

# The Iowa Viral Hepatitis Strategic Plan

2012 – 2016

*Developed and Written by the  
Iowa Department of Public Health  
and the Iowa Viral Hepatitis Taskforce*



# CONTENTS

DEDICATION .....	ii
ACKNOWLEDGEMENTS .....	ii
Advancements in the Field of Hepatitis.....	1
Viral Hepatitis Overview .....	2
Hepatitis A Overview .....	2
Hepatitis B Overview.....	3
Hepatitis C Overview.....	4
Viral Hepatitis Taskforce Strategic Plan.....	5
Goals and Strategies.....	5
I. SURVEILLANCE.....	5
II. MEDICAL MANAGEMENT AND ACCESS TO CARE .....	6
III. IMMUNIZATION .....	8
IV. PROFESSIONAL TRAINING.....	9
V. COUNSELING, TESTING AND REFERRAL .....	10
VI. CONSUMER EDUCATION.....	11
VII. POLICY.....	13

## **DEDICATION**

This Viral Hepatitis Strategic Plan is dedicated to the individuals who work hard to provide services for people with hepatitis and to those individuals who are infected and affected by this disease.

## **ACKNOWLEDGEMENTS**

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## Advancements in the Field of Hepatitis

Since the creation of the first viral hepatitis plan in 2004 several documents and advancements have been released that help Iowa plan and prioritize this revision of our hepatitis plan. The first was the Institute of Medicine's report [\*Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C\*](#). The second was the Trust for America's Health report [\*HBV and HCV: America's Hidden Epidemics\*](#). Finally, the Department of Health and Human Services released their federal action plan entitled [\*Combating the Silent Epidemic of Viral Hepatitis\*](#). These documents are helping advance the field of viral hepatitis and providing much needed guidelines to shape the future of hepatitis research, surveillance, prevention, and education.

The Institute of Medicine report identified that current approach to the prevention and control of chronic hepatitis B and hepatitis C is not working. As a remedy, the IOM recommends increased knowledge and awareness about chronic viral hepatitis among health care providers, social service providers, and the public; improved surveillance for hepatitis B and hepatitis C; and better integration of viral hepatitis services.

The Trust for America's Health (TFAH) and the American Association for the Study of Liver Diseases (AASLD) developed the following recommendations for new strategies and policies to help ensure individuals can receive treatment before they develop serious liver diseases and to act to prevent the future spread of the viruses:

1. Develop a Better Understanding of the Impact of HBV and HCV;
2. Identify the Millions of Americans with HBV and HCV;
3. Improve Care and Research; and
4. Prevent New Infections.

The Department of Health and Human Services identified within their federal action plan entitled *Combating the Silent Epidemic of Viral Hepatitis* the following six topic areas, which correspond to the 2010 IOM recommendations:

1. Educating Providers and Communities to Reduce Health Disparities;
2. Improving Testing, Care, and Treatment to Prevent Liver Disease and Cancer;
3. Strengthening Surveillance to Detect Viral Hepatitis Transmission and Disease;
4. Eliminating Transmission of Vaccine-Preventable Viral Hepatitis;
5. Reducing Viral Hepatitis Caused by Drug-Use Behaviors; and
6. Protecting Patients and Workers from Health-Care Associated Viral Hepatitis.

## Viral Hepatitis Overview

"**Hepatitis**" means inflammation of the liver, and also refers to a group of viral infections that affect the liver. The most common types are Hepatitis A, Hepatitis B, and Hepatitis C. Of these, hepatitis B and C can cause chronic disease.

Viral hepatitis is the leading cause of liver cancer and the most common reason for liver transplantation. An estimated 4.4million Americans are living with chronic hepatitis; most (estimated to be 65 to 75%) do not know they are infected. About 80,000 new infections occur each year.

All identified forms of viral hepatitis are reportable to the Iowa Department of Public Health (IDPH), pursuant to Iowa Code 139A.3 and the Iowa Administrative Code 641, Chapter 1. Due to the infectious nature of each form of viral hepatitis, it is necessary that each case be reported so that prevention and control efforts may be initiated by IDPH.

## Hepatitis A Overview

Hepatitis A, caused by infection with the Hepatitis A virus (HAV), has an incubation period of approximately 28 days (range: 15 to 50 days). HAV replicates in the liver and is shed in high concentrations in feces from 2 weeks before to 1 week after the onset of clinical illness. HAV infection produces a self-limited disease that does not result in chronic infection or chronic liver disease.

However, 10 to 15% of patients might experience a relapse of symptoms during the 6 months after the acute illness. Acute liver failure from Hepatitis A is rare (overall case-fatality rate: 0.5%). The risk for symptomatic infection is directly related to age, with more than 80% of adults having symptoms compatible with acute viral hepatitis while the majority of children are either asymptomatic or have unrecognized infection. Antibody produced in response to HAV infection persists for life, and confers protection against reinfection.

HAV infection is primarily transmitted by the fecal-oral route, either by person-to-person contact or through consumption of contaminated food or water. Although viremia occurs early in infection and can persist for several weeks after onset of symptoms, bloodborne transmission of HAV is uncommon.

In the United States, nearly half of all reported Hepatitis A cases have no specific risk factor identified. Among adults with identified risk factors, the majority of cases are among men who have sex men (MSM), persons who use illegal drugs, and international travelers.

Because transmission of HAV during sexual activity probably occurs because of fecal-oral contact, measures typically used to prevent the transmission of other sexually transmitted diseases (STDs), such as use of condoms, do not prevent HAV transmission. In addition, efforts to promote good personal hygiene generally have not been successful in interrupting outbreaks of Hepatitis A. Vaccination is the most effective means of preventing HAV transmission among persons at risk for infection. Hepatitis A vaccination is recommended for all children at 1 year of age, for persons who are at increased risk for infection (e.g., men who have sex with men), for persons who are at

increased risk for complications from Hepatitis A, and for any person wishing to obtain immunity.

## Hepatitis B Overview

Hepatitis B is caused by infection with the Hepatitis B virus (HBV). The incubation period from the time of exposure to onset of symptoms is 6 weeks to 6 months. HBV is found in highest concentrations in blood, and in lower concentrations in other body fluids (e.g., semen, vaginal secretions, and wound exudates). HBV infection can be self-limited or can become chronic.

In adults, approximately half of persons with newly acquired HBV infections are symptomatic, and approximately 1% of reported cases result in acute liver failure and death. Risk for chronic infection is inversely related to age at infection: approximately 90% of infected infants and 30% of infected children aged less than 5 years become chronically infected, compared with only 2% to 6% of adults. Among persons with chronic HBV infection, the risk for premature death from cirrhosis or hepatocellular carcinoma is 15% to 25%. HBV is efficiently transmitted by percutaneous (through the skin) or mucous membrane exposure to infectious blood or body fluids that contain blood. The primary risk factors that have been associated with infection are unprotected sex with an infected partner, birth to an infected mother, unprotected sex with more than one partner, male-to-male sex, history of other STDs, and injection drug use.

The Center for Disease Control and Prevention's national strategy to eliminate transmission of HBV infection includes:

- Prevention of perinatal infection through routine screening of all pregnant women for Hepatitis B surface antigen (HBsAg);
- Immunoprophylaxis (i.e., injection with Hepatitis B immune globulin (HBIG) and single-antigen hepatitis B vaccine) of infants born to HBsAg-positive mothers and infants born to mothers with unknown HBsAg status;
- Routine infant vaccination for Hepatitis B;
- Vaccination of previously unvaccinated children and adolescents through age 18 years; and
- Vaccination of previously unvaccinated adults at increased risk for infection.

High vaccination coverage rates, with subsequent declines in acute Hepatitis B incidence, have been achieved among infants and adolescents. In contrast, vaccination coverage among the majority of high-risk adult groups (e.g., persons with more than one sex partner in the previous 6 months, MSM, and injection drug users) has remained low, and the majority of new infections occurs in these high-risk groups. STD clinics and other settings that provide services targeted to high-risk adults are ideal sites in which to provide Hepatitis B vaccination to adults at risk for HBV infection. All unvaccinated adults seeking services in these settings should be assumed to be at risk for Hepatitis B and should receive Hepatitis B vaccination.

## Hepatitis C Overview

Hepatitis C virus (HCV) infection is the most common chronic bloodborne infection in the United States. Approximately 3.2 million persons are chronically infected. Although HCV is not efficiently transmitted sexually, persons at risk for infection through injection drug use might seek care in STD treatment facilities, HIV counseling and testing facilities, correctional facilities, drug treatment facilities, and other public health settings where STD and HIV prevention and control services are available.

Sixty to seventy percent of persons newly infected with HCV are asymptomatic or have a mild clinical illness. HCV RNA can be detected in blood within 1 to 3 weeks after exposure. The average time from exposure to production of anti-HCV antibody (i.e., seroconversion) is 8 to 9 weeks, and anti-HCV can be detected in more than 97% of persons by 6 months after exposure. Chronic HCV infection develops in 70% to 85% of HCV-infected persons; 60% to 70% of chronically infected persons have evidence of active liver disease. The majority of infected persons might not be aware of their infection because they are not clinically ill. However, infected persons serve as a source of transmission to others and are at risk for chronic liver disease or other HCV-related chronic diseases decades after infection.

HCV is most efficiently transmitted through large or repeated percutaneous exposure to infected blood (e.g., through injecting illicit drugs). Although much less frequent, occupational, perinatal, and sexual exposures also can result in transmission of HCV.

The role of sexual activity in the transmission of HCV has been controversial. Case-control studies have reported an association between acquiring HCV infection and sexual contact with a person with HCV infection or exposure to multiple sex partners. Surveillance data also indicate that 15% to 20% of persons reported with acute HCV infection have a history of sexual exposure in the absence of other risk factors. Case reports of acute HCV infection among HIV-positive MSM who deny injecting-drug use have indicated that this occurrence is frequently associated with other STDs (e.g., syphilis). In contrast, a low prevalence (1.5% on average) of HCV infection has been demonstrated in studies of long-term spouses of patients with chronic HCV infection who had no other risk factors for infection. Multiple published studies have demonstrated that the prevalence of HCV infection among MSM who have not reported a history of injecting-drug use is no higher than that of heterosexuals. Because sexual transmission of other bloodborne viruses, such as HIV, is more efficient among homosexual men than in heterosexual men and women, the reason that HCV infection rates are not substantially higher among MSM is unclear. Overall, these findings indicate that sexual transmission of HCV is possible, but inefficient.

# Viral Hepatitis Taskforce Strategic Plan

## Goals and Strategies

### I. SURVEILLANCE

Acute hepatitis C is much less common than chronic hepatitis C, although it is more difficult to detect through surveillance. It is important that the surveillance system be able to detect and distinguish between acute, chronic active, and past infection. The volume of positive hepatitis C laboratory reports has been very large in recent years, but few case reports have enough information to allow health department staff to classify the cases correctly. In addition, most local health departments (LHDs) do not have the resources or the expertise to complete follow-up on cases.

**Goal: Improve hepatitis surveillance to better characterize and respond to hepatitis C virus (HCV) in Iowa and to develop a means of evaluating the effectiveness of HCV prevention programming.**

#### **Strategies:**

##### **Short term (within one to two years):**

- a) Improve surveillance communication between the Center for Acute Disease and Epidemiology (CADE), the Bureau of HIV, STD, and Hepatitis, and the Bureau of Immunization and TB. Improved communication will allow for better case identification, data collection, case follow up, and data analysis for reported cases.
- b) Identify which LHDs are currently conducting follow-up on new hepatitis C cases.
- c) Develop pilot protocols for LHDs interested in initiating investigation of cases and case reporting.
- d) Evaluate the hepatitis C data within the Iowa Disease Surveillance System (IDSS).

##### **Long term (within three or four years):**

- a) Encourage and support investigation of HCV cases by LHDs to determine if reports are acute or chronic, and to provide prevention and risk reduction counseling, vaccination, and referral for additional follow-up services.
- b) Produce standardized reports within IDSS for LHDs to identify trends in morbidity, associated risk behaviors, health disparities, etc.

## II. MEDICAL MANAGEMENT AND ACCESS TO CARE

Professional education is needed to optimize patient education, testing, and diagnosis. Studies evaluated by the Institute of Medicine indicate that knowledge about chronic hepatitis B and hepatitis C among health-care providers, particularly primary-care providers, is generally poor. Health and social service professionals lack information about proper support services, financial assistance, and education for persons living with viral hepatitis.

**Goal: Increase the medical community's capacity to identify, counsel, and care for patients with viral hepatitis to limit the progression of hepatitis to liver damage and complications associated with chronic disease.**

### **Strategies:**

#### **Short term (within one or two years):**

- a) Distribute non-branded viral hepatitis educational materials, videos, and standards for the care and management of chronic hepatitis B and C to health care providers on viral hepatitis risk factors, clinical signs, symptoms, and appropriate tests to diagnose viral hepatitis.
- b) Educate health care providers regarding treatment, referrals, and essential services for persons with viral hepatitis diagnoses.
- c) Educate health care providers on the guidelines to screen all pregnant women (including those previously diagnosed with HBV) for HBsAg to ensure follow up by the perinatal hepatitis B coordinator.
- d) Update and revise the Iowa Department of Public Health (IDPH) physician referral database.
- e) Promote patient education and screening for HCV at substance abuse facilities.
- f) Promote the department's next HIV and HCV Counseling, Testing and Referral (CTR) request for proposals for delivery of hepatitis prevention services at substance abuse facilities across the state.
- g) Support and publicize the availability of support groups that are geographically accessible for persons impacted by viral hepatitis.
- h) Collaborate with specialty physicians, the Iowa Medical Society, and the Midwest AIDS Training and Education Center (MATEC) to develop and distribute a survey to assess the educational needs of primary care physicians around the state.

#### **Long term (within three or four years):**

- a) Create hepatitis case management model for Iowa that includes transition into care.
- b) Develop and implement a hepatitis drug assistance program for HBV and HCV mono-infected individuals.
- c) Provide education to providers at community health centers (CHC) and set up a physician mentoring program to assist CHC physicians with providing treatment services for clients with HCV and HBV.
- d) Utilize the Centers for Disease Control and Prevention's HCV toolkit and American Association for the Study of Liver Disease (AASLD) guidelines to educate primary care physicians.

- e) Develop a virtual library of hepatitis resources on the IDPH website (support groups, medical information, treatment providers, and links to educational sites).

### III. IMMUNIZATION

The CDC estimates that there were approximately 22,000 new hepatitis A cases and 38,000 new hepatitis B infections in the United States in 2008. Both hepatitis A and hepatitis B are considered to be vaccine-preventable diseases.

**Goal: Improve hepatitis A and hepatitis B immunization rates.**

**Strategies:**

**Short term (within one or two years):**

- a) Create standards for health care providers to better identify HBsAg-positive pregnant women so that hepatitis B immune globulin (HBIG) and the birth dose of hepatitis B vaccine are delivered in a timely manner.
- b) Increase hepatitis B immunization rates for household and sexual contacts of HBsAg -positive pregnant women.

**Long term (within three or four years):**

- a) Evaluate the costs and benefits of offering the accelerated dosing schedule for combination hepatitis A/B vaccinations for special populations (e.g., in jails, among homeless populations, at substance abuse facilities, etc.).
- b) Coordinate with hospitals and insurance companies to ensure that infants born to HBsAg -positive women receive hepatitis B vaccine and HBIG prior to hospital discharge.
- c) Working with contracted counseling, testing, and referral sites increase access to hepatitis A and B vaccines for those infected with hepatitis C or with chronic liver disease.

## IV. PROFESSIONAL TRAINING

Professional training is needed to increase provider awareness and knowledge of viral hepatitis so that screening, identification, and management of cases may improve. At the same time, transmission of the virus to others may be decreased through these activities. Training requires a broad range of curricula and methods to meet the needs of physicians and other health care professionals who interact with persons living with and at risk for viral hepatitis.

**Goal: Promote and provide information to health care providers to increase prevention services to patients/persons at risk of acquiring viral hepatitis.**

**Strategy: Increase awareness of health care providers serving at-risk populations.**

**Short term (within one or two years):**

- a) Collaborate with substance abuse agencies to provide hepatitis prevention training designed specifically for substance abuse counselors. Develop viral hepatitis risk assessments and develop a communication strategy to publicize them to health care providers throughout the state.
- b) Educate health care and service providers on risk factors, clinical signs and symptoms, and the appropriate tests for the diagnosis of hepatitis B and C.
- c) Encourage health care providers to test pregnant women for hepatitis B.

**Long term (within three or four years):**

- a) Collaborate with medical schools and nursing teaching facilities to develop viral Hepatitis 101 educational training modules. Work with MATEC to develop a viral hepatitis webcast training/mentoring program based on New Mexico's Project ECHO (Extension for Community Healthcare Outcomes) that links primary care providers and other health care providers with hepatitis experts throughout the state.
- b) Encourage and develop "prevention for positives" programs that address the prevention of transmission from chronically infected persons.
- c) Ensure that health care providers are aware of and follow recommended treatment guidelines.

## V. COUNSELING, TESTING AND REFERRAL

Continue to integrate viral hepatitis prevention messages, education, testing, and referral into existing, relevant programs that serve populations at risk for hepatitis. High-risk hepatitis C populations include injection drug users, users who have shared drug injection equipment, blood transfusion or blood product recipients prior to 1992, and dialysis patients. *Disproportionately impacted hepatitis C populations include veterans, persons with non-sterile tattoos, intranasal drug users, incarcerated persons, parolees, homeless persons, and immigrants/refugees.*

Populations at high-risk for hepatitis B include persons born in geographic regions that have HBsAg prevalence of at least 2%, persons who have sexual contact with an infected person, persons with multiple sex partners, men who have sex with men, injection drug users, users who have shared drug injection equipment, persons who live with a person who has hepatitis B, and infants born to infected mothers.

**Goal: Increase knowledge and awareness regarding viral hepatitis infection, screening, counseling, treatment and management in Iowa.**

**Strategies:**

**Short term (within one or two years):**

- a) Work with substance abuse treatment centers to improve screening for viral hepatitis.
- b) Provide comprehensive, state-wide training for mental health counselors, substance abuse treatment providers, and methadone providers on how to counsel, educate, and refer their clients for viral hepatitis services.
- c) Encourage prenatal care providers to maintain and use a written protocol for testing, documenting, and informing birthing hospitals of the HBsAg status of pregnant women during each pregnancy.
- d) Expand the use of portable testing technologies (rapid testing or home collection kits).

**Long term (within three or four years):**

- a) Increase accurate diagnoses of HCV through completion of viral (Polymerase Chain Reaction or PCR) testing when HCV antibody tests are positive.
- b) Maintain and distribute viral hepatitis resource manuals to link to testing, hepatitis services, and care that include where interpretive services are available. Distribute information online and provide online support.
- c) Advocate for funding to offer hepatitis B testing to at-risk individuals.
- d) Collaborate with CHCs, minority-based organizations, community corrections, jails, and family planning organizations to expand hepatitis testing and vaccination services.

## VI. CONSUMER EDUCATION

Determine informational needs for people who are living with hepatitis but who have not been diagnosed as well as for those diagnosed with viral hepatitis, undergoing treatment, or have completed treatment. Determine the needs of families so that they can better support a member who is chronically ill with viral hepatitis through treatment.

**Goal: Reach all persons at risk of or recently diagnosed with viral hepatitis with information about the disease.**

**Strategies: Increase awareness of the general population.**

**Short term (within one or two years):**

- a) Develop downloadable viral hepatitis educational presentations for consumers and make them available through the Iowa Department of Public Health's website.
- b) Provide hepatitis B education for Asian-Pacific Islanders and others from high endemic areas (foreign born and their family members).
- c) Develop a hepatitis awareness program focusing on injection drug use for the Iowa school systems. Work with the Iowa Department of Education to make the age appropriate for adolescent students (junior/high school) curricula available to school systems. Create and distribute multi-language hepatitis educational materials
- d) Incorporate Hepatitis C education into programs funded to deliver HIV and STD prevention programs. Work with the HIV prevention program to determine which agencies would benefit from expanding hepatitis services to their high-risk clients.
- e) Create hepatitis A and B vaccination educational campaigns targeting at-risk adults.
- f) Propose the use of new multi-media technology (Twitter, Facebook) to provide viral hepatitis prevention messages and testing information.
- g) Identify support groups for viral hepatitis patients and for their family members.
- h) Provide literature and information to the general population through the media and print that includes information about:
  - The liver
  - Vaccines
  - The differences about hepatitis A, B and C
  - Perinatal transmission
  - Viral hepatitis prevention
  - Risks associated with illegal drug use and viral hepatitis
  - Risks associated with the hepatitis A
  - Risks associated with hepatitis B
  - Risks associated with hepatitis C

**Long term (within three or four years):**

- a) Develop an insurance/financial resource guide to help viral hepatitis patients and their families understand the intricacies of obtaining and using insurance to finance their treatment.
  - Include patient assistance programs provided by pharmaceutical companies and list clinical drug trials that patients can join;
  - Coordinate with the Iowa Medicaid Enterprise and the Iowa-Care program for referrals to physicians and/or pharmacies for low income patients; and
  - Provide educational materials regarding Social Security Disability Insurance (SSDI) and COBRA.
- b) Develop educational materials for individuals on how to select a health care team. Help patients understand the importance of taking medications, adhering to a medication schedule, and recognizing side effects.

## VII. POLICY

Advocate for the creation of new policies, regulations, and fiscal resources that promote the prevention of viral hepatitis. New policies and regulations may include legal access to and possession of sterile injection equipment and expanded access to drug treatment, viral hepatitis confirmatory testing, hepatitis treatments, and adult hepatitis vaccinations.

**Goal: Increase support from the general public, policy makers, and local, state, and federally-elected officials for viral hepatitis prevention and care programs and services.**

### **Strategies:**

#### **Short term (within one or two years):**

- a) Continue working with hepatitis advocacy groups to sustain or increase state funding for hepatitis education, prevention, and treatment. Advocacy groups allow the program an opportunity to provide direct education to state legislators about hepatitis-related program needs.
- b) Advocate for funding to pilot a program to offer viral (Polymerase Chain Reaction or PCR) testing for anti-body positive individuals.
- c) Advocate for reinstatement of the Public Health Services' Section 317 funding to vaccinate high-risk persons and incarcerated populations against viral hepatitis.
- d) Advocate for funding for the treatment of uninsured/underinsured persons living with hepatitis C.

#### **Long term (within three or four years):**

- a) Collaborate with the Syringe Access Forum and Exchange (SAFE) committee, Iowa Board of Pharmacy, relevant state medical associations, law enforcement personnel, and state legislators to advocate for a change in the paraphernalia law that would support expanded access to sterile syringes for persons at risk for HIV and viral hepatitis. Syringe access programs will also provide drug treatment information and access.
- b) Collaborate with methadone clinics to develop viral hepatitis referral protocols for clients who were released from drug treatment programs.