HEALTH ADVISORY – UPDATED INFORMATION:
Respiratory Illnesses Due to Enterovirus 68 (EV-68)

SUMMARY: The Boston Public Health Commission (BPHC) continues to observe increased respiratory illness activity in emergency departments (ED). The number of ED visits for asthma or respiratory distress syndrome in children is substantially elevated compared to prior years. Although many respiratory viruses can circulate at this time of the year, this increase is likely associated with EV-68. The first laboratory confirmed EV-68 case was reported by a Boston hospital on September 22. This patient was hospitalized for symptoms consistent with respiratory illness and has since been discharged. BPHC is working with schools, early childcare programs and other groups throughout Boston, providing guidance on prevention of respiratory illnesses, including EV-68. Influenza vaccination is recommended. Clusters of illness are reportable to the Boston Public Health Commission at 617-534-5611.

BACKGROUND
The first laboratory confirmed EV-68 case in Boston was reported to BPHC on September 22. BPHC closely monitors trends in Emergency Department (ED) visits using syndromic surveillance data. There have been increased visits for asthma and for respiratory distress syndrome in children since August compared to prior years.

![Percentage of ED Visits for Respiratory Distress Syndrome in Patients < 18 Years of Age](chart1)

![Percentage of ED Visits for Asthma Syndrome in Patients < 18 Years of Age](chart2)

Between August 13 and September 20, 372 children under the age of 18 presented to EDs with respiratory distress. The average age of these children was four, and 33% required hospitalization. During the same time period, 367 children under the age of 18 presented to EDs with asthma-related illness. The average age of these children was five, and 28% required hospitalization.

SYMPTOMS
EV-68 can cause mild to severe illness. Cases of severe illness have often been associated with underlying asthma or wheezing.
DIAGNOSTIC TESTING
Because treatment for EV-68 is supportive, testing specifically for EV-68 is not necessary in most cases. The Hinton State Laboratory Institute (HSLI) can perform testing to identify enterovirus/rhinovirus for hospitalized patients with severe respiratory illness consistent with enteroviral infection without an identified cause. HSLI will accept nasopharyngeal specimens to test for enterovirus/rhinovirus. Prior approval from an MDPH epidemiologist (617-983-6800) is required for testing at the HSLI. Commercial laboratories may offer a similar test. Subtype identification for EV-68 can be performed by the CDC or Wadsworth in NY, but significant delays in turnaround time exist. Because treatment for EV-68 is supportive, identification of the specific enteroviral strain does not change treatment and in most cases is not necessary.

INFECTION CONTROL
Prevention is through general respiratory and hand hygiene. Infection control measures in hospitals should include standard, contact, and respiratory droplet precautions. Soap and water is preferred for hand hygiene when caring for suspect or confirmed cases. However, adherence to consistent hand hygiene is the most important factor to consider regardless of product used. A 10% bleach solution can be used for disinfection, but other disinfectants are also effective against non-enveloped viruses.

GUIDANCE TO THE COMMUNITY
BPHC has been working with schools, early childcare providers, asthma coalitions, and others to provide guidance on how to reduce the spread of illness. This guidance emphasizes that parents and providers should closely monitor children, particularly those with a history of asthma or wheezing, and contact the child’s primary care provider if the asthma or wheezing is more severe than usual or does not resolve with use of the child’s asthma regimen. Parents and other care providers have been encouraged to be sure that each child with asthma has an asthma control plan in place. In addition, community groups have been advised that specific testing for EV-68 is not needed in most cases of respiratory illness. The complete BPHC guidance to schools and early childcare programs can be accessed by visiting http://bphc.org/whatwedo/infectious-diseases/Pages/Healthcare-Provider-Alerts-and-Advisories.aspx. Fact sheets for the general public are available in multiple languages at http://bphc.org/whatwedo/infectious-diseases/Infectious-Diseases-A-to-Z/Pages/Enterovirus-68.aspx. For fact sheets specific to EV-68 and asthma, visit http://bphc.org/whatwedo/infectious-diseases/Infectious-Diseases-A-to-Z/Pages/Enterovirus-68-and-Asthma.aspx

REPORTING
Healthcare providers in Boston should report any clusters of illness, including severe respiratory illness, directly to the Boston Public Health Commission at 617-534-5611. Also all cases of meningitis (which may also be related to enterovirus) are reportable to BPHC. Reporting forms are available at http://www.bphc.org/cdc. Questions related to EV-68 can be directed to the same number.

FOR MORE INFORMATION
Contact BPHC at 617-534-5611.