



**Montgomery County, Maryland
Department of Health and Human Services
Asian American Health Initiative
in Partnership with the
Korean Community Service Center of
Greater Washington**

*Active Care and Treatment of Hepatitis B Program in
the Korean American Community in
Montgomery County, Maryland*

Evaluation Report FY 2012

KCSC
Korean Community
Service Center
of Greater Washington
워싱턴 한인 봉사 센터



**Asian American
Health Initiative**

Together To Build A Healthy Community

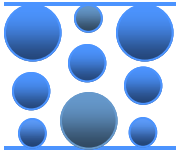
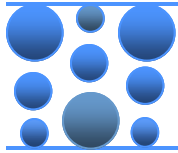


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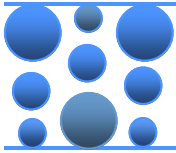


Executive Summary

In Fiscal Year 2012 (FY2012), the Asian American Health Initiative (AAHI) collaborated with the Korean Community Service Center of Greater Washington (KCSC), a local community-based organization, on a hepatitis B program for the Korean American community in Montgomery County, Maryland. The Active Care and Treatment for Hepatitis B Program (ACT Hep B) 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, 84 individuals participated.

Feedback from the FY2012 ACT Hep B Program provided insight into the Korean American community of Montgomery County, particularly with regard to attitudes and behaviors regarding health and healthcare and the valuable role of faith-based organizations. 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 in Montgomery County.





I. Background

Across the United States, the Asian American population is growing at a rapid pace. According to the U.S. Census Bureau, the United States' Asian American population increased by 46 percent—more than any other major racial group—between the 2000 and 2010 decennial censuses. The Census Bureau projects that by 2050, more than 40 million Americans will self-identify as Asian or Asian in combination with one or more race. If accurate, this would represent a 161 percent increase in the total Asian American population. During this same period, the Census Bureau projects the entire U.S. population to increase by only 44 percent (US Census Bureau, 2011).

In the State of Maryland, Montgomery County is home to the 8th largest Asian American population on the East coast (Advancing Justice, 2011). Montgomery County's 135,451 Asian American residents represent more than 40 percent of the state's entire Asian American population. The state's largest county, Montgomery County is also one of its most diverse. Along with the county's Hispanic and African American populations, Asian American residents combine to form a minority-majority community, where fewer than 50 percent of the County's residents are non-Hispanic white.

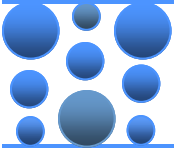
About the Asian American Health Initiative

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-ever County office to deal exclusively with the specific health needs of the pan-Asian American community. 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 Montgomery County. For eight years, AAHI has worked determinedly to eliminate the health disparities that exist between Asian Americans and their non-Asian counterparts.

About the Korean Community Service Center of Greater Washington

The Korean Community Service Center of Greater Washington (KCSC) is a 501(c)(3) not-for-profit human service organization founded in 1974 to assist and empower Asian Americans and new immigrants to be better adjusted and fully contributing members of the United States through social services, education and resource development. From job placement assistance to housing needs to healthcare assess, KCSC works to provide a variety of programs and services to better the wellbeing and quality of life for members of the Korean community.





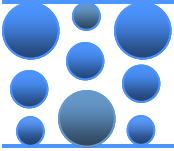
Hepatitis B and the Asian American Community

Proclaimed a “silent killer” and “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. Although it is recognized as a leading human carcinogen and is the main cause of primary liver cancer worldwide (Asian Liver Center [ALC], 2011), as many as two-thirds of infected persons in the United States are unaware of their infection status and are at risk of 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—and liver disease that may result from chronic infection—among Asian Americans is 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 general population, with as many as 1 in 10 Asian Americans chronically infected, 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 (ALC, 2011). These disparities are mirrored in HBV-related morbidity and mortality rates (USDHHS, 2011).

Table 1. Hepatitis B Key Facts

- Hepatitis B is the most common chronic infectious disease in the world; it is considered 50-100 times more infectious than HIV (WHO, 2008).
- An estimated 600,000 – 700,000 people die each year due to complications resulting from chronic hepatitis B (WHO, 2008; OMH, 2008).
- The hepatitis B virus causes 80 percent of all primary liver cancer worldwide and is the third leading cause of cancer deaths among Asian Americans, compared to 16th among non-Hispanic whites (OMH, 2008).
- HBV is regarded as a “silent killer” because it can be asymptomatic and people often are unaware that they are infected until it reaches advanced stages (OMH, 2008).
- Although most infected adults are able to fight off a hepatitis B infection, 30 – 50 percent of children, and 90 percent of infected infants will develop chronic hepatitis B (Hepatitis B Foundation, 2005).
- Hepatitis B is both preventable and treatable.
- The HBV vaccine is so effective that the World Health Organization has called it the first “anti-cancer vaccine.” (ALC, 2011) Screenings are a precursor for the life-saving vaccine.



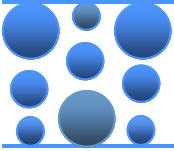
According to the 2010 US Census, the Korean American community is the third largest Asian American ethnic subgroup in Montgomery County. Among Korean Americans, some studies report the prevalence of chronic hepatitis B to be 5–11 percent (Tong et al, 2011) and prevalence of liver cancer to be approximately five times higher than in non-Hispanic white Americans (McCracken, Olsen, Chen, 2007). Korean Americans are also eight times more likely to die from hepatocellular carcinoma, the most common form of liver cancer (Hsu et al., 2010). Hepatitis B and liver cancer rates also vary between Koreans born in the United States and those born abroad.

Although estimates vary widely regarding the exact number of individuals chronically infected with hepatitis B, the Centers for Disease Control and Prevention (CDC) recommends that certain at-risk populations should be screened for presence of HBV in the blood (see Table 2). Numerous studies conducted to assess knowledge and awareness of hepatitis B among Asian American populations have found, however, that much of the at-risk population is misinformed regarding the means of transmission, prevalence, risk of infection, and opportunities for vaccination (IOM, 2010). Despite the widespread availability of the hepatitis B vaccine—hailed by the World Health Organization as the first “anti-cancer” vaccine (ALC, 2011)—immunization rates remain low among many populations, including those in the United States (ALC, 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). For instance, in qualitative interviews, most Korean Americans expressed the misconception that sharing of contaminated food and eating utensils was the most common route of HBV transmission, whereas few mentioned that HBV can be sexually transmitted, and none mentioned mother-to-child transmission (IOM, 2010; Choe et al., 2005).

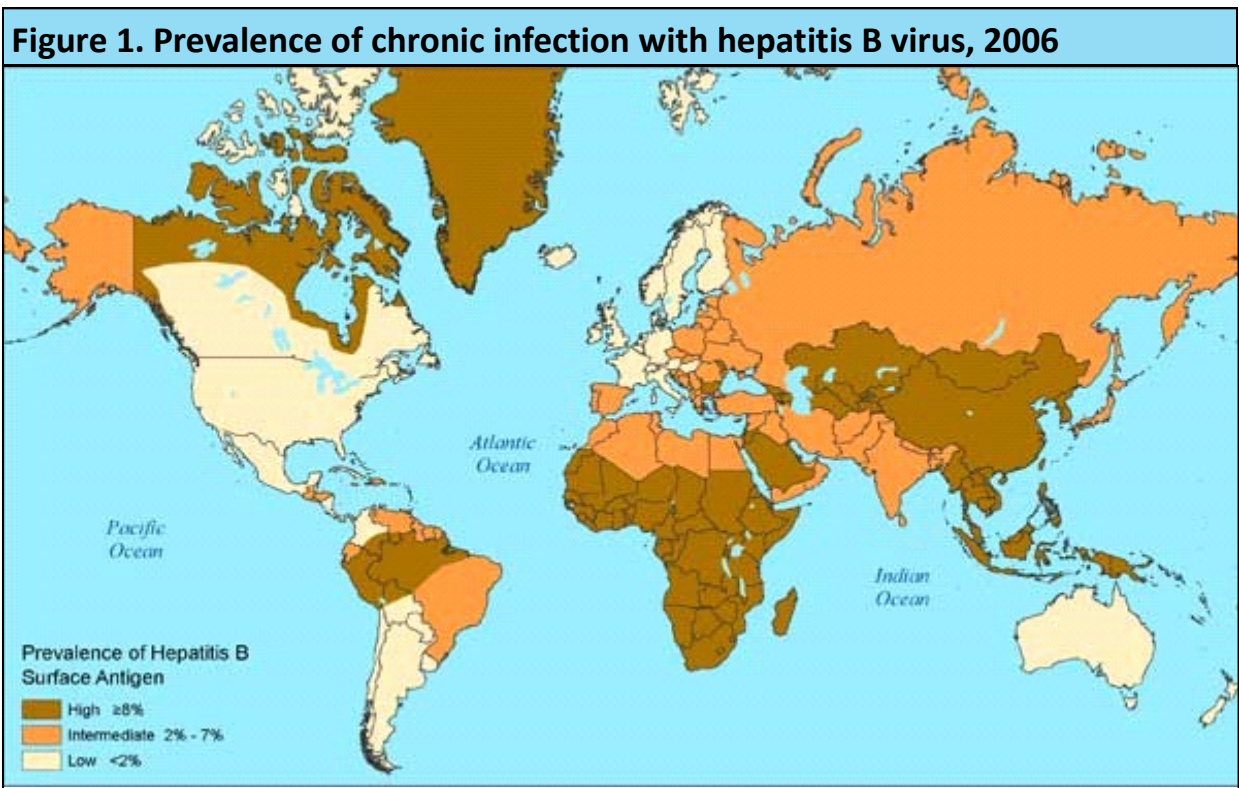
Table 2. Who Should be Screened for Chronic HBV Infection?

- **Persons born in geographic regions with HBsAg prevalence of >2%.** All persons born in geographic regions with HBsAg prevalence of >2% (e.g., much of Eastern Europe, Asia, Africa, the Middle East, and the Pacific Islands) and certain indigenous populations. See Figure 1.
- **Persons with behavioral exposures to HBV** (Men who have sex with men, past or current intravenous drug users).
- **Persons receiving cytotoxic or immunosuppressive therapy.** Persons receiving cytotoxic or immunosuppressant therapy (e.g., chemotherapy for malignant diseases, immunosuppression related to organ transplantation, and immunosuppression for rheumatologic and gastroenterologic disorders).
- **Persons with liver disease of unknown etiology.** All persons with persistently elevated ALT or aspartate aminotransferase (AST) levels of unknown etiology.

Source: Centers for Disease Control and Prevention. (2008). Recommendations for Identification and Public Health Management of Persons with Chronic Hepatitis B Infection. MMWR. 57RR08; 1-20. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm>



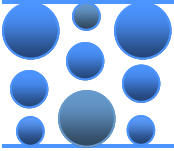
To prevent transmission of the disease and minimize the long-term health risks associated with chronic hepatitis B infection, the CDC recommends routine testing for several populations, including all individuals born in Asia, Africa, and other geographic regions with 2 percent or higher prevalence of chronic HBV infection (see Figure 1). According to the 2010 American Community Survey one-year estimates, more than 11 million residents of the United States were born in Asia, including China, Korea, Indonesia, and Vietnam, where the prevalence of chronic HBV infection is high (≥ 8 percent) across all socioeconomic groups.



Source: Centers for Disease Control and -Prevention. (2009). *Traveler's Health*. Retrieved from <http://wwwnc.cdc.gov/travel/yellowbook/2010/chapter-2/hepatitis-b.aspx>

Because some persons might have been infected with HBV before they received the hepatitis B vaccination, the CDC additionally recommends testing for the following high-risk populations regardless of vaccination history:

- Persons born in geographic regions with HBV prevalence of > 2 percent
- U.S.-born persons not vaccinated as infants whose parents were born in regions with high HBV endemicity (> 8 percent).
- Persons who received hepatitis B vaccination as adolescents or adults after the initiation of risk behaviors. (CDC, 2008)



Economic Impact of Treating Hepatitis B

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 upward of hundreds of thousands of dollars (USDHHS, 2011). However, screening, vaccination, and treatment of hepatitis B are cost-effective measures that can produce long-term cost savings.

Table 3. 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 3 vaccinations
- Hepatitis B immune globulin for post-exposure prevention: \$400
- HBV treatment: \$2,000 – \$16,000 per year

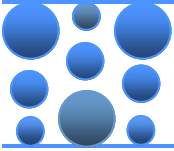
Costs associated with treating liver disease resulting from chronic hepatitis B:

- 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.

Source: National Viral Hepatitis Roundtable. (2011). *Chronic Viral Hepatitis and Health Care Reform*. Retrieved from http://nvhr.org/sites/default/files/docs/Viral_Hepatitis_Reform.pdf

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 new infections occur, including 1,000 infants, who will acquire the infection at birth from HBV-positive mothers (IOM, 2010). Too few at-risk 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).



Federal Action in Viral Hepatitis

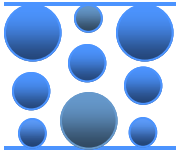
In January 2010, the Institute of Medicine released an in-depth review examining the prevention and control of viral hepatitis infections in the United States. The report, *Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C*, identified serious shortcomings in the nation's current strategy to curtail the spread of viral hepatitis. The Institute's report calls attention to 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 healthcare 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.

In response to the IOM report, the U.S. Department of Health and Human Services expressed an increased commitment to ensure "new cases of viral hepatitis are prevented and that persons who are already infected are tested; informed about their infection; and provided with counseling, care, and treatment." In the May 2011 report *Combating the Silent Epidemic: U.S. Department of Health and Human Services Action Plan for the Prevention, Care and Treatment of Viral Hepatitis*, the DHHS highlighted six topic areas—in correspondence with recommendations by the IOM—that if fully implemented, could result in an increase in the proportion of persons who are aware of their hepatitis B virus infection from 33 percent to 66 percent, and elimination of mother-to-child transmission of HBV (USDHHS, 2011). The Viral Hepatitis Action Plan focuses on the following six topics:

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.

At a special White House event to release the USDHHS report on World Hepatitis Day 2011, the Centers for Disease Control and Prevention unveiled the *Know More Hepatitis* campaign to "complement existing efforts" and "build a collective voice" around the continuing problem of viral hepatitis. As part of the growing campaign, the CDC, in partnership with the Health Resources and Services Administration and Occupational Safety and Health Administration, designated May 19, 2012 as the first-ever National Viral Hepatitis Testing Day, to remind health care practitioners and the public about the need for testing among at-risk populations.



II. Understanding and Assessing Needs

With the high prevalence of HBV infections among the Asian American population, it is vital for hepatitis B education, screening, vaccination and treatment referral services to be readily available and accessible for the community. However, the scarcity and low accessibility of hepatitis B services in Montgomery County present health issues and concerns, particularly for low-income and uninsured County residents from high prevalence geographic areas, including Asia. Asian Americans who experience financial troubles, lack insurance or are linguistically isolated are especially vulnerable. Barriers such as social stigma associated with hepatitis B and lack of knowledge regarding accessible services further reduce the utilization of current Hepatitis B resources and services. Due to physicians' unawareness of the prevalence of hepatitis B among Asian Americans and lack of familiarity with national screening guideless, even individuals with insurance oftentimes have difficulty obtaining hepatitis B screenings.



Highlights of AAHI's Hepatitis B Efforts

Since AAHI's inception, hepatitis B education and outreach have been priority areas of the organization's work in the community. In addition to providing hepatitis B awareness programs directly to community members, AAHI also works with healthcare professionals to offer culturally sensitive trainings regarding the specific health risks of hepatitis B in the Asian American community. Furthermore, AAHI works to ensure that healthcare screenings and treatment resources are accessible to all those in need, reaching out at health fairs, community events, and through media campaigns.

As awareness surrounding Asian American health issues grew in the early part of the last decade, in 2008 AAHI further illuminated the issues through the release of a countywide health needs assessment report entitled, *Asian American Health Priorities: Strengths, Needs, and Opportunities for Action*. The report recommended to "expand health promotion and disease prevention programs to raise awareness and level of 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 services to high-risk populations (AAHI, 2008).

In an effort to enhance access to culturally and linguistically competent hepatitis B services, AAHI has collaborated with local community-based organizations to develop a successful program model in Montgomery County. In the past few years, AAHI has been involved in several public-private partnerships to expand hepatitis B education, screening, vaccination and referral to treatment for Asian American communities in Montgomery County. To date, approximately 800 individuals have been screened for hepatitis B through these collaborative projects. Building community partnerships was integral to developing and sustaining these efforts. In addition to providing technical assistance throughout each project, AAHI also placed a strong emphasis on community empowerment and sustainability.

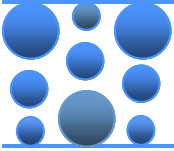
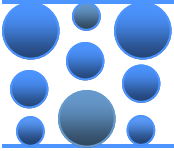


Table 4. Highlights of AAHI’s Hepatitis B Efforts

YEAR	EVENT/PROJECT	PARTNERS
FY2005	AAHI Releases 1st Countywide Community Health Needs Assessment Report	
FY2006-2007	Hepatitis B Education and Outreach Efforts in Community	
2008	CDC Releases Recommendations for the Identification and Public Health Management of Persons with Chronic Hepatitis B Infection	
FY2008	AAHI Releases 2nd Countywide Community Health Needs Assessment Report	
FY2009	AAHI Strategic Plan 2011-2015 Development	
FY2010	Hepatitis B Education, Screening, and Referral to Vaccination and Treatment Project in the Chinese American Community	Chinese Culture and Community Service Center
FY2011	Hepatitis B Community Event	Hepatitis B Initiative of Greater Washington, D.C., Chinese Culture and Community Service Center, Chinese American Medical Society – Mid Atlantic Region, Organization of Chinese Americans – Greater D.C. Chapter, Bristol-Myers Squibb, University of Maryland’s Phi Delta Sigma
FY2011	Hepatitis B Education, Screening, Vaccination, and Treatment Referral Project in the Vietnamese American Community (Screening, Management, Awareness, Solutions for Hepatitis B Program-SMASH B)	Viet Nam Medical Assistance Program
FY2012-Present	Screening, Treatment, Outreach, and Prevention of Hepatitis B Program (STOP B)	Chinese Culture and Community Service Center
FY2012	Hepatitis B Education, Screening, Vaccination, and Treatment Referral Project in the Vietnamese American Community (Screening, Management, Awareness, Solutions for Hepatitis B Program-SMASH B) Supported by a Montgomery County Council Grant	Viet Nam Medical Assistance Program, Maryland Vietnamese Mutual Association
FY2012	Hepatitis B Education, Screening, Vaccination, and Treatment Referral Project in the Korean American Community (Active Care & Treatment of Hepatitis B Program- ACT Hep B)	Korean Community Service Center of Greater Washington, Global Mission Church, Asian Pacific American Medical Students Association



Community Mobilization and Empowerment

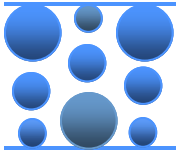
Public health models often emphasize the vital role that communities serve as influencing partners in eliminating health disparities and improving health outcomes. With that in mind, AAHI has made community mobilization and empowerment a keystone priority in its *Strategic Plan 2011 – 2015: Health Equity through Action—Improving Health Outcomes for Asian Americans in Montgomery County*. Acknowledging the need for community driven hepatitis B efforts in the County, AAHI has delegated its efforts to assisting Asian American community-based organizations improve the health status of their respective communities. AAHI is dedicated to empowering organizations so that they can feel confident and take ownership in developing, implementing, and assessing innovative health programming for their community's benefit.



Since partnering on the FY2010 Hepatitis B Pilot Project, the Chinese Culture and Community Service Center 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 and successfully secured grant funding for future programming for Asian Americans.

Following two years of collaboration between AAHI and the Viet Nam Medical Assistance Program on the 2011 and 2012 SMASH B Programs, VNMAP is an emergent community leader and advocate for Asian American health issues in Montgomery County. The organization has expanded their community involvement efforts and are positioned to successfully carry out public health projects to meet the needs of their community members.

Through the ACT Hep B Program collaboration with KCSC, AAHI was able to continue its efforts in reducing the hepatitis B disparity for Asian Americans and mobilize a wider network of collaborators to improve health outcomes in Montgomery County.



III. About the ACT Hep B Program

Purpose:

To provide culturally and linguistically competent hepatitis B education, screening, and vaccination or treatment referral for Korean 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

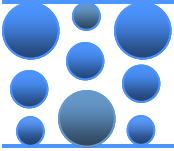
Planning and Marketing

Planning

Using AAHI’s 2008 Community Health Needs Assessment, Hepatitis B Project Evaluation Reports, and other secondary data sources as references, the project team established fitting goals to lay the foundation for the FY2012 ACT Hep B Program. Internal program planning was initiated many months prior to the first event. Since early program development, AAHI and KCSC closely collaborated with each other, meeting and communicating on a regular basis to develop thorough operational plans detailing each phase of planning, community engagement, implementation, and evaluation.

Essential items such as translated forms, bilingual volunteer recruitment, and choice of location were integrated into the planning to ensure the program was culturally and linguistically tailored to the Korean American community. For instance, faith-based organizations are oftentimes a central social and educational component in the lives of this community, with about 80 percent of Korean Americans attending church regularly (Ma et al., 2011). With this in mind, the project team reached out to the Global Mission Church (GMC), a local Korean American faith community and church, as a partner in the ACT Hep B Program.





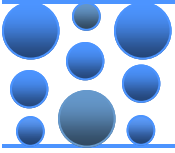
Marketing

Promotion for the ACT Hep B Program involved reaching out through local community connections that KCSC, the Global Mission Church, AAHI, and AAHI health promoters had with Korean Americans in the County. Interested community members were able to pre-register for the program by calling a designated telephone line managed by a bilingual project team member. Prior to the Education and Screening Day, participants were assigned to one of two sessions at pre-registration to allow for smaller, interactive seminars and shorter waiting periods for subsequent procedures.

Outreach strategies included the following:

- **Program Flier:** A bilingual program flier was created, translated, and disseminated through various venues, including community events, KCSC's email listserv and church announcements.
- **Ethnic Newspaper Articles:** Culturally and linguistically tailored information about hepatitis B and the importance of screening was translated and printed in local ethnic newspapers to increase awareness and knowledge in the Asian American community.
- **Health Fair:** KCSC coordinated a community health fair, held at the Korean Baptist Church of Washington, approximately two months prior to the program's Education and Screening Day. Targeting the Korean American community, the health fair offered information, resources, and screenings on a range of health topics. The event served as an opportunity to raise community awareness of hepatitis B and kicked-off pre-registration for the ACT Hep B Program. Program team members set up a station for attendees to learn more about the no cost hepatitis B screenings being offered to eligible individuals and how to pre-register for the program.
- **Church Registration Table:** During the promotion phase, an additional registration table was also set up at the Global Mission Church during a Sunday service to give interested church members an opportunity to sign up for the ACT Hep B Program.





Implementation

Education and Screening Day

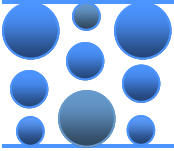
The Education and Screening Day took place in November 2011 at the Global Mission Church in Silver Spring, Maryland. A volunteer orientation occurred in the morning prior to event aimed to familiarize helpers with the event set-up and program tasks. Upon arrival during their pre-scheduled time session, participants checked in at the registration table and were led to the education room. There, they completed the necessary paperwork, available in both English and Korean, to participate in the program and subsequent clinical screenings. Bilingual and bicultural volunteers provided language support in English and Korean as needed.

Next, individuals participated in an educational seminar delivered in Korean by a Korean American physician that KCSC connected with. The Korean American physician understood the culture and language, and was a trustworthy and credible source of information for the community. Covering topics such as hepatitis B transmission, symptoms, treatment, and screening procedures, the seminar provided participants a more comprehensive understanding about hepatitis B. Pre- and posttests were administered before and after the seminar to assess knowledge, attitudes, and beliefs regarding hepatitis B.

Upon completing the educational seminar, participants who wished to be tested continued to the screening area in groups of five, where phlebotomists collected blood samples by venipuncture. During their wait time, participants were offered free blood pressure and blood glucose screenings provided by The Asian Pacific American Medical Student Association (APAMSA), a national organization that brings Asian American medical students together to address health concerns of the Asian American community. The presence of APAMSA volunteers not only benefited program participants, but also provided the future physicians a learning and empowering opportunity to work in a community setting.

After finishing their hepatitis B screening, participants were asked to fill out a program evaluation form prior to departure. The collected blood 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 establishes immunity.





Results Day and Follow-Up Care Coordination

Confidential results of the hepatitis B screening were provided in-person during a subsequent Results Day, held at the same location in December 2011. KCSC and AAHI staff members, community volunteers, as well as four volunteer physicians were present for this event.

Participants were scheduled in advance to attend one of two educational seminars prior to receiving their hepatitis B screening results. Upon arrival of their assigned session, they checked in at the registration table and were led to the education room for a seminar. During the educational seminar, the Korean American volunteer physician explained all possible hepatitis B diagnoses (i.e., at-risk, immune, or infected) and respective follow-up options, and provided a basis on which at-risk and infected participants could make informed decisions about their health. Thereafter, each participant met with a volunteer physician for a private one-on-one consultation to discuss their individual screening results, ask questions, and as necessary, receive referral to applicable follow-up options:

- **At-Risk (Need Vaccine):** Individuals who tested negative for HBsAg and anti-HBs were considered vulnerable to HBV infection. These participants are considered at risk and were strongly advised to get vaccinated. 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 physician was on hand to administer shots. Individuals were then scheduled for subsequent vaccination clinic visits for their second and third doses, also available at no cost. For participants unavailable to receive their first dose on the Results Day, the ACT Hep B Program team ensured they received their results in a timely manner and individual vaccination accommodations were arranged for as needed.
- **Infected (Need Treatment):** All infected participants were strongly advised to undergo further testing to determine the severity of their HBV condition. A Montgomery Cares Clinic, the Mobile Medical Korean Community Service Center Clinic (KAMMSA), was provided as a treatment option for uninsured infected participants. The program provided thorough follow-up to ensure infected participants were counseled on treatment options.
- **Immune:** Individuals who tested negative for HBsAg and positive for anti-HBs were 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 future free or low-cost local screenings when available.

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.

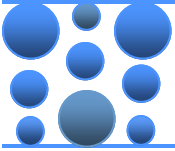


Table 5. HBV Screening Result and Follow-up Coordination

SCREENING RESULT	FOLLOW-UP COORDINATION
At-Risk	<ul style="list-style-type: none"> • Advised to receive the first dose of the vaccine at the onsite vaccination clinic, offered at no cost • Registered for subsequent second and third doses, at no cost
Infected	<ul style="list-style-type: none"> • Advised to undergo further testing to determine severity of HBV infection • Referred to primary care provider, if applicable, or local treatment options • Offered comprehensive individual case coordination to access treatment, including initial scheduling and subsequent medical appointments
Immune	<ul style="list-style-type: none"> • Encouraged to promote hepatitis B awareness and screening among family and friends



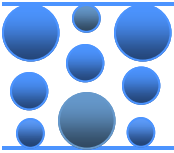
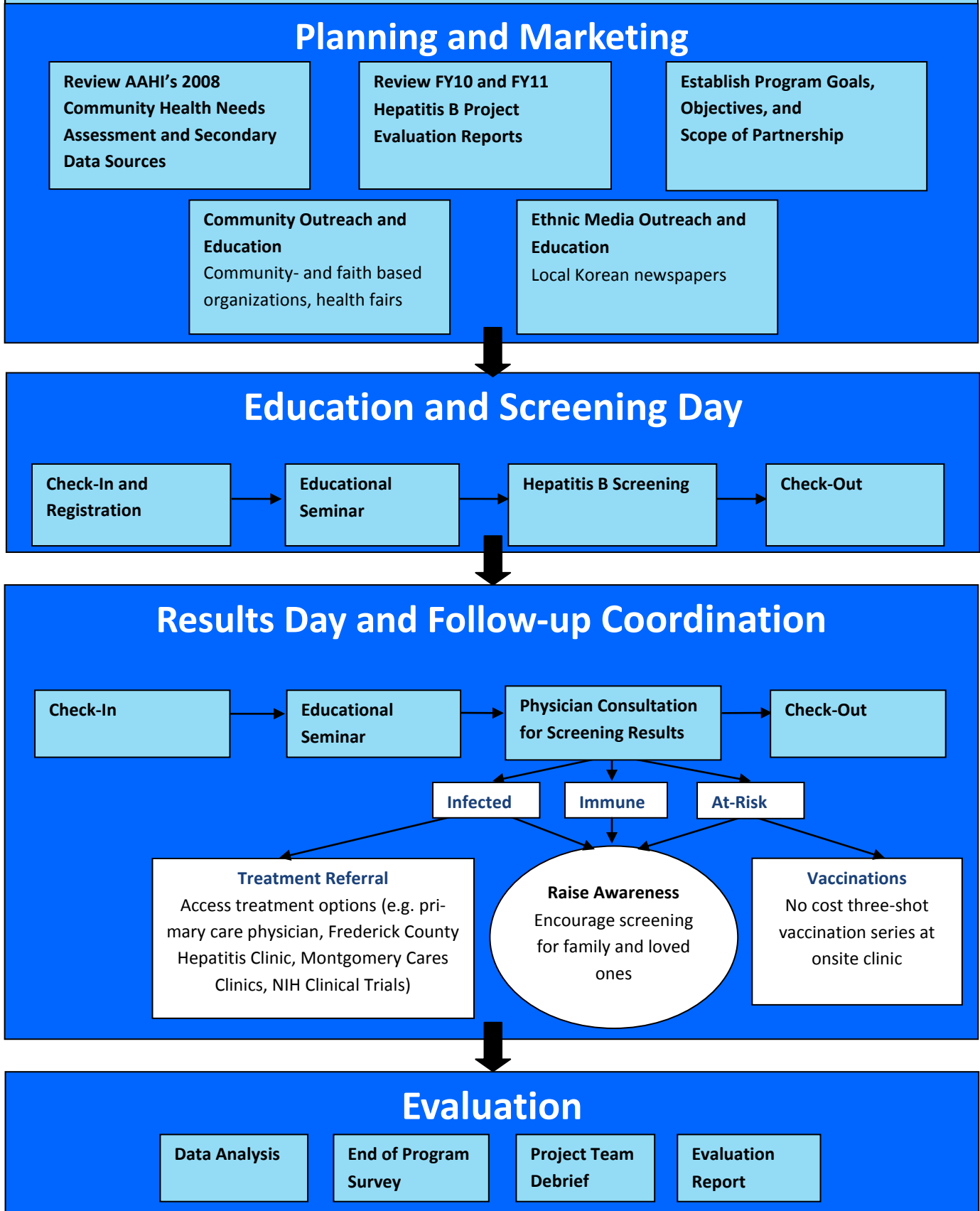
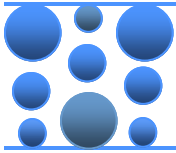


Figure 2. FY2012 ACT Hep B Program Process Flow Chart





IV. Outcomes

About the Participants

In total, the FY2012 ACT Hep B Program provided education, screening, and vaccination or treatment referral to 84 Asian American residents of Montgomery County. The majority of participants identified as ethnic Korean. Of those who reported birth origin, 96.2 percent were born in Korea. The participant age range was broad, ranging from 18-80 years of age. A large portion of participants were between the ages of 40-70 years old. The gender distribution was majority female (61.9 percent), with 38.1 percent male participants. The average length of time reported living in Montgomery County and the United States were 15.4 years and 20.8 years, respectively. Of those who reported insurance status, 56.4 percent were uninsured. Almost half of participants (48.1 percent) noted that he/she did not have a regular doctor or health care provider. Additionally, 4.8 percent of participants reported he/she knew a family member who had HBV and 8.4 percent knew a family member who had liver cancer. The majority of participants reported hearing about the event through friends and announcements made by the Global Mission Church.

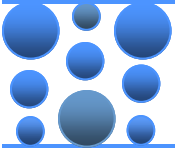
Evaluation Tools

KCSC and AAHI incorporated several evaluation tools, available in both English and Korean, to assess the quality of the project. Data collected through the program will inform future hepatitis B programming efforts and help to establish ways in which similar 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 post-tests. 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 Education and Screening Day, a comprehensive end-of-program survey and a stamped, addressed envelope was mailed out 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 debrief was conducted with key project stakeholders to further assess program quality, discuss lessons learned, and offer recommendations for future improvements and success:

- KCSC Representatives: Youngsuk Oh, Yonhee Lyeo
- AAHI Representatives: Perry Chan, Sanjana Quasem, Dr. Nerita Estampador-Ulep



Program Results

Of the 84 participants screened, 2.4 percent were found to be infected with HBV, 28.6 percent were unprotected and considered at-risk for future HBV infection, and 69.0 percent were found immune to HBV. Of those at-risk individuals, 97.4 percent reported themselves as foreign born from an Asian country. All infected individuals were between the ages of 50 and 79. Half of infected participants reported they did not have health insurance. During the educational seminar, 92.9 percent (78 out of 84) of the pre and post tests were collected from participants. The average scores of the pre and post-test were 77.1 percent and 91.4 percent, respectively.

Program evaluation indicates that hepatitis B is viewed as a significant health risk to participants. Feedback also shows that participants look favorably upon preventive health measures such as vaccination. During the post-test questionnaire, 88 percent of respondents expressed concern about contracting hepatitis B, while 86.6 percent of respondents stated a belief that the HBV vaccination is either “very effective” or “somewhat effective”. These percentages increased from the pre-test percentages, suggesting that information from the education seminar increased awareness about hepatitis B and the preventative vaccine. The 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,” 3) “I want to protect the health of my family,” and 4) “I do not have health insurance.”

The overall response rate to the end-of-program survey distributed after six months was 70.2 percent. Of those who responded, 100 percent reported that the ACT Hep B Program’s educational presentation provided him/her with the information necessary to make an informed decision about his/her health and hepatitis B screening and 96.6 percent stated he/she was informed of his/her hepatitis B virus screening result in a culturally-appropriate and sensitive manner by the physician. Prior to participating in the ACT Hep B Program, 25.5 percent of participants were not planning to get screened for hepatitis B.



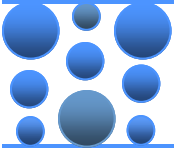


Table 6. Program Quality Measures

OUTPUTS and OUTCOMES	RESULTS
Number of participants pre-registered	98
Number of participants educated and screened	84
Percentage of screened participants attended results day event	84.5%
Percentage of at-risk participants referred for vaccination	100%
Percentage of at-risk participants completed three-shot vaccination series	95.8%
Percentage of infected participants referred for follow-up care	100%
Percentage of infected participants accessed treatment	100%
Percentage of participants reported they would urge family and friends to be screened and/or vaccinated	100%
Percentage of participants reported since participating in the program, they have encouraged family and friends born in high prevalence regions (such as Korea) to get screened	75.9%
SERVICE QUALITY	RESULTS
Percentage of participants reported the pre-registration process was straightforward	94.9%
Percentage of participants reported the registration process was organized	94.8%
Percentage of participants reported the educational lecture was informative	93.6%
Percentage of participants reported the screening process was efficient	94.8%
Percentage of participants reported that the follow-up steps were explained clearly	94.7%
Percentage of participants reported an understanding of the possible follow-up steps	98.7%
Percentage of participants reported overall satisfaction with the program	100%
Percentage of participants reported they would urge family and friends to participate in future ACT Hep B Program education and screening events	100%

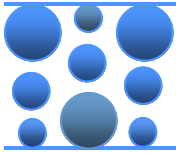
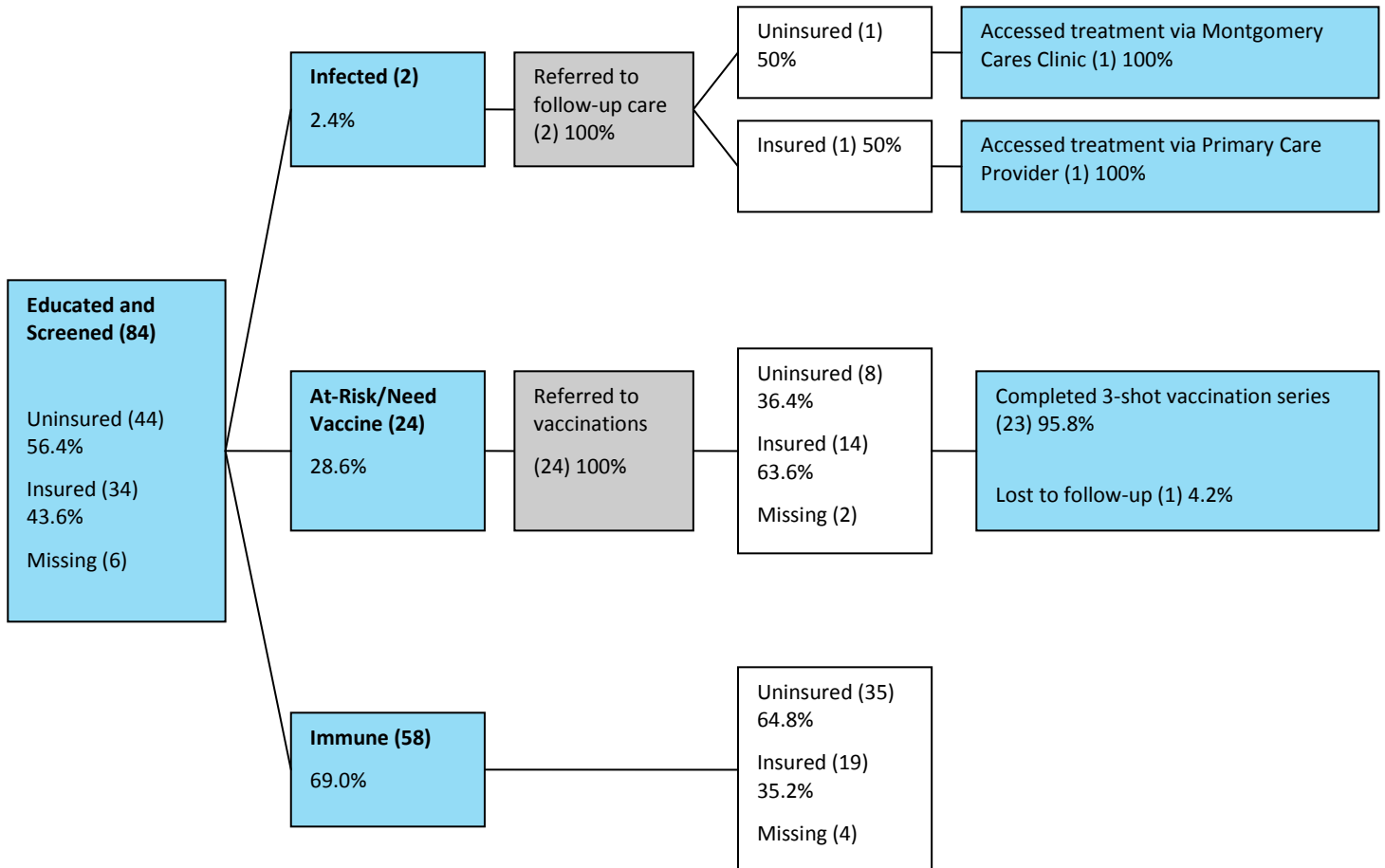
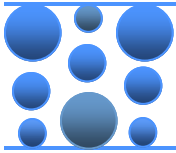


Figure 3. FY2012 ACT Hep B Program Participant Follow-up Chart





V. Lessons Learned and Recommendations

Lessons Learned

With evaluations of previous hepatitis B projects in mind, various lessons learned were implemented into the planning of the FY2012 ACT Hep B Program. Likewise, the ACT Hep B Program also proved to be an insightful resource for future hepatitis B efforts as the program reinforced the importance of specific program features as well as shed light to new areas of improvement. Several lessons learned that would be useful to keep in mind for future hepatitis B initiatives include:

✓ **Optimize collaborations with faith-based organizations**

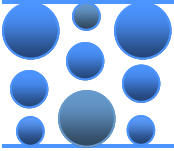
The ACT Hep B Program team highlighted the importance of collaborating with Korean American churches as they were identified as an important part of the Korean American community in Montgomery County. Program evaluations indicated that the majority of participants heard about the ACT Hep B Program through promotion at the Global Mission Church, demonstrating faith-based organizations' influence in reaching the Korean American community in Montgomery County. With faith-based organizations being a critical stakeholder with valuable insight into various Asian American communities, future initiatives may look into integrating and empowering faith-based community leaders to broaden their scope to include health service delivery for their respective constituency.

✓ **Explore physician engagement strategies**

Learning to utilize available community resources was key to ensuring the ACT Hep B Program ran smoothly. Through the planning process, the project team found difficulty in identifying bilingual Korean American volunteer physicians to be engaged in the program. There was a particular need for volunteer physicians to assist with the screening result consultation sessions. To overcome this challenge, non-Korean-speaking volunteer physicians were recruited and paired with Korean-speaking community volunteers to assist with interpretation. This was an example of optimizing available resources to best meet the needs of the program. Future efforts may look into strategies to more effectively involve and mobilize Korean American physicians in hepatitis B initiatives as well as other community health projects.

✓ **Continue providing resources beyond hepatitis B during program agenda**

During the ACT Hep B Program and previous hepatitis B projects, an interactive component was integrated into at least one or both of the Screening and Education Day and/or Results Day agendas. Whether it be a small health fair or health screenings for blood pressure or osteoporosis, offering an interactive component along with the program not only optimized waiting times for participants, but served as yet another access point to health and social services resources offered by the County and other community organizations. Feedback from ACT Hep B Program participants indicated a high interest in learning about other health topics beyond hepatitis B, including breast and prostate health. Participants also expressed questions regarding health insurance and other social services. According to the President's Advisory Commission on Asian Americans and Pacific Islanders (2001), 2 million Asian Americans and Pacific Islanders have no health insurance, and Korean Americans have the highest rate of non-insurance among all racial/ethnic groups (40 percent). Future efforts may continue taking advantage of the valuable program time to connect attendees with services to meet their health and human needs.



Recommendations for Future Hepatitis B Efforts

Thorough evaluation of the ACT Hep B program emphasized several focus areas regarding the planning, implementation, and evaluation of hepatitis B programming on the macro level of public health. Through the feedback and data received from the program team, program participants, and health professionals paired with thorough review of AAHI's past hepatitis B projects, recommendations for future hepatitis B initiatives include:

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

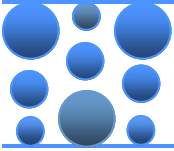
Given the breadth of diversity in Montgomery County, it is imperative for all residents to have access to culturally and linguistically competent healthcare services. For the Asian American population, barriers to hepatitis B services and treatment are oftentimes widespread. In-language services, confidence in health care providers, clinic operating hours, clinic locations, and transportation are just a few factors that create obstacles for Asian Americans to access hepatitis B services.

Accordingly, the ACT Hep B Program integrated several components to ensure services were culturally and linguistically appropriate and tailored to meet the needs of the Korean American community in Montgomery County. Bilingual community volunteers were available, paperwork and forms were developed in both English and Korean, and the program was set at a local church to optimize access. Additionally, no-cost education, screening and vaccinations were provided on-site for all participants, regardless of insurance status. Patient coordination and medical interpretation for those needing additional vaccination or treatment follow-up were also made available. It remains, however, that additional resources and continued efforts are needed to ensure vulnerable and linguistically isolated community members have access to adequate hepatitis B services.

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

According to the program evaluations, more outreach work needs to be done within the Asian American community to increase awareness of the risks and health implications of hepatitis B among Asian Americans. Program data gathered indicated that over 90 percent of participants believed that hepatitis B is a serious health risk, and yet, 50 percent of participants reported were never tested for hepatitis B prior to the ACT Hep B Program. Additionally, 75 percent of participants reported they were not planning on getting tested this year. Educational outreach can assist in closing the knowledge gap of prevention, early detection, and follow-up care. Particularly for small business owners and linguistically isolated families, outreach efforts can help connect vulnerable groups to needed hepatitis B services.

Physicians and healthcare professionals, especially those with Asian American clients, are also in need of hepatitis B education. Based on program data, one of the most cited reasons why participants had not been previously screened for hepatitis B was "Having never been instructed by a doctor." National research shows similar findings. According to the Institute of Medicine (2010), knowledge about hepatitis B among health care professionals is generally poor, and compliance for provider guidance for hepatitis B is low. Data from the 2009 International Symposium on Viral Hepatitis and Liver Disease showed that only 18-30 percent of Asian American primary care providers who treat Asian American adult patients reported testing them for HBV infection (IOM, 2010). Increased hepatitis B education for physicians and healthcare providers will allow for greater advances towards prevention and surveillance for this high-risk population.



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

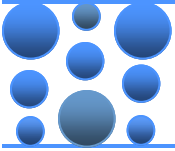
Capacity building within communities is key in increasing access to quality healthcare services as it develops a sense of ownership and motivation among community stakeholders to address health concerns among their constituency. Efforts like the ACT Hep B Program provide opportunities for community-based and faith-based organizations and community members to get involved in a cause and become champions for Asian American health. Through the technical assistance provided during the ACT Hep B Program, project team members indicated that they gained confidence, experience, and improved skill sets to better serve their population's needs and work towards positive community change. Project partners came away more empowered, motivated, and competent in working with the Korean American community. Together, such collaborative efforts may lead to an enhanced network of community- and faith-based organizations working towards better health outcomes and service delivery for all in Montgomery County.



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✓ **Strengthen partnerships and collaborations**

To enhance the reach of public health efforts targeting underserved populations, effective partnerships and collaborations are critical. With a common goal to serve the hepatitis B needs of the County's Korean American community, the partnership between AAHI and KCSC during the ACT Hep B Program proved to be mutually valuable. Connecting and developing solid working relationships early in the planning stage was advantageous. The pre-planning and planning stages were critical in establishing roles, responsibilities, and an internal communications plan so that all partners were on the same page with project development. Through the process, trust flourished and a strong mutually beneficial partnership was established. During the evaluation debrief, KCSC team members noted that the technical assistance support allowed them to gain knowledge and confidence in hepatitis B program planning. Likewise, AAHI team members gained valuable and insightful information regarding the Korean American community. By involving various partners, the ACT Hep B Program, as well as AAHI's previous hepatitis B projects, mobilized a wider community network not only to address hepatitis B issues, but for other resources for the Asian American community. Together, the program team carried out a successful event with a 100 percent participant satisfaction rating.

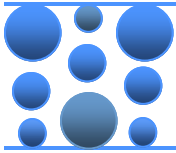


✓ **Enhance data collection and reporting efforts**

To obtain a more comprehensive understanding of community needs and to best allocate resources to meet such needs, it is essential to have robust data that is disaggregated by Asian subgroups, especially at the local level. Having an improved data bank may not only help guide organizations in providing necessary services for their communities, but could also aid in efforts to solicit funds, apply for grants, rally community support, and better articulate the necessity of services and education. The ACT Hep B Program data collection efforts may contribute to this endeavor, but future initiatives should maintain data collection as a priority.

Data collection not only serves to shed light on evolving community needs, but also works to provide insight into program quality and areas of improvement for future initiatives. The ACT Hep B Program emphasized the need to train volunteers to assist participants in filling out essential paperwork in its entirety. This helped to eliminate missing information or data. The volunteer training held prior to the program also helped to ensure volunteers had a thorough understanding of the flow and expectations of the project.

The dissemination of findings is also equally important. Sharing collected data will not only help contribute to the larger pool of Asian American health data available, but will hopefully bring more awareness to the necessity of services and resources for areas of need. Future efforts may consider obtaining institutional board reviews for formalized research and publication purposes.



VI. Acknowledgements

AAHI and KCSC would like to express its deep appreciation to their respective staff members, interns, community volunteers, AAHI Steering Committee, AAHI Health Promoters and Montgomery County DHHS Leadership for their tireless commitment and support for the FY2012 ACT Hep B Program. We also wish to thank Carolyn Ho for her assistance with compiling this report. Finally, we are grateful to the project participants who provided valuable program feedback and have pledged a strong commitment to improving the health of all County residents and spreading awareness of hepatitis B-related concerns in the community.



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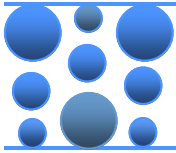
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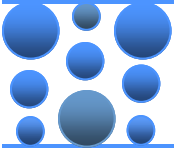
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