Montgomery County, Maryland
Department of Health and Human Services
Asian American Health Initiative
in partnership with the
Viet Nam Medical Assistance Program

Hepatitis B Education, Screening, Vaccination, and
Treatment Referral Program in the Vietnamese American Community
in Montgomery County, Maryland

Evaluation Report FY 2011
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Executive Summary

In fiscal year 2011 (FY11), the Asian American Health Initiative (AAHI) supported the Viet Nam Medical Assistance Program (VNMAP), a local non-profit organization, with a hepatitis B program in the Vietnamese American community in Montgomery County, Maryland. The Screening, Management, Awareness, and Solutions for Hepatitis B (SMASH B) Program provided free hepatitis B education, screenings, vaccinations, and treatment referrals to County residents over the age of 18, regardless of income level or insurance status. In total, 114 individuals participated.

The FY11 program followed on the heels of AAHI’s FY10 Pilot Project in the Chinese American community. Program feedback provided insight into both the Vietnamese American and other Asian American communities of Montgomery County, particularly with regard to attitudes and behaviors regarding health and healthcare. Through the lessons learned of this program, AAHI is able to further identify gaps and continue efforts to eliminate hepatitis B disparities in the Asian American community.
I. Background

According to the 2010 U.S. Census, Asian and Pacific Islanders were the second fastest growing population in the County, up 37.5 percent in the last decade, and Asian Americans now comprise 13.9 percent of the County’s population, totaling about 135,451 residents. Approximately 42.5 percent of Maryland’s Asian American population resides in Montgomery County.

About the Asian American Health Initiative

A part of the Montgomery County Department of Health and Human Services, the Asian American Health Initiative (AAHI) was established in fiscal year 2005 as the first health-focused agency for pan-Asian Americans in the County. Since its inception, AAHI has worked to eliminate health disparities that exist between Asian Americans and their non-Asian counterparts. AAHI’s mission is to identify the health care needs of Asian American communities, to develop culturally competent health care services, and to implement health education programs that are accessible and available to all Asian Americans in the County.

About the Viet Nam Medical Assistance Program

The Viet Nam Medical Assistance Program (VNMAP) is a 501(c)3 non profit organization based in Montgomery County that focuses on serving the Vietnamese community in health care in both Vietnam and in the United States. Founded in 2007 by a group of professionals and college students, VNMAP is comprised of a professional network of medical professionals and students who are interested in community service, international medicine, and leadership. VNMAP has organized successful medical missions to Vietnam and hosted different health programs in Maryland.
Hepatitis B and the Asian American Community

Proclaimed a “silent killer,” or “silent epidemic,” by public health professionals, hepatitis B is a potentially fatal disease caused by exposure to the hepatitis B virus (HBV) that can lead to cirrhosis, liver cancer, or liver failure in chronically infected individuals. Despite being recognized as a leading human carcinogen and the main cause of primary liver cancer worldwide (Asian Liver Center [ALC], 2011), more than two-thirds of infected persons are unaware of their infection status and risk developing serious, potentially life-threatening liver disease (ALC, 2011; Institute of Medicine [IOM], 2010). When left unmonitored and untreated, as many as 1 in 4 chronically infected adults will die from liver complications due to HBV (World Health Organization [WHO], 2010; Office of Minority Health [OMH], 2008).

**Hepatitis B Key Facts:**

- The hepatitis B virus causes 60 – 80 percent of all primary liver cancer worldwide and is a leading cause of cancer death in the United States—3rd among Asian Americans, compared to 16th among non-Hispanic whites (OMH, 2008).
- Asian Americans are generally 3 to 13 times more likely than Caucasians to develop liver cancer caused by hepatitis B (President’s Advisory Commission, 2005).
- Hepatitis B is the most common chronic infectious disease in the world and is considered 50-100 times more infectious than HIV (WHO, 2008).
- HBV is regarded as a “silent killer” because it can be asymptomatic and people often are unaware they are infected until the disease has progressed into an advanced stage (ALC, 2011; OMH, 2008).
- Approximately 600,000 – 700,000 people die each year due to liver disease caused by HBV (WHO, 2008; OMH, 2008).
- Hepatitis B is both preventable and treatable.
- The HBV vaccine is so effective the WHO has called it the first “anti-cancer vaccine.” (ALC, 2011). Screenings are a precursor for the life-saving vaccine.

Hepatitis B—and liver disease resulting from chronic infection—among Asian Americans has been recognized by the U.S. Department of Health and Human Services (USDHHS), the World Health Organization, and numerous other public health organizations, as one of the most serious ethnic health disparities in the United States. Although Asian and Pacific Islander Americans together account for only 5 percent of the total population of the United States, they represent more than half of the estimated 1.2 million – 1.5 million HBV cases in the country (ALC, 2011; OMH, 2008).

The risk of hepatitis B among Asian Americans is significant when compared to the population, in general, and non-Hispanic whites, in particular; as many as 1 in 10 Asian Americans has chronic hepatitis B compared to 1 in 1000 Caucasian Americans (ALC, 2011; USDHHS, 2011). When disaggregated by ethnicity and country of origin, 5 – 15 percent of Asian and Pacific Islander American immigrants are chronically infected (ALS, 2011). These disparities are mirrored in HBV-related morbidity and mortality rates (USDHHS, 2011).
Since hepatitis B is both preventable and treatable, the importance of screening cannot be understated, especially before cirrhosis, liver cancer, or other complications can occur. Numerous studies conducted among Asian American populations to assess knowledge and awareness of hepatitis B have found, however, that much of the population is misinformed regarding transmission, prevalence, the associated risk of infection, and opportunities for vaccination (IOM, 2010). Despite the widespread availability of the hepatitis B vaccine—hailed as the first “anti-cancer” vaccine by the World Health Organization (ALS, 2011) — immunization rates remain low in many populations, including those in the United States (ALS, 2011; OMH, 2008). Likewise, studies have shown that doctors serving these populations often lack sufficient knowledge about hepatitis B or the Asian American community to effectively mitigate the risks of the disease (OMH, 2008).

To prevent transmission of the disease and minimize the long-term health risks associated with chronic hepatitis B infection, the Centers for Disease Control and Prevention (CDC) recommends that all individuals born in Asia, Africa, and other geographic regions with 2 percent or higher prevalence of chronic HBV infection be screened. According to the 2010 American Community Survey one-year estimates, more than 11 million residents of the United States were born in Asia, where the prevalence of chronic HBV infection is high (≥8 percent) in all socioeconomic groups across Southeast Asia, including China, Indonesia, and Vietnam.

**Figure 1. Prevalence of chronic infection with hepatitis B virus, 2006**


In addition to HBV-related health risks, treatment of hepatitis B has significant economic consequences. During the past 20 years, hospital fees associated with a hepatitis B diagnosis have increased fourfold, while end-stage treatment for someone with viral hepatitis can cost hundreds of thousands of dollars (USDHHS, 2011). However, screening, vaccination, and treatment of hepatitis B are cost effective measures that may produce long-term cost savings.

Despite public recommendations for increased screening and the associated cost of treating hepatitis B infection and correlated end-stage illnesses, each year an estimated 3,000 people in the United States die of hepatitis B-related liver disease and an estimated 43,000 people become infected each year (CDC, 2010), including 1,000 infants who will acquire the infection at birth from HBV-positive mothers (IOM, 2010). Too few at-risk individuals or infected individuals recognize the need for testing, while fewer than half of those diagnosed with hepatitis are referred for appropriate care (Cohen, Holmberg, McMahon, et al, 2011).

### National Viral Hepatitis Roundtable Fact Sheet*

The medical costs associated with care for viral hepatitis include:

- Screening blood test for hepatitis B: $8
- Hepatitis B vaccination: $60 for each of three vaccinations
- Hepatitis B immune globulin for post-exposure prevention: $400
- HBV treatment: $2,000 – $16,000 per year

Costs associated with treating liver disease resulting from chronic hepatitis B:

- End-stage liver disease: $30,980 – $110,576 per hospital admission
- Liver transplantation: $314,000 (uncomplicated cases)
- HBV infections result in an estimated $658 million in medical costs and lost wages annually

* Costs may vary.

Federal Action in Viral Hepatitis

In January 2010, the Institute of Medicine released an in-depth review examining the prevention and control of viral hepatitis infections in the United States. The report, *Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C*, identified three primary factors that hamper efforts to combat viral hepatitis (IOM, 2010):

1. A lack of knowledge and awareness about chronic viral hepatitis on the part of health-care and social-service providers,
2. A lack of knowledge and awareness about chronic viral hepatitis among at-risk populations, members of the public, and policymakers,
3. An insufficient understanding about the extent and seriousness of this public-health problem, resulting in inadequate public resources being allocated to prevention, control, and surveillance programs.


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

To raise awareness of Asian American and Pacific Islander health issues, the White House Initiative on Asian Americans and Pacific Islanders also developed the *US DHHS Plan for Asian American, Native Hawaiian and Pacific Islander (AANHPI) Health* in 2011, with its first goal to “prevent, treat and control hepatitis B viral infections in AANHPI communities” (OMH, 2011).
II. Understanding and Assessing Needs

The scarcity of hepatitis B screening and treatment services in Montgomery County is concerning, particularly for low-income and uninsured County residents born in high-prevalence geographic areas, including parts of Asia. Asian Americans who have financial challenges, lack insurance, or are limited-English proficient are particularly vulnerable. Available services for these individuals may be underutilized among some populations due to an associated stigma of hepatitis B, insufficient knowledge regarding available testing services, and other socioeconomic barriers. Similarly, individuals with insurance coverage have expressed difficulty in obtaining hepatitis B screenings because of their physician’s lack of familiarity with national screening guidelines and awareness of hepatitis B prevalence among Asian Americans.

Highlights of AAHI’s Hepatitis B Efforts

Since AAHI’s inception, hepatitis B has been a priority area of the organization’s education and outreach efforts in the community. AAHI has provided hepatitis B awareness on an ongoing basis to community members, as well as healthcare professionals and providers. Additionally, AAHI works to ensure that healthcare screenings and treatment resources are accessible to those in need, reaching out at health fairs, community events, and through media campaigns.

In 2008, AAHI released a countywide health needs assessment report entitled, Asian American Health Priorities: Strengths, Needs, and Opportunities for Action, making a recommendation to “expand health promotion and disease prevention programs to raise awareness and knowledge of health issues that disproportionately affect Asian Americans.” As part of a wider effort to achieve this objective, the report called for AAHI to provide hepatitis B screening and vaccination programs in the community (AAHI, 2008).

In an effort to enhance access to culturally and linguistically competent hepatitis B services, AAHI partnered with the Chinese Culture and Community Service Center (CCACC) in FY10 to launch the Hepatitis B Pilot Project in Montgomery County’s Chinese American community. In total, 121 individuals received free hepatitis B education, screening, and referral to vaccination or treatment. Subsequently, AAHI was involved in the planning and implementation of a second community screening event attended by more than 200 people. The project team included non-profit and for-profit organizations, as well as public entities concerned about the lack of hepatitis B awareness in Asian American communities in the greater Washington, D.C. area.
Community Mobilization and Empowerment

In AAHI’s Strategic Plan 2011 – 2015: Health Equity through Action—Improving Health Outcomes for Asian Americans in Montgomery County, a central organizational objective put forth is the promotion of community mobilization and empowerment among the County’s Asian American population. Public health models emphasize the valuable roles that communities can play in the effort to eliminate health disparities, as they serve as highly influential partners in establishing health programs. Recognizing the need for community-driven hepatitis B efforts in the County, AAHI focused efforts on empowering Asian American community-based organizations to improve the health and wellbeing in their own communities. AAHI is committed to providing assistance to organizations interested in building the capacity to develop, implement, and assess innovative health programming for community benefit.

Since partnering on the FY10 Hepatitis B Pilot Project, CCACC has been involved in coordinating several hepatitis B community events in the area. With a new level of expertise and experience on the topic of hepatitis B, CCACC has explored ways to build a sustainable program within its organization, even successfully securing grant funding for future programming for Asian Americans.

Recognizing the need for hepatitis B programs in additional communities, AAHI partnered with the Viet Nam Medical Assistance Program (VNMAP) for the FY11 Screening, Management, Awareness, and Solutions for Hepatitis B (SMASH B) Program. VNMAP is a local community-based organization that works to address the healthcare disparities in the Vietnamese American community and to promote healthcare awareness. AAHI and VNMAP leadership worked closely throughout the program, sharing lessons learned from past projects and insight into the Vietnamese American community. The FY11 SMASH B Program is part of the continuing effort to eliminate hepatitis B disparities in Montgomery County’s Asian American community.
III. About the FY11 SMASH B Program

**Purpose:**

To provide culturally and linguistically competent hepatitis B education, screening, and vaccination or treatment referral for Vietnamese American adults in Montgomery County, Maryland

**Goals:**

- To increase knowledge and awareness about hepatitis B
- To increase access to hepatitis B screening and vaccination
- To engage community members and strengthen capacity to address hepatitis B-related issues
- To enhance data collection of hepatitis B

**Planning and Marketing**

The project team carefully reviewed AAHI’s 2008 Community Health Needs Assessment, the FY10 Pilot Project Evaluation Report, and other secondary data sources to establish fitting goals and objectives for the FY11 SMASH B Program.

Internal program planning began many months prior to the first event. AAHI and VNMAP worked closely, meeting and communicating on a regular basis, to develop thorough operational plans detailing each phase of planning, community engagement, implementation, and evaluation (see Figure 2). The project team also worked diligently to ensure the program was sensitive to the cultural and linguistic needs of the Vietnamese American community.

Promotion for the FY11 SMASH B Program involved reaching out to and engaging multiple organizations that work with and serve Vietnamese Americans in the County, including faith-based groups, small businesses, and community organizations. Culturally and linguistically tailored information about hepatitis B and the importance of screening was disseminated through many channels, including small businesses (e.g., nail salons, grocery stores, restaurants), community events, ethnic media (e.g., newspapers, television), and social media (e.g., Facebook, Twitter, e-newsletters, blogs). Interested community members were able to pre-register for the program by contacting a designated bilingual project team member.

The FY11 SMASH B Program team also coordinated a community health fair, held at a local high school, approximately two months prior to the program’s Education and Screening Day. The health fair targeted the Vietnamese American community and offered information, resources, and screenings on a range of health topics. The event served as an opportunity to raise awareness in the community of the health risks posed by hepatitis B and promote the no-cost hepatitis B screenings being offered to eligible individuals through the FY11 SMASH B Program.
Implementation

Education and Screening Day

The Education and Screening Day took place in February 2011. Upon arriving at the event, participants first checked in at the registration table and completed the necessary paperwork, available in both English and Vietnamese, to participate in the program, as well as subsequent clinical screenings. Bilingual and bicultural volunteers provided language support in English and Vietnamese as needed.

Following registration, individuals participated in a bilingual educational seminar led by a Vietnamese American physician. The Vietnamese American physician understood the culture and language, and was a trustworthy and credible source of information for the community. The seminar covered topics such as hepatitis B transmission, symptoms, treatment, and screening procedures. Three separate educational sessions were held throughout the day. This allowed for smaller, interactive seminars and shorter waiting periods for subsequent procedures. Pre- and posttests were administered before and after the educational presentations to assess knowledge, attitudes, and beliefs regarding hepatitis B.

Upon completing the educational seminar, participants were asked to continue to the screening area, where phlebotomists collected blood samples by venipuncture. Samples were sent for analysis of the hepatitis B surface antigen (HBsAg), which screens for the presence of the virus in the blood, and surface antibodies (HBsAb), which establish immunity. Volunteers were available throughout the event to assist participants with any and all questions regarding the project and hepatitis B.
Results Day and Follow-Up Care Coordination

A comprehensive plan was developed to ensure that all participants received and understood their clinical results and follow-up options in a timely and culturally-relevant manner. Confidential results of the screening were provided in-person during a subsequent Results Day, held at the same location several weeks after the Education and Screening Day. Program participants were scheduled in advance to attend one of three educational seminars, led by a bilingual volunteer physician. The educational seminar explained all possible hepatitis B diagnoses (i.e., at-risk, immune, or infected) and respective follow-up options.

Thereafter, each participant met with a volunteer physician for a one-on-one consultation to discuss individual screening results, ask questions, and obtain referrals, as necessary, for vaccination or treatment options (see Table 1).

To ensure prompt and appropriate access to vaccination or treatment, program coordinators followed up with participants who were unable to attend the Results Day and individual accommodations were arranged for, as needed.

At-Risk (Need Vaccine): Individuals who tested negative for HBsAg and anti-HBs are considered vulnerable to HBV infection. These participants are considered at risk and were strongly advised to receive the vaccination. Participants were encouraged to receive the first dose of the vaccine at the onsite vaccination clinic, offered at no charge through the program. A volunteer registered nurse was on hand to administer shots. Individuals then also registered for subsequent second and third doses, made available at no cost.

Infected (Need Treatment): All infected participants were strongly advised to undergo further testing to determine the severity of their HBV condition. Participants were also referred to their primary care physician, if applicable, and informed of available treatment options through local hospitals and clinics, including the Frederick County Hepatitis Clinic. VNMAP provided comprehensive individual case coordination for all infected participants to access treatment, particularly for those with limited-English proficiency. VNMAP maintained frequent contact with participants during the scheduling of medical appointments at a suitable clinic.

Immune: Individuals who tested negative for HBsAg and positive for anti-HBs are considered immune. Individuals were encouraged to promote hepatitis B awareness and screening among their family and friends and stay connected to the project team for information about free local screenings when they become available.
### Table 1. HBV Screening Result and Follow-up Coordination

<table>
<thead>
<tr>
<th>SCREENING RESULT</th>
<th>FOLLOW-UP COORDINATION</th>
</tr>
</thead>
</table>
| **At-Risk**      | • Advised to receive the first dose of the vaccine at the onsite vaccination clinic, offered at no charge  
|                   | • Registered for subsequent second and third doses, at no cost  |
| **Infected**     | • Advised to undergo further testing to determine severity of HBV infection  
|                   | • Referred to their primary care physician, if applicable, and local treatment options  
|                   | • Offered comprehensive individual case coordination to access treatment, including initial scheduling and subsequent medical appointments  |
| **Immune**       | • Encouraged to promote hepatitis B awareness and screening among family and friends  |
Planning and Marketing

- Review AAHl’s 2008 Community Health Needs Assessment and Secondary Data Sources
- Community Outreach: Community- and faith based organizations, senior groups, health fairs
- Review FY10 Pilot Project Evaluation Report
- Small Business Outreach: Restaurants, nail salons, grocery stores
- Establish Program Goals, Objectives, and Scope of Partnership
- Social and Ethnic Media: Blog, e-newsletters, Twitter, Facebook, newspaper, radio, television

Education and Screening Day

- Check-In and Registration
- Educational Seminar
- Hepatitis B Screening
- Check-Out

Results Day and Follow-up Coordination

- Check-In
- Educational Seminar
- Physician Consultation for Screening Results
- Check-Out
- Infected
- Immune
- At-Risk
- Treatment Referral: Access treatment (e.g., Frederick County Hepatitis Clinic, Montgomery Cares Safety Net Clinics, NIH Clinical Trials, private provider)
- Vaccinations: No cost three-shot vaccination series at onsite clinic
- Raise Awareness: Encourage screening for family and loved ones

Evaluation

- Data Analysis
- End of Program Survey
- Project Team Debrief
- Evaluation Report
IV. Outcomes

About the Participants

In total, the FY11 SMASH B Program provided education, screening, and vaccination or treatment referral to 114 Asian American residents of Montgomery County. Participants predominantly identified as ethnic Vietnamese and 92.1 percent were born in Vietnam. Most participants (64.2 percent) indicated Vietnamese as their preferred language of communication. The average age was 49, and participants ranged from 21 to 76 years of age. There was a near even distribution of male (49.1 percent) and female (50.9 percent) participants. Of those who reported health insurance status, 48.2 percent were uninsured. Most indicated living in a household with three or more occupants: 41.3 percent with three to four occupants, and 42.3 percent with five or more. The majority of attendees reported hearing about the event through friends.

Evaluation Tools

Several evaluation tools were developed, available in both English and Vietnamese, to assess the quality of the project. Data collected through the program will help to establish ways in which similar hepatitis B awareness programs can be implemented in other at-risk communities in Montgomery County.

On the Education and Screening Day, information about participants’ knowledge, attitudes, and beliefs of hepatitis B were gathered through pre- and posttests. Participants also completed a survey about their general experience throughout the Education and Screening Day at the end of the event. Six months after the initial event, a comprehensive end-of-program survey was distributed to all participants to gather overall feedback about the program and follow-up process. Questionnaires for at-risk individuals receiving vaccinations through the program were distributed and collected on-site during the third and final vaccination.

In addition to participant feedback, a focus group debrief was conducted with key project stakeholders at the conclusion of the program to further assess quality and offer recommendations for future improvements and success. Individuals participating in the forum included:

- VNMAP Representatives: Phu Cao, Diana Le, Han Le, Nguyen Nguyen
- AAHI Representatives: Perry Chan, Sanjana Quasem
Program Results

Of the 114 participants screened, 12.3 percent were found to be infected with HBV, 35.1 percent were unprotected and considered at-risk for future HBV infection, and 52.6 percent were determined to be immune to HBV. All infected participants were born in Vietnam and 71.4 percent have lived in the United States for more than ten years. One-half of infected participants also reported being uninsured. Among HBV infected participants, 100 percent were referred for follow-up care, of which 64 percent accessed treatment. Among at-risk individuals, 100 percent were referred to the program’s no-cost vaccination clinic, of which 80 percent completed the three-shot vaccination series (see Figure 3).

During the educational seminar, 64.9 percent (74 out of 114) of participants completed both a pre- and posttest, referred to as a paired test. The average scores of the paired pre- and posttest were 85.3 percent and 87.3 percent, respectively. Among the paired tests, 24.3 percent increased in score, 14.9 percent decreased in score, and 60.8 percent of scores remained the same. In addition, 27 percent of individuals with paired tests scored a perfect 100 percent on both tests. Variations in scoring may be attributed to incongruence between items on the tests and the educational seminar, which was organized by a third party.

According to surveys, 98 percent of respondents believe that hepatitis B is a serious threat to the health of the Vietnamese American population. Prior to participating in the FY11 SMASH B Program, 31 percent of participants reported they had no prior plans to get tested for hepatitis B in the coming year. The three most frequently cited reasons for coming to the screening event were: 1) “Recommendation from my family member or friend,” 2) “I want to know my own health status,” and 3) “I want to protect the health of my family.”
Table 3. Program Quality Measures

<table>
<thead>
<tr>
<th>OUTPUTS and OUTCOMES</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participants pre-registered</td>
<td>133</td>
</tr>
<tr>
<td>Number of participants educated and screened</td>
<td>114</td>
</tr>
<tr>
<td>Percentage of screened participants attended Results Day event</td>
<td>88.6%</td>
</tr>
<tr>
<td>Percentage of at-risk participants referred to vaccinations</td>
<td>100%</td>
</tr>
<tr>
<td>Percentage of at-risk participants completed three-shot vaccination series</td>
<td>80.0%</td>
</tr>
<tr>
<td>Percentage of infected participants referred to follow-up care</td>
<td>100%</td>
</tr>
<tr>
<td>Percentage of infected participants accessing treatment*</td>
<td>64.3%</td>
</tr>
<tr>
<td>Percentage of participants reporting they would urge family and friends to be screened and/or vaccinated</td>
<td>100%</td>
</tr>
<tr>
<td>Percentage of participants reporting since participating in the program, they have encouraged family and friends born in high prevalence regions (such as Vietnam) to get screened</td>
<td>98%</td>
</tr>
</tbody>
</table>

*Defined as scheduling and completing at least one follow-up medical appointment.

<table>
<thead>
<tr>
<th>SERVICE QUALITY</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of participants reporting pre-registration process was straightforward</td>
<td>86.6%</td>
</tr>
<tr>
<td>Percentage of participants reporting registration was organized</td>
<td>86.6%</td>
</tr>
<tr>
<td>Percentage of participants reporting the educational lecture was informative</td>
<td>86.5%</td>
</tr>
<tr>
<td>Percentage of participants reporting the screening process was efficient</td>
<td>86.3%</td>
</tr>
<tr>
<td>Percentage of participants reporting the follow-up steps were explained clearly</td>
<td>87.3%</td>
</tr>
<tr>
<td>Percentage of participants reporting overall satisfaction with program</td>
<td>100%</td>
</tr>
<tr>
<td>Percentage of participants reporting they would recommend family and friends participate in future hepatitis B screening programs</td>
<td>98%</td>
</tr>
</tbody>
</table>
Figure 3. Program Participant Follow-Up Chart

Educated and Screened (114)

- Insured (60)
  - Insured (22) 55%
    - Referred to vaccinations (40) 100%
  - Uninsured (30)
    - Refered to vaccinations (14) 100%

- Uninsured (55)
  - At-Risk/Need (40)
    - Screened (55)
    - Immune (60)
  - Walk-in At-Risk (2)

Screened (114)

- Access treatment (4)
  - Access treatment (7) 50%
  - Uninsured (30)
    - Completed 3-shot vaccination series (32)
      - Walk-In At-Risk (2)
      - Referrd to vaccinations (14) 100%
      - Ineligible due to medical history (3)
        - Deferred vaccination #3 (1)
        - Deferred vaccination #2 (1)
        - Completed 3-shot vaccination series (32)
  - Insured (59)
    - Insured (27) 55%
      - Refered to vaccinations (40) 100%
      - Ineligible due to medical history (3)
        - Deferred vaccination #3 (1)
        - Deferred vaccination #2 (1)
        - Completed 3-shot vaccination series (32)
  - Uninsured (30)
    - Completed 3-shot vaccination series (32)
      - Walk-In At-Risk (2)

- Uninsured (7) 50%
  - Refered to vaccinations (14) 100%
  - Access treatment (4)
    - Refered to follow-up care (14)
      - Ineligible due to medical history (3)
        - Deferred vaccination #3 (1)
        - Deferred vaccination #2 (1)
        - Completed 3-shot vaccination series (32)
  - Insured (7) 50%

- Uninsured (30)
  - Completed 3-shot vaccination series (32)
    - Declined vaccination #2 (1)
    - Declined vaccination #3 (1)
    - Ineligible due to medical history (3)
      - Deferred vaccination #3 (1)
      - Deferred vaccination #2 (1)
      - Completed 3-shot vaccination series (32)
  - Insured (30) 50%

- Completed 3-shot vaccination series (32)
V. Lessons Learned and Recommendations

Implementing Lessons Learned from the FY10 Pilot Project

During the review of AAHI’s FY10 Hepatitis B Pilot Project, AAHI and VNMAP recognized several opportunities for program enhancement that would aid in the implementation of future hepatitis B initiatives. Those lessons learned served as an invaluable resource during the planning of the FY11 SMASH B Program. Guided by these recommendations—gleaned through a thorough evaluation of participant questionnaire responses and in-depth interviews with planners, providers, and patients—the project team integrated the following three enhanced components into the FY11 SMASH B Program:

- **Results Day.** Rather than receive screening results through postal mail, participants were asked to attend a comprehensive Results Day held several weeks after the initial Education and Screening Day. The event allowed all participants to take part in a focused education session to learn about the implications of possible test results, meet one-on-one with a bilingual physician to ask questions about their individual results, and learn about follow-up options such as vaccination or treatment, if applicable. Of those screened through the FY11 SMASH B Program, the attendance rate was 88.6 percent.

- **Access to free vaccinations for all project participants, regardless of insurance status or income.** The FY10 Pilot Project offered no-cost hepatitis B vaccinations to eligible, at-risk participants, primarily those who were low-income or uninsured. Through community feedback, however, it was reported that participants with health insurance coverage also experienced difficulty in getting vaccinated. Many individuals shared that their health plans did not cover the immunization series or the cost was prohibitive. Thus, the FY11 SMASH B Program offered an on-site vaccination clinic at no-cost for all participants, regardless of insurance status or income level.

- **Patient coordination for HBV-positive participants to access treatment.** Through the FY10 Pilot Project, HBV-infected participants, particularly those who were uninsured, expressed challenges in accessing treatment options in the area. The FY11 SMASH B Program provided thorough one-on-one coordination to assist participants in accessing treatment in a convenient and efficient manner. Participants were provided with technical assistance and language support—both in person and over the phone—to schedule appointments. A plan was also developed to help participants overcome transportation challenges to medical appointments as needed.
Recommendations for Future Hepatitis B Programs

Evaluation of the FY10 Pilot Project also helped to establish several priority areas regarding the planning, implementation, and evaluation of hepatitis B programming in line with broader themes emergent in public health. Corroborated by anecdotal and qualitative evidence provided by the project team, program participants, and healthcare professionals, an evaluation of the FY11 SMASH B Program, along with an antecedent review of the FY10 Pilot Project Evaluation Report, has led to the recommendation that future hepatitis B initiatives should endeavor to do the following:

- **Enhance access to culturally and linguistically competent hepatitis B services and resources.**

  It is important for all residents of Montgomery County to have access to culturally and linguistically competent health care; however, those seeking prevention and treatment services for hepatitis B often identify inadequate resources as a significant barrier. In-language services, clinic location and operating hours, and lack of knowledge by health care providers each present challenges to the Asian American populations in search of hepatitis B screening, vaccination, and treatment.

  Illustrative of recent immigrant populations, many Asian Americans (more than one-third of the total population) are limited-English proficient (US Census Bureau, 2011), while more than three-quarters of Asian Americans over the age of five do not speak English at home (US Census Bureau, 2010). For older members of the population, difficulties with language are compounded by unreliable access to transportation. Anticipating these concerns, the FY11 SMASH B Program provided no-charge patient coordination and language services for HBV-infected patients, in addition to arranging transportation options for treatment appointments as needed. It remains, however, that additional resources are needed to ensure vulnerable community members have access to adequate treatment and services.

- **Promote hepatitis B awareness and early detection among the Asian American community and healthcare professionals who serve Asian American patients.**

  Future hepatitis B efforts should aim to build upon the positive community response to ensure all Asian Americans obtain the hepatitis B education and care they need. The program team may consider extending promotion efforts to include past participants, as well as small business owners and employees willing to become a part of the outreach and marketing of future programs. Bringing diverse partners to the table may result in a greater reach in the community, particularly to those most isolated and in need of health care resources.
In addition to educating community members, a precondition to meeting the need for culturally and linguistically competent care is ensuring that health care providers understand the complexities of the Asian American population and its specific health needs. Though the CDC recommends that all Asian-born residents of the United States undergo testing for hepatitis B, a 2009 study revealed that fewer than 30 percent of Asian American primary care providers who care for Asian American adult patients offer routine HBV testing (Chu, 2009). Findings from a 2007 hepatitis B knowledge survey of primary care providers indicated that 55% were unable to identify laboratory markers for chronic HBV infection (Dulay et al., 2001).

Among FY11 SMASH B Program participants, nearly two-thirds of participants reported they had not previously been screened for HBV, even though more than half of this group reported having a regular health care provider. These results mirror those of the FY10 Pilot Project and substantiate the need for increased knowledge regarding HBV and the Asian American community among health care providers.

To this end, AAHI and VNMAP have each engaged in health education outreach to both community members and local health care providers to increase awareness about the Asian American community, hepatitis B and the associated health risks, and available resources in the County.

✔ Empower community-based organizations to advocate for and collaborate on hepatitis B prevention, early detection and screening, vaccination, and treatment programs for Asian Americans.

Effective community engagement and collaboration is critical to the success of public health efforts targeting minority and hard-to-reach populations with limited exposure to mainstream institutions and media. By empowering organizations to advocate on behalf of their constituent populations, and carry out such beneficial health services as a hepatitis B screening and treatment program, these groups gain credibility and the confidence of the communities they serve.

These programs also provide an opportunity for community volunteers, interns, and other interested parties to get involved in a cause and become future champions for Asian American health. To encourage participation and sustained interest in the project, it is recommended that partners connect and develop working relationships early in the planning stage. The pre-planning and planning stages are critical to establishing roles, responsibilities, and an internal communications plan so that all parties are in accord and apprised of project developments.
Through the continuing execution of successful programs, community members will look to organizations such as AAHI and VNMAP as trusted community allies working to build a healthier community. With the experience gained from the FY11 SMASH B Program, VNMAP successfully received support from the Montgomery County Council via AAHI for a future hepatitis B project for County residents. This is a shining example of the power of collaboration and community engagement to build sustainable programs to benefit the Asian American community.

✓ Enhance data collection and reporting efforts.

To better understand the needs of specific communities with regard to hepatitis B, there is a strong need for robust data that is disaggregated by Asian ethnicity, particularly at the local level. An improved data bank will assist organizations in their efforts to solicit funds, apply for grants, rally community support, and better articulate the need for services and education. The FY11 SMASH B Program will contribute to this endeavor through its own data collection efforts.

The increased emphasis on data collection has amplified the need for trained volunteers who are able to assist project participants to fill out essential forms in their entirety and ensure completion of paired tests and program surveys. With more complete and accurate data collection, the program team will be better equipped to evaluate program quality and make improvements as necessary to meet the evolving needs of the community.

Of equal importance to the improvement of collection methods is the dissemination of findings and data among the community and stakeholders. Whether through a formal report or scientific journal article, it is critical to share local level data in order to contribute to the larger pool of Asian American health data available. Future efforts may consider exploring obtaining institutional board reviews for formalized research and publication purposes.
VI. Acknowledgements

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