

Variant Influenza Viruses in Humans: Transmission, Prevention and Surveillance

Date: July 28, 2023

Public Health Message Type: Alert Advisory Update Information

Intended Audience: All public health partners Healthcare providers Infection preventionists
 Local health departments Schools/Childcare centers ACOs
 Animal health professionals Other:

Key Points:

- Swine Influenza (swine flu) is a respiratory disease of pigs caused by Influenza type A virus. Pigs can be infected with flu viruses throughout the year, but most outbreaks occur during the late fall and winter months.
- When a flu virus that infects pigs is found in people, it is called a 'variant virus' and is designated with the letter "v" after the virus subtype (e.g., H3N2v, H1N1v, H1N2v). Swine flu viruses do not normally infect humans, however sporadic variant flu infections occur among people each year.
- Human infections with variant flu viruses most commonly occur in people with exposure to infected pigs (e.g., children near pigs at an agricultural fair, people who raise pigs, or workers in the swine industry).
- Transmission usually occurs when an infected pig coughs or sneezes and droplets with influenza virus spread through the air. Since the 2010-2011 flu season, 439 human cases infected with H3N2v have been reported from 19 states, including 1 from New Jersey.
- Symptoms of variant flu infection are like those caused by seasonal flu viruses and can include fever and respiratory symptoms. The groups of people at higher risk for serious seasonal flu complications are also thought to be at a greater risk for developing serious variant flu complications.
- Influenza antiviral drugs used for seasonal flu illnesses can treat variant flu infections as well however seasonal flu vaccines are not formulated to protect against variant flu viruses. CDC recommends that people get the seasonal flu vaccine to help prevent spreading human flu viruses to pigs.
- While contact with animals in public settings provides opportunities for entertainment and education, lack of proper precautions, can increase the risk of zoonotic disease transmission and injuries. Public health measures should be taken to reduce these risks.
- The National Association of State Public Health Veterinarians (NASPHV) has recently updated the "Compendium of Measures to Prevent Disease Associated with Animals in Public Settings", which can be found on the NASPHV webpage: <http://www.nasphv.org/documentsCompendiumAnimals.html>

Action Items:

- Clinicians are reminded to report any suspect cases or clusters of respiratory illnesses with exposure to pigs in the week prior to illness onset to their [Local Health Department](#).
- Local Health Departments should be aware of fairs occurring in their jurisdiction and work with fair organizers to ensure they are familiar with available resources and assist with education.
- Local Health Departments are reminded to review resources available on the NJDOH website to assess exposures, determine epidemiologic criteria and promptly report any suspect variant flu cases to NJDOH.

Contact Information:

- NJDOH CDS Flu Team: cdsfluteam@doh.nj.gov or (609) 826-5964

Resources:

- 2023 New Jersey Agricultural Fair Dates
<https://www.nj.gov/agriculture/divisions/md/pdf/County%20Fair%20List%202023.pdf>
- Novel Influenza Disease Page (NJDOH)
https://www.nj.gov/health/cd/topics/novel_flu.shtml
- Surveillance Criteria and Testing for Influenza A (H3N2v) in Humans (NJDOH)
https://www.nj.gov/health/cd/documents/topics/Novel%20Flu/Surv_and_Test_Variant_InfluenzaA.pdf
- Compendium of Measures to Prevent Disease Associated with Animals in Public Settings (NASPHV)
<http://www.nasphv.org/documentsCompendiumAnimals.html>
- CDC Information on Swine/Variant Influenza (CDC)
<https://www.cdc.gov/flu/swineflu/index.htm>
- Guidance for Clinicians on Human Infections with Variant Influenza Viruses (CDC)
<https://www.cdc.gov/flu/swineflu/interim-guidance-variant-flu.htm>
- People at Higher Risk of Flu Complications (CDC)
<https://www.cdc.gov/flu/highrisk/index.htm>
- Issues for Fair Organizers to Consider When Planning Fairs (CDC)
<https://www.cdc.gov/flu/swineflu/fairs-planning.htm>
- Key Facts for People Exhibiting Pigs at Fairs (CDC)
<https://www.cdc.gov/flu/swineflu/exhibit-pigs-at-fairs.htm>
- What People Who Raise Pigs Need to Know (CDC)
<https://www.cdc.gov/flu/swineflu/people-raise-pigs-flu.htm>
- Guidance for Workers Employed at Commercial Swine Farms (CDC)
<https://www.cdc.gov/flu/swineflu/guidance-commercial-pigs.htm>