

## **EPI WATCH**

Monthly Epidemiology Newsletter

# Melioidosis Newly Endemic to the United States

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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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In June 2022, a bacterium causing a rare, but infectious, disease known as melioidiosis was detected for the first time in the continental United States. Burkholderia pseudomallei is a bacterium found in contaminated water or soil and is most often found in tropical climates, especially Southeast Asia and northern Australia. Efforts made to detect the bacteria by the Centers for Disease Control and Prevention (CDC) were prompted by identification of two cases of melioidiosis among Mississippi residents in 2020 and 2022. The two cases were unrelated but lived near each other in the Gulf Coast region of southern Mississippi. Neither case reported recent travel outside of the U.S.. Environmental samples collected from soil and water were positive for B. pseudomallei and were genetically similar to isolates of clinical samples collected from the two cases, suggesting the local environment as the source of infection. On January 27, 2023, a third case of melioidosis was identified in the same county as the previous two cases. The case denied any international travel in their lifetime. Clinical samples of the third case were again genetically similar to the previous cases, providing further evidence of locally acquired infections. The distribution of the bacteria in the U.S. and how long the bacteria has been present prior to these cases is currently unknown yet environmental conditions found in the Gulf Coast states are favorable for growth of the bacteria. Melioidiosis is now considered endemic to the continental U.S., but additional information is needed to better understand the transmission, risk factors of disease, and distribution of the bacteria in the environment.

Infections of *B. pseudomallei* are suspected to occur via inhalation of contaminated dust or water droplets, ingestion of contaminated water or soil-contaminated food, or other contact of contaminated water such as through skin abrasions. Rare cases of person-to-person transmission have been documented. The illness can present in various forms such as a location infection with pain or swelling, fever, or abscess. It may also present as a bloodstream or pulmonary infection which can mimic signs of tuberculosis. The illness is a severe and potentially life-threatening condition but can be treated with antibiotics. Individuals in endemic areas can reduce their risk of exposure by avoiding soil or water if open skin wounds are present and by wearing boots when around soil and standing water. CDC encourages providers in the Gulf Coast region of Mississippi and throughout the country to consider melioidiosis in patients with a consistent clinical presentation. Melioidiosis is reportable upon initial suspicion or laboratory test order to the Florida Department of Health in Pinellas County Epidemiology Program at 727-824-6932.

For more information visit, www.cdc.gov/melioidosis

#### References:

<sup>1</sup>Centers for Disease Control and Prevention (2022, July 27). Melioidosis Locally Endemic in Areas of the Mississippi Gulf Coast after Burkholderia pseudomallei Isolated in Soil and Water and Linked to Two Cases

Mississippi, 2020 and 2022. <a href="https://emergency.cdc.gov/han/2022/han00470.asp">https://emergency.cdc.gov/han/2022/han00470.asp</a>

<sup>2</sup> Centers for Disease Control and Prevention. (2022, July). Melioidosis. www.cdc.gov/melioidosis

### World Hand Hygiene Day

By: Alissa Brown, MPH, CIC



May 5 was World Hand Hygiene Day! Hand hygiene saves millions of lives each year when performed at critical moments during health care delivery. The slogan this year by the World Health Organization (WHO) is "Accelerate Action Together." The goal is to accelerate progress by achieving effective hand hygiene at point of care. By implementing lessons learned from the COVID-19 pandemic and increasing implementation of proper hand hygiene worldwide it helps to close the gaps in infection prevention and control.

Healthcare-Associated Infections (HAIs) are among the most frequent adverse events occurring in health service delivery. These infections, many of which are caused by multidrug-resistant organisms, harm patients, visitors and health workers and place a significant burden on health systems. Soap and water or hand sanitizer that contains at least 60% alcohol is one of the most important steps to avoid getting ill and spreading germs to others. Just by washing your hands it reduces:

- The number of people who get sick with diarrhea by 23-40%
- Diarrheal illness in people with weakened immune systems by 58%
- Respiratory illnesses, like colds, in the general population by 16-21%
- Absenteeism due to gastrointestinal illness in schoolchildren by 29-57%

For more information on hand hygiene, please visit Hand Hygiene in Healthcare Settings

### Healthy and Safe Swimming Week

By: Rachel Ilic, MPH, CPH, CIC

Healthy and safe swimming week is recognized May 22-28. The Florida Department of Health in Pinellas County (DOH-Pinellas), would like to remind providers of possible diseases that may be transmitted through untreated water.

Swimming-related illnesses occur when someone ingests contaminated water from sources such as swimming pools, splash pads or household water. Water -related illnesses can be caused by germs that naturally live in water and soil or introduced when someone who is ill enters the water. These can be spread when chlorine or bromine and pH levels are not high enough to kill off germs¹. The Centers for Disease Control and Prevention (CDC), reports the most common water-related illness is *Cryptosporidium* "Crypto" which is caused by a parasite². Crypto can be spread from person to person, animal to person, through contact with contaminated water or by swallowing contaminated water or food. Outbreaks of Crypto are most common in childcare facilities during the late summer/early fall months but can occur at any time of the year. DOH-Pinellas typically sees increases in cases between June and September³.



The best way to prevent illness is to not allow those who have experienced diarrhea in the past two weeks into the water. Swimmers should also keep water out of their mouth when swimming or playing. Disinfection of the water source is important to prevent illness; however, one CDC study found that more than 10% of routine inspections of public pools, spas and splash pads led to immediate closure due to improper chlorine/bromine or pH levels¹.

DOH-Pinellas recommends excluding ill persons until 24 hours after symptoms have resolved without the use of medication. For questions or to report clusters of illness, please contact DOH-Pinellas Epidemiology Program at 727-824-6932.

1 https://www.cdc.gov/pealthywater/swimming/swimmers/rwi.html2 https://www.cdc.gov/parasites/crypto/childcare/index.html

<sup>&</sup>lt;sup>3</sup> https://www.flhealthcharts.gov/Charts/

## Select Reportable Diseases in Pinellas County

	Pinellas		YTD Total		Pinellas County Annual Totals		
Disease	Apr 2023	Apr 2022	Pinellas	Florida 2023	2022	2021	2020
A. Vaccine Preventable	745. 2020	740. 2022	2023	i ioiida zozo		2021	1010
	1572	3043	9904	241547	119224	103356	44852
Coronavirus 2019	0	0	0	0	0	0	0
Measles	0	0	3	36	162	0	0
Mpox	0	0	0	5	0	1	1
Mumps	0	0	0	28	2	1	8
Pertussis	0	2	7	172	24	25	18
Varicella	0			172	24	20	10
B. CNS Diseases & Bacteremias	0	1	0	19	3	1	0
Creutzfeldt-Jakob Disease (CJD)	0	3		42	3 12	5	5
Meningitis (Bacterial, Cryptococcal, Mycotic)			2				
Meningococcal Disease	0	0	0	18	2	1	2
C. Enteric Infections	22	42	70	1331	208	213	247
Campylobacteriosis	0	13 3	14	235	38	28	38
Cryptosporidiosis	0	0	0	10	21	9	9
Cyclosporiasis							_
E. coli Shiga Toxin (+)	0	0	11	319	29	16	10
Giardiasis	0	3	8	400	34	29	28
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0	0
Listeriosis	0	0	0	8	3	3	2
Salmonellosis	16	15	45	1449	174	182	200
Shigellosis	8	3	21	363	37	37	19
D. Viral Hepatitis							
Hepatitis A	0	0	0	54	20	6	3
Hepatitis B: Pregnant Woman +HBsAg	0	4	6	180	20	10	18
Hepatitis B, Acute	1	3	9	262	33	51	40
Hepatitis C, Acute	7	12	39	493	120	91	117
E. Vectorborne/Zoonoses							
Animal Rabies	0	0	0	29	0	0	0
Rabies, possible exposure	16	20	60	1825	151	135	118
Chikungunya Fever	0	0	0	0	0	0	0
Dengue fever	0	0	0	94	7	0	1
Eastern Equine Encephalitis	0	0	0	0	0	0	0
Lyme Disease	0	0	2	39	12	7	11
Malaria	0	0	2	10	4	2	2
West Nile Virus	0	0	0	0	0	0	0
Zika Virus Disease	0	0	0	0	0	0	0
F. Others							
Chlamydia	352	334	1306	N/A	4027	4090	3956
Gonorrhea	102	151	509	N/A	1734	1883	1634
Hansen's Disease	1	0	1	8	0	0	0
Legionellosis	0	6	3	111	38	36	33
Mercury Poisoning	0	0	0	9	0	2	1
Syphilis, Total	32	89	195	N/A	879	634	479
Syphilis, Infectious (Primary and Secondary)	18	47	108	N/A	336	274	212
Syphilis, Early Latent	15	29	66	N/A	269	239	166
Syphilis, Congenital	0	0	0	N/A	5	7	5
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	8	13	21	N/A	269	114	96
Tuberculosis	2	2	4	N/A	22	21	24
Vibrio Infections  *YTD up to April 30, 2023, n/a = not available at this time	0	0	3	81	13	12	18

<sup>\*</sup>YTD up to April 30, 2023. n/a = not available at this time