



BOSTON PUBLIC HEALTH COMMISSION
Communicable Disease Control Division

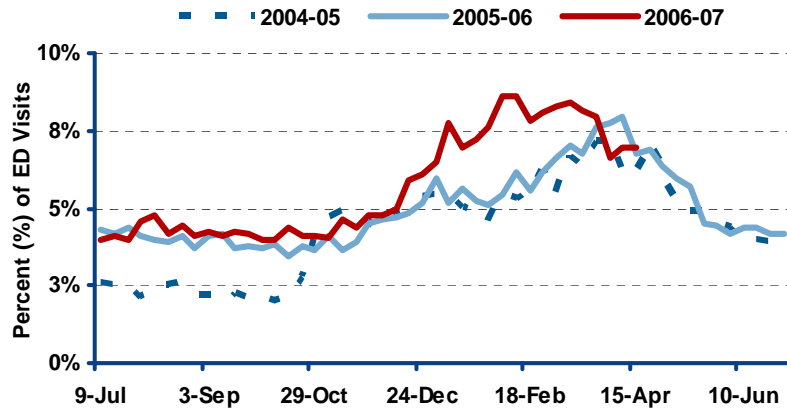
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Update on Norovirus Activity: December 1, 2006 – April 15, 2007

Summary: The Boston Public Health Commission observed an increase in norovirus activity beginning in early December 2006 and peaking in mid-February thru early March 2007. This activity was significantly higher compared to previous years and is believed to be due in part to the circulation of two variants of norovirus, Farmington Hills and the newly identified Minerva variant.

Figure 1. Between December 3, 2006 and April 14, 2007, the BPHC's Syndromic Surveillance System identified city-wide increases among all age groups for nausea, vomiting and/or diarrhea. Over this 19 week period, visits for this gastrointestinal syndrome averaged 95 a day (7.3% of all visits), compared to 78 visits a day (6.1% of all visits) during the same period the previous year.

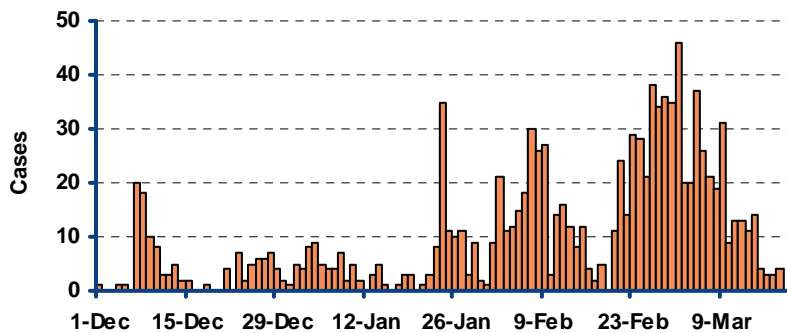


Norovirus Outbreaks

Outbreak Summary

During the period of December 1, 2006 to April 15, 2007, there were total of 18 confirmed or suspected norovirus outbreaks among Boston institutions including colleges, daycares, long-term care facilities, and healthcare facilities. A total of 1,327 confirmed or suspected cases were observed among 17 of these. Outbreaks ranged in size from 8 to 438 cases with a mean of 70. Of the 18 affected institutions, 9 (50%) submitted specimens for norovirus testing and 8 (44%) had at least one specimen test positive.

Figure 2. Outbreak Associated Cases by Day (1,093 of 1,327 total known cases from 10 outbreaks)

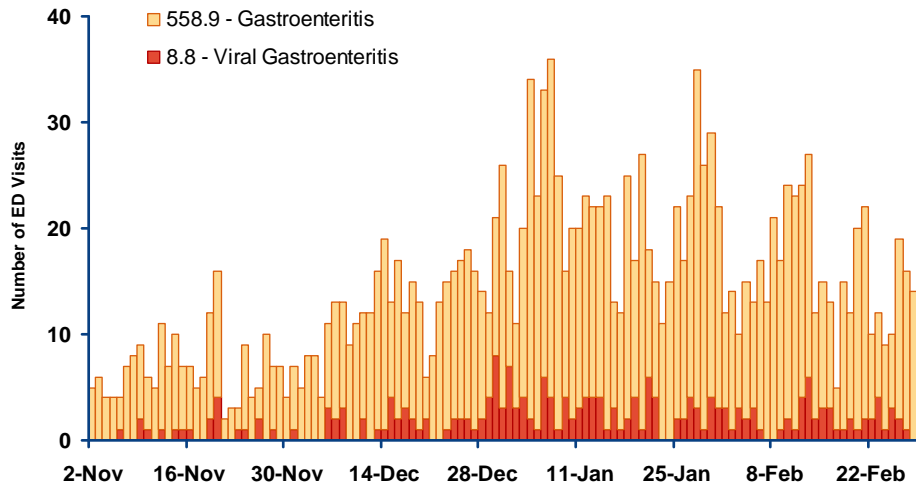


Viral Testing and Genotyping

Genotyping was conducted by the CDC on isolates from two outbreaks, identifying the GII.4 Farmington Hills variant in one setting, and the GII.4 Minerva variant in the other. The GII.4 Farmington Hills variant was associated with increased national norovirus activity in 2002. The GII.4 Minerva variant is newly identified and is attributed to much of the increased national activity this season.

Emergency Department Diagnosis Data: Gastroenteritis

Figure 3. Between November 2006 and February 2007, 1,706 visits to Boston's emergency departments reported primary ICD9 diagnosis codes for gastroenteritis. The majority of these visits were during the month of January.

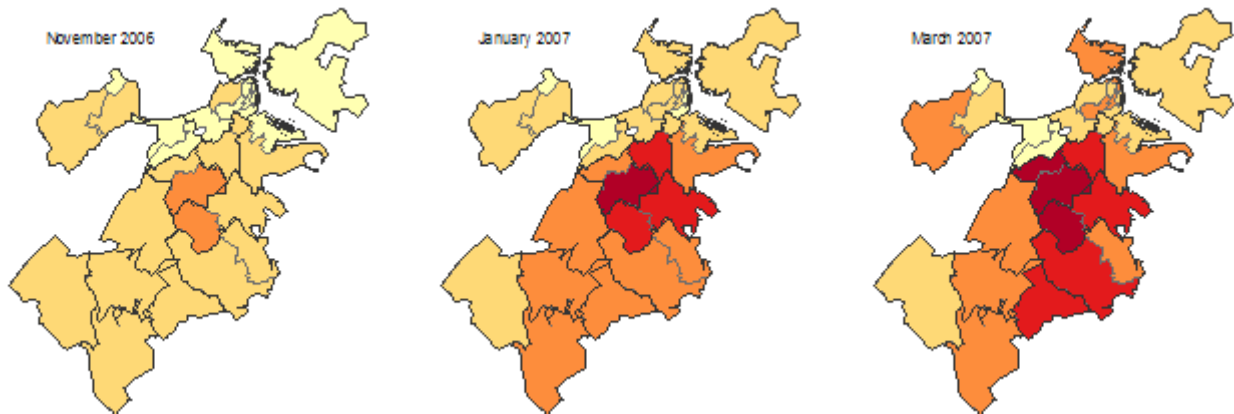
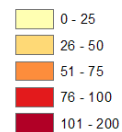


Citywide Distribution

Boston, MA: Citywide Distribution of ED Visits for Gastrointestinal Illness

The maps display the weekly rate of visits to Boston Emergency Departments for nausea, diarrhea, or vomiting for selected months between November 2006 and March 2007. For each visit, zip code of primary residence is plotted.

Emergency Department Visits per 100,000 persons per week



Disease Reporting

City and state regulations require that healthcare providers and laboratories report **any confirmed case of calicivirus diagnosed in Boston and confirmed by any laboratory test to BPHC**. Outbreaks and clusters of illness are also reportable. Reporting forms and a list of other notifiable diseases, for health care providers and for laboratories, are available on the web:

http://www.bphc.org/bphc/cdc_providers.asp#reporting

Further information is available by contacting the BPHC Communicable Disease Control Division at 617-534-5611 or by email: cdc@bphc.org.