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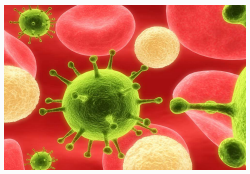
U.S. Multi-state Measles Outbreak, December 2014-January 2015

Summary

The Centers for Disease Control and Prevention (CDC) and State Health Departments are investigating a multi-state outbreak of measles associated with travel to Disneyland Resort Theme Parks (which includes Disneyland and Disney California Adventure). The purpose of this HAN Advisory is to notify public health departments and healthcare facilities about this measles outbreak and to provide guidance to healthcare providers. Healthcare providers should ensure that all of their patients are current on MMR (measles, mumps, and rubella) vaccine. They should consider measles in the differential diagnosis of patients with fever and rash and ask patients about recent international travel or travel to domestic venues frequented by international travelers. They should also ask patients about their history of measles exposures in their community. Please disseminate this information to healthcare providers in hospitals and emergency rooms, to primary care providers, and to microbiology laboratories.

INSIDE THIS ISSUE:



Background

Measles is a highly contagious, acute viral illness. It begins with a prodrome of fever, cough, coryza (runny nose), conjunctivitis (pink eye), lasting 2-4 days prior to rash onset. Measles can cause severe health complications, including pneumonia, encephalitis, and death. Measles is transmitted by contact with an infected person through coughing and sneezing; infected people are contagious from 4 days before their rash starts through 4 days afterwards. After an infected person leaves a location, the virus remains viable for up to 2 hours on surfaces and in the air.

The United States is experiencing a large multi-state measles outbreak that started in California in December 2014 and has spread to six additional states and Mexico. The initial confirmed case-patients reported visiting Disneyland Resort Theme Parks in Orange County, CA, from December 17 through December 20, 2014. From December 28, 2014, through January 21, 2015, 51 confirmed cases of measles linked to this outbreak have been reported to CDC, 42 from California and 9 from six other states (3 in UT, 2 in WA, 1 in OR, 1 in CO, 1 in NE, and 1 in AZ). In addition to the U.S. cases, one case was reported from Mexico in an unvaccinated child who visited Disneyland Resort Theme Parks on December 17 and December 20, 2014. At this time, no source case for the outbreak has been identified, but it is likely that a traveler (or more than one traveler) who was infected with measles overseas visited one or both of the Disney parks in December during their infectious period.

For cases with age reported, the age of case-patients range from 10 months to 57 years (median = 16.5 years). To date, 8 (15%) case-patients were hospitalized. Of the 52 outbreak-associated cases, 28 (55%) were unvaccinated, 17 (31%) had unknown vaccination status, and 6 (12%) were vaccinated. Of the 6 cases vaccinated, 2 had received 1 dose and 4 had received 2 or more

doses. Among the 28 unvaccinated cases, 5 were under age for vaccination. Measles genotype information was available from 9 measles cases; all were genotype B3 and all sequences linked to this outbreak are identical. The sequences are also identical to the genotype B3 virus that caused a large outbreak in the Philippines in 2014. During the last 6 months, identical genotype B3 viruses were also detected in at least 14 countries and at least 6 U.S. states, not including those linked to the current outbreak.

Measles was declared eliminated (i.e., interruption of year -round endemic transmission) in the United States in 2000, because of high population immunity achieved by high 2-dose measles vaccine coverage

and a highly effective measles vaccine. However, measles is still endemic in many parts of the world, and outbreaks can occur in the U.S. when unvaccinated groups are exposed to imported measles virus. In 2014, nearly half of importations in the U.S. were linked to travel to the Philippines during the large measles outbreak in that country. Disney and other theme parks are international attractions, and visitors come from many parts of the world, including locations where measles is endemic. The current multi-state outbreak underscores the ongoing risk of importation of measles, the need for high measles vaccine coverage, and the importance of a prompt and appropriate public health response to measles cases and outbreaks.

Because of the success of the measles vaccine program, most young physicians have never seen a case of measles and may not take a detailed history of travel or potential exposure and initially may not consider the diagnosis in a clinically compatible case.

Recommendations for Health Care Providers

 Ensure all patients are up to date on MMR vaccine* and other vaccines.

 For those who travel abroad, CDC recommends that all U.S. residents older than 6 months be protected from measles and receive MMR vaccine, if needed, prior to departure.

o Infants 6 through 11 months old should receive 1 dose of MMR vaccine before departure.†

o Children 12 months of age or older should have documentation of 2 doses of MMR vaccine (separated by at least 28 days).

o Teenagers and adults without evidence of measles immunity** should have documentation of 2 appropriately spaced doses of MMR vaccine.

 Consider measles as a diagnosis in anyone with a febrile rash illness and clinically compatible symptoms (cough, coryza, and/or conjunctivitis) who has recently traveled abroad or who has had contact with someone with a febrile rash illness. Immunocompromised patients may not exhibit rash or may exhibit an atypical rash. The incubation period for measles from exposure to fever is usually about 10 days (range, 7 to 12 days) and from exposure to rash onset is usually 14 days (range, 7 to 21 days).

 Isolate suspect measles case-patients and immediately report cases to local health departments to ensure a prompt public health response.

 Obtain specimens for testing, including viral specimens for confirmation and genotyping. Contact the local health department for assistance with submitting specimens for testing.

* Children 1 through 12 years of age may receive MMRV vaccine for protection against measles, mumps, rubella, and varicella.

† Infants who receive a dose of MMR vaccine before their first birthday should receive 2 more doses of MMR vaccine, the first of which should be administered when the child is 12 through 15 months of age and the second at least 28 days later.

** One of the following is considered evidence of measles immunity for international travelers: 1) birth before 1957, 2) documented administration of 2 doses of live measles virus vaccine (MMR, MMRV, *or* measles vaccines), 3) laboratory (serologic) proof of immunity or laboratory confirmation of disease.

For more information:

CDC's Measles (Rubeola) website.

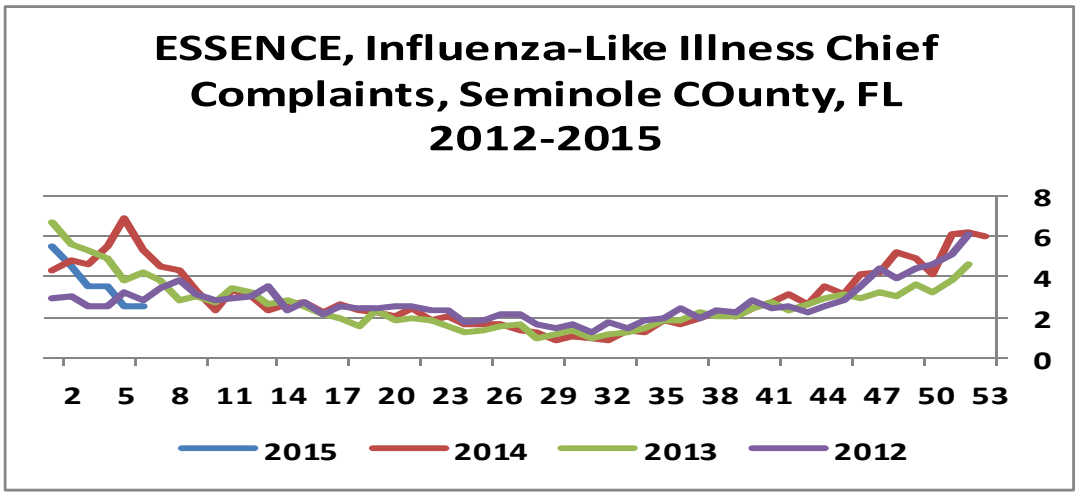
http://www.cdc.gov/measles/index.html

Influenza Surveillance

Local: Seminole County is reporting **MILD** flu activity for the month of January. **Two (2) influenza outbreaks** have been reported in Seminole for the 2014-2015 Influenza season in a nursing home. The ESSENCE Syndromic Surveillance system is showing **DECREASING** influenza-like illness (ILI) chief complaints.

State: Florida is currently reporting **WIDESPREAD** flu activity. Influenza activity has **DECREASED** in recent weeks. **Eighty (80) influenza or ILI outbreaks** have been reported this flu season. **Three (3) pediatric influenza-associated deaths** have been reported this season. The most common influenza subtype detected at the state laboratory is **Influenza A (H3**).

National: Forty (40) states are reporting **WIDESPREAD** flu activity. Since October 1, 2014 the CDC has identified an antigenically **drifted influenza A (H3N2) strain** circulating that is different from the influenza A (H3N2) strain contained in the current 2014-2015 influenza vaccine formulation. Additional information can be found at the following link: http://emergency.cdc.gov/han/han00374.asp



Arbovirus Surveillance

Seminole County Mosquito-borne Illness Statistics 2015 Year to Date:

West Nile Virus: N/A

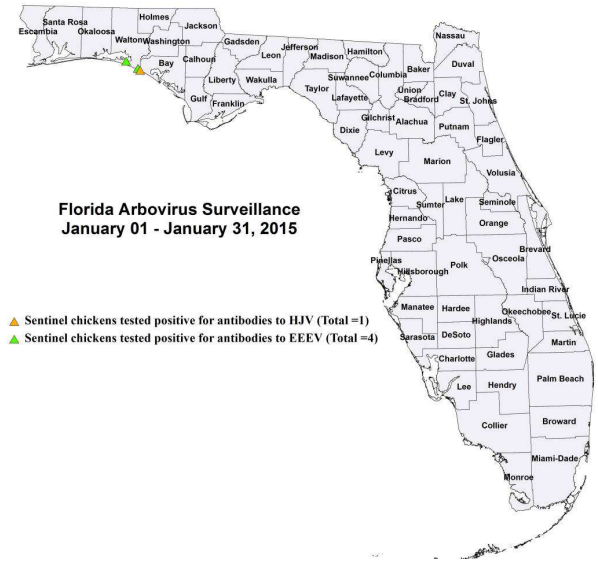
Eastern Equine Encephalitis: N/A

St. Louis Encephalitis: N/A

Dengue: N/A

Chikungunya: N/A

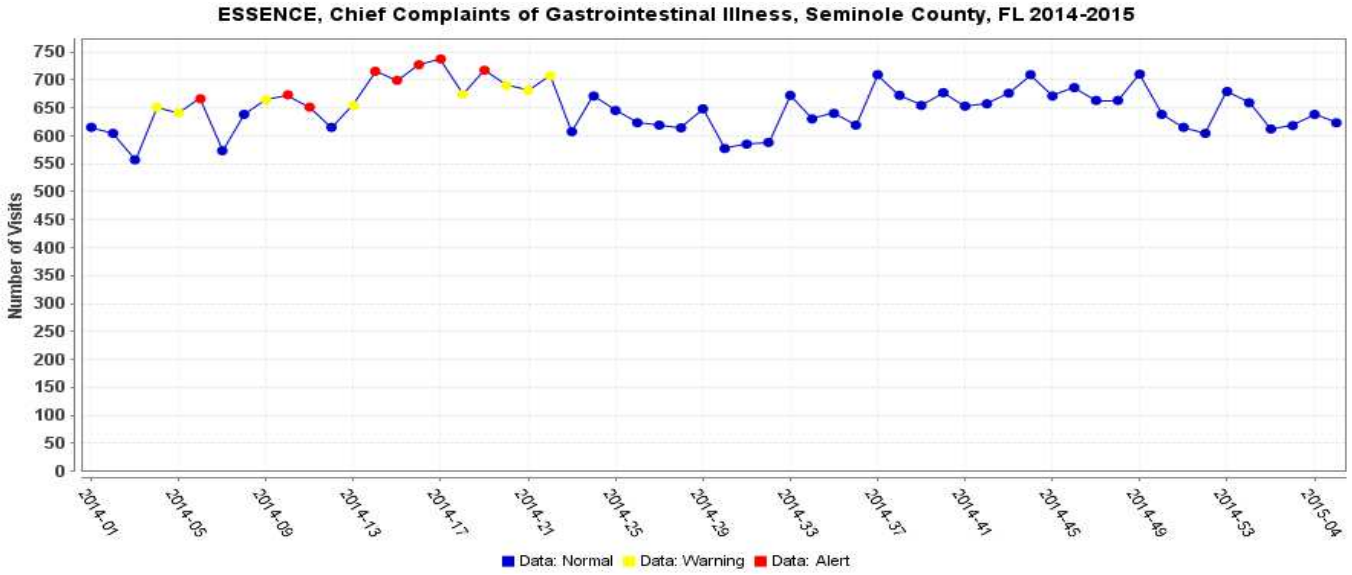
Malaria: N/A



Gastrointestinal Illness Surveillance

Gastrointestinal Illness typically follows a trend similar to influenza season, peaking in the winter months. One gastrointestinal illness outbreak was investigated by DOH-Seminole in January.

Food and Waterborne Illness Complaints can be submitted at the following link, a health department employee will follow-up with the complainant by phone: http://www.floridahealth.gov/diseases-and-conditions/food-and-waterborne-disease/online-food-complaint-form.html



Ebola Virus Disease Update

Current Statistics:

Guinea—3,108 cases

Liberia—9,007 cases

Sierra Leone—11,103 cases

Total Deaths—23,218 *(stats as of February 15, 2015)*

The United Kingdom has also had an imported case of Ebola and will be declared Ebola free after 42 days have passed without a new case. The U.S., Nigeria, Senegal, Spain, and Mali have all previously reported cases but have since been declared Ebola-free.

The Florida Department of Health continues to encourage healthcare providers and hospitals to prepare for an Ebola case in Florida.

The latest FDOH guidance on Ebola Virus Disease can be found at the following link:

http://www.floridahealth.gov/diseases-and-conditions/ebola/index.html

Disease Incidence Table-Seminole County

Selected Diseases/Conditions Reported to DOH-Seminole	January 2015	January 2014	January 2013	January 2012–2014 Average
AIDS*	1	1	2	3.3
Animal Bite to Humans**	2	3	2	1.7
Animal Rabies	1	1	1	0.7
Campylobacteriosis	8	0	4	3.3
Chlamydia	135	95	122	114
Cryptosporidiosis	3	1	0	1.0
Cyclosporiasis	0	0	0	0
Dengue	0	0	0	0
E. coli Shiga toxin-producing	0	2	2	1.3
Giardiasis	2	0	1	1.0
Gonorrhea	26	22	30	25
Haemophilus influenzae (invasive)	0	0	2	0.7
Hepatitis A	0	0	0	0.7
Hepatitis B (acute and chronic)	7	4	3	4.7
Hepatitis C (acute and chronic)	25	37	19	25.7
Hepatitis B in Pregnant Women	0	0	0	0
HIV*	1	4	2	2.3
Lead poisoning	1	0	0	0
Legionellosis	1	0	1	0.3
Lyme Disease	0	0	0	0.7
Meningococcal Disease	0	0	0	0
Pertussis	0	1	1	0.7
Salmonellosis	3	5	2	3.7
Shigellosis	0	0	0	1.7
S. pneumoniae – drug resistant	0	0	0	1.0
Syphilis	5	5	2	4.0
Tuberculosis	0	1	0	0.3
Varicella	0	3	0	2.3

- ** HIV data includes those cases that have converted to AIDS. These HIV cases cannot be added with AIDS cases to get combined totals since the categories are not mutually exclusive.*
- ******* *Animal bite to humans by a potentially rabid animal resulting in a county health department or state health office recommendation for post-exposure prophylaxis (PEP), or a bite by a non-human primate.*

  *Reported cases of diseases/conditions in **Bold** are >10% higher than the previous three year average for the same time period.*

All Data is Provisional

Disease Reporting

The Epidemiology Program conducts disease surveillance and investigates suspected occurrences of infectious diseases and conditions reported from physician's offices, hospitals and laboratories.

Surveillance is primarily conducted through passive reporting from the medical community as required by Chapter 381, Florida Statutes.

To report a reportable disease or outbreak during business hours please use the Report of Communicable Disease Form for diseases other than HIV/AIDS, STD, or TB, or contact the Epidemiology Department at (407) 665-3266.

To report an urgent reportable disease or outbreak after hours, please contact (407) 665-3266 and follow the instructions to reach the Epidemiologist on-call 24/7.

Reportable Diseases/Conditions in Florida - Practitioner List

Reportable Diseases/Conditions in Florida - Laboratory List

Disease Reporting Information for Health Care Providers and Laboratories

Foodborne Illnesses Reporting Links:

Report illnesses due to food online 24/7

Report unsafe or unsanitary conditions

MISSION

To protect, promote and improve the health of all people in Florida through integrated state, county and community efforts

VISION

To be the Healthiest State in the Nation

VALUES

Innovation
Collaboration
Accountability
Responsiveness
Excellence

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