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

November 10, 2016

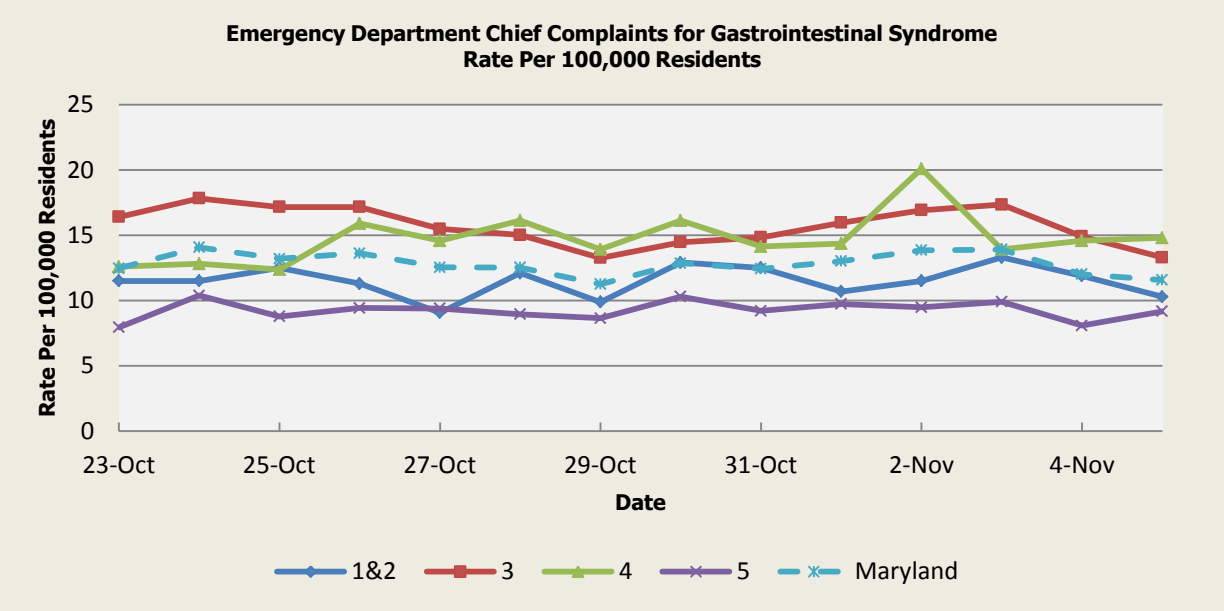
Public Health Preparedness and Situational Awareness Report: #2016:44
Reporting for the week ending 11/5/16 (MMWR Week #44)

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 Daycare Center (Region 3); 1 outbreak of gastroenteritis/foodborne associated with a Restaurant (Region 5); 1 outbreak of gastroenteritis/foodborne associated with a Private Home (Region 5).

	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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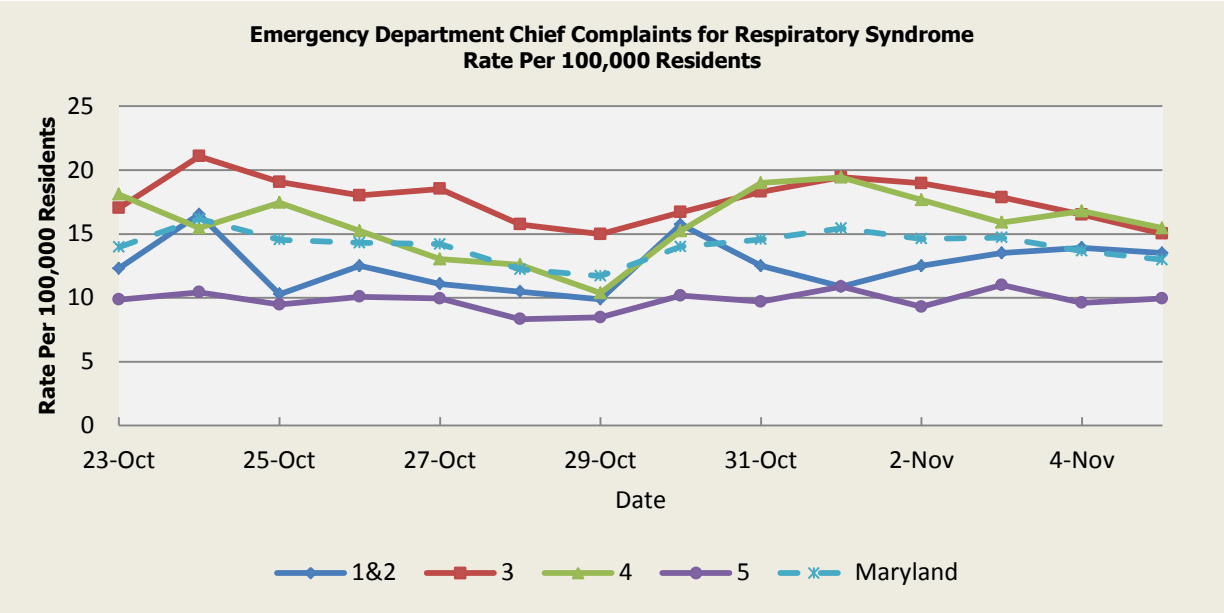
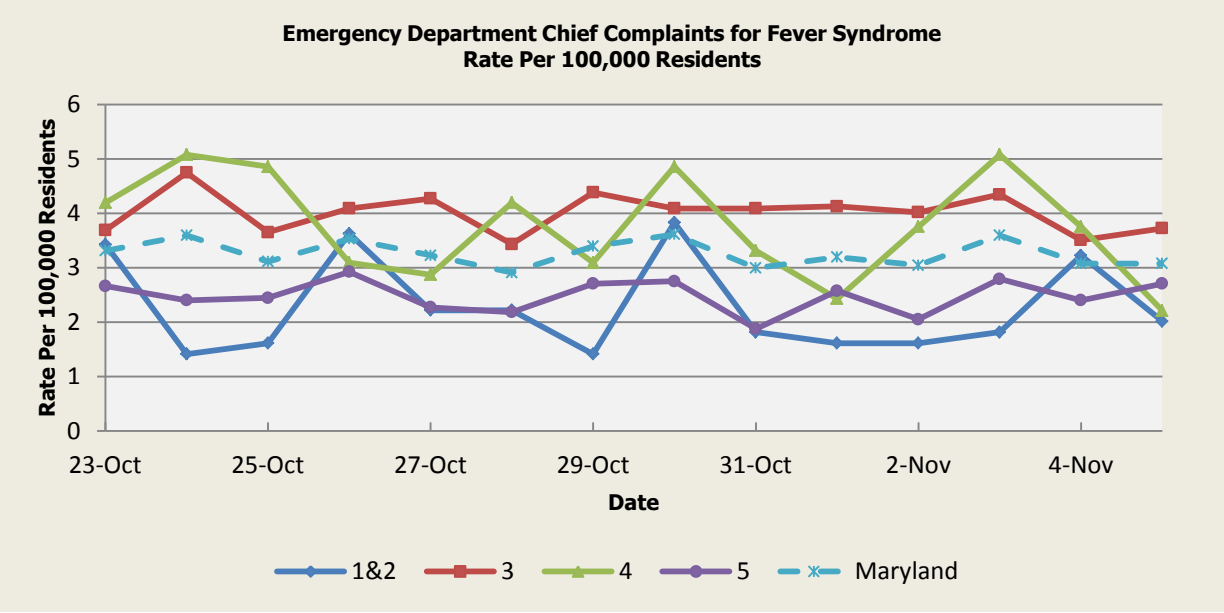


There were no respiratory illness outbreaks reported this week.

	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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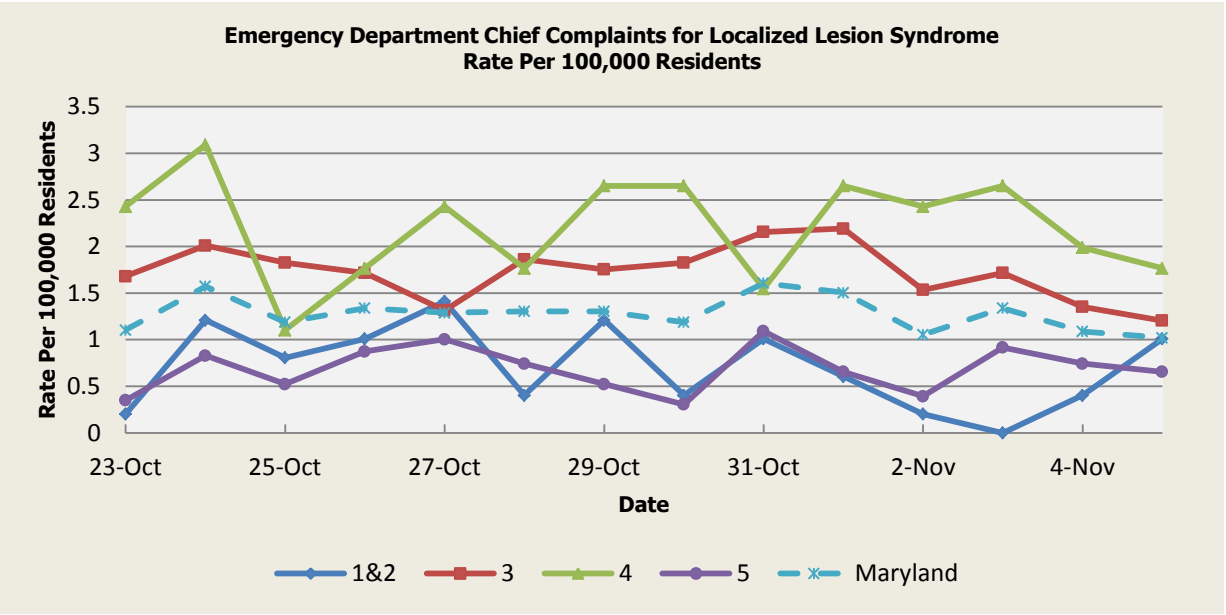
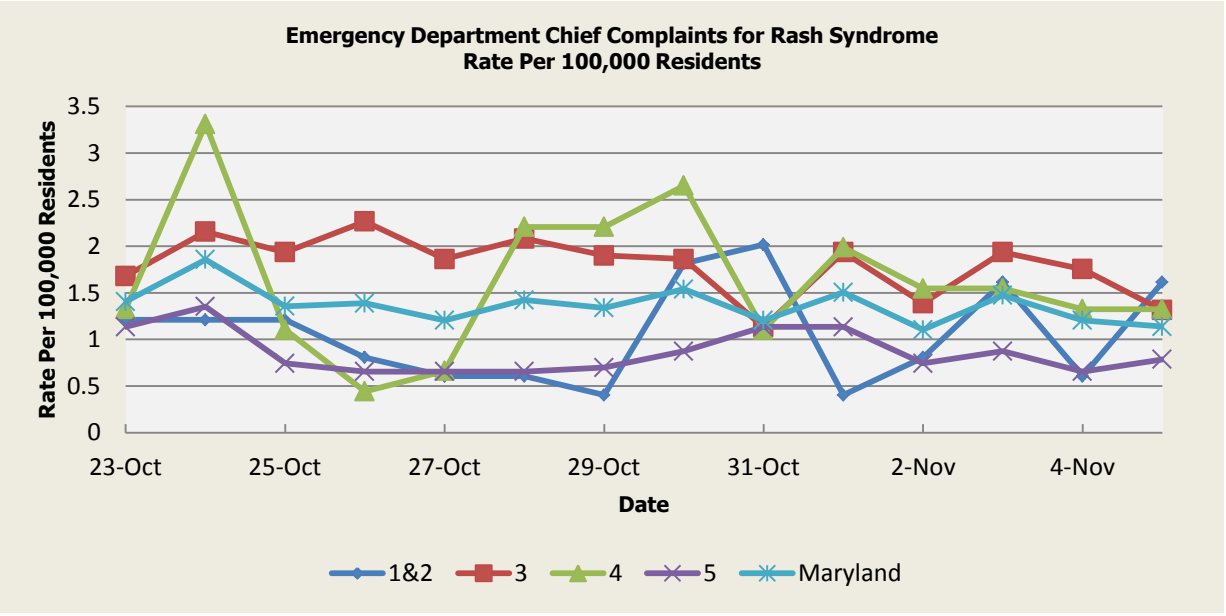


There were no localized lesion outbreaks reported this week.

	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 were two (2) rash illness outbreaks reported this week: 1 outbreak of HAND, FOOT, AND MOUTH DISEASE associated with a Daycare Center (Region 4); 1 outbreak of HAND, FOOT, AND MOUTH DISEASE associated with a School (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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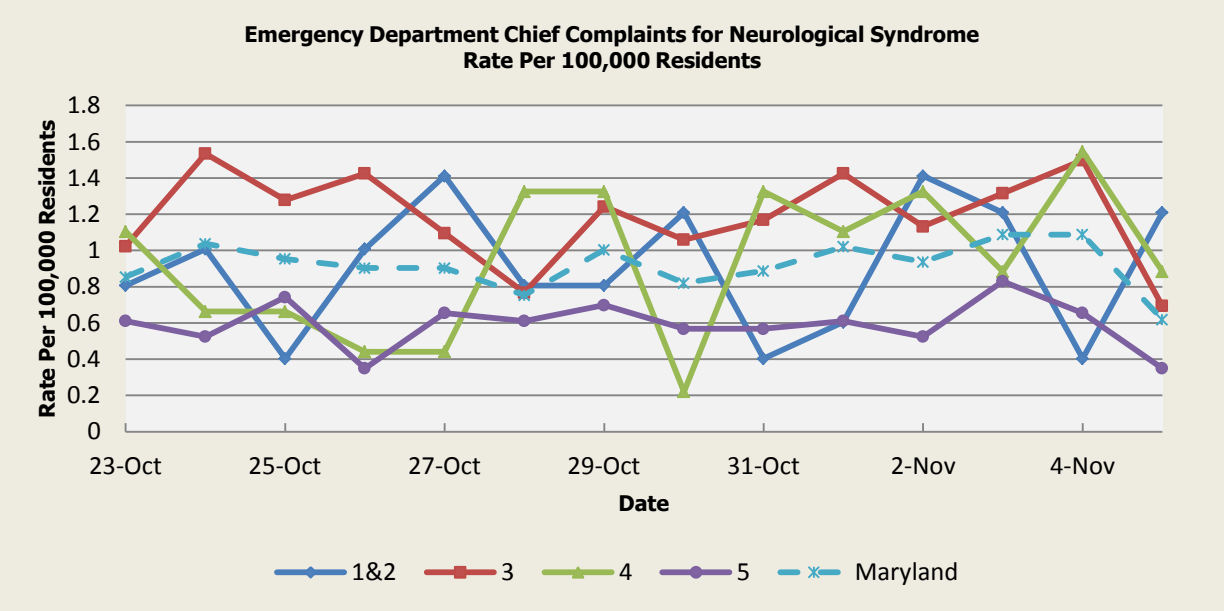
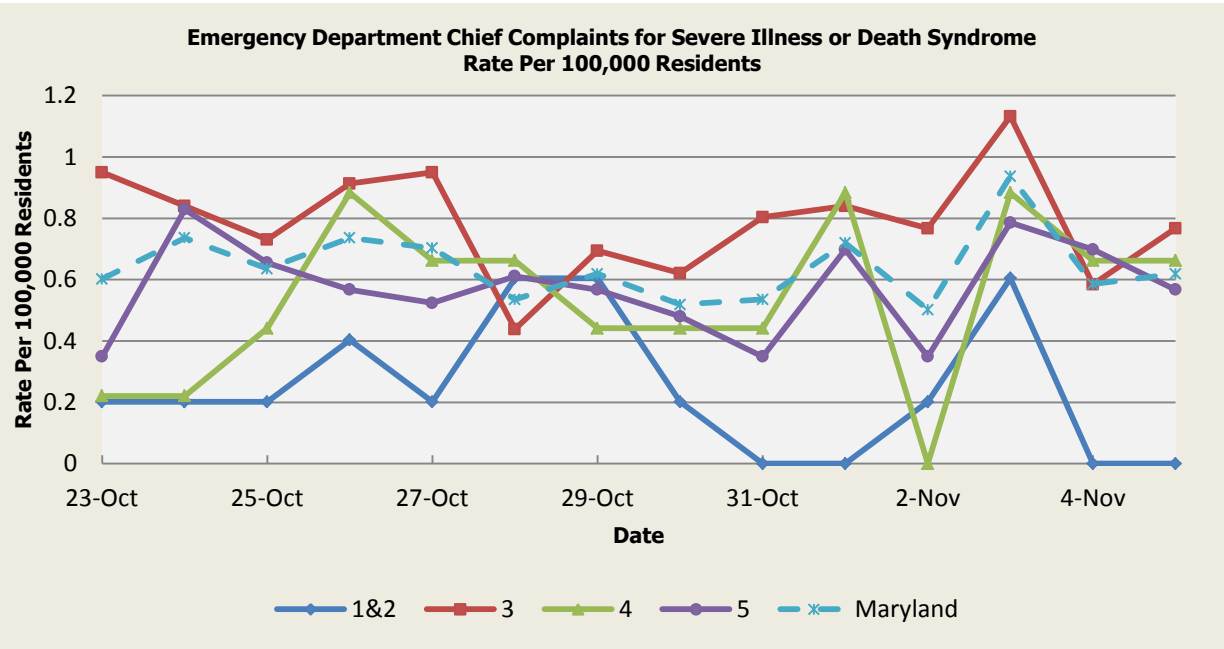


There were no neurological syndrome outbreaks reported this week.

	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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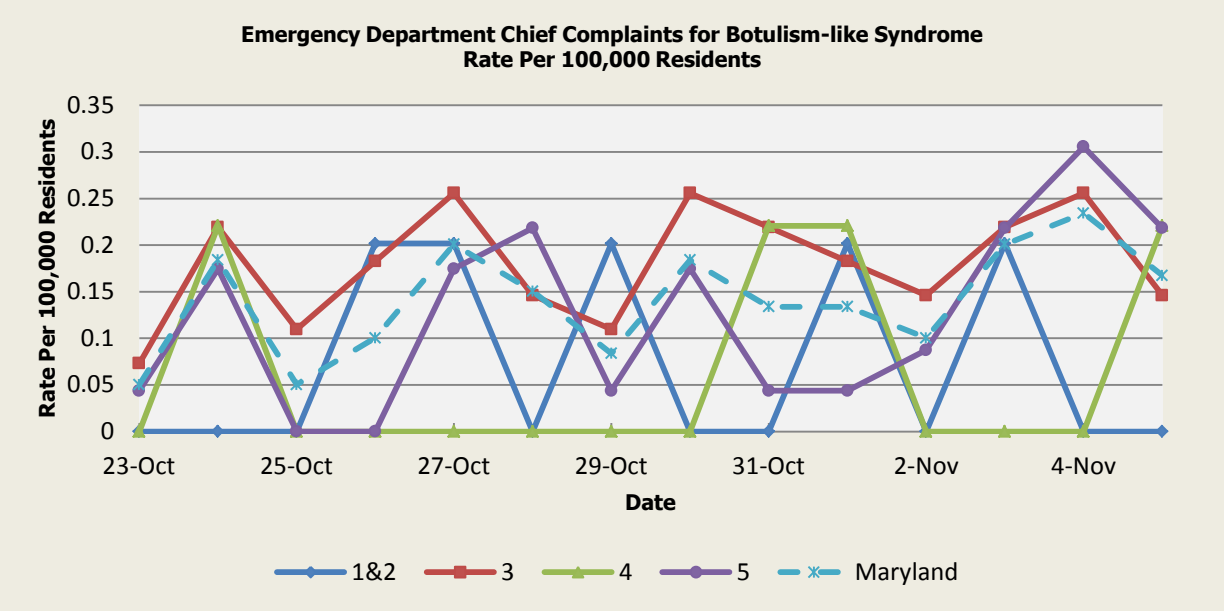
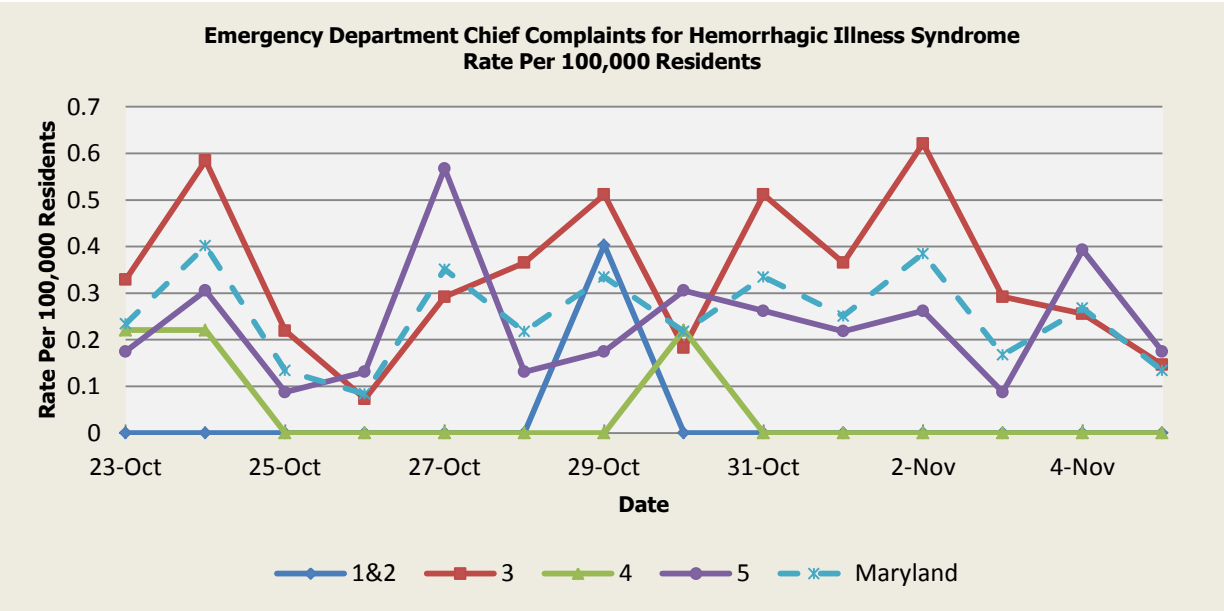
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 10/24 (Regions 3,4,5), 10/26 (Region 1&2,3), 10/27 (Regions 1&2,3,5), 10/28 (Region 5), 10/29 (Region 1&2), 10/30 (Regions 3,5), 10/31 (Regions 3,4), 11/1 (Regions 1&2,3,4), 11/3 (Regions 1&2,5), 11/4 (Region 5) and 11/5 (Regions 4,5). 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 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), 10/29 (Regions 1&2,3,5), 10/30 (Regions 4,5), 10/31 (Regions 3,5), 11/1 (Regions 3,5), 11/2 (Regions 3,5), 11/3 (Regions 3,5), 11/4 (Regions 3,5) and 11/5 (Region 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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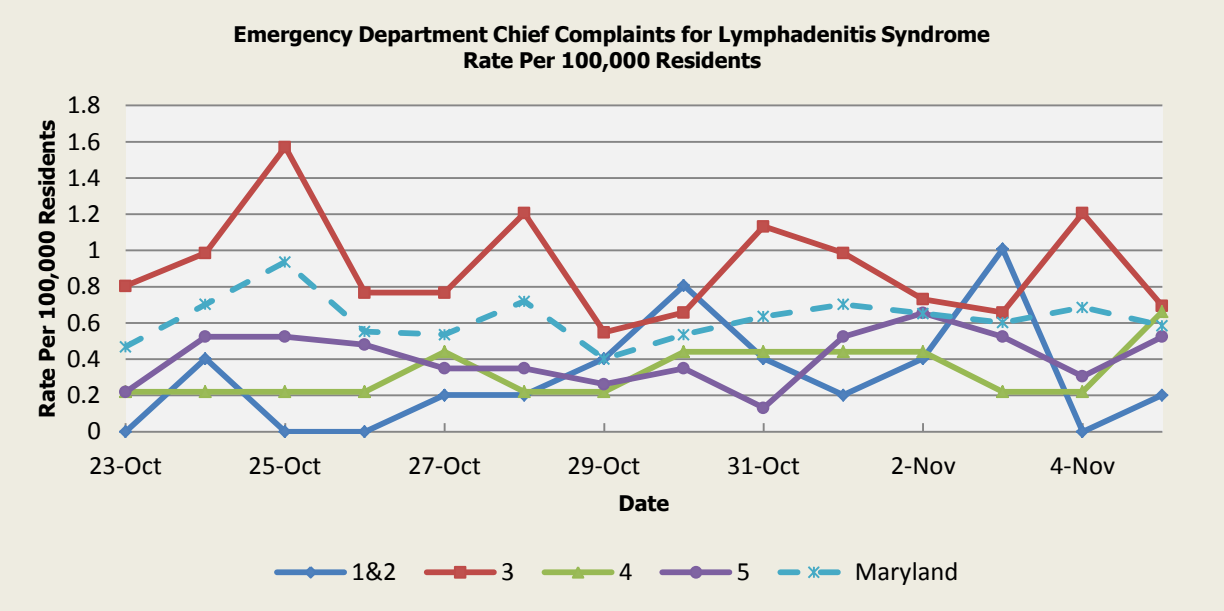

There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 10/24 (Region 3), 10/25 (Region 3), 10/29 (Region 3), 10/30 (Regions 1&2), 10/31 (Region 3), 11/2 (Region 5), 11/3 (Regions 1&2), and 11/4 (Region 3). These increases are not known to be associated with any outbreaks.

	Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.51	0.34	0.31	0.40
Median Rate*	0.20	0.37	0.22	0.26	0.33

* 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	5	5	302	403.6	409
Meningococcal disease	0	0	0	3	6.4	5
Measles	0	0	0	4	4.4	3
Mumps	2	0	0	19	37.6	14
Rubella	0	0	0	1	2.4	2
Pertussis	5	8.8	9	210	260.6	314
Foodborne Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Salmonellosis	3	10.2	11	700	822	840
Shigellosis	4	2.2	2	116	159.2	198
Campylobacteriosis	4	9	9	623	610.2	605
Shiga toxin-producing Escherichia coli (STEC)	1	2	2	164	110.6	101
Listeriosis	0	0.2	0	17	15	16
Arboviral Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
West Nile Fever	0	0	0	2	11.8	10
Lyme Disease	7	16.2	17	1615	1354.8	1437
Emerging Infectious Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Chikungunya	0	0.2	0	6	15.6	0
Dengue Fever	0	0	0	37	14.6	15
Zika Virus***	0	0	0	117	0.2	0
Other	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Legionellosis	2	2.2	2	135	150.6	147

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

*** As of November 02, 2016, the total Maryland Confirmed Zika Virus Infections is 107.

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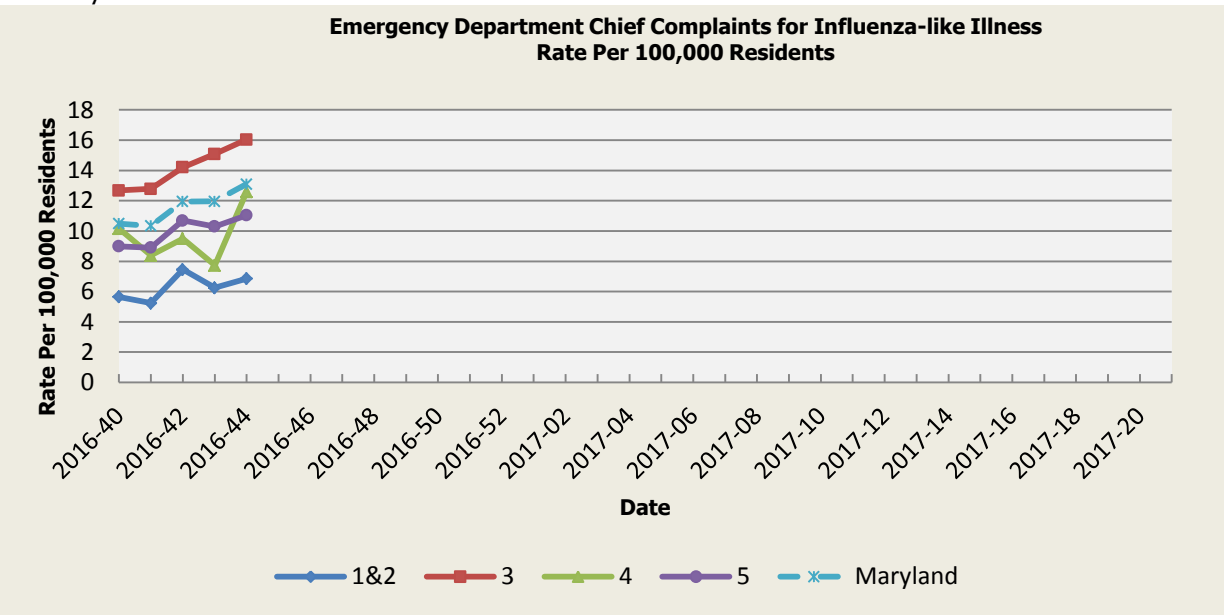
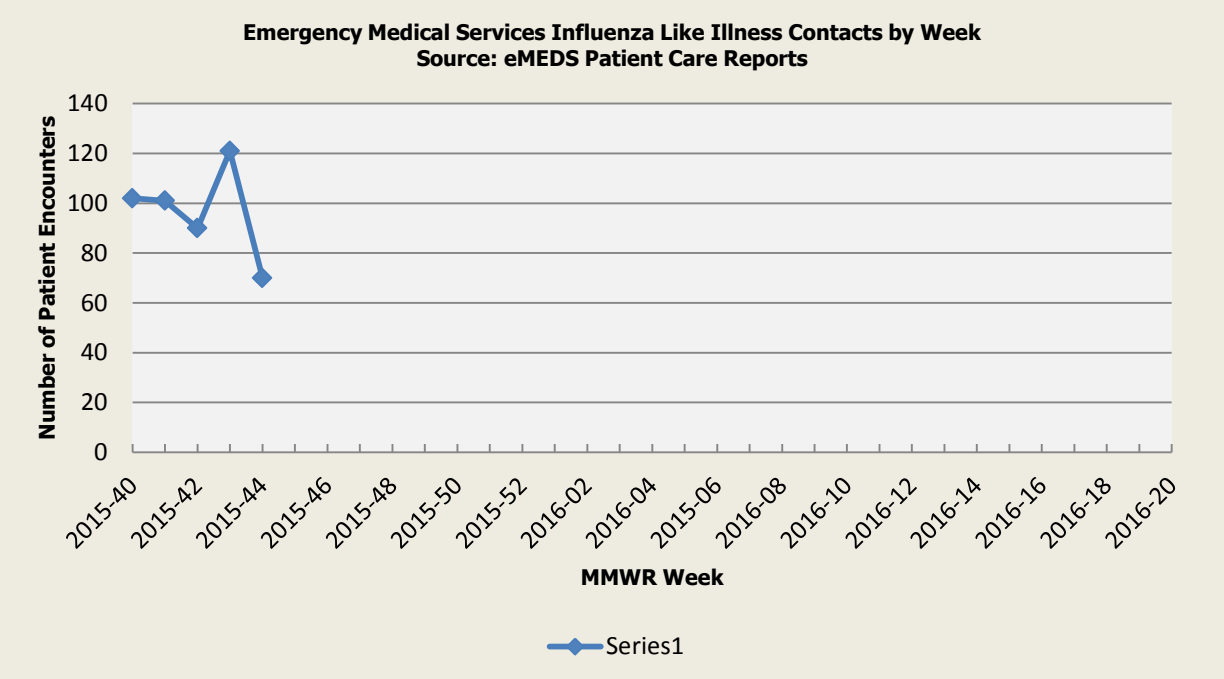
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 44 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.

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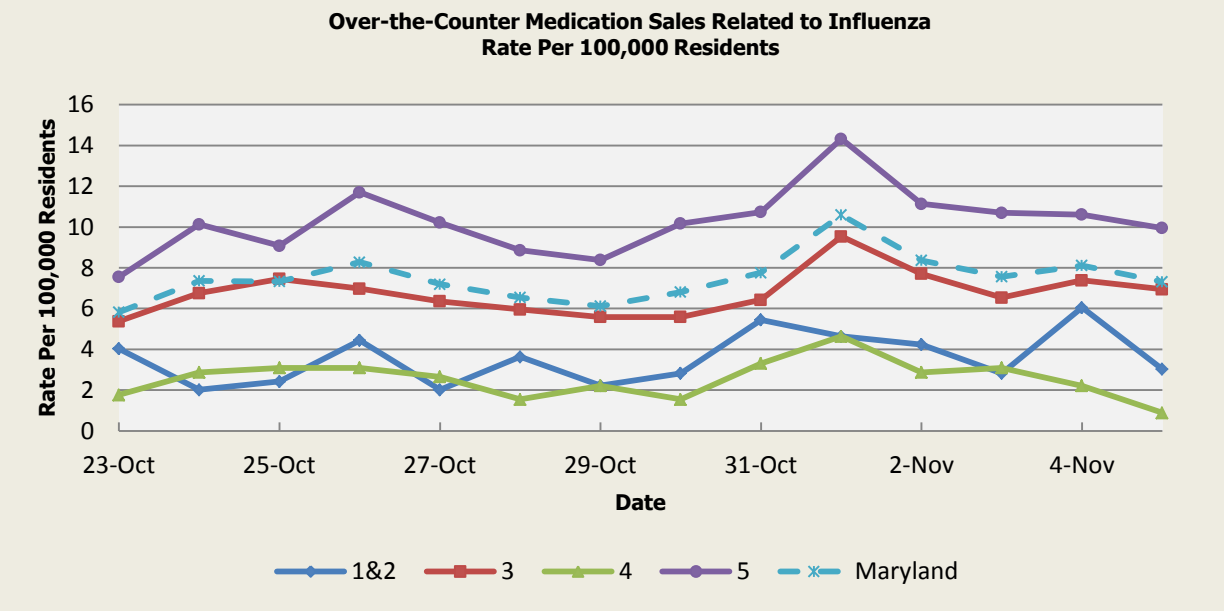
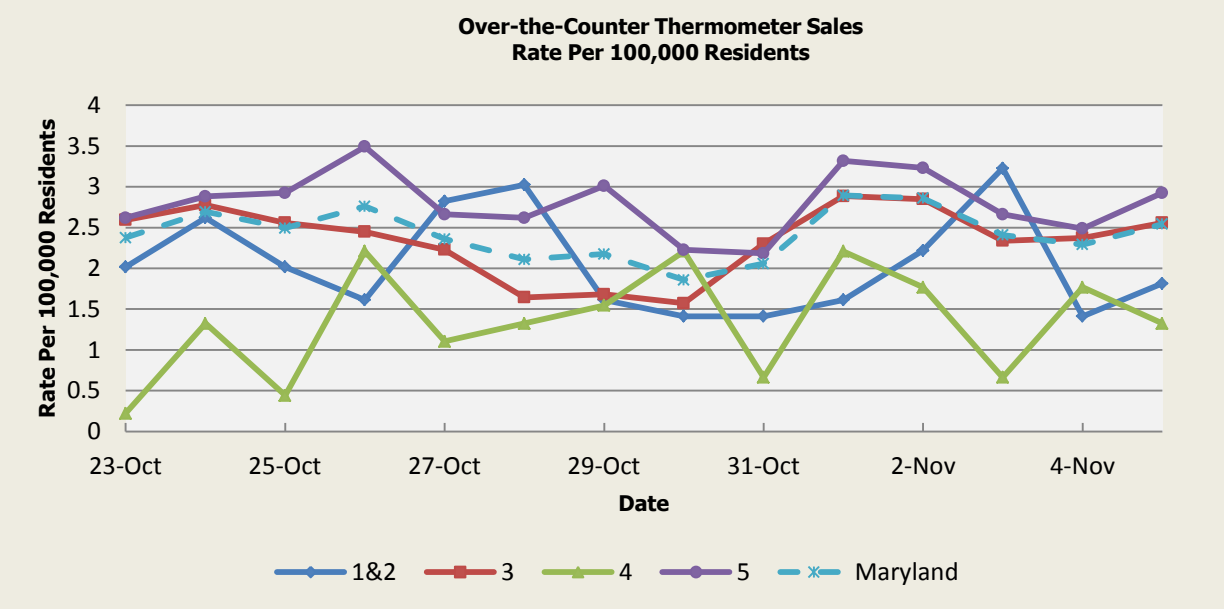


There was an appreciable increase above baseline in the rate of OTC medication sales on 10/18 (Region 1&2), 10/19 (Regions 1&2), and 10/21 (Region 1&2,4). These increases are not known to be associated with any outbreaks.

	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



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 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%.

Avian Influenza:

H5N8 (GERMANY): 09 Nov 2016, The Friedrich Loeffler Institute (FLI) confirmed the infection of wild birds with highly pathogenic avian influenza subtype H5N8 in Plön, Schleswig-Holstein. Further suspected cases from Schleswig-Holstein and Baden-Wuerttemberg (Bodensee) are currently under investigation. In recent days these viruses have already been confirmed in domestic poultry (turkeys) in Hungary and wild waterfowl in Hungary (mute swan), Croatia, and in Poland (gull, duck) close to the German border, near Mecklenburg-Vorpommern. Read More:
http://www.promedmail.org/post/4617139

H7N1 (ALGERIA): 10 Nov 2016, The Department of Forests Conservation in Ghardaia province has announced that more than 1800 dead birds have been collected since September [2016] to date in the wetland of Lake "Sebkhet El-Melah" ["The salt marsh" or "salt wetland"], located at the southern exit from the capital of the administrative district of El-Menia. These birds have been of different species -- most of them being ruddy shelducks, moorhens, marbled teals, and mallard ducks. They were found dead in the lake area "Sebkhet El-Melah", a wetland of international importance as classified in 2004 by the Ramsar Convention. Read More: http://www.promedmail.org/post/4619632

H5N8 (SWITZERLAND): 10 Nov 2016, A strain of bird flu has been detected in the corpses of 5 wild ducks found in Lake Constance (Bodensee). The Swiss Federal Office of Food Safety and Veterinary Affairs said it was taking steps to prevent the further spread of the virus. Final test results on the tufted ducks are still pending, but the federal office said studies carried out pointed to a H5N8 subtype of the virus. Read More: http://www.promedmail.org/post/4618279

NATIONAL DISEASE REPORTS

E.COLI EHEC (KANSAS): 05 Nov 2016, Kansas officials are investigating an *E. coli* outbreak among people who attended an annual festival at Louisburg Cider Mill, with the cause proving elusive after initial tests did not find the pathogen in the production area, finished cider or whole apples. 7 people have been laboratory-confirmed with the outbreak strain of *E. coli O157:H7*, according to a statement issued Wednesday, 2 Nov 2016, by the Kansas Department of Health and Environment (KDHE). Read More: http://www.promedmail.org/post/4608827

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PSEUDOMONAS (MARYLAND): 05 Nov 2016, The outbreak of a potentially deadly bacteria at a Maryland hospital probably contributed to the deaths of 2 babies in its neonatal intensive care unit, but experts say there is no way they can be completely sure. Read More: http://www.promedmail.org/post/4608558

PNEUMONIA (VIRGINIA): 06 Nov 2016, A local school nurse contacted the health department about an unusual number of children out with pneumonia. That is enough for the Health Department to start investigating. The Central Virginia Health District says they have 15 cases identified and are investigating what is causing the outbreak. Read More: http://www.promedmail.org/post/4609835

SALMONELLOSIS (HAWAII): 08 Nov 2016, The state is investigating 14 cases of salmonellosis on Oahu [Hawaii] that are believed linked to tainted limu from an Oahu seaweed farm. In a news release issued [on Mon 7 Nov 2016], the Department of Health said officials have ordered the farm to halt operations and advise its customers to remove its product from sale immediately. The problem seaweed came from Olokai Hawaii, a seaweed farm in Kahuku. The owner, Dr Wenhao Sun, said tainted water used in aquaponics may be to blame. Read More: http://www.promedmail.org/post/4615103

TULAREMIA (WISCONSIN): 09 Nov 2016, The La Crosse County Health Department issued an alert about the death of 3 pet cats since July [2016] in the city of La Crosse [due] to tularemia, a zoonotic bacterial disease that can be spread between animals and humans. Read More: http://www.promedmail.org/post/4617939

INTERNATIONAL DISEASE REPORTS

E.COLI EHEC (JAPAN): 07 Nov 2016, A total of 5 of 21 people who fell ill after eating frozen cutlets sold by a company in Hiratsuka, Kanagawa Prefecture, have been found to suffer from foodborne infection from the O157 strain of the *Escherichia coli* bacterium, prefectural health officials said on Tue 1 Nov 2016. Read More: http://www.promedmail.org/post/4611577

LEGIONELLOSIS (AUSTRALIA): 08 Nov 2016, Health authorities have identified 2 water cooling towers that harboured the specific bacterial strain responsible for the 2 legionnaires' disease outbreaks in the Sydney CBD [central business district]. But the ultimate source of the outbreaks can't be proven beyond doubt, an investigation has concluded. Read More: http://www.promedmail.org/post/4613716

ANTHRAX (KENYA): 09 Nov 2016, Twelve people have been admitted to Murang'a District Hospital after eating meat from a cow suffering from anthrax. Scores of residents of Karurumo and Kanyenya-ini villages in Kangema [settlement in Murang'a County] were rushed to hospital on [Mon 7 Nov 2016] after they developed symptoms related to anthrax. Read More: http://www.promedmail.org/post/4617408

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.

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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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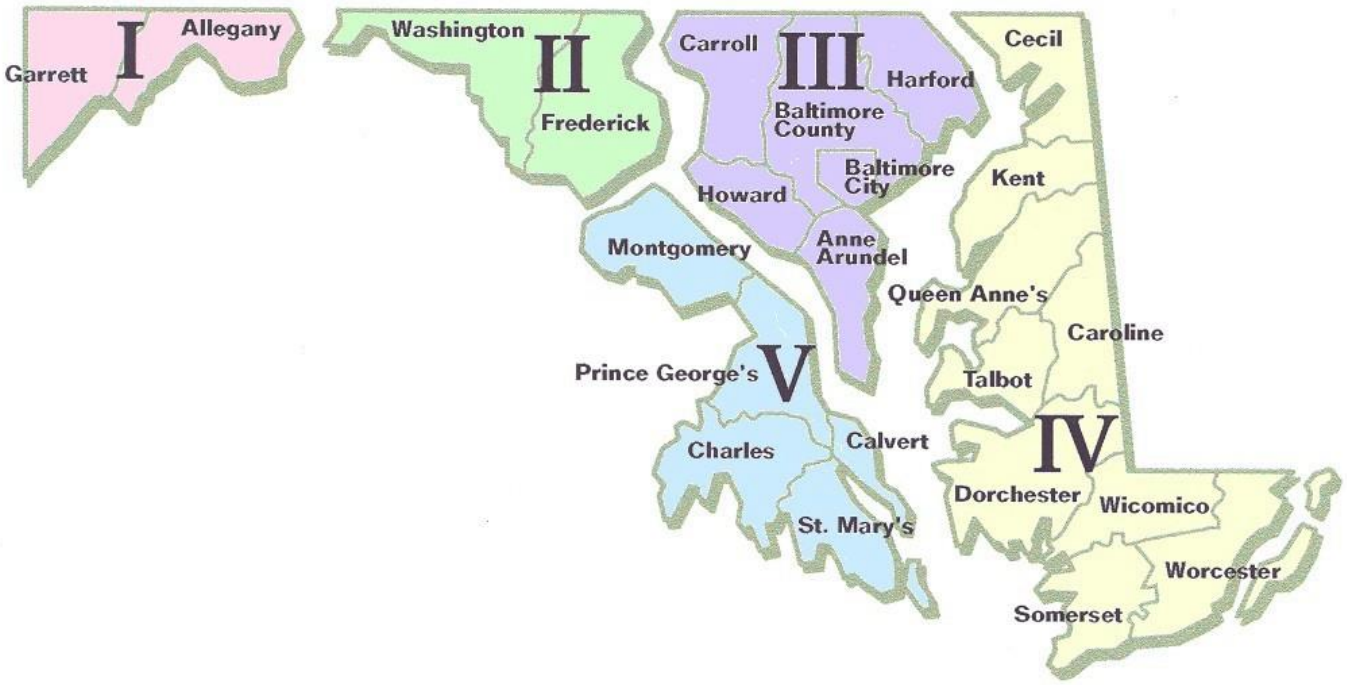
Appendix 2: Maryland Health and Medical Region Definitions

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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