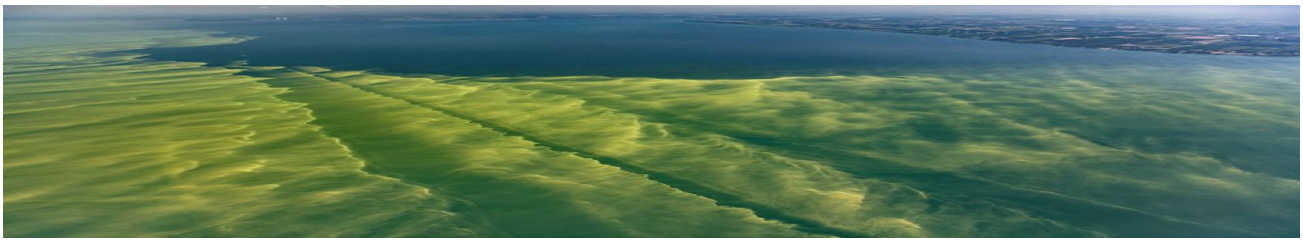
EPI WATCH

Monthly Epidemiology Newsletter



Harmful Algal Blooms

by Holly Clancy

Cyanobacterial blooms occur when cyanobacteria (also known as blue-green algae) grow excessively in waters that are slow-moving, warm, and full of nutrients. Cyanobacteria are most frequently found in fresh water sources such as streams, rivers, and lakes; however, they can be found in all types of water. Signs of a cyanobacterial bloom include various colors in the water, having a scent of rotten plants, and the presence of scum, foam, mats, or paint-like streaks on the water's surface. These cyanobacterial blooms produce toxins, which can cause illness in humans as well as severe illness and death in pets and livestock. Some common toxins that are produced from these blooms include microcystins, anatoxins, nodularins, saxitoxins, lyngbyatoxins, and cylindrospermopsins.

It is not possible tell if the bloom is toxic simply by looking at it, and toxins can be present even if a bloom is not visible. The best prevention measure is to avoid being in or near bodies of water that smell bad, look discolored, contain or are near dead fish or other deceased animals, and that have mats, scum, or foam on the water's surface. Boiling the water does not remove algae toxins; and in fact, it can increase the amount of toxin by concentrating it.

Most human exposures occur while boating, swimming, or being in or around water that has cyanobacterial blooms. Consuming contaminated seafood, dietary supplements, and tap water are also possible routes of exposure though less common. Symptoms after ingesting cyanobacteria toxins can include nausea, vomiting, diarrhea, bad taste in the mouth, jaundice or acute hepatitis, bloody urine, dark urine, lethargy, malaise, headache, fever, or loss of appetite. There are no tests to diagnose cyanotoxin-associated illness in humans and the treatments are supportive.

Most animal exposures occur when they drink contaminated water, swallow water while swimming, or lick their fur after being exposed to contaminated water. If you don't know if it is safe for your pet to swim in the water, it's best to keep them out. If your pet has been exposed to contaminated water, rinse them down with treated fresh water immediately. If your pet ingests the toxins, symptoms can include stumbling, malaise, abdominal tenderness, bloody urine, dark urine, excessive drooling, diarrhea, vomiting, foaming at the mouth, rash, hives, or allergic reaction. There are no diagnostic tests or treatments for cyanotoxin-related illness in animals and medical care is exclusively supportive.

For questions regarding human exposure to cyanobacteria, call your local Poison Control Center at 1-800-222-1222.

For questions regarding animal exposure to cyanobacteria, call the ASPCA Animal Poison Control Center at 1-888-426-4435 or the Pet Poison Helpline at 1-855-764-7661.

To report a cyanobacterial-related health event in a human, call the Florida Department of Health in Pinellas County at 727-824-6932.

For more information, visit CDC Harmful Algal Bloom– Associated Illness

205 Dr. MLK Jr. St. N
St. Petersburg, FL 33701
(727) 824-6900

Director
Ulyee Choe, DO

Editor
Andrea Leapley, MPH
Andrea.Leapley@FLHealth.gov

Division of Disease Control and Health Protection

Disease Reporting

To report diseases and clusters of illness:
Phone: (727) 824-6932
Fax: (727) 484-3865
(excluding HIV/AIDS)

To report HIV/AIDS by mail:
Surveillance Room 3-138
205 Dr. MLK Jr St. N

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Decrease in Childhood Blood Lead Level Screenings during the COVID-19 Pandemic

by Brian Richardson, MPH, CPH

According to data published in February 2021, by U.S. Centers for Disease Control and Prevention (CDC), during the COVID-19 pandemic, blood lead level (BLL) testing among young children (age <6 years) decreased. CDC researchers found that, in 34 U.S. states and local health departments, approximately 480,172 fewer children had BLL testing performed from January to May 2020 compared with testing in January 2019 to May 2019, a 34 percent decrease. Nationwide, an estimated 9,603 young children with elevated BLL were not discovered due to a decrease in BLL testing. In March 2020, after the COVID-19 pandemic was declared, all 34 health departments, reported fewer children tested for BLL despite geographic distribution. In Florida, testing in January to May 2020 decreased by 25 percent compared with testing in January to May 2019, with 20,986 fewer children tested. In April the BLL testing drop off in Florida was massive, a 53.9 percent decrease in testing was noted compared with 2019.

The reason for the drop is that the COVID-19 pandemic has led to decreases in other pediatric services, including emergency department visits, well-child visits, and childhood vaccines, which correlate with the decrease in lead testing trends among young children. Health care providers reported issues conducting follow-up visits as well. Additionally, delays in exposure elimination and linkage to critical care services have been indicated by environmental investigations. There is concern that children could have increased or ongoing exposure due to the additional amount of time spent in contaminated environments because of the COVID-19 shelter in place orders.

The COVID-19 pandemic has created barriers that prevent necessary in-person clinic visits pertaining to not only BLL testing, but also essential health examinations. Healthcare providers are encouraged to identify children who have missed regular check-ups or vaccinations especially school aged children, children aged <24 months, and infants to schedule them for in-person clinic appointments. Furthermore, identification of elevated BLLs in young children, exposure elimination and linkage to services has been adversely affected by the COVID-19 pandemic. As no safe BLLs in young children have ever been identified, low levels of lead have been shown to affect children's ability to learn and cause additional long-lasting adverse health effects. It is necessary that all children receive lead testing. Once children who have missed routine BLL testing, children with previously elevated BLLs who need additional testing, and those with potential exposures are identified it's imperative for them to receive testing and follow-up care.

For more information, visit CDC's Childhood Lead Poisoning Prevention Program

Sexually Transmitted Infections and the COVID-19 Pandemic

by Paola Mancera

In January, the Centers for Disease Control and Prevention (CDC) published a new report on sexually transmitted infections (STIs), based on 2018 data. For the fifth year in a row, the U.S. saw increases across the board in STIs, leading to all-time high numbers of cases. From 2014 to 2018, the U.S. saw a 19% increase in chlamydia, a 63% increase in gonorrhea, a 71% increase in primary and secondary syphilis, and a 185% increase in congenital syphilis, with 22% more newborn deaths from syphilis than in 2017. On any given day in 2018, 1 in 5 Americans had an STI.

STIs can have serious, lifelong consequences if left untreated, such as chronic pain, pelvic inflammatory disease, infertility, and serious complications during pregnancy or for newborns. These infections also impose a serious financial burden as its estimated that, for the infections acquired in 2018 alone, and direct lifetime medical costs will be approximately $16 billion. This burden is borne disproportionately by certain rachial and ethnic groups, persons aged 15-24 who accounted for almost half of the 2018 infections, and women, who have disproportionate amount of severed outcomes and medical costs.

In 2018, Florida ranked 29 in the U.S. for chlamydia and gonorrhea with 499.2 cases per 100 thousand people and 155.6 cases per 100 thousand people respectively. Florida ranked 8 for primary and secondary syphilis, with 13.7 per 100 thousand people, and 7 for congenital syphilis, with 18 cases per 100 thousand people. During 2018 and 2019, Pinellas County experienced lower rates of chlamydia and gonorrhea than the state average but saw higher rates of infectious syphilis. Pinellas also saw a higher rate of congenital syphilis in 2019 when compared to the state average. Preliminary data for Pinellas County STIs in 2020 showed an overall decrease in cases. However, these decreases need to be approached with caution as disruption in providing medical services due to the COVID-19 pandemic could be leading to decreased testing and underreporting and not reflective of a true decrease.

With COVID-19 straining the healthcare system and transforming healthcare seeking behaviors, providers must establish procedures to continue to provide quality care for STI prevention and treatment that also address health gaps among vulnerable populations. The CDC has published guidelines for practitioners on maintaining effective care for STIs in a time when telehealth has replaced in-person care to limit the spread of COVID-19 which include prioritizing patients with STI symptoms, those who report exposures, and individuals at risk for complications from an STI, forming partnerships with facilities, such as pharmacies, that can provide new locations for STI services including testing and treatment, and express clinics that will provide walk-in STI testing and treatment without requiring a full clinical exam.

For more information, please visit CDC's Sexually Transmitted Infections

Select Reportable Diseases in Pinellas County

	Pinellas		YTD Total		Pinellas Annual Totals		
Disease	**January 2021**	**January 2020**	**Pinellas 2021**	**Florida 2021**	**2020**	**2019**	**2018**
A. Vaccine Preventable							
Measles	**0**	**0**	**0**	**0**	0	1	7
Mumps	**0**	**0**	**0**	**1**	1	7	10
Pertussis	**0**	**2**	**0**	**4**	8	27	32
Varicella	**1**	**7**	**1**	**18**	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**	**3**	6	7	9
Meningococcal Disease	**0**	**0**	**0**	**1**	3	1	1
C. Enteric Infections							
Campylobacteriosis	**23**	**25**	**23**	**229**	252	310	264
Cryptosporidiosis	**1**	**4**	**1**	**13**	44	64	34
Cyclosporiasis	**0**	**0**	**0**	**1**	9	28	4
E. coli Shiga Toxin (+)	**0**	**2**	**0**	**34**	10	24	15
Giardiasis	**3**	**1**	**3**	**25**	28	52	41
Hemolytic Uremic Syndrome (HUS)	**0**	**0**	**0**	**1**	0	1	0
Listeriosis	**0**	**0**	**0**	**4**	2	2	1
Salmonellosis	**6**	**16**	**6**	**407**	176	201	233
Shigellosis	**2**	**1**	**2**	**25**	19	22	40
D. Viral Hepatittis							
Hepatitis A	**0**	**1**	**0**	**36**	4	377	113
Hepatitis B: Pregnant Woman	**0**	**4**	**0**	**13**	40	24	14
Hepatitis B, Acute	**5**	**1**	**5**	**87**	103	72	52
Hepatitis C, Acute	**3**	**14**	**3**	**142**	18	82	40
E. Vector Borne/ Zoonoses							
Animal Rabies	**0**	**0**	**0**	**5**	1	2	1
Rabies, possible exposure	**17**	**13**	**17**	**232**	128	128	130
Chikungunya Fever	**0**	**0**	**0**	**0**	0	0	0
Dengue	**0**	**0**	**0**	**2**	0	3	0
Eastern Equine Encephalitis	**0**	**0**	**0**	**0**	0	0	0
Lyme Disease	**0**	**0**	**0**	**52**	11	22	14
Malaria	**0**	**0**	**0**	**0**	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	**315**	**390**	**315**	**n/a**	3982	4588	4422
Gonorrhea	**194**	**124**	**194**	**n/a**	1640	1537	1439
Hansen's Disease	**0**	**0**	**0**	**1**	0	0	0
Legionellosis	**4**	**5**	**4**	**67**	35	43	37
Mercury Poisoning	**1**	**0**	**1**	**1**	1	1	1
Syphilis, Total	**39**	**44**	**39**	**n/a**	469	479	438
Syphilis, Primary and Secondary	**21**	**20**	**21**	**n/a**	224	213	190
Syphilis, Early Latent	**9**	**15**	**9**	**n/a**	161	191	158
Syphilis, Congenital	**0**	**1**	**0**	**n/a**	5	6	2
Syphilis, Late Syphilis	**9**	**8**	**9**	**n/a**	89	69	88
Tuberculosis	**3**	**3**	**3**	**n/a**	24	23	33
Vibrio Infections	**0**	**0**	**0**	**10**	12	18	6

*YTD up to January 31, 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.