



March 25, 2016

## Public Health Preparedness and Situational Awareness Report: #2016:11 Reporting for the week ending 3/19/16 (MMWR Week #11)

### CURRENT HOMELAND SECURITY THREAT LEVELS

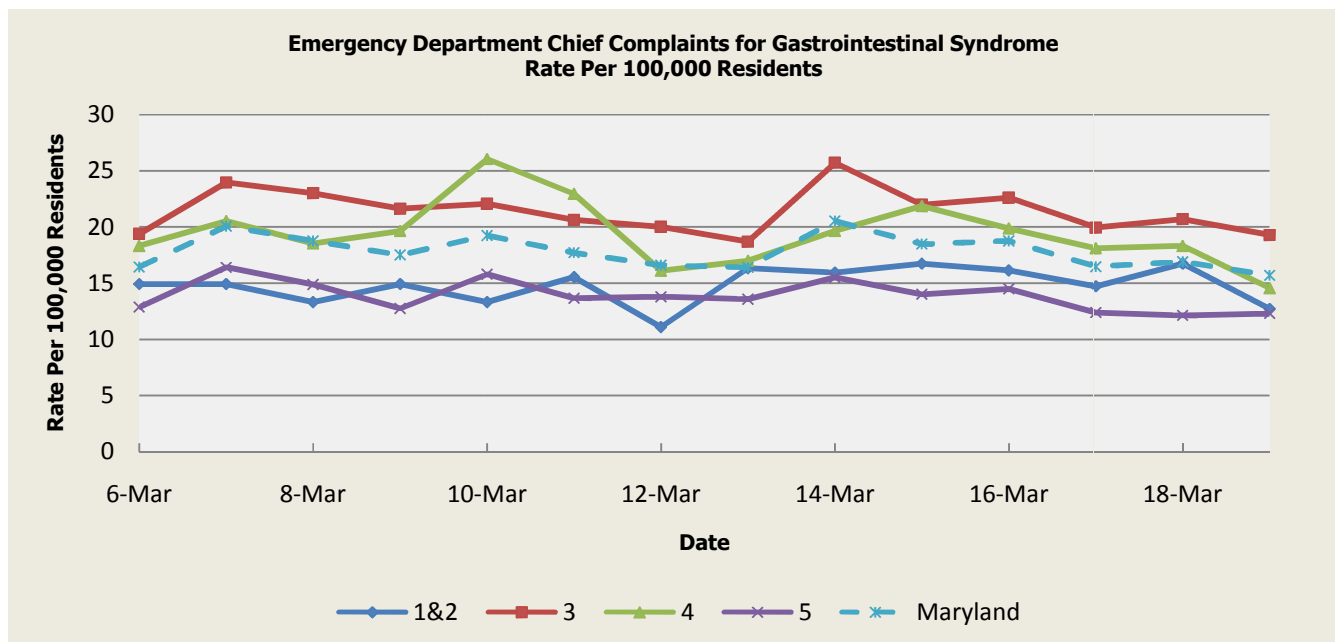
**National:** No Active Alerts

**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.

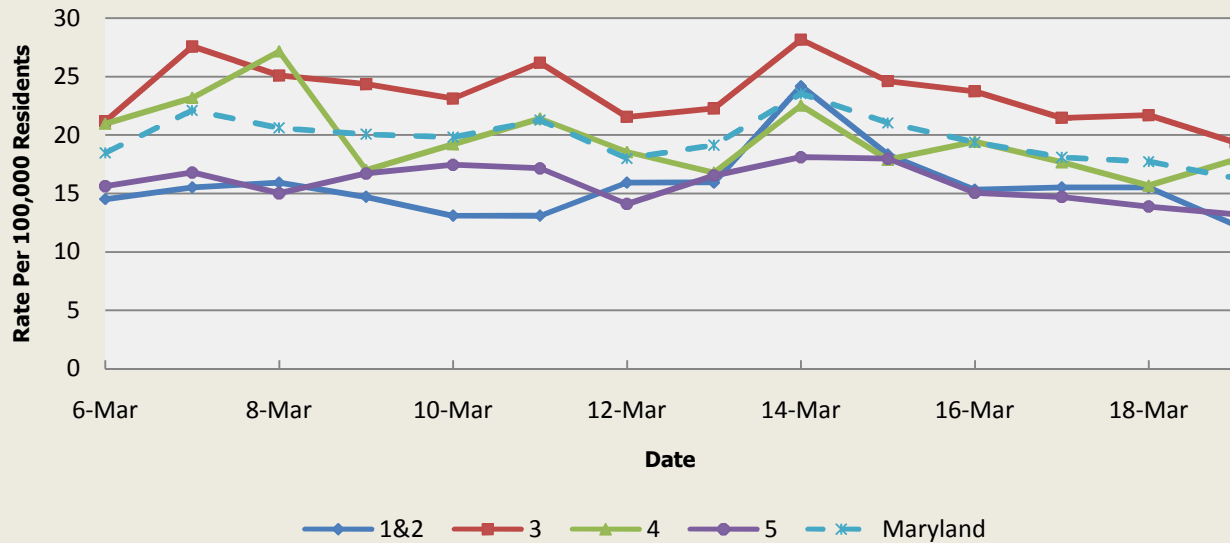


There were three gastrointestinal illness outbreaks reported this week: 2 outbreaks of gastroenteritis associated with nursing homes (Region 3). 1 outbreak of gastroenteritis associated with a School (Regions 5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.93	14.76	15.41	10.29	12.95
Median Rate*	12.70	14.39	14.80	10.13	12.70

\* Per 100,000 Residents

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

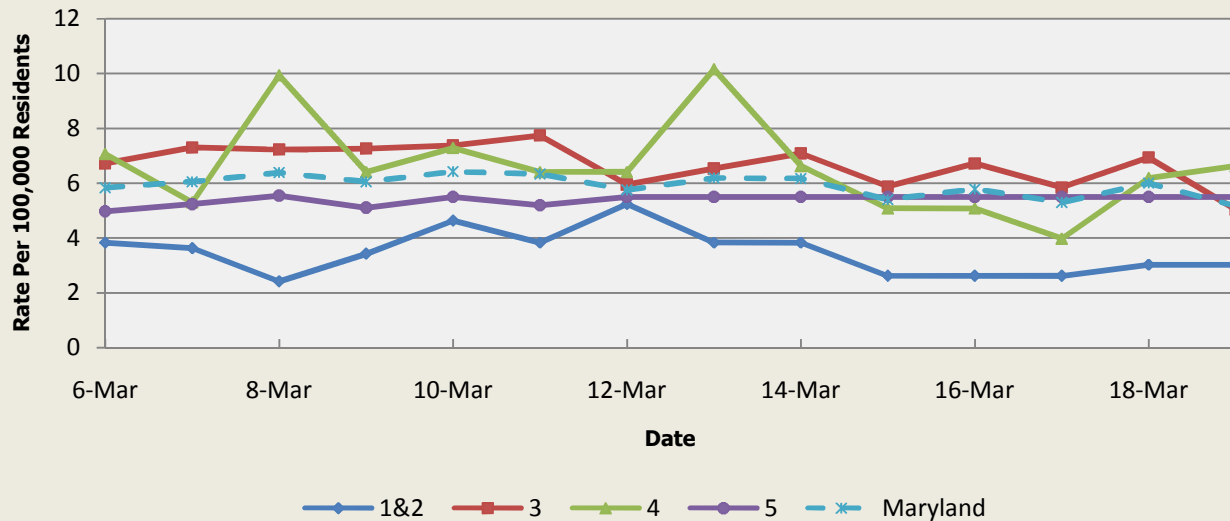


There were four respiratory outbreaks reported this week. 1 outbreak of influenza associated with a hospital (Region 3). 1 outbreak of influenza associated with a nursing home (Region 3). 1 outbreak of influenza associated with an assisted living facility (Region 3). 1 outbreak of influenza like illness associated with a school (Region 5).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.98	13.98	14.00	9.90	12.25
Median Rate*	11.70	13.26	13.47	9.47	11.70

\* Per 100,000 Residents

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

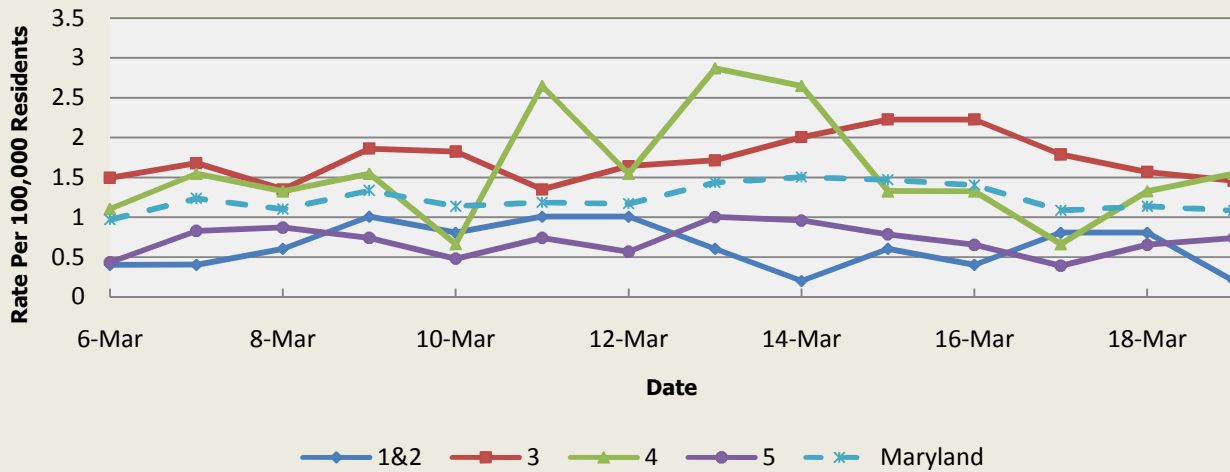


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.09	3.77	3.92	3.09	3.46
Median Rate*	3.02	3.58	3.75	2.97	3.33

Per 100,000 Residents

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

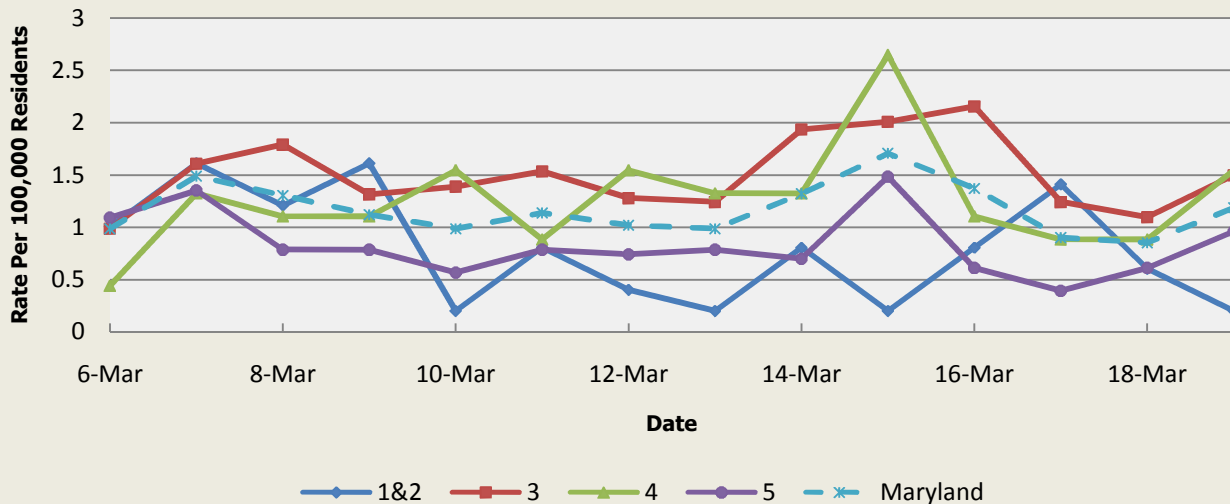


There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.08	1.92	2.03	0.98	1.50
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

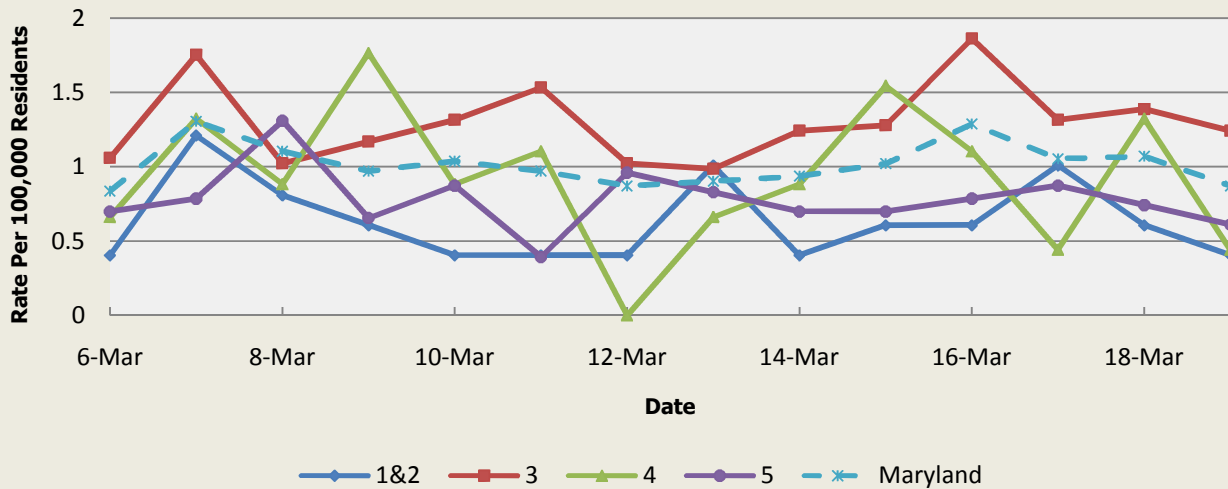


There were no rash outbreaks reported this week.

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.31	1.74	1.76	1.05	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

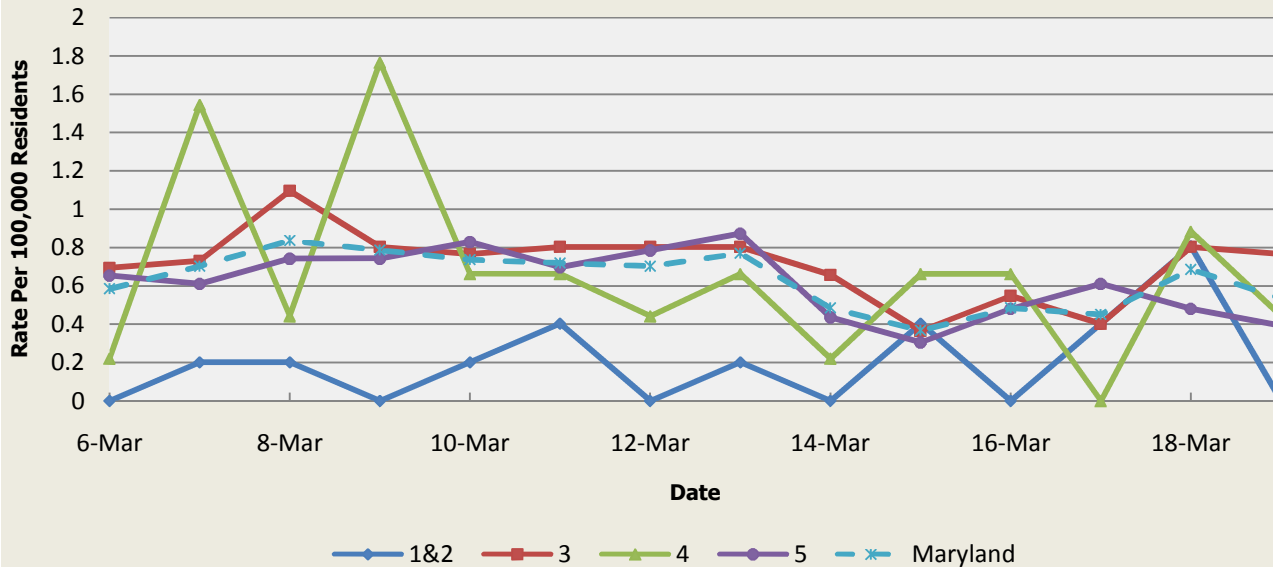


There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.72	0.64	0.47	0.61
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



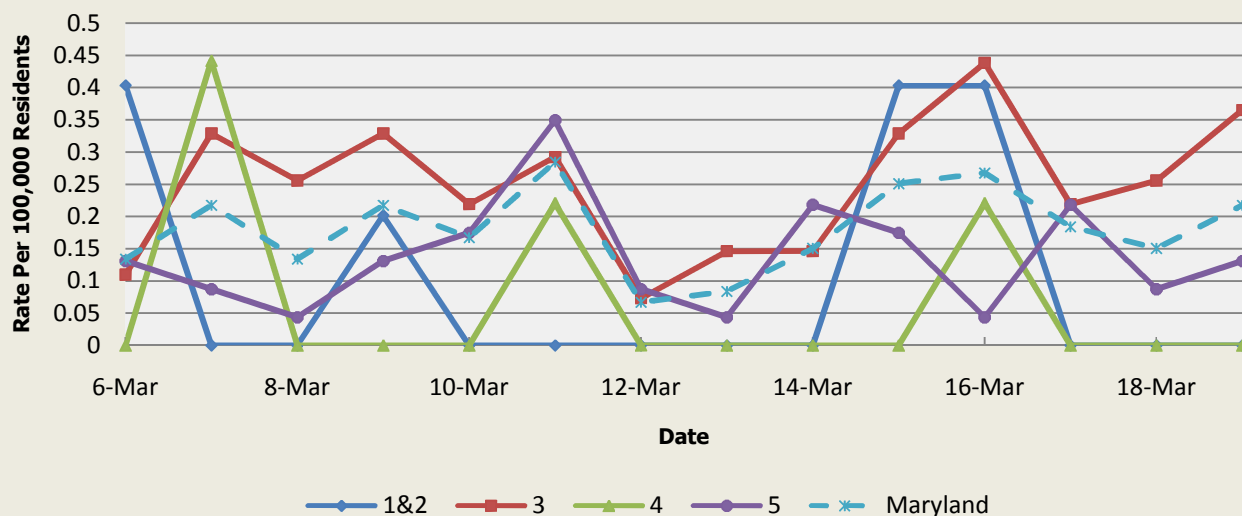
There were no severe illness or death outbreaks reported this week.

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	0.95	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**

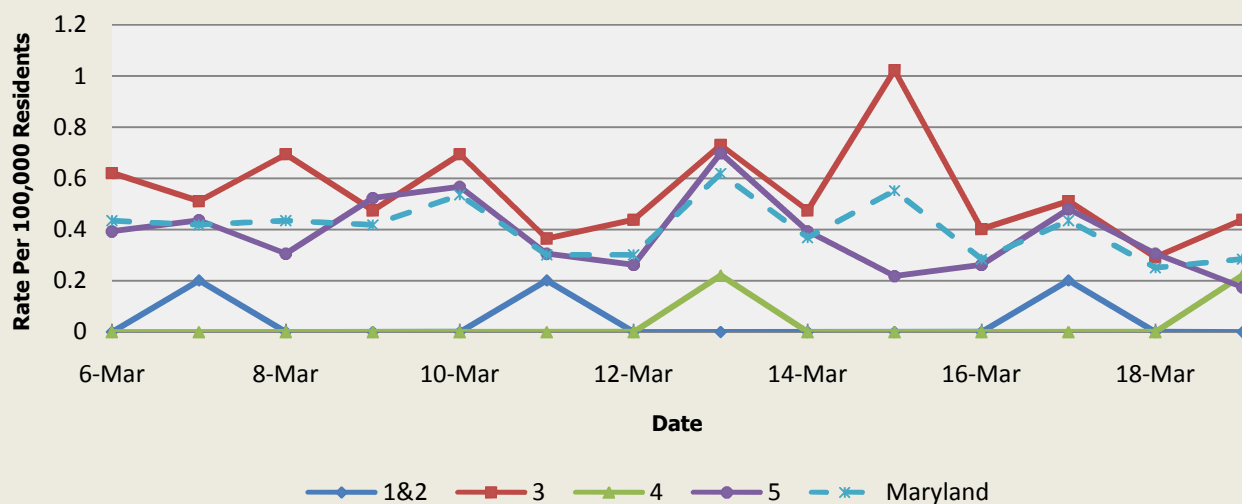


There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 3/6 (Regions 1&2, 5), 3/7 (Regions 3,4), 3/8 (Region 3), 3/9 (Regions 1&2,3,5), 3/10 (Regions 3,5), 3/11 (Regions 3,4,5), 3/14 (Region 5), 3/15 (Region 1&2, 3, 5), 3/16 (Region 1&2, 3, 4), 3/17 (Region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

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

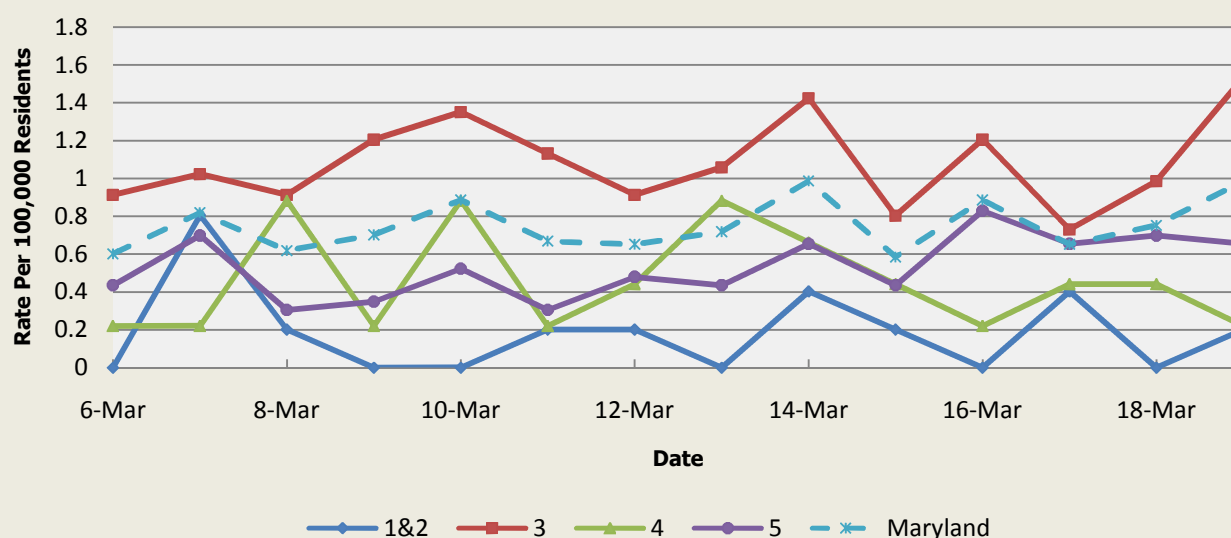


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 3/6 (Regions 3,5), 3/7 (Regions 1&2,3,5), 3/8 (Regions 3,5), 3/9 (Regions 3,5), 3/10 (Regions 3,5), 3/11 (Regions 1&2,3,5), 3/12 (Regions 3,5), 3/13 (Regions 3, 4, 5), 3/14 (Regions 3, 5), 3/15 (Regions 3, 5), 3/16 (Regions 3,5), 3/17 (Regions 1&2, 3, 5), 3/18 (3, 5) and 3/19 (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	0.09	0.03	0.07	0.07
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 3/7 (Regions 1&2, 3, 5), 3/8 (Region 4), 3/9 (Region 3), 3/10 (Region 3, 4), 3/11 (Regions 3), 3/13 (Region 3, 4), and 3/14 (Region 3, 4, 5), 3/16 (Regions 3, 5), 3/17 (Region 5), 3/18 (Regions 3, 5) and 3/19 (Regions 2, 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	0.45	0.34	0.29	0.37
Median Rate*	0.20	0.37	0.22	0.26	0.32

\* Per 100,000 Residents

### MARYLAND REPORTABLE DISEASE SURVEILLANCE

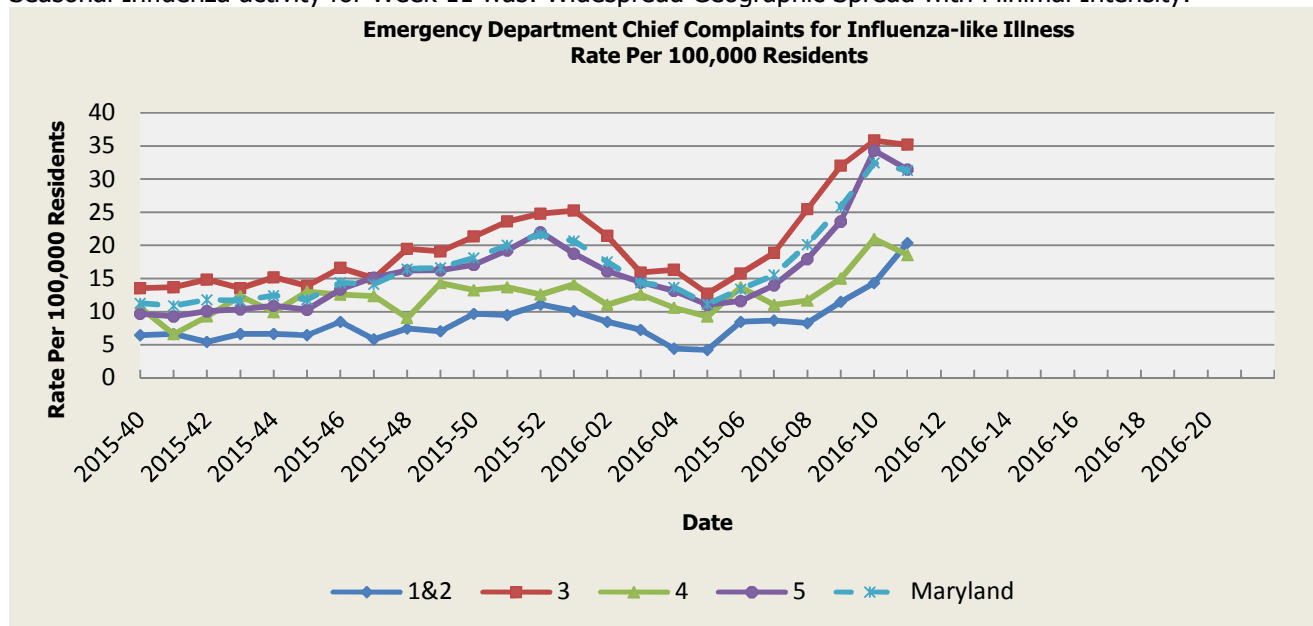
Condition	Counts of Reported Cases†					
	March			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Aseptic meningitis	10	17.8	16	43	73.4	66
Meningococcal disease	0	0.2	0	0	1.8	2
Measles	0	0	0	0	0	0
Mumps	0	4	0	0	6	0
Rubella	0	0.2	0	0	0.2	0
Pertussis	0	6.8	8	5	34.6	30
Foodborne Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Salmonellosis	12	32.8	30	69	119.4	113
Shigellosis	1	10.4	6	19	37	29
Campylobacteriosis	9	19.2	21	88	87	86
Shiga toxin-producing Escherichia coli (STEC)	0	1.4	1	6	8.8	9
Listeriosis	0	0	0	1	1.4	1
Arboviral Diseases	2016	Mean*	Median*	2016	Mean*	Median*
West Nile Fever	0	0	0	0	0	0
Lyme Disease	6	27.8	27	51	100	100
Emerging Infectious Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Chikungunya	0	0.2	0	2	2.2	0
Dengue Fever	0	0.2	0	5	1.4	1
Zika Virus***	0	0	0	1	0	0
Other	2016	Mean*	Median*	2016	Mean*	Median*
Legionellosis	3	3	3	14	13.8	15

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

\*\*\*As of March 23, 2016, the total Maryland confirmed Zika Virus Infections is 5.

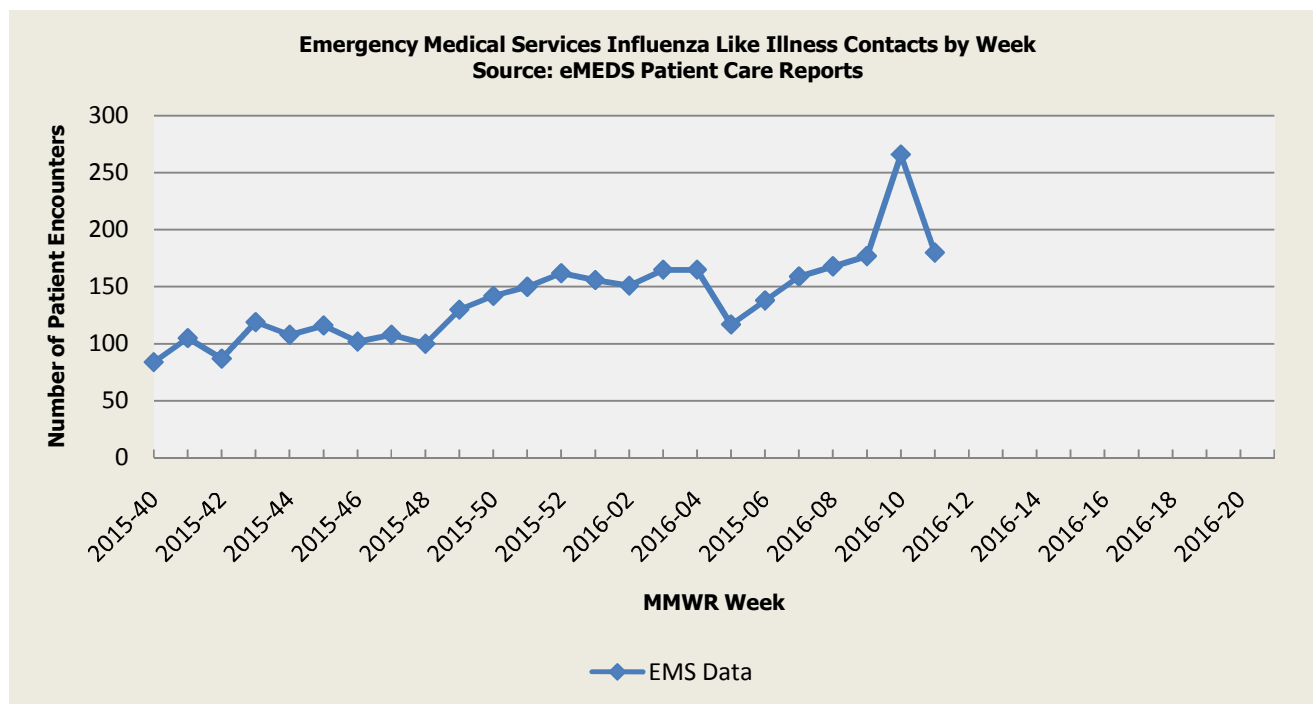
## SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 11 was: Widespread Geographic Spread with Minimal Intensity.



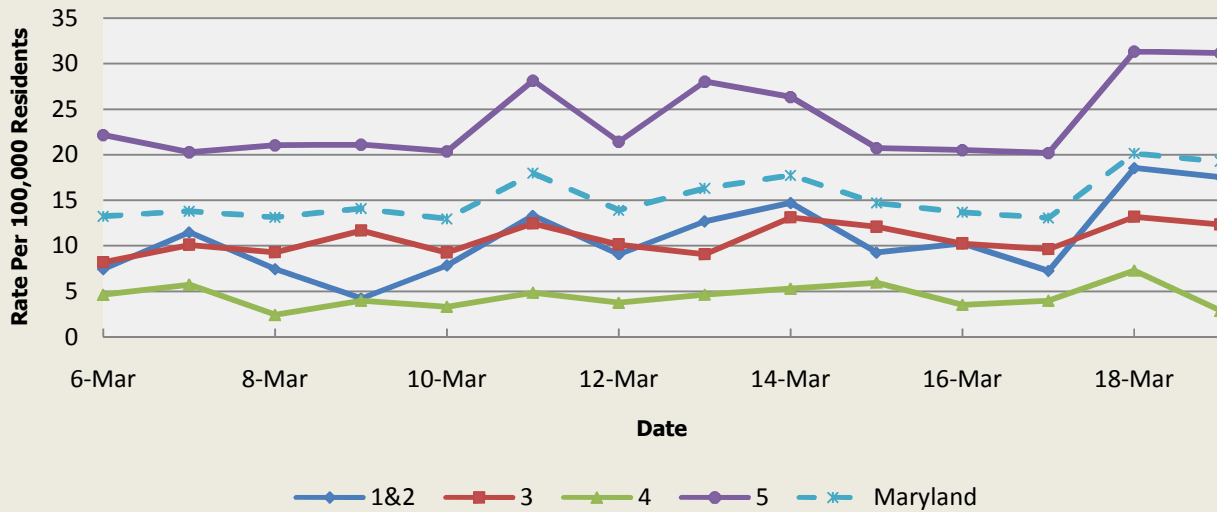
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.33	11.39	10.85	10.33	10.77
Median Rate*	7.66	8.88	9.05	7.95	8.54

\* 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

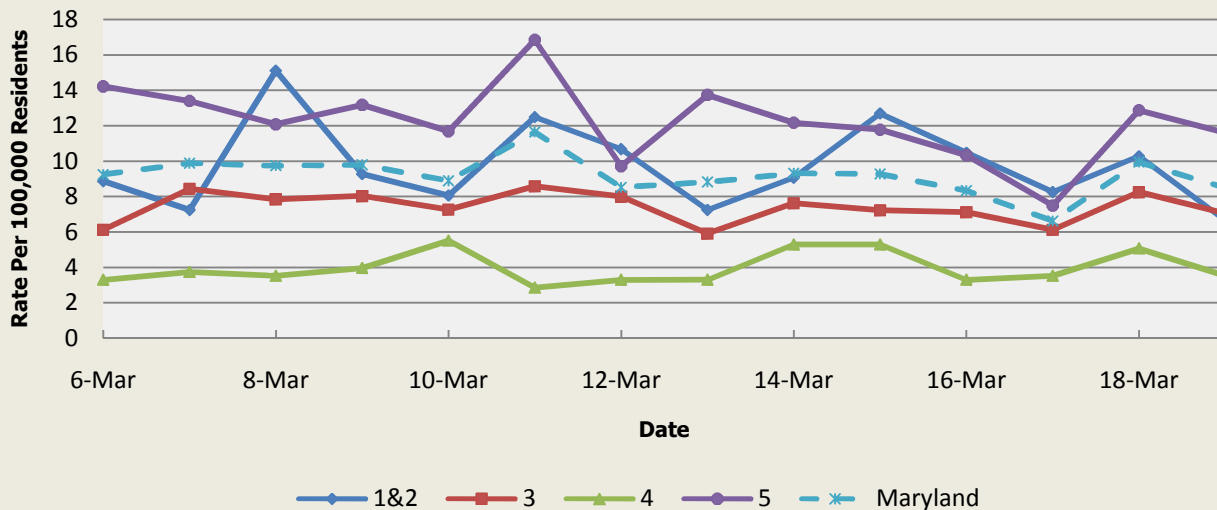


There was an appreciable increase above baseline in the rate of OTC flu medication sales on 3/11 (Regions 1&2), 3/14 (Regions 1&2, 3), 3/18 (Regions 1&2, 3, 4, 5), and 3/19 (Regions 1&2, 5).

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.82	6.45	3.24	14.40	9.20
Median Rate*	4.44	5.35	2.87	11.61	7.48

\* Per 100,000 Residents

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



There was an appreciable increase above baseline in the rate of OTC thermometer sales on 3/8 (Regions 1&2), 3/11 (Regions 1&2, 5), and 3/15 (Regions 1&2).

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.76	4.75	3.34	7.79	5.89
Median Rate*	5.04	4.35	3.09	7.12	5.42

\* 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 February 25, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 846, of which 449 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

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

**H5N1 (EGYPT):** 22 Mar 2016, An individual from Giza, Egypt is the 4th confirmed human H5N1 avian influenza case reported in 2016, according to a report from the Food and Agriculture Organization of the United Nations (FAO). This is the 2nd case reported from Giza; the others were reported in Sohag and Cairo. This follows a record year in H5N1 cases in Egypt in 2015, when more than 160 cases were seen. Read More: <http://www.promedmail.org/post/4114052>

**H7N9 (CHINA):** 19 Mar 2016, The Centre for Health Protection (CHP) of the Department of Health (DH) is today [18 Mar 2016] investigating the 2nd imported human case of avian influenza A(H7N9) infection in Hong Kong this year [2016] affecting an 81-year-old woman. Read More: <http://www.promedmail.org/post/4106115>

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:**

**H5N6 (CHINA):** 19 Mar 2016, One new outbreak of highly pathogenic avian influenza was discovered in China last week. A farm in Jiangxi province was affected by the H5N6 strain of the virus. Over 19 500 birds were destroyed as a result of the outbreak, and a further 14,000 died. Read More: <http://www.promedmail.org/post/4106354>

## **NATIONAL DISEASE REPORTS**

**SALMONELLOSIS (USA):** 20 Mar 2016, The CDC has posted, stating that the *Salmonella Poona* outbreak linked to cucumbers imported from Mexico by Andrew & Williamson Fresh Produce is finally over. At least 907 people in 40 states were sickened by the outbreak strain. Six people died, and 204 were hospitalized. Read More: <http://www.promedmail.org/post/4107406>

**LISTERIOSIS (FLORIDA, CALIFORNIA):** 20 Mar 2016, Health officials say a deadly outbreak of listeriosis has been linked to raw milk from an organic farm in Pennsylvania. The illnesses happened in 2014, but it took investigators until now to determine the cause. Two patients got sick from the bacteria, one in California and one in Florida, and the patient in Florida died. Read More: <http://www.promedmail.org/post/4107103>

## **INTERNATIONAL DISEASE REPORTS**

**CRIMEAN-CONGO HEMORRHAGIC FEVER (PAKISTAN):** 19 Mar 2016, A suspected dengue patient turned out to be a victim of Crimean-Congo hemorrhagic fever (CCHF) at Holy Family Hospital. Read More: <http://www.promedmail.org/post/4106315>

**BOTULISM (TAIWAN):** 23 Mar 2016, The Taiwan Centers for Disease Control (Taiwan CDC) has announced 2016's 1st case of botulism in a 66 year old woman who resides in Pingtung County. On 25 Feb 2016, she sought medical attention at a hospital after she developed slurred speech and some muscle weakness. Read More: <http://www.promedmail.org/post/4114422>

**YELLOW FEVER (CHINA):** 19 Mar 2016, The Beijing Municipal Commission of Health and Family Planning on Saturday [19 Mar 2016] announced 2 more imported yellow fever cases, days after the nation's 1st imported case was confirmed in the capital. Read More: <http://www.promedmail.org/post/4106312>

**YELLOW FEVER (CONGO):** 20 Mar 2016 Since 6 Mar 2016, 13 suspected cases of yellow fever have been reported in the Kongo-Central Province; 6 people have died. Read More: <http://www.promedmail.org/post/4107262>

## **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

