



Office of Disease Control  
and Health Protection

# EPI-LOG

Disease Control

Solinka McIntosh, MPH, Director  
*Solinka.Murillo-McIntosh@flhealth.gov*  
386-274-0845

Epidemiology

Paul Rehme, DVM, MPH, Manager  
*Paul.Rehme@flhealth.gov*  
386-274-0618

Public Health Preparedness

Melanie Black, MPH, Planner, Manager  
*Melanie.Black@flhealth.gov*  
386-274-0576

HIV/AIDS

Patrick Forand, MPH, Manager  
*Patrick.Forand@flhealth.gov*  
386-274-0585

Sexually Transmitted Disease

Solinka McIntosh, MPH, Manager  
*Solinka.Murillo-McIntosh@flhealth.gov*  
386-274-0845

Tuberculosis

Debra Paul, RN, Nurse  
*Debra.Paul2@flhealth.gov*  
386-274-0654

Susan Stewart, EPI/HIV  
Staff Assistant  
*Susan.Stewart@flhealth.gov*  
386-274-0651

Bonita Stevenson, STD/TB/PHP/MRC  
Staff Assistant  
*Bonita.Stevenson@flhealth.gov*  
386-274-0646

**To report a disease or outbreak:**

Phone: 386-274-0634 M-F, 8 a.m.-5 p.m.  
Fax: 386-274-0641  
After hours: 386-316-5030  
P.O. Box 9190, Bin #111  
Daytona Beach, FL 32120-9190

**Hepatitis C in Volusia County**  
*By: Paul Rehme, DVM MPH*

Hepatitis C has become one of the most commonly diagnosed diseases in the country with an estimated 3.2 million people in the United States having the chronic form of the disease. In Volusia County, we have not been spared as we had 650 newly reported confirmed cases last year to total over 2100 for the last three years. Around 75 percent of acutely infected persons develop the chronic form of disease and 60-70 percent of those will eventually develop some type of liver pathology. With the recent FDA approval of several effective therapies against hepatitis C it is more important than ever to identify individuals with the chronic disease.

Blood testing for hepatitis C is done in two parts. The first part is the detection of Anti hepatitis C virus IGG antibodies. A positive test could indicate current or past infection. Sometimes this test is further clarified using the Signal to Cutoff ratio. The higher the ratio the more likely the test is a true positive indicating current infection. For any positive test a confirmatory test should be conducted, which could be the Recombinant Immunoblot Assay (RIBA), a PCR RNA qualitative test, or a PCR RNA quantitative test. Further testing to determine the genotype is necessary when selecting the appropriate drug therapy.

We calculated the reported case rate from 2013 by zip code in Volusia County and by county statewide. We found that patients resided throughout the county but there was an increased number along the I-4 corridor. Statewide the incidence rate for newly diagnosed cases was higher in the panhandle than elsewhere. Volusia County had a rate higher than the state overall (130 per 100k vs. 105) but still in the mid-range. We then looked at the breakdown for gender and age in the county and statewide. We found that there was really no difference. The CDC recommends testing all persons born between 1945 and 1965 at least once; this group represents 53 percent of our reported cases in 2013, emphasizing the importance of following this recommendation.

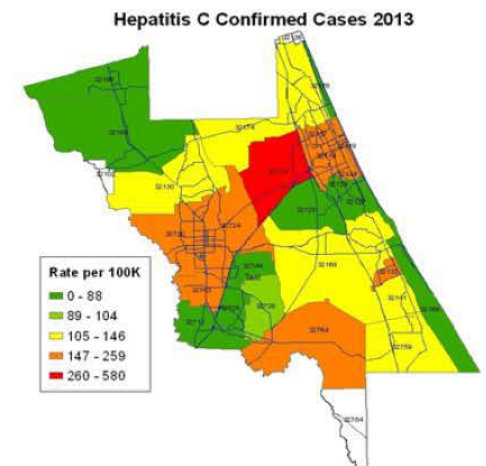
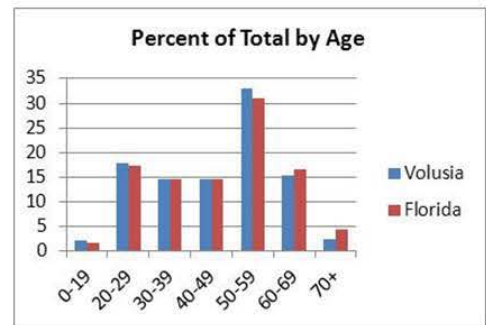
We do not routinely interview hepatitis C patients to identify risk factors but do so sometimes based on circumstances. In the majority of cases

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in patients under 40 years of age the key risk factor for hepatitis C infection is injectable drug abuse. For persons with risk factors noted, we found this was admitted to 70 percent of the time. Older adults were less likely to be able to identify, or admit to, any risk factors but often identified medical procedures, including blood transfusions, from decades ago.

We encourage providers to view the CDC website for hepatitis C: <http://www.cdc.gov/hepatitis/HCV/index.htm>. There is also a very good website entitled Hepatitis C online from the University of Washington which includes a section on treatment therapies: <http://hepatitisc.uw.edu/>.

For further information, call us at 386-274-0651.

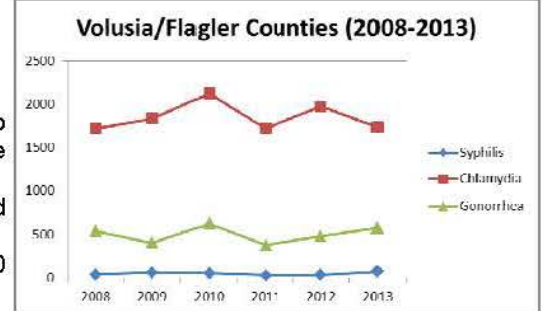


## Sexually Transmitted Diseases

By: Marvin Hall

Sexually transmitted diseases also known as sexually transmitted infections are a continuing problem, not only in FL but across the United States. Here are some interesting facts:

- 19 million new sexually transmitted diseases (STDs) occur each year.
- Almost half of them among young people ages 15 to 24.
- 10,000 teens are infected by STDs per day, that's one every eight seconds!
- One out of every four sexually active teens has an STD, and one in two sexually active youth will contract a sexually transmitted infection (STI) by age 25.
- One out of every 33 persons with a reportable STD in Florida is co-infected with HIV.
- An estimated one in five Americans has genital herpes infection and up to 90 percent of them don't even know they have it.
- 40 percent of older adolescents surveyed incorrectly believe that the contraceptive "pill" and "shot" protect against STDs and HIV.
- Some young people, including those who have had abstinence education, consider oral and anal sex to be abstinent behaviors and do not realize these behaviors present risks to STD transmission.



Another interesting note is that according to the CDC there were 885 reported cases of syphilis in 45-64 year-olds in 2000; by 2010, the number was more than 2,500. In 2000, there were 6,700 cases of Chlamydia in this age group; the number jumped to more than 19,000 by 2010. STD's not only affect the younger generation but are also becoming more common among the older population.

Sexual Transmitted Diseases place a considerable economic burden on the United States healthcare system, estimated at over \$16 billion dollars a year. Some of these STD's are life long illnesses and require life long treatment which increases the cost. Reduction in new infection is not only achievable but urgently needed. Correct usage of condoms, adequate and timely treatment, abstinence and reducing sex partners are some of the prevention strategies used in fighting STI's. With that said, all parties involved (hospitals, private providers, health departments, local clinics, schools, and families) must continue to keep up the great work to reduce the number of STI's by providing timely education, promoting safe sex and pointing those affected in the right direction.

The Center for Disease Control Screening Recommendations:

- All adults and adolescents should be tested at least once for HIV
- Annual chlamydia screening for all sexually active women age 25 and under, as well as older women with risk factors such as new or multiple sex partners.
- Yearly gonorrhea screening for at-risk sexually active women (example: those with new or multiple sex partners, and women who live in communities with a high burden of disease)
- Syphilis, HIV, chlamydia, and hepatitis B screening for all pregnant women, and gonorrhea screening for at-risk pregnant women at the first prenatal visit, to protect the health of mothers and their infants.
- Trichomoniasis screening should be conducted at least annually for all HIV-infected women.
- Screening at least once a year for syphilis, chlamydia, gonorrhea, and HIV for all sexually active gay men, bisexual men, and other men who have sex with men (MSM). MSM who have multiple or anonymous partners should be screened more frequently for STIs (3 to 6 months intervals). In addition, MSM who have sex in conjunction with illicit drug (particularly methamphetamine use) or whose sex partners participate in these activities should be screened more frequently.

For further information on STDs, please contact us at 386-274-0651  
or please visit the DOH or CDC websites at  
<http://www.floridahealth.gov/> and <http://www.cdc.gov>

## Chikungunya Virus

By: Paul Rehme, DVM MPH

Last December the Centers for Disease Control and Prevention announced that for the first time there had been local transmission of the chikungunya virus in the Americas. Transmission had occurred in the eastern Caribbean. Since then there have been over 40,000 suspected and confirmed cases in 13 countries including: Anguilla, Antigua and Barbuda, British Virgin Islands, Dominica, Dominican Republic, French Guiana, Guadeloupe, Martinique, Saint Barthelemy, Saint Kitts and Nevis, Saint Martin, Saint Vincent and the Grenadines and Sint Maarten. The disease is spread by the same vectors as dengue fever: *Aedes aegypti* and *Aedes albopictus*, both of which we have in Florida and specifically in Volusia County. Chikungunya virus tends to produce large outbreaks with high attack rates. Unlike dengue most people have symptomatic infections which generally present as fever (>102 F) and severe polyarthralgia. Most people recover in a week to ten days but there can be chronic long-term sequelae. Due to Florida's proximity to the Caribbean and the number of travelers we get from there, providers should be on the lookout for this emerging threat. Providers should report any suspected disease promptly to the Florida Department of Health in Volusia County (386-274-0618 or 386-316-5030 after hours). The best way to prevent the disease is through mosquito control. The vectors are both container breeders so it is important for people to ensure they empty anything that can hold water in their yards. The mosquitoes can lay their eggs in as little as a tablespoon of water. For more information go to: <http://www.cdc.gov/chikungunya/> or <http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/chikungunya.html>

Volusia County Disease Activity*	1st Quarter 2014	1stQuarter 2013	Full Year 2013
<b>Vaccine Preventable</b>			
Mumps	0	0	1
Pertussis	0	11	18
Varicella	3	10	15
<b>CNS Diseases and Bacteremias</b>			
Creutzfeldt-Jakob disease (CJD)	0	1	2
Encephalitis (non-arboviral)	0	0	0
Haemophilus influenzae (invasive)	3	1	6
Meningitis (bacterial, cryptococcal, mycotic)	0	2	2
Meningococcal disease	0	0	2
Staphylococcus aureus community associated mortality	1	0	5
Staphylococcus aureus (GISA/VISA)	0	0	0
Streptococcal disease, group A, invasive	5	2	12
Streptococcus pneumoniae (invasive disease)	20	16	39
Drug resistant	8	9	19
Drug susceptible	12	7	20
<b>Enteric Infections</b>			
Campylobacteriosis	13	13	75
Cryptosporidiosis	5	1	10
Cyclosporiasis	0	0	1
Escherichia coli, shiga-toxin producing (STEC)	6	0	11
Giardiasis	3	5	22
Listeriosis	0	0	0
Salmonellosis	14	19	178
Shigellosis	0	0	3
Typhoid Fever	0	0	0
<b>Viral Hepatitis</b>			
Hepatitis A	0	0	2
Hepatitis B, acute	2	2	7
Hepatitis B, chronic	23	18	70
Hepatitis C, acute	2	3	12
Hepatitis C, chronic	174	136	848
Hepatitis E	0	0	0
Hepatitis +HBsAg in pregnant women	1	0	6
<b>Vector Borne, Zoonoses</b>			
Dengue Fever	0	0	2
Ehrlichiosis/Anaplasmosis	0	0	2
Lyme disease	2	0	7
Malaria	1	0	0
Monkey bite	0	0	0
Q Fever, acute	0	0	0
Rabies, animal	0	1	5
Rabies (possible exposure)	22	32	178
Rocky Mountain spotted fever	0	0	2
West Nile virus, neuroinvasive	0	0	0
<b>HIV/AIDS†</b>			
HIV	31	29	113
AIDS	13	13	71
<b>STDs†</b>			
Chlamydia	368	321	1729
Gonorrhea	91	102	576
Syphilis			
Infectious (Primary and Secondary)	4	6	29
Early latent (Infection for <1 year)	1	2	14
Late latent (Tertiary)	2	5	23
Latent, unknown duration	0	2	9
<b>Others</b>			
Carbon monoxide poisoning	5	0	10
Hansen's Disease (leprosy)	0	0	0
Hemolytic Uremic Syndrome	0	0	2
Influenza due to novel or pandemic strains	0	0	0
Influenza-associated pediatric mortality	0	0	0
Lead poisoning	0	0	5
Legionellosis	1	0	6
Pesticide related illness or injury	0	0	3
Tuberculosis			13
Vibriosis	0	1	3

\*Includes reported confirmed/probable cases. Data is provisional and subject to change.  
† Numbers are for Area 12 (Volusia/Flagler)

## Influenza Season Wrap-up

By: David Parfitt, MPH

### Volusia County:

The current flu season is slowly coming to an end. Volusia County saw an unusually slow start to the influenza season this year followed by increased cases in the early months of 2014, tapering off after that. According to our most recent surveillance, the numbers are declining gradually since the height of the flu season over the last couple of months. The number of positive influenza reports submitted electronically by local hospitals has decreased significantly. Since early March we have remained at roughly five positive labs per week compared to the close to 40 per week we were receiving from December 2013 through February of 2014. In addition, patients seen at the ER admitted, as well as required to be placed in intensive care units (ICU) have also begun to decline. The county has also seen a decrease in positive paper based influenza lab reports.

Since February 7, 2014 three specimens were sent by area health providers to the Bureau of Public Health Laboratory (BPHL) in Jacksonville, FL for additional testing. It was determined that out of the 2 positive specimens one was found to be influenza A (2009 H1N1) while the other was influenza A unspecified. While the state lab in Jacksonville has indicated influenza A currently still circulating local labs have also shown a resurgence of influenza B.

### State:

In accordance with the most recent state wide flu reporting, provided by the Bureau of Epidemiology in Tallahassee, 34 counties throughout Florida have reported decreased influenza activity while 29 counties have reported that their influenza activity has plateaued. Both emergency departments as well as urgent care centers throughout the state have shown a decrease in influenza like illness (ILI) visits. In Florida, there have been no reported pediatric influenza-associated deaths for the most current reporting week. While the current season has had reports of pregnant women requiring ICU care with severe influenza illness none of the women had received the current influenza vaccine.

Throughout Florida, the most common strain of influenza to be subtyped by the BPHL continues to be A (2009 H1N1). Although in Week 15, two of 15 specimens sent to the state lab were positive for influenza B.

### National:

According to the Centers for Disease Control and Prevention (CDC) influenza activity continues to decrease in most regions of the United States. Only New Jersey, New York and Texas reported experiencing moderate ILI activity during week 15. For the most current influenza reporting week, 15 percent of samples submitted to collaborating labs were positive for influenza. Of the 675 specimens that were positive, 301 were typed as influenza A (20 were subtyped as 2009 H1N1) and 374 returned as influenza B. In addition, influenza mortality and the proportion of outpatient visits for ILI were below threshold or baseline. There was one pediatric death reported for Week 15.

The health department continues to recommend that everyone 6 months of age or older receive the annual flu vaccine. Per the CDC recommendations, even though activity has weakened, vaccination should continue to be administered as long as the virus is circulating. Those with chronic conditions, the elderly, pregnant women and young children all more susceptible to complications should be made a priority.

For more information regarding the flu or the current vaccine please contact the Florida Department of Health in Volusia County at 386-274-0651.

### References:

Centers for Disease Control and Prevention: [www.cdc.gov/flu/](http://www.cdc.gov/flu/)

Florida Flu Review Week 15: April 6 – 12, 2014: [www.floridahealth.gov/floridaflu](http://www.floridahealth.gov/floridaflu)



Florida Department of Health in Volusia County  
Office of Disease Control and Health Protection