NH DIVISION OF Public Health Services
Improving health, preventing disease, reducing costs *for all*
Department of Health and Human Services

Bureau of Infectious Disease Control

Infectious Disease Surveillance Section (IDSS)

Weekly Early Event Detection Report
Week Ending Dec 1, 2018
MMWR Week 48

Report Date 12/6/2018 **Prepared by:** Ken Dufault Kenneth.Dufault@dhhs.nh.gov / 603-271-5165

The purpose of this weekly report is to keep both internal and external partners informed of potential public health threats detected through several surveillance systems that are regularly monitored by IDSS staff. The effectiveness of a disease control response and, in turn, the ability to prevent illness can be directly related to how early a threat is detected.

Over-the-Counter (OTC) Pharmaceutical Sales

The IDSS receives automated data of OTC pharmaceuticals sales from a system, described below. Often people who are ill seek self-treatment from OTC medications before visiting a health care provider. Sales of OTC medications can be an early indicator of public health anomalies or community outbreaks, either natural or as a result of bioterrorism.

Real-time Outbreak and Disease Surveillance (RODS)

- ❑ This OTC surveillance tool collects and analyzes daily sales data for OTC medications. IDSS receives automated data from 155 pharmacies statewide. Sales are categorized into 18 specific categories based on UPC codes. These categories include cough, cold, antidiarrheal, antifever and rash treatment medications. Data from select categories is provided in tables below.

RODS - Weekly OTC Sales

Medication Category	Antidiarrheal Remedies				Cough/Cold Remedies			
MMWR Week	45	46	47	48	45	46	47	48
5-Yr Average	846	804	1045	976	25628	25927	26251	26698
Current	1015	768	971	1012	22318	20451	20253	22132

Watch values highlighted in orange are one standard deviation above the average

Warning values highlighted in red are two standard deviation above average

Automated Hospital Emergency Department Data (AHEDD)

AHEDD automatically collects real-time Emergency Department (ED) electronic data from hospitals statewide using chief complaint text and diagnosis codes (ICD-10 codes). Queries categorize ED encounters, in real time, by syndrome and symptom based on the chief complaint text of each encounter. Most hospitals provide ICD-10 codes, which confirm a diagnosis, sometimes several days after a chief complaint. There are 26 acute care hospitals in the State participating in AHEDD.

Weekly Activity by Syndrome*

Syndromes	Hospitals	Cities and Towns
Botulinic	St. Joseph	None
Constitutional	Huggins	Alton, Barrington, Bedford, Farmington, Goffstown, Kingston, Londonderry, Newmarket
Gastrointestinal	Elliot, Monadnock	Barrington, Bow, Hampton, Hollis, Littleton, Merrimack, Milford, Pelham, Peterborough
Hemorrhagic	Monadnock	None
Neurological	Portsmouth	Franklin, Hampton, Hillsborough, Hudson, Kingstown, Londonderry, Milford, Newmarket, Pelham
Rash	Elliot	Manchester
Respiratory	Elliot, Portsmouth, Wentworth Douglass	Allenstown, Amherst, Bedford, Bow, Derry, Dover, Farmington, Hooksett, Littleton, Londonderry, Manchester, Merrimack, Milford, New Ipswich, Rochester, Rye, Seabrook, Somersworth, Weare, Windham

***Please note:** Individual hospital information in this report is to be considered privileged and not intended to be made available to third parties or the general public.

AHEDD encounters by reportable condition based on chief complaint text: Chief complaint text is searched for clinical language associated with reportable disease conditions, bioterrorism agents, and chemical terrorism agents.

- *None*

AHEDD encounters based on ICD-10 codes: As diagnostic codes are assigned to an encounter, select codes associated with reportable diseases, bioterrorism agents, or chemical terrorism agents are identified. Not all hospitals are currently providing ICD-10 data.

- Campylobacter (confirmed), Giardiasis x 2 (1 suspect, 1 probable), Hepatitis B (historical), Lyme x 2 (1 pending, 1 confirmed), Meningitis (ruled out), Pertussis x 2 (2 ruled out), Tuberculosis (ruled out), Toxic-shock Syndrome (ruled out)

School Absenteeism

Beginning with the 2009-2010 school year, an influenza-like illness (ILI) web-reporting tool for NH schools was implemented to better evaluate trends of ILI in communities over time. All public schools voluntarily report daily aggregate counts for student absenteeism and those absent for ILI. Student absenteeism and student ILI rates, reported by county, are posted on the DHHS website each week at http://www.dhhs.nh.gov/dphs/cdcs/influenza/schoolsurveillance.htm

Student Absenteeism	Overall Rate	Number of Schools Reporting	Percentage Reporting	Previous Week's Overall Rate
Total Absenteeism	4.00	107	16%	8.70
Influenza-Like-Illness	0.10	64	9%	0.30

Death Certificate Surveillance

NH DHHS partners with the NH Division of Vital Records Administration to receive NH death records for surveillance purposes. Through the death certificate surveillance database, IDSS has the ability to track pneumonia and influenza deaths, as well as deaths from communicable diseases and other potential public health threats. Total numbers adjusted for causes other than influenza we are monitoring.

Deaths	Calendar Year	New Detections	Individuals
Influenza Related			
	2018	**0**	**61**
	2017		**47**
	2016		**28**
	2015		**54**
	2014		**15**

Seasonal Reports

These are emergency department visits reported through AHEDD searching for clinical language associated with heat/cold related injuries and exposure (hyper/hypothermia) and carbon monoxide exposure. The search tool has been validated with ICD-10 codes.

Encounter	Calendar Year	New Detections	Individuals	Clusters
Heat Related				
	2018	**0**	**175**	
	2017		**72**	
	2016		105	
	2015		85	
	2014		52	
Cold Related				
	2018	**4**	**106**	
	2017		**97**	
	2016		129	
	2015		152	
	2014		87	
Carbon Monoxide				
	2018	**5**	**83**	**(2 new) 12**
	2017		**99**	**11**
	2016		70	7
	2015		135	13
	2014		98	11

Allergen Levels

Predominant pollen: Information comes from http://www.pollen.com/state.asp?id=nh, which provides daily allergy updates that are qualitative and quantitative results that aid in identifying health care risk. Scale is from a low of 0 to a high of 12. Data is so low I am going to stop reporting until next year.

Syndromic Definitions

Botulinic - ocular abnormalities (diplopia, blurred vision, photophobia), difficulty speaking (dysphonia, dysarthria, slurred speech), and difficulty swallowing (dysphagia).

Constitutional - non-localized, systemic problems including fever, chills, body aches, flu symptoms (viral syndrome), weakness, fatigue, anorexia, malaise, lethargy, sweating (diaphoresis), light headedness, faintness and fussiness. Shaking (not chills) is Other and not Constitutional.

Gastrointestinal - pain or cramps anywhere in the abdomen, nausea, vomiting, diarrhea, and abdominal distension or swelling.

Hemorrhagic - bleeding from any site, e.g., vomiting blood (hematemesis), nose bleed (epistaxis), hematuria, gastrointestinal bleeding (site unspecified), rectal bleeding, and vaginal bleeding. Bleeding from a site for which there is a syndrome is classified as Hemorrhagic and as the relevant syndrome (e.g., Hematochesia is Gastrointestinal and Hemorrhagic; hemoptysis is Respiratory and Hemorrhagic).

Neurological - non-psychiatric complaints which relate to brain function. Included are headache, head pain, migraine, facial pain or numbness, seizure, tremor, convulsion, loss of consciousness, syncope, fainting, ataxia, confusion, disorientation, altered mental status, vertigo, concussion, meningitis, stiff neck, tingling and numbness. (Dizziness is both Constitutional and Neurological.)

Other - pain or process in a system or area not being monitored. For example, flank pain most likely arising from the genitourinary system would be considered Other. Chest pain with no mention of the source of the pain is considered Other (e.g., chest pain (Other) versus pleuritic chest pain (Respiratory). Earache or ear pain is Other. Trauma is Other.

Rash - any description of a rash, such as macular, papular, vesicular, petechial, purpuric, or hives. Ulcerations are not normally considered Rash unless consistent with cutaneous anthrax (an ulcer with a black eschar).

Respiratory - problems of the nose (coryza) and throat (pharyngitis), as well as the lungs. Examples of Respiratory include congestion, sore throat, tonsillitis, sinusitis, cold symptoms, bronchitis, cough, shortness of breath, asthma, chronic obstructive pulmonary disease (COPD), and pneumonia. The presence of both cold and flu symptoms are Respiratory and not Constitutional.

Note: This report follows the CDC Morbidity and Mortality Weekly Report (MMWR) the report starts on a Sunday and ends on a Saturday.