

### INTRODUCTION

#### OVERVIEW

This annual report provides an epidemiologic summary of conditions reported to the Philadelphia Department of Public Health (PDPH) Division of Disease Control (DDC) in 2018. There are currently 76 medical conditions that health care providers or laboratories must report to the DDC (see page 61). The report highlights the most commonly reported conditions and those of public health importance. Data regarding cases of HIV/AIDS are reported separately by the AIDS Activities Coordinating Office.

For additional information, please visit: https://hip.phila.gov/

#### **CASE DEFINITION**

A standard reporting case definition has been set for most reportable conditions by the Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE). These case definitions may differ from the criteria used to make a clinical diagnosis.

Case definitions can be found at : https://wwwn.cdc.gov/nndss/

#### HOW DDC CAN ASSIST HEALTH-CARE PROVIDERS

If you suspect a disease outbreak or that a patient is infected with a disease of urgent public health importance, DDC can facilitate diagnostic testing and assist with infection control and disease management. To speak with a medical specialist, please call 215-685-6748. For urgent after hours immediate reporting and consultation, please call 215-686-4514 and ask for the Division of Disease Control on-call staff.

#### LOCATION

STD testing and services at Health Center 1 and Directly Observed Therapy (DOT) services at the Lawrence F. Flick Memorial Center are now both located at:

> Constitution Health Plaza 1930 S Broad St Philadelphia, PA 19145

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# **OVERVIEW**

DISEASE REPORTING TRENDS REGIONAL OVERVIEW

#### **DISEASE REPORTING TRENDS**

#### Reports of Communicable Diseases Per Year: Philadelphia, 2009-2018

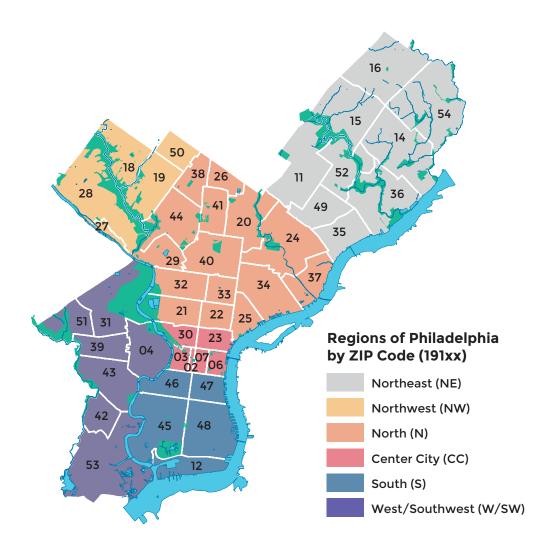
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Amebiasis	13	4	9	11	13	15	8	2	13	14
Animal Bites/Exposures	1768	1624	1513	1598	1586	1644	1718	1722	1574	1486
Anthrax	0	0	0	0	0	0	0	0	0	0
Babesiosis	0	0	1	0	1	1	3	2	5	4
Botulism	0	1	2	2	2	1	0	3	3	1
Brucellosis	0	0	0	1	1	0	1	0	1	0
Campylobacteriosis	117	121	141	182	103	167	211	203	233	270
Carbapenem-resistant Enterobacteriaceae (CRE)	-	-	-	-	-	-	-	-	-	308
Chlamydia trachomatis	18104	19428	20471	20803	19570	18935	19169	19959	21119	20206
Cholera	1	0	0	1	0	0	0	0	0	0
Cryptosporidiosis	38	17	14	18	58	30	26	48	51	38
Cyclosporiasis	3	0	0	1	0	1	3	4	3	0
Dengue Fever	0	3	1	1	11	0	5	3	о	1
Diphtheria	0	0	0	0	0	0	0	0	0	0
Escherichia coli, Shiga Toxin-Producing (STEC)	10	14	9	12	6	10	11	25	19	28
Giardiasis	106	122	43	60	76	65	61	58	66	59
Gonorrhea	4823	6533	6761	7293	6303	5961	6260	6957	7288	7205
Guillian-Barre Syndrome	1	0	0	0	1	1	4	3	7	0
Haemophilus influenzae [Type B]	30 [7]	28 [1]	22 [2]	39 [1]	26 [0]	23 [1]	24 [2]	36 [3]	49 [1]	27[0]
Hansen's Disease (Leprosy)	0	1	0	1	0	0	1	0	1	1
Hepatitis A	2	13	8	2	6	6	6	9	19	21
Hepatitis B, Acute	9	5	7	4	5	7	8	5	10	13
Hepatitis C, Acute	0	1	0	20	42	67	79	130	155	183
Histoplasmosis	1	2	0	1	0	0	2	1	3	2
Legionellosis	60	33	64	29	61	42	53	34	66	91
Leptospirosis	0	1	0	1	0	0	0	0	0	1
Listeriosis	5	8	2	6	10	3	2	2	0	8
Lyme Disease	363	238	301	191	189	140	252	236	264	260
Malaria	16	22	19	13	21	30	18	22	30	40
Measles	1	0	0	2	0	0	0	0	0	1
Meningitis, Aseptic	68	84	104	92	124	60	55	48	55	41
Meningitis, Bacterial	6	12	12	5	3	0	2	3	6	7
Meningococcal Infections	12	5	4	6	3	2	0	2	0	1

#### DISEASE REPORTING TRENDS (Cont.)

#### Reports of Communicable Diseases Per Year: Philadelphia, 2009-2018 (Cont.)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Mumps	0	54	21	4	3	0	1	5	8	24
Pertussis	65	74	49	268	86	127	111	101	107	72
Plague	0	0	0	0	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0	0	0	0	0
Rabies (Human)	0	0	0	0	0	0	0	0	0	0
Rickettsial Diseases, Including RMSF	0	9	4	12	8	10	8	5	7	3
Rubella, Including Congenital Rubella Syndrome	0	0	0	0	0	1	0	0	0	0
Salmonellosis, Excluding Typhoid	396	395	301	305	284	229	237	188	219	213
Shigellosis	1051	141	41	48	66	66	90	311	91	92
Staphylococcus aureus, vancomycin insensitive	0	0	0	0	0	1	0	0	0	4
Streptococcus Pneumoniae, Invasive	198	154	158	103	149	101	119	136	161	157
Streptococcus, Invasive gp. A [TSS]	49 [1]	66 [0]	73 [0]	61 [0]	56 [0]	95 [0]	90 [0]	78 [1]	113 [0]	156[0]
Syphilis-Primary & Secondary	218	238	207	269	278	308	314	428	459	408
Syphilis-Congenital	4	1	4	5	1	4	4	5	6	3
Syphilis-Total	704	667	698	798	962	894	916	927	1256	1214
Tetanus	0	0	0	0	0	0	0	0	0	0
Toxic Shock Syndrome, Staphylococcal	0	0	О	1	0	1	0	0	0	0
Tuberculosis	98	96	101	86	89	78	72	74	75	78
Tularemia	о	0	0	о	о	0	о	0	о	0
Typhoid Fever	2	2	3	2	1	5	3	1	3	1
Varicella (Chicken Pox only)	326	261	262	118	167	118	123	111	104	113
Vibrio SPP. Other	3	0	1	0	0	4	6	7	11	13
West Nile Virus	0	13	1	9	3	5	0	4	3	17

#### **REGIONAL OVERVIEW**



#### Total Population Count by Age and Region: Philadelphia, 2010

	NE	NW	N	CC/S	W/SW	Total
Age						
0-4 Yrs	23127	5055	41227	13888	17760	101057
5-17 Yrs	56820	12189	103578	26046	44165	242798
18-34 Yrs	86479	29154	149432	95613	89090	449768
35-60 Yrs	122363	34069	171370	81045	81124	489971
>60 Yrs	67760	20906	69859	43269	40698	242492
Total	356549	101373	535466	259861	272837	1526086

Data according to the U.S. Census Bureau

#### REGIONAL OVERVIEW (Cont.)

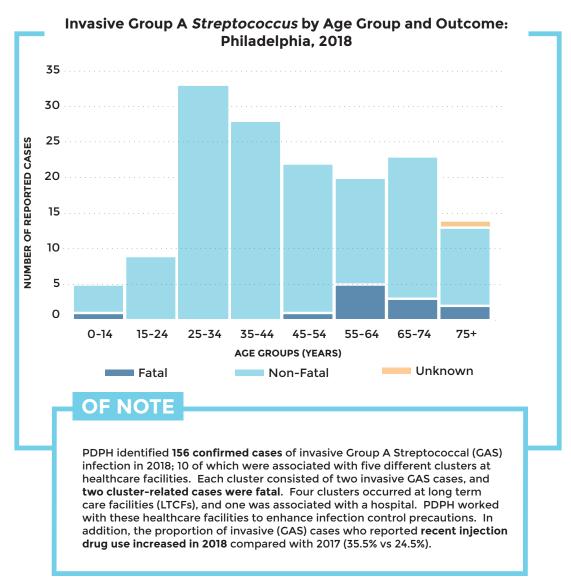
		-					
	NE	NW	N	CC/S	w/sw	Missing	Total
	n	n	n	n	n	n	n
Campylobacteriosis	51	14	71	83	49	2	270
Carbapenem-resistant Enterobacteriaceae	31	10	89	54	51	73	308
Chlamydia	2188	797	9982	2388	4790	61	20206
Giardiasis	<10	<6	11	25	12	0	59
Gonorrhea	604	233	3277	1234	1835	22	7205
Hepatitis C, Chronic (RNA +)	456	98	1044	315	319	249	2481
Influenza (Hospitalized)	216	78	505	286	372	0	1457
Lyme Disease	92	47	55	34	31	1	260
Meningitis, Aseptic	10	<6	26	<6	<6	0	41
Pertussis	<10	<6	14	28	19	0	72
Salmonellosis	38	10	68	48	47	2	213
Shigellosis	15	<6	23	40	<15	0	92
Streptococcus Pneumoniae, Invasive	24	7	88	22	16	0	157
Streptococcus, Invasive gp A	<25	<6	74	25	30	1	156
Syphilis-Early Latent	59	18	222	138	103	0	540
Syphilis-Primary & Secondary	35	17	163	104	89	0	408
Tuberculosis	18	<6	16	26	<20	0	78
Varicella (Chicken Pox)	26	<6	34	25	<20	0	104
Varicella (Chicken Pox)	26	<6	34	25	<20	0	1(

#### Counts of Disease With Sufficient Burden: Philadelphia, 2018

# CENTRAL DERTORSAND SEPSIS

GROUP A STREPTOCOCCUS HAEMOPHILUS INFLUENZAE LISTERIOSIS MENINGITIS, ASEPTIC STREPTOCOCCUS PNEUMONIAE

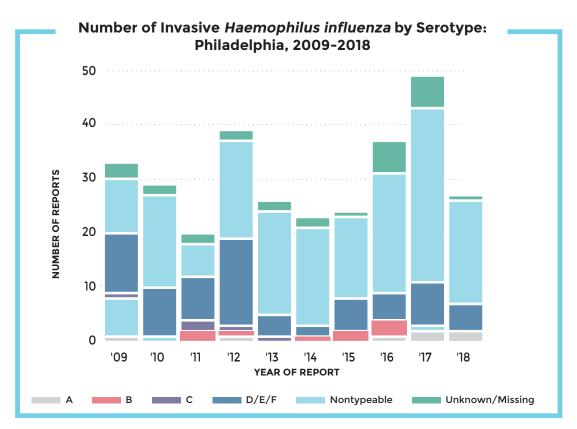
#### **GROUP A STREPTOCOCCUS**



#### Number of Invasive *Group A Streptococcus* by Age and Gender: Philadelphia, 2018

		<b>0-17</b> Years						5+ ars	Total		
	n %		n	%	n	%	n	%			
Male	17	10.9	31	19.9	52	33.3	100	64.1			
Female	14	9.0	14	9.0	28	17.9	56	35.9			
Total	31	19.9	45	28.8	80	51.3	156	100			

#### HAEMOPHILUS INFLUENZAE



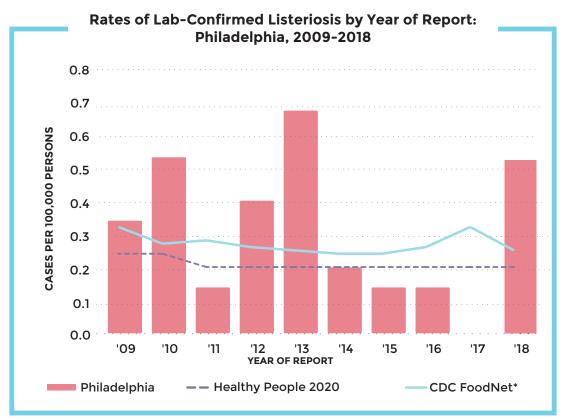
OF NOTE

Of the **27 cases** of invasive *Haemophilus influenzae* in 2018, no cases were serotype b. The most prominent was serotype f (15%). There were **five fatalities** among adults with a mean age of 63.

#### Number of Invasive *Haemophilus influenza* by Age: Philadelphia. 2018

		FII	maac	-ipina,	, 201	0				
	<b>0-</b> Ye	<b>40</b> ears	<b>40</b> Ye	-55 ears		-65 ears	6 Ye	6+ ears	То	tal <sup>.</sup>
	n	%	n	%	n	%	n	%	n	%
Total		22.2		22.2		25.9		29.6	27	100

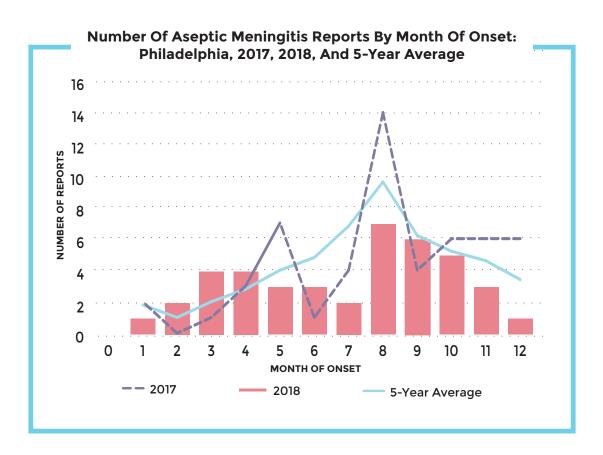
LISTERIOSIS (Listeria monocytogenes)



\*CDC FoodNet is the Foodborne Diseases Active Surveillance Network, utilizing sentinel data to monitor trends in foodborne diseases

#### **MENINGITIS, ASEPTIC**

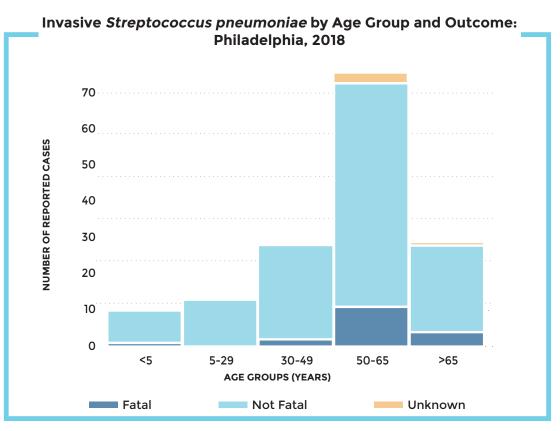
(Pleocytosis in cerebroprinal fluid and no bacterial, fungal or parasitic organisms on culture)



#### Number of Aseptic Meningitis Reports by Age and Gender: Philadelphia, 2018

	<b>0-30</b> Years		<b>3</b> Ye	<b>]+</b> ears	Total		
	n	%	n	%	n	%	
Male	10	24.4		14.6		39.0	
Female	8	19.5	17	41.5	25	61.0	
Total	18	43.9	23	56.1	41	100	

#### **STREPTOCOCCUS PNEUMONIAE**



#### **OF NOTE**

Of the 156 cases in 2018, **7 of 15 (47%)** invasive pneumococcal cases 14 years old and younger **were up to date on the pneumococcal conjugate vaccine**. One infant fatality occurred with an unknown vaccine history with cause of death identified as asphyxia. Thirteen cases 14 years of age and younger had serotyping completed. Only one of these cases was under the age of 5 years and fully vaccinated against pneumococcal disease. Isolates from 154 cases in 2018 had antibiotic resistance testing, of which **20 (13%) were fully or intermediately resistant to at least one antimicrobial agent currently** approved for use in treating pneumococcal infection.

#### Number of Invasive *Streptococcus pneumoniae* by Age and Gender: Philadelphia, 2018

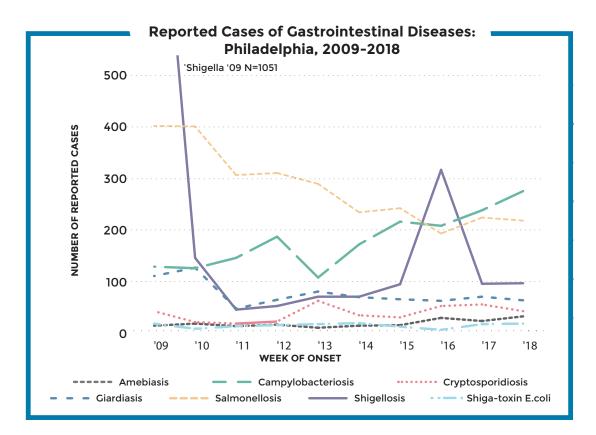
	0 Ye	0-5 Years 6-29 Years					<b>50-64</b> Years		<b>65+</b> Years		tal	
	n	%	n	%	n	%	n	%	n	%	n	%
Total	10	6.4	13	8.3	28	18.0		47.4	31	19.9	156	100
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# GASTRO-INFECTIONS

OVERVIEW CAMPYLOBACTERIOSIS CRYPTOSPORIDIOSIS GIARDIASIS SALMONELLOSIS SHIGELLOSIS

#### **OVERVIEW**



#### OF NOTE

In 2018, PDPH responded to several reports of GI illness outbreaks. Of note, PDPH investigated an **outbreak of norovirus** on a college campus. In total, **146 cases** were identified. No one particular food or exposure source was identified. Also, PDPH investigated a work luncheon where 62 of the 148 attendees reported symptoms of diarrhea, chills, vomiting, and/or fever after the event. No one food item was identified as the source of illness. While norovirus was suspected, it was not confirmed through laboratory testing.

Additionally, **13 norovirus outbreaks** in **long-term care facilities** were reported and investigated.

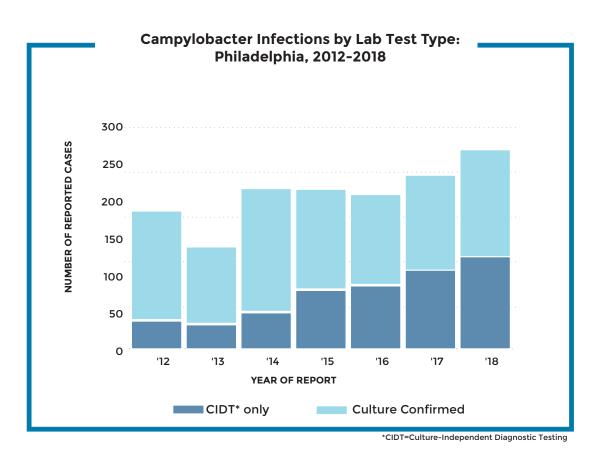
CDC FoodNet is the Foodborne Diseases Active Surveillance Network, which utilizes sentinel data to monitor trends in foodborne diseases

#### **OVERVIEW** (Cont.)

#### Antibiotic Resistance of Selected Enteric Pathogens: Philadelphia, 2018

Pathogen	Antibiotics Tested	Total Tested	Resi	stant	Interm	ediate
			n	%	n	%
Campylobacter	Ciprofloxacin	38	12	32	0	0
Campyiobacter	Erythromycin	38	3	8	0	0
	Ampicillin	99	14	14	0	0
	Ceftriaxone	64	7	11	0	0
Salmonella	Ciprofloxacin	46	1	2	2	4
	Levofloxacin	47	5	11	0	0
	Trimethoprim- Sulfamethoxazole	97	0	0	5	5
	Ampicillin	44	40	91	0	0
	Ceftriaxone	25	0	0	0	0
	Ciprofloxacin	40	11	28	2	5
Shigella	Gentamicin	15	14	93	о	о
	Levofloxacin	19	4	21	0	0
	Trimethoprim- Sulfamethoxazole	41	34	83	0	0

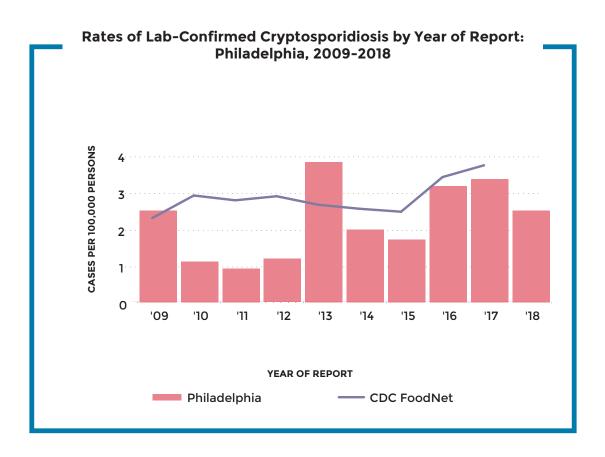
#### CAMPYLOBACTERIOSIS (Campylobacter spp.)



		0-4 5-24 Years					-	<b>6+</b> ars	Total <sup>.</sup>			
	n	n % n %		n % n % n % n %		%	n	%	n	%		
Male	20	7.4	33	12.3	49	18.2	27	10.0	9	3.3	138	51.3
Female	21	7.8	28	10.4	50	18.6	16	5.9	16	5.9	131	48.7
Total	41	15.2	61	22.7	99	36.8	43	16.0	25	9.3	269	100
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#### Number of Campylobacteriosis Reports by Age and Gender: Philadelphia, 2018

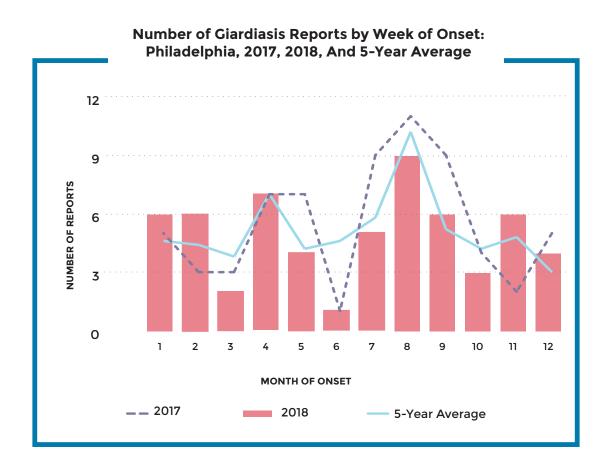
#### CRYPTOSPORIDIOSIS (Cryptosporidium spp.)



#### Number of Cryptosporidiosis Reports by Age and Gender: Philadelphia, 2018

	<b>0-17</b> Years		<b>18-35</b> Years		<b>3</b> Ye	<b>6+</b> ars	<b>Total</b> Years		
	n %		n	%	n	n %		%	
Total	10	26.3	16	42.1	12	31.6	38	100	

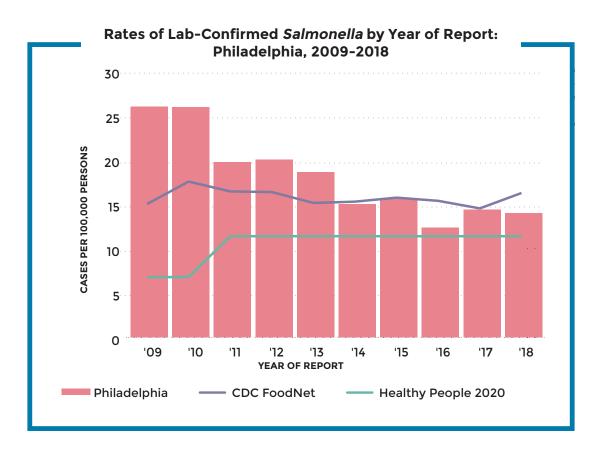
#### **GIARDIASIS** (Giardia lamblia)



#### Number of Giardiasis Reports by Age and Gender: Philadelphia, 2018



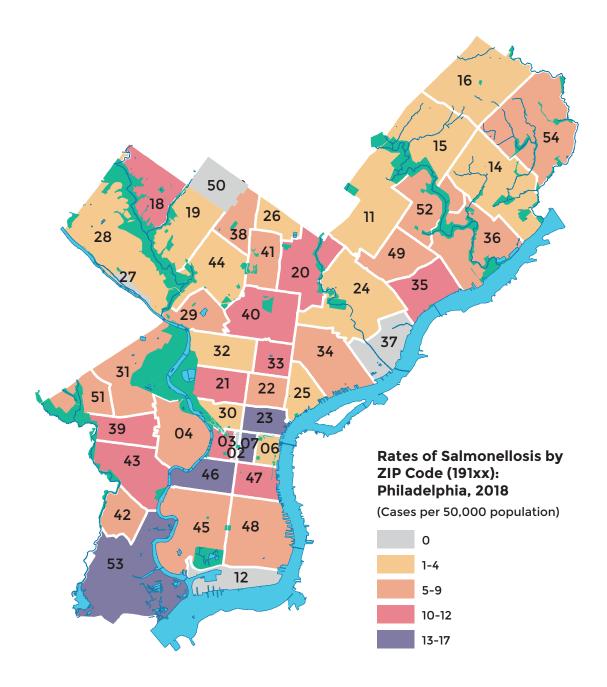
#### SALMONELLOSIS (Salmonella spp.)



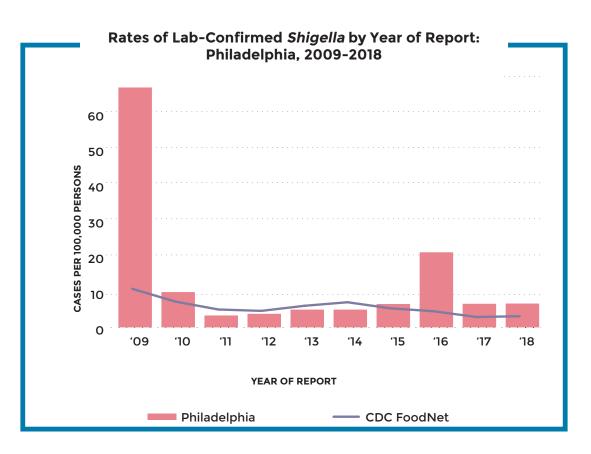
	<b>0-4</b> Years			- <b>17</b> ars		<b>18-34</b> Years		<b>35-60</b> Years		<b>61+</b> Years		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	
Male	27	12.7	6	2.8	24	11.3	23	10.8	17	8.0	97	45.5	
Female	25	11.7	10	4.7	36	16.9	25	11.7	20	9.4	116	54.5	
Total	52	24.4	16	7.5	60	28.2	48	22.5	37	17.4	213	100	

#### Number of Salmonellosis Reports by Age and Gender: Philadelphia, 2018

#### SALMONELLOSIS (Cont.)



## SHIGELLOSIS (Shigella spp.)



#### OF NOTE

In 2018, the majority of shigellosis cases in Philadelphia continued to occur among adult males (75/92, 82%), which represents a shift from the past when cases predominately occurred among daycare-aged children. Among the adult male cases, 36% identified as a man who has sex with men (MSM) and 45% were noted to be immunocompromised.

#### Number of Shigellosis Reports by Age and Gender: Philadelphia, 2018

				acipii	,				
	<b>0-</b> Ye	<b>0-20</b> Years		<b>-34</b> ears	<b>3</b> Ye	<b>5+</b> ears	Total		
	n	%	n	%	n	%	n	%	
Male	6	6.5	31	33.7	38	41.3	75	81.5	
Female	6	6.5	6	6.5	5	5.4	17	18.5	
Total	12	13.0	37	40.2	43	46.7	92	100	

# HEALTHCARE ASSOCIATED

#### **INFECT**IONS

CARBAPENEM-RESISTANT ENTEROBACTERIACEAE

#### **OVERVIEW**

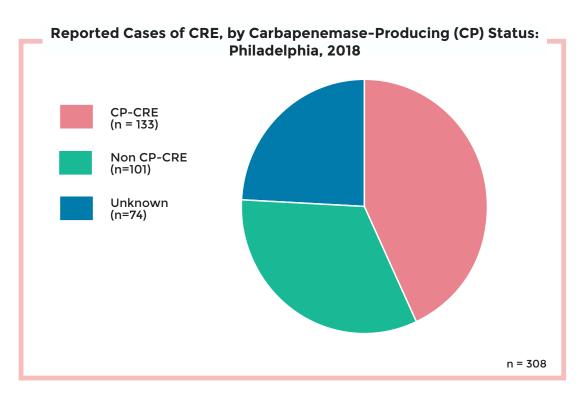
#### **OF NOTE**

The Healthcare-Associated Infections/Antimicrobial Resistance (HAI/ AR Program), established in late 2016, is dedicated to the prevention and control of Healthcare-Associated Infections (HAIs) and Antimicrobial Resistance (AR). This Program serves as a resource to the Philadelphia healthcare community and public with the goal of improving healthcare safety and quality in the city of Philadelphia.

The HAI/AR Program, works on topics including, but not limited to: infections transmitted in healthcare settings and associated with healthcare; drug-resistant organism surveillance, prevention, and containment; infection prevention and control assessments and guidance in healthcare settings; healthcare worker (HCW) safety, including HCW exposures and immunization policies, and infection control education; antimicrobial stewardship in healthcare settings; antibiotic education for the general public.

#### **HEALTHCARE-ASSOCIATED INFECTIONS 2018**

#### CARBAPENEM-RESISTANT ENTEROBACTERIACEAE (CRE)



#### CARBAPENEM-RESISTANT ENTEROBACTERIACEAE (CRE)

#### **OF NOTE**

Mandatory reporting for CRE began in April 2018. Since then, PDPH has seen a marked increase in reported cases. With the mandatory reporting in effect for only part of the year, the 2018 case count is likely an underrepresentation of the true prevalence of CRE in Philadelphia.

CP-CRE contain mobile resistance elements that facilitate more rapid transmission, making them a greater public health concern than non CP-CRE. Many cases of CP-CRE are acquired abroad, in countries where these resistance mechanisms are more common. Among the 5 CRE patients with recent international medical care, 4 (80%) had CP-CRE detected.

Healthcare exposures are a known risk factor for CRE. Amongst all confirmed CRE cases (n=308), 36 (11.7%) were long-term care facility residents, 114 (37.0%) had an invasive device at time of diagnosis, 33 (10.4%) had a history of recent surgery, and 37 (12.0%) had a history of recent scoping procedures.

Genus Species	n (%)	Mechanism of Resistance (n, %)										
		KPC*	NDM*	IMP*	VIM*	OXA-48*						
Klebsiella pneumoniae	86 (69.9)	85 (98.8)	1 (1.1)									
Escherichia coli	12 (9.8)	10 (83.3)	2 (16.7)									
Enterbacter cloacae	10 (8.1)	8 (80.0)	1 (10.0)	1 (10.0)								
Citrobacter spp.	6 (4.9)	6 (100.0)										
Klebsiella oxytoca	3 (2.4)	3 (100.0)										
Providencia spp.	3 (2.4)		1 (33.3)	2 (66.7)								
Serratia marcescens	1 (0.8)	1 (100.0)										
Other Enterobacteriaceae	2 (1.6)	2 (100.0)										
Total	123 (100.0)	115 (93.5)	5 (4.1)	3 (2.4)								

\*KPC = Klebsiella pneumoniae carbapenemase

\*NDM = New Delhi metallo-ß-lactamase

\*IMP = Imipenemase metallo-ß-lactamase

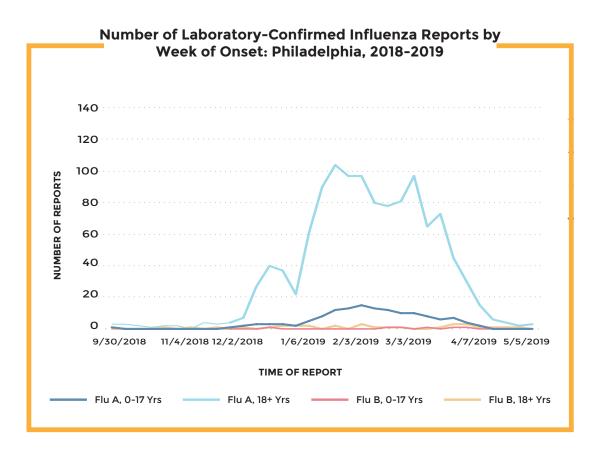
\*VIM = Verona integron-encoded metallo-ß-lactamase

\*OXA-48 Like = Oxacillinase-48 like

# **RESPIRATORY** INFECTIONS

INFLUENZA LEGIONELLOSIS TUBERCULOSIS

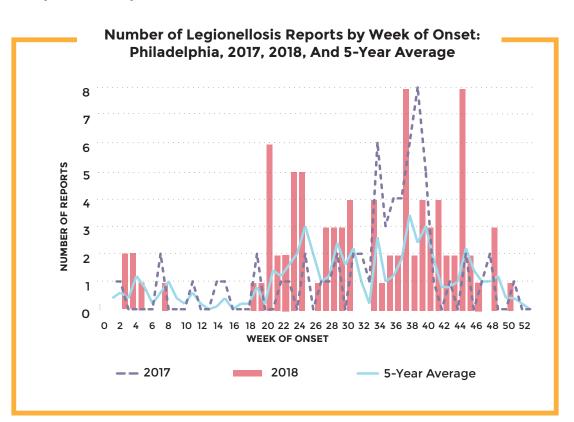
#### INFLUENZA



#### Number of Hospitalized Influenza Reports by Age and Region: Philadelphia, 2018-2019

	NE		NE NW		1	Ν		сс		5	<b>W/</b>	SW	Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Age														
0-4 Yrs	21	1.4	<6		60	4.1	<6		<10		20	1.4	120	8.2
5-17 Yrs	17	1.2	<6		51	3.5	<6		<6		21	1.4	100	6.9
18-44 Yrs	25	1.7	10	0.7	77	5.3	13	0.9	18	1.2	54	3.7	197	13.5
45-64 Yrs	70	4.8	22	1.5	164	11.3	32	2.2	67	4.6	125	8.6	480	32.9
65+ Yrs	83	5.7	40	2.7	152	10.4	33	2.3	99	6.8	153	10.5	560	38.4
Total	216	14.8	78	5.4	504	34.7	87	6.0	199	13.7	373	25.6	1457	100
Rate**	60.6		76.9		34.1		110.1				136.7		95.5	
						th Phila per 10		a's rat	e is coi	mbine	d with (	Center	City's ı	rate

#### **LEGIONELLOSIS** (Legionella pneumophila)



#### OF NOTE

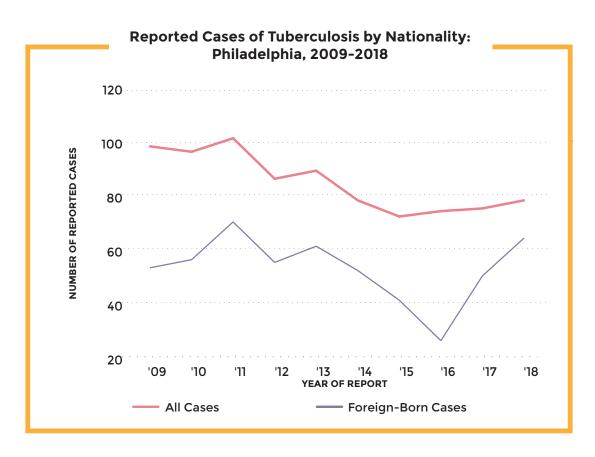
PDPH identified **91 confirmed cases** of Legionellosis in 2018. This was a marked **increase of 94%** from a mean of 47 cases reported annually from 2008-2017 (range 26-66 cases). **No outbreaks were identified** in 2018 and therefore, the increase was due to **on going transmission** throughout the calendar year. Due to an abnormally high case count in **West Philadelphia** during November 2018, PDPH distributed an area-wide cooling tower disinfection request to building managers on November 23rd.

Two definite healthcare-associated Legionellosis cases were identified, as these cases spent the entirety of their incubation period hospitalized or as a resident of a long-term care facility.

		0-50 Years		- <b>64</b> ars		5+ ars	Total		
	n	%	n	n %		n %		%	
Male	14	15.4	27	29.7	18	19.8	59	64.8	
Female	6	5.6	17	18.7	9	9.9	32	35.2	
Total	20	22.0	44	48.4	27	29.7	91	100	

#### Number of Legionellosis Reports by Age: Philadelphia, 2018





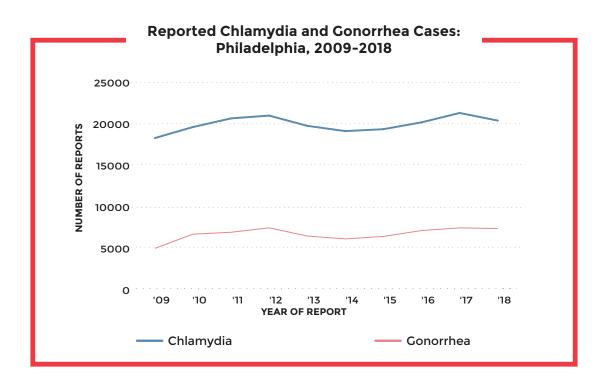
#### Number of Tuberculosis Reports by Age: Philadelphia, 2018

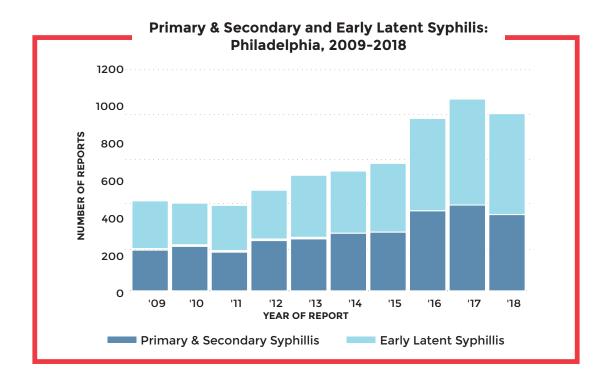
	<b>0-</b> Ye	- <b>30</b> ears		<b>-44</b> ears	<b>45</b>	-65 ears	<b>66+</b> Years		То	Total	
	n	%	n	%	n	%	n	%	n	%	
Total	14	18.0		23.1	20	25.6	26	33.3	78	100	

# SEXUALLY TRANSMITTED DISEASES

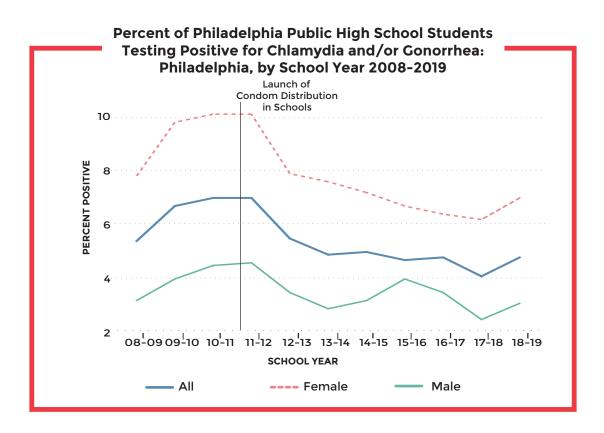
OVERVIEW CHLAMYDIA GONORRHEA SYPHILIS-PRIMARY & SECONDARY SYPHILIS-LATENT

#### **OVERVIEW**





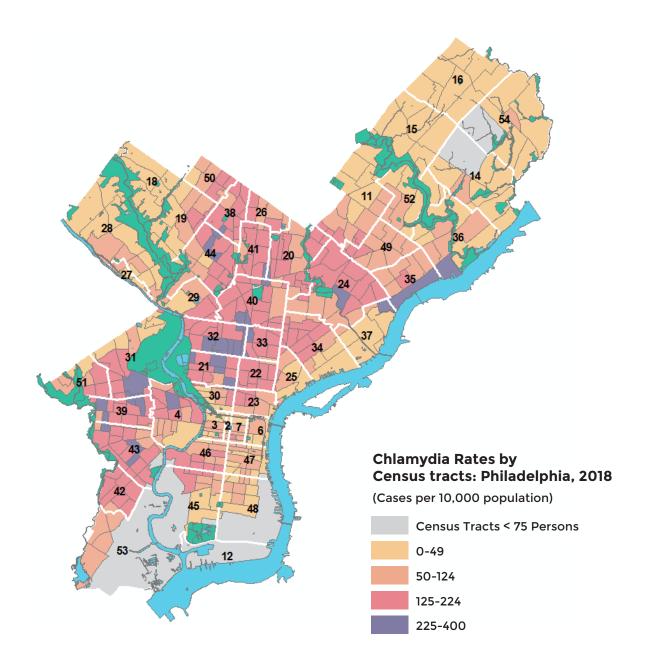
#### **OVERVIEW** (Cont.)



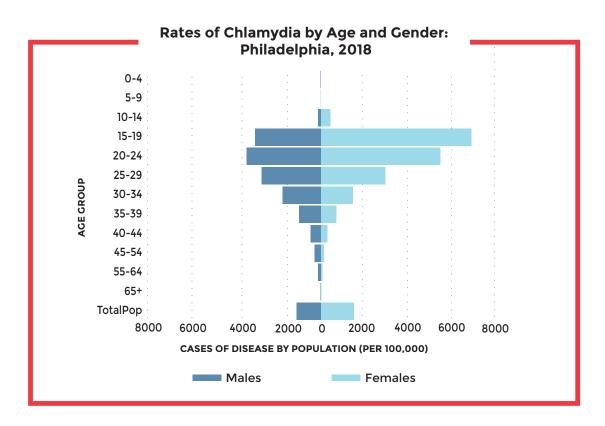
Percent of Philadelphia Public High School Students Testing Positive for Chlamydia and/or Gonorrhea: Philadelphia, by School Year 2008-2019

	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19
	%	%	%	%	%	%	%	%	%	%	%
Male	3.1	3.9	4.4	4.5	3.4	2.8	3.1	3.9	3.4	2.4	3.0
Female	7.7	9.7	10	10	7.8	7.5	7.1	6.6	6.3	6.1	6.9
Total	5.3	6.6	6.9	6.9	5.4	4.8	4.9	4.6	4.7	4.0	4.7

#### **CHLAMYDIA** (Chlamydia trachomatis)



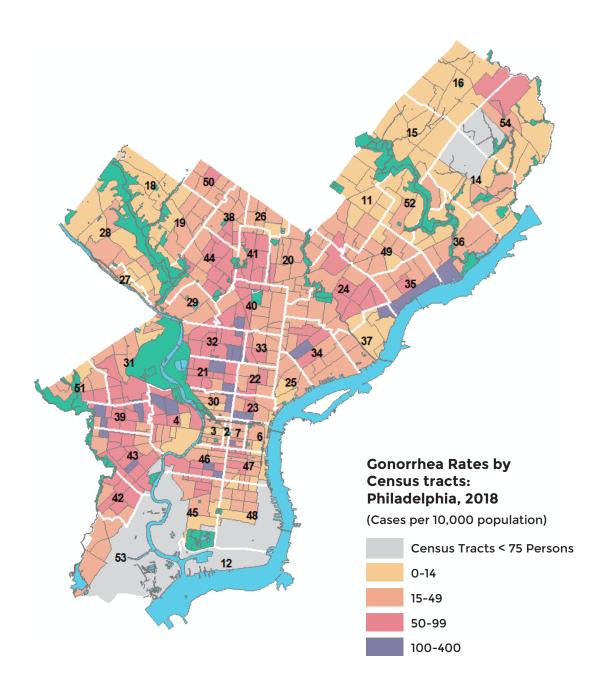
#### CHLAMYDIA (Cont.)



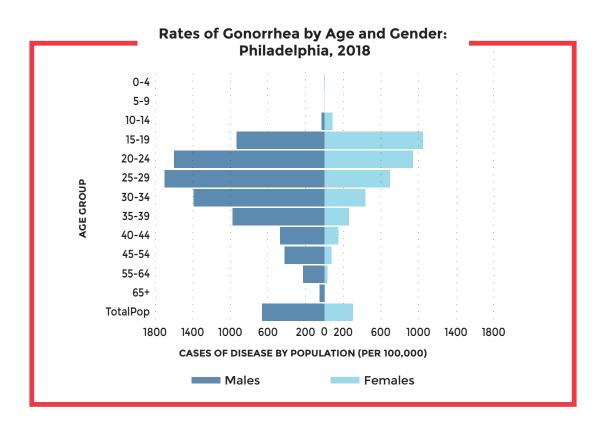
#### Number of Chlamydia Reports by Age, Gender, and Region: Philadelphia, 2018

	NE		NE NW		N	N		cc		;	W/9	SW	Tota	al'
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Male														
0-14 Yrs	<6		<6		31	0	<6		<6		12	0	56	0
15-19 Yrs	154	1	64	0	992	5	26	0	67	0	468	2	1771	9
20-24 Yrs	263	1	103	1	1181	6	92	0	157	1	642	3	2438	12
25-34 Yrs	240	1	102	1	1212	6	216	1	324	2	606	3	2700	13
35+ Yrs	86	0	40	0	424	2	121	1	153	1	224	1	1048	5
Female														
0-14 Yrs	<20		<10		113	1	<6		<10		50	0	192	1
15-19 Yrs	458	2	166	1	2173	11	97	0	256	1	981	5	4131	21
20-24 Yrs	496	2	178	1	2123	11	108	1	255	1	989	5	4149	21
25-34 Yrs	370	2	104	1	1376	7	142	1	255	1	708	4	2955	15
35+ Yrs	106	1	31	0	345	2	19	0	80	0	109	1	690	3
Grand Total	2187	11	797	4	9970	50	82	4	1558	8	4789	24	20130	100
												•ur	nknown=	=76

# **GONORRHEA** (Neisseria gonorrhoeae)



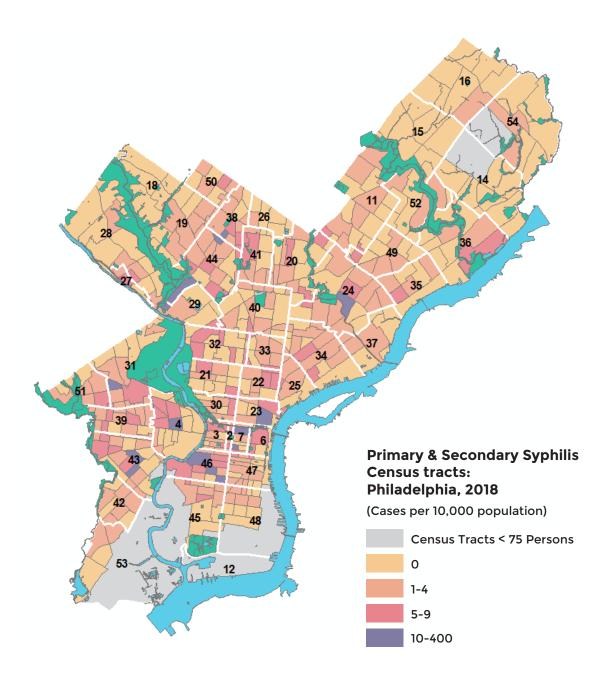
# GONORRHEA (Cont.)



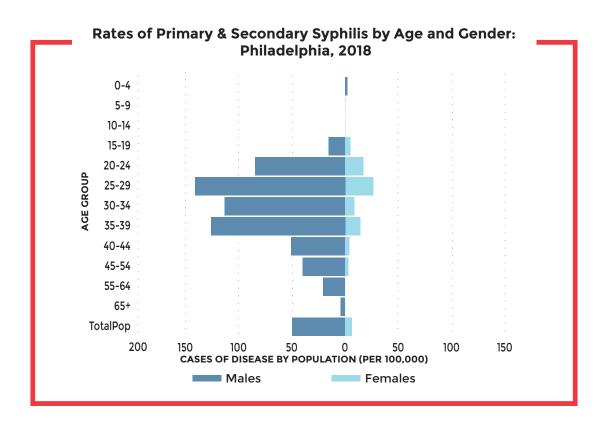
# Number of Gonorrhea Reports by Age, Gender, and Region: Philadelphia, 2018

	Ν	E	N	W	N	1	C	С	S	5	<b>W/</b>	sw	To	tal'
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Male														
0-14 Yrs	<6		<6		7	0	<6		<6		<6	0	15	0
15-19 Yrs	36	1	19	0	298	4	13	0	24	0	151	2	541	8
20-24 Yrs	95	1	40	1	530	7	64	1	94	1	313	4	1136	16
25-34 Yrs	137	2	54	1	718	10	183	3	293	4	446	6	1831	26
35+ Yrs	118	1	47	1	483	7	137	2	188	4	271	4	1244	17
Female														
0-14 Yrs	<6		<6		22	0	<6		<6		11	0	38	1
15-19 Yrs	42		20	0	347	5	10	0	30	0	173	2	622	9
20-24 Yrs	67	1	25	0	382	5	19	0	44	1	172	2	709	10
25-34 Yrs	87	1	19	0	339	5	20	0	65	1	212	3	742	10
35+ Yrs	19	0	9	0	149	2	13	0	29	0	79	1	298	4
Grand Total	602	8	233	3	3275	46	463	6	770	11	1833	26	7176	100

# SYPHILIS-PRIMARY & SECONDARY (Treponema pallidum)



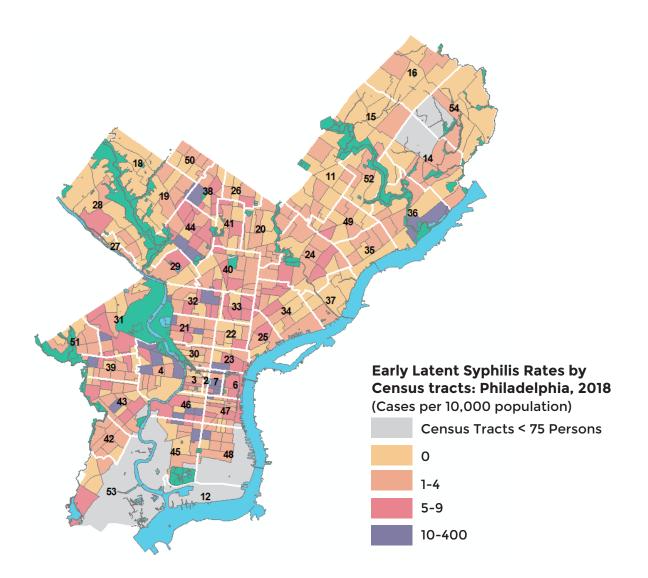
# SYPHILIS-PRIMARY & SECONDARY (Cont.)



# Number of Primary & Secondary Syphilis Reports by Age and Region: Philadelphia, 2018

	Ν	E	N	W	Ν	N	С	С	5	5	W/	SW	То	tal
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Age														
0-24 Yrs	9	2	<6		43	11	<6		7	2	21	5	86	21
25-34 Yrs	15	4	9	2	72	18	17	4	26	6	36	9	175	43
35+ Yrs	11	3	<6		48	12	<30	3	25	6	32	8	147	36
Total	35	9	17	4	163	40	46	11	58	14	89	22	408	100

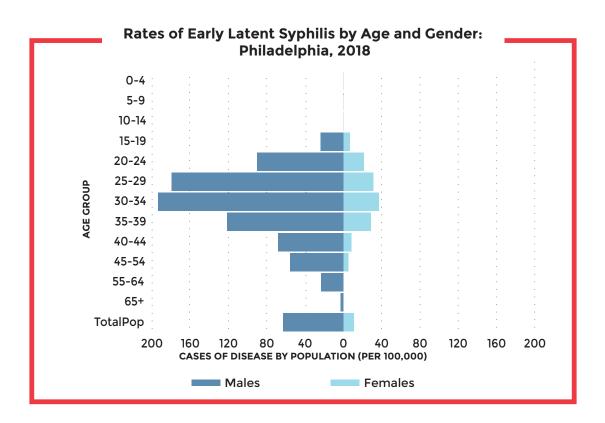
# **SYPHILIS-EARLY LATENT** (Treponema pallidum)



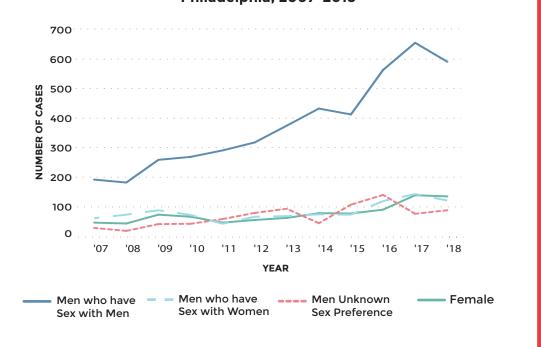
Number of Early Latent Syphilis Reports by Age and Region: Philadelphia, 2018

	Ν	E	N	W	N	1	С	С	9	5	<b>W/</b>	SW	To	tal <sup>.</sup>
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Age														
0-24 Yrs	10	2	<6		53	10	<6		7	1	22	4	98	18
25-34 Yrs	28	5	<10		108	20	<25		48	9	49	9	262	49
35+ Yrs	21	4	7	1	61	11	26	5	31	6	31	6	177	33
Total	59	-11	17	3	222	41	51	9	86	16	102	19	537	100
													•unkn	own=3

# SYPHILIS-EARLY LATENT (Cont.)



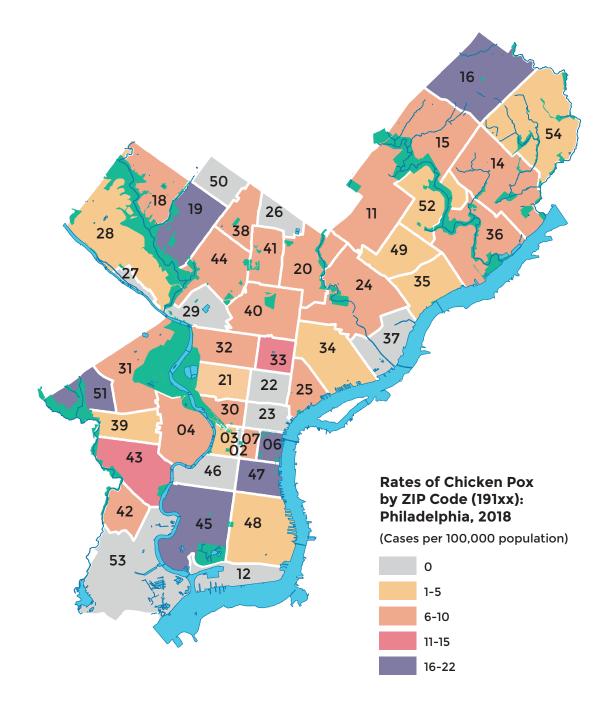
# Primary & Secondary and Early Latent Syphilis Cases by Year and Risk Group: Philadelphia, 2007-2018



# **VACCINE-PREVENTABLE** DISEASES

CHICKEN POX & SHINGLES MENINGOCOCCAL DISEASE PERTUSSIS

# CHICKEN POX (Varicella zoster virus)



# CHICKEN POX & SHINGLES (Cont.)

	<b>0</b> Ye	<b>-4</b> ears		- <b>17</b> ears		-40 ars	<b>4</b> Ye	<b>]+</b> ears	То	tal
	n	%	n	%	n	%	n	%	n	%
Male	21	18.6	21	18.6	13	11.5	8	7.1	63	55.8
Female	15	13.3	16	14.2	11	9.7	8	7.1	50	44.2
Total	36	31.9	37	32.7	24	21.2	16	14.2	113	100

# Number of Chicken Pox Reports by Age and Gender: Philadelphia, 2018

# **OF NOTE**

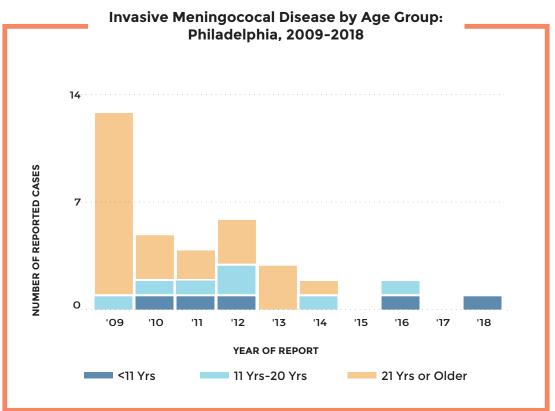
In September 2018, a varicella **outbreak was identified in a Philadelphia private school**. The outbreak involved **6 cases**, all of whom resided outside Philadelphia. **Four of the 6 students were unvaccinated** due to philosophic exemptions. To control further transmission within the school, 15 students lacking evidence of varicella immunity were excluded for 21 days or until proof of varicella immunity or post-exposure vaccination was provided.

	-	• <b>25</b> ars	-	- <b>35</b> ars		<b>-45</b> ars	-	-60 ears	-	<b>]+</b> ears	То	tal
	n	%	n	%	n	%	n	%	n	%	n	%
Male	15	7.3	11	5.3	8	3.9	22	10.7	26	12.6	82	39.8
Female	6	2.9	14	6.8	18	8.7	29	14.1	57	27.7	124	60.2
Total	21	10.2	25	12.1	26	12.6	51	24.8	83	40.3	206	100

# Number of Shingles Reports by Age and Gender: Philadelphia, 2018

# MENINGOCOCCAL DISEASE

(Neisseria meningitidis)



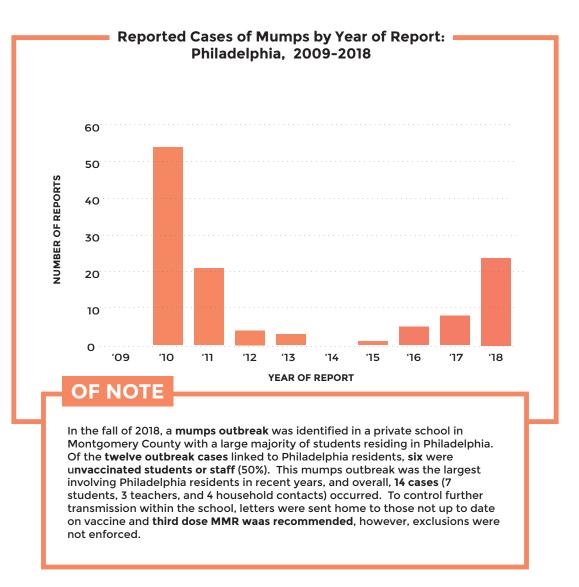
# **OF NOTE**

Between 2017 and 2018, 33,077 individuals aged 16-23 years from Philadelphia received ≥ 1 dose of meningococcal B vaccine, which provides short-term protection against most strains of serogroup B meningococcal disease. It should be noted that meningococcal B vaccine is administered following shared clinical decision making between the provider and the patient (Category B Recommendation).

					• · P · · ·	,																	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total N (%)												
Serogroup																							
В					0		0		0	0	14 (40%)												
с	1	1	0	1	0	0	0	0	0	0	3 (9%)												
w	1	0	0	0	0	0	0	0	0	0	1 (3%)												
х	0	0	1	0	0	0	0	0	0	0	1 (3%)												
	2	2	2	2	2	0	0		0	0	10 (29%)												
z	0	0	0	0	0	0	0	0	0	0	0 (0%)												
Nontypeable	0	1	0	1	1	1	0	1	0	1	6 (17%)												
Total	12	5	4	6	3	2	0	2	0	1	35(100%)												

# Reports of Meningococal Disease by Serogroup Per Year: Philadelphia, 2009-2018

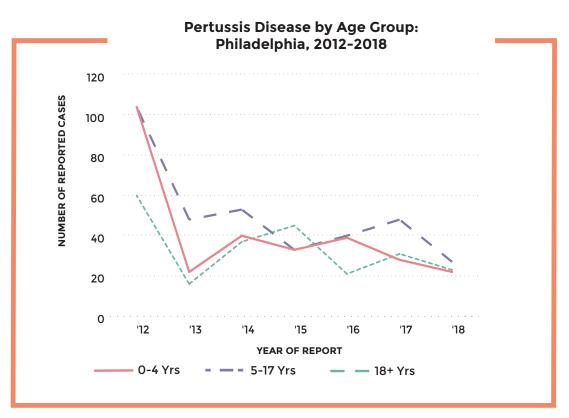
# MUMPS



### Number of Mumps Reports by Age and Gender: Philadelphia, 2018



# **PERTUSSIS** (Bordetella pertussis)



# OF NOTE

In 2018, **three small pertussis clusters** ranging in size from two to four cases occurred in schools. **Fifteen household clusters** with no more than two pertussis cases were identified. Cases from one household cluster both attended the same daycare, but no further cases were identified at this facility.

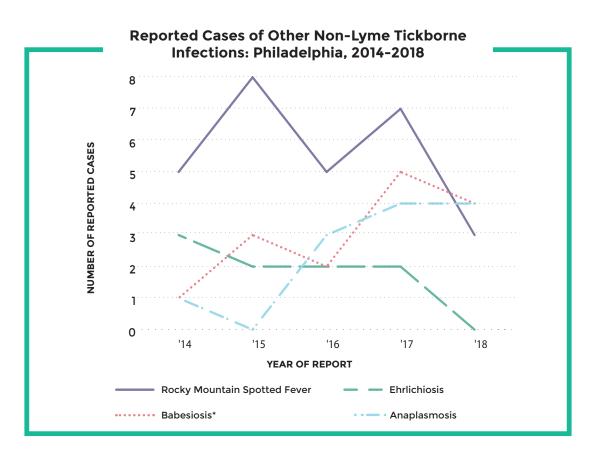
# Number of Pertussis Reports by Age and Gender: Philadelphia, 2018

	<b>0</b> Ye	<b>-4</b> ears		- <b>17</b> ears	<b>18</b> Ye	<b>8+</b> ears	То	tal
	n	%	n	%	n	%	n	%
Male	7	9.7	16	22.2	7	9.7	30	41.7
Female	15	20.8	11	15.3	16	22.2	42	58.3
Total	22	30.6	27	37.5	23	31.9	72	100

# VECTOR-BORRNE DISEASES

TICKBORNE INFECTIONS ARBOVIRAL INFECTIONS ZIKA VIRUS LYME DISEASE MALARIA WEST NILE VIRUS

# **TICKBORNE INFECTIONS**

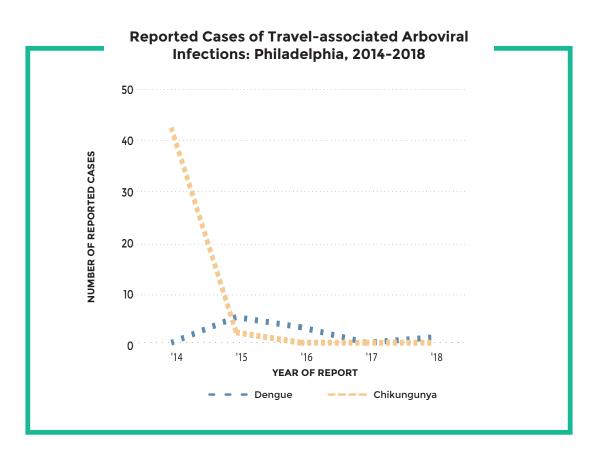


### Reported Cases of Other Non-Lyme Tickborne Infections: Philadelphia, 2014-2018

	2014	2015	2016	2017	2018	Total
Anaplasmosis	1	0	3	4	4	12
Babesiosis*	1	3	2	5	4	15
Ehrlichiosis	3	2	2	2	0	9
Rocky Mountain Spotted Fever	5	8	5	7	3	28
Total	10	13	12	18	11	64

\*Babesiosis includes locally-acquired and travel-associated infections as well as transfusion-associated cases

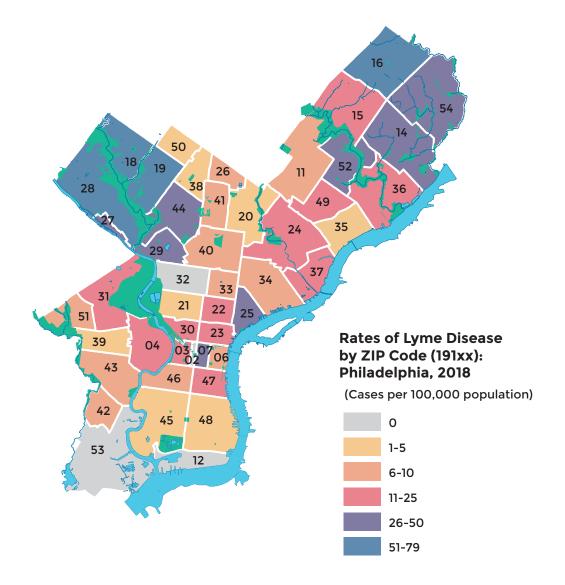
# **ARBOVIRAL INFECTIONS**



# Travel-associated Arboviral Infections: Philadelphia, 2014-2018

	Chik	ungunya	Dei	ngue
	n= 44	%	n= 9	%
Female	34	77	5	56
Foreign Born	31	70	3	33
Hospitalized	9	20	4	44
Death	0	0	0	0
Median Age (Range) Years	42.5	(5-78)	52	(10-63)

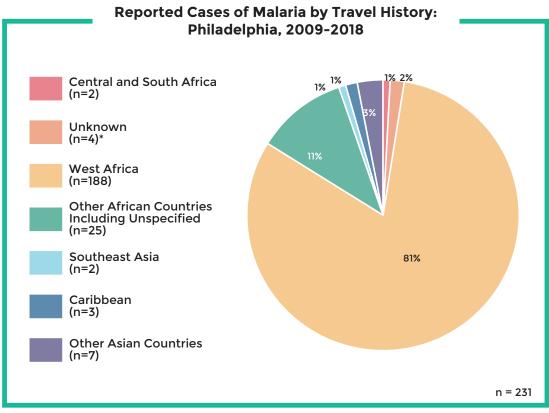
# **LYME DISEASE** (Borrelia burgdorferi)



Number of Lyme Disease Reports by Age and Gender: Philadelphia, 2018

	-	- <b>14</b> ars	_	- <b>34</b> ears		-60 ears		<b>]+</b> ars	То	tal	
	n	%	n	%	n	%	n	%	n	%	
Male	25	9.6	52	20.0	48	18.5	32	12.3	157	60.4	
Female	15	5.8	29	11.2	25	9.6	34	13.1	103	39.6	
Total	40	15.4	81	31.2	73	28.1	66	25.4	260	100	





\*Includes one cryptic case with unknown source of infection and one congenital case

# **VECTOR-BORNE DISEASES**

# WEST NILE VIRUS

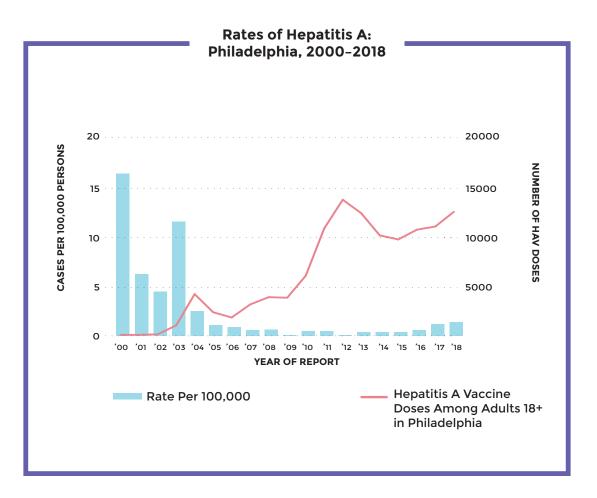
# OF NOTE

During the 2018 season, **17 Philadelphia residents developed West Nile Virus (WNV) infections** (14 neuro-invasive WNV, 2 WNV fever, and 1 asymptomatic viremic blood donor). Eleven neuroinvasive cases occurred in adults >50 years of age and all symptomatic cases were hospitalized. Of the 17 cases, 5 (29%) were clustered in **North Philadelphia. Three neuroinvasive cases were fatal**. Cumulative WNV positivity in mosquitoes collected during the 2018 season was **higher** than 2017 (38% vs 17%), and higher than the historic median (3%). The final 2018 West Nile Virus season summary report can be found on the Health Information Portal: https://hip.phila.gov/DataReports/WestNileVirus.

# **HERALDANE** INFECTIONS

HEPATITIS A HEPATITIS B & C-ACUTE HEPATITIS B-CHRONIC HEPATITIS B & C-PERINATAL HEPATITIS C-CHRONIC

# HEPATITIS A (Hepatitis A virus)

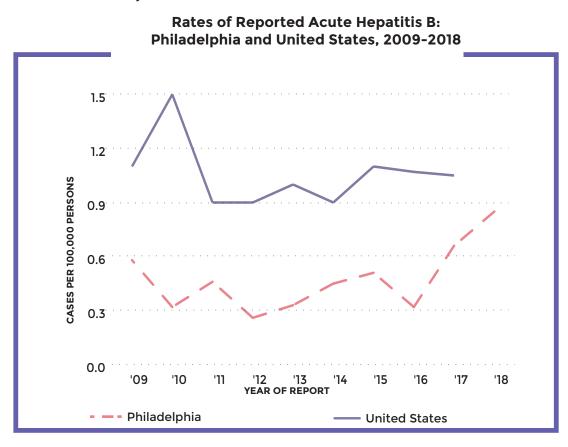


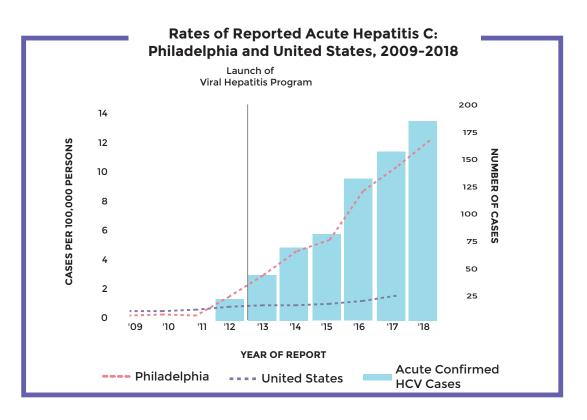
# **OF NOTE**

Since 2017, the number of hepatitis A cases in the city **has remained higher than the median** of 6 cases reported annually from 2012-2016 (range 2-9 cases). An **increase** in cases among **men who have sex with men (MSM)** has also occurred. In 2018, PDPH identified **21 confirmed cases of hepatitis A**, which was similar to the 2017 case count (n=19). During 2018, the median age was 29 years (range 2-78 years), and 81 % of cases were male. Among the cases, 38% identified as MSM, and 19% reported international travel.

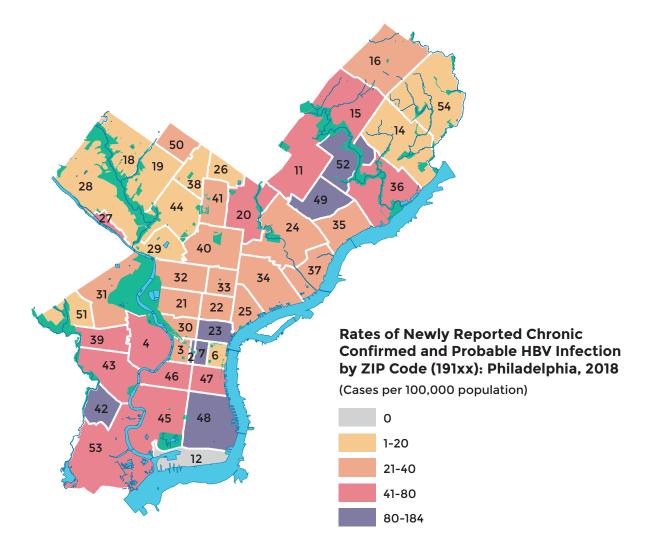
During 2018, PDPH increased efforts to promote and administer hepatitis A vaccine to at-risk adults, including vaccination during a hepatitis seroprevalence study at Prevention Point Philadelphia's clinic, street vaccination that targeted persons who use drugs and/or were homeless in Kensington. Outreach to MSM was conducted at the Philly Pride Parade and Festival along with OutFest Philadelphia. **These activities contributed to 404 doses of hepatitis A vaccine being administered**.

# HEPATITIS-ACUTE (Hepatitis B &C virus)





# HEPATITIS B-CHRONIC (Hepatitis B virus)



# Number of Newly-reported Chronic Hepatitis B Reports by Age and Gender: Philadelphia, 2018

		<b>30</b> ars		- <b>45</b> ars		- <b>65</b> ars		<b>6+</b> ars	Tot	al*
	n	%	n	%	n	%	n	%	n	%
Male	61	7.4	185	22.6	179	21.8	71	8.7	496	60.5
Female	65	7.9	112	13.7	115	14.0	32	3.9	324	39.5
Total	126	15.4	297	36.2	294	35.9	103	12.6	820 <sup>-</sup>	100
									*	Missing

# HEPATITIS-PERINATAL (Hepatitis B & C virus)

### Comparison of Perinatal Hepatitis B: Philadelphia 2009-2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Mother-Child Pairs Followed	173	161	131	171	153	164	155	174	131
Total Children Receiving HBIG Within One Calendar Day of Birth	168 (97%)	159 (99%)	129 (98%)	154 (90%)	140 (92%)	23 (14%)	81 (52%)	157 (90%)	118 (90%)
Total Children Receiving Birth HepB Vaccine Within One Calendar Day of Birth	171 (99%)	161 (100%)	129 (98%)	167 (98%)	150 (98%)	22 (23%)	128 (83%)	163 (94%)	121 (92%)
Total Children Receiving 3 HBV Vaccines in 1 Year	156 (90%)	140 (87%)	114 (87%)	167 (98%)	134 (88%)	139 (85%)	120 (77%)	154 (89%)	121 (92%)
Children HBsAg+ at Screening (9-12 months old)	о	3 (2%)	0	1 (<1%)	0	0	1 (<1%)	0	0
Household Contacts Identified and Educated	182	130	79	-	-	-	-	-	-
Household Contacts Tested	115	86	75	-	-	-	-	-	-
Household Contacts Susceptible	6 [4]	8 [2]	10 [6]	-	-	-	-	-	-

**Note:** Due to the nature of the program, complete 2018 Perinatal Hepatitis B Prevention Program results will not be available until 2020.

# OF NOTE

In 2016, PDPH formed the **nation's first Perinatal Hepatitis C Program**. The program aims to work with healthcare providers and mothers to: (1) identify hepatitides C-positive pregnant women, (2) encourage them to receive hepatitis C care, (3) work to ensure infants are tested appropriately for hepatitis C, (4) ensure hepatitis C-positive infants are linked to a specialist, and (5) characterize perinatal hepatitis C in Philadelphia.

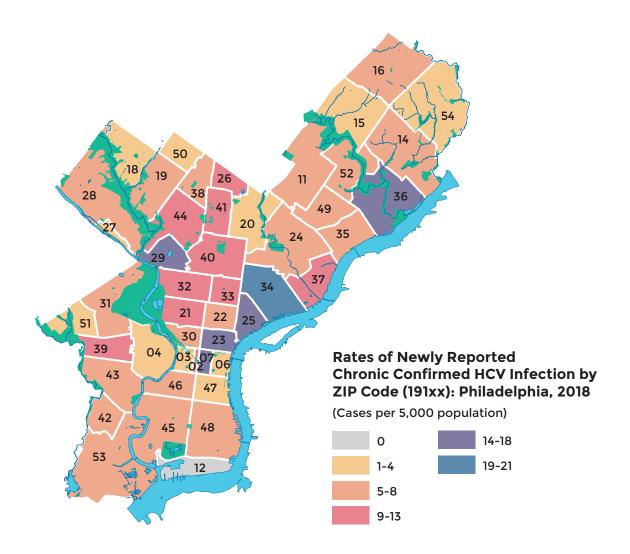
### Hepatitis C-positive Babies After Perinatal Exposure: Philadelphia, 2017

Year of Birth	Number Known Exposed	Infants with Completed Screening*	Infants Positive after Perinatal Exposure
2016	130	63	5
2017	123	64	5

\*Final screening number not finalized as of 8/1/2019

**Note:** Due to the nature of the program, complete 2018 Perinatal Hepatitis C Program results will not be available until 2020.

# HEPATITIS C-CHRONIC (Hepatitis C virus)



# Number of Newly-reported Chronic Hepatitis C Reports by Age and Gender: Philadelphia, 2018

	<b>0-30</b> Years		<b>31-45</b> Years		<b>46-65</b> Years		<b>66+</b> Years		Total*	
	n	%	n	%	n	%	n	%	n	%
Male	240	9.8	467	19.1	731	29.9	211	8.6	1649	67.4
Female	149	6.1	213	8.7	328	13.4	109	4.5	799	32.6
Total	389	15.9	680	27.8	1059	43.3	320	13.1	2448	100
										*Missing

# REPORTING DISEASES & CONDITIONS

NOTIFIABLE DISEASE LIST REPORT FORM

ion: Laboratory Results 02/2019	To report a case to DDC, call, fax, or submit through PA-NEDSS the following information: Patient Name   Condition   Age/DOB, Sex, Address & Phone   Clinician Name, Address & Phone   Laboratory Results	To report a case to DDC, call, fax, or sub t Name   Condition   Age/DOB, Sex, Address	Phone: (215) 685-6748 Fax: (215) 238-6947 Patien
§ Report to TB Control Program at (215) 685-6873 685-4789, +(215) 685-4781, bility to all antibacterial or antifungal agents tested	<ul> <li>* Report to Lead Poisoning Prevention at (215) 685-2788 § Report to TB Control Program at (215) 685-6873</li> <li>*+^ Report to AIDS Activities Coordinating Office at *(215) 685-4789, +(215) 685-4781, or ^(215) 685-4786, based on result/event type</li> <li>Organism is pan-drug resistant if it exhibits non-susceptibility to all antibacterial or antifungal agents tested</li> </ul>	24 hours † nusual ‡	* Report suspected and confirmed cases within 24 hours All unusual disease clusters, disease outbreaks, and unusual disease occurrences should be reported immediately
niladelphia to PhilaVax,	munizations administered to <b>all individuals of all ages</b> in the City of Philadelphia to PhilaVax, the citywide immunization information system, at vax.phila.gov	Mandatory reporting of <b>all</b> immunizations administered to <b>all individuals of</b> the citywide immunization information system,	Mandatory repo
Zika, including prenatal and postnatal birth defects associated with congenital Zika infection	rickettsialpox, typhus fever) Rubella (German Measles) & Congenital Rubella * Salmonellosis	woman*^ Influenza (including novel influenza A *, pediatric deaths*, and institutional outbreaks *)	Encephalitis * <i>Escherichia coli</i> O157:H7 and Shiga toxin-producing bacteria * Food poisoning *
West Nile Virus * Yellow Fever * Yersiniosis	Rabies * Rickettsial diseases (including Rocky Mountain spotted fever,	<ul> <li>new HIV positive result in a pregnant woman*^, and</li> <li>pregnancy in an HIV infected</li> </ul>	Dengue <mark>Diphtheria</mark> * Ehrlichiosis/Anaplasmosis
Typhoid ( <i>Salmonella typhi</i> and <i>paratyphi</i> ) * Varicella, including zoster Vibriosis	Pertussis (whooping cough) Plague * Poliomyelitis * Psittacosis (ornithosic)	AIDS) ‡, also including: • acute HIV infection *+ • birth of an infant to an HIV infected woman*^	Cholera * Creutzfeldt-Jakob Disease Cryptosporidiosis Cvclosporiasis
Toxic Shock Syndrome Trichinosis Tuberculosis § Tularemia *	Mumps Neonatal Abstinence Syndrome (NAS) Novel coronavirus (SARS, MERS-CoV) * Pandrug-resistant organism *•	in a Hepatitis C infected woman Hepatitis, other viral Histoplasmosis Human immunodeficiency virus (HIV/	Chancroid Chikungunya <i>Chlamydia trachomatis</i> including lymphogranuloma venereum
group & (Intants 0-89 days ot age) Streptococcus pneumoniae, invasive disease Syphilis Tetanus	Measles (rubeola) * Melioidosis * Meningitis (viral, fungal, bacterial) Meningococcal infections *	Hepatitis A Hepatitis B, also including: pregnancy in a Hepatitis B infected woman Hepatitis C, also including: pregnancy	Campylobacteriosis Candida auris * Carbapenem-resistant Enterobacteriaceae (CRE)
Shigellosis Smallpox * Staphylococcus aureus, vancomycin insensitive Streptococcal disease, invasive group A Streptococcal disease, invasive	Lead poisoning † Legionellosis Leprosy (Hansen's disease) Leptospirosis Listeriosis Lyme disease Malaria	Giardiasis Gonococcal infections Guillain-Barré Syndrome <i>Haemophilus influenzae</i> , invasive disease * Hantavirus Pulmonary Syndrome * Hemorrhapic fever, all *	Amebiasis Animal bites (wild/stray/domestic) Anthrax * Arboviruses * Babesiosis Botulism * Brucellosis *
Sreenenenenen	ASES AND CONDITIONS	REPORTABLE DISEASES AND	
<b>DC)</b> For more information, please visit https://hip.phila.gov/	Division of Disease Control (DDC) For more in visit htt	ate repor	Department of Public Health CITY OF PHILADELPHIA For after hours immedia

Notifiable Disease Case Report (Confidential)					Philadelphia Department of Public Health Division of Disease Control Acute Communicable Disease Program 1101 Market St, 12th Floor, Philadelphia, PA 19107			
					t Informa	tion		
Report Date <i>(Mo., L</i>	Day, Yr.)		Name <i>(Last, F</i>	First, M.I.)			Parent or caretaker (i	f applicable)
	_ /	-						
DOB (Mo., Day, Yr.,	1	<b>A a a</b>	Cov		Occupatio	2	(Cell)	
	)	Age	Sex Male	Female	Occupatio	11	(Work)	
Name of Employer o	or School		-				Number, Street, City, Zip Co	ode)
Diagona ar Canditia	<b>b</b>			Medica	I Informa			
Disease or Conditio	n				Date of O	nset (Mo., Day, Y	Clinical	Fatal (check one)          No         Yes         Date of Death
coryza	nausea vomiting	☐ diarrhea ∏fever	body aches	joint pain srash		Suspected sou school/dayc work travel (wher	restaurant	☐ park/outdoors ☐ recreational water _)
If Case Hospitalized	I (Name of I	Hospital/Med	ical Provider)				Admission Date	Discharge Date
			boratory Info		rtinent <i>(a</i>	ttach copies if	applicable)	
Name of Lab	Name	e of Test		Site Source		Result	Collection Date	Result Date
			Blood	Stool				
			Blood	Stool		·		
			CSF	Other				
			Blood	☐ Stool ☐ Other				
Antibiotic	Sensitivi	ties (if app					Notes	
Antibiotic Ampicillin Ceftriaxone Ciprofloxacin Levofloxacin Penicillin Trimethoprim/ Sulfamethoxazole (Bactrim)			-	Poport	or Inform	ation		
Facility Name			Reporter Nam		er Inform	Reporter Phone	e # Reporter	
							ICPED LabOther	School Nurse
		0	DO NOT WR			OR DEPARTME	NTUSE	
Name (Person Reco	eiving Repo	n)		Method of rep	orting □Fax	Mail	Other	
Any unusua Revised 06/14/2			ed reports to	sible outbrea 215-238-6947	ks shoul ' or call 2	d be reported 15-685-6748 to	<i>immediately</i> by telepho report by phone. ease use specific form.	one. Please fax all