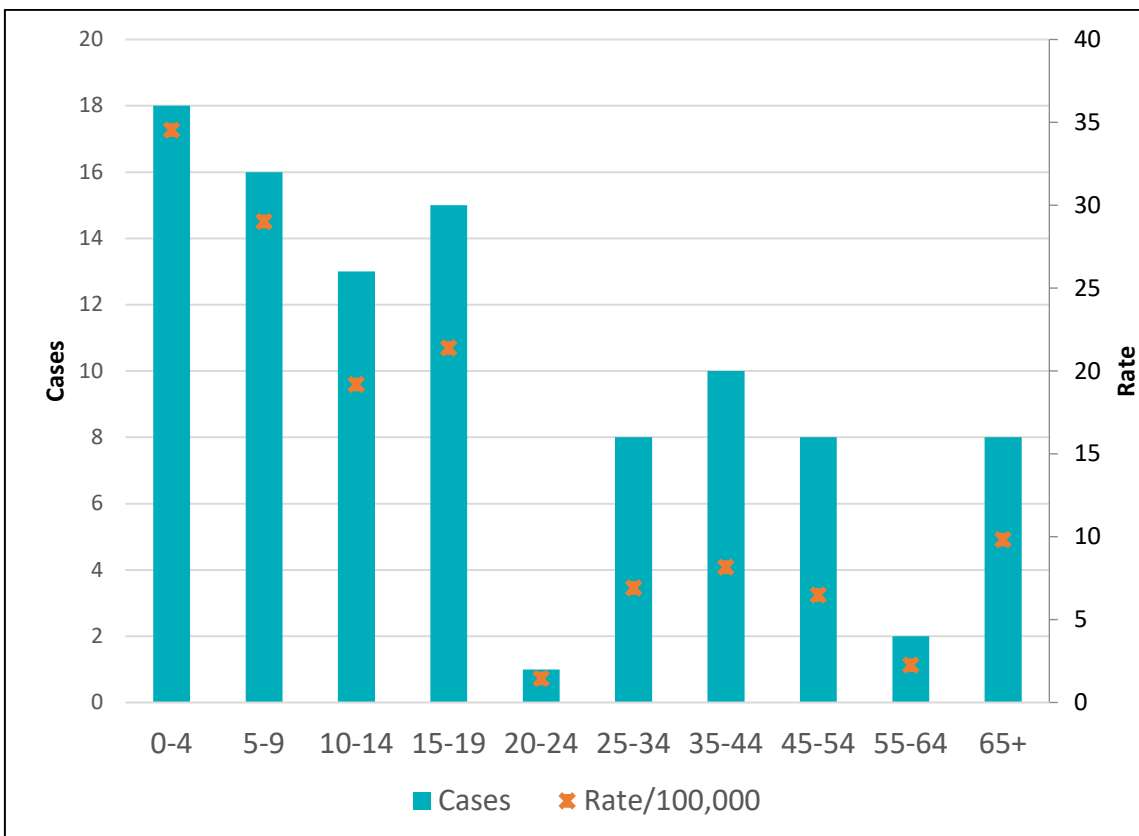


Figure 3. Pertussis by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Pertussis by Age Group, Denton County New Cases 2017



Varicella

Denton County 2013-2017

- **Causative Agent:** (viral) Huma (alpha) herpesvirus 3 (varicella-zoster virus, VZV)
- **Signs & Symptoms:**
 - Fever and generalized, itchy maculopapulovesicular rash with lesions in various stages of development. The lesions are maculopapular for a few hours, vesicular and pustular for 3-4 days, then crust, leaving scabs. Lesions commonly occur in successive crops for 3-7 days. Lesions tend to be more abundant on the trunk. Mild, atypical, and unapparent infections also occur. Vaccinated individuals with varicella may only have a few lesions and no fever. Complications – dehydration, pneumonia, bleeding problems, infection or inflammation of the brain, bacterial infections of the skin and soft tissues in children, blood stream infections, toxic shock syndrome, bone infections, joint infections. Some people with serious complications have to be hospitalized. Chickenpox can also cause death.
 - Pregnant women who get varicella have increased risk of developing pneumonia. Fetal infection may result in the baby being born with congenital varicella syndrome or fetal death. Neonatal varicella can result in infants whose mothers develop varicella 5 days before to 2 days after delivery.
- **Mode(s) of Transmission:** direct contact with patient with varicella (chickenpox) or zoster (shingles); droplet or airborne spread of vesicle fluid or secretions of the respiratory tract; indirectly by contaminated inanimate objects.
- **Incubation period:** 10-21 days; usually 14-16 days. May be prolonged to 28 days after receipt of Varicella-Zoster Immune Globulin and shorter in immunocompromised patients.
- **Period of Communicability:** 5 days before rash onset (especially 1-2 days before rash onset) and up to 5 days after onset of lesions (until crusting).

Figure 1. Varicella in Denton County

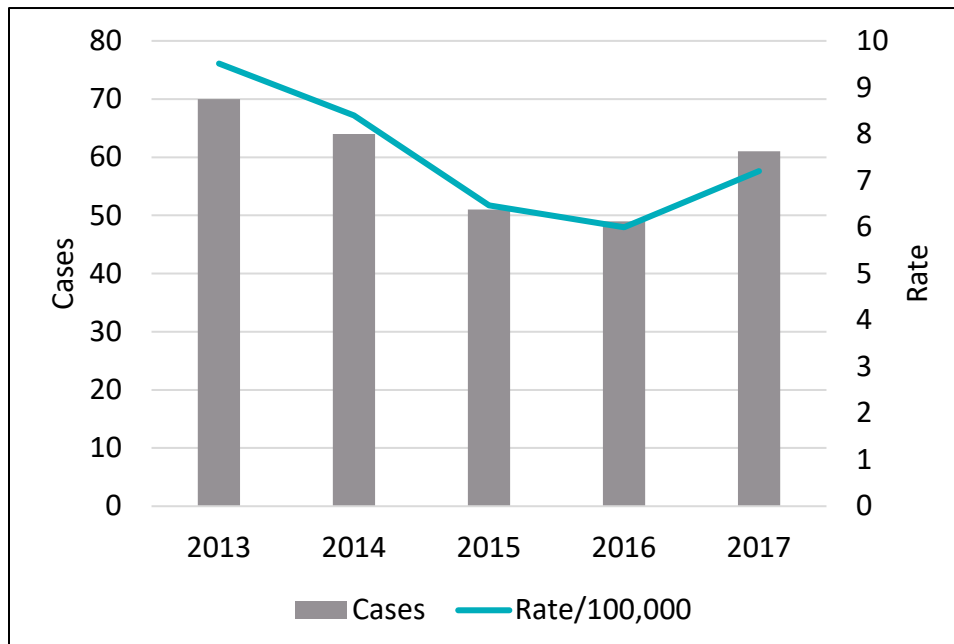


Figure 2. Varicella by Sex, Denton County New Cases 2017

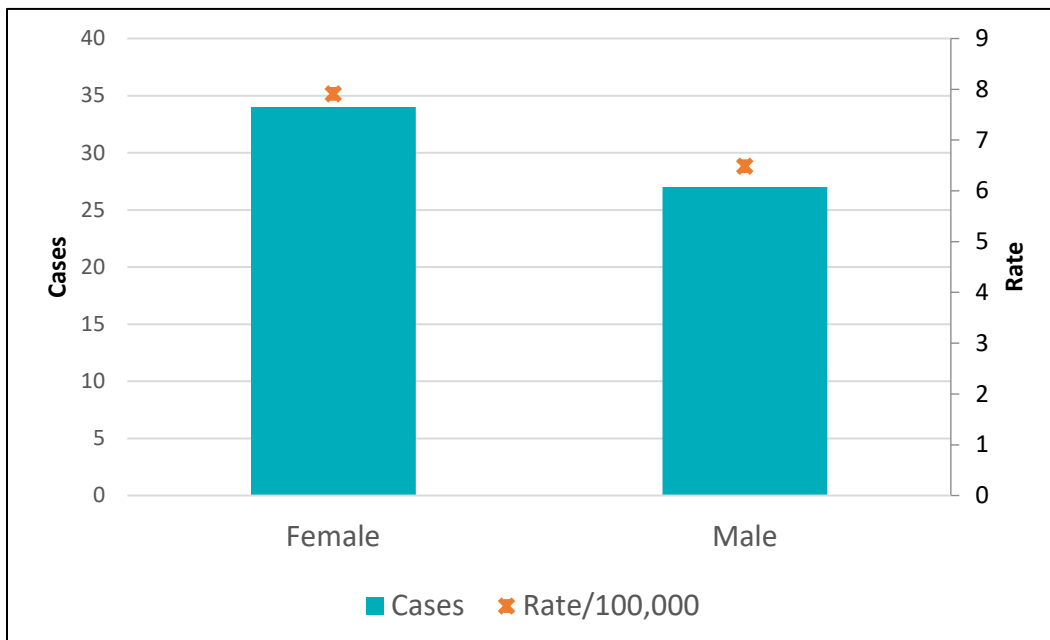
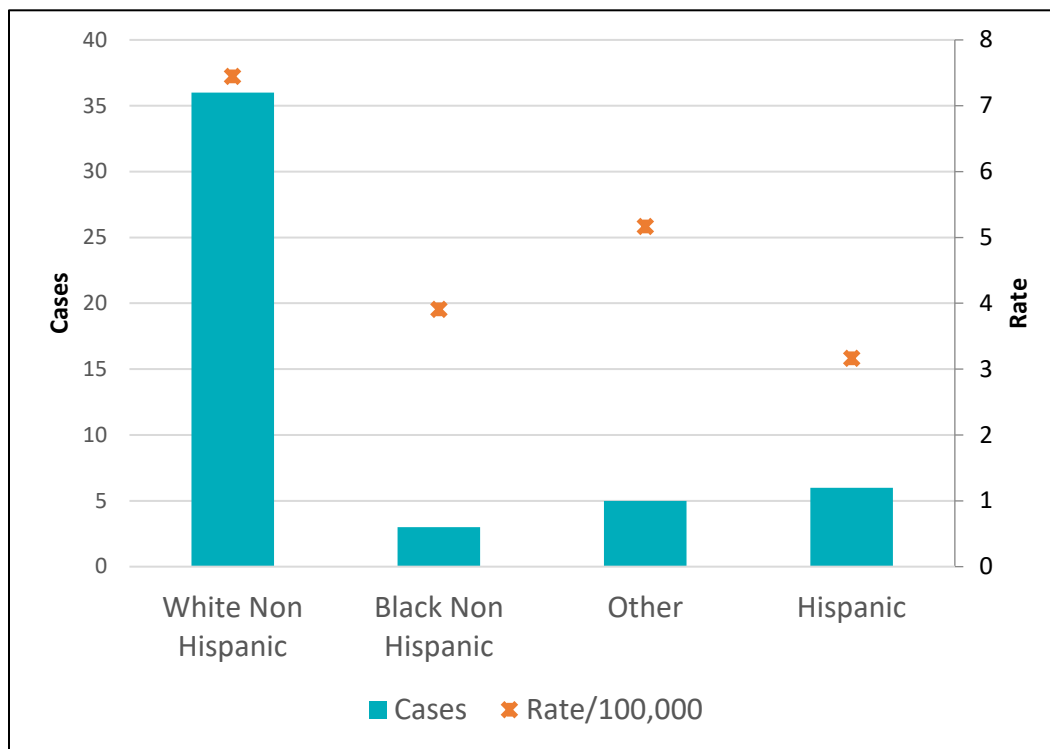
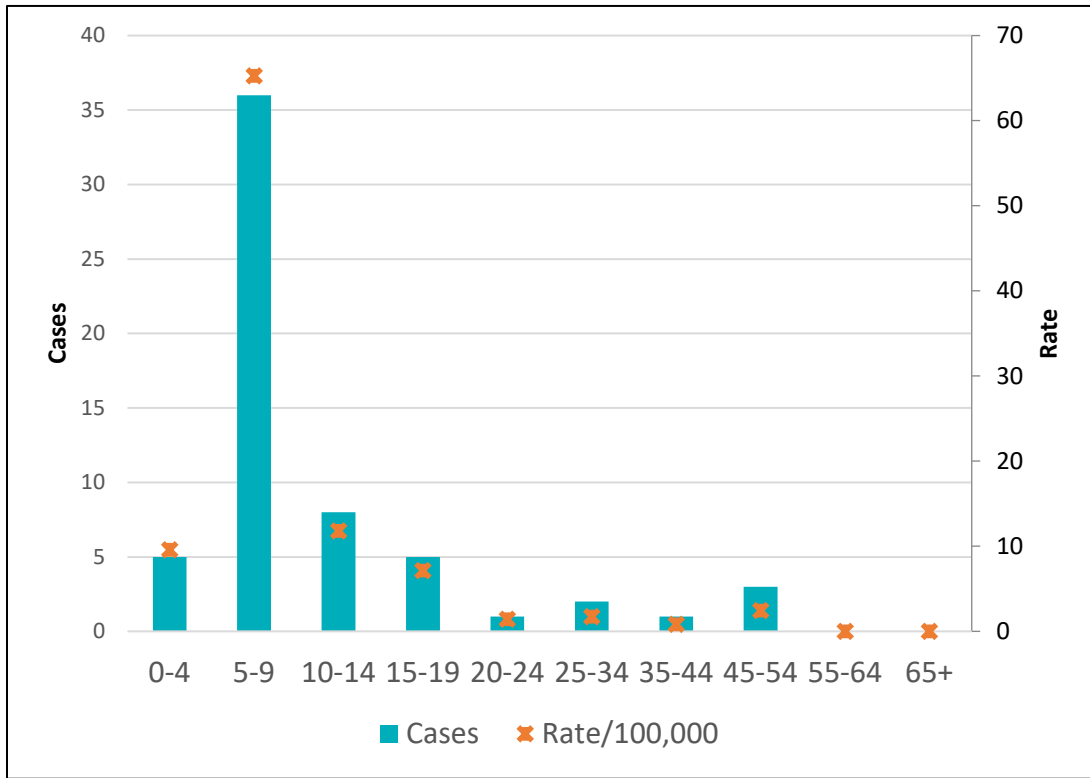


Figure 3. Varicella by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Varicella by Age Group, Denton County New Cases 2017



Campylobacteriosis

Denton County 2013-2017

- **Causative Agent:** (bacterial) *Campylobacter* species, mostly *C. jejuni*, and fewer *C. coli*
- **Signs & Symptoms:** Diarrhea, abdominal pain, malaise, and fever. The diarrhea may be bloody and the patient may also experience nausea and vomiting. Bacteremia is uncommon. Symptoms usually last less than one week. Complications post infection – reactive arthritis, Guillain-Barre Syndrome, and irritable bowel syndrome.
- **Mode(s) of Transmission:** Fecal-oral
- **Incubation period:** 1-10 days; usually 2-5 days
- **Period of Communicability:** infected persons may excrete the organism for 2-7 weeks, but person-to-person transmission is uncommon.

Figure 1. Campylobacteriosis in Denton County

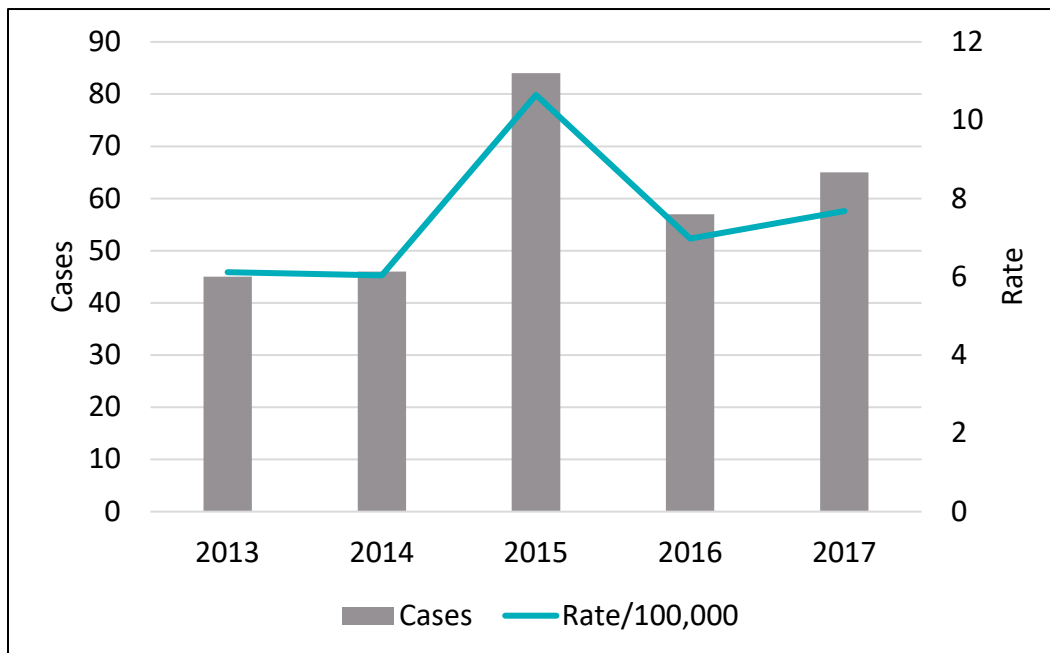


Figure 2. Campylobacteriosis by Sex, Denton County New Cases 2017

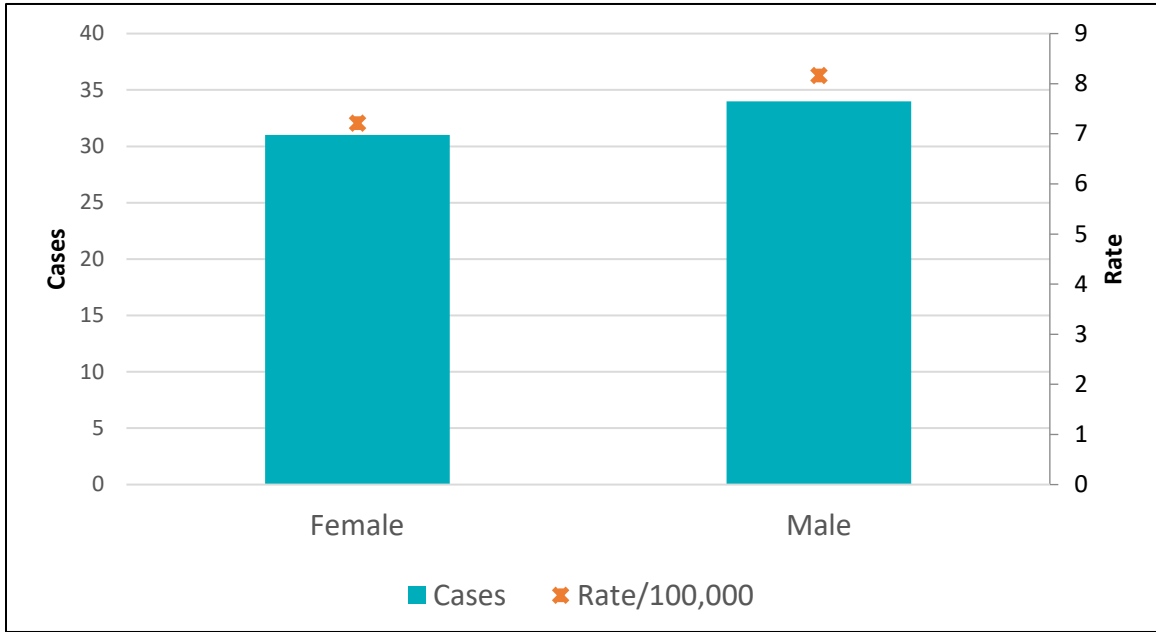
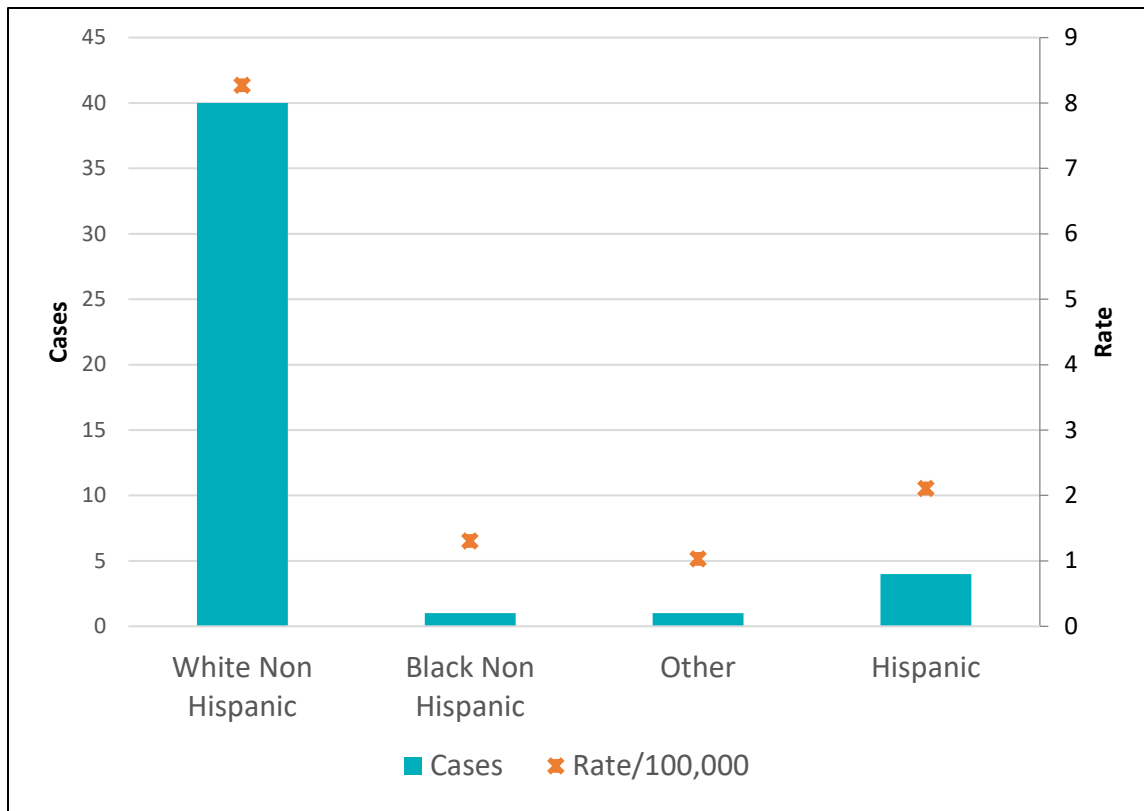
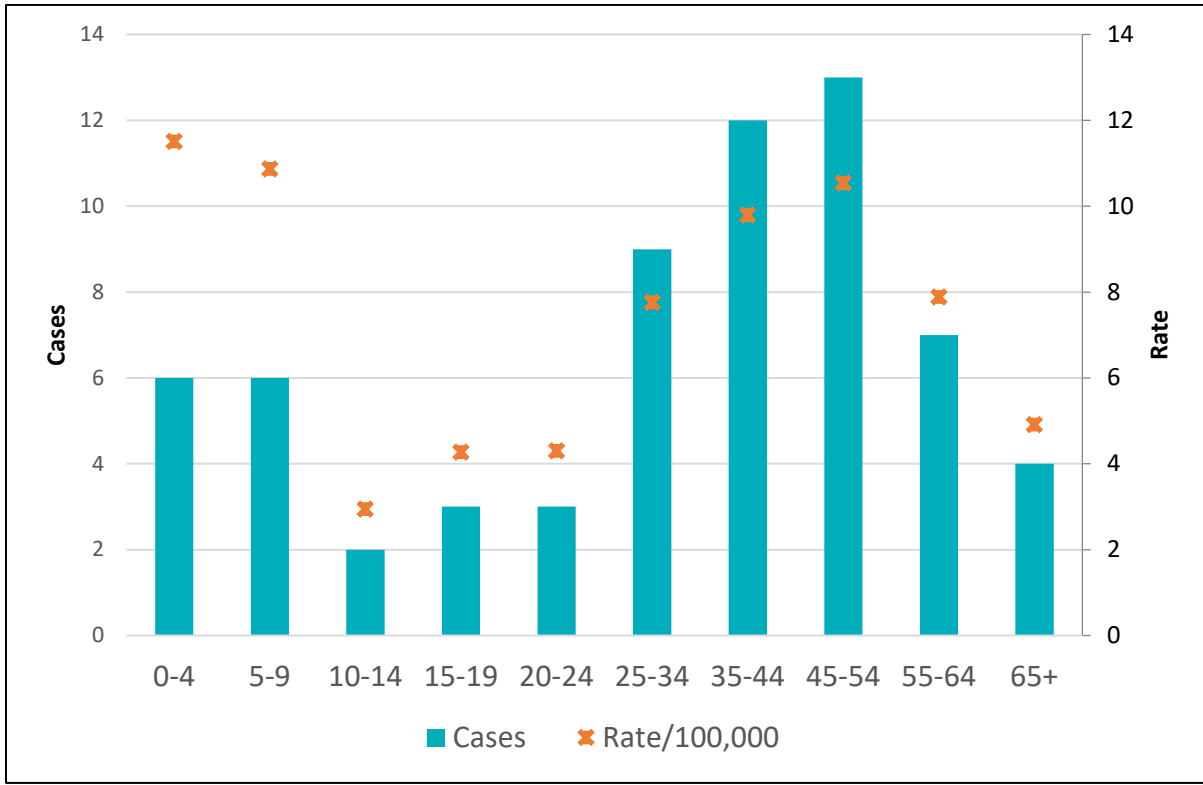


Figure 3. Campylobacteriosis by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Campylobacteriosis by Age Group, Denton County New Cases 2017



Cryptosporidiosis

Denton County 2013-2017

- **Causative Agent:** (protozoan parasite) *Cryptosporidium* species. Most commonly *C. hominus* and *C. parvum*
- **Signs & Symptoms:** Frequent, non-bloody, watery diarrhea is the most common symptom. Other symptoms include fever, abdominal cramps, fatigue, nausea, vomiting, anorexia, and weight loss. Illness usually lasts 1-2 weeks (less than 30 days). Some infected people have no symptoms. Complications – Immunocompromised individuals may have chronic diarrhea with malnutrition and significant weight loss, which can contribute to death. Rare instances of disseminated infection may occur in immunocompromised individuals.
- **Mode(s) of Transmission:** Fecal-oral through ingestion of sporulated oocysts.
- **Incubation period:** Variable; usually 1-12 days, with an average of 7 days
- **Period of Communicability:** Oocysts shed while symptomatic and for up to 2 weeks after symptoms resolve. Immunocompromised individuals may shed oocysts for months.

Figure 1. Cryptosporidiosis in Denton County

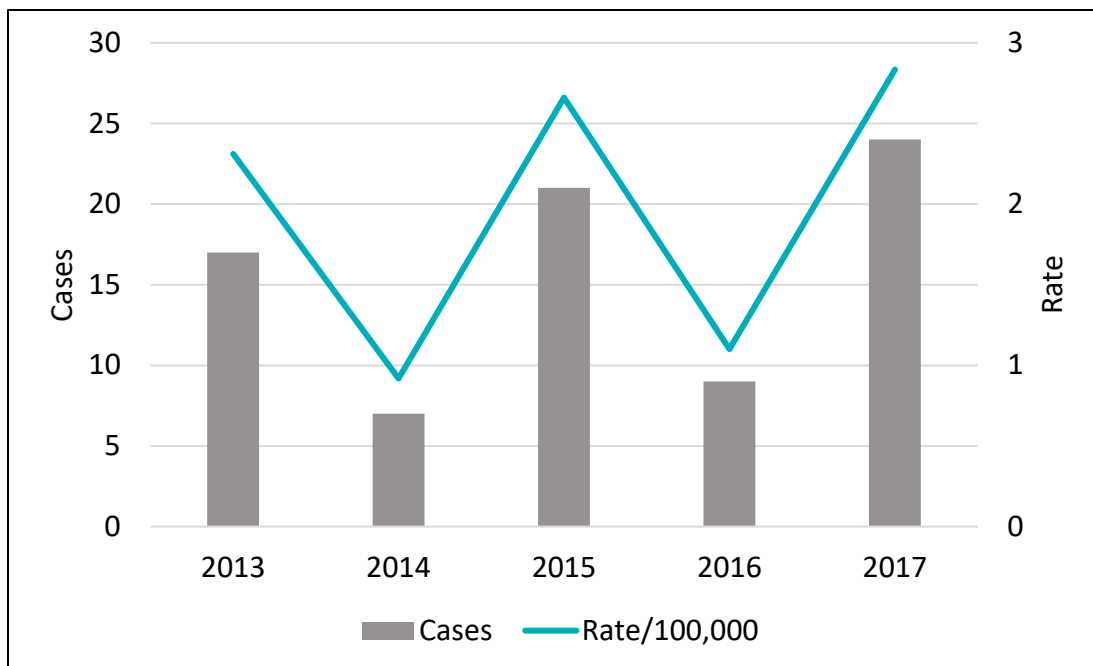


Figure 2. Cryptosporidiosis by Sex, Denton County New Cases 2017

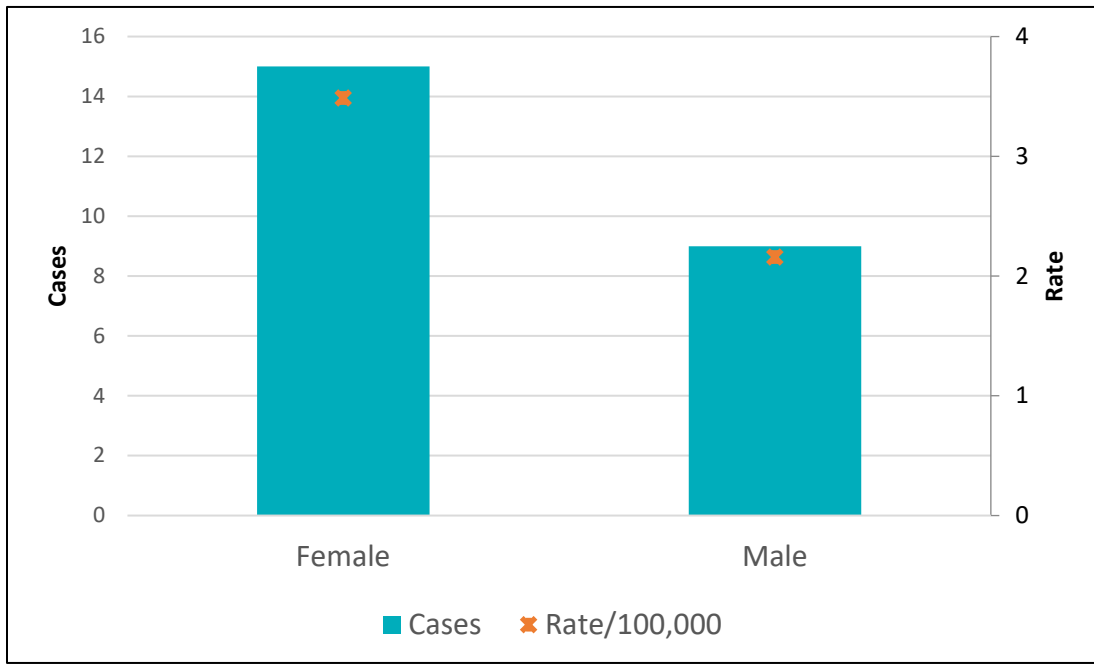
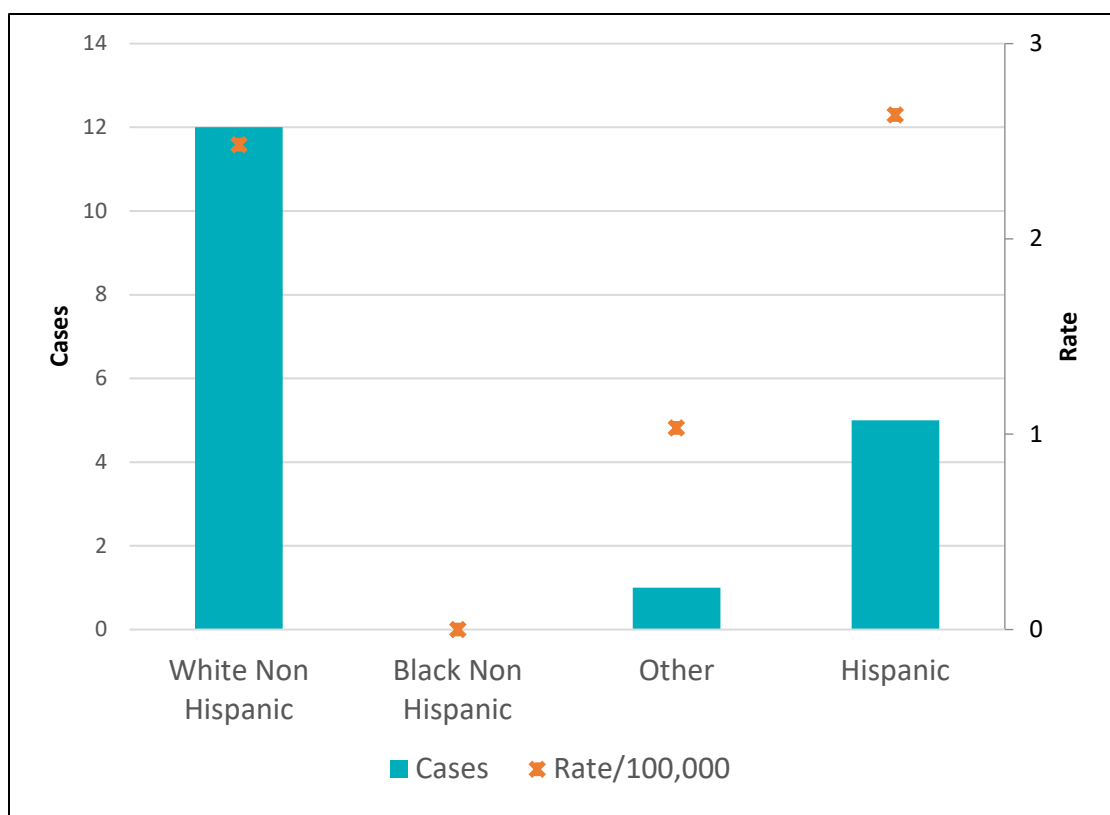
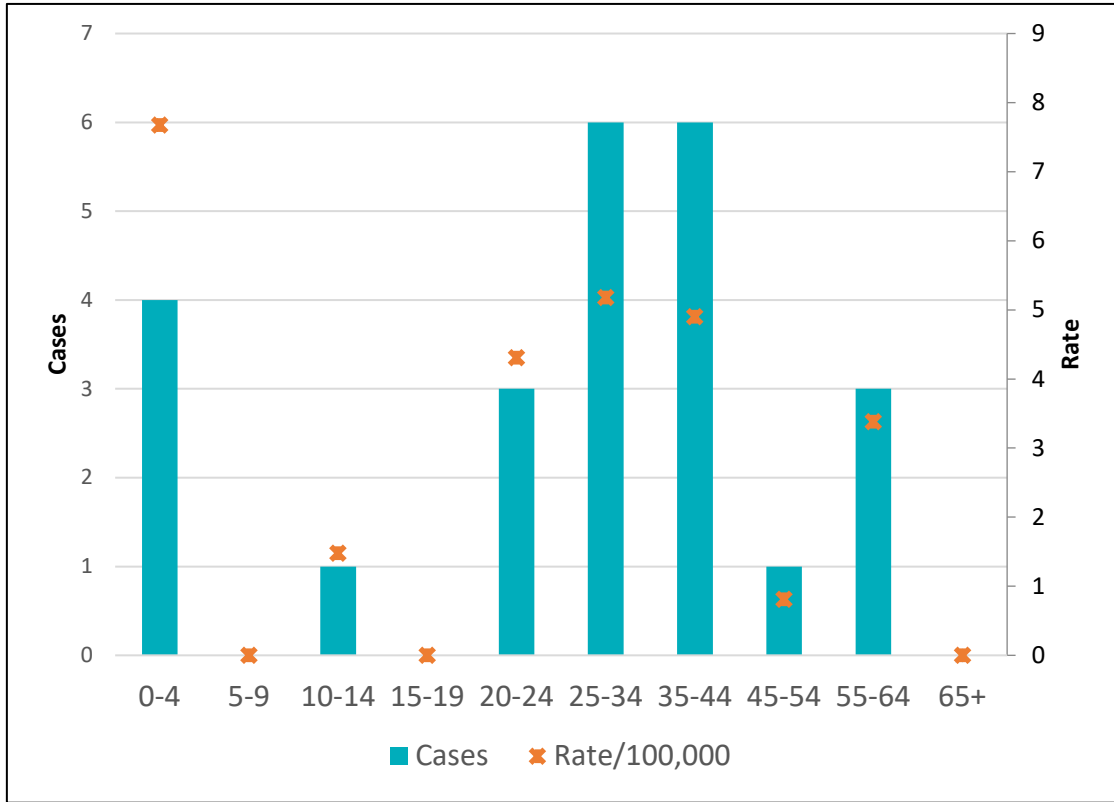


Figure 3. Cryptosporidiosis by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Cryptosporidiosis by Age Group, Denton County New Cases 2017



Cyclosporiasis

Denton County 2013-2017

- **Causative Agent:** (protozoan parasite) *Cyclospora cayetanensis*
- **Signs & Symptoms:** Watery diarrhea is the most common symptom. Other symptoms are low-grade fever, anorexia, weight loss, nausea, vomiting, prolonged fatigue, abdominal cramps, flatulence, and myalgia. Asymptomatic infections can occur, especially where cyclosporiasis is endemic. Untreated people may have remitting, relapsing symptoms for weeks to months.
- **Mode(s) of Transmission:** Ingestion of oocysts in contaminated food or water
- **Incubation period:** 2-14 days; usually 7 days
- **Period of Communicability:** Direct person-to-person transmission is unlikely because the oocysts are not infectious in freshly excreted stool. Indirect transmission can occur if the oocysts contaminate the environment and sufficient time/conditions allow them to become infectious (sporulate).

Figure 1. Cyclosporiasis in Denton County

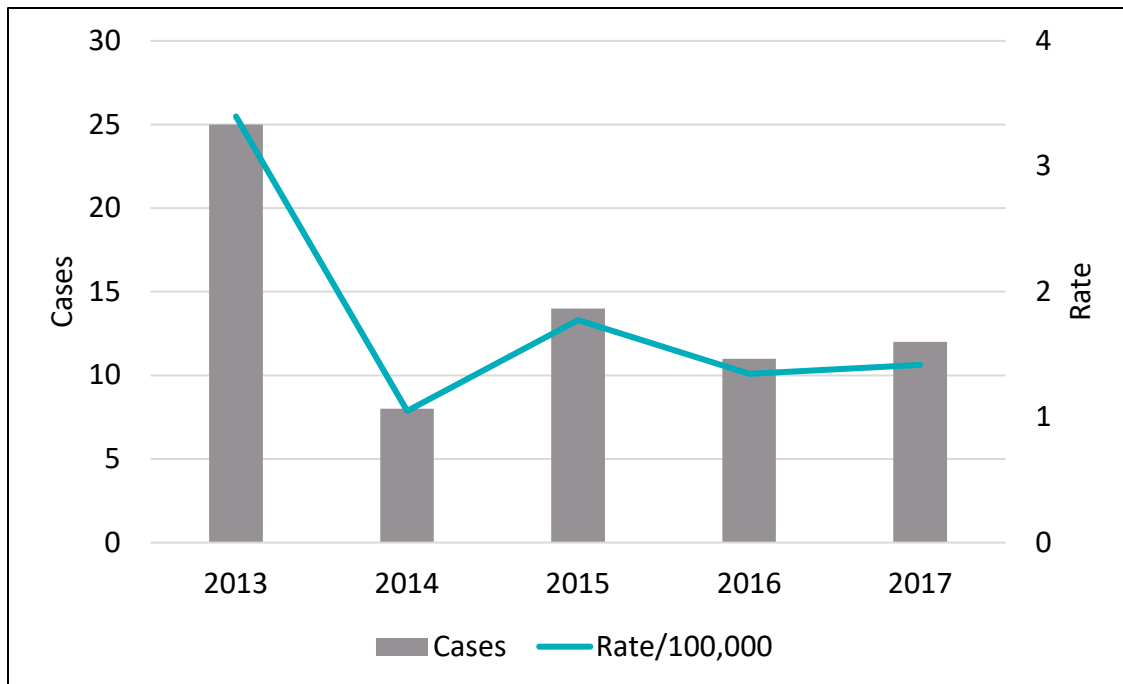


Figure 2. Cyclosporiasis by Sex, Denton County New Cases 2017

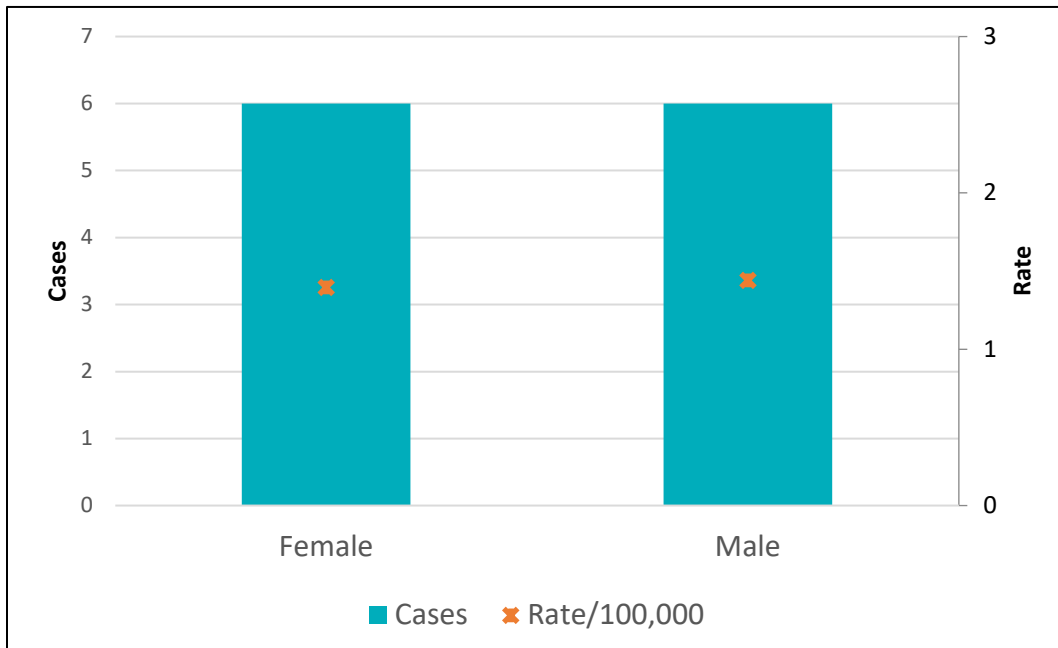
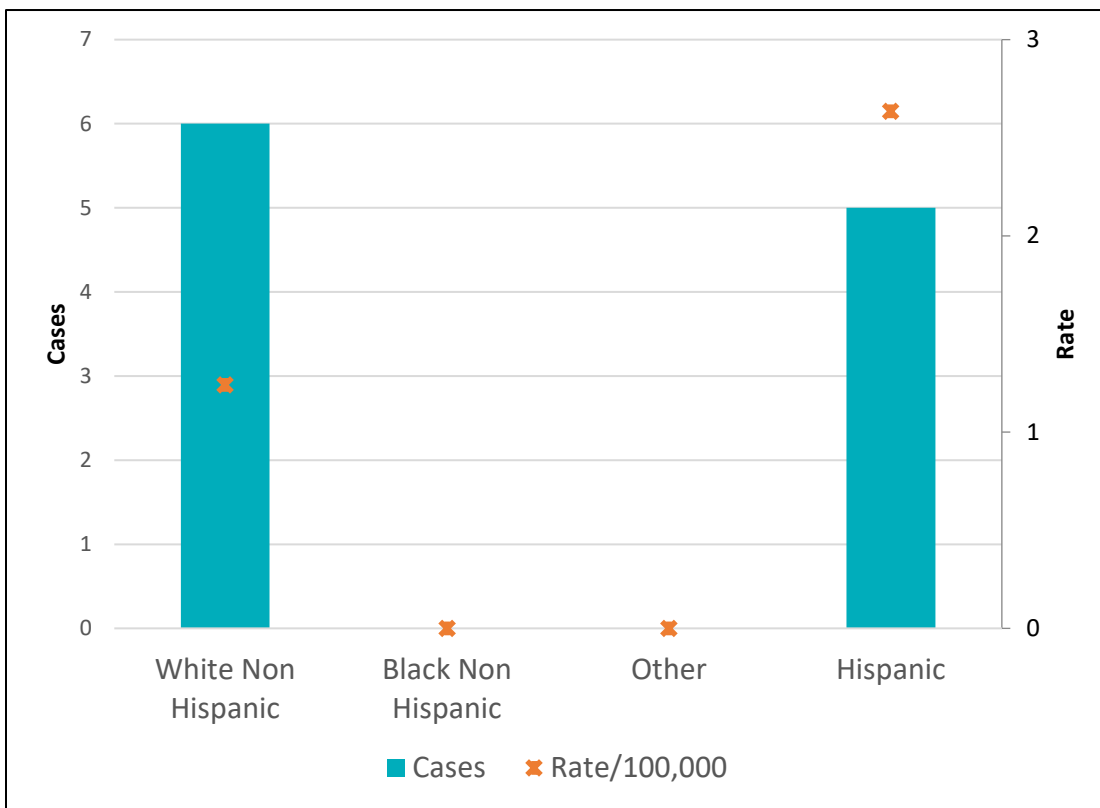
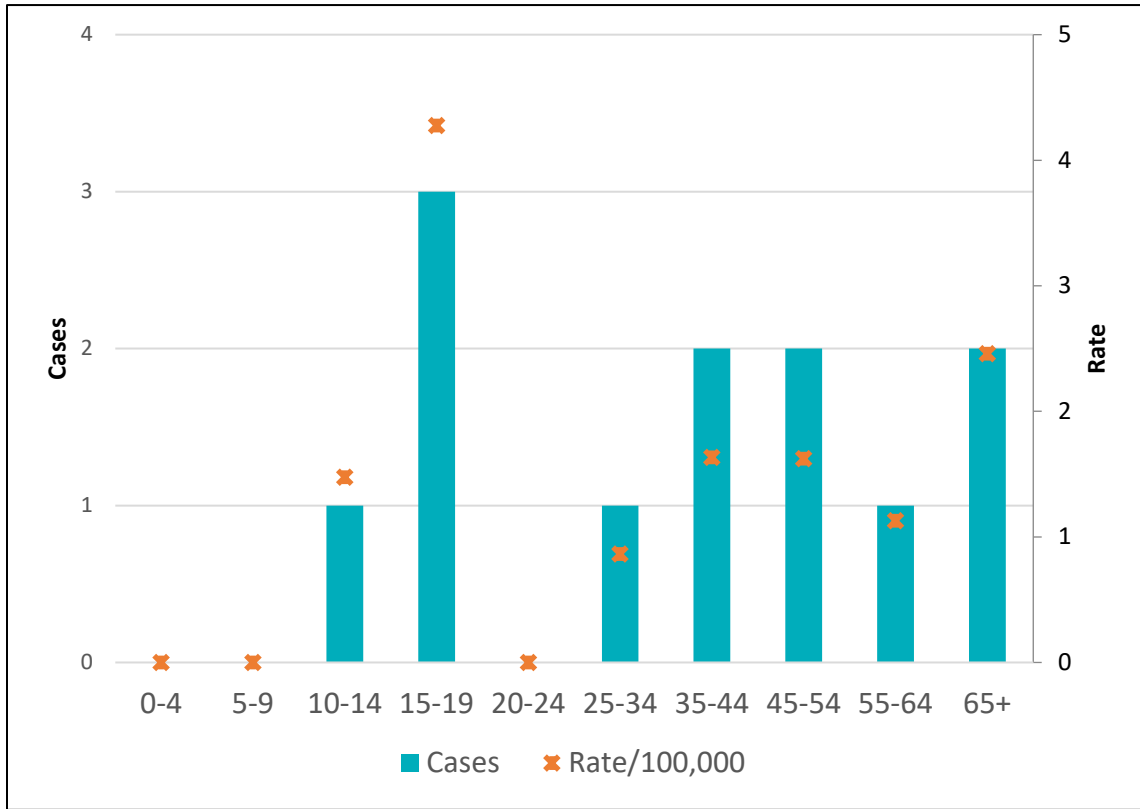


Figure 3. Cyclosporiasis by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Cyclosporiasis by Age Group, Denton County New Cases 2017



Salmonellosis

Denton County 2013-2017

- **Causative Agent:** (bacterial) *Salmonella* species
- **Signs & Symptoms:** Diarrhea, nausea, headache, abdominal cramps/pain, fever, and sometimes vomiting. Bloody diarrhea and invasive disease may occur. A carrier state may develop. Infections caused by *S. Paratyphi* can cause a systemic illness with symptoms of fever, loss of appetite, lethargy, and/or malaise.
- **Mode(s) of Transmission:** Fecal-oral
- **Incubation period:** 6-72 hours; usually 12-36 hours. For *S. Paratyphi*, usually 1-10 days but may be as long as 2-3 weeks.
- **Period of Communicability:** People are infectious as long as bacteria is shed in their stool. Bacteria are can be shed through the course of infection, usually several days to several weeks. A small percentage of cases shed the organism for many months. Antibiotic use can prolong the duration of fecal shedding.

Figure 1. Salmonellosis in Denton County

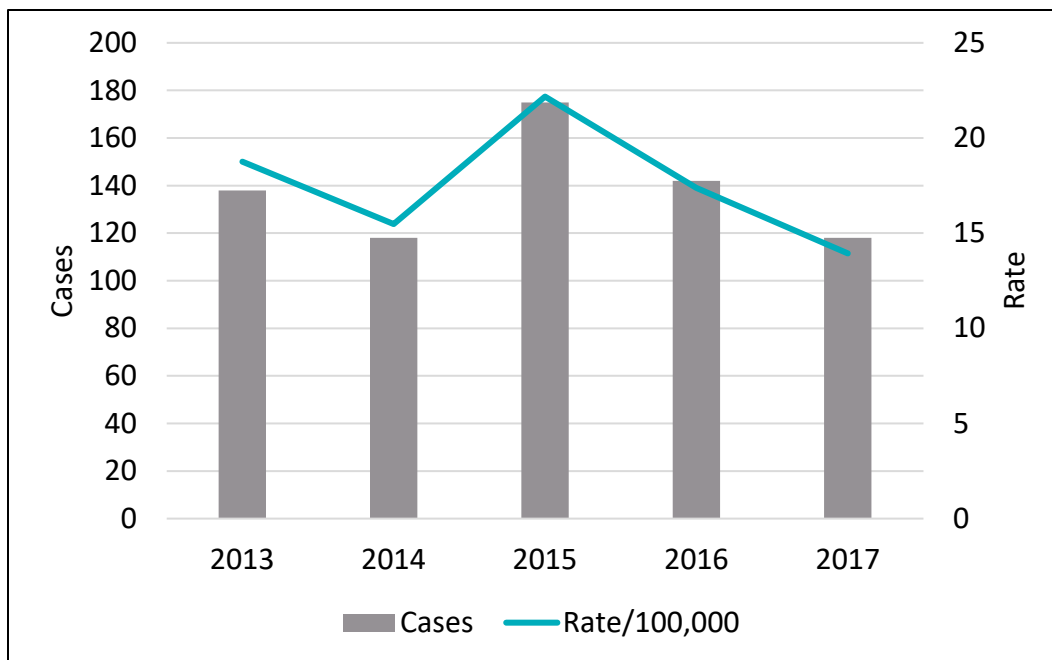


Figure 2. Salmonellosis by Sex, Denton County New Cases 2017

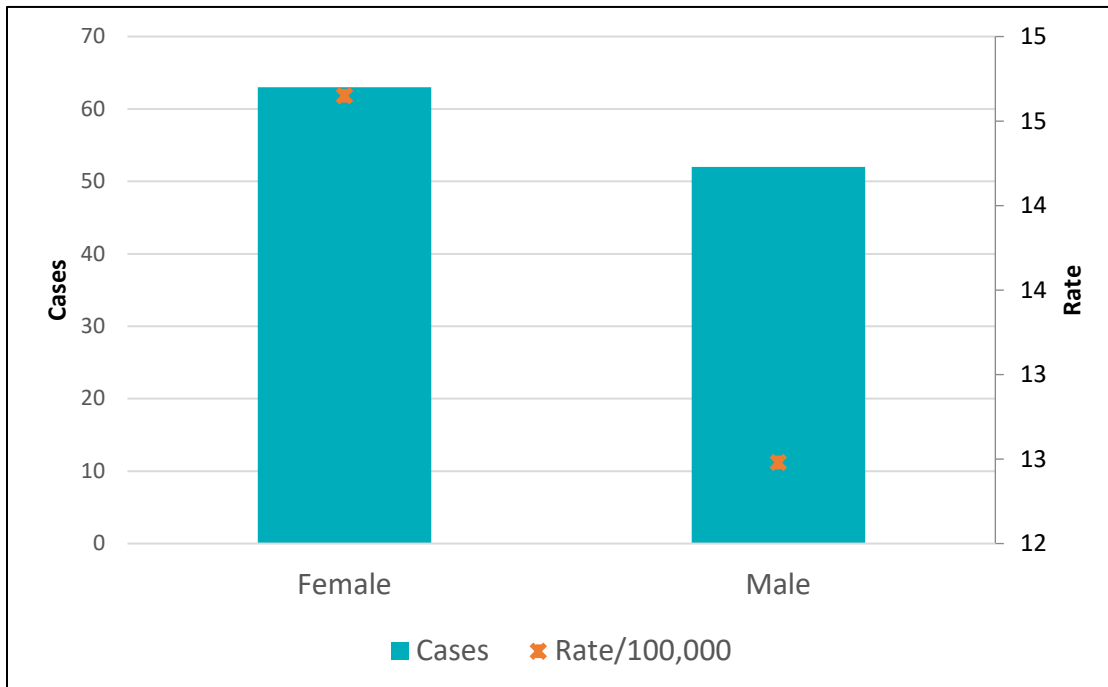
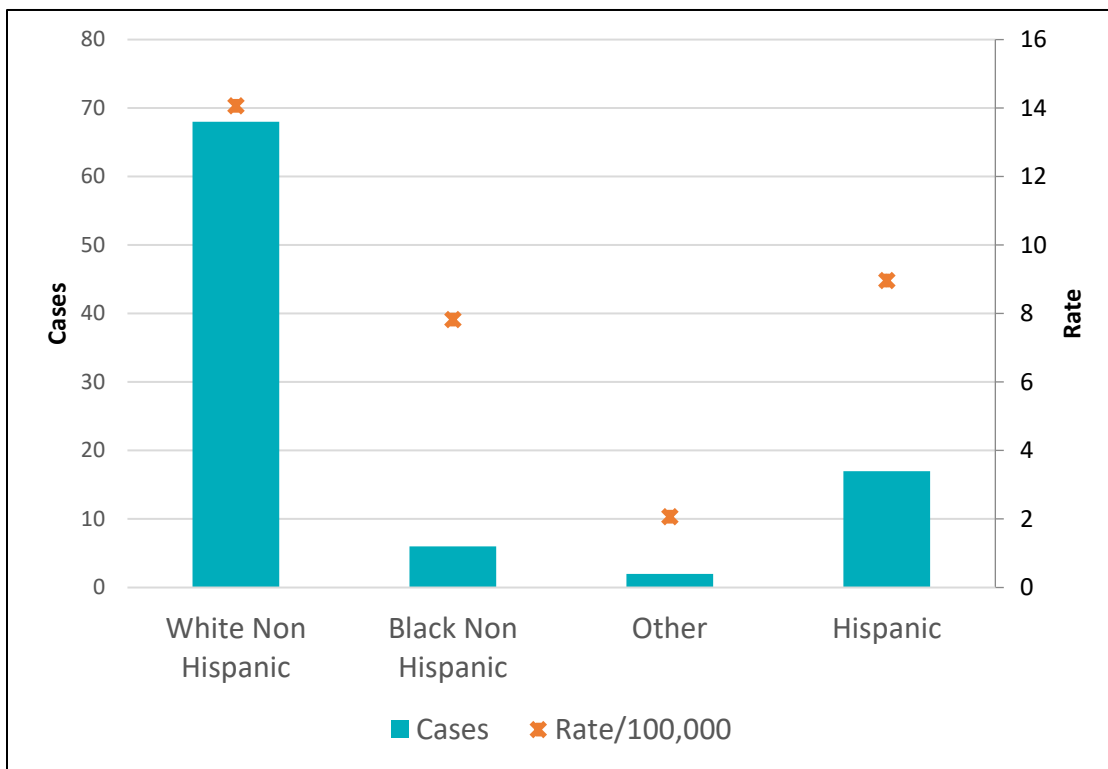
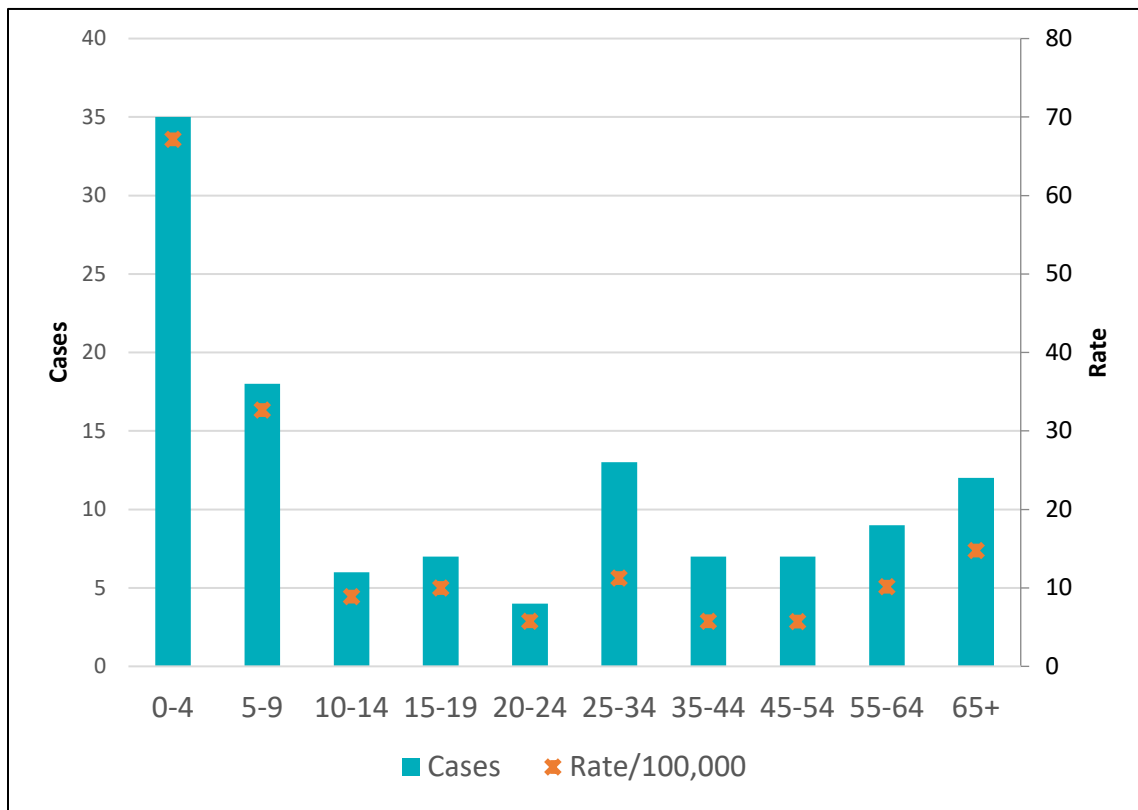


Figure 3. Salmonellosis by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Salmonellosis by Age Group, Denton County New Cases 2017



Shiga toxin-producing Escherichia coli (STEC)

Denton County 2013-2017

- **Causative Agent:** (bacterial) Shiga-toxin producing *Escherichia coli*
- **Signs & Symptoms:** Symptoms vary but predominant symptoms are severe abdominal pain and non-bloody diarrhea which can become bloody after 3-4 days. Complications – Hemolytic uremic syndrome (HUS). Patients with HUS can develop neurologic complications.
- **Mode(s) of Transmission:** Fecal-oral. Person-to-person spread is common within households and daycare centers.
- **Incubation period:** 1-10 days; *E. coli* O157:H7 is usually 3-4 days, with 6% of infections developing hemolytic uremic syndrome (HUS) within 3 weeks of infection.
- **Period of Communicability:** Duration of pathogen excretion - 1 week or less in adults. 3 weeks in 1/3 of children. Prolonged carriage is uncommon.

Figure 1. STEC in Denton County

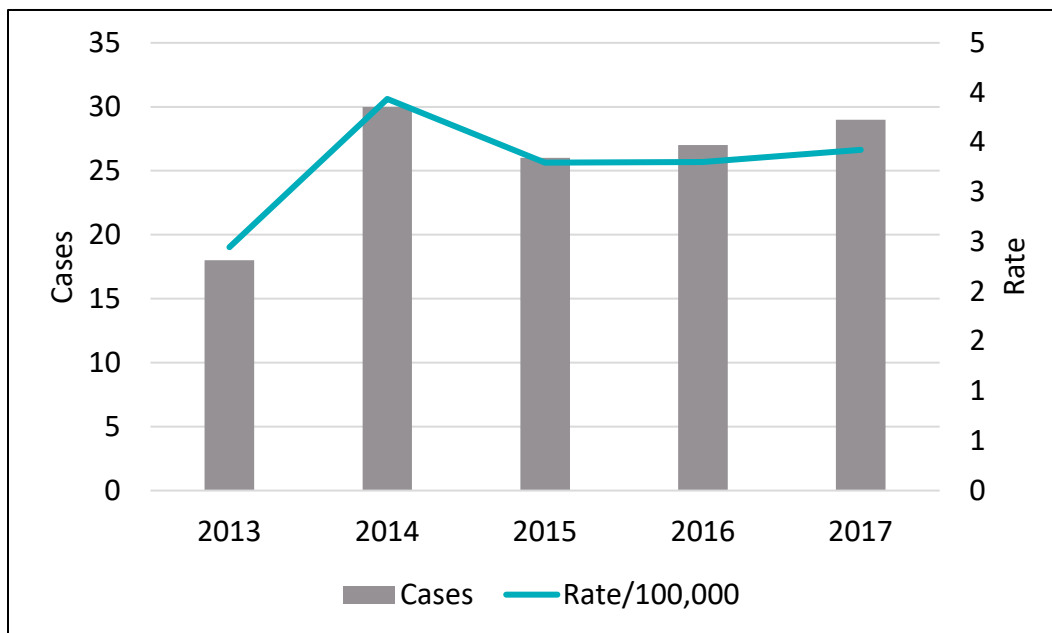


Figure 2. STEC by Sex, Denton County New Cases 2017

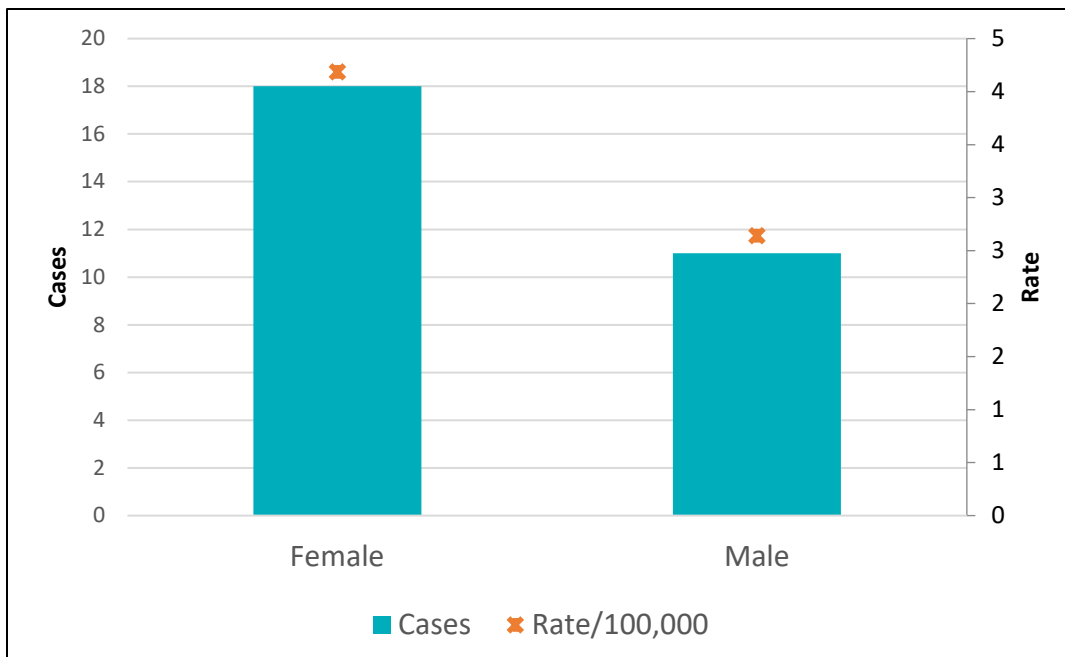
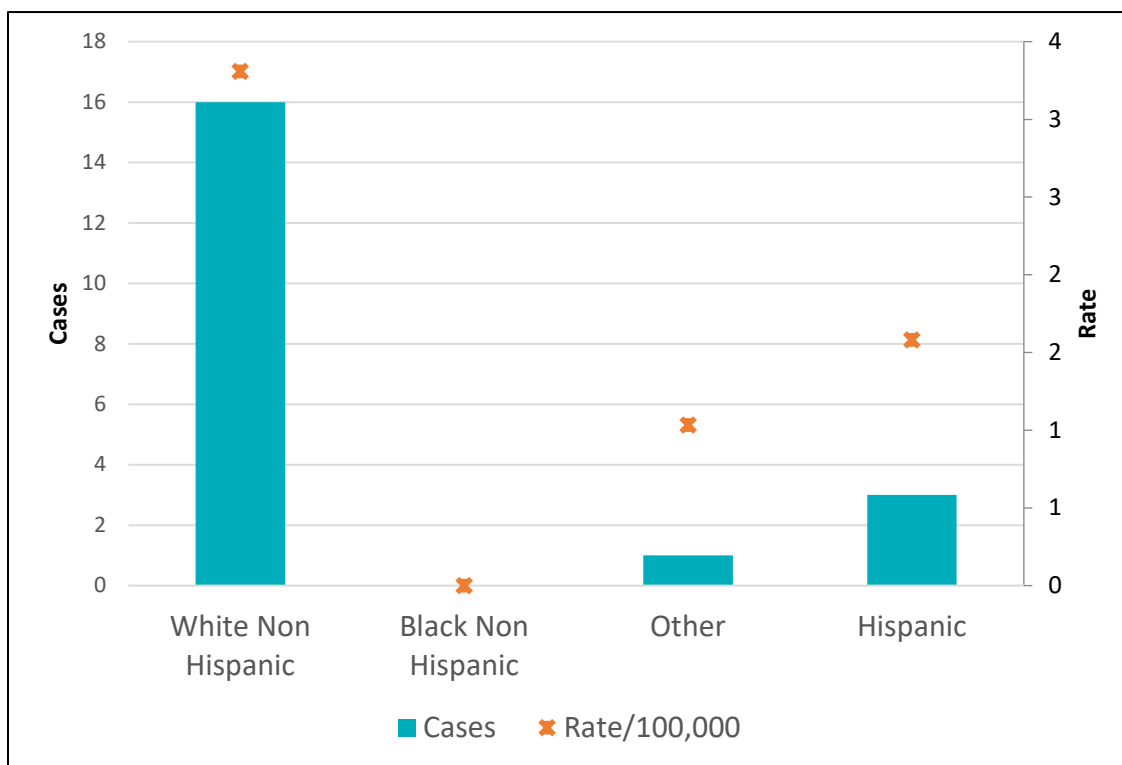
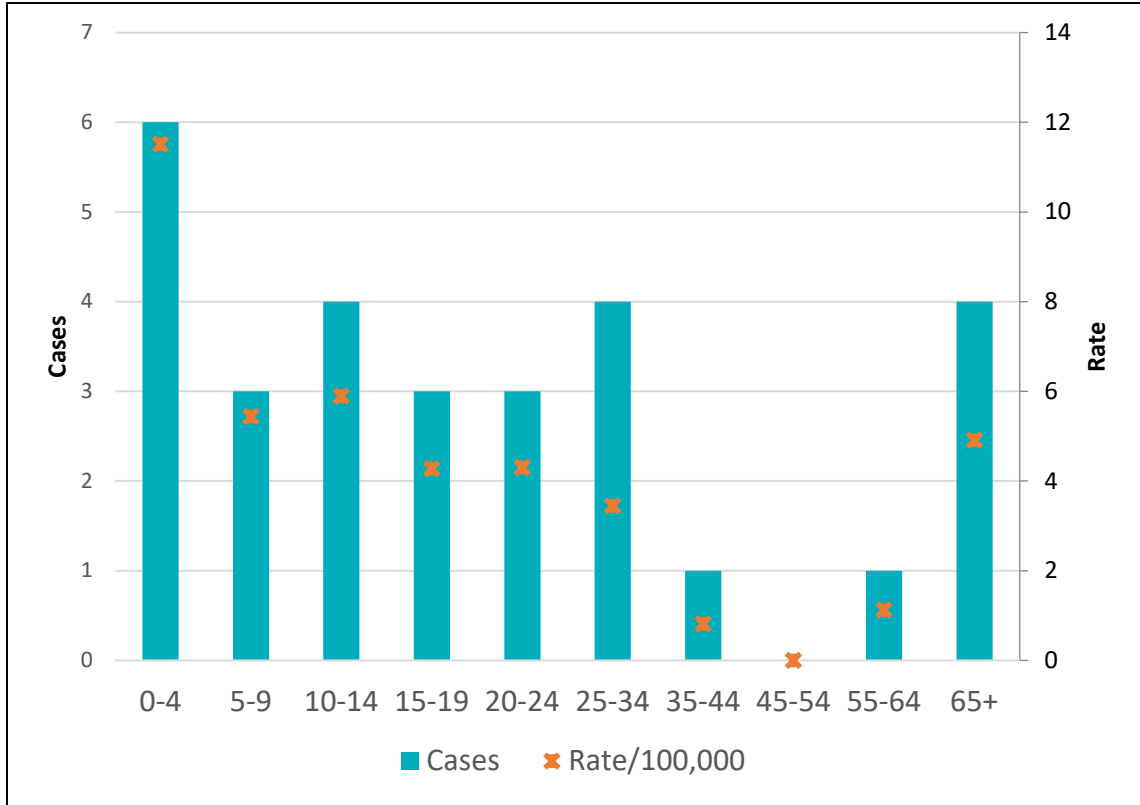


Figure 3. STEC by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. STEC by Age Group, Denton County New Cases 2017



Shigellosis

Denton County 2013-2017

- **Causative Agent:** (bacterial) *Shigella* species – *S. dysenteriae*, *S. flexneri*, *S. boydii*, and *S. sonnei*.
- **Signs & Symptoms:** Acute onset of diarrhea, usually accompanied by moderate to high fever, abdominal pain, cramping, nausea, and a painful sensation of needing to pass stools even when bowels are empty. Diarrhea is often watery, but may be mucoid or bloody. Mild and asymptomatic infections also occur. Complications – post-infectious arthritis, blood stream infections, seizures, hemolytic uremic syndrome (HUS).
- **Mode(s) of Transmission:** Mainly by direct or indirect fecal-oral transmission from a symptomatic patient or asymptomatic carrier. Transmission can also occur from sexual contact, including oral-anal contact. Person-to-person transmission is common within households and childcare facilities or other close contacts, especially when handwashing is inadequate. Infectious dose is as low as 10-100 organisms.
- **Incubation period:** 12-96 hours; usually 1-3 days
- **Period of Communicability:** Infectious as long as bacteria are shed in the stool. Shedding may last 1-4 weeks after illness onset. Individuals may rarely remain carriers for many months.

Figure 1. Shigellosis in Denton County

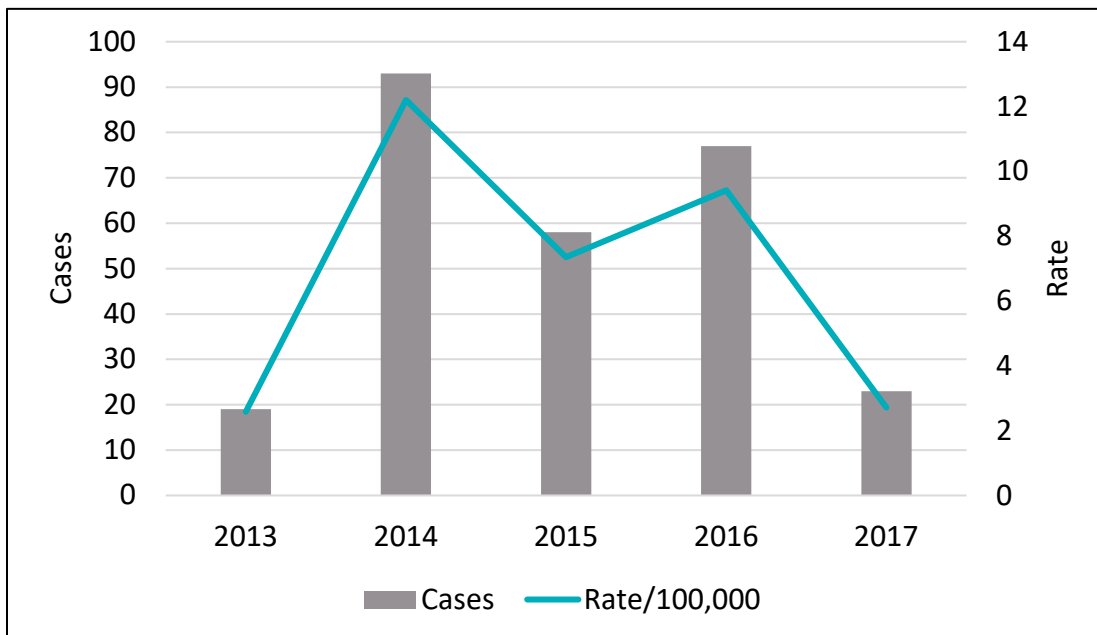


Figure 2. Shigellosis by Sex, Denton County New Cases 2017

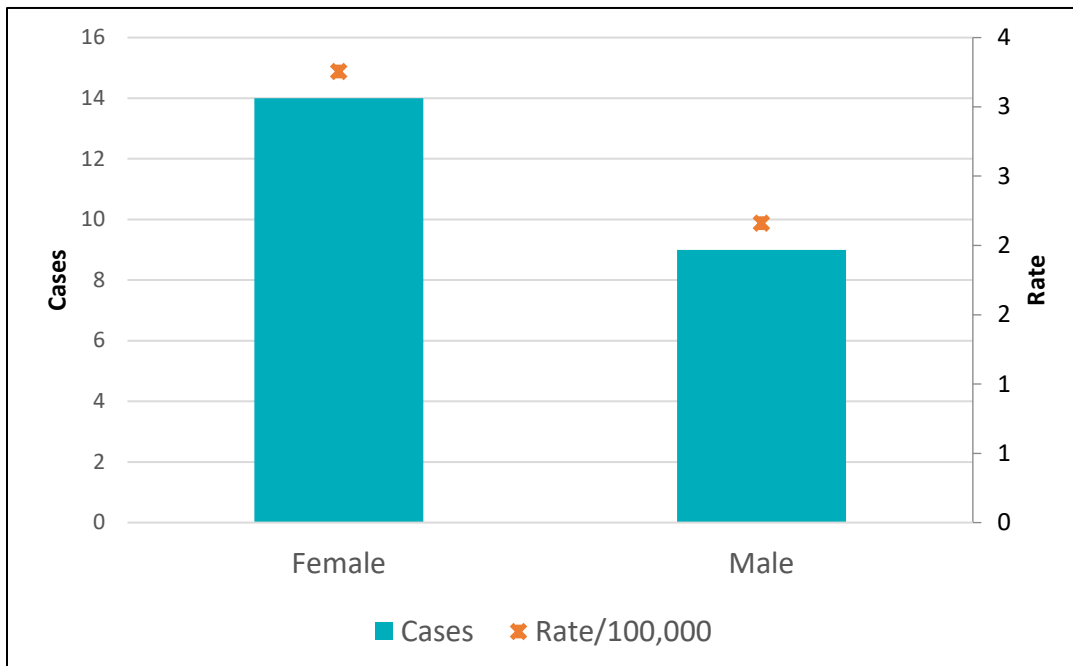
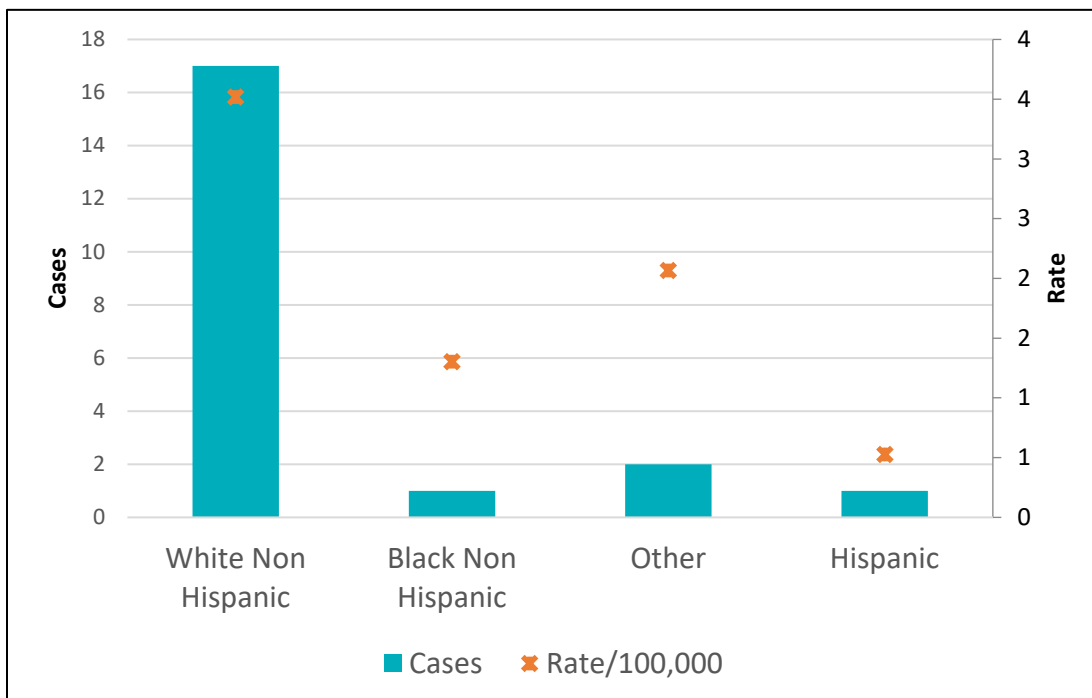
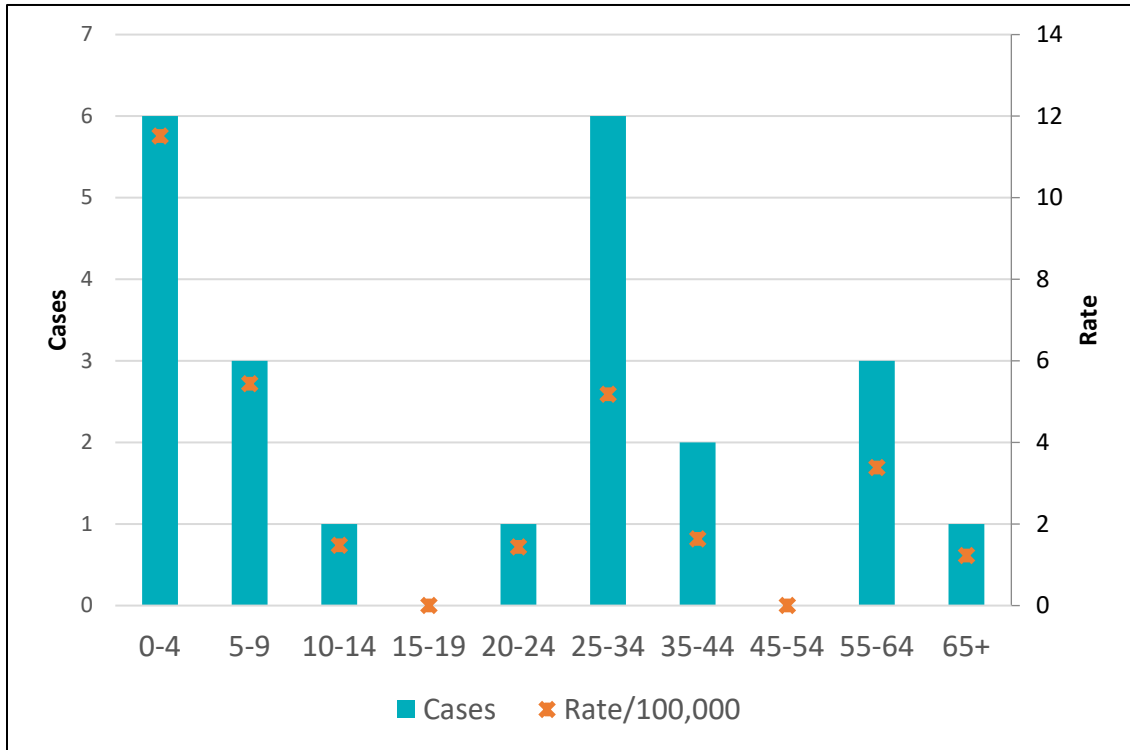


Figure 3. Shigellosis by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Shigellosis by Age Group, Denton County New Cases 2017



Streptococcus, Invasive Group A

Denton County 2013-2017

- **Causative Agent:** (bacterial) *Streptococcus pyogenes* (Group A *Streptococcus*)
- **Signs & Symptoms:** Non-invasive illnesses include strep throat, scarlet fever, impetigo, cellulitis, otitis media, and wound infections. Invasive manifestations include meningitis, septicemia, septic arthritis, necrotizing fasciitis, peritonitis, osteomyelitis, and toxic-shock syndrome. Severity varies by clinical presentation.
- **Mode(s) of Transmission:** contact with large respiratory droplets and direct contact
- **Incubation period:** 1-5 days
- **Period of Communicability:** Untreated cases may be infectious for 10-21 days, and longer if purulent discharges are present. No longer infectious 24 hours after appropriate treatment. A person can be an asymptomatic carrier.

Figure 1. Streptococcus, invasive Group A in Denton County

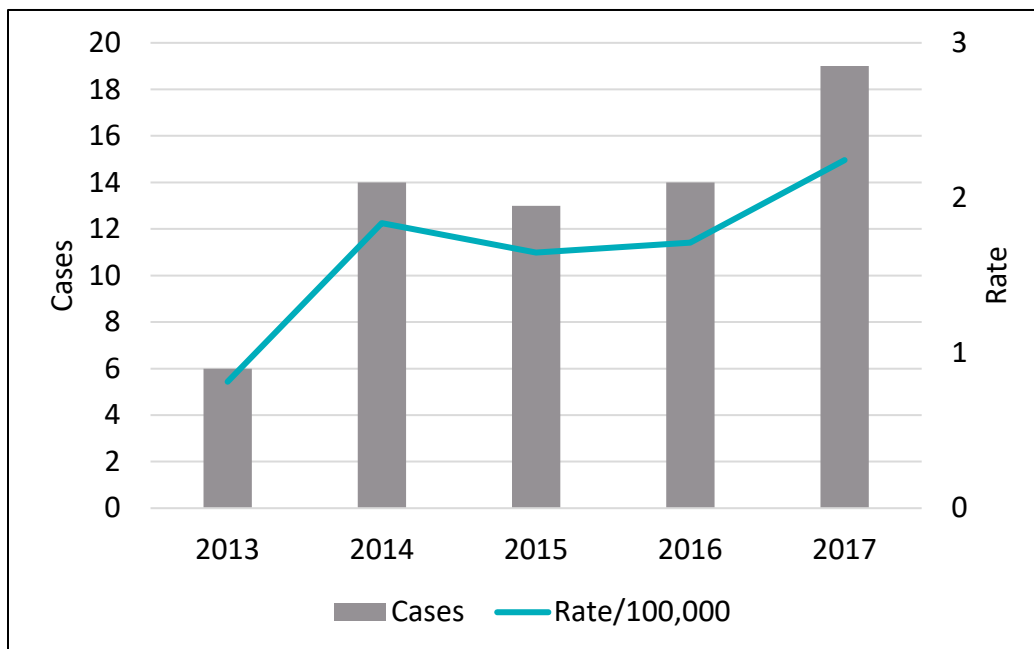


Figure 2. Streptococcus, invasive Group A by Sex, Denton County New Cases 2017

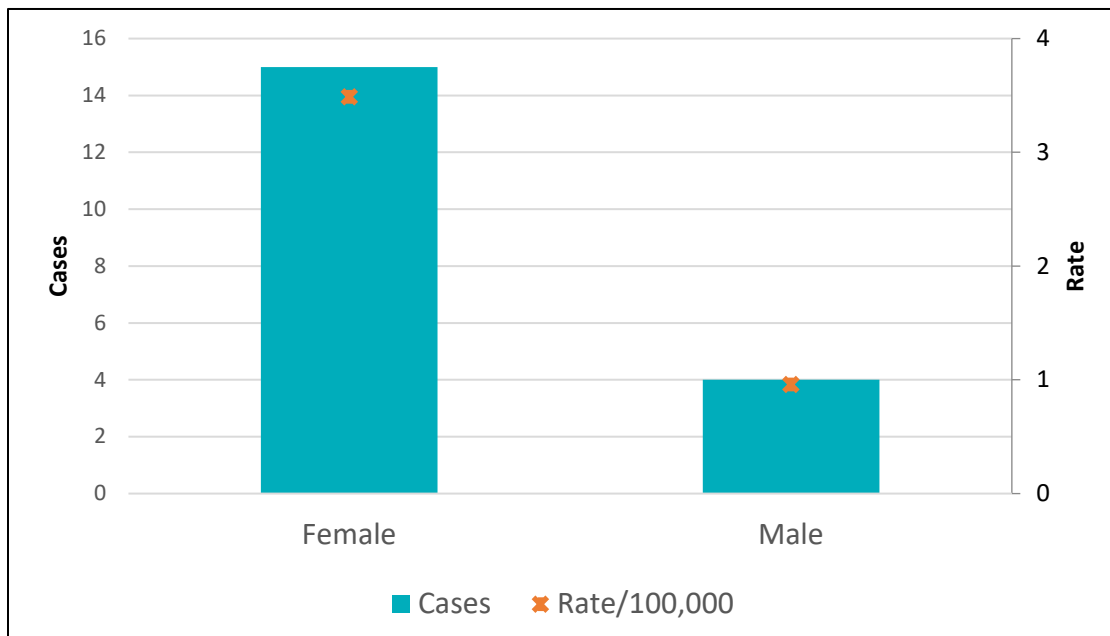
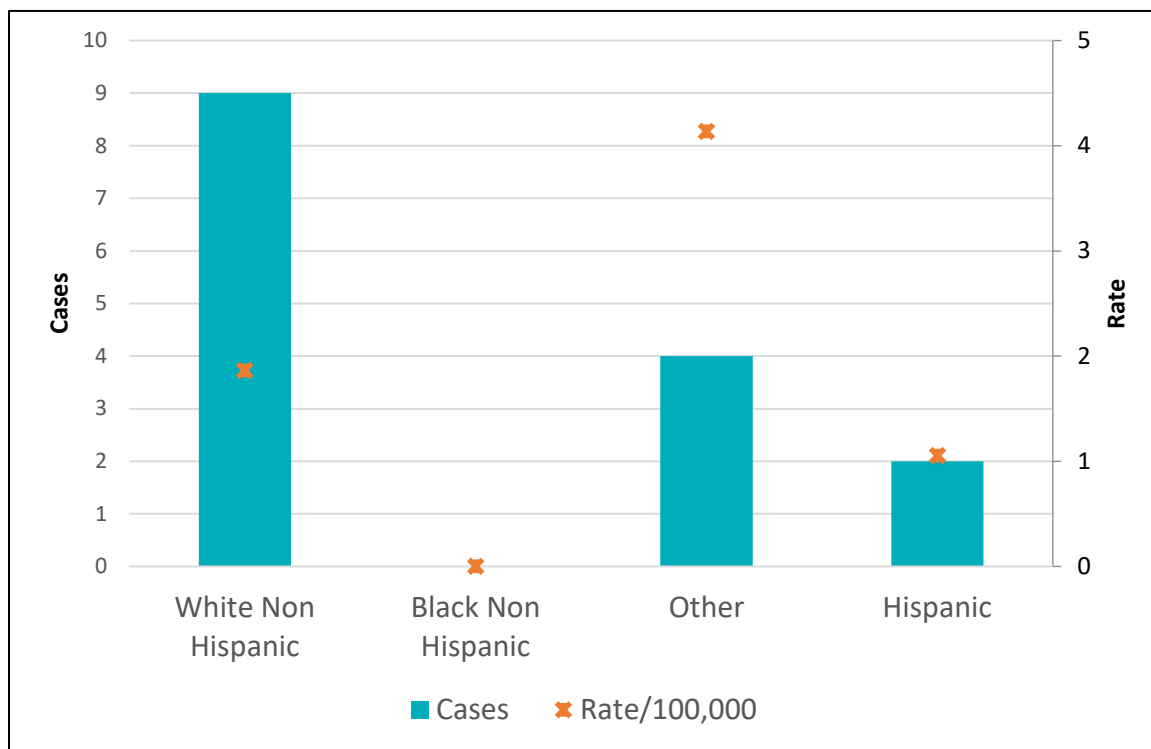
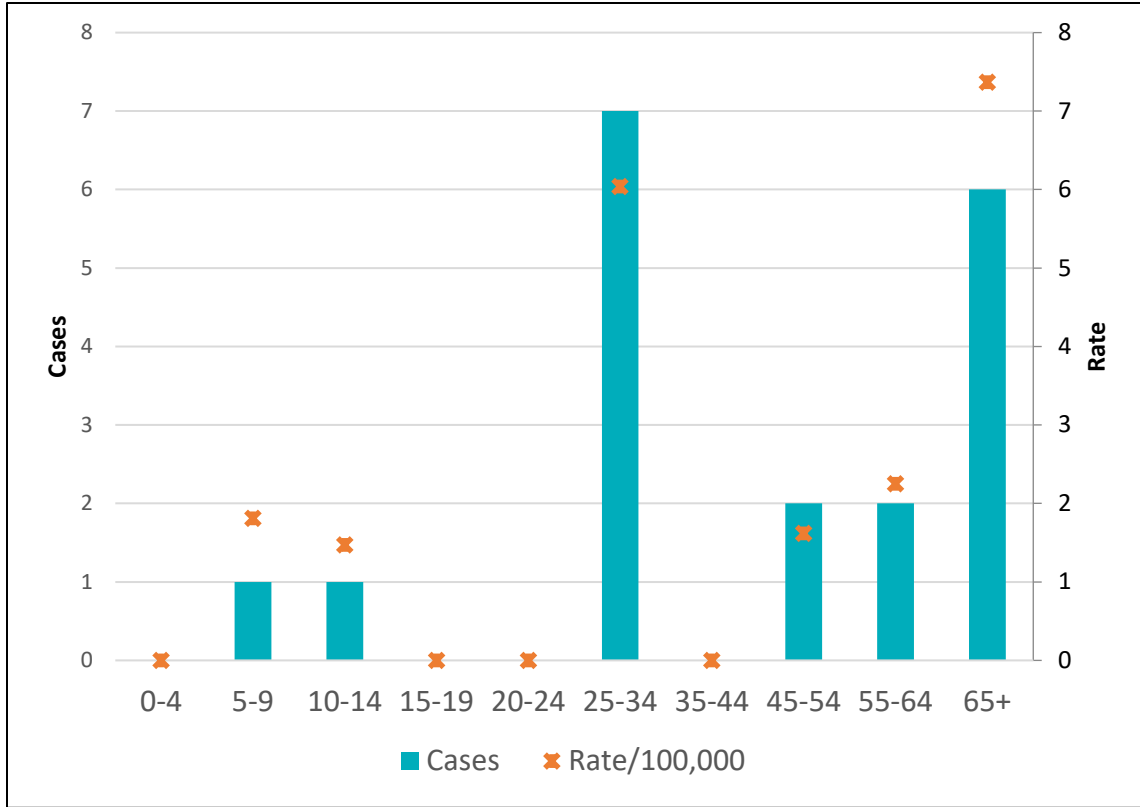


Figure 3. Streptococcus, invasive Group A by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Streptococcus, invasive Group A by Age Group, Denton County New Cases 2017



Streptococcus, Invasive Group B

Denton County 2013-2017

- **Causative Agent:** (bacterial) *Streptococcus agalactiae* (Group B *Streptococcus*)
- **Signs & Symptoms:**
 - **Neonates:** Early onset disease (<7 days old) and late-onset disease (7-90 days old) – both syndromes include sepsis, pneumonia, and meningitis.
 - **Pregnancy-related infections:** sepsis, amnionitis, urinary tract infection, and stillbirth.
 - **Adults:** pneumonia, bacteremia, meningitis, joint infections, or soft tissue infections
- **Mode(s) of Transmission:** from mother to infant during delivery. After delivery, infants occasionally infected via person-to-person transmission in the nursery. In adults, GBS can be acquired from person-to-person transmission from healthy carriers in the community.
- **Incubation period:** Incubation period for early onset GBS disease in neonates is <7 days. Incubation period is unknown for late onset GBS disease in infants, children, and adults.
- **Period of Communicability:** 10%-30% of women are carriers. GBS colonization is primarily in the gastrointestinal and genital tracts. About half of infants born to colonized mothers are also colonized on the skin and mucosal surfaces after passage through the birth canal or from GBS ascending into the amniotic fluid. The majority of colonized infants are asymptomatic.

Figure 1. Streptococcus, invasive Group B in Denton County

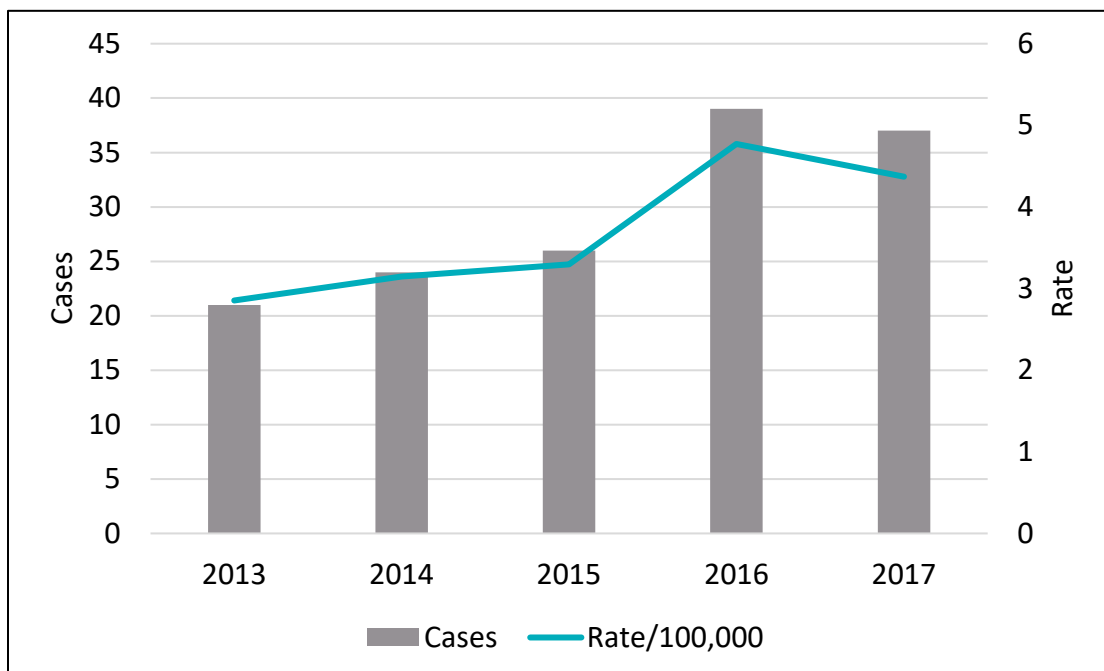


Figure 2. Streptococcus, invasive Group B by Sex, Denton County New Cases 2017

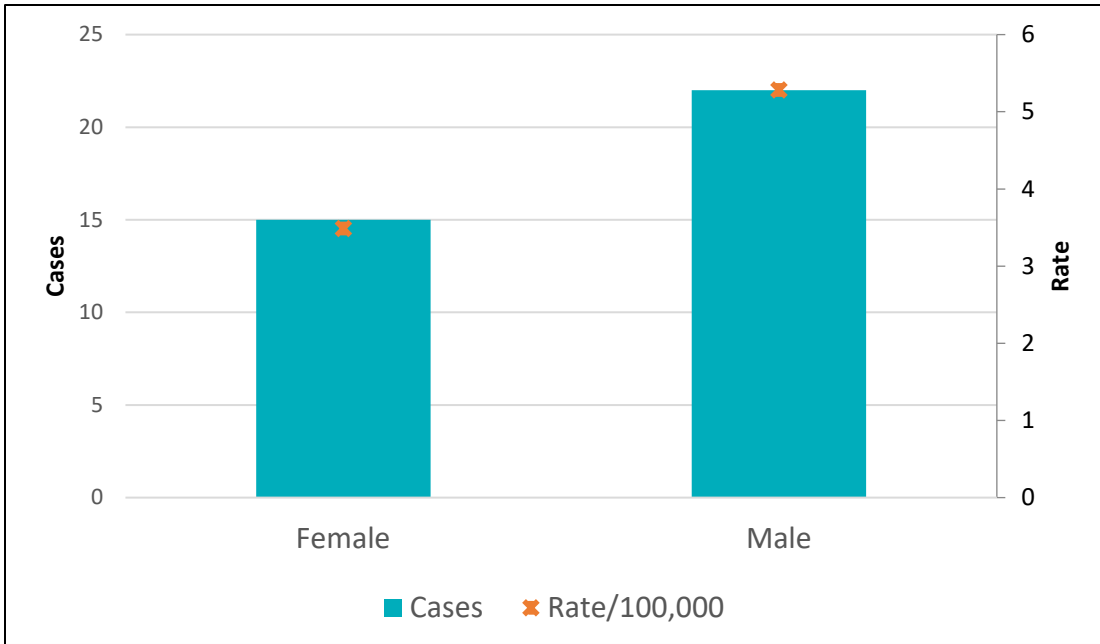
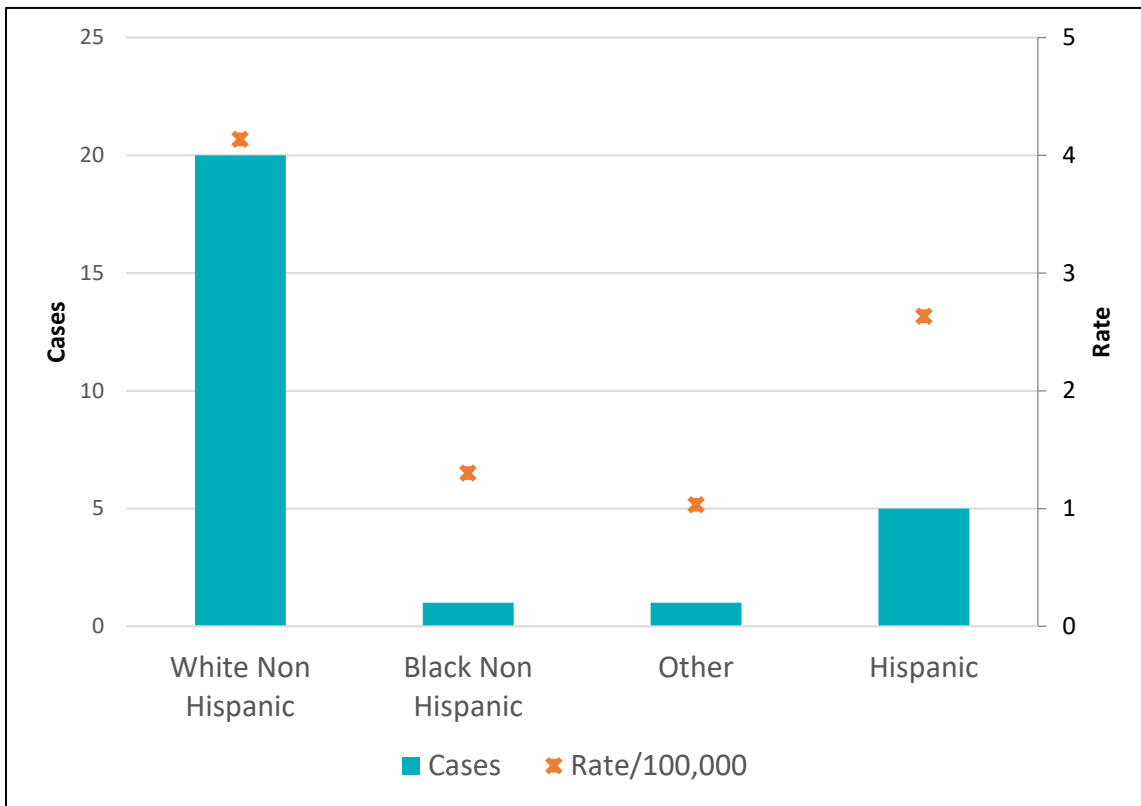
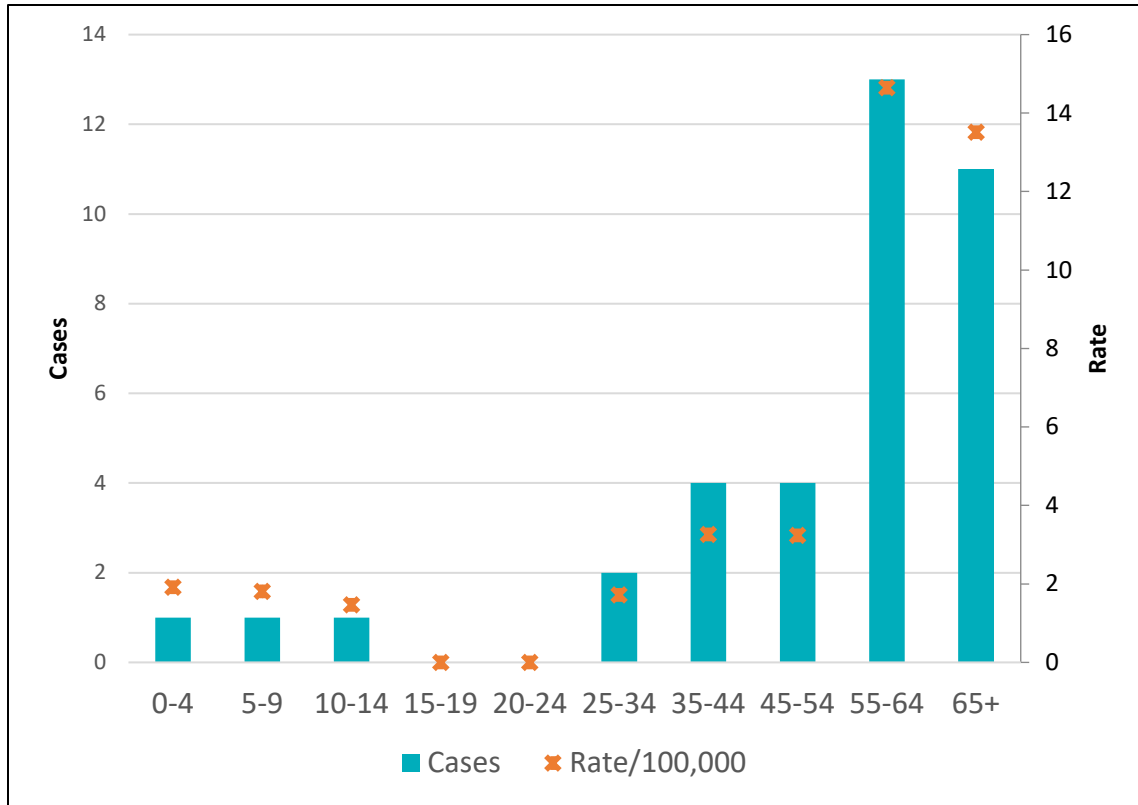


Figure 3. Streptococcus, invasive Group B by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Streptococcus, invasive Group B by Age Group, Denton County New Cases 2017



Streptococcus pneumoniae, Invasive Disease (IPD)

Denton County 2013-2017

- **Causative Agent:** (bacterial) *Streptococcus pneumoniae*
- **Signs & Symptoms:** Major clinical manifestations of invasive disease are bacteremia and meningitis. Bacteremia without a known site of infection is the most common invasive presentation in children 2 years of age and younger. Pneumonia is the most common clinical presentation in adults. Symptoms include abrupt onset of fever and chills or rigors. Other common symptoms are pleuritic chest pain, productive cough, shortness of breath, rapid breathing, hypoxia, rapid heart rate, malaise, and weakness.
- **Mode(s) of Transmission:** Person-to-person contact via respiratory droplets and by autoinoculation in persons carrying the bacteria in their upper respiratory tract.
- **Incubation period:** Varies by type of infection but can be as short as 1-3 days
- **Period of Communicability:** Unknown. Maybe as long as organism is present in respiratory tract secretions but is probably less than 24 hours after effective antimicrobial therapy is started.

Figure 1. Streptococcus pneumoniae in Denton County

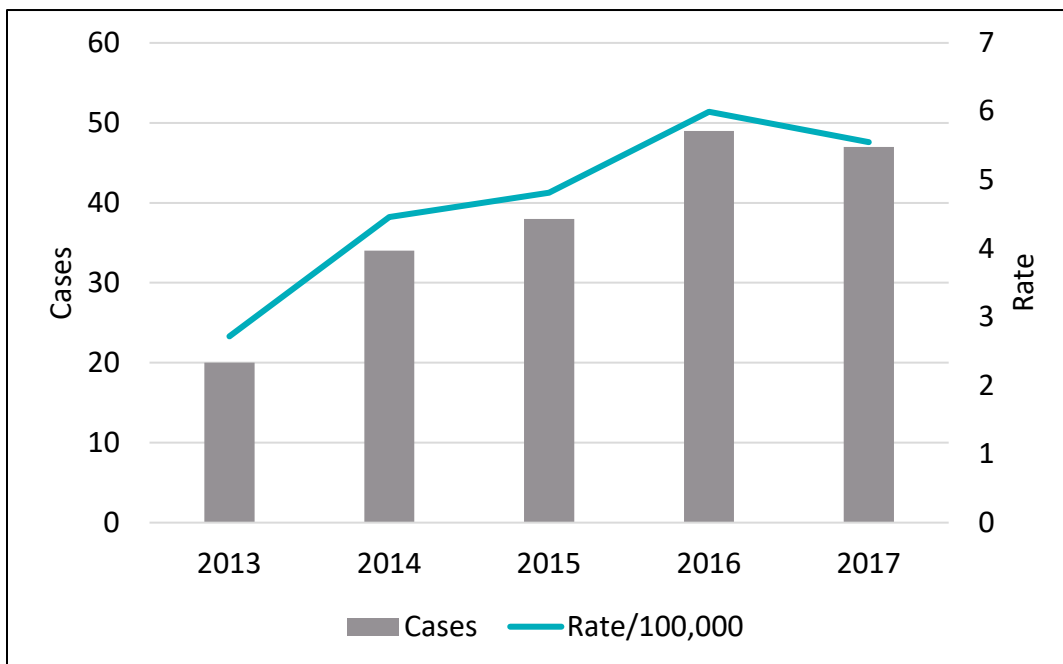


Figure 2. Streptococcus pneumoniae by Sex, Denton County New Cases 2017

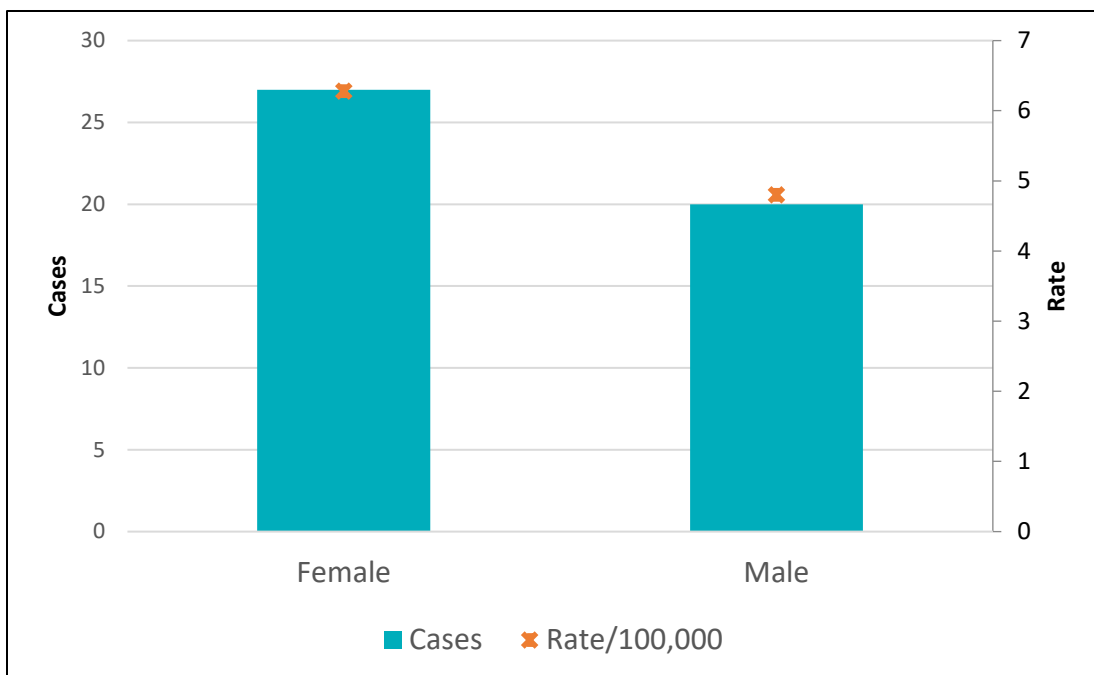
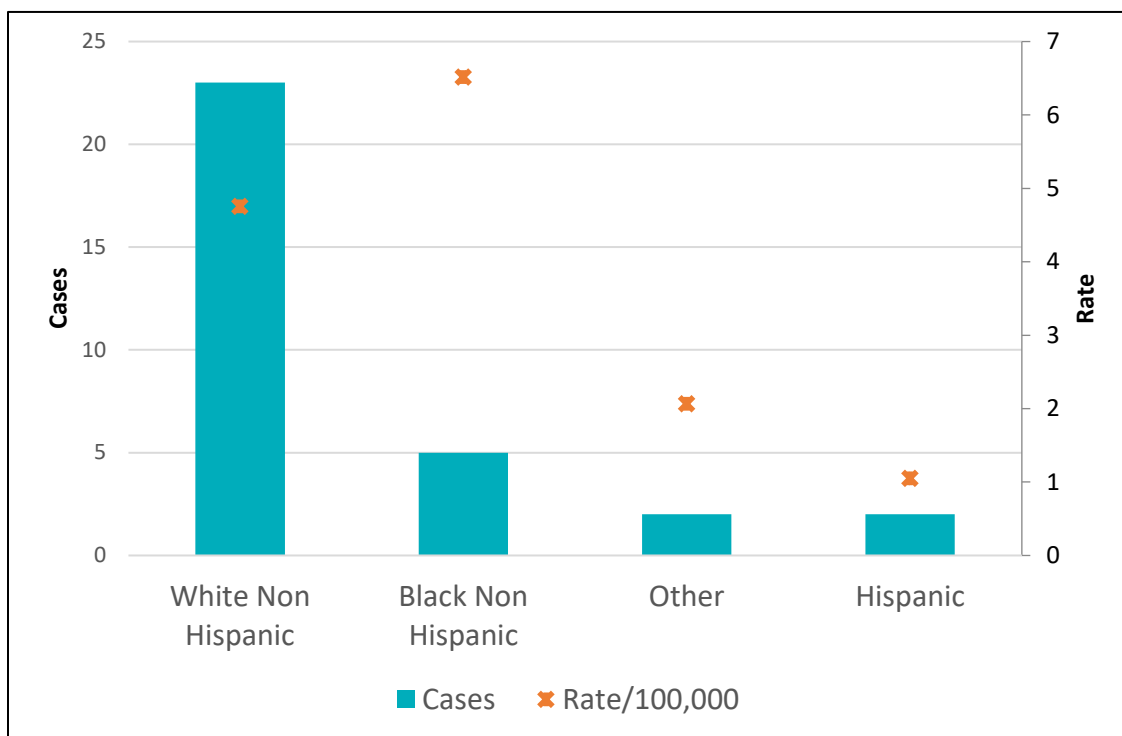


Figure 3. Streptococcus pneumoniae by Race/Ethnicity, Denton County New Cases 2017



*Graph does not represent unknown or missing Race/Ethnicity

Figure 4. Streptococcus pneumoniae by Age Group, Denton County New Cases 2017

