



# Communicable Disease

Annual Report



**Public Health**  
Prevent. Promote. Protect.

Taney County Health Department



# Communicable Disease

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## 2017 Annual Report for Taney County, Missouri

### Reportable Conditions

The Missouri Department of Health and Senior Services (DHSS), under reporting rule [19 CSR 2020.020](#), designates what diseases, disabilities, conditions and findings must be reported to the local health agency or DHSS. Data for this report was collected from multiple sources, including medical providers, laboratories, and hospitals. Timely reporting and rapid investigations are critical for identifying possible outbreaks, assuring appropriate preventive treatment and education, and guiding the planning and evaluation of disease prevention and control programs.

### 2017 Snapshot

In 2017, the Taney County Health Department received and investigated 402 disease case reports. Upon investigation, 294 cases ultimately met the MO DHSS guidelines to be counted as either confirmed or probable cases. Not included in these counts are influenza cases and sexually transmitted infection (STI) cases. Additional information on Influenza and STI cases in Taney County are located in separate reports on the [TCHD website](#).

### Disease Burden to the Community

The number of reported cases of communicable diseases almost certainly under represents the true number of cases occurring in Taney County. Conditions with mild symptoms often go unreported as ill individuals often recover without treatment or may be treated by a medical provider without diagnostic testing. Conditions with life threatening or other severe symptoms are more likely to result in hospitalization and diagnosis via laboratory testing. Increased regional and national media attention to specific conditions can also impact reporting by driving more ill individuals to seek treatment and more providers to be on the lookout for known symptoms of the newsworthy illness. Finally, it is important to note that ill individuals may be diagnosed clinically by their medical providers with a given illness but upon further investigation may not meet the Centers for Disease Control and Prevention (CDC) requirements for inclusion as a confirmed or probable case.

The tables and charts below provide additional information on case counts and rates for selected conditions in Taney County.

Table 1:

**Reported Cases of Selected Communicable Diseases**

**Taney County, Missouri 2017**

<b>CONDITION</b>	<b>REPORTED CASES COUNTS*</b>
Animal Bites	112
Campylobacteriosis	25
Coccidioidomycosis	0
Cryptosporidiosis	1
E. coli Shiga Toxin Positive	0
E. coli O157:H7	0
Ehrlichia Chaffeensis	10
Giardiasis	3
Haemophilus Influenzae, Invasive	0
Hepatitis B Acute	0
Hepatitis B Chronic	1
Hepatitis B Pregnant	1
Legionellosis	6
Listeriosis	0
Lyme	0
MOTT	12
Mumps	2
Pertussis	0
Rabies Post Exposure Prophylaxis	11
Rocky Mountain Spotted Fever	7
Salmonellosis	7
Shigellosis	0
Strep Pneumoniae Invasive	9
TB Disease	0
TB Infection	3
Varicella (Chickenpox)	2
<b>Total</b>	<b>212</b>

*\*Reported case counts include confirmed and probable cases only*

Table 2:

2013-2017 Reported Diseases/Conditions Taney County with 5 YR Mean & Rate per 100,000								
CONDITION	2013	2014	2015	2016	2017	5 YR Mean	2017 Rate per 100,000*	MO 2017 Rate per 100,000**
ANIMAL BITES	33	8	7	44	112	40.8	207.97	130.43
CAMPYLOBACTERIOSIS	0	1	9	7	25	8.4	46.42	24.16
COCCIDIOIDOMYCOSIS	1	0	0	0	0	0.2	0.00	0.34
CRYPTOSPORIDIOSIS	0	0	2	0	1	0.6	1.86	5.41
E COLI SHIGA TOXIN POSITIVE	2	1	0	1	0	0.8	0.00	3.30
E COLI 0157 H7	0	0	1	0	0	0.2	0.00	1.47
EHRlichia CHAFFEENSIS	4	4	3	7	10	5.6	18.57	4.83
EHRlichia EWINGII	0	0	0	1	3	0.8	5.57	0.33
GIARDIASIS	0	0	1	2	3	1.2	5.57	3.96
HEMOLYTIC UREMIC SYNDROME	0	0	1	0	0	0.2	0.00	0.20
HEPATITIS A ACUTE	0	0	0	2	0	0.4	0.00	0.44
HEPATITIS B (PREGNANCY) PRENATAL	1	0	0	0	1	0.4	1.86	2.49
HEPATITIS B ACUTE	0	0	0	0	0	0	0.00	0.51
HEPATITIS B CHRONIC	0	1	1	3	1	1.2	1.86	6.72
HEPATITIS C CHRONIC	41	47	106	101	81	75.2	150.41	80.13
INFLUENZA DEATH <18 YEARS	0	0	0	0	1	0.2	1.86	0.05
LEGIONELLOSIS	1	0	0	0	6	1.4	11.14	2.27
LISTERIOSIS	0	0	0	1	0	0.2	0.00	0.11
MALARIA	0	0	0	1	0	0.2	0.00	0.44
MEASLES	0	0	1	0	0	0.2	0.00	0.00
MOTT	5	5	7	6	12	7	22.28	13.12
MUMPS	0	0	0	1	2	0.6	3.71	7.13
PERTUSSIS	0	1	1	0	0	0.4	0.00	6.72
RABIES POST EXPOSURE PROPHYLAXIS	0	0	7	8	11	5.2	20.43	9.63
ROCKY MOUNTAIN SPOTTED FEVER	4	0	1	6	7	3.6	13.00	9.63
SALMONELLOSIS	3	8	1	9	7	5.6	13.00	16.23
SHIGELLOSIS	1	0	0	1	0	0.4	0.00	6.92
STREP PNEUMONIAE INVASIVE	0	0	0	2	9	2.2	16.71	9.96
TB INFECTION	12	3	8	11	3	7.4	5.57	26.94
TOXIC SHOCK (STREP) SYNDROME	0	0	0	1	2	0.6	3.71	0.05
TULAREMIA	0	1	1	0	2	0.8	3.71	0.57
VARICELLA (CHICKENPOX)	0	0	2	1	2	1	3.71	2.88
VIBRIOSIS	0	0	0	1	0	0.2	0.00	0.43

\*Calculated using Taney County 2016 Population Estimate of 53,853 Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

\*\*Calculated using Missouri 2017 Population Estimate of 6,113,532 and Statewide Disease Counts from MO DHSS Source: U.S. Census Bureau, 2017 Population Estimate (as of July 1, 2017)

## Discussion of Data

Case counts of conditions are of limited value without the context provided by comparison. Included in Table 2 are columns for rates of each reported condition per 100,000 population for both Taney County and the Missouri as a whole. Table 3 below expands on this further and provides calculated rates per 100,000 population for the past 5 years for both Taney County and Missouri. Selected conditions have been displayed in Charts 1-6 for visual comparison of the rates for Taney County and Missouri.

Table 3:

CONDITION	2013 Rate per 100,000*	MO 2013 Rate per 100,000**	2014 Rate per 100,000*	MO 2014 Rate per 100,000**	2015 Rate per 100,000*	MO 2015 Rate per 100,000**	2016 Rate per 100,000*	MO 2016 Rate per 100,000**	2017 Rate per 100,000*	MO 2017 Rate per 100,000**
ANIMAL BITES	62.96	116.03	15.07	119.59	13.07	123.71	81.70	123.14	207.97	130.43
CAMPYLOBACTERIOSIS	0.00	10.77	1.88	9.87	16.81	19.97	13.00	22.64	46.42	24.16
COCCIDIOIDOMYCOSIS	1.91	0.28	0.00	0.33	0.00	0.18	0.00	0.33	0.00	0.34
CRYPTOSPORIDIOSIS	0.00	3.50	0.00	2.77	3.73	6.63	0.00	6.95	1.86	5.41
E COLI SHIGA TOXIN POSITIVE	3.82	2.56	1.88	1.86	0.00	2.98	1.86	3.27	0.00	3.30
E COLI 0157 H7	0.00	2.03	0.00	1.14	1.87	1.06	0.00	2.24	0.00	1.47
EHRlichia CHAFFEENSIS	7.63	5.89	7.53	5.61	5.60	3.82	13.00	3.83	18.57	4.83
EHRlichia EWINGII	0.00	0.28	0.00	0.15	0.00	0.12	1.86	0.15	5.57	0.33
GIARDIASIS	0.00	4.06	0.00	3.80	1.87	4.15	3.71	5.58	5.57	3.96
HEMOLYTIC UREMIC SYNDROME	0.00	0.22	0.00	0.10	1.87	0.23	0.00	0.28	0.00	0.20
HEPATITIS A ACUTE	0.00	0.15	0.00	0.36	0.00	0.15	3.71	0.26	0.00	0.44
HEPATITIS B (PREGNANCY) PRENATAL	1.91	2.41	0.00	2.44	0.00	2.48	0.00	1.72	1.86	2.49
HEPATITIS B ACUTE	0.00	1.02	0.00	0.53	0.00	0.58	0.00	0.64	0.00	0.51
HEPATITIS B CHRONIC	0.00	6.51	1.88	7.17	1.87	8.65	5.57	7.00	1.86	6.72
HEPATITIS C CHRONIC	78.23	81.15	88.54	103.47	197.93	128.77	187.55	83.50	150.41	80.13
INFLUENZA DEATH <18 YEARS	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	1.86	0.05
LEGIONELLOSIS	1.91	1.28	0.00	1.78	0.00	2.45	0.00	2.62	11.14	2.27
LISTERIOSIS	0.00	0.03	0.00	0.18	0.00	0.08	1.86	0.05	0.00	0.11
MALARIA	0.00	0.10	0.00	0.25	0.00	0.31	1.86	0.33	0.00	0.44
MEASLES	0.00	0.05	0.00	0.45	1.87	0.02	0.00	0.00	0.00	0.00
MOTT	9.54	14.08	9.42	14.55	13.07	13.15	11.14	13.98	22.28	13.12
MUMPS	0.00	0.13	0.00	0.10	0.00	0.53	1.86	5.51	3.71	7.13
PERTUSSIS	0.00	9.31	1.88	9.26	1.87	4.40	0.00	5.89	0.00	6.72
RABIES POST EXPOSURE PROPHYLAXIS	0.00	6.29	0.00	7.86	13.07	7.56	14.86	9.04	20.43	9.63
ROCKY MOUNTAIN SPOTTED FEVER	7.63	4.08	0.00	4.41	1.87	5.36	11.14	5.79	13.00	9.63
SALMONELLOSIS	5.72	14.10	15.07	13.92	1.87	16.28	16.71	17.33	13.00	16.23
SHIGELLOSIS	1.91	1.48	0.00	23.14	0.00	18.63	1.86	13.70	0.00	6.92
STREP PNEUMONIAE INVASIVE	N/A	N/A	N/A	N/A	N/A	N/A	3.71	3.32	16.71	9.96
TB INFECTION	22.90	54.50	5.65	55.09	14.94	48.53	20.43	49.44	5.57	26.94
TOXIC SHOCK (STREP) SYNDROME	0.00	0.02	0.00	0.02	0.00	0.03	1.86	0.10	3.71	0.05
TULAREMIA	0.00	0.60	1.88	0.33	1.87	0.48	0.00	0.58	3.71	0.57
VARICELLA (CHICKENPOX)	0.00	3.81	0.00	2.94	3.73	2.30	1.86	2.10	3.71	2.88
VIBRIOSIS	0.00	0.08	0.00	0.13	0.00	0.08	1.86	0.10	0.00	0.43

\*Calculated using Taney County 2013-2016 Population Estimates Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

\*\*Calculated using Missouri 2013-2016 Population Estimates and Statewide Disease Counts from MO DHSS Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Taney County Health Department continually monitors these trends and takes into account outside factors that may explain changes in disease occurrence beyond simple increases in morbidity. For example, recent advances in testing for enteric pathogens (i.e. widespread availability of PCR testing) has contributed to a significant statewide increase in *Campylobacteriosis* reports. This may partially explain the significant increase in Taney County in 2017 to 25 reported cases, compared with the 5 year mean of 8.4 cases. A comparison of 2017 rates, however, show that Taney county had approximately 200% more reported cases of *Campylobacteriosis* than the state as a whole per 100,000 population. This trend will be important to monitor in coming years to assist TCHD and local partners as we attempt to limit the impact these infectious diseases have on residents and visitors to our county.

All charts calculated using Taney County\* & Missouri\*\* 2013-2016 Population Estimates Source: U.S. Census Bureau, 2013-2016 American Community Survey 5-Year Estimates and Statewide Disease Counts from MO DHSS

Chart 1:

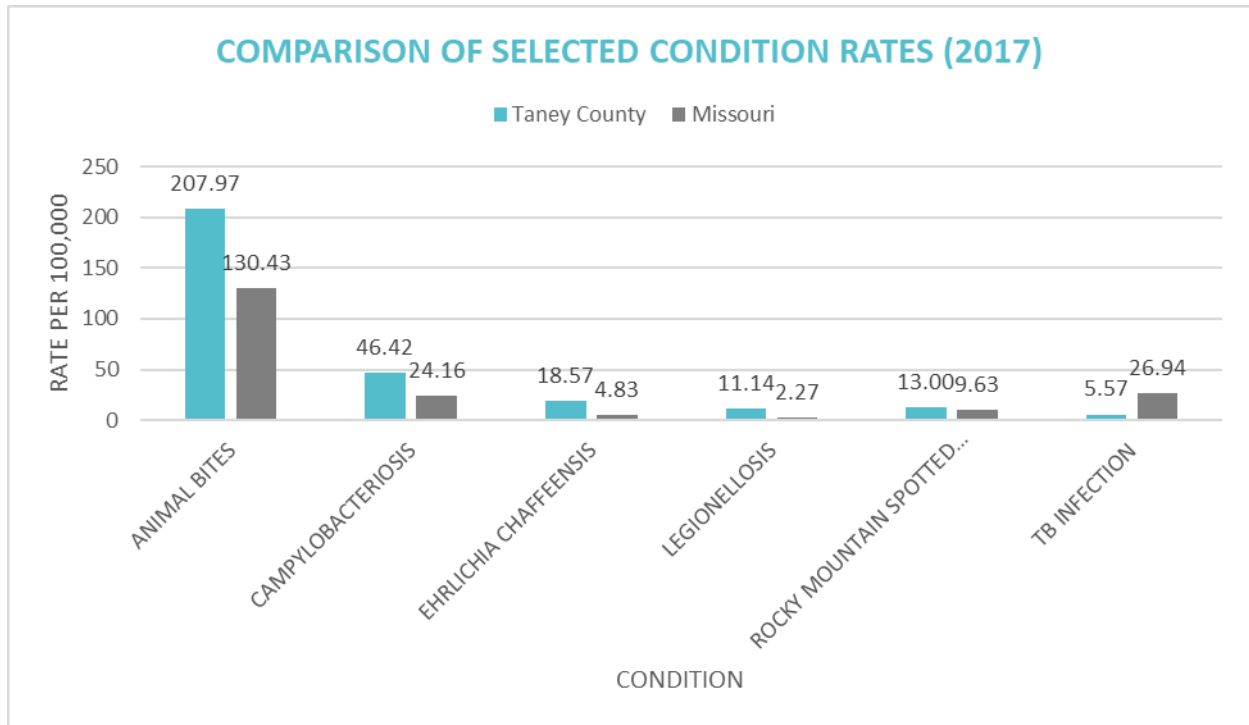


Chart 2:

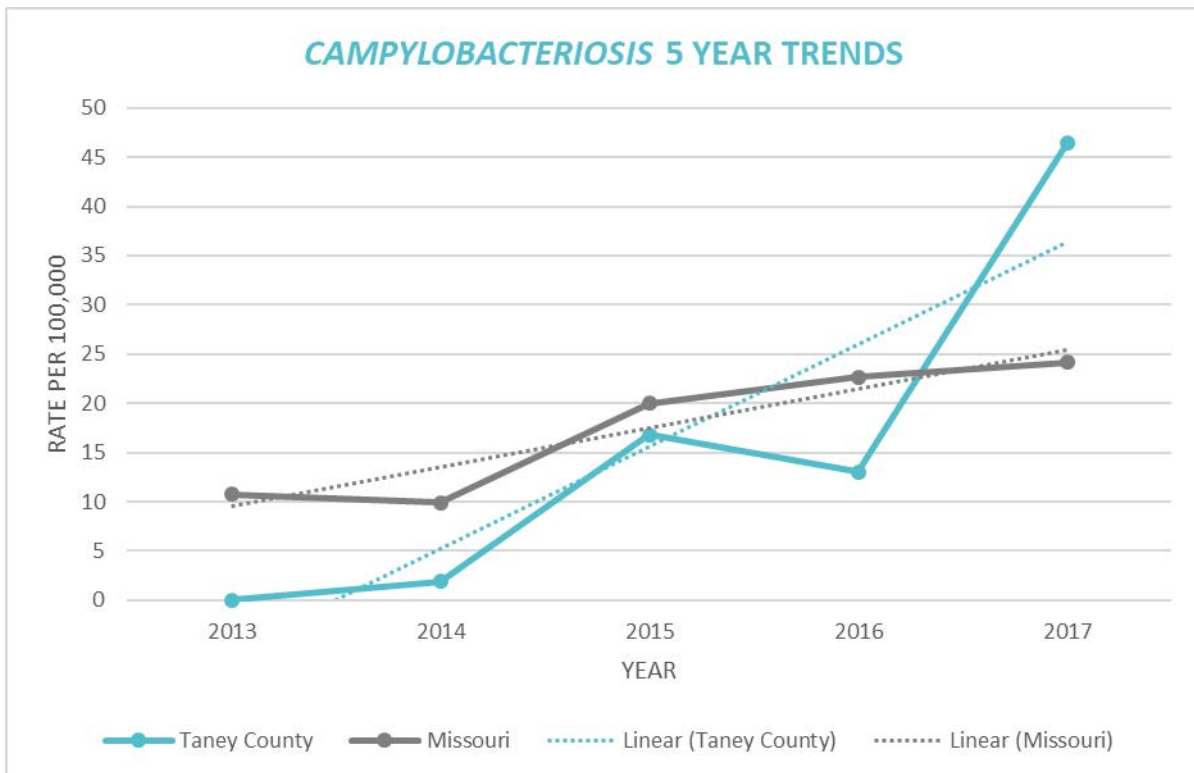


Chart 3:

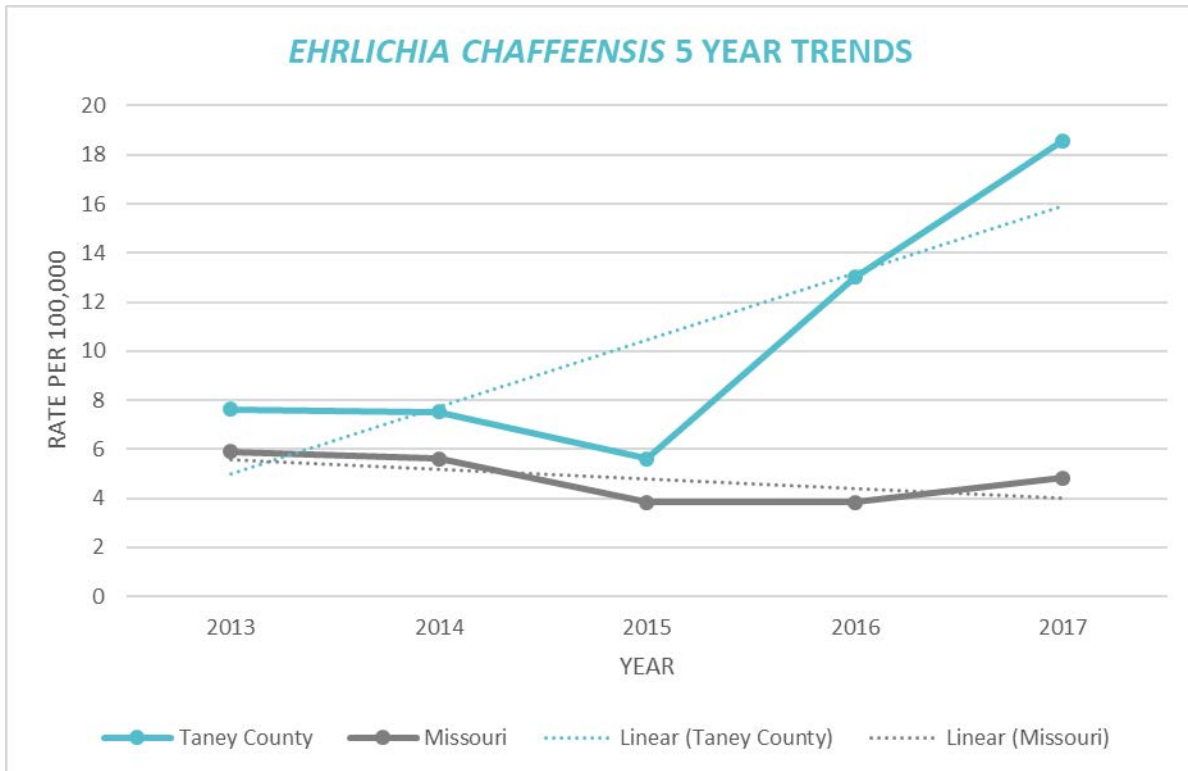


Chart 4:

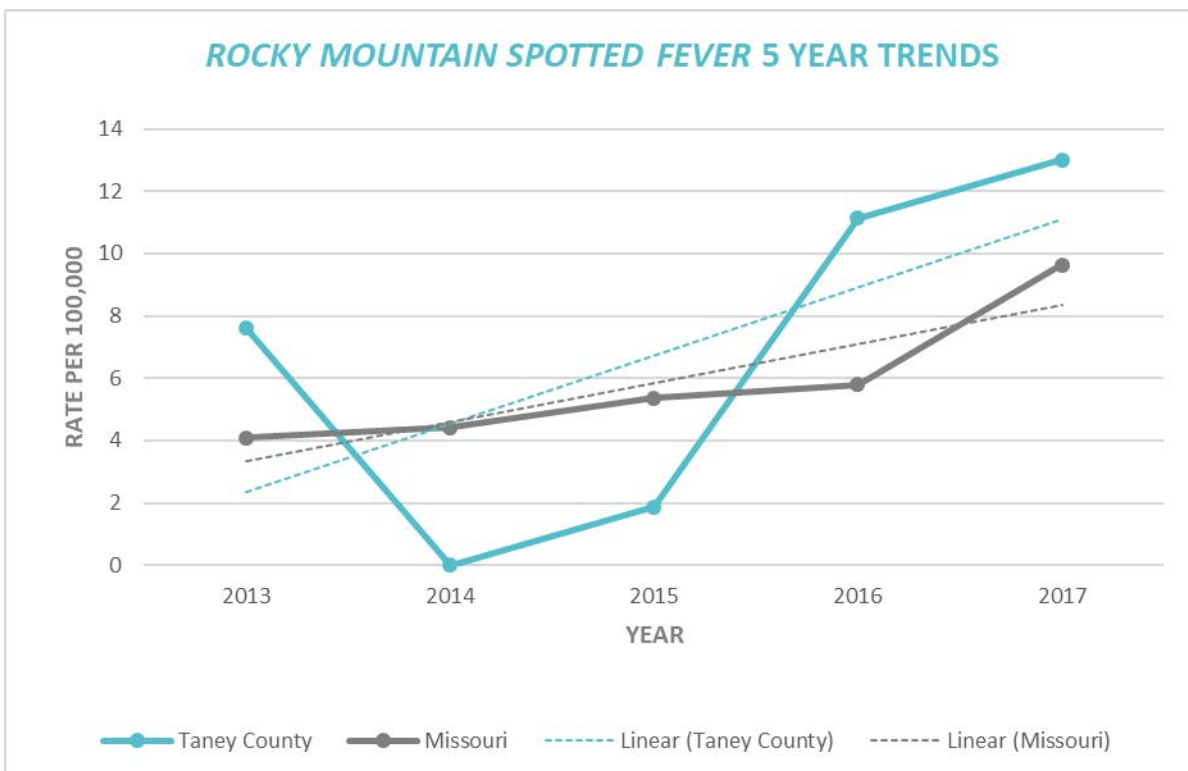


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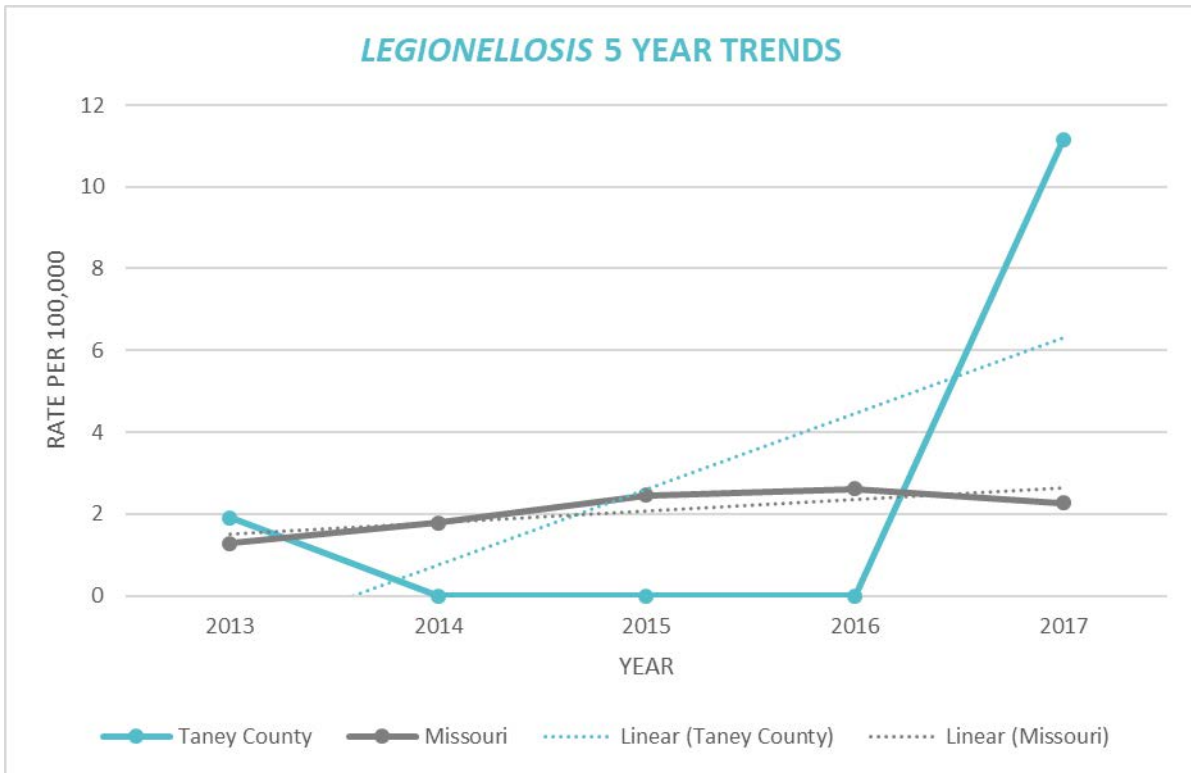
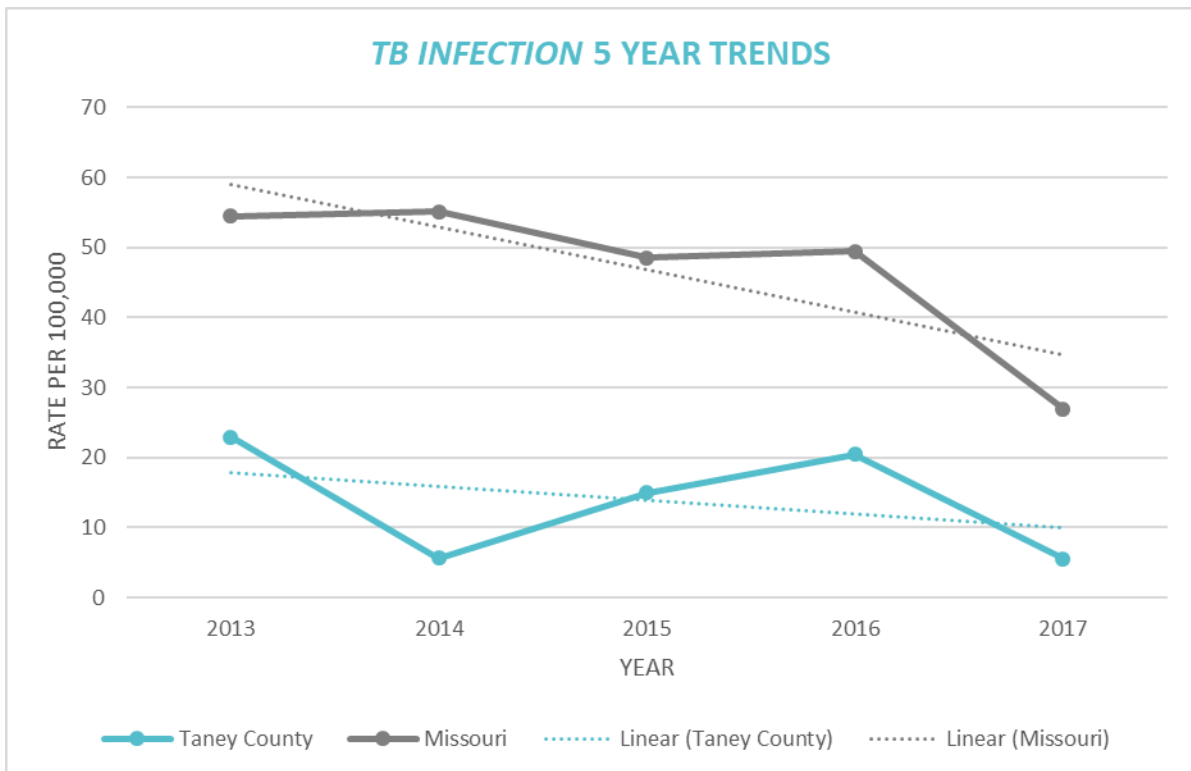


Chart 6:





## Outbreaks

Outbreaks are the occurrence of more cases of disease than expected in a given area or among a specific group of people during a particular period of time. The Taney County Health Department employs one full-time Epidemiologist and one full-time Communicable Disease Nurse who routinely handle all communicable disease investigations including outbreak investigations. Additional resources and staff (such as Environmental Specialists and additional clinical staff) may be called upon for assistance as needed. When an outbreak investigation is initiated, TCHD staff work closely with community partners to identify potential cases and stop the spread of illness.

TCHD investigated three confirmed outbreaks in Taney County during 2017. Table 3 contains a brief summary of the outbreaks investigated.

**Table 3:**

Summary of Disease Outbreaks Investigated in Taney County 2017			
Onset	Setting	Agent	Summary
May	Child Day Care	Norovirus	20 children and 10 staff members were identified with symptoms. An additional 14 secondary cases were also identified outside of the center. Specimens were collected on 3 individuals and all were positive for Norovirus.
November	Long-Term Care	Influenza A	10 residents developed respiratory illness. Testing confirmed the presence of Influenza A in all 4 of the residents tested.
November	Event Space	Norovirus	1 staff member and 29 guests attending two separate events in the same facility were identified as symptomatic. Specimens were collected on 3 individuals and all were positive for Norovirus.

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