



**October 10, 2014**

**Public Health Preparedness and Situational Awareness Report: # 2014:40  
Reporting for the week ending 10/04/14 (MMWR Week #40)**

**CURRENT HOMELAND SECURITY THREAT LEVELS**

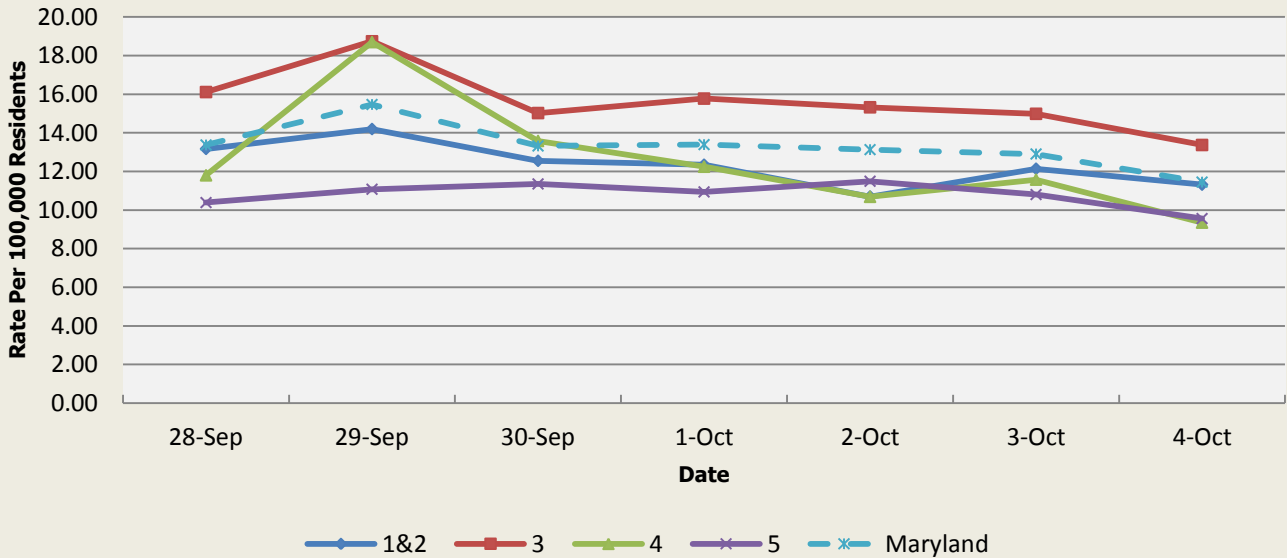
**National: No Active Alerts**  
**Maryland: Level Four (MEMA status)**

**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**

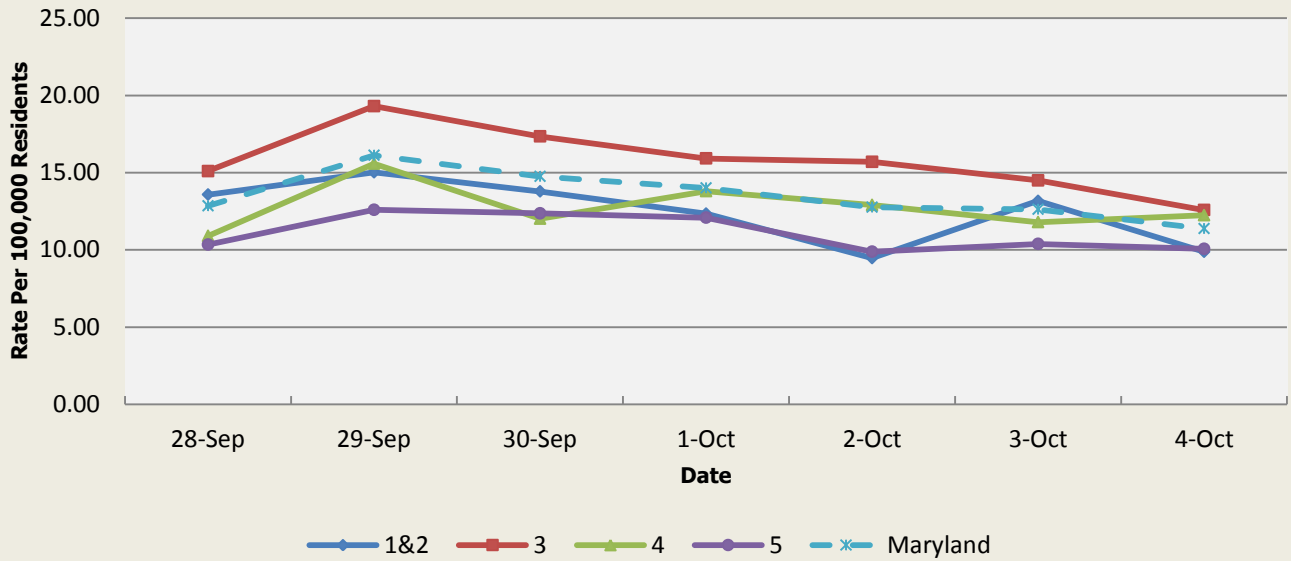


There were 2 GI outbreaks reported this week: 1 outbreak of gastroenteritis associated with a hospital (Region 4) and 1 outbreak of gastroenteritis associated with a private home (Region 4).

| Gastrointestinal Syndrome Baseline Data<br>January 1, 2010 - Present |       |       |       |       |          |
|--|-------|-------|-------|-------|----------|
| Health Region  | 1&2   | 3     | 4     | 5     | Maryland |
| Mean Rate*   | 13.22 | 14.15 | 15.40 | 10.35 | 12.74    |
| Median Rate*   | 13.17 | 14.05 | 14.69 | 10.25 | 12.66    |

\* Per 100,000 Residents

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

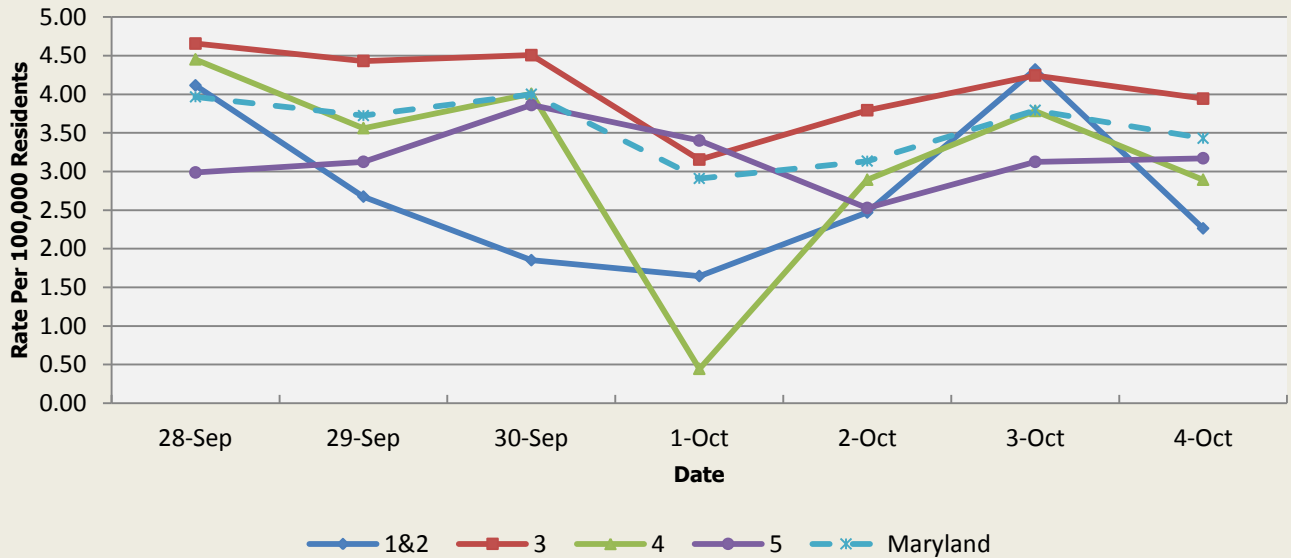


There were 2 respiratory illness outbreaks reported this week: 1 outbreak of pneumonia in a nursing home (Region 1&2) and 1 outbreak of pertussis associated with a school (Region 5).

| Respiratory Syndrome Baseline Data<br>January 1, 2010 - Present |       |       |       |      |          |
|---|-------|-------|-------|------|----------|
| Health Region   | 1&2   | 3     | 4     | 5    | Maryland |
| Mean Rate*  | 12.07 | 13.13 | 13.69 | 9.71 | 11.80    |
| Median Rate*  | 11.73 | 12.81 | 13.13 | 9.47 | 11.59    |

\* Per 100,000 Residents

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

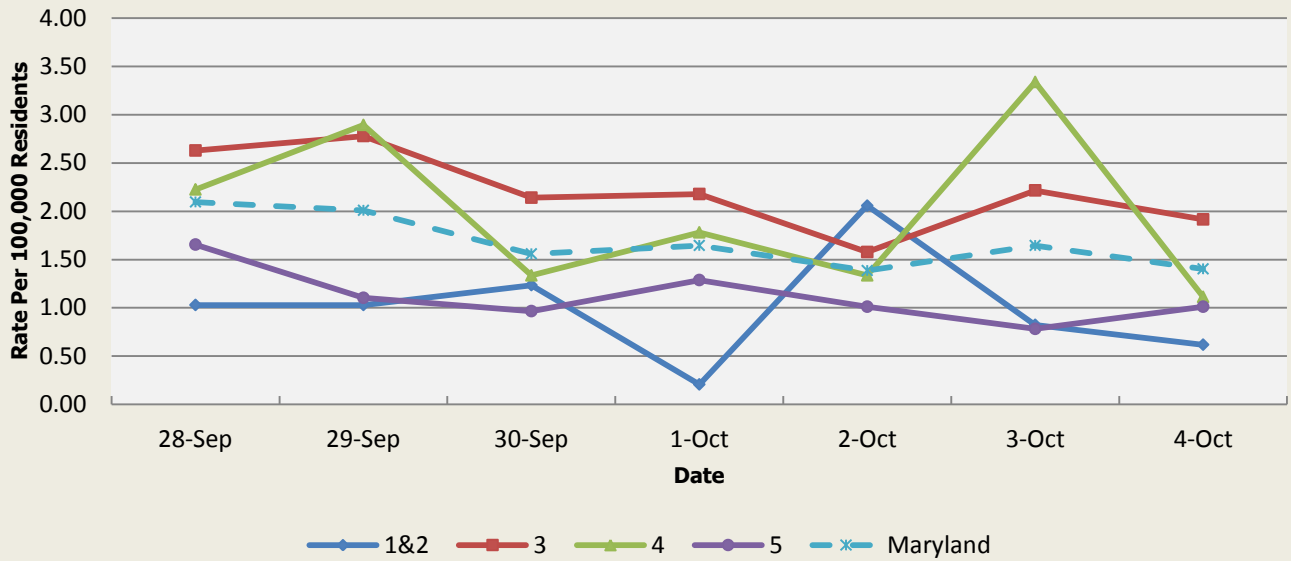


There were no fever outbreaks reported this week.

| Fever Syndrome Baseline Data<br>January 1, 2010 - Present |      |      |      |      |          |
|---|------|------|------|------|----------|
| Health Region   | 1&2  | 3    | 4    | 5    | Maryland |
| Mean Rate*  | 3.23 | 3.57 | 3.84 | 3.11 | 3.39     |
| Median Rate*  | 3.09 | 3.46 | 3.78 | 3.03 | 3.29     |

Per 100,000 Residents

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



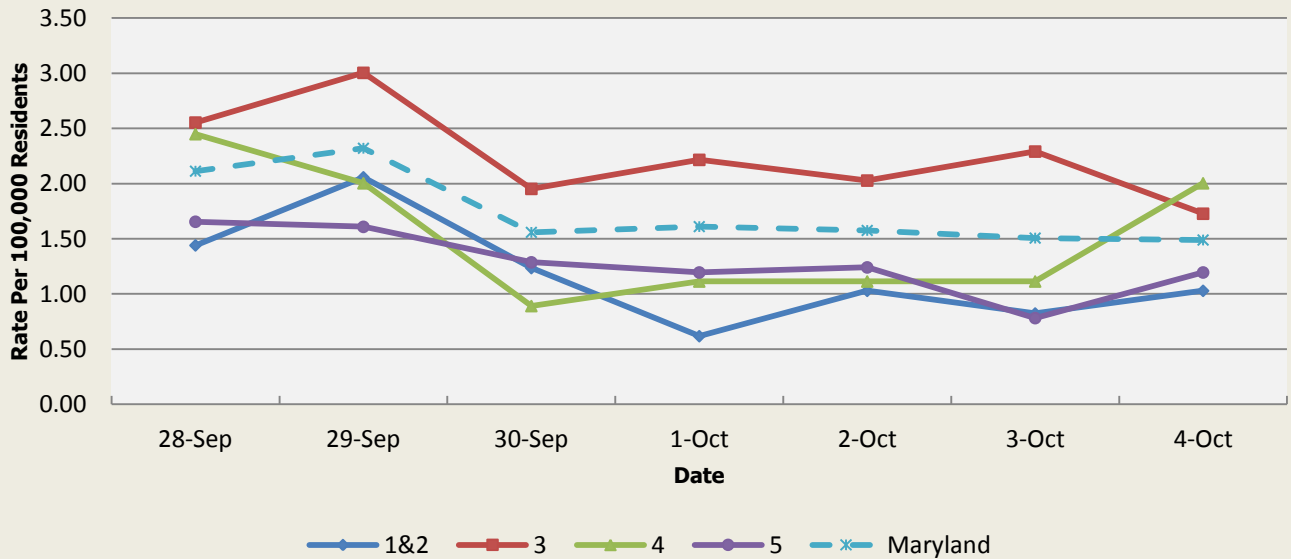
There were no localized lesion outbreaks reported this week.

**Localized Lesion Syndrome Baseline Data  
January 1, 2010 - Present**

| Health Region | 1&2  | 3    | 4    | 5    | Maryland |
|---------------|------|------|------|------|----------|
| Mean Rate*    | 1.19 | 1.98 | 2.08 | 1.05 | 1.57     |
| Median Rate*  | 1.03 | 1.92 | 2.00 | 1.01 | 1.52     |

\* Per 100,000 Residents

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



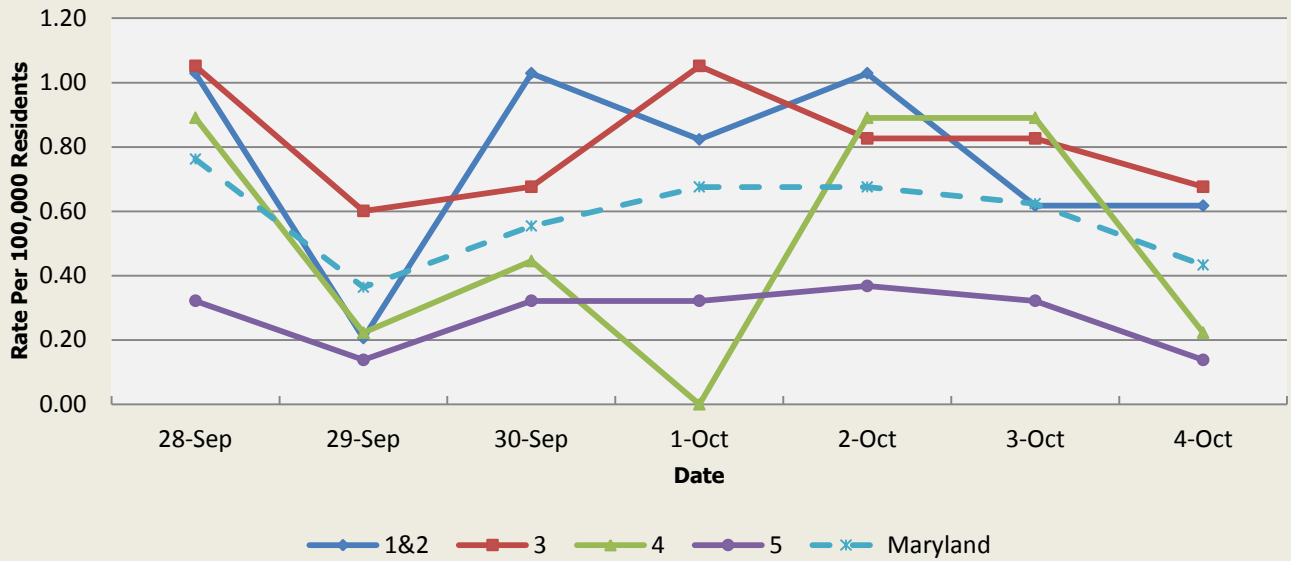
There were 3 rash outbreaks reported this week: 2 outbreaks of hand, foot, and mouth disease associated with daycare centers (Region 3 and Region 5), and 1 outbreak of rash illness associated with a school (Region 4).

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

| Health Region | 1&2  | 3    | 4    | 5    | Maryland |
|---------------|------|------|------|------|----------|
| Mean Rate*    | 1.42 | 1.74 | 1.79 | 1.09 | 1.47     |
| Median Rate*  | 1.44 | 1.65 | 1.78 | 1.06 | 1.42     |

\* Per 100,000 Residents

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

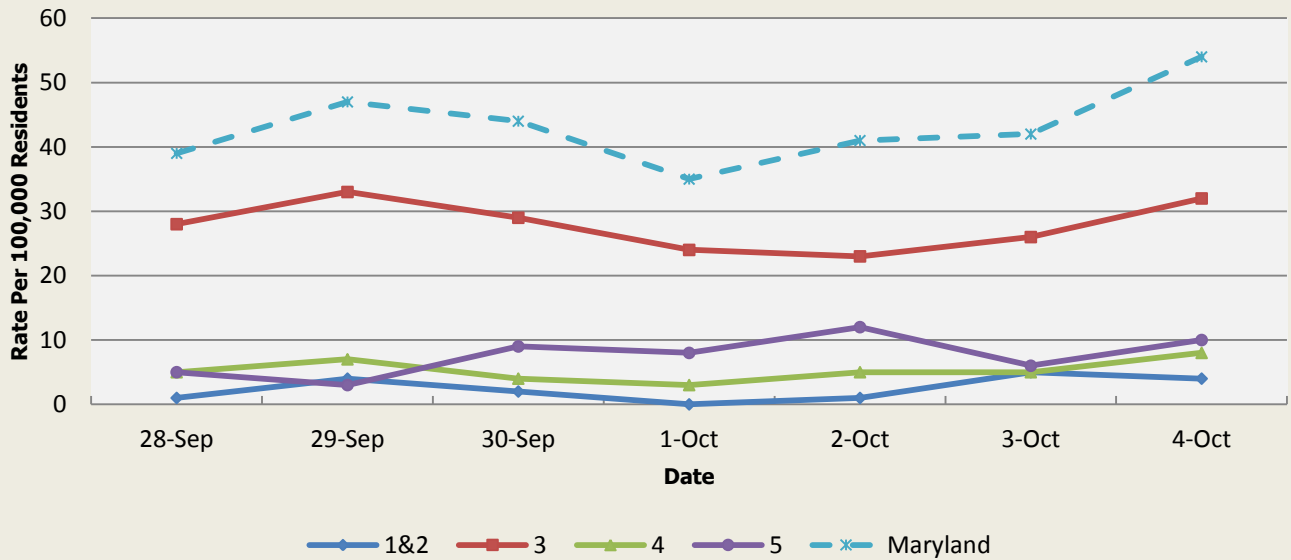


There were no neurological outbreaks reported this week.

| Neurological Syndrome Baseline Data<br>January 1, 2010 - Present |      |      |      |      |          |
|--|------|------|------|------|----------|
| Health Region  | 1&2  | 3    | 4    | 5    | Maryland |
| Mean Rate*   | 0.61 | 0.62 | 0.59 | 0.42 | 0.54     |
| Median Rate*   | 0.62 | 0.60 | 0.45 | 0.41 | 0.54     |

\* Per 100,000 Residents

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



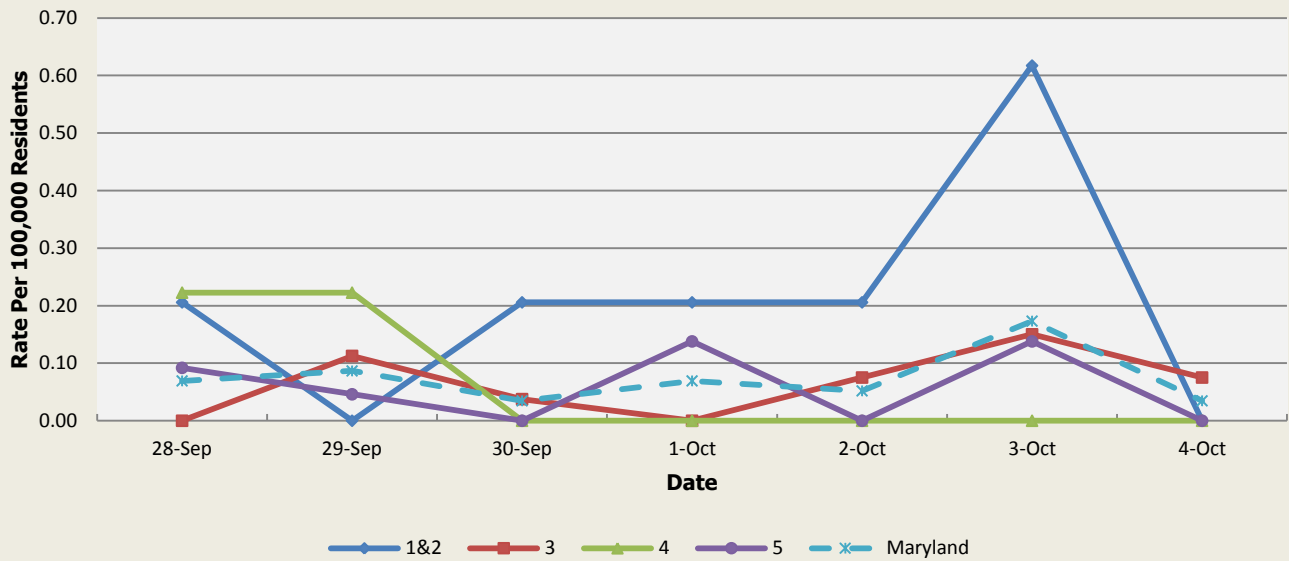
There were no severe illness or death outbreaks reported this week.

| Severe Illness or Death Syndrome Baseline Data<br>January 1, 2010 - Present |      |      |      |      |          |
|---|------|------|------|------|----------|
| Health Region   | 1&2  | 3    | 4    | 5    | Maryland |
| Mean Rate*  | 0.81 | 0.95 | 0.89 | 0.42 | 0.73     |
| Median Rate*  | 0.82 | 0.94 | 0.89 | 0.41 | 0.73     |

\* Per 100,000 Residents

## SYNDROMES RELATED TO CATEGORY A AGENTS

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

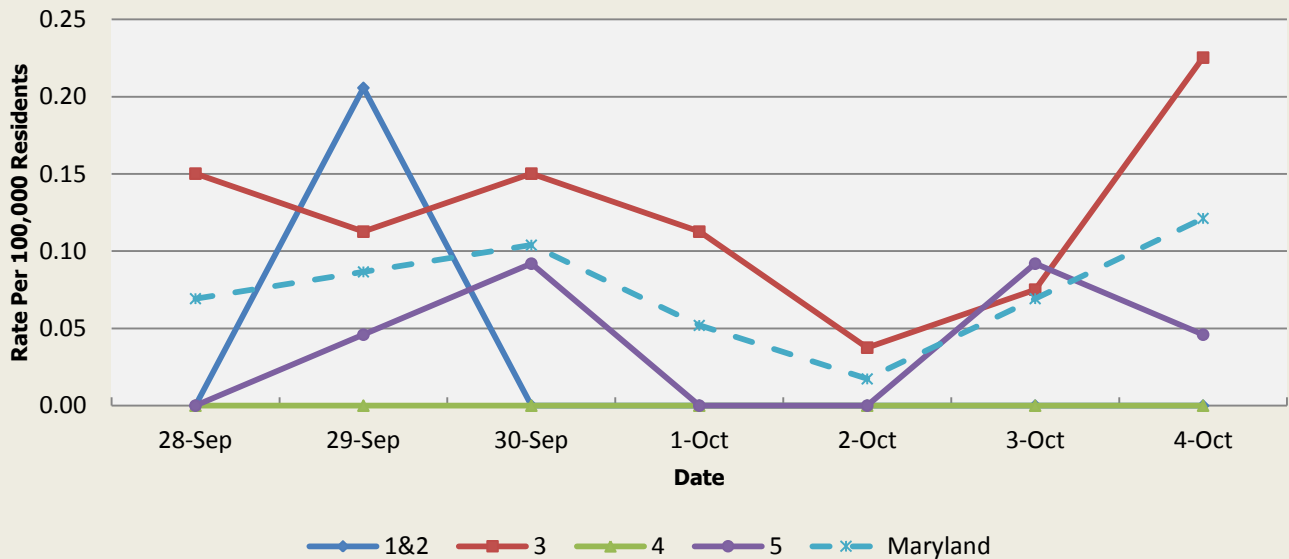


There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 10/03 (Regions 1&2). This increase is not known to be associated with any outbreaks.

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

\* Per 100,000 Residents

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

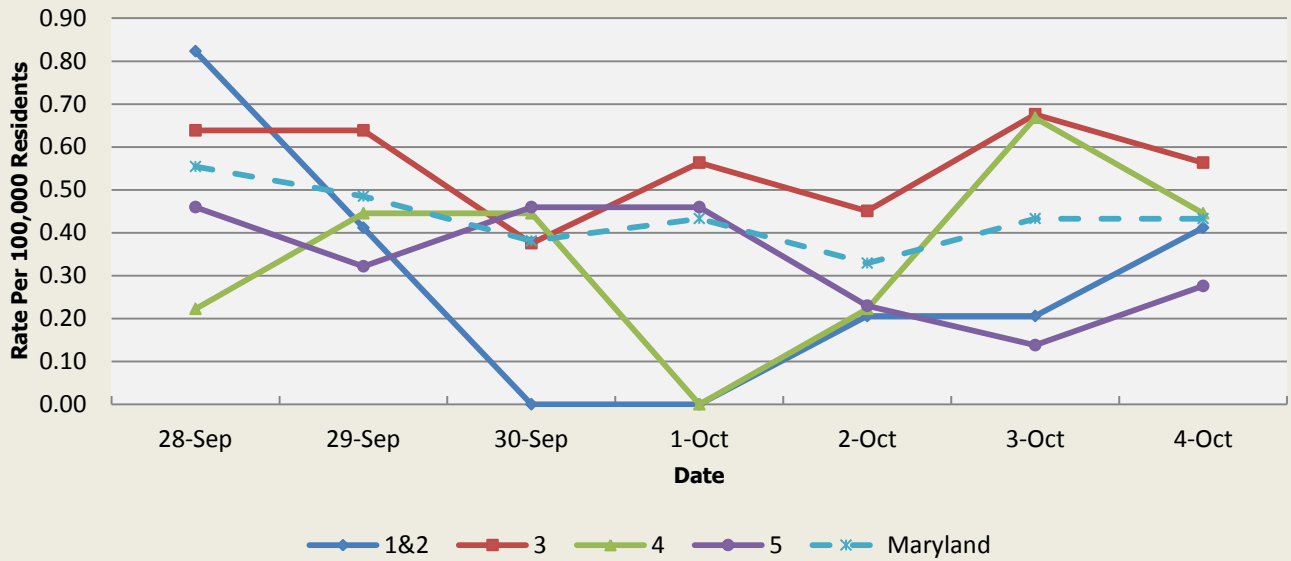


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 9/29 (Regions 1&2) and 10/04 (Region 3). These increases are not known to be associated with any outbreaks.

| Hemorrhagic Illness Syndrome Baseline Data<br>January 1, 2010 - Present |      |      |      |      |          |
|---|------|------|------|------|----------|
| Health Region   | 1&2  | 3    | 4    | 5    | Maryland |
| Mean Rate*  | 0.03 | 0.04 | 0.03 | 0.03 | 0.03     |
| Median Rate*  | 0.00 | 0.04 | 0.00 | 0.00 | 0.02     |

\* 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 9/28 (Regions 1&2), 9/28-9/29 and 10/03 (Region 3), and 9/28, 9/30, and 10/01 (Region 5). These increases are not known to be associated with any outbreaks.

| <b>Lymphadenitis Syndrome Baseline Data<br/>January 1, 2010 - Present</b> |      |      |      |      |          |
|---|------|------|------|------|----------|
| Health Region   | 1&2  | 3    | 4    | 5    | Maryland |
| Mean Rate*  | 0.33 | 0.33 | 0.35 | 0.23 | 0.30     |
| Median Rate*  | 0.21 | 0.30 | 0.22 | 0.23 | 0.29     |

\* Per 100,000 Residents

## MARYLAND REPORTABLE DISEASE SURVEILLANCE

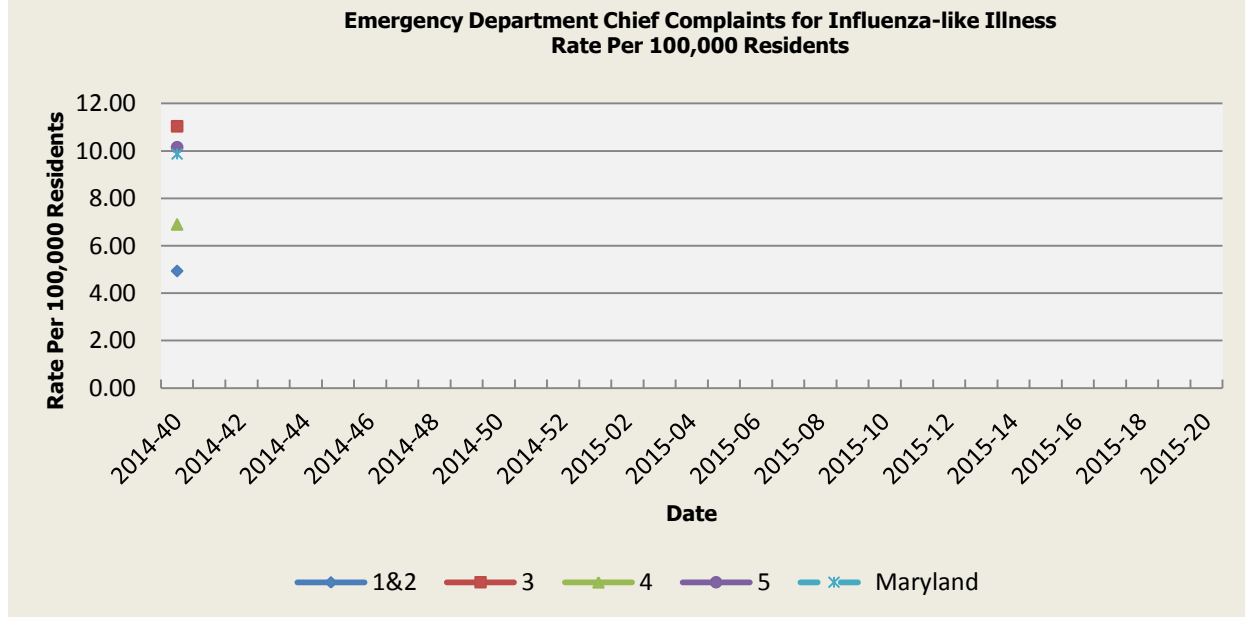
| Condition                                     | Counts of Reported Cases† |       |         |                             |       |         |
|---|---------------------------|-------|---------|-----------------------------|-------|---------|
|   | September                 |       |         | Cumulative (Year to Date)** |       |         |
| Vaccine-Preventable Diseases                  | 2014                      | Mean* | Median* | 2014                        | Mean* | Median* |
| Aseptic meningitis                            | 35                        | 52.4  | 51      | 263                         | 356.4 | 369     |
| Meningococcal disease                         | 0                         | 1     | 1       | 5                           | 6.6   | 8       |
| Measles                                       | 0                         | 0     | 0       | 0                           | 1.6   | 1       |
| Mumps   | 0                         | 0.2   | 0       | 1                           | 21.4  | 6       |
| Rubella                                       | 0                         | 0     | 0       | 1                           | 1     | 0       |
| Pertussis                                     | 19                        | 18.4  | 15      | 118                         | 142   | 103     |
| Foodborne Diseases                            | 2014                      | Mean* | Median* | 2014                        | Mean* | Median* |
| Salmonellosis                                 | 56                        | 99.2  | 96      | 586                         | 740.4 | 765     |
| Shigellosis                                   | 22                        | 12.6  | 11      | 161                         | 153.2 | 109     |
| Campylobacteriosis                            | 40                        | 49.8  | 47      | 451                         | 456   | 461     |
| Shiga toxin-producing Escherichia coli (STEC) | 5                         | 6.6   | 7       | 58                          | 51.6  | 48      |
| Listeriosis                                   | 1                         | 1.4   | 1       | 9                           | 12    | 13      |
| Arboviral Diseases                            | 2014                      | Mean* | Median* | 2014                        | Mean* | Median* |
| West Nile Fever                               | 1                         | 2.2   | 1       | 2                           | 6.6   | 6       |
| Lyme Disease                                  | 19                        | 107.4 | 104     | 539                         | 1172  | 1154    |
| Emerging Infectious Diseases                  | 2014                      | Mean* | Median* | 2014                        | Mean* | Median* |
| Chikungunya                                   | 7                         | 0.2   | 0       | 32                          | 0.2   | 0       |
| Dengue Fever                                  | 1                         | 0.8   | 1       | 6                           | 6.4   | 8       |
| Other   | 2014                      | Mean* | Median* | 2014                        | Mean* | Median* |
| Legionellosis                                 | 15                        | 17.6  | 16      | 100                         | 104.4 | 97      |

† Counts are subject to change \*Timeframe of 2009-2013 \*\*Includes January through September

## SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 22 (October through May).

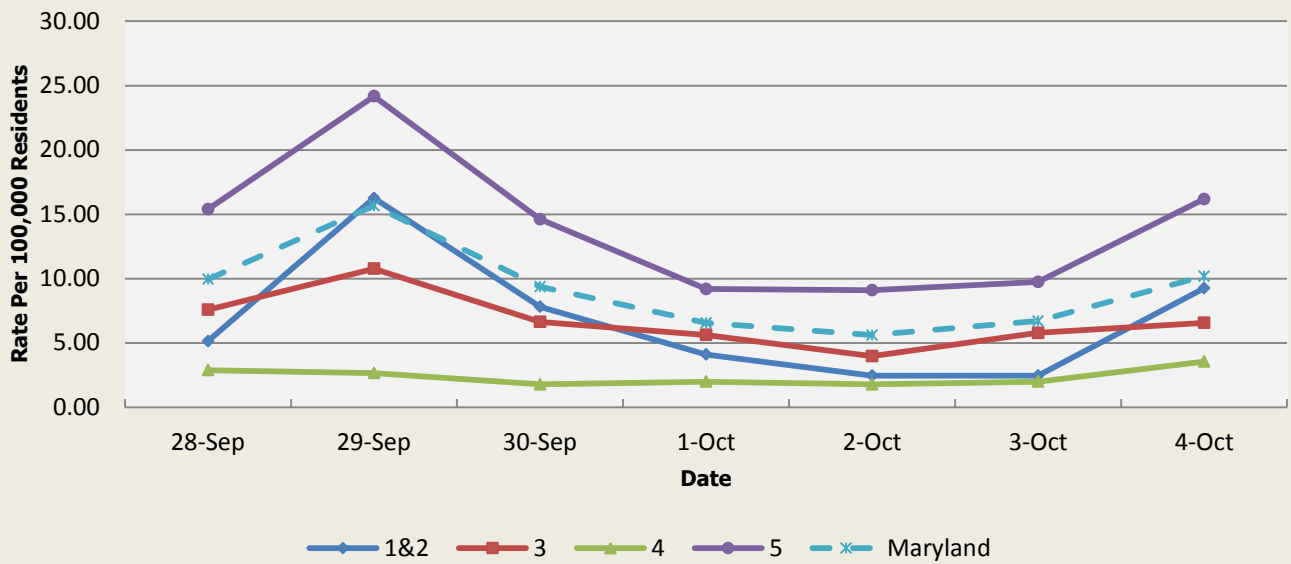
Emergency Department Chief Complaints for Influenza-like Illness  
Rate Per 100,000 Residents



| Influenza-like Illness Baseline Data<br>Week 1 2010 - Present |      |      |       |      |          |
|---|------|------|-------|------|----------|
| Health Region   | 1&2  | 3    | 4     | 5    | Maryland |
| Mean Rate*  | 9.41 | 9.58 | 10.32 | 9.15 | 9.46     |
| Median Rate*  | 7.82 | 7.98 | 8.46  | 7.15 | 7.73     |

\* Per 100,000 Residents

**Over-the-Counter Medication Sales Related to Influenza  
Rate Per 100,000 Residents**

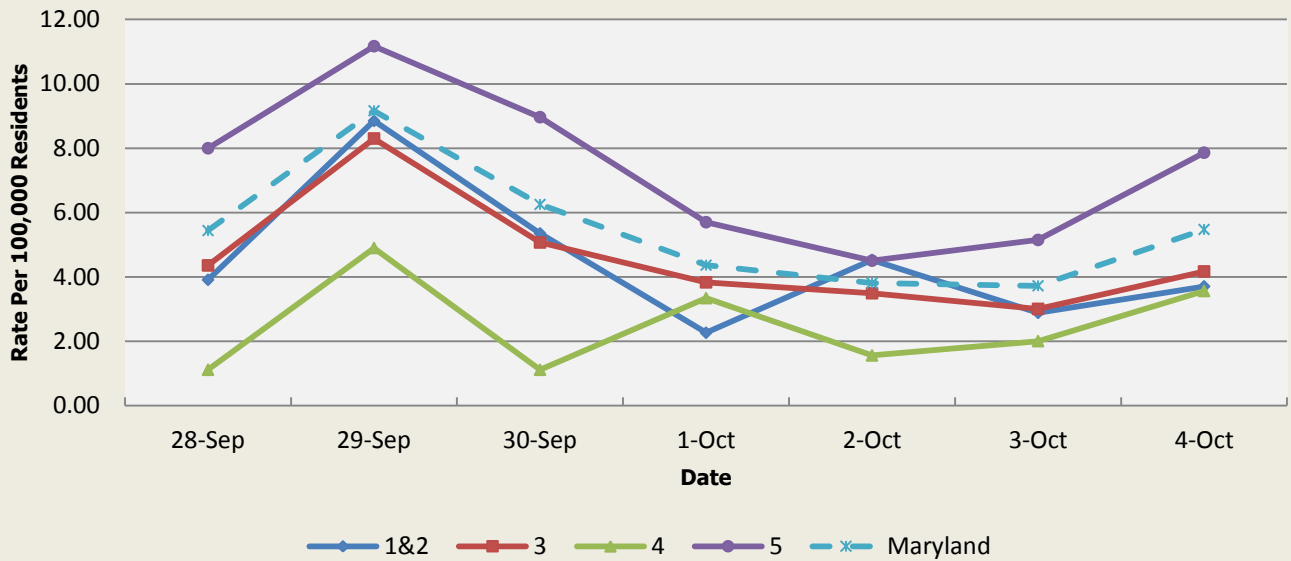


There was an appreciable increase above baseline in the rate of OTC flu medication sales on 9/29 (Regions 1&2, Region 3, Region 5). This increase appears to be due to a promotional sale on flu medications.

| OTC Sales Baseline Data<br>January 1, 2010 - Present |      |      |      |       |          |
|--|------|------|------|-------|----------|
| Health Region  | 1&2  | 3    | 4    | 5     | Maryland |
| Mean Rate*   | 5.10 | 5.82 | 2.82 | 13.88 | 8.56     |
| Median Rate*   | 3.91 | 4.75 | 2.45 | 11.31 | 6.91     |

\* 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.

| Thermometer Sales Baseline Data<br>January 1, 2010 - Present |      |      |      |      |          |
|--|------|------|------|------|----------|
| Health Region  | 1&2  | 3    | 4    | 5    | Maryland |
| Mean Rate*   | 5.75 | 4.87 | 3.42 | 8.36 | 6.15     |
| Median Rate*   | 5.04 | 4.47 | 3.12 | 7.68 | 5.63     |

\* 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 27, 2014, the WHO-confirmed global total (2003-2014) of human cases of H5N1 avian influenza virus infection stands at 667, of which 393 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

**H5N1 (EGYPT):** 30 Sep 2014 The Egyptian Minister of Health and Population, Dr. Adel Adawi, announced a human case of H5N1 avian influenza (AI) in a 3-month-old girl from the Giza governorate. Read more: <http://www.promedmail.org/direct.php?id=20141001.2822498>

## **NATIONAL DISEASE REPORTS**

There are no national disease reports for MMWR Week 40.

## **INTERNATIONAL DISEASE REPORTS**

**HANTAVIRUS (PANAMA):** 30 Sep 2014 Authorities of the Los Santos Ministry of Health confirm the 3rd case of [a] hantavirus [infection] acquired in Las Tablas. Read more: <http://www.promedmail.org/direct.php?id=20141001.2822065>

**EBOLA (WEST AFRICA and DRC):** 01 Oct 2014 WHO Ebola Situation Report. Read more: <http://www.promedmail.org/direct.php?id=20141001.2823670> (click through to apps.who.int link)

**EBOLA (WEST AFRICA and DRC):** 01 Oct 2014 WHO Ebola Roadmap Update. Read more: <http://www.promedmail.org/direct.php?id=20141004.2831559> (click through to apps.who.int link)

**ANTHRAX (ZIMBABWE):** 04 Oct 2014 At least 25 cattle have died, and 3 people are being treated for anthrax due to an outbreak of the bacterial disease in the Zhukwe area in Gwanda, Zimbabwe, according to a Bulawayo 24 report Friday [3 Oct 2014]. Read more: <http://www.promedmail.org/direct.php?id=20141006.2836860>

**PLAGUE (CHINA):** 04 Oct 2014 A 45-year-old man in northwest China's Gansu province has died of plague, the 2nd death of its kind in 2014, official media reported on Sat 4 Oct 2014. Read more: <http://www.promedmail.org/direct.php?id=20141005.2832636>

**MARBURG VIRUS DISEASE (UGANDA):** 05 Oct 2014 A man has died in Uganda's capital after an outbreak of Marburg, a highly infectious hemorrhagic fever similar to Ebola, authorities said on Sunday [5 Oct 2014], adding that a total of 80 people who came into contact with him were quarantined. Read more: <http://www.promedmail.org/direct.php?id=20141005.2834300>

**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](http://www.facebook.com/MarylandOPR).

More data and information on influenza can be found on the DHMH website: <http://phpa.dhmh.maryland.gov/influenza/fluwatch/SitePages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmh.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)<br>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)<br>Tularemia<br>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<br>Frederick County<br>Garrett County<br>Washington County  |
| Region 3                  | Anne Arundel County<br>Baltimore City<br>Baltimore County<br>Carroll County<br>Harford County<br>Howard County  |
| Region 4                  | Caroline County<br>Cecil County<br>Dorchester County<br>Kent County<br>Queen Anne's County<br>Somerset County<br>Talbot County<br>Wicomico County<br>Worcester County |
| Region 5                  | Calvert County<br>Charles County<br>Montgomery County<br>Prince George's County<br>St. Mary's County  |

