



May 13, 2016

**Public Health Preparedness and Situational Awareness Report: #2016:18
Reporting for the week ending 5/7/16 (MMWR Week #18)**

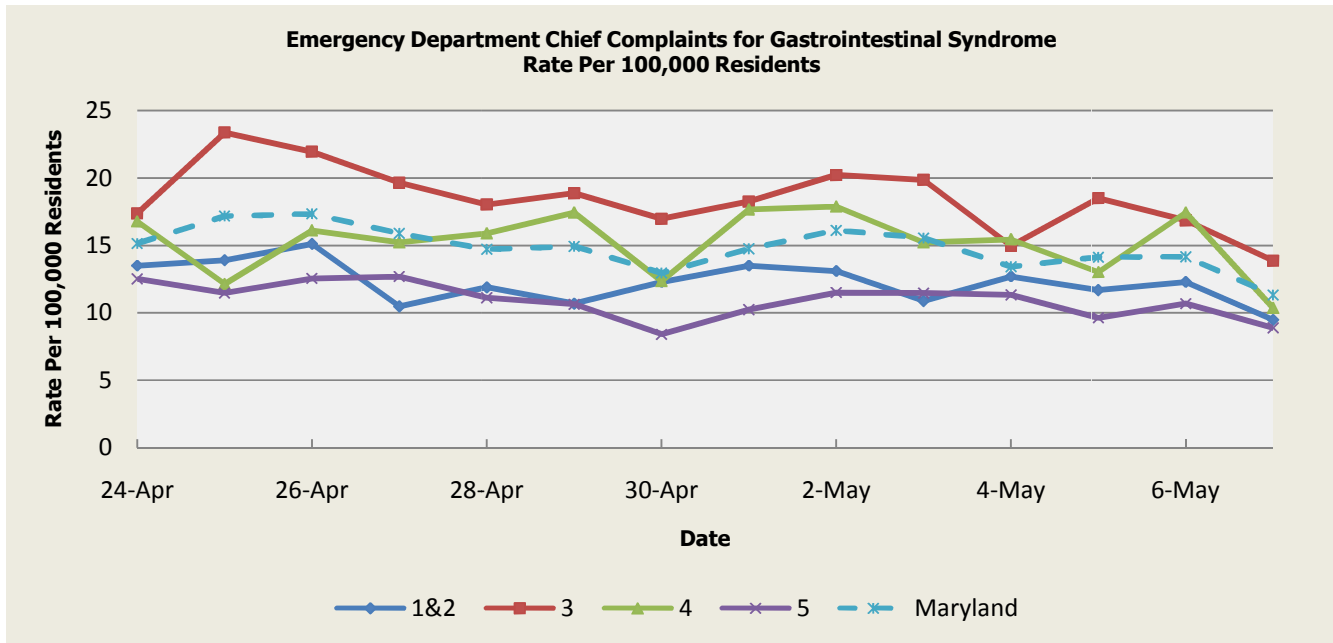
CURRENT HOMELAND SECURITY THREAT LEVELS

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.

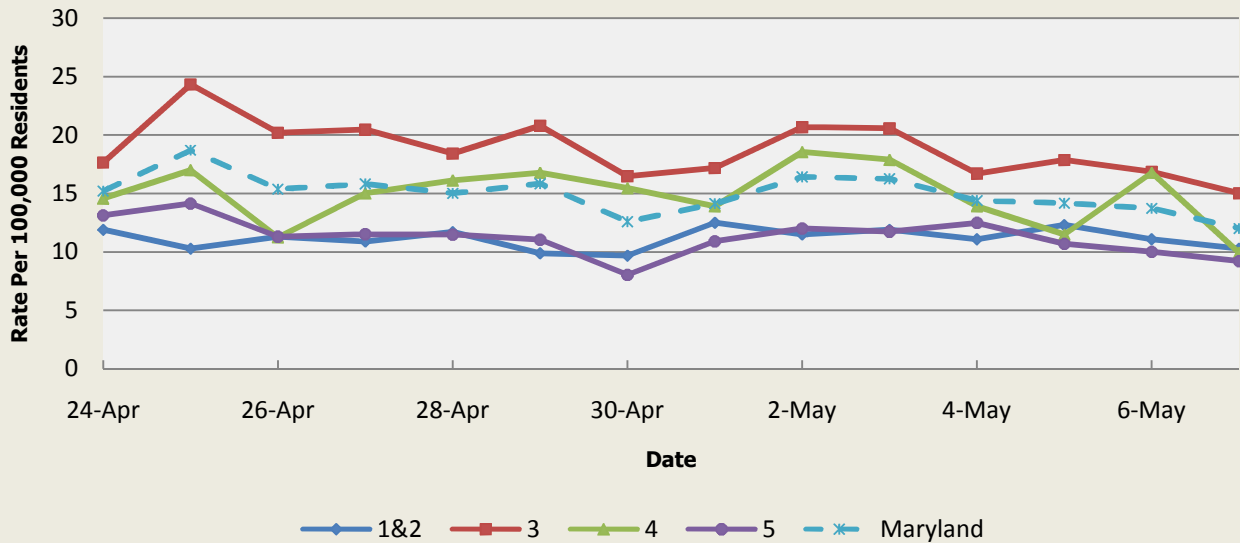


There were two (2) gastrointestinal illness outbreaks reported this week: 1 outbreak of gastroenteritis in a Nursing Home (Region 3); 1 outbreak of gastroenteritis in an Assisted Living Facility (Region 5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.94	14.85	15.42	10.32	13.00
Median Rate*	12.70	14.47	14.80	10.17	12.75

* Per 100,000 Residents

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

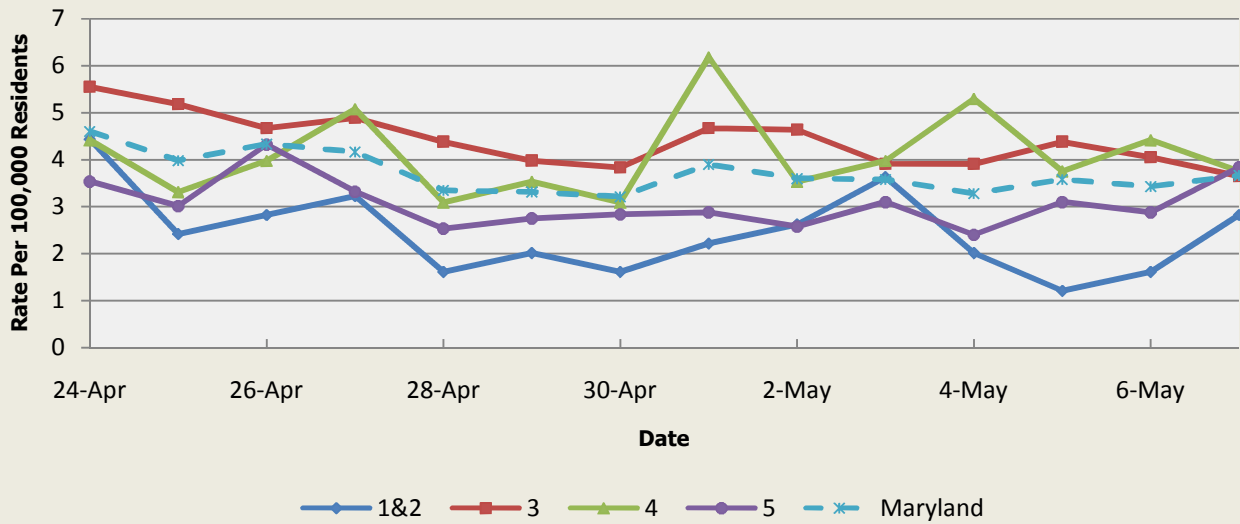


There was one (1) respiratory illness outbreak reported this week: 1 outbreak of influenza associated with a Hospital (Region 3).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.99	14.09	14.03	9.94	12.32
Median Rate*	11.70	13.37	13.47	9.52	11.76

* Per 100,000 Residents

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

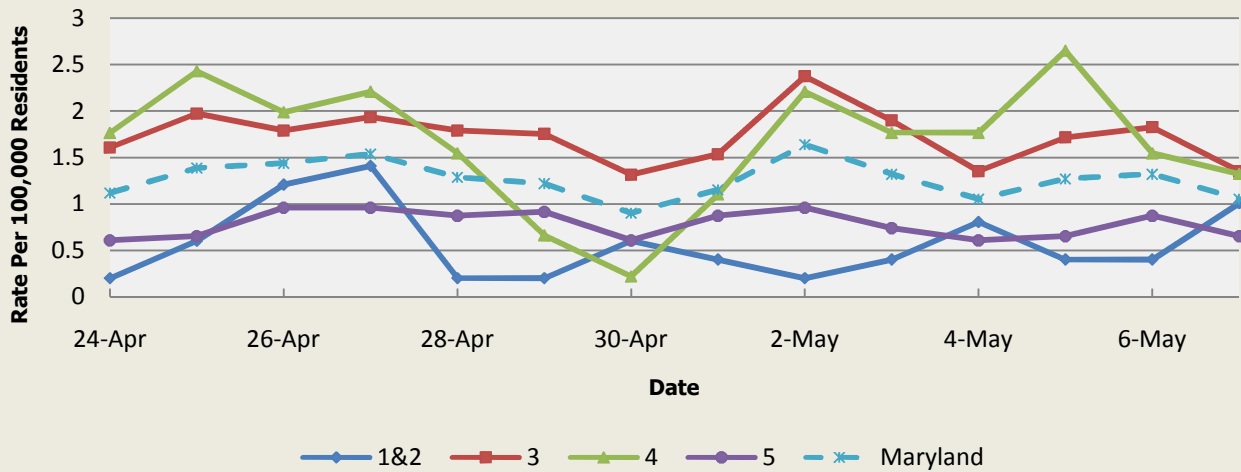


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.08	3.79	3.93	3.09	3.47
Median Rate*	3.02	3.62	3.75	2.97	3.35

Per 100,000 Residents

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

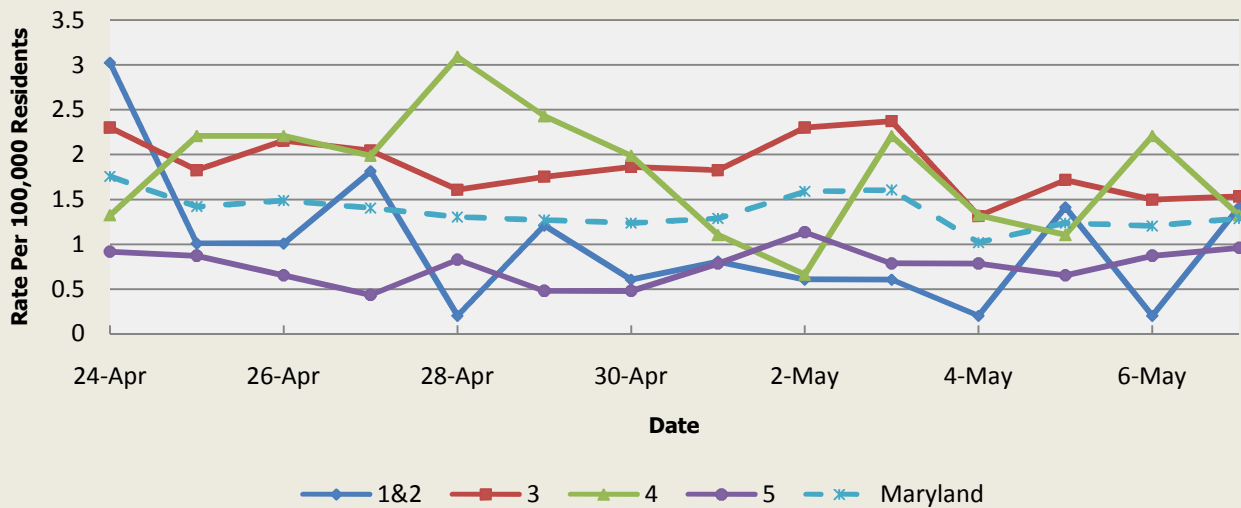


There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.07	1.91	2.02	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**

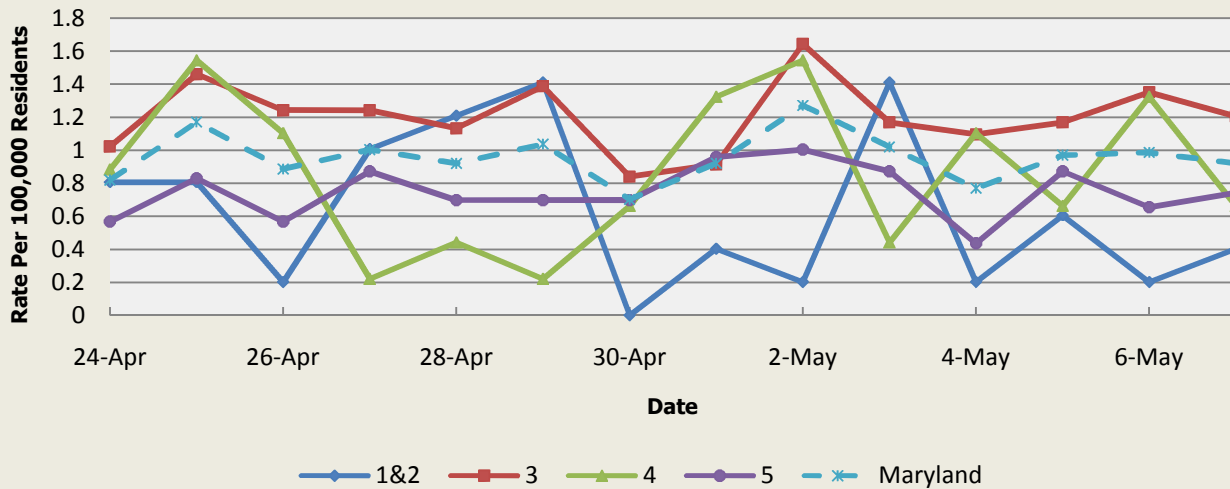


There were no rash illness outbreaks reported this week.

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.30	1.74	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**

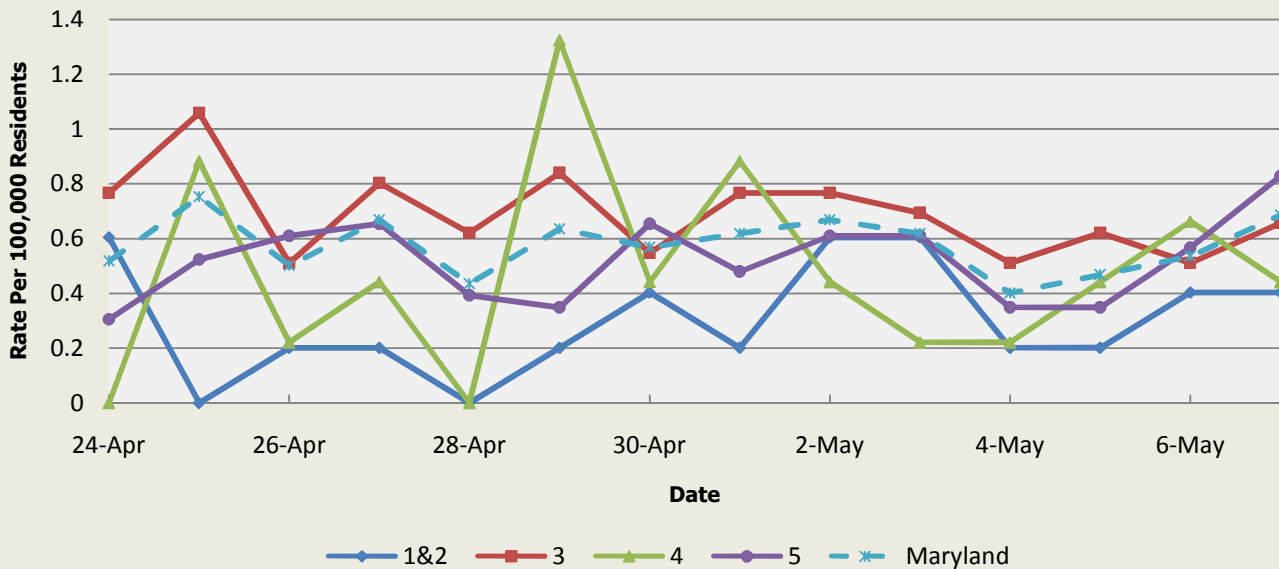


There were no neurological syndrome outbreaks reported this week.

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**



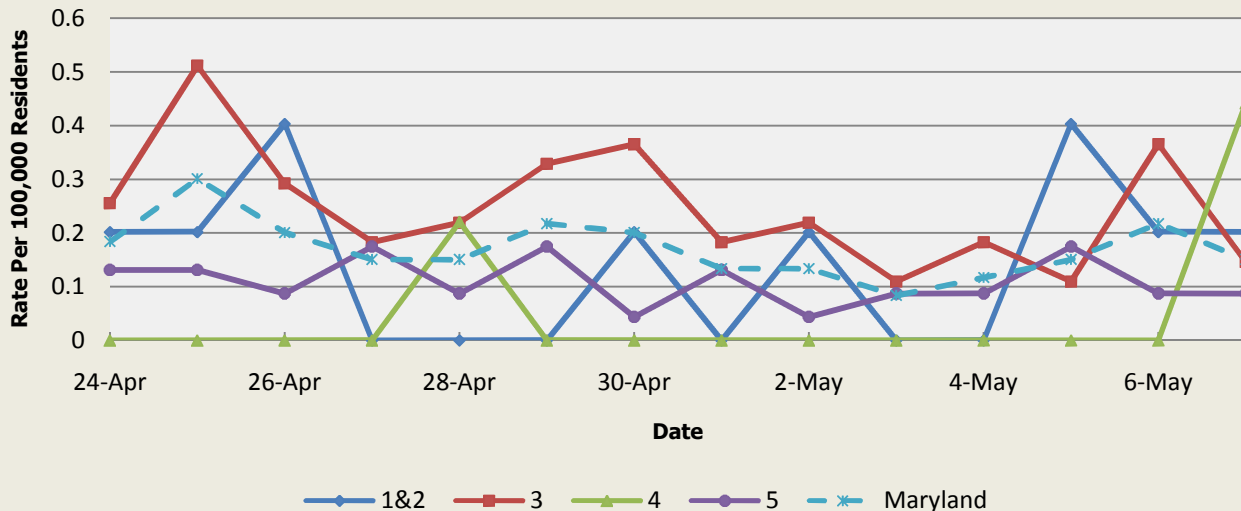
There were no severe illness or death outbreaks reported this week.

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	0.85	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

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

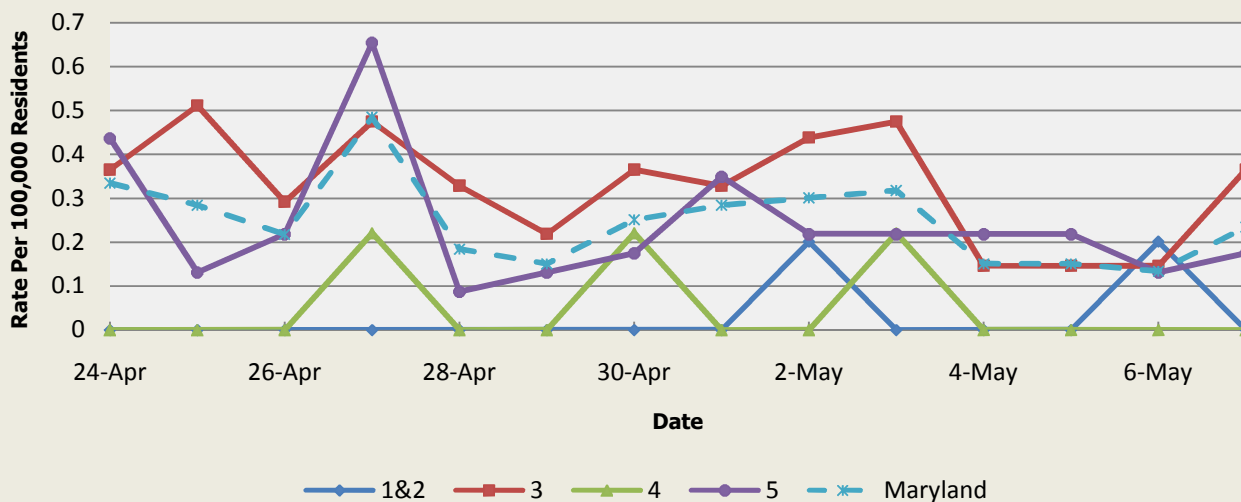


There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 4/24 (Regions 1&2,3,5), 4/25 (Regions 1&2,3,5), 4/26 (Regions 1&2,3), 4/27 (Regions 3,5), 4/28 (Regions 3,4), 4/29 (Regions 3,5), 4/30 (Regions 1&2,3), 5/1 (Regions 3,5), 5/2 (Regions 1&2,3), 5/4 (Region 3), 5/5 (Regions 1&2,5), 5/6 (Regions 1&2,3) and 5/7 (Regions 1&2,4). 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**

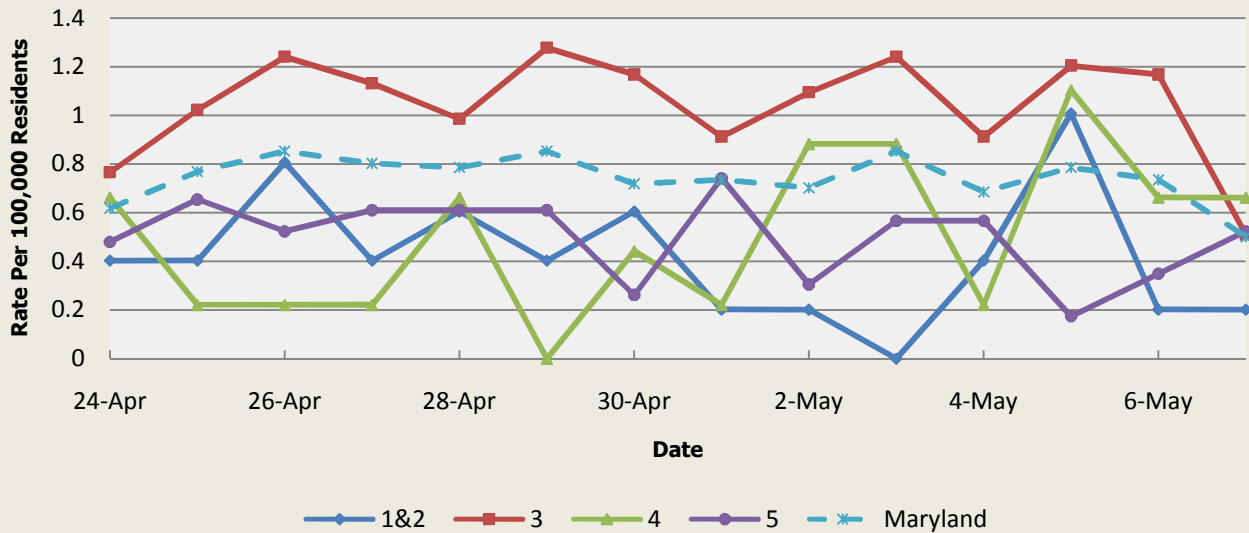


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 4/24 (Regions 3,5), 4/25 (Region 3), 4/26 (Regions 3,5), 4/27 (Regions 3,4,5), 4/28 (Region 3), 4/29 (Region 3), 4/30 (Regions 3,4,5), 5/1 (Region 5), 5/2 (Regions 1&2,3,5), 5/3 (Regions 3,4,5), 5/4 (Region 5), 5/6 (Regions 1&2) and 5/7 (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	0.10	0.03	0.07	0.08
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 4/25 (Region 3,5), 4/26 (Regions 1&2,3), 4/27 (Region 5), 4/28 (Region 5), 4/29 (Region 5), 5/1 (Region 5), 5/2 (Regions 3,4), 5/3 (Regions 3,4), 5/5 (Regions 3,4), 5/6 (Regions 3,4) and 5/7 (Region 4). 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	0.46	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

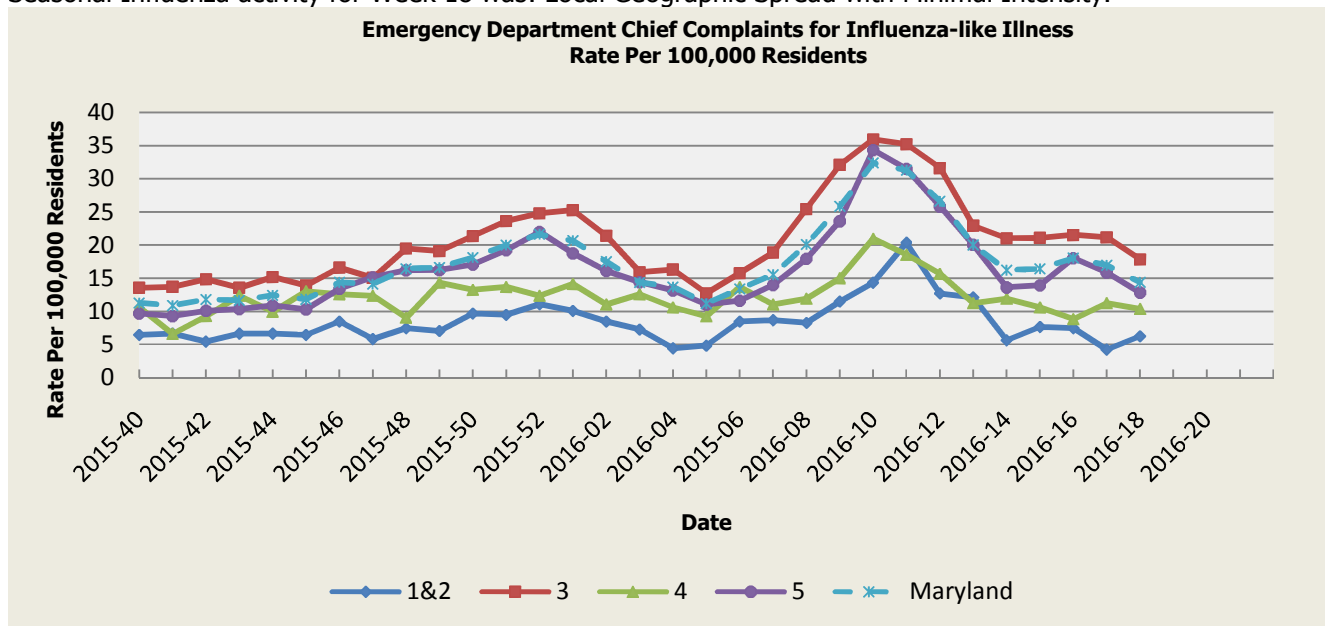
Condition	Counts of Reported Cases†					
	April			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
Vaccine-Preventable Diseases						
Aseptic meningitis	4	8.6	7	100	121.6	115
Meningococcal disease	0	0	0	2	3.8	4
Measles	0	0	0	2	2	0
Mumps	0	0.4	0	4	26.2	4
Rubella	0	0	0	1	0.8	1
Pertussis	1	5	6	61	87.2	93
Foodborne Diseases						
Salmonellosis	4	15.4	13	147	205.4	191
Shigellosis	0	4.4	2	37	61.4	66
Campylobacteriosis	1	14	13	188	172.8	179
Shiga toxin-producing Escherichia coli (STEC)	0	2.2	2	35	30.2	28
Listeriosis	0	0.6	1	3	3.2	3
Arboviral Diseases						
West Nile Fever	0	0	0	0	0	0
Lyme Disease	15	31.4	27	225	274.2	255
Emerging Infectious Diseases						
Chikungunya	0	0.2	0	2	2.8	0
Dengue Fever	0	0.2	0	11	4	3
Zika Virus***	0	0	0	14	0.2	0
Other						
Legionellosis	1	3	3	30	31.4	33

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

***As of May 11, 2016, the total Maryland Confirmed Zika Virus Infections is 16.

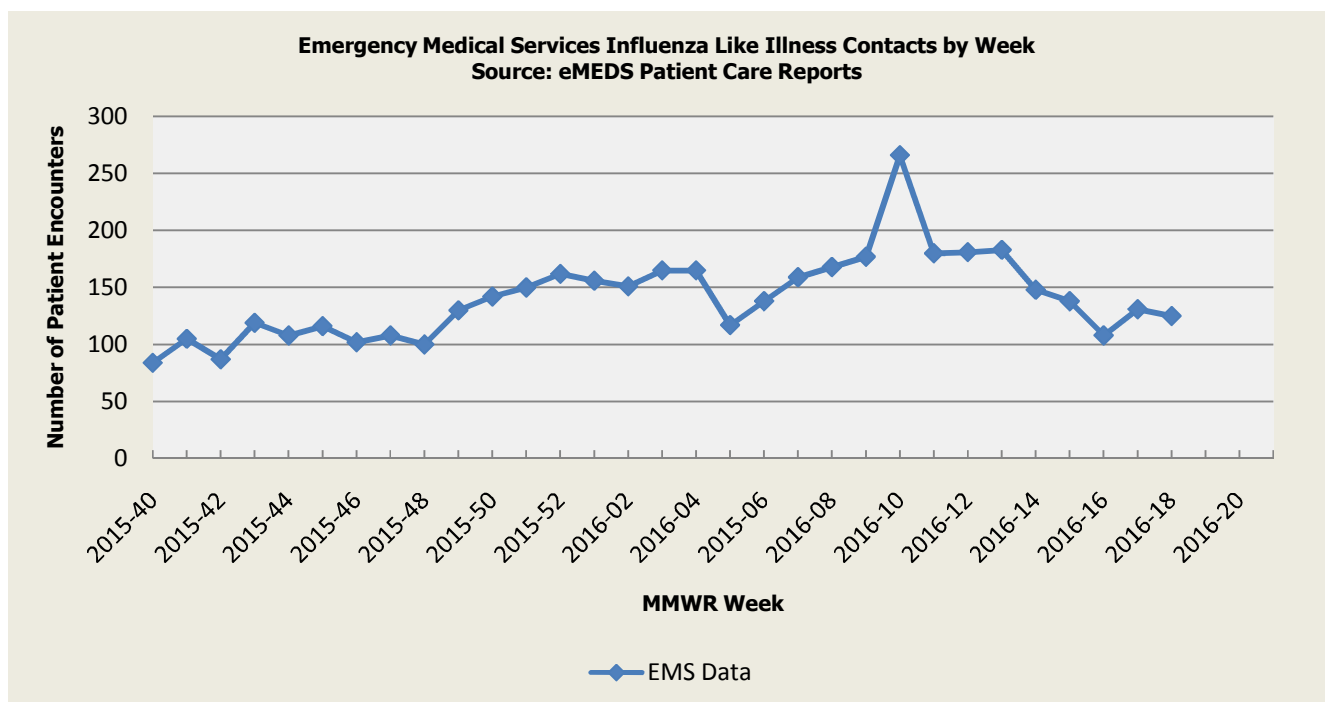
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 18 was: Local Geographic Spread with Minimal Intensity.



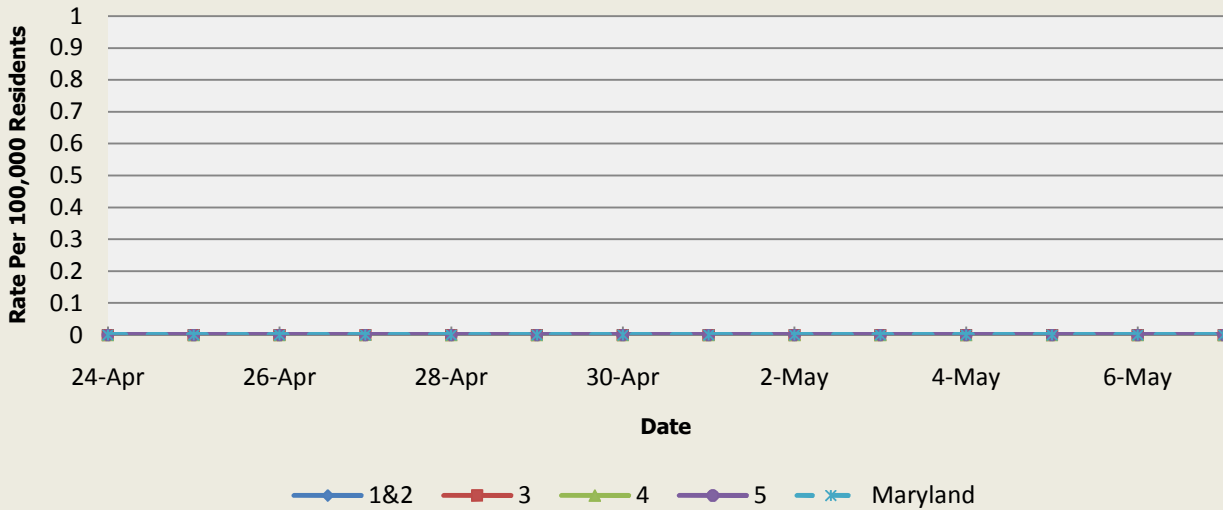
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.28	11.55	10.79	10.41	10.87
Median Rate*	7.66	8.99	9.05	7.99	8.67

* 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**

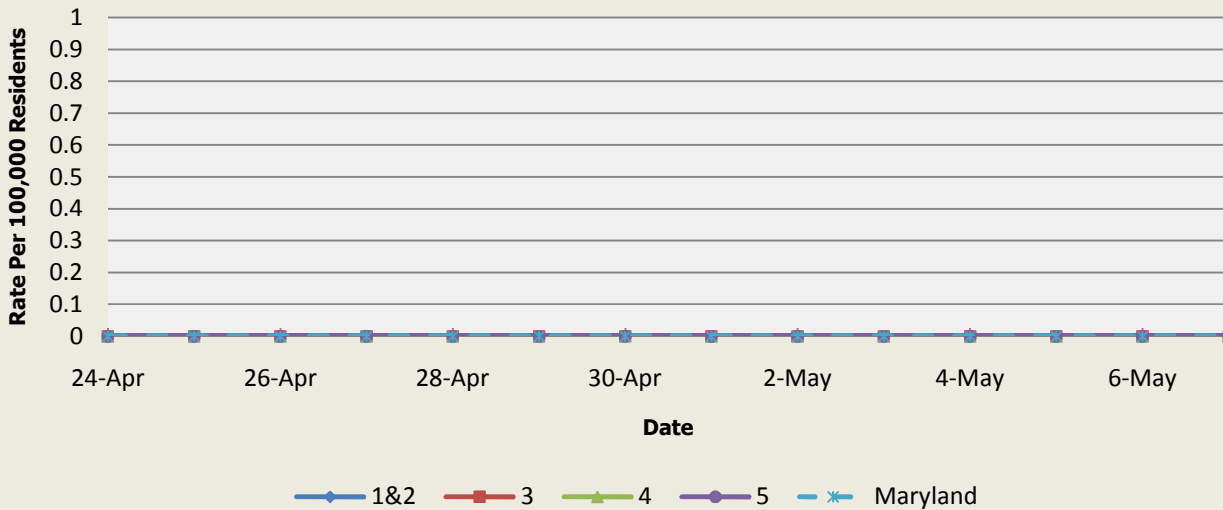


No OTC data reported for 4/24-5/7.

	OTC Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.85	6.41	1.84	13.93	8.73
Median Rate*	3.02	5.37	1.55	11.39	7.17

* Per 100,000 Residents

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



No OTC data reported for 4/24-5/7.

	Thermometer Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	4.11	4.71	1.60	7.30	5.42
Median Rate*	3.63	4.35	1.55	6.70	5.00

* 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 April 4, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 850, of which 449 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

Avian Influenza in Humans:

H5N6 (CHINA): 5 May 2016, The genetic makeup of H5N6 avian flu isolates from 2 people infected in Guangdong province, China, in December 2015 differs fairly substantially from human isolates from the same province in 2014 and shows evidence of increased resistance, a worrisome sign, according to a letter yesterday [4 May 2016] in Emerging Infectious Diseases. Chinese researchers said that although the hemagglutinin and neuraminidase genes were similar in the 2015 and 2014 viruses, all 6 internal genes differed. Read More: <http://www.promedmail.org/post/4205906>

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:

H5N1 (INDIA): 9 May 2016, An alert has been sounded across Karnataka, after the outbreak of bird flu [avian influenza] in a privately-owned poultry farm at Melkera village of Humnabad taluk [sub-district] in Bidar district. A total of 1.5 lakh [150 000] heads of chicken of the private farm will now be culled to prevent the outbreak of avian influenza (H5N1 virus) to rest of the farms and areas. Read More: <http://www.promedmail.org/post/4210295>

H5N6 (CHINA): 5 May 2016, The genetic makeup of H5N6 avian flu isolates from 2 people infected in Guangdong province, China, in December 2015 differs fairly substantially from human isolates from the same province in 2014 and shows evidence of increased resistance, a worrisome sign, according to a letter yesterday [4 May 2016] in Emerging Infectious Diseases. Chinese researchers said that although the hemagglutinin and neuraminidase genes were similar in the 2015 and 2014 viruses, all 6 internal genes differed. Read More: <http://www.promedmail.org/post/4205906>

NATIONAL DISEASE REPORTS

ANTHRAX (TEXAS): 9 May 2016, Texas Animal Health Commission (TAHC) officials are encouraging livestock owners to vaccinate their animals after anthrax was confirmed in a cow in southeast Webb County in mid-April [2016]. "The anthrax vaccination is reliable and proven to protect livestock from the disease," said

Dr Andy Schwartz, TAHC Interim Executive Director. "Livestock owners are urged to consult with their local veterinary practitioners about vaccination." Read More: <http://www.promedmail.org/post/4212869>

DIARRHETIC SHELLFISH POISONING (WASHINGTON): 4 May 2016, Health officials have closed all Whatcom County [Washington] beaches to recreational shellfish harvesting after tests showed unsafe levels of marine biotoxins. The closure is for all molluscan shellfish including clams, mussels, oysters, and scallops, and all beaches, including at Larrabee State Park and Point Roberts. The ban was put into place after unsafe levels of the toxin that causes diarrhetic shellfish poisoning [DSP] were detected in recent sampling in Bellingham Bay. Read More: <http://www.promedmail.org/post/4205378>

INTERNATIONAL DISEASE REPORTS

E. COLI (ISRAEL): 2 May 2016, A total of 8 babies from Kibbutz Nir Or located near Gaza were infected with the intestinal bacterium *E. coli*, 4 of which were hospitalized at Soroka Hospital in Be'er Sheva. One baby is in serious condition, and 2 are suffering from kidney failure, according to reports. Read More: <http://www.promedmail.org/post/4196559>

FOODBORNE ILLNESS (PAKISTAN): 3 May 2016, The condition of 5 children who had consumed unwholesome milk soda on Sunday [1 May 2016] night is serious, doctors at the Allied Hospital said on Monday [2 May 2016]. As many as 137 people complaining of food poisoning were brought to Allied Hospital and General Hospital on Sunday [1 May 2016] night. They had consumed beverages served for free at the inauguration of a soda milk stand on Sunday night. Read More: <http://www.promedmail.org/post/4209583>

EBOLA (GUINEA, LIBERIA): 5 May 2016, A study of Ebola virus disease survivors in Guinea has added to previous evidence that the virus can persist for as long as 9 months in the semen of survivors, reinforcing the concern about a risk of sexual transmission for months after recovery. An international team of researchers tested 98 semen samples from 68 Ebola survivors in Conakry and Macenta, Guinea, from March through October 2015, according to their 3 May 2016 report in the Journal of Infectious Diseases. Read More: <http://www.promedmail.org/post/4209313>

CRYPTOSPORIDIOSIS (ENGLAND): 5 May 2016, An outbreak of *E. coli* and parasitic disease cryptosporidiosis at a Leeds [England] petting farm has led to more than 30 people falling ill. Public health experts have launched an investigation into the outbreak, which has been linked to Swithens Farm, in Rothwell, Leeds. A total of 29 cases of cryptosporidiosis, a disease caused by a microscopic parasite resistant to chlorination which causes sickness and diarrhea, have so far been confirmed. Read More: <http://www.promedmail.org/post/4208016>

NOROVIRUS (UK-USA-CUBA): 9 May 2016, Hundreds of passengers on a cruise ship travelling from the UK to the US have fallen ill, as health officials investigate the possibility of a norovirus outbreak. Of the 919 passengers aboard the Balmoral, operated by the Fred Olsen Cruises, 252 [27 percent] have become sick since the ship left Southampton, England, on 16 Apr 2016, said the [US] Centers for Disease Control and Prevention (CDC). Read More: <http://www.promedmail.org/post/4212873>

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.dhmf.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

