

# THIS IS AN OFFICAL NH DHHS HEALTH ALERT

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## First Confirmed Cases of Influenza in New Hampshire, 2015-2016

### Key Points and Recommendations:

1. Three cases of influenza virus infection have been confirmed in New Hampshire for the 2015-2016 influenza season.
2. The composition of the influenza vaccine has changed this year, and healthcare providers should be aware of this change and review the updated influenza immunization recommendations.
3. Healthcare providers should encourage influenza vaccination for everyone six months of age or older (without a medical contraindication).
4. Healthcare providers should review the guidelines for treatment of suspected or confirmed influenza with antiviral medications (neuraminidase inhibitors), which have been shown to reduce duration of symptoms and influenza-related complications when administered early.
5. Influenza testing can be performed on clinical specimens at the NH Public Health Laboratories (PHL). To acquire influenza specimen collection kits, contact the NH Public Health Laboratories office at 1-800-852-3345, extension 4605, or 603-271-4605.
6. Healthcare facilities, schools, and other institutional settings should report all suspected outbreaks of respiratory illness to the NH DHHS Bureau of Infectious Disease Control at 603-271-4496 (after hours 603-271-5300).

### Epidemiology:

The New Hampshire Division of Public Health Services (NH DPHS) Public Health Laboratories has confirmed three respiratory samples positive for seasonal influenza virus (all influenza AH3) for this 2015-2016 season. These cases were confirmed in adults with influenza-like illness (ILI) in Carroll, Grafton, and Hillsborough counties. Nationwide, there is little circulating influenza at this point.

The previous 2014-2015 influenza season was predominated by the influenza A (H3N2) virus and was a moderately severe season overall. Nationally adults 65+ years had the highest laboratory confirmed influenza hospitalization rates and also accounted for the majority of influenza-related deaths. In New Hampshire there were a total of 49 adult influenza-associated deaths for the 2014-2015 season, which is the highest number of such deaths on record since NH began tracking this parameter in 1997. New Hampshire did not report any pediatric influenza-associated deaths last season.

Of note, influenza-related deaths are not reportable in New Hampshire and tracking of influenza-related deaths is based on the cause of death as listed on death certificate review, which can be incomplete and delayed. Additionally, New Hampshire does not monitor influenza-related hospitalizations.

### Vaccination:

Both trivalent and quadrivalent influenza vaccine preparations are available in the United States for 2015-2016; the live attenuated influenza vaccine (nasal spray) is quadrivalent. For 2015-2016, the trivalent and quadrivalent influenza vaccines will contain the following viruses: A/California/7/2009 (**H1N1**) virus; A/Switzerland/9715293/2013 (**H3N2**) virus, and B/Phuket/3073/2013 (**Yamagata** lineage) virus. This represents changes in the influenza A (H3N2) virus and the influenza B (Yamagata lineage) virus as compared with the 2014-2015 season vaccine. In addition to these virus strains, the quadrivalent vaccine will also contain antigen from the B/Brisbane/60/2008 (**Victoria** lineage) virus, which is the same as in the 2014-2015 vaccine.

All persons aged  $\geq 6$  months should be vaccinated annually, especially those who are at increased risk for severe complications from influenza and those who live with or care for persons at higher risk for influenza-related complications, including healthcare professionals. Persons with a history of influenza illness or vaccination last year should be encouraged to get the vaccine again this year due to the natural waning of the antibody response. It is not too early to begin vaccinating patients now, since it takes about 14 days for antibodies to form and the flu season has already begun in our state. Healthcare providers should ideally offer vaccination by October before influenza is widely circulating in the community, and it should be offered as long as influenza virus is circulating.

Children aged 6 months to 8 years old who are undergoing their first season of vaccination should receive 2 doses of influenza vaccine to optimize antibody response. Because of the vaccine composition change for this season, children in this age group should have received at least 2 doses of trivalent or quadrivalent influenza vaccine before July 1, 2015, in order to require only 1 dose of vaccine for the 2015-2016 season. The two previous doses need not have been given during the same season or consecutive seasons. The interval between the 2 doses should be at least 4 weeks. Further guidance on which children should receive 2 doses is available at:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm#fig1>.

All children who are recommended for 2 doses should receive their first dose as soon as possible after the vaccine becomes available to allow time for a second dose prior to increase in influenza activity. The second dose should be given  $\geq 4$  weeks later. Regarding use of Live Attenuated Influenza Vaccine (LAIV), there is no longer a preference of LAIV over inactivated influenza vaccine (IIV) in children aged 2 through 8 years. This represents a change from the 2014-2015 influenza season, and the recommended change was based on a lack of consistent data showing a greater effectiveness for LAIV.

LAIV should not be used in certain populations, including those younger than 2 or older than 49 years of age, pregnant women, persons with an immunocompromising condition, and persons with a history of an egg allergy. For a full list of contraindications and precautions to the LAIV vaccine, and for more information about use of the IIV, please see the full ACIP 2015-2016 influenza recommendations available at:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm>

Guidance for vaccinating persons with reported egg allergies is available at:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm#Fig2>

**Treatment:**

Antiviral treatment with oseltamivir, zanamivir, or peramivir is recommended as soon as possible for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at higher risk for influenza-related complications. Antiviral therapy is most effective when started early in disease course, ideally within 48 hours of the onset of illness. Initiation of treatment should not be delayed while awaiting test results.

Detailed guidance on use of antiviral medications is available at:  
<http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>

**Diagnostic Testing:**

Several tests are available to help with influenza diagnosis, including rapid diagnostic tests (RDTs), immunofluorescence, viral culture, and RT-PCR. Healthcare providers using rapid tests should be aware that while useful, there are limitations to rapid tests (variable sensitivity) and a negative rapid test in someone with ILI may be a false negative result.

Specimens from persons with ILI (defined as fever 100°F [37.8°C] or higher with cough and/or sore throat) may be tested at the NH Public Health Laboratories (PHL) by RT-PCR.

The approved specimen types for RT-PCR testing at the NH PHL are nasopharyngeal swabs, nasal swabs, throat swabs, nasal aspirates, nasal washes, dual nasopharyngeal/throat swabs, bronchoalveolar lavage, bronchial wash, tracheal aspirate, sputum, and lung tissue from human patients with signs and symptoms of respiratory infection.

To conduct RT-PCR testing for influenza:

- Collect the specimen as soon as possible after illness onset.
- Collection should be by trained personnel using droplet precautions.
- Place the sample in viral transport media and store and transport at 4°C within 48 hours of collection.

To acquire influenza specimen collection kits, contact the NH Public Health Laboratories office at 1-800-852-3345, extension 4605 or 603-271-4605.

NH DPHS will continue to update you throughout this influenza season when we have new data to share about circulating strains of influenza in New Hampshire, antiviral susceptibilities, or increased rates of illness. Please contact us directly with any questions about influenza or if we can help with your response during this current season.

a. For additional information on the 2015-2016 Influenza Season from CDC refer to their website at: <http://www.cdc.gov/flu/about/season/flu-season-2015-2016.htm>

b. For any questions regarding the contents of this message, please contact NH DHHS, DPHS, Bureau of Infectious Disease Control at 603-271-4496 (after hours 1-800-852-3345 ext.5300).

c. To change your contact information in the NH Health Alert Network, contact Thom Flynn at 603-271-4596 or email [tdflynn@dhhs.state.nh.us](mailto:tdflynn@dhhs.state.nh.us)

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**Attachments:** None

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