Attitudes, Testing and Treatment Rates of Hepatitis C and HIV Among Injection Drug Users

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Background

- Globally, an estimated 180 million persons are chronically infected with the hepatitis C virus (HCV) and 3 to 4 million persons are newly infected each year.
- There are approximately 4.1 million Americans estimated to be infected with HCV.
- In the U.S., nearly 90% of individuals newly diagnosed with HCV have a history of injection drug use (IDU).

Background (continued…)

- IDU is also among the leading risk factors for HIV/AIDS in the U.S. and accounts for just under one-third of new HIV infections outside of sub-Saharan Africa.
- Currently about 1 million Americans are infected with HIV and 300,000 Americans are co-infected with HIV and HCV.

Background (continued…)

- There are approximately 170,000 active IDUs in New York State; 125,000 active IDUs reside in New York City.
- IDUs are at increased risk for contracting both HIV and HCV.

Background (continued…)

- Historically IDUs have had less access to HCV evaluation and treatment than to HIV related services.
- For example, in many syringe exchange programs (SEPs) and methadone maintenance treatment programs (MMTPs) few hepatitis services exist and if services do exist, HCV treatment is seldom utilized.

Viral Hepatitis Integration Project (VHIP)

- Five year grant from CDC that began October 2004 (CDC Grant #U50/CCU224192).
- VHIP seeks to integrate hepatitis screening, testing, prevention and treatment into drug treatment and substance use settings that already provide HIV services to clients.

VHIP Sites in New York City

- Two SEPs (both have multiple sites)
- One MMTP (multiple sites)

- Note: many types of services are typically offered in both SEPs and MMTPs (for example, HIV testing, support groups, outreach, counseling, case management, etc.)

VHIP Services - SEPs

Services available on-site:

- Hepatitis coordinator
- HBV and HCV screenings
- HAV and HBV vaccinations
- HCV evaluation and treatment referrals
- Support groups
- Hepatitis educational materials

VHIP Services - MMTPs

Enhancement of services:

- Hepatitis coordinator & hepatitis educator
- On-site evaluation and treatment for HCV+ clients
- Support groups and peer education
- Hepatitis educational materials

VHIP
Primary Evaluation Activities

- ***Client Survey (baseline/follow-up)***
- Medical Staff Survey (baseline/follow-up)
- Non-Medical Staff Survey (baseline/follow-up)
- Hepatitis Service Tracking System (ongoing)
- Educational Materials (ongoing)
- Focus Groups (ongoing)

Methods
Baseline Client Survey

- In-person 20 minute interview administered by the hepatitis coordinators or the hepatitis educator.
- Administered in English at the MMTP and in English and Spanish at the SEPs.
- Recruitment
  - Active recruitment
  - Passive recruitment
- $10 incentive (subway fare).

Instrument
Baseline Client Survey

- Knowledge of Hepatitis & HIV Risks
- Attitudes Towards Hepatitis and HIV Prevention
- Experiences with Hepatitis and HIV Testing and Prevention
- Hepatitis and HIV Risk
- Awareness of Hepatitis and HIV Educational Materials

Description of Participants

	SEPs (n=617)	MMTP (n=797)	Total (n=1414)
Mean Age (n)	41.3 (604)	45.0 (788)	43.4 (1392)
Gender[1](n)	(609)	(778)	(1387)
Male	70.9%	50.0%	59.2%
Female	28.1%	49.6%	40.2%
Race/Ethnicity (n)	(612)	(785)	(1397)
Hispanic	66.8%	62.7%	64.5%
Non-Hispanic, Black	26.5%	26.6%	26.6%
Non-Hispanic, White	4.7%	6.9%	5.9%
Non-Hispanic, Other	2.0%	3.8%	3.0%

[1]$p<0.0001$.

Hepatitis C/HIV Status[1]

	SEPs (n=420)	MMTP (n=560)	Total (n=980)
HCV+/HIV-[2]	52.4%	42.9%	46.9%
HCV+/HIV+[3]	10.5%	18.4%	15.0%
HCV-/HIV+	6.2%	5.0%	5.5%
HCV-/HIV-	40.0%	33.8%	32.6%

[1]Limited to clients who were ever tested for HCV and/or HIV and know the result of each test, [2]$p<.01$, [3]$p<.001$.

Knowledge of Hepatitis

	SEPs (n=617)	MMTP (n=791)	Total (n=1408)
The best way to prevent HBV is by getting vaccinated (true)[1]	78.9%	64.6%	70.9%
The best way to prevent HCV is by getting vaccinated (false)[2]	40.8%	32.0%	35.9%
People who have both HIV and HCV cannot be treated for HCV (false)[3]	63.6%	55.5%	59.1%
Everyone with HCV needs treatment (false)	22.0%	19.0%	20.3%

p<.0001, p<.001, p<.01.

Knowledge of Hepatitis (continued…)

	SEPs (n=617)	MMTP (n=791)	Total (n=1408)
Mean % of 12 questions answered correctly[1]	66.2%	53.7%	59.2%

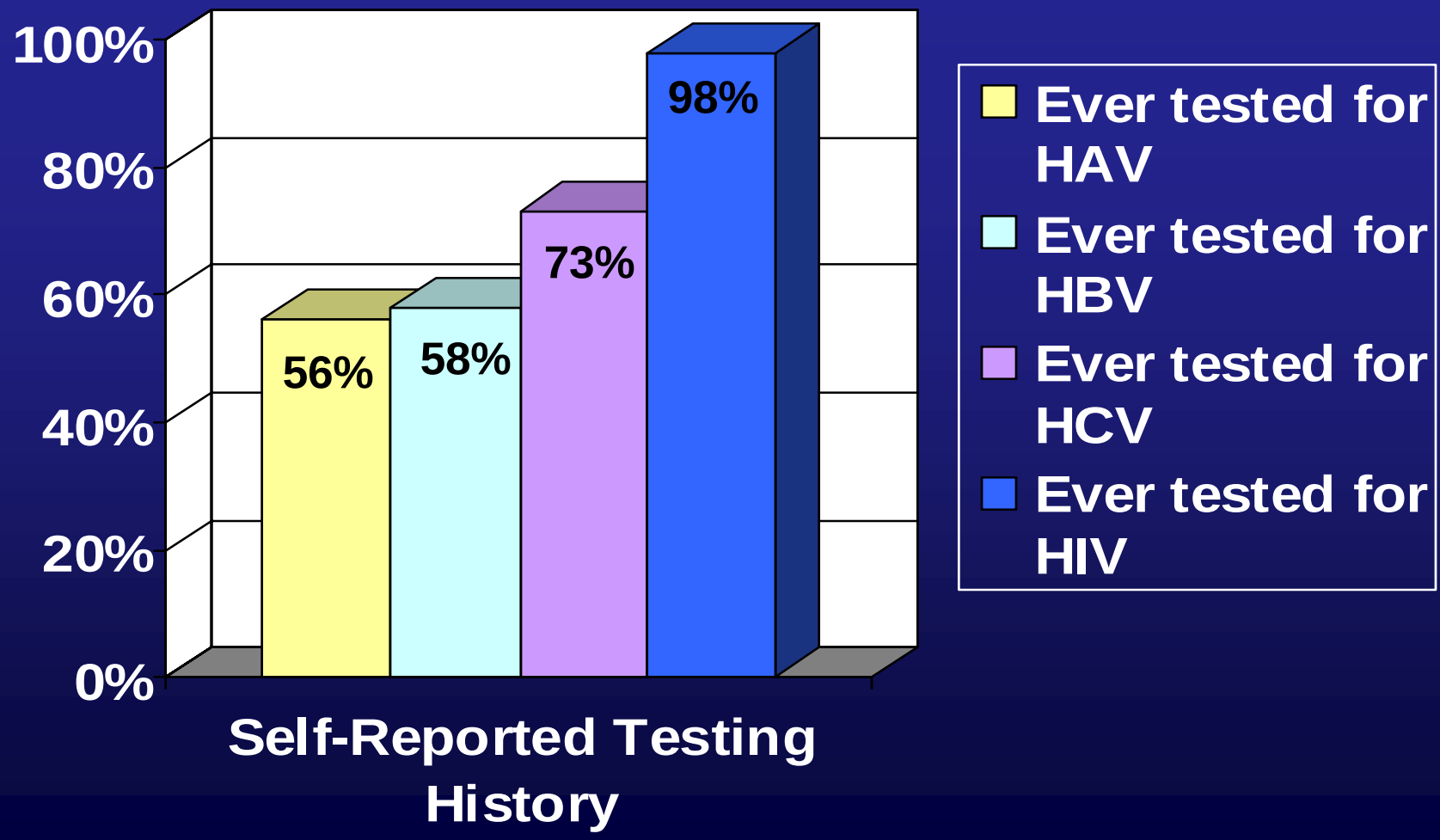
[1]p<.0001.

Attitudes and Beliefs Regarding Hepatitis[1]

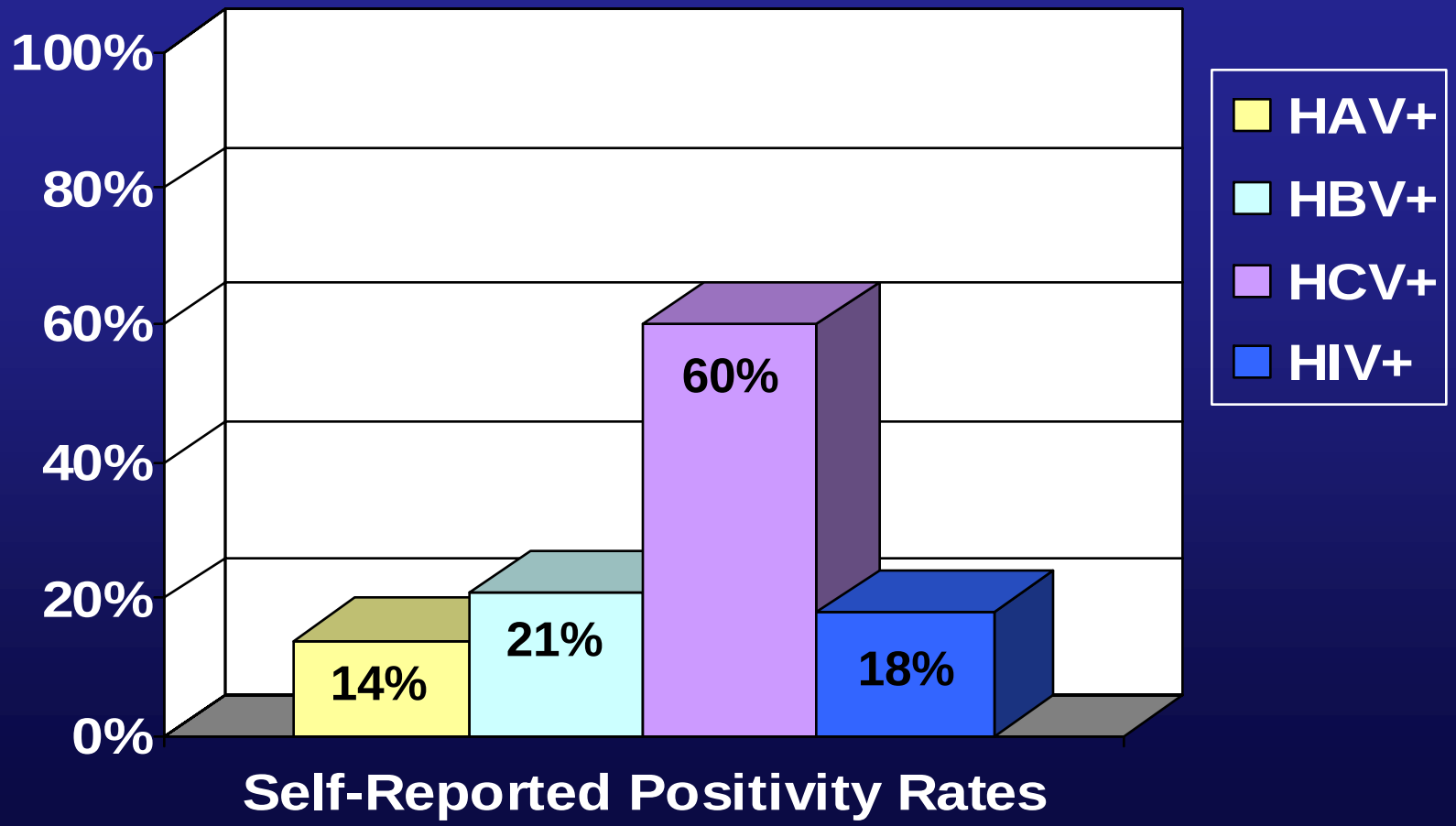
	SEPs (n=617)	MMTP (n=791)	Total (n=1408)
I would agree to get hepatitis vaccines.[2]	95.0%	88.9%	91.6%
I would get a liver biopsy if my health care provider recommended it.[3]	93.2%	91.6%	92.3%
I would take HCV treatment if my health care provider recommended it.[3,4]	95.1%	88.0%	91.1%
I would rather deal with the side effects of HCV treatment than have HCV.[3,5]	81.6%	69.8%	74.9%

[1]Clients who either "agreed" or "strongly agreed" with the statement.
[2]$p<0.0001$, [3]Limited to HCV+ clients (n~610), [4]$p<0.01$, [5]$p<.001$.

Self-Reported Testing History



Self-Reported Positivity Rates[1]



[1]Limited to clients who were ever tested.

HCV Testing and Status History

	SEPs (n=615)	MMTP (n=790)	Total (n=1405)
Ever Tested for HCV[1]			
Yes	73.5%	73.0%	73.2%
No	18.7%	8.1%	12.7%
Unknown	7.8%	18.9%	14.0%
Self-Reported HCV Status[2,3]			
HCV Positive	59.0%	60.1%	59.7%
HCV Negative	35.0%	38.1%	36.7%
Unknown	6.0%	1.7%	3.6%

[1]$p<0.0001$, [2]Limited to clients who were ever tested, [3]$p<0.001$.

HIV Testing and Status History

	SEPs (n=615)	MMTP (n=788)	Total (n=1403)
Ever Tested for HIV			
Yes	98.2%	97.2%	97.6%
No	1.6%	1.8%	1.7%
Unknown	0.2%	1.0%	0.6%
Self-Reported HIV Status[1,2]			
HIV Positive	14.7%	20.8%	18.1%
HIV Negative	84.3%	78.7%	81.2%
Unknown	1.0%	0.5%	0.7%

[1]Limited to clients who were ever tested, [2]$p<0.001$.

HAV Testing and Vaccination History

	SEPs (n=614)	MMTP (n=784)	Total (n=1398)
Ever Tested for Hepatitis A[1]			
Yes	55.7%	56.8%	56.3%
No	27.2%	12.1%	18.7%
Unknown	17.1%	31.1%	25.0%
Hepatitis A Positive[2]	14.9%	12.6%	13.6%
Ever Vaccinated for Hepatitis A[1]			
Yes	36.2%	32.8%	34.3%
No	49.1%	23.5%	34.7%
Unknown	14.6%	43.7%	31.0%

[1]$p<0.0001$, [2]Limited to clients who were ever tested.

HBV Testing and Vaccination History

	SEPs (n=614)	MMTP (n=785)	Total (n=1399)
Ever Tested for Hepatitis B[1]			
Yes	61.6%	55.2%	58.0%
No	23.6%	12.4%	17.3%
Unknown	14.8%	32.5%	24.7%
Hepatitis B Positive[2,3]	24.3%	17.8%	20.8%
Ever Vaccinated for Hepatitis B[1]			
Yes	39.4%	31.9%	35.2%
No	46.9%	23.2%	33.5%
Unknown	13.7%	44.9%	31.3%

[1]$p<0.0001$, [2]Limited to clients who were ever tested, [3]$p<0.05$.

Why Not Tested/Vaccinated?

Most commonly reported reasons for *not* getting tested and/or vaccinated for hepatitis A, B and/or C included:

- -not knowing should be tested/ vaccinated,
- -not being offered testing/vaccination,
- -not knowing about hepatitis or that testing/vaccinations were available.

Drug Use Behaviors

	SEPs (n=612)	MMTP (n=792)	Total (n=1402)
Ever Injected Drugs[1]	64.9%	57.0%	60.4%
Injected Drugs in the Past 12 Months[2]	40.2%	17.2%	27.2%
Took Methadone in the Past 12 Months[2]	61.2%	99.8%	83.0%

[1]p<0.01, [2]p<0.0001.

Drug Use Behaviors by Gender

	Male (n=814)	Female (n=553)
Ever Injected Drugs[1]	63.8%	54.7%
Injected Drugs in the Past 12 Months[2]	32.8%	18.7%
Took Methadone in the Past 12 Months[2]	79.5%	88.1%

[1]p<0.001, [2]p<0.0001.

Drug Use Behaviors by Race/Ethnicity

	Hispanic (n=894)	Black (n=367)	White (n=83)
Ever Injected Drugs[1]	62.6%	51.1%	75.9%
Injected Drugs in the Past 12 Months[1]	31.4%	15.3%	38.3%
Took Methadone in the Past 12 Months[2]	83.8%	77.6%	91.6%

[1]$p<0.0001$, [2]$p<0.01$.

Drug Use Behaviors Odds Ratios (95% C.I.)[1]

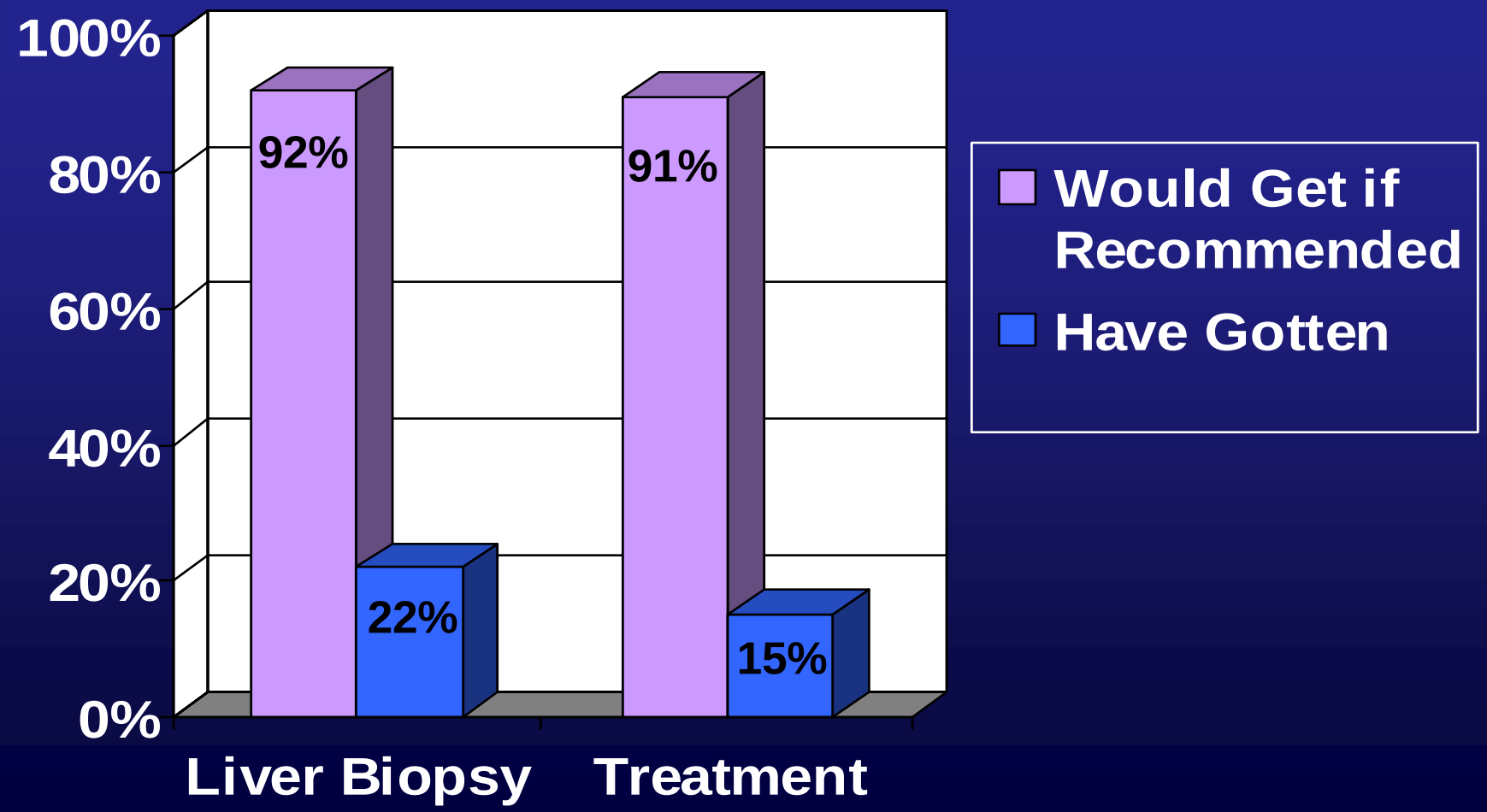
	HCV+ (n=460)[2]	HIV+ (n=54)[2]	HCV+/ HIV+ (n=146)[2]
Ever Injected Drugs	14.7[3] (10.5, 20.5)	1.7[4] (1.3, 2.4)	4.5[3] (2.6, 7.9)
Injected Drugs in Past 12 Months	3.1[3] (2.2, 4.2)	0.8 (0.5, 1.1)	0.8 (0.5,1.2)
Took Methadone Past 12 Months	3.1[3] (2.1, 4.4)	1.2 (0.8, 1.8)	2.0[5] (1.1, 3.7)

[1]C.I.=confidence intervals, [2]Limited to clients who were ever tested, [3]p<.0001, [4]p<0.001, [5]p<0.05.

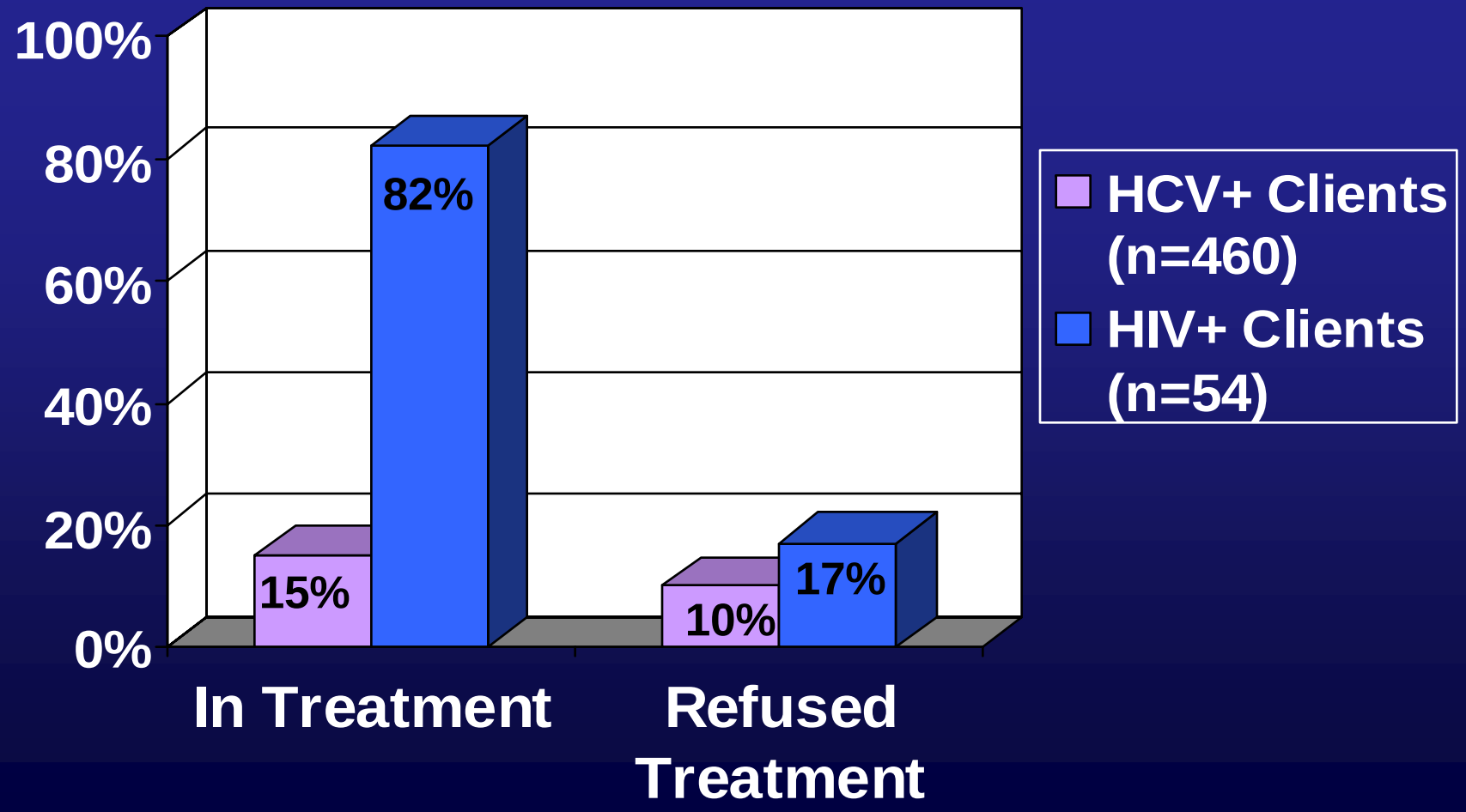
HCV+ Client Treatment Readiness

- 76% discussed treatment with a health care provider.
- 62% stated they were ready for treatment now or in the near future.
- 30% decreased alcohol consumption after HCV diagnosis.

Intentions versus Behavior HCV+ Clients (n=460)



Treatment Rates HCV+ and HIV+ Clients



Conclusions

- Moderately knowledgeable about hepatitis.
- Favorable attitudes toward hepatitis testing, vaccinations and treatment.
- Clients in SEP and MMTP settings have higher rates of HCV than HIV.
- Hepatitis services are accessed at much lower rates than HIV services.

Conclusions (continued…)

- Hepatitis vaccinations and testing should be encouraged among this population.
- Increasing access to hepatitis education, vaccinations, testing and treatment services should also be made readily available to this population.

Conclusions (continued…)

- Make sure clients understand what they are being tested and/or vaccinated for.
- Follow-up with clients to ensure they receive and understand their test results.
- SEPs and MMTP clinics are ideal settings to provide education and implement hepatitis testing, vaccinations and services for clients.

Acknowledgements

Collaborating Partners:

- New York Harm Reduction Educators
- St. Ann's Corner of Harm Reduction
- Albert Einstein College of Medicine

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