



**August 12, 2016**

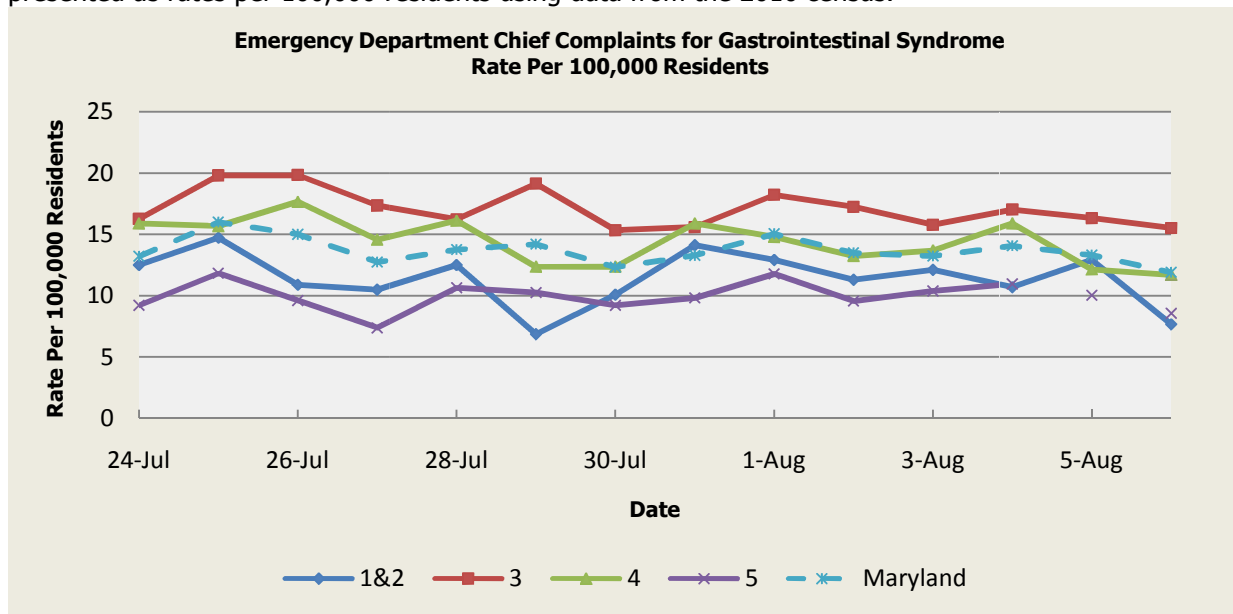
**Public Health Preparedness and Situational Awareness Report: #2016:31  
Reporting for the week ending 8/6/16 (MMWR Week #31)**

**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):**

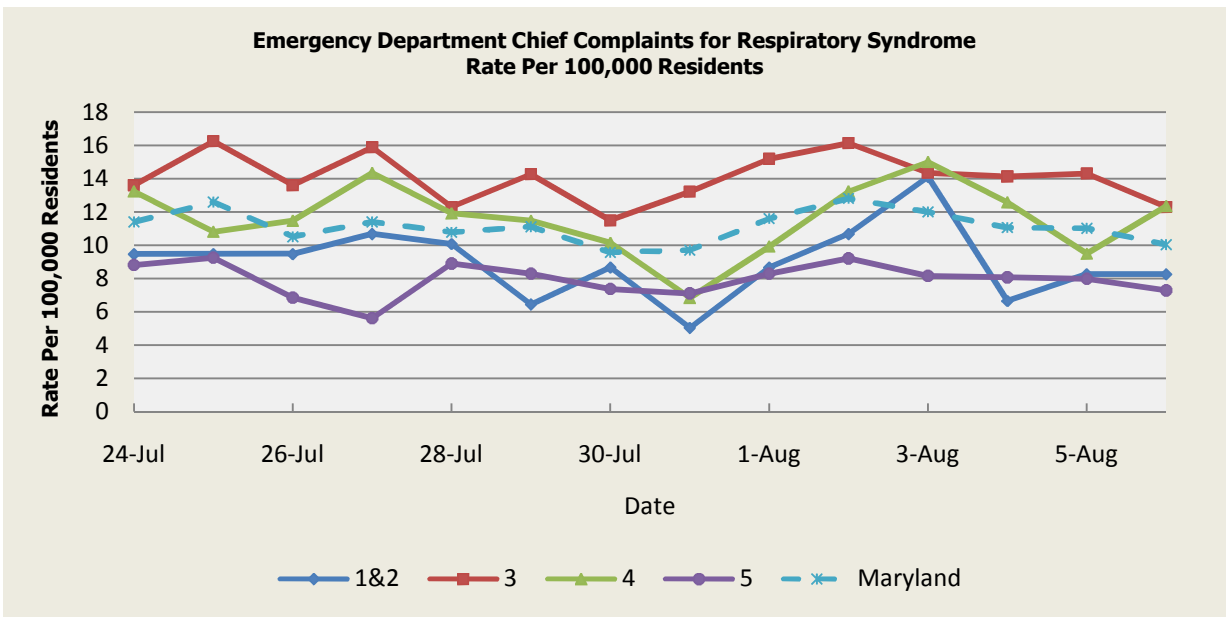
Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There were no gastroenteritis/foodborne outbreaks reported this week.

<b>Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present</b>					
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

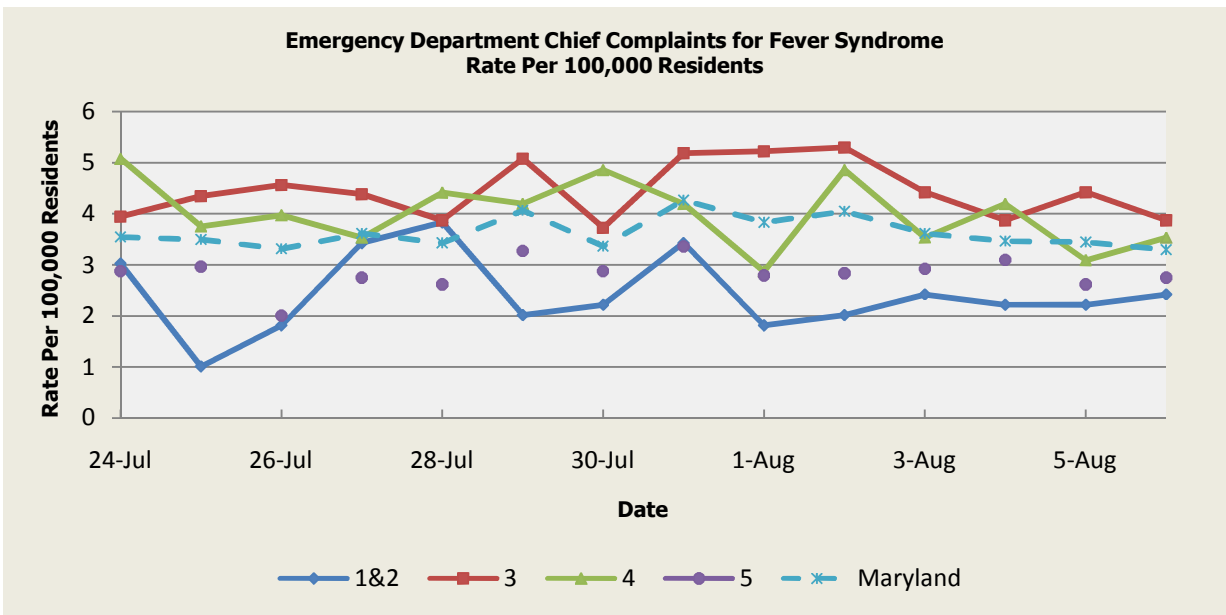
\* Per 100,000 Residents



There was one (1) respiratory illness outbreak reported this week: 1 outbreak of influenza / pneumonia in a Nursing Home (Regions 3).

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

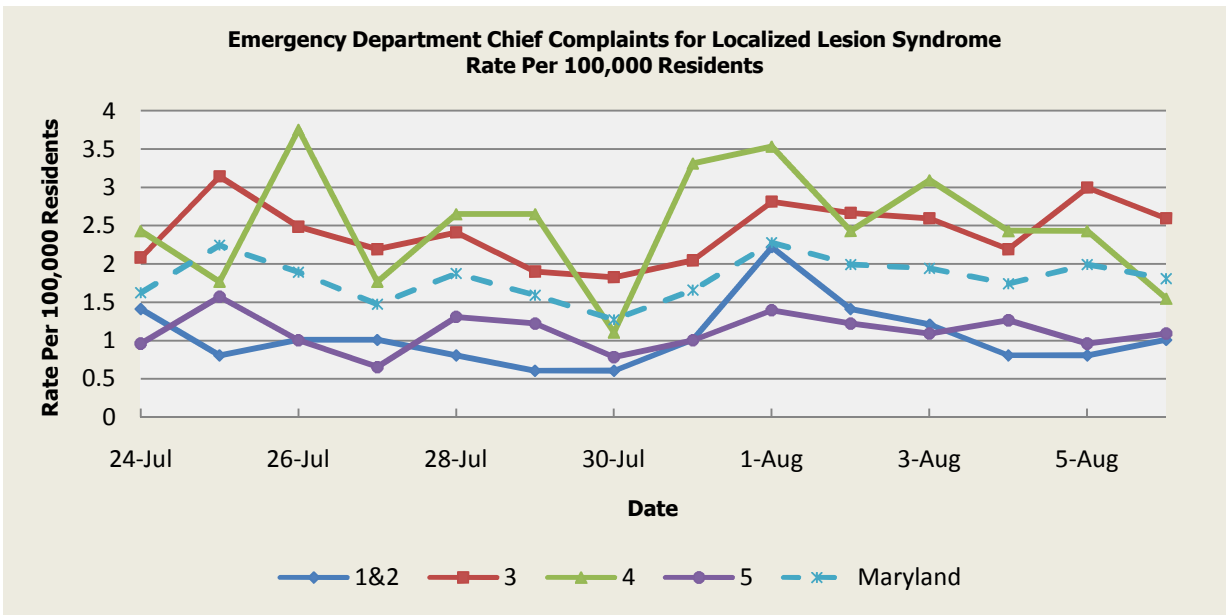
\* Per 100,000 Residents



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

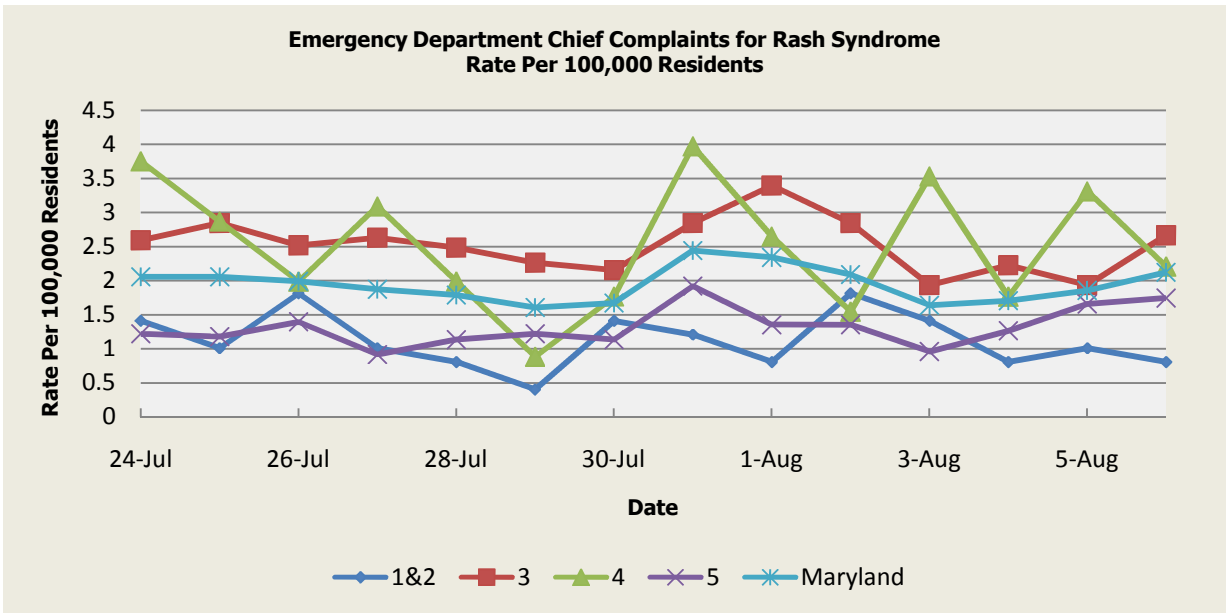
Per 100,000 Residents



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

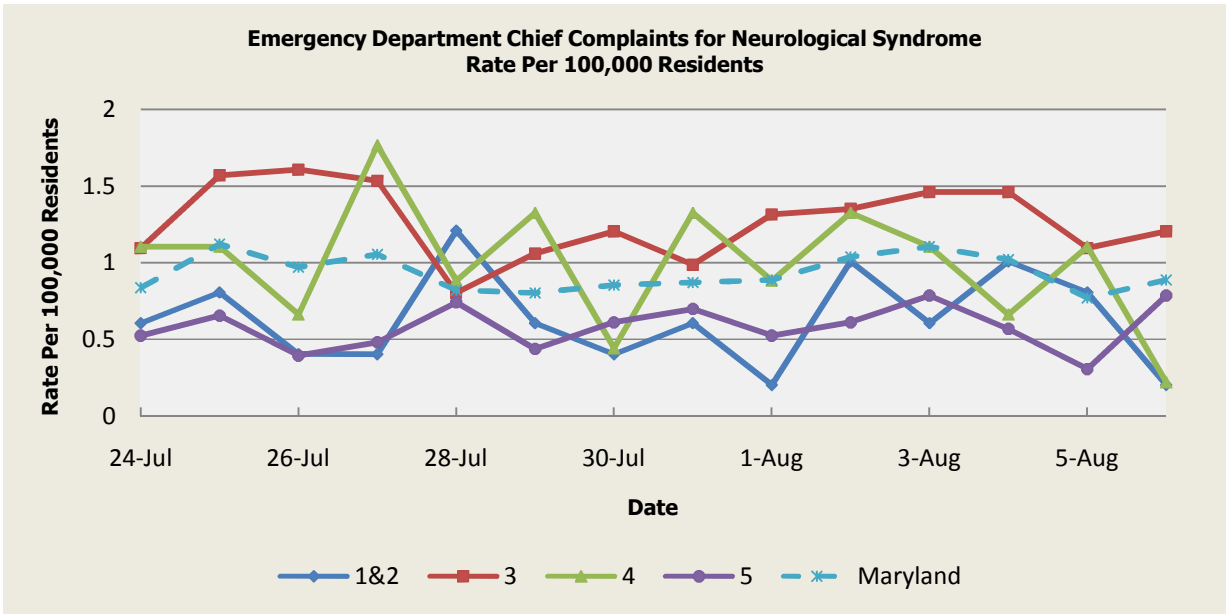
\* Per 100,000 Residents



There were 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	1.75	1.75	1.04	1.44
Median Rate*	1.21	1.68	1.77	1.00	1.39

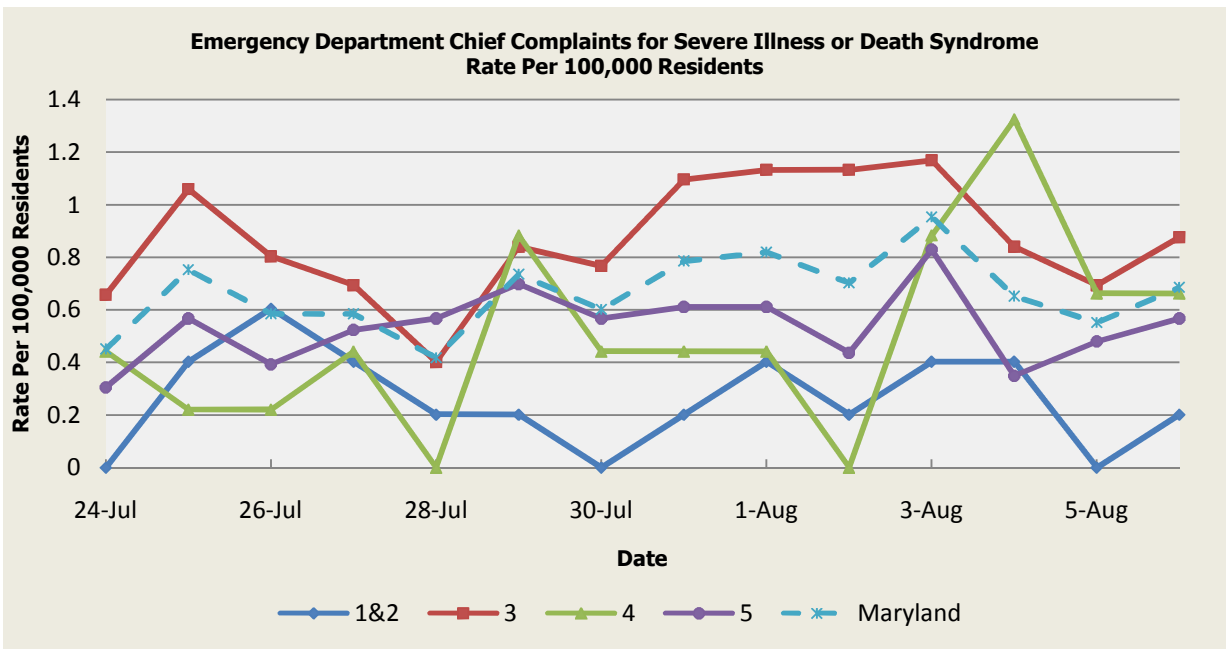
\* Per 100,000 Residents



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

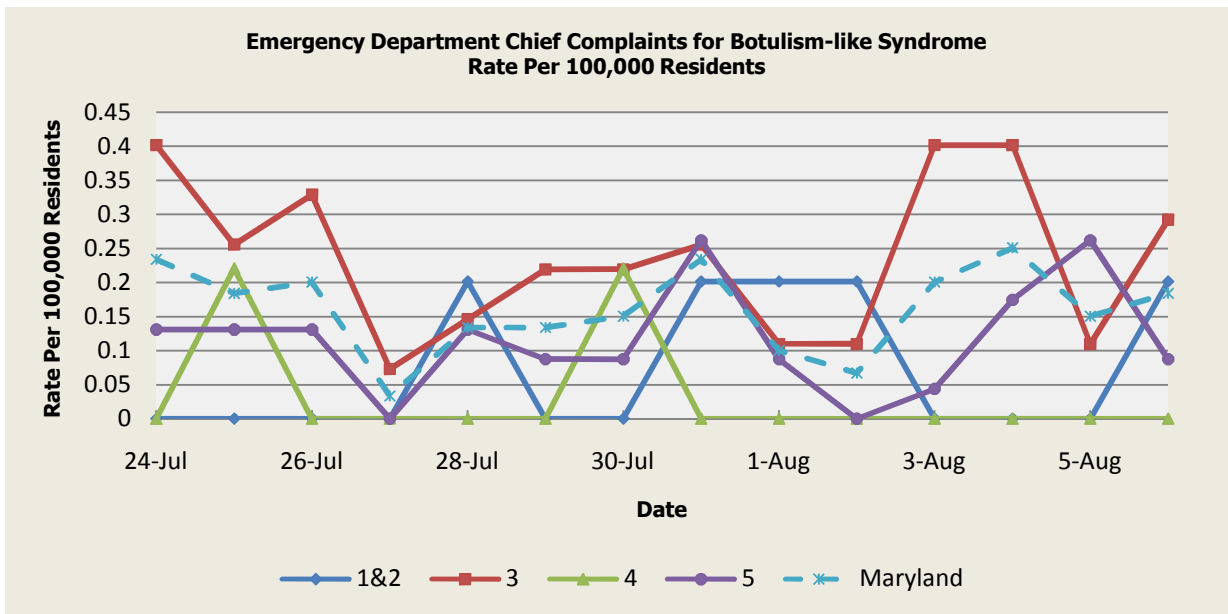


There were no severe illness or death outbreaks reported this week.

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

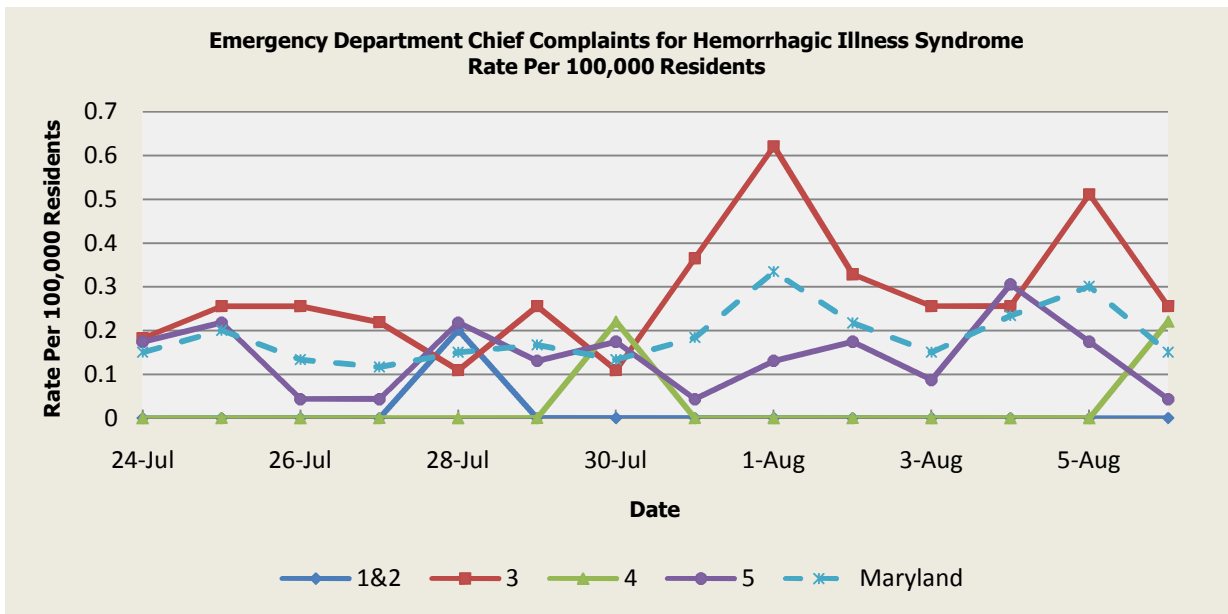
## SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 7/24 (Region 3, 5), 7/25 (Region 3, 4, 5), 7/26 (Regions 3, 5), 7/28 (Region 1&2, 5), 7/29 (Regions 3), 7/30 (Region 3, 4), 7/31 (Regions 1&2, 3, 5), 8/1 (Region 1&2), 8/2 (Regions 1&2), 8/3 (Region 3), 8/4 (Regions 3, 5), 8/5 (Regions 5), and 8/6 (Regions 1&2, 3). 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

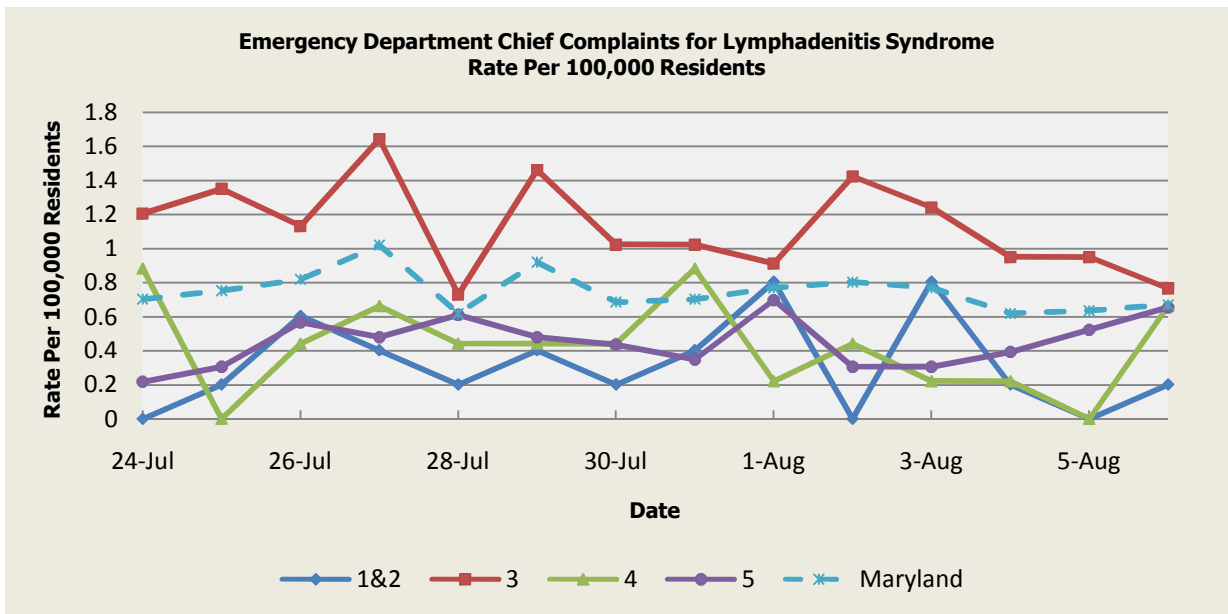
\* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 7/24 (Region 5), 7/25 (Region 3, 5), 7/26 (Regions 3), 7/27 (Regions 3), 7/28 (Regions 1&2, 5), 7/29 (Region 3), 7/30 (Region 4, 5), 7/31 (Region 3), 8/1 (Region 3), 8/2 (Regions 3, 5), 8/3 (Regions 3), 8/4 (Regions 3, 5), 8/5 (Regions 3, 5) and 8/06 (Region 3, 4). 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



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 7/24 (Region 3, 4), 7/25 (Region 3), 7/26 (Regions 3), 7/27 (Regions 3), 7/28 (Region 5), 7/29 (Regions 3), 7/30 (Region 3), 7/31 (Regions 3, 4), 8/1 (Regions 1&2, 5), 8/2 (Regions 3), 8/3 (Regions 1&2, 3) and 8/6 (Regions 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	0.47	0.34	0.29	0.38
Median Rate*	0.20	0.37	0.22	0.26	0.32

\* Per 100,000 Residents

## MARYLAND REPORTABLE DISEASE SURVEILLANCE

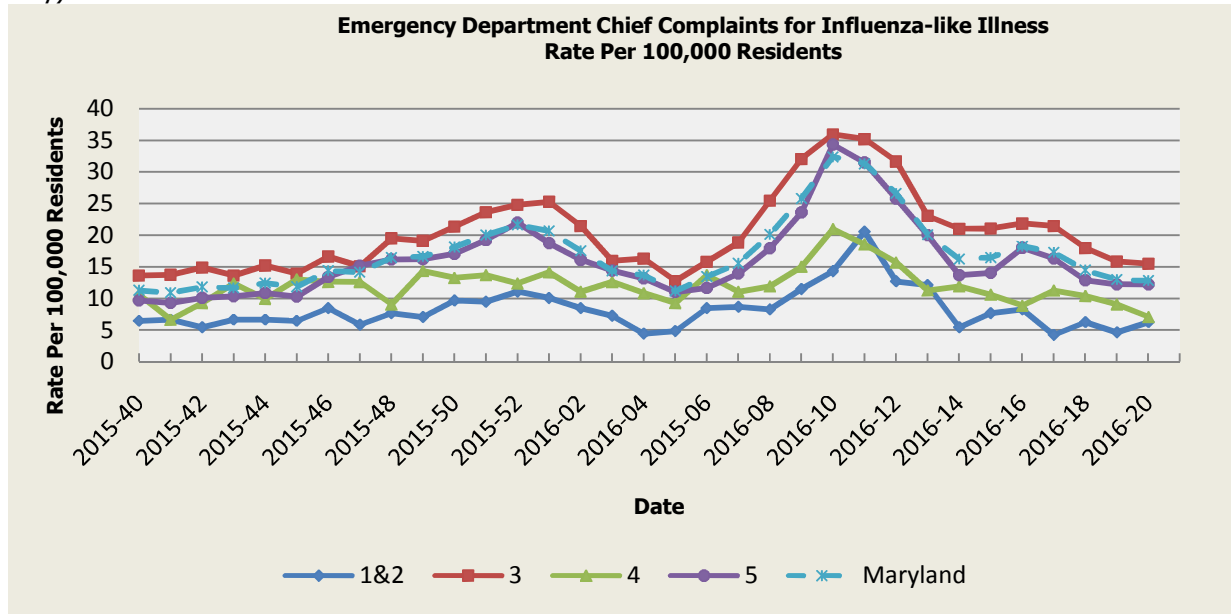
Condition	Counts of Reported Cases‡					
	August			Cumulative (Year to Date)**		
	2016	Mean*	Median*	2016	Mean*	Median*
<b>Vaccine-Preventable Diseases</b>						
Aseptic meningitis	2	11	10	187	243.8	257
Meningococcal disease	0	0.2	0	2	5	4
Measles	0	0.2	0	3	2.8	2
Mumps	0	0.8	1	9	31.8	9
Rubella	0	0.2	0	1	2	2
Pertussis	3	7.4	5	109	160.4	179
<b>Foodborne Diseases</b>						
Salmonellosis	11	30.6	30	394	522.6	529
Shigellosis	1	4	2	76	108.4	131
Campylobacteriosis	6	19	19	411	424	425
Shiga toxin-producing Escherichia coli (STEC)	1	2.6	2	85	75.8	71
Listeriosis	1	0.8	0	10	9.6	10
<b>Arboviral Diseases</b>						
West Nile Fever	0	0.8	1	0	2.8	3
Lyme Disease	14	35.2	34	1034	982.4	1073
<b>Emerging Infectious Diseases</b>						
Chikungunya	0	0.4	0	4	7.8	0
Dengue Fever	0	0.6	0	23	8.4	9
Zika Virus***	0	0	0	63	0.2	0
<b>Other</b>						
Legionellosis	1	2	2	87	87.4	92

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

\*\*\* As of August 10, 2016, the total Maryland Confirmed Zika Virus Infections is 57.

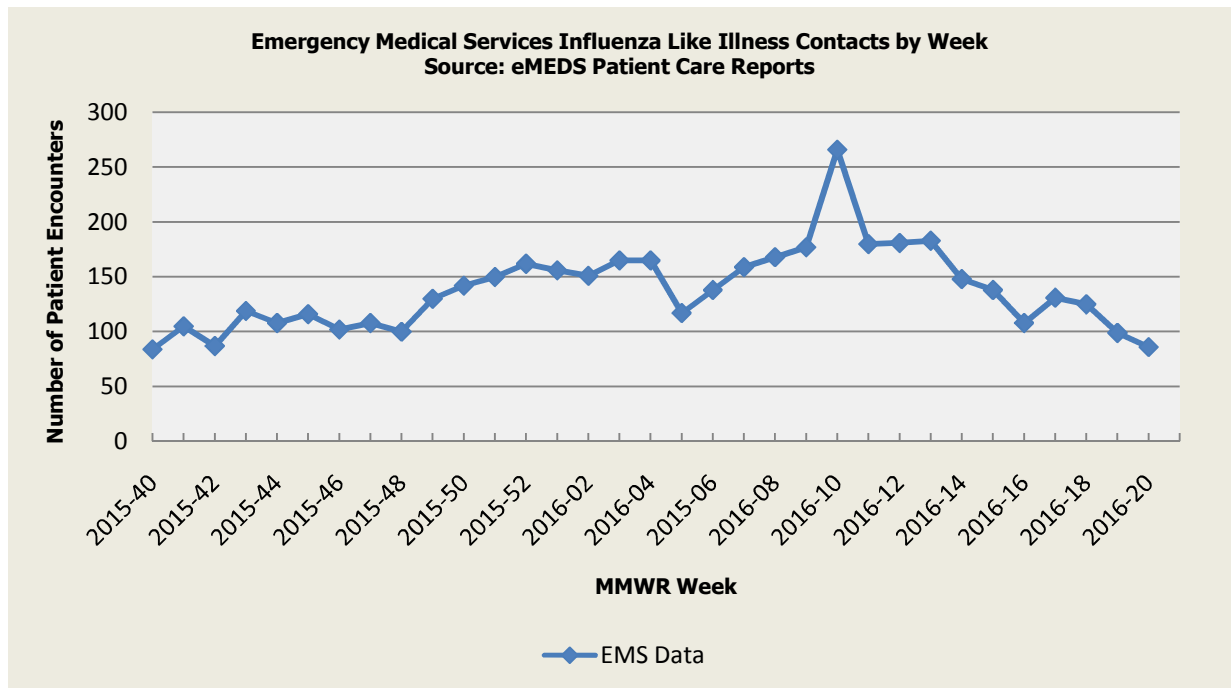
## SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May).



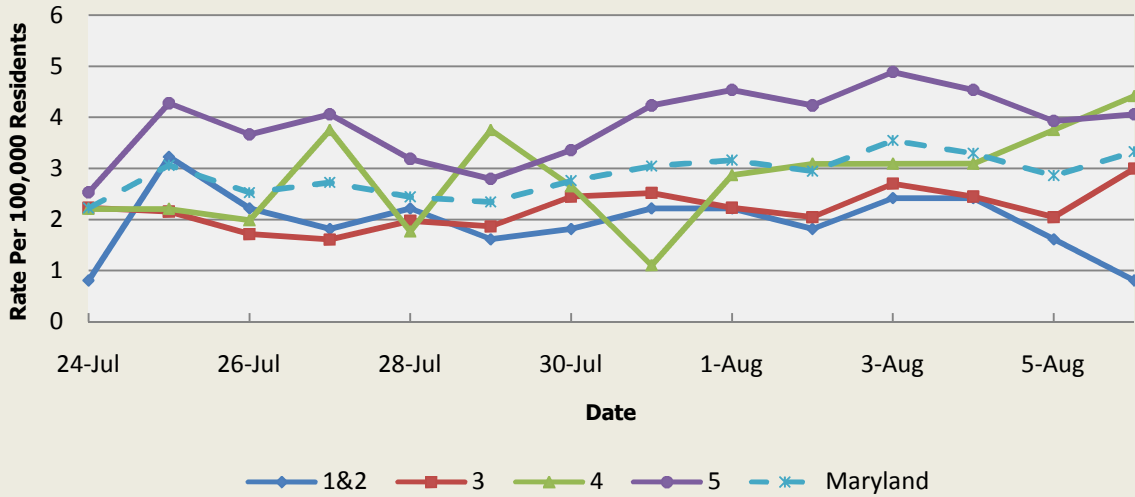
<b>Influenza-like Illness Baseline Data Week 1 2010 - Present</b>					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	11.58	10.78	10.43	10.88
Median Rate*	7.66	8.99	9.05	8.03	8.72

\* 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**

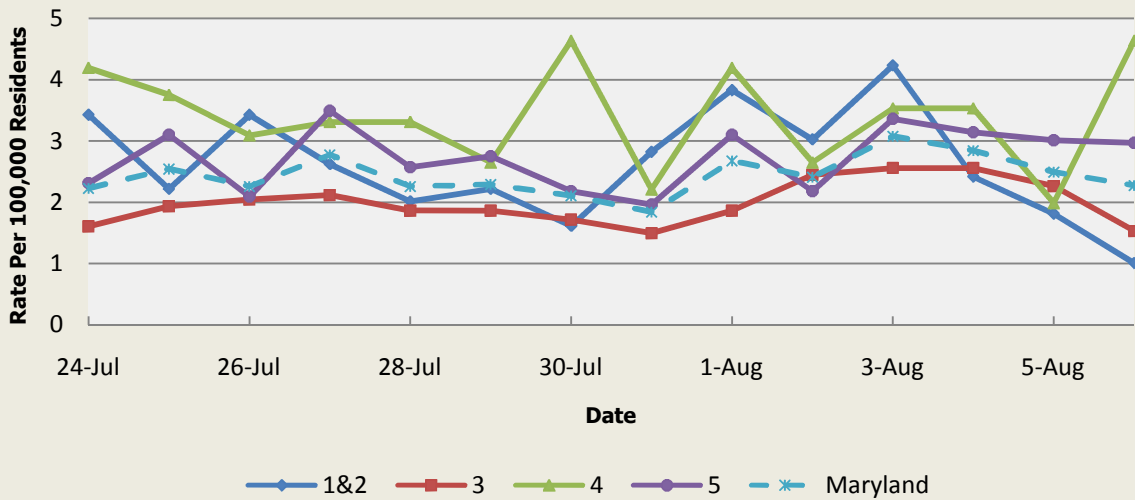


There was not an appreciable increase above baseline in the rate of OTC medication sales this week.

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.86	6.41	1.86	13.92	8.73
Median Rate*	3.02	5.30	1.55	11.35	7.13

\* 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*	4.12	4.71	1.61	7.30	5.42
Median Rate*	3.63	4.35	1.55	6.68	4.97

\* 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 June 13, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 851, of which 450 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

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

**H7N9 (CHINA):** 22 Jul 2016, On 12 Jul 2016, the National Health and Family Planning Commission (NHFP) of China notified WHO of 7 additional laboratory confirmed cases of human infection with avian influenza A(H7N9) virus, including 4 deaths. Read More:

<http://www.promedmail.org/post/4370565>

**H5N1 (EGYPT):** 27 Jul 2016, On 25 Jul 2016, Egypt recently reported 3 new H5N1 avian flu cases, all in people who had been exposed to poultry or their environments, according to a monthly update from the World Health Organization (WHO) on animal-to-human flu transmission events for the middle of June through the middle of July 2016. Most of the cases had been noted earlier in other official reports from Chinese government agencies. It put the global total at 800 cases since the 1st human cases were detected in 2012. Read More: <http://www.promedmail.org/post/4370398>

*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:**

**LPAI H5N2 (DENMARK):** 8 Aug 2016, On Mon 8 Aug 2016, Denmark reported a low pathogenic avian influenza outbreak in a mallard duck farm near the North Jutland town of Nibe. An entire flock of 1200 ducklings will be killed to prevent the virus from spreading. The infection was discovered during a routine inspection carried out as part of prevention efforts against Avian influenza. Just 2 weeks ago, an [LPAI H7N7] case was reported at Brenderup farm in western Funen, where 3000 ducklings had to be put down because of the virus. Read more: <http://www.promedmail.org/post/4402626>

### **Influenza in Swine:**

**H3N2V, INFLUENZA, SWINE (MICHIGAN):** 7 Aug 2016, On 5 Aug 2016, Michigan health officials connected the state's first case of swine flu to a sick pig at the Muskegon County Fair. State and county health officials say the 2 confirmed cases of influenza A H3N2 involved swine exhibitors at the fair last week. A sick pig from the fair also tested positive for the strain at the National Veterinary Services Laboratories in Ames, Iowa. According to the Centers for Disease Control and Prevention, swine flu was 1st identified in U.S. pigs in 2010. Most infections have been linked to prolonged exposure to pigs at fairs. Read more: <http://www.promedmail.org/post/4399461>

## **NATIONAL DISEASE REPORTS**

**HANTAVIRUS (UTAH):** 10 Aug 2016, On 9 Aug 2016, the Utah County Health Department reported that a woman has died from a hantavirus infection, prompting officials to warn Utah residents to take precautions with potential rodent infestations. People may be at particular risk in previously-vacant buildings, while housekeeping, or while camping and hiking. Early symptoms of hantavirus infections include fatigue, fever, and muscle aches, as well as headaches, dizziness, chills and abdominal pain. Read more: <http://www.promedmail.org/post/4407613>

**HEPATITIS A (HAWAII):** 10 August 2016, On 9 Aug 2016, the worst hepatitis A outbreak in nearly 2 decades in Hawaii has now infected 135 people including a State Department of Transportation employee. All of the victims so far were exposed to the disease on Oahu, but 4 live on Maui, Kauai and the Big Island. At this point in time, 29 of the 93 victims have required hospitalization. The onset of symptoms for the earliest victims was 12 Jun 2016 and the most recent is 19 Jul 2016. The Centers for Disease Control and Prevention said 3 experts from epidemiology, infectious diseases and clinical care are in Hawaii assisting the DOH with the investigation. Read more: <http://www.promedmail.org/post/4405316>

**Vibrio Vulnificus (FLORIDA):** 7 Aug 2016, On 5 Aug 2016, the number of *Vibrio vulnificus* cases in Florida grew by two (2) as both Volusia and Orange Counties reported the 2nd confirmed case each, bringing the state total to 18, including 4 deaths. Counties reporting cases include Brevard, Broward, Charlotte, Citrus, Collier, Duval (2), Manatee, Marion, Orange (2), Palm Beach, Santa Rosa, Sarasota (2), Volusia (2) and Wakulla counties. Fatalities have been reported from Broward, Citrus, Palm Beach and Santa Rosa counties. *Vibrio vulnificus* can cause disease in those who eat contaminated, uncooked seafood or have an open wound that is exposed to warm seawater containing the bacterium. Healthy individuals typically develop a mild disease; however, *Vibrio vulnificus* infections can be a serious concern for people who have certain chronic diseases, particularly those with chronic liver disease. Read more: <http://www.promedmail.org/post/4400519>

**CYCLOSPORIASIS (TEXAS):** 7 Aug 2016, On Sat 6 Aug, the Texas Department of State Health Services reported that 72 cases of cyclosporiasis have been confirmed, 55 of which have occurred in the last month. In the past few years, the U.S. has seen an increase in the number of cyclospora illnesses in the summer months, with past outbreaks linked to fresh produce. The 2015-2016 cyclospora outbreak was determined to have come from fresh cilantro imported from Pueblo, Mexico. Since the summer of 2015, the U.S. Food and Drug Administration (FDA) has instituted a ban of fresh produce from the Puebla region from April through August. The cyclospora parasite is acquired by eating something that has been contaminated with feces from a person infected with the parasite. The parasite attacks the small intestine, producing a watery diarrhea that is sometimes explosive. Other symptoms may include everything from nausea and vomiting to fatigue and fever. If left untreated, the symptoms can linger for months. Read More: <http://www.promedmail.org/post/4399338>

## **INTERNATIONAL DISEASE REPORTS**

**YELLOW FEVER (AFRICA):** 9 Aug 2016, On 8 August 2016, the latest report of the World Health Organization (WHO) indicates that the yellow fever epidemic in Angola, which has led to 369 deaths since December [2015], is decreasing; 6 weeks ago the confirmation of new cases stopped. An additional vaccination campaign of more than 17 million people is expected before the start of the rainy season. Read more: <http://www.promedmail.org/post/4403110>

**ANTHRAX (RUSSIA):** On 4 Aug 2016, Russia reported an anthrax outbreak in the Yamal-Nenets autonomous district last week for the 1<sup>st</sup> time in 75 years reportedly caused by the thawing of an infected frozen reindeer corpse due to unusually high temperatures. The first [human] fatality was a 12-year-old boy who reportedly died in a hospital after eating infected venison. As of 2 Aug [2016], a total of 90 people are under observation in hospital and 20 cases have been confirmed. Quarantine was imposed in the infected areas of the region on 25 Jul [2016]. Read more: <http://www.promedmail.org/post/4394271>

**CRIMEAN-CONGO HEMORRHAGIC FEVER (PAKISTAN):** 4 Aug 2016, On 30 Jul 2016, officials in Chakwal health department told Dawn at the Fauji Foundation Hospital (FFH) in Rawalpindi reported the death of a 13-year old boy from Crimean-Congo hemorrhagic fever (CCHF). Now that 2 CCHF cases have been reported from Chakwal, all state-run hospitals including rural health centers and basic health units have been asked to remain on high alert. Since 2013, 7 people have been infected with the CCHF virus in Chakwal of which 5 recovered and 2 lost their lives. Read more: <http://www.promedmail.org/post/4367732>

**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/Pages/Home.aspx>

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

