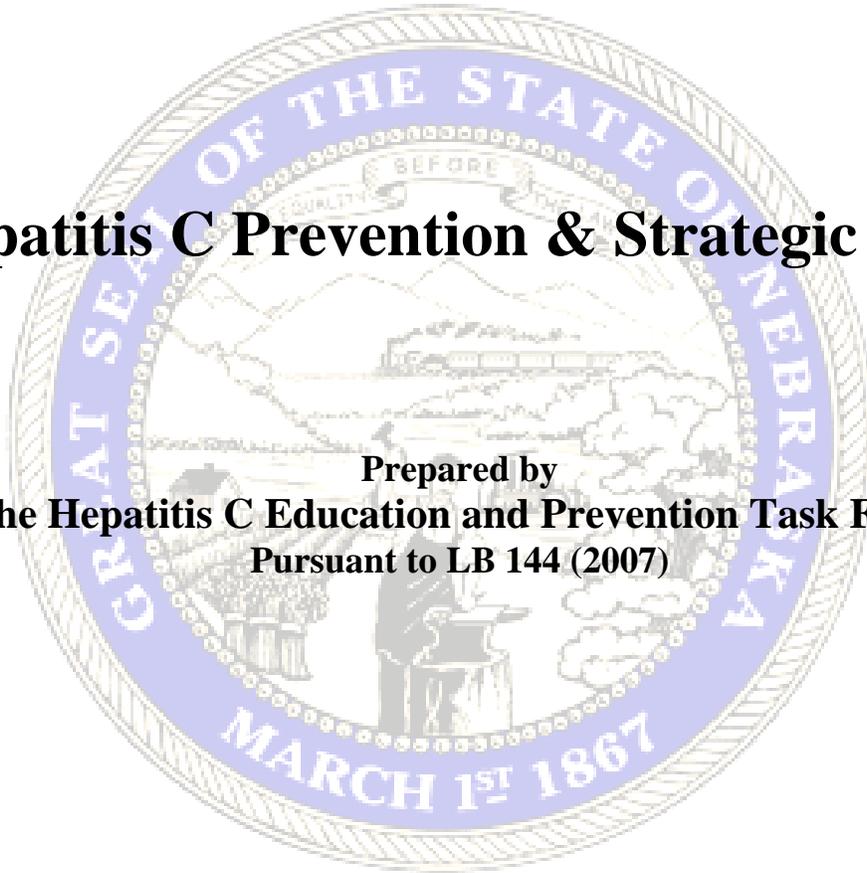


# Hepatitis C Prevention & Strategic Plan

Prepared by  
The Hepatitis C Education and Prevention Task Force  
Pursuant to LB 144 (2007)



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## **Purpose**

This plan was created by constituents from across Nebraska, representing the professional disciplines involved in the prevention or medical management of Hepatitis C. The purpose of this plan is to outline strategies that will aid in the prevention of the further spread of the Hepatitis C virus, and to limit the progression and complications of Hepatitis C related chronic liver diseases within Nebraska.

## **Background**

The Hepatitis C virus (HCV) is the most common chronic blood borne infection in the United States. The Center for Disease Control and Prevention (CDC) estimates that nearly three million Americans are infected with the HCV, most of whom have no idea they are infected with the virus and capable of transmitting it to others. These figures are conservative, as the CDC estimates do not take into account the homeless population or those incarcerated; both of these population groups have a higher percent infection rate than the average American. Any person infected with the HCV can transmit the virus to others at any time during the disease process, there is no vaccine for the prevention of HCV, and a person never develops immunity to the HCV.

Most people who have risk factors for exposure to the HCV are unaware that they have been exposed to the virus. Three out of every four Americans infected with HCV are unaware that they are infected. As the CDC has predicated a fourfold increase in chronic HCV infections by the year 2015, public health facilities need to screen all clients for the presence of HCV risk factors. The *National HCV Prevention Strategy* established by the CDC recommends that clients who screen positive for HCV risk factors should be counseled and referred for HCV testing.

The continuing transmission of HCV is a tremendous threat to health. With one hundred seventy million people infected worldwide, and nearly three million Americans, HCV will remain a public health risk for the foreseeable future. Nebraska is not isolated from this risk. Nearly seven years ago, at least ninety-nine Nebraskans were infected with HCV in a cancer clinic in Fremont, Nebraska through a breach in infection control practices. This outbreak is one of the largest known clusters of HCV infections ever to occur in the United States. The Fremont outbreak illustrates that the transmission of HCV within a health care environment is also a threat to public health. The infected patients, their families, and the Fremont community want some benefit to our health to come as a result of this tragedy. LB 144 (2007), which authorizes the creation of the Hepatitis C Education and Prevention Task Force and the preparation of this document, serves as a testimony to that wish.

Title 173 of the Nebraska Administrative Code requires both the acute and chronic HCV cases, be reported to the state health department. Based on the CDC estimates and Nebraska's 2001 census, statistically there are an estimated 31,307 Nebraskan's currently infected with the HCV. As of May 31, 2005 the Nebraska HCV registry only showed 13,984 identified HCV cases in Nebraska. Statistically Nebraska has not identified 55% of its HCV cases.

The Nebraska Hepatitis Prevention Program receives no state monies for prevention, testing, education, or treatment efforts of Hepatitis C. While the State of Nebraska currently provides no funding for the prevention of Hepatitis C, since 2001 the annual financial disease burden from state taxes for the medical management of Hepatitis C has risen from \$446,000 to \$2,400,000 in 2005.

## Recommendations

**Goal One:** *The completion of an accurate and timely epidemiology profile of HCV for the State of Nebraska.*

### Improvement of Viral Hepatitis Surveillance

Currently Title 173 of the Nebraska Administrative Code (Reporting of Communicable Diseases) requires the reporting of all diagnosed acute and chronic Hepatitis C cases to Nebraska's Department of Health & Human Services (See addendum for case definitions of acute and chronic HCV). While Nebraska does have an electronic laboratory system in place that captures positive Hepatitis C laboratory reports, this system does not capture the clinical or demographical information for Hepatitis C cases, as laboratories do not have access to patient records. Thus, a basic epidemiology report for Hepatitis C cannot be compiled.

The complete, accurate, and timely data collected on Hepatitis C cases will direct and support the primary and secondary prevention efforts of Nebraska's public health system, as well as the public and professional education efforts, allowing for optimal utilization of resources and delivery of services.

With no vaccine to prevent Hepatitis C infection, education remains the only venue for public health efforts in the prevention of further Hepatitis C infections. The needed epidemiology report will provide the information needed to target public health efforts.

- A. It is recommended that annually the Nebraska Department of Health and Human Services produce an epidemiological report regarding reported Hepatitis C cases within Nebraska. This report should contain at minimum the following elements: risk factor, age, gender, race, ethnicity, and zip code.
- B. It is recommended that Title 173 of the Nebraska Administrative Code be modified to require the following demographic information be reported with each case: Patient risk factor, age, gender, race, ethnicity and zip code of residence, and the providers name, mailing address and phone number.
- C. It is recommended that surveillance data be analyzed to identify and prioritize data gaps that need to be addressed.
- D. It is recommended that surveillance data be analyzed to assess compliance with Title 173 reporting requirements, and determine barriers to compliance.

**Goal Two:** *Decrease the number of newly HCV infected individuals within the State of Nebraska.*

### Primary Prevention:

Primary prevention efforts target uninfected individuals and involve the prevention of disease condition before its biological onset, whereby the disease doesn't obtain a foothold in the body.

As there is no vaccine to prevent transmission of HCV, education and awareness continue to be the only option for primary prevention efforts.

### Secondary Prevention:

Secondary prevention consists of the identification of diseases that are present in the body, but that have not progressed to the point of causing signs, symptoms, and dysfunction. These preclinical conditions are most often detected by disease screening. Currently the CDC recommends that individuals be screened for the presence of HCV risk factors before any laboratory testing occurs.

With early identification of HCV infected individuals, health care providers are provided a greater window of time in which they can intervene, deterring the progression of liver disease and loss of quality of life.

### **Provide Public Education and Awareness Regarding Hepatitis C**

With improved knowledge regarding the risk factors associated with HCV infection, public health and health care providers can more effectively target education messages. In accordance with National Hepatitis C Prevention Strategy developed by the CDC, education and awareness efforts should be integrated into existing primary care, HIV, STD, substance abuse, mental health, family planning, and corrections services.

- A. It is recommended that culturally appropriate and developmentally appropriate educational material written at an age appropriate level be made available at health care settings and school settings, providing information on:
  1. The *Risk Factors* associated with a HCV infection
  2. Ways to decrease further transmission of HCV
  3. Liver Wellness
  4. Risk Factor Self Assessment Sheets
- B. It is recommended that “*Risk Factor Self Assessment Sheets*” be placed in the waiting areas such as, but not limited to:
  1. Pharmacies
  2. Store Clinics
  3. Urgent Care Facilities
  4. Primary Care Facilities
  5. Public Health Clinics
- C. It is recommended that the State Hepatitis Web Page be updated to include two portals: Professional and Public
- D. It is recommended that the Nebraska Department of Health & Human Services provide educational booths at high-attended public events such as, but not limited to, the annual state fair and the annual Husker Harvest Days, providing public educational material regarding HCV, the risk factors for infections, and transmission routes.
- E. It is recommended that the Nebraska Department of Health & Human Services network with local health departments, community-based organizations, and reservations to provide appropriate public educational material for community “Health Fairs”.
- F. It is recommended that HCV education be incorporated into existing programs that serve those populations that are considered high-risk populations for HCV infection, (See addendum for list of high risk populations).

1. Identify programs within the State of Nebraska that serve at risk populations, such as but not limited to:
  - a. Behavioral Health
  - b. Department of Corrections
  - c. Family Planning
  - d. HIV Clinics
  - e. STD Clinics
2. Provide training to staff of identified programs.
3. Incorporate client level HCV education into existing protocols/procedures of programs that serve at risk populations.

**Development of Collaborative Strategies among State Agencies to Address the Needs of Persons at Risk for or Affected by the Epidemic of Hepatitis C**

Improving collaboration between state programs will enhance the integration and collaboration efforts of state programs, local public health departments, and community based organizations servicing Nebraskans.

- A. It is recommended that a state level collaborative work group should meet quarterly. The purpose of this work group will be to identify networking opportunities for various state programs that target high-risk populations that are at risk of or already infected with the Hepatitis C virus. Representation from the following state programs should be included in the work group:
  1. Hepatitis Prevention Program
  2. HIV Prevention Program
  3. Immunization Program
  4. Family Planning
  5. STD Prevention Program
  6. Behavioral Health Program
  7. Department of Corrections
  8. Refugee Health Program
  9. School Health Program
  10. Public Health Association of Nebraska-SACCHO
  11. Rural Health Program
  12. UNMC School of Public Health
  13. The Ron Gardner Meth Coalition Project
- B. It is recommended that collaboration between the state level work group and local public health departments and community-based organizations occur to augment community level education and awareness efforts.
- C. It is recommended that a state consumer work group be established with representation from community-based organizations. This group should meet on a quarterly basis to identify networking opportunities at the community level.

**Goal Three:** *Prevent and reduce the progression of chronic Hepatitis C to end stage liver disease and its complications within Nebraska.*

Tertiary Prevention:

Tertiary prevention consists of the prevention of disease progression and suffering after it is clinically obvious and a diagnosis is established. This activity also includes the rehabilitation of disabling conditions. For chronic illnesses, often protocols to promote tertiary preventive interventions have been developed, called "disease management".

Effective medical management of individuals chronically infected reduces the development of complications associated with end stage liver disease.

**Provide Professional Education and Updates Regarding Hepatitis C**

Even with the large number of individuals already infected with chronic HCV and the expense associated with liver disease, many health care providers remain deficient in their knowledge regarding chronic HCV and its sequelae.

A. It is recommended that utilization of existing health service infrastructure within Nebraska, (IE: Telehealth Network, Public Health Departments, Nebraska Department of Health & Human Services, and Nebraska chapters of various professional organizations of medical disciplines), be used to carry out the dissemination of information and education needed regarding HCV, to include but limited to:

1. Target Audiences:
  - a. Primary Care Providers
  - b. Public Health Officials
  - c. Nursing
  - f. Pharmacists
  - g. Dental
  - h. EMS
  - i. Behavioral Health
  - j. Clinics
    - 1). OB/GYN: Vertical transmission from mom to unborn child
    - 2). Dialysis: Hepatitis C Virus is too small for filters to filter out
    - 3). Dental: Oral manifestations that can be associated with HCV infections
  - k. Occupational Exposure
    - 1). EMS Personnel
    - 2). Medical Facility Staff
    - 3). Servicemen Returning From Deployments
  - l. School Personnel
    - 1). Health /Physical Education Teachers
    - 2). Coaches
    - 3). Nurses
    - 4). Counselors
2. Target Messages:
  - a. Extent of the HCV Epidemic
  - b. Risk Factor Assessment

- c. Technology Updates
- d. CDC Testing Strategy
- e. Medical Management Updates
- f. Strategies for “Palliative” Care of the Liver/ Liver Wellness
- g. “Universal Precautions” Updates/Mandatory Report of Unprofessional Conduct
- h. Work Restrictions of HCV Infected Healthcare Workers

Currently the CDC has no recommendations to restrict a healthcare worker who is infected with HCV. The risk of transmission from an infected healthcare worker to a patient appears to be very low. As recommended for all healthcare workers, those who are HCV-positive should follow strict aseptic technique and standard precautions, including appropriate use of hand washing, protective barriers and care in the use and disposal of needles and other sharp instruments.

- 3. Target Strategies:
  - a. Update the State Web Page with 2 Portals→ Professional/Public
  - b. Web Clip (By an Infectious Disease Doctor)→ Next Steps After Identifying a HCV Positive Patient
  - c. Web Link→ Speakers Contact List (Experts in Nebraska)
  - d. Messages on NETV
  - e. Articles in Nebraska’s Professional Journals:
    - 1). NE Family Practice Quarterly Magazine
    - 2). NE Mortar & Pestle Pharmacist Magazine
    - 3). NE Nurses Association Quarterly Magazine
  - f. Create DVD with CME’s and Send Out to all NE Providers
  - g. Enlist the provider professional societies to support annual or biennial focused Hepatitis C education
  - h. Consider education in primary and secondary Hepatitis C prevention in conjunction with Nebraska licensure renewal

**Goal Four:** *Increase access to HCV medical management for infected Nebraskans.*

- A. It is recommended that web-links to pharmaceutical companies donating medications, be included in the “Professional” portal of the state Hepatitis web page.
- B. It is recommended that addresses of VA clinics and facilities within Nebraska be included in the “Professional” portal of the state Hepatitis web page.
- C. It is recommended that contact information of Nebraska providers that treat HCV clients be included in the “Professional” portal of the state Hepatitis web page.
- D. It is recommended that all state programs included in the state level collaborative work group research funding opportunities from federal and non-profit agencies for funding that will support the medical management of HCV infected individuals.
- E. It is recommended that those individuals at risk be tested and counseled on lifestyle modifications that can deter or prevent the progression to end stage liver disease.

- F. It is recommended that infectious diseases such as HCV that are a result of an occupational exposure be recognized as a disability for EMS personnel.
- G. It is recommended that the physicians, hepatologists, and infectious disease specialists that treat HCV in Nebraska develop a comprehensive treatment plan ensuring access for all infected Nebraskans and seek federal, state, and private foundation grant funding to facilitate this goal.

**A. Evaluation of Funding Available to Nebraska that Address the Epidemic of HCV:**

- 1. Currently the only funding that Nebraska Department of Health & Human Services receives for Hepatitis C is federal funding to support the FTE of the Hepatitis Prevention Program Coordinator.
- 2. The State of Nebraska receives no federal monies for prevention, testing, education, or treatment efforts of Hepatitis C.
- 3. Veteran medical facilities are federally funded and provide medical management of Hepatitis C for Veterans, as well as counseling and testing for those Veterans returning from combat or field situations where an occupational exposure may have occurred.
- 4. State Medicaid monies provide medical management of HCV for individuals that qualify.
- 5. Federal Medicare monies provide medical management of HCV for older adults.
- 6. Nebraska State correctional facilities provide medical management of HCV infected inmates.

**B. Identified Funding Gaps for Nebraska to Address the Epidemic of HCV:**

- 1. No funding available for HCV testing
- 2. No funding available for public awareness
- 3. No funding available for public education
- 4. No funding available for professional education
- 5. No funding available for new HCV case disease investigation
- 6. No funding available for treatment of un-insured infected individuals

## **Addendum**

### **A. Case Definitions**

1. Acute HCV:
  - a. Clinical Criteria
    - 1). Discrete onset of symptoms consistent with acute viral hepatitis, and
    - 2). Jaundice or elevated serum Aminotransferase (ALT) levels
  - b. Laboratory Criteria
    - 1). Serum ALT levels > 7 times the upper normal limit
    - 2). Confirmed positive HCV antibody test
2. Chronic HCV:
  - a. Clinical Criteria
    - 1). Usually asymptomatic
    - 2). Can have chronic liver disease ranging from mild to severe cirrhosis/liver cancer
  - b. Laboratory Criteria
    - 1). Confirmed positive HCV antibody test
    - 2) PCR positive at least six months after first known Hepatitis C diagnosis
3. Resolved HCV:

While the patient at one time was infected with HCV and can still produce anti-HCV antibodies, there is no detectable virus in the blood.

### **B. Defined Risk Factors Associated with HCV Transmission**

1. Definite Risk Factors
  - You received any blood product before 1992
  - You have ever used illegal injectable drugs (**Even 1 Time**)
  - You have had long term Hemodialysis
  - You received clotting factors before 1987
  - You have had an occupational exposure to blood
  - You were born to a Hepatitis infected mother
  - You consistently have abnormal liver blood tests
2. Possible Risk Factors
  - You use intranasal cocaine or other illegal drugs
  - You have tattoos by unsanitary conditions
  - You have body piercing by unsanitary conditions
  - You have had any sexually transmitted disease
  - You share household items that could have blood on them, with a Hepatitis infected person, such as diabetic testing supplies, razors, nail clippers or a toothbrush.

### **C. Defined High Risk Populations Associated with HCV Infections**

- Illegal intravenous drug users (IDU)
- Occupations prone to blood exposure
  - \* Healthcare workers

- \* EMS personnel
- \* Veterans
- Long term Hemodialysis patients
- Hemophiliac patients
- Anyone receiving blood products prior to 1992
- HIV patients
- Incarcerated individuals
- Sex workers
- Men who have sex with Men (MSM)

## References

1. Nebraska Department of Health and Human Services; Regulation and Licensure, *Title 173 Communicable Diseases*, Chapter 1: Reporting and Control of Communicable Disease, Lincoln, NE, 2001.
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9. Department of Veterans Affairs, *Treatment Recommendations for Patients with Chronic Hepatitis C*, Parsippany, NJ, September 2003.
10. American Association for the Study of Liver Disease, *Practice Guideline for the Diagnosis, Management, and Treatment of Hepatitis C*, Alexandria, VA, 2004.
11. Centers for Disease Control and Prevention, *Recommendations for Preventing Transmission of Infections Among Chronic Hemodialysis Patients*, MMWR 2001; 50 (No. RR-5).

## **Task Force Membership**

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- Dr. Joe Davis, Rural Health Association
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- Dr. Evelyn McKnight, Resident of Nebraska with Hepatitis C
- Jamey Odell, Registered Nurse
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