



**October 23, 2015**

**Public Health Preparedness and Situational Awareness Report: #2015:41  
Reporting for the week ending 10/17/15 (MMWR Week #41)**

**CURRENT HOMELAND SECURITY THREAT LEVELS**

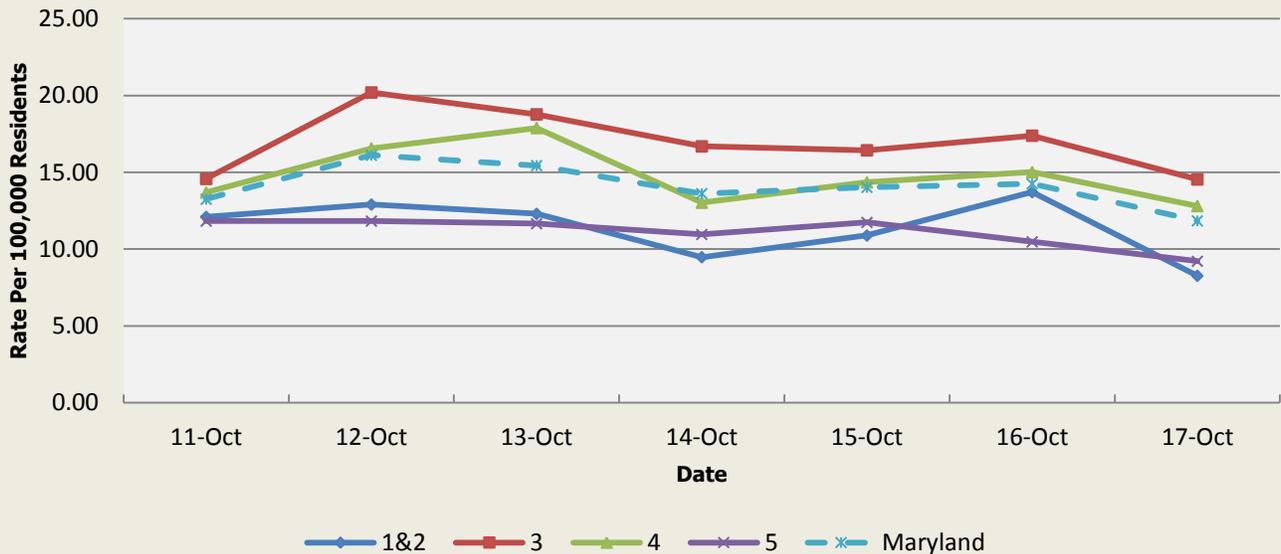
**National: No Active Alerts**  
**Maryland: Level Four (MEMA status)**

**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.

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



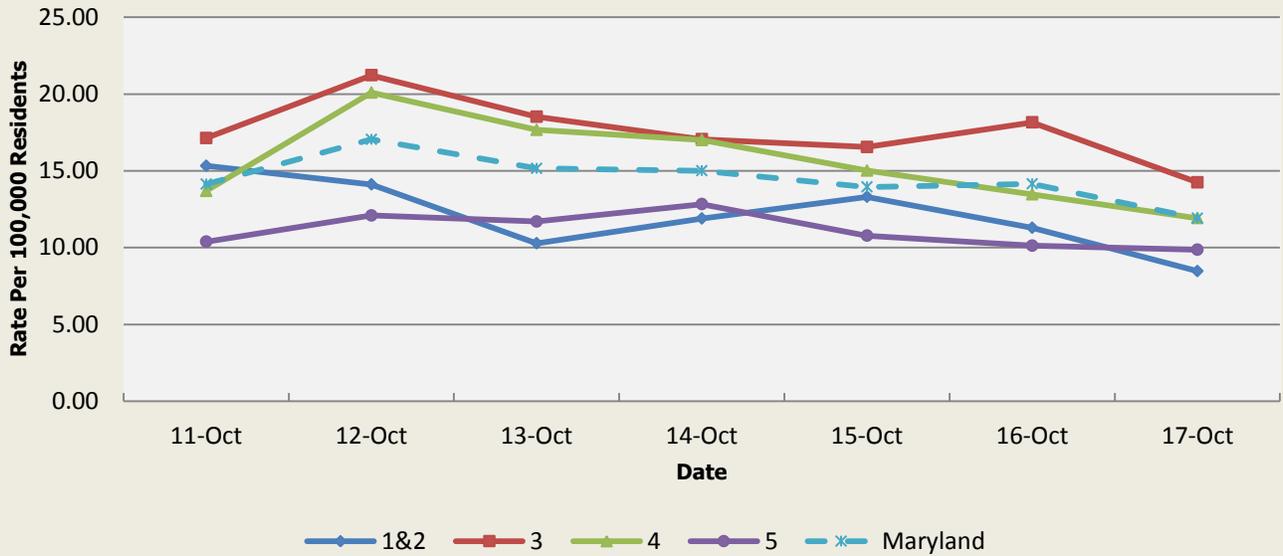
There were 3 gastrointestinal illness outbreaks reported this week: 1 outbreak of gastroenteritis in a nursing home (Region 5), 1 outbreak of gastroenteritis/foodborne associated with a Workplace (Region 5), and 1 outbreak of gastroenteritis/foodborne associated with a Restaurant (Region 5).

**Gastrointestinal Syndrome Baseline Data  
January 1, 2010 - Present**

Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.91	14.39	15.28	10.14	12.71
Median Rate*	12.91	14.16	14.57	10.04	12.58

\* Per 100,000 Residents

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

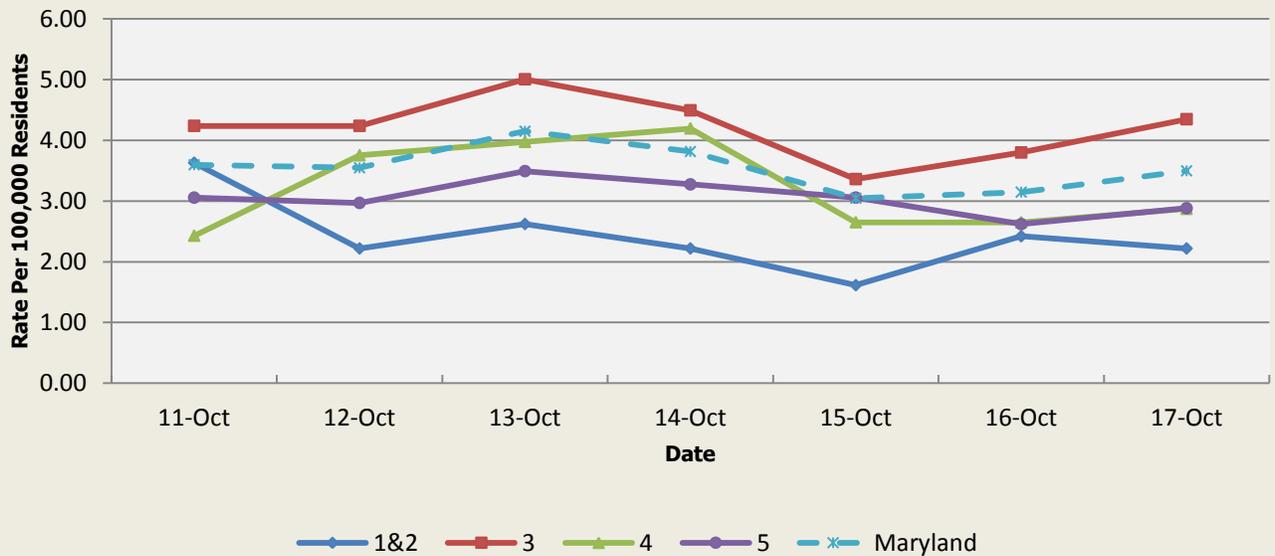


There were no respiratory outbreaks reported this week.

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.88	13.48	13.73	9.65	11.90
Median Rate*	11.49	13.01	13.25	9.30	11.50

\* Per 100,000 Residents

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

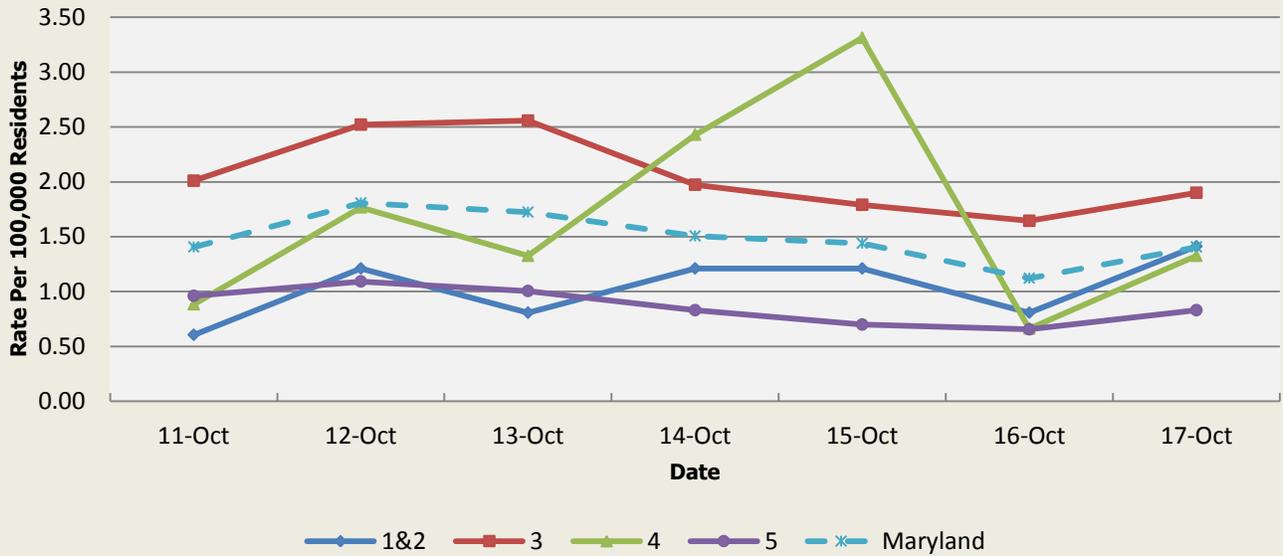


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.11	3.67	3.87	3.04	3.40
Median Rate*	3.02	3.54	3.75	2.92	3.28

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*	1.10	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**

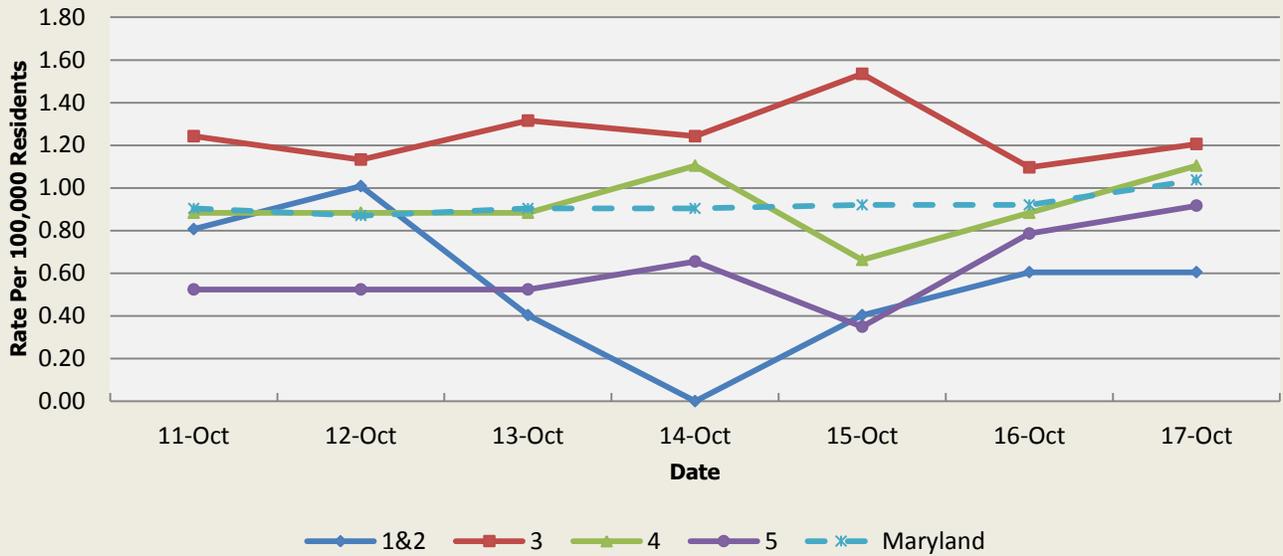


There were no rash outbreaks reported this week.

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.33	1.74	1.77	1.05	1.44
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**

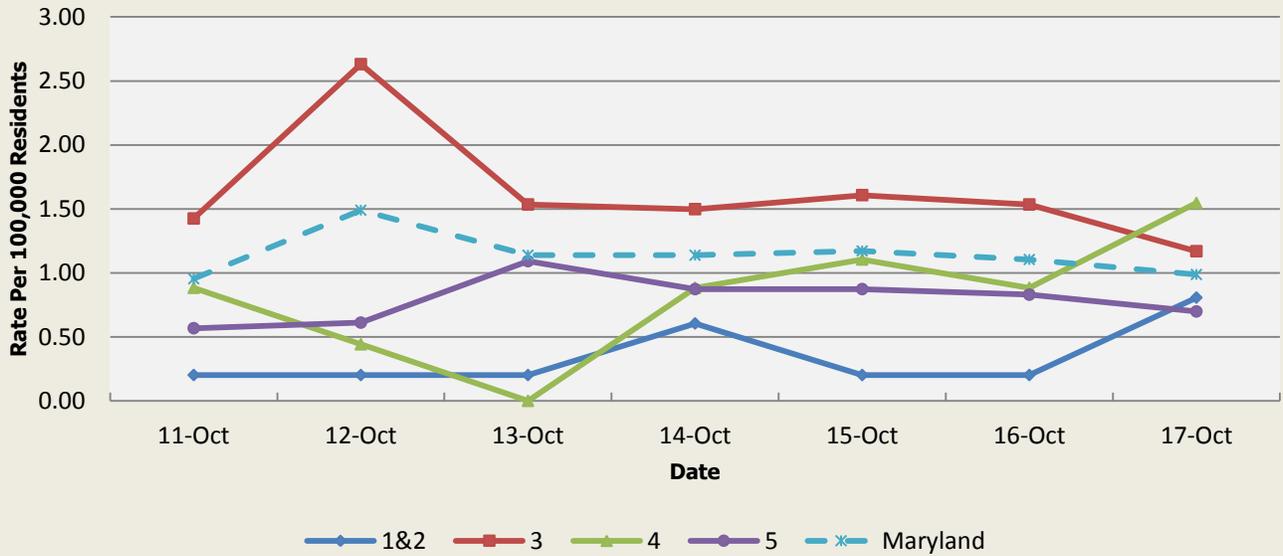


There were no neurological outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.62	0.68	0.63	0.45	0.58
Median Rate*	0.60	0.62	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**



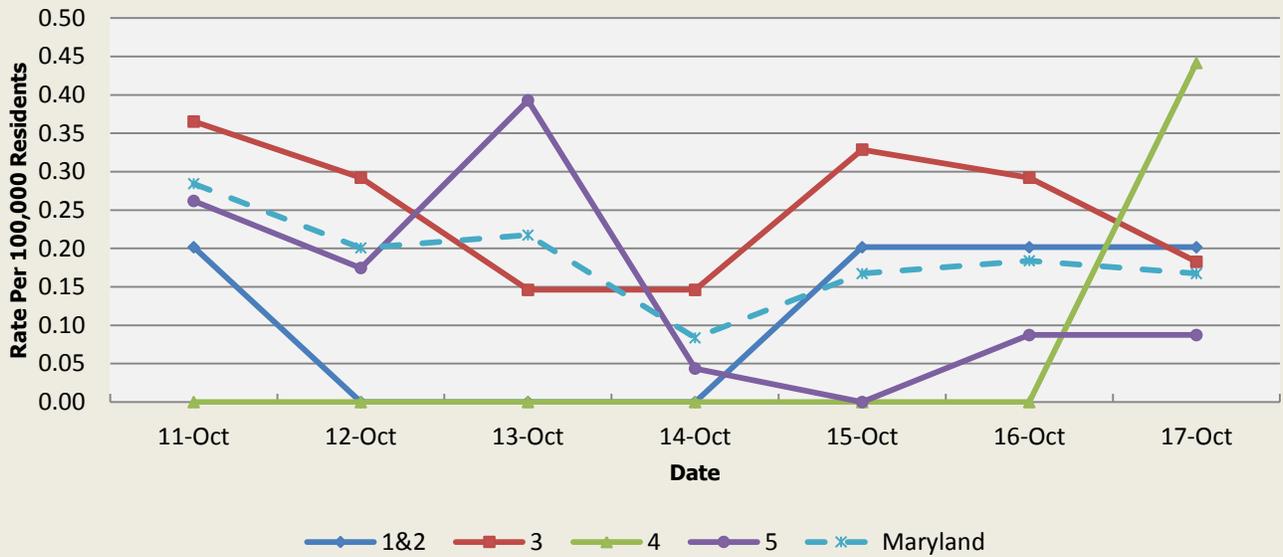
There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.74	0.96	0.88	0.42	0.73
Median Rate*	0.60	0.95	0.88	0.39	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**

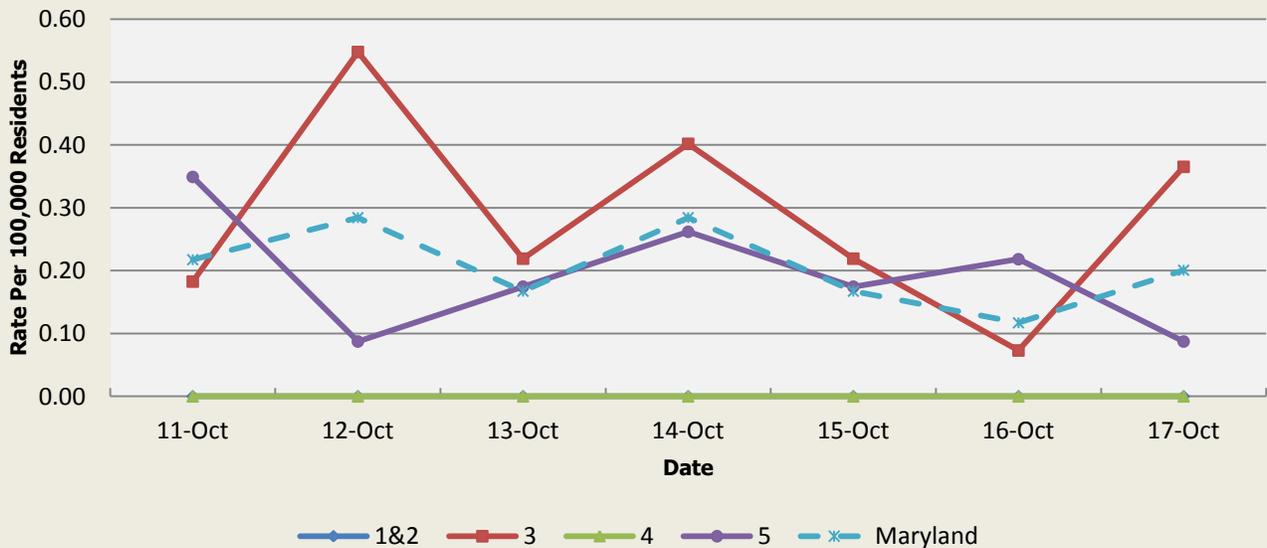


There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 10/11 (Regions 1&2,3,5), 10/12 (Regions 3,5), 10/13 (Regions 3,5), 10/14 (Region 3), 10/15 (Regions 1&2,3), 10/16 (Regions 1&2,3,5), 10/17 (Regions 1&2,3,4,5). These increases are not known to be associated with any outbreaks.

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.06	0.04	0.04	0.05
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**

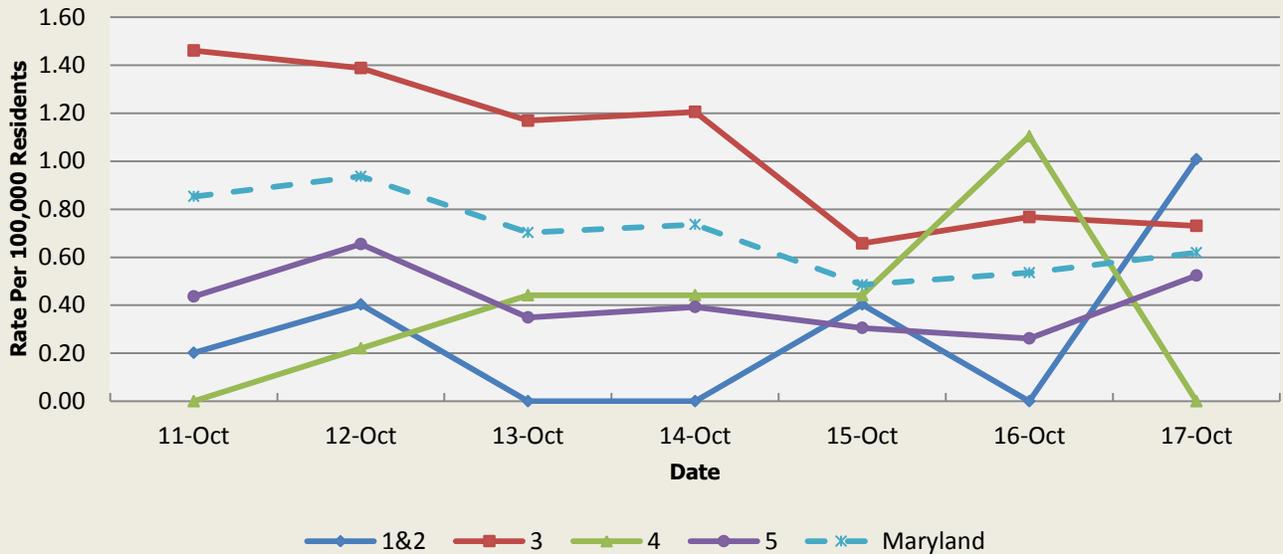


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 10/11 (Regions 3,5), 10/12 (Regions 3,5), 10/13 (Regions 3,5), 10/14 (Regions 3,5), 10/15 (Regions 3,5), 10/16 (Region 5) and 10/17 (Regions 3,5). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.06	0.03	0.04	0.05
Median Rate*	0.00	0.04	0.00	0.00	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 10/11 (Region 3), 10/12 (Regions 3,5), 10/13 (Region 3), 10/14 (Region 3), 10/16 (Region 3,4) and 10/17 (Regions 1&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	0.37	0.34	0.25	0.32
Median Rate*	0.20	0.33	0.22	0.22	0.30

\* Per 100,000 Residents

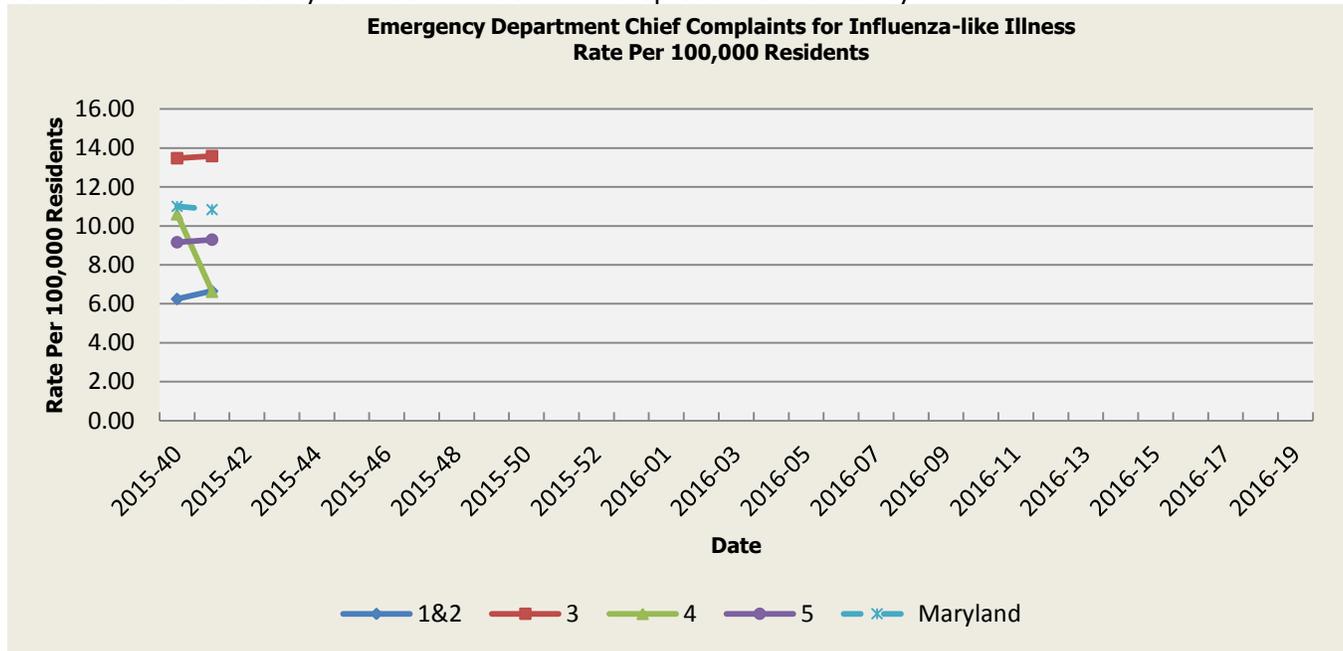
**MARYLAND REPORTABLE DISEASE SURVEILLANCE**

Condition	Counts of Reported Cases‡					
	October			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2015	Mean*	Median*	2015	Mean*	Median*
Aseptic meningitis	11	26	25	381	356	380
Meningococcal disease	0	0.6	1	2	6.4	6
Measles	0	0	0	0	0.6	0
Mumps	0	0.2	0	21	20.8	2
Rubella	0	0	0	1	1.2	1
Pertussis	1	9.8	7	75	162.8	165
Foodborne Diseases	2015	Mean*	Median*	2015	Mean*	Median*
Salmonellosis	16	46.2	46	682	794	814
Shigellosis	4	8.2	8	178	135.4	112
Campylobacteriosis	9	25.2	25	523	499.8	511
Shiga toxin-producing Escherichia coli (STEC)	0	4.4	3	73	57.8	57
Listeriosis	0	1.2	1	13	12.8	14
Arboviral Diseases	2015	Mean*	Median*	2015	Mean*	Median*
West Nile Fever	0	0.2	0	15	7	6
Lyme Disease	11	46.8	50	1001	1071.2	1132
Emerging Infectious Diseases	2015	Mean*	Median*	2015	Mean*	Median*
Chikungunya	0	1.4	0	14	9	0
Dengue Fever	0	1	1	8	9.2	10
Other	2015	Mean*	Median*	2015	Mean*	Median*
Legionellosis	7	7.8	7	109	114.6	107

‡ Counts are subject to change \*Timeframe of 2009-2014 \*\*Includes January through current month

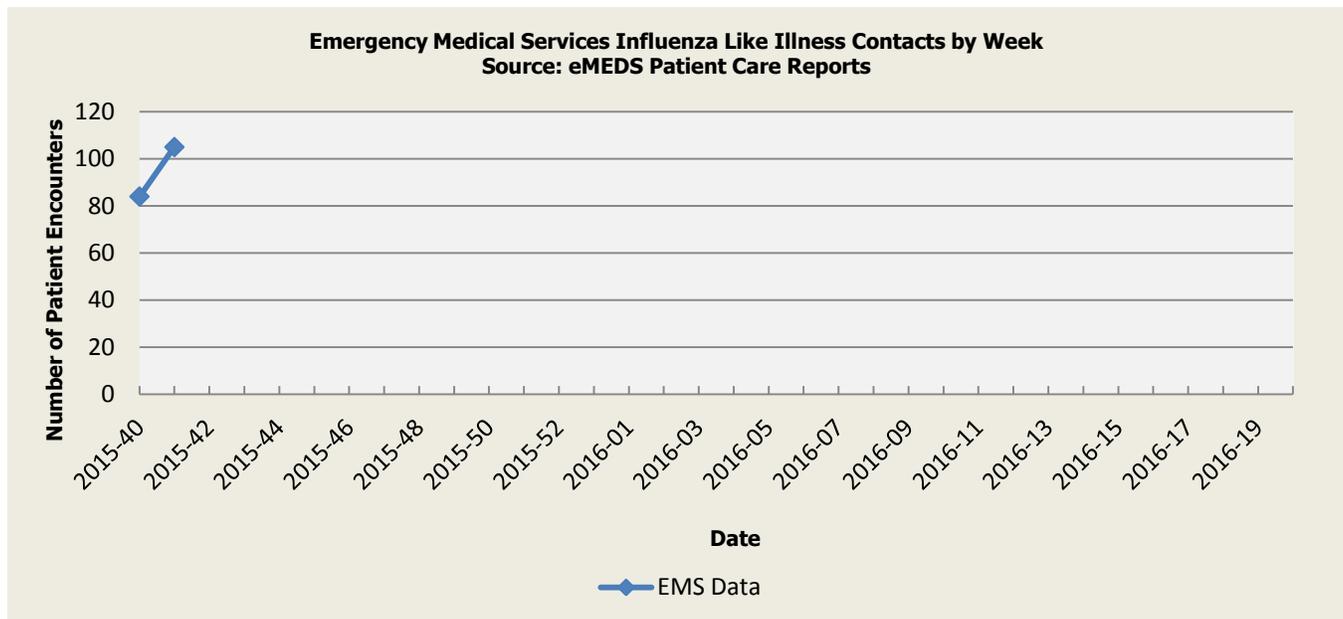
**SYNDROMIC INFLUENZA SURVEILLANCE**

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 41 was: Minimal Spread with No Activity.



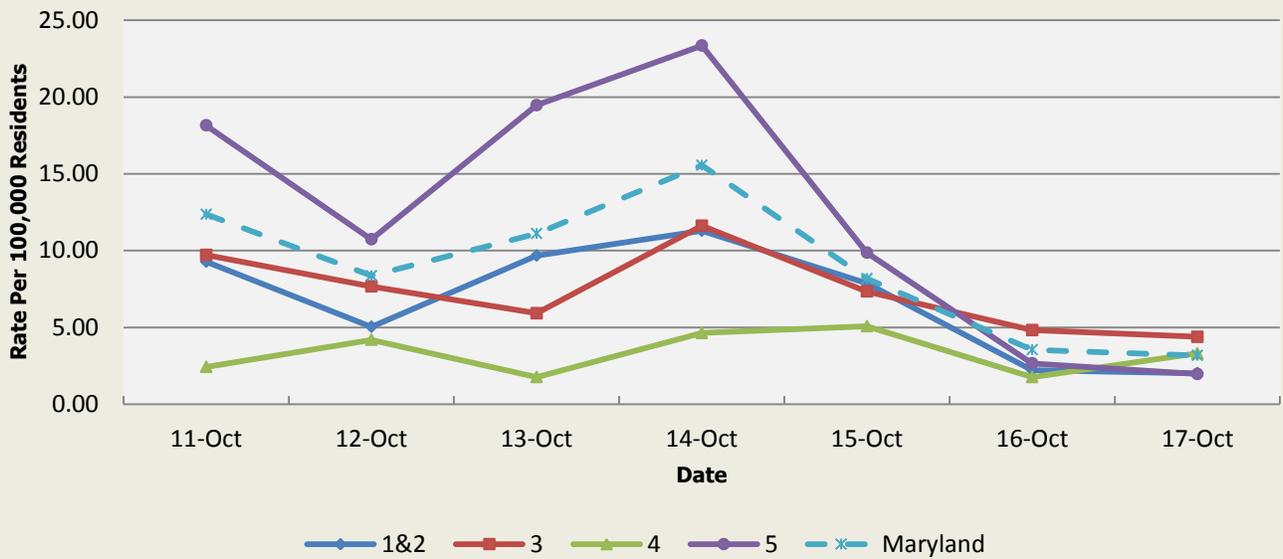
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	10.63	10.63	9.77	10.19
Median Rate*	7.66	8.38	8.61	7.51	7.99

\* 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**

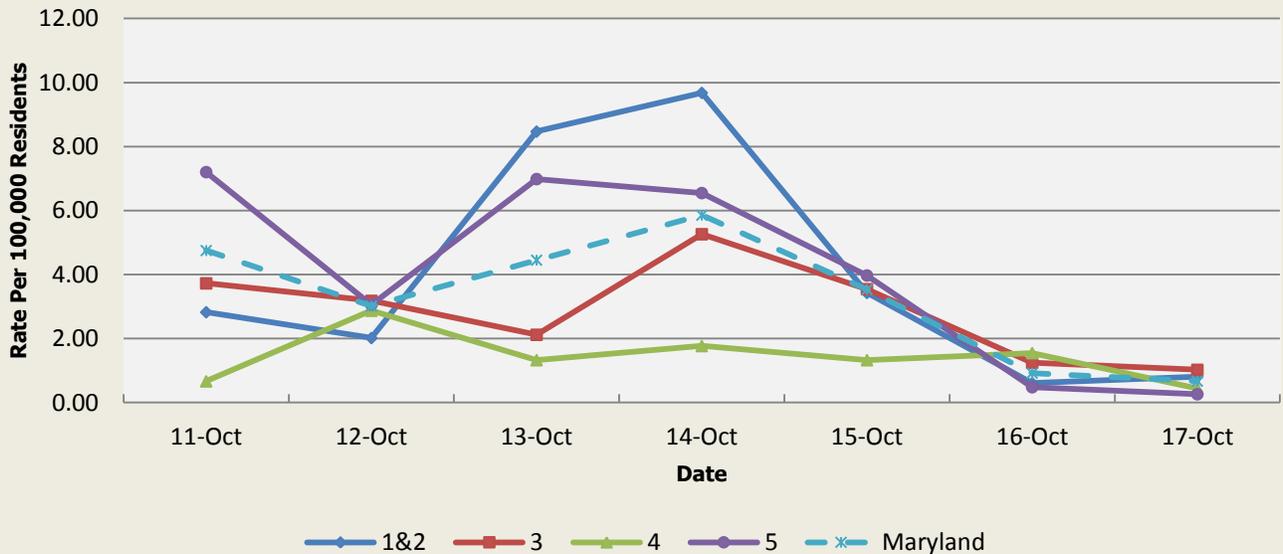


There was not an appreciable increase above baseline in the rate of OTC flu medication sales this week.

Health Region	OTC Sales Baseline Data January 1, 2010 - Present				
	1&2	3	4	5	Maryland
Mean Rate*	5.37	6.05	3.07	13.75	8.72
Median Rate*	4.23	4.93	2.65	11.22	7.09

\* 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*	5.63	4.67	3.34	7.70	5.81
Median Rate*	5.04	4.31	3.09	7.07	5.35

\* 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 15, 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):** 20 OCT 2015 On 14 Oct 2015, the National Health and Family Planning Commission (NHFPC) of China notified WHO of 2 additional laboratory-confirmed cases of human infection with avian influenza [AI] A(H7N9) virus. Read More: <http://www.promedmail.org/direct.php?id=3728683>

**H7N9 (CHINA):** 17 OCT 2015 Raising the alarm for poultry-related livelihoods and public health, FAO warned countries today that a 4th wave of avian influenza H7N9 has already begun. The novel A(H7N9) avian influenza virus originally emerged in humans in China in early 2013. Each winter since, southern China has witnessed an upsurge in human infections. Read More: <http://www.promedmail.org/direct.php?id=3723789>

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:**

No avian influenza in poultry reports this week.

## **NATIONAL DISEASE REPORTS**

**CAMPYLOBACTERIOSIS, E. COLI EHEC (IDAHO):** 22 OCT 2015 State health officials say 8 people have reportedly fallen ill after drinking raw, unpasteurized milk from a dairy in Kuna [Ada County, Idaho]. The Idaho Department of Health and Welfare said [Tue 20 Oct 2015] that 4 people have contracted campylobacteriosis and the rest have contracted *E. coli* infection after drinking the milk from Natural Farm Fresh Dairy in Kuna. Read More: <http://www.promedmail.org/direct.php?id=3735320>

**SHIGELLOSIS (MULTI-STATE):** 21 OCT 2015 An outbreak of *Shigella sonnei* affecting more than 300 people appears to have been repeatedly imported by international travels and clustered within multiple communities of men who have sex with men, according to data presented at IDWeek 2015. Read More: <http://www.promedmail.org/direct.php?id=3732921>

## **INTERNATIONAL DISEASE REPORTS**

**SALMONELLOSIS, SEROTYPE INFANTIS (CANADA):** 21 OCT 2015 The Public Health Agency of Canada is collaborating with federal and provincial public health partners to investigate an outbreak of *Salmonella* [*enterica* serotype] *infantis* in 8 provinces. At this time, no source has been identified, and the investigation is ongoing. Read More: <http://www.promedmail.org/direct.php?id=3734105>

**HAND, FOOT, AND MOUTH DISEASE (TURCS AND CAICOS ISLANDS):** 20 OCT 2015 The Ministry of Health is reporting an outbreak of hand foot and mouth disease [HFMD] in the Turks and Caicos Islands affecting some schools and children. The SUN understands that up to 20 cases have already been reported to the Ministry of Health, Agriculture and Human Services. Read More: <http://www.promedmail.org/direct.php?id=3730968>

**KLEBSIELLA PNEUMONIAE (PORTUGAL):** 17 OCT 2015 *Klebsiella pneumoniae carbapenemase* (KPC)-producing bacteria were involved in the deaths of 8 patients in the Gaia Hospital, a neighboring town of Porto (Portugal). 30 patients are also infected, but most without symptoms. Read More: <http://www.promedmail.org/direct.php?id=3723788>

## **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/SitePages/Home.aspx>

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

