

The



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gazette

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CDC Modeling Predicts Growth of Drug-resistant Infections and *C. difficile*

Improved infection control and antibiotic prescribing could save 37,000 lives over five years.

The latest CDC Vital Signs monthly report predicts increases in drug-resistant infections caused by *Clostridium difficile* (*C. difficile*) without immediate, nationwide improvements in infection control and antibiotic prescribing. *C. difficile* is a germ commonly found in health care facilities and can be contracted

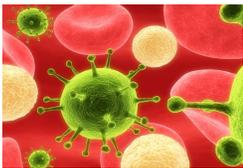
from contaminated surfaces or spread from a healthcare provider's hands. *C. difficile* is a spore-forming, Gram-positive anaerobic bacillus that produces two exotoxins: toxin A and toxin B. It is a common cause of antibiotic-associated diarrhea (AAD), accounting for 15-25% of all episodes of AAD. Pseudomembranous colitis (PMC), toxic megacolon, perforations of the colon, sepsis, and death (rarely) can result from *C. difficile*

infections. The risk for disease increases in patients with: antibiotic exposure, proton pump inhibitors, gastrointestinal surgery/manipulation, long length of stay in healthcare settings, a serious underlying illness, immunocompromising conditions, and/or advanced age.

C. difficile infections are at historically high rates. Antibiotic-resistant germs such as *C. difficile* no longer respond to drugs designed to kill them and cause more than two million illnesses and at least 23,000 deaths each year in the United States. In 2011, *C. difficile* caused close to half a million illnesses. An estimated 15,000 deaths a year are directly attributed to *C. difficile* infections.

CDC modeling projects partnered with health care facilities and health departments to develop an action plan to decrease 70 percent of life-threatening carbapenem-resistant Enterobacteriaceae (CRE) infections within the next five years. National infection control and antibiotic stewardship efforts led by federal agencies, health care facilities, and public health departments aim to prevent 619,000 antibiotic-resistant and *C. difficile* infections and save 37,000

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lives over five years.

The CDC Vital Signs monthly report recommends a coordinated, two-part approach to turn this data into action:

1. Public health departments track and alert health care facilities to drug-resistant outbreaks in their area and the threat of germs coming from other facilities, *and*
2. Health care facilities collaborate with public health authorities to implement shared infection control actions to stop the spread of antibiotic-resistant germs and *C. difficile* between facilities.

The Vital Signs report reveals *C. difficile* and other drug-resistant bacteria such as CRE, Methicillin-resistant *Staphylococcus aureus* (MRSA), and *Pseudomonas aeruginosa* spread inside of and between health care facilities when appropriate infection control actions are not implemented. Infections can lead to sepsis (the body's overwhelming and life-

threatening response to infection) or death. Facilities following recommended infection control and antibiotic use practices are at risk when they accept patients who carry germs from other health care facilities.

Local health departments are urged to:

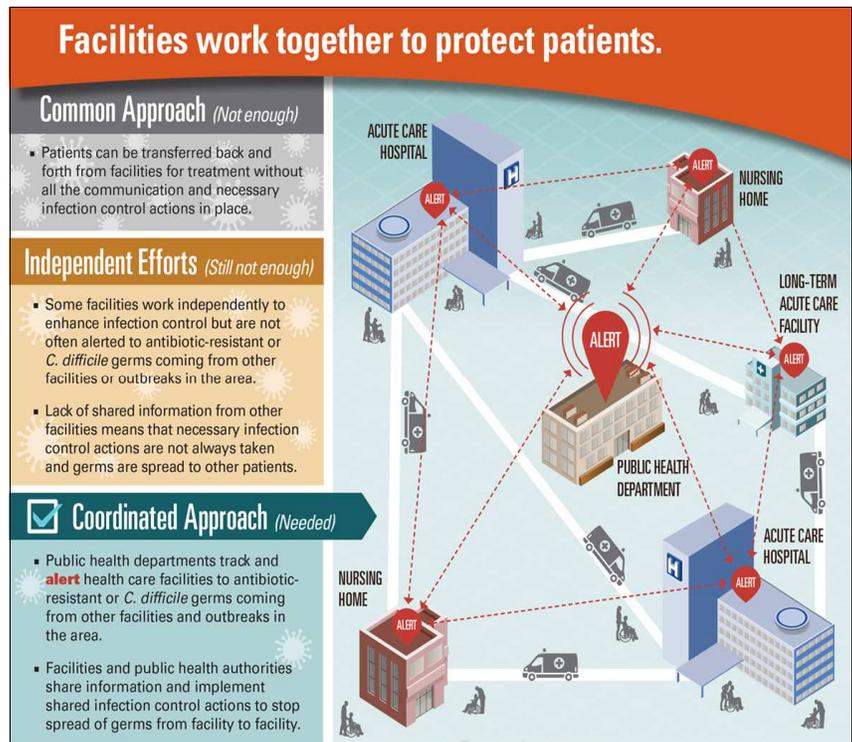
- Identify health care facilities in the area and know how they are connected.
- Dedicate staff to improve connections and coordination with health care facilities.
- Collaborate with the CDC to use data for action to prevent infections and improve antibiotic use in health care.
- Know the antibiotic resistance threats in the area and state.

Hospital owners and health care facility administrators need to:

- Implement systems to alert receiving facilities when transferring patients who have drug-resistant germs.
- Review and improve infection control actions in each facility.
- Get leadership commitment to join area health care-associated infection (HAI) antibiotic resistance prevention activities.
- Connect with public health departments to share data about antibiotic resistance and other HAIs.
- Provide clinical staff access to prompt and accurate laboratory testing for antibiotic-resistant germs.

The model shows how coordination could reduce CRE over the course of five years after the drug-resistant bacteria enters 10 facilities in an area sharing patients: with a coordinated approach, CRE would impact 400 patients. With the currently used common approach and independent efforts, CRE would affect 2,000 and 1,500 patients, respectively.

For more information please visit: <http://www.cdc.gov/media/dpk/2015/dpk-vs-hai.html>



Arbovirus Surveillance

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

West Nile Virus: 1 Sentinel Chicken

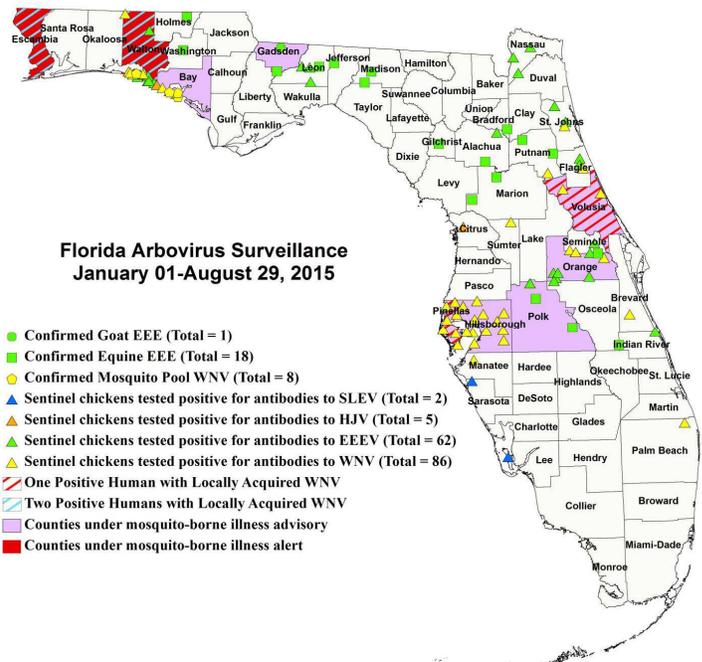
Eastern Equine Encephalitis: 3 Sentinel Chickens

St. Louis Encephalitis: N/A

Dengue: 1 imported case

Chikungunya: 3 imported cases

Malaria: N/A



Ebola Virus Disease Update

Current Statistics

	Cases	Deaths
Guinea	3,792	2,530
*Liberia	10,672	4,808
Sierra Leone	13,683	3,953
Total	28,147	11,291

Case count as of September 6, 2015

The U.S., Nigeria, Senegal, Spain, Mali, and U.K. have all previously reported cases but have since been declared Ebola-free. *** Liberia was declared Ebola-free on May 9, 2015.**

On June 29, 2015, a confirmed case of Ebola was reported in a person who had died in Liberia. Five people who had contact with the person who died of Ebola were confirmed to have Ebola; one died. **On September 3, 2015, WHO again declared Liberia free of Ebola virus transmission.**

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	2015 through Week 35	2014 through Week 35	2013 through Week 35	2012–2014 Average through Week 35
AIDS*	0	0	0	0.0
Animal Bite to Humans**	12	27	26	18.8
Animal Rabies	4	3	9	4.8
Campylobacteriosis	38	21	26	30.0
Chlamydia	1096	929	967	999.3
Cryptosporidiosis	6	7	3	5.0
Cyclosporiasis	1	3	1	1.5
Dengue	1	1	2	1.5
E. coli Shiga toxin-producing	3	8	6	6.3
Giardiasis	12	11	6	10.0
Gonorrhea	235	202	205	219.8
Haemophilus influenzae (invasive)	0	2	7	2.5
Hepatitis A	0	1	0	1.0
Hepatitis B (acute and chronic)	61	45	33	45.5
Hepatitis C (acute and chronic)	315	249	203	248.5
Hepatitis B in Pregnant Women	3	1	3	3.0
HIV*	37	22	36	28.0
Lead poisoning	2	4	2	4.3
Legionellosis	8	4	7	5.0
Lyme Disease	0	4	3	2.3
Meningococcal Disease	1	1	1	1.0
Pertussis	11	18	8	11.5
Salmonellosis	53	56	42	50.8
Shigellosis	14	15	3	17.8
S. pneumoniae – drug resistant	3	5	9	5.8
Syphilis	70	51	36	43.5
Tuberculosis	2	4	4	4.0
Varicella	7	10	13	11.0

- * HIV data includes cases converted to AIDS. HIV cases cannot be added with AIDS cases to get combined totals since 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 percent 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 physicians, 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](#). Contact the Division of Epidemiology at 407-665-3266 for diseases other than HIV/AIDS and STDs.

To report an urgent reportable disease or outbreak after hours, call 407-665-3266 and follow the instructions to reach the on-call Epidemiologist.

[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](#)

Disaster Preparedness Link: <http://www.floridadisaster.org/index.asp>

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- Accountability
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