

HCV and HBV Testing Acceptability and Knowledge among Urban Emergency Department Patients and Pharmacy Clients

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Background

Hepatitis in the United States

- An estimated 3.2 million people in the United States have chronic hepatitis C (HCV) infections, and approximately 16,000 new infections occur annually.
- Immunization programs have decreased the rate of new hepatitis B (HBV) infection, but an estimated 700,000 individuals nationwide remain chronically infected.
- Liver cancer and end-stage liver disease associated with these chronic hepatitis infections will lead to approximately 150,000 deaths in the United States in the decade following 2010, mostly due to HCV.
- Since chronic HCV and HBV infections are often initially asymptomatic or have ambiguous, nonspecific symptoms, it is estimated that a majority of infected individuals remain undiagnosed.
- Poor knowledge of HBV and HCV have been reported even among high-risk groups.

Rapid HCV Testing

- A recently developed rapid point-of-care test for HCV has made it feasible to screen large numbers of individuals in non-traditional settings, such as urban emergency departments (EDs) and pharmacies.
- The similarity between this HCV test and currently-used rapid point-of-care HIV tests opens the possibility of integrating HCV testing into existing rapid HIV testing programs.
- Despite its promise, the acceptability of rapid, point-of-care HCV testing among patients in an urban ED or pharmacy setting is heretofore unknown.

Objective

The aims of this study were to determine the acceptability of hepatitis B/C screening during an urban emergency department or pharmacy visit and to assess general hepatitis knowledge and testing history.

Methods

Study Design

- A prospective study was conducted on a convenience sample of patients and clients in 2 urban EDs and 2 community pharmacies in Bronx, New York between June 2010 and May 2011.

- Participants were excluded if they were younger than 18 years, clinically unstable, or unable to understand the consent process.
- Eligible participants completed anonymous written surveys about the acceptability of hepatitis B/C screening and a brief hepatitis B/C knowledge measure adapted from Balfour et al. (2009).

Statistical Analysis

- Means and standard deviations were calculated for continuous variables and proportions for categorical variables.
- Groups were compared with Pearson's chi-squared tests on SPSS v14.

Results

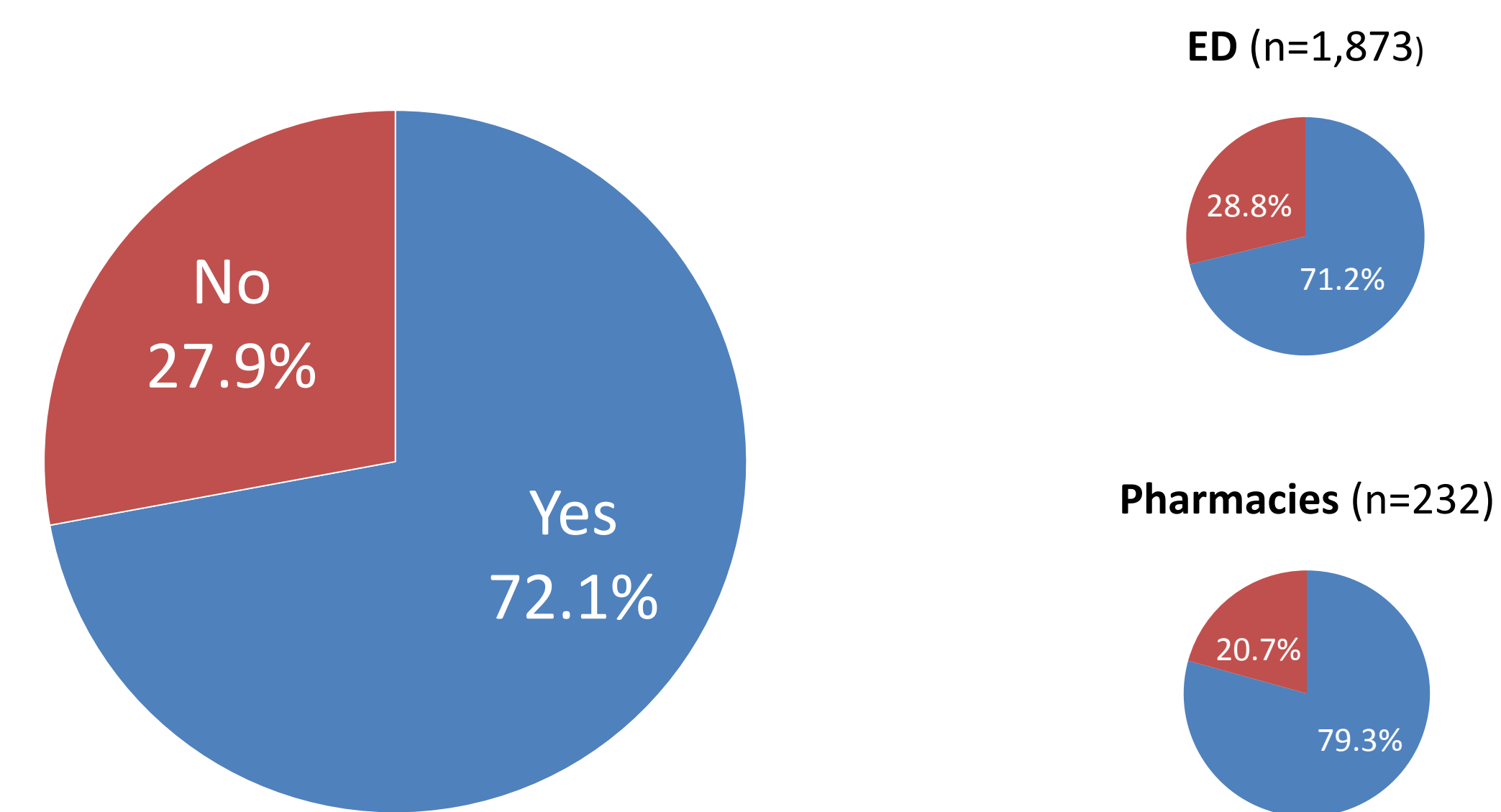
Table 1: Participant demographics (n=2,122)

Age	38.9 ± 15.0 years
Female	54.7%
Hispanic ethnicity	47.1%
Black	42.0%
White	8.7%
Previously tested for HCV	36.3%
Previously tested for HBV	47.7%

Table 2: 5-Question true/false knowledge measure

Question	Percent correct (n=2,047)
Hepatitis B and C can be given to someone during sexual intercourse. (T)	44.8
People can live with hepatitis B and C for many years without knowing that they have been infected. (T)	59.1
People living with hepatitis B and C can damage their liver if they drink alcohol. (T)	60.9
There exists a vaccine that can be used to prevent people from getting infected with the hepatitis B virus. (T)	43.9
There exists a vaccine that can be used to prevent people from getting infected with the hepatitis C virus. (F)	19.8
Aggregate correct	45.8

If you were offered a free hepatitis B/C test in the ED or pharmacy, would you take it?



If YES, would you prefer to be tested for just hepatitis or for hepatitis and HIV?

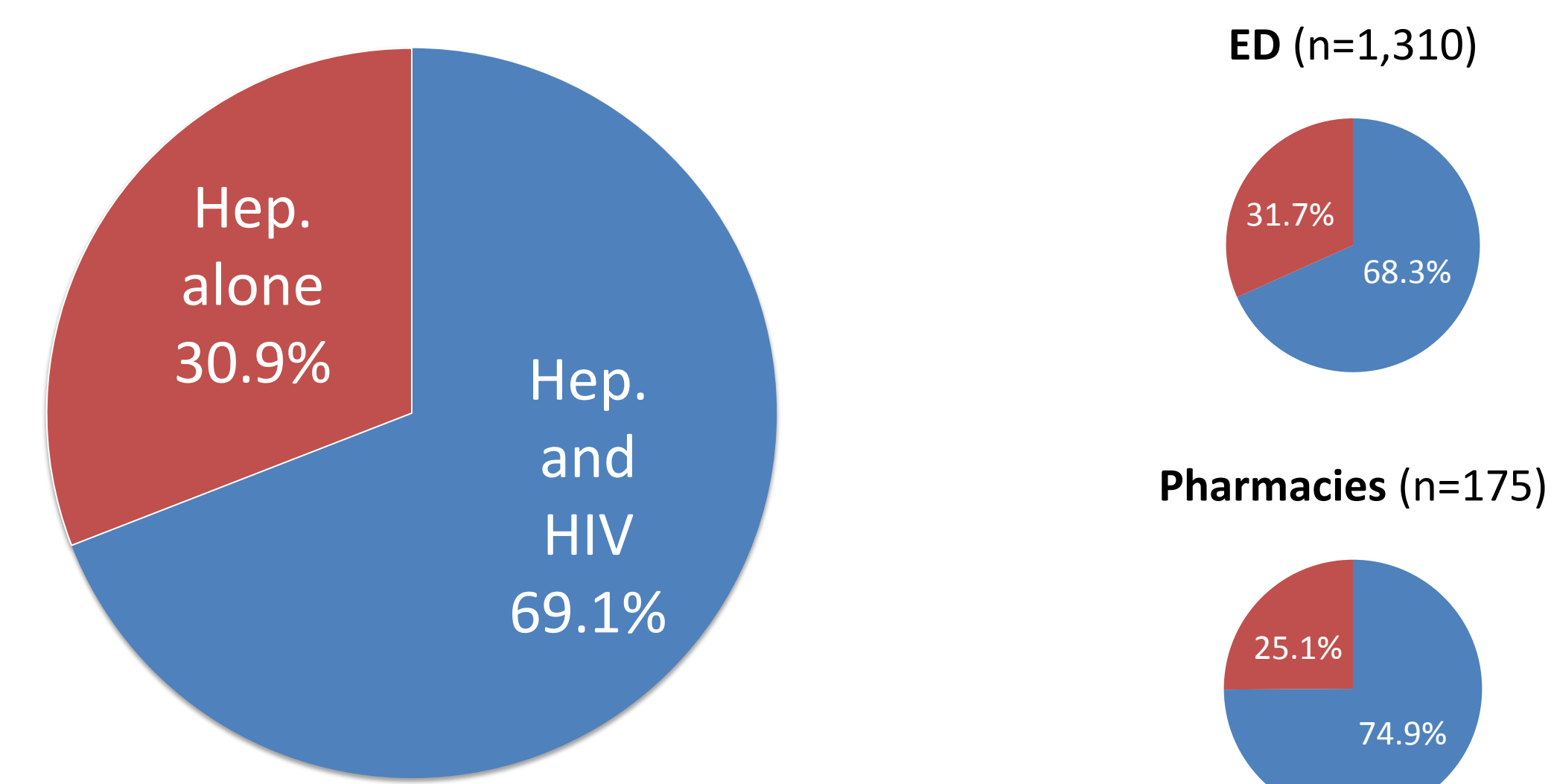


Table 3: Aggregate knowledge measure scores of various participant groups

Group	Percent correct
Participants willing to take a hepatitis B/C test (n=1,483)	46.5
Participants unwilling to take a hepatitis B/C test (n=564)	44.1
Participants with self-reported knowledge of HBV and/or HCV (n=1,091)	55.8
Participants with self-reported knowledge of neither HBV nor HCV (n=943)	34.5
ED patients (n=1,823)	45.7
Pharmacy clients (n=232)	45.9

- Participants reporting knowledge of either virus performed better on each knowledge question than those who reported knowledge of neither virus (p<0.001).
- Knowledge measure performance, however, had minimal relation to indicated hepatitis B/C test acceptability.

Discussion

- ED patients and pharmacy clients were largely receptive to the idea of a free hepatitis B/C screening.
- Hepatitis knowledge was generally poor.
- The high proportion of participants interested in hepatitis B/C testing who were also receptive to concurrent HIV testing (69.1%) corresponds with the findings of prior studies that describe the success of integrated testing programs.
- While prior research has focused on MSM and IDU populations, our findings suggest that bundled HIV and hepatitis testing may also appeal to the general population in an urban area found to have high HCV prevalence.
- The disparity between indicated hepatitis B/C test acceptability (72.1%) and past testing history (36.3% and 47.7% for HCV and HBV, respectively) suggests that access to hepatitis screenings is currently limited in this population, and that an urban ED- or pharmacy-based testing program could identify unrecognized hepatitis-positive patients.

Limitations

- This study was conducted at public hospitals and community pharmacies that serve a low-to-moderate income population and may not be generalizable to other populations or settings.
- In an attempt to gauge the viability of a hepatitis screening program subjects were asked if they would like to take a free hepatitis test. Acceptability of a non-free option cannot be determined from the current study.
- We did not differentiate between hepatitis B and C. It is unclear if subjects who indicated an interest in a hepatitis screening would agree to a test for HBV, HCV, or both.

Conclusions

Urban ED patients and pharmacy clients were largely receptive to the idea of free hepatitis B/C screening, and the majority of interested individuals would elect to be tested for hepatitis in conjunction with a test for HIV.