



June 02, 2017

## Public Health Preparedness and Situational Awareness Report: #2017:21 Reporting for the week ending 5/27/17 (MMWR Week #21)

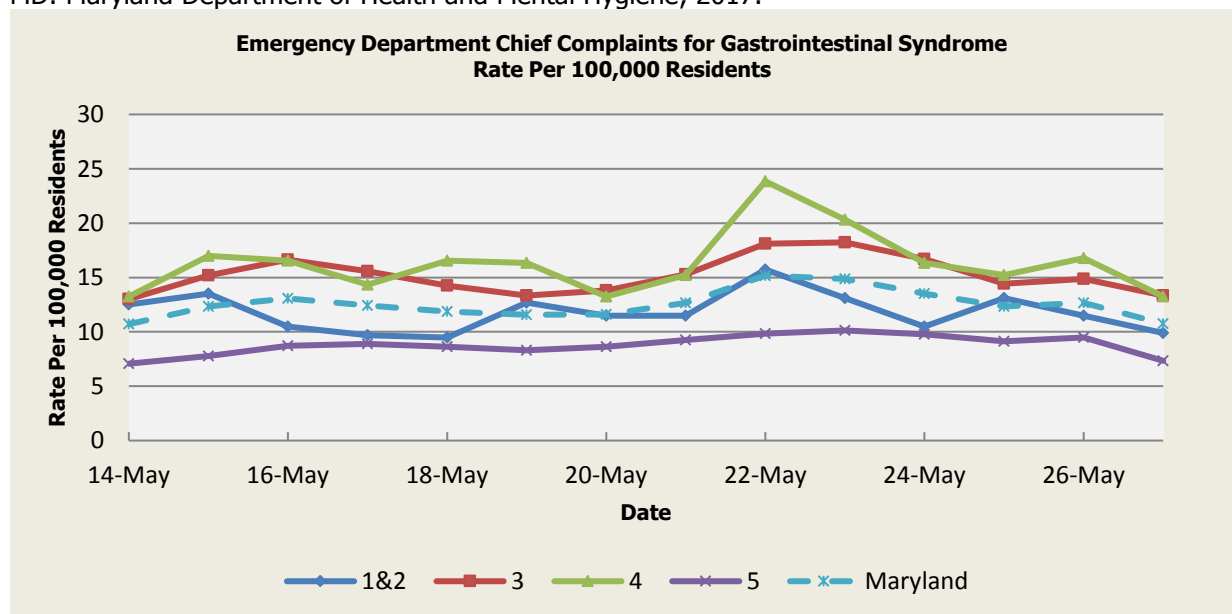
### CURRENT HOMELAND SECURITY THREAT LEVELS

National: No Active Alerts

Maryland: Level Four (MEMA status)

### SYNDROMIC SURVEILLANCE REPORTS

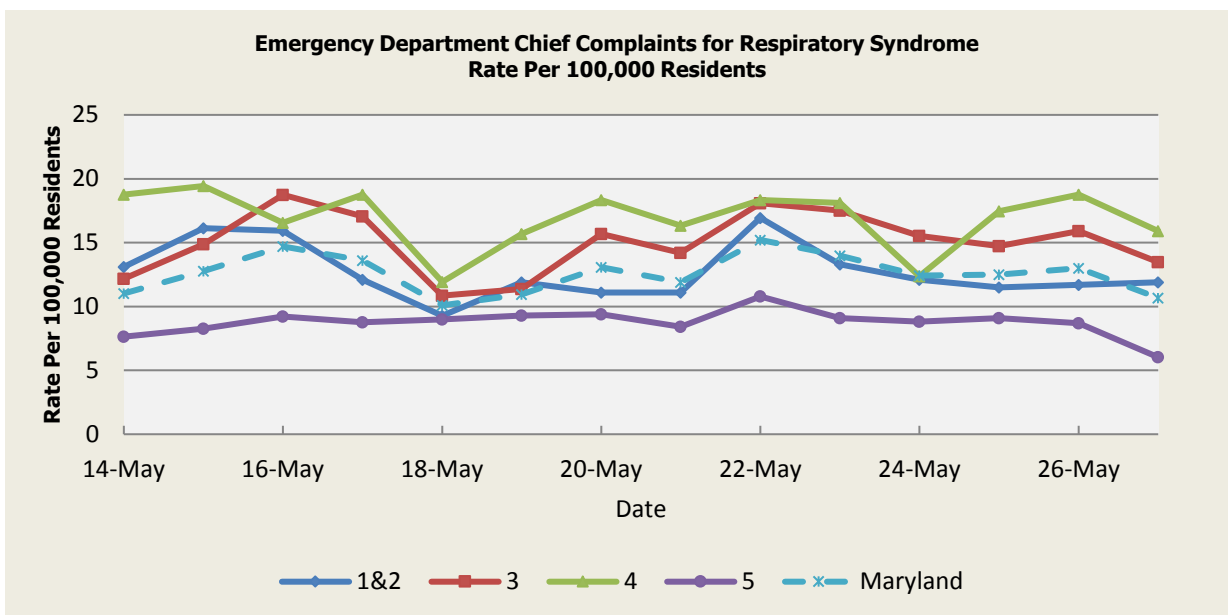
**ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):** Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census. Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE). Baltimore, MD: Maryland Department of Health and Mental Hygiene; 2017.



There were no Gastrointestinal Syndrome outbreak reported this week.

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.78	14.96	15.27	10.20	12.97
Median Rate*	12.91	14.80	15.02	10.22	12.95

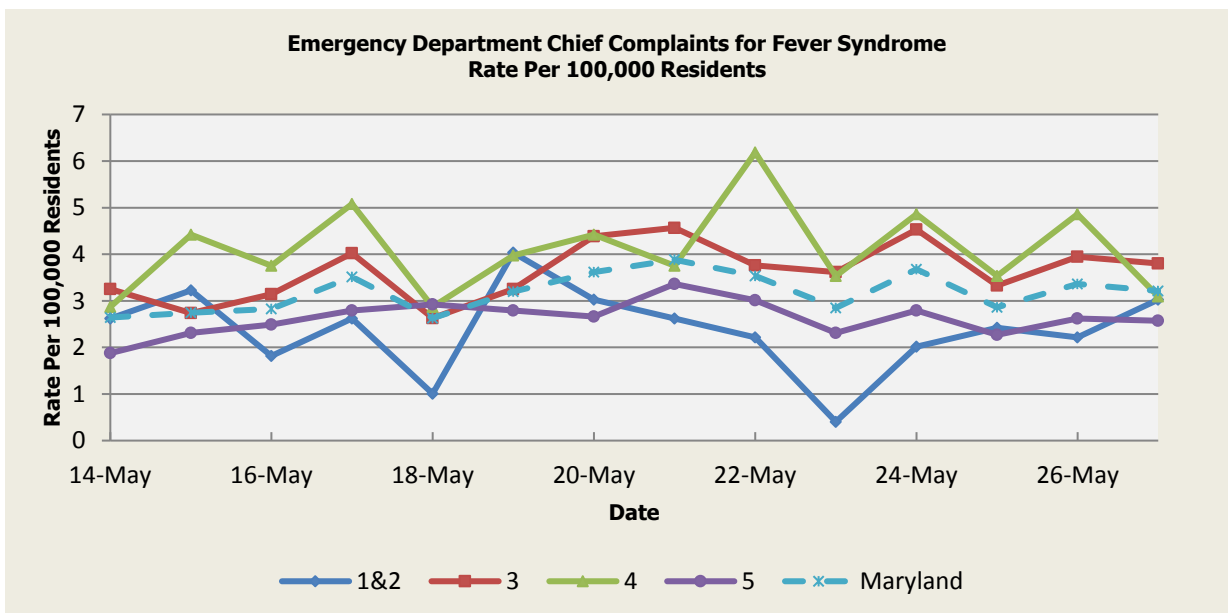
\* Per 100,000 Residents



There was one (1) Respiratory Syndrome outbreaks reported this week: one (1) outbreak of ILI/Pneumonia in a Nursing Home (Region 5).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.93	14.31	14.20	9.86	12.40
Median Rate*	11.70	13.88	13.91	9.65	12.05

\* Per 100,000 Residents

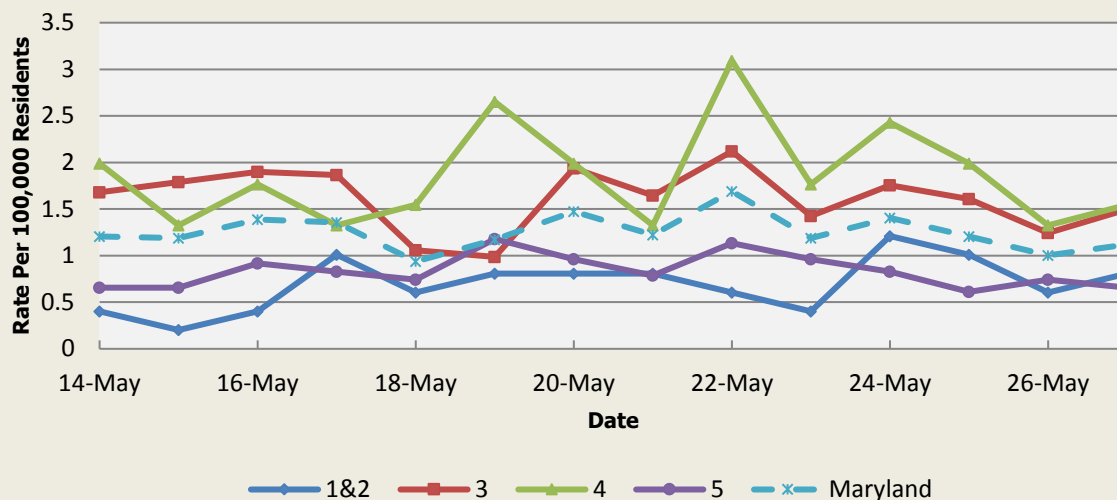


There were no Fever Syndrome outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.00	3.83	3.94	3.05	3.47
Median Rate*	2.82	3.76	3.75	2.97	3.40

Per 100,000 Residents

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



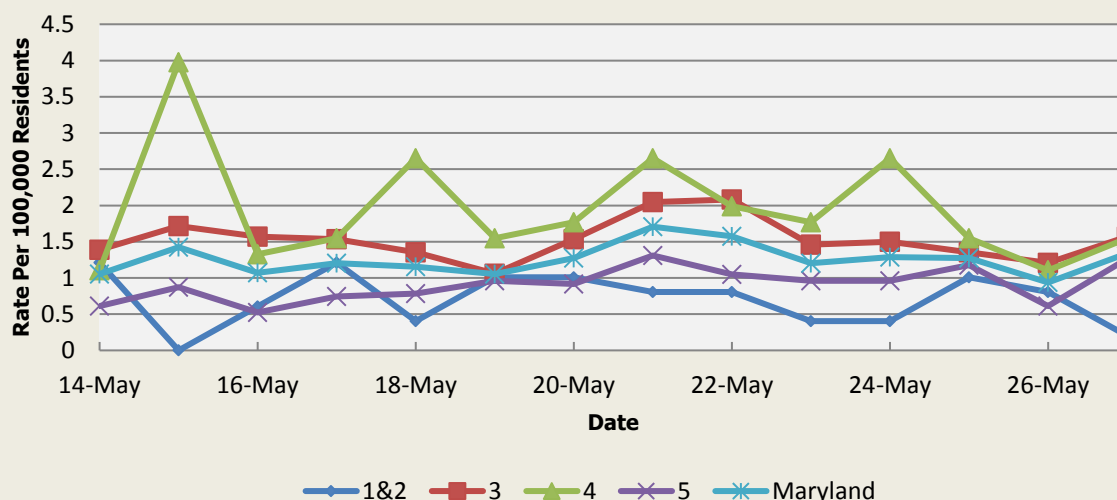
There were no Localized Lesion Syndrome outbreaks reported this week.

#### Localized Lesion Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.03	1.87	2.00	0.95	1.46
Median Rate*	1.01	1.83	1.99	0.92	1.42

\* Per 100,000 Residents

### Emergency Department Chief Complaints for Rash Syndrome Rate Per 100,000 Residents

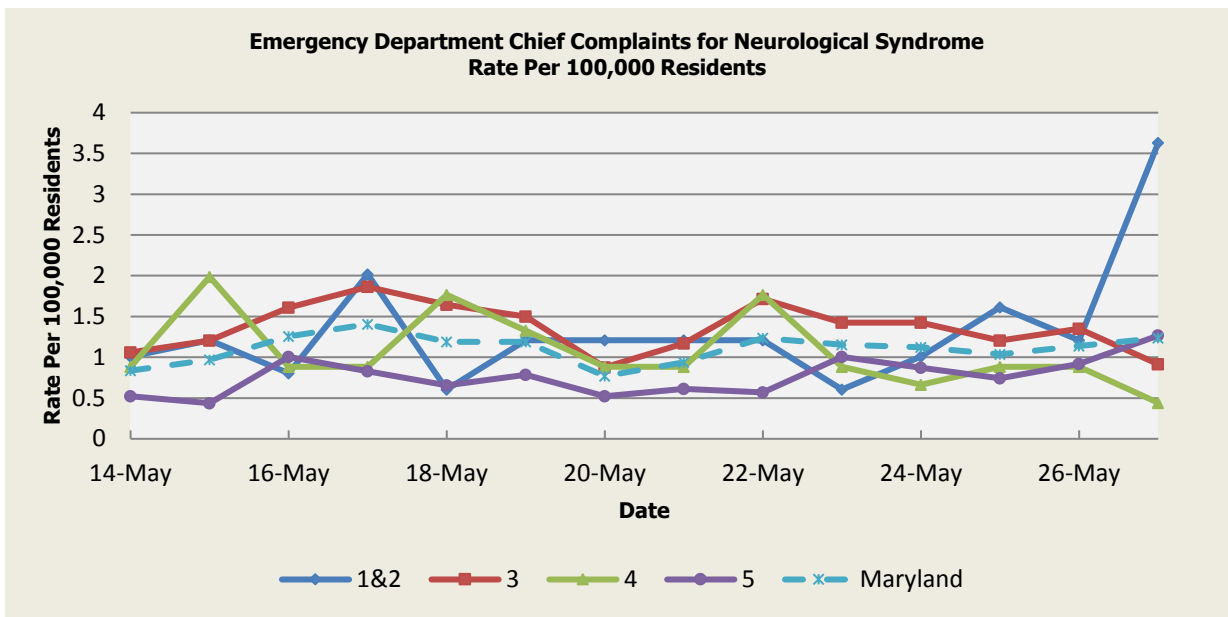


There were no Rash Syndrome outbreaks reported this week.

#### Rash Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.23	1.73	1.75	1.02	1.42
Median Rate*	1.21	1.68	1.77	1.00	1.39

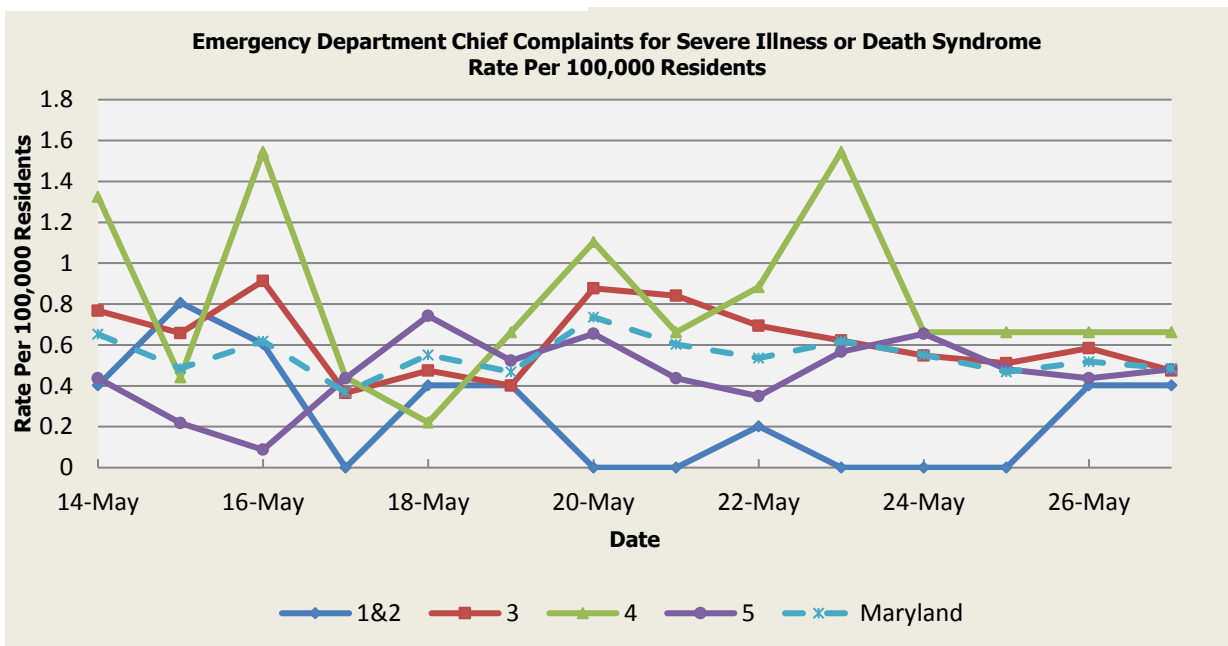
\* Per 100,000 Residents



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*	0.64	0.79	0.68	0.50	0.66
Median Rate*	0.60	0.69	0.66	0.48	0.59

\* Per 100,000 Residents

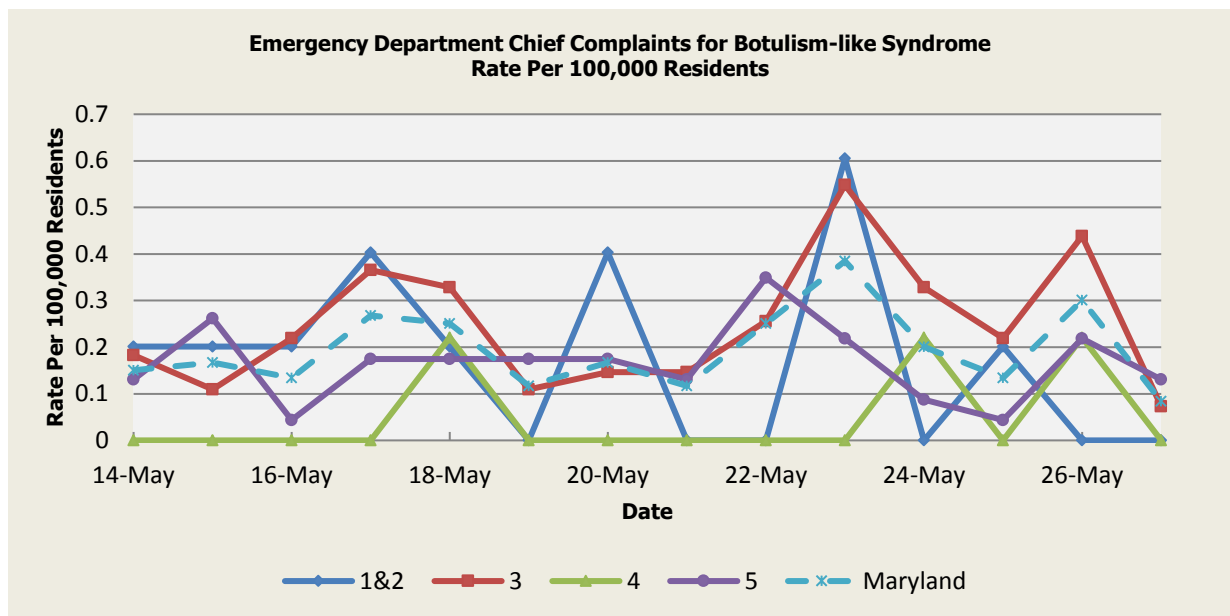


There were no Severe Illness or Death Syndrome outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.64	0.91	0.80	0.45	0.71
Median Rate*	0.60	0.91	0.66	0.44	0.70

\* Per 100,000 Residents

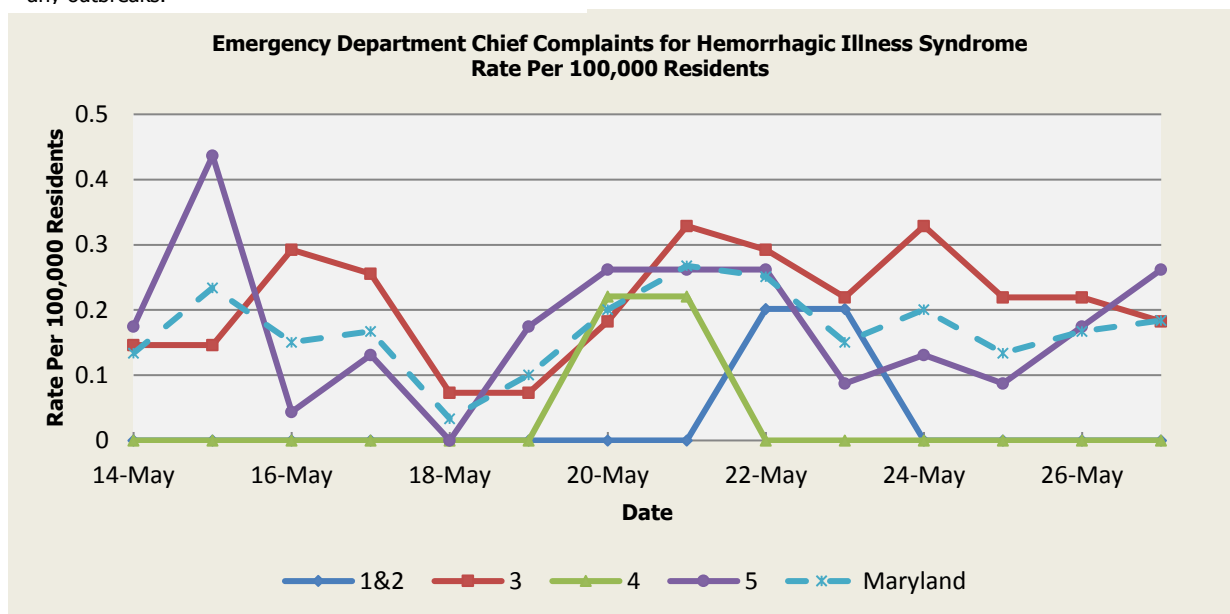
## SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 05/14 (Regions 1&2,3,5), 05/15 (Regions 1&2,5), 05/16 (Regions 1&2,3), 05/17 (Regions 1&2,3,5), 05/18 (Regions 1&2,3,4,5), 05/19 (Region 5), 05/20 (Regions 1&2,3,5), 05/21 (Regions 3,5), 05/22 (Regions 3,5), 05/23 (Regions 1&2,3,5), 05/24 (Regions 3,4), 05/25 (Regions 1&2,3), 05/26 (Regions 3,4,5), 05/27 (Region 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	0.09	0.04	0.06	0.07
Median Rate*	0.00	0.07	0.00	0.04	0.05

\* Per 100,000 Residents

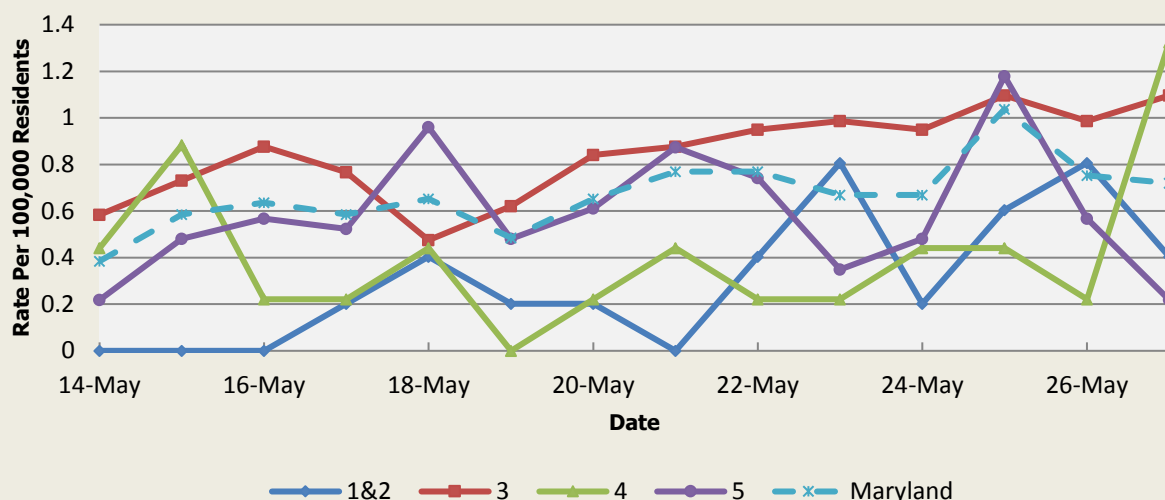


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 05/15 (Region 5), 05/16 (Region 3), 05/20 (Regions 4,5), 05/21 (Regions 3,4,5), 05/22 (Regions 1&2,3,5), 05/23 (Regions 1&2), 05/24 (Region 3). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.13	0.03	0.09	0.10
Median Rate*	0.00	0.04	0.00	0.04	0.05

\* Per 100,000 Residents

### Emergency Department Chief Complaints for Lymphadenitis Syndrome Rate Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 05/15 (Region 4), 05/18 (Region 5), 05/21 (Region 5), 05/22 (Region 5), 05/23 (Regions 1&2), 05/25 (Regions 3,5), 05/26 (Regions 1&2), 05/27 (Regions 3,4). 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	0.52	0.34	0.31	0.41
Median Rate*	0.20	0.40	0.22	0.26	0.33

\* Per 100,000 Residents

## MARYLAND REPORTABLE DISEASE SURVEILLANCE

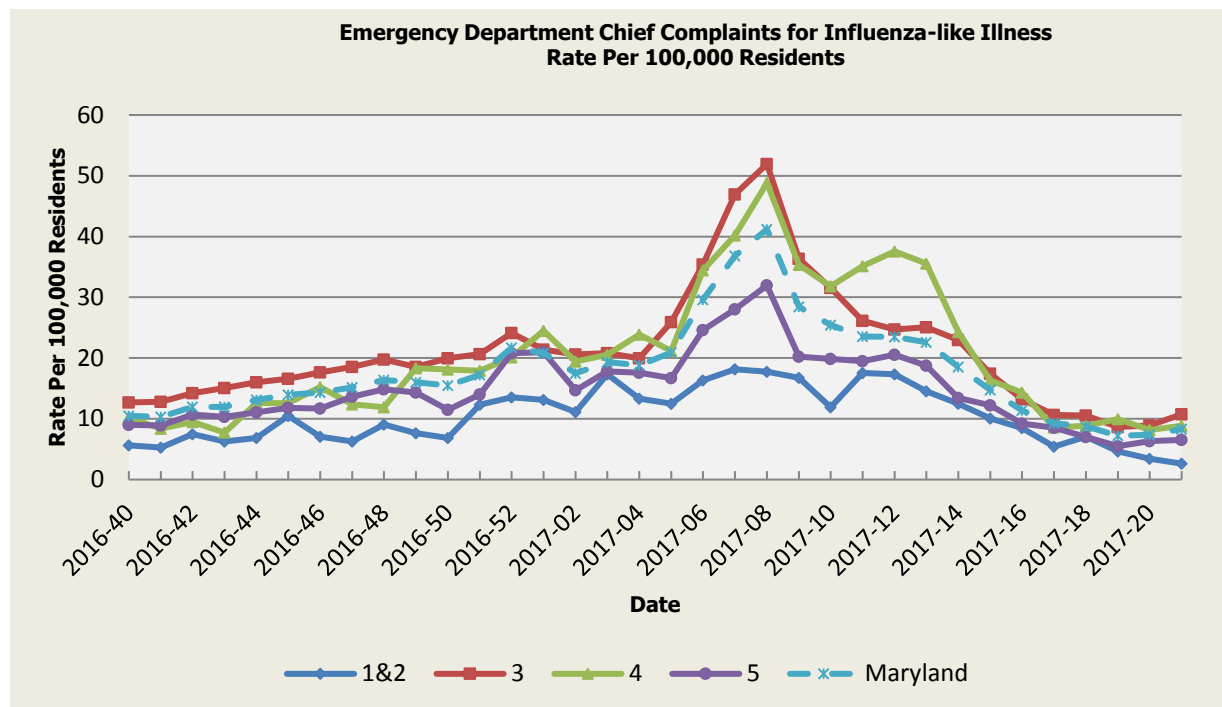
Condition	Counts of Reported Cases†					
	May			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Aseptic meningitis	16	29.2	29	98	147	145
Meningococcal disease	0	0.2	0	2	3	2
Measles	1	0.2	0	2	2.8	1
Mumps	1	3.6	3	16	31	8
Rubella	0	0.4	0	1	2.4	2
Pertussis	12	23.4	21	86	121.6	116
Foodborne Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Salmonellosis	37	66.2	60	214	265	251
Shigellosis	15	13.8	10	81	76	84
Campylobacteriosis	43	62.6	62	242	247.4	246
Shiga toxin-producing Escherichia coli (STEC)	13	13.2	13	51	46	40
Listeriosis	1	1	1	9	3.8	4
Arboviral Diseases	2017	Mean*	Median*	2017	Mean*	Median*
West Nile Fever	0	0.4	0	0	1	0
Lyme Disease	184	228	218	872	789.2	695
Emerging Infectious Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Chikungunya	0	0	0	0	1.6	0
Dengue Fever	1	2.2	2	6	10.2	8
Zika Virus***	0	1.4	1	1	4.6	4
Other	2017	Mean*	Median*	2017	Mean*	Median*
Legionellosis	19	14.4	15	66	50.8	50

NEDSS data: Maryland National Electronic Disease Surveillance System (NEDSS). Baltimore, MD: Maryland Department of Health and Mental Hygiene; 2017. † Counts are subject to change \*Timeframe of 2011-2017\*\*Includes January through current month.

\*\*\* As of June 02, 2017, the total [Maryland Confirmed and Probable Cases of Zika Virus Disease and Infection](#) for 2017 is 28.

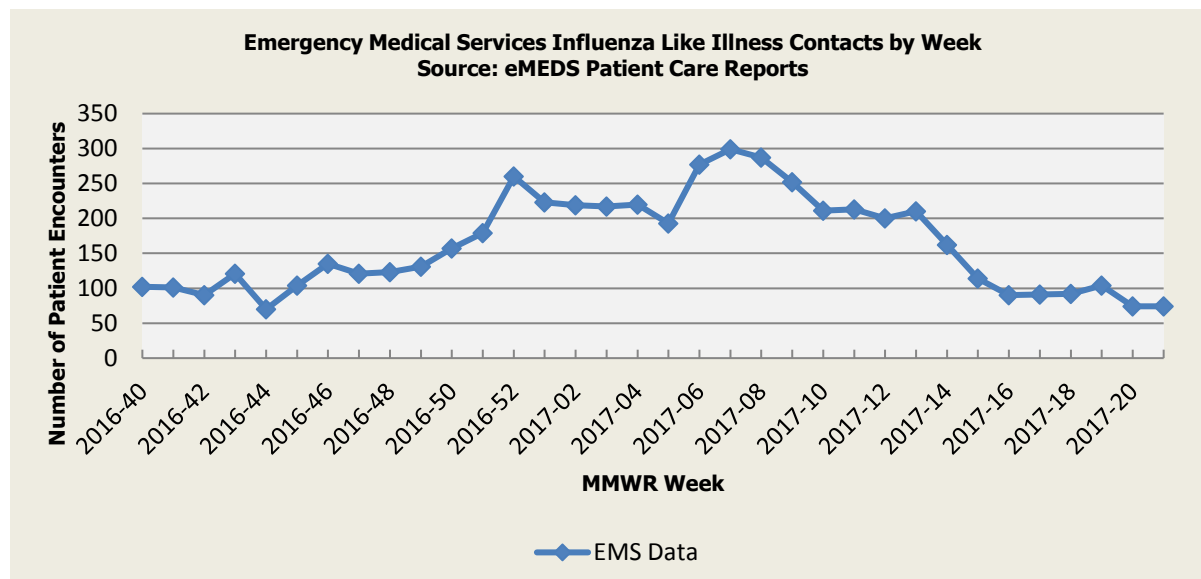
## SYNDROMIC INFLUENZA SURVEILLANCE

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



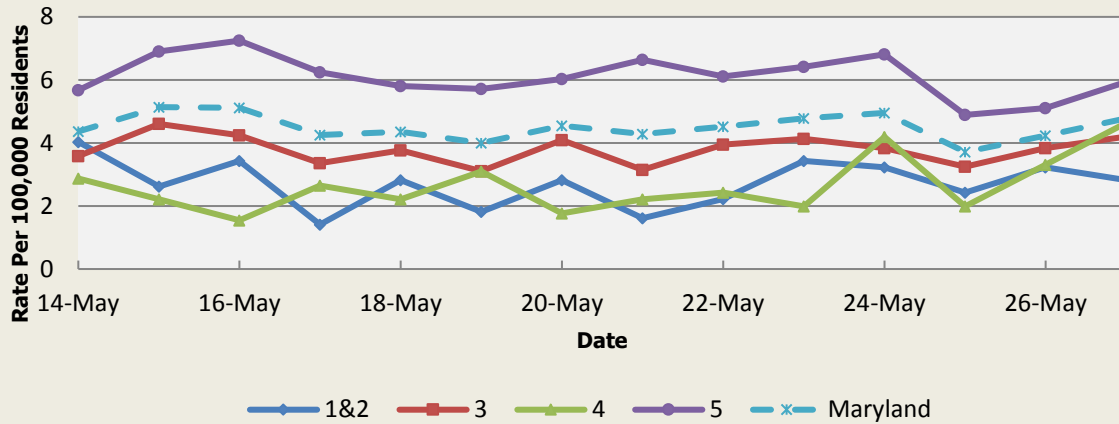
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	207.15	276.66	253.84	239.93	255.09
Median Rate*	7.66	9.63	9.05	8.51	9.00

\* Per 100,000 Residents



**Disclaimer on eMEDS flu related data:** These data are 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. These data are reported for trending purposes only.

**Over-the-Counter Medication Sales Related to Influenza  
Rate Per 100,000 Residents**

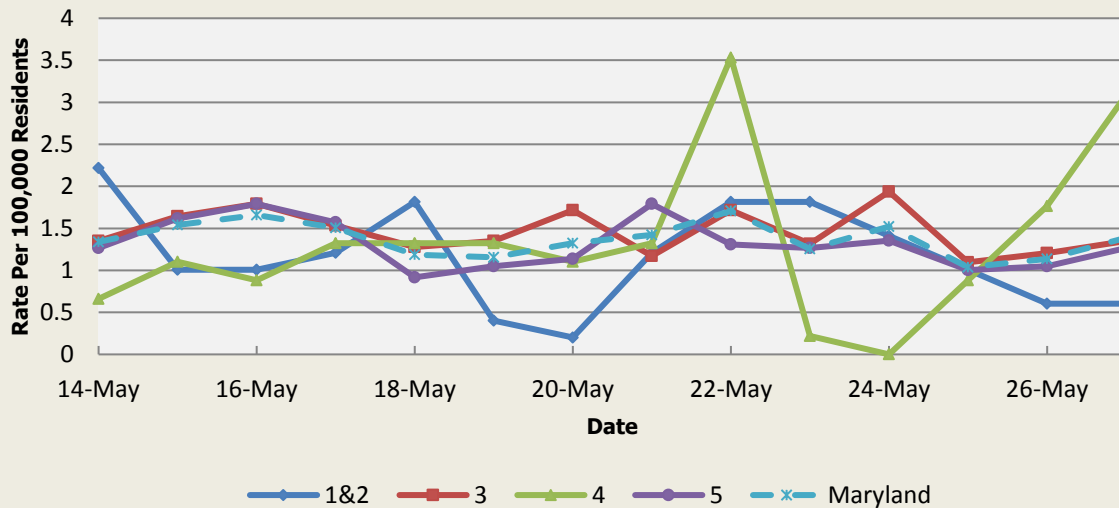


There was not an appreciable increase above baseline in the rate of OTC medication sales during this reporting period.

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.77	4.91	2.73	8.45	6.01
Median Rate*	3.23	4.38	2.43	8.03	5.52

\* 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 during this reporting period.

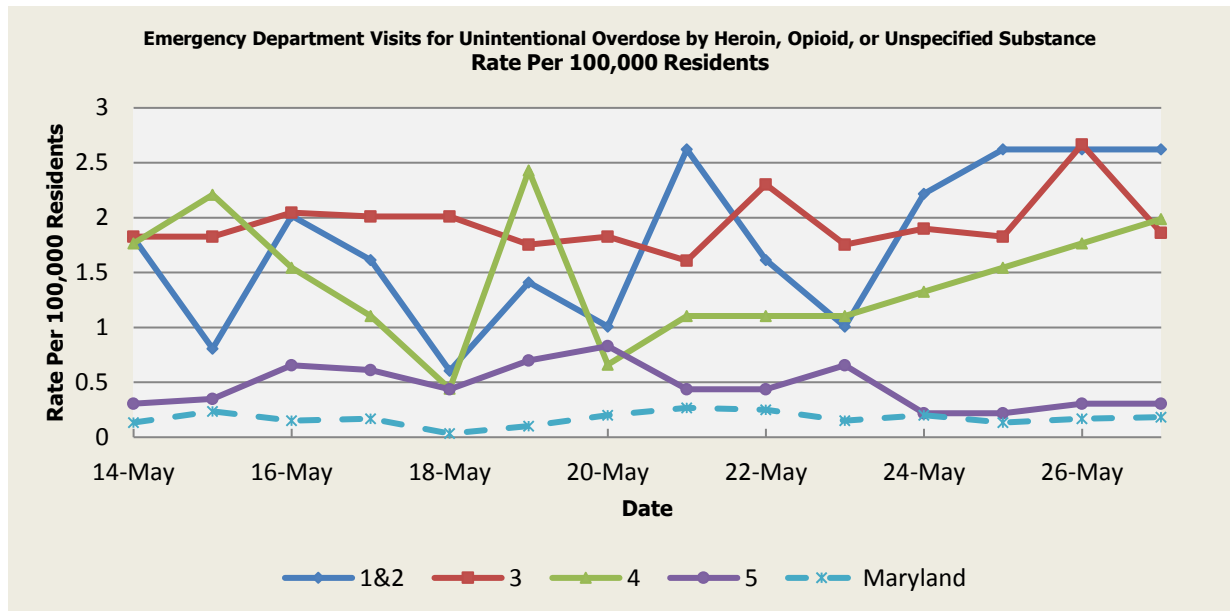
Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.37	3.23	2.50	4.32	3.61
Median Rate*	3.02	3.03	2.43	4.06	3.36

\* Per 100,000 Residents



## SYNDROMIC OVERDOSE SURVEILLANCE

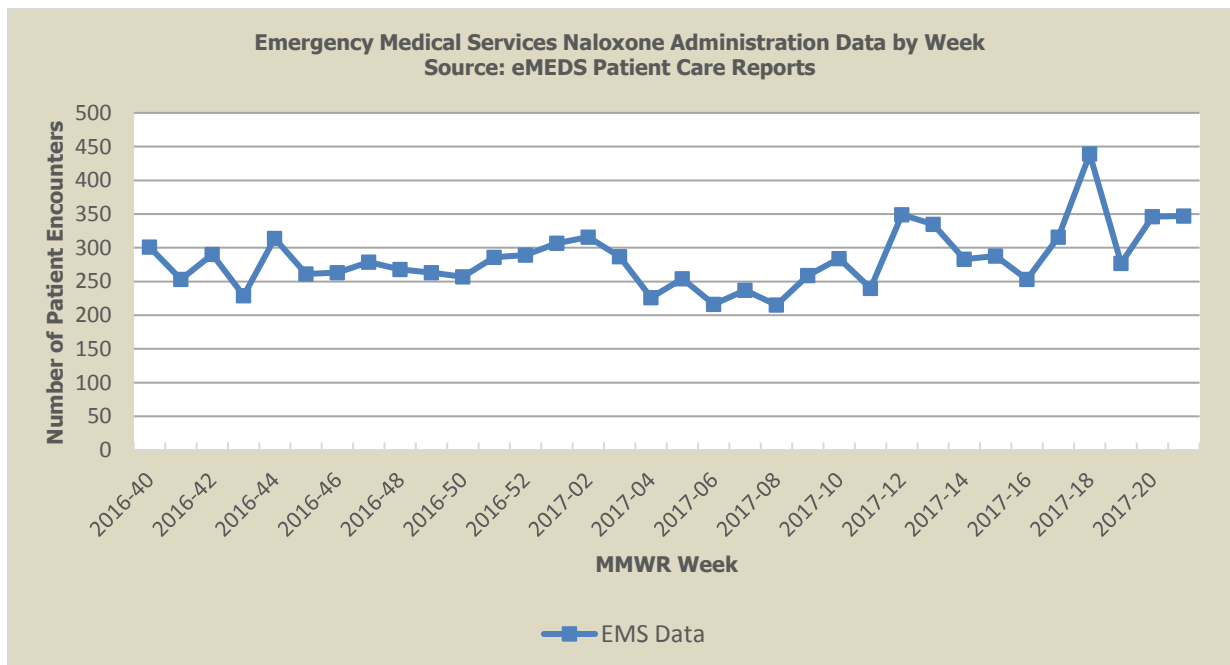
The purpose of this section is to characterize non-fatal ED visit trends for acute unintentional overdose by Heroin, Opioid or Unspecified substance among Maryland residents captured by ESSENCE data, including chief complaint and discharge diagnosis. ED visits that are identified as unintentional overdose by Heroin, Opioid or Unspecified substance include those with medical and non-medical use of a prescription Opioid or where the substance is not specified, given evidence that the majority of fatal overdoses are Opioid-related.



**Disclaimer on ESSENCE Overdose related data:** ESSENCE chief complaint and discharge diagnosis query for overdose-related illness includes but is not limited to the following terms: heroin, opioid, speedball, dope, fentanyl, naloxone, narcan, and overdose.

Non-fatal Overdose ED Visit Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.33	0.42	0.37	0.15	0.30
Median Rate*	1.01	1.32	1.10	0.48	0.99

\* Per 100,000 Residents



**Disclaimer on eMEDS naloxone administration related data:** These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.

## **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. Presently, 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 May 16, 2017, the WHO-confirmed global total (2003-2017) of human cases of H5N1 avian influenza virus infection stands at 859, of which 453 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

### **AVIAN INFLUENZA:**

**AVIAN INFLUENZA (CONGO DEMOCRATIC REPUBLIC),** 20 May 2017, According to veterinary officer in Ituri province Benon Mando, the governor of the province has officially declared the epidemic of the viral infection in the localities of Joo and Kafe on the shores of Lake Albert. Some time back, a particularly deadly strain of bird flu H5N1 continued to spread among poultry populations in North Africa and in certain parts of Asia. Read More: <https://www.promedmail.org/post/5050700>

### **HUMAN AVIAN INFLUENZA:**

**INFLUENZA, H1N1PDM09 (INDIA),** 25 May 2017, The number of patients who are reporting positive for Swine flu is increasing every day in the State. As many as 35 patients have died in the last couple of years due to swine flu and more than 250 patients were treated after testing positive for swine flu. The State has 2 pathological labs at IGMCI, Shimla and RPMC, Tanda where patients are referred from regional and zonal hospitals. Read More: <http://www.promedmail.org/post/5064909>

**INFLUENZA H7N9 (CHINA),** 30 May 2017, According to the authority, Xiangcheng district of Xiangyang city in Hubei province reported 1 human H7N9 AIV case after the confirmation from provincial Center for Disease Control. The 59-year-old male, lived in Xiangcheng district of Xiangyang city, had live poultry contact history and live poultry market exposure history, was in a stable condition and remained in designated hospital in Wuhan for treatment and quarantine. All close contacts showed no ILI symptoms so far. Read More: <http://www.promedmail.org/post/5069791>

## **NATIONAL DISEASE REPORTS**

**RABIES (VA),** 30 May 2017, The Virginia Department of Health (VDH) is investigating a rare case of human rabies in central Virginia. The victim was bitten by a dog in India, but didn't seek any treatment until returning home to the commonwealth (of Virginia) in April [2017]. The patient did not get a rabies vaccine. it is uncommon for a person in the US to have rabies: There are 1 or 2 or 3 cases per year in this country. So it's pretty rare. The last known case of human rabies in Virginia was back in 2009. Read More: <http://www.promedmail.org/post/5070423>

## **INTERNATIONAL DISEASE REPORTS**

**MERS-COV (QATAR),** 25 May 2017, Ministry of Public Health (MOPH) has announced that a new Middle East Respiratory Syndrome Corona Virus (MERS-CoV) case has been confirmed for a 29-years-

old, resident in Qatar, marking the 3rd MERS-CoV case to be confirmed in the country this year and bringing the cumulative number of confirmed MERS-CoV cases since 2012 to 21 cases among whom 7 have died. The patient is a camel worker and had complaints of fever and dry cough for several days.

Read More: <http://www.promedmail.org/post/5066519>

**HANTAVIRUS (ARGENTINA)**, 27 May 2017, After [receiving] a serology report sent to the Pergamino hospital, doctors confirmed the admission of a hantavirus infection case, a 14-year-old hospitalized with pneumonia 14 days ago. Fortunately, the patient progressed favorably from an acute condition, since this aggressive virus has a high case fatality rate. The virus is transmitted by a long-tailed mouse that is found in rural areas; inhabiting the countryside among the weeds. Read More: <http://www.promedmail.org/post/5066558>

**ANTIBIOTIC RESISTANCE (CHINA)**, 27 May 2017, Chinese scientists are reporting a deadly outbreak of MCR-1-producing *Klebsiella pneumoniae* among pediatric leukemia patients in China, apparently the 1st reported hospital outbreak involving the colistin-resistance gene. Researchers say clinical isolates--including *Escherichia coli* and *K. pneumoniae* from 6 patients with pneumonia admitted to a pediatric leukemia ward in Guangzhou, China, were found to harbor the colistin-resistance gene. The isolates were collected from January 2015 through January 2016. Read More: <http://www.promedmail.org/post/5066686>

**DENGUE (NEPAL)**, 28 May 2017, A 25 years old male from Kalleri-2 Dhading was admitted with fever, arthralgia, myalgia and retro-orbital pain in Sukraraj Tropical and Infectious Disease Hospital. His laboratory tests revealed thrombocytopenia with normal white blood cells counts. Serology for dengue NS1 was positive. Serological tests for leptospira and brucella were negative with no growth in blood culture. He has a past history of having traveled to Bhaishapati, Kathmandu. Dengue is not common in Dhading and detection of dengue in this raining season is quite unusual. Read More: <http://www.promedmail.org/post/5067858>

**EBOLA (DEMOCRATIC REPUBLIC OF CONGO)**, 29 May 2017, An Ebola outbreak in the Democratic Republic of Congo could spread to the neighboring Central African Republic, where militia violence has forced thousands of people to flee across the border. Since early May, two cases of the virus have been confirmed by the WHO in Congo's remote north eastern Bas-Uele province. Four people have died so far among the 43 suspected and confirmed cases. The affected area's isolation -- it is about 1400 kilometers (870 miles) from the capital Kinshasa -- has helped contain the spread of the highly contagious hemorrhagic fever. Read More: <http://www.promedmail.org/post/5068444>

**HEPATITIS E (NIGER)**, 29 May 2017, Hepatitis E has killed 30 people in the Diffa region of south eastern Niger, close to Nigeria, home to some 300 000 displaced and refugees who fled the violence of the Nigerian jihadist group Boko Haram. "A total of 664 suspected and confirmed cases were reported on 23 May 2017. On the same date, 30 deaths related to the disease were recorded," reported the UN Office for the Coordination of Humanitarian Affairs (OCHA). Read More: <http://www.promedmail.org/post/5069047>

**PRION DISEASE (UK)** 29 May 2017, Sporadic Creutzfeldt-Jakob disease (sCJD) has not been previously reported in patients with clotting disorders treated with fractionated plasma products. We report 2 cases of sCJD identified in the United Kingdom in patients with a history of extended treatment for clotting disorders; 1 patient had hemophilia B and the other von Willebrand disease. Both patients had been informed previously that they were at increased risk for variant CJD because of past treatment with fractionated plasma products sourced in the United Kingdom. However, both cases had clinical and investigative features suggestive of sCJD. This diagnosis was confirmed in both cases on neuropathologic and biochemical analysis of the brain. Read More: <http://www.promedmail.org/post/5058407>

**LASSA FEVER (WEST AFRICA)**, 30 May 2017, Eleven suspected cases of Lassa fever were reported from 3 LGAs ([local government areas] (2 states) in week 18 of 2017 compared with 3 suspected cases from 3 LGAs (3 states) during the same period in 2016. Cases of Lassa fever are continuing to occur in Nigeria. As noted in earlier comments, Lassa fever remains a problem in Nigeria because the virus is endemic there. Virus transmission to humans occur when people are in contact with the reservoir

rodent host, the multimammate mouse or their excreta. Transmission also occurs in health facilities when personal protection equipment is not employed and barrier nursing practices are not adequate to protect staff from blood and secretions of infected patients. Read More:

<http://www.promedmail.org/post/5070103>

**HEPATITIS B and C (IRAQ)**, 30 May 2017, Viral hepatitis has spread in Al-Saqlawiyah city (8 km or 5 miles north west of Fallujah) in Al-Anbar governorate, amid shortages of medicines and lack of health care services. For hepatitis B, 3674 cases were reported; hepatitis C 929 cases were reported and 199 cases were reported for hepatitis E. This was due to expansion of diagnosis in district labs. In the past, diagnosis was in public health laboratory in governorates. However, since 2013 diagnosis is conducted in district laboratories. Read More: <http://www.promedmail.org/post/5071065>

**SALMONELLOSIS (IRELAND)**, 30 May 2017, The assistant national director for public health with the Health Service Executive has said an outbreak of salmonellosis in north Dublin has been isolated to a single producer, who was providing food for a number of parties on the weekend of 13 May 2017. This is probably the largest outbreak of salmonellosis in Ireland in the past 10 years and the cause of the problem is believed to have been poultry. Around 50 people were affected on the weekend. Read More: <http://www.promedmail.org/post/5071103>

**CRIMEAN CONGO HEMORRHAGIC FEVER (IRAN)**, 30 May 2017, Crimean-Congo hemorrhagic fever (CCHF) has killed 1 person in south eastern Iran over the past 2 months. The fatality occurred in Sistan-and-Baluchestan Province, with 2 more deaths also unofficially reported in Isfahan Province and the western province of Kermanshah via social media. Read More: <http://www.promedmail.org/post/5069789>

**YELLOW FEVER (BRAZIL)**, 30 May 2017, Brazil, Colombia, Ecuador, Peru, the Plurinational State of Bolivia, and Suriname have reported suspected and confirmed yellow fever cases. With regard to the confirmed fatal cases and their probable site of infection, 80 were in Espírito Santo, 1 in Goiás, 164 in Minas Gerais, 4 in Pará, 5 in Rio de Janeiro, and 10 in São Paulo. In the states with more than 5 confirmed deaths, the CFR among confirmed cases is 50 per cent in São Paulo, 35 per cent in Rio de Janeiro, 34 per cent in Minas Gerais and Espírito Santo. Read More: <http://www.promedmail.org/post/5071826>

**HANTAVIRUS (URUGUAY)**, 31 May 2017, A young 24-year-old substitute teacher was recently diagnosed with the virus. Both leptospirosis and hantaviruses are transmitted in rodent excrement. "This teacher had an epidemiological history because she was cleaning a storage shed that had been closed for a long time, and saw rodent excrement there. She wanted to clean it to make a recreational center for children, and later she began to have symptoms. The disease could be acquired by breathing [dust] in very closed spaces such as storage buildings, where forage [accumulated by rodents] accumulates and produces dust in the air. Read More: <http://www.promedmail.org/post/5073021>

## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/> or follow us on Facebook at [www.facebook.com/MarylandOPR](http://www.facebook.com/MarylandOPR).

More data and information on influenza can be found on the DHMM website:  
<http://phpa.dhmm.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmm.maryland.gov>  
\*\*\*\*\*

**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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## Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

## Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County

