



# Prevalence and Risk Factors of Chronic Hepatitis B and C Virus Infection in the Immigrant Populations of the Twin Cities Metro Area, Minnesota, United States

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## INTRODUCTION

- Viral hepatitis continues to place a heavy yet preventable burden on society as hepatitis B (HBV/hep B) is the leading cause of liver cancer worldwide, while hepatitis C (HCV/hep C) is the leading cause in the United States.
- It is imperative to improve early detection and access to care, especially in underserved communities where chronic viral hepatitis has an impact.
- 1 out of 12 Asian Americans are affected with HBV and 2 out of 3 do not know it. (CDC)
- HBV vaccine helps prevent liver cancer, but continues to be underutilized.
- Unfortunately, HBV and HCV testing are often not offered to at-risk populations during their doctor visits.
- HBI-Minnesota (HBI-MN) is a non-profit organization that was started in October 2015 to provide:
  - ❖ FREE hepatitis B and C testing in frequented areas such as markets, schools, offices and at special events/festivals
  - ❖ HBV and HCV workshops to raise awareness about these silent killers that are often ignored due to the stigmas associated with them
  - ❖ Community engagement and partnerships to provide culturally and linguistically appropriate resources

## AIMS

- To provide FREE hep B and hep C testing for at-risk populations
- To estimate the prevalence of hep B and hep C
- To evaluate hep B immunity rates
- To understand the population's knowledge, attitudes and behavior around hep B and hep C

## METHODS

- Between 2/2016 to 4/2017, HBI-MN partnered with community leaders, government agencies and healthcare providers to offer free hepatitis B, hepatitis C, glucose and cholesterol testing for their members
- Through collaborations with ethnic media, public health departments and providers we were able to educate the community about the silent nature of viral hepatitis and the importance of getting screened
- Outreach was targeted towards the Hmong, Laotian, Vietnamese and Karen communities
- Individuals lacking immunity were referred for free hep B vaccinations through the Uninsured and Underinsured Adult Vaccine Program
- Individuals with results positive for hep B and/or C were linked to a primary care provider who knew how to treat HBV and HCV
- Demographic data along with knowledge, attitudes and behavior about viral hepatitis were collected from the participants using surveys with the assistance of interpreters.

## RESULTS

- 624 individuals screened in the Twin Cities (St. Paul and Minneapolis) for hepatitis B virus (HBV), hepatitis C virus (HCV) infections, serum glucose and plasma cholesterol levels.
- Mean age was 52 ± 10 years
- Majority (56%) were males
- 64% were foreign-born (53% Asia: 27% Vietnam, 26% Laos, 12% Burma, 7% Thailand; 9% Africa, 2% Other)  
(Note: Most were foreign-born, but did not indicate their country of birth so they were ineligible (18.4%) for statistical analysis)

Variable	Positive (for B or C) N=33	Negative N=474	p.overall
<b>Country of Birth</b>			0.100
USA	3 (9.09%)	109 (23.0%)	
Non-USA	30 (90.9%)	365 (77.0%)	
<b>Race</b>			0.228
Asian	26 (96.3%)	318 (86.6%)	
Other	1 (3.70%)	49 (13.4%)	
<b>Parents' Country of Birth</b>			0.242
USA	0 (0.00%)	33 (8.55%)	
Non-USA	24 (100%)	353 (91.5%)	
<b>Education</b>			0.611
Some college	8 (50.0%)	169 (59.7%)	
No college	8 (50.0%)	114 (40.3%)	

Table-1 summarizes risk factors of positive HBV or HCV testing. Elevated fasting serum glucose (>110 mg/dL) was seen in 7.8%, while 12.3% had elevated total cholesterol (>190 mg/dL).

## CONCLUSIONS

- HBV and HCV infections are prevalent and frequently undetected in the immigrant populations in the Twin Cities Metro Area of Minnesota
- Education about viral hepatitis testing and vaccination should be encouraged and supported
- Community engagement and targeted outreach efforts can lead to great success in the fight against these deadly diseases



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