



*mi*Ottawa Department of  
**Public Health**

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# Annual Summary of Reportable Diseases Ottawa County 2020

Prepared August 2021

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# Annual Reportable Disease Summary

## Data

The data in the annual disease report is expected to be final, based on current reports in the Michigan Disease Surveillance System (MDSS) made by local health departments. The MDSS is a dynamic, continually active system and disease counts can change as cases are investigated, confirmed as cases, or ruled out as not meeting the case definition. Therefore, it should be kept in mind that numbers in the annual disease report may change and should be used only to generally monitor trends over time. Suspected, probable and confirmed cases of the reportable condition are included in the report.

Specific data requests and questions should be directed to one of the following:

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Disease Group	Reportable Condition	Ottawa County Cases Reported**					Michigan Cases Reported				
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
<b>Foodborne</b>	Amebiasis	-	-	1	-	-	15	6	2	9	8
	Botulism - Foodborne	-	-	-	-	-	-	-	-	-	-
	Campylobacter	71	68	61	58	38	1,642	1,735	1,705	1,705	1,220
	Cryptosporidiosis	17	19	24	22	15	437	425	383	419	245
	Giardiasis	28	17	15	11	11	587	568	465	428	379
	Listeriosis	-	-	-	4	-	18	30	23	30	29
	Norovirus	1	70	88	262	108	1,430	1,082	1,009	1,481	585
	Salmonellosis	26	44	38	30	45	1,067	1,086	1,137	1,075	904
	Shiga toxin-producing Escherichia coli (STEC)	10	9	16	17	10	201	201	327	308	210
	Shigellosis	5	23	8	16	5	706	460	209	219	151
	Typhoid Fever	-	-	-	1	-	7	14	6	10	1
	Yersinia enterocolitica	1	1	2	-	5	41	66	82	77	88
	<b>Foodborne Subtotal</b>	159	251	253	421	237	6,151	5,673	5,348	5,761	3,820
	<b>Influenza</b>	Flu Like Disease*	31,669	32,924	35,954	31,762	27,698	321,126	394,863	379,206	323,372
Influenza		5	4	10	3	6	14,458	26,017	47,202	32,010	32,964
Novel Influenza		-	-	-	-	-	22	2	3	1	1
<b>Influenza Subtotal</b>		31,674	32,928	35,964	31,765	27,704	335,606	420,882	426,411	355,383	226,763
<b>Meningitis</b>	Meningitis - Aseptic	22	16	8	9	2	665	659	826	457	261
	Meningitis - Bacterial Other	6	1	5	3	6	168	126	147	121	105
	Meningococcal Disease	1	-	-	-	-	7	6	4	8	3
	Streptococcus pneumoniae, Inv	12	16	10	10	8	813	841	791	936	528
	<b>Meningitis Subtotal</b>	41	33	23	22	16	1,653	1,632	1,768	1,522	897
<b>Other</b>	Acute Flaccid Myelitis (AFM)	-	-	1	-	-	-	-	6	3	4
	Anthrax	-	-	-	-	-	-	-	-	-	-
	Blastomycosis	1	-	-	-	1	15	22	19	27	31
	Botulism - Infant	-	-	-	-	-	1	-	1	-	2
	Botulism - Other	-	-	-	-	-	-	-	2	-	1
	Brucellosis	-	-	-	1	-	2	2	4	1	14
	CP-CRE	-	-	3	1	-	132	145	401	263	284
	Candida auris	-	-	-	-	-	-	-	-	-	-
	Cholera	-	-	-	-	-	1	1	1	2	-
	Coccidioidomycosis	1	2	2	4	1	37	42	39	50	66
	Creutzfeldt-Jakob Disease	1	-	-	-	1	14	13	12	14	11
	Cryptococcosis	-	-	1	-	-	12	15	14	18	30
	Cyclosporiasis	-	-	-	1	-	3	41	30	130	27
	Encephalitis, Post Chickenpox	-	-	-	-	-	-	-	1	1	-
	Encephalitis, Post Mumps	-	-	-	-	-	-	-	-	-	-
	Encephalitis, Post Other	1	-	-	-	1	16	21	10	14	10
	Encephalitis, Primary	-	-	-	-	-	10	15	18	14	16
	Guillain-Barre Syndrome	1	2	-	-	2	46	54	48	63	53
	Hantavirus	-	-	-	-	-	1	-	-	-	-
	Hantavirus, Other	-	-	-	-	-	-	-	-	-	-
	Hantavirus, Pulmonary	-	-	-	-	-	-	-	-	-	-
	Hemolytic Uremic Syndrome	-	-	2	1	1	9	6	11	8	5
	Hemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
	Histoplasmosis	5	11	11	24	9	163	178	168	234	206
	Kawasaki	-	1	1	-	2	50	46	35	55	65
	Legionellosis	4	-	11	8	7	309	349	643	561	385
	Leprosy	-	-	-	-	-	-	-	1	-	-
	Leptospirosis	-	-	-	-	-	5	4	1	3	3
	Melioidosis	-	-	-	-	-	-	1	-	-	-
	Multisystem Inflammatory Syndrome	-	-	-	-	4	-	-	-	-	81
	Novel Coronavirus COVID-19	-	-	-	-	21,566	-	-	-	-	589,090
	Plague	-	-	-	-	-	-	-	-	-	-
	Psittacosis	-	-	-	-	-	2	1	4	-	2
	Q Fever Acute	1	-	1	-	-	1	3	4	5	-
	Q Fever Chronic	-	-	-	-	-	1	3	1	-	1
	Rabies Animal	1	-	-	1	-	45	44	76	58	55
	Rabies Human	-	-	-	-	-	-	-	-	-	-
Reye Syndrome	-	-	-	-	-	-	-	-	-	-	
Rheumatic Fever	-	-	-	-	-	4	-	-	-	-	
Rubella - Congenital	-	-	-	-	-	-	-	-	-	-	
Streptococcus pneumoniae, Drug Resistant	1	4	4	4	5	113	110	96	80	32	
Streptococcal Dis, Inv, Grp A	14	17	8	11	13	397	458	428	449	347	
Streptococcal Toxic Shock	1	-	-	-	-	2	2	5	5	4	

Disease Group	Reportable Condition	Ottawa County Cases Reported**					Michigan Cases Reported				
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
<b>Other</b>	Toxic Shock	-	-	-	-	-	7	2	4	7	3
	Trachoma	-	-	-	-	-	-	-	-	-	2
	Trichinosis	-	-	-	-	-	1	-	-	-	-
	Tularemia	-	-	-	-	-	1	-	2	1	1
	Vibriosis - Non Cholera	-	2	-	3	-	9	20	45	39	30
	VISA	-	-	2	1	-	4	7	8	11	-
	VRSA	-	-	-	-	-	-	-	-	-	-
	<b>Other Subtotal</b>	32	39	47	60	21,613	1,413	1,605	2,138	2,116	590,861
<b>STD</b>	Chancroid	-	-	-	-	-	-	1	-	-	-
	Chlamydia (Genital)	863	981	932	816	800	49,317	51,643	51,540	50,361	44,813
	Gonorrhea	117	143	186	161	200	13,085	15,366	17,033	18,267	23,390
	Granuloma Inguinale	-	-	-	-	-	-	-	-	-	-
	Lymphogranuloma venereum	-	-	-	-	-	20	8	16	1	8
	Syphilis - Primary, Secondary & Early Latent	8	5	8	8	19	1,105	1,237	1,066	1,242	1,350
	All Syphilis	13	6	14	14	25	1,172	1,301	1,706	1,915	2,047
	<b>STD Subtotal</b>	993	1,130	1,132	991	1,025	63,594	68,319	70,295	70,544	70,258
<b>Tuberculosis</b>	Latent Tuberculosis Infection	-	2	66	50	24	8	123	1,125	2,054	1,365
	Nontuberculous Mycobacterium	3	5	11	11	16	204	326	839	855	685
	Tuberculosis	-	3	7	3	1	124	134	117	138	94
	<b>Tuberculosis Subtotal</b>	3	10	84	64	41	336	583	2,081	3,047	2,144
<b>VPD</b>	Chickenpox (Varicella)	26	14	27	14	14	547	542	434	416	185
	Diphtheria	-	-	-	-	-	-	-	-	-	-
	H. influenzae Disease - Inv. †	3	3	3	9	4	187	199	174	223	104
	Measles	-	-	-	-	-	1	2	19	46	4
	Mumps	1	4	1	-	1	37	47	81	29	10
	Pertussis	6	32	20	19	5	416	761	658	546	129
	Polio	-	-	-	-	-	-	-	-	-	-
	Rubella	-	-	-	-	-	-	-	-	-	1
	Shingles	19	34	26	21	9	866	976	1,252	1,222	808
	Tetanus	-	-	-	-	-	1	2	2	1	-
	VZ Infection, Unspecified	-	-	-	4	16	172	270	213	228	243
	<b>VPD Subtotal</b>	55	87	77	67	49	2,227	2,799	2,833	2,711	1,484
<b>Vectorborne</b>	Babesiosis	-	-	-	-	-	5	3	5	2	1
	Chikungunya	-	1	-	-	-	4	4	2	1	1
	Dengue Fever	-	-	-	1	-	16	11	12	23	18
	Ehrlichiosis	-	1	2	1	-	16	21	25	22	26
	Encephalitis, California Serogroup	-	-	-	-	1	-	-	2	3	5
	Encephalitis, Eastern Equine	-	-	-	-	-	2	-	1	10	4
	Encephalitis, Powassan	-	-	-	-	-	-	-	-	-	-
	Encephalitis, St. Louis	-	-	-	-	-	-	-	-	-	-
	Encephalitis, Western Equine	-	-	-	-	-	-	-	-	-	-
	Lyme Disease	11	14	9	26	10	231	348	309	487	564
	Malaria	4	-	-	-	-	43	45	29	25	16
	Rickettsial Disease - Spotted Fever	-	-	-	-	1	14	13	23	12	48
	Rickettsial Disease - Typhus	1	-	-	-	-	1	-	-	-	1
	West Nile Virus	-	-	2	-	-	45	43	105	12	38
	Yellow Fever	-	-	-	-	-	-	-	-	-	-
	Zika	10	1	-	-	1	-	-	-	-	3
<b>Vectorborne Subtotal</b>	26	17	13	28	13	377	488	513	597	725	
<b>Viral Hepatitis</b>	Hepatitis A	-	2	-	1	-	129	702	331	78	23
	Hepatitis B, Acute	2	-	2	1	-	51	62	80	65	45
	Hepatitis B, Chronic	22	19	23	17	7	1,235	1,193	1,059	1,004	719
	Hepatitis B, Perinatal	-	-	-	-	-	-	1	1	-	1
	Hepatitis C, Acute °	2	2	1	1	5	157	230	175	129	140
	Hepatitis C, Chronic °	115	129	108	63	32	11,104	11,264	9,798	5,831	4,229
	Hepatitis C, Perinatal	-	-	-	-	-	5	3	11	12	9
	Hepatitis C, Unknown*	-	-	-	-	-	15	-	-	23	-
	Hepatitis D	-	-	-	2	-	1	3	4	6	7
<b>Viral Hepatitis Subtotal</b>	141	152	134	85	44	12,701	13,463	11,468	7,153	5,182	
<b>Total</b>	33,124	34,647	37,727	33,503	50,742	424,058	515,444	522,855	448,834	902,134	

\* Indicates disease no longer reported into the MDSS on an individual cases basis.

\*\* Data for cases reported is based on date of symptom onset, if available, or date of referral to the public health department.

† All serotypes of invasive H. influenzae (Hi) disease are included, though only H. influenzae serotype b disease (Hib) is vaccine-preventable.

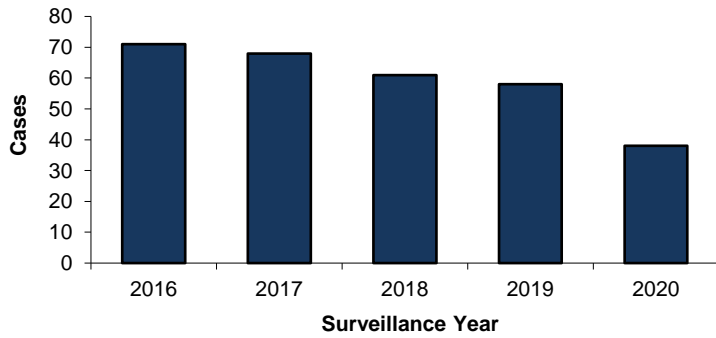
° Indicates a change in the case definition for 2020, which may affect the number of confirmed and probable cases.

# **Annual Reportable Disease Summary**

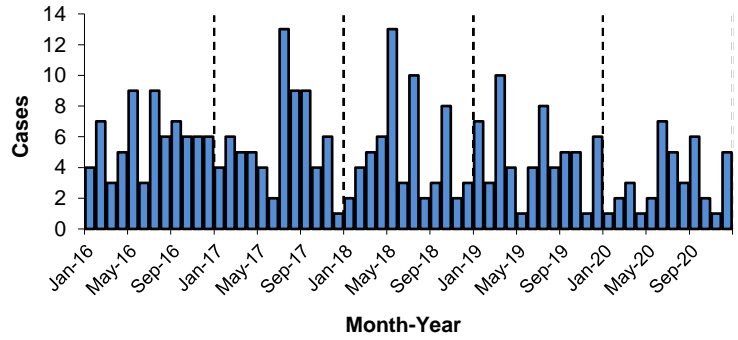
## **Charts**

## Foodborne Illness:

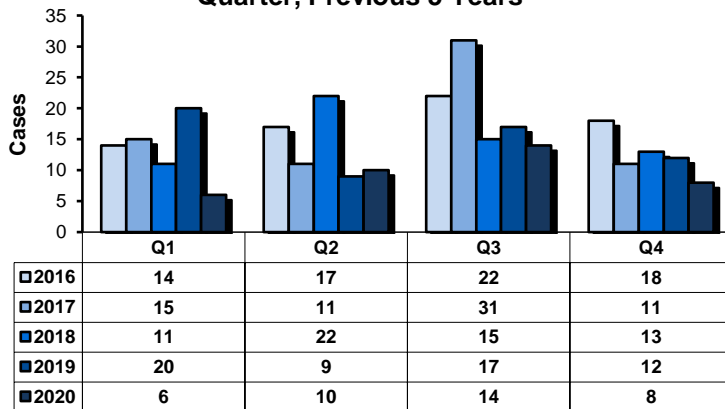
### Campylobacter Cases in Ottawa County Previous 5 Years



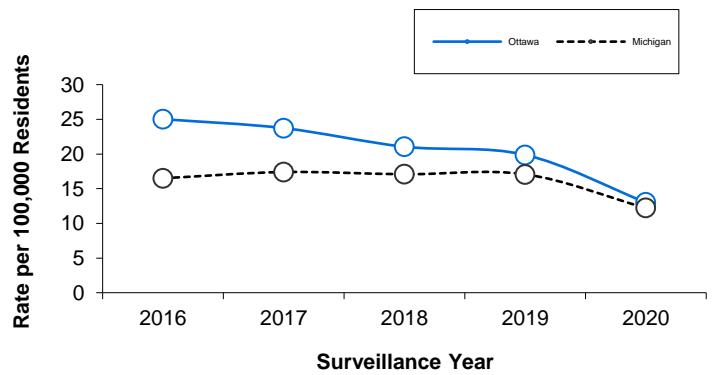
### Campylobacter Cases in Ottawa County by Month, Previous 5 Years



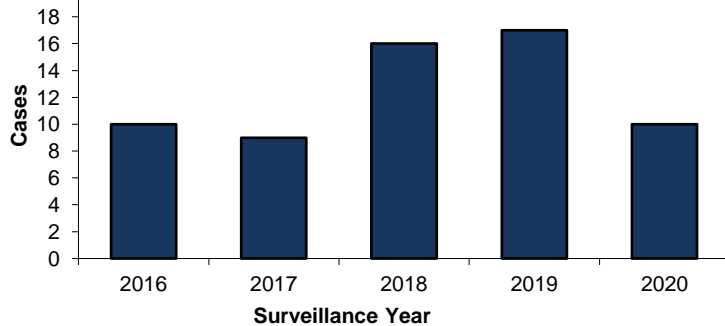
### Campylobacter Cases in Ottawa County by Quarter, Previous 5 Years



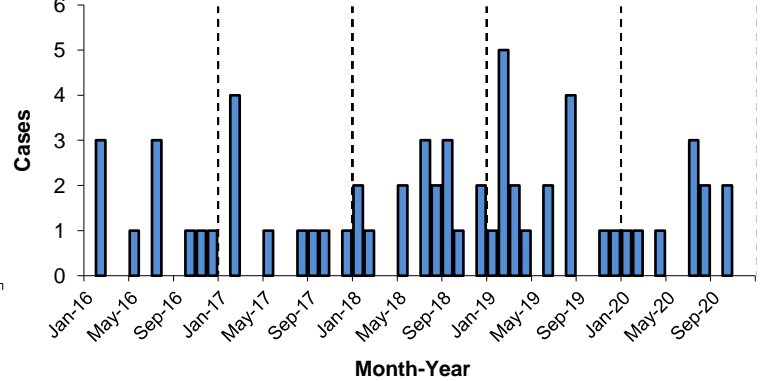
### Campylobacter Cases per 100,000



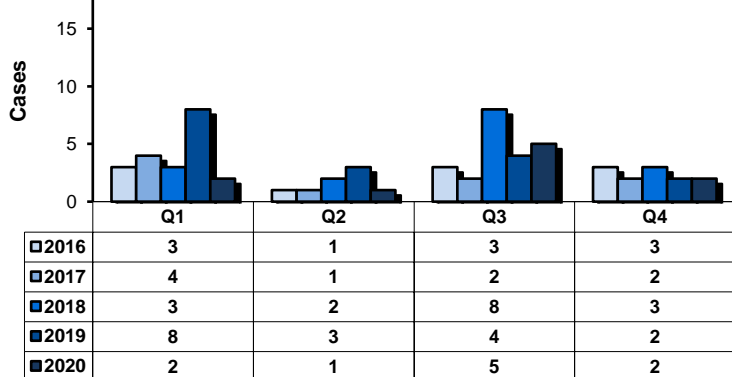
### Shiga toxin-producing *Escherichia coli* (STEC) Cases in Ottawa County, Previous 5 Years



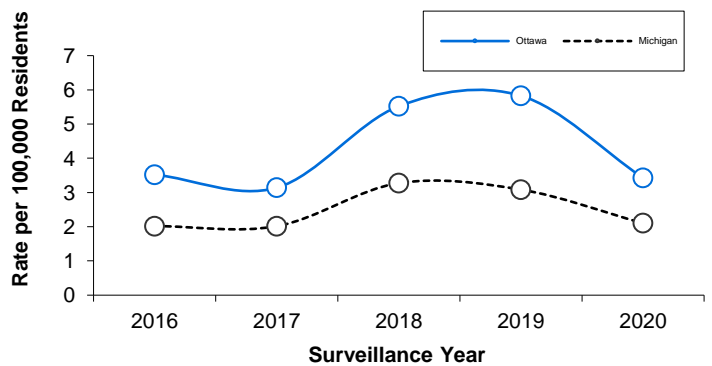
### Shiga toxin-producing *Escherichia coli* (STEC) Cases in Ottawa County by Month, Previous 5 Years



### Shiga toxin-producing *Escherichia coli* (STEC) Cases in Ottawa County by Quarter, Previous 5 Years

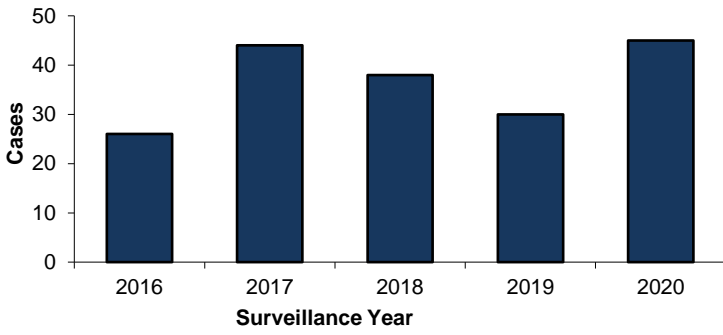


### Shiga toxin-producing *Escherichia coli* (STEC) Cases per 100,000

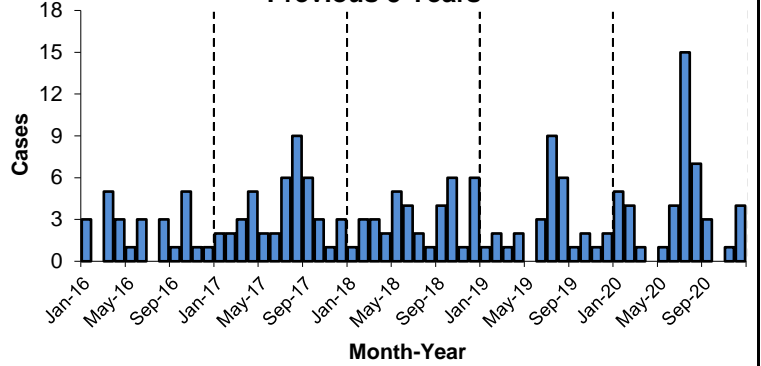


# Foodborne Illness:

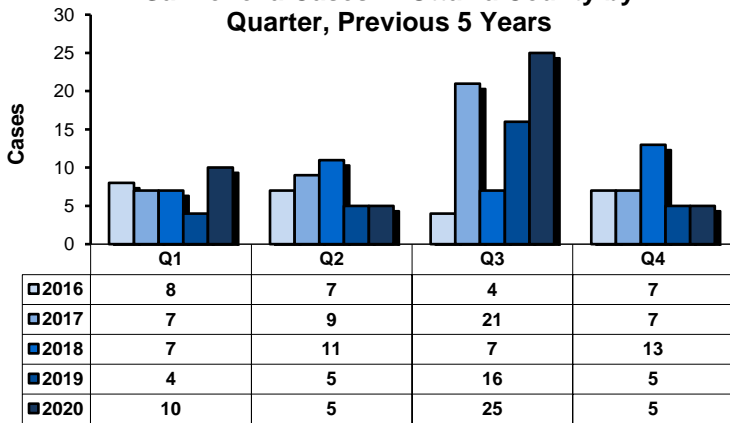
### Salmonella Cases in Ottawa County Previous 5 Years



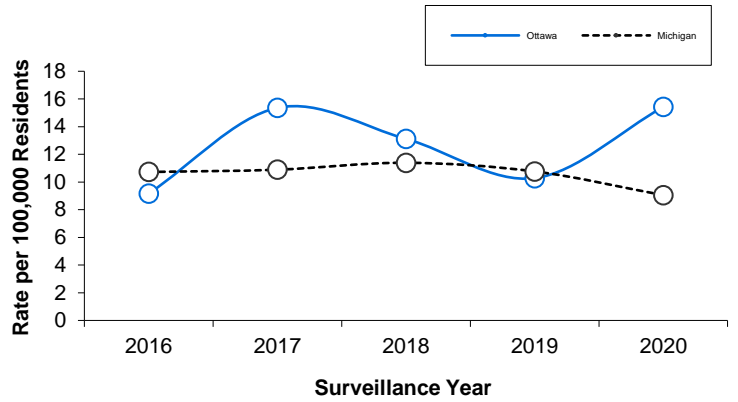
### Salmonella Cases in Ottawa County by Month Previous 5 Years



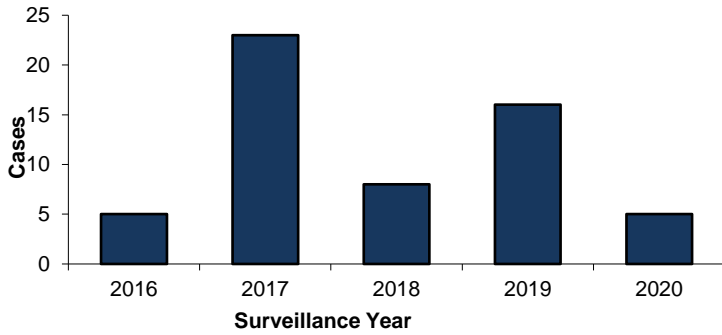
### Salmonella Cases in Ottawa County by Quarter, Previous 5 Years



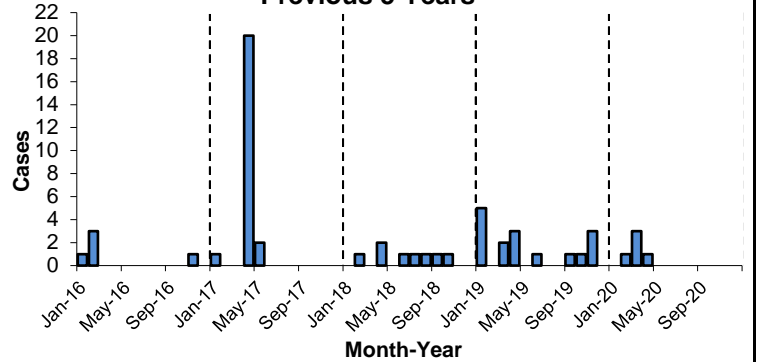
### Salmonella Cases per 100,000



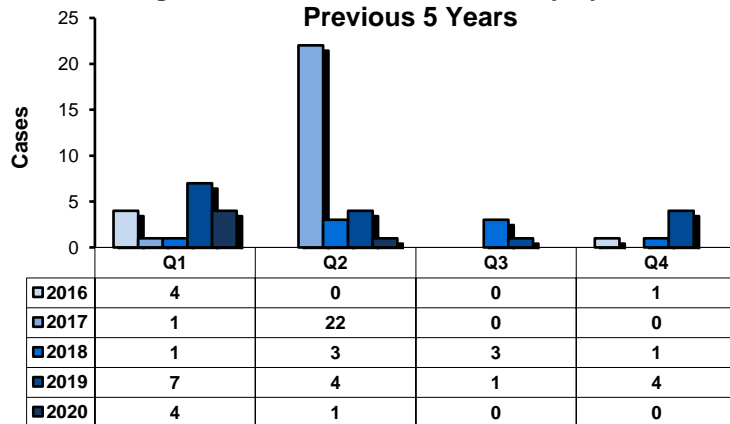
### Shigellosis Cases in Ottawa County Previous 5 Years



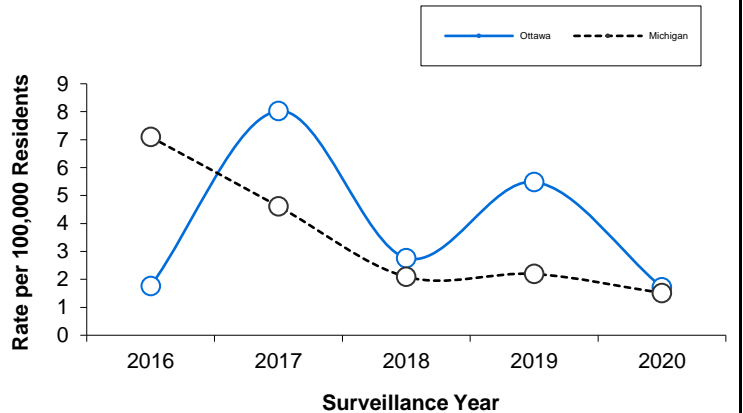
### Shigellosis Cases in Ottawa County by Month Previous 5 Years



### Shigellosis Cases in Ottawa County by Quarter, Previous 5 Years



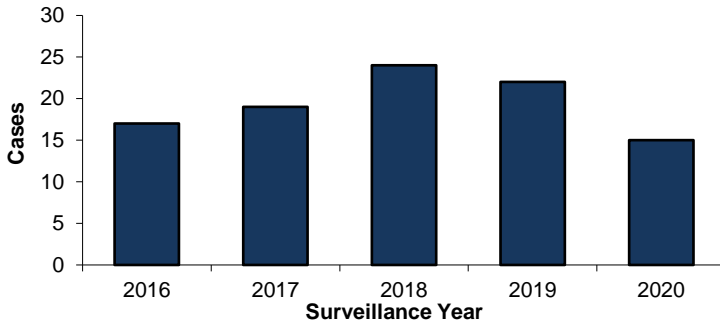
### Shigellosis Cases per 100,000



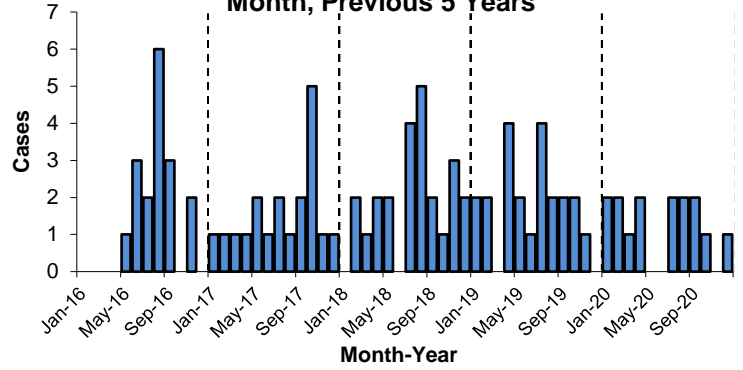


# Foodborne Illness:

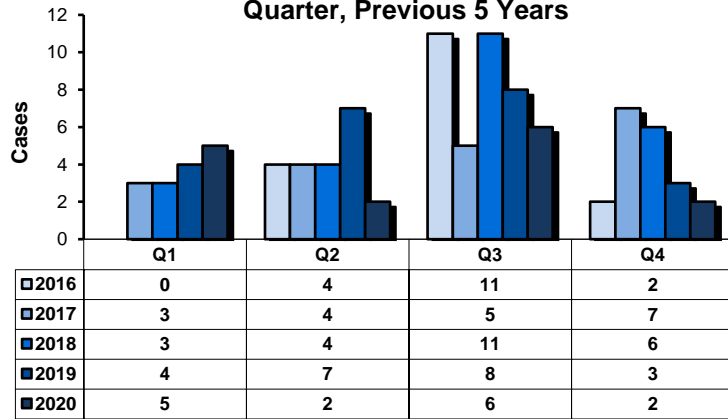
### Cryptosporidiosis Cases in Ottawa County, Previous 5 Years



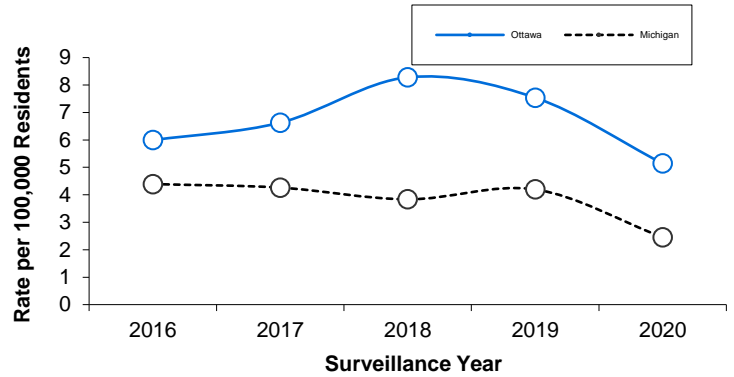
### Cryptosporidiosis Cases in Ottawa County by Month, Previous 5 Years



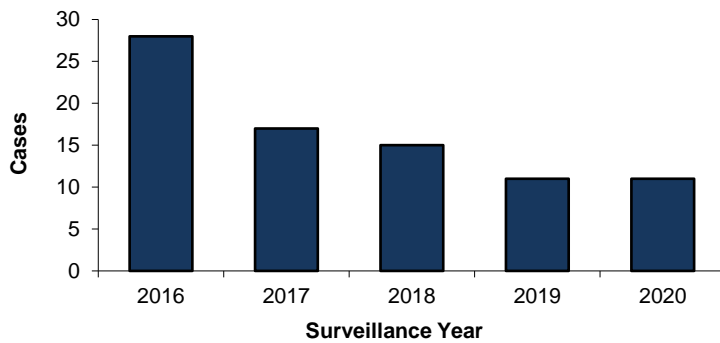
### Cryptosporidiosis Cases in Ottawa County by Quarter, Previous 5 Years



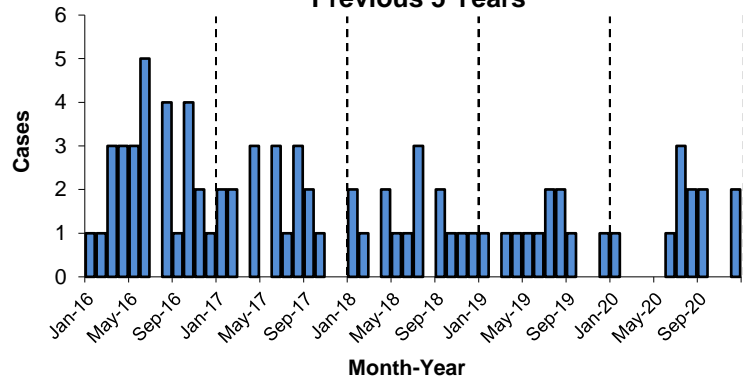
### Cryptosporidiosis Cases per 100,000



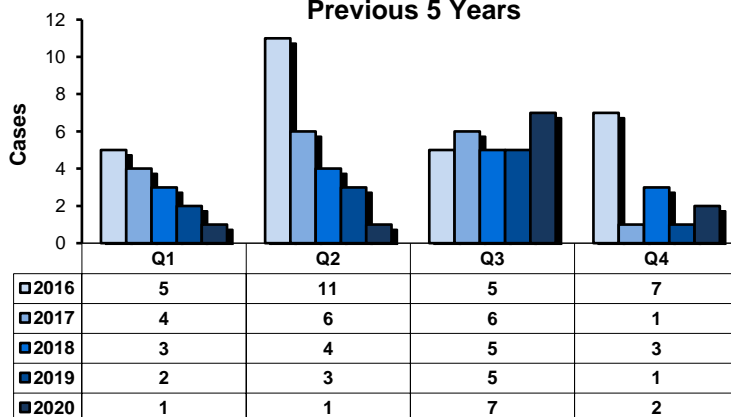
### Giardia Cases in Ottawa County Previous 5 Years



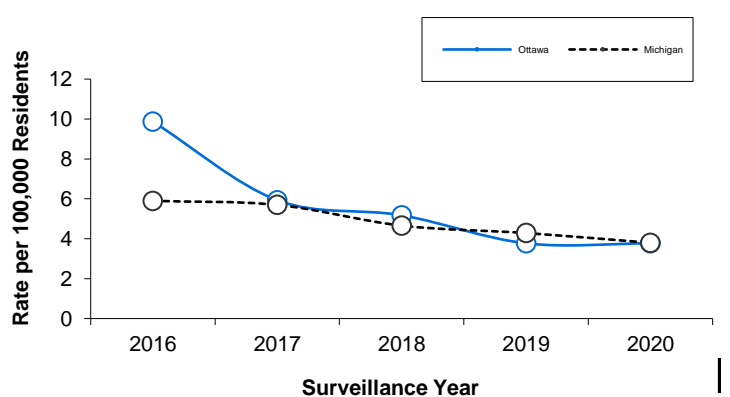
### Giardia Cases in Ottawa County by Month Previous 5 Years



### Giardia Cases in Ottawa County by Quarter, Previous 5 Years

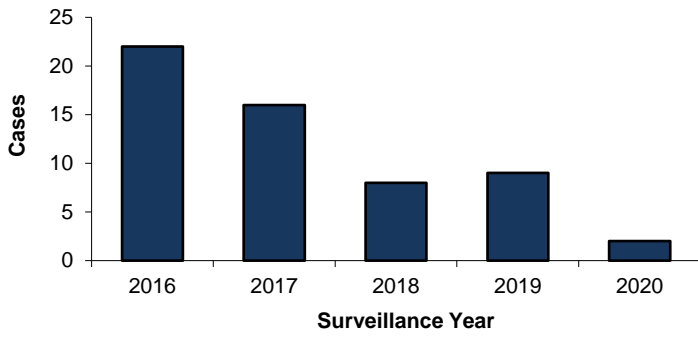


### Giardia Cases per 100,000

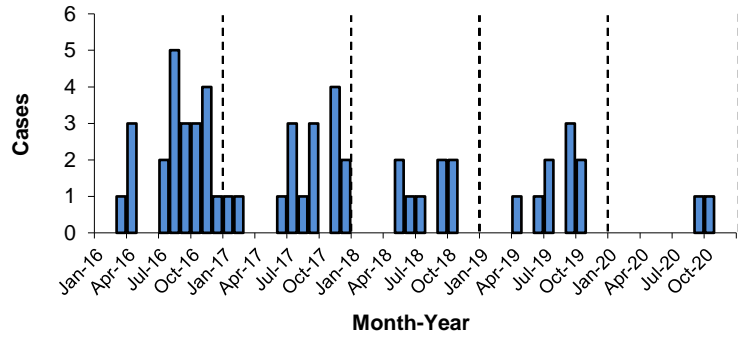


# Meningitis:

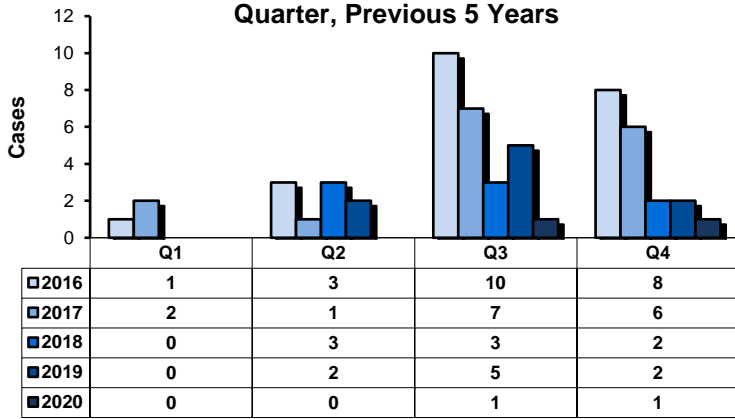
**Aseptic Meningitis Cases in Ottawa County, Previous 5 Years**



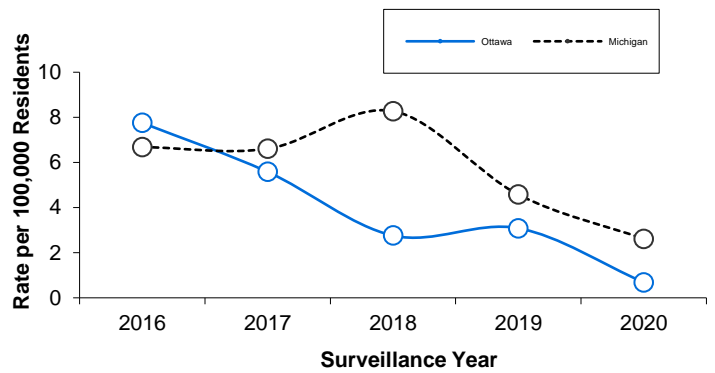
**Aseptic Meningitis Cases in Ottawa County by Month, Previous 5 Years**



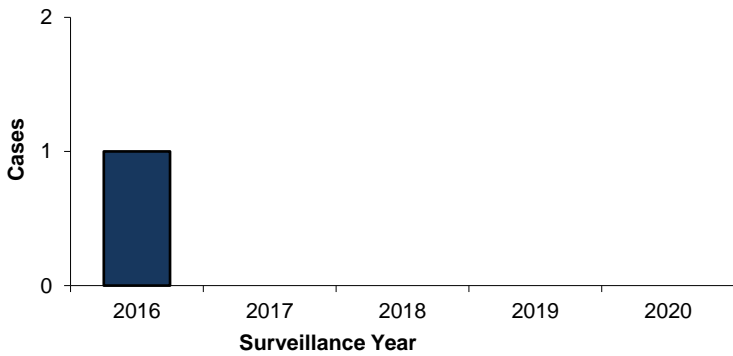
**Aseptic Meningitis Cases in Ottawa County by Quarter, Previous 5 Years**



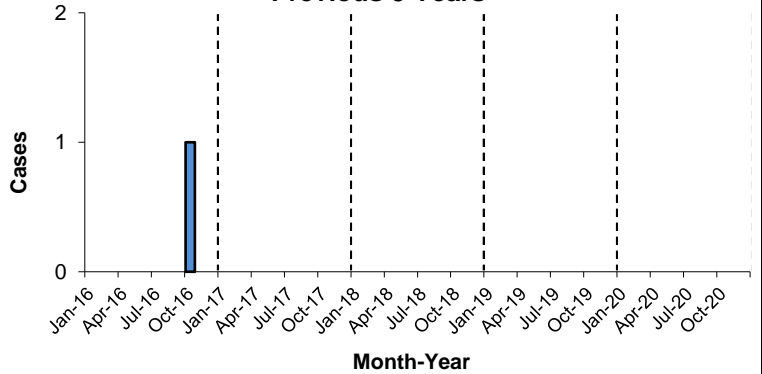
**Aseptic Meningitis Cases per 100,000**



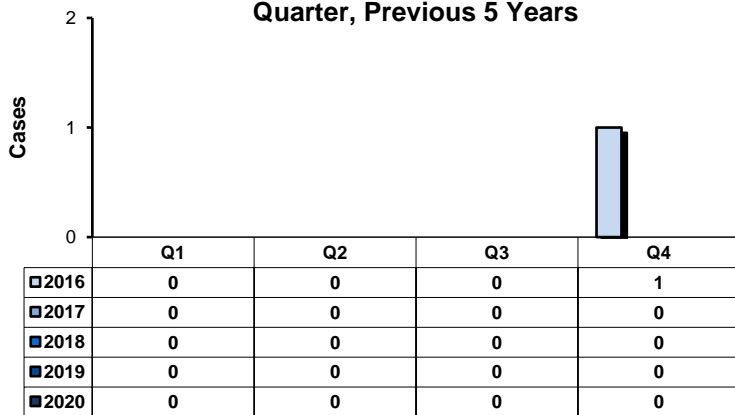
***N. meningitidis* Cases in Ottawa County Previous 5 Years**



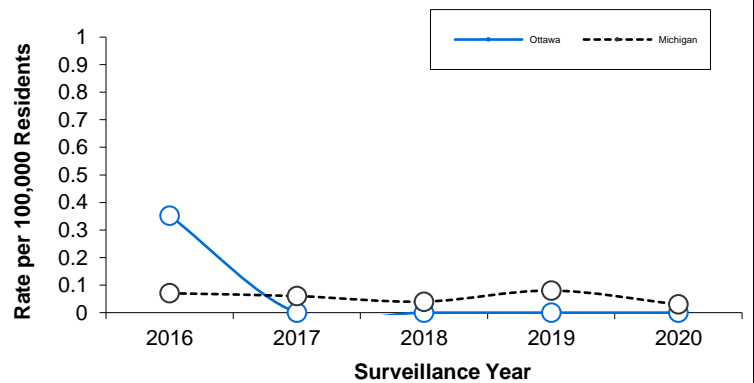
***N. meningitidis* Cases in Ottawa County by Month Previous 5 Years**



***N. meningitidis* Cases in Ottawa County by Quarter, Previous 5 Years**

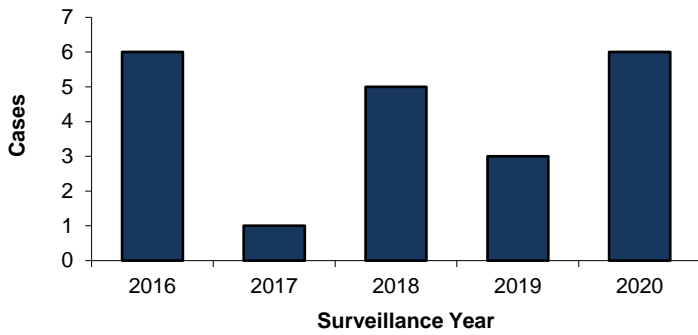


***N. meningitidis* Cases per 100,000**

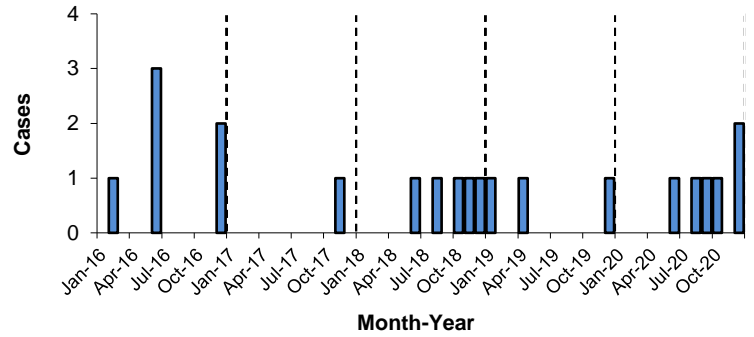


# Meningitis:

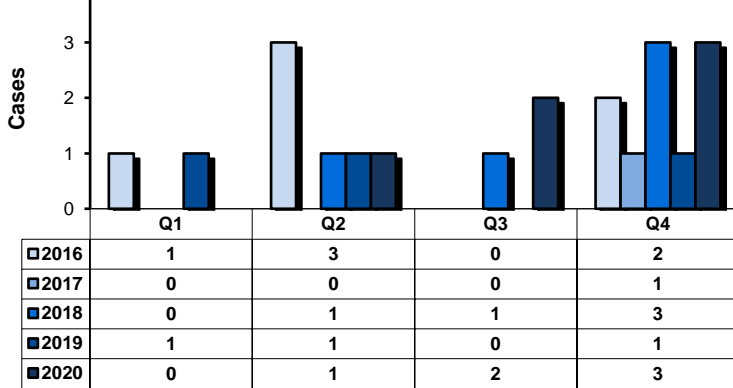
**Meningitis (Other Bacterial) Cases in Ottawa County, Previous 5 Years**



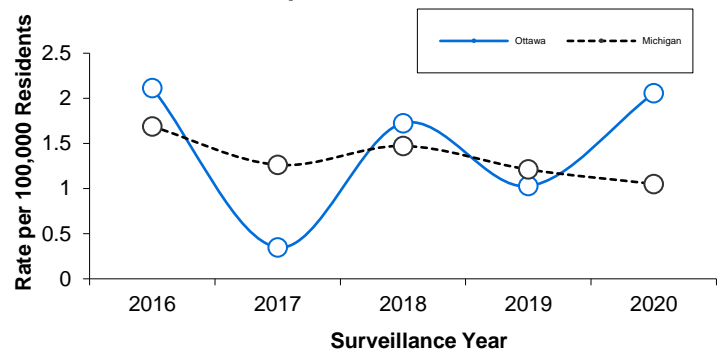
**Meningitis (Other Bacterial) Cases in Ottawa County by Month, Previous 5 Years**



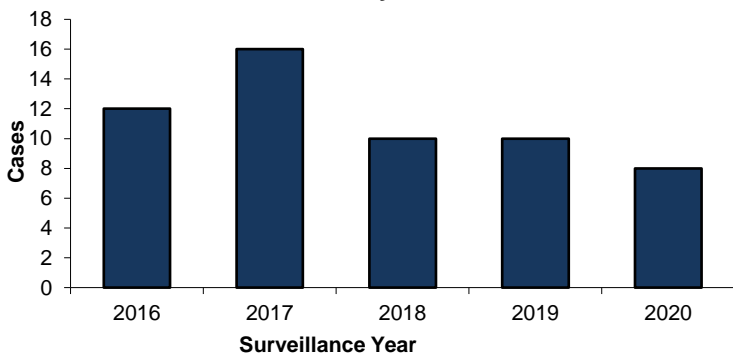
**Meningitis (Other Bacterial) Cases in Ottawa County by Quarter, Previous 5 Years**



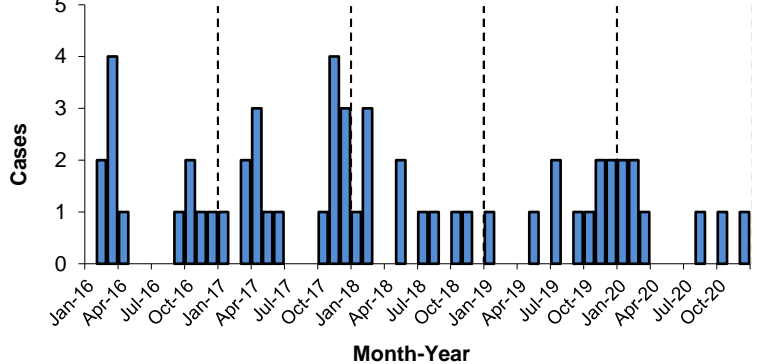
**Meningitis (Other Bacterial) Cases per 100,000**



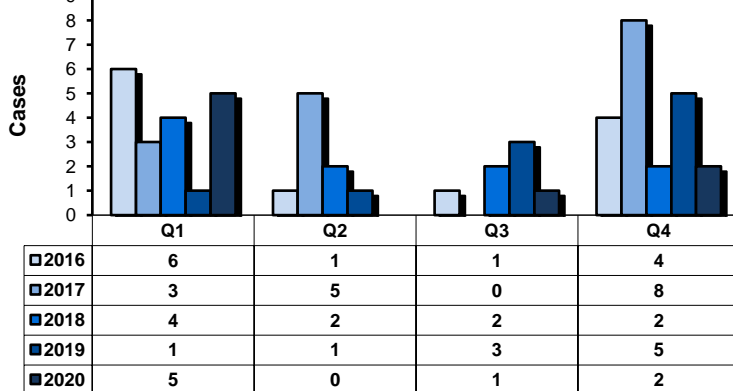
**Invasive *Streptococcus pneumoniae* Cases in Ottawa County, Previous 5 Years**



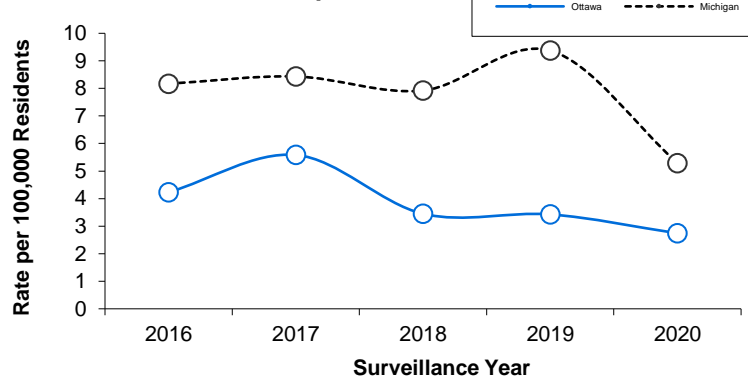
**Invasive *Streptococcus pneumoniae* Cases in Ottawa County by Month, Previous 5 Years**



**Invasive *Streptococcus pneumoniae* Cases in Ottawa County by Quarter, Previous 5 Years**

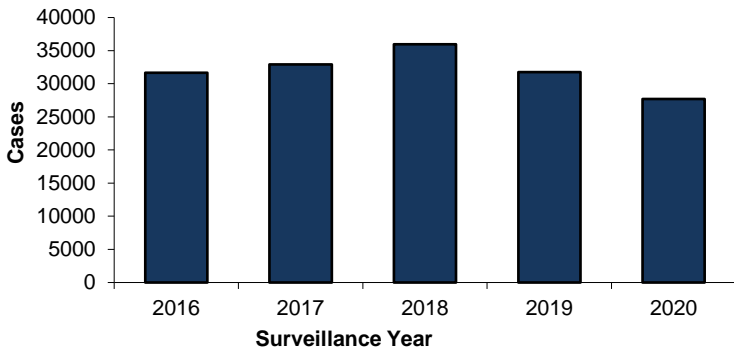


**Invasive *Streptococcus pneumoniae* Cases per 100,000**

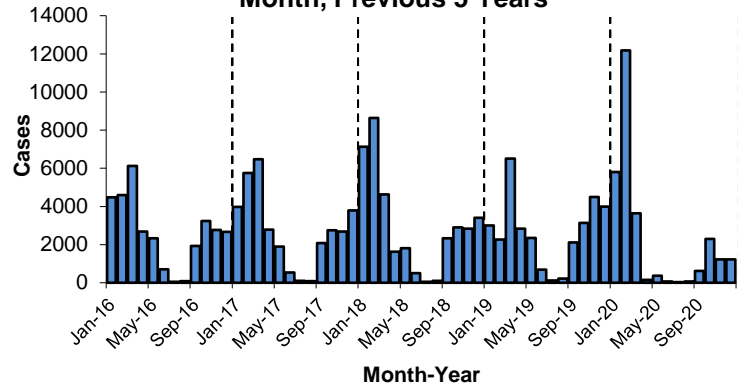


# Influenza and COVID-19:

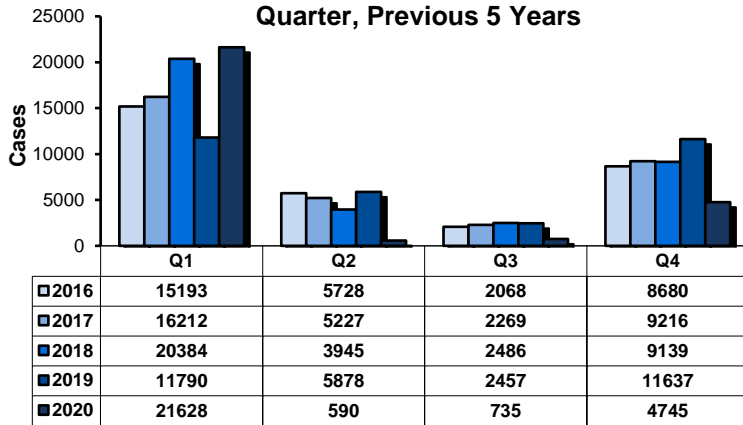
### Flu-Like Disease Cases in Ottawa County Previous 5 Years



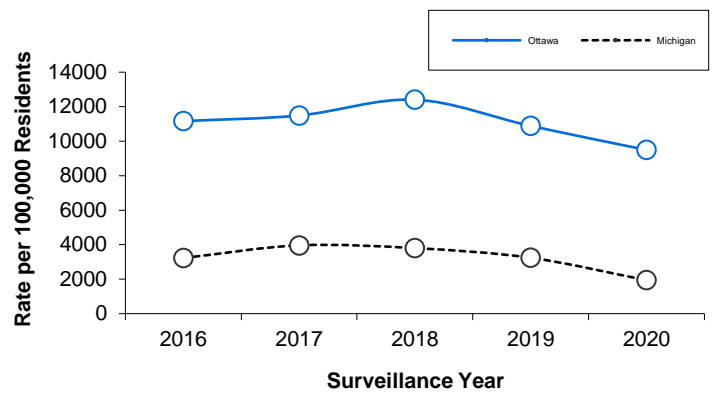
### Flu-Like Disease Cases in Ottawa County by Month, Previous 5 Years



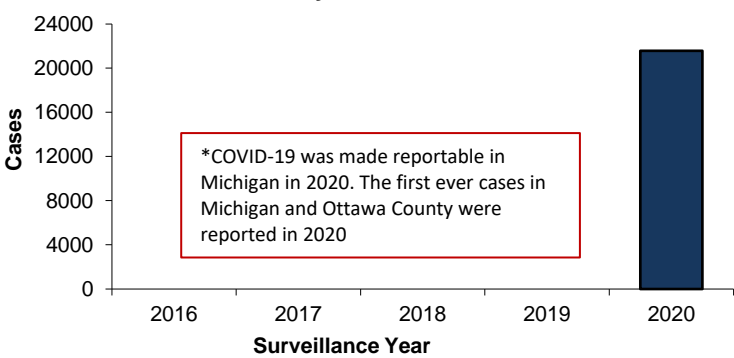
### Flu-Like Disease Cases in Ottawa County by Quarter, Previous 5 Years



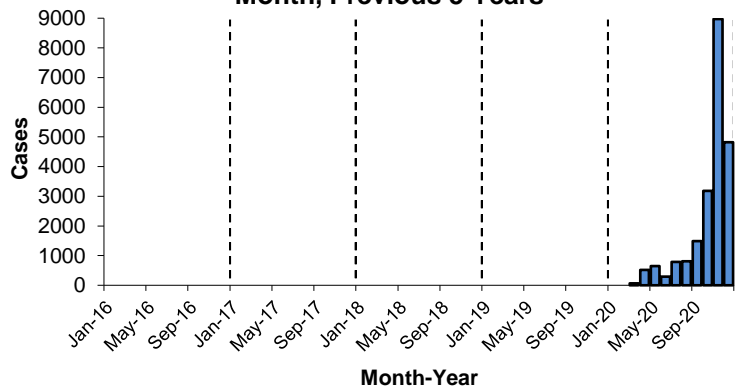
### Flu-Like Disease Cases per 100,000



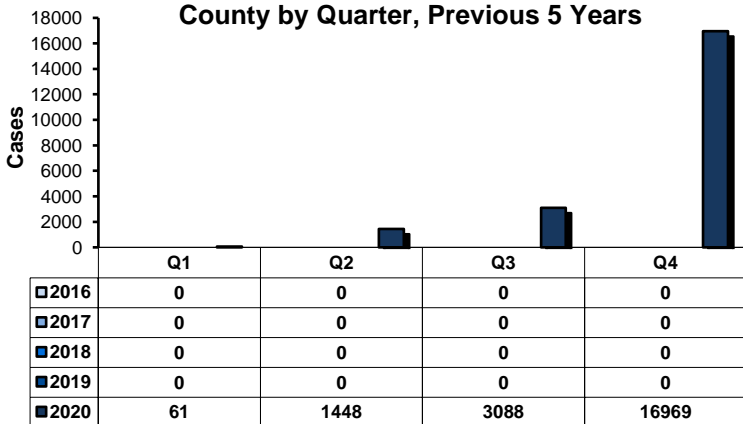
### Novel Coronavirus (COVID-19) Cases in Ottawa County, Previous 5 Years



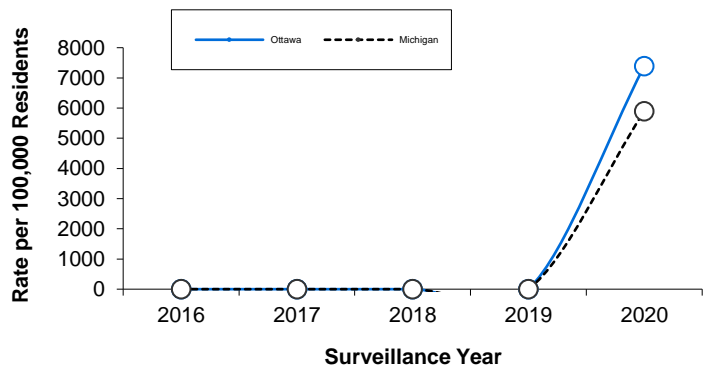
### Novel Coronavirus (COVID-19) Cases in Ottawa County by Month, Previous 5 Years



### Novel Coronavirus (COVID-19) Cases in Ottawa County by Quarter, Previous 5 Years

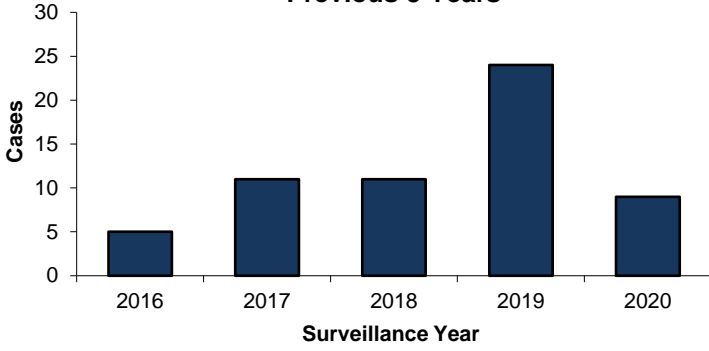


### Novel Coronavirus (COVID-19) Disease Cases per 100,000

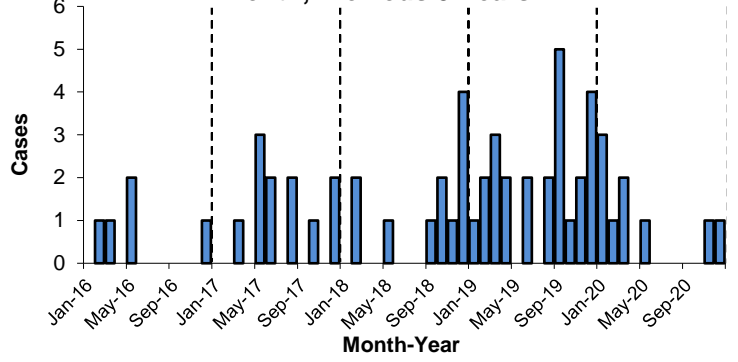


**Other Illnesses:**

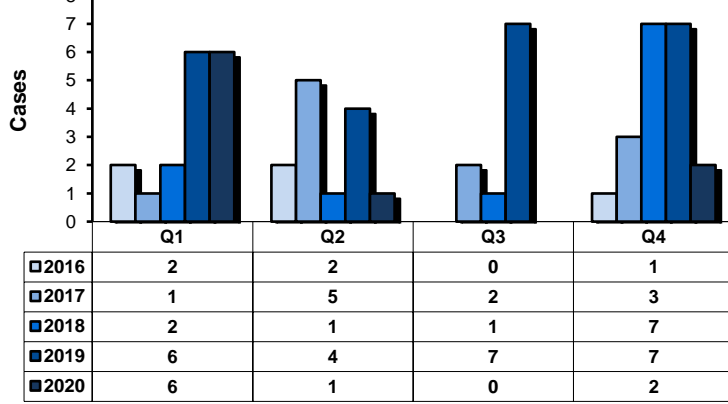
**Histoplasmosis Cases in Ottawa County Previous 5 Years**



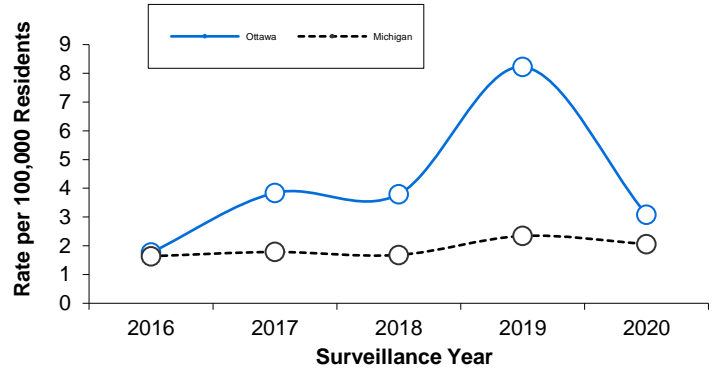
**Histoplasmosis Cases in Ottawa County by Month, Previous 5 Years**



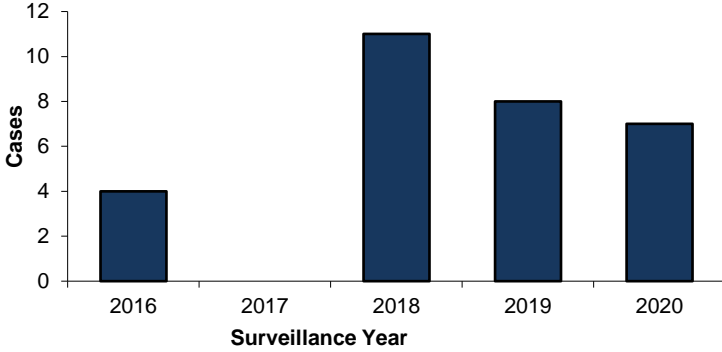
**Histoplasmosis Cases in Ottawa County by Quarter, Previous 5 Years**



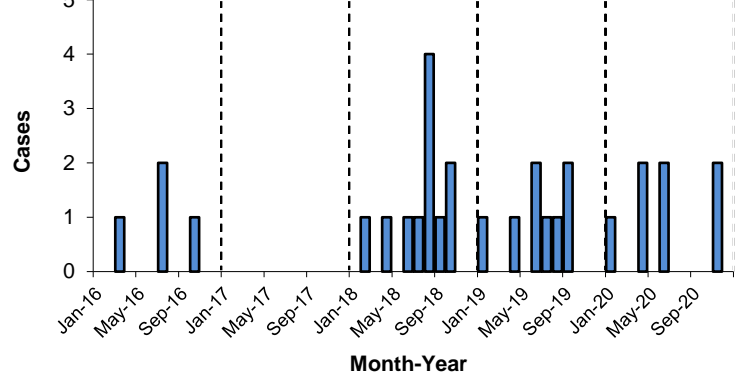
**Histoplasmosis Cases per 100,000**



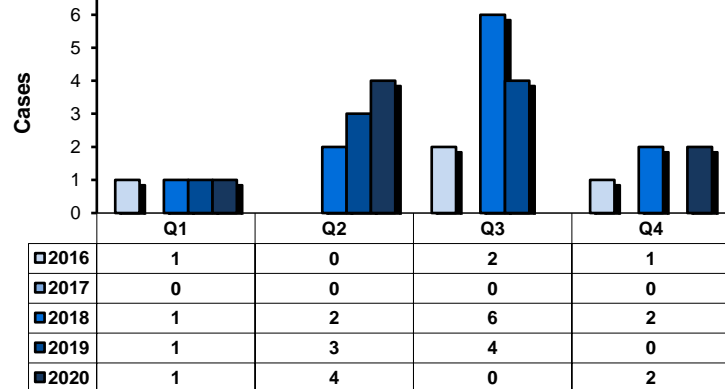
**Legionellosis Cases in Ottawa County Previous 5 Years**



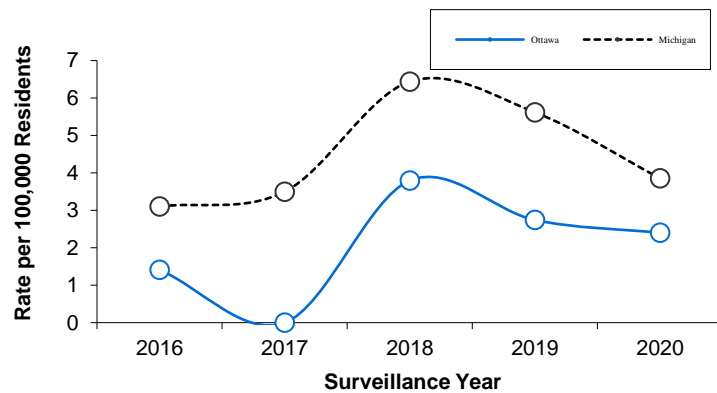
**Legionellosis Cases in Ottawa County by Month Previous 5 Years**



**Legionellosis Cases in Ottawa County by Quarter, Previous 5 Years**

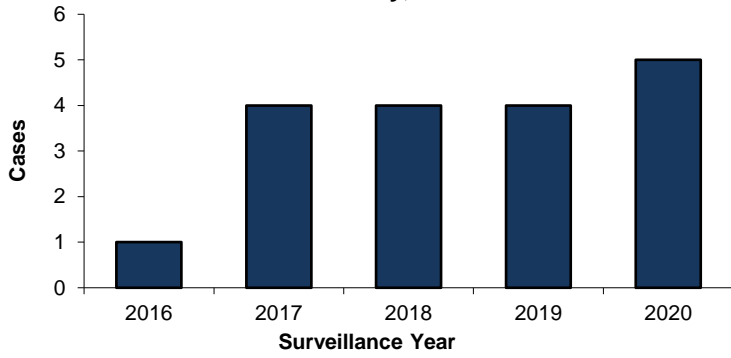


**Legionellosis Cases per 100,000**

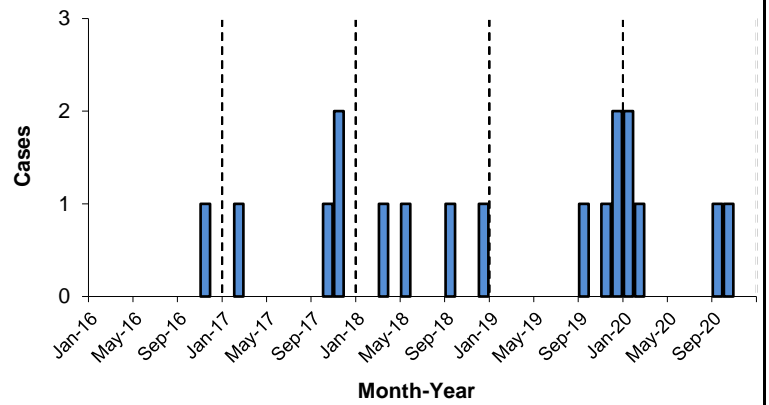


## Other Illnesses:

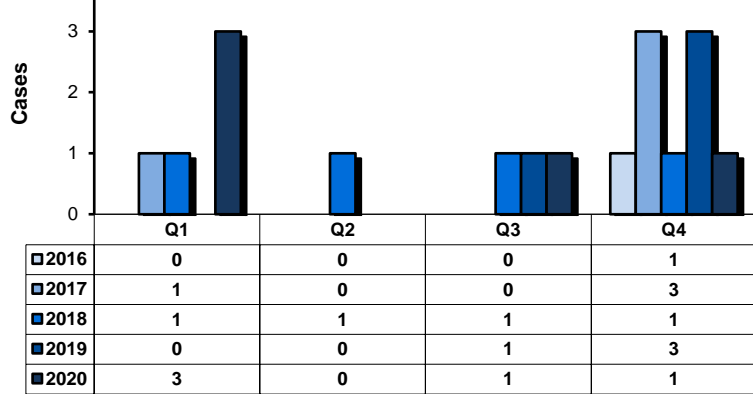
**Drug Resistant *Streptococcus pneumoniae* Cases in Ottawa County, Previous 5 Years**



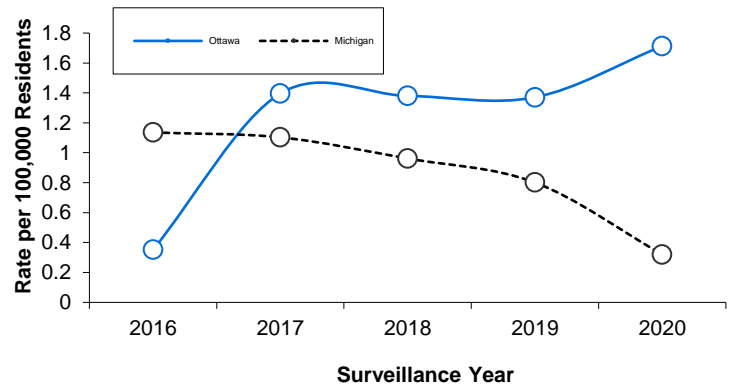
**Drug Resistant *Streptococcus pneumoniae* Cases in Ottawa County by Month, Previous 5 Years**



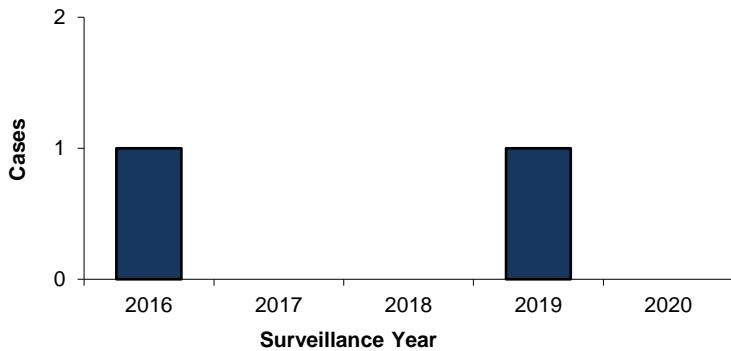
**Drug Resistant *Streptococcus pneumoniae* Cases in Ottawa County by Quarter, Previous 5 Years**



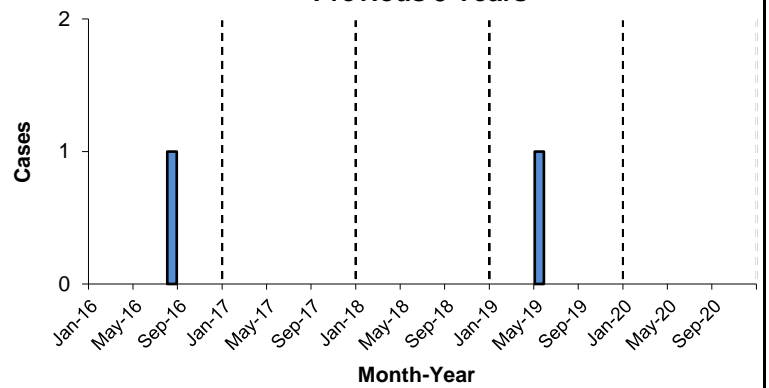
**Drug Resistant *Streptococcus pneumoniae* Cases per 100,000**



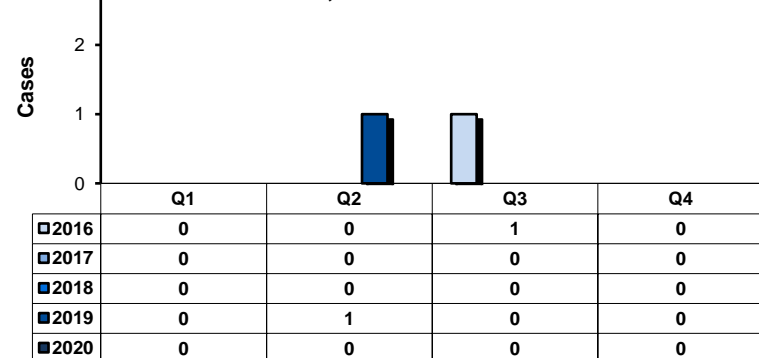
**Animal Rabies Cases in Ottawa County, Previous 5 Years**



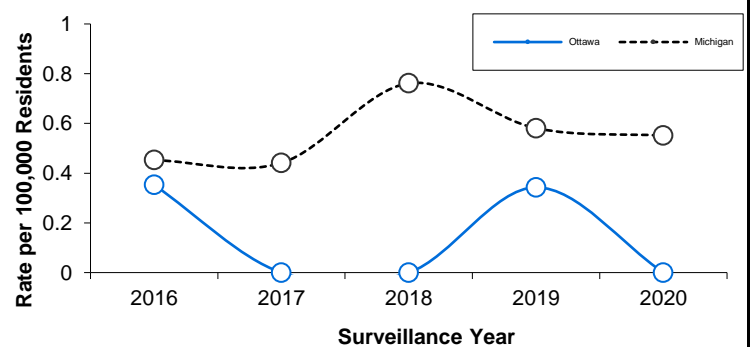
**Animal Rabies Cases in Ottawa County by Month, Previous 5 Years**



**Animal Rabies Cases in Ottawa County by Quarter, Previous 5 Years**

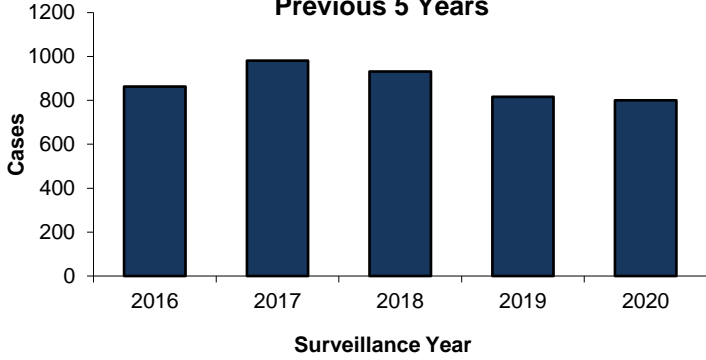


**Animal Rabies Cases per 100,000**

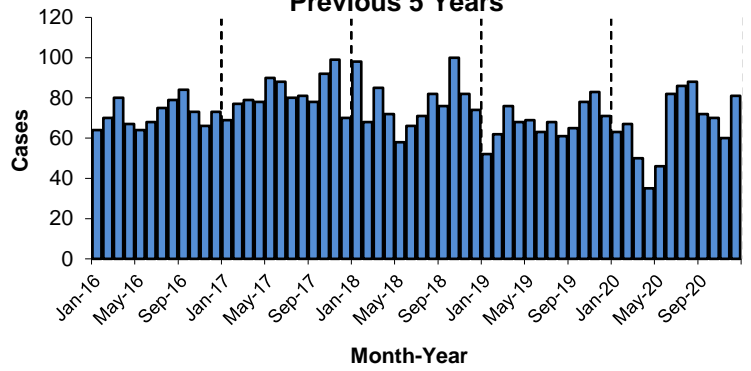


# Sexually Transmitted Diseases:

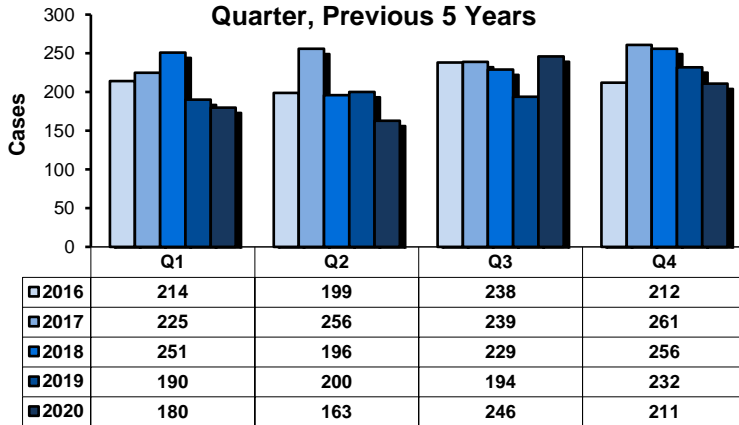
## Chlamydia Cases in Ottawa County Previous 5 Years



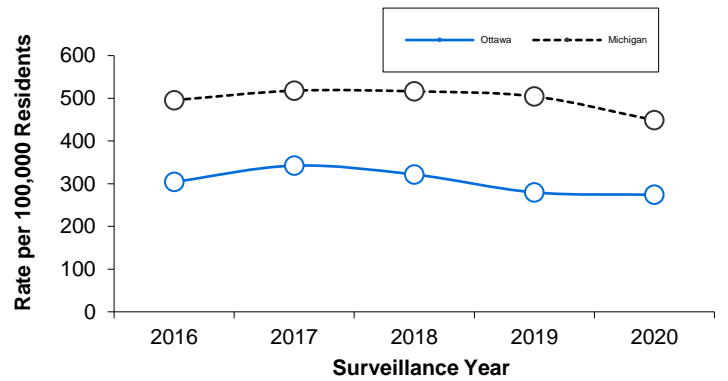
## Chlamydia Cases in Ottawa County by Month, Previous 5 Years



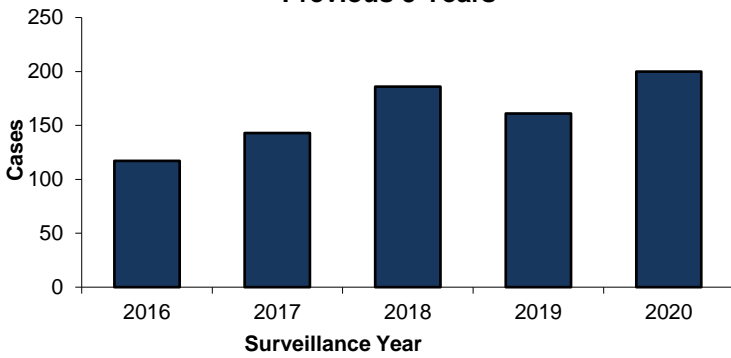
## Chlamydia Cases in Ottawa County by Quarter, Previous 5 Years



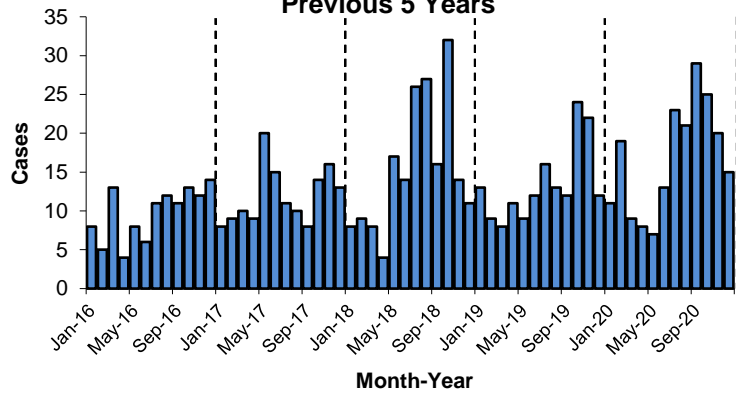
## Chlamydia Cases per 100,000



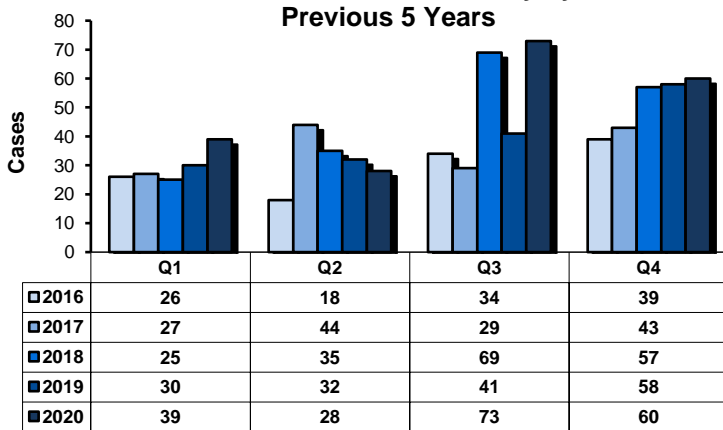
## Gonorrhea Cases in Ottawa County Previous 5 Years



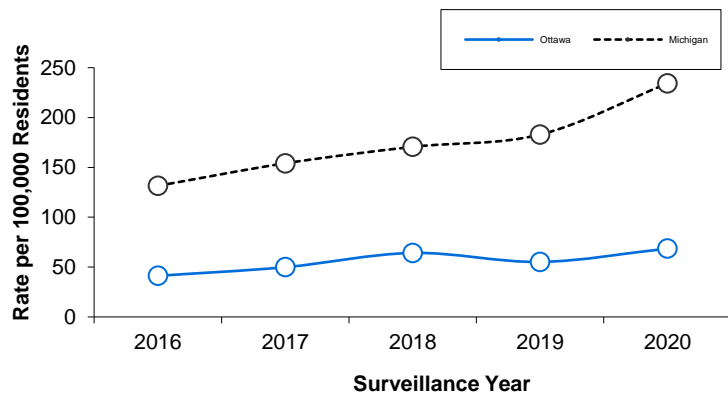
## Gonorrhea Cases in Ottawa County by Month, Previous 5 Years



## Gonorrhea Cases in Ottawa County by Quarter, Previous 5 Years

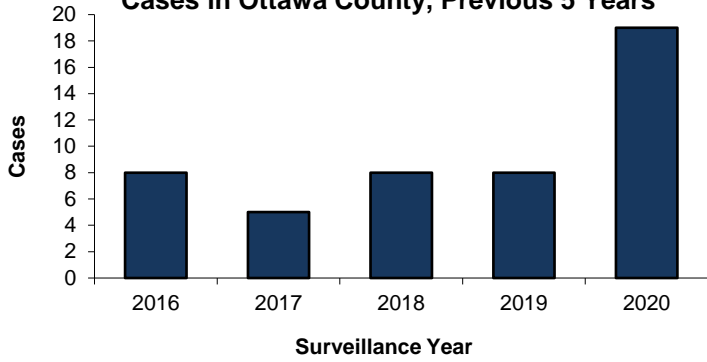


## Gonorrhea Cases per 100,000

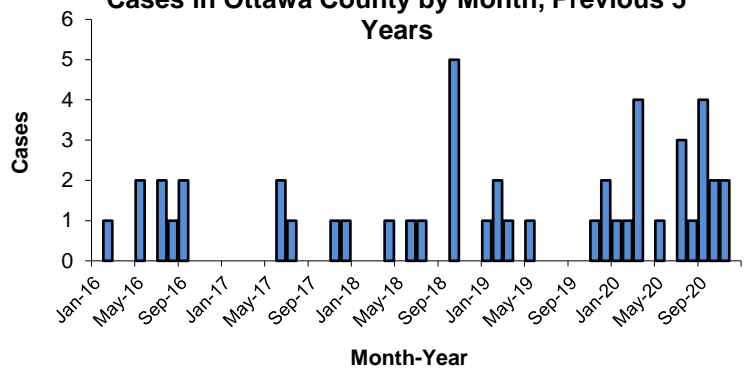


# Sexually Transmitted Diseases:

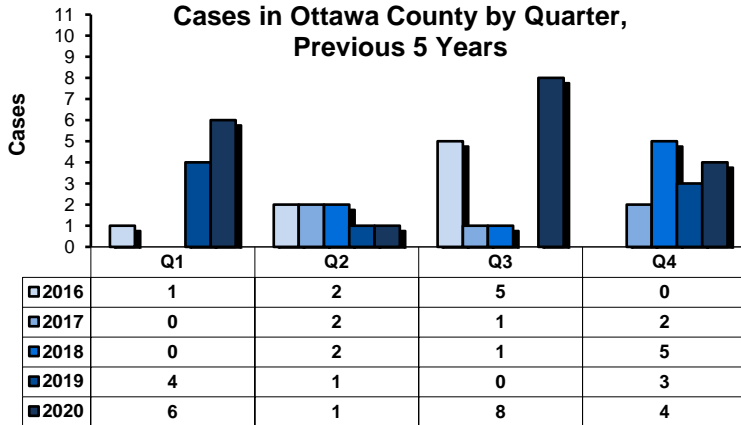
**Primary, Secondary, Early Latent Syphilis Cases in Ottawa County, Previous 5 Years**



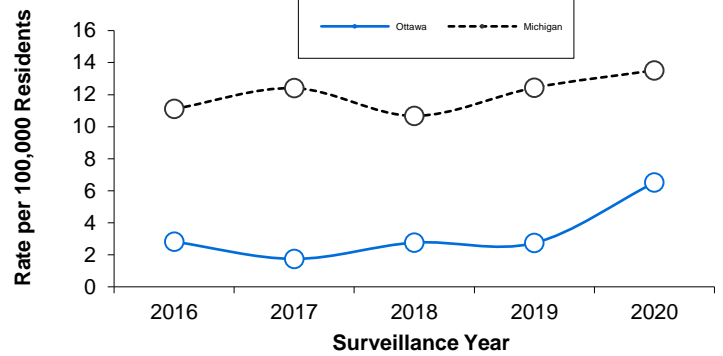
**Primary, Secondary & Early Latent Syphilis Cases in Ottawa County by Month, Previous 5 Years**



**Primary, Secondary & Early Latent Syphilis Cases in Ottawa County by Quarter, Previous 5 Years**



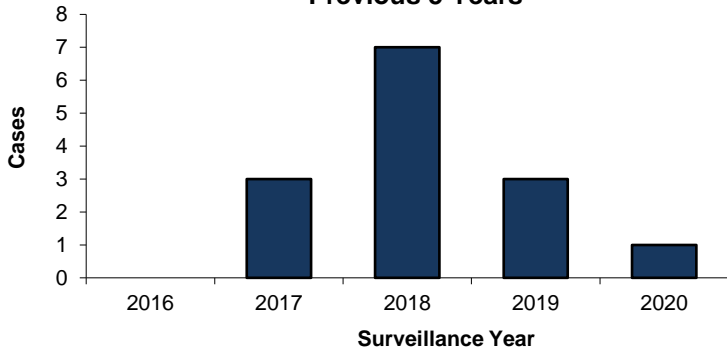
**Primary, Secondary & Early Latent Syphilis Cases per 100,000**



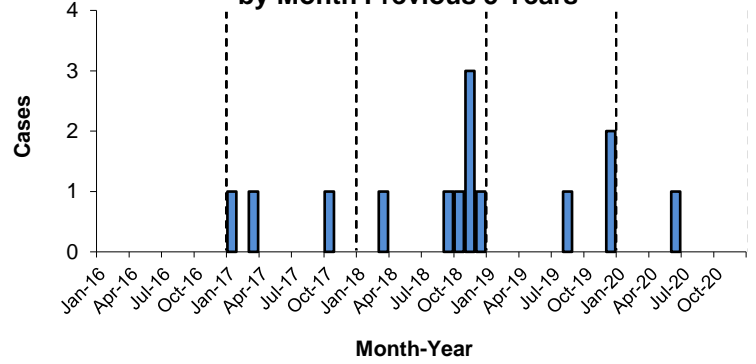


# Tuberculosis:

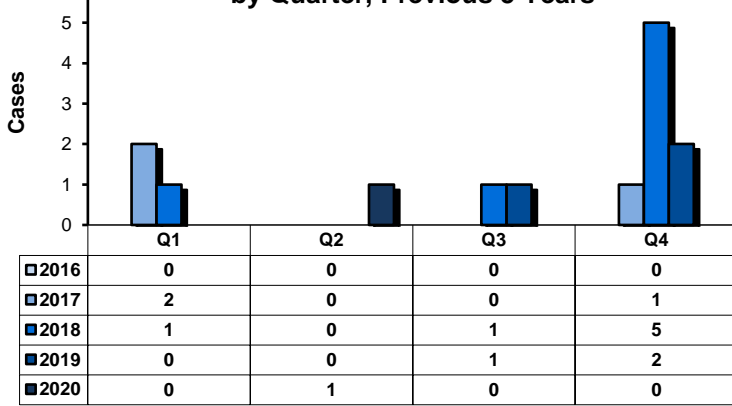
### Tuberculosis Disease Cases in Ottawa County Previous 5 Years



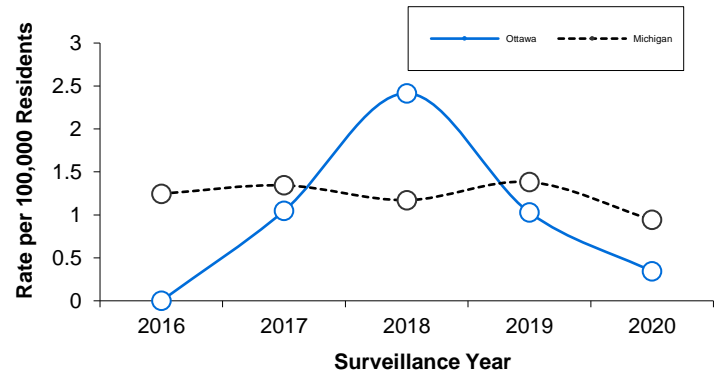
### Tuberculosis Disease Cases in Ottawa County by Month Previous 5 Years



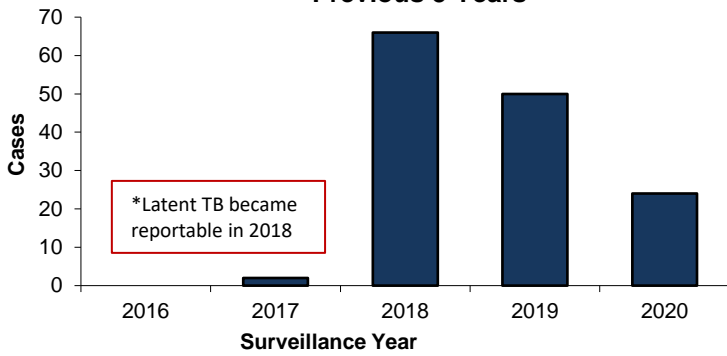
### Tuberculosis Disease Cases in Ottawa County by Quarter, Previous 5 Years



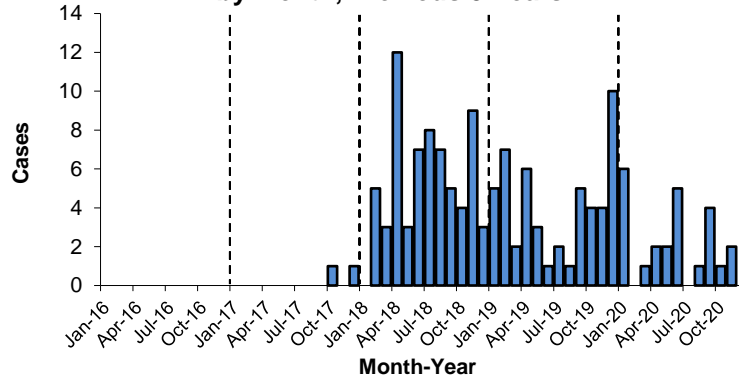
### Tuberculosis Disease Cases per 100,000



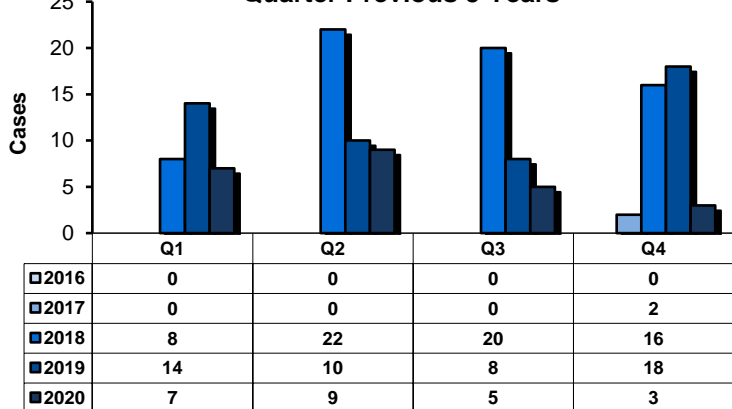
### Latent Tuberculosis Cases in Ottawa County Previous 5 Years\*



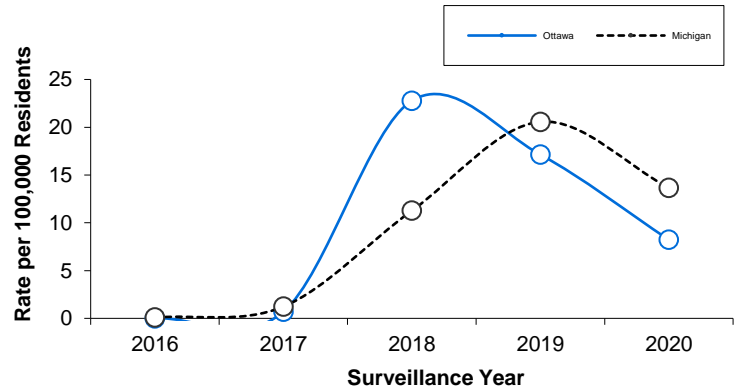
### Latent Tuberculosis Cases in Ottawa County by Month, Previous 5 Years\*



### Latent Tuberculosis Cases in Ottawa County by Quarter Previous 5 Years\*

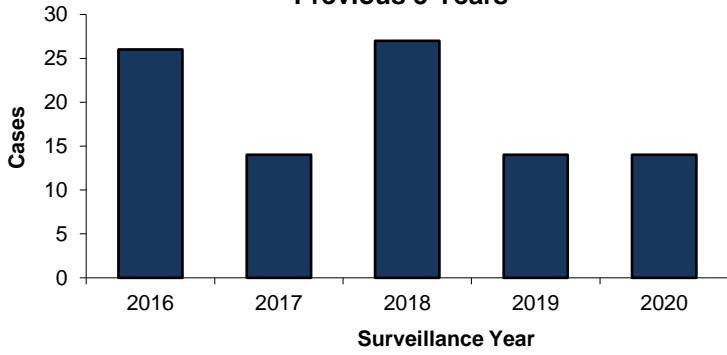


### Latent Tuberculosis Cases per 100,000\*

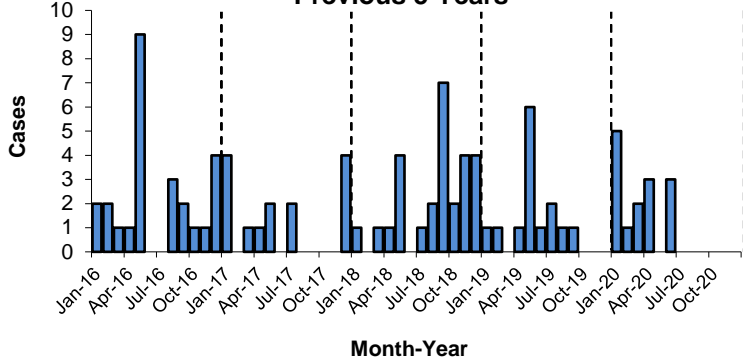


# Vaccine Preventable Diseases:

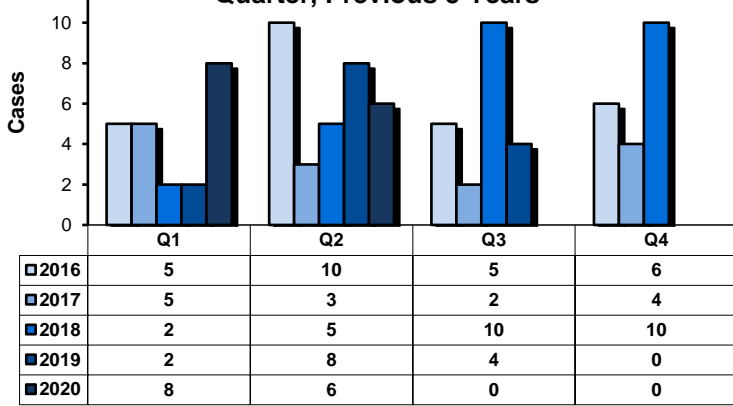
### Chickenpox Cases in Ottawa County Previous 5 Years



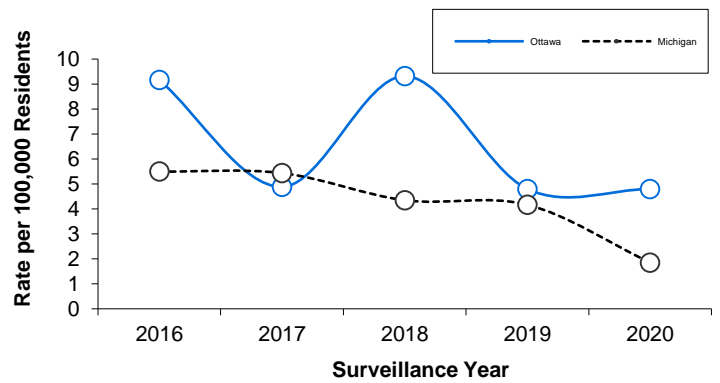
### Chickenpox Cases in Ottawa County by Month Previous 5 Years



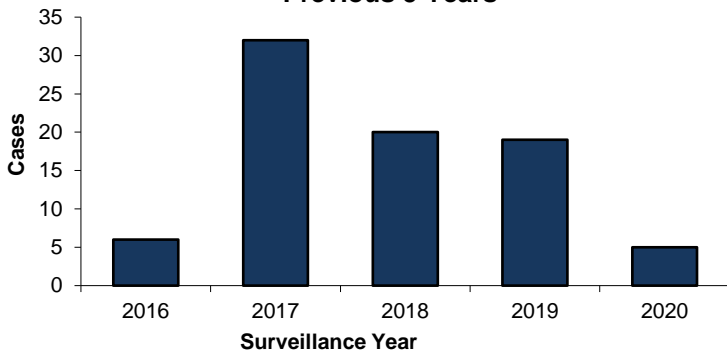
### Chickenpox Cases in Ottawa County by Quarter, Previous 5 Years



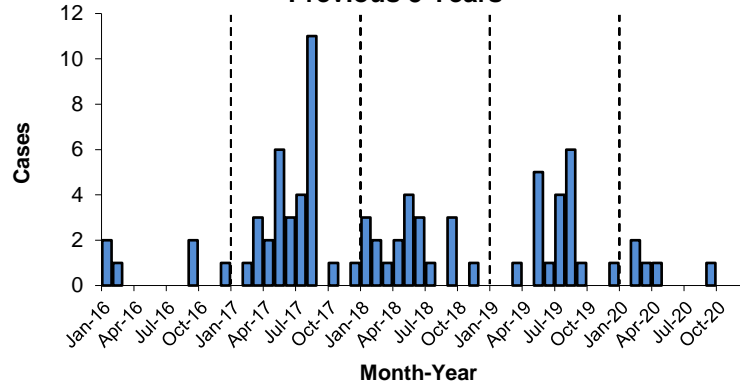
### Chickenpox Cases per 100,000



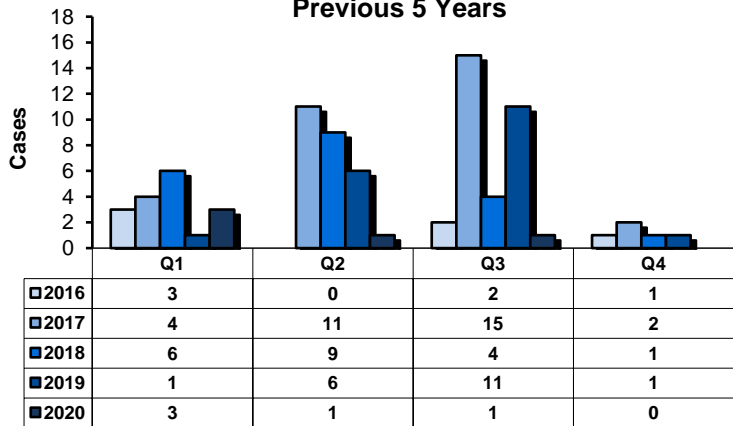
### Pertussis Cases in Ottawa County Previous 5 Years



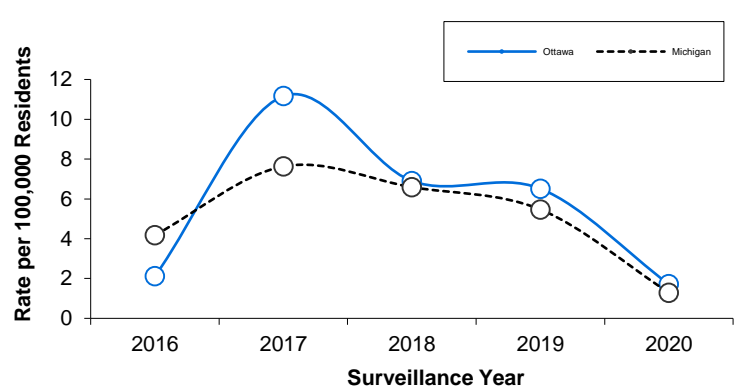
### Pertussis Cases in Ottawa County by Month Previous 5 Years



### Pertussis Cases in Ottawa County by Quarter Previous 5 Years

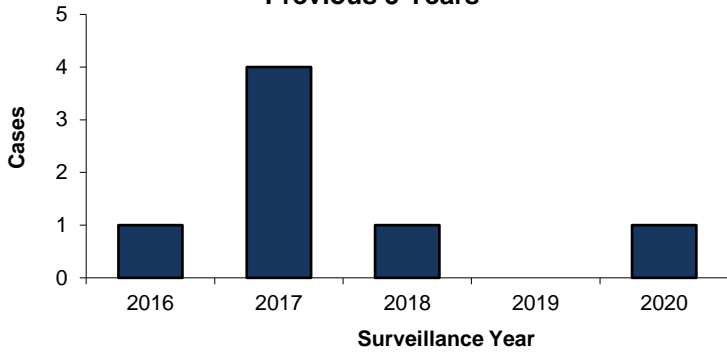


### Pertussis Cases per 100,000

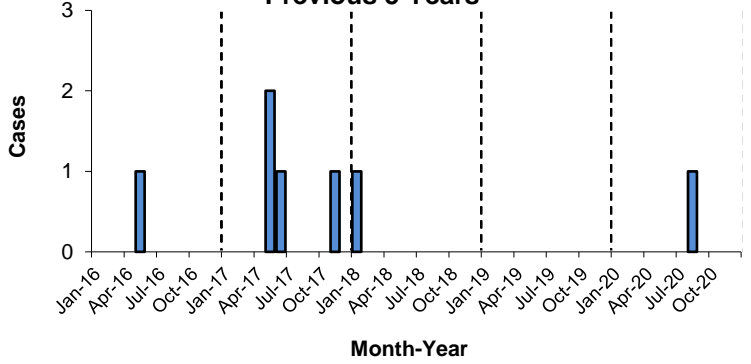


# Vaccine Preventable Diseases:

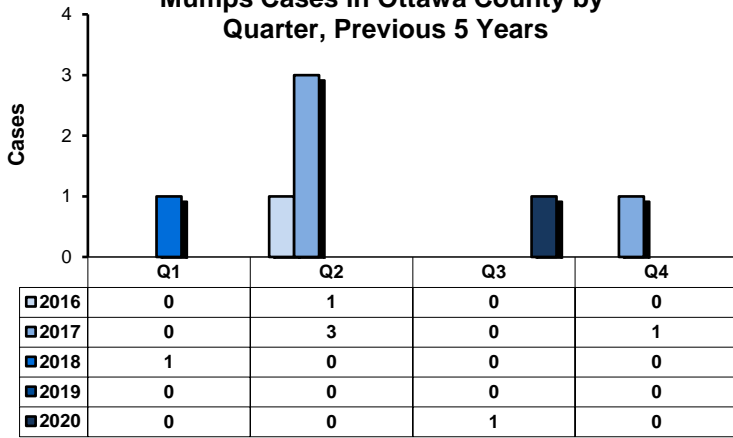
### Mumps Cases in Ottawa County Previous 5 Years



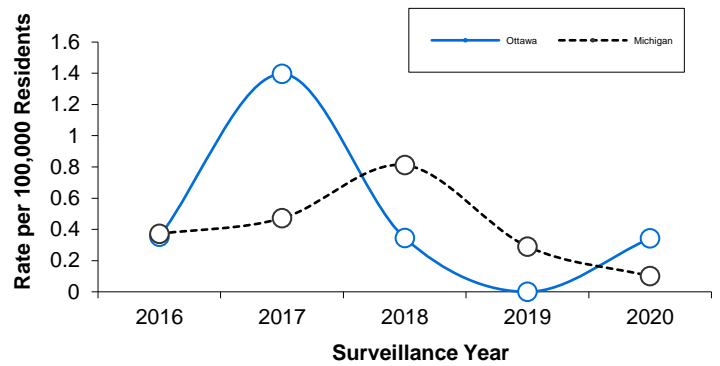
### Mumps Cases in Ottawa County by Month Previous 5 Years



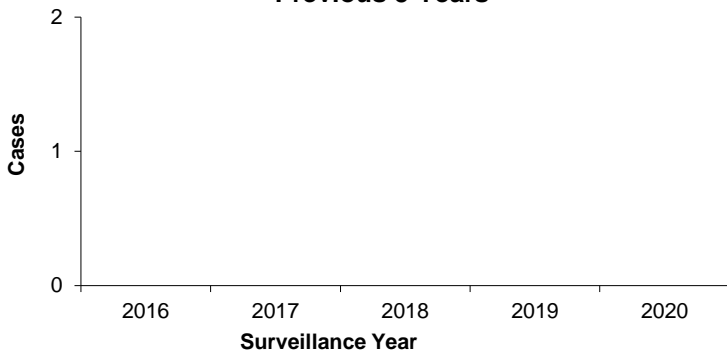
### Mumps Cases in Ottawa County by Quarter, Previous 5 Years



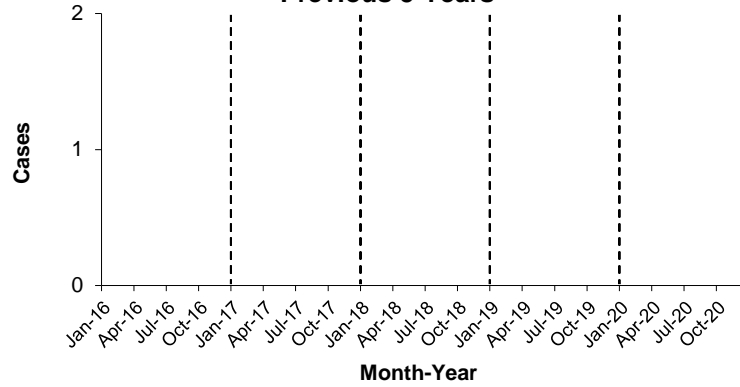
### Mumps Cases per 100,000



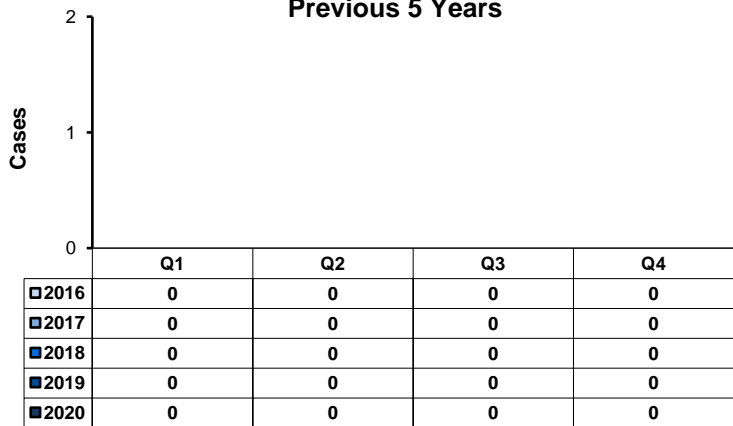
### Measles Cases in Ottawa County Previous 5 Years



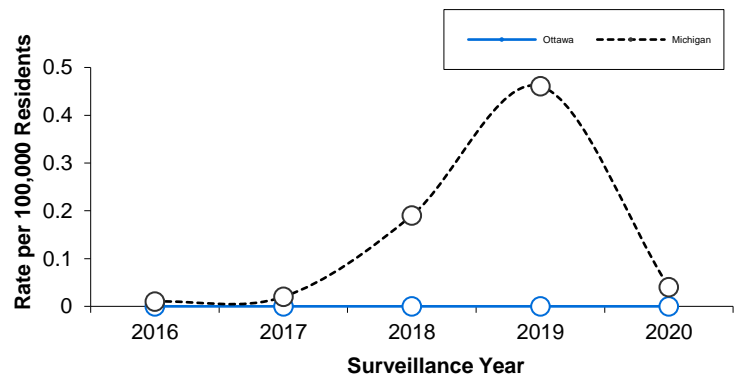
### Measles Cases in Ottawa County by Month Previous 5 Years



### Measles Cases in Ottawa County by Quarter, Previous 5 Years

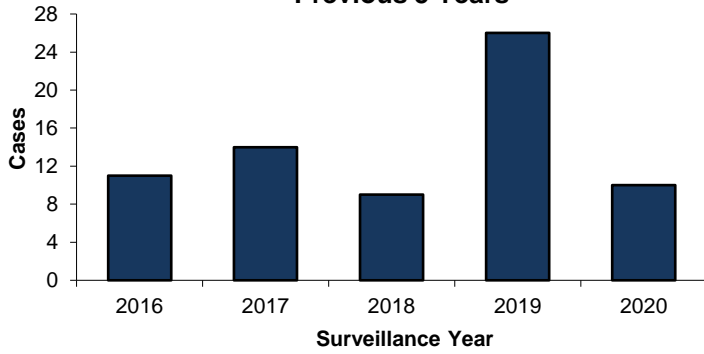


### Measles Cases per 100,000

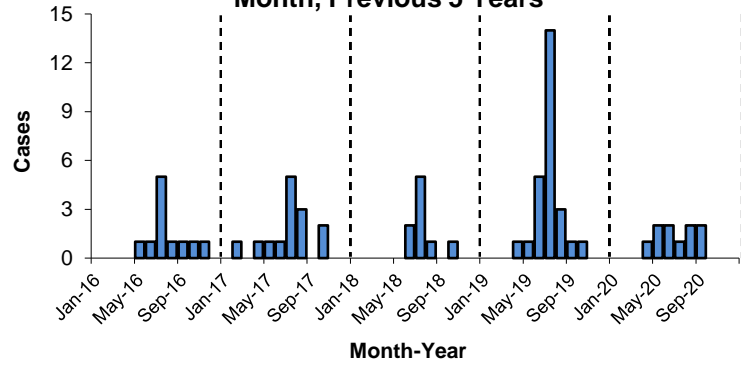


## Vectorborne Diseases:

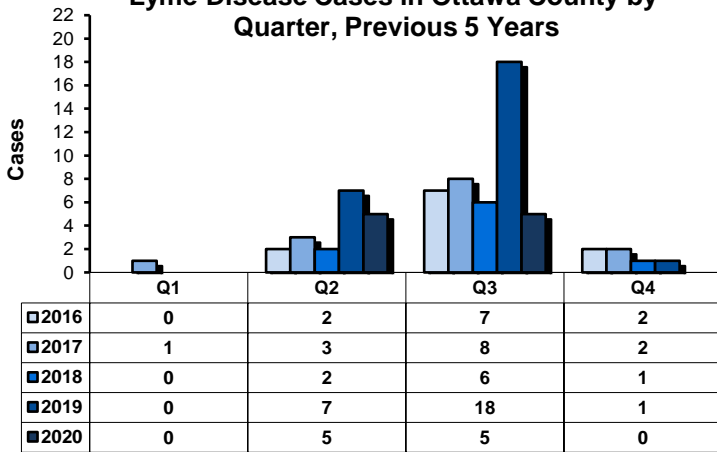
### Lyme Disease Cases in Ottawa County Previous 5 Years



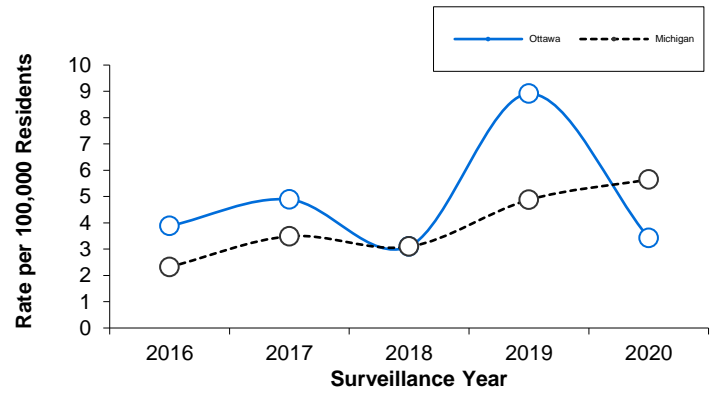
### Lyme Disease Cases in Ottawa County by Month, Previous 5 Years



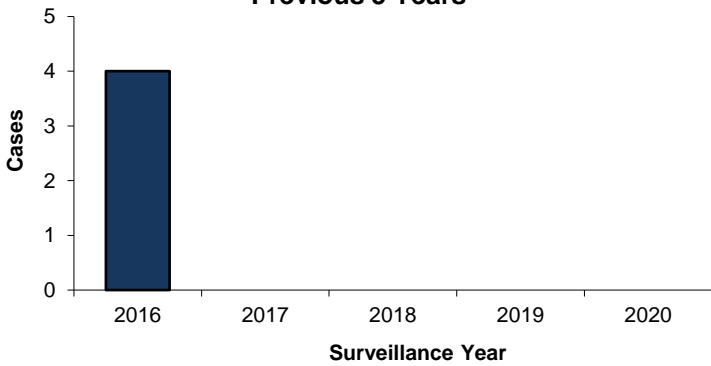
### Lyme Disease Cases in Ottawa County by Quarter, Previous 5 Years



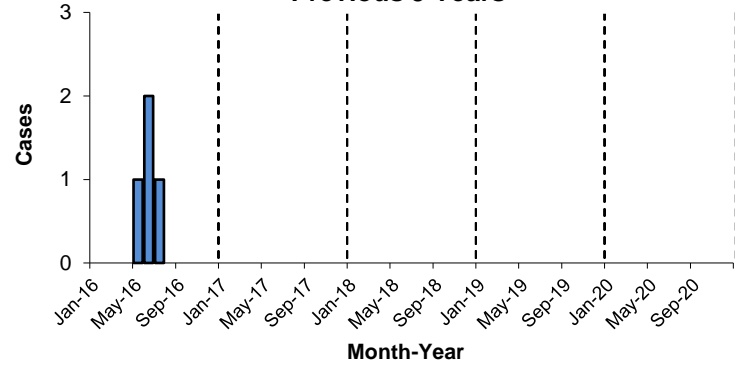
### Lyme Disease Cases per 100,000



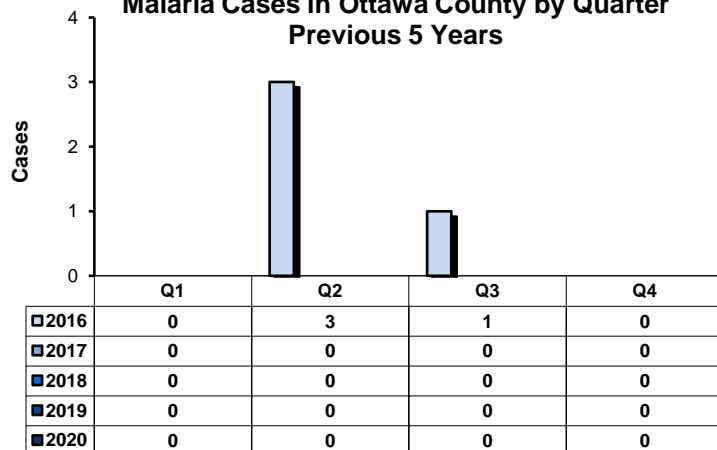
### Malaria Cases in Ottawa County Previous 5 Years



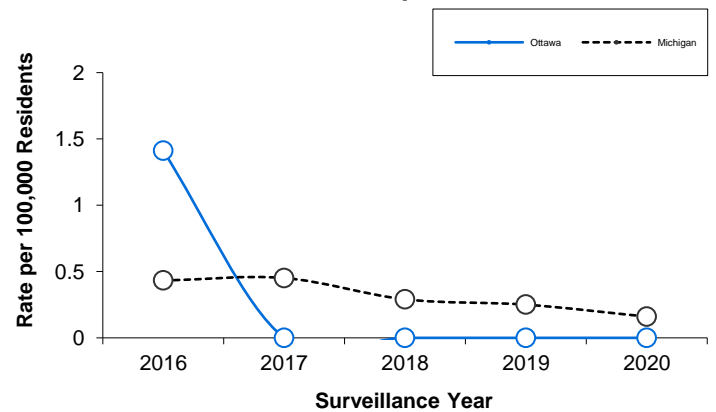
### Malaria Cases in Ottawa County by Month Previous 5 Years



### Malaria Cases in Ottawa County by Quarter Previous 5 Years

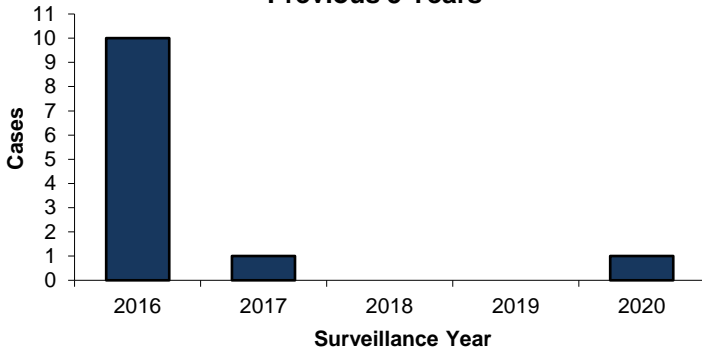


### Malaria Cases per 100,000

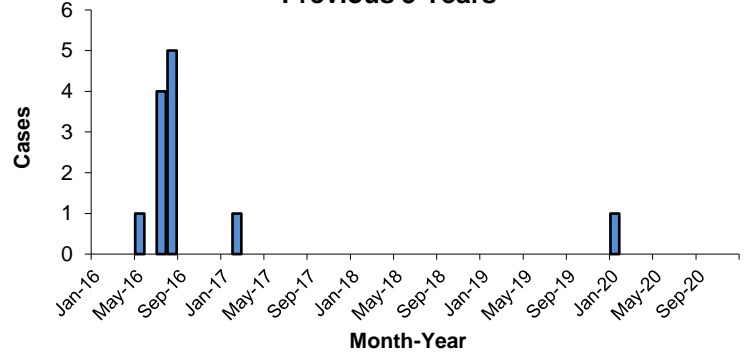


## Vectorborne Diseases:

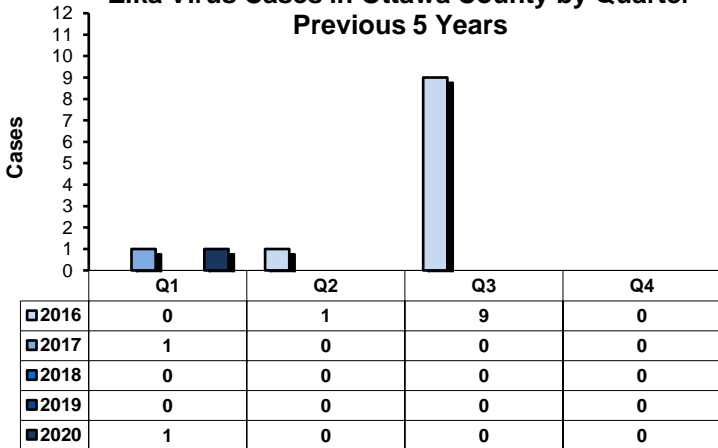
### Zika Virus Cases in Ottawa County Previous 5 Years



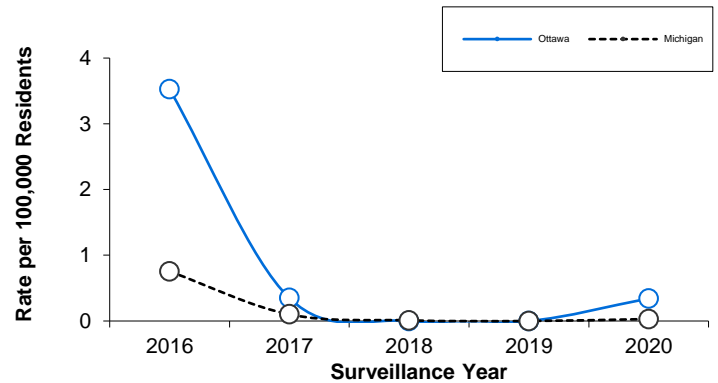
### Zika Virus Cases in Ottawa County by Month Previous 5 Years



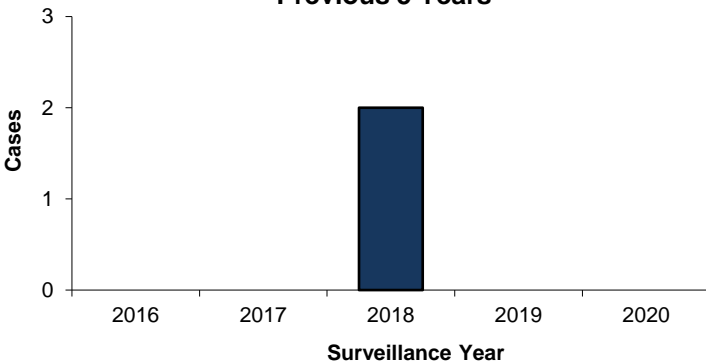
### Zika Virus Cases in Ottawa County by Quarter Previous 5 Years



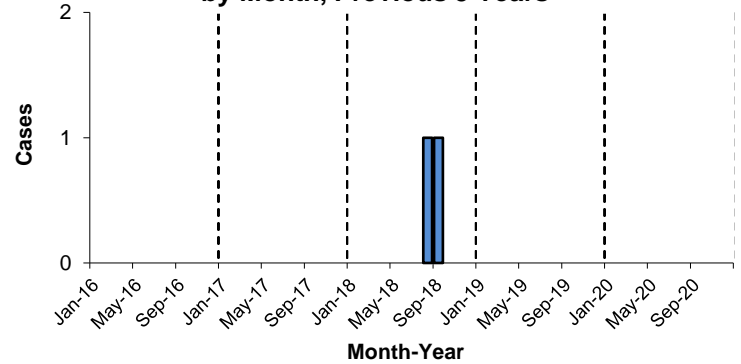
### Zika Virus Cases per 100,000



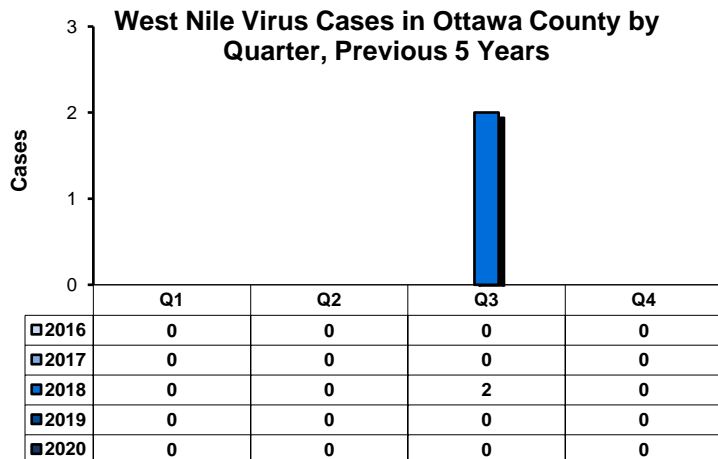
### West Nile Virus Cases in Ottawa County Previous 5 Years



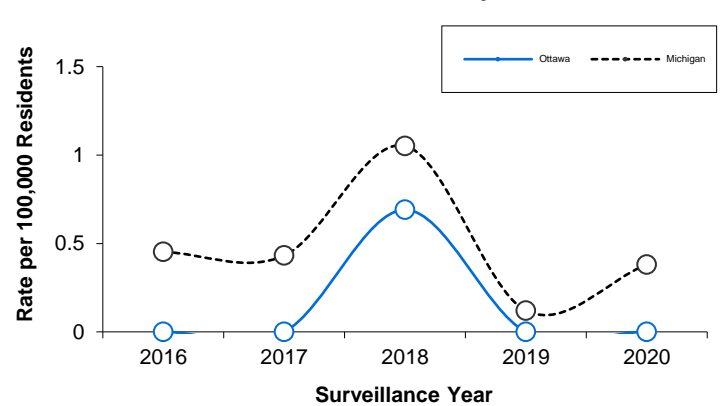
### West Nile Virus Cases in Ottawa County by Month, Previous 5 Years



### West Nile Virus Cases in Ottawa County by Quarter, Previous 5 Years

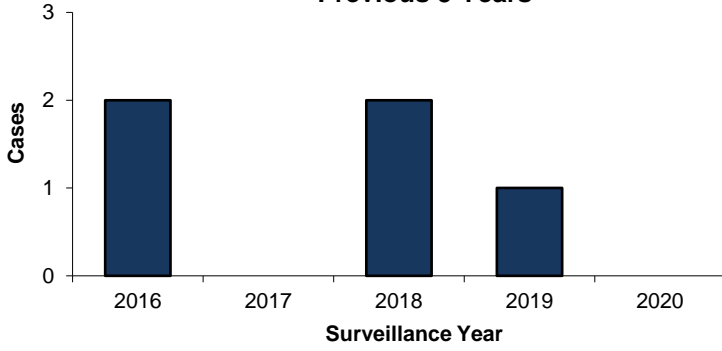


### West Nile Virus Cases per 100,000

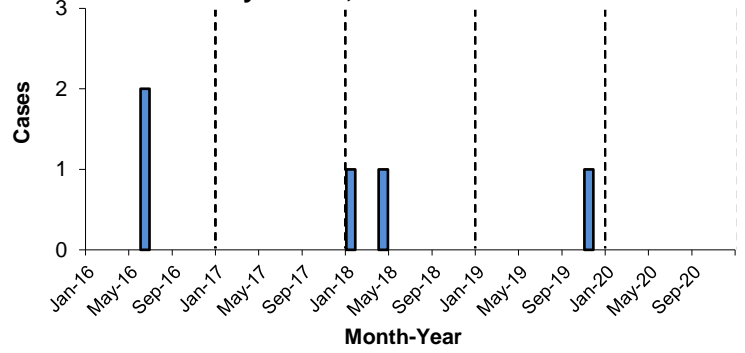


# Viral Hepatitis:

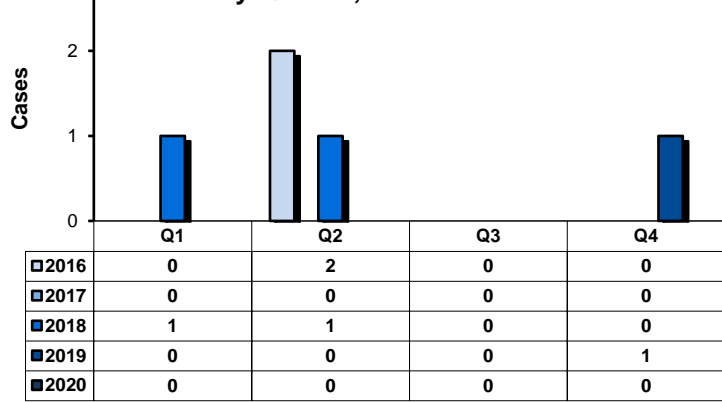
### Acute Hepatitis B Cases in Ottawa County Previous 5 Years



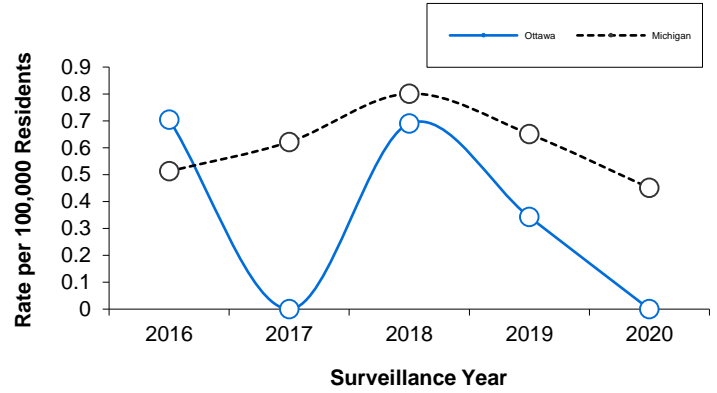
### Acute Hepatitis B Cases in Ottawa County by Month, Previous 5 Years



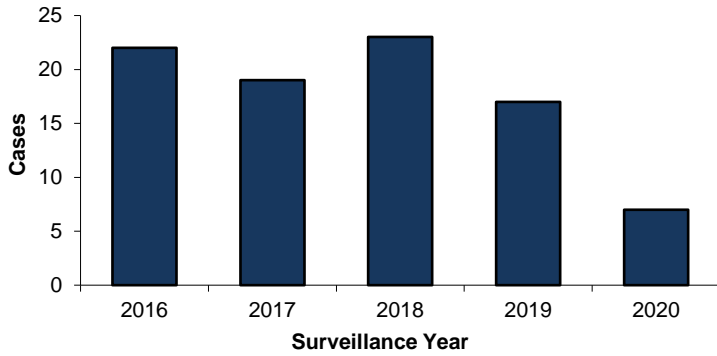
### Acute Hepatitis B Cases in Ottawa County by Quarter, Previous 5 Years



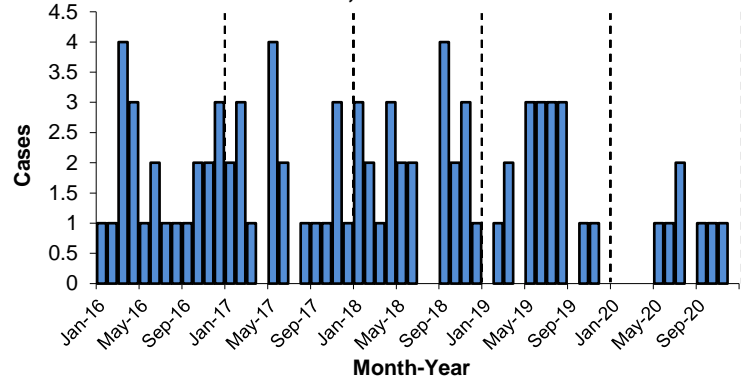
### Acute Hepatitis B Cases per 100,000



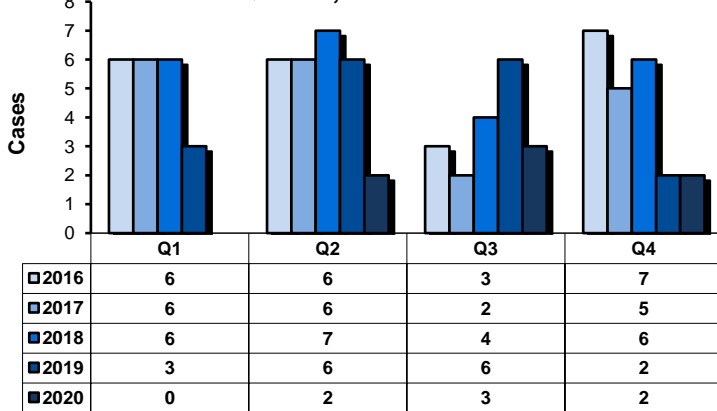
### Chronic Hepatitis B Cases in Ottawa County Previous 5 Years



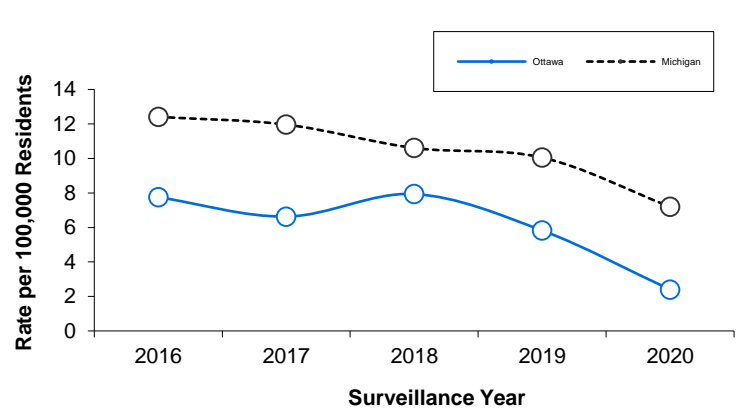
### Chronic Hepatitis B Cases in Ottawa County by Month, Previous 5 Years



### Chronic Hepatitis B Cases in Ottawa County by Quarter, Previous 5 Years

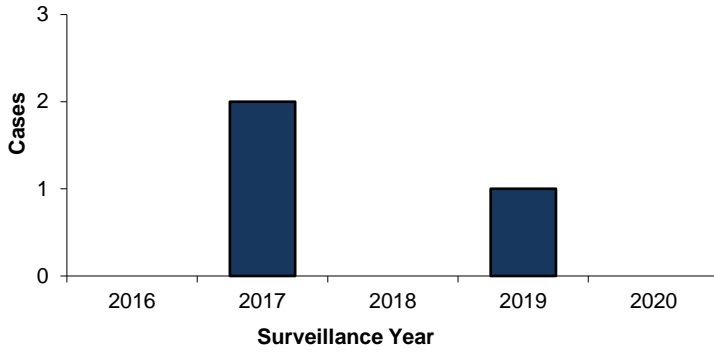


### Chronic Hepatitis B Cases per 100,000

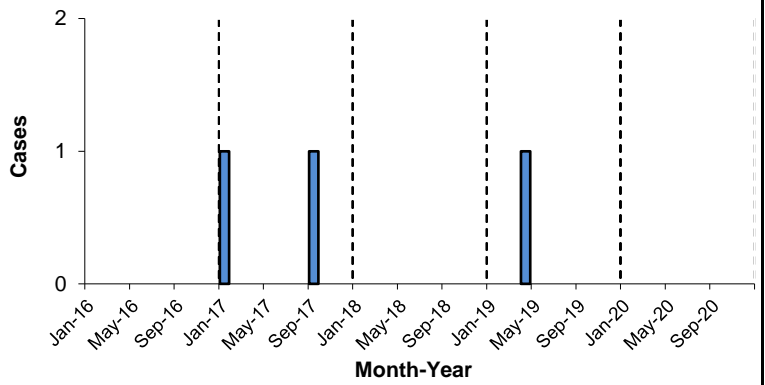


# Viral Hepatitis:

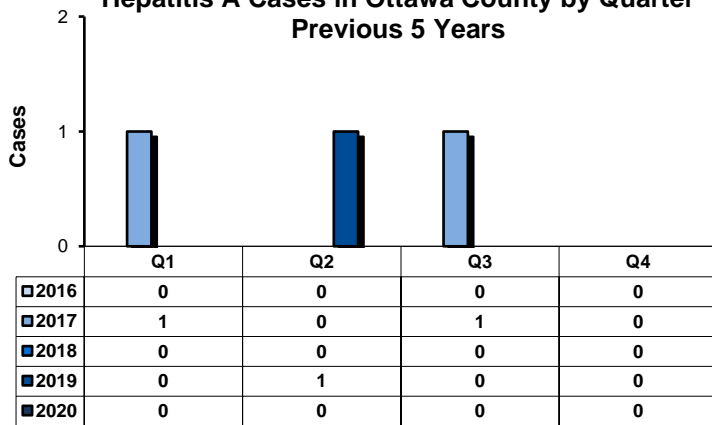
### Hepatitis A Cases in Ottawa County Previous 5 Years



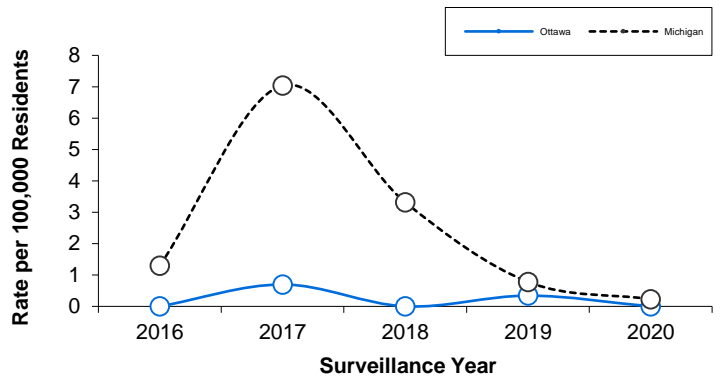
### Hepatitis A Cases in Ottawa County by Month Previous 5 Years



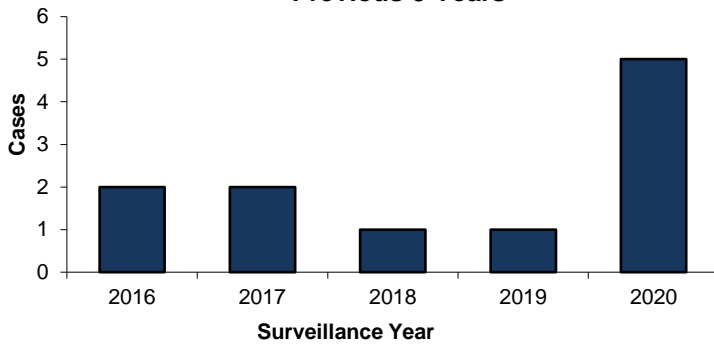
### Hepatitis A Cases in Ottawa County by Quarter Previous 5 Years



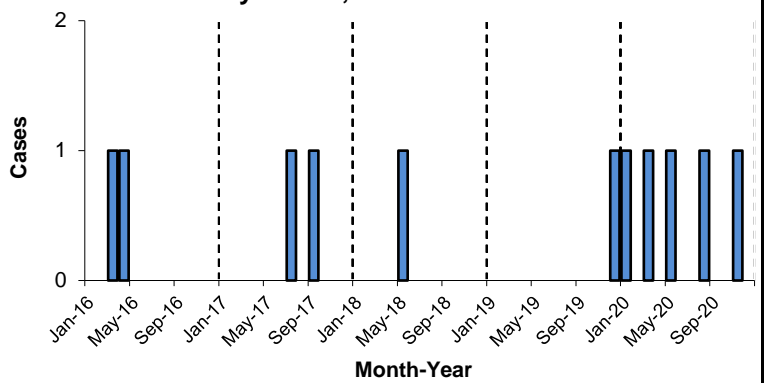
### Hepatitis A Cases per 100,000



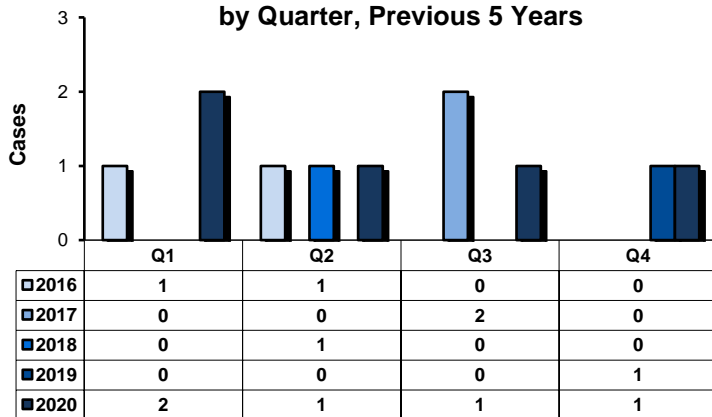
### Acute Hepatitis C Cases in Ottawa County Previous 5 Years



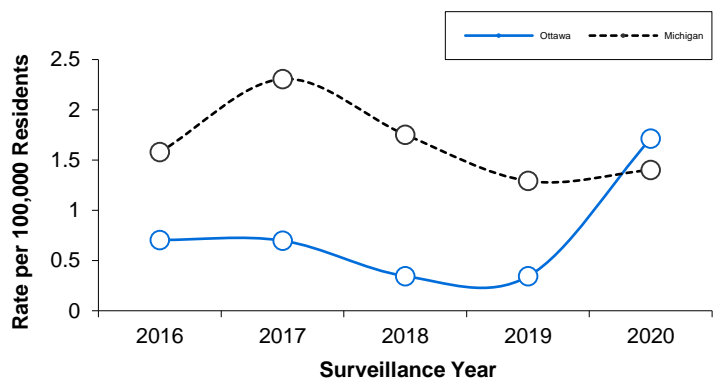
### Acute Hepatitis C Cases in Ottawa County by Month, Previous 5 Years



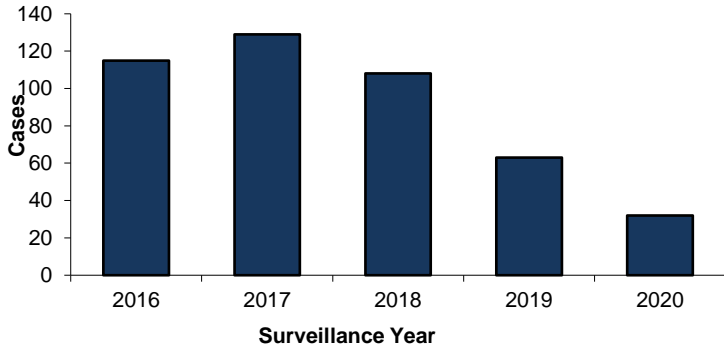
### Acute Hepatitis C Cases in Ottawa County by Quarter, Previous 5 Years



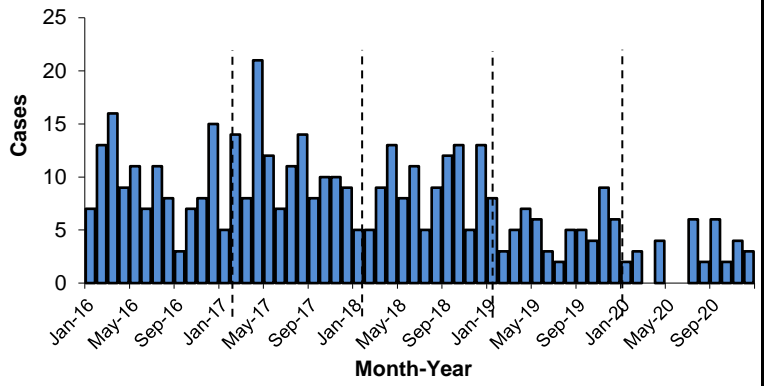
### Acute Hepatitis C Cases per 100,000



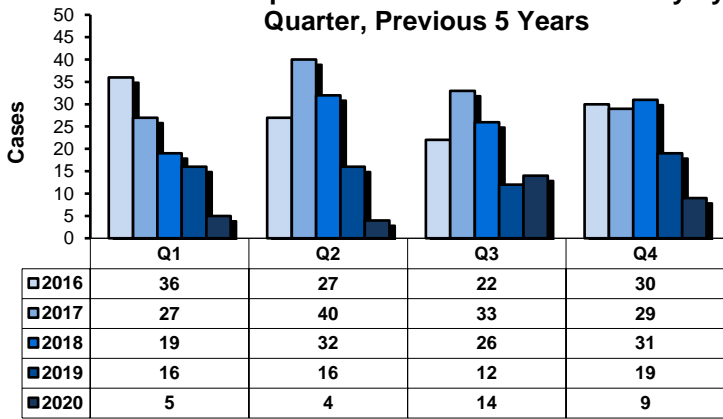
**Chronic Hepatitis C Cases in Ottawa County Previous 5 Years**



**Chronic Hepatitis C Cases in Ottawa County by Month Previous 5 Years**



**Chronic Hepatitis C Cases in Ottawa County by Quarter, Previous 5 Years**



**Chronic Hepatitis C Cases per 100,000**

