



January 22, 2016

**Public Health Preparedness and Situational Awareness Report: #2016:02  
Reporting for the week ending 1/16/16 (MMWR Week #2)**

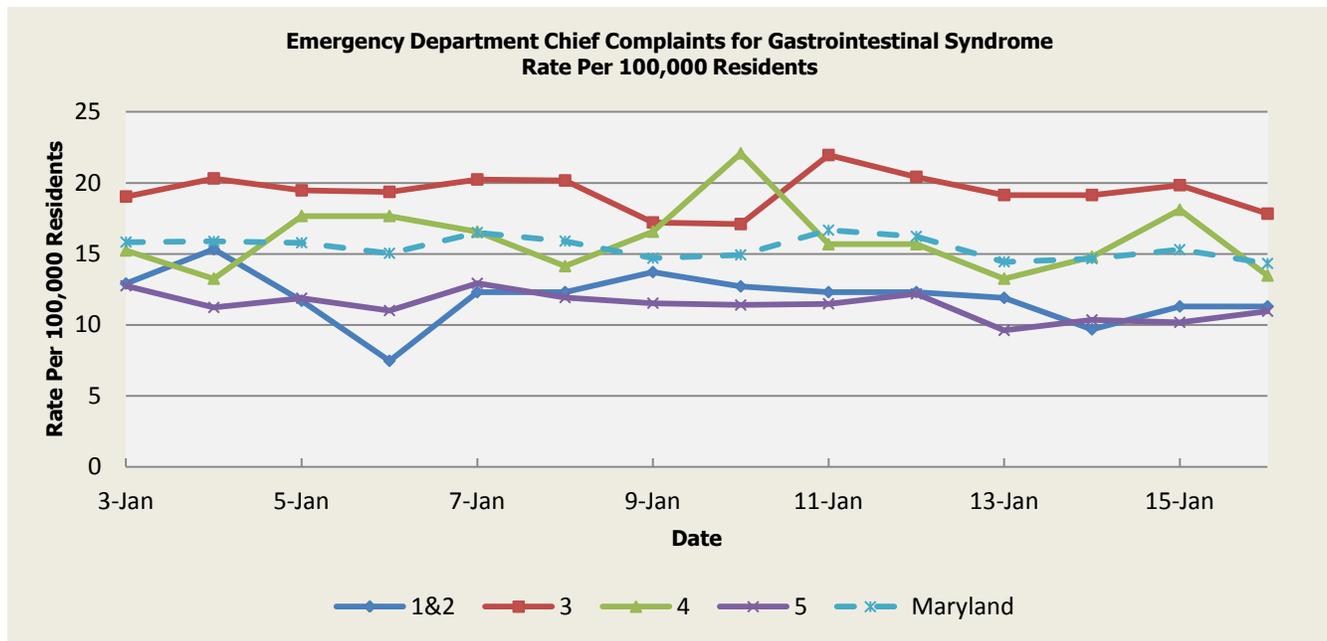
**CURRENT HOMELAND SECURITY THREAT LEVELS**

**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.

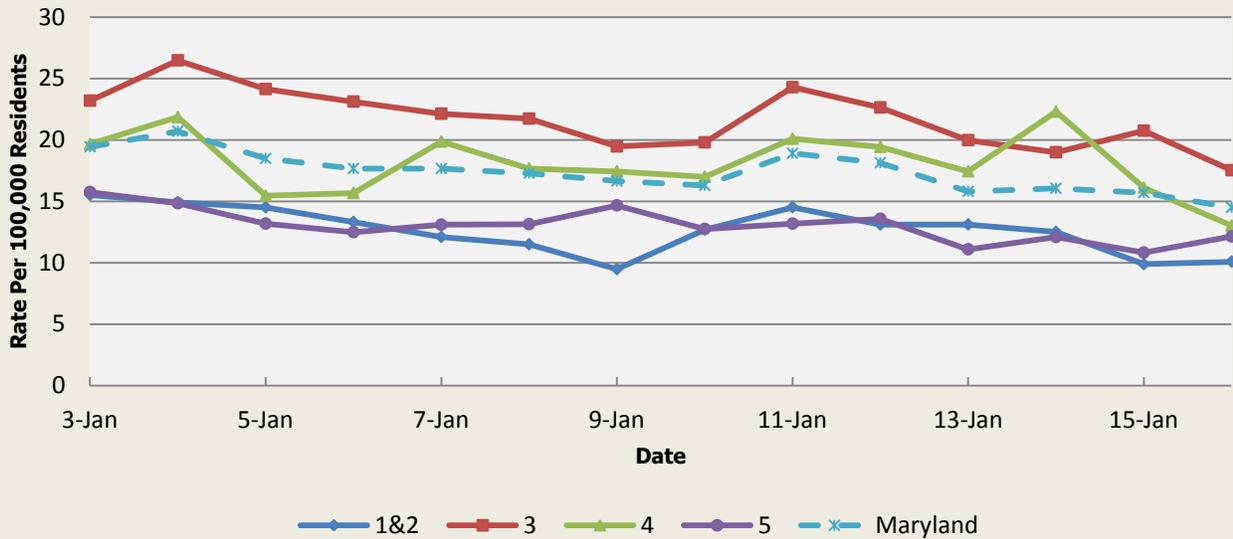


There were four gastrointestinal illness outbreaks reported this week: 2 outbreaks of gastroenteritis associated with nursing homes (Regions 1&2,3). 1 outbreak of gastroenteritis associated with an assisted living facility (Regions 1&2). 1 outbreak of gastroenteritis/foodborne associated with a restaurant (Region 3).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.94	14.63	15.35	10.24	12.86
Median Rate*	12.70	14.32	14.57	10.08	12.65

\* Per 100,000 Residents

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

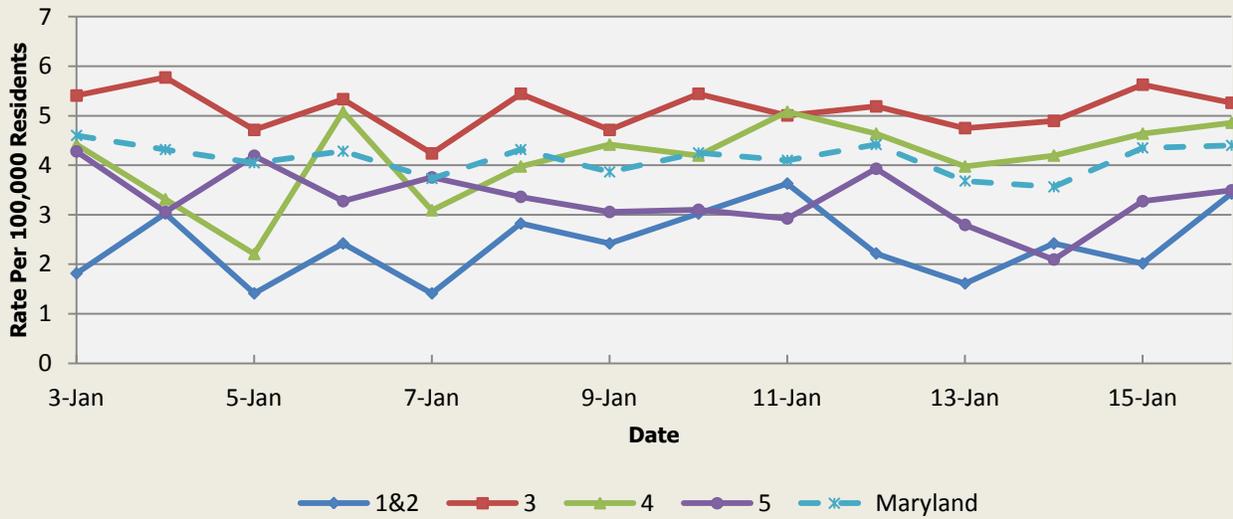


There were three respiratory outbreaks reported this week. 2 outbreaks of pneumonia associated with nursing homes (Regions 1&2). 1 outbreak of pneumonia associated with an assisted living facility (Region 3).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.97	13.80	13.91	9.81	12.13
Median Rate*	11.49	13.15	13.47	9.39	11.63

\* Per 100,000 Residents

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

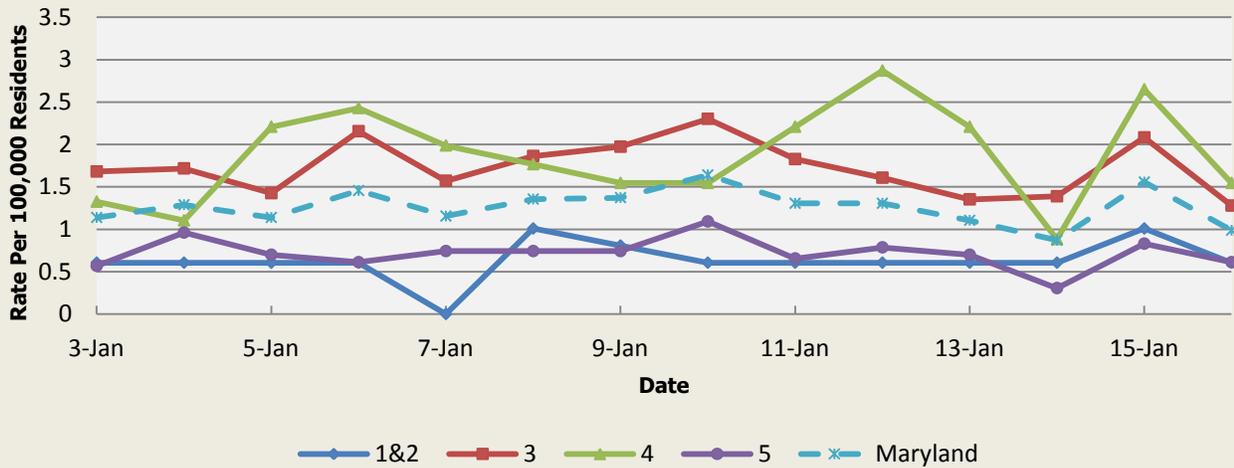


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.10	3.73	3.89	3.07	3.44
Median Rate*	3.02	3.54	3.75	2.97	3.31

Per 100,000 Residents

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

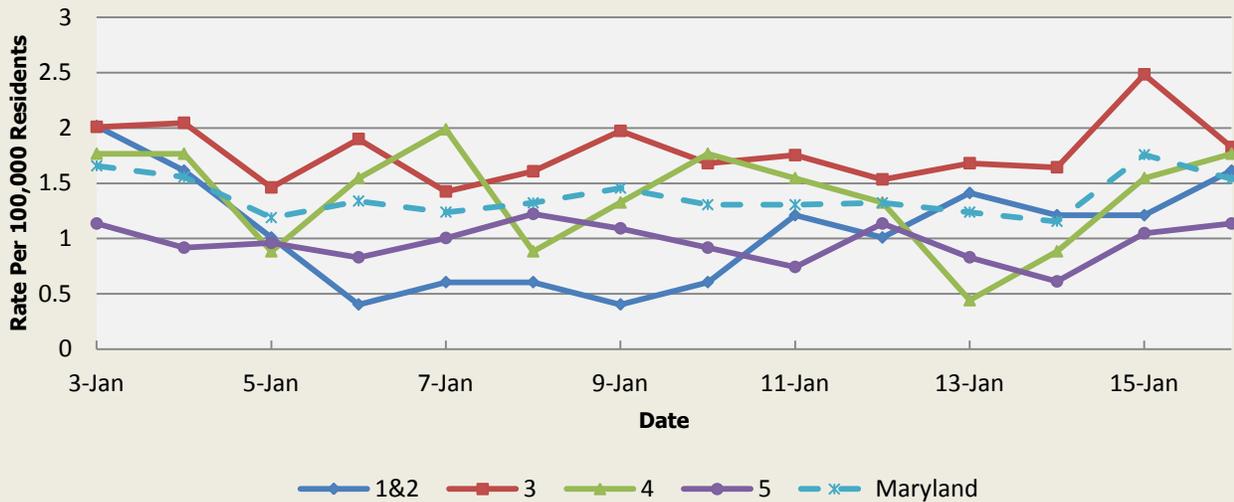


There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.09	1.93	2.05	1.00	1.51
Median Rate*	1.01	1.86	1.99	0.96	1.46

\* Per 100,000 Residents

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

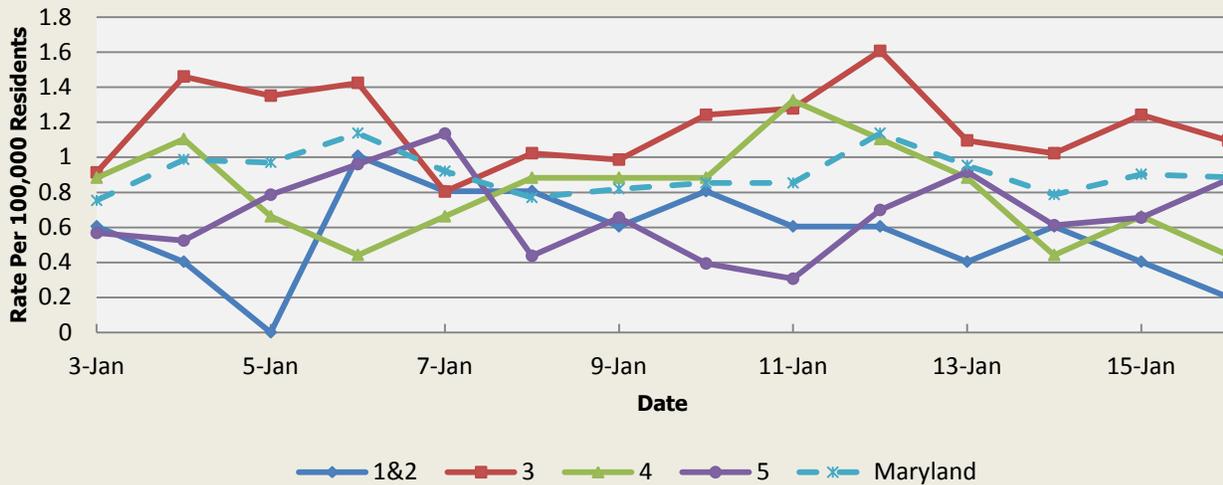


There was one rash outbreak reported this week. 1 outbreak of fifth disease associated with a school (Regions 1&2).

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.32	1.75	1.77	1.05	1.45
Median Rate*	1.21	1.68	1.77	1.00	1.41

\* Per 100,000 Residents

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

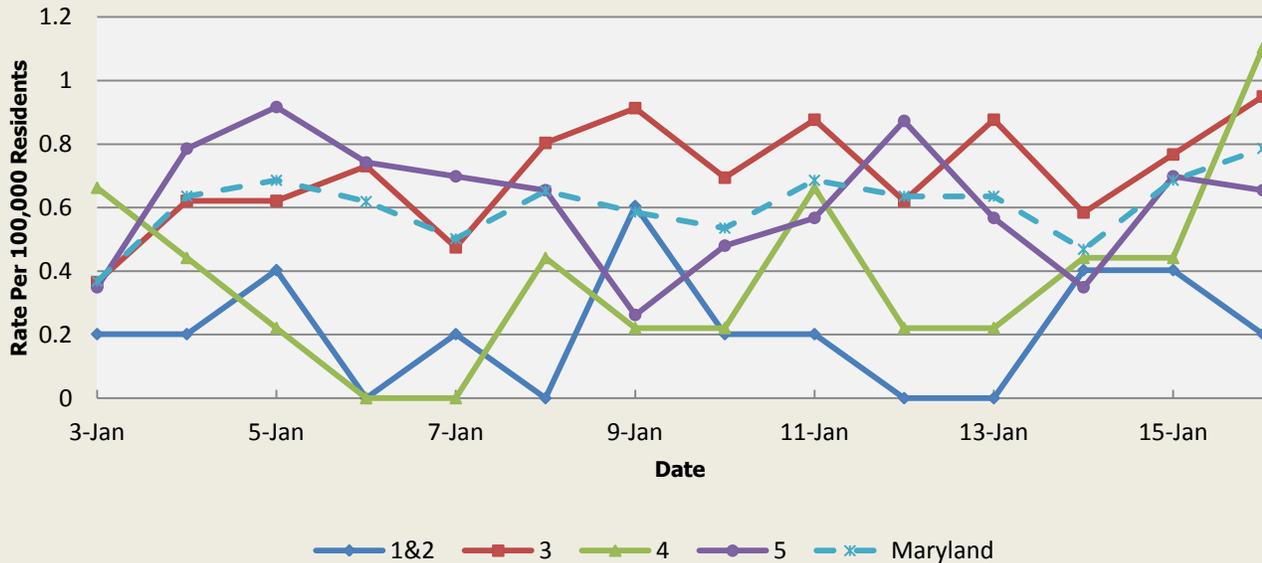


There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.71	0.64	0.47	0.60
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**



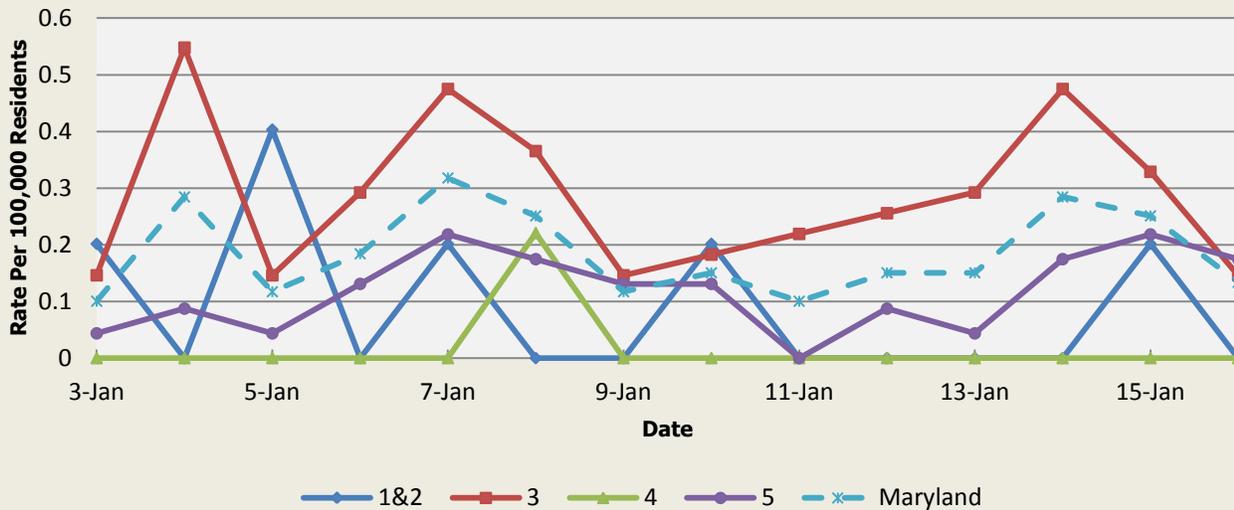
There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.72	0.96	0.87	0.43	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**

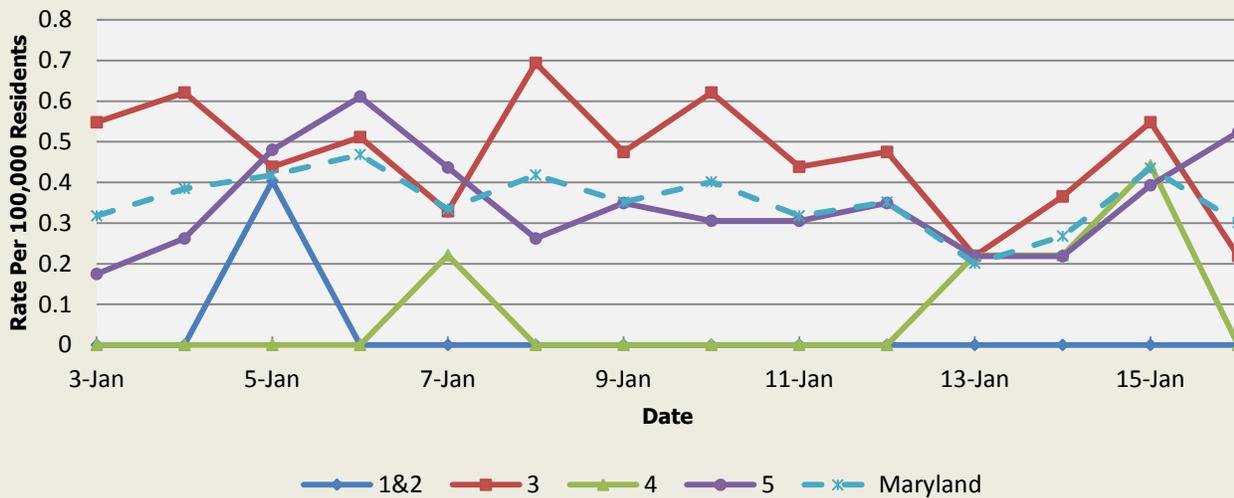


There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 1/10 (Regions 1&2,3,5), 1/11 (Region 3), 1/12 (Regions 3,5), 1/13 (Region 3), 1/14 (Regions 3,5), 1/15 (Regions 1&2,3,5), and 1/16 (Regions 3,5). These increases are not known to be associated with any outbreaks.

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.07	0.04	0.04	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.03

\* Per 100,000 Residents

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

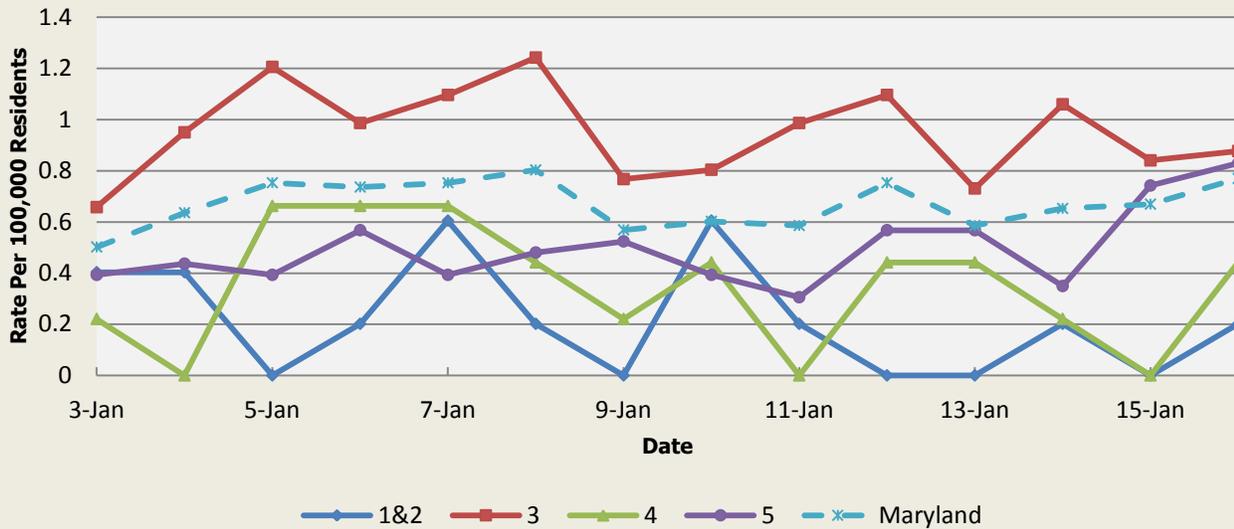


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 1/10 (Regions 3,5), 1/11 (Regions 3,5), 1/12 (Regions 3,5), 1/13 (Regions 3,4,5), 1/14 (Regions 3,4,5) 1/15 (Regions 3,4,5), and 1/16 (Regions 3,5). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.09	0.03	0.06	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 1/11 (Region 3), 1/12 (Regions 3,5), 1/13 (Region 3), 1/14 (Region 3), 1/15 (Region 5) and 1/16 (Regions 3,5). These increases are not known to be associated with any outbreaks.

<b>Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present</b>					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.43	0.34	0.28	0.36
Median Rate*	0.20	0.37	0.22	0.26	0.30

\* Per 100,000 Residents

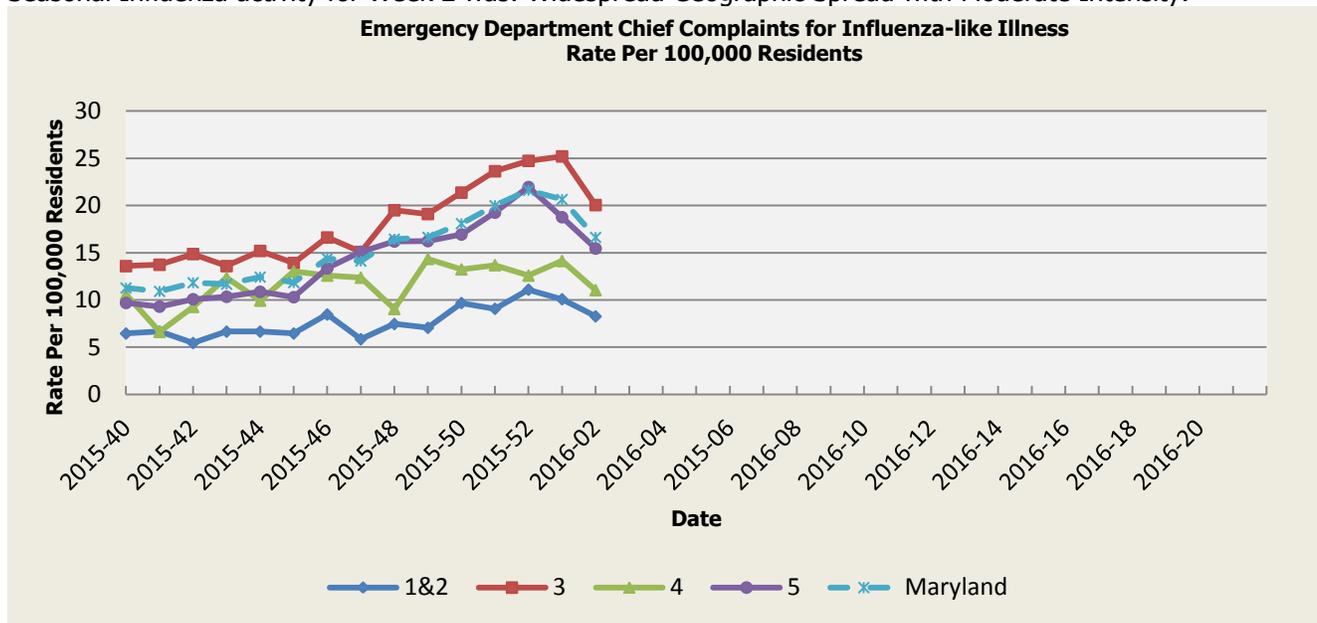
**MARYLAND REPORTABLE DISEASE SURVEILLANCE**

Condition	Counts of Reported Cases†					
	January			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
<b>Vaccine-Preventable Diseases</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>
Aseptic meningitis	2	17.4	16	2	17.4	16
Meningococcal disease	0	0.8	1	0	0.8	1
Measles	0	0	0	0	0	0
Mumps	0	0.4	0	0	0.4	0
Rubella	0	0	0	0	0	0
Pertussis	0	9.8	10	0	9.8	10
<b>Foodborne Diseases</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>
Salmonellosis	6	27.2	26	6	27.2	26
Shigellosis	0	6.4	5	0	6.4	5
Campylobacteriosis	11	19.8	19	11	19.8	19
Shiga toxin-producing Escherichia coli (STEC)	2	2.6	2	2	2.6	2
Listeriosis	0	0.2	0	0	0.2	0
<b>Arboviral Diseases</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>
West Nile Fever	0	0	0	0	0	0
Lyme Disease	4	27	20	4	27	20
<b>Emerging Infectious Diseases</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>
Chikungunya	0	1	0	0	1	0
Dengue Fever	0	0.4	0	0	0.4	0
<b>Other</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>	<b>2016</b>	<b>Mean*</b>	<b>Median*</b>
Legionellosis	2	3.8	3	2	3.8	3

† Counts are subject to change    \*Timeframe of 2009-2015    \*\*Includes January through current month

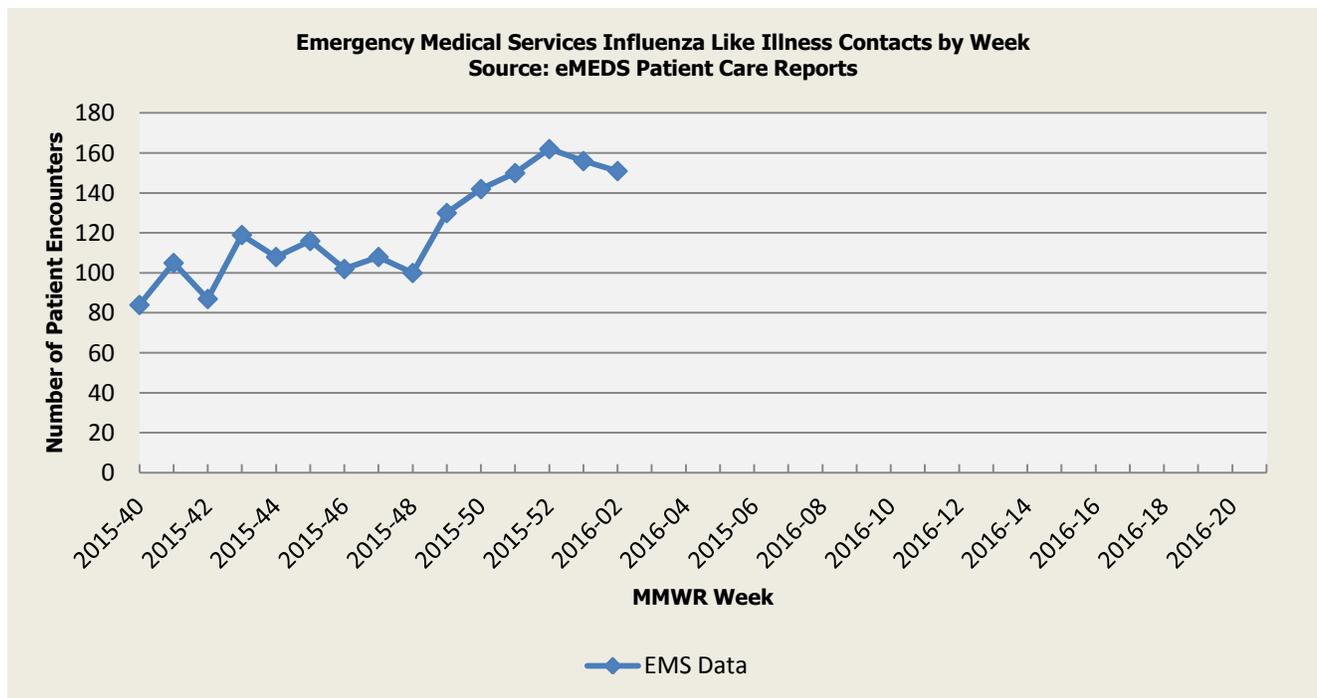
## SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 2 was: Widespread Geographic Spread with Moderate Intensity.



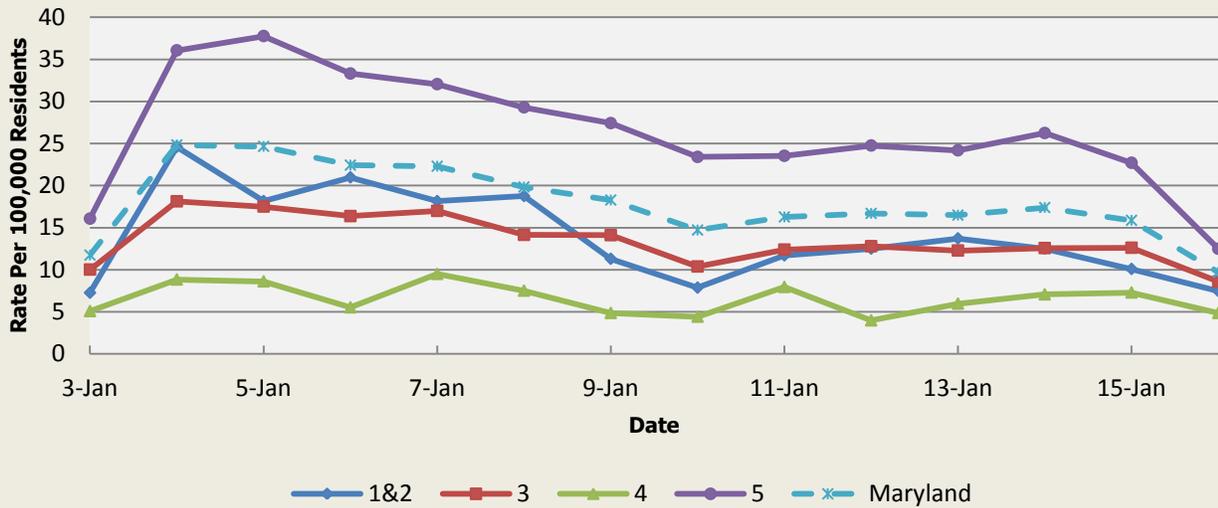
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.33	11.08	10.79	10.10	10.54
Median Rate*	7.66	8.66	8.83	7.68	8.28

\* 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**

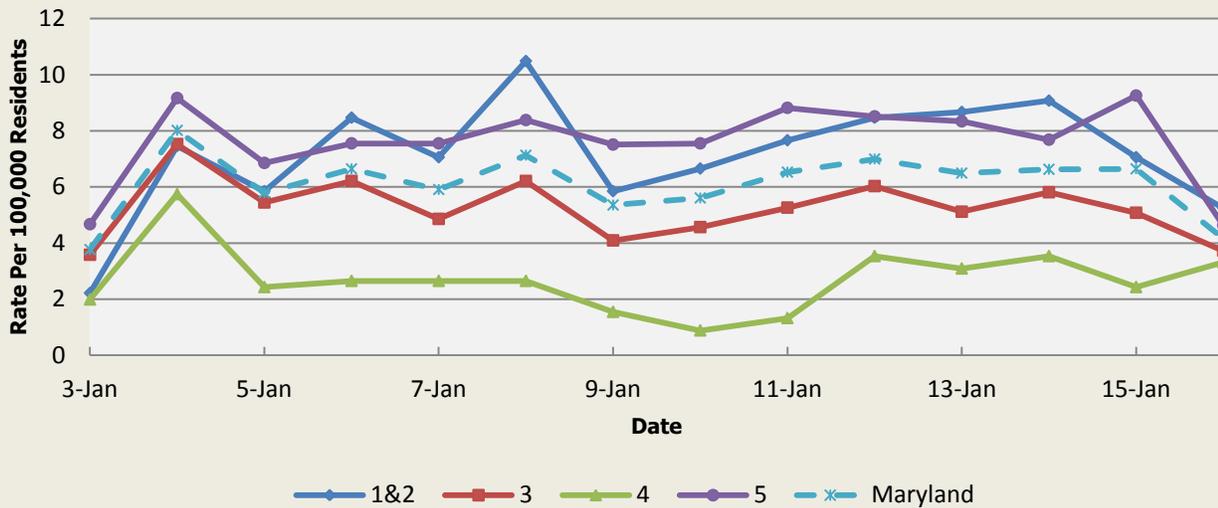


There was an appreciable increase above baseline in the rate of OTC flu medication sales on 1/11 (Regions 1&2,4), 1/12 (Regions 1&2,3), 1/13 (Regions 1&2), 1/14 (Regions 1&2,4), and 1/15 (Region 4).

	<b>OTC Sales Baseline Data January 1, 2010 - Present</b>				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.65	6.31	3.18	14.16	9.03
Median Rate*	4.23	5.19	2.65	11.44	7.31

\* 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.

	<b>Thermometer Sales Baseline Data January 1, 2010 - Present</b>				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.70	4.71	3.34	7.75	5.85
Median Rate*	5.04	4.31	3.09	7.12	5.37

\* 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 December 14, 2015, the WHO-confirmed global total (2003-2015) of human cases of H5N1 avian influenza virus infection stands at 844, of which 449 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

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

**H7N9 (CHINA):** 21 Jan 2016 Taiwanese businessman in China dies after contracting H7N9 influenza. Read More: <http://www.promedmail.org/post/3953450>

**H5N6 (CHINA):** 18 Jan 2016 The Centre for Health Protection (CHP) of the Department of Health (DH) was notified of an additional human case of avian influenza A (H5N6) in Guangdong by the National Health and Family Planning Commission and again urged the public to maintain strict personal, food and environmental hygiene both locally and during travel. Read More: <http://www.promedmail.org/post/3946852>

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:**

**H7N8 (USA):** 21 Jan 2016 H7N8 detections at more Indiana farms suggest mutation. Read More: <http://www.promedmail.org/post/3953508>

**H5N1 (INDIA):** 21 Jan 2016 Highly pathogenic avian influenza, India. Read More: <http://www.promedmail.org/post/3952808>

**H5 (TAIWAN):** 20 Jan 2016 The Council of Agriculture (COA) confirmed that a pigeon was found to be infected with the new H5 subtype of the avian influenza virus, the 1st time that the highly pathogenic subtype had been detected in this bird species in Taiwan. Read More: <http://www.promedmail.org/post/3951821>

**H5 (TAIWAN):** 18 Jan 2016 A total of 27 538 chickens at a farm in Changhua County in central Taiwan were culled after a highly pathogenic subtype of the H5 avian influenza virus was detected near the farm according to agriculture officials. The latest culling brought the total number of poultry farms hit by the subtype of bird flu virus in Taiwan to 10 since the beginning of 2016, the officials said. Read More: <http://www.promedmail.org/post/3945780>

**H7N8 (USA):** 17 Jan 2016 The Indiana State Board of Animal Health (BOAH) has been notified by the U.S. Department of Agriculture's National Veterinary Services Laboratory that poultry from a commercial turkey farm in Dubois County has tested positive for highly pathogenic H7N8 avian influenza. Read More: <http://www.promedmail.org/post/3943565>

**H5N6 (VIETNAM):** 15 Jan 2016 Bird flu outbreaks were detected in the central province of Quang Ngai and the highland province of Kon Tum, said the Department of Animal Health under the Ministry of Agriculture and Rural Development on 12 Jan 2016. Read More: <http://www.promedmail.org/post/3940015>

### **NATIONAL DISEASE REPORTS**

There were no relevant national disease reports this week,

### **INTERNATIONAL DISEASE REPORTS**

**LISTERIOSIS (CANADA):** 22 Jan 2016 The Public Health Agency of Canada announced on 20 Jan 2016 that an investigation is under way regarding an outbreak of infections caused by the bacterium *Listeria monocytogenes*. Read More: <http://www.promedmail.org/post/3956200>

**MONKEYPOX (CENTRAL AFRICAN REPUBLIC):** 19 Jan 2016 The public health minister confirmed the news on Thu 14 Jan 2016, during a press conference. A monkeypox virus outbreak has struck the region. Read More: <http://www.promedmail.org/post/3947756>

**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.dhmf.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.dhmf.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

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

