



May 6, 2016

## Public Health Preparedness and Situational Awareness Report: #2016:17 Reporting for the week ending 4/30/16 (MMWR Week #17)

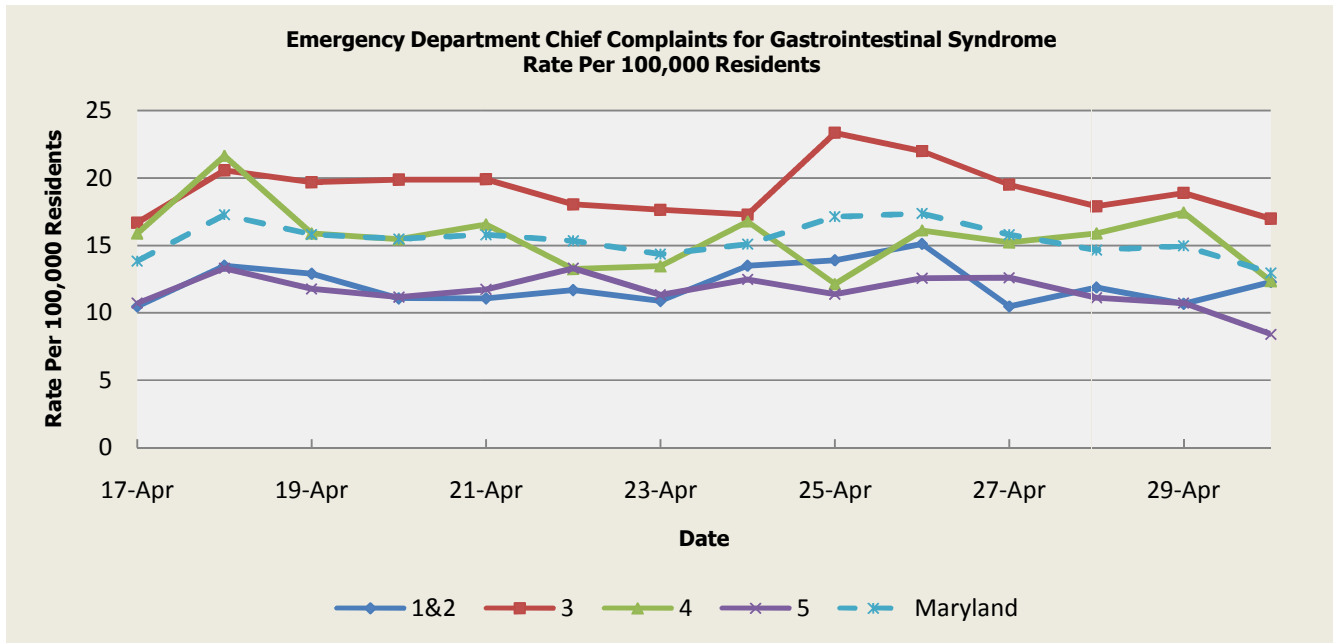
### CURRENT HOMELAND SECURITY THREAT LEVELS

**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.

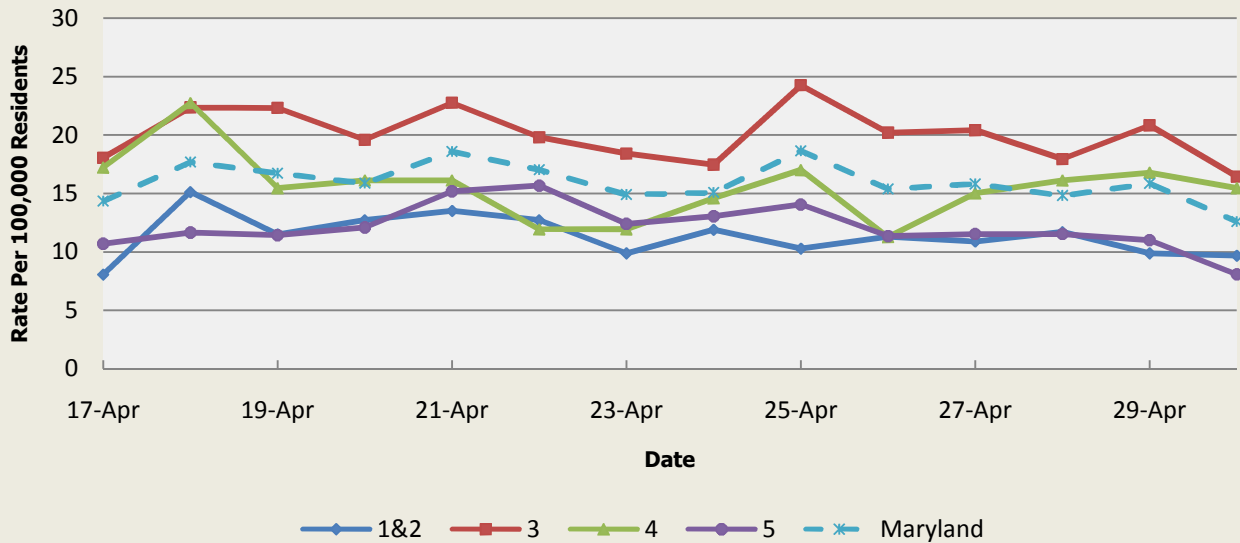


There was (1) gastrointestinal illness outbreak reported this week: 1 outbreak of gastroenteritis in a Nursing Homes (Region 5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	13.06	14.98	15.56	10.41	13.12
Median Rate*	12.70	14.43	14.80	10.17	12.74

\* Per 100,000 Residents

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

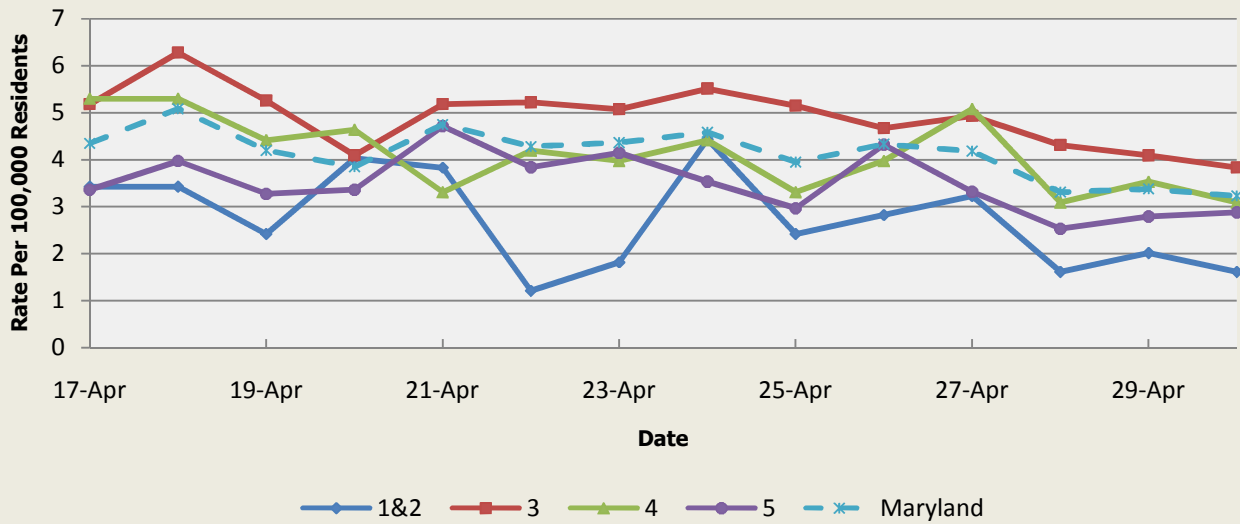


There were (2) respiratory illness outbreaks reported this week: 1 outbreak of legionellosis in a Nursing Home (Region 3); 1 outbreak of influenza in a Nursing Home (Region 5).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.10	14.21	14.16	10.03	12.43
Median Rate*	11.70	13.34	13.47	9.52	11.76

\* Per 100,000 Residents

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

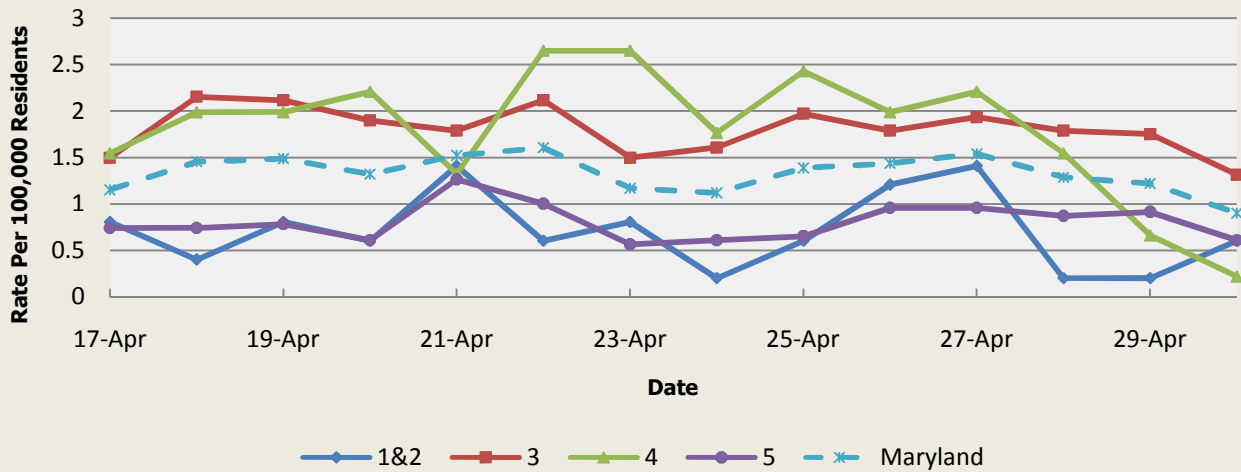


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.11	3.83	3.96	3.12	3.51
Median Rate*	3.02	3.62	3.75	2.97	3.34

Per 100,000 Residents

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

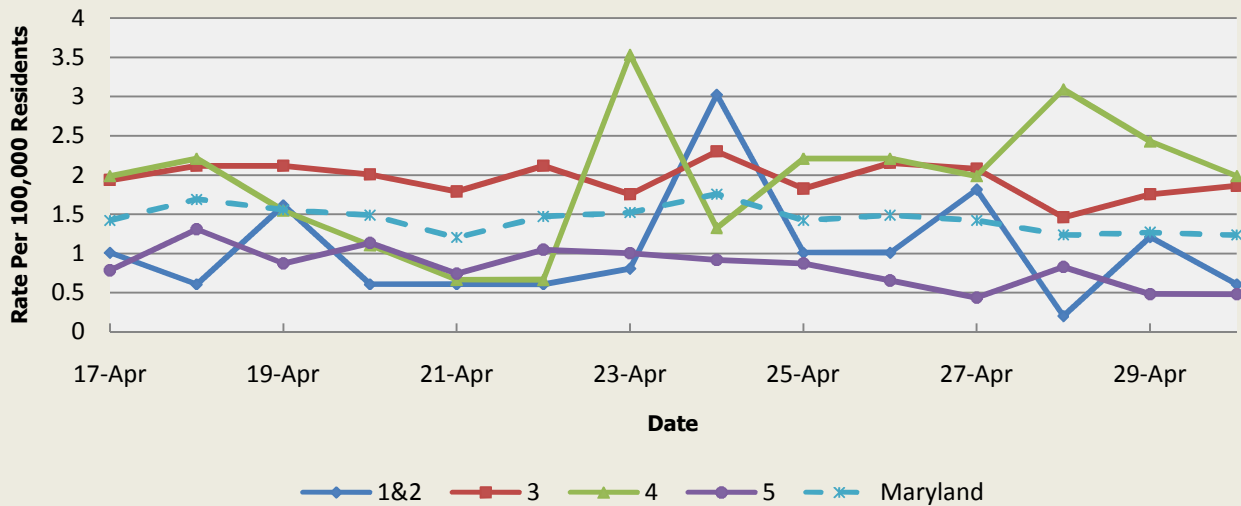


There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.08	1.93	2.04	0.99	1.51
Median Rate*	1.01	1.86	1.99	0.96	1.44

\* Per 100,000 Residents

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

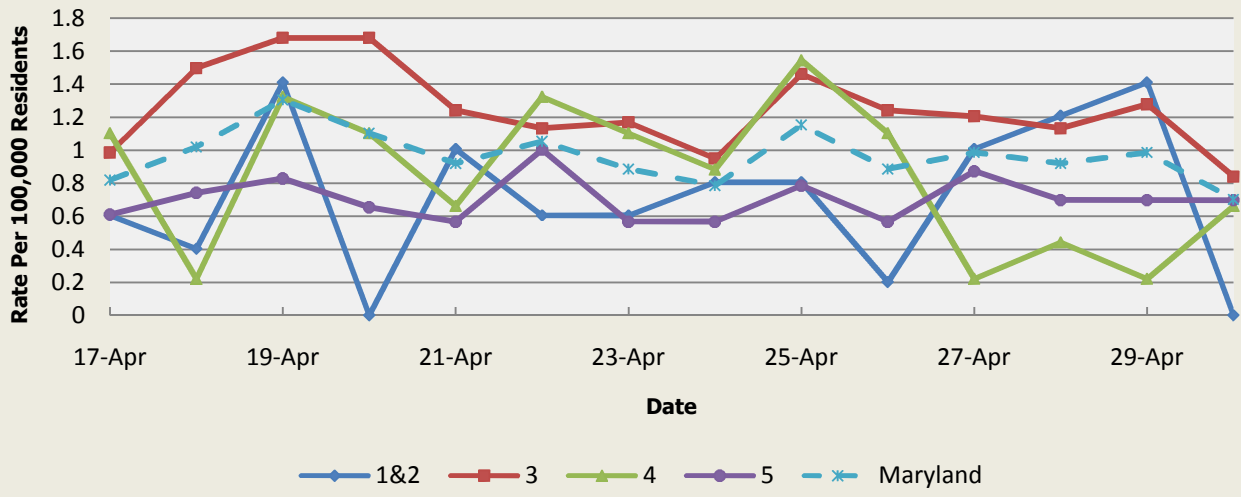


There were three (3) rash illness outbreaks reported this week: 1 outbreak of Fifth's Disease associated with a School (Regions 1&2); 2 outbreaks of Hand, Foot and Mouth disease associated with Daycare Centers (Region 3).

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.31	1.76	1.77	1.05	1.45
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**

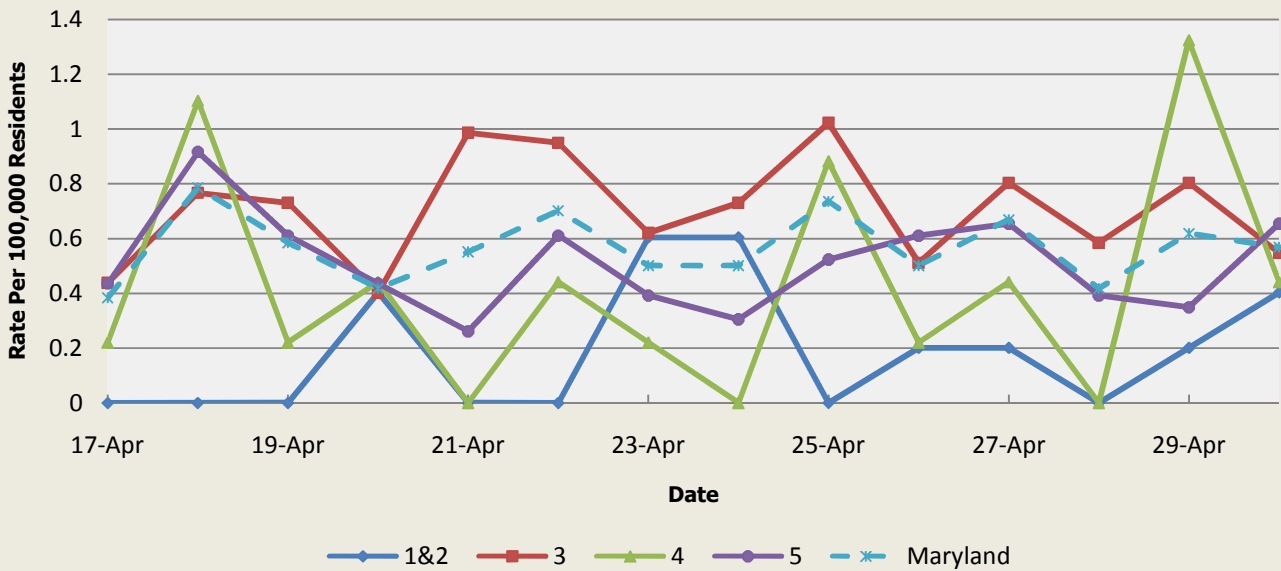


There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.74	0.65	0.48	0.62
Median Rate*	0.60	0.66	0.66	0.44	0.55

\* Per 100,000 Residents

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



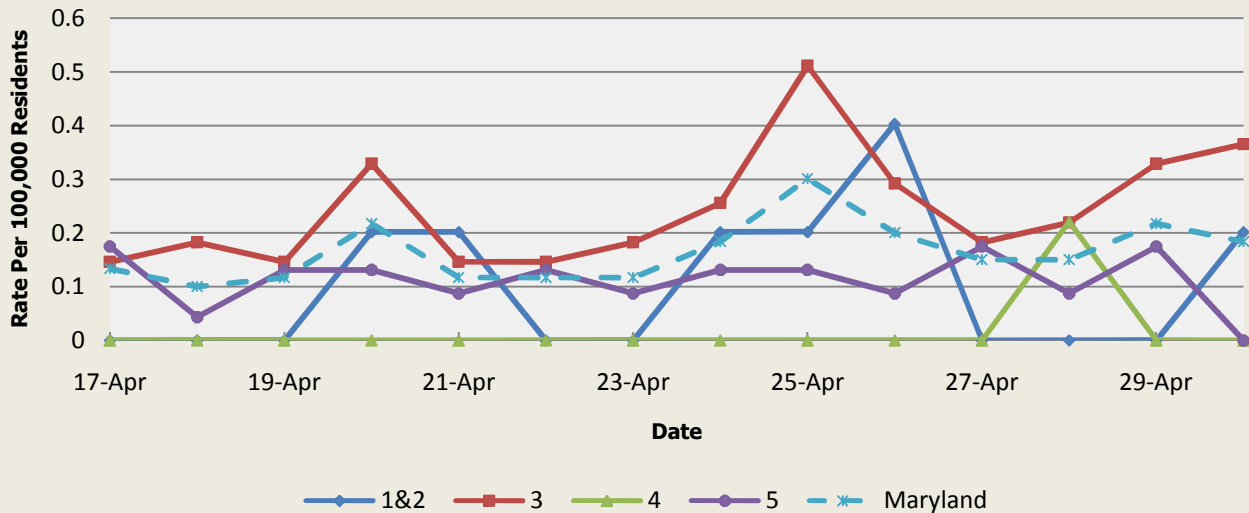
There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.71	0.96	0.86	0.44	0.73
Median Rate*	0.60	0.93	0.88	0.44	0.72

\* Per 100,000 Residents

## SYNDROMES RELATED TO CATEGORY A AGENTS

**Emergency Department Chief Complaints for Botulism-like Syndrome  
Rate Per 100,000 Residents**

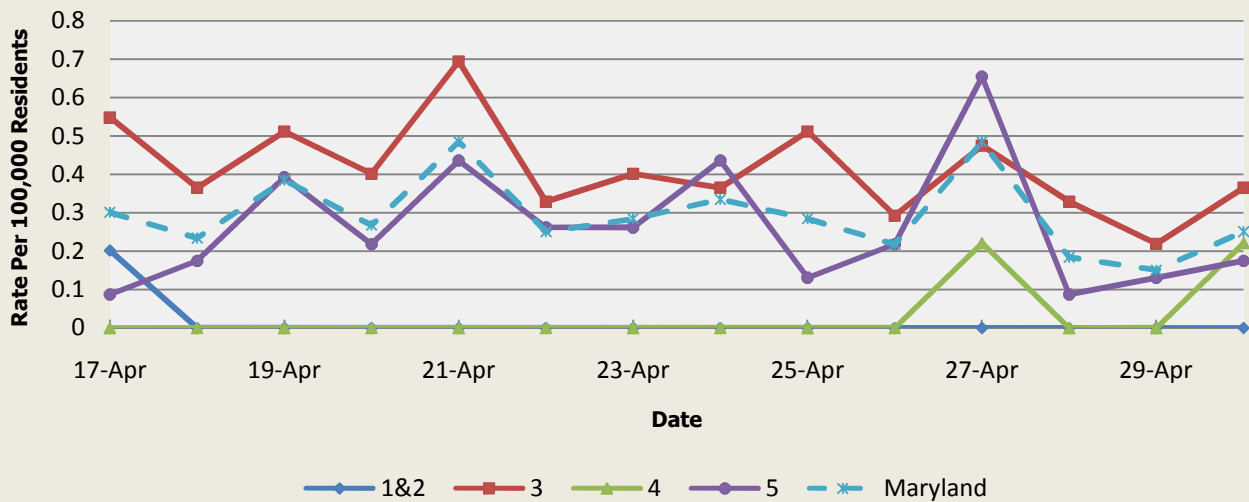


There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 4/18 (Region 3), 4/19 (Region 5), 4/20 (Regions 1&2,3,5), 4/21 (Regions 1&2,5), 4/23 (Region 3,5), 4/24 (Regions 1&2,3,5), 4/25 (Regions 1&2,3,5), 4/26 (Regions 1&2,3), 4/27 (Regions 3,5), 4/28 (Regions 3,4), 4/29 (Regions 3,5) and 4/30 (Regions 1&2,3). 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

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

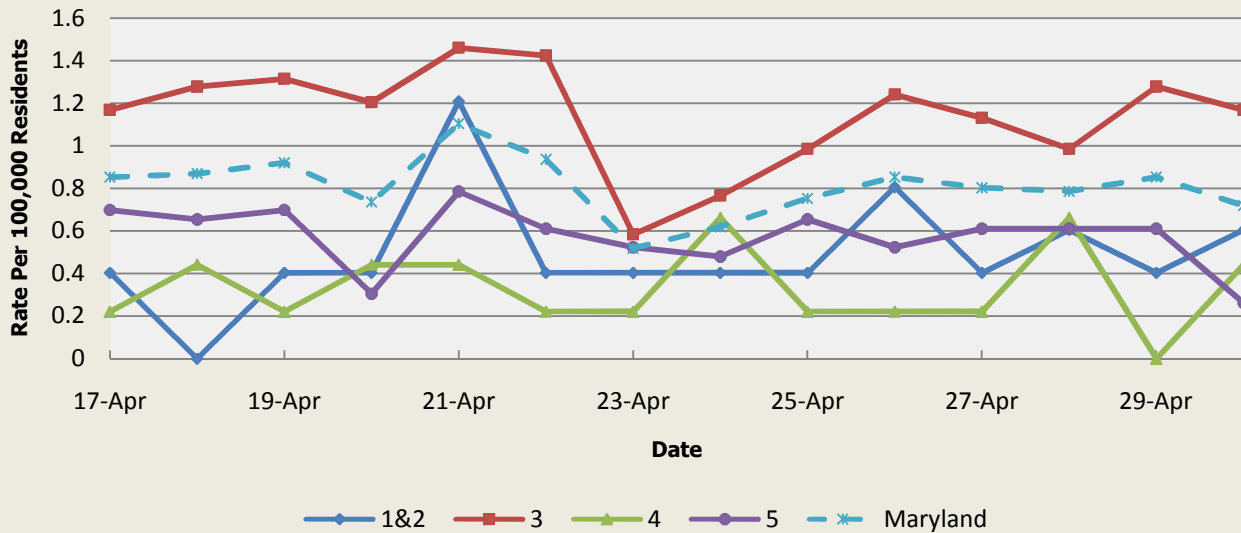


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 4/17 (Regions 1&2,3), 4/18 (Region 3,5), 4/19 (Region 3,5), 4/20 (Region 3,5), 4/20 (Region 3,5), 4/21 (Region 3,5), 4/22 (Region 3,5), 4/23 (Region 3,5), 4/24 (Regions 3,5), 4/25 (Region 3), 4/26 (Regions 3,5), 4/27 (Regions 3,4,5), 4/28 (Region 3), 4/29 (Region 3) and 4/30 (Regions 3,4,5). 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	0.10	0.03	0.07	0.08
Median Rate*	0.00	0.04	0.00	0.04	0.03

\* Per 100,000 Residents

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



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 4/17 (Regions 3,5), 4/18 (Regions 3,5), 4/19 (Regions 3,5), 4/20 (Region 3), 4/21 (Regions 1&2,3,5), 4/22 (Region 3,5), 4/25 (Region 3,5), 4/26 (Regions 1&2,3), 4/27 (Region 5), 4/28 (Region 5) and 4/29 (Region 5). 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	0.46	0.34	0.29	0.38
Median Rate*	0.20	0.37	0.22	0.26	0.32

\* Per 100,000 Residents

**MARYLAND REPORTABLE DISEASE SURVEILLANCE**

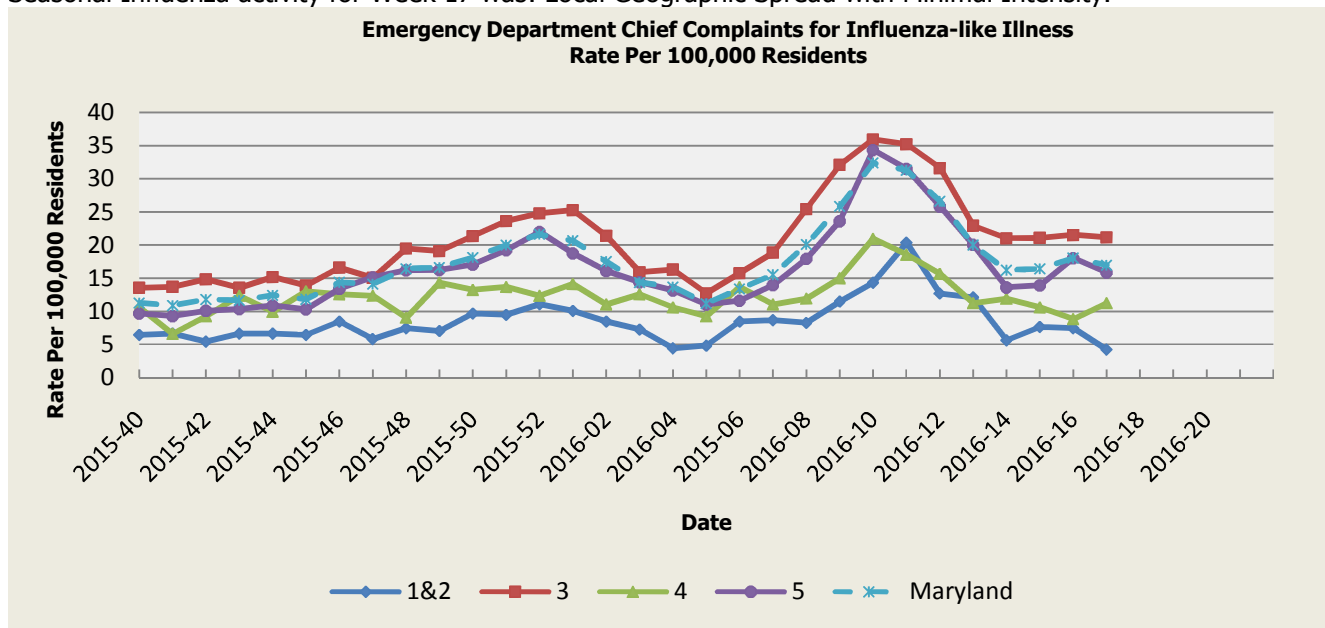
Condition	Counts of Reported Cases‡					
	April			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
<b>Vaccine-Preventable Diseases</b>						
Aseptic meningitis	23	27.6	26	94	113	108
Meningococcal disease	1	1	0	2	3.8	4
Measles	1	0.4	0	2	2	0
Mumps	2	11.8	2	4	25.8	4
Rubella	1	0.2	0	1	0.8	1
Pertussis	15	18.4	22	58	82.2	87
<b>Foodborne Diseases</b>						
Salmonellosis	20	54.4	53	133	190	176
Shigellosis	5	13.4	15	34	57	57
Campylobacteriosis	24	46.8	47	169	158.8	159
Shiga toxin-producing Escherichia coli (STEC)	7	8.6	7	34	28	26
Listeriosis	1	1	1	3	2.6	2
<b>Arboviral Diseases</b>						
West Nile Fever	0	0	0	0	0	0
Lyme Disease	41	68.8	64	196	242.8	228
<b>Emerging Infectious Diseases</b>						
Chikungunya	0	0	0	2	2.6	0
Dengue Fever	4	1	0	11	3.8	3
Zika Virus***	6	0	0	13	0.2	0
<b>Other</b>						
Legionellosis	7	6.4	7	29	28.4	30

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

\*\*\*As of May 4, 2016, the total Maryland Confirmed Zika Virus Infections is 16.

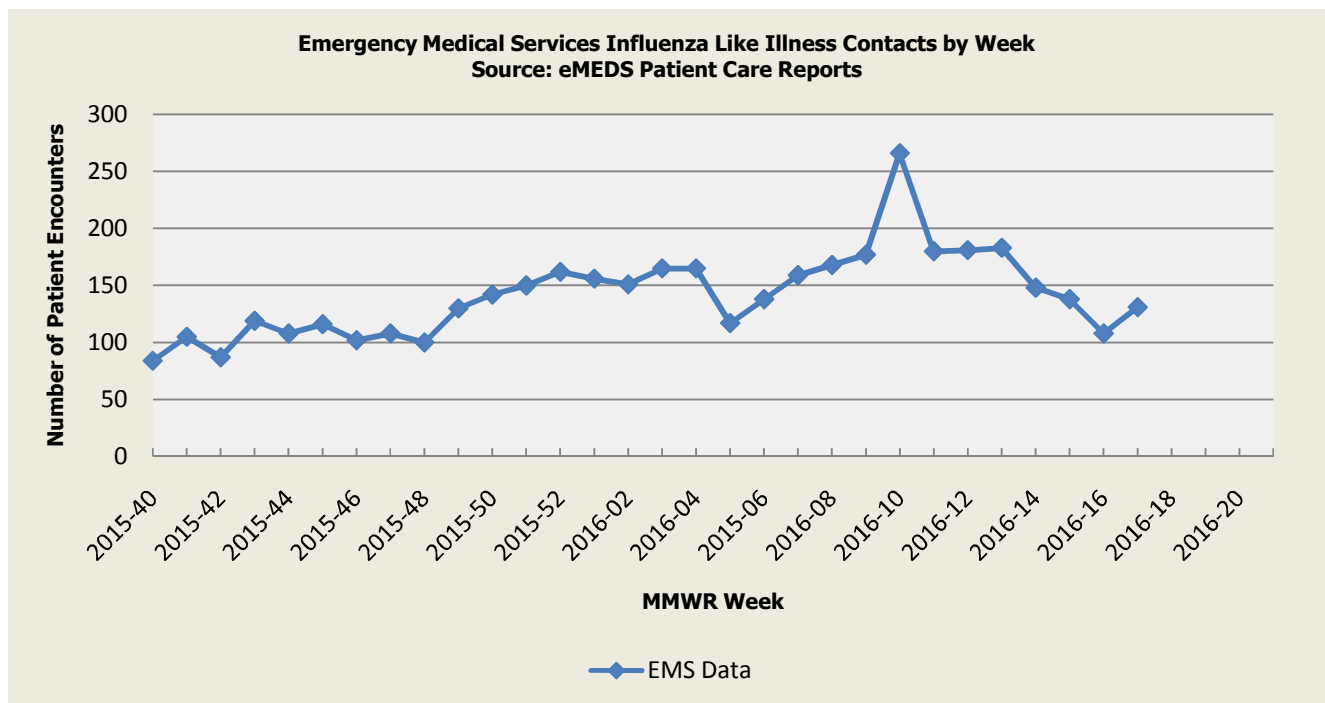
## SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 17 was: Local Geographic Spread with Minimal Intensity.



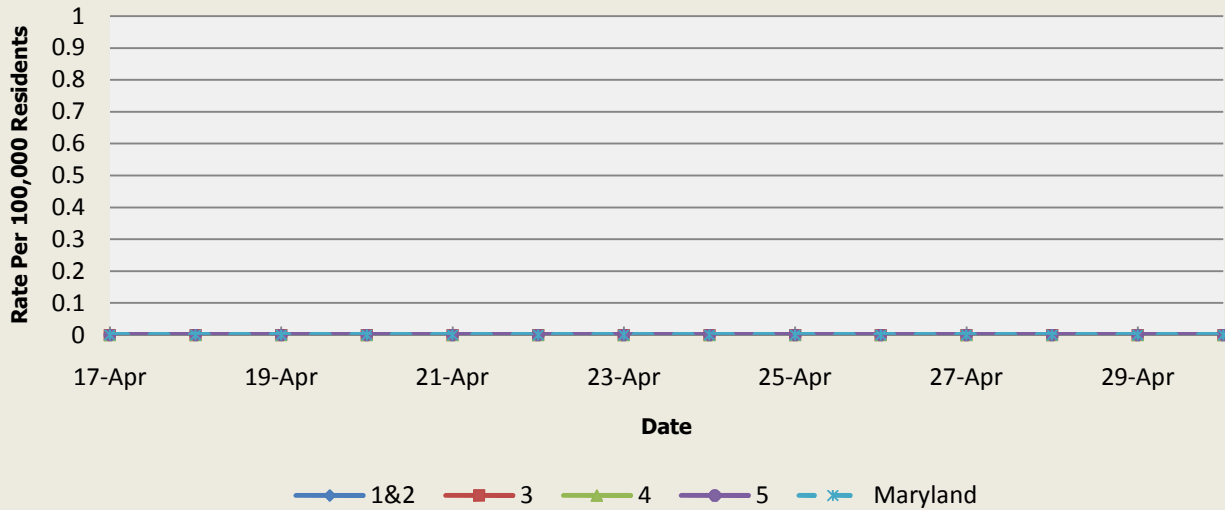
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.28	11.53	10.79	10.39	10.85
Median Rate*	7.66	8.97	9.05	7.99	8.64

\* 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**

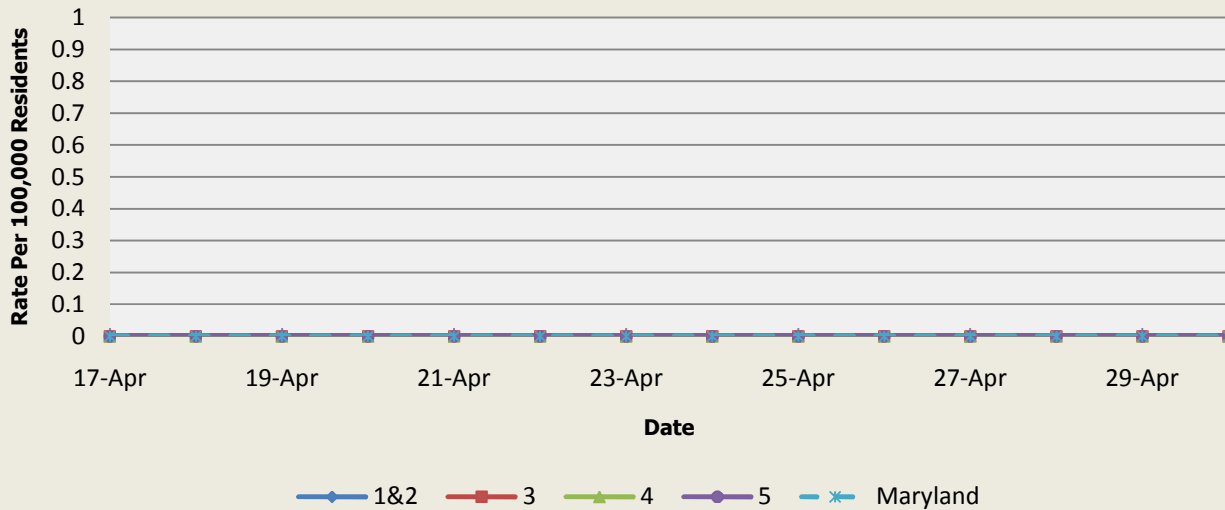


No OTC data reported for 4/17-4/30.

	<b>OTC Sales Baseline Data January 1, 2010 - Present</b>				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.89	6.48	1.86	14.10	8.84
Median Rate*	3.02	5.37	1.55	11.39	7.17

\* Per 100,000 Residents

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



No OTC data reported for 4/17-4/30.

	<b>Thermometer Sales Baseline Data January 1, 2010 - Present</b>				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	4.16	4.76	1.62	7.39	5.48
Median Rate*	3.63	4.35	1.55	6.70	5.00

\* 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 April 4, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 850, of which 449 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

### **Avian Influenza in Humans:**

**H7N9 (CHINA):** 3 May 2016, On 18 Apr 2016, the National Health and Family Planning Commission (NHFPC) of China notified WHO of 17 additional laboratory-confirmed cases of human infection with avian influenza A(H7N9) virus, including 5 deaths. Read More: <http://www.promedmail.org/post/4200634>

*There were no reports of human cases of avian influenza in the United States at the time that this report was compiled.*

### **Avian Influenza in Poultry:**

**H5N1 (USA):** 2 May 2016, The USDA Animal Plant Health Inspection Service (APHIS) and the Missouri Department of Agriculture are conducting a comprehensive epidemiological investigation and have implemented enhanced surveillance and testing related to this event. Samples were initially collected from healthy, non-clinical turkeys as part of the routine, pre-slaughter surveillance that is done under the National Poultry Improvement Plan (NPIP) Avian Influenza Clean Program (H5 and H7). Through this routine surveillance, H5N1 low pathogenic avian influenza (LPAI) of North American wild bird lineage was identified and confirmed by partial HA/NA sequence. Read More: <http://www.promedmail.org/post/4199575>

**H7N7 (ITALY):** 2 May 2016, The positivity regards a commercial farm of layer hens (free-range/organic). Increased mortality rate was reported during the last 2-3 days. A protection zone of 3 km and a surveillance zone of 10 km have been established around the farm, which is under restriction. Depopulation has been completed. Read More: <http://www.promedmail.org/post/4197376>

## **NATIONAL DISEASE REPORTS**

**ELIZABETHKINGIA ANOPHELIS (WI):** 28 Apr 2016, A patient in Children's Hospital's [Madison, Wisconsin] neonatal intensive care unit has been infected with the *Elizabethkingia* bacterium, hospital officials said. It's unknown if the child has the deadly strain which has been linked to a recent outbreak. State health investigators are trying to find out if the child has the deadly strain or another less severe one, more common in infants. Read More: <http://www.promedmail.org/post/4190297>

**SALMONELLOSIS (USA):** 3 May 2016, State health officials are warning of a growing outbreak of salmonellosis in Michigan. Since the beginning of March 2016, there have been 20 cases of salmonellosis in Michigan directly tied to people handling baby chicks and ducklings. 6 people ended up in the hospital. Read More: <http://www.promedmail.org/post/4203696>

**LISTERIOSIS (USA):** 3 May 2016, CRF Frozen Foods of Pasco, Washington is expanding its 23 Apr 2016 recall of frozen organic and traditional fruits and vegetables for possible *Listeria monocytogenes* contamination. At least 7 people in 3 states have been sickened and were hospitalized with listeriosis, the illness caused by this pathogenic bacteria. Read More: <http://www.promedmail.org/post/4202020>

**CLENBUTEROL (USA):** 3 May 2016, NFL [US National Football League] players are being warned about consuming meat produced in China and Mexico that potentially contains clenbuterol, which is banned under the league's performance-enhancing substance policy. The drug-testing program's independent administrator sent a memo to players, saying "consuming large quantities of meat while visiting those particular countries may result in a positive test." Clenbuterol is a muscle-building and weight-loss stimulant. Read More: <http://www.promedmail.org/post/4202994>

## **INTERNATIONAL DISEASE REPORTS**

**SALMONELLOSIS (SWEDEN):** 26 Apr 2016, This spring, nearly 40 people in 11 different counties have suffered from gastrointestinal disorders caused by a certain type of *Salmonella*. The Public Health Agency is investigating the outbreak in collaboration with other relevant authorities. Read More: <http://www.promedmail.org/post/4199825>

**MERS-COV (SAUDI ARABIA):** 2 May 2016, A 40-year old camel worker has tested positive for the Middle East respiratory syndrome coronavirus (MERS-CoV), the Ministry of Public Health (MoPH) announced. It is the 2nd case confirmed in Qatar so far this year [2016]. Read More: <http://www.promedmail.org/post/4198200>

**E. COLI (ISRAEL):** 2 May 2016, A total of 8 babies from Kibbutz Nir Or located near Gaza were infected with the intestinal bacterium *E. coli*, 4 of which were hospitalized at Soroka Hospital in Be'er Sheva. One baby is in serious condition, and 2 are suffering from kidney failure, according to reports. Read More: <http://www.promedmail.org/post/4196559>

**FOODBORNE ILLNESS (SINGAPORE):** 5 May 2016, Another 100 cases of food poisoning have been linked to the consumption of durian pastries prepared at Goodwood Park Hotel. As of 3 May 2016, a total of 183 people have come down with food poisoning after eating the pastries, according to a joint statement issued on Thursday (5 May 2016) by the National Environment Agency (NEA), Ministry of Health (MOH) and Agri-Food and Veterinary Authority of Singapore. This is an increase of 107 cases from the 76 previously reported. Read More: <http://www.promedmail.org/post/4204143>

## **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](http://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>

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**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

