



September 30, 2016

**Public Health Preparedness and Situational Awareness Report: #2016:38
Reporting for the week ending 9/24/16 (MMWR Week #38)**

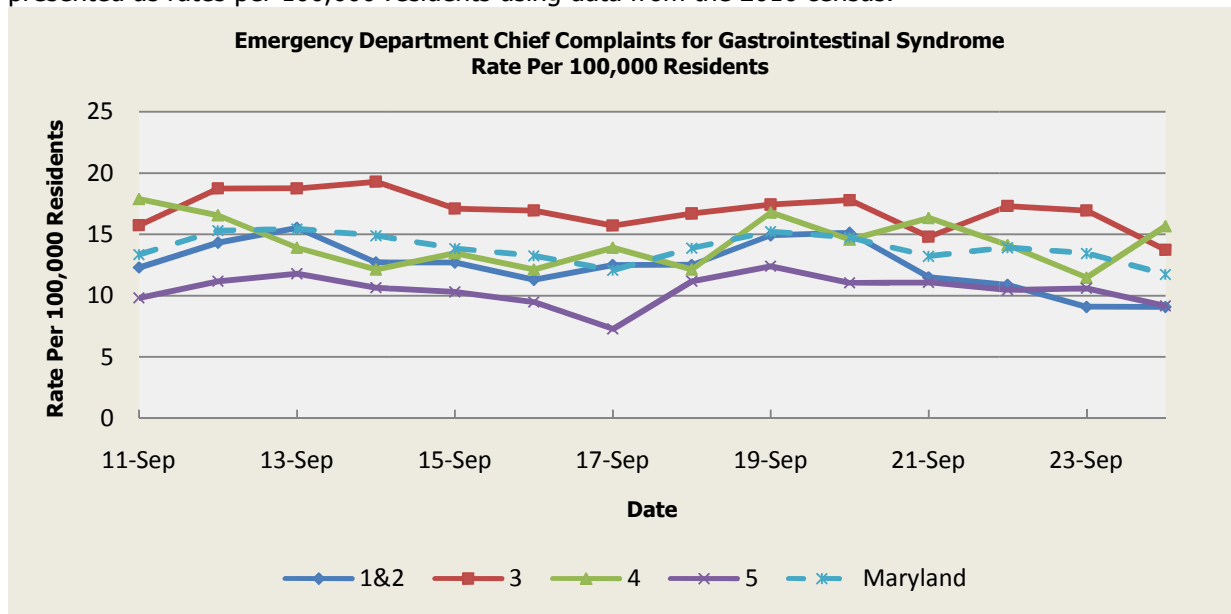
CURRENT HOMELAND SECURITY THREAT LEVELS

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

SYNDROMIC SURVEILLANCE REPORTS

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

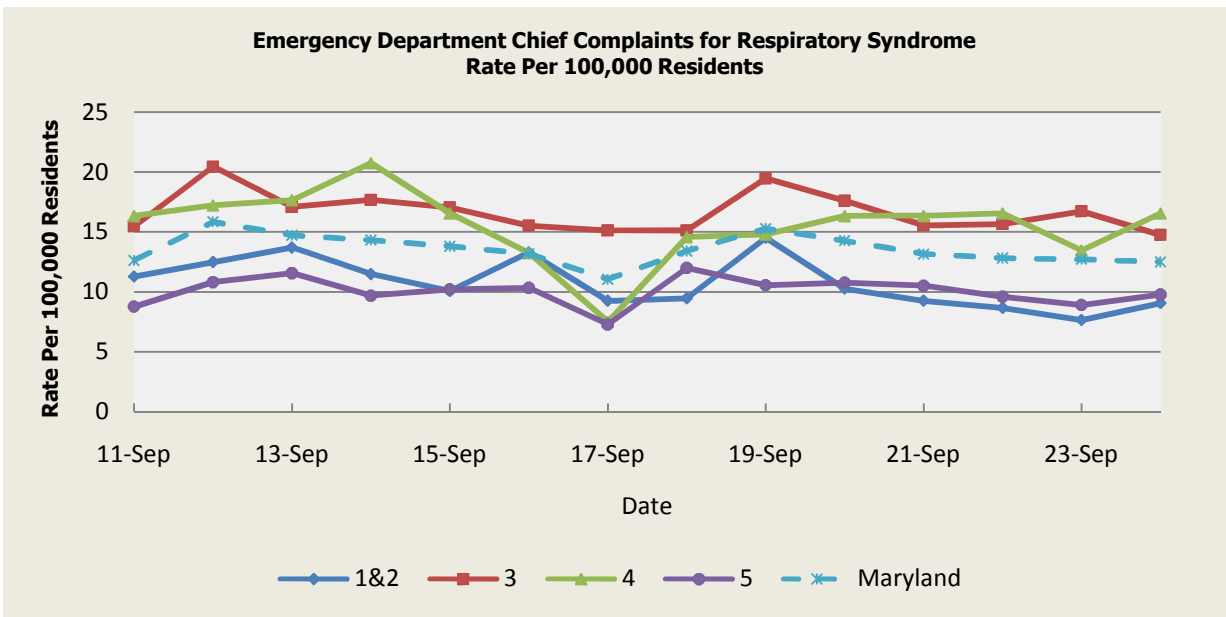
Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There were no outbreaks of gastroenteritis/foodborne illness reported this week.

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

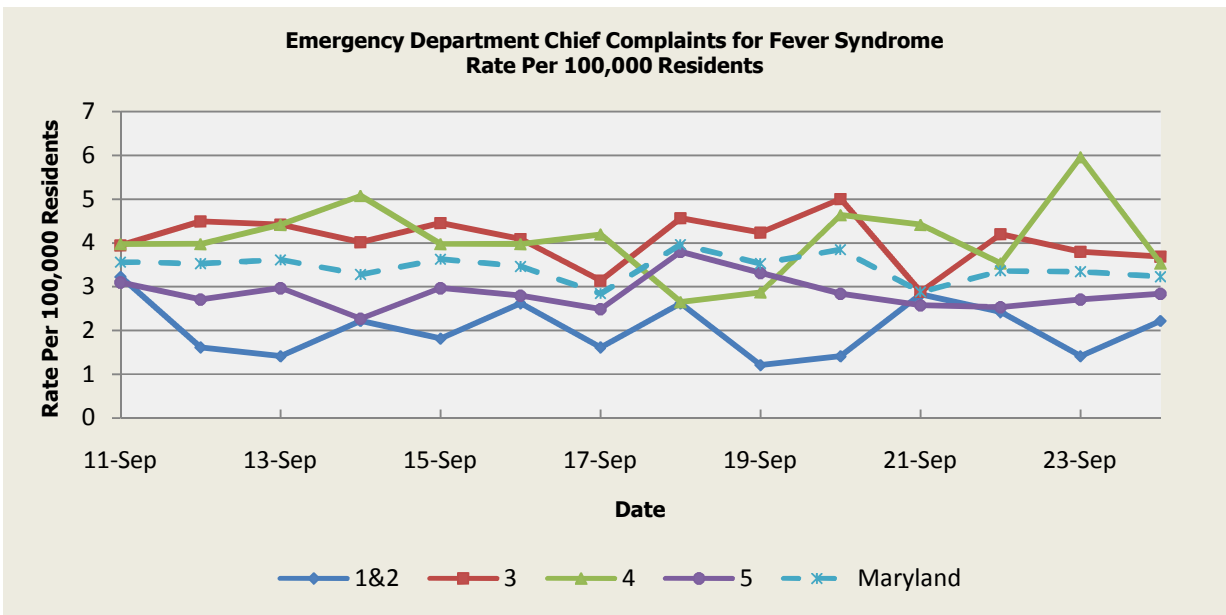
* Per 100,000 Residents



There was one (1) respiratory illness outbreak reported this week: 1 outbreak of Pertussis associated with a Religious 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

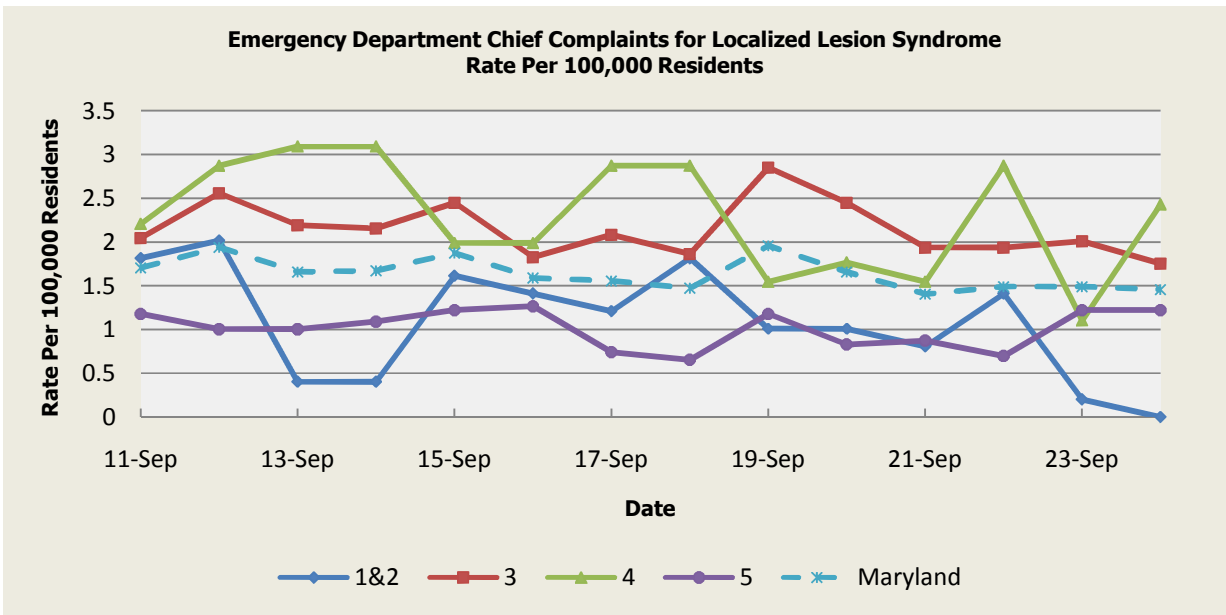
* Per 100,000 Residents



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

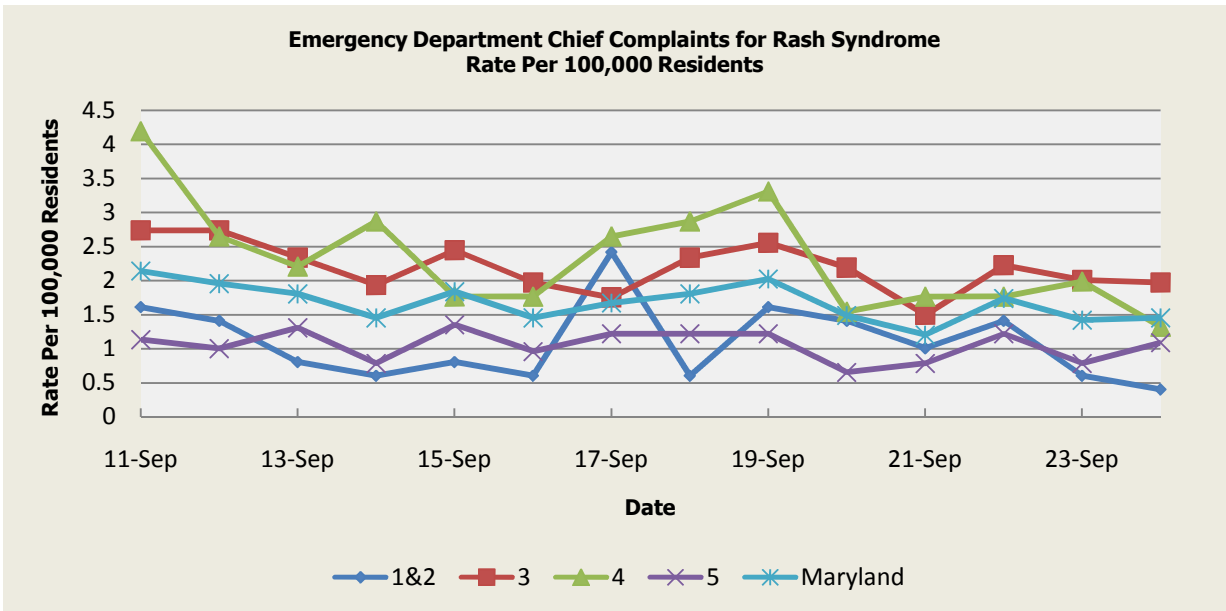
Per 100,000 Residents



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

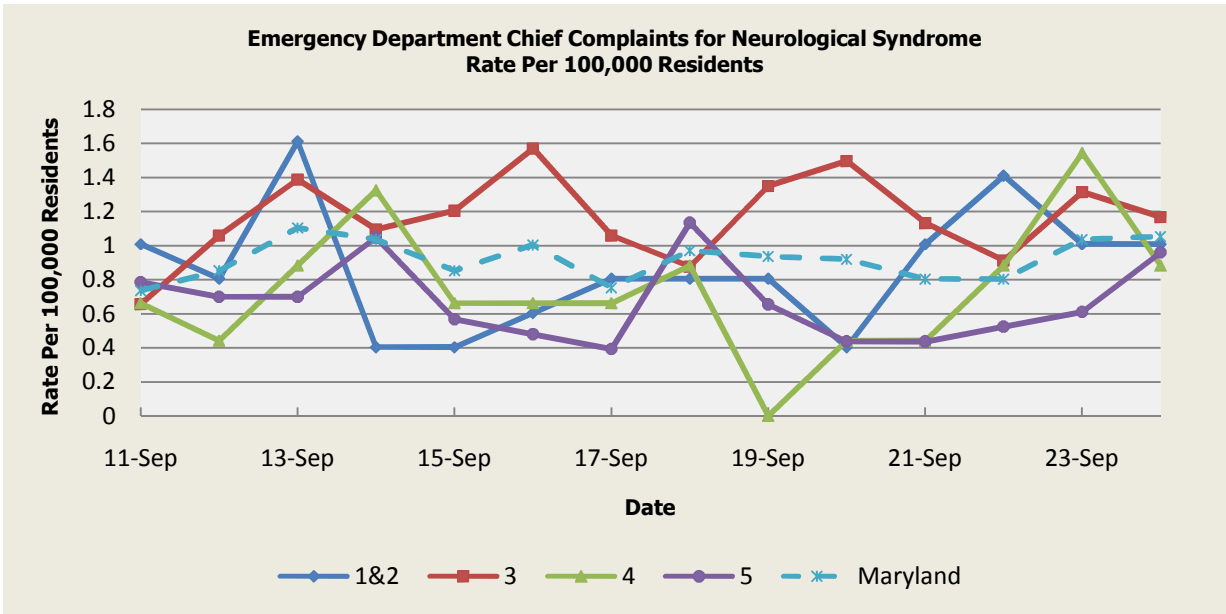
* Per 100,000 Residents



There were two (2) rash illness outbreaks reported this week: 1 outbreak of Scabies in an Assisted Living Facility (Region 4); 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

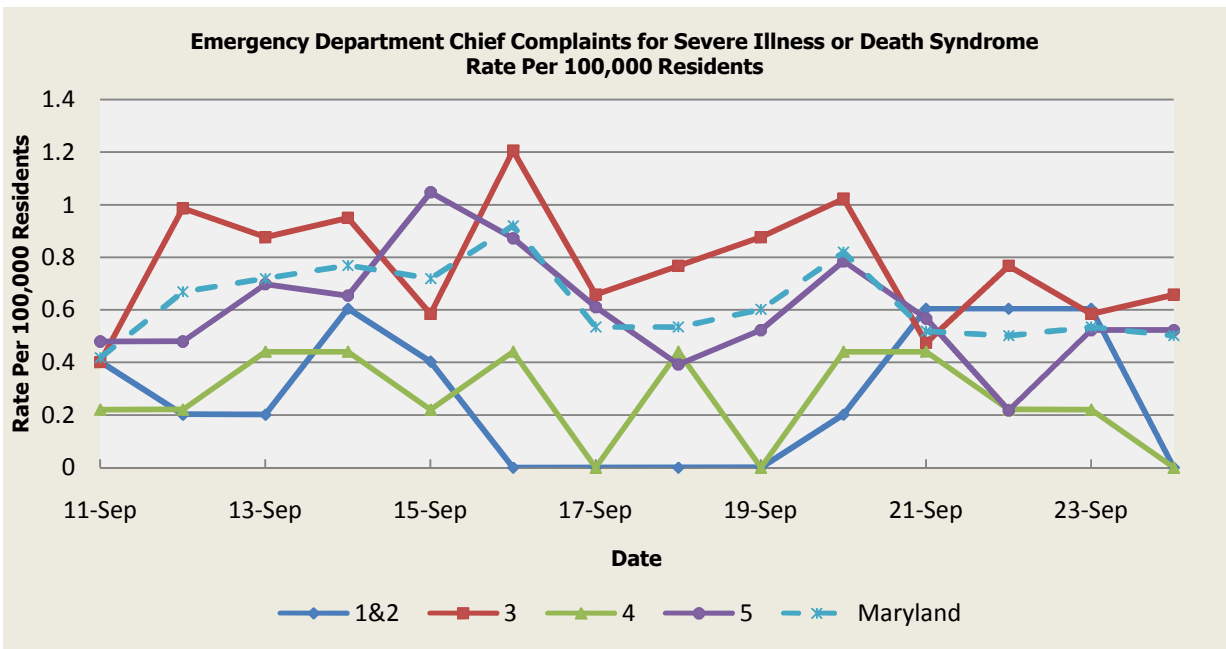
* Per 100,000 Residents



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

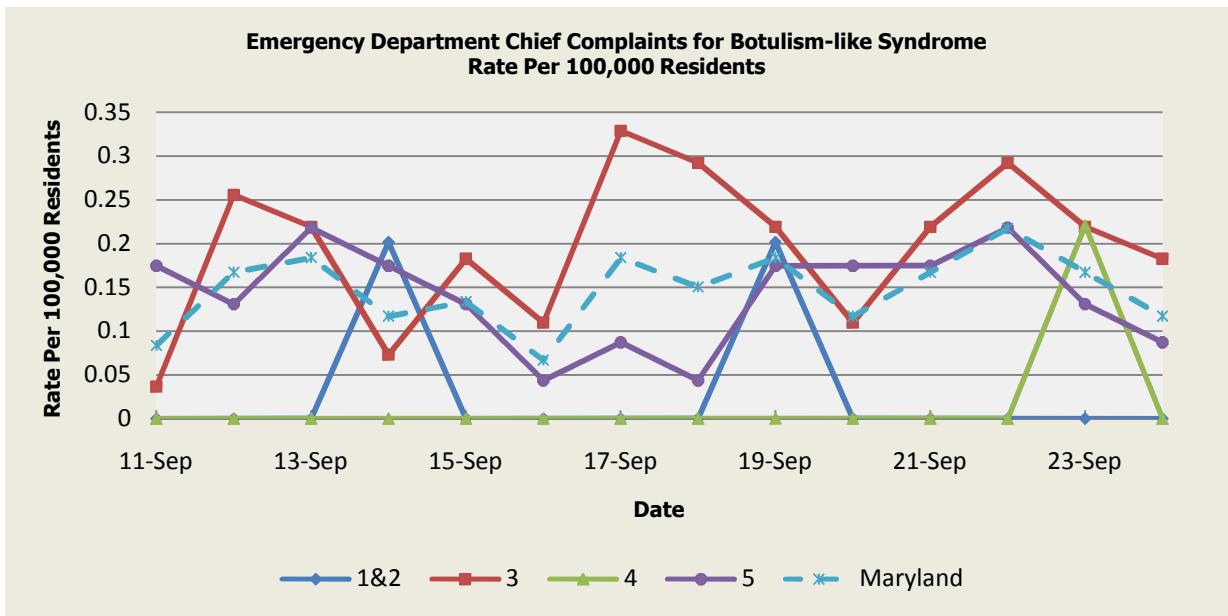


There were no severe illness or death outbreaks reported this week.

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

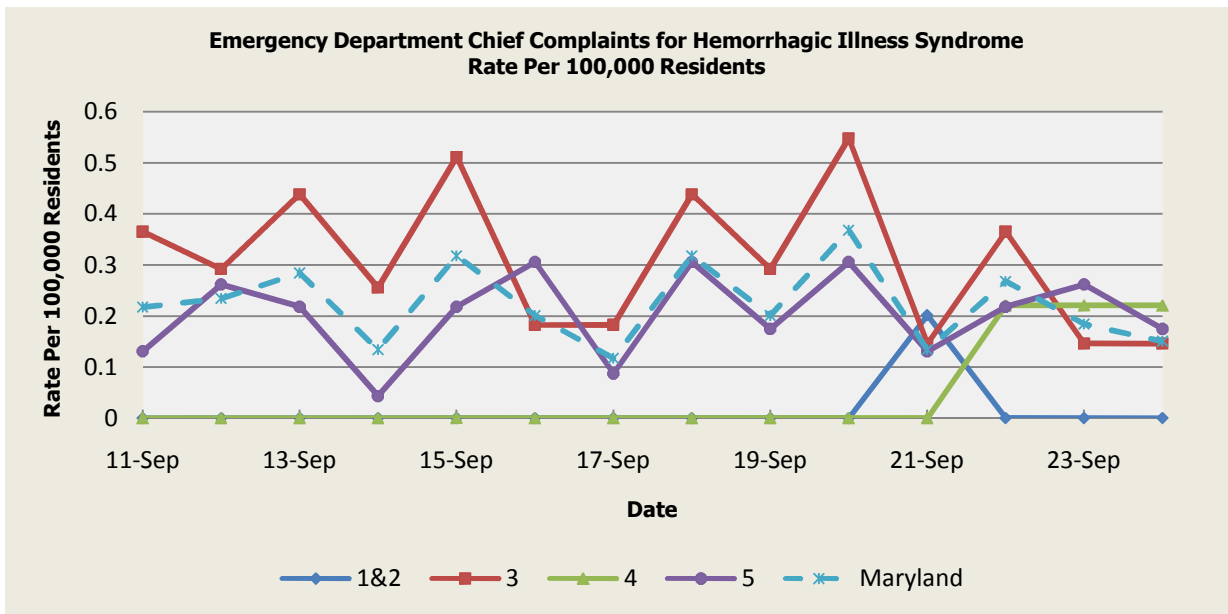
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on /11 (Region 5), 9/12 (Regions 3,5), 9/13 (Regions 3,5), 9/14 (Regions 1&2,5), 9/15 (Regions 3,5), 9/17 (Regions 3,5), 9/18 (Region 3), 9/19 (Regions 1&2,3,5), 9/20 (Region 5), 9/21 (Regions 3,5), 9/22 (Regions 3,5), 9/23 (Regions 3,4,5) and 9/24 (Regions 3,5). 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

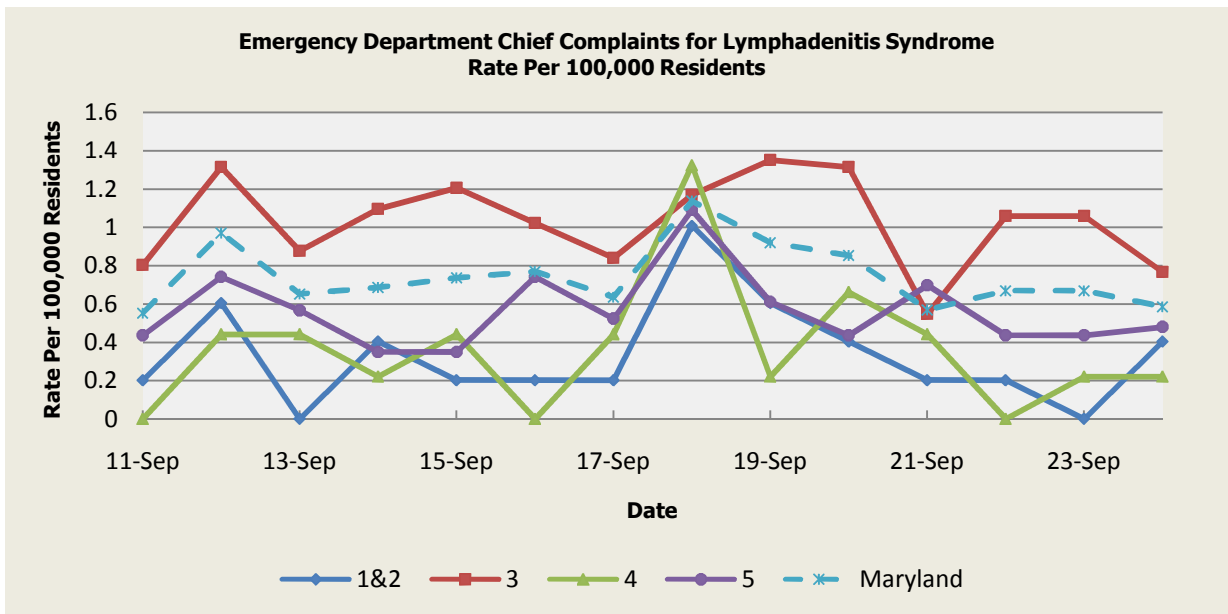
* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 9/11 (Region 3), 9/12 (Regions 3,5), 9/13 (Regions 3,5), 9/14 (Region 3), 9/15 (Regions 3,5), 9/16 (Region 5), 9/18 (Regions 3,5), 9/19 (Regions 3,5), 9/20 (Regions 3,5), 9/21 (Regions 1&2), 9/22 (Regions 3,4,5), 9/23 (Regions 4,5) and 9/24 (Regions 4,5). 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 9/12 (Region 3), 9/14 (Region 3), 9/15 (Region 3), 9/18 (Regions 3,4,5), 9/19 (Region 3), 9/20 (Region 3) and 9/24 (Regions 1&2). 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	0.50	0.34	0.51	0.38
Median Rate*	0.20	0.37	0.22	0.26	0.32

* Per 100,000 Residents

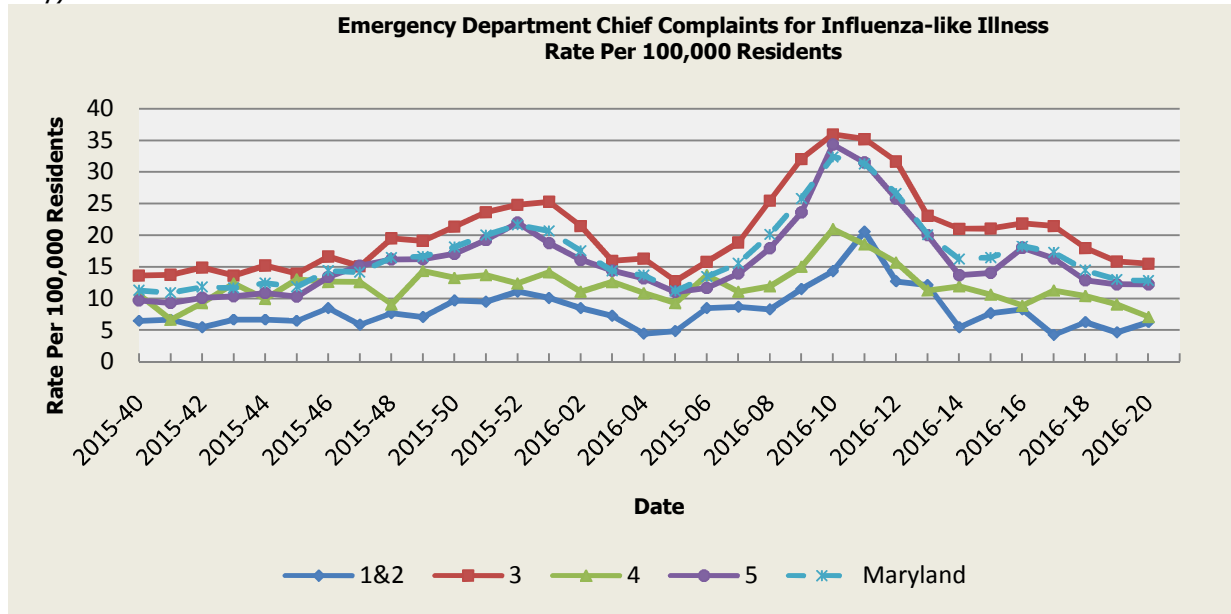
MARYLAND REPORTABLE DISEASE SURVEILLANCE

Condition	Counts of Reported Cases‡					
	September			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
Vaccine-Preventable Diseases						
Aseptic meningitis	21	42.4	46	247	334.6	343
Meningococcal disease	1	0.2	0	3	5.6	4
Measles	0	0.2	0	4	4	3
Mumps	3	1	0	16	35.6	10
Rubella	0	0	0	1	2.4	2
Pertussis	11	29.6	25	142	215	266
Foodborne Diseases						
Salmonellosis	50	84.4	86	597	710.2	713
Shigellosis	9	15	15	101	140	175
Campylobacteriosis	26	49.6	51	520	533.4	525
Shiga toxin-producing Escherichia coli (STEC)	7	8.6	9	131	94.2	85
Listeriosis	3	0.6	0	17	12.2	13
Arboviral Diseases						
West Nile Fever	0	3.2	4	1	11	10
Lyme Disease	72	102.8	96	1391	1192.4	1298
Emerging Infectious Diseases						
Chikungunya	0	1.8	0	5	11.4	0
Dengue Fever	0	1.4	1	28	12.2	12
Zika Virus***	5	0	0	104	0.2	0
Other						
Legionellosis	7	18	16	108	124.4	122

‡ Counts are subject to change *Timeframe of 2011-2015 **Includes January through current month
*** As of September 28, 2016, the total Maryland Confirmed Zika Virus Infections is 101.

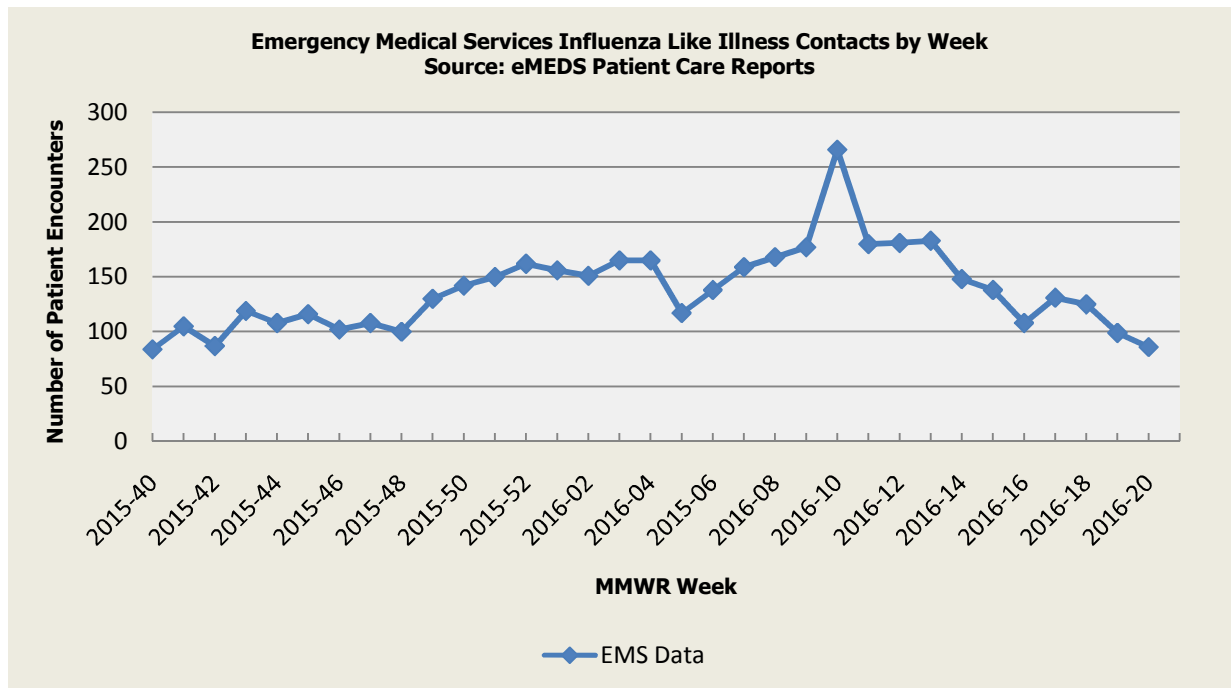
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May).

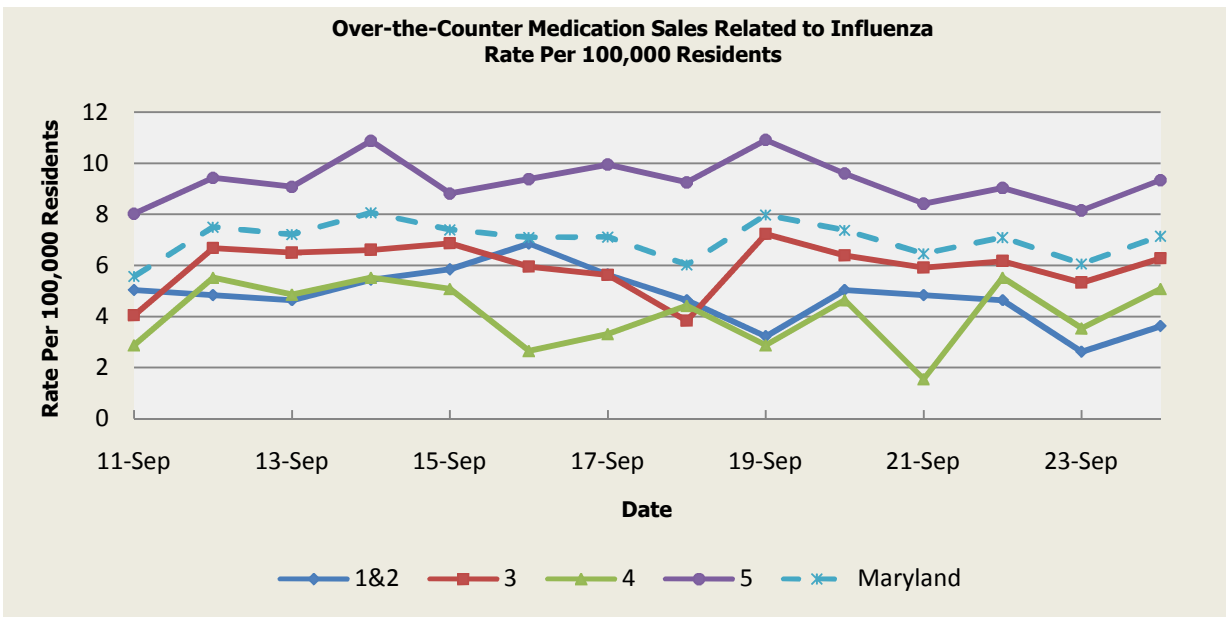


Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	11.58	10.78	10.43	10.88
Median Rate*	7.66	8.99	9.05	8.03	8.72

* Per 100,000 Residents



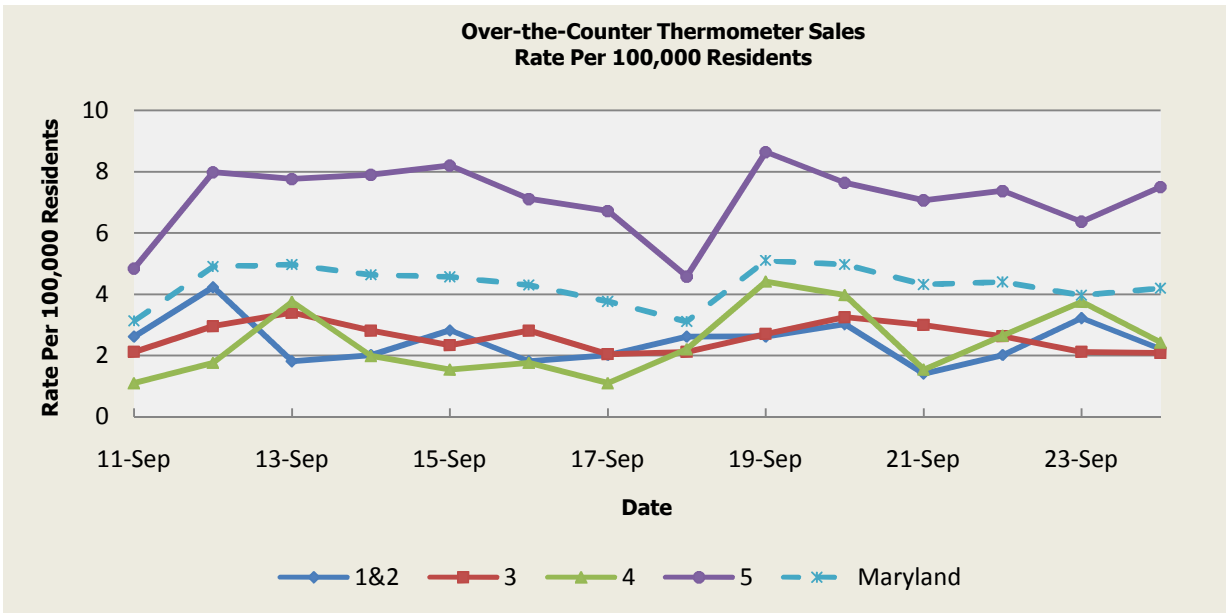
Disclaimer on eMEDS flu related data: This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic 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 not an appreciable increase above baseline in the rate of OTC medication sales this week.

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 July 19, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 851, of which 450 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

Avian Influenza:

H5N1 (MIDDLE EAST): 23 Sept 2016, This risk assessment provides an estimate of the likelihood of introduction of H5N1 HPAI from recently infected countries (Lebanon and Iraq) to other countries in the Middle East region and neighbouring territories as a result of the movement of live poultry (both legal and illegal), poultry-related products and the migration of wild birds. The preliminary assessment based on the available information and uncertainties associated indicate that the risk of introduction of H5N1 HPAI for each of the 9 regional and neighbouring countries or territories varies and is as follows:

1. High: Iran (Islamic Republic of), Israel, Jordan, the Syrian Arab Republic and Turkey,
2. Medium: Gaza Strip, Kuwait, Saudi Arabia and The West Bank,
3. Low: Armenia, Azerbaijan and Georgia,
4. Negligible: Cyprus.

The situation in the region is of concern given the existing poultry populations at risk and the potential for spread between countries. Read More: <http://www.promedmail.org/post/4511967>

NATIONAL DISEASE REPORTS

CRYPTOSPORIDIOSIS (NEW MEXICO): 23 Sept 2016, For the 1st time since CDC's Morbidity and Mortality Weekly Report in 2015 documented 2 siblings with cryptosporidiosis associated with raw milk consumption, a state is blaming an invasion of the microscopic parasites on raw milk. New Mexico officials want people to dump raw milk, warning the cryptosporidium parasite causes a diarrheal disease known as cryptosporidiosis. Read more: <http://www.promedmail.org/post/4511762>

E. COLI EHEC (USA): 24 Sept 2016, The Centers for Disease Control [CDC] says a multistate outbreak of *E. coli* has sickened 7 people, sending 5 to the hospital adding on 24 Sep 2016 that the outbreak of *E. coli*, which can cause intestinal illnesses, likely is linked to beef products from Adams Farms Slaughterhouse in Athol, Massachusetts. Read more: <http://www.promedmail.org/post/4517488>

ANAPLASMOSIS (VERMONT): 27 Sept 2016, The Vermont Health Department says the state [is] on track for the highest number of cases of a tick-borne disease called anaplasmosis. According to health officials, anaplasmosis is transmitted by the black-legged tick, the very same one that spreads Lyme disease. "Anaplasmosis is a serious illness, and we're seeing more of it in Vermont," said Bradley Tompkins, infectious disease epidemiologist. Read more: <http://www.promedmail.org/post/4523508>

LEGIONELLOSIS (WASHINGTON): 27 Sept 2016, State health officials have confirmed 3 new cases of legionnaires' disease linked to the ongoing Hopkins [Minnesota] outbreak, bringing the total number to 20, including one death. In all the cases, including the 3 announced [Tue 27 Sep 2016], patients were exposed to the bacteria in the Hopkins area before [9 Sep 2016] Since then, health officials have taken steps to eliminate possible infection sources; cooling towers on several local businesses were disinfected and a decorative fountain was shut down. Read more: <http://www.promedmail.org/post/4523447>

ANTHRAX (USA): 29 Sept 2016, Potentially deadly live anthrax spores were mistakenly sent to a laboratory in Hampton Roads from an Army facility in Utah, according to a map in a government watchdog report. The Army has said samples of anthrax that were supposed to have been inactivated were sent to 194 federal, academic and commercial laboratories in every state, 9 countries and 3 U.S. territories. Read more: <http://www.promedmail.org/post/4524933>

INTERNATIONAL DISEASE REPORTS

CRIMEAN-CONGO HEMORRHAGIC FEVER (PAKISTAN): 24 Sept 2016, Another patient of Congo virus has died in Peshawar local hospital on Saturday, 24 News HD reported. According to details, 45-year-old S.R. was admitted in Peshawar local hospital for Congo virus treatment. He was being treated in special ward. Doctors confirmed Congo virus disease in S.R. As many as 8 patients are being treated in Peshawar hospital. Up to 3 patients have died in Peshawar due to Congo virus in this year. Read More: <http://www.promedmail.org/post/4516191>

HUMAN ENTEROVIRUS D68 (NETHERLANDS): 25 Sept 2016, In June and July 2016, we identified 8 adults and 17 children with respiratory enterovirus D68 infections. 13 children required intensive care unit admission because of respiratory insufficiency, and one had concomitant acute flaccid myelitis [AFM]. Phylogenetic analysis showed that all of 20 sequences obtained belong to the recently described clade B3. Read more: <http://www.promedmail.org/post/4513491>

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.dhmh.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.dhmh.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmh.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.

Prepared By:

Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Fax: 410-333-5000

Anikah H. Salim, MPH, CPH
Biosurveillance Epidemiologist
Office: 410-767-2074
Email: Anikah.Salim@maryland.gov

Jessica Goodell, MPH
Temporary Epidemiology Field Assignee, CDC
Office: 410-767-6745
Email: Jessica.Goodell@maryland.gov

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

