HAV/ HBV/ HCV prevalence, risk factors, and HAV/ HBV vaccine uptake among at-risk men who have sex with men (MSM)

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The ROOM Project

Background

MSM are highly vulnerable to sexually-transmitted viral hepatitis. Although effective vaccines for HAV and HBV have long been recommended by public health authorities for all MSM, data on awareness and uptake of the vaccines among this population are sparse.

We examined lifetime HAB/ HBV/ HCV prevalence, as well as HAV/ HBV vaccine uptake and awareness, among MSM participants in a randomized clinical trial of alternative risk behavior reduction interventions.

Purpose and Methods

Methods: Eligible men were self-identified male gender; ages 18-55; reported 3+ times heavy alcohol (5+drinks at one sitting) and/ or drug use in the past 90 days; and reported unprotected anal sex with a non-primary male partner in the past 90 days. Men were recruited using community and referral sampling procedures.

Instrumentation: Participants were interviewed using a modified version of the Global Appraisal of Individual Needs structured interview. In addition to queries about hepatitis, survey items included demographics, HIV status, drug use and sexual risk behaviors.

Site: South Florida (Miami/ Ft. Lauderdale, pop. 6.1 million) is 44.4% Hispanic, 20.2% Black and 31.1% White (U.S. Census, 2017), and is an international destination for MSM migration, partying and sexual tourism.

Results

Table 1. Baseline characteristics of at-risk MSM in South Florida (N=453)

Age (mean, SD; range:18 - 55)	39 (9.5)	
Education years (mean, SD)	14 (2.4)	
Income (median)	$25,000	
	N	**%**
Race/Ethnicity		
White non-Latino	223	49.2
Latino	114	25.2
Black	92	20.3
Other race/ethnicity	24	5.3
Infectious disease history		
HIV	210	46.4
HAV	65	14.3
HIV positive % / p	***48 / <.001***	
HBV	62	13.7
HIV positive % / p	***48 / <.001***	
HCV	51	11.3
HIV positive % / p	***40 / <.001***	
Injection drug use % / p	***31 / <.001***	
Health / Social Risk Indices		
Arrest history	296	65.3
Mental health diagnosis history	266	58.7
Severe mental health symptoms	260	57.4
Drug abuse treatment history	224	49.4
DSM-IV dependence	282	62.3
Any lifetime victimization	368	81.2
Abuse before age 18	252	55.6
Substance Use (past 90 days)		
Heavy alcohol	369	81.5
Amyl nitrites	244	53.9
Cocaine/crack	225	49.7
Rx sedatives (non-prescribed)	148	32.7
Methamphetamine	115	25.4
Rx opioids (non-prescribed)	114	25.2
Ecstasy	72	15.9
GHB	61	13.5
Injection drug use history	135	29.8
Sexual Behaviors (past 90 days)		
# male anal sex partners (mean, SD)	13 (17.6)	
# anal sex times (mean, SD)	33 (41.7)	
# anal sex times no condom (mean, SD)	22 (33.7)	

Table 2. HAV and HBV vaccine awareness and uptake

	N	%
HAV vaccine aware	329	72.6
HAV vaccine uptake	218	66.3
HBV vaccine aware	334	73.7
HBV vaccine uptake	226	67.7

Table 3. HAV and HBV vaccine refusal reasons (N)

	HAV	HBV
Never got around to it/ wait time	20	21
Cost	17	10
Don't know where to get it	7	5
Never recommended by doctor	7	9
Side effects / fear	7	5
Believe not effective	1	2

** among men without prior immunity

Limitations

- May not generalize to MSM who report less heavy alcohol/ drug use and/ or lower levels of sexual risk behaviors.
- All data self-reported, and did not include drug use or HAV/HBV/HCV biomarkers.
- Compared to other urban areas in the U.S., South Florida generally ranks low on health care access.

Conclusions

- HIV infection increases vulnerability to hepatitis A, B and C infections
- Sexually active HIV-negative men with no IDU history appear to be at elevated risk for HCV infection
- HAV / HBV vaccines and annual HCV screening should be offered to all gay and bisexual men
- Broad-based education strategies are necessary to improve uptake of HAV / HBV vaccines and HCV screening.
- Structural barriers, including cost, lack of insurance coverage, physician training, and clinical access problems need to be lowered to increase vaccine uptake

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