STATE OF MARYLAND

# DHMH

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## January 6, 2012

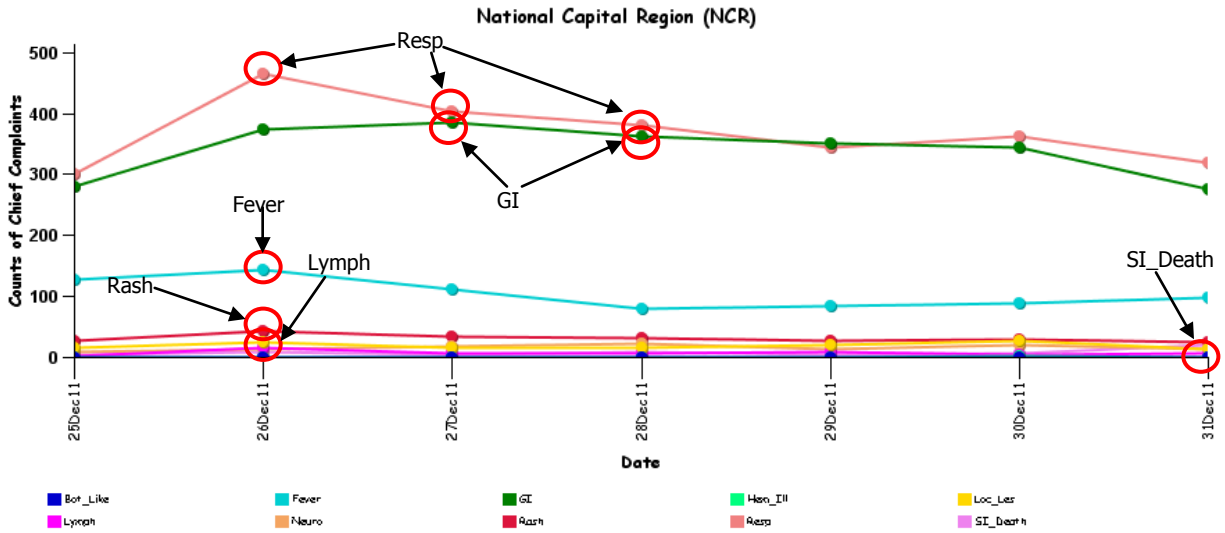
# Public Health & Emergency Preparedness Bulletin: # 2011:52 Reporting for the week ending 12/31/11 (MMWR Week #52)

**CURRENT HOMELAND SECURITY THREAT LEVELS**

**National:** **No Active Alerts**
**Maryland:** **Level One (MEMA status)**

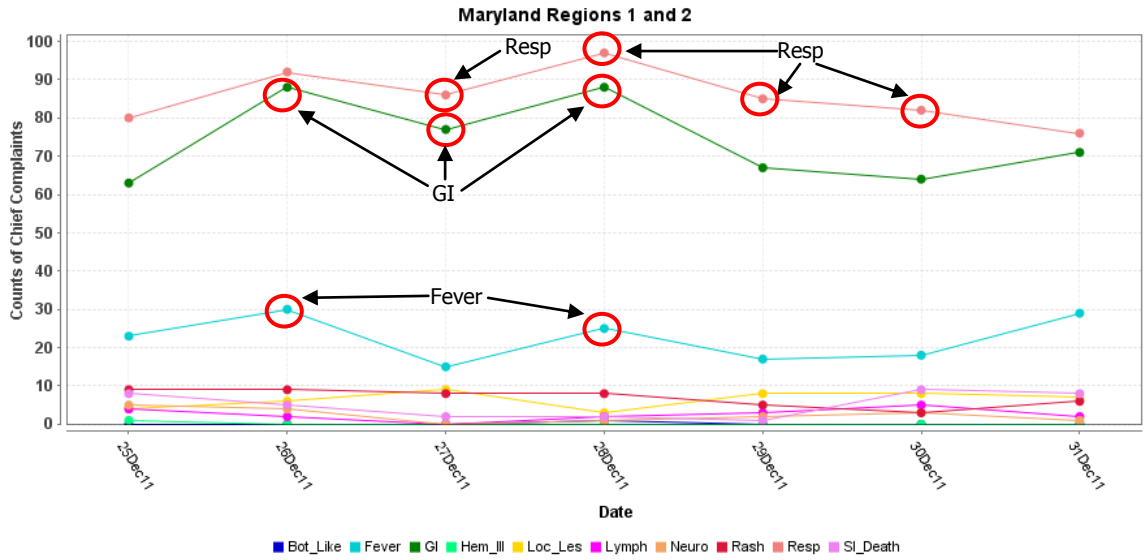
**SYNDROMIC SURVEILLANCE REPORTS**
**ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

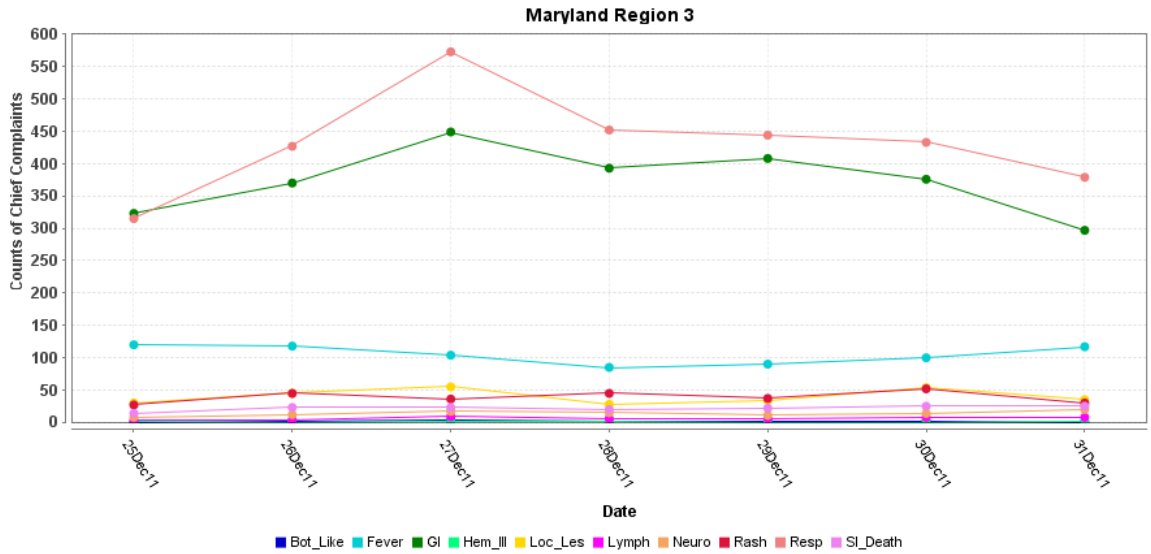



*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

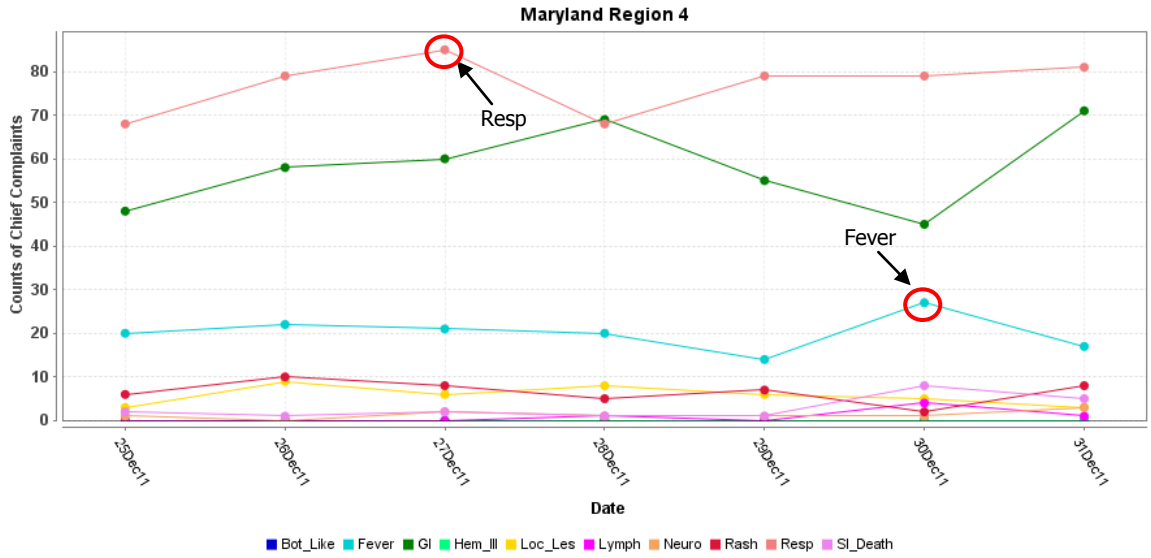
**MARYLAND ESSENCE:**



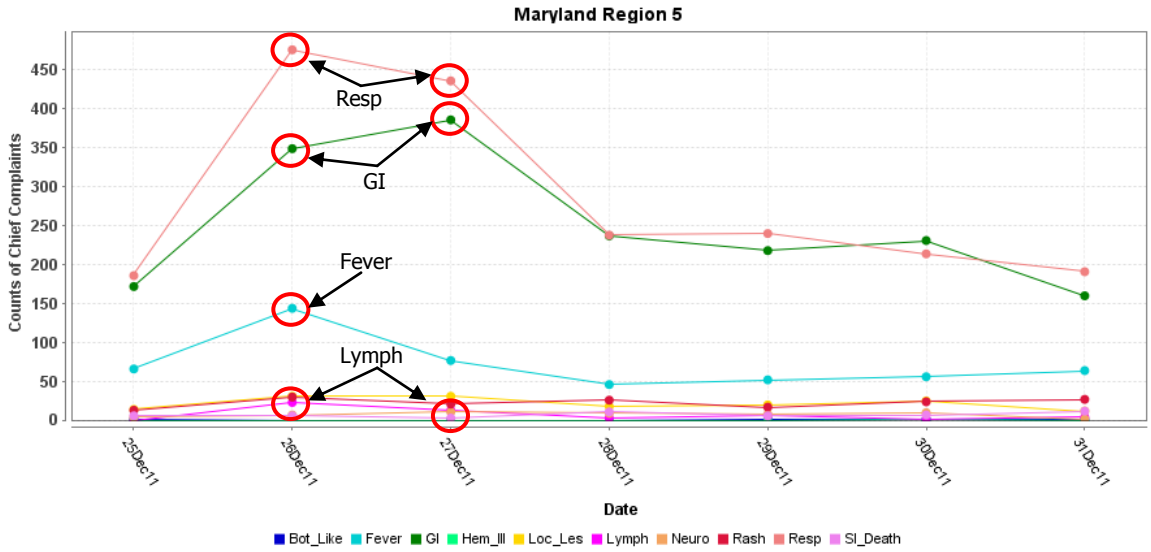

* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE




* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



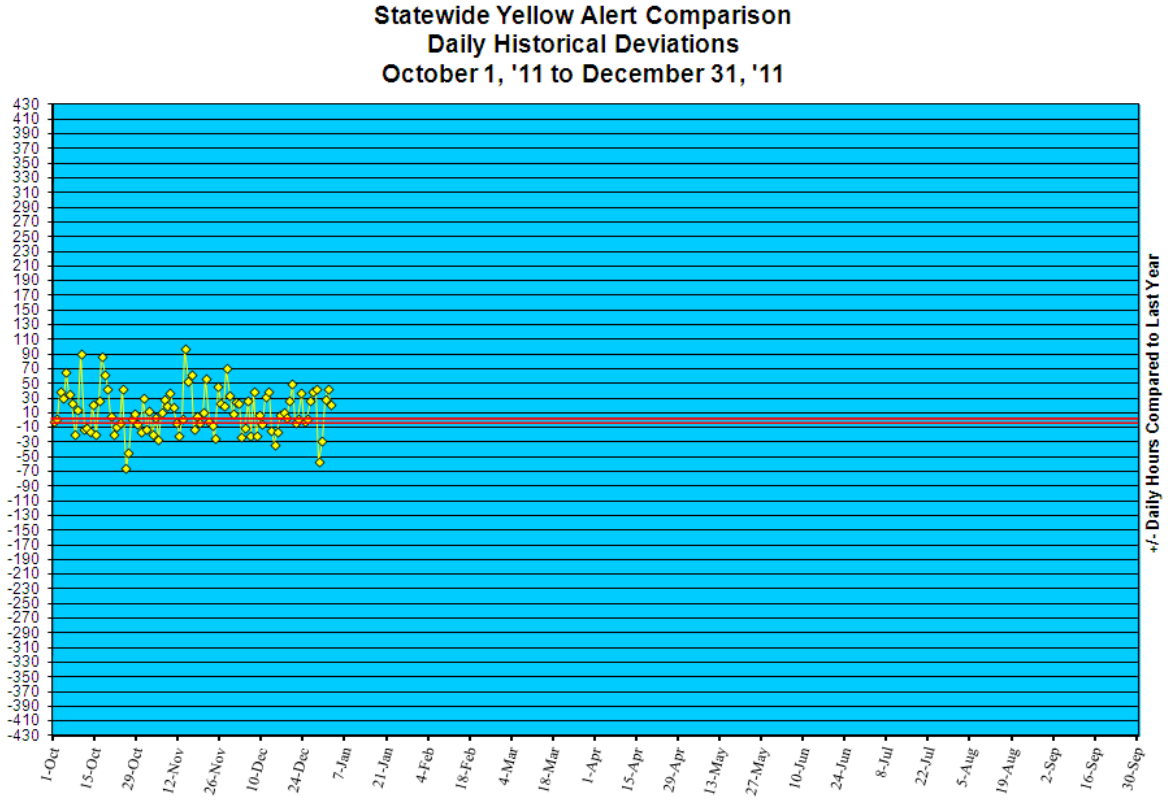

* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE




* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

**REVIEW OF EMERGENCY DEPARTMENT UTILIZATION**

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/11.




**REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

**MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2011 did not identify any cases of possible public health threats.

**REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

**COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

| **Meningitis:** | **Aseptic** | **Meningococcal** |
|---|---|---|
| New cases (December 25 – December 31, 2011): | 7 | 0 |
| Prior week (December 18 – December 24, 2011): | 7 | 0 |
| Week#52, 2010 (December 26 – January 1, 2010): | 17 | 0 |

**2 outbreak was reported to DHMH during MMWR week 52 (December 25 – December 31, 2011)**

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS in a Nursing Home

1 Rash illness outbreak
1 outbreak of SCABIES in an Independent Living Facility

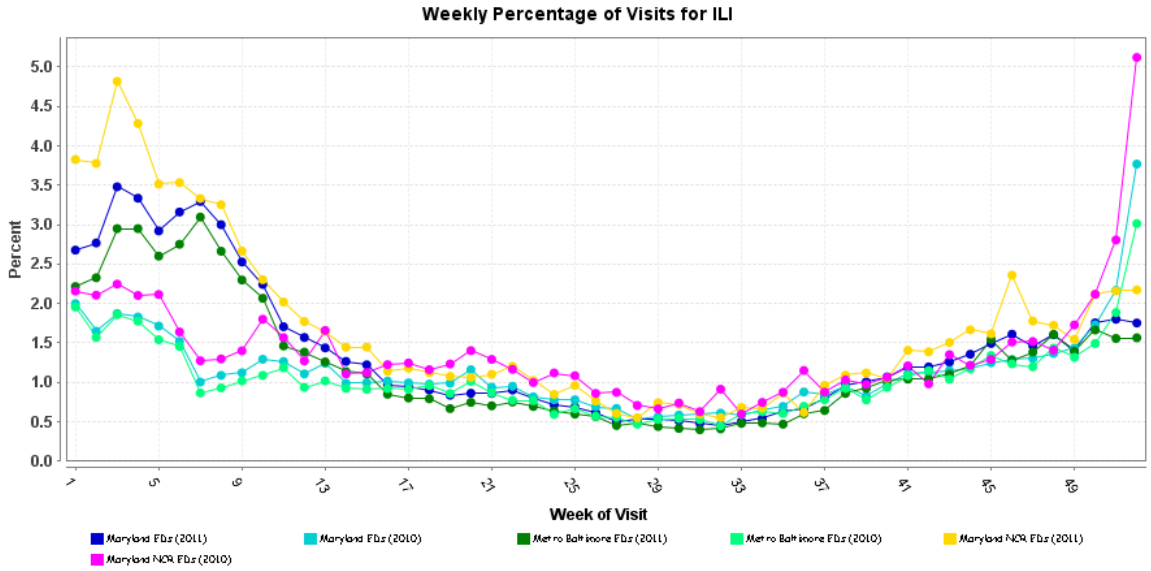
## MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 52 was: No activity, Minimal Intensity.

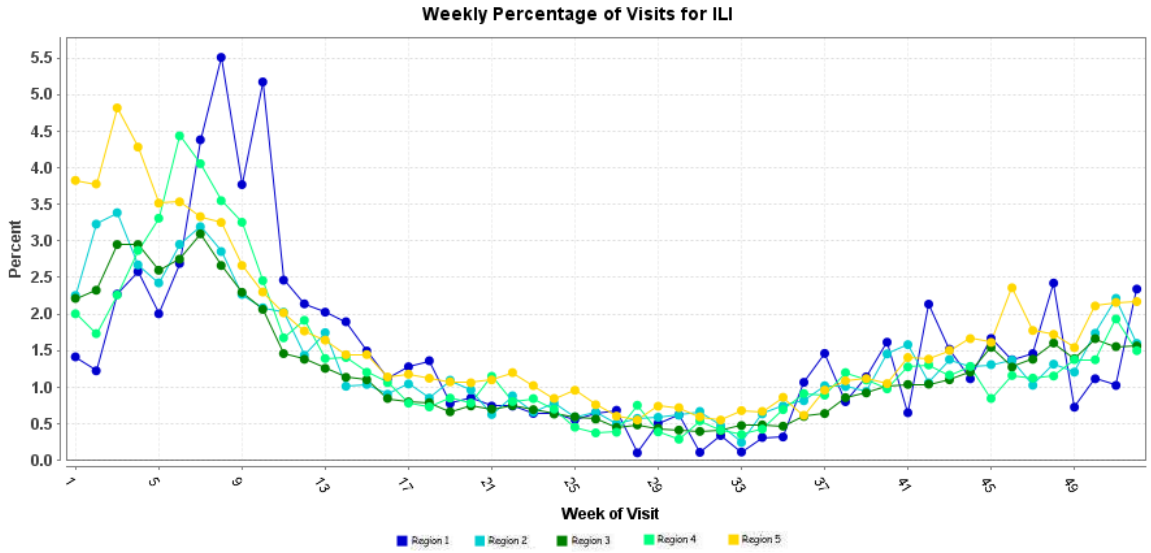
## SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



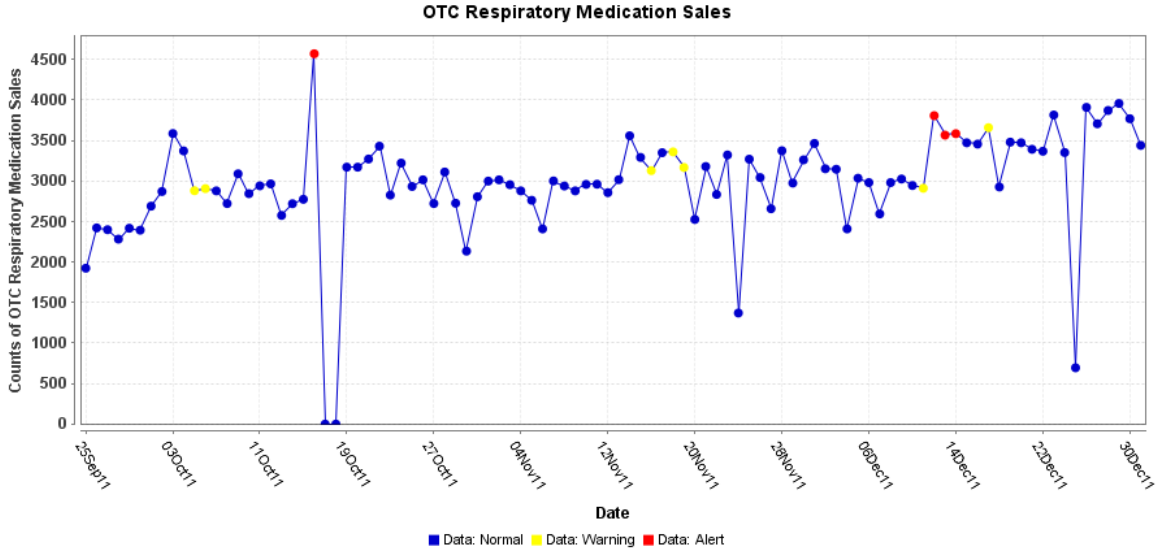

* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total




*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

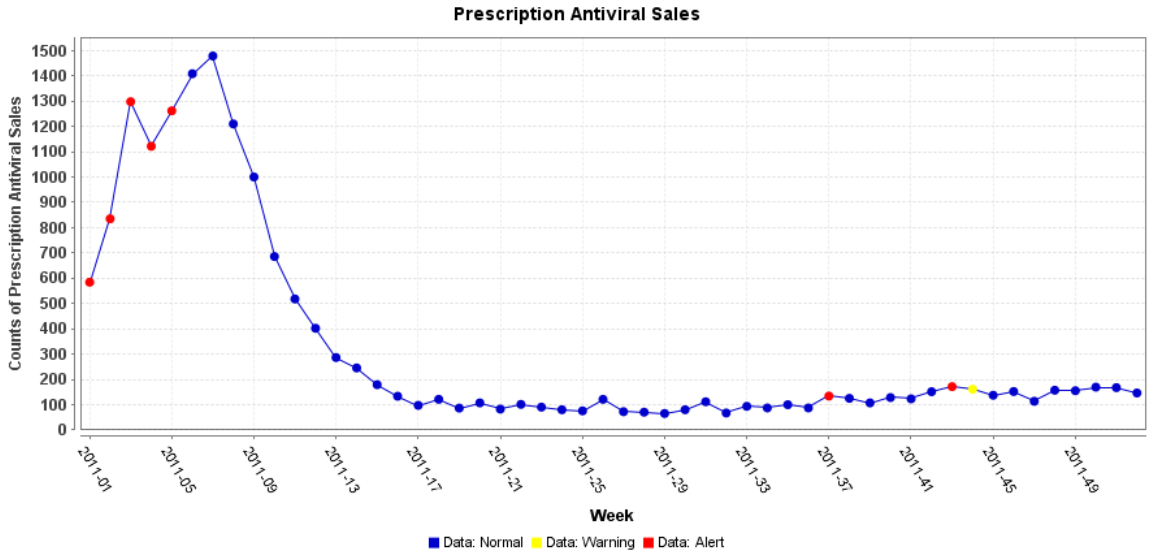
**OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:**

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



**PRESCRIPTION ANTIVIRAL SALES:**

Graph shows the weekly number of prescription antiviral sales in Maryland.




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

**WHO update:** The current WHO phase of pandemic alert for avian influenza is 3. 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.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of December 15, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 574, of which 337 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

**NATIONAL DISEASE REPORTS**

**CRONOBACTER SAKAZAKII (MISSOURI, ILLINOIS):** 25 December 2011, Two major retail chains, including Walmart, have removed certain packages of Enfamil, a popular brand of infant formula, from thousands of stores after a Missouri infant [of Lebanon, Mo.] who consumed the product died [on Sunday Dec 18] from a rare bacterial infection. The action by Walmart and Supervalu, which owns supermarket chains like Acme and Jewel, was highly unusual because there had been no determination by authorities that the formula was to blame for the child's death, and neither the manufacturer nor federal officials had sought a recall. The Food and Drug Administration said it was testing samples of the formula, Enfamil Premium Newborn powder, that it had obtained from the family of the dead child, Avery Cornett. Officials asserted that there was no immediate indication that the formula had been contaminated. A Walmart spokeswoman said the company learned on Sunday night of the baby's death and that his parents had fed him formula bought at the chain's store in Lebanon, Mo. On Monday, the company decided to pull all containers of the formula that had come from the same manufacturing lot from the shelves of its stores. Walmart identified the product consumed by the baby who died as Enfamil Premium Newborn powdered infant formula in a 12.5-ounce container, with the lot number ZP1K7G printed on the bottom of the canister. The baby boy, who was 10 days old when he died on Sunday, was infected with *Cronobacter sakazakii*, a bacterium that is commonly found in the environment and has occasionally been known to cause severe illness in infants. The company [Mead Johnson] said that it had tested all of its formula for *Cronobacter*. It said that its records showed that the batch bought by the Missouri infant's family had been tested before it was distributed and that no *Cronobacter* had been found. The Centers for Disease Control and Prevention said that it received reports of about four to six

*Cronobacter* infections in infants a year. The fatality rate is 40 percent. Scientific studies and disease investigations have found *Cronobacter* in various types of formula. In some cases, when the bacterium was found in open containers, it was not clear whether the formula had become contaminated after opening. But in other instances, the bacterium has been found in sealed packages delivered from the factory. In one case in 2001, an infant died from *Cronobacter* [infection] in Tennessee, and investigators found a genetically indistinguishable strain of the bacterium in sealed containers of the formula, according to reports by the Centers for Disease Control and Prevention and the F.D.A. The formula, a Mead Johnson product called Portagen, was recalled. Health officials said it was important for parents to take precautions when preparing formula. That includes washing hands thoroughly, sterilizing bottles and other feeding equipment and preparing only enough formula for a single feeding. Officials said the bacterium could grow over time if it was in the formula, and holding onto mixed formula for more than one feeding could increase the chance of infection. Walmart said customers who bought Enfamil from the same lot could bring it back and receive a refund or another product in its place. Supervalu said Thursday that it had also received formula from the same lot and was removing it from store shelves. Michael A. Siemienas, a Supervalu spokesman, said the formula might have been shipped to hundreds of its stores around the country, including Jewel, Shaws, Shop and Save, Acme, Farm Fresh, Shoppers and some Albertsons supermarkets. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

**INTERNATIONAL DISEASE REPORTS**

**AFLOTOXIN (CHINA):** 27 December 2011, A batch of milk produced by Mengniu Group has tested to have excessive aflatoxin, a cancer-causing substance, over the weekend. Cai Mengsha bought 2 boxes of milk produced by the Chinese dairy giant Mengniu Group over the weekend. But she was having second thoughts after learning excessive levels of a cancer-causing toxin were found in a batch of milk manufactured by the company. The General Administration of Quality Supervision, Inspection and Quarantine on Saturday [24 Dec 2011] published the result of a random check of 200 dairy products in 21 provinces, and 2 products, including one manufactured by Mengniu, were found to contain excessive aflatoxin. Despite the company's declaration on Monday [26 Dec 2011] that the entire tainted batch was destroyed in its branch plant in Meishan, Sichuan province, before it could reach the market, Cai, a college student in Zhejiang, said she was still confused as to whether the milk she had bought was safe to consume. While the national standard allows a maximum of 0.5 micrograms carcinogenic content in a kg of milk, the official test found 1.2 micrograms of the toxic substance in the Mengniu sample. The sample product was a 250ml pack of pure milk produced on 18 December 2011, according to the test result published on the website of the general administration. Aflatoxin is virulent in terms of toxicity and is classified as a 1st-class carcinogen by the World Health Organization. "Experiments on animals have demonstrated a strong carcinogenic effect of the substance, and studies about epidemic diseases indicate that the content of the substance in food is relevant to the incidence of liver cancer," said Fan Zhihong, associate professor with China Agricultural University's college of food science and nutrition engineering. She also says the carcinogen can accumulate in the human body, and is resistant to heat. "It dissolves when the temperature reaches nearly 300 C, which means high temperature [of] disinfection or pasteurizing (a common disinfection method used in the dairy industry) cannot kill it at all." Dairy experts said the source of the problem might be traced to cattle feed being contaminated by aflatoxin. "Cattle feed, such as corn, rice and soybean, will produce the poison after having been stored for a long time," said Wang Dingmian, chairman of the Guangzhou Dairy Association. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

**JAPANESE ENCEPHALITIS (INDIA)** 24 December 2011, In New Delhi, 14 positive cases of Japanese encephalitis put the health officials in the national capital on overdrive, prompting large-scale testing of humans and animals alike. Over 140 people have died due to encephalitis at a government hospital in Indore [Madhya Pradesh] in the last 8 months, but the Madhya Pradesh health officers are neither aware of the deaths, nor are in a position to negate possibilities of Japanese [encephalitis] virus spread in the city. The fears about spread of a Japanese encephalitis epidemic in Indore gains ground after test reports of laboratories in New Delhi claimed that 17 pigs were found infected with Japanese encephalitis virus. Delhi health minister AK Wadia had confirmed that several of the pigs were supplied from Indore. Japanese encephalitis [JE virus] can easily spread from pigs to human beings [not directly. JE virus is transmitted by _Culex_ mosquitoes that may have acquired the virus from pigs, which are amplifying hosts, and subsequently transmit it to humans. Wild birds are reservoir hosts. - Mod.TY] As per the official records, an average of 17 deaths have occurred in the MY Hospital [in Indore] every month over the last 8 months. In April and May each, 20 persons died due to encephalitis. "The majority of the deceased includes children. Though the data is yet to be analysed for the month of November 2011, 2 children have died this month [December 2011] also due to encephalitis," said a hospital official on condition of anonymity. The health department officials tried to shy away from the issue by claiming that the MY Hospital -- an auxiliary medical facility of the MGM Medical College that comes under the medical education department -- had failed to inform them about the developments. State director of health services JN Kansotiya said, "We have not been informed. MY Hospital comes under directorate of medical education. If so many deaths have occurred due to a particular disease then it's an issue of serious concern," he added. Medical College community medicine department head Dr Sanjay Dixit claimed that encephalitis may be of different kinds which leads to inflammation of brain cells, but both the Japanese [encephalitis virus infections] and cerebral encephalitis due to bacteria could break into an epidemic. The office of joint director health services had decided to put a check on vector-borne diseases, but no particular drive for containing encephalitis has been initiated yet. No blood sample testing of pigs has been carried out in the entire division. Joint director health services Dr Sharad Pandit claimed that the magnitude of deaths due to encephalitis is alarming and that appropriate measures would be taken. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

**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/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey
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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 me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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