STATE OF MARYLAND
DHMH
Maryland Department of Health and Mental Hygiene
Larry Hogan, Governor - Boyd Rutherford, Lt. Governor - Van Mitchell, Secretary

October 7, 2016

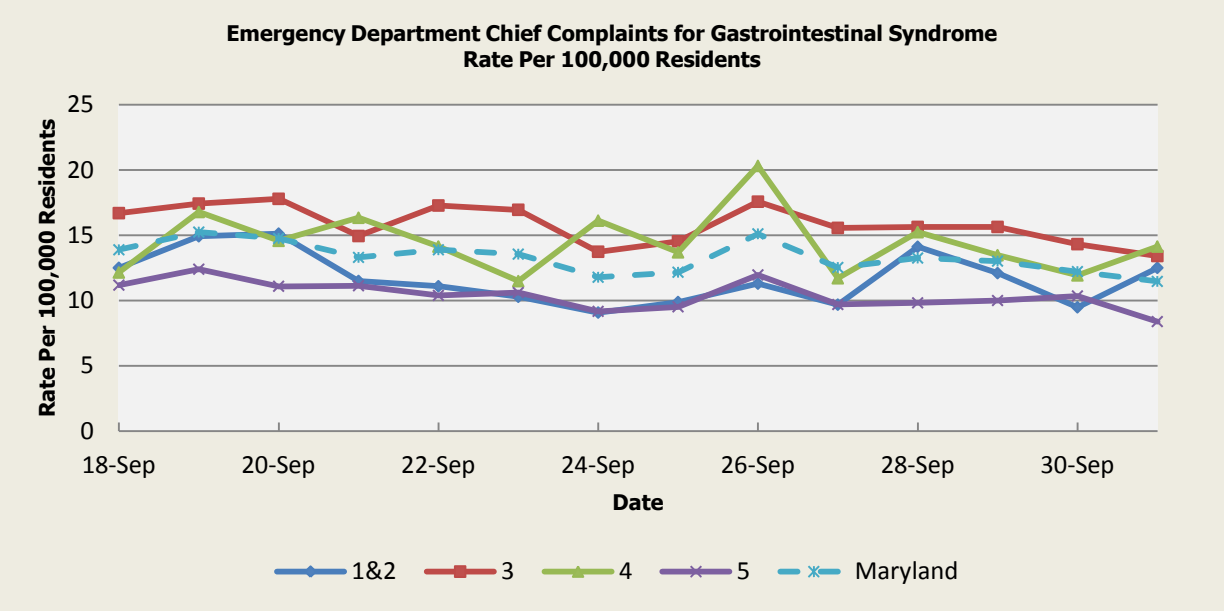
Public Health Preparedness and Situational Awareness Report: #2016:39
Reporting for the week ending 10/01/16 (MMWR Week #39)

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 outbreaks of gastroenteritis/ foodborne illness reported this week.

	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

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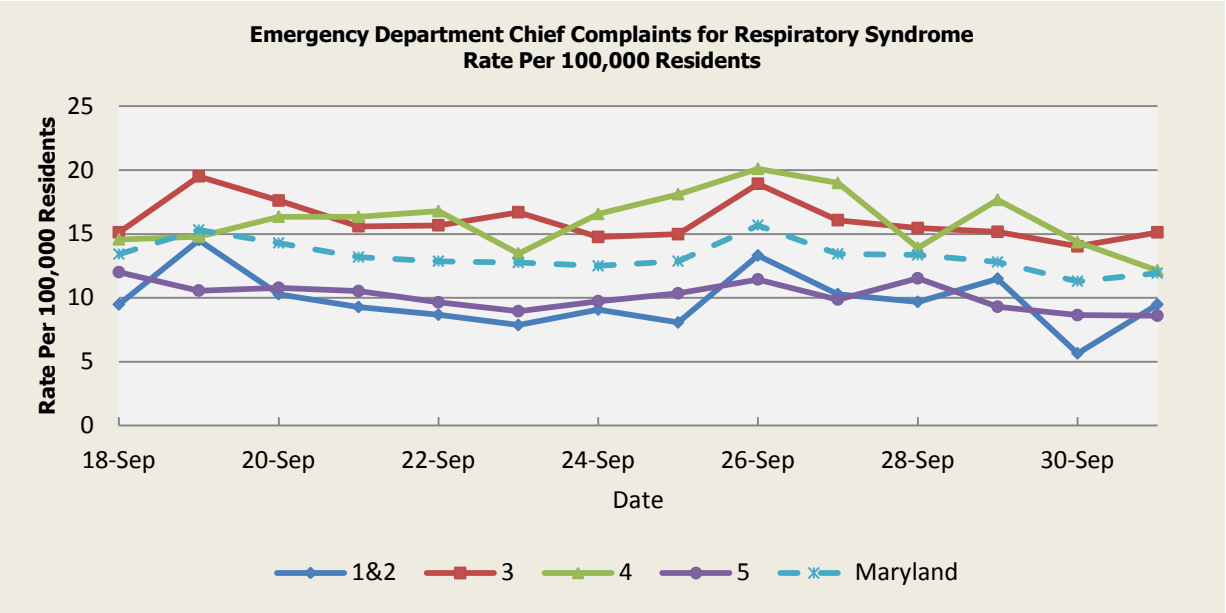
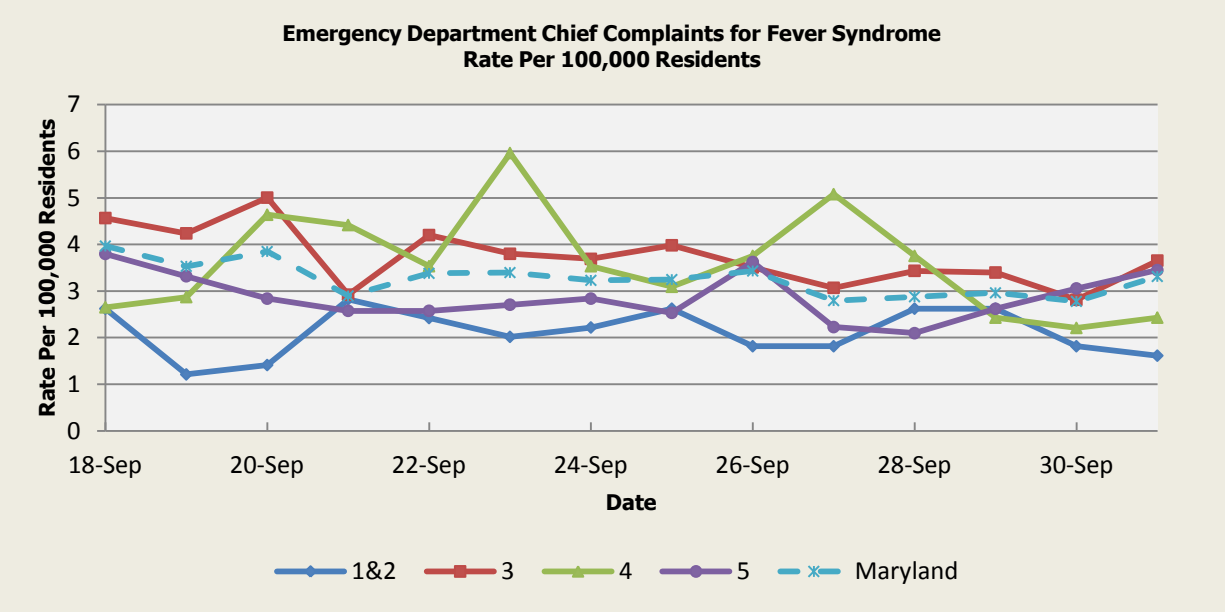


There were two (2) respiratory illness outbreaks reported this week: 1 outbreak of Pneumonia associated with an Assisted Living Facility (Region 3); 1 outbreak of Pertussis associated with a Pediatrics Practice (Region 5).

	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

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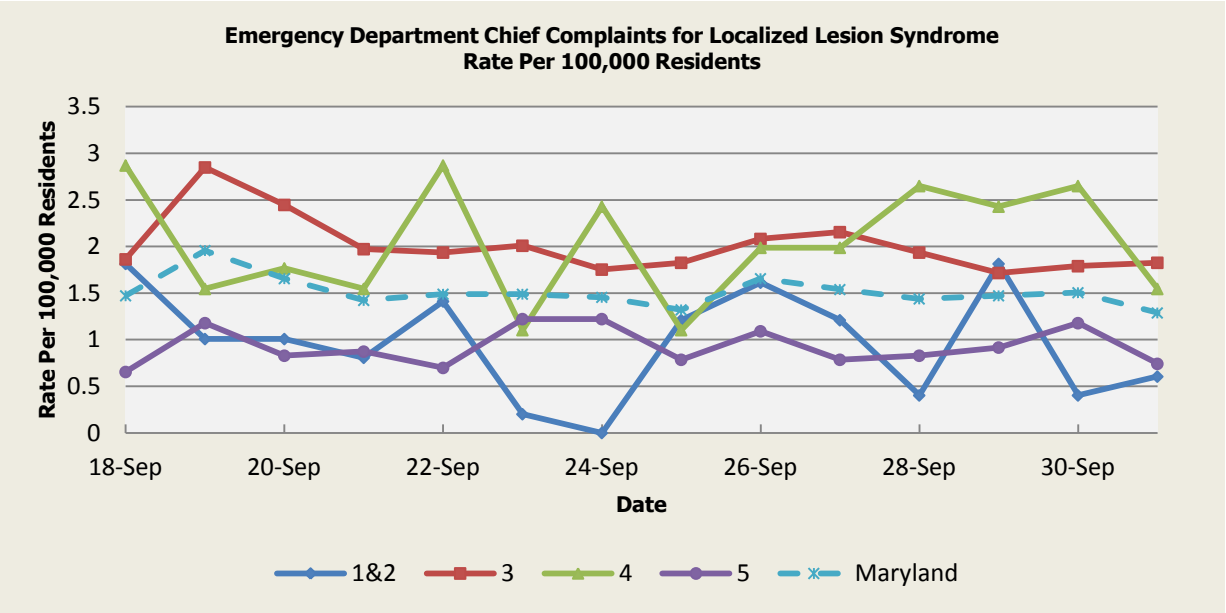
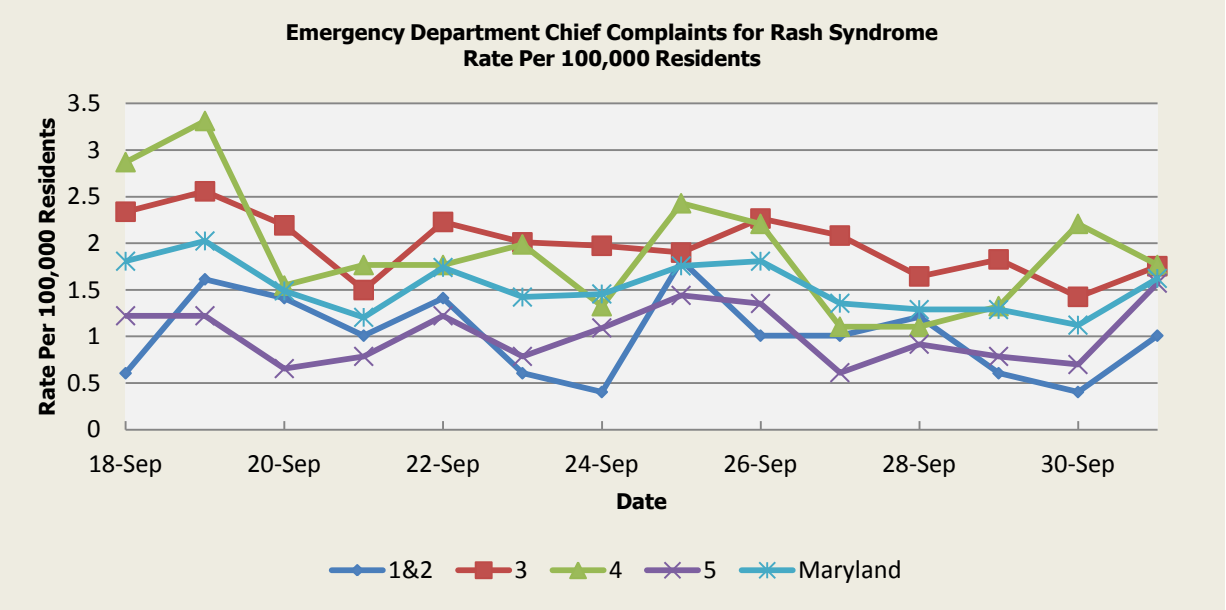


There were no localized lesion outbreaks reported this week.

	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 was once (1) rash illness outbreak reported this week: 1 outbreak of HAND, FOOT, AND MOUTH DISEASE associated with a Daycare Center (Region 5).

	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

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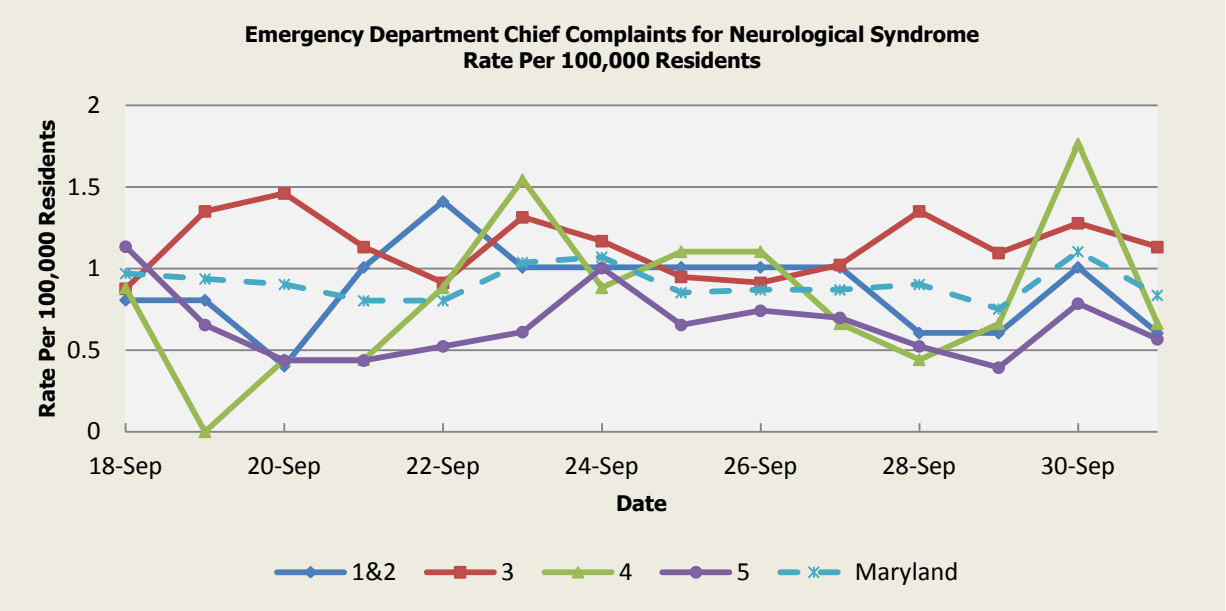
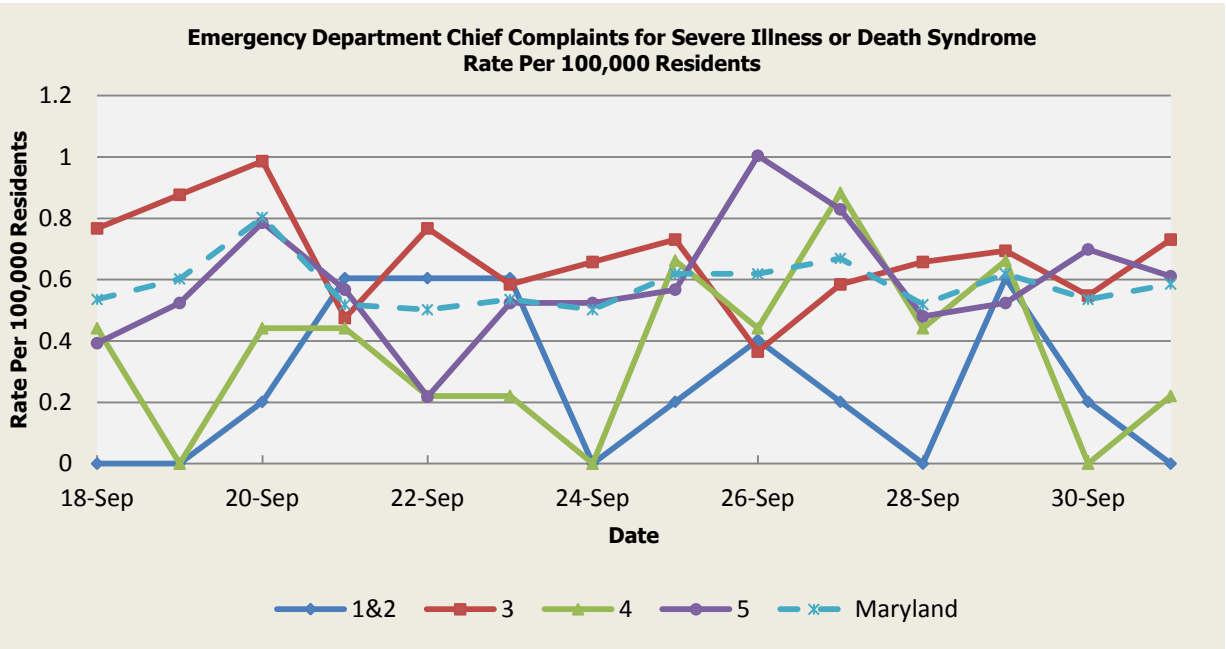


There were no neurological syndrome outbreaks reported this week.

	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

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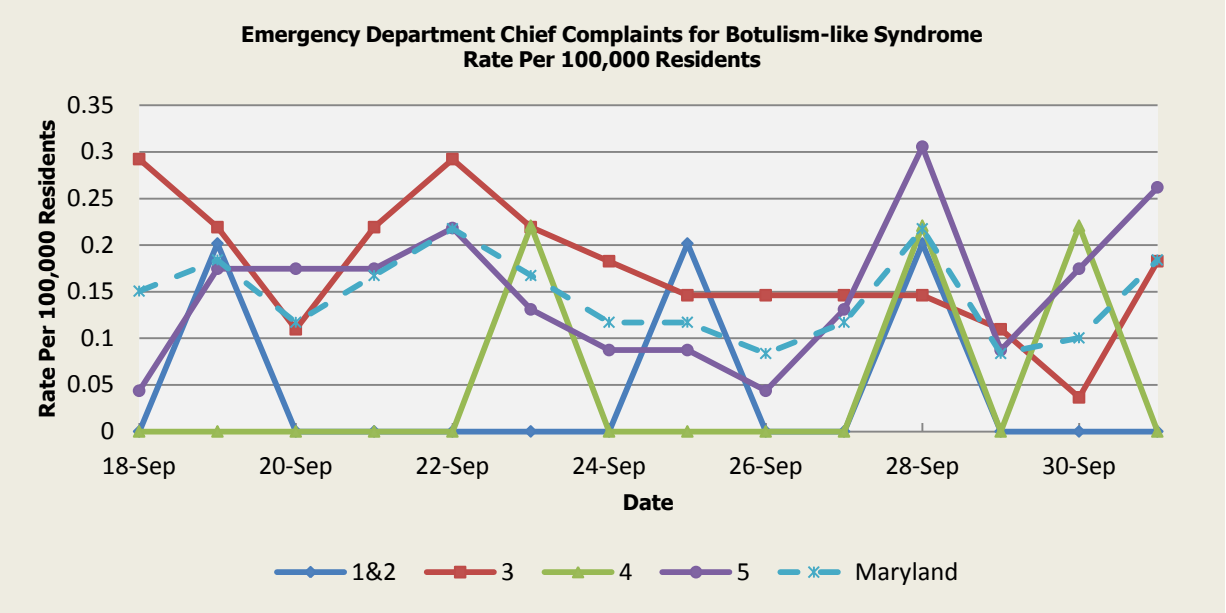
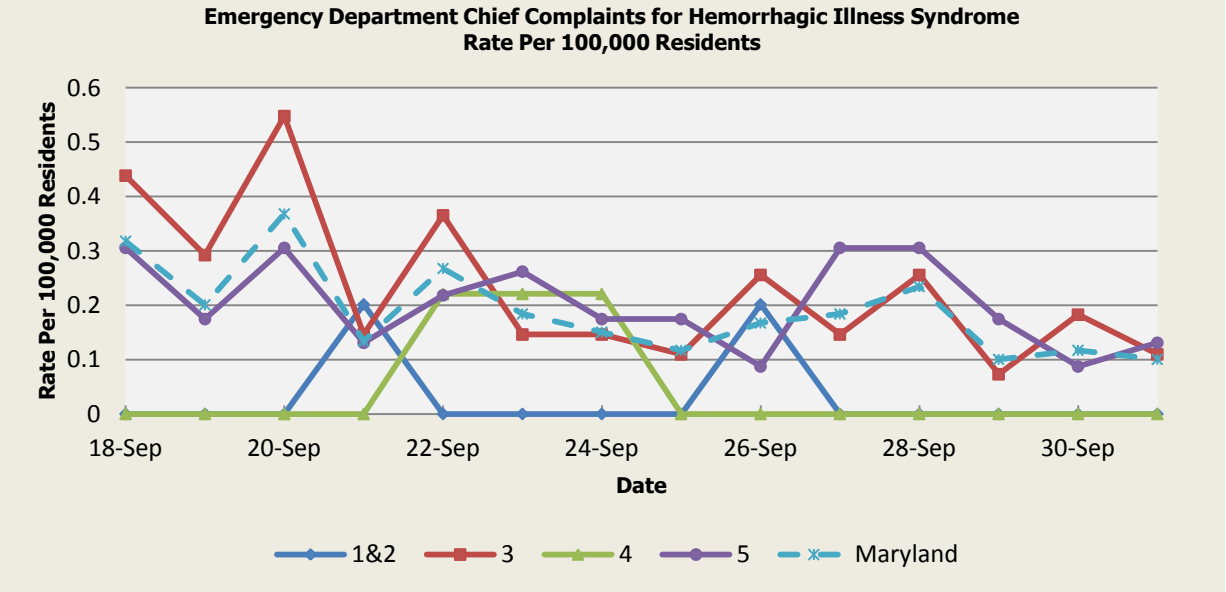
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 9/18 (Region 3), 9/19 (Regions 1&2, 3,5), 9/20 (Regions 5), 9/21 (Regions 3,5), 9/22 (Regions 3,5), 9/23 (Regions 3,4,5), 9/24 (Region 3,5), 9/25 (Regions 1&2,5), 9/27 (Region 5), 9/28 (Regions 1&2,3,5), 9/29 (Regions 5), 9/30 (Regions 4,5) and 10/01 (Regions 3,5). These increases are not known to be associated with any outbreaks.

	Botulism-like Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.08	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 9/18 (Region 3,5), 9/19 (Regions 3,5), 9/20 (Regions 3,5), 9/21 (Region 1&2,5), 9/22 (Regions 3,4,5), 9/23 (Region 4,5), 9/24 (Regions 4,5), 9/25 (Regions 5), 9/26 (Regions 1&2,3), 9/27 (Regions 5), 9/28 (Regions 3,5), 9/29 (Regions 5) and 10/01 (Regions 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

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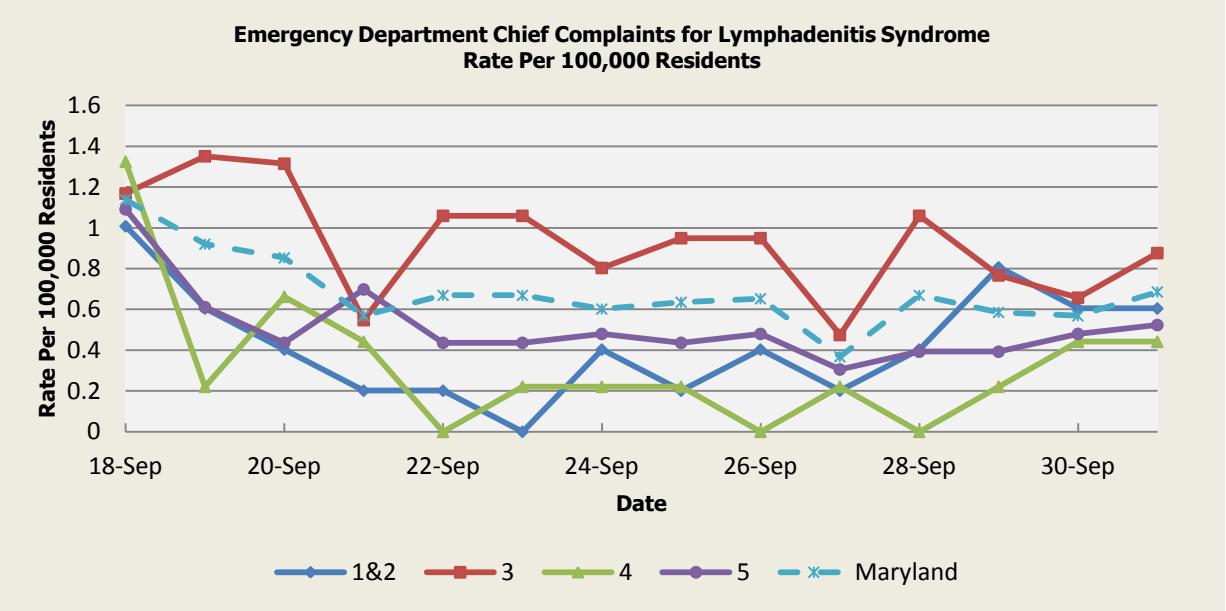

There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 9/18 (Region 1&2,3,4,5), 9/19 (Region 3), 9/20 (Region 3), 9/21 (Regions 5), 9/22 (Region 3), 9/23 (Region 3), 9/28 (Regions 3), and 9/29 (Region 1&2). These increases are not known to be associated 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

	Counts of Reported Cases‡					
Condition	**October**			**Cumulative (Year to Date)****		
Vaccine-Preventable Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Aseptic meningitis	0	1.6	2	256	348.6	351
Meningococcal disease	0	0	0	3	6	4
Measles	0	0	0	4	4	3
Mumps	0	0	0	16	36	10
Rubella	0	0	0	1	2.4	2
Pertussis	0	2.2	2	155	226.8	278
Foodborne Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Salmonellosis	0	4.6	5	636	743.8	752
Shigellosis	0	0.6	0	104	144	176
Campylobacteriosis	0	3.6	3	550	549.4	547
Shiga toxin-producing Escherichia coli (STEC)	0	1.4	1	132	98.8	91
Listeriosis	0	0.2	0	17	12.8	14
Arboviral Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
West Nile Fever	0	0	0	2	11.4	10
Lyme Disease	0	10.4	11	1472	1252.8	1343
Emerging Infectious Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Chikungunya	0	0	0	5	11.8	0
Dengue Fever	0	0	0	30	12.8	12
Zika Virus***	0	0	0	108	0.2	0
Other	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Legionellosis	0	0.6	0	114	129.2	127

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

*** As of October 07, 2016, the total Maryland Confirmed Zika Virus Infections is 102.

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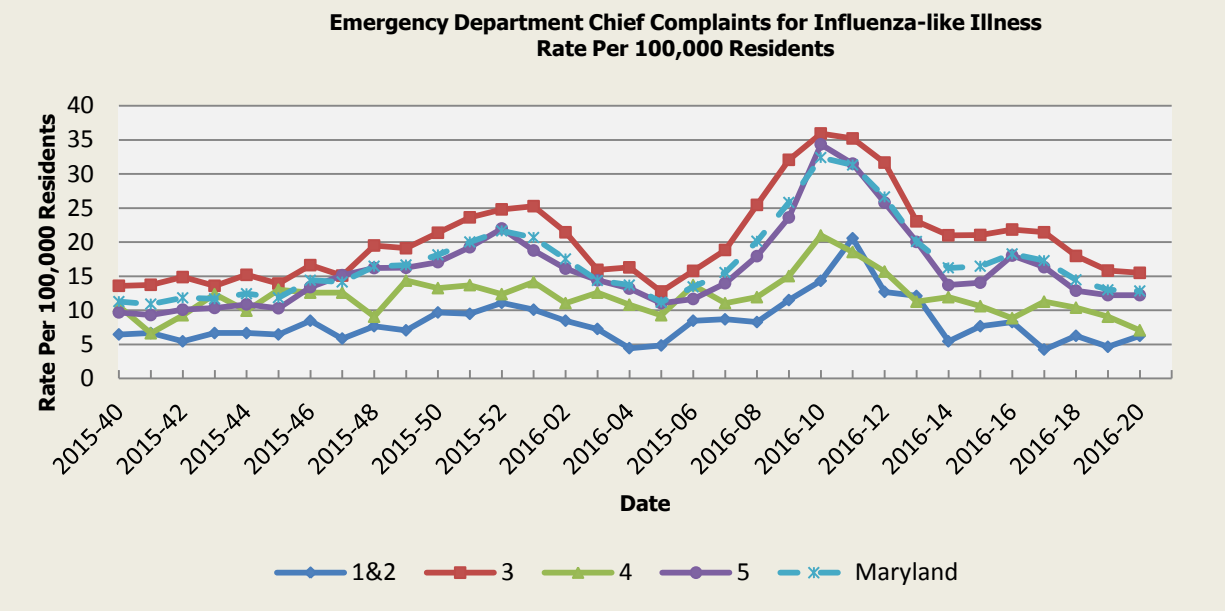
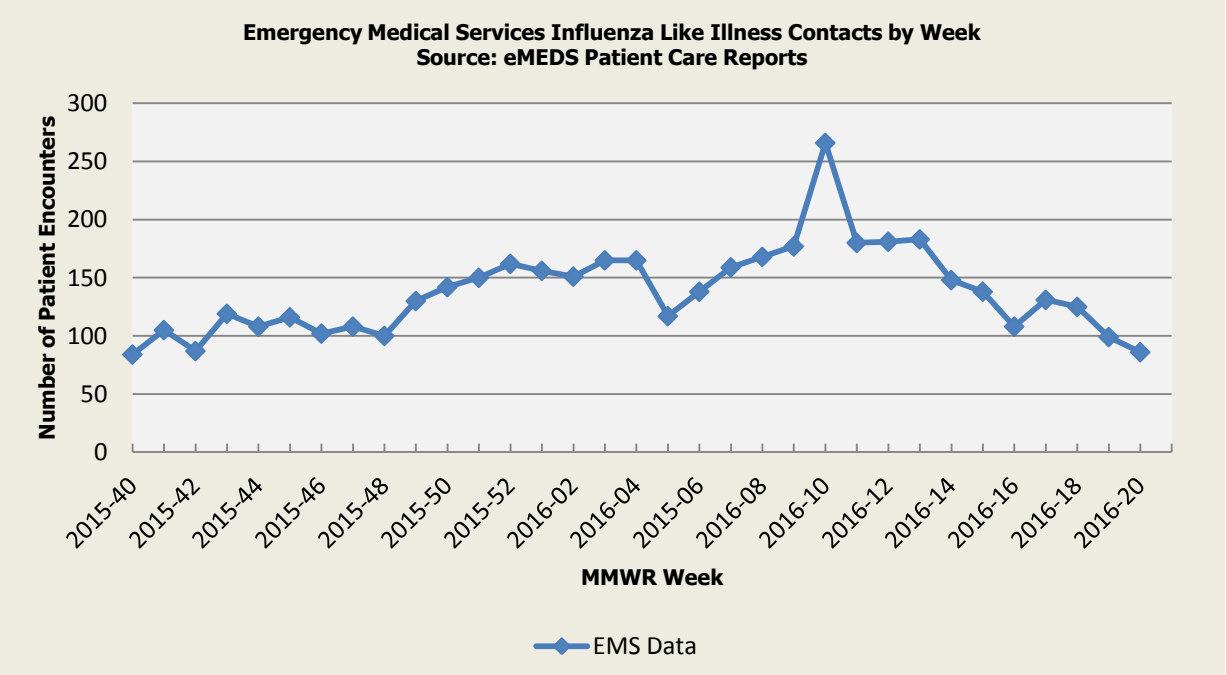
SYNDROMIC INFLUENZA SURVEILLANCE

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



	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.

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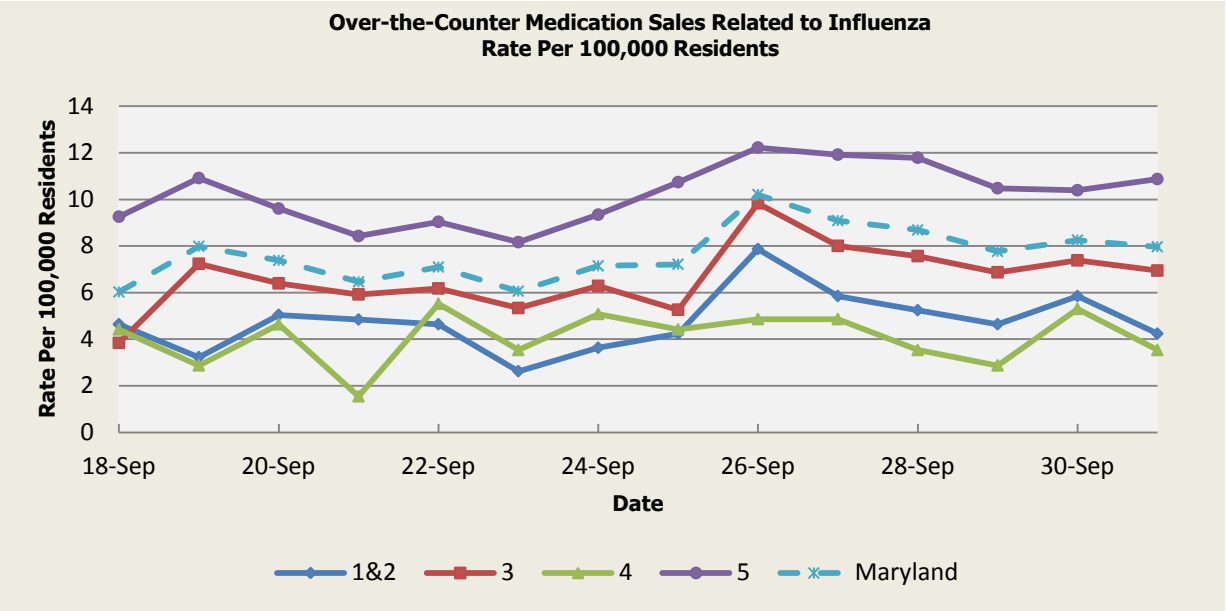
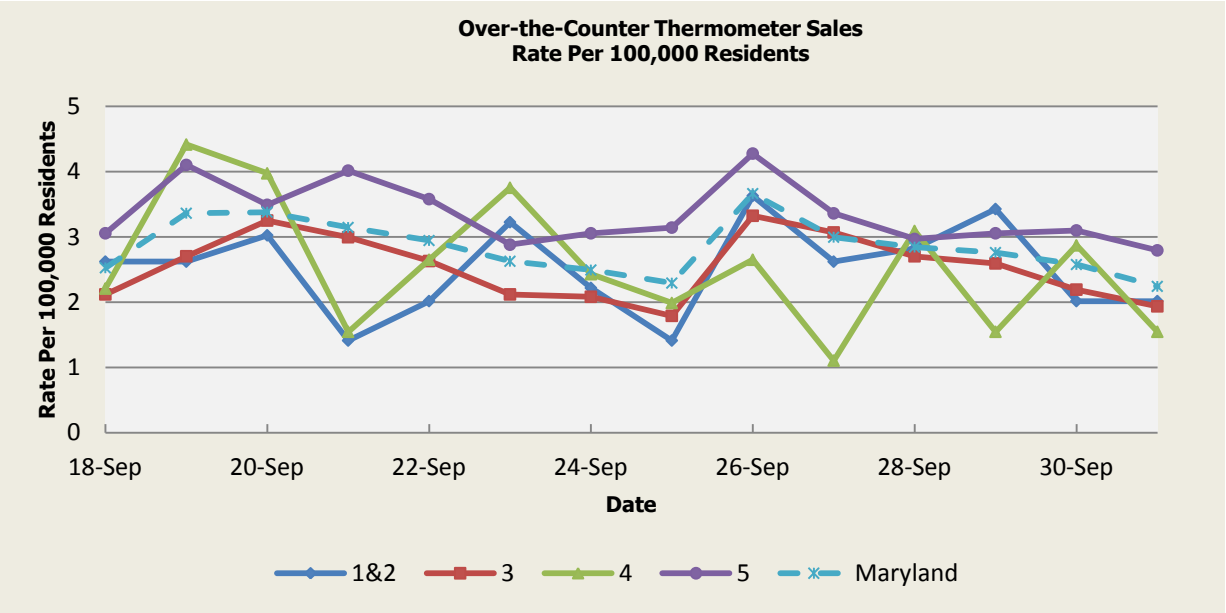


There was not an appreciable increase above baseline in the rate of OTC medication sales this week.

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

* 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

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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 19, 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:

H5N1 (ABU DHABI): 05 Oct 2016, on 4 Oct 2016, the Abu Dhabi emergency and crisis management team announced it detected a number of bird flu-infected quays [quail]. Bird flu, also known as avian influenza or H5N1, is a highly pathogenic virus, and caused substantial outbreaks in domestic poultry in the Middle East and parts of Asia. The emergency and crisis management took measures consistent with international standards and regulations in handing such cases. The team said precautionary measures were also taken to ensure continuous monitoring of the cases in coordination with other stakeholders. Furthermore, the team called on bird and farm owners to contact Abu Dhabi's government call center if they suspect poor health conditions of their birds, in order to learn about the necessary tests their birds need. The team affirmed that these precautionary measures aim to ensure the safety of bird and farm owners and the community's safety as the H5N1 is fatal to most birds. Read More: http://www.promedmail.org/post/4537271

H5N1 (MIDDLE EAST): 23 Sept 2016, This risk assessment provides an estimate of the likelihood of introduction of H5N1 HPAI from recently infected countries (Lebanon and Iraq) to other countries in the Middle East region and neighboring territories as a result of the movement of live poultry (both legal and illegal), poultry-related products and the migration of wild birds. The preliminary assessment based on the available information and uncertainties associated indicate that the risk of introduction of H5N1 HPAI for each of the 9 regional and neighboring countries or territories varies and is as follows:
1. High: Iran (Islamic Republic of), Israel, Jordan, the Syrian Arab Republic and Turkey,
2. Medium: Gaza Strip, Kuwait, Saudi Arabia and The West Bank,
3. Low: Armenia, Azerbaijan and Georgia,
4. Negligible: Cyprus.

The situation in the region is of concern given the existing poultry populations at risk and the potential for spread between countries. Read More: http://www.promedmail.org/post/4511967

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NATIONAL DISEASE REPORTS

BURKHOLDERIA CEPACIA (USA): 05 Oct 2016, on 4 Oct 2016, the New Jersey State Department of Health reported at least 2 patients have contracted *Burkholderia cepacia* bloodstream infections related to a multistate outbreak that may be associated with pre-filled saline flushes. The department is investigating the outbreak, along with the Centers for Disease Control and Prevention, the Food and Drug Administration, the NJ Board of Pharmacy and other state departments. Pennsylvania and Maryland's health departments alerted state officials to clusters of infections among patients in long-term care facilities who receive medication through a central [intravenous] line. The infections may stem from using pre-filled saline flushes from Nurse Assist, a Texas-based company. All long-term care facilities that receive the product were notified on 30 Sep [2016] and told to discontinue using them until further notice. Long-term facilities are asked to report suspected illnesses to the state.. Read more: http://www.promedmail.org/post/4511762

LEGIONELLOSIS (MINNESOTA): 3 Oct 2016, The Minnesota Department of Health (MDH) continues to investigate an outbreak of legionnaires' disease [LD] in Hopkins [MN]. To date, 23 cases of LD have been confirmed in people who live, work, or spend time in Hopkins. This total reflects 3 additional cases confirmed by MDH between [28 and 30 Sep 2016]. Read more: http://www.promedmail.org/post/4532521

HAND, FOOT AND MOUTH DISEASE (OHIO): 01 Oct 2016, Public health officials in Watertown, Connecticut report an outbreak of Coxsackie virus -hand, foot and mouth disease- in all 5 schools in the jurisdiction, causing a postponement of an open house set for Thursday, 22 Sep [2016]. Curriculum Director, Janet Parlato, stated that the schools had 15 confirmed cases since last week until Thursday [22 Sep 2016], but had no additional cases as of Friday [23 Sep 2016]. Read more: http://www.promedmail.org/post/4529788

INTERNATIONAL DISEASE REPORTS

WEST NILE VIRUS (ROMANIA): 06 Oct 2016, A total of 80 people were infected with the West Nile virus in Romania between 1 May 1 and 29 Sep this year [2016], and 8 of them died, according to data published on the National Public Health Institute's website. The 8 people who died after being infected with the West Nile virus were from Bucharest and Braila, Ialomita, Iasi, Mures, and Teleorman counties, reports local Agerpres. Read More: http://www.promedmail.org/post/4541634

CIGUATERA POISONING (INDIA): 05 Oct 2016, For the 1st time on the Indian subcontinent, an outbreak of ciguatera was reported in Mangaluru [or Mangalore, Karnataka], where more than 100 people were sickened [1 Oct 2106] after consuming fish heads. Biologists in India warn that the risk of additional outbreaks stems from a number of factors such as climate change, ocean acidification resulting in coral reef deterioration, and nutrient run-off resulting in toxic algal blooms. More than 400 species of fish, including barracuda, black grouper, blackfin snapper, cubera snapper, dog snapper, greater amberjack, hogfish, horse-eye jack, king mackerel, and yellowfin grouper have been implicated in this food-borne illness that's relatively common in several areas of the world, to the tune of 50 000 cases annually. Read more: http://www.promedmail.org/post/4539230

ACUTE FLACCID MYELITIS (CANADA): 02 Oct 2016, Cases of a rare polio-like illness have shot up in recent months. The CDC recorded 32 cases of acute flaccid myelitis across 17 states in the FIRST half of this year [2016] as compared to 2015 with the CDC only recording 21 cases of AFM. The illness has been most often observed in children. It can cause limb weakness, loss of muscle tone and, in extreme cases, respiratory failure. Of the follow-up cases the CDC has observed, 85 percent of those afflicted with AFM show improved symptoms. But only 3 patients ever fully recovered from the disease. The median age of affected patients is 7 years old. Of course, this year [2016] still pales in comparison to the last 6 months of 2014, which saw 120 confirmed AFM cases. Read more: http://www.promedmail.org/post/4530332

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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.

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

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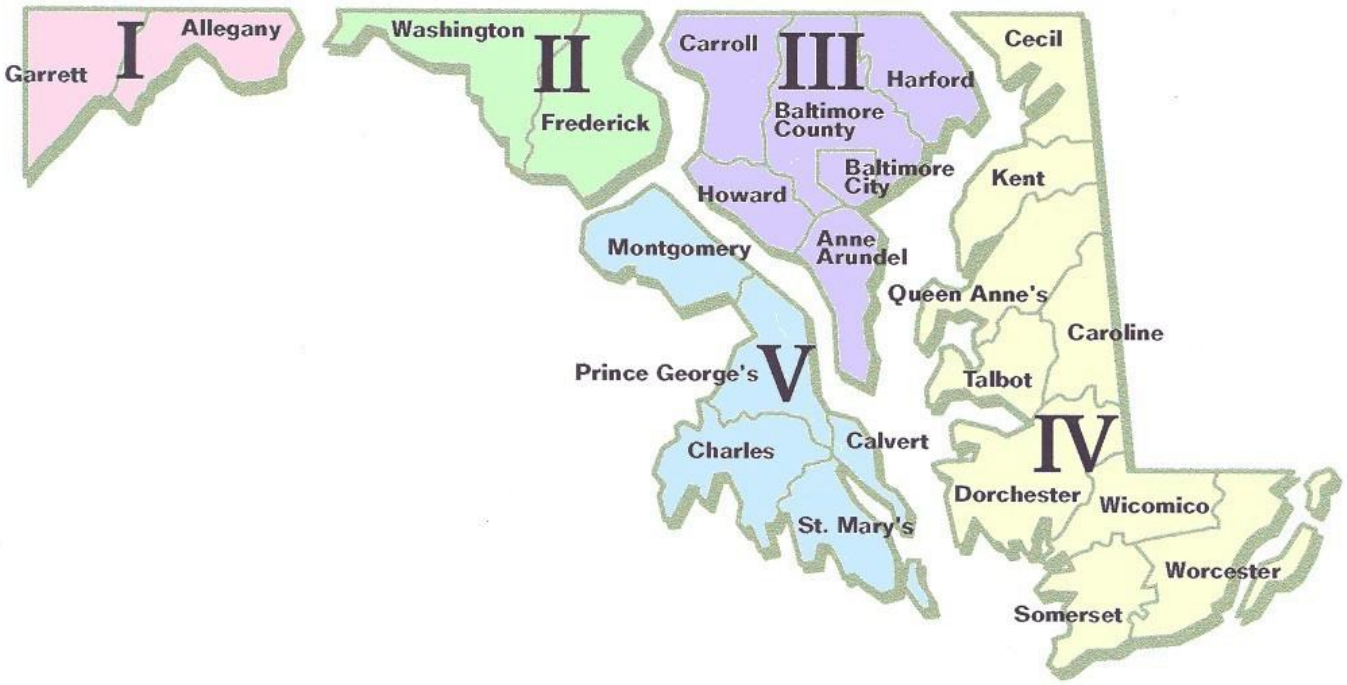
Appendix 2: Maryland Health and Medical Region Definitions

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



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