



December 16, 2016

**Public Health Preparedness and Situational Awareness Report: #2016:49
Reporting for the week ending 12/10/16 (MMWR Week #49)**

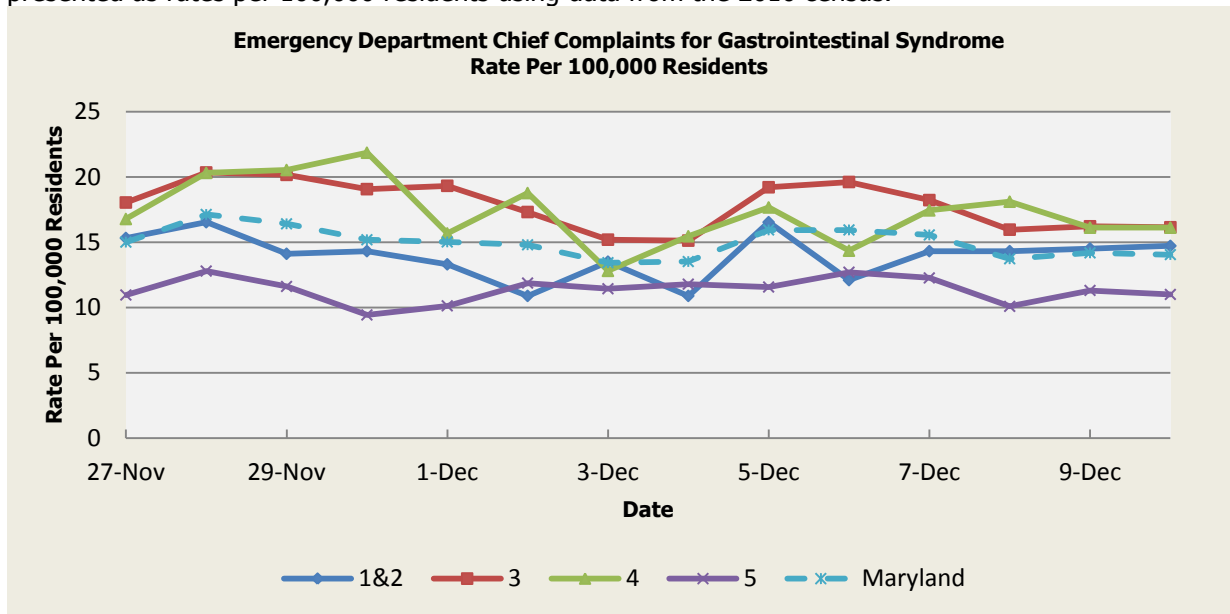
CURRENT HOMELAND SECURITY THREAT LEVELS

National: No Active Alerts
Maryland: Level Four (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.

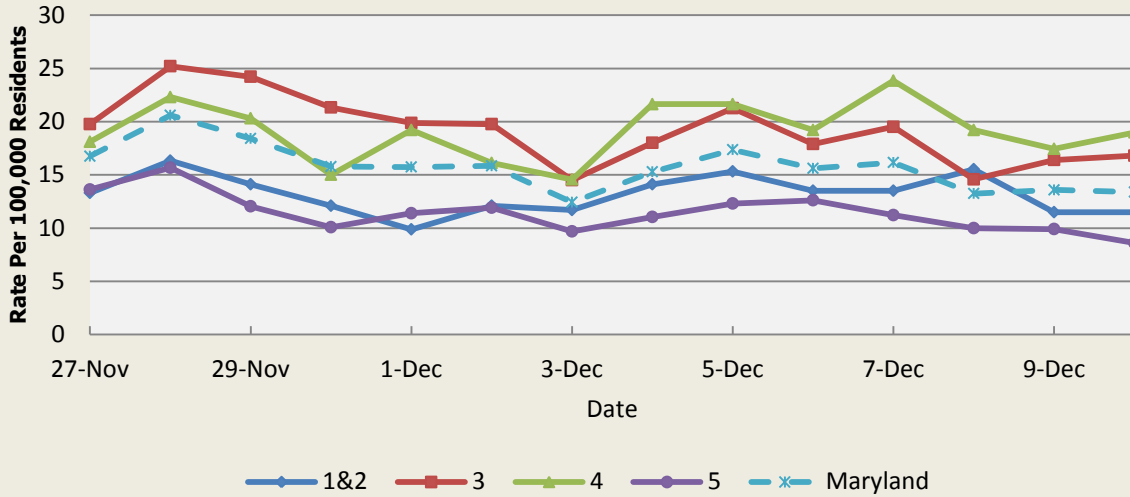


There were seven (8) gastroenteritis/foodborne outbreaks reported this week: three (3) outbreaks of gastroenteritis in Nursing Homes (Regions 1&2,3,4); one (1) outbreak of gastroenteritis in an Assisted Living Facility (Region 5); one (1) outbreak of gastroenteritis in a Daycare Center (Region 5); one (1) outbreak of gastroenteritis associated with a Religious Facility (Region 5); two (2) outbreaks of gastroenteritis/foodborne associated with a Restaurant / Entertainment Facility (Regions 3,5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.94	14.88	15.42	10.31	13.01
Median Rate*	12.70	14.47	14.80	10.17	12.75

* Per 100,000 Residents

**Emergency Department Chief Complaints for Respiratory Syndrome
Rate Per 100,000 Residents**

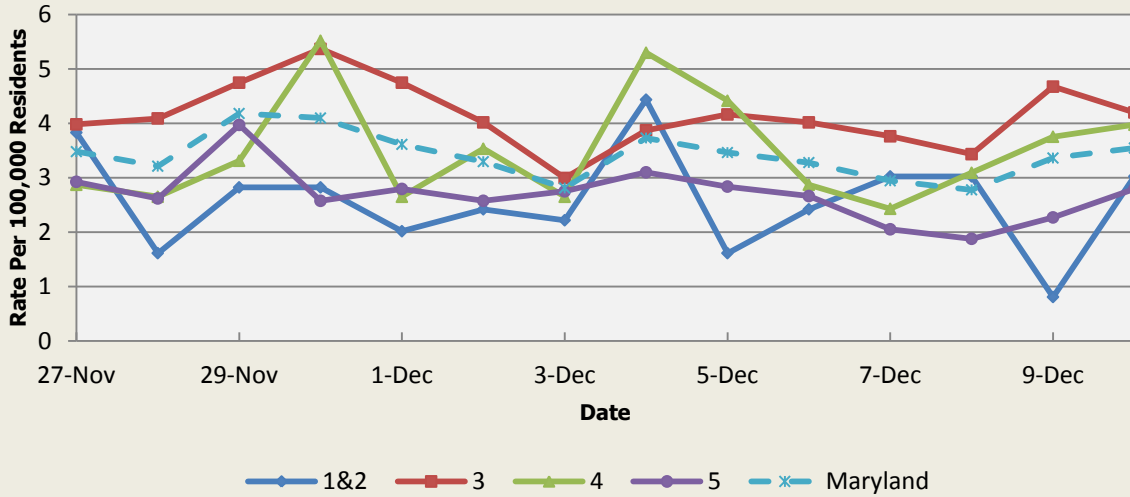


There were three (3) respiratory illness outbreaks reported this week: one (1) outbreak of Influenza Like Illness (ILI) associated with a Daycare Center (Region 3); one (1) outbreak of ILI associated with a School (Region 4); one (1) outbreak of Legionellosis in an Assisted Living Facility (Region 3).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.99	14.12	14.04	9.94	12.34
Median Rate*	11.70	13.37	13.69	9.52	11.79

* Per 100,000 Residents

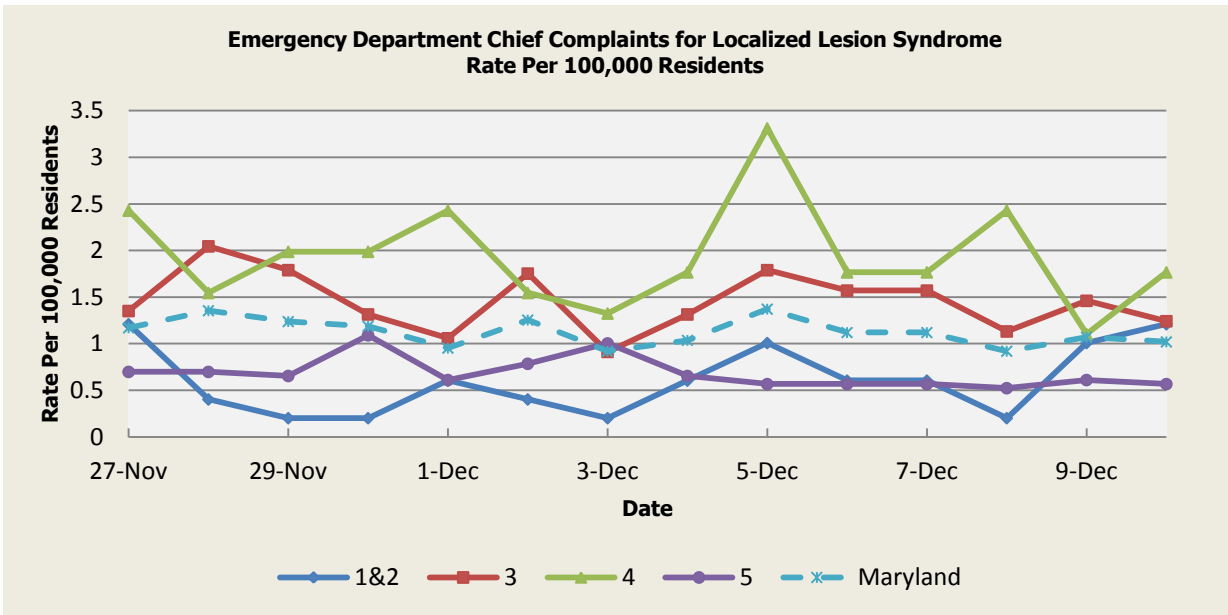
**Emergency Department Chief Complaints for Fever Syndrome
Rate Per 100,000 Residents**



There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.07	3.80	3.93	3.09	3.48
Median Rate*	3.02	3.62	3.75	2.97	3.35

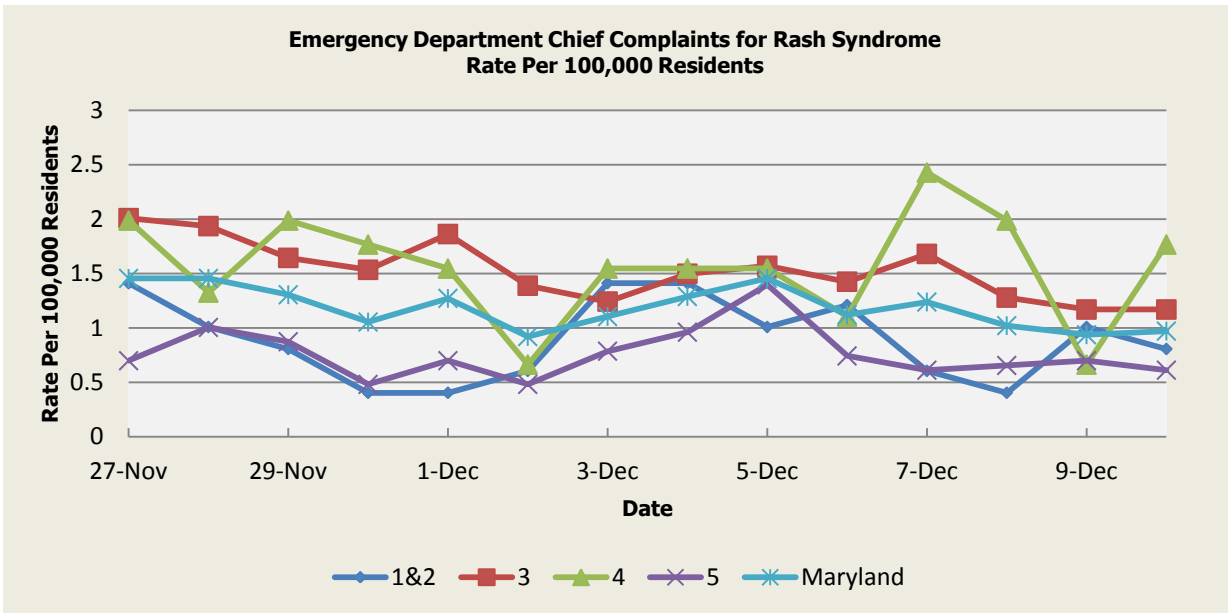
Per 100,000 Residents



There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.07	1.91	2.03	0.98	1.49
Median Rate*	1.01	1.86	1.99	0.92	1.44

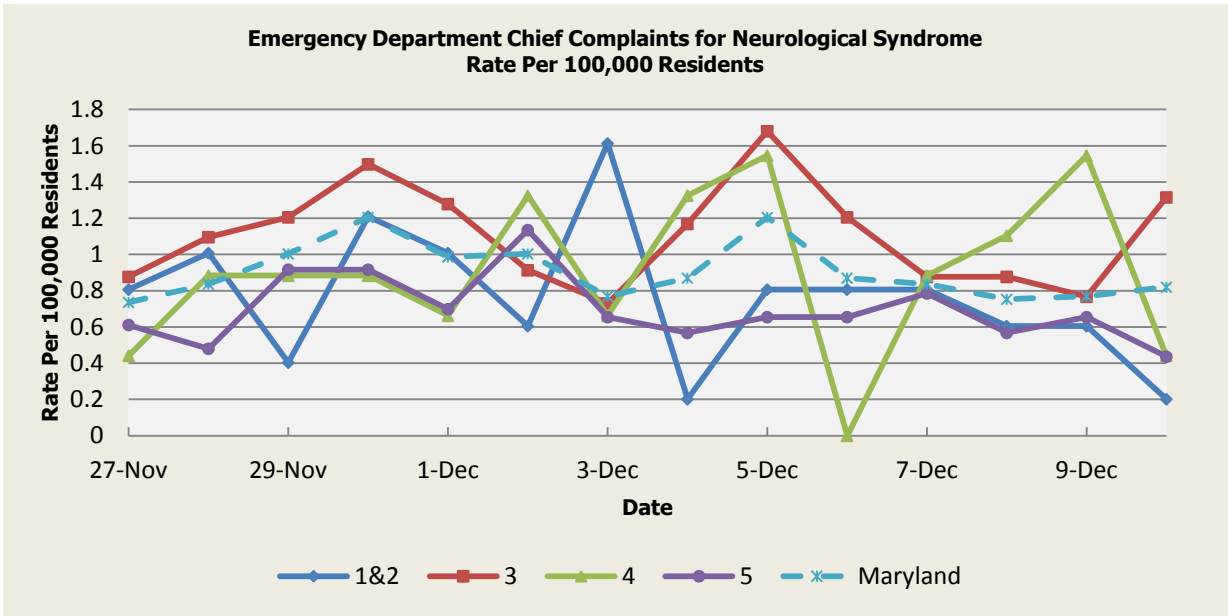
* Per 100,000 Residents



There were three (3) rash illness outbreaks reported this week: one (1) outbreak of Hand, Foot, and Mouth disease associated with a Daycare Center (Region 3); one (1) outbreak of SCABIES in an Institution (Region 3); one (1) outbreak of SCABIES associated with a Daycare Center (Region 3).

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.30	1.75	1.75	1.04	1.44
Median Rate*	1.21	1.68	1.77	1.00	1.39

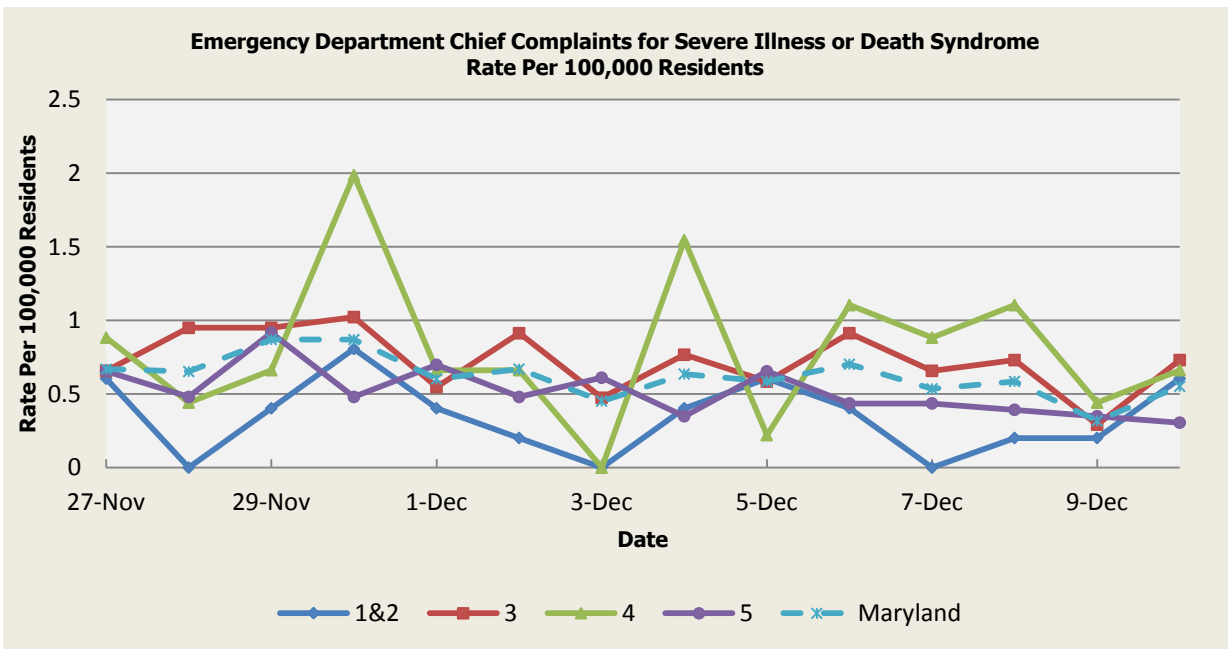
* Per 100,000 Residents



There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.73	0.65	0.48	0.62
Median Rate*	0.60	0.66	0.66	0.44	0.57

* Per 100,000 Residents

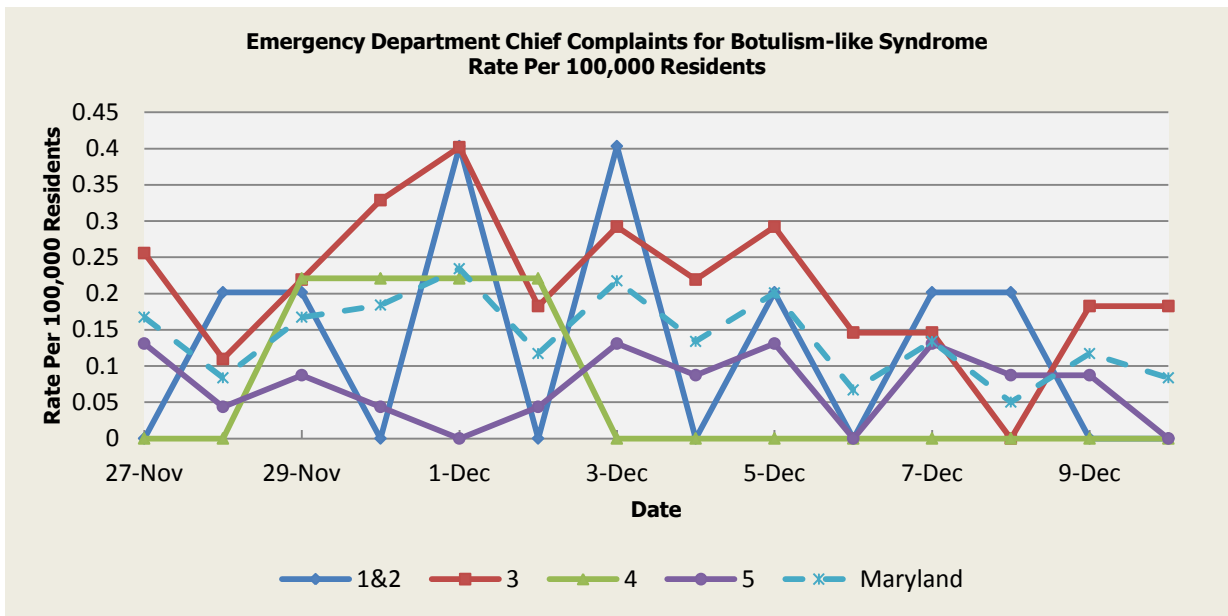


There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.70	0.95	0.84	0.44	0.73
Median Rate*	0.60	0.91	0.88	0.44	0.72

* Per 100,000 Residents

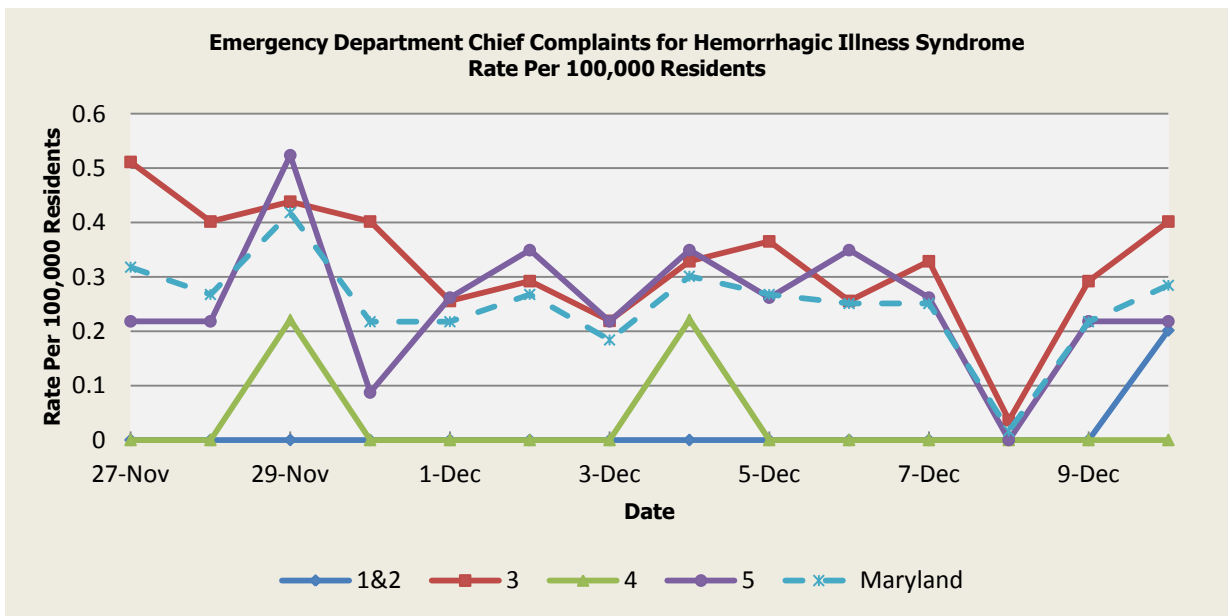
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 11/27 (Region 3,5), 11/28 (Regions 1&2), 11/29 (Regions 1&2,3,4), 11/30 (Regions 3,4), 12/1 (Regions 1&2,3,4), 12/2 (Regions 3,4), 12/3 (Regions 1&2,3,5), 12/4 (Region 3), 12/5 (Regions 1&2,3,5), 12/7 (Regions 1&2), 12/8 (Regions 1&2), 12/9 (Region 3) and 12/10 (Regions 3). These increases are not known to be associated with any outbreaks.

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.08	0.04	0.05	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.05

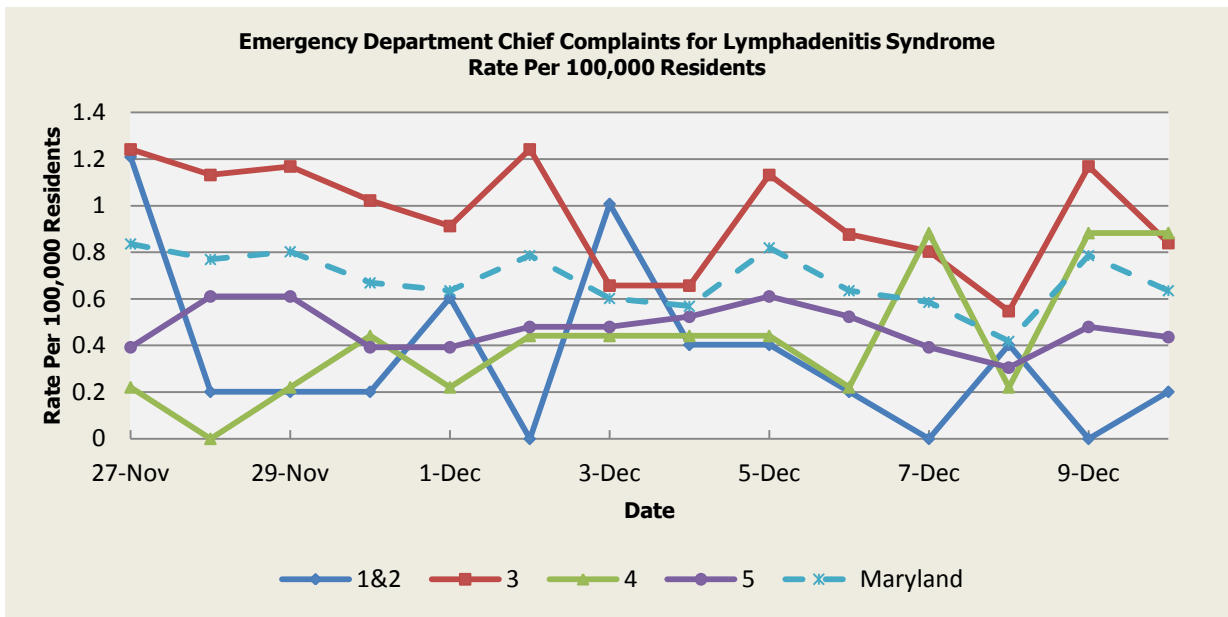
* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 11/27 (Region 3,5), 11/28 (Region 3,5), 11/29 (Regions 3,5), 11/30 (Region 3), 12/1 (Regions 3,5), 12/2 (Regions 3,5), 12/3 (Regions 3,5), 12/4 (Region 3,5), 12/5 (Regions 3,5), 12/6 (Regions 3,5), 12/7 (Regions 3,5), 12/9 (Regions 3,5), and 12/10 (Regions 1&2,3,5). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.11	0.03	0.08	0.08
Median Rate*	0.00	0.04	0.00	0.04	0.03

* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 11/27 (Regions 1&2,3), 11/28 (Regions 3,5), 11/29 (Regions 3,5), 11/30 (Region 3), 12/1 (Region 3), 12/2 (Region 3), 12/3 (Regions 1&2), 12/5 (Regions 3,5), 12/7 (Region 4), 12/9 (Regions 3,4), and 12/10 (Region 4). These increases are not known to be associated with any outbreaks.

Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.51	0.34	0.31	0.40
Median Rate*	0.20	0.37	0.22	0.26	0.33

* Per 100,000 Residents

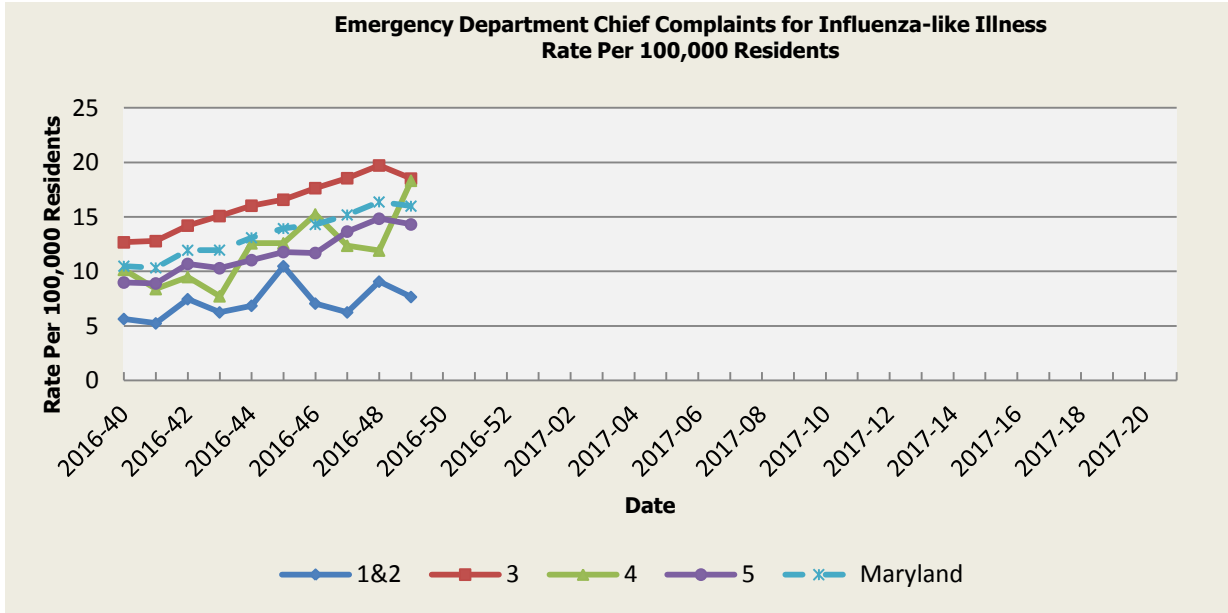
MARYLAND REPORTABLE DISEASE SURVEILLANCE

Condition	Counts of Reported Cases‡					
	December			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
Vaccine-Preventable Diseases						
Aseptic meningitis	6	15.4	16	334	448	448
Meningococcal disease	0	0.2	0	3	7	5
Measles	0	0	0	4	4.6	3
Mumps	1	0.2	0	21	38.2	15
Rubella	0	0	0	1	2.4	2
Pertussis	6	12.8	15	242	302.2	356
Foodborne Diseases						
Salmonellosis	3	15.4	15	767	882.6	887
Shigellosis	1	5.2	3	131	176.8	219
Campylobacteriosis	7	17.2	17	694	672.4	668
Shiga toxin-producing Escherichia coli (STEC)	2	2.8	2	186	121	110
Listeriosis	0	0.2	0	19	16.6	16
Arboviral Diseases						
West Nile Fever	0	0.2	0	2	12	10
Lyme Disease	17	21.4	23	1799	1431.8	1530
Emerging Infectious Diseases						
Chikungunya	1	1	0	7	17.2	0
Dengue Fever	0	0.4	0	41	16.6	17
Zika Virus***	0	0	0	128	0.2	0
Other						
Legionellosis	4	4.2	5	145	162.4	165

‡ Counts are subject to change *Timeframe of 2011-2015 **Includes January through current month
*** As of December 16, 2016, the total Maryland Confirmed and Probable Cases of Zika Virus Disease and Infection is 156.

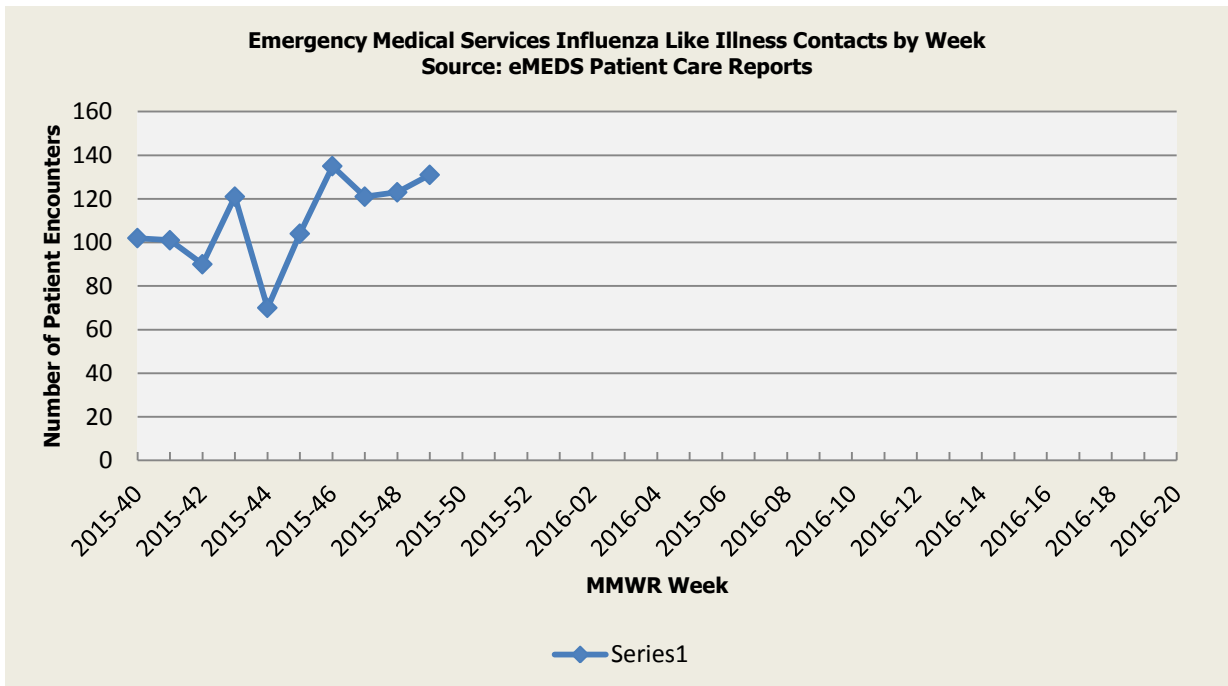
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 49 was: Local Geographic Spread with Minimal Intensity.

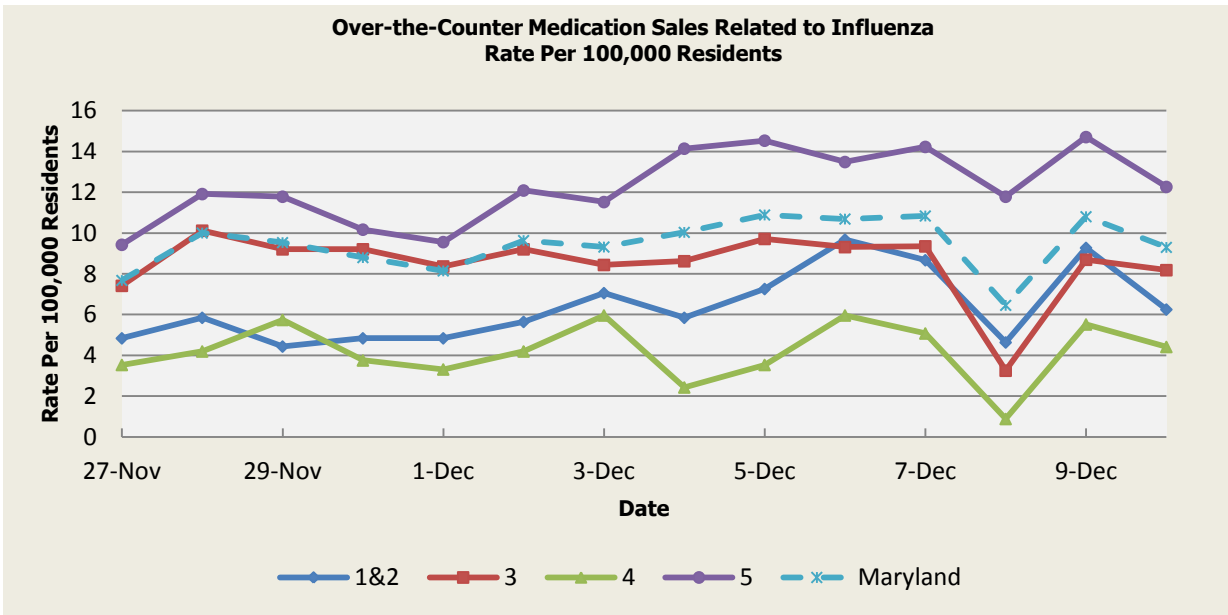


Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	11.58	10.78	10.43	10.88
Median Rate*	7.66	8.99	9.05	8.03	8.72

* Per 100,000 Residents



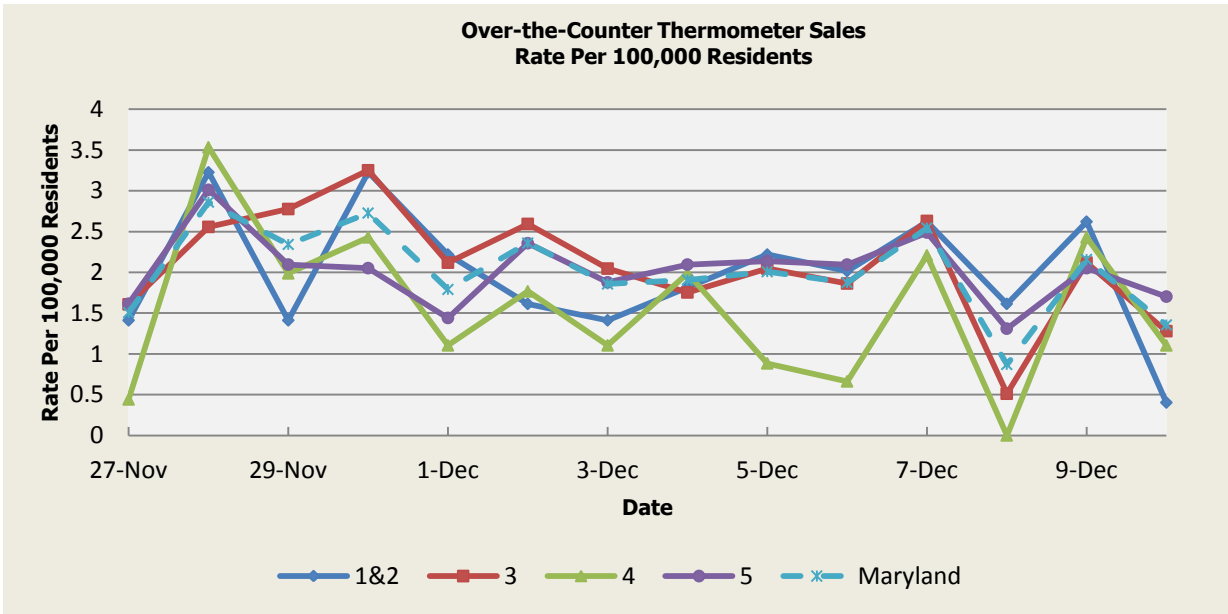
Disclaimer on eMEDS flu related data: This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. This data is reported for trending purposes only.



There was an appreciable increase above baseline in the rate of OTC medication sales on 11/28 (Region 3), 11/29 (Region 4), 12/3 (Region 4), 12/5 (Region 3), 12/6 (Region 1&2, 4), 12/7 (Region 1&2), and 12/9 (Region 1&2,4). These increases are not known to be associated with any outbreaks.

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.86	4.69	2.60	8.21	5.79
Median Rate*	2.82	3.98	2.21	7.60	5.19

* Per 100,000 Residents



There was not an appreciable increase above baseline in the rate of OTC thermometer sales this week.

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.48	3.30	2.54	4.50	3.72
Median Rate*	3.23	3.07	2.43	4.10	3.46

* Per 100,000 Residents

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of October 3, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 856, of which 452 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

Avian Influenza:

HPAI H5N8 (EUROPE): 13 Dec 2016, The resource center of Epidemiology and Animal Health has published an updated European-wide summary of H5N8's progress across Europe. As of their cut-off date (12 Dec 2016), 406 outbreaks and cases have been reported, an increase of 138 since 5 Dec 2016, a roughly 35 percent increase in the number of new cases over the previous week (n=102). Since 5 Dec 2016, new HPAI H5N8 outbreaks were reported in Europe, mainly in Germany (n= 98 cases in birds as compared to n= 63 previous week) and Hungary (n=120 in breeding centers as compared to n=43 previous week). The total number of outbreaks and cases reported continues to increase and is now 406 (compared to 268 last week to 5 Dec 2016), in which 245 were wild birds (35 species affected), 155 farms, and 6 in captive birds. Cases have also been reported in Serbia and Russia. Read More: <http://www.promedmail.org/post/4699227>

H7N9 (CHINA): 9 Dec 2016, The Health and Family Planning Commission of Guangdong province has reported an additional human case of avian influenza A (H7N9). The male patient aged 81 from Meizhou is the first human case of H7N9 reported in Guangdong this winter [2016-17]. From 2013 to date, 778 human cases of avian influenza A(H7N9) have been reported on Mainland China. In addition to the 778 cases reported on the Mainland, 23 cases imported from China have been reported in Canada (2), Hong Kong (16), Malaysia (1), and Taiwan (4). Read More: <http://www.promedmail.org/post/4689085>

INFLUENZA (SOUTH KOREA): 10 Dec 2016, on Thu 8 Dec, the South Korean government issued an influenza advisory following a sharp increase in suspected cases of the disease. According to the Korea Centers for Disease Control and Prevention, from 27 Nov to 3 Dec 2016, 13.5 out of every 1000 hospital outpatients presented influenza-like symptoms including high fever over 38 deg C [100.4 deg F], chills, coughing, and a sore throat. The agency issues an advisory whenever the figure reaches 8.9. This is the earliest such alert since the winter of 2010-2011. Influenza advisories are most commonly issued in January. Read More: <http://www.promedmail.org/post/4689122>

NATIONAL DISEASE REPORTS

CARBON MONOXIDE POISONING (NORTH CAROLINA): 13 Dec 2016, Health officials report more than two dozen people were treated by paramedics after showing symptoms of carbon monoxide poisoning at the River Ridge Tap House restaurant in Clemmons, North Carolina. Forsyth County Emergency Services reports that about 30 people who visited the restaurant Saturday night [8 Dec

2016] experienced headaches, nausea, and vomiting, requiring 14 people to be taken to the hospital, and the rest were treated and released from the scene. Lewisville Fire Department staff report gas started leaking because of a malfunction in the restaurant's heating system. Fire officials at the scene confirmed the level of carbon monoxide was 6 times the normal amount. Read More: <http://www.promedmail.org/post/4699575>

MUMPS (USA): 14 Dec 2016, Health officials report confirmed cases of mumps are continuing to increase across the United States with more than 2800 cases reported this year, nearly double the number of confirmed illnesses in 2015. North Texas Health department staff report 37 confirmed cases (as compared to 10 confirmed cases last week), and more are expected to be diagnosed. A majority of confirmed cases are among students in the Keene and Cleburne Independent School District with six adult cases confirmed among staff members at the schools. The University of Missouri, which has reported nearly 200 cases of mumps infection this academic year [2016-17], has asked students to refrain from throwing social engagements on campus and asked students to avoid public places like bars in order to stem the outbreak. Harvard University [Massachusetts] and the State University of New York have each reported more than 60 confirmed mumps cases since last spring [2016], joining dozens of other campuses facing control issues with the disease commonly caused by exposure to sneezing, coughing or sharing cups and utensils. Read more: <http://www.promedmail.org/post/4699512>

COCCIDIOIDOMYCOSIS (USA - CALIFORNIA): 11 Dec 2016, Monterey County [California] health officials are reporting an increase in cases of valley fever *coccidioidomycosis* in the Salinas Valley and South County this past Fall 2016. Some patients have been hospitalized as a result of the illness, which is caused by inhaling specific fungal spores that live in the soil. There are 73 reported cases so far in 2016, up from 42 cases in 2015 and 24 cases in 2014. County Epidemiologist report that health providers noticed an uptick in this year's [2016] cases starting in October 2016, near the start of valley fever season, which runs September through March in the Monterey region. Read more: <http://www.promedmail.org/post/4691082>

INTERNATIONAL DISEASE REPORTS

PLAGUE (MADAGASCAR): 14 Dec 2016, health officials report that Bubonic plague has killed at least 31 people in Madagascar's southern district of Befotaka Atsimo. Those affected are from two adjacent rural communes: n=25 and n=6, respectively. Reports of a mysterious disease outbreak first emerged last week but it has now been confirmed as bubonic plague. Read More: <http://www.promedmail.org/post/4698685>

CHOLERA (YEMEN): 14 Dec 2016, According to the Ministry of Public Health and Population on Thu 8 Dec 2016, the number of cholera cases in Yemen has grown by more than 1,200 cases in the past week, bringing the total suspected cases of cholera to 8,975, including 89 deaths. The number of laboratory-confirmed cases of *Vibrio cholera* O1 is 138. Acute watery diarrheal diseases are endemic in Yemen; however the ongoing conflict has stretched the capacity of the national health systems. More than 7.6 million people and more than 3 million internally displaced persons currently live in areas affected by the outbreak. Read More: <http://www.promedmail.org/post/4698540>

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/> or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the DHMH website: <http://phpa.dhmm.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmm.maryland.gov>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County

