



## INFLUENZA (“Flu”)

### Disease

Influenza (flu) is a contagious respiratory illness caused by various influenza viruses. The flu can cause mild to severe illness, even death. Each year in the United States, up to 20% of the population is infected with influenza accounting for greater than 200,000 hospitalizations and 3,300 – 49,000 related deaths.

### SYMPTOMS

Signs and symptoms of flu infection include:

Abrupt onset of fever (101-102°F)	Chills	Dry cough	Sore throat
Runny or stuffy nose	Muscle or body aches	Headaches	Fatigue (very tired)

### COMMUNICABILITY

Most often, the “flu” is spread by direct contact with droplets transferred from one person to another through coughing, sneezing and talking. Flu viruses can also be spread by touching surfaces or objects with flu virus on them and then touching one’s own mouth, eyes or nose.

It is possible for a sick individual to infect others before showing signs and symptoms of illness. Healthy adults may be able to infect others beginning 2 days before symptoms develop and up to 5-7 days after becoming ill. Adults and children with weakened immune systems may be able to infect others for an even longer period of time.

### TREATMENT

Flu symptoms can be managed with or without medication. The most common treatments include:

- Over-the-counter medications (pain reliever/fever reducer, cough suppressants, etc.)
- Rest
- Drinking plenty of fluids like water, broth and sports drinks/electrolyte beverages
- Gargling with warm salt water to soothe a sore throat

Your healthcare provider may also opt to prescribe an antiviral medication which can decrease the length and severity of the illness (if diagnosed within the first 2 days of exhibiting symptoms).

### PREVENTION

One of the best ways to prevent the flu is to receive a flu vaccination. Vaccination is universally recommend for all persons 6 months of age and older without contraindications to vaccination, and should take place using injectable vaccine\* (the “flu shot”). During the 2017-2018 flu season, flu vaccine will be manufactured containing either 3 (trivalent) or 4 (quadrivalent) viral strains, representing viruses recently circulating world-wide. Due to the varying composition of the vaccine each year, and declining immunity throughout the season, annual vaccination using the current vaccine is required.

Full antibody protection develops against influenza virus infections approximately two weeks after vaccination. It is important to remember that flu vaccination will not cause flu infection or stop any infectious process already in progress. Yearly flu vaccination should begin in September, or as soon as vaccine is available, and continue throughout the flu season. The flu season can begin as early as October with seasonal flu activity peaking in January or later. You should contact your healthcare provider to receive the flu vaccine as soon as it becomes available. Flu vaccine is also available at the Saginaw County Department of Public Health (SCDPH) for individuals 6 months of age and older. The SCDPH accepts Medicaid, Medicare, Blue Care Network, Health Plus, Priority Health and some Blue Cross Blue Shield plans for flu vaccine administration. For clinic hours or for more information, call (989) 758-3840 or visit our website [www.saginawpublichealth.org](http://www.saginawpublichealth.org).

### REFERENCES

Centers for Disease Control and Prevention. *Epidemiology and Prevention of Vaccine-Preventable Diseases* 13<sup>th</sup> ed. Hamborsky, J., Kroger, A., & Wolfe, S. eds. Washington DC: Public Health Foundation, 2015. Centers for Disease Control and Prevention.

Influenza (Flu). Retrieved from <http://www.cdc.gov/flu/index.htm>. U.S. Department of Health and Human Services. Know What to Do About the Flu. Retrieved from [www.flu.gov](http://www.flu.gov).

## SENTINEL FLU PROVIDERS

The Saginaw County Department of Public Health (SCDPH) is seeking providers to participate in the Michigan Influenza Sentinel Provider Surveillance Program. This is a collaborative effort between the Centers for Disease Control and Prevention (CDC), the Michigan Department of Health and Human Services (MDHHS), local health departments and volunteer sentinel clinicians for the purposes of influenza surveillance. As a sentinel site, clinicians report the total number of patient visits to their facilities each week, as well as the number of patient visits for influenza-like illness (ILI) within five age categories (0-4 years, 5-24 years, 25-49 years, 50-64 years and 65+ years). Additionally, sentinel sites collect respiratory specimens from a sample of patients with ILI for respiratory virus panel testing at no charge by the MDHHS (lab kits and shipping paid for by MDHHS).

Medical providers of any specialty (e.g., family medicine, internal medicine, pediatrics, infectious disease) in nearly any setting (e.g., private practice, public health clinic, urgent care center, emergency room, university student health center) who are likely to see patients with influenza-like illness can be flu sentinel sites. The only exception is for those providers who primarily care for institutionalized populations (e.g., nursing homes, prisons). The advantages of being a sentinel provider include: free laboratory testing (respiratory virus culture) for approximately 11 specimens per site per year, weekly feedback on submitted data, free online subscriptions to the CDC's *Emerging Infectious Diseases* and *Morbidity and Mortality Weekly Report*, and two (2) free registrations to an MDHHS Fall Regional Immunization Conference (reporting for ½ the weeks of the year required).

For more information, please visit the Michigan Department of Health and Human Services Influenza Sentinel Provider website at [www.michigan.gov](http://www.michigan.gov) or contact Jalyn Ingalls, Influenza Epidemiologist, at [IngallsJ@michigan.gov](mailto:IngallsJ@michigan.gov) or the SCDPH immunization program at (989) 758-3840.

## HISTOPLASMOSIS

Histoplasmosis is an infection caused by the fungus *Histoplasma capsulatum*. The fungus lives in the environment, particularly in soil containing bat droppings or bird manure. In the U.S., the fungus mainly lives in soil in the central and eastern states.

### SYMPTOMS

People get histoplasmosis after breathing in microscopic fungal spores from the air, often after participating in activities that disturb the soil. Histoplasmosis symptoms usually appear within 3-17 days after exposure. Histoplasmosis mainly affects a person's lungs. Although most people who breathe in the spores do not get sick, those that do usually have mild symptoms. Symptoms may include fever, chills, headache, myalgia, chest pains, and nonproductive cough. Those with weakened immune systems can develop severe infection. The most severe and rare form of the disease is acute disseminated histoplasmosis, in which the disease spreads from the lungs to other organs.

### COMMUNICABILITY

It is not contagious. Person to person transmission can only occur if infected tissue is inoculated into a healthy person.

### TREATMENT

Diagnosis of histoplasmosis can be confirmed by culture or by visualizing the fungus in stained smears of bone marrow, sputum or blood. Mild infection may be self-resolving. For patients with severe disease, antifungal medications are needed.

### PREVENTION

Exposure to histoplasmosis can be decreased by minimizing exposure to dust in a contaminated environment, such as chicken coops and surrounding soil. Soil can be sprayed with water or oil to reduce dust. Protective masks can also be worn to decrease exposure.

### REFERENCES

[www.cdc.gov](http://www.cdc.gov)

Control of Communicable Diseases Manual 20<sup>th</sup> Edition 2015. David Heymann, MD, Editor. Pages 284-286

## PERINATAL HEPATITIS C REPORTABLE IN MICHIGAN

### DISEASE

Hepatitis C is a liver disease caused by the hepatitis virus (HCV). The virus is found in the blood of an infected person. If a person contracts HCV they can become chronically ill. More than half of the patients who have chronic HCV will develop liver damage, which may eventually develop into cirrhosis or liver cancer.

Michigan Hepatitis C rates among persons aged 18-29 years have increased over 473% from 2005 through 2016. The heroin and opioid epidemic in Michigan is a leading cause of the increases in HCV infections. In Michigan 84% of the HCV infections for 18-29 year olds were due to IV drug usage. The opioid epidemic has impacted both young males and females across the U.S.

### SYMPTOMS

Symptoms of Hepatitis C may include: yellowing of the skin and eyes (jaundice), clay-colored bowel movements, fever, fatigue, nausea/vomiting, dark urine and joint pain. Symptoms can appear 2 weeks to 6 months after the exposure. The majority of children with perinatal HCV infection may have mild symptoms. Eighty (80%) percent of children with HCV will have minimal fibrosis or liver scarring by age 18. Twenty to 25% of children will experience more aggressive disease symptoms and can develop advanced fibrosis as early as 8 years of age.

### COMMUNICABILITY

Perinatal HCV infection is a potential consequence of the increase in HCV infections in women of child bearing age. It occurs via vertical transmission from an HCV-positive mother to the fetus in utero or during childbirth. Transmission occurs in 5-15% of babies born to HCV-positive women. Risk factors that increase transmission of HCV to the infant are: HIV co-infection, HCV high viral load, prolonged or premature membrane rupture and maternal blood exposure. New recommendations are to test pregnant women who report any risk factors for HCV and to test infants born to HCV-infected mothers.

### TREATMENT

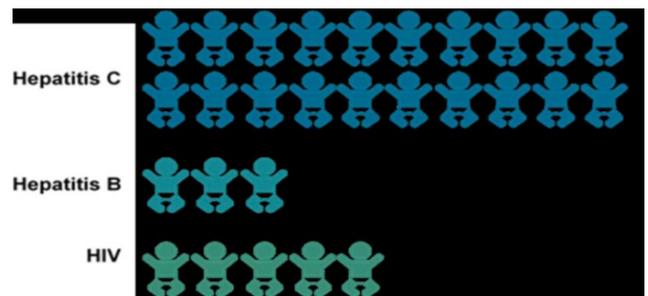
There is no vaccine for Hepatitis C. An HCV positive female can be treated prior to pregnancy or after delivery with the new oral medications (Sovaldi and Olysio). These drugs can have a 98% cure rate for some patients. Infants of HCV-positive mothers will now be tested between 2-18 months of age with the HCV/RNA blood test. Infants 18 months or older will be tested for HCV antibody and if that is positive, then an HCV/RNA test will be administered. If an infant is positive there are no recommended treatments available for children under the age of 3 at this time. Drugs approved for children 3-12 years of age are Interferon and Ribavirin, which have many side effects. HCV positive children over the age of 12 years can be prescribed the medications (Harvoni or Sovaldi). Infants born to HCV-positive mothers should be referred to a pediatric infectious disease specialist for monitoring of HCV.

### PREVENTION

Don't share needles, don't use IV drugs, avoid multiple sex partners, use condoms and know your partner's history of IV drug usage. High risk females should get tested prior to becoming pregnant. High risk women should seek prenatal care as soon as possible. There is 4 times more Perinatal HCV than Perinatal HIV and 6.6 times more Perinatal HCV than Perinatal HBV.

### REFERENCES

MDHHS Viral Hepatitis Unit and [www.CDC.gov](http://www.CDC.gov)



**COMMUNICABLE DISEASE  
REPORTED FOR SAGINAW COUNTY  
FOR THE QUARTER  
10/01/2017-12/31/2017**

Disease	No. Reported
AIDS, AGGREGATE	0
ANIMAL BITE	55
CAMPYLOBACTER	5
CHIKUNGUNYA	0
CHLAMYDIA (Genital)	361
CRYPTOSPORIDIOSIS	3
FLU LIKE DISEASE	1865
GASTROINTESTINAL ILLNESS	1212
GIARDIASIS	2
GONORRHEA	116
HEAD LICE	84
HEPATITIS B ACUTE	0
HEPATITIS B CHRONIC	6
HEPATITIS C ACUTE	0
HEPATITIS C CHRONIC	17
INFLUENZA	87
LEGIONELLOSIS	0
MENINGITIS-ASEPTIC	1
MENINGITIS-BACTERIAL OTHER	0
MUMPS	0
PERTUSSIS	3
RABIES-ANIMAL	0
SALMONELLOSIS	3
SHIGELLOSIS	1
SHINGLES	3
STREP THROAT	206
STREPTOCOCCUS PNEUMONIA, INVASIVE	2
SYPHILLIS-LATE LATENT	0
TUBERCULOSIS	0
VZ INFECTION, UNSPECIFIED	1
YERSINIA ENTERITIS	0
ZIKA	0

**COMMUNICABLE DISEASE YTD  
REPORTED FOR SAGINAW COUNTY**

01/01/2017-12/31/2017

Disease	No. Reported
AIDS, AGGREGATE	0
ANIMAL BITE	214
CAMPYLOBACTER	22
CHIKUNGUNYA	0
CHLAMYDIA (Genital)	1359
CRYPTOSPORIDIOSIS	15
FLU LIKE DISEASE	7937
GASTROINTESTINAL ILLNESS	5949
GIARDIASIS	21
GONORRHEA	401
HEAD LICE	177
HEPATITIS B ACUTE	0
HEPATITIS B CHRONIC	15
HEPATITIS C ACUTE	0
HEPATITIS C CHRONIC	103
INFLUENZA	1269
LEGIONELLOSIS	5
MENINGITIS-ASEPTIC	9
MENINGITIS-BACTERIAL OTHER	2
MUMPS	0
PERTUSSIS	6
RABIES-ANIMAL	0
SALMONELLOSIS	17
SHIGELLOSIS	1
SHINGLES	8
STREP THROAT	524
STREPTOCOCCUS PNEUMONIA, INVASIVE	19
SYPHILLIS-LATE LATENT	2
TUBERCULOSIS	0
VZ INFECTION, UNSPECIFIED	3
YERSINIA ENTERITIS	3
ZIKA	0



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Please visit our website at [www.saginawpublichealth.org](http://www.saginawpublichealth.org)

This newsletter is provided to all Saginaw County healthcare providers, hospitals, schools, local colleges, universities, urgent care facilities and local media centers.

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