



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

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**Annual Summary of  
Reportable Diseases  
Ottawa County  
2016**

Prepared May 18, 2017

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# Annual Reportable Disease Summary

## Data

The data in the annual disease report are provisional, based on current reports in the Michigan Disease Surveillance System (MDSS) made by local health departments. The MDSS is a dynamic, continually active system: counts of disease are constantly changing 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 disease reports may change and should be used only to generally monitor trends over time. Suspected, probable and laboratory confirmed cases of the reportable condition are included in the report.

Specific data requests and questions should be directed towards:

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Disease Group	Reportable Condition	Ottawa County Cases Reported**					Michigan Cases Reported				
		2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
<b>Foodborne</b>	Amebiasis	1	-	3	-	-	17	35	23	33	15
	Botulism - Foodborne	-	-	-	-	-	2	-	-	-	-
	Campylobacter	68	67	45	71	70	1,212	1,285	1,194	1,347	1,636
	Cryptosporidiosis	13	7	11	18	17	353	267	249	240	433
	Giardiasis	27	23	17	9	27	541	548	514	453	581
	Listeriosis	-	-	-	-	-	21	7	19	20	18
	Norovirus***	12	2	20	81	1	214	322	341	766	1,430
	Salmonellosis	18	40	34	20	26	1,003	1,013	1,050	970	1,065
	Shiga toxin-producing Escherichia coli --(STEC)	8	10	8	9	10	200	213	149	147	202
	Shigellosis	2	10	3	19	5	249	175	308	515	706
	Typhoid Fever	-	-	-	-	-	9	5	8	9	7
	Yersinia enteritis	1	-	2	1	1	17	24	24	20	42
	<b>Foodborne Subtotal</b>		150	159	143	228	157	3,840	3,903	3,879	4,520
<b>Influenza</b>	Flu Like Disease* ***	31,103	31,116	29,139	30,342	31,669	389,421	378,559	280,586	298,185	320,493
	Influenza	28	46	48	4	4	3,058	6,062	7,914	7,370	14,440
	Influenza, Novel	-	-	-	-	-	12	24	1	-	22
	<b>Influenza Subtotal</b>	31,131	31,162	29,187	30,346	31,673	392,491	384,645	288,501	305,555	334,961
<b>Meningitis</b>	Meningitis - Aseptic	11	19	24	21	21	906	958	676	809	663
	Meningitis - Bacterial Other	2	4	5	6	6	136	116	140	141	168
	Meningococcal Disease	-	-	-	-	1	15	5	14	8	6
	Streptococcus pneumoniae, Inv	12	13	15	13	12	556	615	519	694	820
	<b>Meningitis Subtotal</b>	25	36	44	40	40	1,613	1,694	1,349	1,652	1,657
<b>Other</b>	Anthrax	-	-	-	-	-	-	-	-	-	-
	Blastomycosis	1	1	2	-	1	13	22	19	13	14
	Botulism - Infant	-	-	-	-	-	2	-	1	1	1
	Botulism - Other	-	-	-	-	-	-	-	-	-	-
	Bruceellosis	-	-	-	-	-	1	-	2	2	2
	Cholera	-	-	-	-	-	-	1	-	-	1
	Coccidioidomycosis	3	1	3	1	1	35	18	34	27	37
	Creutzfeldt-Jakob Disease	-	-	-	-	1	14	17	7	17	15
	Cryptococcosis	-	-	-	1	-	41	35	26	34	12
	Cyclosporiasis	-	-	-	-	-	-	4	6	8	3
	Encephalitis, Post Chickenpox	-	-	-	-	-	1	1	1	-	-
	Encephalitis, Post Mumps	-	-	-	-	-	-	-	-	-	-
	Encephalitis, Post Other	1	-	-	-	1	21	17	23	21	16
	Encephalitis, Primary	-	-	1	-	-	22	6	23	12	10
	Guillain-Barre Syndrome	3	1	-	1	1	66	49	54	52	45
	Hantavirus	-	-	-	-	-	-	-	-	-	1
	Hantavirus, Other	-	-	-	-	-	-	-	-	-	-
	Hantavirus, Pulmonary	-	-	-	-	-	-	-	-	-	-
	Hemolytic Uremic Syndrome	1	1	-	-	-	5	7	6	12	9
	Hemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
	Hepatitis - Unspecified	-	-	-	-	-	3	-	-	-	-
	Histoplasmosis	12	19	11	15	4	153	104	134	191	154
	Kawasaki	-	-	1	2	-	56	61	56	56	50
	Legionellosis	2	1	4	1	4	186	284	236	263	309
	Leprosy	-	-	-	-	-	1	1	-	1	-
	Melioidosis	-	-	-	-	-	-	-	-	1	-
	Leptospirosis	-	-	-	-	-	-	1	1	-	5
	Plague	-	-	-	-	-	-	-	-	1	-
	Psittacosis	-	-	-	-	-	-	-	-	-	2
	Q Fever Acute	1	-	-	-	1	3	1	1	2	1
	Q Fever Chronic	-	-	-	-	-	-	-	1	2	1
	Rabies Animal	1	-	-	2	1	60	41	41	36	43
	Rabies Human	-	-	-	-	-	-	-	-	-	-
	Reye Syndrome	-	-	-	-	-	-	-	-	-	-
	Rheumatic Fever	-	1	-	-	-	2	1	2	2	4
	Rubella - Congenital	-	-	-	-	-	-	-	-	-	-
Streptococcus pneumoniae, Drug Resistant	7	3	1	-	1	119	119	83	98	105	

Disease Group	Reportable Condition	Ottawa County Cases Reported**					Michigan Cases Reported				
		2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
<b>Other</b>	Streptococcal Dis, Inv, Grp A	10	9	9	13	14	228	245	300	329	394
	Streptococcal Toxic Shock	1	2	-	-	1	9	10	4	11	2
	Toxic Shock	1	-	-	-	-	6	8	4	7	7
	Trachoma	-	-	-	-	-	-	2	4	2	-
	Trichinosis	-	-	-	-	-	1	-	-	-	1
	Tularemia	-	-	-	-	-	-	-	2	-	1
	Vibriosis - Non Cholera	-	1	2	-	-	7	11	8	10	9
	VISA	1	-	-	-	-	10	15	3	4	4
	VRSA	-	-	-	-	-	-	-	-	1	-
	Other Subtotal	45	40	34	36	31	1,065	1,081	1,082	1,216	1,258
<b>STD</b>	Chancroid	-	-	-	-	-	2	1	-	-	-
	Chlamydia (Genital)	754	729	709	857	849	47,702	45,145	45,171	48,009	49,063
	Gonorrhea	74	95	82	82	109	12,570	10,774	9,727	10,689	13,179
	Granuloma Inguinale	-	-	-	-	-	-	-	-	-	-
	Lymphogranuloma venereum	-	-	-	-	-	-	-	-	19	18
	Primary & Secondary Syphilis	-	-	5	4	5	539	740	934	853	947
	All Syphilis	-	-	8	10	13	763	1,086	1,210	1,109	1,169
	STD Subtotal	828	824	799	949	971	61,037	57,006	56,108	59,826	63,429
<b>Tuberculosis</b>	Tuberculosis	1	3	3	2	-	147	148	110	140	142
	Mycobacterium - Other	12	16	23	23	22	888	743	650	676	845
	Tuberculosis Subtotal	13	19	26	25	22	1,035	891	760	816	987
<b>VPD</b>	Chickenpox (Varicella)	23	36	28	17	27	964	709	709	562	548
	Diphtheria	-	-	-	-	-	-	-	-	-	-
	H. influenzae Disease - Inv. †	2	2	3	7	3	84	102	101	137	187
	Measles	-	-	-	-	-	1	5	5	1	1
	Mumps	-	-	-	-	1	24	16	39	20	36
	Pertussis	55	58	41	19	6	858	1,017	1,385	480	416
	Polio	-	-	-	-	-	-	-	-	-	-
	Rubella	-	-	-	-	-	-	-	-	-	-
	Shingles	5	3	10	23	15	309	400	490	704	794
	Tetanus	-	-	-	-	-	2	1	-	-	1
	VZ Infection, Unspecified	-	3	2	2	5	115	97	144	189	177
VPD Subtotal	85	102	84	68	57	2,357	2,347	2,873	2,093	2,160	
<b>Vectorborne</b>	Babesiosis	-	-	-	-	-	-	3	2	2	4
	Dengue Fever	-	-	-	1	-	9	16	6	23	16
	Ehrlichiosis	-	-	-	-	-	244	364	240	133	178
	Encephalitis, California	-	-	-	-	-	-	-	-	1	-
	Encephalitis, Eastern Equine	-	-	-	-	-	-	-	1	-	2
	Encephalitis, Powassan	-	-	-	-	-	-	-	-	-	-
	Encephalitis, St. Louis	-	-	-	-	-	-	-	-	-	-
	Encephalitis, Western Equine	-	-	-	-	-	-	-	-	-	-
	Lyme Disease	4	3	4	8	11	98	168	124	149	228
	Malaria	-	-	1	-	4	26	23	18	21	43
	Rickettsial Disease - Spotted Fever	-	-	-	1	-	3	3	1	2	14
	Rickettsial Disease - Typhus	-	-	-	-	1	-	-	-	-	1
	West Nile Virus	1	1	-	1	-	205	36	1	19	45
	Yellow Fever	-	-	-	-	-	-	-	-	-	-
	Zika	-	-	-	-	10	-	-	-	-	74
Vectorborne Subtotal	5	4	5	11	26	351	255	161	235	446	
<b>Viral Hepatitis</b>	Hepatitis A	3	-	-	-	-	108	89	53	71	128
	Hepatitis B, Acute	1	-	-	2	2	77	58	49	60	49
	Hepatitis B, Chronic	24	14	10	11	19	1,323	1,099	1,090	1,067	1,248
	Hepatitis B, Perinatal	-	1	-	-	-	2	1	2	-	1
	Hepatitis C, Acute ~	1	-	1	1	2	77	75	74	85	150
	Hepatitis C, Chronic ~	61	50	59	76	113	6,910	5,892	7,271	7,155	11,077
	Hepatitis C, Unknown*	-	-	-	-	-	1	-	1	11	15
	Hepatitis D	-	-	-	-	-	1	2	1	3	2
	Hepatitis E	-	-	-	-	-	7	3	2	7	4
	Hepatitis Non A Non B	-	-	-	-	-	-	-	-	-	-
	Viral Hepatitis Subtotal	90	65	70	90	136	8,506	7,219	8,543	8,459	12,674
<b>Total</b>	<b>32,372</b>	<b>32,411</b>	<b>30,392</b>	<b>31,793</b>	<b>33,113</b>	<b>472,295</b>	<b>459,041</b>	<b>363,256</b>	<b>384,372</b>	<b>423,707</b>	

\* 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.

\*\*\* The Ottawa County Department of Public Health began reporting outbreak aggregate counts of these diseases to the MDSS in 2015.

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

~ Indicates a change in the case definition for 2016, which may increase the number of confirmed and probable cases.



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# Annual Reportable Disease Summary

## Charts

The data in the annual disease report are provisional, based on current reports in the Michigan Disease Surveillance System (MDSS) made by local health departments. The MDSS is a dynamic, continually active system: counts of disease are constantly changing 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 disease reports may change and should be used only to generally monitor trends over time. Suspected, probable and laboratory confirmed cases of the reportable condition are included in the report.

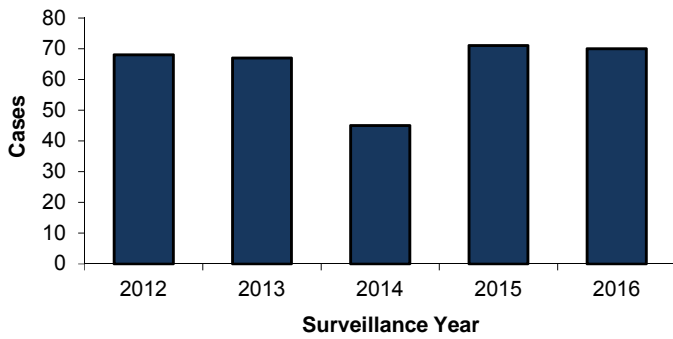
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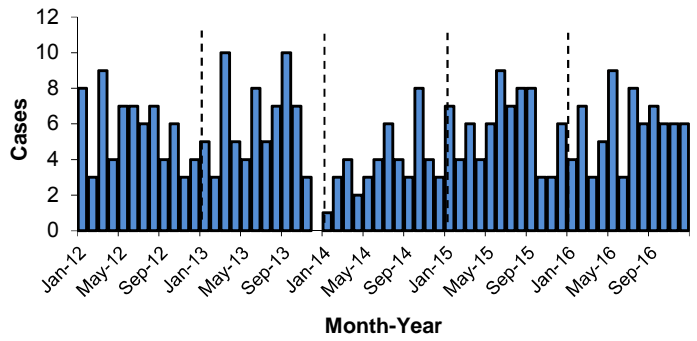
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# Foodborne Illness:

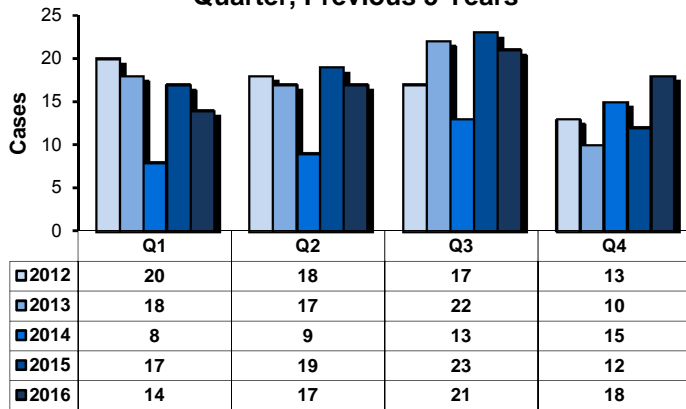
### Campylobacter Cases in Ottawa County Previous 5 Years



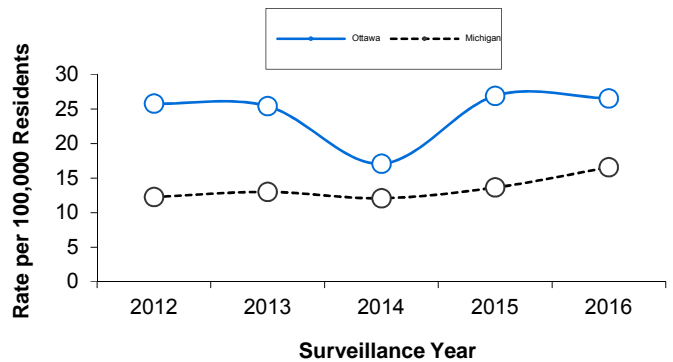
### Campylobacter Cases in Ottawa County by Month, Previous 5 Years



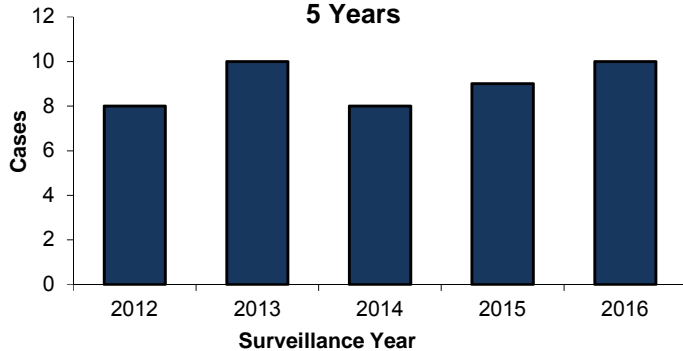
### Campylobacter Cases in Ottawa County by Quarter, Previous 5 Years



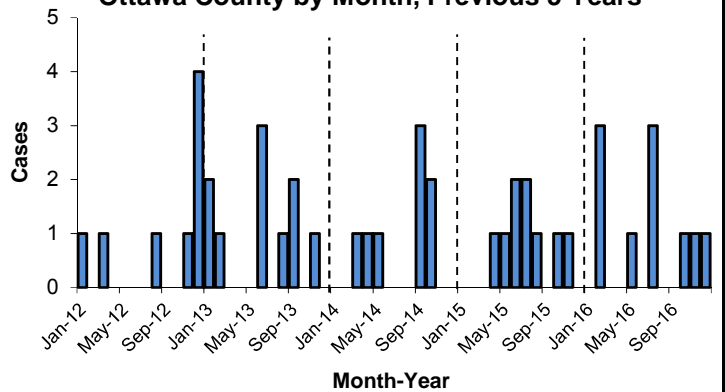
### Campylobacter Cases per 100,000



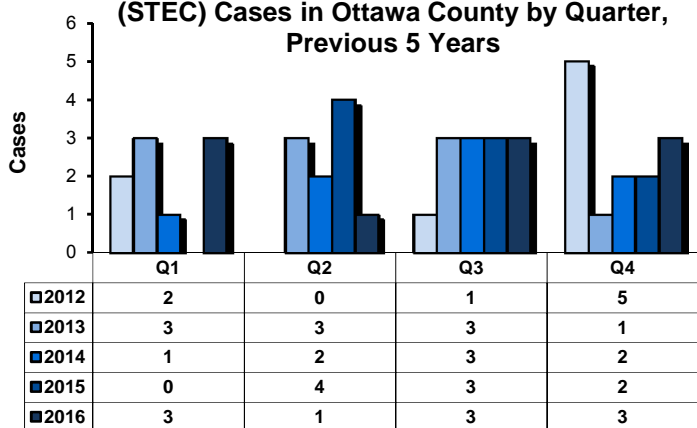
### Shiga toxin-producing *Escherichia coli* (STEC) Cases in Ottawa County, Previous 5 Years



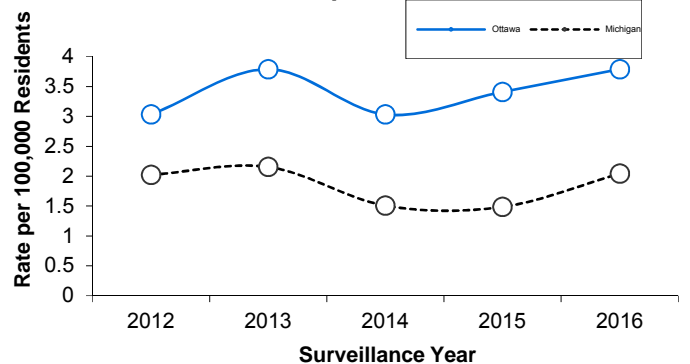
### Shiga toxin-producing *Escherichia coli* (STEC) Cases in Ottawa County by Month, Previous 5 Years



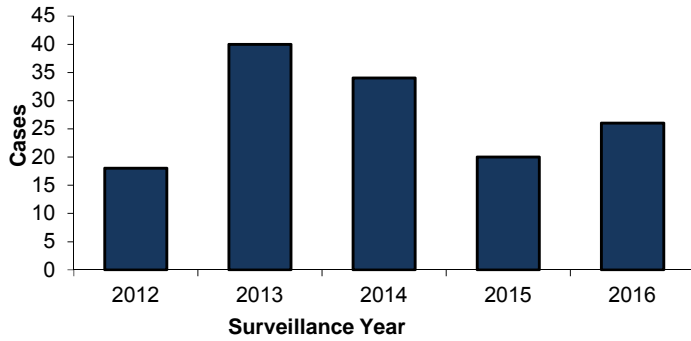
### Shiga toxin-producing *Escherichia coli* (STEC) Cases in Ottawa County by Quarter, Previous 5 Years



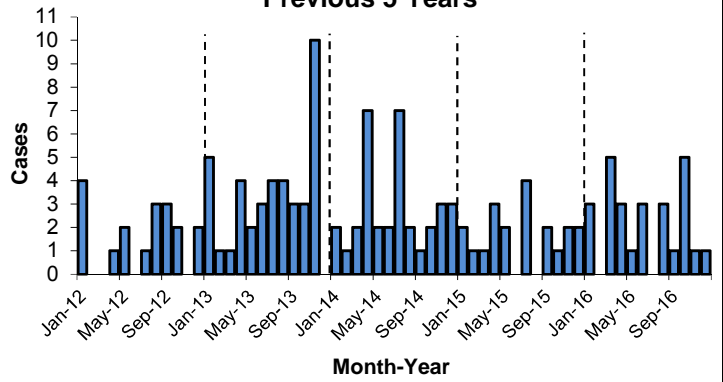
### Shiga toxin-producing *Escherichia coli* (STEC) Cases per 100,000



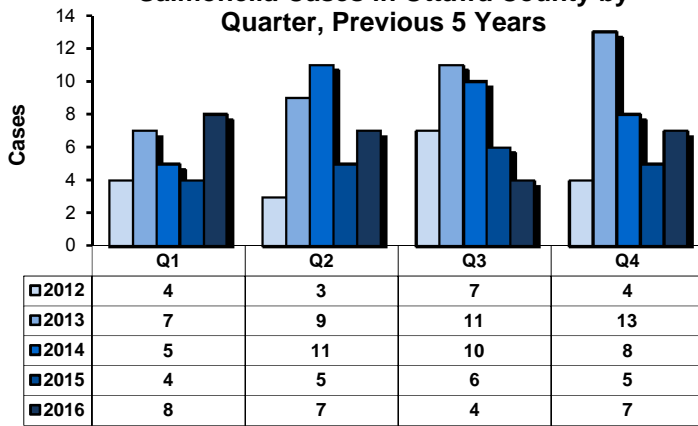
**Salmonella Cases in Ottawa County Previous 5 Years**



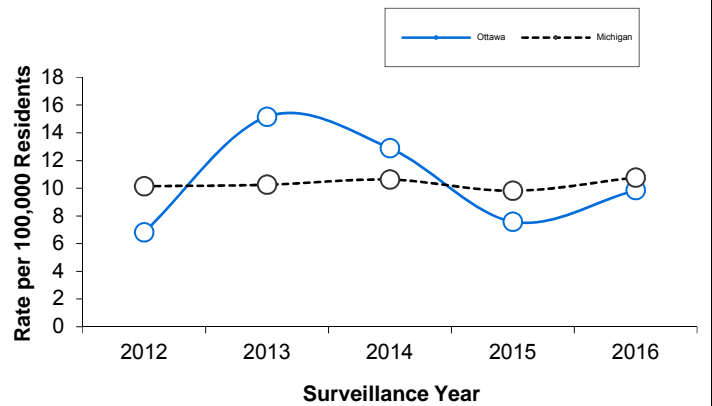
**Salmonella Cases in Ottawa County by Month Previous 5 Years**



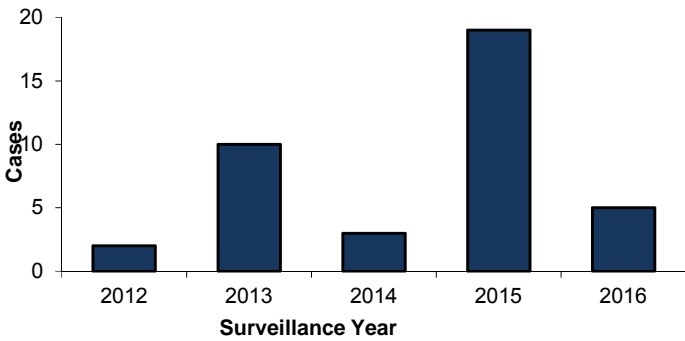
**Salmonella Cases in Ottawa County by Quarter, Previous 5 Years**



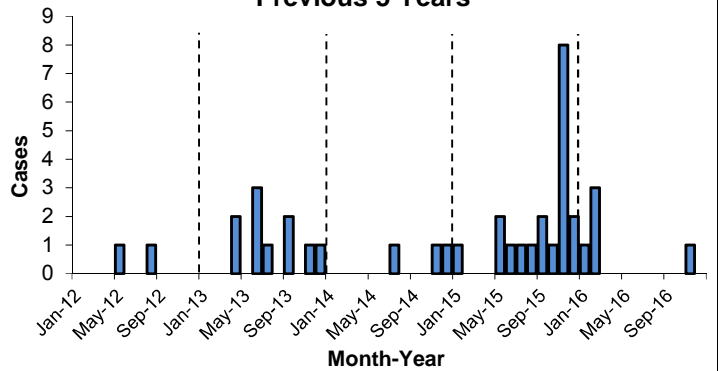
**Salmonella Cases per 100,000**



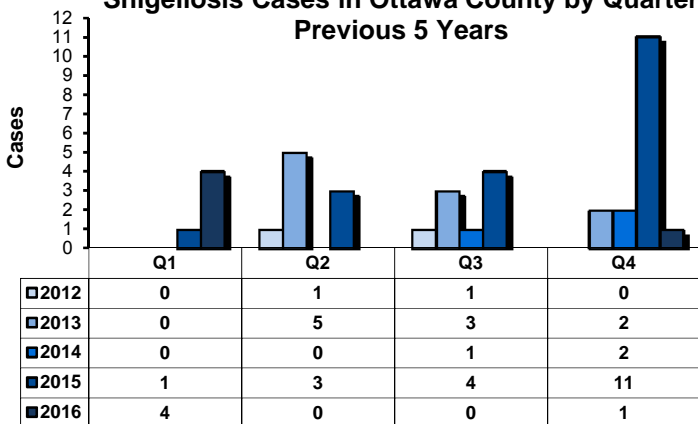
**Shigellosis Cases in Ottawa County Previous 5 Years**



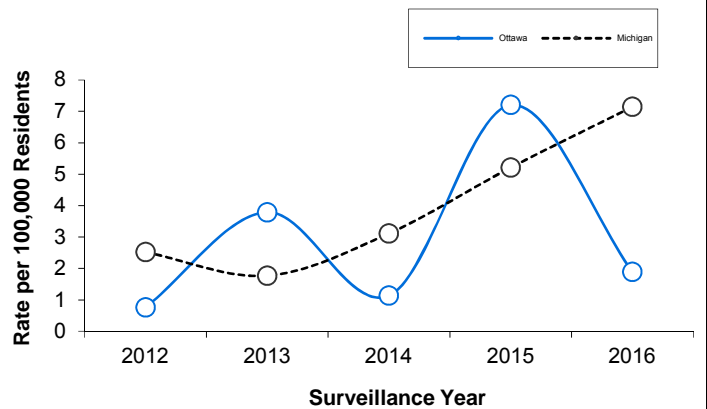
**Shigellosis Cases in Ottawa County by Month Previous 5 Years**



**Shigellosis Cases in Ottawa County by Quarter Previous 5 Years**

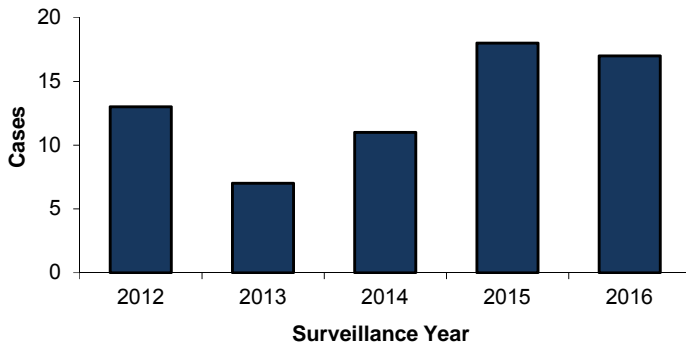


**Shigellosis Cases per 100,000**

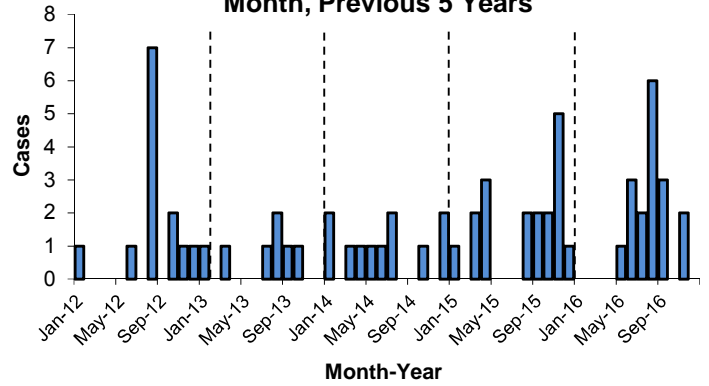




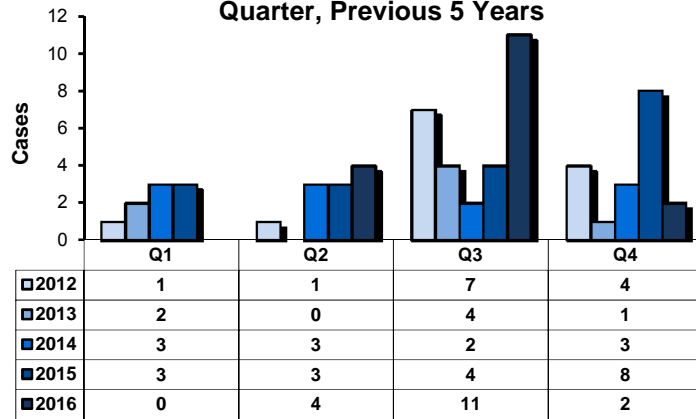
**Cryptosporidiosis Cases in Ottawa County Previous 5 Years**



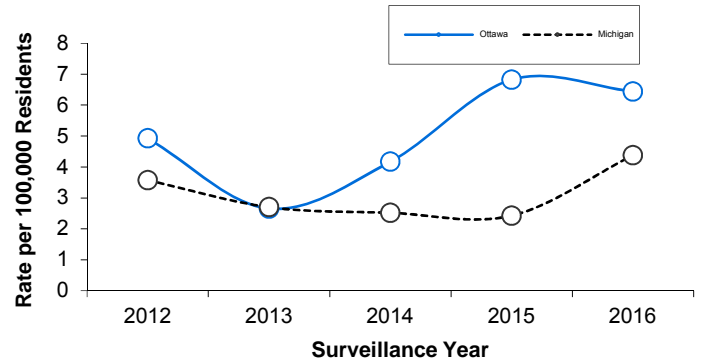
**Cryptosporidiosis Cases in Ottawa County by Month, Previous 5 Years**



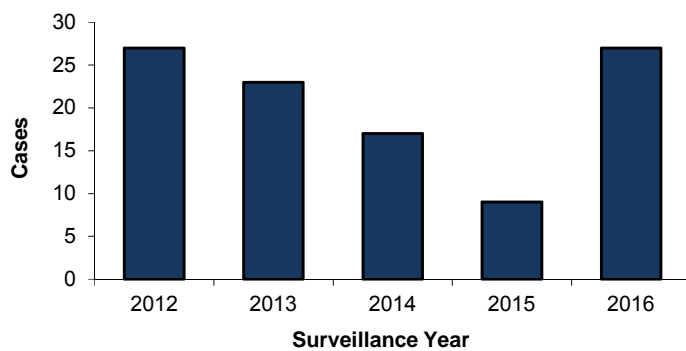
**Cryptosporidiosis Cases in Ottawa County by Quarter, Previous 5 Years**



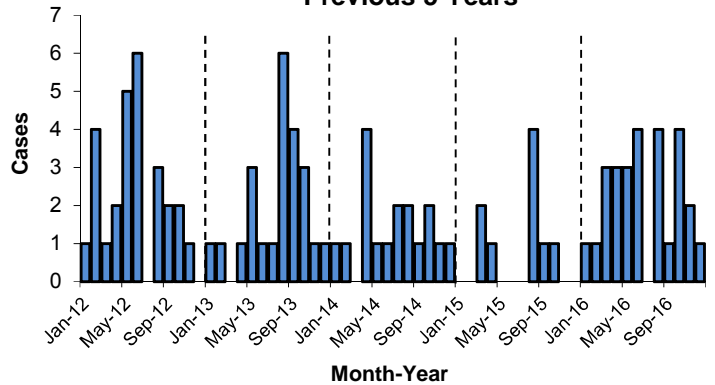
**Cryptosporidiosis Cases per 100,000**



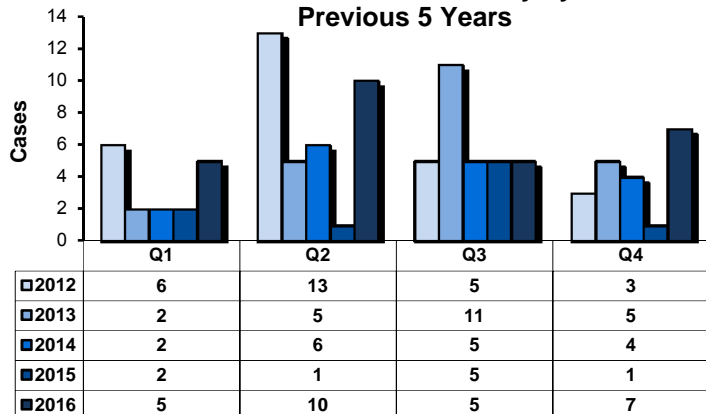
**Giardia Cases in Ottawa County Previous 5 Years**



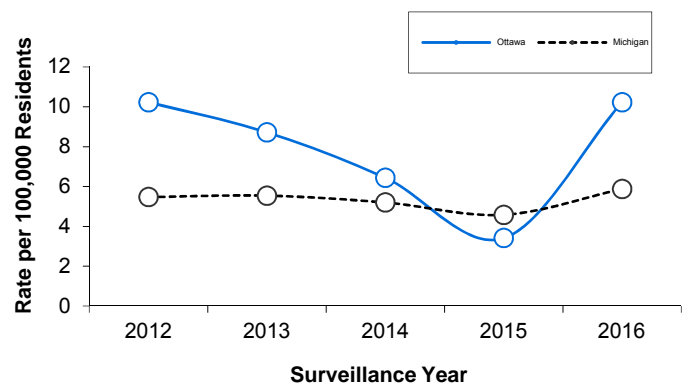
**Giardia Cases in Ottawa County by Month Previous 5 Years**



**Giardia Cases in Ottawa County by Quarter Previous 5 Years**

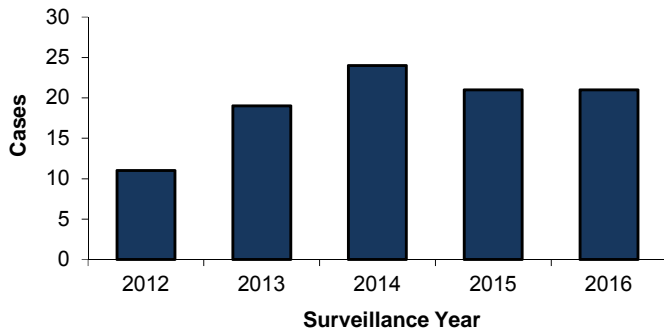


**Giardia Cases per 100,000**

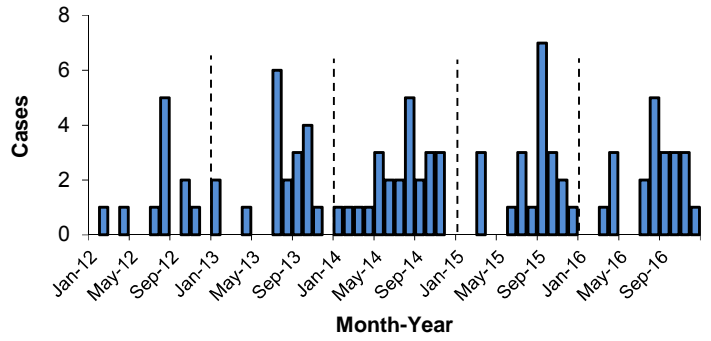


# Meningitis:

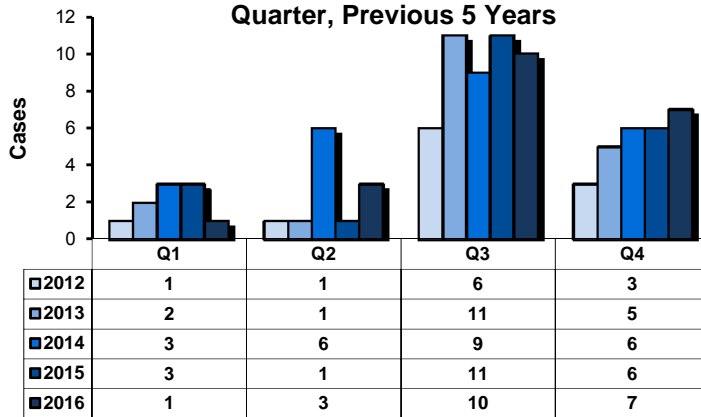
### Aseptic Meningitis Cases in Ottawa County Previous 5 Years



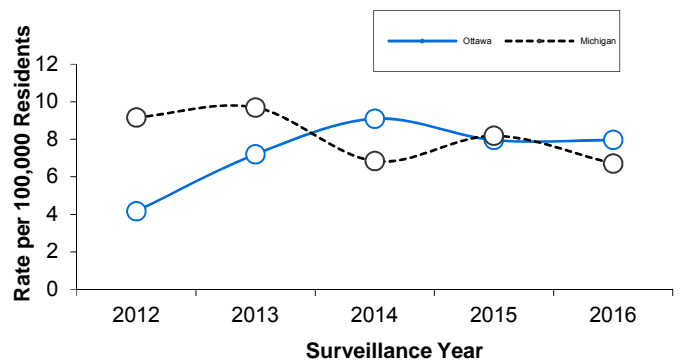
### Aseptic Meningitis Cases in Ottawa County by Month, Previous 5 Years



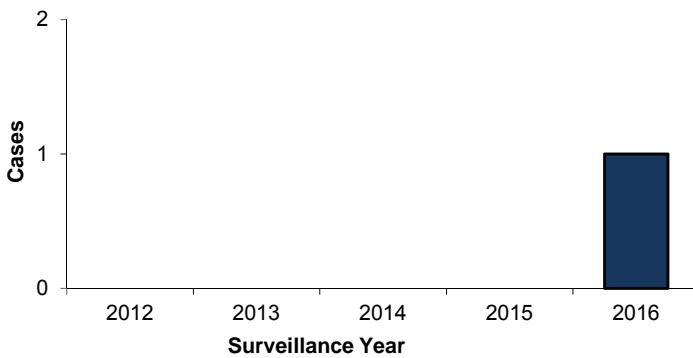
### Aseptic Meningitis Cases in Ottawa County by Quarter, Previous 5 Years



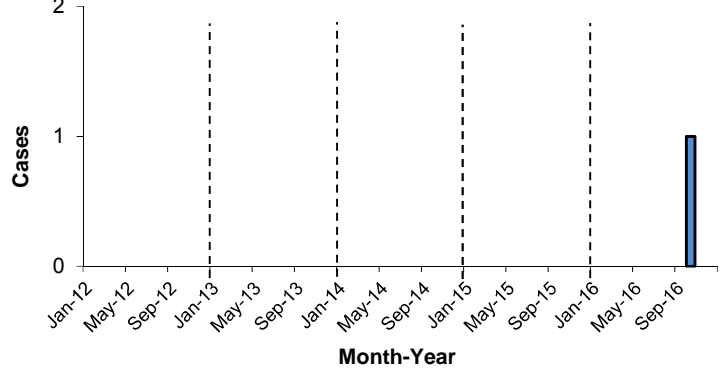
### Aseptic Meningitis Cases per 100,000



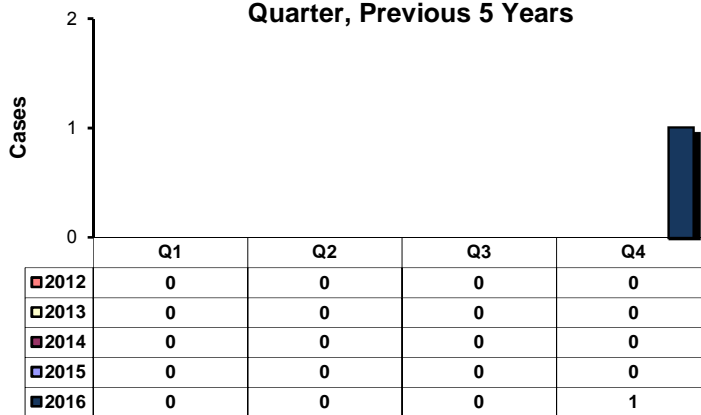
### Meningococcal Cases in Ottawa County Previous 5 Years



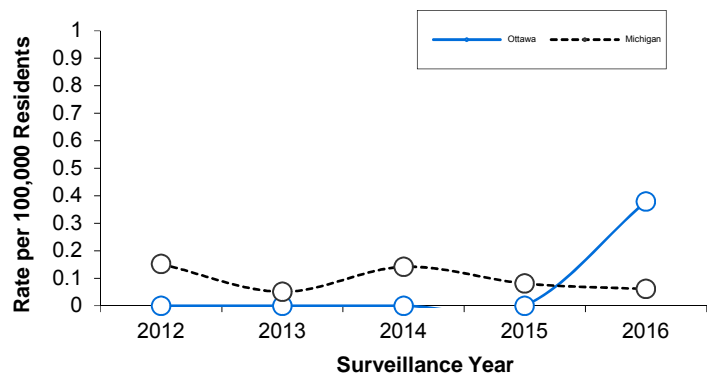
### Meningococcal Cases in Ottawa County by Month Previous 5 Years



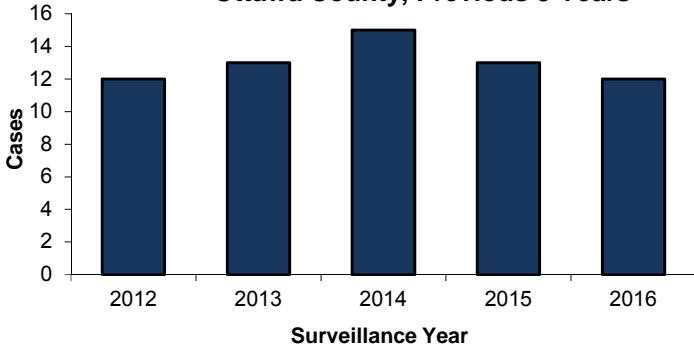
### Meningococcal Cases in Ottawa County by Quarter, Previous 5 Years



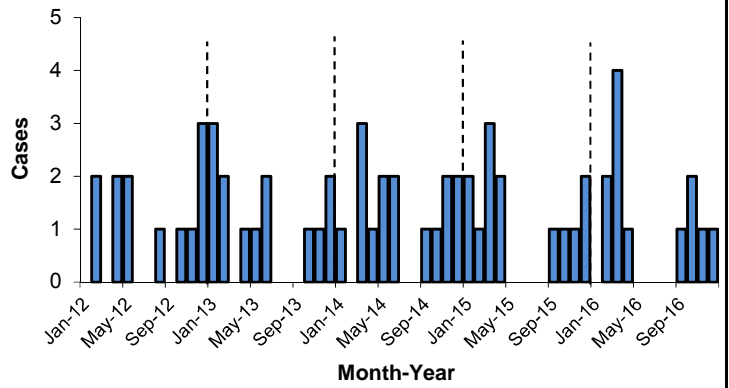
### Meningococcal Cases per 100,000



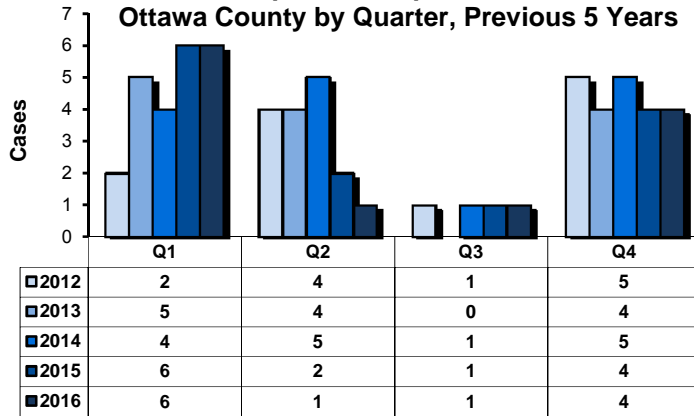
**Invasive *Streptococcus pneumoniae* Cases in Ottawa County, Previous 5 Years**



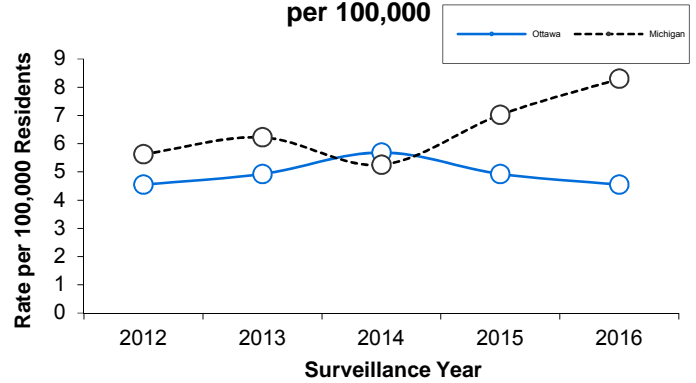
**Invasive *Streptococcus pneumoniae* Cases in Ottawa County by Month, Previous 5 Years**



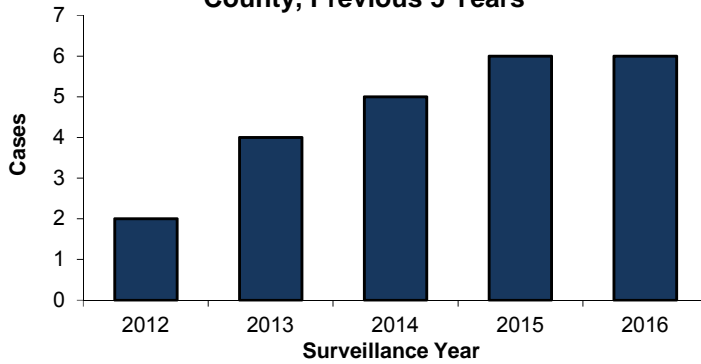
**Invasive *Streptococcus pneumoniae* Cases in Ottawa County by Quarter, Previous 5 Years**



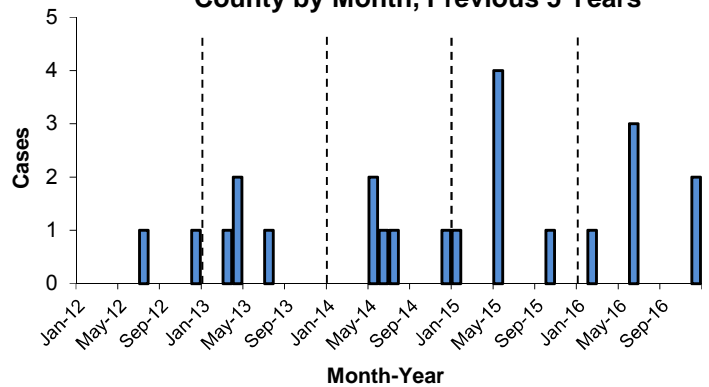
**Invasive *Streptococcus pneumoniae* Cases per 100,000**



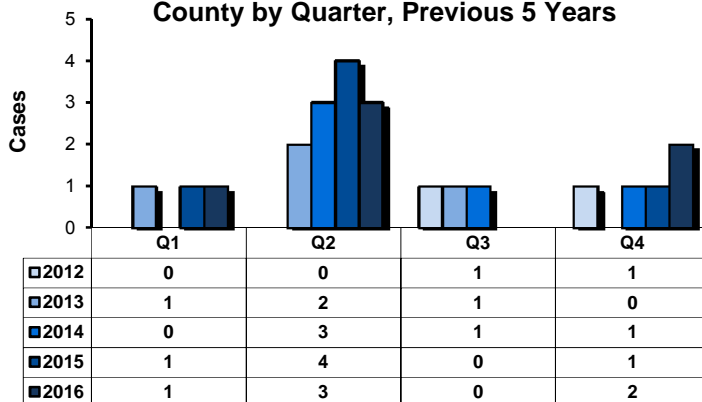
**Meningitis Bacterial, Other Cases in Ottawa County, Previous 5 Years**



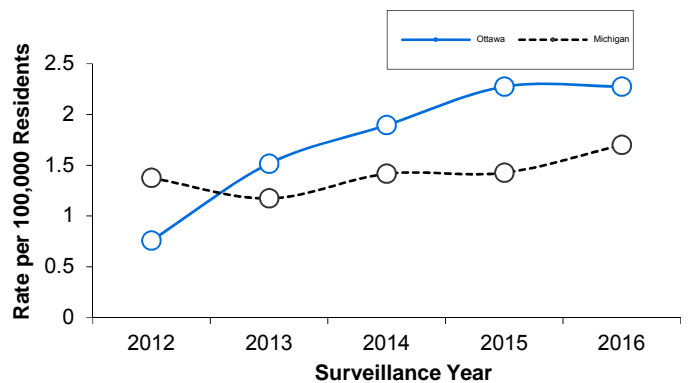
**Meningitis Bacterial, Other Cases in Ottawa County by Month, Previous 5 Years**



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

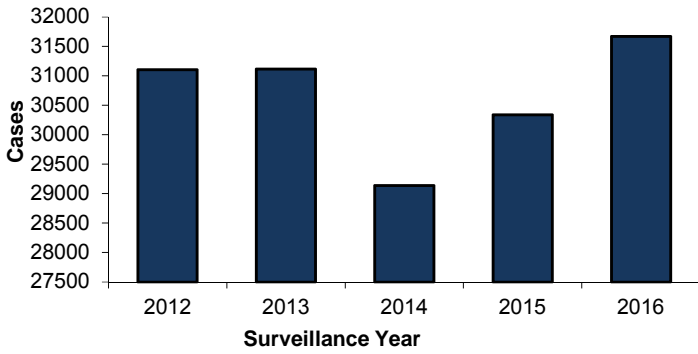


**Meningitis Bacterial, Other Cases per 100,000**

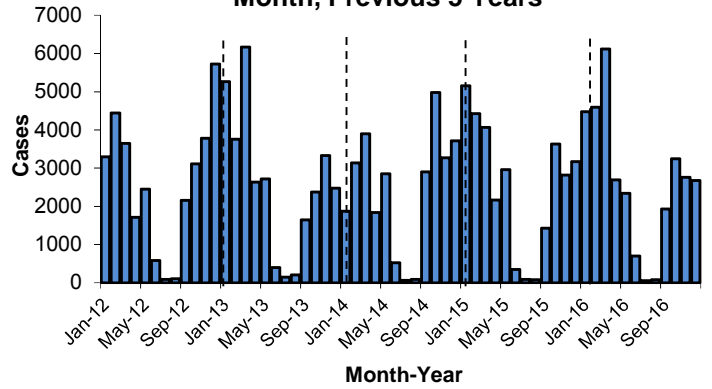


# Influenza:

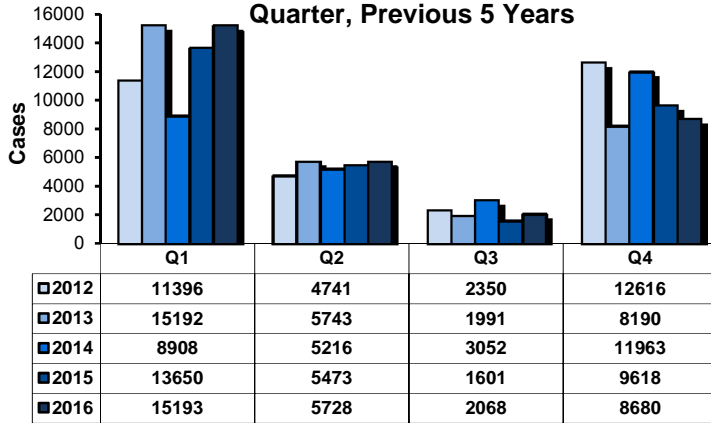
### Flu-Like Disease Cases in Ottawa County Previous 5 Years



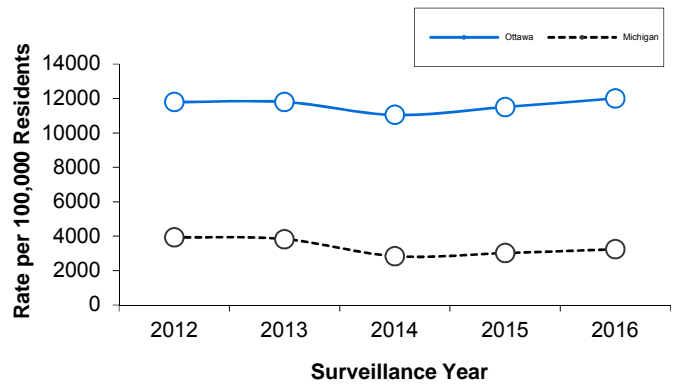
### Flu-Like Disease Cases in Ottawa County by Month, Previous 5 Years



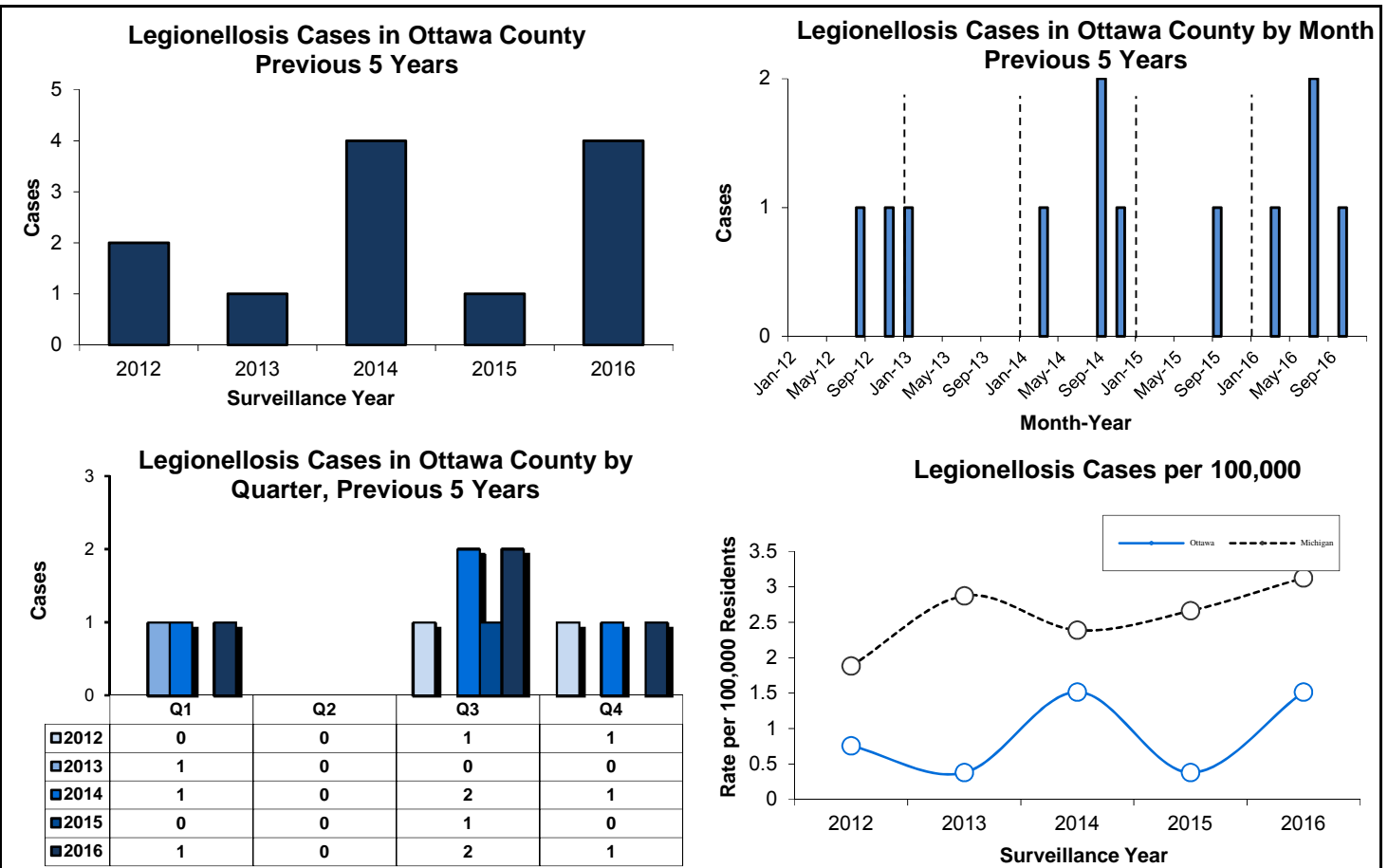
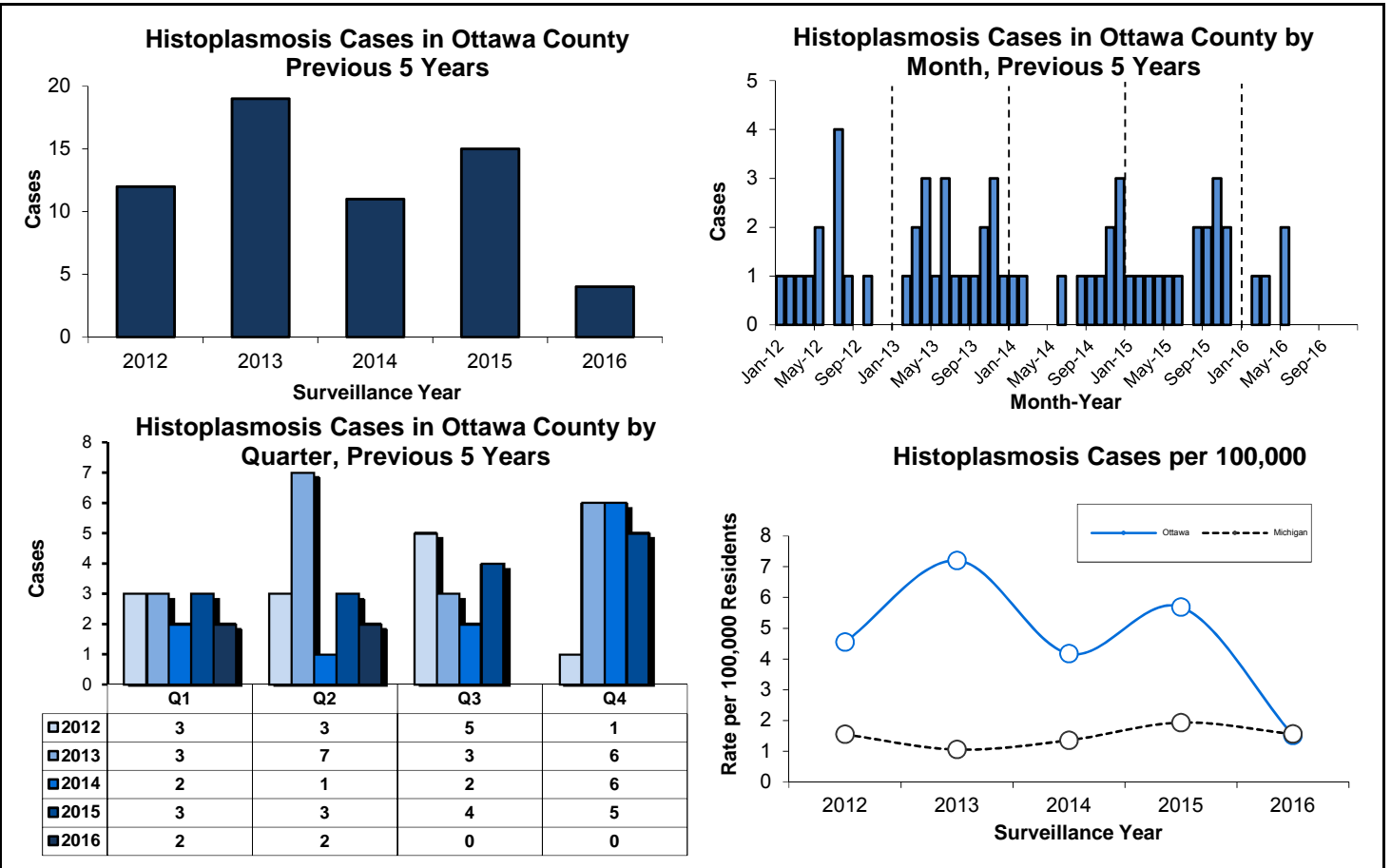
### Flu-Like Disease Cases in Ottawa County by Quarter, Previous 5 Years



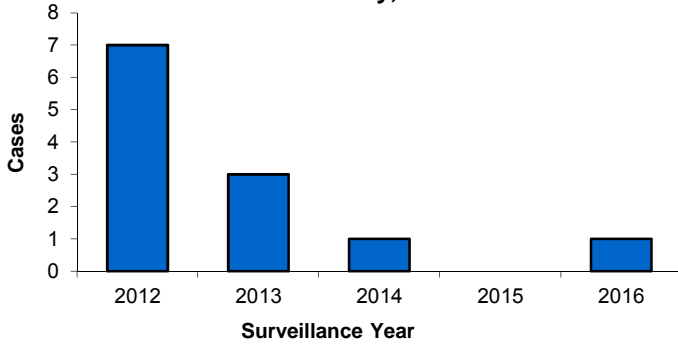
### Flu-Like Disease Cases per 100,000



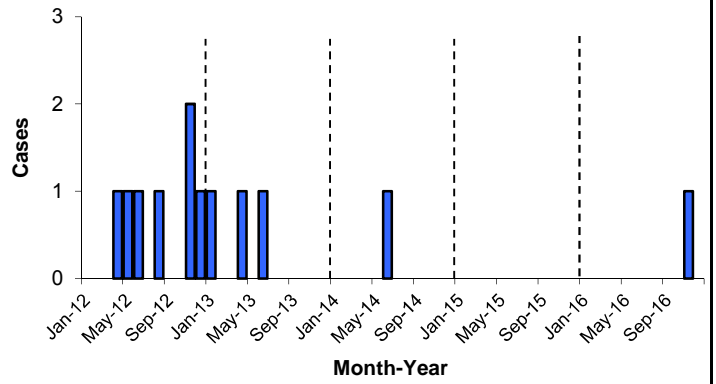
## Other Illnesses:



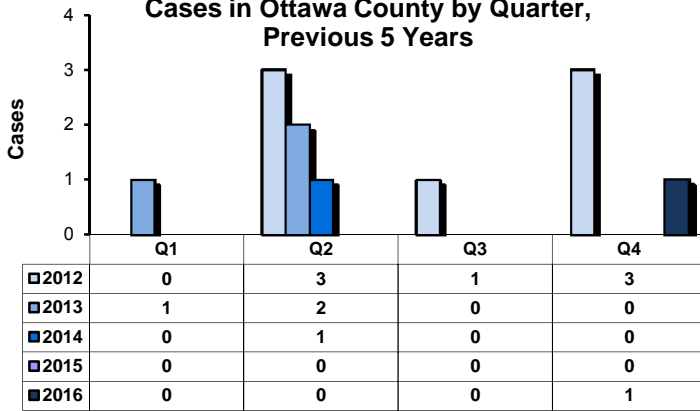
**Drug Resistant *Streptococcus pneumoniae* Cases in Ottawa County, Previous 5 Years**



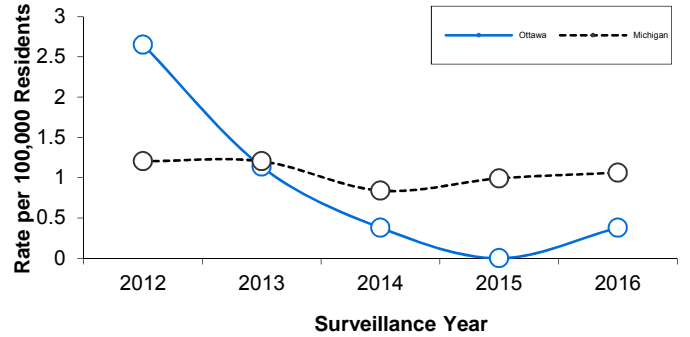
**Drug Resistant *Streptococcus pneumoniae* Cases in Ottawa County by Month, Previous 5 Years**



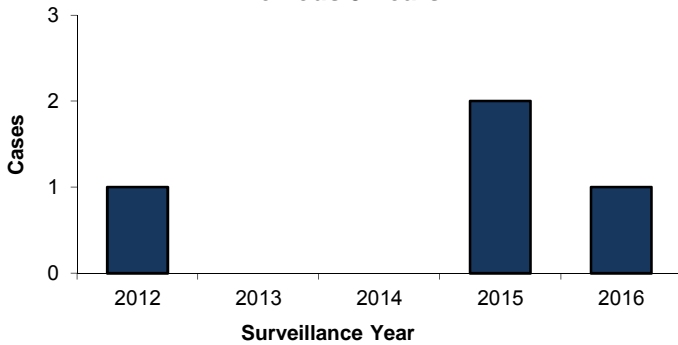
**Drug Resistant *Streptococcus pneumoniae* Cases in Ottawa County by Quarter, Previous 5 Years**



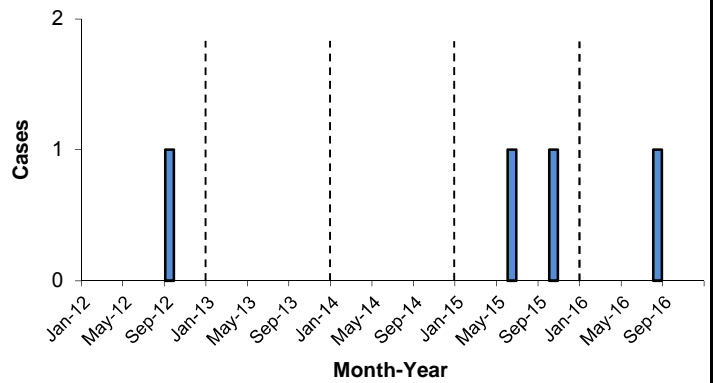
**Drug Resistant *Streptococcus pneumoniae* Cases per 100,000**



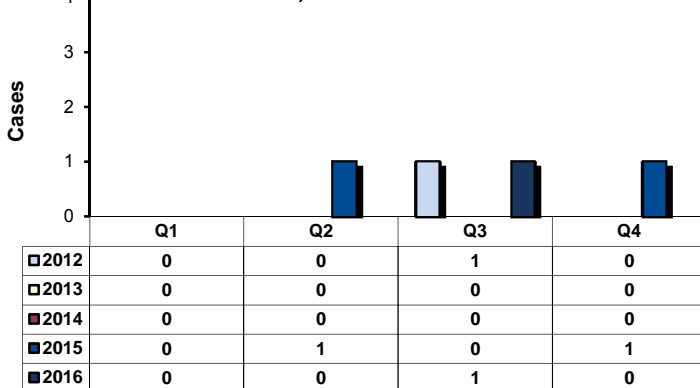
**Animal Rabies Cases in Ottawa County, Previous 5 Years**



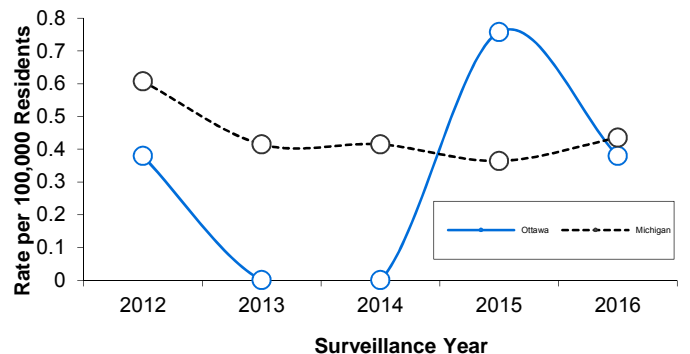
**Animal Rabies Cases in Ottawa County by Month, Previous 5 Years**



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

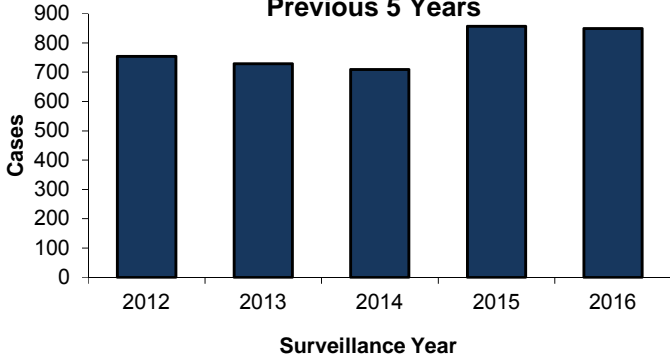


**Animal Rabies Cases per 100,000**

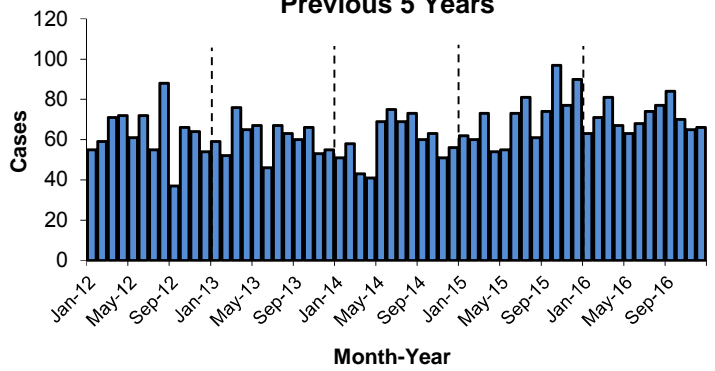


# Sexually Transmitted Diseases:

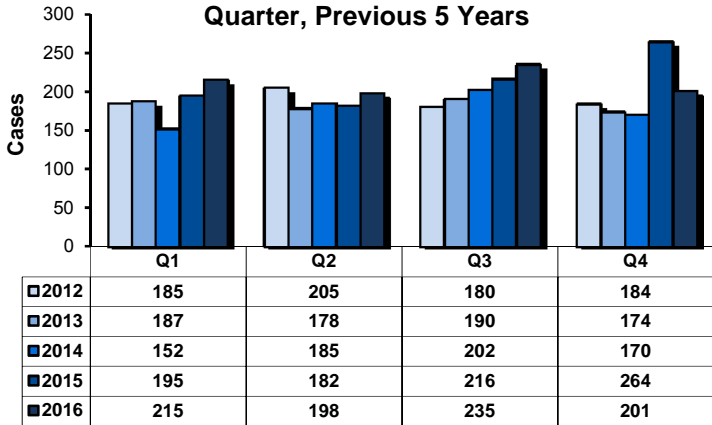
## Chlamydia Cases in Ottawa County Previous 5 Years



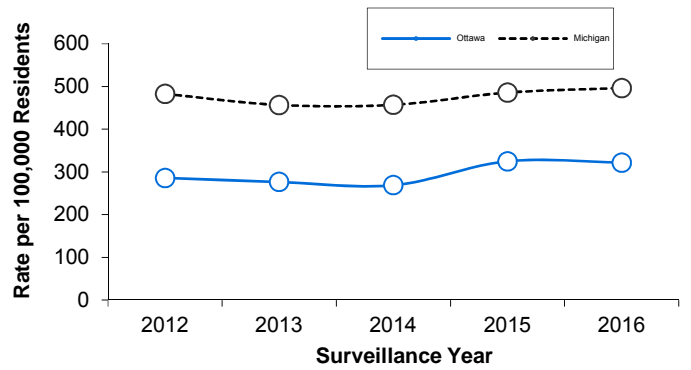
## Chlamydia Cases in Ottawa County by Month Previous 5 Years



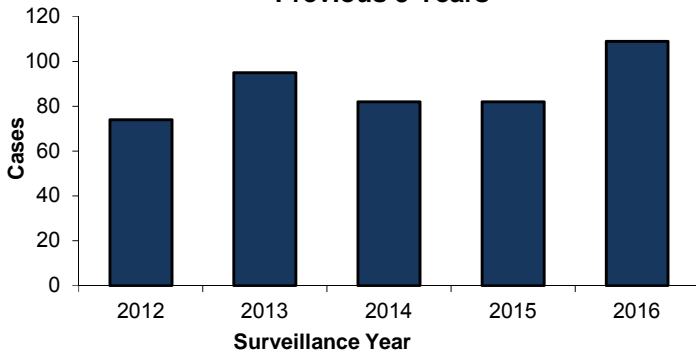
## Chlamydia Cases in Ottawa County by Quarter, Previous 5 Years



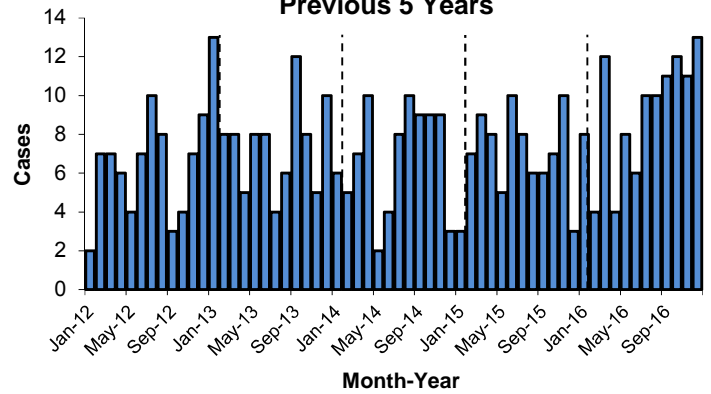
## Chlamydia Cases per 100,000



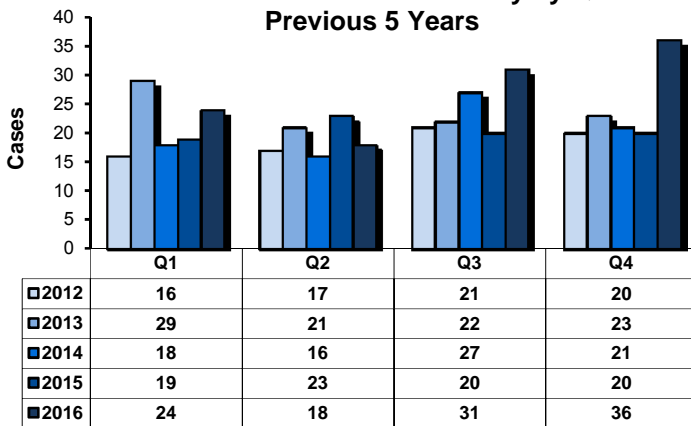
## Gonorrhea Cases in Ottawa County Previous 5 Years



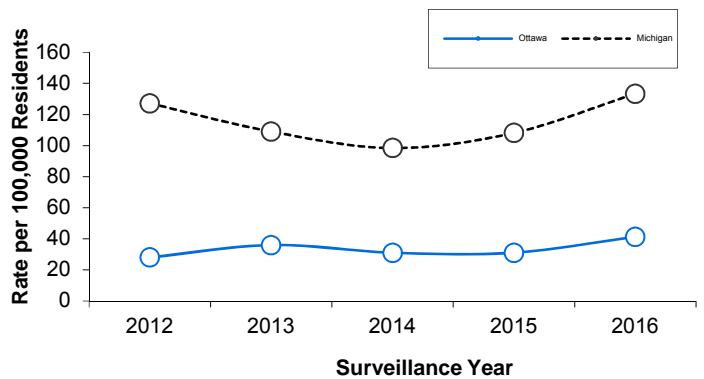
## Gonorrhea Cases in Ottawa County by Month Previous 5 Years



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

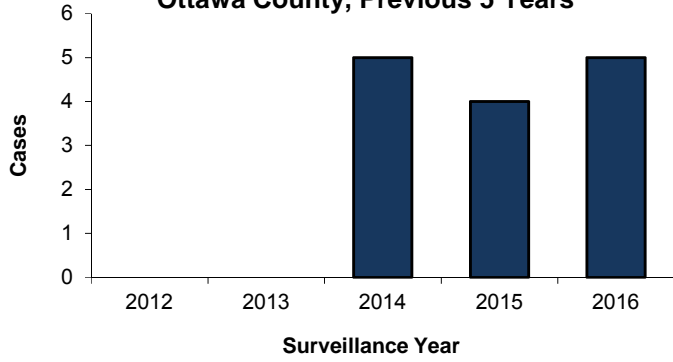


## Gonorrhea Cases per 100,000

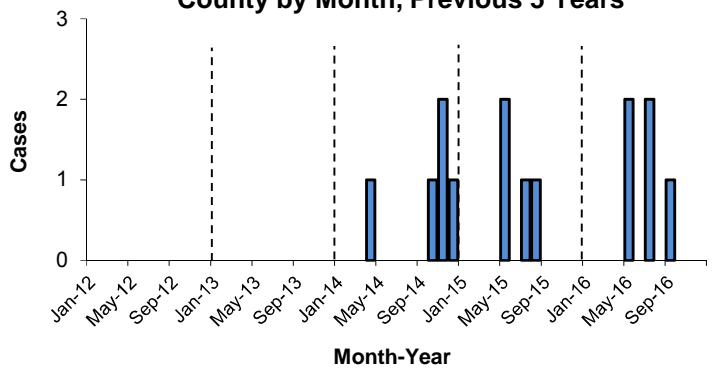


# Sexually Transmitted Diseases:

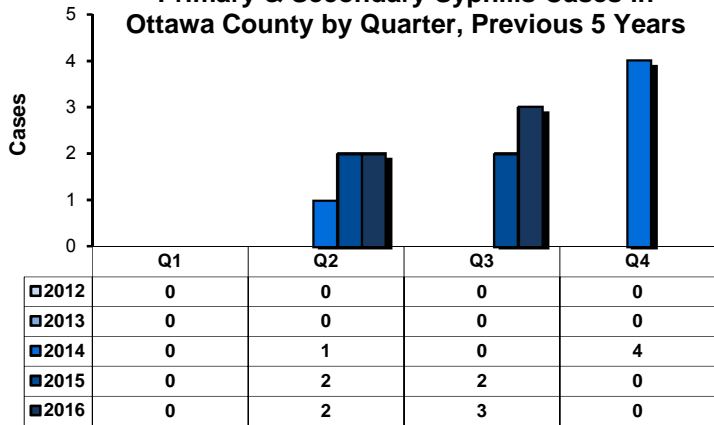
**Primary & Secondary Syphilis Cases in Ottawa County, Previous 5 Years**



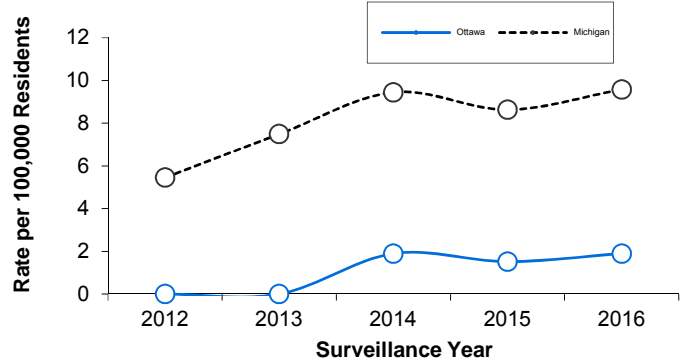
**Primary & Secondary Syphilis Cases in Ottawa County by Month, Previous 5 Years**



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



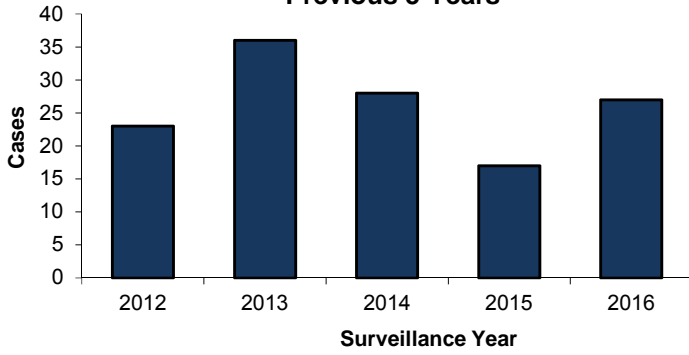
**Primary & Secondary Syphilis Cases per 100,000**



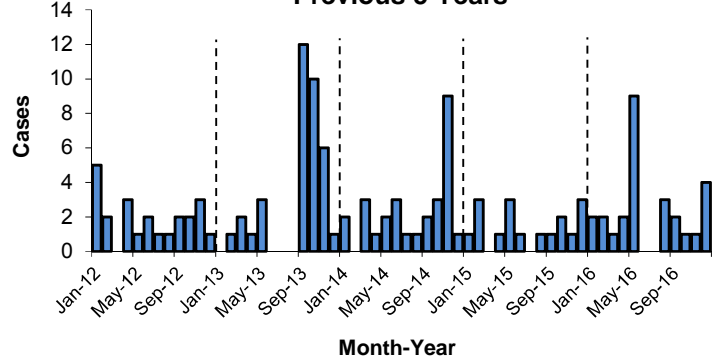


# Vaccine Preventable Diseases:

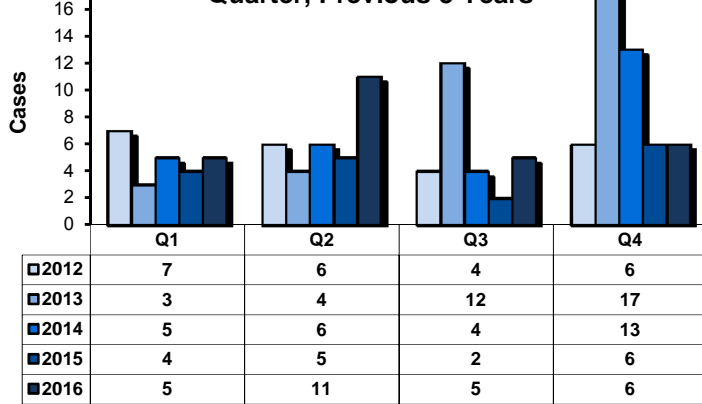
### Chickenpox Cases in Ottawa County Previous 5 Years



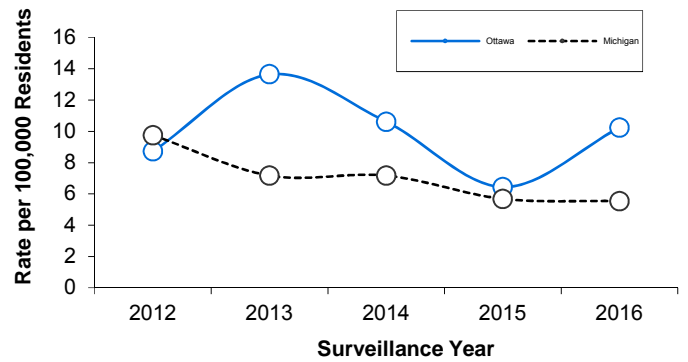
### Chickenpox Cases in Ottawa County by Month Previous 5 Years



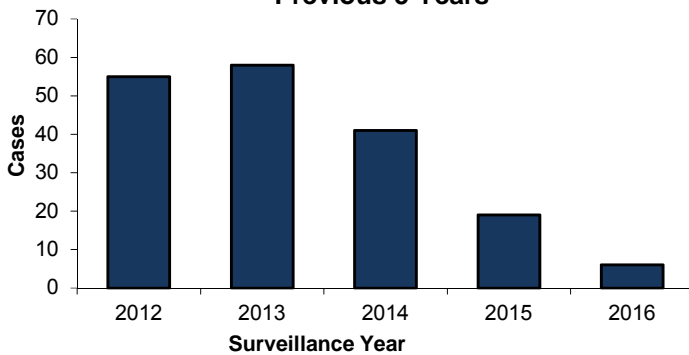
### Chickenpox Cases in Ottawa County by Quarter, Previous 5 Years



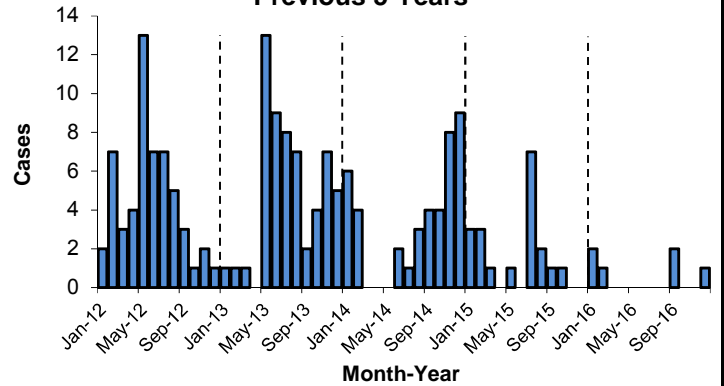
### Chickenpox Cases per 100,000



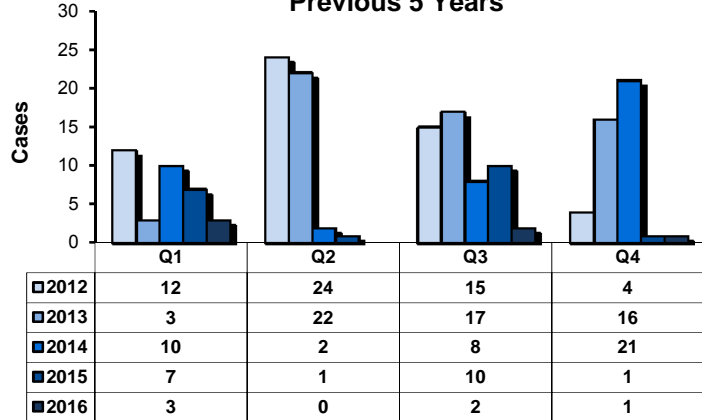
### Pertussis Cases in Ottawa County Previous 5 Years



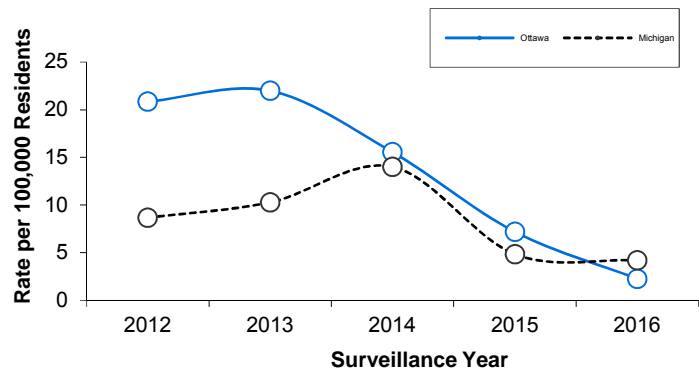
### Pertussis Cases in Ottawa County by Month Previous 5 Years



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

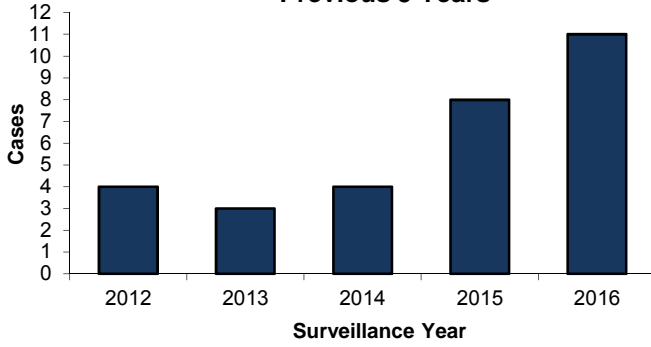


### Pertussis Cases per 100,000

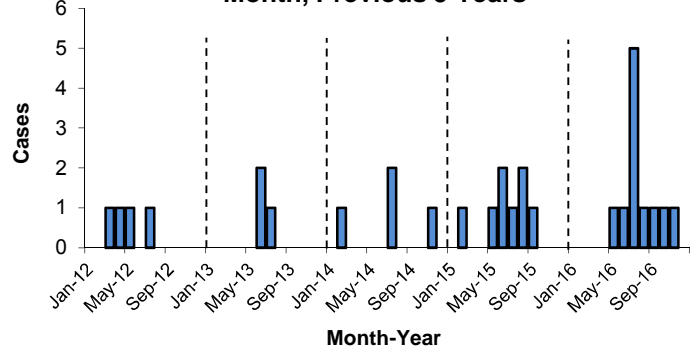


## Vectorborne Diseases:

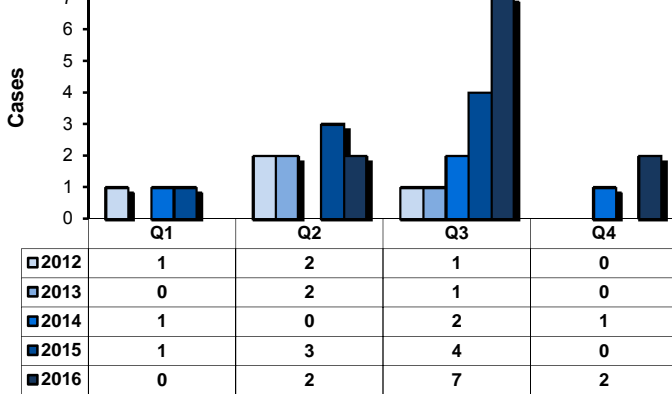
### Lyme Disease Cases in Ottawa County Previous 5 Years



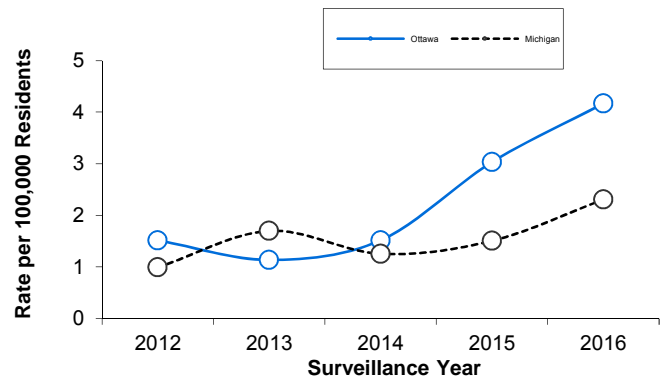
### Lyme Disease Cases in Ottawa County by Month, Previous 5 Years



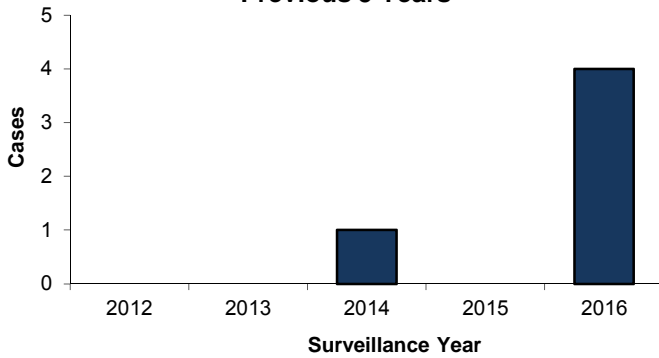
### Lyme Disease Cases in Ottawa County by Quarter, Previous 5 Years



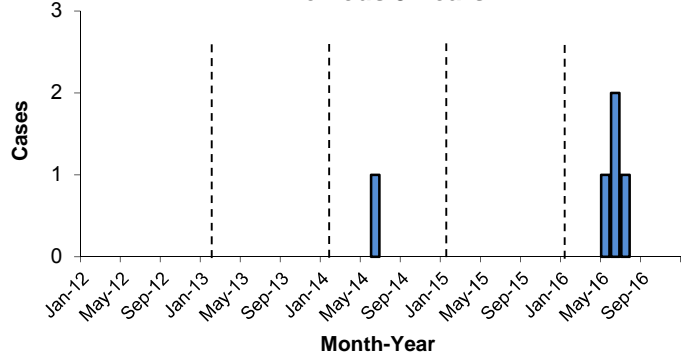
### Lyme Disease Cases per 100,000



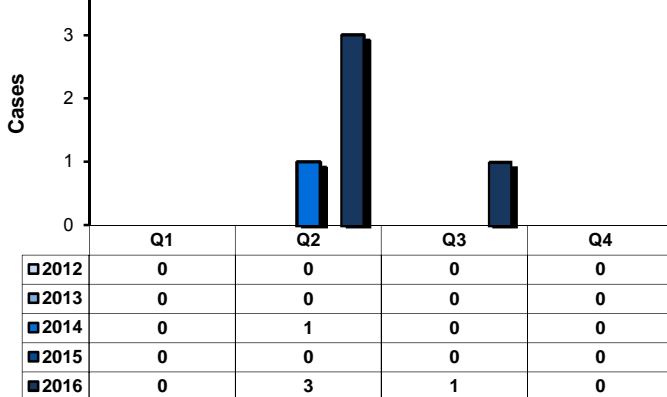
### Malaria Cases in Ottawa County Previous 5 Years



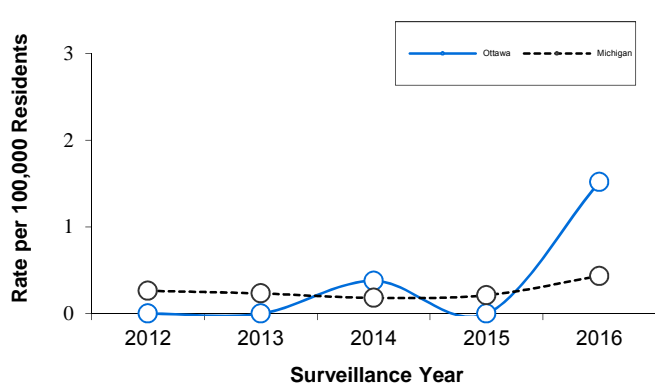
### Malaria Cases in Ottawa County by Month Previous 5 Years



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

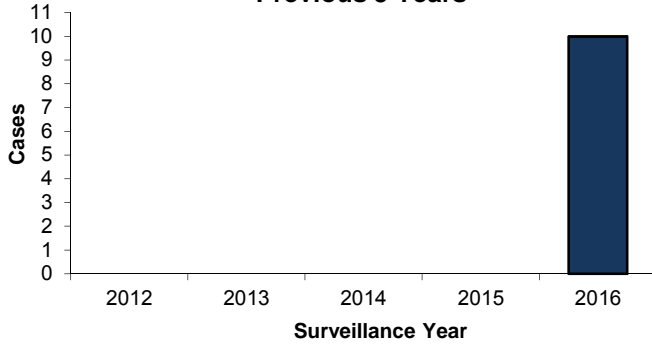


### Malaria Cases per 100,000

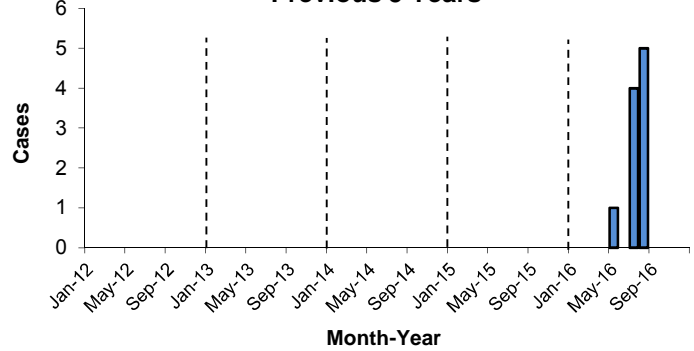


## Vectorborne Diseases:

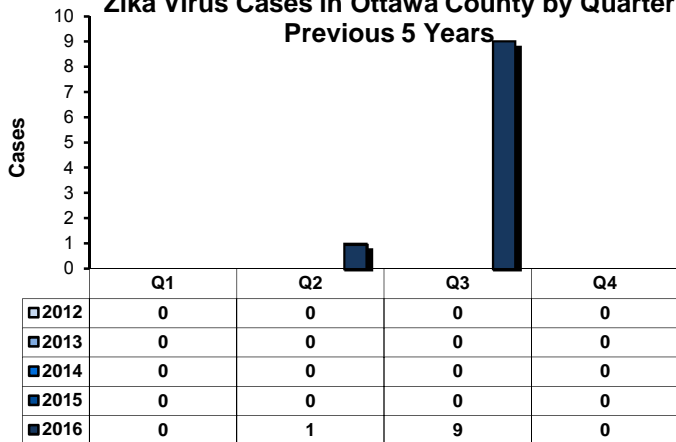
### Zika Virus Cases in Ottawa County Previous 5 Years



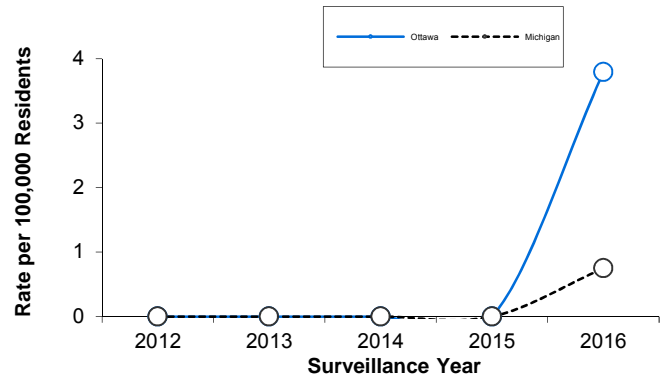
### Zika Virus Cases in Ottawa County by Month Previous 5 Years



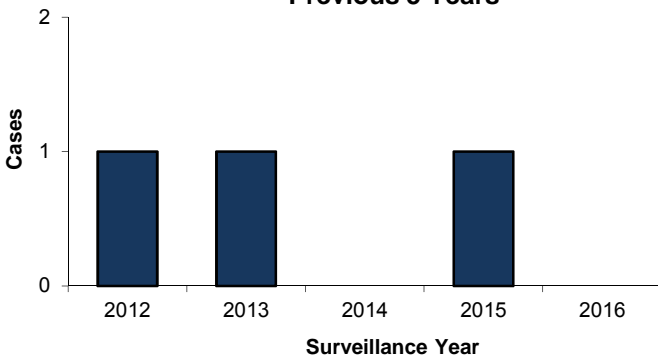
### Zika Virus Cases in Ottawa County by Quarter Previous 5 Years



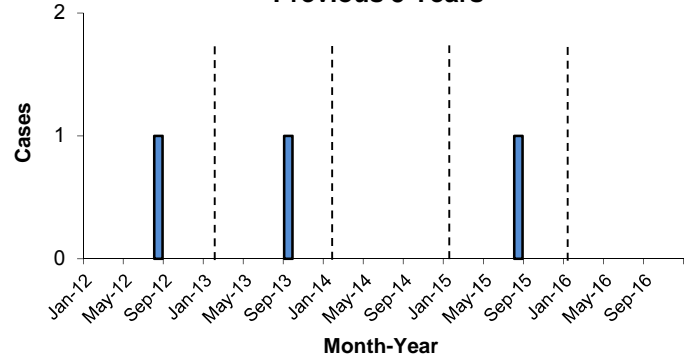
### Zika Virus Cases per 100,000



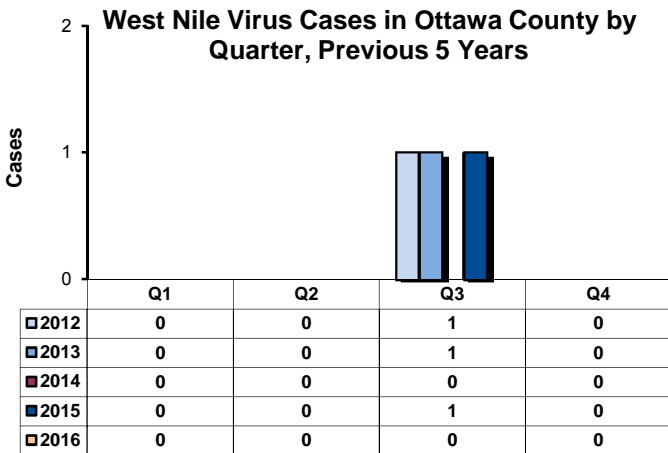
### West Nile Virus Cases in Ottawa County Previous 5 Years



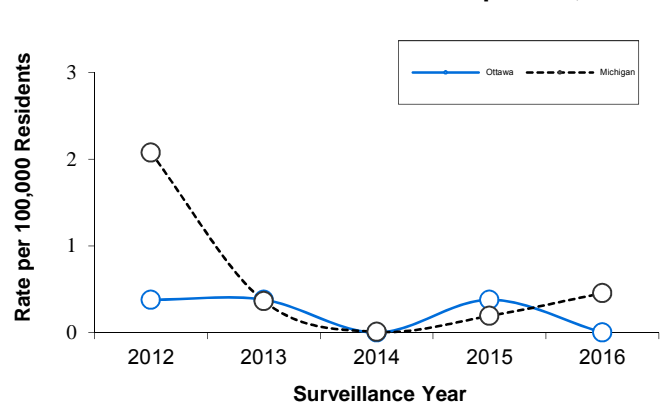
### West Nile Virus Cases in Ottawa County by Month Previous 5 Years



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

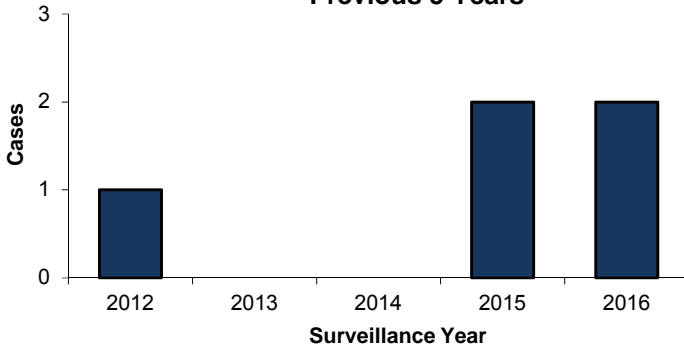


### West Nile Virus Cases per 100,000

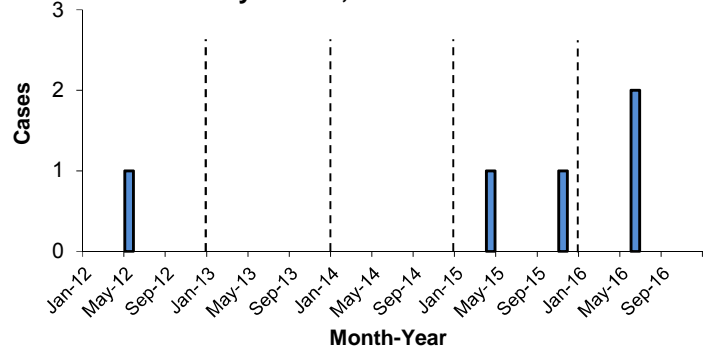


# Viral Hepatitis:

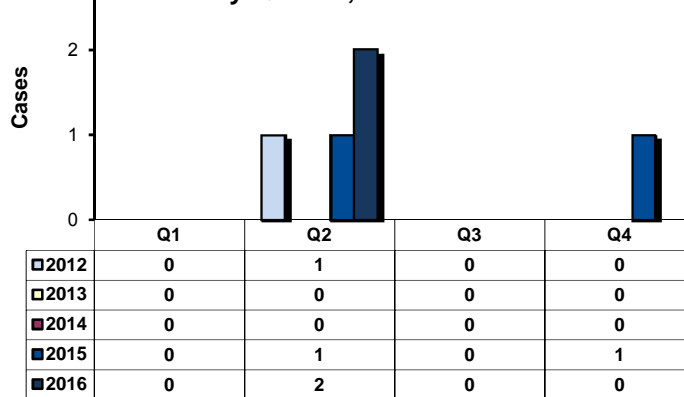
### Hepatitis B Acute Cases in Ottawa County Previous 5 Years



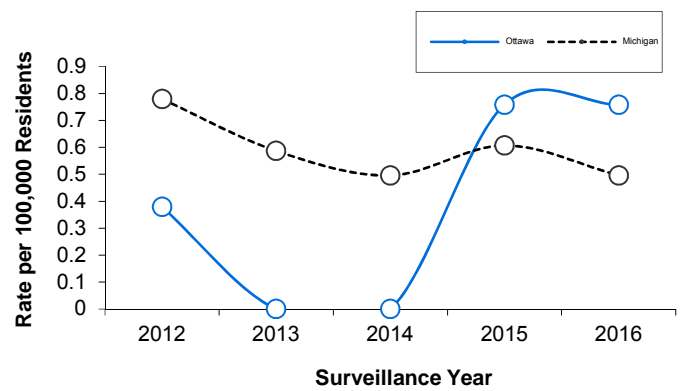
### Acute Hepatitis B Cases in Ottawa County by Month, Previous 5 Years



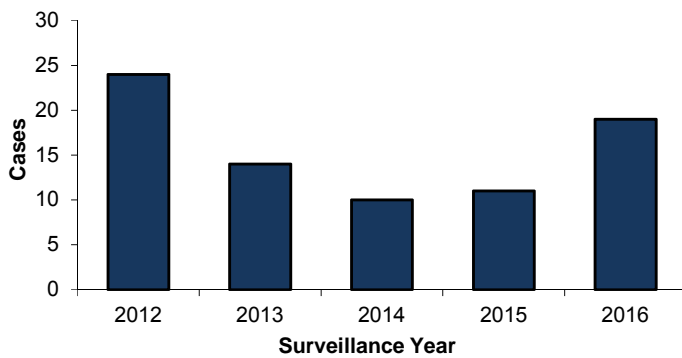
### Acute Hepatitis B Cases in Ottawa County by Quarter, Previous 5 Years



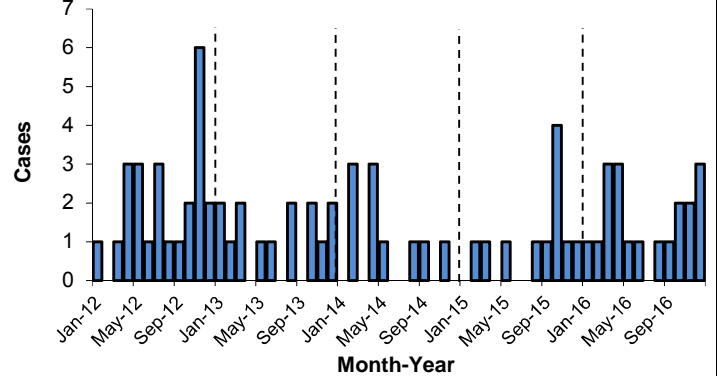
### Acute Hepatitis B Cases per 100,000



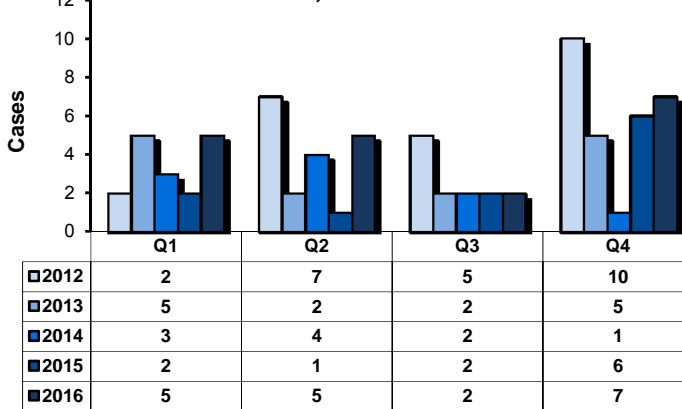
### Chronic Hepatitis B Cases in Ottawa County Previous 5 Years



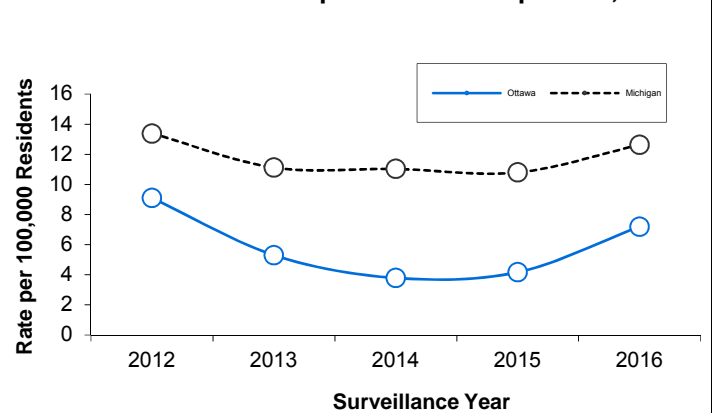
### Chronic Hepatitis B Cases in Ottawa County by Month, Previous 5 Years



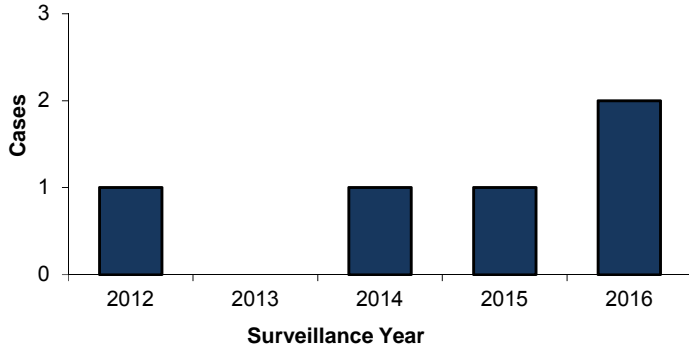
### Chronic Hepatitis B Cases in Ottawa County by Quarter, Previous 5 Years



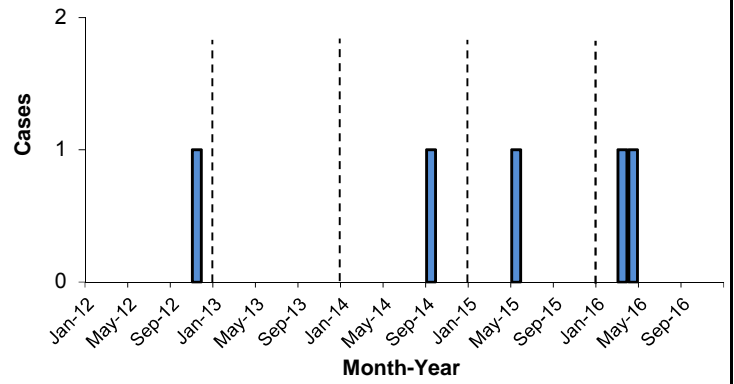
### Chronic Hepatitis B Cases per 100,000



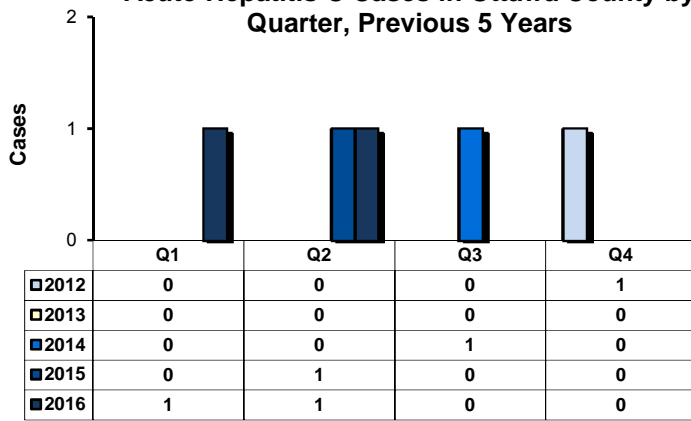
**Acute Hepatitis C Cases in Ottawa County Previous 5 Years**



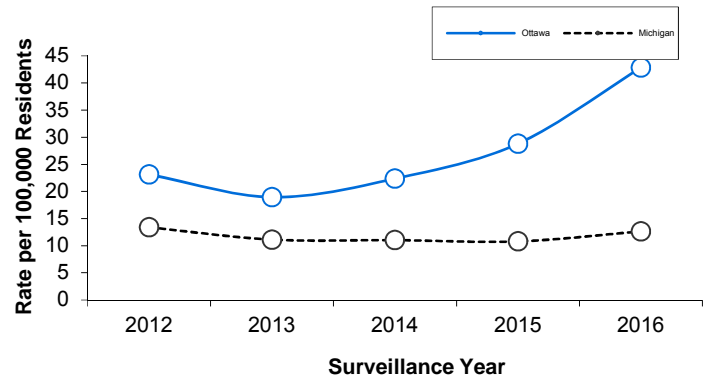
**Acute Hepatitis C Cases in Ottawa County by Month Previous 5 Years**



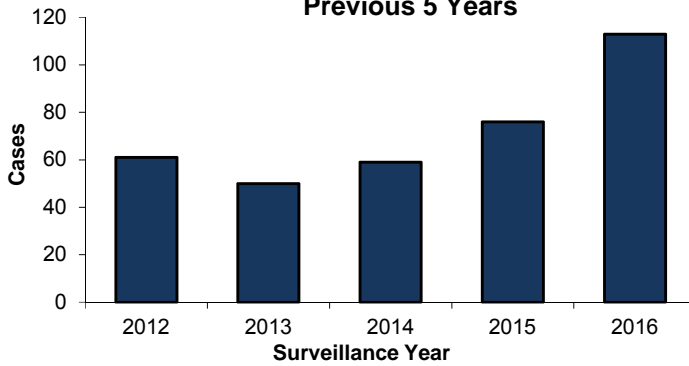
**Acute Hepatitis C Cases in Ottawa County by Quarter, Previous 5 Years**



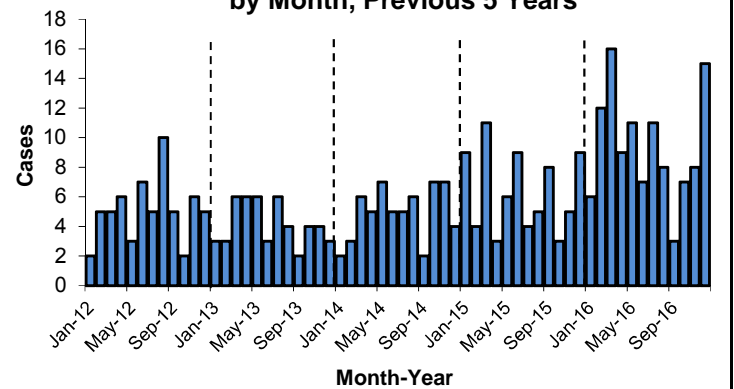
**Acute Hepatitis C Cases per 100,000**



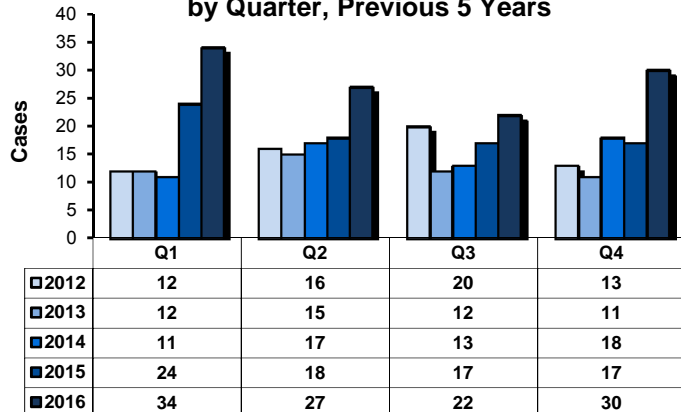
**Chronic Hepatitis C Cases in Ottawa County Previous 5 Years**



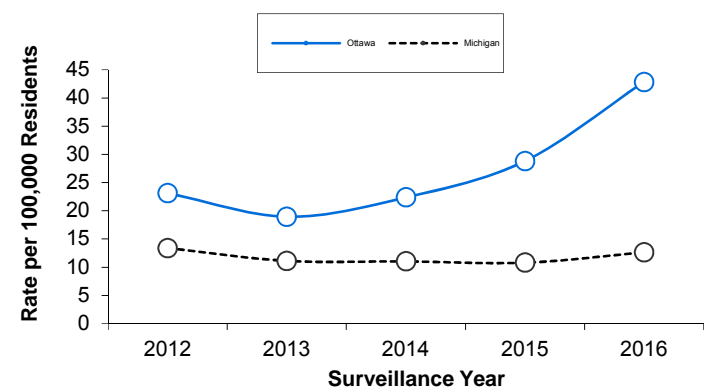
**Chronic Hepatitis C Cases in Ottawa County by Month, Previous 5 Years**



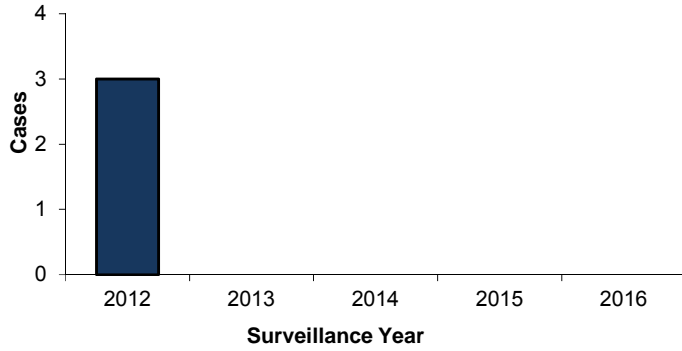
**Chronic Hepatitis C Cases in Ottawa County by Quarter, Previous 5 Years**



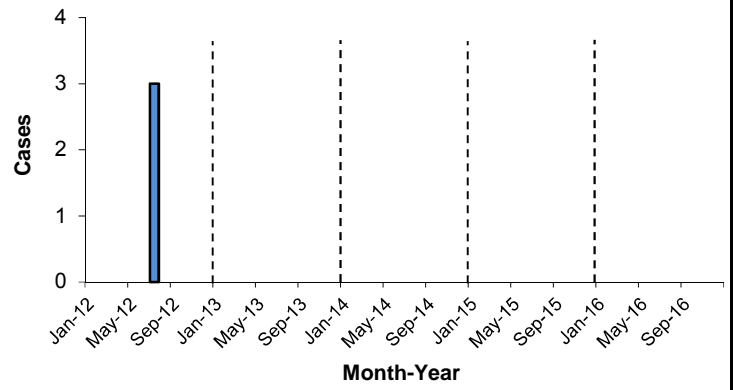
**Chronic Hepatitis C Cases per 100,000**



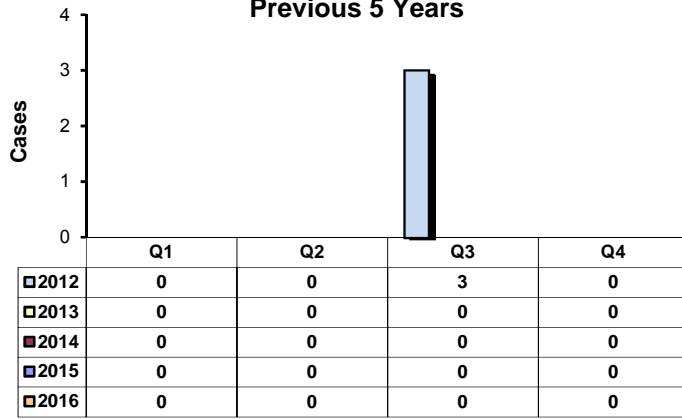
**Hepatitis A Cases in Ottawa County Previous 5 Years**



**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**

