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**Category:** Y. Prevention Studies (including Microbicides and Behavioral Interventions)

**Keywords:** HIV testing, homeless persons, shelters

**Background:** A 2005 health report on homeless New York City (NYC) adults showed increased rates of HIV-related morbidity and mortality when comparing homeless adults using city shelters to the general NYC adult population. The NYC Department of Health and Mental Hygiene and the NYC Department of Homeless Services (DHS) collaborated to offer a rapid HIV test to everyone who presented to medical clinics in homeless assessment shelters for single adults. We sought to characterize the test results for those offered an HIV test at DHS assessment shelters for single adults from September 2006–June 2007.

**Methods:** Adults entering the DHS single adult shelter system are referred to assessment shelters for medical screenings. All adults receiving medical screenings were to be offered an HIV test. Shelters reported on number and demographics of people offered testing, number tested, number testing positive (preliminary and confirmed), number linked to care, number and demographics of people refusing testing, and reasons for refusal.

**Results:** Preliminary data for six of seven assessment shelters showed that 3089 (74%) of people who received a physical exam were offered an HIV test. Of those offered, 1769 persons (52%) accepted and were tested for HIV, with 32 (1.8%) identified as preliminary positive. Half of clients with preliminary positive diagnosis were confirmed positive, 13% declined a confirmatory test because they were known positive. The remaining 37% refused confirmatory testing, had missing data, or were lost to care. One person received a false positive result. 75% of clients with a positive confirmatory test were linked to care. Males accounted for 985 (56%) of people tested. The majority of people tested were non-Hispanic black (65%) or Hispanic (26%). 1381 (78%) of clients tested were aged 18–49. Those who refused testing had similar demographics to those who accepted testing. However, of clients offered an HIV test, 55% of men and 26% of women refused the offer. The majority of people who refused testing, 1170 (79%), reported they had been tested previously.

**Conclusions:** The majority of adults in NYC single adult assessment shelters accepted an HIV test when routinely offered. Obtaining confirmatory test results and linking the positive client to care remain a challenge in this population. More research is needed to lower refusal rates among homeless adults offered an HIV test, especially homeless men.

For updated results, please see poster content.

## BACKGROUND

A 2005 health report on homeless New York City (NYC) adults showed increased rates of HIV-related morbidity and mortality when comparing homeless adults using city shelters to the general NYC adult population.

- The average rate of new HIV diagnoses among those who used the single adult shelter system from 2001–2003 was 16 times higher than that for the general NYC population.

- Among those who used the single adult shelter system, substance use and HIV/AIDS accounted for nearly one-third of all deaths, compared with less than 5% in the NYC adult population.

- Most homeless single adults entering the NYC Department of Homeless Services (NYC DHS) adult shelter system are initially admitted to one of seven assessment shelters, where they receive medical and psychiatric screenings.

- Beginning in September 2006, the NYC Department of Health and Mental Hygiene (NYC DOHMH) and the NYC DHS collaborated with single adult assessment shelters to implement routine rapid HIV testing during medical screenings.

## METHODS

- Adults entering the NYC DHS single adult shelter system are referred to assessment shelters for medical screenings.

- All adults receiving medical screenings were offered a rapid HIV test, as well as clients who came to the assessment shelter clinic for walk-in or follow-up appointments.

- Beginning in July 2006, NYC DOHMH provided shelters with program funding, free test kits and controls, and technical assistance (TA) on rapid testing and routinization of rapid testing.

- TA included assistance with permit application, quality assurance, training, provision of supplies, site testing logistics, patient flow, as well as data collection and reporting.

- Shelters began offering routine rapid tests in 2006 and continued through August 2007 (two shelters began in September 2006, one shelter began in November 2006, and two additional shelters began in February 2007).

- Data represents tests conducted for the period September 2006–August 2007.

- Data was not included from two of the seven assessment shelters because they did not offer routine testing during the study period.

- A subset of the preliminary positives, those who tested positive from 10/01/2006 to 03/31/2007, was compared to the HIV/AIDS Registry System (HARS) to ascertain if they were previously known to be HIV positive or newly diagnosed for HIV.

\* offered testing / all medical screenings

\*\* % is # tested / # offered

‡ % is # tested positive / # tested



# OUTCOMES OF ROUTINE HIV TESTING IN NEW YORK CITY SINGLE ADULT HOMELESS SHELTERS

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## RESULTS

### Demographics

#### Demographics of Rapid Testers vs. Non-Testers

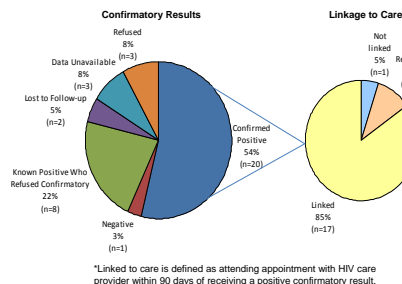
	Rapid Testers		Non-Testers	
	N	%	N	%
<b>Total</b>	<b>2067</b>	<b>100%</b>	<b>1950</b>	<b>100%</b>
<b>Sex</b>				
Female	796	39%	333	17%
Male	1268	61%	1616	83%
Transgender	3	0%	1	0%
<b>Race/Ethnicity</b>				
Non-Hispanic Black	1381	67%	1238	64%
Hispanic	400	24%	470	24%
Non-Hispanic White	161	8%	215	11%
Asian/Pacific Islander	19	1%	11	1%
Native American	6	0%	2	0%
Other	8	0%	8	0%
Data Unavailable	2	0%	6	0%
<b>Age</b>				
<18	2	0%	0	0%
18-29	538	26%	335	17%
30-39	445	22%	410	21%
40-49	608	30%	618	32%
50-59	340	16%	427	22%
60+	125	6%	147	7%
Data Unavailable	0	0%	13	1%

#### Demographics of Single Adult Shelter Population for FY 2007 (unduplicated)

	N	%
<b>Total</b>	<b>28,693</b>	<b>100%</b>
<b>Sex</b>		
Female	6,841	24%
Male	21,852	76%
Transgender	0	0%
<b>Race/Ethnicity</b>		
Non-Hispanic Black	15,622	55%
Hispanic	7,865	28%
Non-Hispanic White	3,066	11%
Asian/Pacific Islander	208	1%
Native American	48	0%
Other	395	1%
Data Unavailable	1,789	6%
<b>Age</b>		
<18	0	0%
18-29	5,892	20%
30-39	10,787	38%
40-44	11,192	39%
45-64	822	3%
Data Unavailable	0	0%

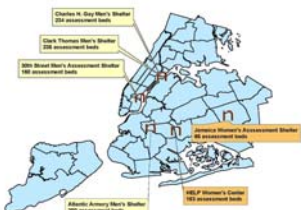
### Confirmatory HIV Testing and Linkage

#### Confirmed Positives Linked to Care



\*Linked to care is defined as attending appointment with HIV care provider within 90 days of receiving a positive confirmatory result.

### Locations of Single Adult Homeless Shelters in NYC Providing Routinized HIV Testing\*



\*Six sites are shown because Charles H. Gay Men's Shelter replaced Clark Thomas Men's Shelter as an assessment shelter in July 2007.

### Sub-Analysis of Previously Diagnosed and New Positives by Risk and Sex, 10/01/2006–03/31/2007

All clients identified as newly diagnosed in HARS were men age 18–29 at the time of diagnosis.

#### Transmission Risk by Gender of Previously Diagnosed vs. Newly Diagnosed Among HIV Positive Persons Reported by Homeless Shelters in NYC, 10/01/2006–03/31/2007\*

	Previously Diagnosed		Newly Diagnosed		Total					
	Men	Women	Men	Women	Men	Women				
	N	%	N	%	N	%				
Men Who Have Sex with Men	1	20%	0	0%	2	67%	0	0%	3	21%
Injection Drug Use History	1	20%	2	33%	0	0%	0	0%	3	21%
Heterosexual	0	0%	2	33%	0	0%	0	0%	2	14%
Unknown	3	60%	2	33%	1	33%	0	0%	6	43%
<b>TOTAL by Sex</b>	<b>5</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>0</b>	<b>0%</b>	<b>14</b>	<b>100%</b>
<b>TOTAL by Diagnosis Status</b>	<b>11 (79%)</b>		<b>3 (21%)</b>		<b>14</b>		<b>100%</b>			

\*Names of positives were compared to the HIV/AIDS Registry System (HARS) to verify if they were previously diagnosed or new to HARS. This analysis was conducted on preliminary positive clients.

### Rapid Test Results

- 56% of men offered an HIV test refused
- 29% of women offered an HIV test refused

#### Rapid Test Results

	Men		Women		Transgender		Total	
	N	%	N	%	N	%	N	%
<b>Total Medical Screenings Offered Testing*</b>	<b>4082</b>		<b>1180</b>		<b>N/A</b>		<b>5262</b>	
Offered Testing*	2884	71%	1129	96%	4	75%	4017	76%
Tested**	1268	44%	796	71%	3	75%	2067	51%
<b>Prelim. Positive‡</b>	<b>22</b>	<b>1.74%</b>	<b>15</b>	<b>1.88%</b>	<b>0</b>	<b>0%</b>	<b>37</b>	<b>1.79%</b>

\* offered testing / all medical screenings  
 \*\* % is # tested / # offered  
 ‡ % is # tested positive / # tested

### Refusal

#### Reasons for Refusing a Rapid Test

	Total	
	N	%
Had Been Tested Previously	1516	78%
Patient Believes Not at Risk	96	5%
No Reason	86	4%
Already HIV Positive	42	2%
Not Sexually Active	44	2%
Other*	146	8%
Data Unavailable	20	1%
<b>TOTAL</b>	<b>1950</b>	<b>100%</b>

\*Other includes "other" (5%), don't want to know (2%), will test with primary care provider (<1%), unable to give consent (<1%), and too old for test (<1%).

## LIMITATIONS

- Consistent offer of an HIV test to all clients presenting for medical screening was not always achieved.
- The percent of people offered testing may overestimate the percent of people offered testing who went through medical screening, because testing is offered at walk-in and follow-up appointments, as well as at medical screenings.
- Some clients did not receive a confirmatory test.
- Some clients leave the shelter or are transferred before receiving results or being linked to care.
- Shelters report difficulties in obtaining confirmatory and linkage information for services rendered off-site.

## CONCLUSIONS

- Routine HIV testing in a large city homeless population can be accomplished.
  - The majority of adults in NYC single adult assessment shelters agreed to an HIV test.
  - A greater percentage of men than women (56% vs. 29%) refused an HIV test when offered in this population.
- The current testing program has identified a lower HIV seroprevalence than expected in this population.
  - One reason may be that some people who already know they are HIV positive refuse to test, but do not share this information in their reason for refusal.
  - Some people with undiagnosed HIV infections may refuse an HIV test when offered one.
- Obtaining confirmatory test results and linking positive clients to care remain a challenge in this population.
  - Out of 14 preliminary positive clients diagnosed between 10/01/2006 and 03/21/2007 that were matched to HARS, three were newly diagnosed, and all newly diagnosed were men.
    - All the newly diagnosed men were age 18–29 at the time of diagnosis.
- Success is dependent upon cross-agency collaboration, provider engagement, funding, provision of free test kits, and training.

## NEXT STEPS

- A blinded serosurvey on remnant blood for all homeless clients is being considered to determine the true seroprevalence in this population.
- Focus groups among men in assessment shelters are being considered in order to investigate reasons that a high percentage of men are refusing to test.
- NYC DOHMH plan to shift from a paper collection and reporting system to electronic data transfer for the sites with electronic capability.
- Confirmed positive clients will continue to be compared to the HIV/AIDS Registry System to determine if they were previously diagnosed.
- Single adult assessment shelters will continue to offer routine rapid tests to clients during medical screenings.

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