



## Abstract #9631

### Demographic and Risk Factors in Vietnamese Patients with HBV in Ho Chi Minh City, Vietnam: A Population-Based Sero-Prevalence Study

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#### Abstract Text:

**Background:** This is an interim report of an ongoing HBV sero-prevalence study of 5,000 urban residents in Ho Chi Minh City (HCMC), the largest city of Vietnam. This report focuses on factors associated with HBV infection status.

**Methods:** From 06/2016-04/2018, using Probability Proportionate to Size sampling approach, 3000 representative adults were invited to participate in free screening for HBV (HBsAg, antiHBs Ab, antiHBcT Ab). Susceptible or infected individuals with HBV were referred to care with free vaccination or further evaluation accordingly. Demographic and risk factors (blood transfusion, tattooed, drug abuse, needle sharing, condom use, or at least a family member infected with HBV or HCV) were surveyed. HBV statuses were grouped as "HBV naive" (negative for all antiHBs Ab, HBsAg, antiHBcT Ab); vaccinated (only antiHBs Ab (+)); "natural immune" (antiHBs Ab (+) and antiHBcT Ab (+)); infected (HBsAg(+) and antiHBcT Ab (+)); or "indeterminate" (only antiHBcT Ab(+)). We evaluated distributions of demographic and risk factors using polynomial logistic regression. Multivariate logistic regression with stepwise selection was used in modeling for HBsAg (+). Statistical significance was set at  $\alpha=0.05$ .

**Results:** Through the end of April 2018, 2,374/3,000 (79.0%) had responded, with complete data in 2,345/2,374 (98.8%). Of these 2,345 participants, a third was male, 88% was Vietnamese origin, median age was 48 (IQR=22) ranging from 18 – 90 years old. About 15% were vaccinated, still 28% were HBV naive, and a third of the participants were "natural immune". Fifty seven percent of the cohort had previously been exposed to HBV (infected + "natural immune" + indeterminate groups). Of these, 7% (166/2,374) were HBsAg (+) and 13.4% were "indeterminate". Of 20% individuals had a family member with HBV or HCV, only 3.2% had been vaccinated against HBV. In comparison, the "infected" group (n=166) had more men, less people with high school education or higher annual income and higher rate of all risk factors. After adjusting for all factors, the odds of being infected with HBV for male was 78% higher than female (aOR=1.8, 95%CI 1.2–2.6) although more women participated; the odds for viral hepatitis checked within the last year were twice as high as those did not check (aOR=2.2 95%CI 1.1–3.9); and 80% less likely to be vaccinated (aOR=0.2 95%CI 0.1–0.5).

**Conclusion:** Common household behavioral risk factors may predict HBV infection, and further investigation is warranted. Widespread screening, referral pathways, and education to support HBV vaccination needs and appropriate case management likely play an important role in risk reduction and improve long-term morbidity in HCMC.