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

August 5, 2016

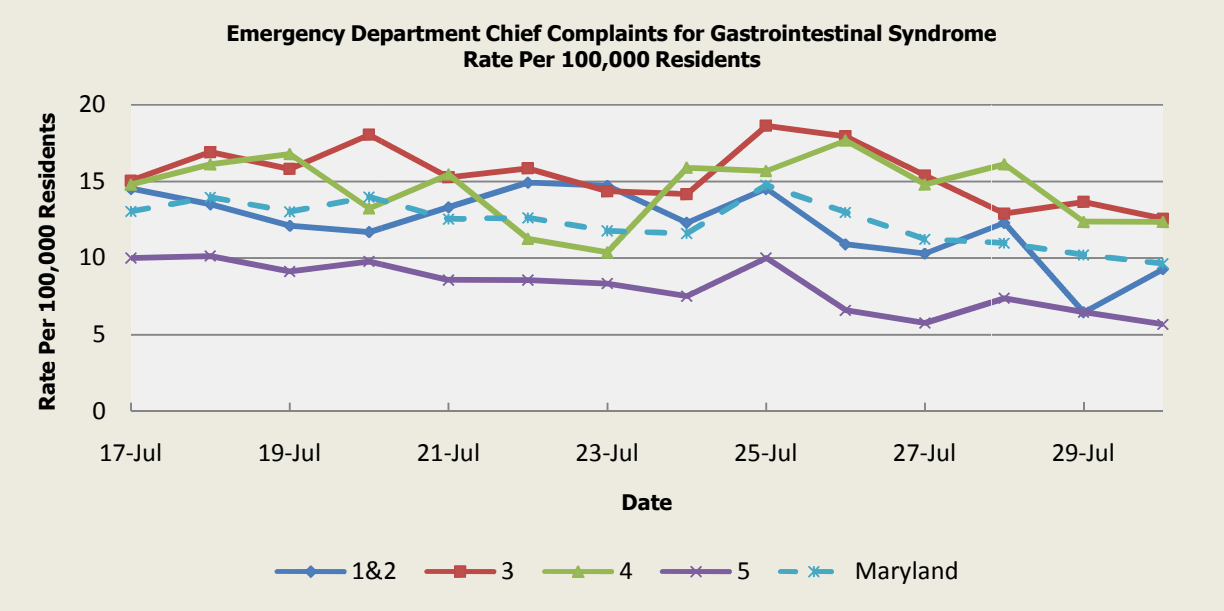
Public Health Preparedness and Situational Awareness Report: #2016:30 Reporting for the week ending 7/30/16 (MMWR Week #30)

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) gastroeneteritis/ foodborne outbreaks reported this week: 1 outbreak of gastroenteritis in an Institution (Region 3); 1 outbreak of gastroenteritis associated with a Restaurant (Region 3).

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

* Per 100,000 Residents

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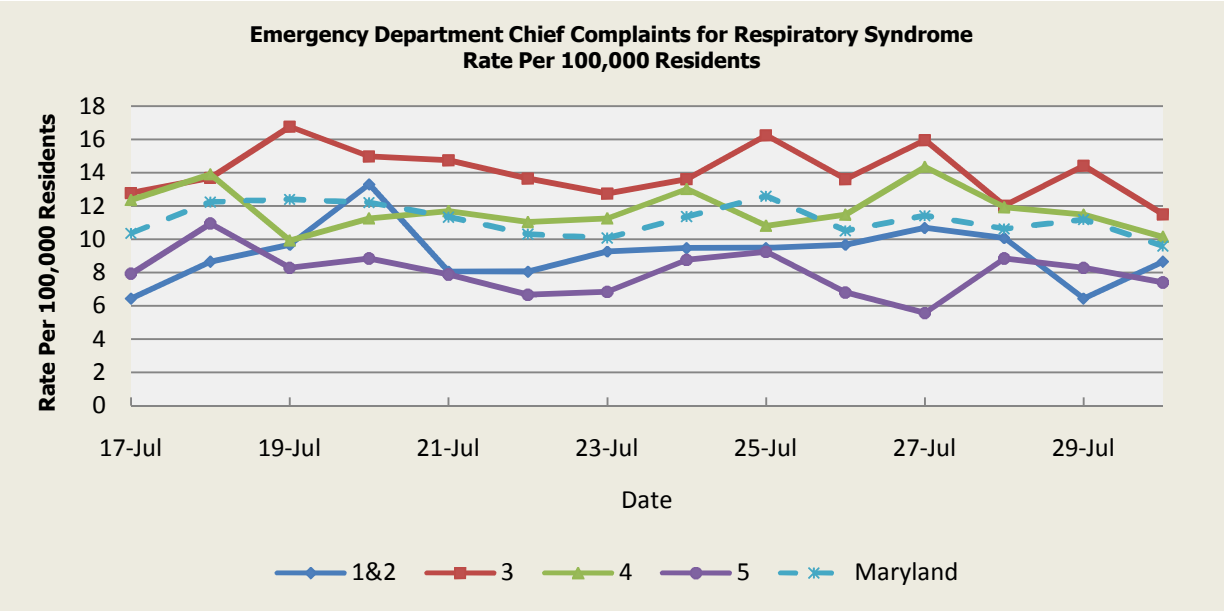
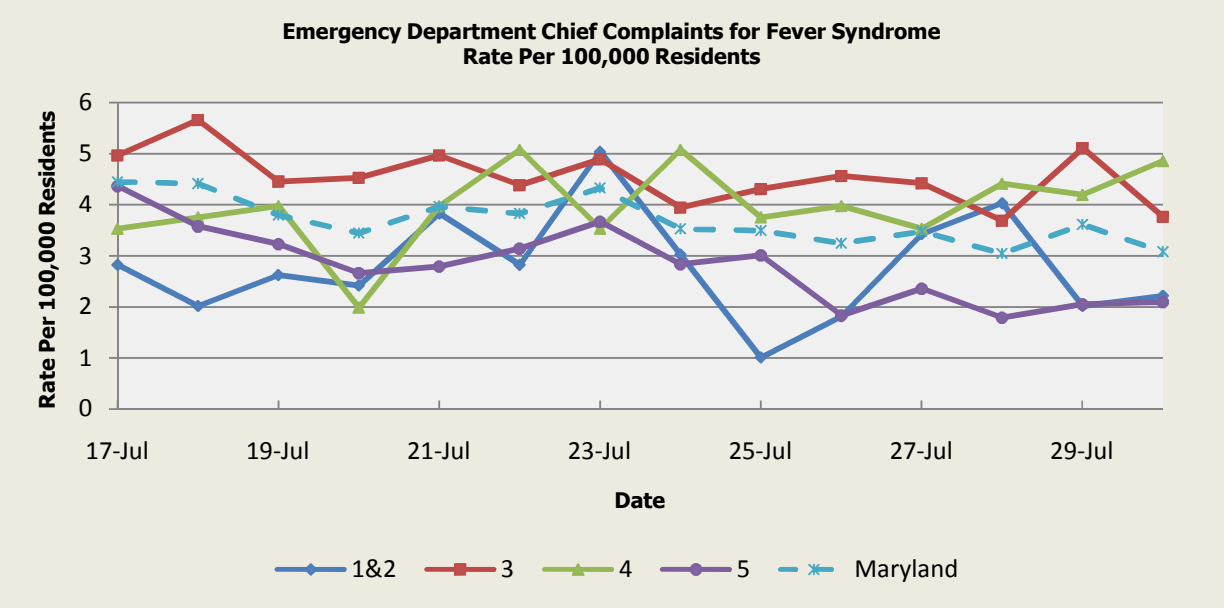


There was one (1) respiratory illness outbreak reported this week: 1 outbreak of pneumonia in a Nursing Home (Regions 5).

	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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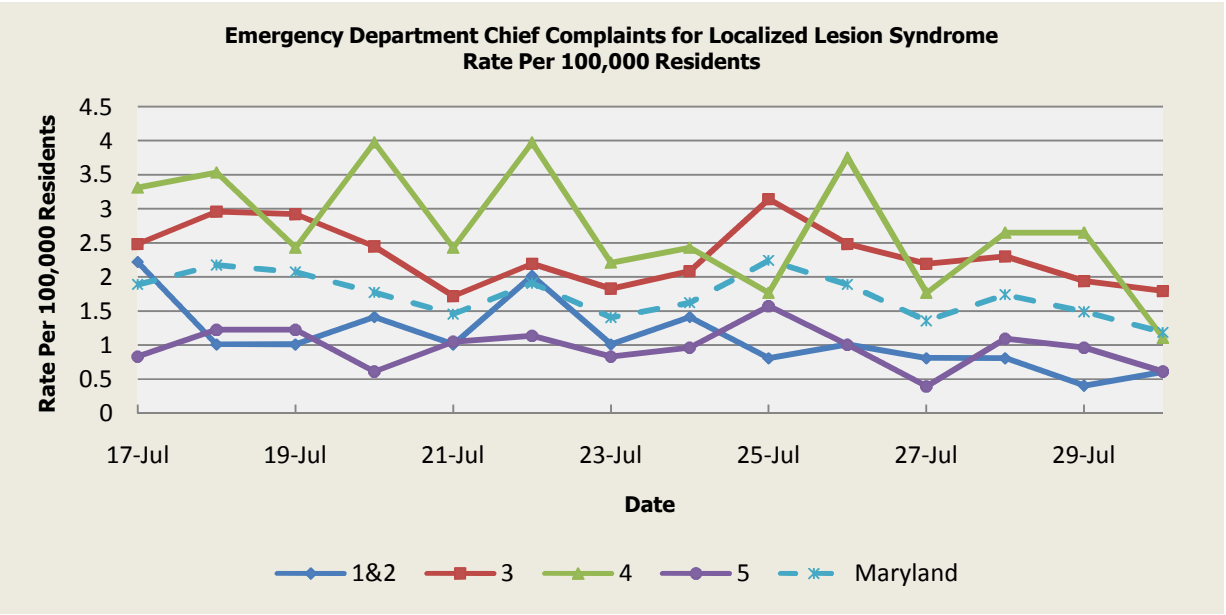
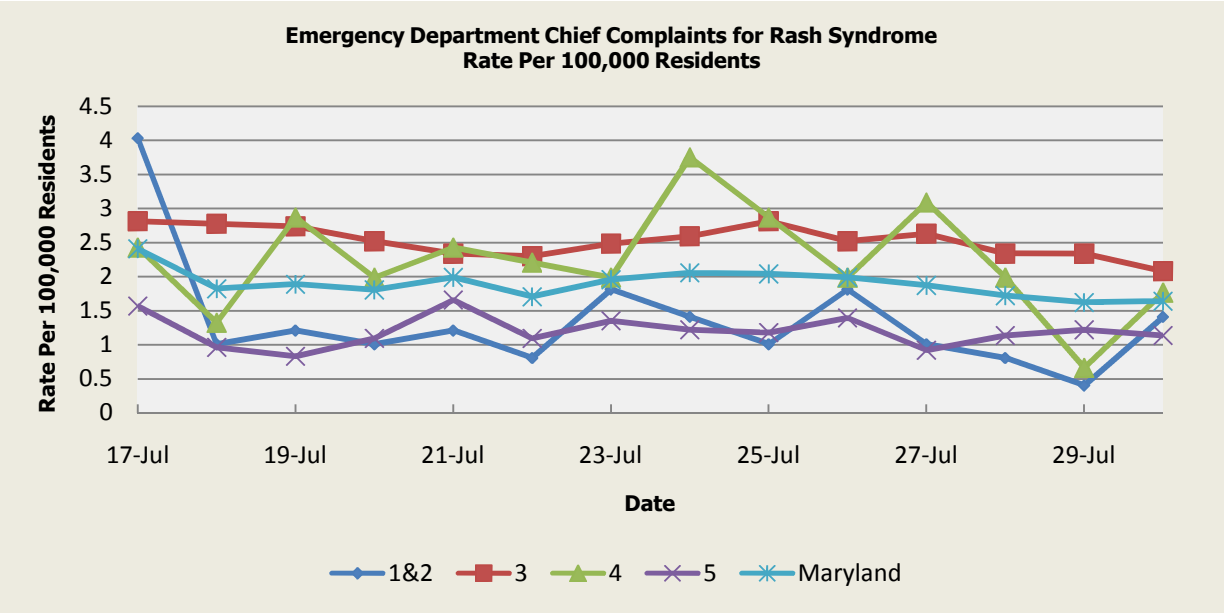


There were no localized lesion outbreaks reported this week.

	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 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

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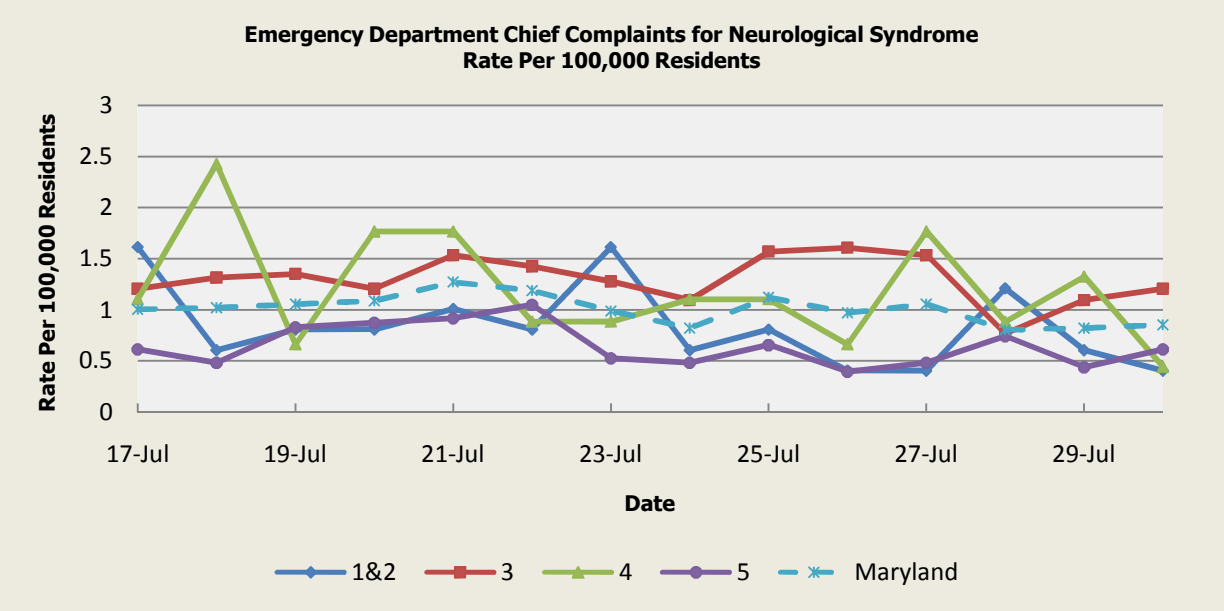
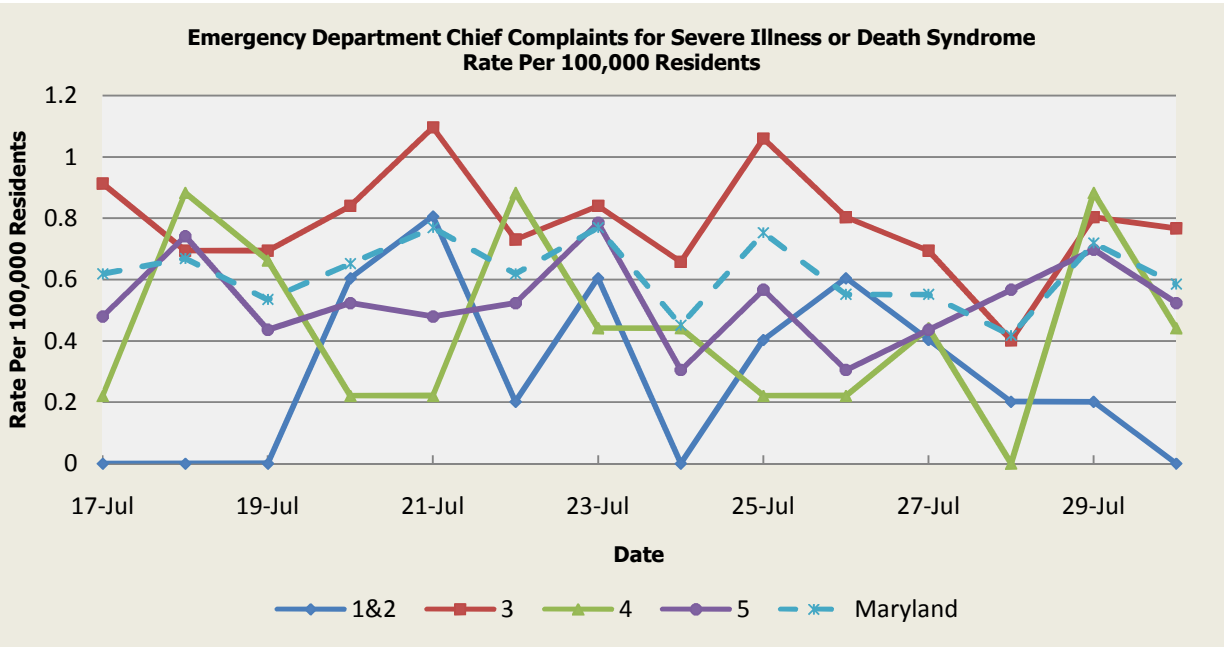


There were no neurological syndrome outbreaks reported this week.

	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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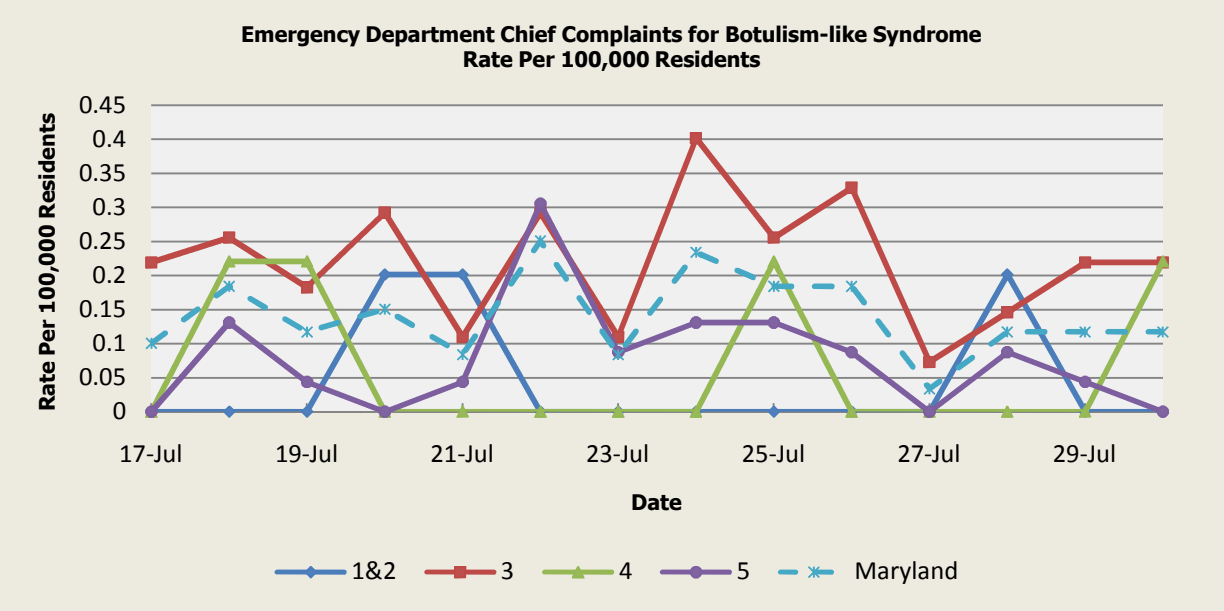
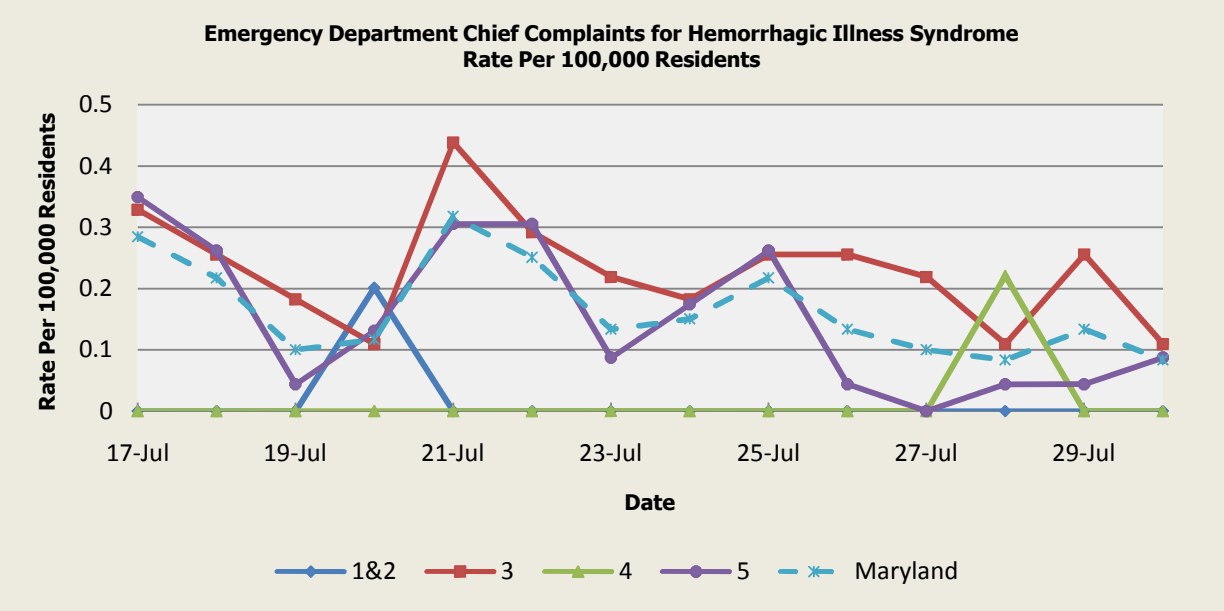
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 7/17 (Region 3), 7/18 (Region 3, 4, 5), 7/19 (Regions 1&2, 3), 7/20 (Region 1&2, 3), 7/21 (Regions 1&2), 7/22 (Region 3, 5), 7/24 (Regions 3, 5), 7/25 (Region 3, 4, 5), 7/26 (Regions 3), 7/28 (Region 1&2), 7/29 (Regions 3), and 7/30 (Regions 3, 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



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 7/17 (Region 3, 5), 7/18 (Region 3, 5), 7/20 (Regions 1&2), 7/21 (Regions 3,5), 7/22 (Regions 3, 5), 7/23 (Region 3), 7/24 (Region 5), 7/25 (Region 3, 5), 7/26 (Region 3), 7/27 (Regions 3), 7/28 (Regions 4) and 7/29 (Region 3). 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

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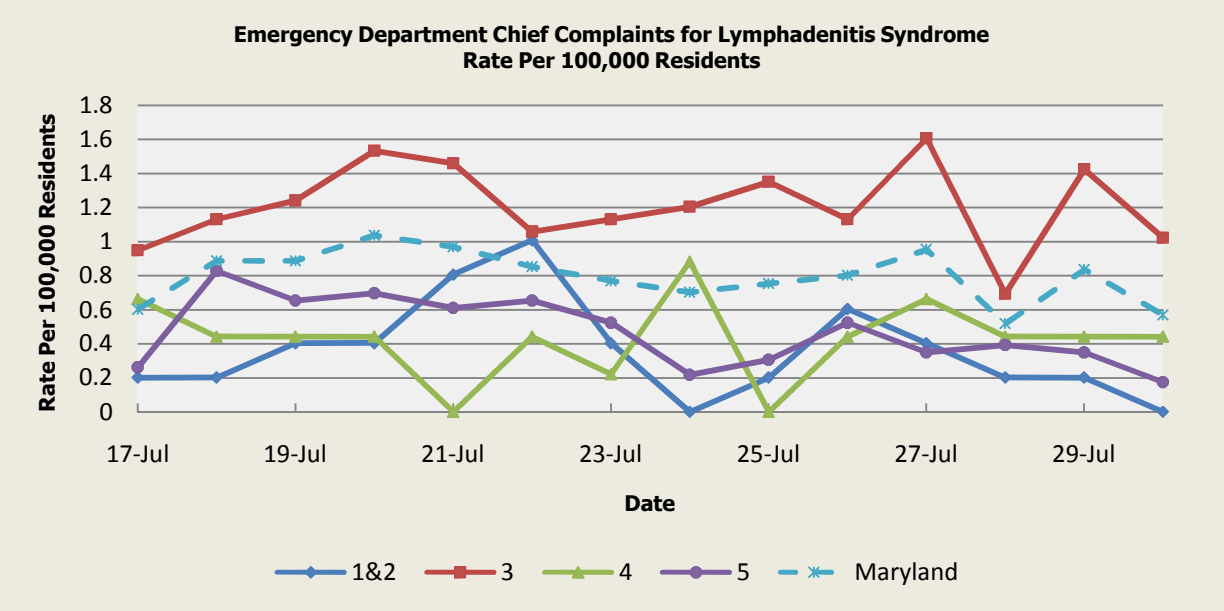

There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 7/18 (Region 3, 5), 7/19 (Region 3, 5), 7/20 (Regions 3, 5), 7/21 (Regions 1&2, 3, 5), 7/22 (Region 1&2, 3, 5), 7/23 (Regions 3), 7/24 (Region 3,4), 7/25 (Regions 3), 7/26 (Regions 3), 7/27 (Regions 3), 7/29 (Regions 3) and 7/30 (Regions 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	0.47	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

	Counts of Reported Cases‡					
Condition	**July**			**Cumulative (Year to Date)****		
Vaccine-Preventable Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Aseptic meningitis	26	49.4	45	183	229.8	234
Meningococcal disease	0	0.4	0	2	4.8	4
Measles	0	0	0	3	2.6	2
Mumps	1	0.8	0	9	31	9
Rubella	0	0	0	1	1.8	2
Pertussis	7	25.2	29	103	152	174
Foodborne Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Salmonellosis	64	126.8	117	356	489.8	497
Shigellosis	15	15.4	16	74	104.2	129
Campylobacteriosis	42	97.4	101	391	403.4	408
Shiga toxin-producing Escherichia coli (STEC)	11	17	18	80	73	68
Listeriosis	2	3.2	3	8	8.4	8
Arboviral Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
West Nile Fever	0	1.2	1	0	2	2
Lyme Disease	207	248.4	253	954	940.8	1030
Emerging Infectious Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Chikungunya	0	2.6	0	3	7.4	0
Dengue Fever	3	1.4	2	21	7.8	9
Zika Virus***	16	0	0	55	0.2	0
Other	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Legionellosis	24	18.4	14	85	84.6	90

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

*** As of August 3, 2016, the total Maryland Confirmed Zika Virus Infections is 54.

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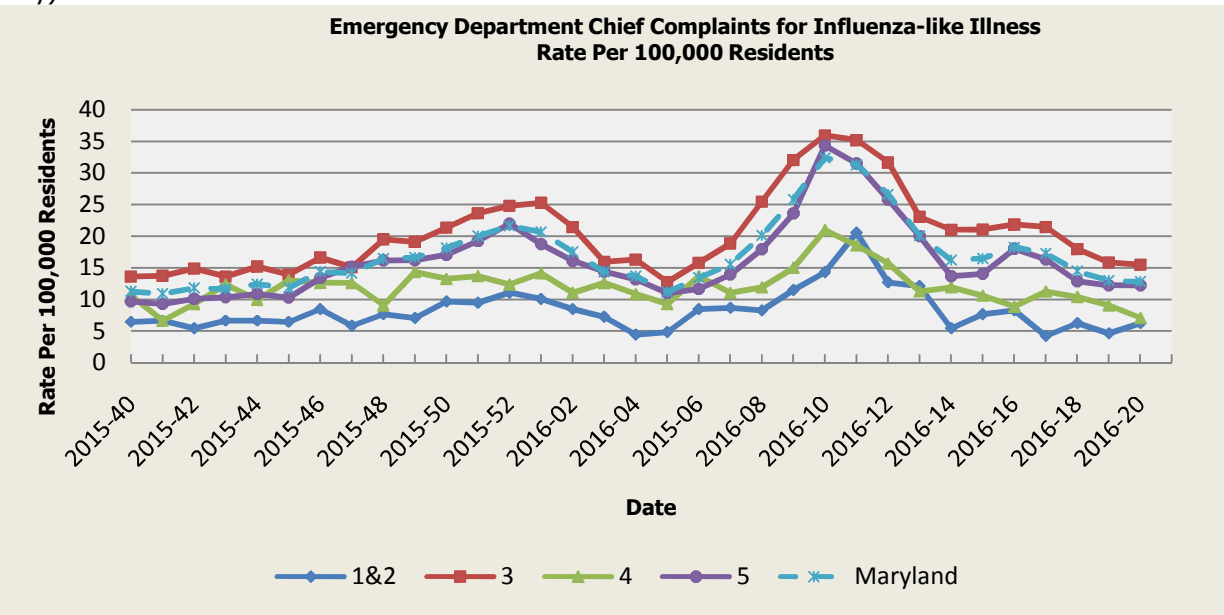
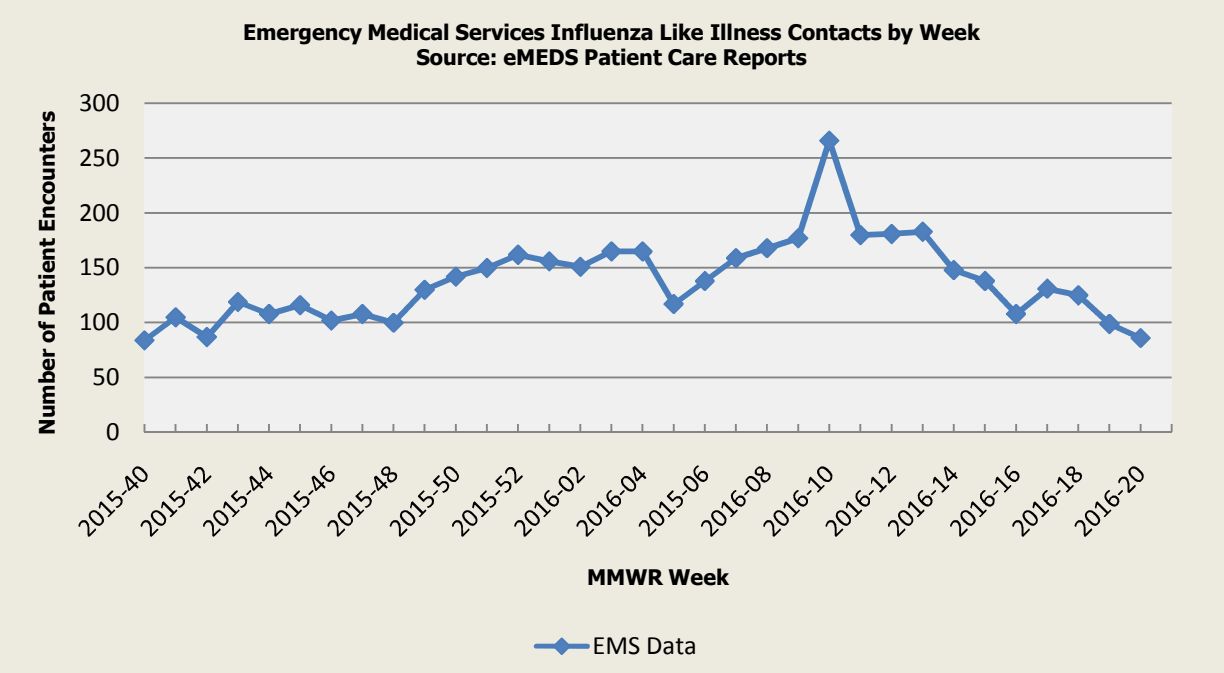
SYNDROMIC INFLUENZA SURVEILLANCE

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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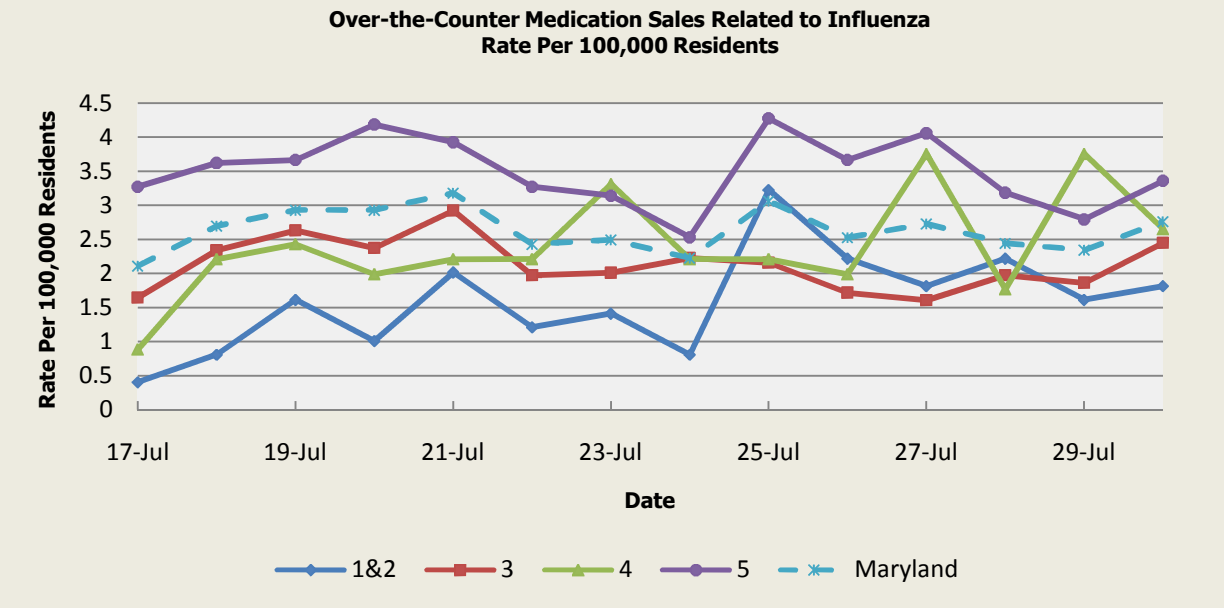
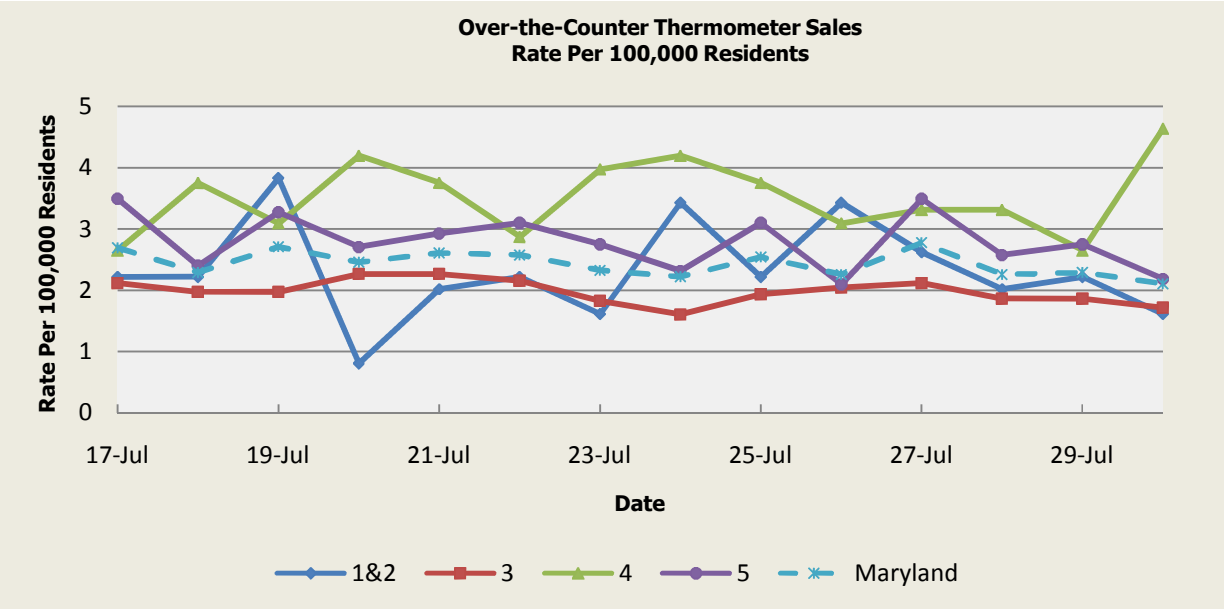


There was not an appreciable increase above baseline in the rate of OTC medication sales this week.

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

* 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

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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 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 (NHFPC) 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:

H7N7 LPAI (DENMARK): 28 Jul 2016, On Wed 27 Jul 2016, Denmark reported a low pathogenic avian influenza outbreak. The affected population is a mallard farm for hunting purposes. There is no production of meat and eggs for consumption on this holding. Read more: http://www.promedmail.org/post/4377572

HPAI H5NI (INDONESIA): 31 Jul 2016, On Sun 31 2016, Indonesia reported a sharp rise in bird flu cases in July [2016] since the country's last report of an unexpected climb earlier this year, bringing the total number of the cases so far in 2016 to 188. "The number of bird flu cases has risen in 7 consecutive months since January 2016, with the highest number of cases recorded in April 2016, which is quite alarming. It subsequently fell from May to June 2016, only to rise again this month [July 2016]," Agriculture Ministry official Muhammad Azhar said on Friday [29 Jul 2016]. Read more: http://www.promedmail.org/post/4368321

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NATIONAL DISEASE REPORTS

LEGIONELLOSIS (NYC): 3 Aug 2016, On 31 July 2016, the New York City Department of Health and Mental Hygiene reported investigating 2 cases of Legionnaires' disease. The cases of the waterborne illness emerged in the past 10 months. This is the 1st acknowledgement of an investigation involving the disease since an outbreak last summer [2015] in the South Bronx, which killed 12 people and sickened more than 120. The city receives an average of 200 to 400 reports of the disease a year, officials said. The CDC estimates there have been at least 110 reported cases in the city so far in 2016. Read more: http://www.promedmail.org/post/4390843

HEPATITIS A (HAWAII): 29 July 2016, On 26 Jul 2016, the worst hepatitis A outbreak in nearly 2 decades in Hawaii has now infected 93 people including a food service worker. This is the first time during the outbreak that a restaurant at a tourist resort or on a Neighbor Island has had an employee identified as having hepatitis A. 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. Read more: http://www.promedmail.org/post/4391265

WEST NILE VIRUS (SOUTH DAKOTA): 8 Aug 2016, On 29 Jul 2016, the South Dakota Department of Health reported 19 cases of West Nile Virus in counties across the state. People over 50, pregnant women, transplant patients, individuals with diabetes or high blood pressure, and those with a history of alcohol abuse are at high risk for transmitting West Nile virus. Read more: http://www.promedmail.org/post/4391265

ZIKA VIRUS (AMERICAS): 22 Jul 2016, A routine investigation by the New York City (NYC) Department of Health and Mental Hygiene (DOHMH) identified a non-pregnant woman in her 20s who reported she had engaged in a single event of condomless vaginal intercourse with a male partner the day she returned to NYC (day 0) from travel to an area with ongoing Zika virus transmission. She had headache and abdominal cramping while in the airport awaiting return to NYC. The following day (day 1) she developed fever, fatigue, a maculopapular rash, myalgia, arthralgia, back pain, swelling of the extremities and numbness and tingling in her hands and feet. In addition, on day 1, the woman began menses that she described as heavier than usual. The woman's male partner, also in his 20s, developed fever, a maculopapular rash, joint pain, and conjunctivitis 7 days after sexual intercourse (day 6). Read More: http://www.promedmail.org/post/4361791

INTERNATIONAL DISEASE REPORTS

MERS-COV (SAUDI ARABIA): 5 Aug 2016, On 3-4 August 2016, Saudi Arabia reported one (1) newly confirmed cases of MERS-COV (89), a 70-year-old Saudi male from Al Madinah, non-healthcare worker, noted to be in stable condition. Classified as a primary case with camel contact history under investigation. This newly confirmed case brings the total number of cases reported by Saudi Arabia since 2012 to 1444 including 608 deaths. Read more: http://www.promedmail.org/post/4395219

ANTHRAX (RUSSIA): On 4 Aug 2016, Russia reported an anthrax outbreak in the Yamal-Nenets autonomous district last week for the 1st 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 FEER (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

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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.

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.

Prepared By:
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Fax: 410-333-5000

Anikah H. Salim, MPH, CPH
Biosurveillance Epidemiologist
Office: 410-767-2074
Email: Anikah.Salim@maryland.gov

Jessica Goodell, MPH
Temporary Epidemiology Field Assignee, CDC
Office: 410-767-6745
Email: Jessica.Goodell@maryland.gov

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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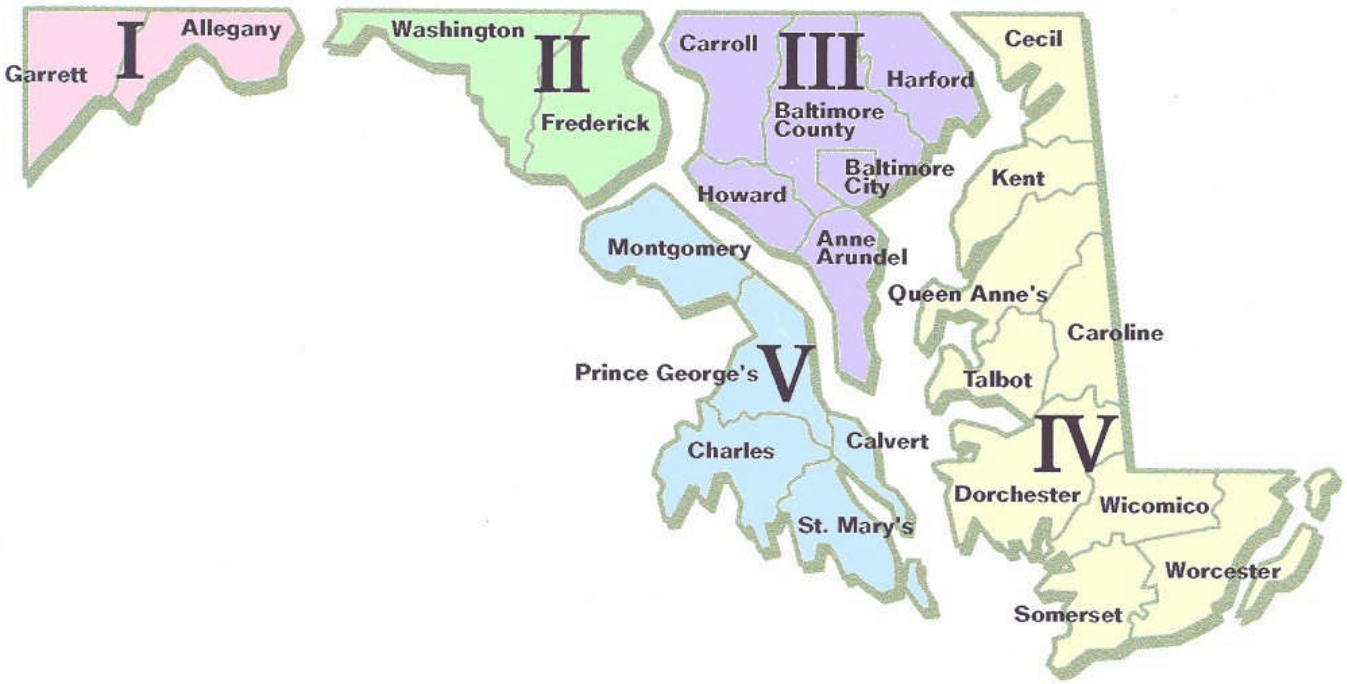
Appendix 2: Maryland Health and Medical Region Definitions

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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