

Evaluation of CDC Recommendations for HCV Testing in an Urban Emergency Department

Yu-Hsiang Hsieh, PhD

Associate Professor

*Richard Rothman^{1,2}, Oliver Laeyendecker³, Gabor Kelen¹, Ama Avornu¹,
Eshan Patel³, Jim Kim¹, Risha Irvin², David Thomas² and Thomas*

*¹Dept. of Emergency Medicine, ²Div. of Infectious Diseases, Dept. of Medicine,
Johns Hopkins University, and ³National Institute of Allergy and Infectious Diseases, NIH*

Background:

- EDs are considered a key venue for HCV testing because of their history of success in HIV screening given the populations they serve.
- High Seroprevalence of HCV infections (chronic or ever) in ED patients

Objective:

- To determine the overall burden of undocumented HCV infection in an urban ED
- To evaluate CDC recommendations for one-time HCV testing in “baby boomers” in an urban ED

Methods:

Setting:

- An urban adult ED with 66,000 annual census; high HCV seroprevalence

Study Period: 8 weeks (24h/d), 06/2013–08/2013

Design:

- Cross-sectional identity-unlinked seroprevalence study methodology
- Sociodemo/HCV information from the administrative and EMR database
- Waste blood samples were tested for HIV and HCV infection (HCV EIA)
- “Undocumented HCV infection” was operationally defined as presence of anti-HCV Ab in the absence of evidence of HCV infection in EMR.

Results:

Figure 1: Prevalence of Anti-HCV Ab in 4,713 ED Patients by Known Status

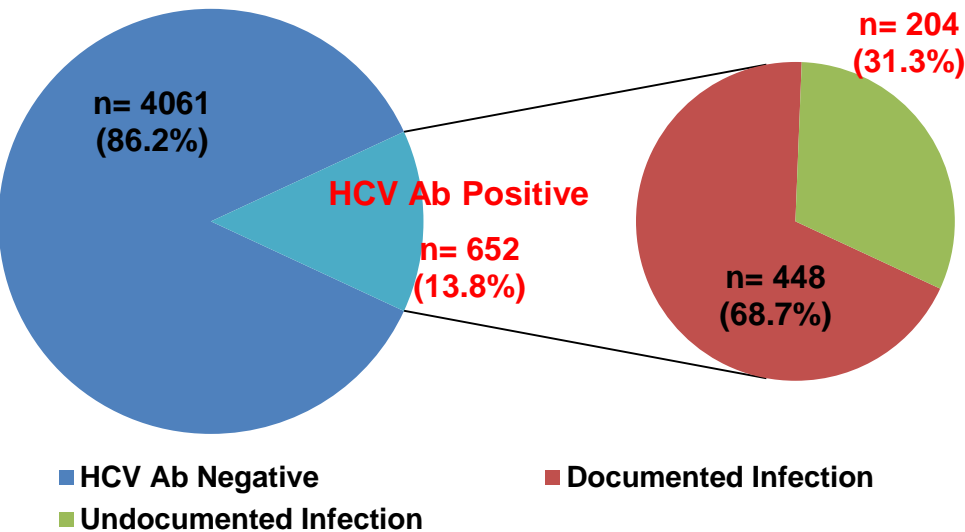


Figure 2: Prevalence of Anti-HCV Ab by Age, Sex, and Race

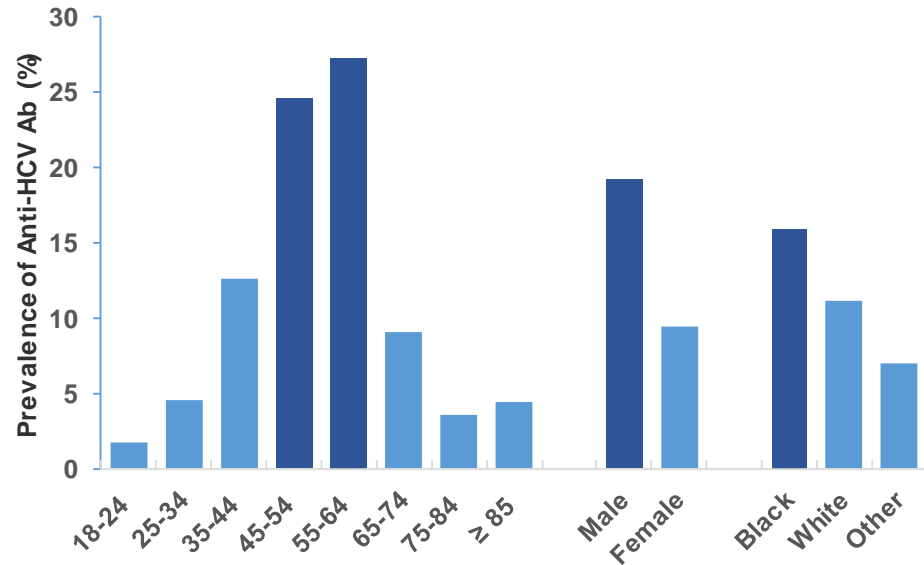


Figure 3: Prevalence of Anti-HCV Ab by Selected Groups under CDC Recommendations

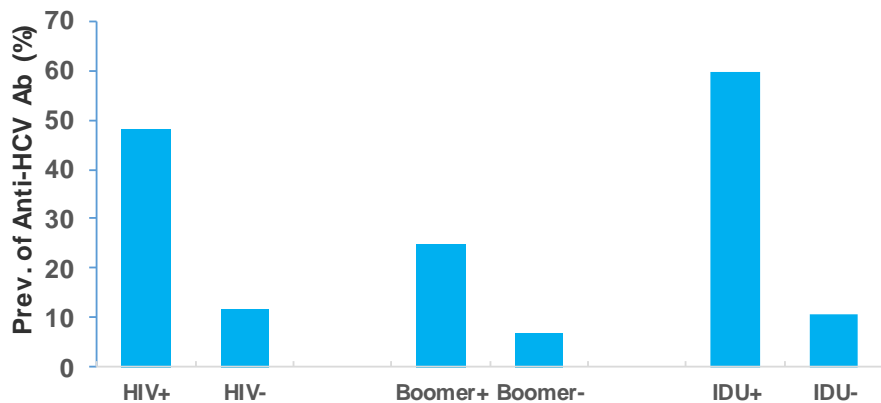
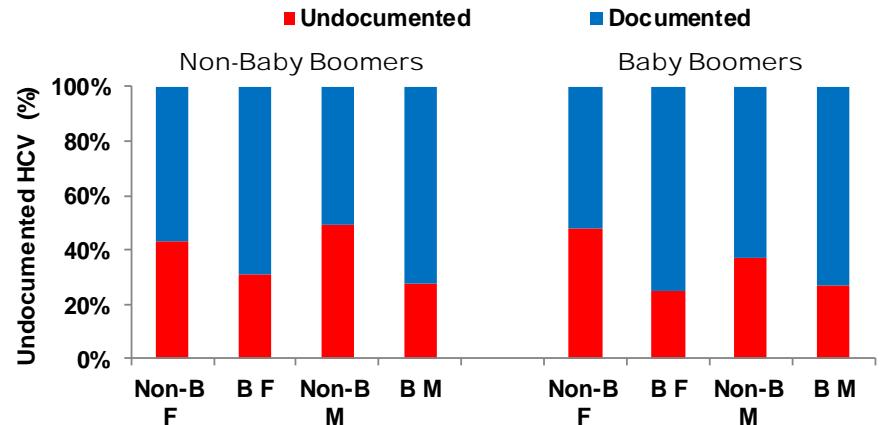


Figure 4: Proportion of Undocumented HCV Infection by Baby Boomer Birth Cohort



Results (Continued):

Figure 5: Prevalence of Undocumented HCV Infection by Age, Race and Sex

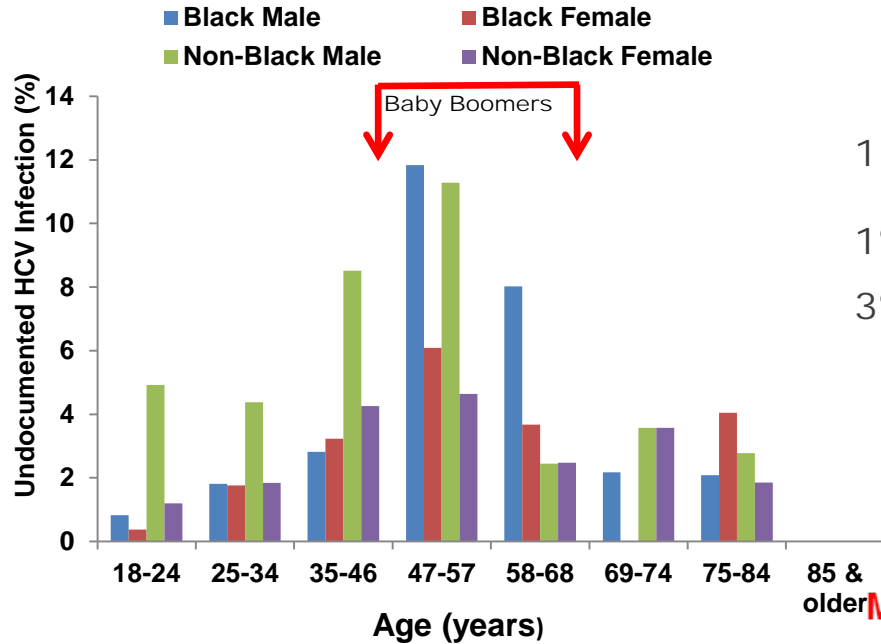
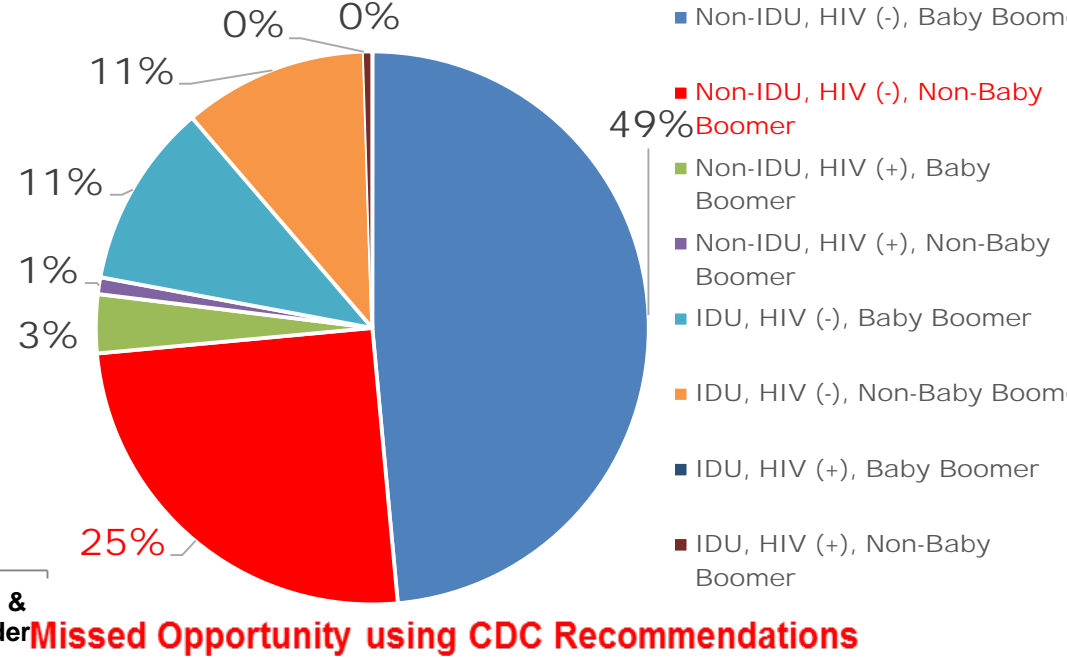


Figure 6: Distribution of 204 Undocumented HCV Infection by Baby Boomer, HIV, and IDU



Conclusions:

- High seroprevalence of HCV infection in our ED, indicating that urban EDs could be a valuable venue for HCV testing.
- Birth cohort testing would augment identification of undocumented HCV infections two fold.
- However, 25% would still remain undiagnosed, suggesting the need to consider modification of the CDC recommendations in ED settings.