



December 31, 2015

**Public Health Preparedness and Situational Awareness Report: #2015:51  
Reporting for the week ending 12/26/15 (MMWR Week #51)**

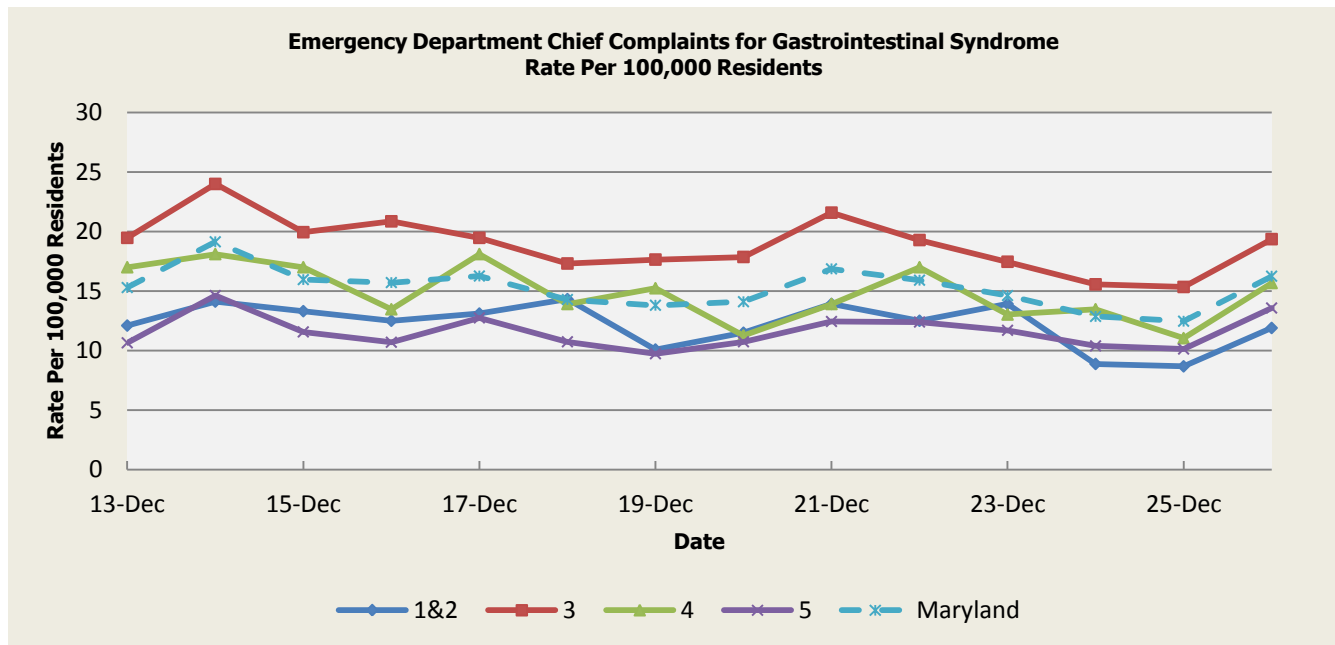
**CURRENT HOMELAND SECURITY THREAT LEVELS**

**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.

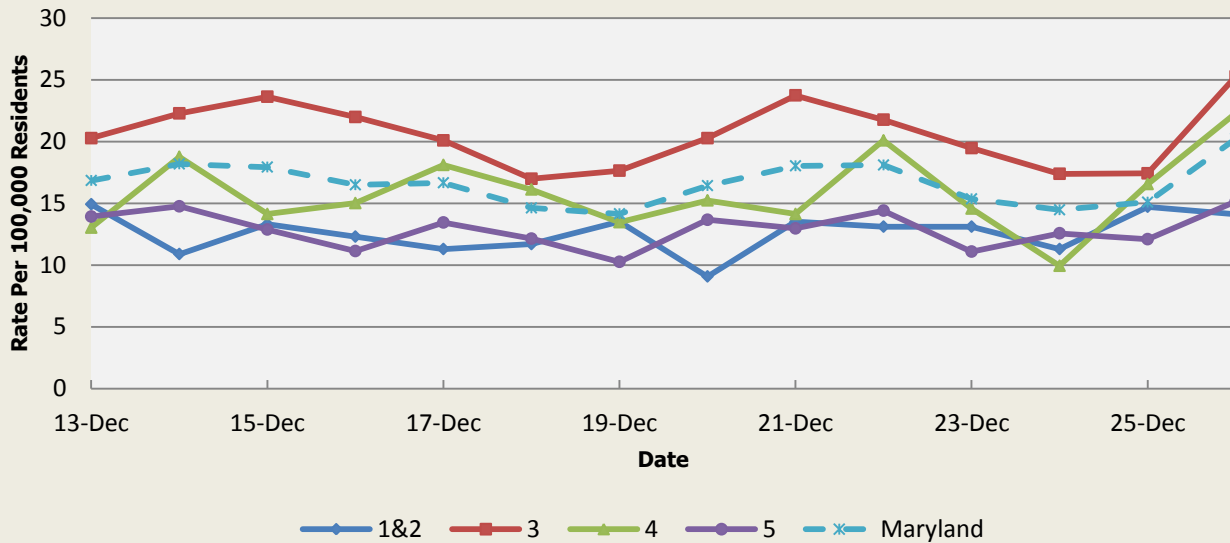


There were four gastrointestinal illness outbreaks reported this week: 1 outbreak of gastroenteritis associated with a nursing home (Region 3), 1 outbreak of gastroenteritis associated with an assisted living facility (Region 5), 1 outbreak of gastroenteritis associated with a daycare center (Region 3), and 1 outbreak of gastroenteritis/foodborne associated with a restaurant (Region 3).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.88	14.51	15.26	10.17	12.77
Median Rate*	12.70	14.29	14.57	10.08	12.63

\* Per 100,000 Residents

**Emergency Department Chief Complaints for Respiratory Syndrome  
Rate Per 100,000 Residents**

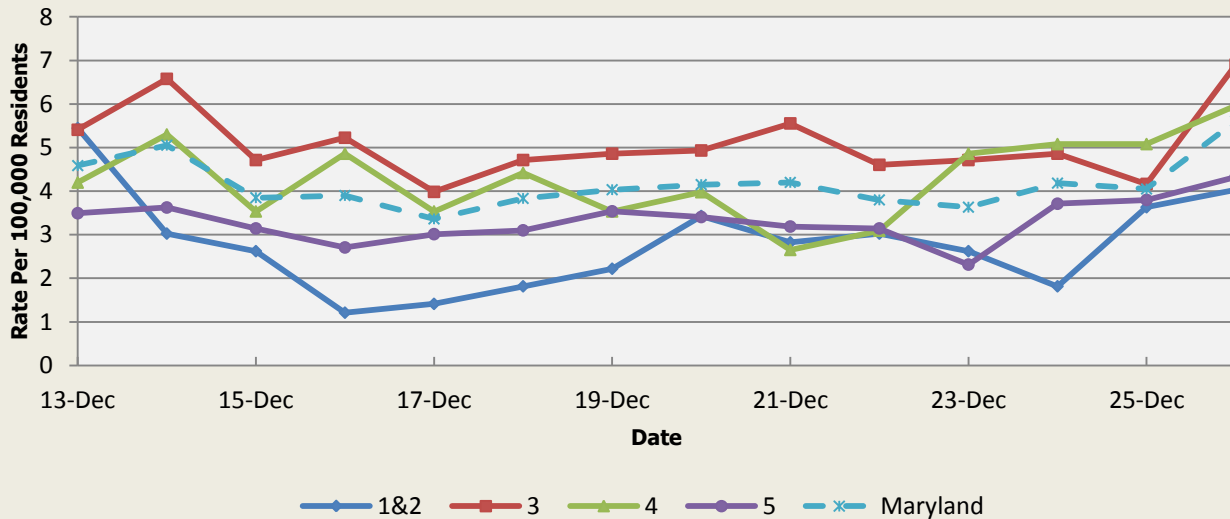


There was one respiratory outbreak reported this week. 1 outbreak of pneumonia associated with a nursing home (Region 3).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.89	13.64	13.80	9.72	12.01
Median Rate*	11.49	13.12	13.47	9.39	11.61

\* Per 100,000 Residents

**Emergency Department Chief Complaints for Fever Syndrome  
Rate Per 100,000 Residents**

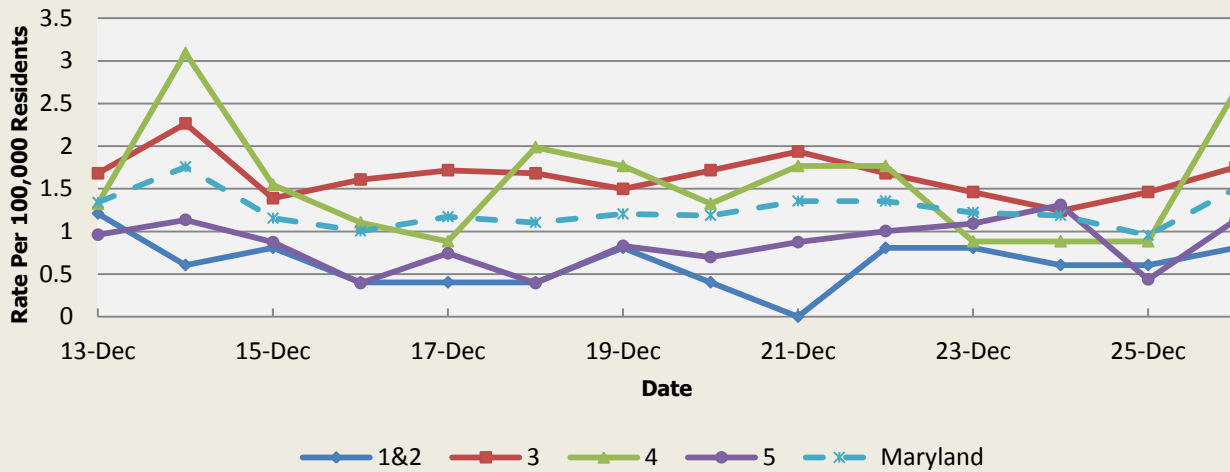


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.09	3.70	3.87	3.05	3.41
Median Rate*	3.02	3.54	3.75	2.97	3.30

Per 100,000 Residents

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

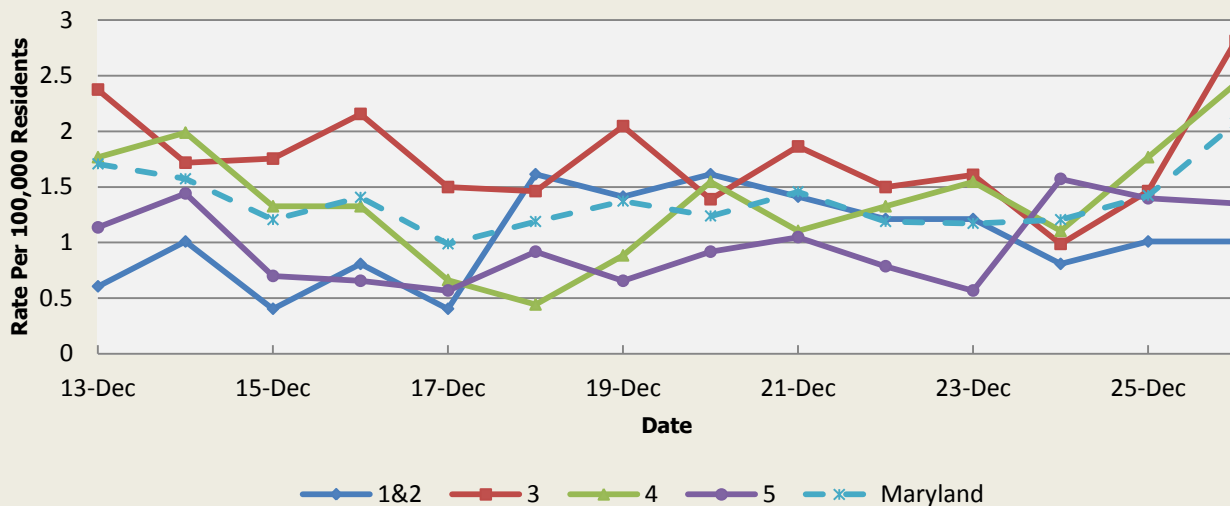


There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.09	1.92	2.04	0.99	1.51
Median Rate*	1.01	1.86	1.99	0.96	1.46

\* Per 100,000 Residents

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

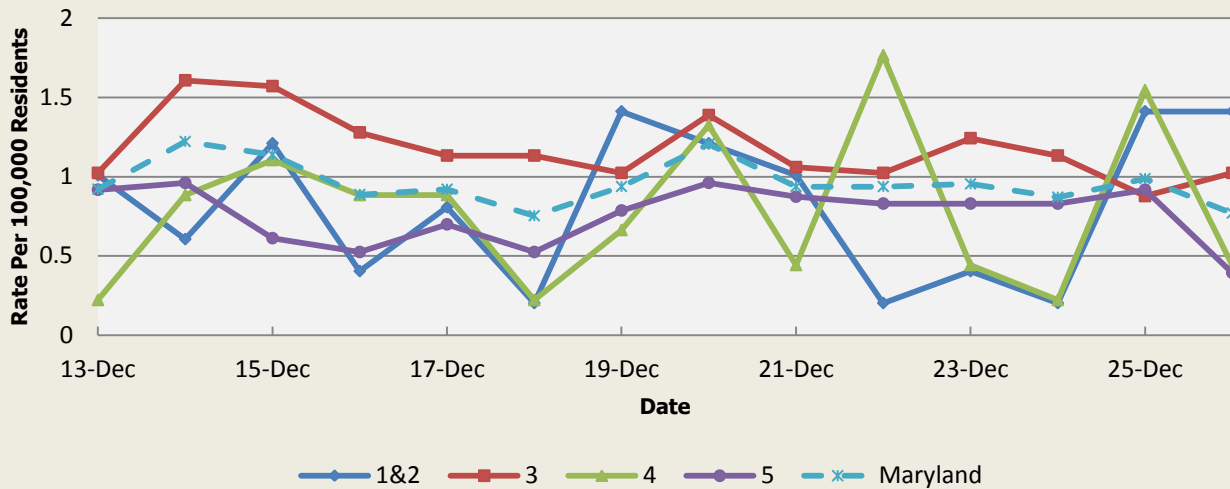


There were no rash outbreaks reported this week.

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.32	1.74	1.76	1.05	1.44
Median Rate*	1.21	1.68	1.77	1.00	1.41

\* Per 100,000 Residents

**Emergency Department Chief Complaints for Neurological Syndrome  
Rate Per 100,000 Residents**

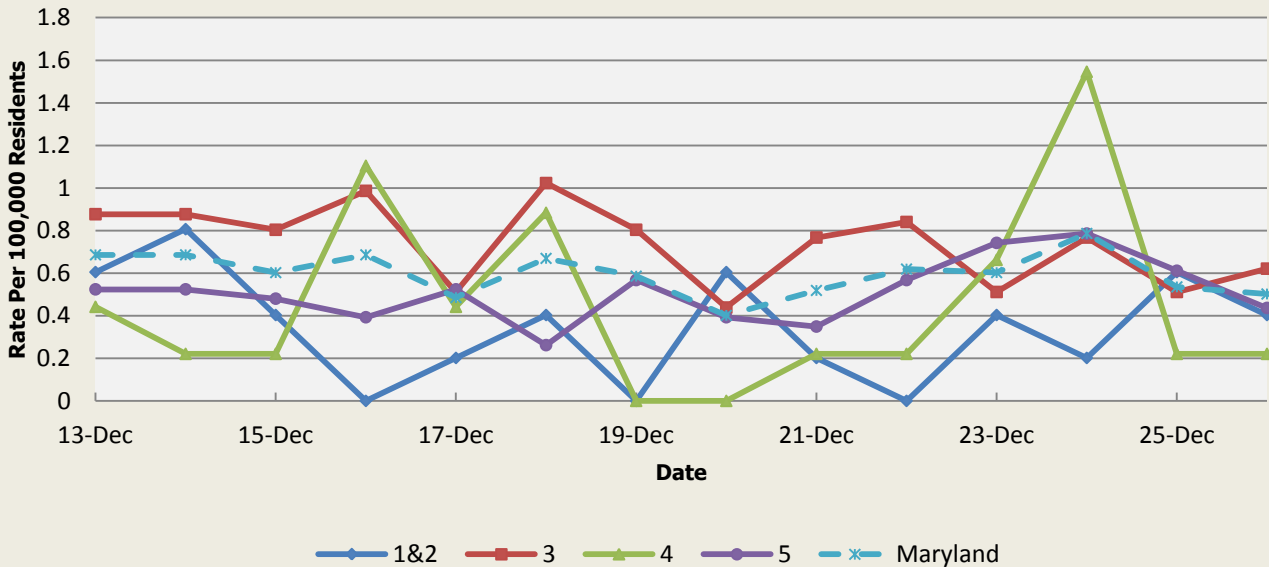


There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.62	0.70	0.63	0.46	0.60
Median Rate*	0.60	0.66	0.66	0.44	0.55

\* Per 100,000 Residents

**Emergency Department Chief Complaints for Severe Illness or Death Syndrome  
Rate Per 100,000 Residents**



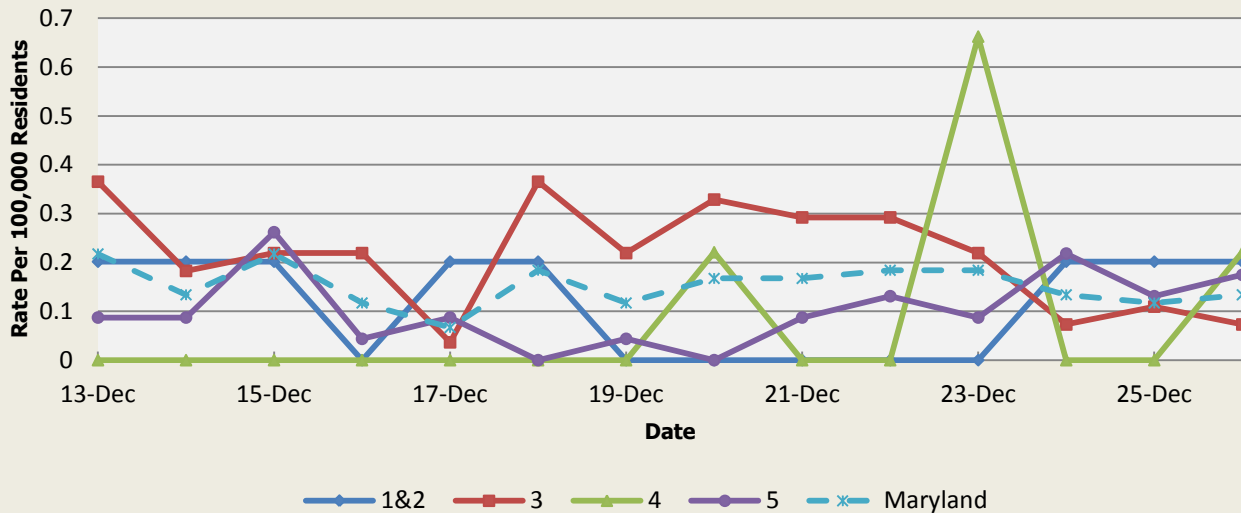
There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.72	0.96	0.87	0.43	0.73
Median Rate*	0.60	0.95	0.88	0.44	0.72

\* Per 100,000 Residents

## SYNDROMES RELATED TO CATEGORY A AGENTS

**Emergency Department Chief Complaints for Botulism-like Syndrome  
Rate Per 100,000 Residents**

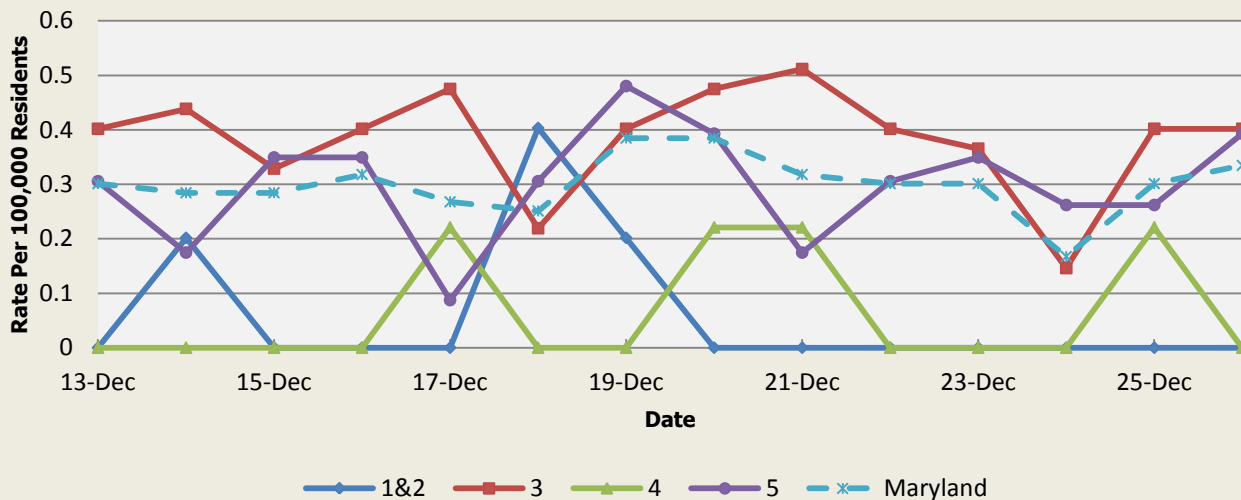


There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 12/20 (Regions 3,4), 12/21 (Regions 3,5), 12/22 (Regions 3,5), 12/23 (Regions 3,4,5), 12/24 (Regions 1&2,5), 12/25 (Regions 1&2,5), and 12/26 (Regions 1&2,4,5). These increases are not known to be 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	0.07	0.04	0.04	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.03

\* Per 100,000 Residents

**Emergency Department Chief Complaints for Hemorrhagic Illness Syndrome  
Rate Per 100,000 Residents**

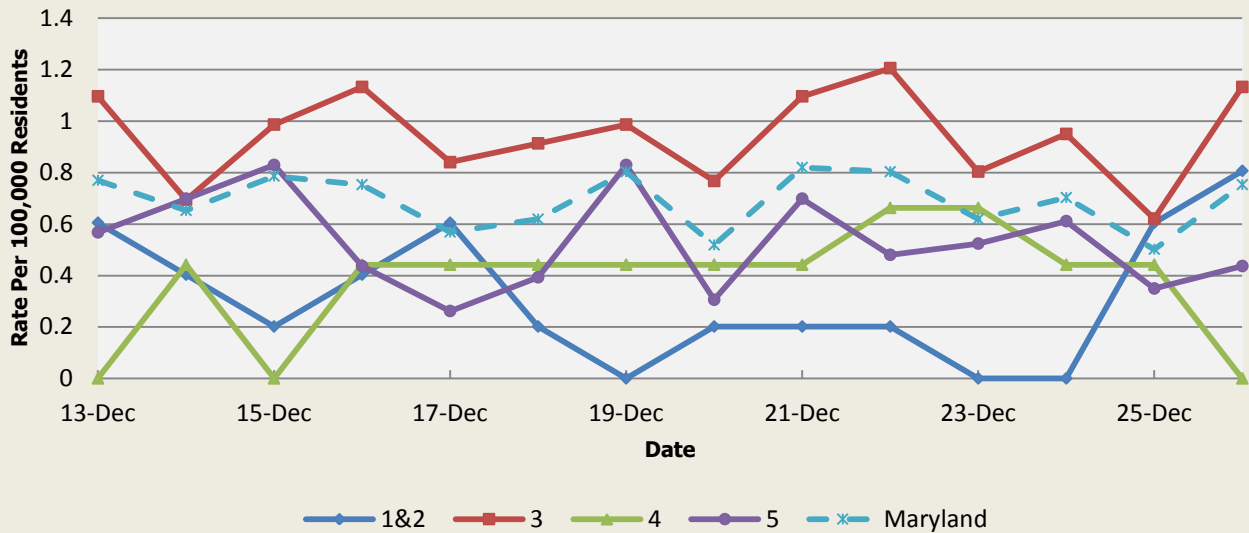


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 12/20 (Regions 3,4,5), 12/21 (Regions 3,4,5), 12/22 (Regions 3,5), 12/23 (Regions 3,5), 12/24 (Region 5), 12/25 (Regions 3,4,5), and 12/26 (Regions 3,5). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.08	0.03	0.06	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.03

\* 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 12/21 (Regions 3,5), 12/22 (Region 3), 12/24 (Regions 3,5), and 12/26 (Regions 1&2,3). 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	0.43	0.34	0.28	0.35
Median Rate*	0.20	0.33	0.22	0.22	0.30

\* Per 100,000 Residents

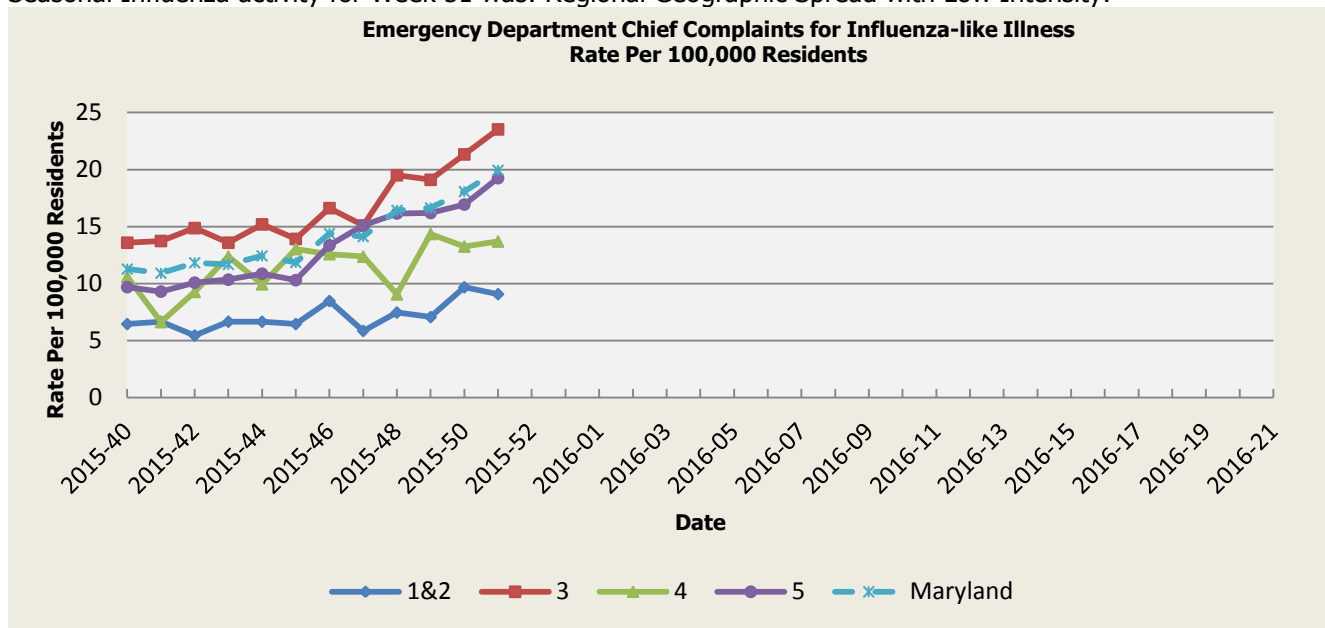
**MARYLAND REPORTABLE DISEASE SURVEILLANCE**

Condition	Counts of Reported Cases†					
	December			Cumulative (Year to Date)**		
	2015	Mean*	Median*	2015	Mean*	Median*
<b>Vaccine-Preventable Diseases</b>						
Aseptic meningitis	11	29.8	28	458	446	468
Meningococcal disease	0	0.4	0	2	7.2	7
Measles	0	0	0	0	0.6	0
Mumps	0	0.8	1	21	21.8	4
Rubella	0	0	0	1	1.2	1
Pertussis	3	16.8	13	98	212.2	207
<b>Foodborne Diseases</b>						
Salmonellosis	15	38.2	36	821	921.2	921
Shigellosis	8	7.2	4	219	159.6	130
Campylobacteriosis	15	34.6	36	613	602	620
Shiga toxin-producing Escherichia coli (STEC)	1	4.4	6	85	73	70
Listeriosis	0	0.6	0	15	15.8	16
<b>Arboviral Diseases</b>						
West Nile Fever	0	0	0	16	7	6
Lyme Disease	9	29.2	27	1210	1184.2	1304
<b>Emerging Infectious Diseases</b>						
Chikungunya	0	1	0	14	12.8	0
Dengue Fever	0	0.2	0	11	10.6	11
<b>Other</b>						
Legionellosis	4	8	8	133	137.6	140

† Counts are subject to change    \*Timeframe of 2009-2014    \*\*Includes January through current month

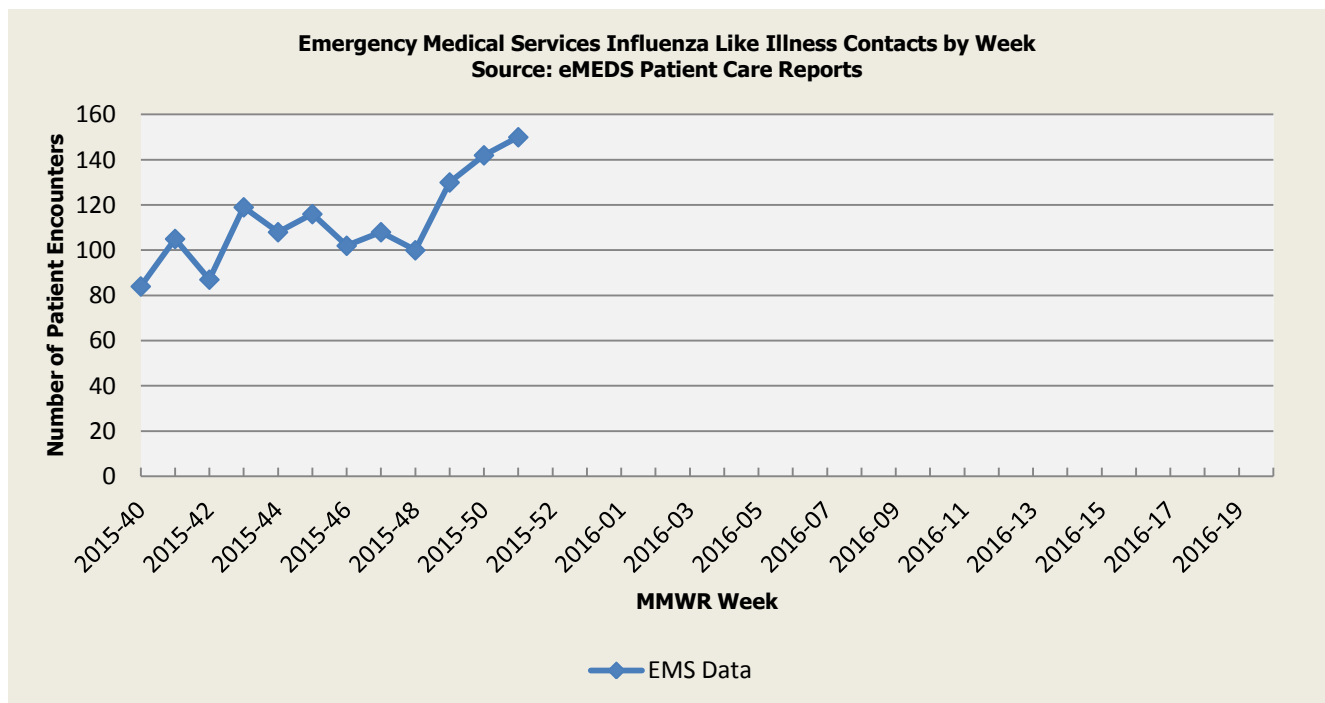
## SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 51 was: Regional Geographic Spread with Low Intensity.



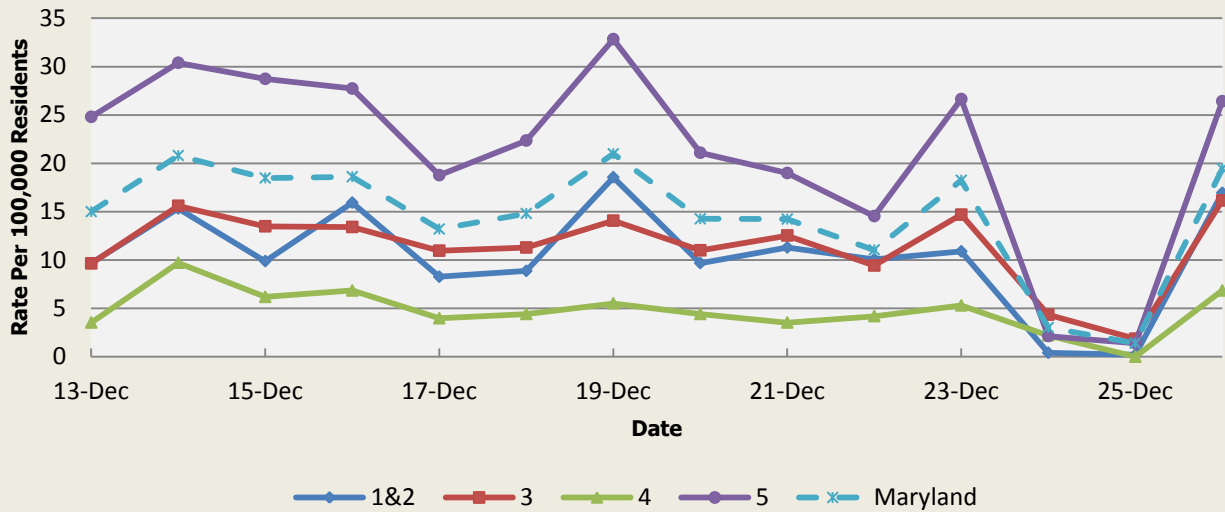
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.28	10.92	10.74	9.98	10.41
Median Rate*	7.46	8.64	8.83	7.68	8.22

\* Per 100,000 Residents



**Disclaimer on eMEDS flu related data:** This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. This data is reported for trending purposes only.

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

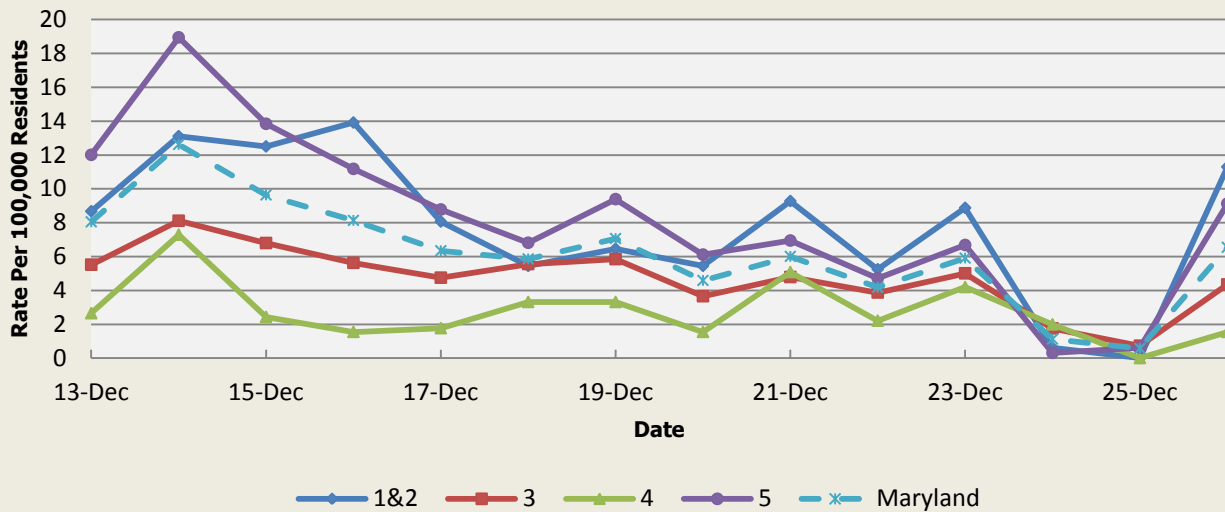


There was an appreciable increase above baseline in the rate of OTC flu medication sales on 12/21 (Regions 1&2,3), 12/23 (Region 3), and 12/26 (Regions 1&2,3,4).

	<b>OTC Sales Baseline Data January 1, 2010 - Present</b>				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.50	6.19	3.12	13.91	8.86
Median Rate*	4.23	5.15	2.65	11.35	7.26

\* Per 100,000 Residents

**Over-the-Counter Thermometer Sales  
Rate Per 100,000 Residents**



There was an appreciable increase above baseline in the rate of OTC thermometer sales on 12/26 (Regions 1&2).

	<b>Thermometer Sales Baseline Data January 1, 2010 - Present</b>				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.63	4.68	3.32	7.69	5.81
Median Rate*	5.04	4.31	3.09	7.07	5.36

\* Per 100,000 Residents



## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

**Alert phase:** This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of December 14, 2015, the WHO-confirmed global total (2003-2015) of human cases of H5N1 avian influenza virus infection stands at 844, of which 449 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

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

**H5N6 (CHINA):** 30 Dec 2015 The Centre for Health Protection (CHP) of the Department of Health (DH) has been notified of a confirmed human case of avian influenza A(H5N6) by the Health and Family Planning Commission of Guangdong Province affecting a 26-year-old woman in Shenzhen. The patient lives in Bao'an, Shenzhen. She is currently hospitalised for treatment and in a critical condition. Read More: <http://www.promedmail.org/post/3901600>

**H7N9 (CHINA):** 26 Dec 2015 The Centre for Health Protection (CHP) of the Department of Health (DH) is closely monitoring a human fatal case of avian influenza A(H7N9) affecting a man aged 61 in Dongguan, Guangdong Province, and again urged the public to maintain strict personal, food, and environmental hygiene both locally and during travel. Read More: <http://www.promedmail.org/post/3893014>

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:**

**H5N1, H5N2, H5N3, H5N9 (FRANCE):** 26 Dec 2015 Since the last update on 16 Dec 2015, more outbreaks in poultry have been reported as a result of increased surveillance in south west France. Read More: <http://www.promedmail.org/post/3892179>

## **NATIONAL DISEASE REPORTS**

There were no relevant national disease reports this week.

## **INTERNATIONAL DISEASE REPORTS**

**YELLOW FEVER (BRAZIL):** 30 Dec 2015 Rio Grande do Norte investigates a yellow fever death - the 1st case in 73 years. Read More: <http://www.promedmail.org/post/3902261>

**LASSA FEVER (NIGERIA):** 27 Dec 2015 Two people have been confirmed dead after testing positive to Lassa fever at Aminu Kano Teaching Hospital in Kano. An unconfirmed source told The Guardian that the victims - a father and his son -- were brought to the hospital from a nearby village but died of the disease a

day later. Read More: <http://www.promedmail.org/post/3893839>

**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.dhmf.maryland.gov/> or follow us on Facebook at [www.facebook.com/MarylandOPR](http://www.facebook.com/MarylandOPR).

More data and information on influenza can be found on the DHMH website: <http://phpa.dhmf.maryland.gov/influenza/fluwatch/SitePages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmf.md.gov/>

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

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

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

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

## Appendix 2: Maryland Health and Medical Region Definitions

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

