Lessons For A Definitive Prevalence Study Design And Scalability Of Comprehensive HBV-HCV Screening And Access To Care Pathways In Ho Chi Minh City, Vietnam

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Vietnam Viral Hepatitis Alliance
Dedicated to viral hepatitis initiatives in Vietnam

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INTRODUCTION

Approximately 12-15 million individuals in Vietnam are HBV and/or HCV carriers. Lack of formal national guidelines and policy for HBV and/or HCV screening and access to care result in a significant chronic liver disease burden in Vietnam.

In Ho Chi Minh City (HCMC), Vietnam's most populous city with a population of 10 million, the prevalence of and formal continuum of care pathways for HBV-HCV have not been established.

A Pilot Project was implemented to assess the feasibility of an epidemiologic method for a larger, more definitive prevalence study* of HBV-HCV in HCMC and to document the local challenges; acceptance; need for adult HBV vaccination; and barriers to continuum of care.

** The larger study is a population representative prevalence study, with a total sample of 5,000 adults from 25 sites in HCMC who will be selected by the Probability Proportional to Size (PPS) method. This study is being conducted from September 2017 to December 2018 .*

AIMS

1. To determine the prevalence of HBV – HCV in Ho Chi Minh City, Vietnam
2. To document the local challenges, acceptance, need for adult HBV vaccination and barriers to continuum of care

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-Roche Diagnostics for HBV-HCV assessment tests
-Medic Medical Center for free fribroscan, free hepatology consultation, and lab tests at a discounted price
-Phuoc Thien Pharmaceutical company for a reduced price on Engerix-B vaccine

METHODS

The Vietnam Viral Hepatitis Alliance (V-VHA), a 501(c)3 US-based non-profit organization, collaborated with the HCMC Department of Health (HCMC-DoH), Pham Ngoc Thach University of Medicine (PNTU), and Medic Medical Center (Medic) to implement the Pilot Project.

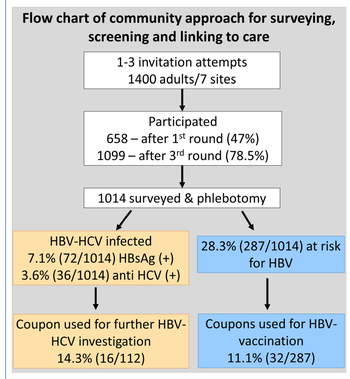
From June 2016 to April 2017, there were 1,400 adults (18 years old or older) from 7 wards (200 persons/ward) invited (up to 3 times) to local health clinics for phlebotomy and responses to knowledge, attitude, and practice (KAP) about viral hepatitis B and C. Each participant received $5 USD as incentive to participate. Mobile phlebotomists collected sera for HBsAg, anti-HBs, anti-HBc, and anti-HCV. Results were provided to all participants. Coupons were sent to at-risk persons of HBV (HBsAg negative, anti-HBV negative and anti-HBs <10IU/mL) for free HBV vaccine, as well as those with HBsAg positive and/or anti-HCV positive for free further HBV-HCV assessment testing, Fibroscan, and hepatology consultation.

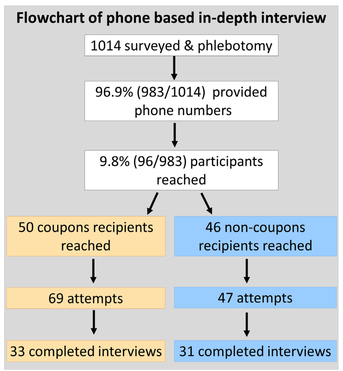
Use of coupons within 9 months after receipt of screening results was an indicator for linkage to care. Telephone in-depth interviews (50 individuals reached in each group of coupon recipients vs. non-coupon recipients) was conducted to assess acceptance and need for HBV vaccination and follow-up investigation.

The project's protocol was approved by PNTU's review boards, HCMC Health Department and HCMC People's Committee.

KAP data was entered and analyzed using Stata/SE 14.0. Interviews were transcribed and decoded in MSWord for themes of information.

RESULTS





Pilot Project Screening & Access to Care

- Conducted 18 screening events at 7 local health clinics (up to 3 times/site)
- Response rate: 47% (658/1,400) participated after 1st invitation → overall 78.5% (1,099/1,400) after 3rd invitation.
- 92.3% (1,014/1,099) completed KAP questionnaires & underwent phlebotomy.
- Median age: 46, IQR = 22 (min 17, max 90). 32.2% (326/1,014) were men. 49.3% (499/1,014) had less than high school education. 47.3% (474/1,002) were jobless.
- Among 7.1% HBsAg(+) (72/1,014):
  - ➢ 88.9% aged 20-69
  - ➢ 25% knew their status (18/72)
- 14.6% (148/1,014) had been adequately vaccinated (solely antiHBs at >10IU/mL)
- 56.1% (569/1,014) had been exposed to HBV (antiHBc positive)
- Among 3.6% (36/1,014) antiHCV(+) :
  - ➢ 94% aged 20-69
  - ➢ 13.9% knew their status (5/36)

Coupon usage:

Acceptance/Challenges/ Need / Barriers

- 399 coupons sent:
  - ➢ 287 for free vaccination
  - ➢ 112 for further HBV and/or HCV investigation
- Respondents to phone interviews:
  - ➢ 50% would not be willing to pay for screening tests (cost barriers)
  - ➢ 80% would participate in similar well-designed and free screening & access to care program
  - ➢ 80% agreed that screening program was necessary. *"Thanks to the program, I now know my status and get a chance to be treated."*
  - ➢ Among 29 individuals who did not use the coupons:
    - o No disease = no vaccination
    - o Too busy - Lack of transportation – Asymptomatic → presumed no need for further investigation.

CONCLUSIONS

- The Pilot Project is a well received program in HCMC
- PPS is a sound & feasible method to expand in determining the prevalence of HBV-HCV in HCMC.
- Integrating antiHBc in the HBV screening panel identified 54.8% (507/942) people who did not need HBV vaccination.
- Health education about viral hepatitis screening, vaccination & access to appropriate care in addition to free coupon is warranted.