



EPI WATCH

Monthly Epidemiology Newsletter

Multi-state Listeria Outbreak Linked to Ice Cream

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On July 11, the U.S. Food and Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC) began assisting the Florida Department of Health (FDOH) and Florida Department of Agriculture and Consumer Services (FDACS) with a *Listeria monocytogenes* outbreak that resulted in 23 ill individuals, with one resulting in death and another in fetal loss. The investigation thus far indicates that the ill individuals all consumed ice cream and either lived in Florida or travelled to Florida during their exposure period. Furthermore, the implicated ice cream was found to be produced by Big Olaf Creamery ice cream. The recalled ice cream was made by a company based out of Sarasota and was served or sold at restaurants, retailers, and long-term care facilities in Florida, along with one establishment in Ohio. The products have since been recalled, which included all lot numbers, expiration dates through 6/30/2022, and all flavors. As of July 19, 10 states have been affected by this outbreak. If an individual has the recalled ice cream in their home, it is recommended that they throw it away and to clean any areas, utensils, and containers that may have had contact with the ice cream. If a business has the recalled ice cream, they should stop selling and serving the ice cream to the public and to clean and disinfect any equipment and areas that may have had contact with the ice cream.

Listeria is a bacterium that can cause severe illness that primarily affects pregnant women, immunocompromised individuals, the elderly, and newborns. While anyone can become ill from *Listeria*, infections are rare for a healthy individual. People can become ill by eating food contaminated with *Listeria monocytogenes*. In the past, *Listeria* has been implicated in outbreaks among pre-packaged salads, deli meats, produce, enoki mushrooms, sprouts, fully cooked chicken, and dairy products including ice cream, queso fresco, and cheese. The bacteria can cause various symptoms including loss of balance, headache, diarrhea, confusion, stiff neck, fever, convulsions and muscle aches depending on the individual and where the bacteria is found in the body. If the bacteria escapes from the intestines, it can cause severe infections for immunocompromised individuals and the elderly including sepsis and meningitis. A *Listeria* infection in an expectant woman can cause complications for their pregnancy, including stillbirth, premature delivery, and miscarriage. There is also the possibility of the newborn to have a life-threatening infection. On average, people usually experience symptoms within 1-4 weeks after consuming food contaminated with the bacteria; however, there have been accounts of individuals becoming ill 70 days after consuming contaminated food or on the same day that they ate the implicated food.

Prevention measures for the general population:

- Consume only pasteurized milk
- Eat cut melon promptly and discard cut melon if left at room temperature for 4 hours or more
- Do not keep opened packages of lunch meat longer than one week
- Unopened packages should not be kept longer than two weeks
- Do not allow juices from hot dogs and/or lunch meat contaminate other foods or food surfaces.

Additional prevention measures for pregnant women, elderly, and immunocompromised individuals:

- Avoid eating soft cheeses unless labeled as made with pasteurized milk
- Avoid eating raw or lightly cooked sprouts
- Avoid eating hot dogs, lunch meats, pâtés, cold cuts, or other deli meats unless if they are heated to an internal temperature of 165 °F
- Do not eat cold smoked fish unless it's canned or if it's in a cooked dish

For more information on Listeria, please visit the [CDC website](#).

For more information on the outbreak, please visit the [FDA website](#).

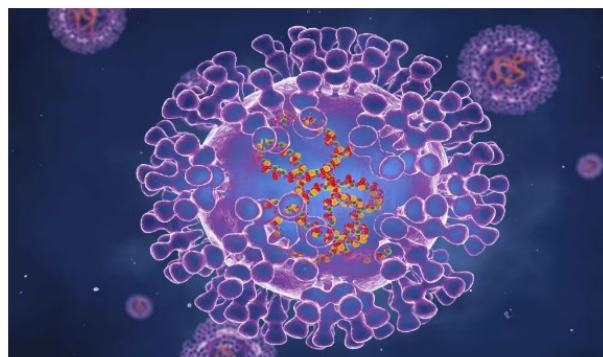
Possible Accelerated Evolution in Monkeypox Virus

By: Stephen Marlin, MPH, CPH

The monkeypox virus is endemic to Cameroon, the Central African Republic, Democratic Republic of the Congo, and Nigeria, but public health authorities around the world are currently responding to an outbreak of monkeypox across several non-endemic countries. The monkeypox strain identified in the current outbreak (MPXV lineage B.1) has mutated at an unusually accelerated rate, according to a new paper published in *Nature Medicine*². Every virus varies in its rate of genetic variation over time, and once the rate is established for a distinct type, it can be used as a reference rate for future observational studies. Using genomic analysis, the study's authors were able to discover that the strain of monkeypox responsible for the current outbreaks is mutating much more quickly than would be expected for a virus of this type. The authors suggest that the possible accelerated mutation of this monkeypox virus might be due to changes induced by enzymes utilized by host immune systems, which could mean that the virus will continue to mutate at an accelerated rate the longer it remains circulating at outbreak levels.

At this time, MPXV, B.1 is currently of limited global concern due to milder symptoms (as compared to its cousin, smallpox) lower transmission (as compared to something like the Omicron variant of COVID-19) and increasing availability of several effective vaccines (JYNNEOS and ACAM2000). However, if the current outbreaks are sustained, this determination could change. Many of those who have currently reported monkeypox infections have been among men who have sex with men, but anyone with close contact with someone who is infected is at risk for exposure to the virus.

To learn how to protect yourself and others, or for more information about monkeypox, please visit www.cdc.gov/poxvirus/monkeypox/response/2022/index.html



(Image credit: ROGER HARRIS/SCIENCE PHOTO LIBRARY via Getty Images)

References:

1. Livescience. "Monkeypox may have undergone 'accelerated evolution,' scientists say" Retrieved from: <https://www.livescience.com/monkeypox-mutating-fast>
2. Phylogenomic characterization and signs of microevolution in the 2022 multi-country outbreak of monkeypox virus. *Nature Medicine*, 1-1. Retrieved from: <https://www.nature.com/articles/s41591-022-01907-y>
3. World Health Organization, Monkeypox. Retrieved July 13, 2022, from: <https://www.who.int/news-room/questions-and-answers/item/monkeypox>

Influenza Vaccines Worked Better than Reported in 2021-2022

By: Morgan Wilson, MPH, CPH

New CDC data presented at a meeting of CDC's Advisory Committee on Immunization Practices (ACIP) show flu vaccines worked better this past season than initially reported, reducing the risk of flu illness by about one-third among people who were vaccinated. The ACIP also voted to preferentially recommend the use of specific flu vaccines for adults 65 years and older, including higher dose and adjuvanted flu vaccines. This recommendation must be approved by CDC's Director to become policy.

The data from October 4, 2021 to April 20, 2022, showed the flu vaccines reduced people's risk of mild to moderate flu illness caused by H3N2 flu viruses, which was the most common this season. It reduced one's risk by 35% overall. CDC's early season vaccine effectiveness estimates released in March were not statistically significant, suggesting vaccination did not offer benefit in reducing the risk of mild to moderate illness. The early data underestimated how well flu vaccines worked during the 2021-2022 flu season due to a small sample size and biases due to COVID-19. More flu data have since become available, and the CDC has corrected for COVID-19 bias by excluding patients with COVID-19 infection from the comparison group. These updated estimates are like what has been seen during past H3N2 predominant seasons and are in line with initial agency expectations based on laboratory data. Estimates of how well flu vaccine protected against serious outcomes like hospitalization and ICU admission are pending. Flu vaccines has shown in several studies to reduce severity of illness in people who vaccinated but still get sick, reducing the risk of serious outcomes like hospitalization and death.



ACIP voted in favor of a preferential recommendation for certain flu vaccines over other for adults 65 years and older. They voted to recommend the use of higher dose flu vaccines (Fluzone High-Dose and Flublok recombinant) or adjuvanted flu vaccine (Fluad) over standard dose unadjuvanted flu vaccines. If one of these vaccines is not available at the time of administration, people in this age group should get a standard-dose flu vaccine instead. This recommendation was based on a review of available studies which suggest that, in this age group, these vaccines are potentially more effective than standard dose unadjuvanted flu vaccines.

References:

- <https://www.cdc.gov/flu/spotlights/2021-2022/specific-vaccines-seniors.htm>
- <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-06-22-23/02-influenza-Chung-508.pdf>

Select Reportable Diseases in Pinellas County

Disease	Pinellas		YTD Total		Pinellas County Annual Totals		
	June 2022	June 2021	Pinellas 2022	Florida 2022	2021	2020	2019
A. Vaccine Preventable							
Measles	0	0	0	0	0	0	1
Mumps	0	0	0	7	1	1	3
Pertussis	0	1	1	34	1	8	27
Varicella	2	4	12	234	25	18	32
B. CNS Diseases & Bacteremias							
Creutzfeldt-Jakob Disease (CJD)	0	0	3	43	1	0	3
Meningitis (Bacterial, Cryptococcal, Mycotic)	0	1	8	74	5	5	7
Meningococcal Disease	0	0	0	46	1	2	1
C. Enteric Infections							
Campylobacteriosis	20	26	103	1918	214	247	303
Cryptosporidiosis	1	4	11	253	28	38	62
Cyclosporiasis	0	2	0	28	9	9	28
<i>E. coli Shiga Toxin (+)</i>	7	1	13	450	16	10	22
Giardiasis	2	0	12	549	29	28	52
Hemolytic Uremic Syndrome (HUS)	0	0	0	5	0	0	1
Listeriosis	0	0	2	29	3	2	2
Salmonellosis	15	14	68	2382	182	200	200
Shigellosis	5	2	16	362	37	19	22
D. Viral Hepatitis							
Hepatitis A	6	0	15	209	6	3	377
Hepatitis B: Pregnant Woman +HBsAg	1	2	11	202	10	18	21
Hepatitis B, Acute	1	6	9	344	52	40	71
Hepatitis C, Acute	4	6	68	720	89	117	75
E. VectorBorne/Zoonoses							
Animal Rabies	0	0	0	31	0	0	2
Rabies, possible exposure	12	15	78	2336	135	118	128
Chikungunya Fever	0	0	0	0	0	0	0
Dengue fever	0	0	1	49	0	1	3
Eastern Equine Encephalitis	0	0	0	0	0	0	0
Lyme Disease	1	0	2	98	7	11	19
Malaria	0	0	0	23	2	2	5
West Nile Virus	0	0	0	0	0	0	0
Zika Virus Disease	0	0	0	0	0	0	3
F. Others							
Chlamydia	346	350	1991	n/a	4090	3956	4575
Gonorrhea	161	180	945	n/a	1882	1634	1526
Hansen's Disease	0	0	0	5	0	0	0
Legionellosis	3	8	21	265	36	33	30
Mercury Poisoning	0	0	0	20	2	1	1
Syphilis, Total	53	55	367	n/a	633	479	493
Syphilis, Infectious (Primary and Secondary)	23	21	155	n/a	273	212	218
Syphilis, Early Latent	14	26	143	n/a	239	166	197
Syphilis, Congenital	0	1	3	n/a	7	5	6
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	16	7	66	n/a	114	96	72
Tuberculosis	2	0	11	n/a	24	24	33
<i>Vibrio Infections</i>	0	3	4	114	13	12	18

*YTD up to June 30, 2022. n/a = not available at this time