



November 4, 2016

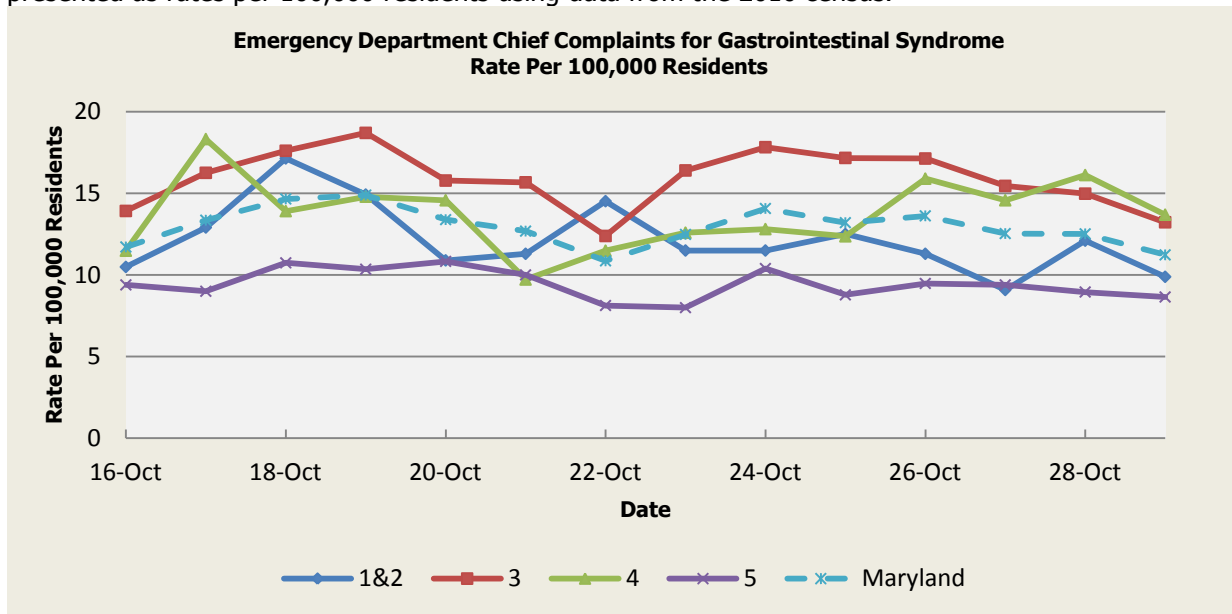
**Public Health Preparedness and Situational Awareness Report: #2016:43
Reporting for the week ending 10/29/16 (MMWR Week #43)**

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):

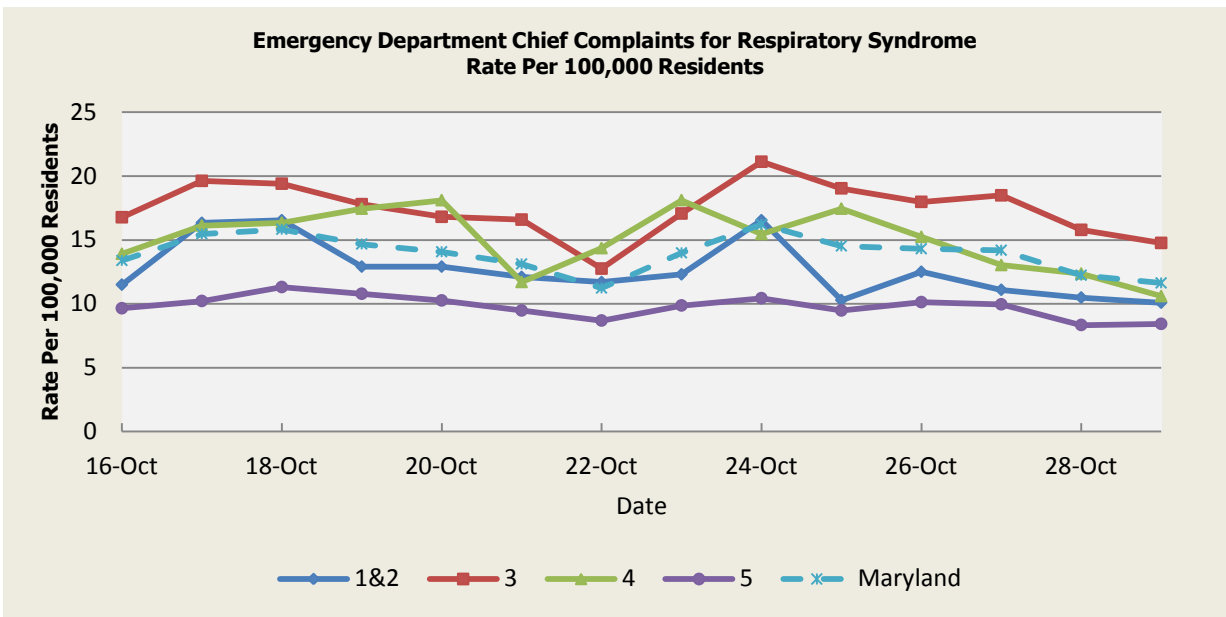
Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There were three (3) gastroenteritis / foodborne outbreaks reported this week: 1 outbreak of gastroenteritis associated with a Fair (Region 5); 1 outbreak of gastroenteritis / foodborne associated with an Event Venue (Region 3); 1 outbreak of gastroenteritis / foodborne associated with a Private Home (Region 3).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.94	14.88	15.42	10.31	13.01
Median Rate*	12.70	14.47	14.80	10.17	12.75

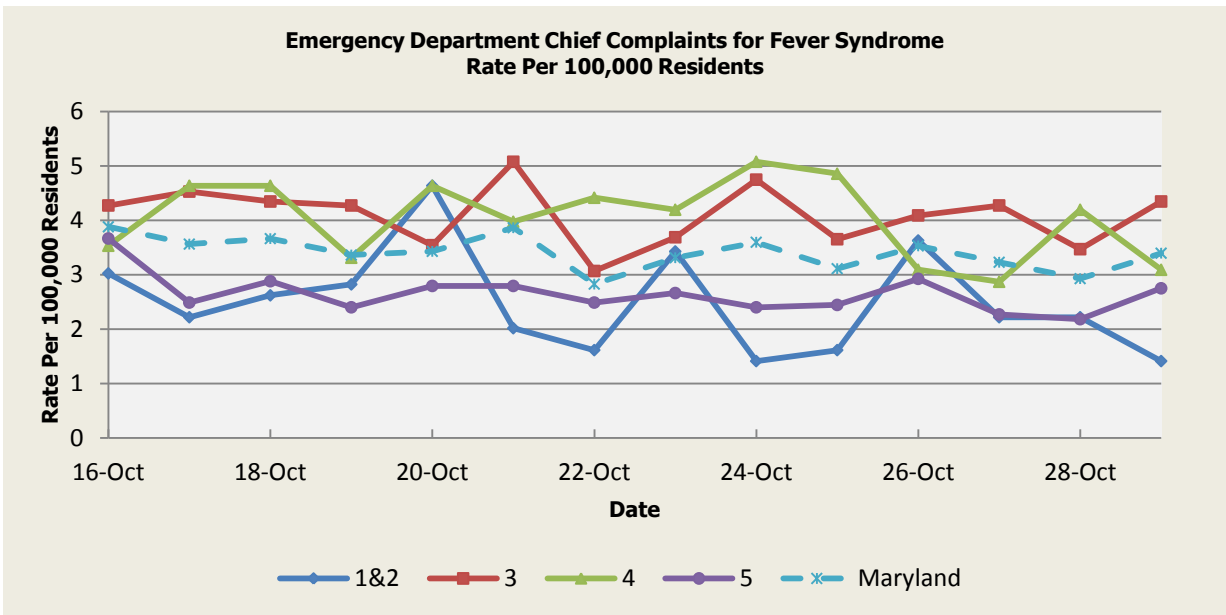
* Per 100,000 Residents



There was one (1) respiratory illness outbreak reported this week: 1 outbreak of pneumonia in a Nursing Home (Region 1&2);

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.99	14.12	14.04	9.94	12.34
Median Rate*	11.70	13.37	13.69	9.52	11.79

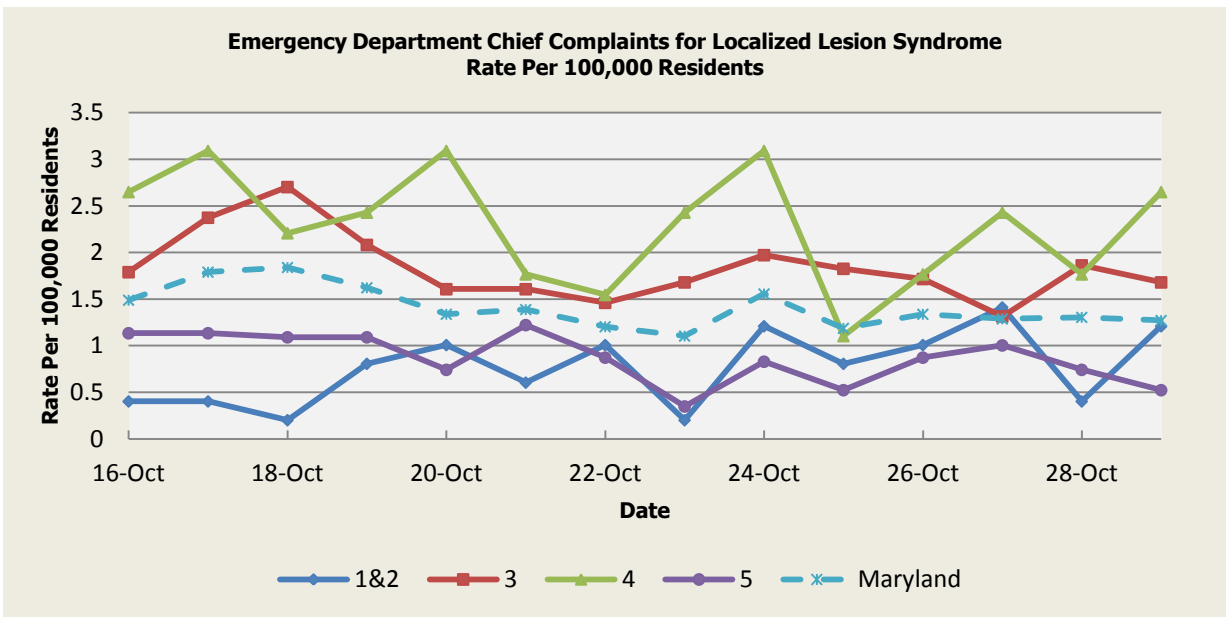
* Per 100,000 Residents



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*	3.07	3.80	3.93	3.09	3.48
Median Rate*	3.02	3.62	3.75	2.97	3.35

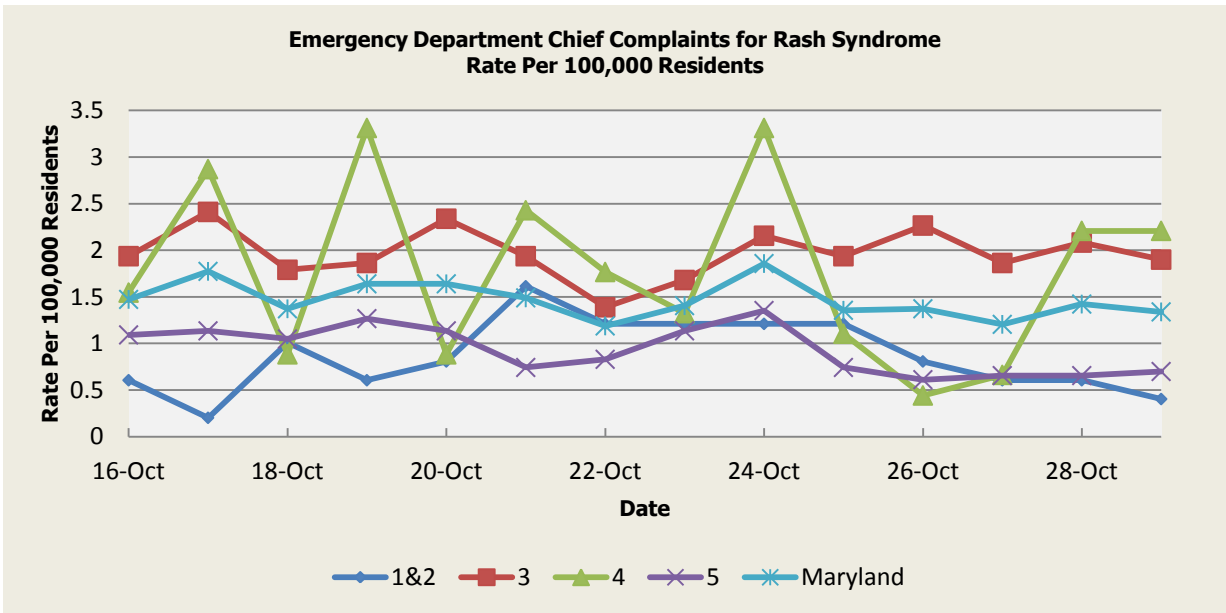
Per 100,000 Residents



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*	1.07	1.91	2.03	0.98	1.49
Median Rate*	1.01	1.86	1.99	0.92	1.44

* Per 100,000 Residents

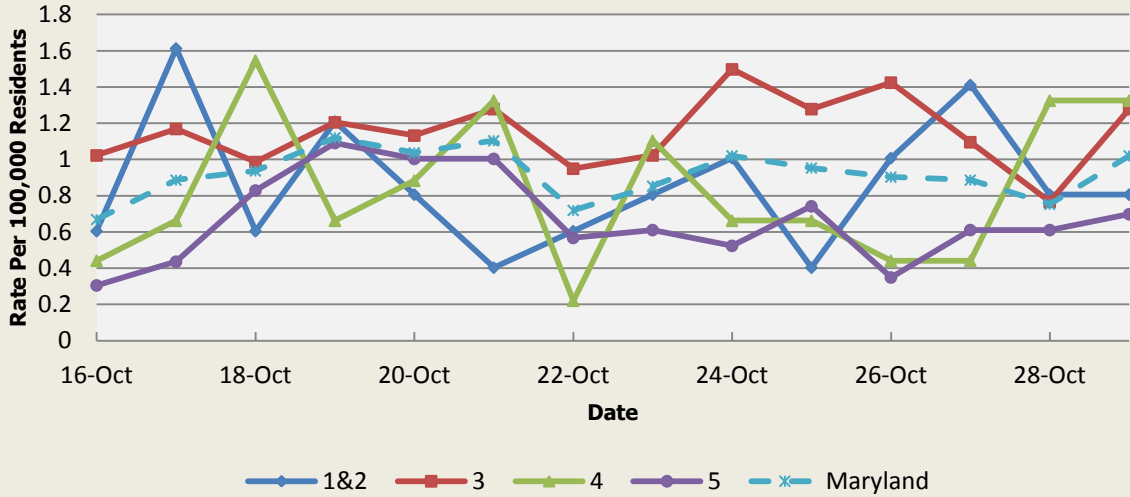


There were three (3) rash illness outbreaks reported this week: 1 outbreak of HAND, FOOT, AND MOUTH DISEASE associated with a Daycare Center (Region 5); 1 outbreak of scabies in an Assisted Living Facility (Region 3); 1 outbreak of MRSA associated with a School (4).

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.30	1.75	1.75	1.04	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**

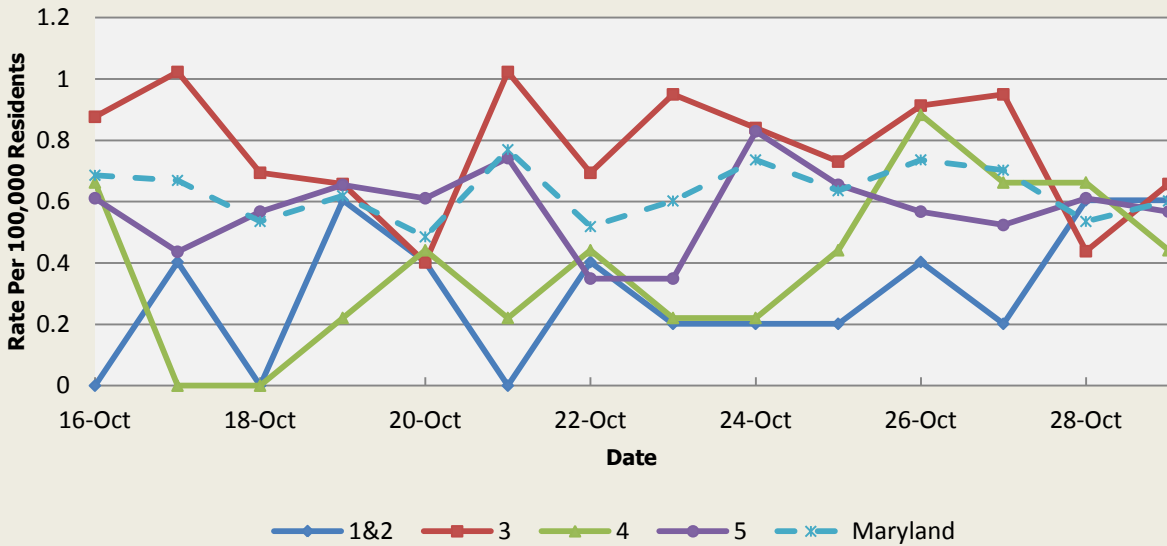


There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.73	0.65	0.48	0.62
Median Rate*	0.60	0.66	0.66	0.44	0.57

* Per 100,000 Residents

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

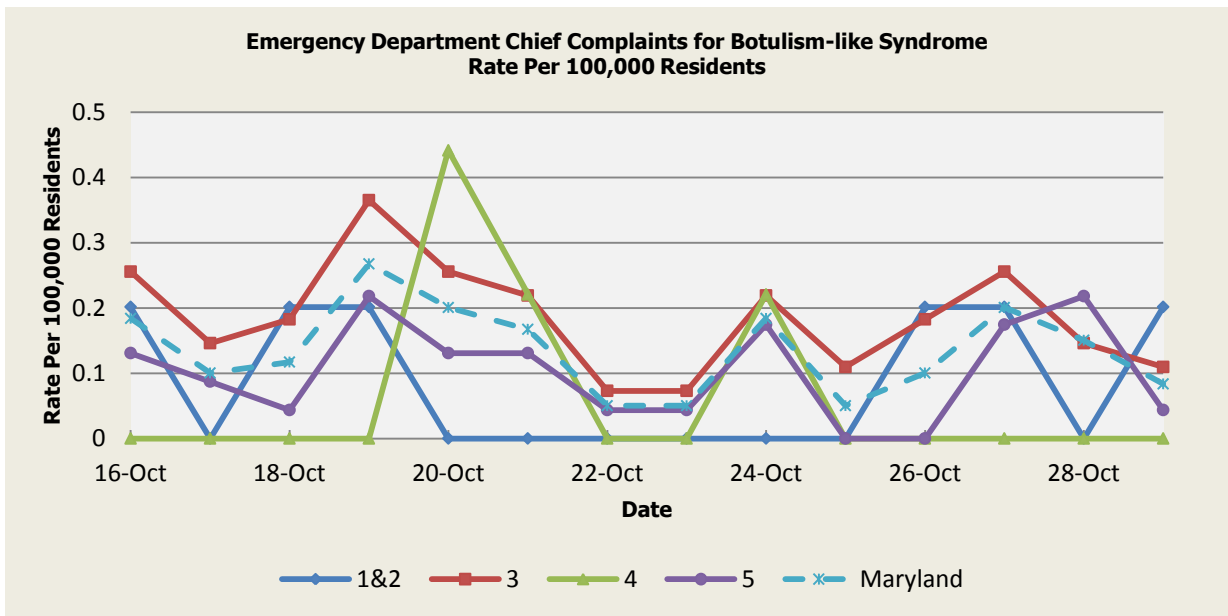


There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.70	0.95	0.84	0.44	0.73
Median Rate*	0.60	0.91	0.88	0.44	0.72

* Per 100,000 Residents

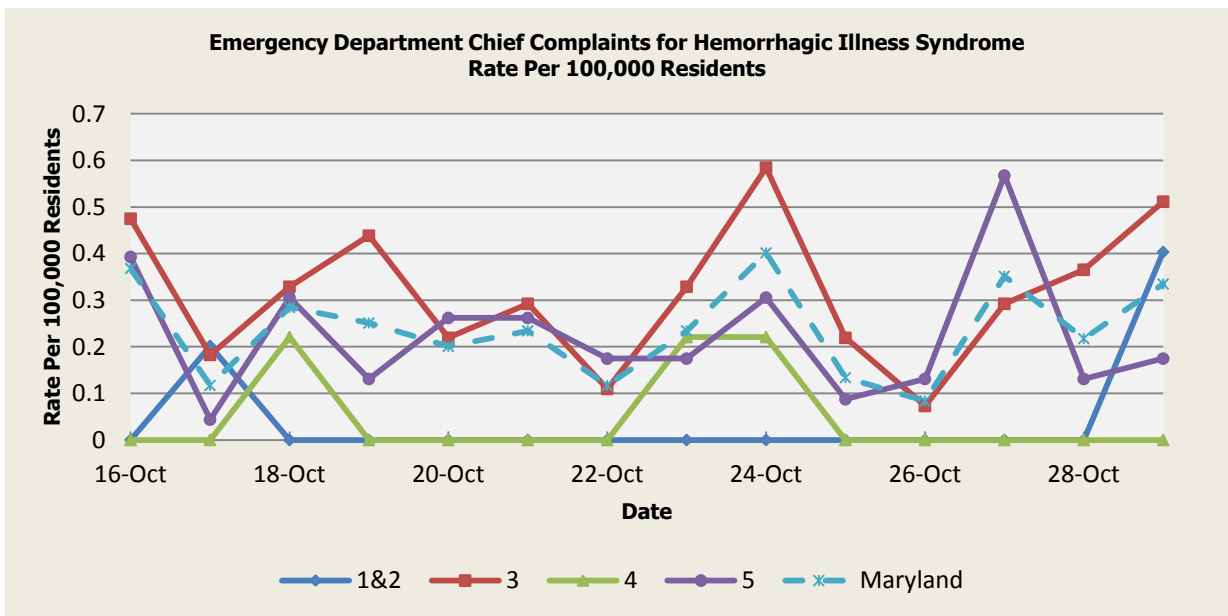
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 10/16 (Regions 1&2,3,5), 10/18 (Regions 1&2,3), 10/19 (Regions 1&2,3,5), 10/20 (Regions 3,4,5), 10/21 (Region 3,4,5), 10/24 (Regions 3,4,5), 10/26 (Region 1&2,3), 10/27 (Regions 1&2,3,5), 10/28 (Region 5), and 10/29 (Region 1&2). 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

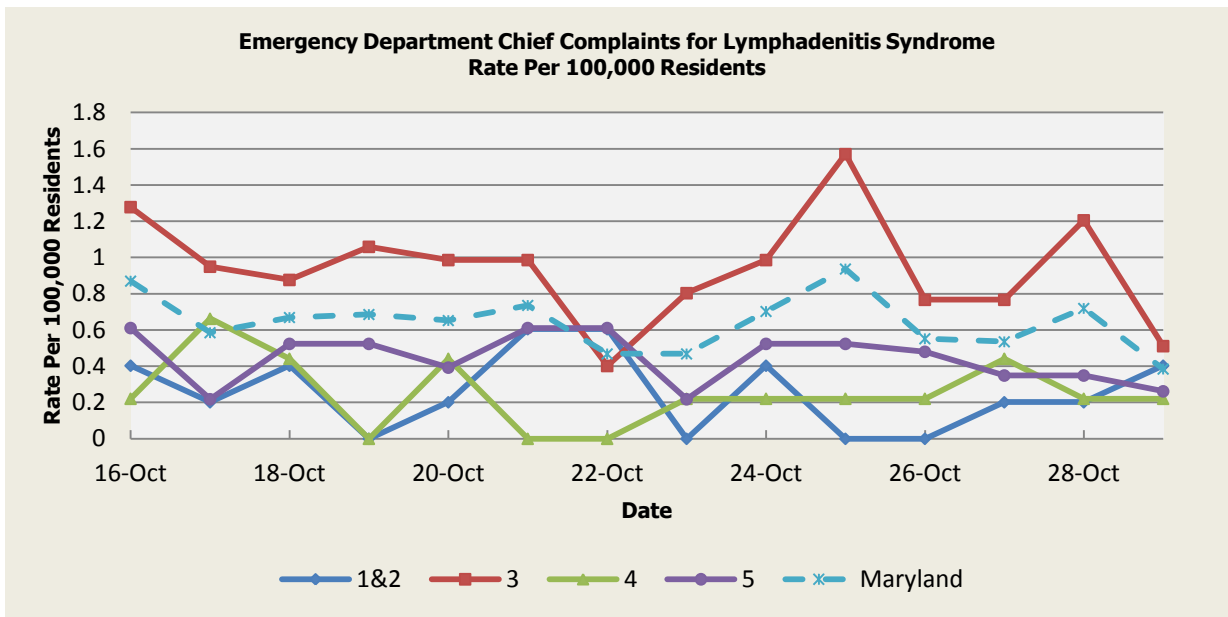
* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 10/16 (Regions 3,5), 10/17 (Region 1&2), 10/18 (Regions 3,4,5), 10/19 (Region 3,5), 10/20 (Regions 3,5), 10/21 (Region 3,5), 10/23 (Regions 3,4,5), 10/24 (Regions 3,4,5), 10/25 (Region 3), 10/27 (Regions 3,5), 10/28 (Region 3,5) and 10/29 (Regions 1&2,3,5). 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	0.11	0.03	0.08	0.08
Median Rate*	0.00	0.04	0.00	0.04	0.03

* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 10/16 (Regions 3,5), 10/17 (Region 3), 10/19 (Region 3), 10/20 (Region 3), 10/21 (Region 3,5), 10/22 (Region 5), 10/24 (Region 3), 10/25 (Region 3), and 10/29 (Region 3). 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	0.50	0.34	0.51	0.38
Median Rate*	0.20	0.37	0.22	0.26	0.32

* Per 100,000 Residents

MARYLAND REPORTABLE DISEASE SURVEILLANCE

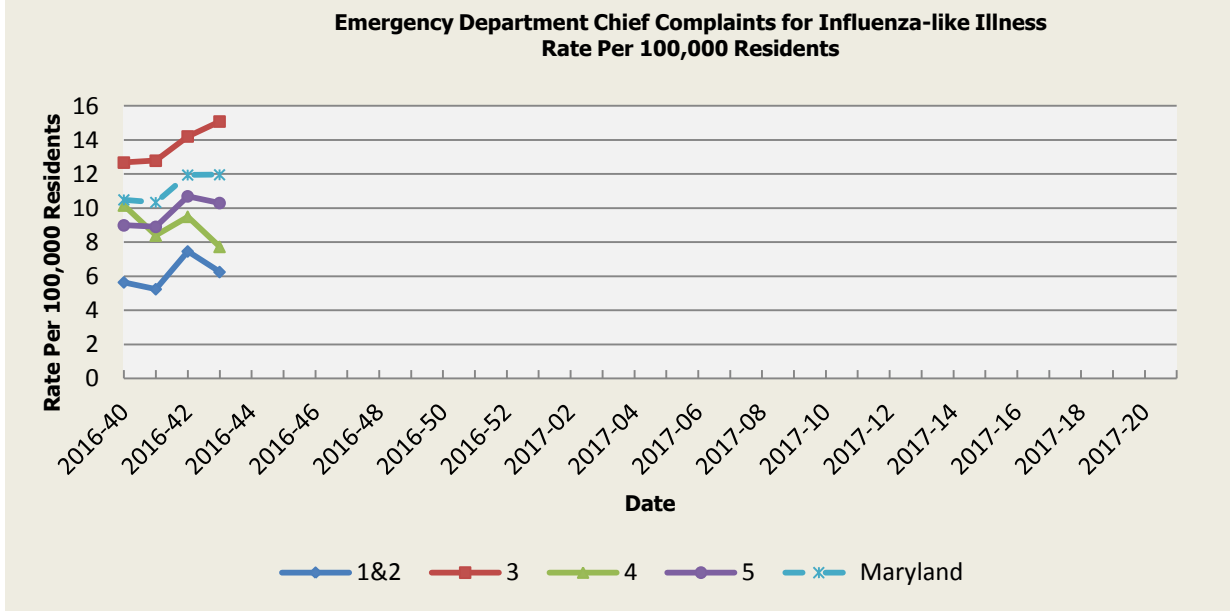
Condition	Counts of Reported Cases‡					
	October			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
Vaccine-Preventable Diseases						
Aseptic meningitis	26	48.8	49	299	395.8	400
Meningococcal disease	0	0.4	0	3	6.4	5
Measles	0	0.4	0	4	4.4	3
Mumps	1	1.2	1	17	37.2	13
Rubella	0	0	0	1	2.4	2
Pertussis	32	24	24	201	248.8	300
Foodborne Diseases						
Salmonellosis	28	68.6	68	686	807.8	826
Shigellosis	4	13.4	14	112	156.8	193
Campylobacteriosis	43	53	53	612	598.8	595
Shiga toxin-producing Escherichia coli (STEC)	18	10.2	11	157	107.6	99
Listeriosis	1	2.2	2	18	14.8	16
Arboviral Diseases						
West Nile Fever	0	0.4	0	2	11.8	10
Lyme Disease	66	89.2	87	1592	1331.8	1416
Emerging Infectious Diseases						
Chikungunya	0	3.2	0	6	15	0
Dengue Fever	1	1.6	1	37	14.4	15
Zika Virus***	5	0	0	117	0.2	0
Other						
Legionellosis	16	18.8	17	133	147.4	145

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

*** As of November 4, 2016, the total Maryland Confirmed Zika Virus Infections is 107.

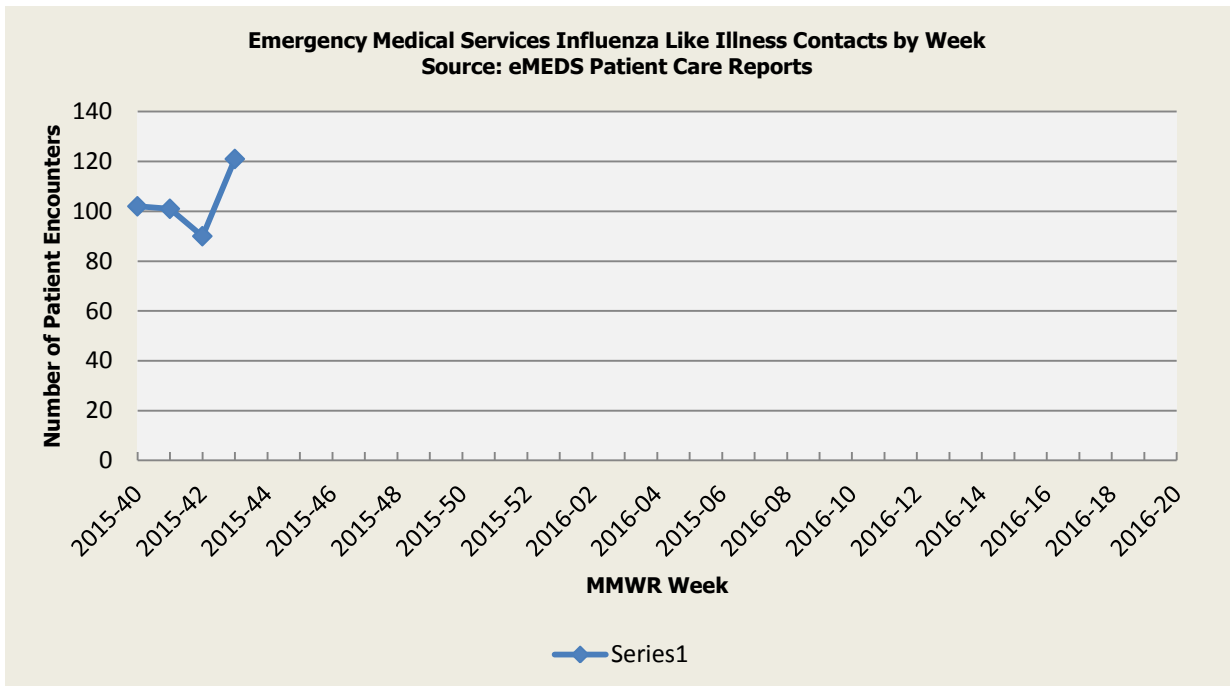
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 41 was: Minimal Geographic Spread with Sporadic Intensity.



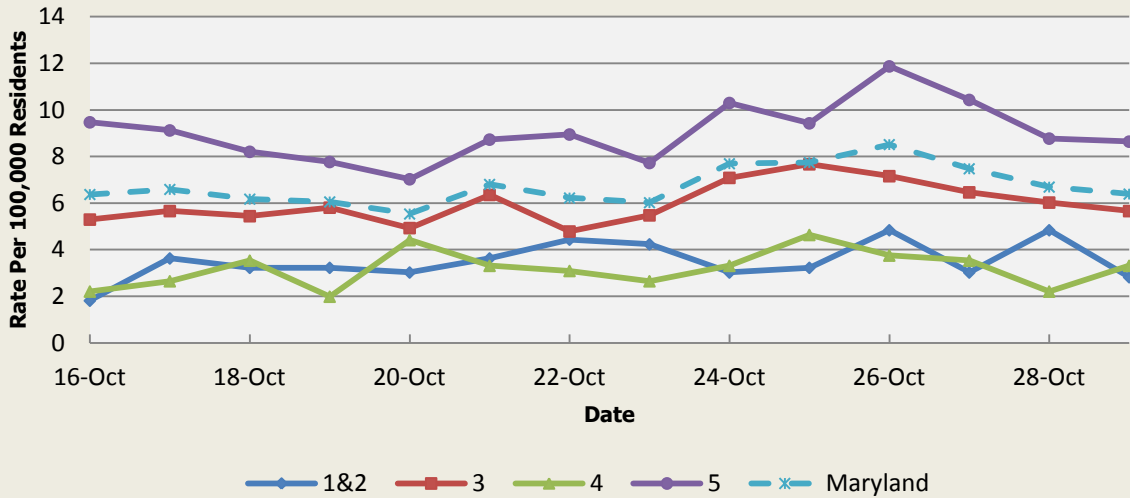
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	11.58	10.78	10.43	10.88
Median Rate*	7.66	8.99	9.05	8.03	8.72

* 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**

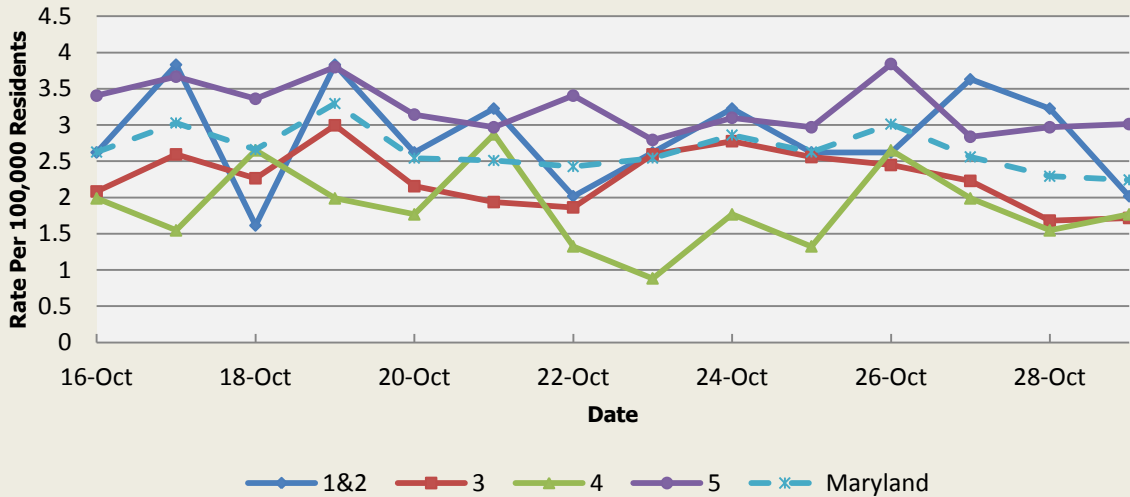


There was an appreciable increase above baseline in the rate of OTC medication sales on 10/18 (Region 1&2), 10/19 (Regions 1&2), and 10/21 (Region 1&2,4). These increases are not known to be associated with any outbreaks.

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.86	4.69	2.60	8.21	5.79
Median Rate*	2.82	3.98	2.21	7.60	5.19

* 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 January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.48	3.30	2.54	4.50	3.72
Median Rate*	3.23	3.07	2.43	4.10	3.46

* 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 3, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 856, of which 452 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

NATIONAL DISEASE REPORTS

STREPTOCOCCUS (NEW HAMPSHIRE): 03 Nov 2016, The New Hampshire Division of Public Health Services issued a health alert after learning of 4 cases of invasive group A streptococcal bacteremia, all males, and all active injection heroin users from Southern/Central New Hampshire, who presented to healthcare in the last 10 days [22 Oct to 1 Nov 2016]. Health officials report it is unclear if these cases are connected; however, injection drug use is a risk factor for invasive bacterial infections, including group A streptococcus [GAS]. The investigation is ongoing. Read More: <http://www.promedmail.org/post/4605010>

SYPHILIS (USA - OREGON): 28 Oct 2016, On Thursday 20 Oct 2016, Lane County health officials in Oregon report the number of syphilis cases spiked from 2014 to 2015 with an even higher expected total in 2016, prompting public health officials to make broader education efforts. The number of cases more than doubled from 21 in 2014 to 59 in 2015; 41 cases have been reported through 6 Oct 2016, putting the county on pace to exceed last year's figure. Of the 41 cases, 23 were men and 18 were women, and most of the patients were 20 to 29 years old. Read more: <http://www.promedmail.org/post/4592694>

MUMPS (CALIFORNIA): 27 Oct 2016, San Diego County health officials have reported another local university with a student confirmed positive for mumps. A San Diego State University (SDSU) student was recently confirmed positive for the viral infection after exposure to another student who had been ill and likely also had mumps. The 2 students are housemates living off campus and were up-to-date with mumps vaccinations. The students were not hospitalized and have recovered. There is no apparent connection to the recent mumps cases reported at California State University San Marcos or San Diego Christian College. So far this year [2016], 19 mumps cases have been reported in San Diego County. This compares to 3 or fewer mumps cases noted annually in recent years. Through 15 Oct 2016, 2570 mumps cases have been reported nationwide in 45 states and the District of Columbia. Read more: <http://www.promedmail.org/post/4587708>

INTERNATIONAL DISEASE REPORTS

UNDIAGNOSED ILLNESS (PHILLIPINES): 28 Oct 2016, health officials report that 12 Mangyan natives have died from an unknown respiratory disease over the weekend [22-23 Oct 2016], including 3 children. An additional six (6) mountain dwellers were showing the same symptoms. The 2 affected mountain sitios [rural enclaves, Balangkawit and Kalamansian] are located at the foothills of Mount Halcon that could be reached only by a whole-day hike. Health officials believe the illness may be bronchopneumonia or diphtheria, which is a serious bacterial infection that affects the mucous membranes of the throat and nose. Read more: <http://www.promedmail.org/post/4590936>

MENINGITIS (ITALY): 24 Oct 2016, Italian health officials report that a new case of type C meningococcal meningitis is now in the intensive care unit of the Prato hospital. The local health unit has offered antibiotic prophylaxis to all possible contacts. The case is particularly worrying because the young man had been recently vaccinated against *N. meningitis* type C in the campaign set up by the Tuscany Region in an effort to curb the meningitis morbidity peak, which reached 31 cases in 2015 and 23 so far in 2016. The present case is the 10th that has occurred in vaccinated people, which raises doubts on the protective efficacy of the vaccine. La Repubblica health officials reported that the developer of the conjugated vaccine, stated that a recall could be advisable every 5 years. Read More: <http://www.promedmail.org/post/4582016>

SCRUB TYPHUS (NEPAL): Dengue and scrub typhus are spreading at an alarming rate in Nepalgunj [Banke District, Province Five] with more than 70 patients treated at Bheri Zonal Hospital and Nepalgunj Medical College Teaching Hospital. Among the patients arriving at Nepalgunj Teaching Hospital, 50 were treated for scrub typhus while 8 were treated for dengue. The Bheri Zonal Hospital also treated 2 patients suffering from dengue and 10 from scrub typhus. Read more: <http://www.promedmail.org/post/4603729>

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.

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>

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

