

PUBLIC HEALTH PROGRAM SURVEY- Infectious Disease

Contact Information

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Short Title:

Perinatal Hepatitis B Prevention Program for pregnant women

Program Location: Hennepin County - Minneapolis, MN, USA

Objectives and Goals:

Hepatitis B is a liver disease caused by a virus and, if left untreated, can progress to cirrhosis of the liver and liver cancer. Perinatal transmission of the hepatitis B virus (HBV), from mother to infant at birth, is the most common mode of transmission worldwide. HBV is 50 to 100 times more infectious than human immunodeficiency virus (HIV), and according to the Centers for Disease Control and Prevention (CDC), high endemic areas of the world include sub-Saharan Africa, Southeast Asia, and Eastern Europe.

Since 2003, the number of pregnant, surface antigen positive women being served by the Hennepin County Perinatal Hepatitis B Prevention Program has increased from 120 to 160 women per year. Most of the women served are refugees and immigrants from high endemic areas. In addition, there has been increased identification of women co-infected with HIV and hepatitis B, as well as increased morbidity and mortality. Since 2007, liver specialists have noted changes in the disease presentation that have created changes in disease management and the need for greater collaboration within the medical community. The Perinatal Hepatitis B Program has evolved since 2003 to meet the continuing changes in the disease and in our community, with the intention of meeting basic needs first, thereby allowing medical care to move to the forefront. The objectives and goals include ensuring all women receive appropriate prenatal care and see either a liver specialist or HIV specialist. All infants should receive 3-4 hepatitis B vaccinations (depending on what type of hepatitis B vaccine is used). In addition, all infants should have the following lab tests: hepatitis B surface antigen (HBsAg) and hepatitis B surface antibody (anti-HBs).

Methods:

This program builds upon the basic guidelines established by CDC and the Minnesota Department of Health (MDH). The program provides guidance, education, and support to women who are pregnant and surface antigen positive for hepatitis B. The Public Health Nurse Coordinator works directly with the

pregnant woman to provide case management, but also coordinates care among various medical providers, public assistance staff, and community agencies to ensure access to services. Once families' basic needs are met, they are more apt to follow through on addressing their medical needs.

Program Length:

This program was initiated by the CDC in 1991 and is continuing to evolve as the needs of the families we serve changes. Women are provided services throughout their pregnancy. Their children are followed from birth until approximately 18 months of age, when vaccination treatment and serologies are completed

Number of target population reached by effort:

Our program serves approximately 160 women per year. The program also served approximately 600 children in 2007. Contact investigation is done concerning the hepatitis B status of all household members, including partners, older children who may also be foreign-born, and extended family members. This number ranges between 600 to 1,000 people per year. Family members with unknown hepatitis B status are referred for serology and/or immunizations.

Demographic Info:

Most of the refugees have come from areas of the world in which hepatitis B is endemic in the population. While the number of Hmong families has stabilized, the number of families from sub-Saharan Africa has grown significantly. Recently, families from Myanmar (formerly Burma), Tibet, China, and Russia have also relocated to the St. Paul/Minneapolis metropolitan area. Eighty-four different languages are spoken within Hennepin County, requiring interpreters who have been medically trained. Challenges still remain due to different dialects. Families have difficulty accessing basic needs such as food, clothing, transportation and medical interpreters.

Overall Cost:

Approximately \$158,000.00 per year

Funding Sources:

87 % State
13 % Local

Outcomes:

The program's success can be measured in vaccine and serology completion rates for infants rising from 92% in 2002 to an all-time high of 100% in 2007. The rates of mothers referred to liver specialists for follow-up during pregnancy increased from 20% in 2002 to 75% in 2007. The number of at-risk women and their children/ families who have a medical home has also increased. Follow-through of sexual partners and other household members referred for primary care rose from 20% in 2002 to 50% in 2007. Collaboration with community partners and clinics has improved. Enhanced working relationships with epidemiology at local

public health departments and MDH have been established to address the shift in disease presentation.

Did you make any estimates regarding costs deferred, outbreaks averted or deaths prevented?

According to the Centers for Disease (CDC), in 2006, chronic viral hepatitis contributed to at least 15,000 deaths in the United States and approximately 1.5 million persons per year, globally.

www.cdc.gov/mmwr/preview/mmwrhtml/mm5818a5.htm - Vol 58, No 18;503

Additional Information:

We are currently developing a proposal to address the needs of the household contacts of the women served by the Hennepin County Perinatal Hepatitis B Prevention program. This proposal is to provide “gateway” services to include Medicaid eligibility assessment with the Hennepin County Office of Multicultural Services, initial clinical assessment provided by Hennepin County Public Health Clinic, and a public health nurse to provide case management to ensure referral to the appropriate medical specialist and follow through with appointments, as well as referrals to other needed community services. Through our work with these pregnant women, it has become very clear that this is an area of need in our community.

Future Plans:

We expect continued CDC funding to be provided to us via the Minnesota Department of Health. We will also look to offset local funding with potential TANF funding (if program efforts are determined to meet TANF criteria) because of local property tax funding cuts.