

Differences in Engagement in HIV Prevention, Treatment, and Care by Wave of Respondent-Driven Sampling Recruitment among Gay men and other Men who have Sex with Men in Four US Cities: Results from HPTN 078

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BACKGROUND

Changing the trajectory of HIV incidence among gay men and other men who have sex with men (MSM) in the US will necessitate novel engagement strategies to deliver HIV testing, prevention, and treatment strategies to reach those not in care. HPTN 078 evaluated the utility of deep chain respondent driven sampling (DC-RDS) to enroll people disconnected from HIV prevention, treatment, care services in four urban centers in the US.

METHODS

Adult MSM reporting anal sex were enrolled in Birmingham, Boston, Baltimore, and Atlanta. Recruitment diagnostics analysis and creation of the wave number variable was conducted using RDS Analyst. The wave variable was further grouped into five groups consisting of waves 0 (seeds),1, 2, 3-6 and 7-17. The grouping of the waves was data driven.

The assessment of statistically significant differences in the composition of the screened participants by wave was conducted with a non-parametric test for trend (Wilcoxon-type test) using Stata's nptrend package.

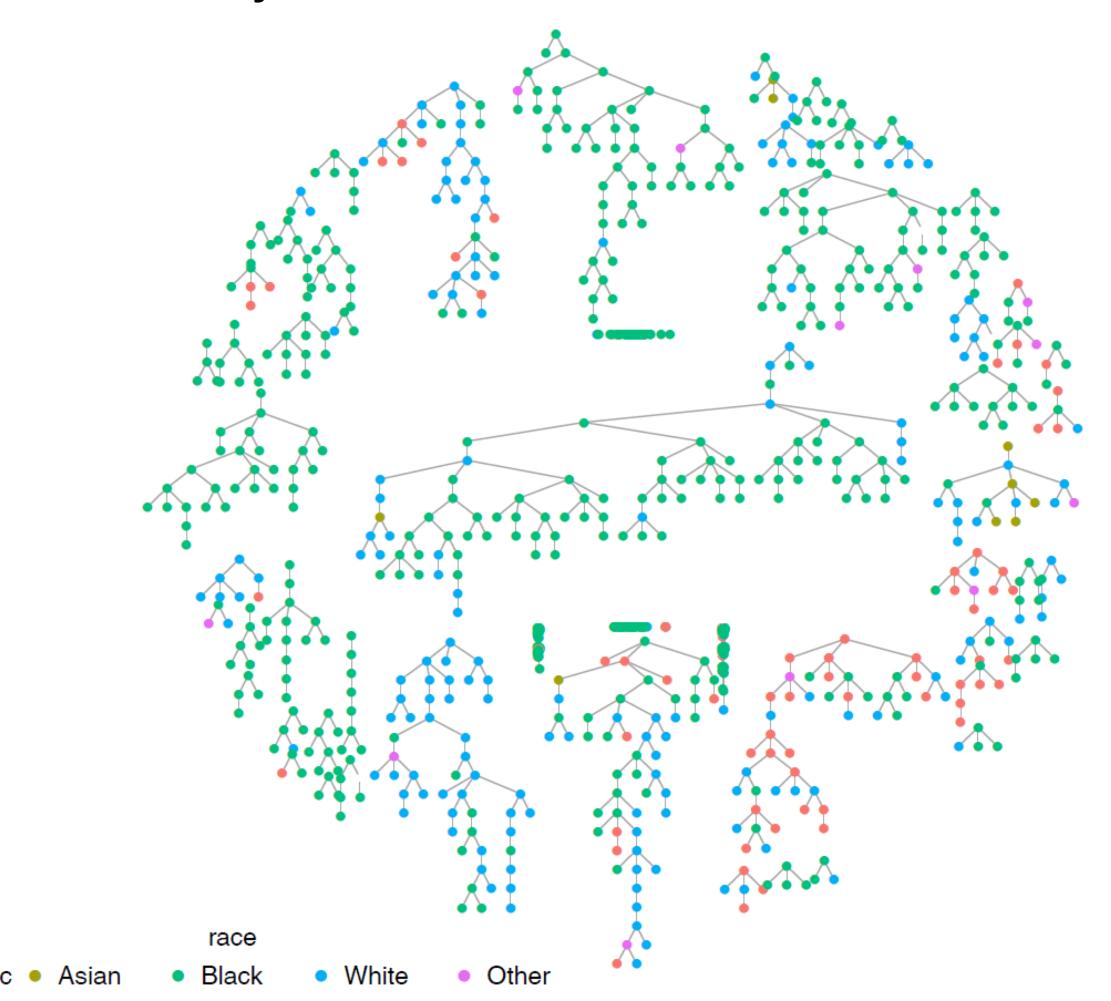
RESULTS

TABLE 1. Number of seeds and recruits by site

	# of				
Site	waves	Recruits	Seeds	Total N	% seeds
UAB – Birmingham, AL	14	191	17	208	8.2%
Fenway – Boston, MA	17	193	47	240	19.6%
JHU- Baltimore, MD	15	182	95	277	34.3%
Ponce – Atlanta, GA	8	135	109	244	44.8%
Total		701	268	969	27.7%

Seeds contributed 27.6% of the overall screening data. The seed contribution varied significantly by site from 8.2% (Alabama) to 44.8%(Ponce de Leon), see table above. In the combined data from all sites, there were no statistically significant differences between seeds and recruits except for race.

FIGURE 1. Recruitment trees by race



RESULTS

TABLE 2. Proportion (%) distribution of social demographics characteristics by wave

	Wave number							
	0	4	2		7 47	Trand too		
Variable (n)*	(Seeds)			3-6	7-17	Trend tes		
Race								
Hispanic (n=85)	7.9	10.9	13.6	7.2	6.9			
Asian (n=9)	0.8	0.5	1.7	1.4	0.5			
Black (n=641)	77.4	63	64.4	63.8	59.3	<0.001		
White (n=211)	12.8	22.8	18.6	25.1	32.3			
Other (n=17)	1.1	2.7	1.7	2.4	1.1			
Sexual orientation								
Other (n=74)	7.5	4.9	6.7	9.6	9.0			
Bisexual (n=230)	20.3	22.3	22.7	23.1	31.7	0.003		
Gay/Homosexual (n=662)	72.2	72.8	70.6	67.3	59.3			
Health coverage/insurance								
No (n=137)	13.5	14.1	5.9	12	22.8			
Yes (n=829)	86.5	85.9	94.1	88	77.2	0.052		
Hides sexual orientation from other								
people								
Not at all (n=460)	52.1	54.1	48.3	40.4	42.6	0.004		
Other response (n=422)	39.0	38.4	44.9	52.9	44.7			
Very much (n=84)	9.0	7.6	6.8	6.7	12.8			
Participating in LGBT community								
is a positive thing to do								
Agree(n=518)	55.4	56.8	58.0	51.9	46.8	0.000		
Neutral(n=179)	18.0	22.2	23.5	20.2	24.5	0.029		
Disagree(n=205)	19.1	17.8	15.1	20.2	18.6			
Prefer not to answer (n=65)	7.5	3.2	3.4	7.7	10.11			
Self reported HIV status								
Negative(n=318)	25.3	39.3	45.5	46.4	44.8	<0.001		
Positive (n=499)	74.8	60.7	54.5	53.6	55.2			
HIV status								
Negative (n=343)	20.6	38.92	42.9	39.8	44.4			
Positive (n=621)	79.4	61.1	57.1	60.2	55.6	<0.001		

* Sum of n may not equal to 969 due to variable specific missing data

969 MSM were available for these analyses. Among other differences, those enrolled in later waves were less likely to identify as gay, less likely to report health care coverage, less likely to have heard of post-exposure prophylaxis after sex (36.9% vs 31.3%, p<0.05, not shown in table 2), more likely to hide sexual orientation from other people, and were less likely to agree with a statement that participation in LGBT community positive. Changes in race/ethnicity across waves were driven by the RDS outcomes in Boston and Atlanta

CONCLUSION

MSM enrolled in earlier waves included those more known to community partners of clinical research sites. While there are city-specific network dynamics, these data highlight that MSM enrolled later were less connected to the LGBT community, less likely to disclose sexual orientation, and less likely to report health care coverage. Taken together these results suggest that DC-RDS is an effective recruitment strategy to find and recruit MSM marginalized from health care and from community and family support networks.

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