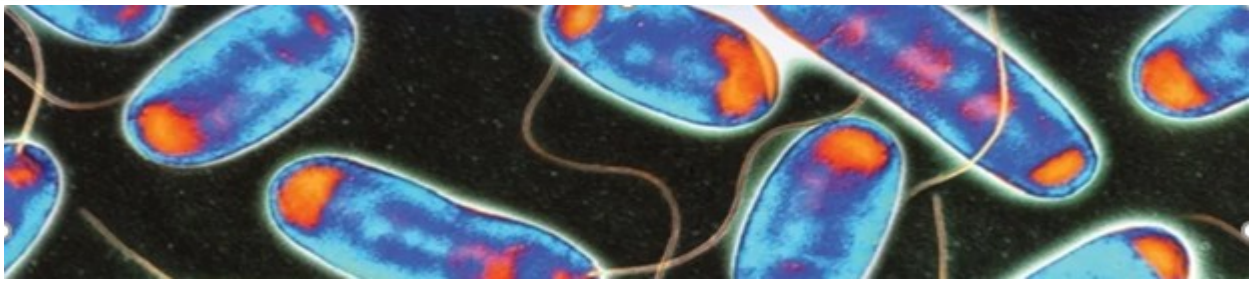
EPI WATCH

Monthly Epidemiology Newsletter



Detecting Legionellosis Amidst the COVID-19 Pandemic

by Brian Richardson, MPH, CPH

While the COVID-19 pandemic is ongoing, it is not the only pathogen we should be worried about. The Centers for Disease Control and Prevention (CDC) has reported a steady increase of legionellosis cases in the U.S. since 2000. Health departments reported nearly 10,000 cases of Legionnaires' disease in the United States in 2018. However, because Legionnaires' disease is likely underdiagnosed, this number may underestimate the true incidence. Additionally, because symptoms of Legionnaires' disease may resemble COVID-19, there is concern that cases may be missed during the pandemic. As of March 17, 13 cases have been reported in Pinellas County for 2021 and 95 cases for Florida in total. In 2020, 8 cases had been reported through March 17 in Pinellas County and 98 cases for Florida.

Both Legionnaires' disease and COVID-19 commonly present as pneumonia, while initial symptoms include fever, confusion, headache, dyspnea, nausea, and diarrhea. Because of the similarities in presentation, healthcare providers may repeatedly test cases of community-acquired pneumonia for COVID-19 before recognizing the need to test for Legionnaires' disease. Clinicians should consider testing for Legionnaires' disease if a patient is hospitalized with pneumonia and is negative for COVID-19 or if a patient is positive for COVID-19 and coinfection with *Legionella* is suspected due to exposure risk.

Older age, diabetes, and chronic lung disease are individual risk factors for Legionnaires' disease and severe COVID-19 infection. Additionally, the COVID-19 pandemic has forced many buildings to close completely or has reduced public access. A decrease in building water use increases the risk of biofilm development, which supports *Legionella* growth in building plumbing and associated equipment. *Legionella* growth can occur within weeks or months, depending on a facility's water treatment plan, plumbing factors, water heater settings, previous legionella colonization, and disinfectant procedures. Office buildings, retail buildings, nursing homes, senior retirement communities, healthcare facilities, hotels, and entertainment venues which may have experienced periods of low to no occupancy and lessened visitation should be considered an epidemiologic risk factor for *Legionella* exposure.

The preferred *Legionella* testing methods are culture or urine antigen. *Legionella pneumophila* serogroup 1 is the most common cause of Legionnaires' disease and the only serogroup detected by the urine antigen test. However, all species and serogroups of *Legionella* are potentially pathogenic, so a patient with a negative urine antigen result could have Legionnaires' disease caused by other *Legionella* species or serogroups. If legionellosis is still suspected after a negative urine antigen test, another method of testing such as a culture or a polymerase chain reaction (PCR) should be considered.

For more information, please visit CDC: Guidance for Reopening Buildings after Prolonged Shutdown or Reduced Operation; Legionnaires' Disease Clinician Testing Guidance; About *Legionella;* CDPHE Communicable Disease Manual: Legionellosis.

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2021 Ebola Outbreaks

by Paola Mancera

In early February 2021, amidst reaching the one year marker since the World Health Organization (WHO) declared COVID-19 a global emergency, the African continent began to reckon with the resurfacing on of Ebola Virus Disease (EVD) in two distinct locations; the northern province on Kivu in the Democratic Republic of Congo (DRC) and the southern prefecture of N'Zerekore in Guinea. On February 7, 2021, the DRC's Ministry of Health confirmed its first case of EBV since the last outbreak in the country that lasted from 2018 to 2020. Current information on this new outbreak suggests that is most likely due to persistent infection from the prior outbreak that has led to new these new cases. As of March 13, the DRC has seen a total of 17 cases with four deaths and two recoveries. A week later, on February 14, 2021, the Ministry of Health in Guinea confirmed new cases of EVD; the first in the country since the end of the 2014-2016 outbreak in the region. In Guinea, 29 cases have been reported: 18 active cases, 9 deaths, and 2 recoveries.

Learning from past outbreaks, both nations have rallied local and international support in helping suppress these latest outbreaks. The Guinea outbreak has brought global attention to the region due to the proximity of the current outbreak epicenter to international borders. This has triggered international collaboration in the region to support public health efforts to contain the outbreak. In the DRC, the Ministry of Health had advocated for the collaboration of traditional healers with the current medical infrastructure to speed up case identification, contact tracing, and early treatment. To date, more than 32 thousand doses of vaccines against Ebola have been delivered to the affected areas, where a ring strategy is being utilized to disperse vaccines to vulnerable and exposed individuals to effectively break the human-to-human transmission of the virus and contain the outbreaks.

In response to the declaration of these two new Ebola outbreaks, the Centers for Disease Control and Prevention (CDC) has begun to require airlines to collect information for all passengers arriving from DRV or Guinea or those who had been in either of these regions within 21 of days of arrival to the U.S. This information will be provided to state health departments. In Florida, local county health departments will monitor travelers for 21 days after their last date in one of the affected countries. In addition to the collection to contact information, all passengers from DRC and Guinea will be directed to one of six national airports as their initial point of entry into the county. These measures have been implemented to provide rapid a rapid public health response by being able to identify travelers who could bring EVD into the U.S. and contain its spread.

For more information, please visit **CDC to Require Airlines to Collect Contact Information form Passengers from DRC and Guinea**

Multi-state *Salmonella* Outbreak Linked to Small Turtles

On February 23, the Centers for Disease Control and Prevention (CDC) announced a multi-state outbreak of *Salmonella* infections linked to small pet turtles. Between August 27, 2020 and January 16, 2021, at least 22 people in 7 states have been infected with the outbreak strain of *Salmonella* typhimurium. Pennsylvania reported 9 cases, California reported 5 cases, Connecticut, New Jersey, and North Carolina each reported 2 cases, and Maryland and Florida each reported 1 case. One death was reported in Pennsylvania. The patients ranged in age from less than one year old to 59 years old with a median age of 6 years and 67% of cases were male.

During the investigation, 18 cases were asked about their contact with animals and 15 reported contact with pet turtles, most of which had shells less than 4 inches in length. The turtles were purchased from flea markets, roadside vendors, and pet stores, making it difficult to identify a supplier. Whole genome sequencing indicated that the samples were closely related and the cases were likely infected from the same source. The Pennsylvania Department of Health was able to collect samples from a turtle habitat in the home of a case, and those samples were also closely related to the outbreak strain, indicating that the cases became ill after contact with the turtles or their environment.

If you are thinking of getting a pet turtle:

- **Do not buy a turtle with a shell less than 4 inches long.**
  - The sale of these turtle is banned by the U.S. Food and Drug Administration though they can be found for sale illegally.
- **Purchase or adopt turtles from reputable pet stores or rescues.**
- **Make sure that a turtle is the right pet for your family.**
  - Turtles are not recommended as pets in households with children under 5 years old, adults aged 65 years and older, and persons with weakened immune systems.

If you do have a turtle, make sure to always wash your hands with soap and water after touching them, feeding them, or cleaning their habitat. Always keep your turtle out of the kitchen or areas where you eat, store, or prepare food. Do not eat or drink around the turtle. Clean the turtle tank, toys, feeder, and other supplies outside the house. If you have to clean them in the house, do not clean them in kitchen or areas where food is eaten or prepared. Clean the supplies in a bathroom or laundry sink and clean the area thoroughly immediately afterward.

For more information about the outbreak, please visit **CDC *Salmonella* Outbreak Linked to Small Turtles**

Select Reportable Diseases in Pinellas County

	Pinellas		YTD Total		Pinellas Annual Totals		
Disease	**February 2021**	**February 2020**	**Pinellas 2021**	**Florida 2021**	**2020**	**2019**	**2018**
A. Vaccine Preventable							
Measles	**0**	**0**	**0**	**0**	0	1	7
Mumps	**0**	**1**	**0**	**3**	1	7	10
Pertussis	**0**	**4**	**0**	**7**	8	27	32
Varicella	**3**	**2**	**4**	**37**	18	33	67
B. CNS Diseases & Bacteremias							
Creutzfeldt-Jakob Disease (CJD)	**0**	**0**	**0**	**0**	0	3	1
Meningitis (Bacterial, Cryptococcal, Mycotic)	**0**	**0**	**0**	**9**	6	7	9
Meningococcal Disease	**0**	**0**	**0**	**1**	3	1	1
C. Enteric Infections							
Campylobacteriosis	**19**	**25**	**42**	**433**	252	310	264
Cryptosporidiosis	**1**	**4**	**2**	**35**	44	64	34
Cyclosporiasis	**0**	**0**	**0**	**3**	9	28	4
E. coli Shiga Toxin (+)	**1**	**1**	**1**	**60**	10	24	15
Giardiasis	**2**	**4**	**5**	**67**	28	52	41
Hemolytic Uremic Syndrome (HUS)	**0**	**0**	**0**	**1**	0	1	0
Listeriosis	**0**	**0**	**0**	**6**	2	2	1
Salmonellosis	**4**	**8**	**10**	**624**	176	201	233
Shigellosis	**4**	**3**	**6**	**66**	19	22	40
D. Viral Hepatittis							
Hepatitis A	**0**	**1**	**0**	**61**	4	377	113
Hepatitis B: Pregnant Woman	**0**	**2**	**0**	**31**	40	24	14
Hepatitis B, Acute	**6**	**2**	**11**	**132**	103	72	52
Hepatitis C, Acute	**10**	**7**	**13**	**248**	18	82	40
E. Vector Borne/ Zoonoses							
Animal Rabies	**0**	**0**	**0**	**10**	1	2	1
Rabies, possible exposure	**10**	**14**	**27**	**463**	128	128	130
Chikungunya Fever	**0**	**0**	**0**	**0**	0	0	0
Dengue	**0**	**0**	**0**	**4**	0	3	0
Eastern Equine Encephalitis	**0**	**0**	**0**	**0**	0	0	0
Lyme Disease	**0**	**0**	**0**	**62**	11	22	14
Malaria	**0**	**0**	**0**	**2**	2	5	3
West Nile Virus	**0**	**0**	**0**	**1**	0	0	0
Zika Virus Disease	**0**	**0**	**0**	**0**	0	3	2
F. Others							
Chlamydia	**335**	**386**	**650**	**n/a**	3982	4588	4422
Gonorrhea	**130**	**89**	**324**	**n/a**	1640	1537	1439
Hansen's Disease	**0**	**0**	**0**	**3**	0	0	0
Legionellosis	**6**	**2**	**10**	**107**	35	43	37
Mercury Poisoning	**0**	**0**	**1**	**1**	1	1	1
Syphilis, Total	**35**	**31**	**76**	**n/a**	469	479	438
Syphilis, Primary and Secondary	**12**	**9**	**34**	**n/a**	224	213	190
Syphilis, Early Latent	**12**	**16**	**22**	**n/a**	161	191	158
Syphilis, Congenital	**0**	**0**	**0**	**n/a**	5	6	2
Syphilis, Late Syphilis	**9**	**7**	**20**	**n/a**	89	69	88
Tuberculosis	**3**	**3**	**6**	**n/a**	24	23	33
Vibrio Infections	**0**	**0**	**0**	**14**	12	18	6

*YTD up to February 28, 2021. n/a = not available at this time

Reportable diseases include confirmed and probable cases only. All case counts are current and provisional. Data is collected from the Merlin Reportable Disease database, surveillance systems maintained at the Florida Department of Health in Pinellas County, and Florida CHARTS http://www.floridacharts.com/charts/default.aspx. STD data in STARS is continually updated. Please note, data from the previous month takes up to an additional month or more to be correctly updated.