MINNESOTA VIRAL HEPATITIS

NEEDS ASSESSMENT AND FIVE YEAR PLAN

STD and HIV Section
Minnesota Department of Health
June 2004

Table of Contents

I. Executive Summary

The Minnesota Department of Health (MDH) has primary responsibility for the prevention and control of hepatitis A, B, and C in Minnesota. Within MDH, multiple sections of the Infectious Disease Epidemiology, Prevention and Control (IDEPC) Division are responsible for functions such as hepatitis surveillance, vaccination programs, monitoring of chronically infected healthcare providers, infectious disease outbreak response, prevention interventions and integration activities. In addition, local public health agencies throughout the state have defined responsibilities for assessment, vaccination, education, and response activities in their jurisdictions. Likewise, Tribal Health agencies serve their communities in specific ways with only limited interaction at either the state or local levels with public health. Public and private primary and specialty care providers perform testing, vaccination, care and treatment for all types of hepatitis, but to very different populations and with differing outcomes.

Until recently, conversations between these necessary partners in hepatitis prevention and control have been infrequent and unsystematic. This needs assessment and plan, describing a set of visions and goals for the state, is an attempt to identify gaps in our current efforts and mechanisms for bringing together these important partners along with forging a renewed commitment to comprehensive and systematic hepatitis prevention and control in Minnesota. With the funding provided by the Council on State and Territorial Epidemiologists (CSTE), the state has taken an important step toward elevating the profile of and response to viral hepatitis in the context of other sexually transmitted diseases (STDs), blood-borne diseases, food-borne outbreaks and vaccine-preventable diseases.

II. Introduction

A. Hepatitis Background

Hepatitis is an inflammation of the liver that can lead to chronic disease, compromise quality of life or be life threatening. Hepatitis is caused by many factors including excessive alcohol consumption, some drugs including prescription or treatment related drugs, poisons and many viruses including hepatitis A, B, C, D and E. Approximately 4,000-5,000 persons die from chronic liver disease annually nationwide. This report details a needs assessment and strategic plan focused on viral hepatitis types A (HAV), B (HBV), and C (HCV), each of which has unique characteristics, risk factors and treatment.

Hepatitis A (HAV)

HAV infection occurs via fecal to oral transmission and is usually passed by close personal contact or by eating food or drinking water containing HAV. The incubation period, during which the disease is still transmissible, averages 28 days. Some people, particularly young children, experience no symptoms. If symptoms are present they usually occur abruptly in the form of fever, fatigue, anorexia, nausea, abdominal pain, dark urine and jaundice. Symptoms among older children and adults usually last less than two months, although some patients (10-15%) will experience prolonged or relapsing disease lasting up to six months. There is no chronic infection and HAV infection confers life-long immunity against HAV.

HAV has been vaccine preventable for people over age two since 1995. Two doses of the vaccine, given at least six months apart, are needed for lasting protection. Vaccination is recommended for the following persons two years of age and older:

- Travelers to countries with high rates of Hepatitis A;
- Children living in regions of the United States with consistent high rates of HAV;
- Men who have sex with men;
- Injecting or non-injecting drug users;

- Persons with chronic liver disease;
- Persons with clotting factor disorders;
- Anyone who wants to be protected from contracting HAV.

Hepatitis B (HBV)

HBV infection occurs via blood or body fluid exchange, including having sex with an infected person without a condom, sharing “works” when "shooting" drugs and through occupational injuries. HBV is vaccine preventable (since 1982) and chronic infection occurs in less than 10% of persons infected over five years of age. However, 90% of infants infected at birth suffer chronic infection. Infected persons may be asymptomatic or may experience “flu-like” symptoms and jaundice. Populations at risk include:

- Men who have sex with men;
- Sex contacts of infected persons;
- Injection drug users;
- Household contacts of chronically infected persons;
- Infants born to infected mothers;
- Infants/children of immigrants from areas with high rates of HBV infection;
- Health care and public safety workers;
- Hemo-dialysis patients.

Hepatitis C (HCV)

HCV is a blood-borne virus that can lead to cirrhosis, liver failure and liver cancer. It is considered a public health threat because seventy-five percent of infected persons have no symptoms and are unaware of their infection. When symptoms do occur, they may be mild and indistinguishable from HAV or HBV. No vaccine currently exists for HCV. Although the acute case fatality rate is low, 75-85% of infected persons suffer chronic infection. Treatment is costly, causes difficult side effects and is effective in eliminating the virus and reducing liver injury in fewer than 50% of diagnosed cases. Specific persons at risk include:

- Injection drug users (HCV is highly efficient in transmitting in this manner);
- Persons receiving or administering tattoos or another skin penetration;
- Persons who are exposed to blood in health care or emergency service;

- People who have had unprotected sex with multiple partners, repeated sex with an infected partner, or a history of sexually transmitted diseases;
- People who had a blood transfusion or invasive surgery prior to 1992;
- Hemo-dialysis patients and recipients of clotting factors made before 1987;
- Infants born to infected mothers.

B. Hepatitis Planning in Minnesota

To date, resources devoted to hepatitis in Minnesota have been limited. Viral hepatitis funding represents far less than what is dedicated to the prevention, care and treatment of HIV/AIDS, despite higher incidence and prevalence in the state and the fact that certain sub types of hepatitis are more infectious than HIV.

Of particular concern since HCV was identified in 1989 is evidence of an emerging epidemic of HIV/HCV co-infected individuals (approximately 350,000 Americans). In co-infected persons HCV infection progresses faster, leading to serious liver disease. HCV is also exacerbated by the continued use of alcohol or drugs (including injection drugs and medications used in retro-viral therapy for HIV positive persons), which cause further toxicity and damage to the liver. HCV helps account for the 50% of deaths from liver disease among those with HIV. In addition, persons with previous diagnosis and history of STDs are also at higher risk for infection with viral hepatitis. Thus, raising awareness and priority of hepatitis and coordination between HIV, STDs and all forms of viral hepatitis is essential in any infectious disease work.

In 2001, the MDH applied for funding to the CSTE in response to a request for proposals on "Hepatitis Program Building at the State Level." The MDH was awarded approximately $20,000 to conduct a needs assessment and develop a five-year action plan for viral hepatitis in the state, modeled on an earlier planning process for STD prevention and control in the state. The Division Hepatitis Team oversaw the hepatitis planning process. The group's work plan and timeline can be found in Appendix A. This report reflects the culmination of this work with implementation as the next phase.

C. Report Purpose

This report summarizes the needs assessment data collected and outlines a five-year plan for hepatitis in Minnesota. Information in this report was generated by hepatitis surveillance, gathered via written documentation and research and by primary data collection. Many stakeholders already involved in hepatitis work were interviewed or included in the formation of this plan. A list of individuals who were interviewed or involved in planning efforts is included in Appendix B.

This report can be used by a broad array of agencies and individuals responsible for and impacted by viral hepatitis in order to plan, fund, advocate and deliver viral hepatitis prevention, testing, treatment, research, training and policy.

III. Epidemiology and Surveillance of Viral Hepatitis

A. Epidemiological Profile

Number of Cases and Rates (per 100,000 persons) of HAV and HBV Infection in the U.S. and in Minnesota, 1988

	U.S (1988)		Minnesota (1988)	
	#	Rate/100,000	#	Rate/100,000
Hepatitis A	23,220	8.6	*N/A	3.85
Hepatitis B	10,258	3.8	N/A	1.4

*N/A: data not available

Hepatitis C chronic infection affects approximately 3.9 million people in the U.S., putting them at risk for chronic liver disease and primary hepatocellular carcinoma. The incidence of acute hepatitis C in Minnesota since 1998 ranges from 7 to 25 cases per 100,000. Since the test for HCV was put into use in 1989, over 15,000 Minnesotans have been diagnosed and reported. Based upon national estimates and given that many cases go undiagnosed and unreported, approximately 40,000 to 60,000 Minnesotans are estimated as being chronically infected with HCV.

Number of Cases and Rates (per 100,000 persons) of HAV Infection by Residence, Gender, & Race/Ethnicity Minnesota, 2000

	#	(%)	Rates (per 100,000)
Residence			
Seven-County Metro Area	131	(66%)	*N/A
Greater Minnesota	66	(34%)	N/A
Total	*197*		N/A
Gender			
Male	112	(57%)	N/A
Female	85	(43%)	N/A
Total	*197*		N/A
Race			
White	144	(73%)	3
Black	33	(17%)	19
Asian	6	(3%)	4
American Indian	3	(1.5%)	6
Other	3	(1.5%)	N/A
Unknown	8	(4%)	N/A
Total	*197*		N/A
Ethnicity			
Hispanic	16	(8%)	16
Non-Hispanic	181	(92%)	N/A
Total	*197*		N/A

*N/A: data not available

In the year 2000, 79 (40%) cases of hepatitis A were outbreak-associated. Of the five outbreaks investigated, three were common-source food-borne outbreaks, one occurred among homeless shelter residents, and one was a community outbreak. Of the remaining 60% not associated with an outbreak, factors included known contact with a confirmed case, foreign travel, men who have sex with men and a few incidences of consuming raw shellfish or injecting drug use.

Number of Cases and Rates (per 100,000 persons) of Acute HBV Infection by Residence, Mode of Transmission, Gender, & Race/Ethnicity
Minnesota, 2000

	#	(%)	Rates (per 100,000)
Residence			
Seven–county Metro Area	46	(79%)	*N/A
Greater Minnesota	12	(21%)	N/A
Total	*58*		N/A
Mode of Transmission			
Perinatal transmission	6	(12%)	N/A
Sexual contact: Male to Male	6	(12%)	N/A
Sexual contact: Heterosexual	11	(24%)	N/A
Injecting Drug Use	1	(2%)	N/A
Non-sexual contact with HBsAG-positive person	5	(10%)	N/A
Occupational Exposure	0	(0%)	N/A
Risk factors not identified	19	(39%)	N/A
Total interviewed regarding modes of transmission	*4*	*(100%)*	N/A
Gender			
Male	41	(71%)	N/A
Female	17	(29%)	N/A
Total	*58*		N/A
Race			
White	28	(48%)	0.6
Black	13	(22%)	7.6
Asian	10	(17%)	7.0
American Indian	1	(2%)	1.8
Other	-	-	N/A
Unknown	6	(10%)	N/A
Total	*58*		N/A
Ethnicity			
Hispanic	2	(3%)	1.4
Non-Hispanic	56	(97%)	N/A
Total	*58*		N/A

*N/A: data not available

Note: From 1995-1999, the average number of acute cases of HBV was 77 in Minnesota. MDH surveillance databases to date include more than 10,000 hepatitis B carriers (persons chronically infected with hepatitis B).

Acute & chronic hepatitis C cases and rates in Minnesota 1995-2002

Between 1995-1999, the average number of acute HCV cases in Minnesota was 14. Surveillance databases as of December 31, 2001 showed nearly 17,000 persons living with hepatitis C in the state, approximately 10,000 are believed to reside in the Twin Cities seven-county Metropolitan area. Outside of the seven-county metro area, Olmsted County has the highest number of residents infected with HCV. Of the 17,000 persons chronically infected with HCV, more than 11,000 are male.

In the year 2000, 15 acute cases of HCV were reported (.5 per 100,000 population). Among them, seven (47%) reported using needles to inject drugs, four (27%) had sexual contact with a known anti-HCV positive partner within 6 months prior to onset of symptoms, and one (6%) reported non-sexual contact with an anti-HCV positive person. No risk factor was determined for three (20%) cases. No cases related to occupational exposure were reported. In addition, more than 2,700 reports of newly identified anti-HCV positive persons were received in 2000, most of who are chronically infected.

The 2000 data for HCV in Minnesota show that the following demographics:

- Five (33%) cases resided in the seven-county Twin Cities metropolitan area and ten (67%) resided in Greater Minnesota;
- The median age among cases was 36 years (26 to 43 age range);
- Slightly more than half (53%) of cases were male;
- Twelve (80%) cases were white; one (7%) was black; one (7%) was American Indian and two were unknown.

Between 1990-2001, nearly 15% of infected persons were identified as Black, higher than the population percentage in Minnesota. In addition, incidence rates by race/ethnicity for acute hepatitis cases in 2001 reveal American Indians as disproportionately infected at 9.9 per 100,000, compared to Whites at .4 per 100,000.

B. Specific High-Risk Populations and Settings in Minnesota

STD Clinics:

A pre-vaccination serologic survey of HBV infection among patients visiting public sexually transmitted disease (STD) clinics in the Twin Cities metropolitan area was conducted from 1994 to 1996. Of 3,508 persons screened, 63 (2%) were positive for HBsAg (i.e., chronic HBV carriers) and 447 (13%) were positive for anti-HBs (i.e., immunity to HBV, signaling history of disease or previous vaccination). Overall, 510 (15%) had evidence of previous HBV markers, suggesting a maximum prevalence of HBV infection of 14,538 per 100,000 in this population. The actual prevalence may be lower if a significant number of clients had a history of previous HBV vaccination, but clinic providers feel this is unlikely.

Community-Based Clinics:

In 2002, a telephone survey of community-based clinics funded by the MDH assessed the percentage of patients deemed "at risk for" viral hepatitis and "in need of" a vaccination for Hepatitis A or B. Clinic managers or head nurses contacted in a variety of clinics around the state provided the estimates below.

			Percent at Risk for:	
Clinic Name	**Patient Encounters 2001**	**Estimate of Patient Population**	**Hepatitis A**	**Hepatitis B**
Bloomington Public Health	--	600	8%	70%
Lake Superior Community Health	5,600	1,900	25%	60%
Model Cities Health Center	50,000	--	50%	50%
Nucleus Clinic	3,200	989	10%	10%
One to One Clinic	--	500	20%	100%*
Quiet Care Clinic	1,200	900	40%	65%
SEMCAC Winona County	2,000	1,600	55%	60%
Red Door Clinic	--	14,000	40%	100%*
Room 111 Clinic	--	7500	40%	80%

			Percent at risk for:	
Planned Parenthood	**Patient Encounters 2001**	**Estimate of Patient Population**	**Hepatitis A**	**Hepatitis B**
Albert Lea	4,300	4,000	25%	30%
Brainerd	2,200	2,000	5%	100%*
Fairmont	1,200	800	50%	50%
Grand Rapids	1,700	1,700	Less 5%	95%
Mankato	12,000	3,200	30%	40%
Moorhead	3,500	2,500	5%	25%
Owatonna	1,500	1,300	5%	20%
Red Wing	2,000	1,500	5%	10%
Rochester	8,000	--	40%	45%
St. Cloud	--	3,000	5%	12%
Thief River Falls	--	850	Less 5%	15%
Virginia	--	700	50%	65%
Willmar	--	2,600	12%	90%

*STD clinic seeing patients that present themselves as at risk for an STD, thus all are assumed to be at risk for hepatitis.

Inmate Populations:

A 1999 report to the commissioner of the Minnesota Department of Corrections (DOC) estimated that 20% of the inmate population in Minnesota is chronically infected with HCV, making it the most common serious chronic disease among the state's incarcerated offenders. Estimates at that time indicated that if 20% of the inmate population were infected and 10% of them might be eligible for treatment based on medical criteria, approximately 100 offenders may be in need of and eligible for medical treatment for HCV. More recent estimates project approximately 15% of the incarcerated inmate population as chronically infected with hepatitis C.

Following that report, in April 2000, the MDH began a collaborative pilot study with the DOC to screen all inmates for risk factors for HBV, HCV and HIV on intake to the corrections system. HBV and HCV tests were offered at the time of assessment, and correctional facility staff provided follow-up on inmates with identifiable risk factors but who initially refused tests.

MDH performed data management and analysis. Analysis is not yet complete, however preliminary screening data suggests that these inmates are at high risk for viral hepatitis and HIV. Of the 470 male and female adult inmates screened between April 18, and June 7, 2000, 116 (25%) confirm injection drug use and 283 (60%) report intranasal drug use. Of those inmates with injection drug use history, 62 recall sharing needles with other people. Two hundred seventy-one (58%) respondents report having had sex with multiple partners in the last year. Survival sex was noted for 67 (14%) of the respondents and 169 (36%) of respondents indicated past diagnosis with STDs. Overall, 429 (91%) inmates reported at least one behavior that put them at risk for viral hepatitis.

Injecting Drug Users

The Hennepin County methadone clinic sees about 50 clients a year for detoxification and about ten clients that they work with intensively for about two years. All of their clients receive HCV screening upon admittance to the clinic. In 1999, a review of their clients found that 86% tested positive for HCV in the initial screening. Current estimates for HCV are slightly lower now, possibly due to an increase in “snorting” drugs rather than injecting drugs and younger clients with a history of less drug use. Clients who test negative and are in the intensive program are repeat tested annually for two to three years to ensure clients are not engaging in high-risk behaviors. All clients also receive health education materials and counseling. Long-term needs include ongoing health education materials with simple and clear messages, geared toward low literacy individuals and with limited use of statistics.

IV. Resource Inventory and Needs Assessment

A. Public Health Leadership and Infrastructure

Policy Development

a. Since the fall of 2000, Minnesota law has stipulated that all children be fully immunized against hepatitis B for entry into kindergarten and 7th grade. Vaccination records are tracked by schools and reported to the Department of Education. However, there is a cohort over age 15 that have not been vaccinated.
b. Licensed health care workers that are known to be infected with HIV, HBV, and HCV are required as a condition of their licensure to report their health status to the MDH in order to promote the health and safety of patients and regulated persons by reducing the risk of infection in the provision of health care. The monitoring plan addresses the regulated person's scope of practice, obtaining periodic reports of their health status, infection control practices and clinical practice.
c. Communicable disease reporting rules require licensed health care providers to report cases of HAV, HBV and HCV to their local and state health department.
d. Minnesota College Immunization Law states that information on hepatitis be given to all new students.

Minnesota Department of Health

The MDH Infectious Disease Epidemiology, Prevention and Control (IDEPC) Division houses several hepatitis-related initiatives in the following sections: STD and HIV, Acute Disease Infection and Control (ADIC) and Immunizations, Tuberculosis and International Health (ITIH). A Division Viral Hepatitis Team guides the overall direction of the Viral Hepatitis Integration Project (VHIP) and the Electronic Laboratory Capacity (ELC) Hepatitis C coordination effort (see below for descriptions)**.**

a. Immunizations, Tuberculosis, and International Health (ITIH)

   This section provides the following:

   1) Clinical consultation to providers via the Minnesota Immunization Hotline;

2) Hepatitis A surveillance, investigation and control;
3) Hepatitis B surveillance, investigation and control;
4) Acute hepatitis C surveillance through the ELC;
5) Coordination of the Perinatal Hepatitis B Prevention Program for surveillance, investigation and control;
6) Development and implementation of legislation and state administrative rulemaking (e.g. HBV vaccine legislation in schools);
7) Publication and statewide distribution of resource materials regarding childhood, adolescent, and adult immunizations (www.health.state.mn.us/immunize);
8) Administer federal Vaccines for Children (VFC) program statewide to public and private healthcare providers and to persons 18 years and under;
9) Resource development, including hepatitis A vaccine for American Indian children through 11 tribal health agencies;
10) Provide free hepatitis B vaccines for high risk uninsured adults via community clinics, Planned Parenthood and HIV testing sites;
11) Refugee health screening and surveillance.

State hepatitis surveillance for HAV & HBV began in the early 1980s. A system for hepatitis C surveillance has been in place since 1998, and it has been a reportable disease since 1990, although it was previously noted as "non-A, non-B subtype." The development and enhancement of an HCV registry, which includes an HCV chronic carrier database and active surveillance system to identify acute cases, assists in distinguishing amongst the reported acute, chronic and resolved infections. Currently, hepatitis A and B and acute cases of hepatitis C are reported to the MDH.

Passive reporting of disease from providers and labs is considered by staff to be good. Demographic data include country of birth, geographic location, gender, race/ethnicity, age and mode of transmission. Data collection and management are thorough and accurate, and outbreak prevention and management activities are state-of-the-art. Staff members have considerable expertise in the clinical issues and epidemiology of hepatitis. Currently, hepatitis staff produces annual statistical summaries and narrative reports.

An identified goal of the surveillance staff is to produce statistical summaries at least quarterly, with further analysis of geographic and risk factors, to be published on the ITIH Section website and eventually linked to hepatitis databases. There is a need to reduce paper work by obtaining lab reports electronically, along with a concern that too many people handling the data leads to less accurate information. Currently there are four databases that are operational and have a record of Hepatitis cases in the state. These include:

- Hepatitis tracking database;
- Chronic hepatitis case database for B and C;
- Perinatal hepatitis B database;
- Hepatitis C database.

Gaps in reporting exist more often from physicians than laboratories. Although lab reporting has been consistent, the reporting forms do not carry as much patient information (such as medical history and onset of the disease), so physician reports are helpful in painting a more accurate picture of the epidemic based upon cases reported.

There is a need to standardize diagnostic and treatment protocols for hepatitis because not all providers follow CDC protocols. Due to the bioterrorism initiative in the state, physicians will soon begin tracking hepatitis tests more efficiently.

The Minnesota Refugee Health Program oversees the refugee health assessment and follow-up process for newly arriving refugees and conducts training and orientation for providers and refugee communities about refugee health and cultural competence issues. Refugee Health also provides program-specific guidance and support to local public health agencies and health care providers throughout Minnesota. Currently, immigrants are not routinely screened for HCV, but a pilot study in Ramsey County hopes to determine HCV prevalence among refugees and the need for screening at intake.

b. Acute Disease Infection Control (ADIC)

This section facilitates tracking and monitoring of licensed healthcare workers reported as infected with HIV, HBV or HCV. After evaluation of the regulated person's past and current professional practice, they establish a monitoring plan for the regulated person that may include submission of regular reports on infection control practices and inspections of the clinical practice of the regulated person.

Currently there are approximately 55 licensed healthcare workers being monitored with HCV, estimated to be about 10-20% of all those actually infected. There are no HBV infected licensed healthcare workers monitored at this time; it is believed that vaccination has significantly decreased this monitoring need among licensed professionals. Gaps in this area occur mainly in limited testing that occurs for HCV, lapses in reporting and health professionals who are not licensed (and therefore not covered by the law) but who may still have patient exposure and pose a risk.

c. STD and HIV

The STD and HIV section coordinates division-wide hepatitis planning, including current needs assessment and five-year planning processes. In addition, other aspects of viral hepatitis occur in HIV/STD prevention programs, the VHIP and partner services, all of which are described below.

HIV and STD Prevention

Prevention programs for HIV, supported with federal and state funds, are administered by the section to provide street and environmental outreach, health education and risk reduction, skills building, as well as counseling, testing and referral (including some field testing) to individuals and groups at high risk for HIV. Grantees have been encouraged to provide viral hepatitis counseling where appropriate in the context of HIV prevention counseling. Since the funds are specific to HIV prevention and control activities, these agencies may not provide hepatitis specific activities (e.g., testing, vaccination) with HIV-specific resources. Currently, use of staff time for viral hepatitis activities is reviewed on a case-by-case basis.

Current STD screening grants for 2002-2003 supports increased testing for chlamydia and gonorrhea at six community or school-based clinics (Fremont, Teen Annex, University Family Physicians/North Memorial, Pilot City, North High School and Teenage Medical Service). Although this specific grant does not include hepatitis testing, these venues and an integrated approach could potentially serve as models for increased testing of viral hepatitis.

The section has also been engaged in primary prevention following a change in our drug paraphernalia laws, which allows for the limited sale of syringes by pharmacies. The section has been involved in supporting the implementation of this law change within pharmacies across the state and in evaluating its effects.

The Minnesota Youth Council, part of the Community Cooperative Council on HIV/AIDS Prevention (CCCHAP), is also working on hepatitis related initiatives. They include training for youth council members on hepatitis, input into youth issues and activities to address hepatitis and a peer-led training for tattoo parlors around the state on how to offer effective prevention education messages to minors who come to their studios for tattooing.

Partner Services

The STD and HIV section houses the Partner Services unit, which includes disease investigation specialists (DIS) responsible for contacting persons infected with HIV, gonorrhea, chlamydia and syphilis as reported to the MDH. Currently, partner notification and referral for hepatitis is made only upon request or when the individual is co-infected with HIV and HCV.

In addition to notification of partners, other services include:

- Counseling HIV-infected persons about how to prevent transmitting their infection to others;
- Referring counseled persons, as appropriate, for primary medical care, additional prevention counseling and supportive services;

- Advising counseled persons of the need to inform future partners of their infection before engaging in sexual and/or needle-sharing behaviors;
- Advising counseled persons of the need to inform current and past partners of their exposure to the infection;
- Counseling and supporting infected persons about techniques to notify and refer their partners when they choose to do so;
- Notifying counseled persons' partners of their exposure to the infection, counseling the partners and referring them for testing and other services as appropriate.

On occasion, partner services have been provided to hepatitis cases and contacts (such as during an acute hepatitis C cluster in Northeast Minnesota in the summer of 2001). However, the need has been identified for partner counseling and referral services to be provided to all individuals reported to MDH with acute cases of hepatitis B and/or C. In addition, counseling protocols for other infections would include discussions about possible co-infection or exposure to Hepatitis B and Hepatitis C

In order to integrate hepatitis into partner services, training and quality assurance among staff would be needed. Along with this, specific referral services to providers who are well informed about hepatitis treatment and management would be needed.

Viral Hepatitis Integration Project (VHIP)

This project began in February 2001 with the goal of integrating viral hepatitis prevention strategies into existing infectious disease prevention and control activities. Specifically, VHIP attempts to prevent and control viral hepatitis while avoiding development of a separate infrastructure, utilizing existing HIV/STD prevention programs and providers who are successful in reaching communities at risk.

The VHIP steering team (including the project coordinator and epidemiologist) decided to place priority on primary prevention among people at high risk for viral hepatitis from injection drug use (IDUs).

The Minnesota Viral Hepatitis Community Advisory Group, a partnership of Minnesota's HIV prevention providers is guiding the interventions in the state. This is an important framework for the VHIP. Partners (including a national and two local syringe exchange programs, IDU outreach workers, substance abuse treatment providers and policymakers, HIV/IDU case managers and advocates) are working on hepatitis prevention.

VHIP was engaged in a pilot project with AccessWorks, an HIV prevention grantee and community-based organization serving IDUs. The pilot project increased screening for hepatitis A, B, and C and included referrals as appropriate. Evaluation of this pilot project took place in 2003.

VHIP will also be offering free training to community clinic staff on viral hepatitis. The training includes epidemiology, risk factors, prevention strategies, vaccination, chronic infection care and management, eliciting information about drug use and sexual history from clients, HCV specific topics and current clinical management and unique challenges in managing HCV in substance abusers.

In 2001, key informant interviews were held with four HIV prevention providers targeting IDUs to assess their existing services as well as needs for providing viral hepatitis counseling and referrals. These needs are detailed in the bulleted list below:

- Lack of insurance prohibits many from accessing testing, vaccination and treatment;
- The complexity of treatment for HCV is challenging and needs a case management system to help coordinate services for patients;
- Need resource directories for referrals to services for HCV;
- Cost of syringes in pharmacies is prohibitive;
- Disproportionate risk among African-Americans is not being adequately addressed;
- Need to attend to all injecting drug users, including diabetics and transgendered persons (who may be injecting hormones);
- Need to reach youth, particularly those who are in methadone clinics or who are “tooters” (snorting drugs), before they begin injecting drugs;

- Homeless addicts are extremely difficult to reach and will take a comprehensive and collaborative approach;
- Lack of testing sites for HCV makes some wary to raise awareness;
- Need prevention networks in Greater Minnesota;
- Need to advocate for access to substance abuse treatment;
- Training for outreach workers on integrating HCV into HIV and other messages is needed;
- Training in Chemical Dependency treatment facilities for vaccine delivery and testing is needed.

VHIP funded an intervention project at Leech Lake Indian reservation in Cass Lake, Minnesota. After several cases of acute HCV infection were tracked in the summer of 2001, the project was set up to address prevention of transmission of HCV through primary and secondary prevention education within the reservation community. Indigenous People's Task Force, an HIV prevention grantee, was also asked to expand their prevention messages to incorporate viral hepatitis prevention messages during their work at community events and gatherings on the reservation.

d. Community Health Services (CHS) Division

Statewide, 50 Community Health Boards (CHB) oversee the work of local CHS agencies to deliver public health services. Each CHB prepares a four-year plan for their local area, with updates every two years. These plans include infectious disease prevention and control activities along with a common activities framework, which has been created to establish disease prevention and control responsibilities for the MDH and for local public health agencies. Although plans and actual activities differ by CHS agency, targeted activities are currently taking place for viral Hepatitis. Needs that have been identified by the CHS Division at MDH include:

- Increased capacity for adult screening and vaccination for HAV and HBV;
- Support for delivery of educational materials, development of culturally appropriate material and a culturally diverse workforce; and
- Resources to address new immigrant and refugee populations.

In a survey of CHS agencies across the state (see Appendix C), it was found that nearly all agencies responding perform activities related to hepatitis B including:

- Assess immunization levels in public health clinics and encourage/support private clinic assessment using tools such as Clinical Assessment Software Application (CASA) and registries;
- Assess adherence to immunization practice standards and provide consultation as needed;
- Establish and manage public immunization clinics, as needed, based on population-based assessment data;
- Disseminate guidelines to local providers.

Additionally, more than half reported various activities relating to hepatitis A, B, and C in the following categories:

Disease Surveillance and Data Collection:

- Identify local staff responsible for viral hepatitis reporting;
- Maintain current lists of all providers within jurisdiction;
- Assure reporting rules, report cards and MDH toll free reporting phone number are available to all medical clinics, laboratories, and hospitals;
- Respond to inquiries from reporting sources and forward any reports of viral hepatitis cases or suspect cases to MDH.

Disease Prevention:

- Maintain and provide consumer education information based on community needs to the public.

Disease Control:

- Assist and/or conduct investigations on communicable diseases in collaboration with the MDH and/or refer information related to cases and suspect cases to the MDH. Maintain and provide consumer education information, based on community needs, to the public.

The least reported activities (only up to 25% reporting activity) and thus largest gaps in local public health infrastructure for hepatitis were:

For Hepatitis A and C:

- Develop and implement screening and referral strategies for groups at high risk for viral hepatitis (five reporting this activity for Hep C and eight for Hep A).

For All Types:

Disease Surveillance and Data Collection

- Assess immunization levels in public health clinics and encourage/support private clinic assessment using tools such as CASA and registries (seven reported doing this activity for Hep A). (NOTE: This was a most frequently reported activity for Hep B however).

Disease Prevention

- See #1 under overall above;
- Establish and manage public immunization clinics, as needed, based on population-based assessment data (nine reporting this activity for Hep A);
- Develop local community education programs (nine reporting this activity for A and C).

Disease Control

- Implement local disease control programs as indicated from local surveillance data and trends (ten reporting activity for Hep A and C, 15 for Hep B).

B. Community Infrastructure

Hepatitis C Coalition

The Hepatitis C Coalition is comprised of a broad range of organizations including health and human services; clinics and hospitals; community; ethnic and advocacy groups; medical and health care groups and businesses. Its goals include creating a broad based campaign to increase Hepatitis C awareness, creating awareness of the importance of testing and treatment of disease in targeted populations, and developing and cultivating relationships with leaders in public advocacy. Specific objectives are to:

- Increase the awareness of Hepatitis C and behaviors that can lead to contracting Hepatitis C;
- Develop an integrated program that weaves community efforts with the provider, stakeholder and general public awareness efforts;
- Inform individuals to talk with their physicians if they think that they might be at risk for Hepatitis C.

Hepatitis B Coalition

The Hepatitis B Coalition, a program of the Immunization Action Coalition, promotes hepatitis B vaccination for all children 0–18 years, HBsAg screening for all pregnant women, testing and vaccination for high-risk groups, and education and treatment for people who are chronically infected with hepatitis B.

The mission of the Immunization Action Coalition, a 501(c) 3 nonprofit organization, is to boost immunization rates and prevent disease. The Coalition promotes physician, community, family awareness of and responsibility for appropriate immunization of all children and adults against all vaccine-preventable diseases.

LiverHope

The goal of this group is to provide support, promote education, generate awareness and advocate for quality medical care for all people with hepatitis in Minneapolis and St. Paul. They also have support groups that meet and counsel people who have been diagnosed with hepatitis C, using a peer based model to support and advise those who are newly diagnosed.

Minnesota Adult Immunization Coalition

This coalition has traditionally focused on flu and pneumonia vaccination and its purpose is to assist in increasing adult immunization rates in Minnesota. Stratis Health is the fiscal agent and members include the MDH, VA Medical Center, various health plans, Minnesota Visiting Nurses Association, Immunization Action Coalition, Park Nicollet, the University of Minnesota and others.

Veterans Affairs (VA) Medical Center

The VA health care system is the largest integrated healthcare system in the nation providing approximately 780,000 acute hospital admissions and over 35 million outpatient visits per year. VA serves approximately 3.4 million unique individuals from a veteran population of over 26 million veterans. VA is the largest single provider of HIV care and hepatitis C care in the United States. In FY2000, nearly 19,000 veterans received care for HIV disease in VA and to date nearly 70,000 veterans who use VA health care services have tested positive for hepatitis C.

The Public Health Strategic Health Care Group (PHSHCG) includes the Center for HIV Research Resources, Center for Quality Management in Public Health, Hepatitis C Resource Centers, HIV/Hepatitis C Clinical Program Office, and the HIV/Hepatitis C Prevention, HIV/Hepatitis C Training/Education and Smoke Free Programs. The mission of the PHSHCG is to provide the highest quality, comprehensive care to veterans and to have that care recognized as the standard by which all health care in the United States is measured. This includes patient care activities, clinician and patient education, prevention activities, and research directed at continuous improvement of medical and preventive services and delivery of care to veterans. The VA also works with the American Liver Foundation and in January 2002 began producing a newsletter, "Vet Hep Update" which provides hepatitis education and advocacy information for veterans and providers.

In Minnesota, the VA Medical Center (VAMC) is engaged in research and clinical trials for HCV treatment and care, and is engaged in increasing HCV awareness, diagnosis and management for their population. The VA also offers preceptorships with detailed training on HCV issues. Recently these preceptorships were closed to the general public when provided with VA funding, but VA staff has hosted separately funded educational trainings.

VA clinics at Twin Ports, St. Cloud, Hot Springs and Fort Meade all have hepatitis C teams (trained by the VAMC) who have screening, education and treatment protocols in place very similar to those at VAMC. They also provide HAV and HVB vaccinations for hepatitis C patients and those with pre-existing liver disease. There is ongoing

communication between VAMC and these clinics. Community-based outreach clinics (CBOCs) are also doing mandatory screening of every one in primary care and refer those who test positive to the closest hepatitis C treatment center. The VA contracts some of these CBOCs, but since the VA does not staff them, protocols may vary.

The VAMC is also a member of the Minnesota Adult Immunization Coalition, which is also attended by MDH staff and policy staff from Minnesota healthplans. This is an important forum for discussion of vaccination-related issues, although the emphasis to date has been on flu and pneumonia, not on hepatitis.

State Correctional Facilities

The State of Minnesota operates ten correctional facilities, including eight adult and two juvenile facilities. The adult prison population totals more than 6,500 inmates, and there are over 200 juvenile offenders. State corrections agents supervise more than 12,000 offenders on probation, supervised release and parole. The inmate population includes individuals who have been or are injecting drug users, men who have sex with men, other substance abusers and sex offenders. As noted in the epidemiology section of this report, it is now estimated that up to 15% of inmates in Minnesota may be infected with HCV. It is also recognized that HBV is likely prevalent and that vaccination should be incorporated and continued in correctional settings.

Correctional facilities in the state do provide hepatitis A and B testing, immunization and treatment. Their clinics offer the services based on history provided by the inmate and screening reports. However they are not mandated to screen for hepatitis as they are for tuberculosis and syphilis. The DOC does not have a computerized tracking mechanism, which does lead to loss of follow-up at times when paperwork is lost or incomplete.

Medical services are provided through on-site outpatient clinics. Correctional Medical Services (CMS), a health care management company, contract with primary care physicians and nurse practitioners to provide primary care services. CMS also contracts with community hospitals to provide inpatient and outpatient hospital services and with specialty clinics to provide specialty care. The DOC provides a wide range of mental

health and chemical dependency services through a continuum of professionals and the DOC health care staff provide health education initiatives.

Current hepatitis prevention education offered by the DOC to adult offenders is part of a blood borne and sexually transmitted disease prevention program supported by a grant from the MDH. The program, which began in 1991, was originally targeted for HIV prevention but it evolved into a more comprehensive program based upon the identified risks of offenders. The curriculum includes epidemiology, accurate information on transmission, risk reduction techniques, behavior change principles, understanding sexual identity, barriers to healthy sexual development, intimacy, responsible sexuality, sexual functioning, abstinence, decision making skills, communication skills, safer needle use, counseling and referral. It is available in adult and juvenile correctional facilities and has different phases, with the most comprehensive information as part of the chemical dependency and sex offender treatment programs.

Recent recommendations for treatment eligibility and anti-viral treatment of offenders infected with HCV include: confinement of greater than 18 months, between ages of 18-60, liver enzyme elevations greater than normal for at least six months, drug and alcohol free and subject to random drug testing prior to and during treatment, completion of chemical dependency treatment where needed and a liver biopsy demonstrating at least a mild fibrosis (grade two) and inflammation (stage two) to indicate active liver disease causing permanent damage.

After six months of hepatitis advisory committee work, a report was presented to the DOC Commissioner that contained recommendations for addressing hepatitis within the DOC. These included: formalizing and standardizing the process for screening all high-risk offenders, ensuring treatment is available for those who meet criteria (with recommendation for eligibility and exclusion criteria), offering vaccinations against HAV and HBV for those who test positive for HCV, continuing health education about infection; periodically reviewing program to ensure consistency with current medical standards and department needs, exploring sources for grant funding for screening of inmates and

considering the financial impact on its vendor by sharing some of the cost of implementing the recommendations.

Since 1999, the MDH has been working extensively with the DOC to address concerns expressed by inmates regarding the lack of consistent HCV diagnosis, prevention and control strategies in the facilities. The MDH participates on a Hepatitis C Advisory Committee charged with addressing these issues. As a result of the advisory committee recommendations, an HCV screening project was recently implemented. Through a standardized and formalized screening process, the DOC is hoping to ensure that treatment of HCV infection is available as appropriate for eligible inmates. In addition, MDH staff is working with the DOC to develop a plan to address the need for hepatitis A and B vaccines in correctional facilities, including a vaccination registry modeled after a system in Rhode Island.

The DOC has identified a need for more vaccines, screening kits and drugs to manage a high-risk population. Providers who specialize in gastrointestinal diseases and non–psychiatric mental health professionals are also needed. The DOC needs culturally appropriate educational materials as well.

Juvenile Detention Centers

In addition to the two state juvenile correctional facilities, there are 30 county juvenile detention centers in Minnesota. During 1999, six centers offered free on-site hepatitis B vaccination and nine sites worked with local public health or private clinics to vaccinate their clients against HBV. Pre-vaccination screening is typically not conducted for these high-risk youth. The MDH continues to communicate on a regular basis with the remaining 15 centers who are not currently vaccinating to encourage program implementation – rationale for not providing vaccination at these 15 sites has to do with staffing and length of stay.

Various staff at the MDH and DOC are working with a team of community advocates and representatives from the state Department of Education and the juvenile justice system to improve vaccination among juveniles in state and county facilities. For juvenile offenders

in the state facility, HAV and HBV vaccines are currently available through the VFC program administered by MDH. About one half of all offenders are screened for HBV upon intake.

Minnesota Department of Human Services

The Minnesota Department of Human Services (DHS) manages health insurance programs for low-income families, including MinnesotaCare and Medical Assistance (MA). These programs do currently cover some of the cost of testing, vaccination and treatment for enrolled members, but not all. In addition, some providers may underestimate the cases of hepatitis they see due to low reimbursement rates by MA and MinnesotaCare programs.

DHS also provides guidelines and training for chemical dependency treatment facilities. In 1989, DHS published "HIV Guidelines for Chemical Dependency Treatment and Care Programs in Minnesota." DHS staff have expressed the need to work with the MDH to expand the guidelines to include viral hepatitis, conduct a needs assessment regarding the training needs of CD treatment facilities and design and implement a training program to address their needs.

Minnesota Department of Education (MDE)

In addition to vaccination requirements for HBV in schools described under policy development earlier in this report, Minnesota statute also outlines requirements of educational programs related to sexually transmitted diseases in schools. Hepatitis B information and awareness is part of this health education program, although the exact curricula and activities used varies greatly by school or district.

The statute, which was created in 2000, directs the MDE to guide school districts in developing sexually transmitted disease education (prior to 2000 it was only termed HIV/AIDS education).

This statute has been challenged in recent legislative sessions with attempts to make education more limited in terms of content and scope including abstinence only until marriage and failure rates of birth control methods such as condoms.

Indian Health Service and Tribal Health

Federal Indian Health Service (IHS) disease prevention and control activities do address hepatitis and services include coverage of vaccination, testing and treatment wherever possible. Federal IHS hepatitis activities include:

- Hepatitis A: Evaluate vaccine effectiveness and careful surveillance for the disease;
- Hepatitis B: Target high risk groups for vaccination (children, prisoners, drug users) and continue routine childhood vaccination;
- Hepatitis C: Evaluation of current screening and treatment guidelines, assessment of burden of disease in population, and determination of budget and cost needs.

Epidemiological data from the IHS show that HAV was historically endemic in American Indian populations until the advent of the vaccine in 1995, after which time it has dramatically decreased almost equal to the level in the rest of the U.S. population. However, in Minnesota, 2002 data from three sites indicate HAV vaccination as low as 2% and ranging up to 15%. More routine HAV vaccination for children is needed.

Routine infant immunization for HBV has also dramatically decreased infection rates, but for older children and adults it remains endemic. In Minnesota, childhood HBV vaccination has increased. No data exists on adult vaccinations, but it is believed to be low.

IHS data from the mid-1990s also show that chronic liver disease and cirrhosis as the fifth leading cause of death among American Indians, compared with overall U.S. estimates as tenth leading cause of death. According to IHS, although alcohol abuse is responsible for some of this mortality, it is also likely that hepatitis C is playing a major role.

In Minnesota, hepatitis C education and information is provided at some IHS facilities, but it is not uniform. Risk assessments also vary by provider and there is no uniform or standard set by the Indian Health Service at this time for behavioral risk assessment. Moreover, chemical health activities may operate independently of other health activities (e.g. prevention, public health, etc.), therefore creating barriers to integration efforts.

In 1998-99, of the lab-confirmed cases of HBV or HCV diagnosed in IHS facilities, only 50% were reported to the relevant state health department. In Minnesota, an IHS representative believes reporting to be better than other states, but still has room for improvement.

C. Medical Services (Vaccination, Testing, Care and Treatment)

Primary Care

Currently in Minnesota, HBV screening is routinely included during prenatal care. There is currently no recommendation for routine screening of pregnant women for HCV because there is no prophylaxis available for the infant and method of delivery has no impact on transmission of disease.

While there are inadequate federal funds to support public adult vaccination program efforts, most medical providers and health care maintenance organizations offer tests, vaccine, and treatments for all types of hepatitis that are available on request. The cost benefit analysis of hepatitis immunizations and screening against the treatment costs and quality of life suggests that it would be a good policy for the private insurance companies to include hepatitis immunizations, screening and treatment in their health plans. However, due to limited treatment success and insurance coverage, some providers and managed care organizations are not efficiently diagnosing hepatitis and underreporting its prevalence.

In a survey of primary care providers in Minnesota, (Appendix D):

- Approximately half of respondents reported that between 1% and 25% of their patients do not have access to needed hepatitis vaccine;
- 65% or more of providers lacked standard hepatitis risk assessment protocols and 50% or more lacked standard protocols for testing, vaccination and treatment of hepatitis;
- While most providers counsel their patients to inform their sexual and needle sharing partners of their hepatitis diagnosis, very few (5% or less) provide any assistance to their patients in that process;

- Less than 50% of providers reported that they had adequate and current training in issues concerning HCV infections;
- 65.9% of respondents indicated an interest in receiving information, training, or technical assistance about treatment for hepatitis B and C, and about half of all respondents reported an interest in risk assessment and diagnosis for viral hepatitis.

Publicly supported primary care

a. STD and Immunization Clinics

Hepatitis B and sometimes hepatitis A testing and immunization services are available to targeted populations through publicly supported STD and Immunization clinics. Hepatitis C testing and referral is currently made available only at the Red Door Clinic (Hennepin County). The Red Door Clinic currently performs the most testing and has the highest positivity rate for HIV in the state and is well equipped to also offer Hepatitis C testing.

b. HIV Test Sites

In Minnesota, the HBV vaccine is currently being offered free of charge to adult clients in some HIV testing sites based on the following risk factor criteria: (1) more than one sex partner in the last 12 months, (2) patient's partner has had more than one sexual partner in the last 12 months, (3) STD in last six months, (4) men who have sex with men, (5) HIV positive, (6) hepatitis C positive, (7) injecting drug use, and (8) household or sexual contact of HBV positive individual.

Pre-vaccination screening for HBV is typically completed for clients who are over 35 years of age, HIV positive, HCV positive, or contacts of cases. As of the end of 1999, more than 700 high-risk patients had started the HBV vaccine series through these HIV testing sites. Vaccine completion rates differed among the clinics. The most successful clinic has had a HBV vaccination program in place since 1993. Fifty-five percent of patients at this clinic received two doses of vaccine and 17% completed a three dose series. In addition, two Twin Cities metropolitan area

clinics have recently started providing HAV vaccine to clients in high-risk groups, including men who have sex with men and injecting drug users.

c. Community Clinics

The MDH has worked with 19 Twin Cities area community clinics since 1998 to expand the availability of MDH-supplied HBV vaccine so that high-risk adults can receive free vaccine. These community clinics were chosen based on their ability to offer services on a sliding fee scale. The following criteria were used to define high-risk patients: (1) more than one sex partner in the last 12 months, (2) patient's partner has had more than one sexual partner in the last 12 months, (3) STD in last six months, (4) man who has sex with men, (5) HIV positive, (6) HCV positive, (7) injecting drug use, and (8) household or sexual contact of HBV positive individual. Over the last two years, more than 400 high-risk adults have been vaccinated as part of this activity.

Refugee Health Providers

There are nearly 30 clinics in Minnesota that routinely conduct initial Refugee Health Assessments for newly arrived refugees. A major component of this assessment is screening for HBV infection and initiation of the HBV vaccination series for susceptible persons. Of the 2,510 refugees who were screened in 1999, 2,329 (92.8%) were screened for HBV infection and 615 were given their first dose of HBV vaccine. HCV is currently not a component of the initial Refugee Health Assessment.

Immunization registry

MDH is working with the DHS, local health departments and others to deploy a statewide web-based immunization registry, known as the Minnesota Immunization Information Connection (MIIC). The registry tracks all vaccines given throughout the lifespan. While the initial focus is on pediatric immunizations, the registry will be available to any organization that administers vaccines or is authorized by law to collect immunization histories. MIIC features a confidential, computerized information system that collects vaccination histories and helps ensure correct and timely immunizations. Any provider to

the registry via the Internet can submit new or historical immunization data; similarly any participating provider can look up an immunization record.

MIIC will be very useful in tracking series completion of newborns and household contacts where the mother is surface antigen positive for hepatitis B, as well as for occupations required to receive HBV vaccination. Hospitals and infection control practitioners will also have access. Hepatitis A can also be tracked in high-risk populations, since all tribal and IHS health centers could have access to MIIC. Finally, correctional facilities, county jails, and juvenile detention centers can all use MIIC to record and track HBV given in those settings, as well as assessing during intake whether the inmate/resident needs to be vaccinated.

Full deployment of MIIC, in most if not all of these settings, is expected by the end of 2005. Currently, services are operational in 43 counties, being expanded to another ten counties, pilot tested in three counties, and planned in 21 counties.

Ryan White Care Act Services

For those co-infected with HIV, and who meet income eligibility criteria the federal Ryan White Care Act drug formularies can be used to treat hepatitis. Unfortunately not all drugs that are essential for treating hepatitis are included in the formulary and would need to be paid for out of pocket or through private or public health insurance.

HCV treatment is costly, long in duration and has significant side effects including depression. Treatment is contraindicated for persons currently abusing substances or suffering from mental health concerns. In addition, treatment is only successful for about 40-50% of patients, except for a small sub-group of genotype II and III who generally have higher success rates (75%). Gastroenterologists working with patients face challenges in assessing current mental health and substance abuse concerns, communicating the difficulties of treatment and educating patients about the ongoing improvements in treatment and success rates.

The VA Medical Center and private specialty clinics are currently in the process of developing a research protocol for health assessment and integrating their work with mental health professionals.

Two other sites, the Hennepin County Medical Center (HCMC) and Clinic 42 of Abbott Northwestern Hospital are also exploring funding from pharmaceutical companies for HIV/HCV co-infection. At HCMC, the goal is to establish a clinic specializing in treating co-infected individuals and at Clinic 42, the goal is to hire a nurse case manager for co-infected patients. Finally, a gastroenterologist specializing in Hepatitis C treatment will be practicing at Clinic 42 a few days a week and will see both HCV clients and HIV/HCV co-infected patients.

D. Laboratory Services

Currently only private laboratories provide hepatitis tests, and there is no data describing the number of labs capable of performing these tests in Minnesota. The MDH labs do not currently perform any hepatitis testing, but there is an identified need for publicly supported testing in order to increase awareness, diagnosis, prevention and treatment among persons without insurance coverage that pays for hepatitis-related services.

E. Provider Protocols and Training

During July and August of 2002, VHIP staff conducted an assessment of community clinics in the Minneapolis/St. Paul metro area. (See Appendix E). Clinics included in the assessment were selected based on the knowledge that individuals who inject drugs receive referrals to seek care at these clinics from other community organizations. Of 19 clinics contacted, 16 agreed to complete a questionnaire that assessed training needs; availability of hepatitis A, B, and C services; knowledge and skill level of staff for providing viral hepatitis services including counseling, risk assessment, diagnosis and treatment, and making referrals; comfort level of staff with sexual history taking, substance use history taking, and providing care for high risk groups; barriers to integrating viral hepatitis services into current programs and interest in attending viral hepatitis training. During a

follow-up visit to each clinic, VHIP staff reviewed the questionnaire with the clinic manager and discussed viral hepatitis services and training needs in more detail.

Overall, clinic managers reported that clinical staff had a high level of knowledge and skill for providing viral hepatitis services. The knowledge and skill level of counseling staff was more varied, although only seven of the 16 clinics reported having counseling staff. Clinic managers also reported a high level of comfort for their staff with sexual and substance abuse history taking, as well as providing care for patients from groups at high risk for viral hepatitis infection. Lack of appropriate educational materials, inadequate patient tracking, lack of a policy for providing viral hepatitis services, language and cultural issues, limited time and funding were common barriers to integrating viral hepatitis services for clinics.

Clinic managers reported a wide range of viral hepatitis training needs. Eighty-one (81%) percent of the clinics surveyed felt that training in managing chronic hepatitis B and C infection would be useful. Over half of the clinics surveyed also mentioned viral hepatitis prevention, transmission, counseling, testing, medical referrals, vaccines and co-infection with HIV as training needs. Training in sexual history and substance abuse history taking was of interest to 31% and 38% of clinics respectively.

The most significant barrier to participating in training for clinics was lack of funding (63%), followed by scheduling difficulties (50%) and lack of time (38%). Nineteen percent of the clinics also felt that training was not available or that they had limited time to attend training. All of the clinics surveyed expressed interest in attending a viral hepatitis training sponsored by VHIP. Training on viral hepatitis was offered to community clinic staff by the VHIP in November 2002.

The MDH, STD and HIV section offers training to providers across the state on HIV/STDs, but it currently contains only limited information about HBV and HCV. This is identified as an area of improvement for these trainings.

The Midwest AIDS Training and Education Center (MATEC) also offers some training for providers on HCV (mainly as co-infection with HIV), including hosting conferences in conjunction with the University of Minnesota.

F. Health Plans and Insurance Coverage

Currently, state insurance programs (MNCare and MA) and healthplans that facilitate these programs (MHP, UCare) do cover testing, vaccination and treatment services for their enrollees for all types of viral hepatitis.

Other healthplans in the state (including Blue Cross Blue Shield [BCBSM], Health Partners [HP], and Medica) vary in their coverage of testing, vaccination and treatment of viral hepatitis. According to the MN Council on Healthplans, self-insured employers follow most medical necessity guidelines. The areas of coverage where more variation is found are in coverage of experimental treatments and behavioral health support and behavior modification. For example, BCBSM will sometimes work with a research institution by covering clinical trials of unproven but promising therapies but cannot require self-insured purchasers to cover this. Level of coverage of behavioral health services by self-insured employers is an issue that is being debated at a national level.

HP has also identified ongoing immunizations, including hepatitis, as a priority. They note that the median national HEDIS 2000 Adolescent Immunization Status Rate for Hepatitis B was 40.64%. The 90th percentile nationally was 68.61%. For Health Partners, the rate in 2000 was 72.2%. Health Partners has put financial incentives tied to excellent performance around preventive care for medical groups. The target for 2001 was 85% of all members having been provided all age and gender appropriate preventive care. Thus, hepatitis vaccination (prevention) is measured and improvement noted.

Extent of coverage for testing, vaccination and treatment:

BCBSM: covers medically necessary vaccines, tests and treatments. Medica: HBV, HAV and HCV vaccines, treatments and tests are all covered under the terms of the contract.

(i.e., vaccines fall under immunizations and are covered at 100%, treatments and tests would be covered based on the place of service such as office visit, outpatient hospital, etc.). Health Partners: all diagnosis and treatment is covered. Health Partners covers routine immunizations for children as well as adult immunizations. Coverage policies are on the web site under medical coverage policies - immunizations.

Standard protocols used for risk assessment, screening and treatment:

BCBSM (Blue Plus): Institute for Clinical Systems Improvement (ICSI) guidelines exist for preventive health screening, in which there are recommendations for individuals of all ages. Upon diagnosis, the treatment decisions may vary by provider. BCBSM covers treatments ordered by physicians unless they are specifically excluded in contract (e.g. experimental treatments). Medica adopted the ICSI standards and guidelines in place for HBV and HAV. A medical director at Medica is on the board of ICSI and has recommended that a guideline be established for HCV as well. Health Partners uses the ICSI Preventive Services Guideline (available at www.icsi.org under Health Care Guidelines- immunizations).

Coverage of referrals for treatment adherence, behavior modification or emotional support:

BCBSM has no restrictions on the referrals noted above as long as they are eligible providers under the contract. Medica does not provide coverage for any behavior modification, treatment adherence or emotional support groups. However, Medica does cover treatment for a specific mental health diagnosis that may be an offspring of one of these conditions. Health Partners does not have particular requirements or limitations around hepatitis care.

V. Gap Analysis

Based upon material presented earlier in this report and information gathered through key informant interviews, the following list suggests gaps in the state's current hepatitis infrastructure and delivery systems.

Prevention: Education, General Awareness and Outreach

- Improved general awareness of the prevalence of hepatitis in the state as well as the chronic, often asymptomatic nature of HBV and HCV;
- Accurate information on co-infection for persons who are at high risk due to needle sharing or sexual practices and continued integration of hepatitis prevention into HIV prevention messages;
- Improved prevention education in schools, colleges and with youth who may be experimenting with drugs (including those starting as "snorters" or engaging in unprotected sexual activity);
- Culturally appropriate and language specific materials on hepatitis either for general awareness or specific patient education purposes;
- Greater use of web-based and electronic technology to disseminate hepatitis information, in particular utilizing networks for MSM online;
- Targeted prevention messages at communities of color with disproportionate hepatitis burden by using existing community agencies and clinics;
- Thorough hepatitis education and referral upon discharge for inmates in corrections;
- Dissemination of easy to read, clear, visual and language specific educational materials to community-based clinics and other providers to high-risk clients.

Prevention: Vaccination for HAV and HBV

- Coordinated vaccine delivery system for the state;
- HAV and HBV vaccination standards in juvenile detention centers;
- Improved vaccine access for young adults ages 15-25 (via school-based, campus, teen clinics) who missed state law implementation for vaccinations;

- Broader HAV and HBV vaccine availability for adults at risk through community - based clinics, outreach programs and other venues;
- Standardized vaccine delivery for those diagnosed with HCV while in corrections, chemical dependency or methadone clinics.

Testing and Reporting

- Explore need for test sites for HBV and integration into existing STD clinics and HIV test sites;
- Need for public health infrastructure in testing labs supported by MDH;
- Risk assessment and testing protocol development and dissemination to providers to improve consistency and efficacy of testing;
- Improved reporting of hepatitis cases to the MDH by providers including VAMC, public and private clinics;
- Increased testing or standardized vaccine delivery (including opportunities beyond initial offering at intake) in high-risk settings such as methadone clinics, corrections and chemical dependency;
- Evaluate reporting in Minnesota by Indian Health Service facilities (only approximately 50% of HBV and HCV cases nationwide diagnosed in IHS facilities are being reported to relevant state health departments);

Medical Care and Treatment

- Consistent use of CDC guidelines for care and treatment of chronic and acute hepatitis by individual providers and clinics;
- Increased knowledge of treatment modalities and ongoing improvements, and leadership from HCV specialists in educating peers;
- Inclusion of all necessary HCV medications in Ryan White CARE Act drug formularies for co-infected individuals.

Ancillary Services: Referrals, Support and Partner Notification and Counseling

- Explore possible integration of HBV and HCV into partner services at the MDH;
- Resource directory for referrals to care providers, behavior modification, substance abuse, etc. for acute and chronic hepatitis;

- Research prevention and care case management system for chronic hepatitis patients and the potential for integration into HIV case management programs;
- Inclusion of ancillary services in referrals covered by leading health plans in the state;
- Referrals from primary care or specialty (GI) to mental health and substance use treatment are inconsistent/provider specific (particularly important before beginning any HCV treatment).

Surveillance

- Currently no electronic reporting of hepatitis cases by providers or labs in the state;
- Better data management programs at the state, including reduced paperwork, to improve efficiency and free up resources;
- Quarterly reporting and monitoring and increased breakdown of data reporting by geographic, age and behavioral risk factors.

Training and Protocol Development

- Low cost and short duration trainings for a wide variety of primary care providers including physicians, nurses, physician assistants and nurse practitioners;
- Provide examples of risk assessment, vaccination and treatment protocols to primary care providers along with training and technical assistance on how to use them;
- Provider training on chronic hepatitis management and referral services, particularly to substance abuse, mental health, and behavior change programs;
- Training for chemical dependency treatment, methadone clinics, mental health professionals and correctional facility staff on all aspects of hepatitis (prevention education and counseling, risk assessment, vaccine delivery, testing and treatment options);
- Training of multicultural work force and community-based organizations to impart education and vaccine delivery to high-risk communities;
- Education and protocols for case reporting by physicians to improve gaps in surveillance data;
- Informational websites for providers, teachers and community leaders to get current updates and information;

- Provide additional training and technical assistance to primary care providers regarding partner notification (integrate into needed training for primary care providers re: STD partner notification).

Research: Clinical Trials and Needs Assessment

- Health disparities in incidence of hepatitis in specific populations, such as Native American and African American and design/integration of appropriate interventions and prevention programs.

Collaboration and Integration

- Define the role of HIV prevention programs to address HCV including promoting/providing tests, outreach, and promoting/providing HBV/HAV vaccines, particularly for MSM and IDU populations being served;
- Exploration of current HIV/STD screening sites as test sites for hepatitis C and HAV/HBV vaccine delivery.

Leadership: Policy, Advocacy and Funding

- Advocacy for health insurance coverage/reimbursement for hepatitis testing, vaccination and treatment, including drug formularies;
- Advocacy for hepatitis testing sponsored by MDH labs;
- Resources and support for personnel and programs to address hepatitis at the state and community levels (e.g. joint funding of initiatives to support combined HIV/HCV case management activities);
- Leadership on addressing health disparities in hepatitis in collaboration with the Office of Minority and Multicultural Health at the MDH;
- Viral hepatitis team to guide all state programs, invite participation from other state, county and local agencies, consumers, providers and community-based organizations;
- Development of policy for hepatitis services at community-based clinics;
- Continued funding and advocacy for high-risk adult vaccination programs;
- Follow-up to ensure operationalization of immunization registry in remaining counties in Minnesota;

- Legislative initiatives to gain support for personnel, community programs to promote vaccine and HCV tests in high-risk adults, incorporation of vaccine into STD/HIV clinics and juvenile and adult corrections;
- Seek partnerships for promotion of vaccines for HAV/HBV, such as within the MN Adult Immunization Coalition;
- Resources for vaccines and tests in high-risk settings (e.g. corrections).

VI. Hepatitis Five-year Strategic Plan

The framework for the five-year (2003-2008) strategic plan to address hepatitis in Minnesota was drafted at a retreat of the expanded division hepatitis team. This team is comprised of staff at the MDH in the STD and HIV section, the ITIH section, and one staff representative from each of the following state departments: DHS, DOC, and MDE.

Representatives from the retreat brought the framework for the plan to several stakeholder groups for feedback and input. These stakeholders include:

- MDH STD and HIV Section
- Disease, Prevention and Control Leadership Team (DP&C) (which includes local public health from around the state)
- Hepatitis C Coalition
- Viral Hepatitis Integration Project (VHIP) Community Advisory Group
- STD Ad Hoc Committee (community members)
- HIV Prevention Task Force Youth Council
- Tribal Health Directors
- Veteran's Affairs Medical Centers (VAMC)
- Adult Immunization Coalition
- Immunization Practices Task Force
- Pharmaceutical representatives
- Health plans
- Refugee/Immigrant Task Force

The team then revised the plan to incorporate suggested changes and the resulting final plan described below.

Mission:

The purpose of the State of Minnesota Viral Hepatitis Strategic Plan 2003-2008 is to describe an integrated, comprehensive, collaborative and systematic approach to viral hepatitis prevention, control and treatment in Minnesota.

Vision Statements:

Our collective vision for viral hepatitis prevention, control and treatment in Minnesota includes:

Vision One

A coordinated local, state, and tribal partnership supported by diverse advocates and public and private resources to reduce/eliminate viral hepatitis in the state.

Vision Two

Accurate and thorough reporting and surveillance of viral hepatitis that includes identifying and characterizing risk behaviors, monitoring needs, trends and disparities among populations affected by viral hepatitis, and dissemination of findings to key stakeholders.

Vision Three

Effective and ongoing community and school awareness, education and behavioral interventions to address risks, prevalence, symptoms, vaccines, testing, treatment and accessing hepatitis resources with specific attention to high-risk populations and communities who experience disproportionate burdens of viral hepatitis.

Vision Four

Sufficient, affordable, accessible and high quality prevention, harm reduction, testing, vaccination, services and care and treatment programs for viral hepatitis.

Guiding Principles:

In developing and implementing this five-year strategic plan for viral hepatitis in Minnesota, the plan and its related activities should:

- Recognize the inherent worth of individuals regardless of route of infection with viral hepatitis, ensure confidentiality, and actively involve infected and affected individuals as leaders in developing ongoing hepatitis efforts;
- Build viral hepatitis activities on the existing infrastructure and best practices in place for HIV/STDs, immunizations, school health, chemical dependency and drug treatment systems, inmate education and care and other systems currently serving some of the hepatitis-affected population;
- Continuously research and recognize health and economic disparities that lead to higher prevalence of viral hepatitis in some communities and dedicate resources and efforts to reducing the disease;
- Advocate for viral hepatitis services that are culturally and linguistically appropriate, accessible and non-discriminatory;
- Improve quality of life for those living with chronic hepatitis;
- Promote viral hepatitis prevention and control as a shared private, public and tribal responsibility as well as medical and public health priority.

Vision 1:

A coordinated local, state, and tribal partnership supported by diverse advocates and public and private resources to reduce/eliminate viral hepatitis in the state.

Goal 1: To create an integrated team at the state level to critically review and monitor data, trends, needs and resources in order to lead, plan and advocate for hepatitis programs and funding.

Objectives:

- Identify champions in the state's executive and legislative branches to ensure implementation of the plan and identify a person to act as a liaison with them.
- Review the structure and process of other states with hepatitis planning activities as potential models.
- Clarify structure for state level hepatitis planning.
- Create a position, secure funding and identify a team coordinator for the planning effort.
- Develop a work plan and an organizational chart.
- Invite state level representation including but not limited to: State Departments of Health, Human Services, Corrections, and Education as well as Indian Health Service or other Tribal Health representation, and local public health via the Disease Prevention and Control (DP&C) Leadership Team.

Goal 2: To create an advocacy network to support hepatitis planning and implementation activities.

Objectives:

- Recruit partners in advocacy including but not limited to individuals infected and affected by diverse routes of transmission, faith institutions, youth, community-based organizations, tribal health, support groups, health

plans, local and national professional provider organizations, city and county governments, etc.

- Establish purpose, roles and responsibilities of advocacy network.
- Determine a communication medium for advocacy network members as well as to the general public, legislators and other key constituents.

Goal 3: To obtain funding at the federal, state and local levels for hepatitis-related programs, services and activities.

Objectives:

- Research and create a list of possible resources for funding hepatitis activities, including private and foundation resources.
- Assess the economic impact of hepatitis on infected individuals and their quality of life, on Minnesota's healthcare system and on lost wages and productivity for use in program planning and funding initiatives.
- Designate individuals, agencies and organizations to seek funding, including those already part of the advocacy network.
- Work with the DHS to advocate for drug formularies for HIV to include all necessary HCV drugs.
- Assess current financial capacity to provide additional testing and treatment services for patients and identify additional funding as needed, including higher reimbursement rates from health plans.
- Develop a state legislative initiative to support hepatitis activities.

Goal 4: To engage managed care in education, testing, treatment, vaccination and reimbursement for viral hepatitis.

Objectives:

- Meet with a managed care forum, such as the Community Health Committee of the Minnesota Council of Health Plans, and engage its members in a partnership with the state hepatitis planning team.

- Identify and agree upon mechanisms to improve testing and diagnosis, reporting, patient advocacy and medical coverage for viral hepatitis throughout the state.
- Dialogue with managed care providers on existing stakeholder concerns such as the importance of counseling, involving families in care and treatment plans, standards of care for mental health and substance abuse, and cost benefits of diagnosis on preventing future transmission and supporting behavior changes to improve health.
- Assess the capacity for reimbursement for testing and treatment under current health plan guidelines and strategies for improvement.

Vision 2:

Accurate and thorough reporting and surveillance of viral hepatitis that includes identifying and characterizing risk behaviors and monitoring needs, trends, and disparities among populations affected by viral hepatitis.

Goal 1: To increase the proportion of health care providers screening for HBV and HCV, including those who could potentially screen foreign-born persons, inmates, STD clientele, etc.

Objectives:

- Train providers on choosing the appropriate screening test.
- Train providers on whom to screen based upon behavior pattern and history assessments and symptoms.
- Target education to provider based upon results of the baseline survey of physicians, nurses and physician's assistants.
- Evaluate changes in provider practices over time.
- Assess and address the capacity to pay for testing and treatment by individuals seeking care from health care providers.

Goal 2: Enhance and maintain MDH surveillance for HAV, HBV, and HCV.

Objectives:

- Establish electronic lab reporting.
- Assess completeness of lab reporting and implement active surveillance where appropriate and feasible.

Goal 3: Improve provider and lab compliance with reporting guidelines in order to obtain more complete and accurate surveillance and screening information.

Objectives:

- Develop a web-based reporting system and training for providers on how to use it.
- Disseminate hepatitis compendium (standards for reporting) to providers and labs across the state.
- Work with local public health agencies to achieve the goal of 100% participation in the statewide immunization registry.

Goal 4: Improve the quality and quantity of information to providers.

Objectives:

- Update and improve the MDH website for hepatitis.
- Utilize paper and electronic communication systems already in place to provide hepatitis updates, outbreak information and activities implemented as part of the statewide plan.
- Communicate summary information about disease trends to affected communities and others as appropriate.
- Work with local public health agencies to communicate throughout all regions of the state using provider networks and site visits.
- Update strategies document for use by local public health to include assessment of high-risk populations.

Goal 5: Conduct special studies to develop greater understanding of the viral hepatitis epidemic and its related factors.

Objectives:

- Implement sero-prevalence studies to gauge chronic hepatitis in the state, in particular within refugee and inmate populations, and disseminate that information to local public health agencies and providers.
- Conduct in depth interviews with chronic cases of HCV.
- Quantify sero-prevalence of HBV and HCV in American Indians.
- Quantify co-infection rates of HIV/HCV.

Vision 3:

Effective and ongoing community and school awareness, education and behavioral interventions to address risks, prevalence, symptoms, vaccines, testing, treatment and accessing hepatitis resources with specific attention to high-risk populations and communities who experience disproportionate burdens of viral hepatitis.

Goal 1: Provide information, educational materials, and resources to primary care providers for use in working with patients or clients, especially those at high risk for viral hepatitis.

Objectives:

- Assess the type, quality and origin of materials already being used by providers and local public health agencies.
- Create buy-in from primary care providers on their role in educating patients on the disease through training and discussion.
- Disseminate behavioral risk assessments, protocols, and educational materials to providers as part of medical school and continuing education opportunities and via health plans and professional organizations.
- Utilize Internet and technology-based resources to update providers on educational materials and resources.

Goal 2: Organize and implement a statewide media campaign to provide the general public with information on viral hepatitis transmission and symptoms, as well as resources for vaccination, testing and treatment.

Objectives:

- Identify personnel and resources to coordinate effort.
- Research mechanisms for reaching diverse audiences.
- Identify targeted media campaigns for specific groups or locations.
- Create a plan for campaign content, format and distribution.

Goal 3: Create and assemble a wide variety of resources and educational materials on viral hepatitis for dissemination to patients, those at high-risk and the general public.

Objectives:

- Assess the type, quality and origin of written and other materials currently being provided to individuals in the state.
- Based upon gaps, create a variety of new materials in formats including but not limited to brochures/pamphlets, posters, magnets, videos, games, audiotapes, novelties and online resources.
- Identify specific needs in education materials including language translation, limited literacy, visual representation, word of mouth education, behavior history or patterns of risk and cultural differences in perceptions and rates of disease.

Goal 4: Improve access to and disseminate educational materials and behavioral interventions to persons at risk using existing agencies and networks.

Objectives:

- Compile information about materials and programs currently in place and the capacity to reach target populations in these settings.

- Develop and support ongoing relationships with community-based settings and institutions including correctional facilities and jails, chemical dependency treatment facilities, STD clinics, methadone programs, homeless and youth shelters, immigrant, migrant, and refugee health agencies, reservations, etc. in order to effectively disseminate materials and implement programs.
- Work with the Department of Education to secure resources, legislation and advocacy for comprehensive sexuality and disease education in schools.
- Develop and implement effective behavioral interventions to address hepatitis risk behaviors including syringe access and exchange programs, substance abuse treatment and Health Education /Risk Reduction (HE/RR) activities such as individual and group level counseling.
- Increase the number of local public health agencies developing local community education programs in conjunction with other local entities such as schools and colleges, community education and community-based organizations.

Vision 4:

Sufficient, affordable, accessible and high quality prevention, harm reduction, testing, vaccination, services and care and treatment programs for viral hepatitis.

Goal 1: To develop well-trained, adequately equipped, culturally competent and geographically dispersed provider networks to deliver hepatitis services.

Objectives:

- Identify provider networks and responsible local public health staff throughout the state.
- Identify viral hepatitis education trainers.
- Obtain funding and communicate opportunities for training events and materials via professional organizations and local public health agencies.

- Develop content of trainings to include epidemiology of viral hepatitis, assessment tools for high-risk populations, protocols for vaccine delivery, counseling and testing, care and treatment, syringe access programs and best practices and resources for referrals and support services.
- Deliver trainings statewide on an ongoing basis and explore delivery through existing trainings offered by the MDH.
- Utilize mechanisms such as webcasts and satellite conferences, where feasible, to increase access to training opportunities.

Goal 2: To increase viral hepatitis vaccination, screening and diagnostic testing capacities in multiple settings statewide.

Objectives:

- Assess prevalence of the under-diagnosis of hepatitis B and C and develop appropriate screening and diagnostic testing protocols.
- Develop policy and protocol for standard vaccine delivery and testing in the state.
- Increase capacity of local public health agencies to implement screening and referral strategies for groups at high risk (county jails, refugees, etc.) and seek funding to support these efforts.
- Expand lab capacity for vial hepatitis testing, including but not limited to seeking funding to support these activities at the MDH lab.
- Seek additional funding for high-risk adult vaccine for HBV.
- Identify non-clinical settings for targeted vaccination, screening and diagnostic testing to reach most at-risk individuals including via tribal health and Indian Health Service, in state and county adult and juvenile corrections and in chemical dependency treatment programs.

Goal 3: To increase counseling and support services to individuals in multiple settings statewide.

Objectives:

- Identify resources for counseling services at sites offering testing.
- Provide training to a wide variety of health providers on pre-and post-test counseling and referrals in correctional and jail settings, chemical dependency treatment facilities, STD clinics, tribal health facilities and community-based organizations.
- Compile and disseminate best practice information and a resource directory on support services and referrals including mental health, substance abuse, and behavior modification programs.
- Seek funding for implementation of ongoing counseling and support services within existing clinical and non-clinical settings (e.g. hiring of health educators or social workers).
- Explore possible case management service structure for persons chronically infected with HBV or HCV.
- Explore the role of disease investigators in offering partner services for HBV and HCV, including financial resources and training needs.

VII. Appendices

A. Hepatitis Planning Team Work Plan

B. Hepatitis Planning Team Members

C. CHS Survey Results

D. Minnesota Primary Care Practitioners Survey and Results

E. Viral Hepatitis Community Clinic Services Assessment and Results

Appendix A

Hepatitis Planning Team Work Plan

Hepatitis Planning Team Work Plan

Activity	**When**
1. Develop job description and interview questions for student worker 2. Identify and hire student worker	March 2002
Collate existing needs assessment findings 1. Identify DOC, MCDFL, DHS participants, and schedule key informant meetings. 2. Schedule meetings with key MDH informants 3. Design needs assessment report 4. Prepare draft needs assessment plan	April 2002
Expanded Division Team Meeting 1. Review needs assessment data 2. Approve needs assessment plan	April 30, 2002
Implement needs assessment activities 1. Design survey tools 2. Implement surveys 3. Collate data 4. Draw conclusions 5. Develop report and planning recommendations	May – Sept, 2002
Division Team Meeting	Aug 13, 2002
Prepare retreat activities Begin planning stakeholder feedback activities	September 2002
Expanded Division Team Meeting (Retreat) 1. Review report and recommendations 2. Identify priorities 3. Develop statewide goals, objectives, activities 4. Evaluate planning retreat	Oct 8, 2002
Implement stakeholder meetings 1. MDH 2. DP&C leadership team 3. Other state agencies 4. Hep C coalition 5. Community advisory group 6. STD ad hoc committee 7. Youth Council Evaluate meetings	Oct 8 – Dec 30, 2002
Incorporate stakeholder feedback into draft plan	Dec 30- Jan 10, 2003
Expanded Division Team Meeting 1. Review and refine draft plan 2. Evaluate quality of plan	January 14, 2003
Finalize plan and meet with Division Leadership to discuss implementation, priorities and responsibilities	Feb 15, 2003
Develop evaluation report and submit plan to CSTE	Feb 28, 2003
CSTE Viral Hepatitis Steering Committee Meeting	April 2003
CSTE Annual Meeting	June 2003

Appendix B

Hepatitis Planning Team Members

Hepatitis Planning Team Members

Lynn Bahta, ITIH Section
Kathy Brothen, Coordinated School Health, Department of Education
Elaine Collison, Assistant Division Director, IDEPC
Rich Danila, ADIC Section
Kris Ehresmann, ITIH Section
Debra Ehret, STD and HIV Section
Felicia Fong, ITIH Section
Harry Hull, Division Director, IDECP
Cynthia Kenyon/Shelly Feaver, ITIH Section
Lynne Mercedes, ITIH Section
Claudia Miller, ITIH Section
Japhet Nyakundi, STD and HIV Section
Peggy O'Halloran, STD and HIV Section
Roberta Olson, STD and HIV Section
Margo Roddy, ITIH Section
Dave Rompa, DHS
Nan Schroeder, DOC
Lucy Slater, STD and HIV Section
Sue Turner, ITIH Section

*Staff of the ITIH Section, the ADIC, and the STD and HIV Section are part of the Infectious Disease Epidemiology, Prevention and Control Division of the MDH.

Appendix C

CHS Survey Results

Community Health Service (CHS) Survey Questions and Results

The following written survey was sent to all 50 CHS agencies in the state of Minnesota. The N=42 reports with one agency reporting two counties separately. Response rate was 82%. Frequency and narrative responses are detailed below.

Please indicate which of the following activities your CHS agency implements for <u>viral hepatitis</u> by checking each appropriate box and describing how activities are implemented in the space provided.

Disease Surveillance/Data Collection				
Activity	**Hepatitis A**	**Hepatitis B**	**Hepatitis C**	**How is this activity implemented?** (Specify differences for hepatitis A, B, and C)
Assess health needs of at-risk populations living in the CHS jurisdiction.	20	24	17	All refugees screened for Hep B and via the perinatal Hep B nurse role. For all, in CHS plan, for B-high risk youth in public clinics. Refugees, STD walk-ins as needed. Review statistical reports (2). Prenatal assessment form asks about infections including hepatitis. Upon jail admission. Hispanic translator (Spanish-speaking interpreter)/nurse on staff. Pregnant moms with Hep B.

				CHS assessment plan and MCH nurses. Info to travelers/vaccine for A, offer B vaccine to employees, emergency response volunteers and clients of SEMCAC, college students, at risk perinatal Hep B follow-up, at public immunization clinics. Done via CHS planning in a very general sense, but doesn't explicitly identify factors such as sexual preference or substance abuse in the context of hepatitis risk. Hep A-nursing homes, day care, school staff. Hep B incorporated as STD planning, pregnant women are assessed at primary provider. For C, provide information to adolescents when appropriate using "Are you at risk for Hep C quiz." As part of our C&TC program, school Hep B immunization program and public clinics, and employee infection control. Targeting kids who get tattoos or may be participating in risky behaviors. Education component to general public is something that could be increased. We do not have clinics on site that would be seeing known HIV/AIDS cases (i.e. co-infected with HCV). Hep B immunization of jail and sheriff department staff. We screen at risk persons as appropriate for Hep B,C in refugee health, jail, STD clinics and juvenile treatment/detention center clinics.
Assess immunization levels in public health clinics and encourage/support private clinic assessment using tools such	7	40	N/A	IPI activities with local medical clinics. Local providers do their assessment internally and do not want assistance. We recently assessed public health clients

as CASA and registries.				want assistance. We recently assessed public health clients. Students in schools, staff at employment (PH and jail), staff meetings. Regional registry in place. CASA audits (multiple). Vaccinate all children and young adults; offer to others in our clinic only. Perinatal Hep B PHN role. Immunization clinics, refugee health and CTC clinics. CCC immunization. Use statewide registry (4). Refugees, TB patients, some STD patients. Implemented registry and encourage clinics and schools to participate. Ensure compliance with state law for school-aged children. Hep A: education and referral to MD. Will monitor in 2003 when registry is fully operational. Done through SWMIIC and retrospective study and annual daycare and school reports. Staff meets with clinic staff to discuss immunization registry.
Review and distribute state and local immunization reports to schools, policy makers, providers, and others.	10	34	N/A	Disease reports summary reviewed at school nurse, county board and public health advisory committee, and immunization team meetings.

				Share with advisory group. Letter and mailings, board meeting. Annual report to board of health. Annually when receive funds from MDH. Immunization task force meetings involve public and private providers. School nurses given data also. Clinic assessments. Retrospective kindergarten survey results shared. Not distributing; we review it. Will distribute 2002 retrospective data to school nurses and advisory groups. Present vaccine-preventable disease data, school/childcare immunization level reports and kindergarten survey data to CHS advisory board, schools, United Way and others. School stats regarding HBV. School PHN shares data with schools. Director shares data with boards and staff. All reports reviewed internally and shared as appropriate. Done annually with local advisory committee, medical providers and schools.
Assess adherence to immunization practice standards and provide consultation as needed.	14	40	N/A	IPI visits to medical clinics (multiple responses). Immunization coordinator at staff in-services. Perinatal Hep B PHN role.

				Surveyed three clinics in county. Very time consuming, will funds be provided? Give shots; assure schools give Hep B. Work closely with schools/clinics. Staff in-services, IPI visits to private providers in past year. Epidemiology (department?) All who present for immunization have records reviewed. If clinic denies shots, we call clinic to discuss vaccine schedule. Immunotrack registry. Provide consult to school and clinic; no formal protocol currently. Distribute latest protocols to clinics/schools as needed. Most do not stock Hep A vaccine, assist schools and providers if needed with Hep B. Utilize standards from clinics. Through school records and Immutrack for Hep B. Annual discussion with private clinics.
Identify local staff responsible for viral hepatitis reporting.	26	27	25	DAC nurse responsible for clinic visits and reporting. Lab person in our clinic. Perinatal Hep B nurse role. Do not test; encourage reports to MDH. Local staff assigned to provide outreach after diagnosis as

				needed. Providers report most times directly to the state. DP&C specialist/coordinator. Work in conjunction w/ clinic and hospital. Reports go directly to MDH, local not notified. Health planning and policy section. Immunization officer responsible. Supervisor or Immunization Coordination Directors. SEMCAC, MDs. Local public health nurses identified. Info on reporting given to clinics during IPI visits. Established a partnership with private clinics in the county called the "clinic partnership" Meet quarterly to discuss various issues including reporting. Lab or professional staff at private clinics/hospitals are assigned primary responsibility for reporting.
Maintain current lists of all providers within jurisdiction.	32	36	26	Current provider list maintained for C&TC outreach and includes all providers in county. Perinatal Hep B nurse role. Standard mailings to all MDs with results of infectious disease reports when received from MDH. Lead PH nurse clinic liaison's responsibility. List updated every six to 12 months.

				Clinic lists and contacts updated quarterly at visits. Current lists are maintained for C&TC program and updated two times a year.

Please indicate which of the following activities your CHS agency implements for <u>viral hepatitis</u> by checking each appropriate box and describing how activities are implemented in the space provided.

Disease Surveillance/Data Collection				
Activity	**Hepatitis A**	**Hepatitis B**	**Hepatitis C**	**How is this activity implemented?** (Specify differences for hepatitis A, B, and C)
Assure reporting rules, report cards and MDH toll free reporting phone numbers are available to all medical clinics and laboratories, and hospitals.	33	33	33	IPI clinic visit, review report card. Share with two medical clinics. Mailings and meetings. Annual visit to clinics. Review at yearly meeting. DP& C section handles all items in this section. Send information to providers in county. PH medical consultant is our liaison to clinics, MDs report directly to MDH. We have supplied these to clinics. Usually infection control (hospital) or MD calls us. District Epi supplied forms. Quarterly meetings with PHN liaison, clinic and school

				nurses. Infection control officer handles. Infection control staff meet with local staff at least quarterly. As made available by MDH, materials are distributed to local providers via PHN contacts. We do this as part of our DPC common activities framework responsibilities. We meet annually one on one with identified persons to provide education on what, where and when to report and ensure copies of the rule and report forms.
Respond to inquiries from reporting sources and forward any reports of viral hepatitis cases or suspect cases to MDH.	33	35	32	IPI clinic visit, review report card. In clinic and for perinatal Hep B nurse. At medical providers meeting. As requested/needed. Report directly, not through local ph. Information is directly reported to MDH. We are available on a case-by-case basis and medical providers do call us with inquiries. PHN Director or supervisors respond to inquiries and send reports to MDH.
Review hepatitis surveillance data with staff and non reporting providers at least twice per year.	15	16	14	PH adv. Committee, staff and county board meetings. Perinatal Hep B nurse. Route info to all staff.

				Annually with data from MDH. Done at staff meeting where we get regional reports. Staff meetings, annual CHS report. Mail reporting card to clinic biannually. Surveillance data provided by MDH is shared at provider meetings and during CHS planning. Copies of surveillance data from MDH distributed every six months to all medical providers in community at their request. Data also presented at a medical staff meeting in the past year.
Review any local barriers to the reporting process.	16	16	15	At annual visit. Try to clarify reporting process two times year. Agency staff consults with clinics annually; educate public to report to MDH. Health Alert (network) has really kept providers more aware of reporting process. 1-800 numbers are provided to clinic contacts and reporting process reviewed. Work in progress. We have identified some barriers and removed them, but underreporting continues.
Use surveillance data to assess CHS program effectiveness.	18	20	17	Perinatal Hep B nurse role. Our numbers are extremely small and do not lend to evaluation of effectiveness.

				Data in annual reports and in two-year updates. Identify at-risk groups if need for education (i.e. foreign born). Review of past six months at staff meetings and in CHS planning. Director/Supervisors. Data is reviewed and input from local providers taken into account. During CHS plan evaluation and planning process - data is assessed.

Please indicate which of the following activities your CHS agency implements for <u>viral hepatitis</u> by checking each appropriate box and describing how activities are implemented in the space provided.

Disease Prevention				
Activity	**Hepatitis A**	**Hepatitis B**	**Hepatitis C**	**How is this activity implemented?** (Specify differences for hepatitis A, B, and C)
Develop and implement plans and policies using MDH and CDC communicable disease recommendations/ guidelines to assure capacity to respond to cases of hepatitis.	19	25	19	Perinatal Hep B nurse role. Have held two Hep A outbreak response clinics. We respond with direction from MDH. Epi section. Epidemiology follow-up done by district office staff (MDH). DP&C nurse completes MDH forms. Would follow state protocol. List of reportable diseases and person to call for A, B, C. Follow DP&C common activities framework. Handled by Epi. Unit. We have no policies and would rely on MDH for technical support.
Disseminate guidelines to local providers (e.g., vaccine schedules and recommendations, hepatitis prevention	22	35	16	IPI visits (2), clinic visits. Done annually during face-to-face visit with medical provider. We also review perinatal guidelines related to

testing and treatment).				provider. We also review perinatal guidelines related to Hep B prevention. Physicians are not doing universal HBV infant immunization. Have disseminated information on testing recommendations post-exposure to providers. No provider education done related to recommended screening for risk of Hep A, B or C. Coordinate satellite conference immunization updates with local clinic staff and school nurses. As requested; did provider education when Hep B vaccine first available. Perinatal Hep B nurse role. Annual mailing and as requested. Gave guidelines to local providers and visited one provider who sees many refugees. With the state's help in an outbreak. With help of district epidemiologist. Reinforce guidelines 2x year to clinics. Local DP&C newsletter, IPI visits, during disease investigation. Use the "Got your Shots" manual.
Develop and implement screening and referral strategies for groups at high risk for viral hepatitis.	8	15	5	Perinatal Hep B nurse role. For refugees, std patients and inmates in Corrections. Currently through MCH & immunizations. Providers have complete MN initial refugee health

				assessment forms. Not done with adults. Encouraged but cost can be prohibitive to those at risk. Cannot work in food service until cleared by MDH (for Hep A). Perinatal HBV yes, otherwise no. MDH referral follow up, employee health infection control education and incident follow up. Regularly include strategies in our operations and CHS planning.
Establish and manage public immunization clinics, as needed, based on population-based assessment data.	9	36	N/A	Held regularly each month. Do school clinics. Offer Hep A &B at our public clinics. Weekly public clinics held. Immunization program. OHSA, schools. Ongoing for Hep B; we do not provide Hep A vaccinations. Regularly scheduled immunization clinics that include Hep B vaccine. Open doors. Five immunization clinics per month. Schools and private companies or businesses that request Hep B vaccinations.

				MN VFC for schools and children who qualify. Hep B for employer groups. Hep B is encouraged for those at high-risk but clients would need to privately pay (pay using private resources). Offer in-school Hep B clinics. Vaccinations @ early childhood screening and upon request. HBV only as part of MN VFC (vaccines for children). Four times a month plus appointments. At health department. Public clinics two locations each month, Hep B offered in school clinics and immunization registry is managed.
Maintain and provide consumer education information based on community needs to the public.	29	37	29	Provide as requested (e.g. jails, sheriff). Perinatal Hep B nurse role. Newspaper, brochures, posters, talks. Have info available upon request. Pamphlets/Brochures. Rely mainly on Internet sites with most up-to-date information (rather than pamphlets). Presentations upon request. Upon request or when there is risk factor. Information provided to daycare centers and schools. Available mainly in our school contacts and emergency personnel.

				Maintain current info or access info from MDH website and provide as needed.
Develop local community education programs.	9	19	9	Perinatal Hep B nurse role. Upon request. Blood borne pathogen education is provided at request of industry with day care providers and CPR classes. Education for kindergarten and 6th grade parents when school immunization law changed. Upon request from employer groups or community education. SEMCAC provides community Education. Infection control education for sheriff's department. Reporting requirements of restaurants, public health to teach about Hep A to daycare providers. Information available at county fairs, health fairs and newspaper articles. We have periodically done Hep B education for target populations (e.g. jail, refugees).

Please indicate which of the following activities your CHS agency implements for <u>viral hepatitis</u> by checking each appropriate box and describing how activities are implemented in the space provided.

Disease Control				
Activity	**Hepatitis A**	**Hepatitis B**	**Hepatitis C**	**How is this activity implemented?** (Specify differences for hepatitis A, B, and C)
Assist and/or conduct investigations on communicable diseases in collaboration with the MDH and/or refer information related to cases and suspect cases to the MDH.	30	33	28	Perinatal Hep B nurse role. As needed; haven't had to yet. DP&C nurse completed. Partner with MDH on investigations. Call district epi staff when case reported or suspected. PHN assists with determining who the contacts are of HBV positive person. EH Staff assist with investigations of Hep A cases/outbreaks. Would work in conjunction with Environmental health. Follow up is provided by PHN for reports from MDH. We investigate in consultation with MDH or refer to MDH.
Implement local disease control programs, as indicated, from local surveillance data and trends.	10	15	10	Perinatal Hep B nurse role. Have provided day care and business with ECPs and self-education modules. Would follow up to offer Hep B immunization to household members or employees exposed. Offer B to those "at risk" and school education programs. Little for A, C. PHN provides HBV vaccinations to contacts of reported

				cases.
Other activities (list any other viral hepatitis activities being conducted by your CHS agency that are not listed above)				
Activity	**Hepatitis A**	**Hepatitis B**	**Hepatitis C**	**How is this activity implemented?** (Specify differences for hepatitis A, B, and C)
Other, please describe:	0	3	0	Perinatal Hep B/Postpartum and Immunization follow-up (had one in ten years). We now participate fully in the perinatal Hep B prevention program. Immunization improvement, teen pregnancy prevention and STD transmission, ongoing program evaluation.

If you had more resources available for viral hepatitis surveillance, prevention and control activities, what would you do? (Please describe)

Provide full vaccination services in the school setting regardless of pay source.

Viral hepatitis is not something that's huge on our radar screen at this time.

We would consider working with providers to increase "screening" activities that get at potential risk of hepatitis. This would require having standards developed like we have around immunization practices and then sharing this information with appropriate providers. We would also develop community education activities around the issue of viral hepatitis.

Incorporate Hep B into overall vaccine management program. Don't make us see providers more than one time per year.

Note: The low number of responses to this question may be due to its placement on the bottom of the last page of the survey where many respondents may have missed it.

Appendix D

Minnesota Primary Care Practitioners Survey and Results

The Minnesota Primary Care Practitioner's Survey on Viral Hepatitis:

Background and Methods

In 2002, the Minnesota Department of Health (MDH) conducted an assessment of hepatitis prevention activities in the state that highlighted the need for more information about the hepatitis prevention and control practices of primary care providers in Minnesota. To address this need, the MDH conducted a mailed survey with 1800 Minnesota primary care providers, including physicians, nurses, and physician's assistants in the fall of 2002. The survey included questions about physician and clinic characteristics, screening and risk assessment practices for hepatitis A, B, and C, use of national guidelines for hepatitis prevention and control, hepatitis reporting procedures, scope of hepatitis C practice and expertise, partner services, and training needs for hepatitis.

MDH obtained a list of physicians' assistants from the State of Minnesota Mailing List and lists of nurses and physicians practicing in Minnesota from the Minnesota Board of Nursing and the Minnesota Medical Foundation, respectively. We randomly selected 600 physicians, 600 nurses, and 600 physicians' assistants from these lists. Both the nurse list and physician list included information about specialty, so we selected nurses and physicians from the subset indicating a primary care specialty. Specialty information was not available in the physician's assistant list. Providers who did not return their survey received a reminder postcard one week after the initial mailing, and a second copy of the survey three weeks after the initial mailing.

The overall survey response rate was 39%, including 177 physicians (36% response), 221 nurses (44% response), and 153 physician assistants (36% response). Providers who practiced in another state, were retired or no longer involved in providing primary health care, or practiced in an unrelated specialty, such as dermatology or surgical specialties, were not included in the analysis.

Provider characteristics: Primary specialty and work setting

Table 1 provides a description of the primary specialty of survey respondents. Of the 551 respondents, the majority reported that their primary specialty was Family Practice (n=320, 58.1%), followed Internal Medicine (n=77, 14.0%), and Obstetrics and Gynecology (n=68, 12.3%). Slightly more physicians reported working in Internal Medicine when compared with nurses and physicians' assistants, and more nurses reported Obstetrics and Gynecology as their primary specialty compared to the other two provider groups (data not shown).

Table 1: Primary specialty of survey respondents (n=551)

Primary Specialty	n (%) respondents
Family Practice	320 (58.1)
Internal Medicine	77 (14.0)
Obstetrics and Gynecology	68 (12.3)
General Practice	33 (6.0)
Gynecology	24 (4.4)
Infectious Diseases	12 (2.2)
Adolescent Medicine	6 (1.1)
General Preventive Medicine	6 (1.1)
Other	5 (0.9)

Most respondents reported working in private practice (n=242; 43.9%). Twenty-four percent worked in community clinics (n=132), 13.1% worked for Managed Care Organizations (n=72), 6.7% worked in hospitals (n=37) and 3.1% (n=17) worked in academic medical centers or college health services. Other work settings reported by survey respondents included corrections, long-term care facilities, rural health, VA medical centers, and tribal health/Indian Health Services.

Screening, vaccination, and risk assessment practices for hepatitis A, B, and C

It was more common for providers to report having standard protocols for performing risk assessments, and for testing, vaccination and treatment for hepatitis B compared to hepatitis A and C (Table 2). Only 8.5% of providers surveyed reported having a standard protocol for when to perform a risk assessment for hepatitis A, 35.9% for hepatitis B, and 18.5% for hepatitis C. Compared to standard protocols for risk assessment for hepatitis, more providers reported having a standard protocol regarding testing, vaccination, and treatment for these diseases: 23.8% for hepatitis A, 50.5% for hepatitis B, and 23.0% for hepatitis C. Between 15 and 25 percent of providers were unsure whether or not their practice had protocols in either of these areas.

Table 2: Standard hepatitis procedures at medical practices of respondents

	Hepatitis A (n=551) n (%) respondents	Hepatitis B (n=544)* n (%) respondents	Hepatitis C (n=547)** n (%) respondents
Standard protocol for risk assessment	47 (8.5)	195 (35.9)	101 (18.5)
Standard protocol for testing, vaccination (HAV, HBV), and treatment	131 (23.8)	275 (50.5)	126 (23.0)

*7 respondents missed these questions
**4 respondents missed these questions

Survey respondents answered a series of questions about hepatitis risk factor questions collected from patients during medical history taking (Table 3). Most providers indicated that they ask patients about their occupation, past illicit drug use, history of sexually transmitted diseases, history of chronic liver disease, patient sexual orientation/sexuality, and sexual activity with more than one partner in the previous six months. Fewer providers indicated that medical histories include questions about the following hepatitis risk factors: information about clotting factor disorders, past hemodialysis, and travel to sites with high rates of viral hepatitis infection.

Table 3: Hepatitis risk factor information collected from patients during medical history taking

Hepatitis risk factor	n (%) respondents
Patient's occupational history	508 (92.5)
Past illicit drug use	494 (90.0)
History of sexually transmitted diseases	459 (83.8)
History of chronic liver disease	425 (79.0)
Patient sexual orientation/sexuality	383 (69.6)
>1 sex partner in past 6 months	362 (65.8)
History of clotting factor disorder	315 (57.4)
History of hemodialysis	256 (46.7)
Travel to or work at sites with high rates of viral hepatitis	228 (41.7)

A total of 84.5% (n=465) of respondents indicated that they take patient medical histories themselves, 40.4% (n=222) respondents said that other staff take medical histories, and 46.7% (n=257) reported that patients complete medical history forms. For 51.2% of respondents, more than one person (the provider, other staff, and/or patients) completes medical history taking. Providers reported collecting medical history information from patients annually (n=339; 62.0%), at a patient's first visit (n=267; 48.5%), at each patient visit (n=72; 13.2%), as indicated depending on the patient's chief complaint (n=63; 11.5%), or at every complete physical exam

(n=38; 6.9%). Thirty-nine percent (n=214) indicated taking medical histories at more than one of these times.

Patient Vaccine and Testing Needs

Table 4 summarizes respondents' estimates of the proportion of their patients that need hepatitis A and B vaccine and hepatitis C testing. Among survey respondents, approximately 1-2% indicated that none of their patients need hepatitis A and B vaccine and hepatitis C testing. About 80% of respondents estimated the need among patients to be between 1-25% for both hepatitis A vaccine and hepatitis C testing. It was more common for respondents to estimate a higher proportion of need for hepatitis B vaccine among patients relative to hepatitis A vaccine or hepatitis C tests; however, less than half of respondents estimated the proportion of patients needing hepatitis B vaccine to be greater than 25%.

Table 4: Provider estimate of patient need for Hepatitis A and B vaccine and Hepatitis C testing

Estimated proportion of patients in need	Hepatitis A vaccine (n=514)* n (%) respondents	Hepatitis B vaccine (n=456)** n (%) respondents	Hepatitis C testing (n=491)*** n (%) respondents
0%	10 (1.9)	4 (0.9)	11 (2.2)
1-25%	417 (81.1)	259 (56.8)	381 (77.6)
26-50%	54 (10.5)	100 (21.9)	76 (15.5)
>50%	33 (6.4)	93 (20.4)	23 (4.7)

* 37 respondents missed this question
** 95 respondents missed this question
*** 60 respondents missed this question

Respondents also estimated the proportion of their patients that do not have access to hepatitis A and B vaccine and hepatitis C testing, either because the patient or the clinic cannot pay for these services. Respondents estimated that similar proportions of patients do not have access to hepatitis A vaccine, hepatitis B vaccine and hepatitis C testing. About 40% of providers surveyed estimated that none of their patients are without access to these services, and approximately half reported that between 1 and 25% of their patients do not have access. Only 10% of respondents estimated that more than 25% of their patients are without access to hepatitis A and B vaccine and hepatitis C testing.

Hepatitis C Caseload

About a third of all respondents reported that they had not diagnosed HCV infection in patients in the previous three months, and half indicated they were not currently treating any patients for the disease (Table 5). About 55% of providers surveyed diagnosed between one and nine patients with hepatitis C in the three months prior to receiving the survey. Fewer, 42.2%, reported that they were currently treating between one and nine patients for hepatitis C infection. Less than 10% of respondents had diagnosed ten or more patients or were currently treating ten or more patients for hepatitis C infection. It was more common for physicians to report having diagnosed and treated patients with hepatitis C than it was for nurses and physician's assistants (data not shown).

Table 5: Provider estimate of the number of patients recently diagnosed or under treatment for Hepatitis C (HCV) infection

Number of patients	Hepatitis C diagnosis (n=548)* n (%) respondents	Hepatitis C treatment (n=548)* n (%) respondents
None	197 (36.0)	280 (51.1)
1-9	297 (54.2)	231 (42.2)
10-25	47 (8.6)	26 (4.7)
26-49	5 (0.9)	9 (1.6)
50 or more	2 (0.4)	2 (0.4)

* 3 respondents missed this question

Hepatitis B and C Pretest Counseling

Table 6 describes who at the respondents' practice provides pretest counseling for hepatitis B and C. Eighty percent of respondents indicated they provide this service to patients tested for hepatitis B (n=429) and 74.9% (n=402) for hepatitis C themselves. Respondents indicated it is less common for someone other than him/herself, such as a nurse or health educator, to provide pretest counseling to patients for both hepatitis B and C. A total of 13.4% (n=72) of respondents indicated that pretest counseling is not provided to patients at their practice for hepatitis B and 19.9% (n=107) for hepatitis C. Most providers indicated that just one person at their practice is responsible for hepatitis B and C pretest counseling for patients, however, for 24.1% (n=129) and 18.1% (n=97) of respondents, more than one type of provider counsels patients for hepatitis B and C, respectively.

Table 6: Who provides hepatitis B and C pre-test counseling to patients?

	Hepatitis B (n=536)* n (%) respondents	Hepatitis C (n=537)** n (%) respondents
Pretest Counseling not provided	72 (13.4)	107 (19.9)
Survey Respondent	429 (80.0)	402 (74.9)
Nurse	130 (24.3)	84 (15.6)
Health Educator	37 (6.9)	29 (5.4)
More than one provider	129 (24.1)	97 (18.1)

*15 respondents missed this question
**14 respondents missed this question

Table 7 summarizes topics covered during hepatitis B and C pretest counseling sessions. Respondents reported that pre-test counseling sessions for hepatitis B most frequently cover information about hepatitis B risk factors and modes of transmission, hepatitis A and B vaccinations and the test and meaning of test results. Two thirds of respondents indicated that hepatitis B counseling sessions include information about methods to reduce transmission of hepatitis. Fewer respondents reported covering information about testing sexual partners and household contacts for hepatitis, and health maintenance strategies during pre-test counseling sessions for hepatitis B. Results for topics covered during pre-test counseling for hepatitis C are similar.

Eleven percent (n=52) of respondents did not indicate which topics they cover in hepatitis B pre-test counseling, and 14.7% (n=63) did not indicate the topics covered during hepatitis C pretest counseling sessions. Most respondents cover more than one topic (n=355; 76.5%) during pretest counseling for hepatitis B, and 34.5% (n=160) of respondents cover all of the topics listed in Table 7 during these sessions. For hepatitis C, 83.7% (n=360) cover more than one topic, and 35.1% (n=151) cover all of the topics listed in Table 7 during these sessions.

Table 7: Topics covered during pre-test counseling for Hepatitis B and C

	Hepatitis B (n=464*) n (%) respondents	Hepatitis C (n=430)** n (%) respondents
Risk factors	402 (86.6)	358 (83.3)
Modes of transmission	395 (85.1)	353 (82.1)
Hepatitis A and B vaccinations	330 (71.1)	266 (61.9)
The test and meaning of test results	322 (69.4)	298 (69.3)
Methods to reduce hepatitis transmission	308 (66.4)	272 (63.3)
Testing of sexual partners and household contacts	257 (55.4)	220 (51.2)
Health maintenance strategies if the result if positive	200 (43.1)	204 (47.4)
All topics	160 (34.5)	151 (35.1)
Unsure	14 (3.0)	12 (2.8)

*Excludes 15 respondents that missed Q24 and 72 respondents that reported that no counseling is done at their practice
*Excludes 14 respondents that missed Q24 and 107 respondents that reported that no counseling is done at their practice

Partner Notification practices for hepatitis B and C positive patients

Approximately 80% of providers surveyed instruct patients diagnosed with hepatitis B or C to inform their sexual or needle-sharing partner of the need for testing and/or treatment for HBV or HCV infections. Only 3-5% of respondents indicated that staff at their practice contact the partners of hepatitis B or C positive patients either by phone or mail, and about 13% indicated that partner notification is not practiced at all (5% of those specified this is because they do not see any hepatitis B or C positive patients). Another 5% of respondents reported that they rely on the Department of Health to contact partners, and 5% were not sure how or if partner notification is practiced at their practice. Thirty-three respondents missed this question.

Provider hepatitis information and training needs

About a third of respondents reported that their practice has copies of national prevention guidelines from the Centers for Disease Control and Prevention for hepatitis A, B, and C. Fewer reported having the *National Institutes of Health Consensus Development Statement for the Management of Hepatitis C* (n=92; 16.8%). A large number of providers were not sure if their practices had copies of the CDC recommendations for hepatitis A (n=281; 51.1%), B (n=274; 50.2%), and C (303; 55.8%), or the NIH recommendations for hepatitis C (n=351; 64.2%).

Over half of all respondents felt that they had adequate and current training in issues related to hepatitis A (n=284, 52.5%) and hepatitis B (n=311, 57.4%). Fewer respondents (n=217; 40.0%) reported that they had adequate and current training in issues concerning HCV infections.

A total of 65.9% of respondents indicated an interest in receiving information, training, or technical assistance about treatment for hepatitis B and C, and about half of all respondents reported an interest in risk assessment for viral hepatitis and diagnosis (Table 8). Fewer respondents expressed an interest in receiving information, training, or technical assistance in counseling, hepatitis A and B vaccines and sexual history taking. A total of 22.1 percent of respondents (n=122) indicated interest in all of the topics in Table 8, and 20.1% of respondents (n=111) did not indicate interest in any of the viral hepatitis topics listed. In general, fewer physicians expressed interest in receiving viral hepatitis information, technical assistance, and

training compared to nurses and physician's assistants (data not shown). Nurses and physician's assistants indicated about the same level of interest for each of the viral hepatitis topics listed.

Table 8: Provider interest in receiving viral hepatitis information, training, or technical assistance

Training, technical assistance topics	n (%) respondents
Treatment (HBV, HCV)	362 (65.9)
Risk assessment	278 (50.6)
Diagnosis	272 (49.5)
Counseling	243 (44.3)
Vaccines (HAV, HBV)	227 (41.4)
Taking sexual history	182 (33.2)
All topics	122 (22.1)
None	111 (20.1)

Summary

In summary, this survey provided the MDH with a snapshot of current viral hepatitis prevention, control and treatment practices of providers in the state. Overall, the survey highlighted that Minnesota primary care providers conduct some degree of risk assessment for hepatitis through medical history taking, many provide services such as pretest counseling for patients receiving hepatitis B and C tests and talk to hepatitis B and C positive patients about contacting their sexual or needle sharing partners about their risk for hepatitis infection. This is a positive finding in light of the fact that the providers surveyed estimated that a fairly low proportion of their patients need hepatitis screening or vaccination, especially for hepatitis A and C and few diagnose or treat many patients for hepatitis C. Despite a low prevalence of disease in their practices, primary care providers are addressing hepatitis issues in some capacity.

The survey also highlighted areas for improvement and some simple actions that the health department can take to help primary care providers improve their awareness of viral hepatitis prevention, control and treatment issues. For example, although many providers indicated that they include questions about hepatitis risk factors when taking patient medical histories, the majority reported that they do not have standard protocols for risk assessment or for testing, vaccination and treatment for viral hepatitis. One action the health department could take is to share examples of protocols with primary care providers, and provide technical assistance regarding how to implement these protocols. Another simple action the health department could take is to use existing MDH communications like the Disease Control Newsletter to remind

providers about internet links to national prevention and control guidelines: two thirds or more of providers reported that they were not sure if their practice had copies of these national guidelines. Finally, only half of providers who responded to the survey indicated that they had adequate and current training in hepatitis A, B, and C issues and many expressed interest in receiving information, training or technical assistance in specific hepatitis topics. To respond to this need, the MDH could conduct a one or two day hepatitis workshop for primary care providers in the state, similar to a successful workshop held in Wisconsin in 2003.

Label

Minnesota Primary Care Practitioners Survey
Viral Hepatitis

Number and percent responding included after each response option: n(%)

1. During a typical week, do you provide patient care for at least 20 hours a week? *(Patient care includes seeing patients and performing surgery and related work such as record keeping, travel time, on-call, and telephone time. It excludes time spent in training, teaching, research, or travel between home and work.)*

   1 ☐ Yes **520 (94.6**)
   2 ☐ No **30 (5.5)**
   missing = 1

2. What is your primary specialty? (Check one.)

   1 ☐ Adolescent Medicine **6 (1.1)**
   2 ☐ Family Practice **320 (58.1)**
   3 ☐ General Practice **33 (6.0)**
   4 ☐ General Preventive Medicine **6 (1.1)**
   5 ☐ Infectious Diseases **12 (2.2)**
   6 ☐ Internal Medicine **77 (14.0)**
   7 ☐ Gynecology **24 (4.4)**
   8 ☐ Obstetrics and Gynecology **68 (12.3)**
   9 ☐ Other, please specify: **5 (0.9)**
   missing = 0

3. Which of the following best describes your work setting? (Check one.)

   1 ☐ Private Practice **242 (43.9)**
   2 ☐ Community Clinic **132 (24.0)**
   3 ☐ Managed Care Organization **72 (13.1)**
   4 ☐ Hospital **37 (6.7)**
   5 ☐ City/County/State Health Department **8 (1.5)**
   6 ☐ Other, please specify: **66 (12.0)**
   missing = 0

Risk Assessment

4. Who in your practice completes medical history form information from patients? (Check all that apply.)

   1 ☐ I do **465 (84.5)**
   1 ☐ A nurse or other staff member completes the medical history **222 (40.4)**
   1 ☐ Patients complete the medical history **257 (46.7)**
   1 ☐ Other, please specify: **2 (0.4)**
   missing = 1

At your practice, does medical history taking include questions about the following? (Check one box for each row.)

	Yes	No	Unsure
5. Traveling to or working in countries that have high rates of viral hepatitis infection?..... **missing = 4**	**228 (41.7)**	**306 (55.9)**	**13 (2.4)**
6. Patient sexual orientation/sexuality?..... **missing = 1**	**383 (69.6)**	**159 (28.9)**	**8 (1.5)**
7. Illegal drug use, including injecting and non-injecting illegal drugs?..... **missing = 2**	**494 (90.0)**	**48 (8.7)**	**7 (1.3)**
8. Patient Occupation?..... **missing = 2**	**508 (92.5)**	**40 (7.3)**	**1 (0.2)**
9. History of clotting factor disorder?..... **missing = 2**	**315 (57.4)**	**212 (38.6)**	**22 (4.0)**
10. History of chronic liver disease?..... **missing = 13**	**425 (79.0)**	**91 (16.9)**	**22 (4.2)**
11. History of hemodialysis?..... **missing = 3**	**256 (46.7)**	**262 (47.8)**	**30 (5.5)**
12. History of sexually transmitted disease?..... **missing = 3**	**459 (83.8)**	**77 (14.1)**	**12 (2.2)**
13. History of sexual activity with more than one partner in the previous 6 months?..... **missing = 1**	**362 (65.8)**	**171 (31.1)**	**17 (3.1)**

14. How often is the above medical history information collected from patients in your practice? (Check all that apply.)

1 ☐ During a patient's first visit to the practice 267 (48.5)
1 ☐ On a yearly basis 339 (62.0)
1 ☐ At every visit 72 (13.2)
1 ☐ Other, please specify: depending on chief complaint **63 (11.5)**, at every complete physical **38 (6.9)**, other not specified **18 (3.3)**
missing = 4

Hepatitis A

15. Does your practice have a standard protocol regarding when to perform a risk assessment for hepatitis A?

1 ☐ Yes **47 (8.5)**
2 ☐ No **408 (74.1)**
3 ☐ Unsure **96 (17.4)**
missing = 0

16. Does your practice have a standard protocol regarding testing, vaccination, and treatment for hepatitis A?

1 ☐ Yes **131 (23.8)**
2 ☐ No **334 (60.6)**
3 ☐ Unsure **86 (15.6)**
missing = 0

17. Does your practice have a copy of the Centers for Disease Control and Prevention's *Prevention of Hepatitis A Through Active or Passive Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP)*?

1 ☐ Yes **165 (30.0)**
2 ☐ No **104 (18.9)**
3 ☐ Unsure **281 (51.1**)
missing = 1

18. Based upon risk for the disease, estimate the percent of patients in your practice in need of hepatitis A vaccine. (Please provide your best guess estimate.)

Percent in need	n	%
0	10	1.9%
1 to 25	417	81.1%
26 to 50	54	10.5%
> 50	33	6.4%

missing = 37

19. Please provide your best guess for the percent of patients in your practice who are in need of hepatitis A vaccine but do **not** have access to vaccine through existing funding structures (i.e. either patient and/or clinic are unable to pay for it).

Percent without access	n	%
0	194	40.6%
1 to 25	238	49.8%
26 to 50	23	4.8%
> 50	23	4.8%

missing = 73

20. Who in your practice reports cases of hepatitis A to the Minnesota Department of Health (MDH)? (Check one.)

1 ☐ Laboratory **159 (29.5)**
2 ☐ Clinic staff **151 (28.0)**
3 ☐ Both **145 (26.9)**
4 ☐ Unsure **84 (15.6)**
missing = 12

Hepatitis B

21. Does your practice have a standard protocol regarding when to perform a risk assessment for hepatitis B?

1 ☐ Yes **195 (35.9)**
2 ☐ No **249 (45.8)**
3 ☐ Unsure **100 (18.4)**
missing = 7

22. Does your practice have a standard protocol regarding testing, vaccination, and treatment for hepatitis B?

1 ☐ Yes **275 (50.5)**
2 ☐ No **182 (33.4)**
3 ☐ Unsure **88 (16.2)**
missing = 6

23. Does your practice have a copy of the Center for Disease Control and Prevention's *Hepatitis B Virus: A Comprehensive Strategy for Eliminating Transmission in the United States Through Universal Childhood Vaccination: Recommendations of the Immunization Practices Advisory Committee (ACIP)*?

1 ☐ Yes **193 (35.4)**
2 ☐ No **79 (14.5)**
3 ☐ Unsure **274 (50.2)**
missing = 5

24. Who in your practice provides pre-test counseling to patients at risk for hepatitis B? (Check all that apply.)

1 ☐ I do **429 (80.0)**
1 ☐ Nurse **130 (24.3**)
1 ☐ Health educator **37 (6.9)**
1 ☐ Other, please specify: **17 (3.2)**

1 ☐ Nobody **72 (13.4)**
missing = 15

24a. What information is covered during pre-test counseling? (Check all that apply.)

1 ☐ Modes of transmission for hepatitis B **395 (85.1)**
1 ☐ Risk factors for hepatitis B **402 (86.6)**
1 ☐ The test and meaning of test results **322 (69.4)**
1 ☐ Hepatitis A & B vaccinations **330 (71.1)**
1 ☐ Health maintenance strategies if the result is positive **200 (43.1)**
1 ☐ Methods to reduce hepatitis transmission **308 (66.4)**
1 ☐ Testing of sexual partners and household contacts **257 (55.4)**
1 ☐ Other, please describe: **16 (3.4)**
1 ☐ Unsure **14 (3.0)**

25. Based upon risk for the disease, estimate the percent of patients in your practice in need of hepatitis B vaccine. (Please provide your best guess estimate.)

percent in need	n	percent
0	4	0.9%
1 to 25	259	56.8%
26 to 50	100	21.9%
> 50	93	20.4%

missing = 95

26. Please provide your best guess for the percent of patients in your practice who are in need of hepatitis B vaccine but do **not** have access to vaccine through existing funding structures (i.e. either patient and/or clinic are unable to pay for it).

percent in need	n	percent
0	192	38.6%
1 to 25	255	51.3%
26 to 50	35	7.0%
> 50	15	3.0%

missing = 54

27. Who in your practice reports cases of hepatitis B to the Minnesota Department of Health (MDH)? (Check one.)

1 ☐ Laboratory **152 (28.2)**
2 ☐ Clinic staff **156 (28.9)**
3 ☐ Both **158 (29.3)**
4 ☐ Unsure **74 (13.7)**
missing = 11

Hepatitis C

28. Does your practice have a standard protocol regarding when to perform a risk assessment for hepatitis C?

1 ☐ Yes **101 (18.5)**
2 ☐ No **308 (56.3)**
3 ☐ Unsure **138 (25.2)**
missing = 4

29. Does your practice have a standard protocol regarding testing and treatment for hepatitis C?

1 ☐ Yes **126 (23.0)**
2 ☐ No **293 (53.6)**
3 ☐ Unsure **128 (23.4)**
missing = 4

30. Who in your practice provides pre-test counseling to patients at risk for hepatitis C? (Check all that apply.)

1 ☐ I do **402 (74.9)**
1 ☐ Nurse **84 (15.6)**
1 ☐ Health educator **29 (5.4)**
1 ☐ Other, please specify: **25 (4.7)**

1 ☐ Nobody **107 (19.9)**
missing = 14

30a. What information is covered during pre-test counseling? (Check all that apply.)

1 ☐ Modes of transmission for hepatitis C **353 (82.1)**
1 ☐ Risk factors for hepatitis C **358 (83.3)**
1 ☐ The test and meaning of test results **298 (69.3)**
1 ☐ Hepatitis A & B vaccinations **266 (61.9)**
1 ☐ Health maintenance strategies if the result is positive **204 (47.4)**
1 ☐ Methods to reduce hepatitis transmission **272 (63.3)**
1 ☐ Testing of sexual partners and household contacts **220 (51.2)**
1 ☐ Other, please describe: **12 (2.8)**
1 ☐ Unsure **12 (2.8)**

31. Based upon risk for the disease, estimate the percent of patients in your practice in need of hepatitis C testing. (Please provide your best guess estimate.)

percent in need	n	percent
0	11	2.2%
1 to 25	381	77.6%
26 to 50	76	15.5%
> 50	23	4.7%

missing = 60

32. Please provide your best guess for the percent of patients in your practice who are in need of hepatitis C testing but do **not** have access to testing through existing funding structures (i.e. either patient and/or clinic are unable to pay for it).

percent in need	n	percent
0	189	39.8%
1 to 25	238	50.1%
26 to 50	29	6.1%
> 50	19	4.0%

missing = 76

33. Does your practice have a copy of the Centers for Disease Control and Prevention's *Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-Related Chronic Disease*?

1 ☐ Yes **153 (28.2)**
2 ☐ No **87 (16.0**)
3 ☐ Unsure **303 (55.8)**
missing = 8

34. Does your practice have a copy of the *National Institutes of Health Consensus Development Statement for the Management of Hepatitis C*?

1 ☐ Yes **92 (16.8)**
2 ☐ No **104 (19.0)**
3 ☐ Unsure **351 (64.2)**
missing = 4

35. Who in your practice reports cases of hepatitis C to the Minnesota Department of Health (MDH)? (Check one.)

1 ☐ Laboratory **148 (27.3)**
2 ☐ Clinic staff **154 (28.4)**
3 ☐ Both **153 (28.2)**
4 ☐ Unsure **88 (16.2)**
missing = 8

36. Indicate the approximate number of hepatitis C infected patients you have diagnosed in the past 3 years. (Check one.)

1 ☐ None **197 (36.0)**
2 ☐ 1 – 9 **297 (54.2)**
3 ☐ 10 – 25 **47 (8.6)**
4 ☐ 26 – 49 **5 (0.9)**
5 ☐ 50 or more **2 (0.4)**
missing = 3

37. Indicate the approximate number of hepatitis C infected patients you are currently monitoring and/or treating. (Check one.)

1 ☐ None **280 (51.1)**
2 ☐ 1 – 9 **231 (42.2)**
3 ☐ 10 – 25 **26 (4.7)**
4 ☐ 26 – 49 **9(1.6)**
5 ☐ 50 or more **2(0.4)**
missing = 3

Partner notification

38. When you diagnose a patient with hepatitis B or C, how does the clinic USUALLY notify sexual or needle sharing partners of the need for testing and/or treatment? (Check all that apply.)

missing = 33	**Hepatitis B**	**Hepatitis C**
a. Patient instructed to inform partners(s)……	**418 (80.7)**	**403 (77.8)**
b. Staff contacts partners by telephone…….	**27 (5.2)**	**26 (5.0)**
c. Staff contacts partners by mail……	**19 (3.7)**	**17 (3.3)**
d. No partner notification……	**41 (7.9)**	**39 (7.5)**
e. Other, please describe: _____	**50 (9.7)**	**47 (9.1)**

Training

39. Do you feel you have adequate and current training in issues concerning:

a. Hepatitis A?	1 ☐ Yes **284 (52.5)**	2 ☐ No **257 (47.5)**	**missing = 10**
b. Hepatitis B?	1 ☐ Yes **311 (52.4)**	2 ☐ No **231 (42.6)**	**missing = 9**
c. Hepatitis C?	1 ☐ Yes **217 (40.0)**	2 ☐ No **326 (60.0)**	**missing = 8**

40. In which of the following areas would you be interested in receiving information, training, or technical assistance on viral hepatitis? (Check all that apply.)

1 ☐ Diagnosis **272 (49.4)**
1 ☐ Risk assessment **278 (50.5)**
1 ☐ Sexual history taking **182 (33.0)**
1 ☐ Vaccines (hepatitis A, B) **227 (41.2)**
1 ☐ Treatment (hepatitis B, C) **362 (65.7)**
1 ☐ Counseling **243 (44.1)**
1 ☐ Other, please specify: **18 (3.3)**
none = **113 (20.5)**

Thank you for taking the time to answer these questions! Please return your completed survey in the enclosed stamped envelope.

Minnesota Department of Health
Attn: Peggy O'Halloran
STD & HIV Section
717 SE Delaware Street, Box 9441
Minneapolis, MN 55440-9441

Minnesota Primary Care Practitioners Survey

Viral Hepatitis

1. During a typical week, do you provide patient care for at least 20 hours a week? *(Patient care includes seeing patients and performing surgery and related work such as record keeping, travel time, on-call, and telephone time. It excludes time spent in training, teaching, research, or travel between home and work.)*

   1 ☐ Yes
   2 ☐ No

   If you have more than one practice, please think of the practice in which you spend the most hours when answering the following questions.

2. What is your primary specialty? (Check one.)

   1 ☐ Adolescent Medicine
   2 ☐ Family Practice
   3 ☐ General Practice
   4 ☐ General Preventive Medicine
   5 ☐ Infectious Diseases
   6 ☐ Internal Medicine
   7 ☐ Gynecology
   8 ☐ Obstetrics and Gynecology
   9 ☐ Other, please specify: _____

3. Which of the following best describes your work setting? (Check one.)

   1 ☐ Private Practice
   2 ☐ Community Clinic
   3 ☐ Managed Care Organization
   4 ☐ Hospital
   5 ☐ City/County/State Health Department
   6 ☐ Other, please specify: _____

Risk Assessment

4. Who in your practice completes medical history form information from patients? (Check all that apply.)

   1 ☐ I do
   1 ☐ A nurse or other staff member completes the medical history
   1 ☐ Patients complete the medical history
   1 ☐ Other, please specify: _____

At your practice, does medical history taking include questions about the following? (Check one box for each row.)

	Yes	No	Unsure
5. Traveling to or working in countries that have high rates of viral hepatitis infection?.....	1 ☐	2 ☐	3 ☐
6. Patient sexual orientation/sexuality?.....	1 ☐	2 ☐	3 ☐
7. Illegal drug use, including injecting and non-injecting illegal drugs?.....	1 ☐	2 ☐	3 ☐
8. Patient Occupation?.....	1 ☐	2 ☐	3 ☐
9. History of clotting factor disorder?.....	1 ☐	2 ☐	3 ☐
10. History of chronic liver disease?.....	1 ☐	2 ☐	3 ☐
11. History of hemodialysis?.....	1 ☐	2 ☐	3 ☐
12. History of sexually transmitted disease?.....	1 ☐	2 ☐	3 ☐
13. History of sexual activity with more than one partner in the previous 6 months?.....	1 ☐	2 ☐	3 ☐

14. How often is the above medical history information collected from patients in your practice? (Check all that apply.)

1 ☐ During a patient's first visit to the practice
1 ☐ On a yearly basis
1 ☐ At every visit
1 ☐ Other, please specify: _____

Hepatitis A

15. Does your practice have a standard protocol regarding when to perform a risk assessment for hepatitis A?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

16. Does your practice have a standard protocol regarding testing, vaccination, and treatment for hepatitis A?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

17. Does your practice have a copy of the Centers for Disease Control and Prevention's *Prevention of Hepatitis A Through Active or Passive Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP)*?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

18. Based upon risk for the disease, estimate the percent of patients in your practice in need of hepatitis A vaccine. (Please provide your best guess estimate.) _____ %

19. Please provide your best guess for the percent of patients in your practice who are in need of hepatitis A vaccine but do **not** have access to vaccine through existing funding structures (i.e. either patient and/or clinic are unable to pay for it). _____ %

20. Who in your practice reports cases of hepatitis A to the Minnesota Department of Health (MDH)? (Check one.)

1 ☐ Laboratory
2 ☐ Clinic staff
3 ☐ Both
4 ☐ Unsure

Hepatitis B

21. Does your practice have a standard protocol regarding when to perform a risk assessment for hepatitis B?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

22. Does your practice have a standard protocol regarding testing, vaccination, and treatment for hepatitis B?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

23. Does your practice have a copy of the Center for Disease Control and Prevention's *Hepatitis B Virus: A Comprehensive Strategy for Eliminating Transmission in the United States Through Universal Childhood Vaccination: Recommendations of the Immunization Practices Advisory Committee (ACIP)*?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

24. Who in your practice provides pre-test counseling to patients at risk for hepatitis B? (Check all that apply.)

1 ☐ I do
1 ☐ Nurse
1 ☐ Health educator
1 ☐ Other, please specify: _____
1 ☐ Nobody

24a. What information is covered during pre-test counseling? (Check all that apply.)

1 ☐ Modes of transmission for hepatitis B
1 ☐ Risk factors for hepatitis B
1 ☐ The test and meaning of test results
1 ☐ Hepatitis A & B vaccinations
1 ☐ Health maintenance strategies if the result is positive
1 ☐ Methods to reduce hepatitis transmission
1 ☐ Testing of sexual partners and household contacts
1 ☐ Other, please describe: _____
1 ☐ Unsure

25. Based upon risk for the disease, estimate the percent of patients in your practice in need of hepatitis B vaccine. (Please provide your best guess estimate.) _____ %

26. Please provide your best guess for the percent of patients in your practice who are in need of hepatitis B vaccine but do **not** have access to vaccine through existing funding structures (i.e. either patient and/or clinic are unable to pay for it). _____ %

27. Who in your practice reports cases of hepatitis B to the Minnesota Department of Health (MDH)? (Check one.)

1 ☐ Laboratory
2 ☐ Clinic staff
3 ☐ Both
4 ☐ Unsure

Hepatitis C

28. Does your practice have a standard protocol regarding when to perform a risk assessment for hepatitis C?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

29. Does your practice have a standard protocol regarding testing and treatment for hepatitis C?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

30. Who in your practice provides pre-test counseling to patients at risk for hepatitis C? (Check all that apply.)

1 ☐ I do
1 ☐ Nurse
1 ☐ Health educator
1 ☐ Other, please specify: _____
1 ☐ Nobody

30a. What information is covered during pre-test counseling? (Check all that apply.)

1 ☐ Modes of transmission for hepatitis C
1 ☐ Risk factors for hepatitis C
1 ☐ The test and meaning of test results
1 ☐ Hepatitis A & B vaccinations
1 ☐ Health maintenance strategies if the result is positive
1 ☐ Methods to reduce hepatitis transmission
1 ☐ Testing of sexual partners and household contacts
1 ☐ Other, please describe: _____
1 ☐ Unsure

31. Based upon risk for the disease, estimate the percent of patients in your practice in need of hepatitis C testing. (Please provide your best guess estimate.) _____ %

32. Please provide your best guess for the percent of patients in your practice who are in need of hepatitis C testing but do **not** have access to testing through existing funding structures (i.e. either patient and/or clinic are unable to pay for it). _____ %

33. Does your practice have a copy of the Centers for Disease Control and Prevention's *Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-Related Chronic Disease*?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

34. Does your practice have a copy of the *National Institutes of Health Consensus Development Statement for the Management of Hepatitis C*?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

35. Who in your practice reports cases of hepatitis C to the Minnesota Department of Health (MDH)? (Check one.)

1 ☐ Laboratory
2 ☐ Clinic staff
3 ☐ Both
4 ☐ Unsure

36. Indicate the approximate number of hepatitis C infected patients you have diagnosed in the past 3 years. (Check one.)

1 ☐ None
2 ☐ 1 – 9
3 ☐ 10 – 25
4 ☐ 26 – 49
5 ☐ 50 or more

37. Indicate the approximate number of hepatitis C infected patients you are currently monitoring and/or treating. (Check one.)

1 ☐ None
2 ☐ 1 – 9
3 ☐ 10 – 25
4 ☐ 26 – 49
5 ☐ 50 or more

Partner notification

38. When you diagnose a patient with hepatitis B or C, how does the clinic USUALLY notify sexual or needle sharing partners of the need for testing and/or treatment? (Check all that apply.)

	Hepatitis B	**Hepatitis C**
a. Patient instructed to inform partners(s)……	1 ☐	1 ☐
b. Staff contacts partners by telephone…….	1 ☐	1 ☐
c. Staff contacts partners by mail……	1 ☐	1 ☐
d. No partner notification……	1 ☐	1 ☐
e. Other, please describe: _____	1 ☐	1 ☐

Training

39. Do you feel you have adequate and current training in issues concerning:

a. Hepatitis A? 1 ☐ Yes 2 ☐ No
b. Hepatitis B? 1 ☐ Yes 2 ☐ No
c. Hepatitis C? 1 ☐ Yes 2 ☐ No

40. In which of the following areas would you be interested in receiving information, training, or technical assistance on viral hepatitis? (Check all that apply.)

1 ☐ Diagnosis
1 ☐ Risk assessment
1 ☐ Sexual history taking
1 ☐ Vaccines (hepatitis A, B)
1 ☐ Treatment (hepatitis B, C)
1 ☐ Counseling
1 ☐ Other, please specify: _____

Thank you for taking the time to answer these questions! Please return your completed survey in the enclosed stamped envelope.

Minnesota Department of Health
Attn: Peggy O'Halloran
STD & HIV Section
717 SE Delaware Street, Box 9441
Minneapolis, MN 55440-9441

Appendix E

Viral Hepatitis Community Clinic Services Assessment and Results

Viral Hepatitis Community Clinic Services Assessment: Data Summary

Overview

One of the goals of the Viral Hepatitis Integration Project (VHIP) of the Minnesota Department of Health is to improve access for injecting drug users to hepatitis testing, prevention counseling, vaccination and disease management. As a first step in addressing that goal, in July and August of 2002, VHIP staff conducted an assessment of community clinics in the Minneapolis/St. Paul metro area and in Duluth. Clinics included in the assessment were selected based on the knowledge that community organizations refer individuals who inject drugs to seek care at these clinics. Of 19 clinics contacted, 16 agreed to complete a questionnaire that assessed training needs; availability of hepatitis A, B, and C services; knowledge and skill level of staff for providing viral hepatitis services including counseling, risk assessment, diagnosis and treatment, and making referrals; comfort level of staff with sexual history taking, substance use history taking, and providing care for high risk groups; barriers to integrating viral hepatitis services into current programs; and interest in attending viral hepatitis training. During a follow-up visit to each clinic, VHIP staff reviewed the questionnaire with the clinic manager and discussed viral hepatitis services and training needs in more detail.

Results

Clinic characteristics

The 16 clinics participating in the assessment included 2 family planning clinics, 9 community health clinics, 2 opiate addiction treatment programs/centers, 1 primary care clinic for the uninsured, 1 family practice residency program, and a project providing healthcare for the homeless. The total number of clinic visits for 2001 ranged from 3,000 to 121,600, and the number of individuals seen in clinics in 2001 ranged from 300 to 12,000. An average of 43% of patients visiting these 16 clinics paid for services out of pocket, ranging from 0% to 100%. Most respondents did not know the percent of hepatitis C positive patients (63%), patients who inject drugs (63%), or patients who exchange sex for drugs or money (75%). The estimates for percent of HIV positive patients ranged from 0 percent to 10 percent.

Viral Hepatitis Services and Funding

All of the clinics surveyed provide some hepatitis services, and many offer hepatitis A and B testing and vaccination and hepatitis C testing (Figure 1). It was less common for clinics to provide community

education for viral hepatitis and treatment for chronic hepatitis B or C infection than it was for them to provide other services. Funding sources for hepatitis A and B vaccine and for hepatitis C testing varied (Figure 2).

A majority of clinics offer viral hepatitis services if a patient requests it (75%), if a risk factor is known or symptoms observed (88%), or if a patient discloses a risk factor (81%). Clinics are less likely to offer services if the patient had a history of a sexually transmitted disease in the past year (56%).

Knowledge and Skill of Clinic Staff

Overall, clinic managers reported that clinical staff had a high level of knowledge and skill for providing viral hepatitis services (Table 1). The knowledge and skill level of counseling staff was more varied (Table 2), although only 7 of the 16 clinics reported having counseling staff. Clinic managers also reported a high level of comfort for their staff with sexual and substance abuse history taking, as well as providing care for patients from groups at high risk for viral hepatitis infection (Table 3).

Barriers

Lack of appropriate educational materials, inadequate patient tracking, lack of a policy for providing viral hepatitis services, language and cultural issues, limited time and funding were common barriers to integrating viral hepatitis services for clinics (Table 4).

Training Needs

Clinic managers reported a wide range of viral hepatitis training needs. Of the clinics surveyed 81% felt that training in managing chronic hepatitis B and C infection would be useful. Over half of the clinics surveyed also mentioned viral hepatitis prevention, transmission, counseling, testing, medical referrals, vaccines and co-infection with HIV as training needs. Training in sexual history and substance abuse history taking was of interest to 31% and 38% of clinics respectively.

The most significant barrier to participating in training for clinics was lack of funding (63%), followed by scheduling difficulties (50%) and lack of time (38%). Nineteen percent of the clinics also felt that training was not available or that they had limited time to attend training.

All of the clinics surveyed expressed interest in attending a viral hepatitis training sponsored by VHIP.

Summary

Community clinics provide a number of viral hepatitis services in the St. Paul/Minneapolis metro area and in Duluth. Although clinics provide these services, and it was reported that overall staff have a high level of knowledge and skill in this area, clinics still have a variety of viral hepatitis training needs and encounter a number of barriers to effectively integrating viral hepatitis services with other services provided.

Figure 1: Hepatitis Services

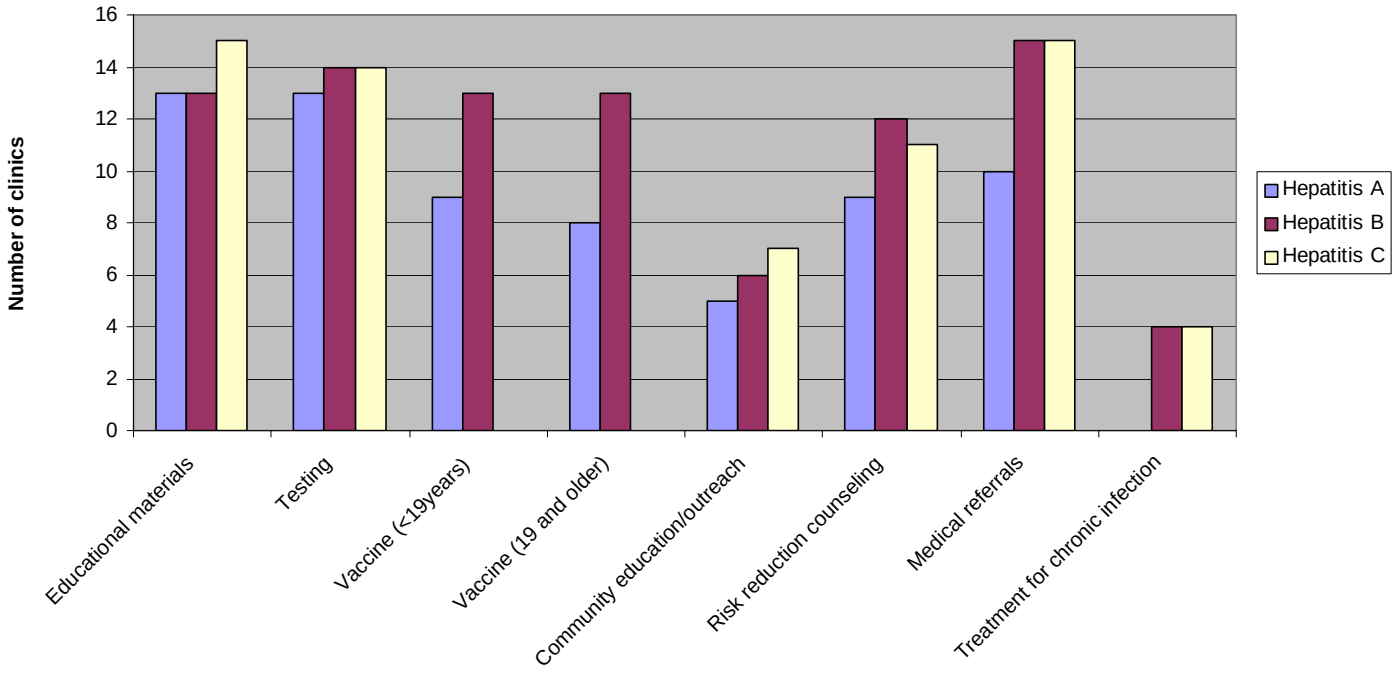

Figure 2: Funding sources Hepatitis A and B vaccine, Hepatitis C testing

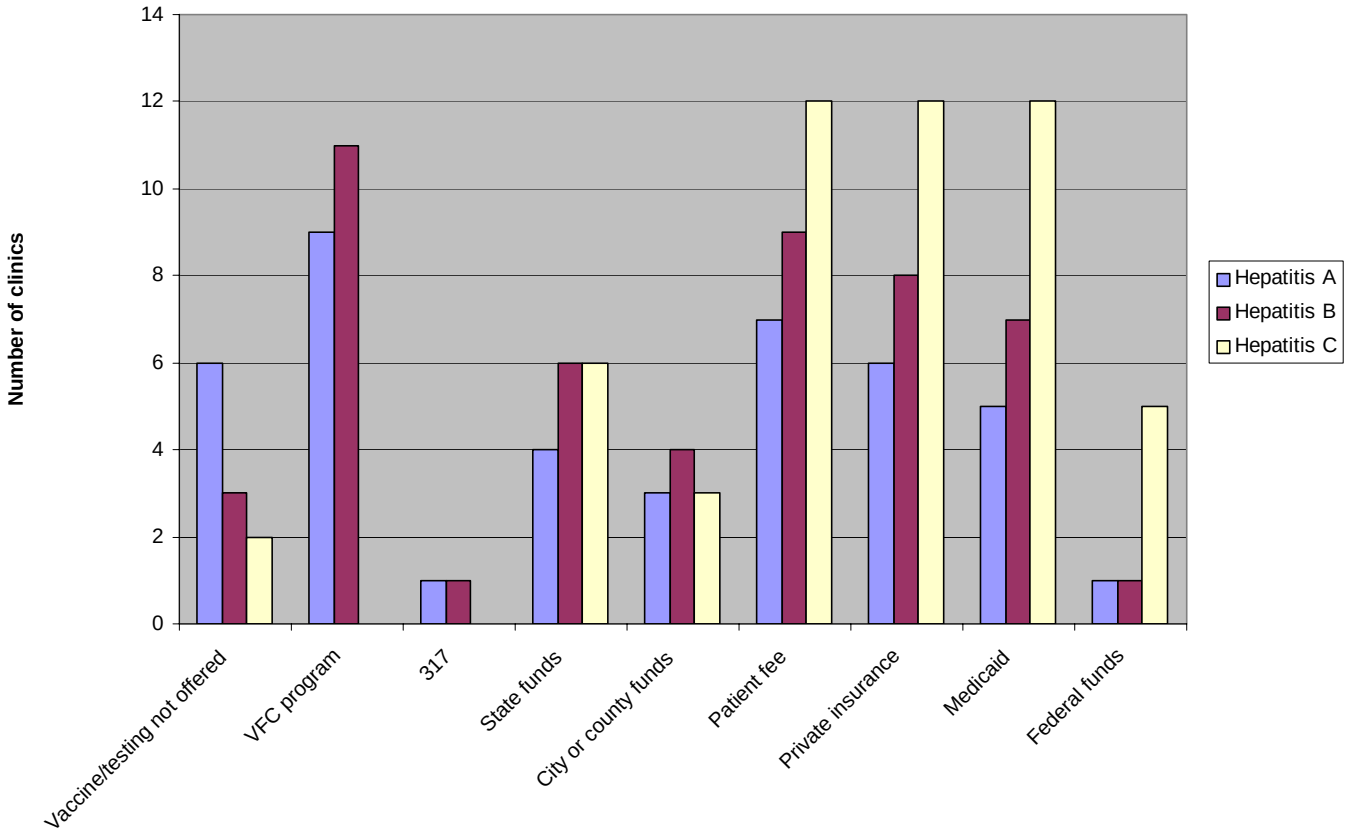

Table 1: Knowledge/skill level of clinical staff

N=16		***Little knowledge/skill***				***High knowledge/skill***
		1	***2***	***3***	***4***	***5***
VH counseling and testing	n	1	0	3	7	5
	freq	6%	0%	19%	44%	31%
VH risk assessment: Sexual history	n	0	2	1	8	5
	freq	0%	13%	6%	50%	31%
VH risk assessment: Substance abuse history	n	0	1	2	7	6
	freq	0%	6%	13%	44%	38%
VH prevention counseling: Adolescents	n	2	1	1	8	4
	freq	13%	6%	6%	50%	25%
VH prevention counseling: Women	n	1	0	2	9	4
	freq	6%	0%	13%	56%	25%
VH prevention counseling: Commercial Sex Workers	n	1	0	5	7	3
	freq	6%	0%	31%	44%	19%
VH prevention counseling: IDU	n	0	2	2	7	5
	freq	0%	13%	13%	44%	31%
VH prevention counseling: MSM	n	1	0	3	8	4
	freq	6%	0%	19%	50%	25%
Facilitation decisions about VH vaccination	n	1	1	2	6	6
	freq	6%	6%	13%	38%	38%
VH diagnosis and treatment	n	0	2	2	6	6
	freq	0%	13%	13%	38%	38%
Making VH related referrals	n	0	2	1	8	5
	freq	0%	13%	6%	50%	31%

Table 2 Knowledge/skill level of counseling staff

N=7		*Little knowledge/skill*				*High knowledge/skill*
		1	***2***	***3***	***4***	***5***
VH counseling and testing	n	2	0	1	2	2
	freq	13%	0%	6%	13%	13%
VH risk assessment: Sexual history	n	1	0	2	2	2
	freq	6%	0%	13%	13%	13%
VH risk assessment: Substance abuse history	n	1	0	1	2	3
	freq	6%	0%	6%	13%	19%
VH prevention counseling: Adolescents	n	2	0	2	1	2
	freq	13%	0%	13%	6%	13%
VH prevention counseling: Women	n	1	0	2	2	2
	freq	6%	0%	13%	13%	13%
VH prevention counseling: Commercial Sex Workers	n	2	0	2	1	2
	freq	13%	0%	13%	6%	13%
VH prevention counseling: IDU	n	2	0	0	2	3
	freq	13%	0%	0%	13%	19%
VH prevention counseling: MSM	n	1	1	1	2	2
	freq	6%	6%	6%	13%	13%
Facilitation decisions about VH vaccination	n	3	0	0	2	2
	freq	19%	0%	0%	13%	13%
VH diagnosis and treatment	n	2	1	0	1	3
	freq	13%	6%	0%	6%	19%
Making VH related referrals	n	2	1	0	1	3
	freq	13%	6%	0%	6%	19%

Table 3: Comfort level of staff

N=16		*Low level of comfort*			*High level of comfort*	
		1	***2***	***3***	***4***	***5***
Sexual history taking	n	1	0	1	4	10
	freq	6%	0%	6%	25%	63%
Substance abuse history taking	n	0	0	1	6	9
	freq	0%	0%	6%	38%	56%
Providing care for:						
Commercial sex workers	n	1	1	2	7	5
	freq	6%	6%	13%	44%	31%
Gay or bisexual men	n	1	0	2	3	10
	freq	6%	0%	13%	19%	63%
Lesbian or bisexual women	n	1	0	0	5	10
	freq	6%	0%	0%	31%	63%
Persons with chronic VH	n	2	0	2	3	8
	freq	13%	0%	13%	19%	50%
Persons of minority race/ethnicity	n	1	0	0	1	14
	freq	6%	0%	0%	6%	88%
Persons who do not speak English	n	1	0	3	2	10
	freq	6%	0%	19%	13%	63%
Men who were incarcerated	n	1	0	1	3	11
	freq	6%	0%	6%	19%	69%
Women who were incarcerated	n	1	0	1	3	11
	freq	6%	0%	6%	19%	69%
Injecting drug users	n	1	0	2	4	9
	freq	6%	0%	13%	25%	56%
Other substance abusers	n	1	0	1	6	8
	freq	6%	0%	6%	38%	50%
Victims of sexual assault	n	1	0	1	5	9
	freq	6%	0%	6%	31%	56%
Victims of child sexual abuse	n	1	0	1	6	8
	freq	6%	0%	6%	38%	50%

Table 4: Barriers to integrating VH services

	n	freq
Language issues	8	50%
Funding	8	50%
Lack of appropriate educational materials	7	44%
Patient tracking inadequate	7	44%
Limited time available with patient	7	44%
No policy in place for providing VH services	6	38%
Cultural issues	6	38%
Vaccine for HepA not available	4	25%
No provider referrals in place	4	25%
Lack of staff knowledge about VH	3	19%
Vaccine for HepB not available	2	13%
Not a priority within agency	2	13%
Testing for VH not available	1	6%
Lack of public demand	0	0%

Viral Hepatitis Services Assessment

Clinic name:

Address:

Your Name: Position:

Email: Phone:

1. Please check the category that best describes your clinic.

1☐ Family planning
2☐ Community health clinic
3☐ STD clinic
4☐ Other, specify: _____

2. What was the total number of clinic visits in 2001? _____ clinic visits

3. How many individuals were seen in your clinic in 2001? _____ individuals

4. Which of the following hepatitis A services does your clinic currently provide? Check all that apply.

☐ Educational materials
☐ Hepatitis A testing
☐ Hepatitis A vaccine to children under 19 years only
☐ Hepatitis A vaccine to adults age 19 or older
☐ Community education/outreach
☐ Hepatitis A risk reduction counseling
☐ Hepatitis A medical referrals
☐ Other, specify: _____

5. What funding sources are used to purchase hepatitis A vaccine for your clinic? Check all that apply.

☐ Hepatitis A vaccine is not offered at this clinic
☐ Vaccines for Children (VFC) program
☐ 317 (federally funded vaccine grant)
☐ State funds
☐ City or county funds
☐ Patient fee
☐ Private insurance
☐ Medicaid

6. Which of the following hepatitis B services does your clinic currently provide? Check all that apply.

☐ Educational materials
☐ Hepatitis B testing
☐ Hepatitis B vaccine to children under 19 years only
☐ Hepatitis B vaccine to adults age 19 or older
☐ Hepatitis B risk reduction counseling
☐ Treatment for chronic hepatitis B infection
☐ Hepatitis B medical referrals
☐ Community education/outreach
☐ Other, specify: _____

7. What funding sources are used to purchase hepatitis B vaccine for your clinic? Check all that apply.

☐ Hepatitis B vaccine is not offered at this clinic
☐ City or county funds

☐ Vaccines for Children (VFC) program
☐ 317 (federally funded vaccine grant)
☐ State funds
☐ Patient fee
☐ Private insurance
☐ Medicaid

8. Which of the following hepatitis C services does your clinic currently provide? Check all that apply.

☐ Educational materials
☐ Hepatitis C testing
☐ Community education/outreach
☐ Hepatitis C risk reduction counseling
☐ Treatment for chronic hepatitis C infection
☐ Hepatitis C medical referrals
☐ Other, specify: _____

9. What funding sources are used to pay for hepatitis C testing in your clinic? Check all that apply.

☐ Hepatitis C testing is not offered at this clinic
☐ Federal funds
☐ State funds
☐ City or county funds
☐ Patient fee
☐ Private insurance
☐ Medicaid

10. Under what circumstances are viral hepatitis services offered to a patient at your clinic? Check all that apply.

☐ Hepatitis services are not offered at this clinic
☐ If the patient requests service
☐ If risk factor or symptoms are known/observed
☐ If the patient discloses a risk factor
☐ If history of STD in past year

11. Which of the following payment options do you accept for services provided at your clinic? Check all that apply.

☐ Co-pay or deductible for testing
☐ Co-pay or deductible for vaccine
☐ Sliding fee scale
☐ Other, specify: _____

12. Approximately what percent of the patients you serve pay for services out of pocket?

____ ____ %
☐ Don't know

13. Approximately what percent of the patients you serve are HIV positive?

____ ____ % ☐ Don't know

14. Approximately what percent of the patients you serve are hepatitis C (HCV) positive?

____ ____ %

☐ Don't know

15. Approximately what percent of the patients you serve are injecting drug users (IDUs)?

____ ____ %

☐ Don't know

16. Approximately what percent of the patients you serve have a history of exchanging sex for drugs or money (commercial sex worker)?

____ ____ %

☐ Don't know

17. Please rate the knowledge/skill level of your <u>clinical staff</u> for the following viral hepatitis related areas, with 1 indicating little knowledge/skill, and 5 indicating a high level of knowledge/skill. Check one box for each row.

	Little knowledge/skill				High level of knowledge/skill
a. Viral hepatitis counseling and testing……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b. Viral hepatitis risk assessment through sexual history…….…...……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
c. Viral hepatitis risk assessment through substance abuse history……...……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
d. Viral hepatitis prevention counseling for adolescents……...……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
e. Viral hepatitis prevention counseling for women at risk……...…….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
f. Viral hepatitis prevention counseling for commercial sex workers……...…..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
g. Viral hepatitis prevention counseling for injection drug users……...……...	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
h. Viral hepatitis prevention counseling for men who have sex with men……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

i. Facilitating decisions about viral hepatitis vaccinations (A ,B)…….…….…..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
j. Viral hepatitis diagnosis and treatment…	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
k. Making viral hepatitis related referrals…	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

18. Please rate the knowledge/skill level of your <u>counseling staff</u> for the following viral hepatitis related areas, with 1 indicating little knowledge/skill, and 5 indicating a high level of knowledge/skill. Check one box for each row. *****If you don't have counseling staff, skip to Q19.*****

	Little knowledge/skill				High level of knowledge/skill
a. Viral hepatitis counseling and testing….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b. Viral hepatitis risk assessment through sexual history…….…...……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
c. Viral hepatitis risk assessment through substance abuse history……...……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
d. Viral hepatitis prevention counseling for adolescents……...……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
e. Viral hepatitis prevention counseling for women at risk……...…….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
f. Viral hepatitis prevention counseling for commercial sex workers……...…..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
g. Viral hepatitis prevention counseling for injection drug users……...……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
h. Viral hepatitis prevention counseling for men who have sex with men……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
i. Facilitating decisions about viral hepatitis vaccinations (A ,B)…….…….…..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
j. Viral hepatitis diagnosis and treatment…..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
k. Making viral hepatitis related referrals…	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

19. What areas of training would you consider to be most useful in order for your staff to provide viral hepatitis services to patients? Check all that apply.

☐ Prevention of viral hepatitis
☐ Transmission of viral hepatitis
☐ Counseling for viral hepatitis
☐ Testing and test results
☐ Medical referrals
☐ Vaccines (hepatitis A, B)
☐ Sexual history-taking
☐ Managing chronic infection (hepatitis B, C)
☐ Substance abuse history taking
☐ Co-infection with hepatitis and HIV
☐ Other, please specify: _____

20. Has lack of knowledge in any of the above areas (from Q19) ever kept staff from addressing viral hepatitis issues with a patient?

1☐ Yes ⟶
2☐ No
3☐ Not sure

If yes, please indicate which areas:

21. Please rate the comfort level of your staff for each of the following with 1 indicating a low level of comfort and 5 indicating a high level of comfort:

	Low level of comfort				High level of comfort
a. Sexual history taking…….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b. Substance abuse history taking…….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Providing care for:					
c. Commercial sex workers…….…….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
d. Gay or bisexual men……...……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
e. Lesbian or bisexual women……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
f. Persons with chronic viral hepatitis……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
g. Persons of minority race/ethnicity……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
h. Persons who do not speak English as their first language……...…	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
i. Men who were incarcerated……..	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
j. Women who were incarcerated……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
k. Injecting drug users…...……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
k. Other substance abusers.…….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
l. Victims of sexual assault (current or					

past)……..……	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
m. Victims of child sexual abuse (past).…….	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

22. What barriers exist to integrating viral hepatitis services into your current program? Check all that apply.

☐ Testing for viral hepatitis is not available
☐ Vaccine for hepatitis A is not available
☐ Vaccine for hepatitis B is not available
☐ Lack of appropriate educational materials for patients
☐ Lack of staff knowledge about viral hepatitis
☐ Patient tracking for viral hepatitis is inadequate
☐ No policy in place for providing viral hepatitis services
☐ Language issues
☐ Cultural issues
☐ Limited time available with patient
☐ Lack of public demand
☐ No provider referrals in place
☐ Not a priority within agency
☐ Funding
☐ Other, please specify:_____

23. Of the barriers you checked in Q22, which do you consider to be *the most significant barrier* to integrating viral hepatitis services into your current program? Write in the most significant barrier from Q22 in the space below.

_____

24. What barriers exist in your organization for participating in educational offerings/training on viral hepatitis? Check all that apply.

☐ Lack of time
☐ Lack of funding
☐ Staffing/scheduling difficulties
☐ Training not available
☐ Low priority
☐ Other, please specify:_____

25. Approximately how many staff from your clinic would be interested in attending a viral hepatitis clinical overview and counseling training?

____ ____ staff

26. Please write any comments or questions in the space below.

_____