



November 23, 2016

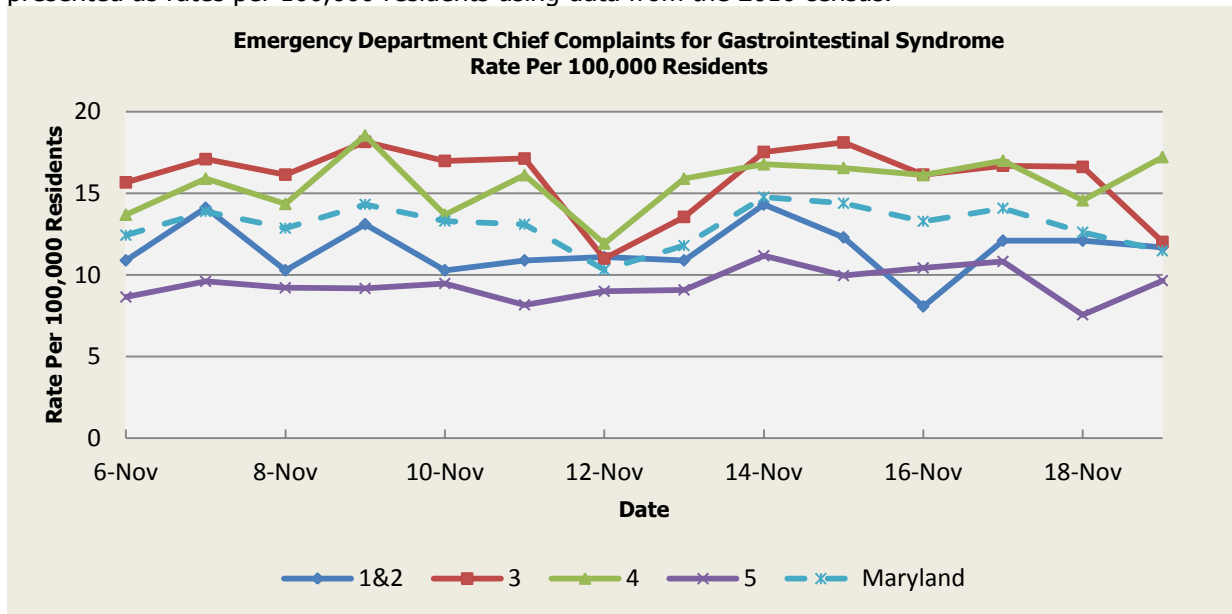
**Public Health Preparedness and Situational Awareness Report: #2016:46
Reporting for the week ending 11/19/16 (MMWR Week #46)**

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):

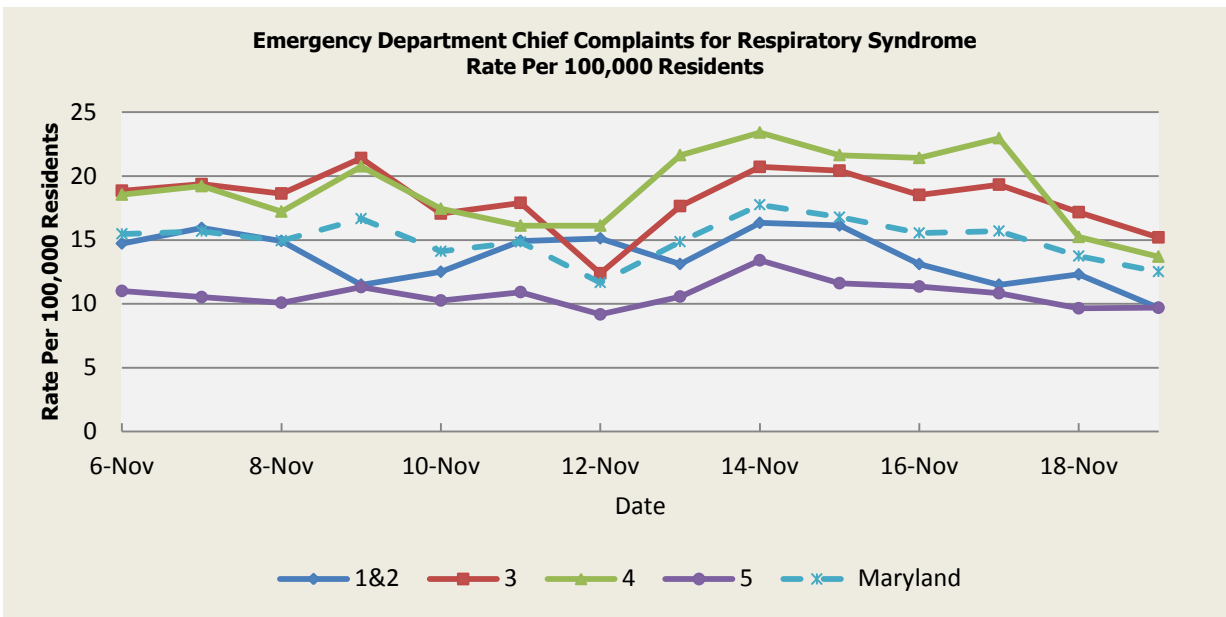
Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There was one (1) gastroenteritis / foodborne outbreak reported this week: 1 outbreak of gastroenteritis / foodborne associated with a Private Home (Region 3).

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

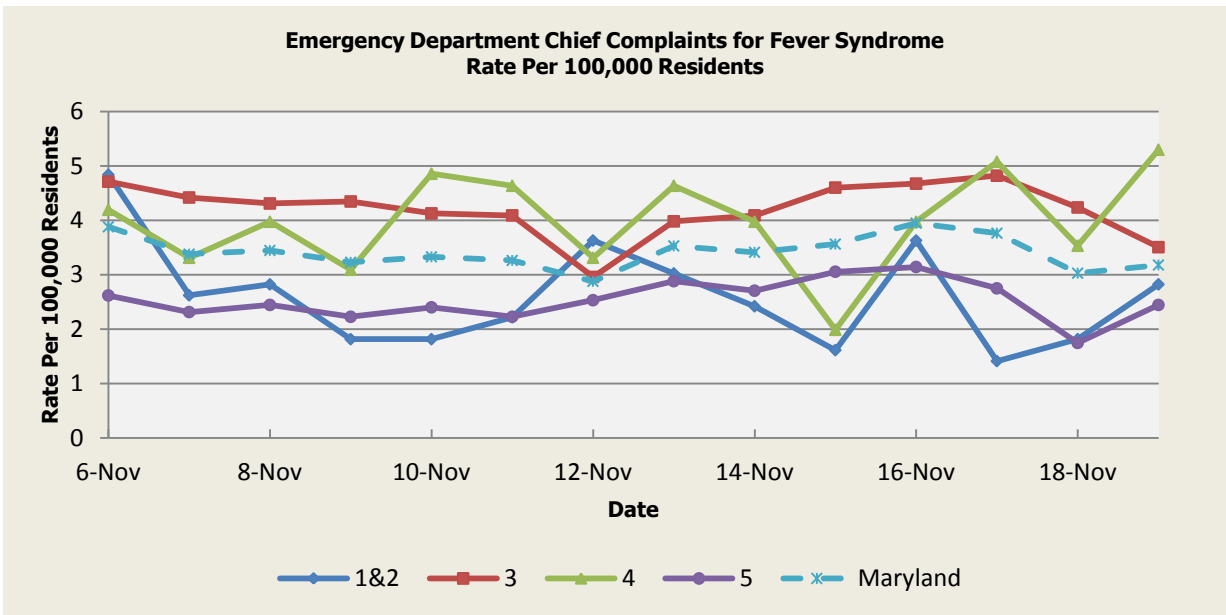
* Per 100,000 Residents



There was one (1) respiratory illness outbreak reported this week: 1 outbreak of Influenza/ Pneumonia 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

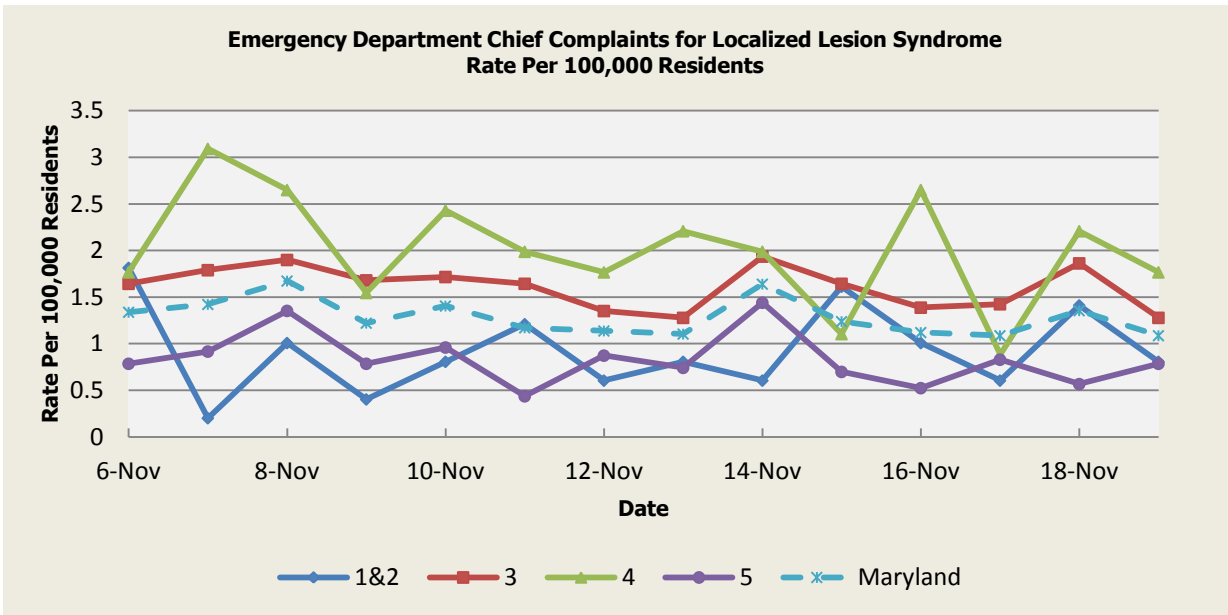
* Per 100,000 Residents



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

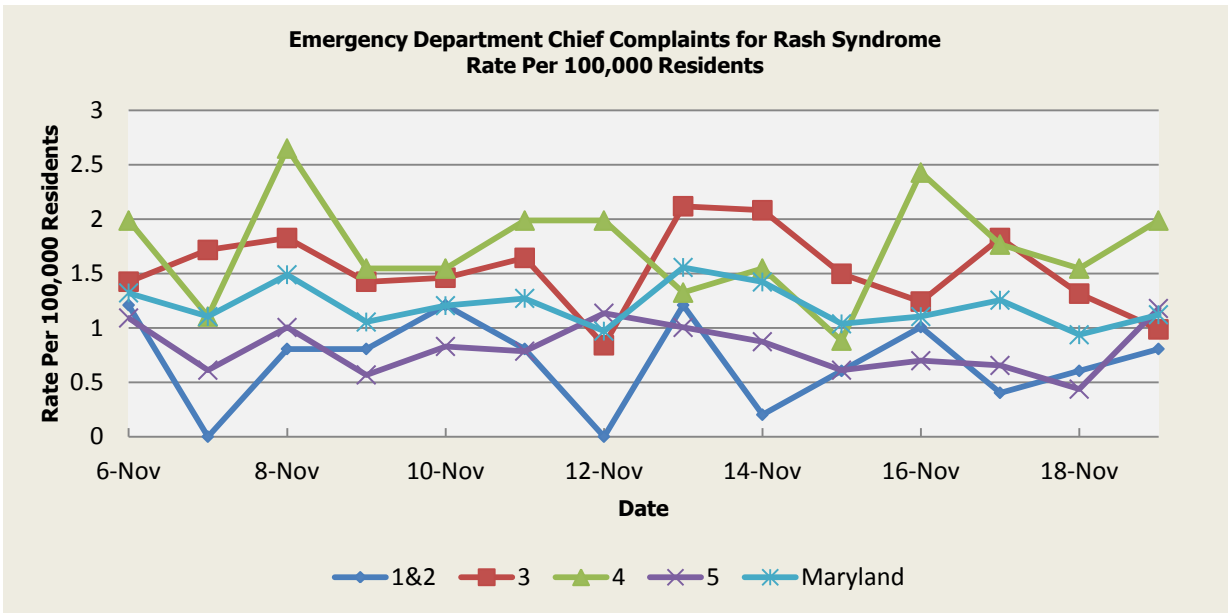
Per 100,000 Residents



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

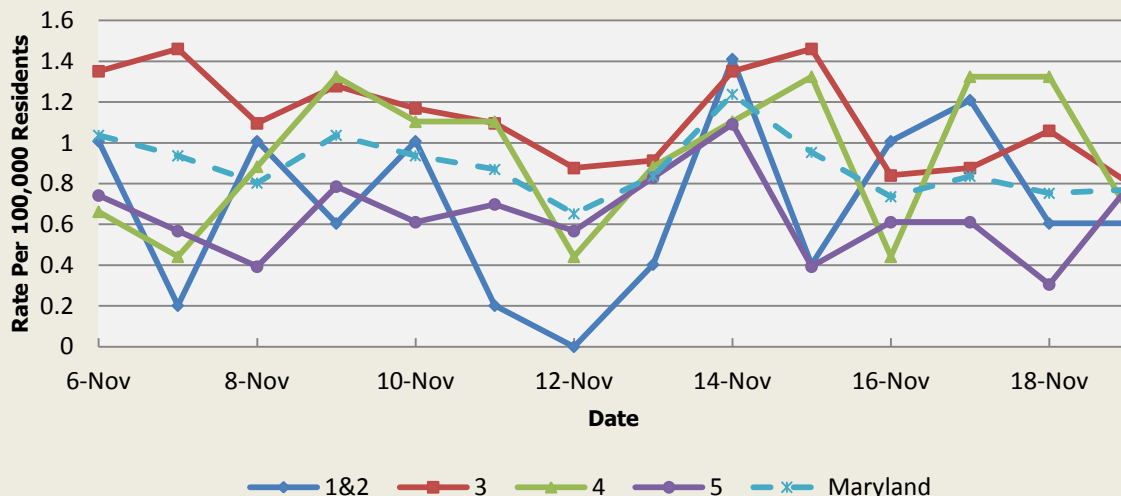


There was one (1) rash illness outbreak reported this week: 1 outbreak of Hand, Foot, and Mouth disease associated with a Daycare Center (Region 5).

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

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

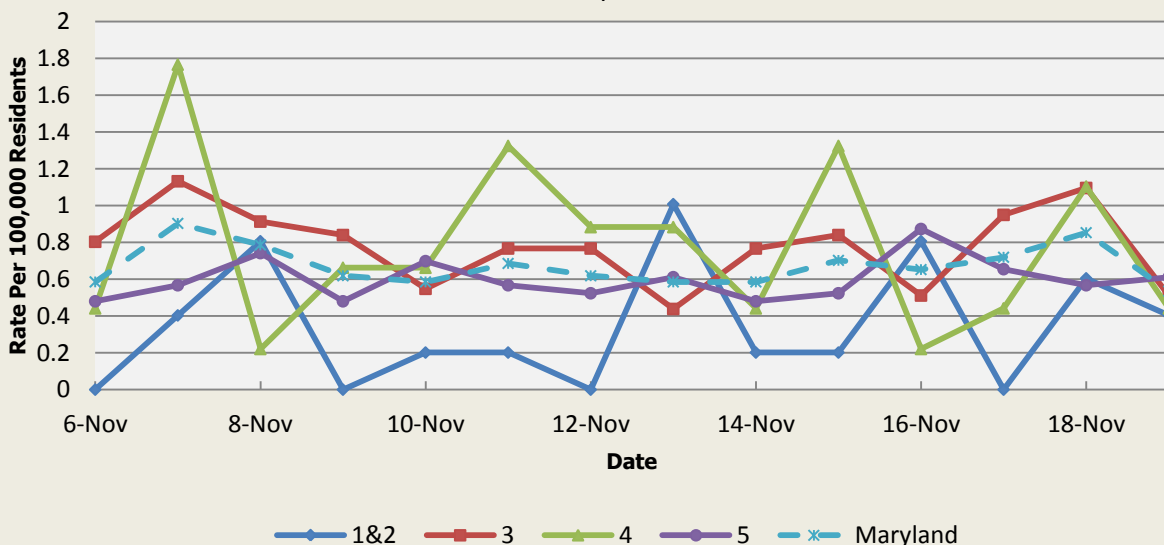


There were no neurological syndrome outbreaks reported this week.

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

**Emergency Department Chief Complaints for Severe Illness or Death Syndrome
Rate Per 100,000 Residents**

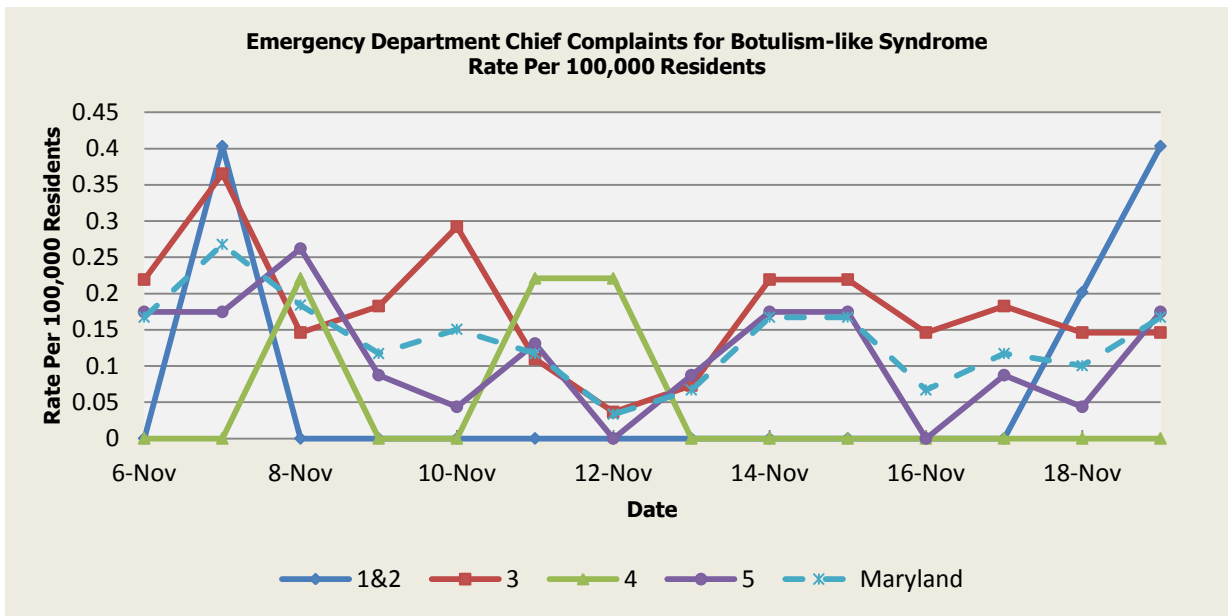


There were no severe illness or death outbreaks reported this week.

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

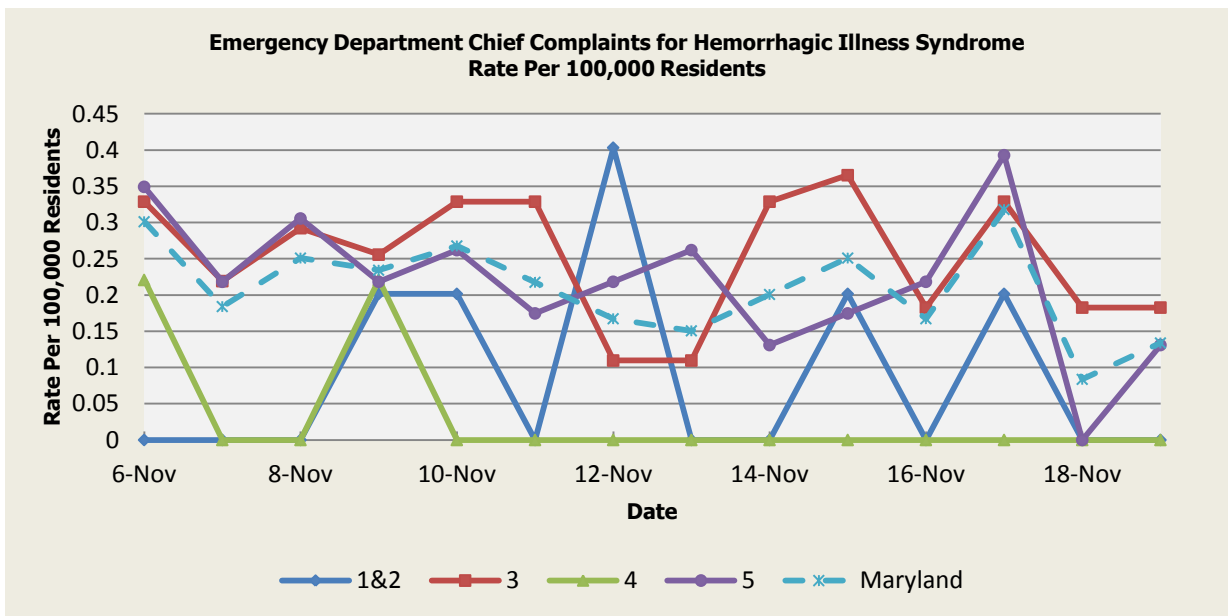
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 11/06 (Regions 3, 5), 11/7 (Regions 1&2,3,5), 11/8 (Regions 4,5), 11/9 (Region 3), 11/10 (Region 3), 11/11 (Regions 4,5), 11/12 (Regions 4), 11/14 (Regions 3,5), 11/15 (Regions 3,5), 11/17 (Region 3), 11/18 (Regions 1&2), and 11/19 (Regions 1&2,5). 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

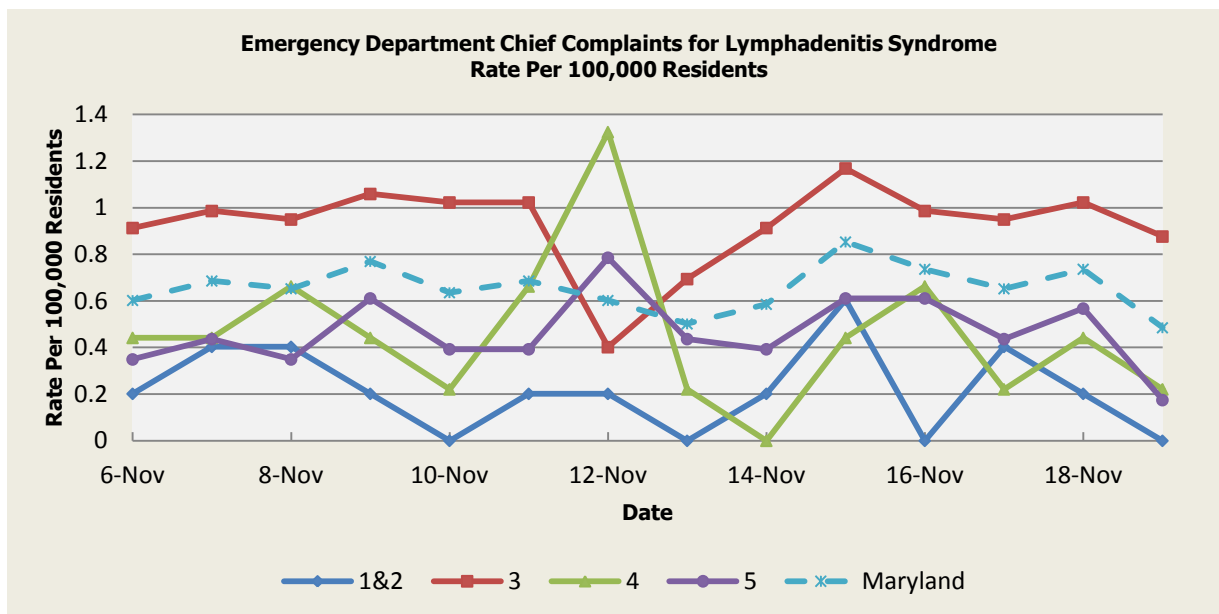
* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 11/6 (Regions 3,4,5), 11/7 (Regions 3,5), 11/8 (Regions 3,5), 11/9 (Regions 1&2,3,4,5), 11/10 (Regions 1&2,3,5), 11/11 (Regions 3,5), 11/12 (Regions 1&2,5), 11/13 (Region 5), 11/14 (Region 3), 11/15 (Regions 1&2,3,5), 11/16 (Region 5), and 11/17 (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 11/6 (Region 3), 11/7 (Region 3), 11/8 (Region 3), 11/9 (Regions 3,5), 11/10 (Region 3), 11/11 (Region 3), 11/12 (Regions 4,5), 11/14 (Region 3), 11/15 (Regions 3,5), 11/16 (Regions 3,5), 11/17 (Region 3), 11/18 (Region 3), and 11/19 (Region 3). 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

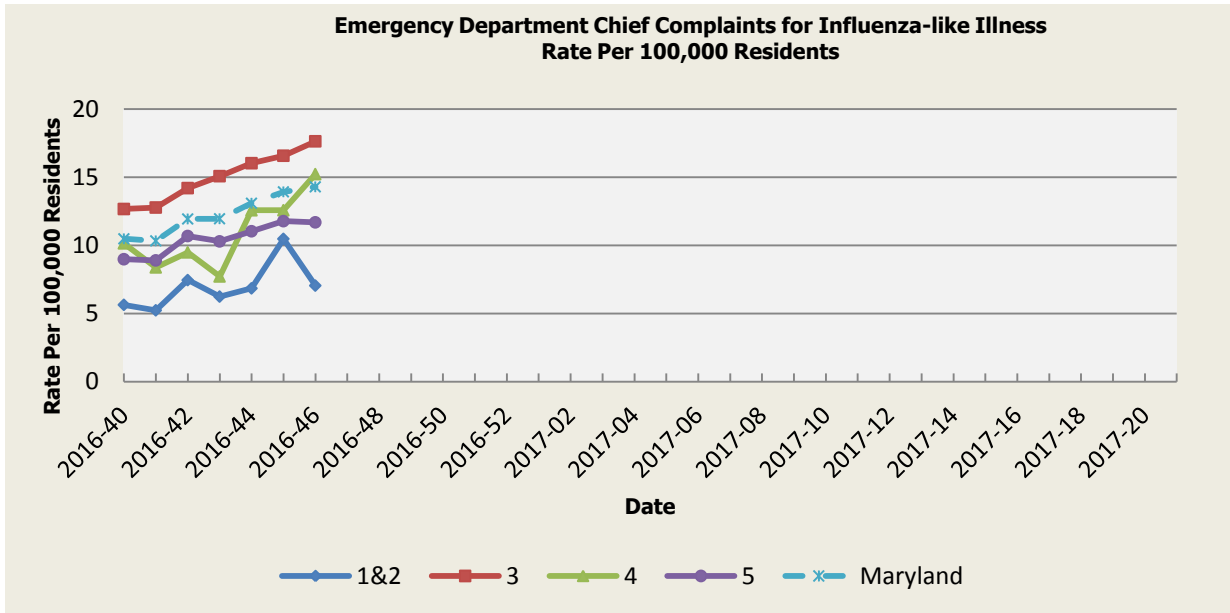
Condition	Counts of Reported Cases‡					
	October			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
Vaccine-Preventable Diseases						
Aseptic meningitis	5	22.8	21	307	421.4	425
Meningococcal disease	0	0	0	3	6.4	5
Measles	0	0.2	0	4	4.6	3
Mumps	2	0.2	0	19	37.8	14
Rubella	0	0	0	1	2.4	2
Pertussis	13	25.4	23	227	277.2	336
Foodborne Diseases						
Salmonellosis	24	37.6	34	738	849.4	860
Shigellosis	3	8.2	7	121	165.2	207
Campylobacteriosis	21	29.2	32	650	630.4	628
Shiga toxin-producing Escherichia coli (STEC)	3	5.8	5	174	114.4	103
Listeriosis	1	0.6	0	18	15.4	16
Arboviral Diseases						
West Nile Fever	0	0	0	2	11.8	10
Lyme Disease	29	53.8	60	1697	1392.4	1483
Emerging Infectious Diseases						
Chikungunya	0	0.4	0	6	15.8	0
Dengue Fever	0	1	1	37	15.6	16
Zika Virus***	1	0	0	118	0.2	0
Other						
Legionellosis	5	6.6	6	139	155	154

‡ Counts are subject to change *Timeframe of 2011-2015 **Includes January through current month

*** As of November 23, 2016, the total Maryland Confirmed Zika Virus Infections is 108.

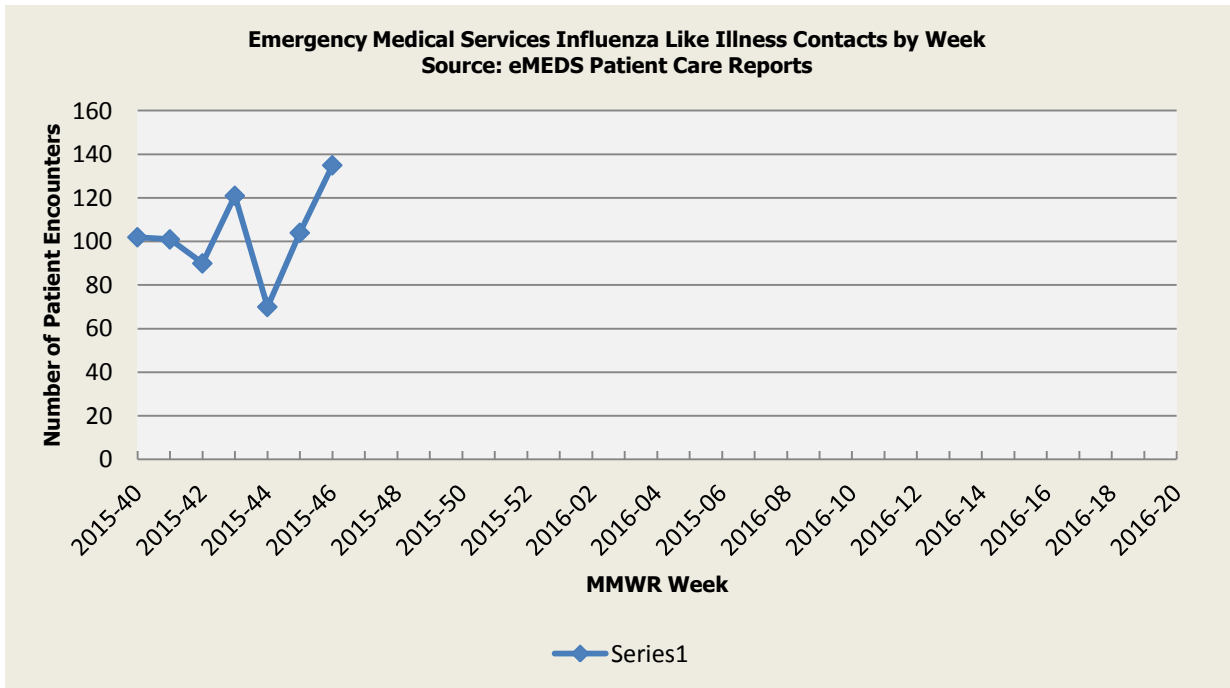
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 46 was: Sporadic Geographic Spread with Minimal Intensity.



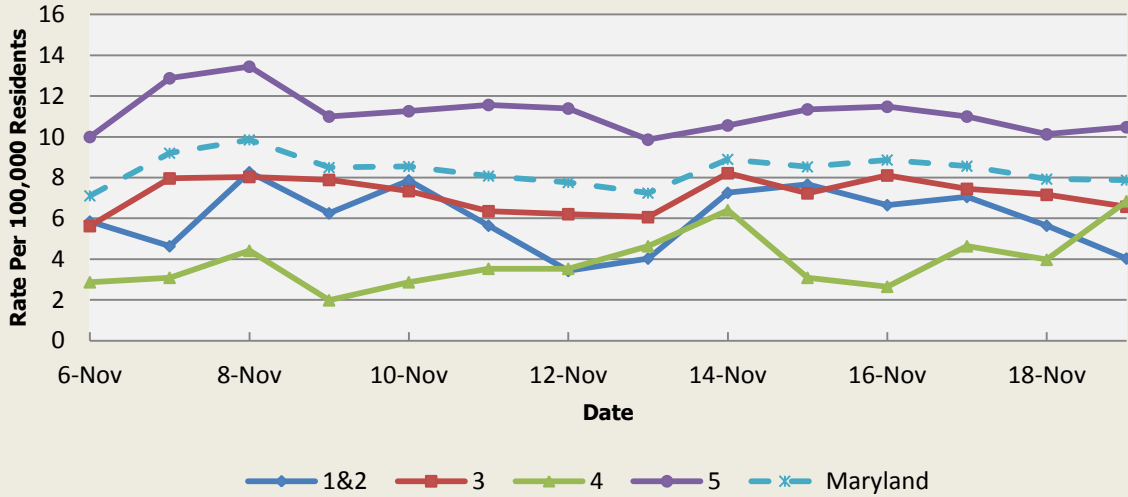
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	11.58	10.78	10.43	10.88
Median Rate*	7.66	8.99	9.05	8.03	8.72

* 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.

**Over-the-Counter Medication Sales Related to Influenza
Rate Per 100,000 Residents**

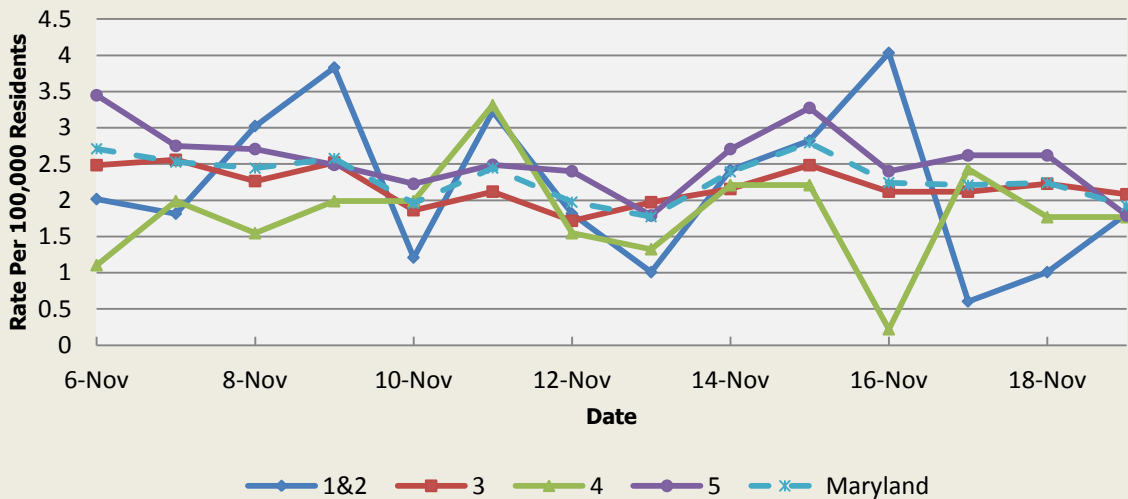


There was an appreciable increase above baseline in the rate of OTC medication sales on 11/10 (Regions 1&2), 11/14 (Region 4), and 11/19 (Regions 4). These increases are not known to be associated with any outbreaks.

Health Region	OTC Sales Baseline Data January 1, 2010 - Present				
	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

**Over-the-Counter Thermometer Sales
Rate Per 100,000 Residents**



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

Health Region	Thermometer Sales Baseline Data January 1, 2010 - Present				
	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 H5N6 (JAPAN): 22 Nov 2016, for the first time since 2014, Japan's environment ministry reports raising the bird flu alert to the maximum level after confirming the presence of the highly pathogenic H5N6 strain in some waters in the southern part of the archipelago and the virus in several dead birds. The bird flu virus has also been detected in two (2) deceased swans in the Akita Zoo in the northern part of the main Japanese island of Honshu, which tested positive in the preliminary test and prompted the zoo to cull 132 birds. Read More: <http://www.promedmail.org/post/4647818>

HPAI H5N8 (EUROPE): 21 Nov 2016, The European Commission encourages European Union member states to remain vigilant following outbreaks of bird flu in poultry and wild birds across Europe. The announcement comes after several international markets placed import restrictions on German poultry following an outbreak of bird flu in the country reported last week. In total, there have been 16 confirmed outbreaks of H5N8 in poultry in 5 EU countries: Hungary (7 cases), Germany (7), Austria (1), Denmark (1) and one (1) case in a zoo in the Netherlands. The virus has also been found, in wild birds only, in 7 EU states (Hungary, Poland, Germany, Croatia, Austria, Denmark and the Netherlands) plus Switzerland. Read More: <http://www.promedmail.org/post/4645059>

HPAI H5N6 (SOUTH KOREA): 18 Nov 2016, Agriculture Ministry Officials in South Korea confirm the country's first outbreak of the highly pathogenic H5N6 bird flu virus. The outbreaks occurred at two (2) poultry farms in the central and southern parts of the country after the ministry reported last week that the H5N6 strain of the virus had been found in the feces of migratory birds. South Korea's ministry reports over 62,000 birds have been culled to prevent the spread of the virus and that it has issued a "movement control order" within a radius of 10 kilometers (6.2 miles) around the farms. The Akita Zoo in Japan has sent samples of deceased bodies to the Hokkaido University to determine if the virus is the same H5N6 strain found locally in the area. Read More: <http://www.promedmail.org/post/4641187>

NATIONAL DISEASE REPORTS

MUMPS (USA): 18 Nov 2016, reports of mumps cases are surging in US colleges and schools this year. For example, health officials at the State University of New York at New Paltz reports 15 cases of mumps, an increase of 6 in the last 2 weeks; four (4) students have been confirmed at Harvard University; twenty-seven (27) students are reported as probable cases due to close contact with a confirmed case at the University of Missouri. Additional outbreak investigations include but are not limited to community and school settings in Maine, Iowa, and Arkansas. It is not clear why this large increase in cases is occurring. Read More: <http://www.promedmail.org/post/4639792>

SALMONELLOSIS (USA): 15 Nov 2016, According to FDA officials, another three (3) states in the U.S. and a city in Japan may have tainted seaweed from Hawaii. The recalled seaweed products [Kahuku Ogo, Robusta Ogo, and Kahuku Sea Asparagus] were distributed mainly in Hawaii to seafood and produce distributors through direct delivery, but also to some customers in California, Washington, Nevada [USA], Tokyo [Japan], and retailed at local farmers markets in Hawaii. To date, 14 cases of *_salmonella_* have been reported on Oahu in connection with this contamination. Production of the product has been suspended while FDA and the company continue their investigation as to what caused the problem. Read More: <http://www.promedmail.org/post/4638175>

SYPHILIS (ALABAMA): 18, Nov 2016, The Alabama Department of Public Health has issued a health advisory to inform the public of a rise in syphilis cases in north Alabama. Health officials have discovered 54 cases in Madison County so far this year [2016], a more than 90 percent increase over the number of cases of primary and secondary syphilis that were seen in 2015. Read More: <http://www.promedmail.org/post/4642802>

INTERNATIONAL DISEASE REPORTS

DIPHTHERIA (PAKISTAN): 18 Nov 2016, There have been reports of an alarming increase in diphtheria cases in the South and North Waziristan agencies, including the death of an estimated 30 children, while hundreds of others have been infected because of a severe dearth of medicines. Health officials state that the disease has spread from children living in internally displaced persons camps in the district as most of the tribal areas don't have vaccinations. The disease is rapidly spreading to adjoining districts, including Tank, Dera Ismail Khan, and Bannu, where dozens of children have been hospitalized. Read More: <http://www.promedmail.org/post/4643033>

PERTUSSIS (AUSTRALIA): 15 Nov 2016, the Northern Australia Territory's Department of Health has extended an alert for pertussis after reporting a spike in whooping cough cases in the area. Health Officials state that infection rates for pertussis have doubled since 2015, with 165 cases confirmed in the state since January 2016. Almost 90 percent of those infected have been in the Palmerston and Darwin areas. Read More: <http://www.promedmail.org/post/4638663>

STREPTOCOCCUS (ENGLAND): 16 Nov 2016, Health Officials from the South West region of England report that the number of scarlet fever cases across the region has increased by more than 50 per cent in the last week: a total of 20 cases, up from 13 in the previous week, and an overall 50 year high in the UK. In Somerset county, three (3) people have been diagnosed with scarlet fever in the past week: 1 in South Somerset and 2 in the Sedgemoor district. Read More: <http://www.promedmail.org/post/4634640>

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

