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## Background

An estimated 3.2 million people are living with the hepatitis C virus (HCV) in the United States. More than half of the people living with hepatitis C do not know their status. Screening for HCV antibodies (anti-HCV) is a simple and inexpensive first step in identifying someone's HCV status. An HCV screening test cannot diagnose someone with HCV. The presence of HCV antibodies on a screening test could mean that person: 1) was infected and cleared the virus spontaneously; 2) was infected and successfully treated/cured; 3) is acutely infected; or 4) is chronically infected. Someone ever infected with HCV will have antibodies for a lifetime.

HCV screening has traditionally been available through a blood draw (venipuncture). A sample of blood is obtained and sent to a lab for processing. The results often take up to three weeks and many clients never receive their results and thus, are not linked to care.

A second test must be performed to diagnosis someone with active HCV infection. This test is an HCV PCR test. HCV PCR tests detect the presence or absence of the hepatitis C virus. This test is often expensive, must be performed in a lab and therefore, specimen collection is not always available on-site where the HCV antibody testing is conducted.

In 2010, the first HCV rapid antibody test- OraQuick® HCV Rapid Antibody Test was approved allowing for the sample of blood to be obtained through a fingerstick with results available in 20 minutes. This test is approved as a point of care test which allows for immediate linkage to care.

## Objectives

The purpose of this project was to determine the impact: 1) of rapid testing on the number of people that know their HCV status, and 2) on the acceptance and follow through with referrals to diagnostic testing, care and treatment.

## Methods

Eleven sites across NYS were selected to perform HCV rapid antibody testing. Sites were selected based on their proximity to a New York State Department of Health (NYSDOH) funded HCV care and treatment provider. Sites included needle exchange programs, AIDS service organizations, community health centers and hospital based clinics. Each person screened received appropriate counseling messages based on screening test results and risk behaviors identified. Individuals with reactive tests either had HCV diagnostic testing performed on-site or were given a referral appointment for diagnostic testing. Client level data, including basic demographics, HCV risk, testing history, other testing conducted, rapid test result and referral outcome was reported to the NYSDOH (Figure 1).

Figure 1: Data Collection Form

## Results

During the six month project period, 1,894 rapid HCV screening tests were conducted. The majority of the clients tested indicated they were male (65.1%), between the ages of 25-34 (25.9%), Black (47.2%) and Non-Hispanic (68.1%) (Table 1).

Table 1: Client Demographics

Gender:	N	%
Male	1223	65.1%
Female	647	34.4%
Transgender	10	0.5%
Age:	N	%
Age 18 to 24	349	18.8%
Age 25 to 34	479	25.9%
Age 35 to 44	367	19.8%
Age 45 to 54	417	22.5%
Age 55 to 64	183	9.9%
Age 65 or older	57	3.1%
Race:	N	%
Black	872	47.2%
White	638	34.6%
Asian/Pacific Islander	24	1.3%
American Indian/Alaskan	8	0.4%
Other	317	17.2%
Refused	1	0.1%
Ethnicity:	N	%
Non-Hispanic	1248	68.1%
Hispanic	579	31.6%
Refused	6	0.3%

## HCV Rapid Test Results

Of the 1,894 rapid screening tests conducted, 144 (7.6%) were reactive, 1,746 (92.2%) were non-reactive and 4 (0.2%) were invalid. All tests (100%) were conducted using the fingerstick specimen collection method. Overall, 99.3% received their test results, 100% of clients with reactive tests received their results. In all instances when the client did not receive the test result it was because they left the agency before the result was available.

## HIV and HCV Testing History

Only 26.5% of the clients reported being tested for HCV in the past, while the majority (89.8%) has been tested for HIV in the past (Figures 2 and 3).

Figure 2: Does Client Remember Ever Being Tested for HCV in the Past?

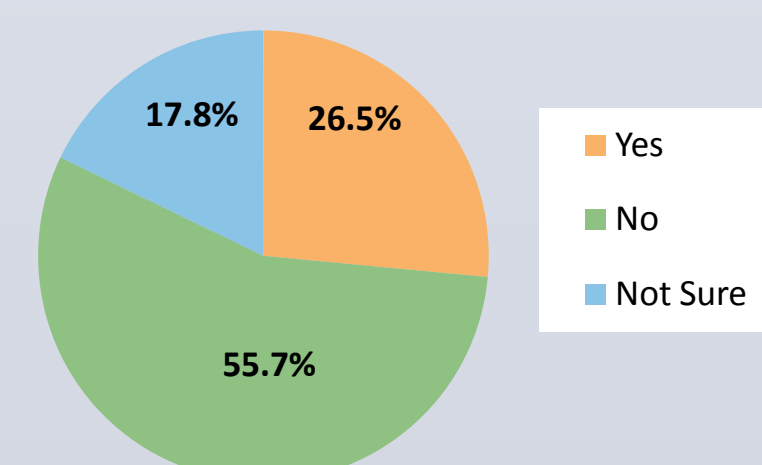
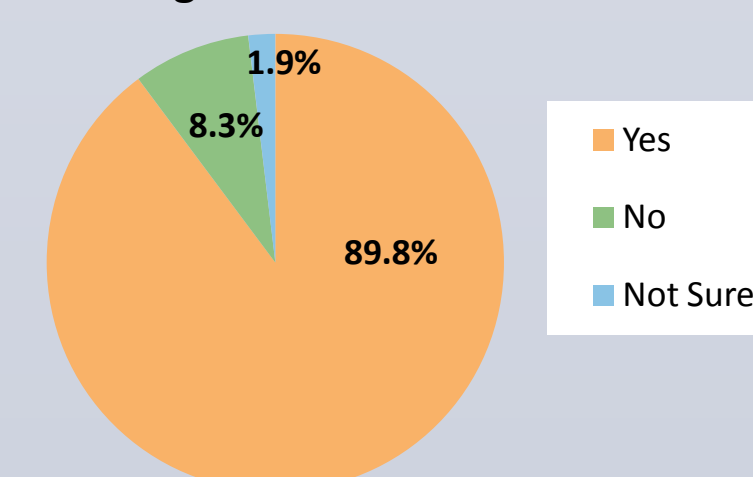


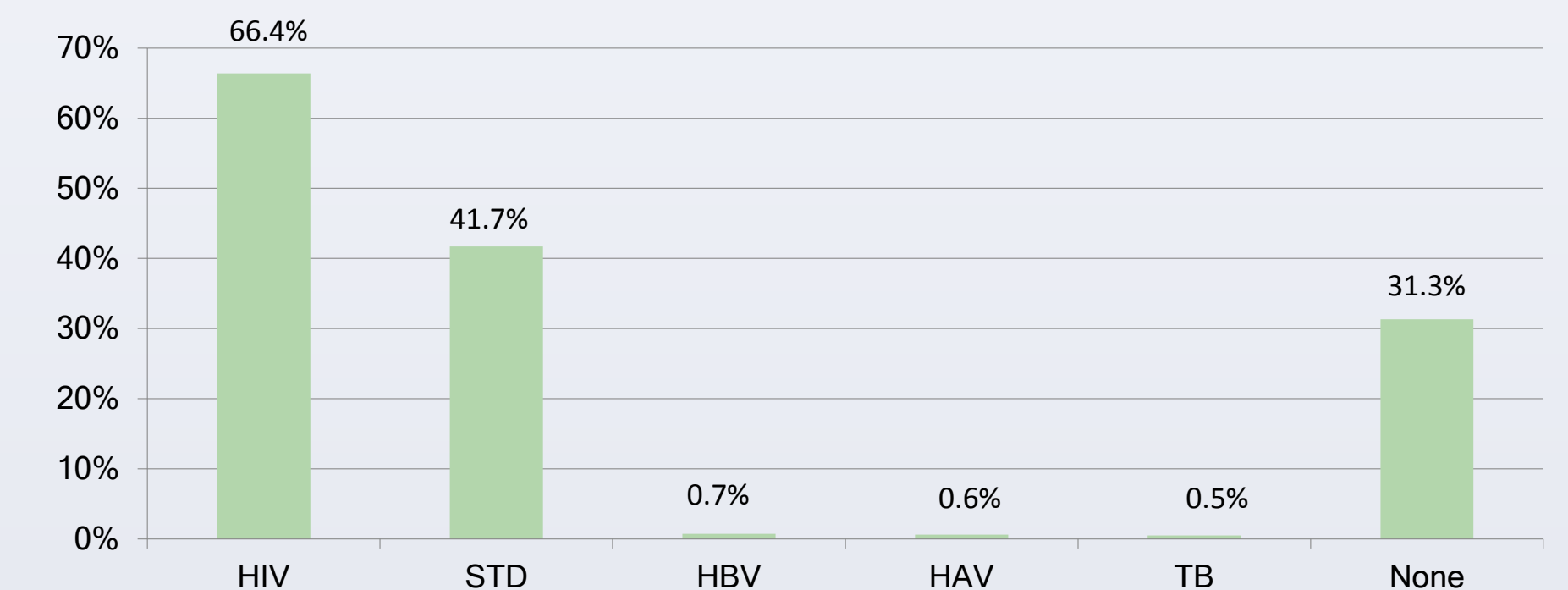
Figure 3: Does Client Remember Ever Being Tested for HIV in the Past?



## Other Testing Conducted During Visit

In addition to having HCV rapid testing, 66.4% of clients also received HIV testing and 41.7% of clients received STD screening while significantly fewer clients received HBV screening (0.7%), HAV screening (0.6%), or TB screening (0.5%) (Figure 4).

Figure 4: Other Testing Conducted During Visit\*



\*Note, HBV, HAV and TB testing were not available at all sites.

## HCV Diagnostic Testing

Of the sites referring for HCV diagnostic testing (n=9), 39.0% of the clients kept their referral appointment, 37.1% missed their appointment, and 23.8% refused testing (Table 2). Of these sites performing HCV diagnostic testing on-site (n=2), 47.4% of the clients returned for their results, 28.9% did not return, and 23.7% refused PCR testing (Table 3).

Table 2: HCV Diagnostic Testing by Referral

	N	%
Kept referral appointment for PCR testing	41	39.0%
Missed referral appointment for PCR testing	39	37.1%
Refused PCR testing	25	23.8%

Table 3: HCV Diagnostic Testing On-Site

	N	%
Returned for PCR test	18	47.4%
Did not return for PCR test results	11	28.9%
Refused PCR testing	9	23.7%

## Conclusions

HCV rapid testing technology is effective in ensuring people get screened for HCV and receive their screening results. However, more work needs to be done to motivate and educate those with reactive antibody tests to ensure they are properly diagnosed with HCV and linked to care. Anecdotally, we heard from test sites that clients were refusing the HCV PCR test because: 1) they already knew their HCV status, 2) they had no way of paying for the PCR test, and 3) they did not want HCV treatment.

Adequate infrastructure similar to what is and has been available for HIV screening will improve access to free HCV screening and more people knowing their HCV status.

Integrating HCV screening at locations already offering HIV and STD testing, will not only be more convenient for clients, but may also increase the number of clients tested for each.

More works needs to be done to better understand why clients refuse the HCV PCR test and additional education and interventions are needed to make clients aware of the importance of that second test.

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