Published in final edited form as:

Prev Med. 2012 June ; 54(6): 440–443. doi:10.1016/j.ypmed.2012.03.006.

Healthcare-related Correlates of Recent HIV Screening in New York City

Edward K. Kim, MPH^{1,*}, Lorna Thorpe, PhD², Julie E. Myers, MD, MPH^{1,3}, and Denis Nash, PhD, MPH^{1,2}

¹Department of Epidemiology, Columbia University Mailman School of Public Health, NY, NY

²Epidemiology and Biostatistics Program, CUNY School of Public Health at Hunter College, NY, NY

³Department of Medicine, Division of Infectious Diseases, Columbia University College of Physicians and Surgeons, NY, NY

Abstract

Objective—To examine healthcare-related correlates of recent HIV-testing among New York City (NYC) residents, controlling for socio-demographic and HIV-related risk factors.

Methods—Using the NYC 2007 Community Health Survey (population-based telephone survey, n=8,911), recent HIV-testing was examined for its association with healthcare-related variables, including medical screening for other conditions, controlling for other HIV-testing correlates using multiple logistic regression.

Results—Factors associated with a recent HIV test included: provider recommend for an HIV test (Adjusted Odds Ratio [AOR]:10.1, 95% confidence interval [CI]:7.6–13.5), Medicaid versus private insurance (AOR:1.6, 95%CI:1.2–2.1), and having a personal doctor (AOR:1.6, 95%CI:1.3–2.1). The proportion of HIV tests attributed to each factor (attributable fraction [AF]) was 49% for provider recommendation, 33% for having a personal doctor, and 8.3% for Medicaid insurance. Among those recommended for other medical screening, factors associated with recent HIV-testing included recent receipt of blood lipid testing (AOR:2.2, 95%CI:1.6–3.0; AF:45%), and Pap smear (AOR:2.7, 95%CI:2.1–3.5; AF:52%). Recent receipt of mammography and colonoscopy were not associated with recent HIV-testing.

Conclusions—A substantial proportion of recent HIV-testing coverage among New Yorkers may be attributable to healthcare-related factors. Joint medical screening may provide opportunities to increase population HIV-testing coverage.

Keywords

HIV/AIDS; HIV-testing; health screening; provider initiated HIV-testing

Introduction

The Centers for Disease Control and Prevention (CDC) recommend that patients aged 13 to 64 in all healthcare settings be screened for HIV after being notified, using an ‘opt-out’

*Corresponding author: Edward K. Kim | ekk2105@columbia.edu | 10903 New Hampshire Ave, Mailstop HFD-45 Silver Spring, MD 20993 | Phone (202) 596-1166 | Fax (301) 847-8748.

Declarations/Conflict of Interest Statement

The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

approach, and that persons at high-risk for HIV infection be screened for HIV at least annually.¹ The United States Preventive Services Task Force (USPSTF) recommends screening persons known to be at risk for HIV infection.² Intensified HIV-testing strategies that identify persons with undiagnosed HIV will be needed to achieve the 2015 National HIV/AIDS Strategy (NHAS) goals, which include increasing the proportion of HIV-positive persons who know their serostatus from 79% to 90%.^{2,3} The relative extent of achieving these goals through expansion of HIV-testing within the healthcare system versus expansion of community-based testing is unclear.

This study investigated the healthcare-related correlates of recent HIV-testing and the proportion of HIV-testing attributable to healthcare-related correlates among a population-based sample of adults, and among subgroups recommended by the USPSTF to receive routine medical screening for lipid disorders and cervical, breast and colorectal cancers.

Methods

Data from the 2007 NYC Community Health Survey (CHS), an annual cross-sectional telephone survey conducted by the NYC Department of Health and Mental Hygiene (DOHMH) were used.⁴ The sample for this analysis included 8,911 individuals who responded to the question about recent HIV-testing.

Respondents were asked if they received an HIV test in the past 12 months, and if they received recent screening for lipid disorders and cervical, breast and colorectal cancers. This study defines “recent” as within 12 months of the telephone interview.

Healthcare-related variables included health insurance status, having a personal doctor or healthcare provider, and having a health professional recommended an HIV test in the past 12 months. Other covariates examined included: demographics (gender, age, area of residence, and race/ethnicity); socioeconomic characteristics (education and household income); and risk behaviors (number of sex partners in the last 12 months).

To examine the association of recent medical screening with recent HIV-testing, respondents were classified into four subgroups based on eligibility for screening under current USPSTF screening guidelines.^{5–8} Subgroups included screening for: lipid disorders among adults aged 45 and older; Pap smear among women aged below age 65; mammography among adult women aged 40 and older; and colorectal cancer among adults aged 50 and older.

To examine the associations between recent HIV-testing and recent medical screening for other health conditions, recent HIV-testing history was examined within subgroups for whom these other medical screenings are routinely recommended.

Multivariate logistic regression models were used to identify healthcare-related factors associated with recent HIV-testing among all respondents and among those in USPSTF-defined screening subgroups. A base multivariate model was developed including demographic, socioeconomic and healthcare-related covariates (found to be significantly associated with recent HIV-testing in univariate analyses) to identify independent predictors of recent HIV-testing among all respondents, excluding variables for recent receipt of medical screening tests. All covariates from the base model were included in multivariate models of each screening subgroup. All analyses were conducted using SAS (Version 9.2; SAS-Institute Inc.) survey procedures.

The population attributable-fraction (AF%) and 95% CIs of receiving a recent HIV test for significantly associated health-care related correlates was estimated using the formula AF

$\% = PE * (aOR - 1) / [PE * (aOR - 1) + 1]$, where aOR is an estimate of the adjusted risk ratio for the exposure of interest, and PE is the proportion exposed to receiving the other health screening.⁹

Results

Of the 8,911 adults who responded to the 2007 CHS HIV-testing question, the age-adjusted prevalence of self-reported recent HIV-testing was 26.6% , with very high recent HIV-testing rates among persons aged 18 to 44 (>40%) and among blacks and Hispanics (35–40%) (Table 1). Among subgroups for whom routine medical screening for other health conditions is recommended, the age-adjusted proportion reporting a recent HIV test was significantly higher among those who reported recent receipt of other health screenings (blood lipid testing, Pap smear, mammography, colonoscopy) compared with those who did not (Table 1).

In multivariate models that adjusted for other factors, positive associations between lipid measurement and Pap smear testing with recent HIV-testing remained significant (Table 2): AOR_{lipid} 2.2 [95%CI:1.6–3.0]; AOR_{Papsmear} 2.7 [95%CI:2.1–3.5]; multivariate associations between either breast (AOR_{mammography} 1.1, 95%CI:0.8–1.5) or colorectal (AOR_{colonoscopy} 1.3, 95%CI:0.9–1.8) cancer screening and HIV-testing remained positive but were not statistically significant. Persons with fewer years of formal education and lower income were more likely to report recent HIV-testing. A healthcare professional's recommendation for HIV-testing continued to be strongly associated with a higher likelihood of recent HIV-testing among New Yorkers overall (AOR 10.1; 95%CI:7.6–13.5) and also within screening subgroups. As provider recommendations for HIV-testing may prompt other screening procedures to occur and vice-versa, we also examined multivariate associations excluding provider recommendation to HIV test in each screening subgroup. Associations were unchanged by exclusion of the provider recommendation variable.

Among all participants, taking into account other correlates, the proportion of recent HIV-testing among New Yorkers potentially attributable (AF%) to healthcare-related correlates such as having Medicaid, having a personal doctor or healthcare provider, and having received a recommendation for an HIV test from a healthcare provider were 8.3% (95%CI: 2.9–14%), 33% (95%CI:20–47%), and 49% (95%CI:41–57%), respectively. Among the respective groups recommended for other medical screening tests significantly associated with recent HIV-testing, the AF% was 45% (95%CI:29–58%) for blood lipid testing and 52% (95%CI:38–62%) for Pap smears, after taking into account other correlates of recent HIV-testing in these groups.

Discussion

Rates of recent HIV screening were generally high, especially among persons aged 18–44 years, those with fewer years of education, and those in the lowest income category. Healthcare-related factors were important correlates of recent HIV-testing, independent of socio-demographic and behavioral risk factors for HIV infection. Additionally, the observed associations of recent HIV-testing with medical screening for other preventable health conditions suggest that joint screening may already be occurring and may present opportunities to increase suboptimal screening rates for HIV in some subgroups. The estimates of the attributable-fractions for healthcare-related factors in this study suggest that a substantial proportion of recent HIV-testing coverage among the general New York population may be attributable to healthcare-related factors.

Other studies have found that individuals may be more likely to accept HIV-testing if another blood test was performed at the same time¹⁰, and this has been suggested for other health screening outcomes.^{11,12} Thus, there may be opportunities to facilitate HIV-testing in healthcare settings around screening for other conditions. The lack of associations of mammography and colonoscopy may reflect missed opportunities for HIV-testing among older persons.

This study also highlighted substantial differences in recent HIV-testing coverage by race/ethnicity that correlates directly with the estimated prevalence of diagnosed HIV among adults.¹³ This suggests that targeting strategies according to background HIV prevalence may be occurring.

The relatively high rates of recent HIV-testing in this study may in part be due to social desirability bias. Outcome frequencies this common result in odds ratios that are not a good approximation of the relative risk. Finally, these findings may not directly apply to undiagnosed, hard to reach HIV-positive individuals, including those whose contact with the healthcare system may be seldom or sporadic. Testing that reaches these individuals will likely require continued outreach and community-based HIV-testing efforts. However, a recent CDC report suggests that HIV-testing in clinical settings identified the majority of new HIV diagnoses.¹⁴ Thus, improvements in HIV-testing coverage, including identification of more undiagnosed individuals, may result from broader efforts to ensure that more adults have both a medical home and adequate insurance coverage.¹⁵

Acknowledgments

The authors would like to acknowledge Dr. Bonnie D. Kerker and the Division of Epidemiology Services at the New York City Health Department and Mental Hygiene for their assistance in adding custom variables on medical screening to the NYC Community Health Survey public use dataset.

Dr. Nash was funded in part by a grant from the US National Institutes of Health (NIH, www.nih.gov), National Institute of Mental Health (NIMH grant 1R01MH089831-01A1).

References

1. Branson BM, Handsfield HH, Lampe MA, et al. Revised recommendations for HIV-testing of adults, adolescents, and pregnant women in health-care settings. *MMWR Recomm Rep*. 2006; 55:1–17. quiz CE1–4. [PubMed: 16988643]
2. USPSTF. Screening for HIV: recommendation statement. *Ann Intern Med*. 2005; 143:32–37. [PubMed: 15998753]
3. Holtgrave DR. On the epidemiologic and economic importance of the National AIDS Strategy for the United States. *J Acquir Immune Defic Syndr*. 2010; 55:139–142. [PubMed: 20706128]
4. Hygiene NYCD0HaM. NYC community health data: technical notes. 2007.
5. USPSTF. Screening for breast cancer: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2002; 137:344–346. [PubMed: 12204019]
6. [Accessed 02/20/2011] Screening for Colorectal Cancer. 2008. 2011, at <http://www.uspreventiveservicestaskforce.org/uspstf/uspcolo.htm>.)
7. [Accessed 02/20/2011] Screening for Cervical Cancer. 2003. at <http://www.uspreventiveservicestaskforce.org/uspstf/usp cerv.htm>.)
8. Screening for Lipid Disorders in Adults: U.S. Preventive Services Task Force Recommendation Statement. June 2008. 2008. (Accessed at <http://www.uspreventiveservicestaskforce.org/uspstf08/lipid/lipidrs.htm>)
9. Miettinen O. Proportion of disease caused or prevented by a given exposure, trait or intervention. *Am J Epidemiol*. 1974; 99:325–332. [PubMed: 4825599]

10. Stefan MS, Blackwell JM, Crawford KM, et al. Patients' attitudes toward and factors predictive of human immunodeficiency virus testing of academic medical clinics. *Am J Med Sci*. 2010; 340:264–267. [PubMed: 20881755]
11. Nash D, Chan C, Horowitz D, Vlahov D. Barriers and missed opportunities in breast and cervical cancer screening among women aged 50 and over, New York City, 2002. *J Womens Health (Larchmt)*. 2007; 16:46–56. [PubMed: 17324096]
12. Katz ML, Tatum CM, Degraffinreid CR, Dickinson S, Paskett ED. Do cervical cancer screening rates increase in association with an intervention designed to increase mammography usage? *J Womens Health (Larchmt)*. 2007; 16:24–35. [PubMed: 17324094]
13. NYCDOHMH. HIV Epidemiology and Field Services Semi-annual report. NYC: NYCDOHMH; 2010.
14. Results of the Expanded HIV-testing Initiative --- 25 Jurisdictions, United States 2007–2010. *MMWR Morb Mortal Wkly Rep*. 2011; 60:805–810. [PubMed: 21697804]
15. IOM. HIV screening and access to care: Exploring barriers and facilitators to expanded HIV-testing: Institute of Medicine. 2010 Sep 16. 2010

TABLE 1

Age Adjusted Prevalence of Recent HIV Testing among Adult New Yorkers and Adjusted Odds Ratios, NYC Community Health Survey 2007 [†]

	Total		Had Recent HIV Test		Adjusted Odds Ratio	
	(n)	(%)	(n)	(%)	AOR	95% CI
Total <i>s</i>	8911		2367	(26.6)		
Age						
18-24	463	(5.2)	205	(44.3)	1.8	(1.3 – 2.5) *
25-44	2997	(33.6)	1278	(42.6)	2.3	(1.9 – 2.7) *
45-64	3447	(38.7)	706	(20.5)	1.0	
65+	1989	(22.3)	174	(8.7)	0.4	(0.3 – 0.5) *
Race/Ethnicity						
White	3611	(40.5)	456	(12.6)	1.0	
Black	2362	(26.5)	855	(36.2)	2.9	(2.3 – 3.7) *
Hispanic	2156	(24.2)	871	(40.4)	2.5	(1.9 – 3.2) *
Asian/Pi	558	(6.3)	106	(19.0)	1.2	(0.8 – 1.8)
Other	224	(2.5)	79	(35.3)	3.7	(2.2 – 6.1) *
Education						
Less than high school	1395	(15.7)	466	(33.4)	1.0	(0.7 – 1.3)
High school graduate	2236	(25.1)	616	(27.5)	1.0	(0.8 – 1.3)
Some college/technical school	1806	(20.3)	537	(29.7)	1.2	(0.9 – 1.5)
College graduate	3412	(38.3)	732	(21.5)	1.0	
Income/Poverty						
Don't Know	797	(8.9)	214	(26.9)	1.4	(0.9 – 2.0)
<100% poverty	1662	(18.7)	605	(36.4)	1.7	(1.2 – 2.5)
100% – <200% poverty	1286	(14.4)	380	(29.5)	1.2	(0.8 – 1.6)
200% – <400% poverty	1449	(16.3)	395	(27.3)	1.4	(1.0 – 1.9)
400% – <600% poverty	1367	(15.3)	300	(21.9)	1.1	(0.8 – 1.5)
> 600% poverty	1683	(18.9)	343	(20.4)	1.0	
Gender						

	Total		Had Recent HIV Test		Adjusted Odds Ratio	
	(n)	(%)	(n)	(%)	AOR	95% CI
Male	3421	(38.4)	887	(25.9)	1.0	
Female	5490	(61.6)	1480	(27.0)	1.3	(1.0 – 1.5) *
Borough						
Manhattan	1797	(20.2)	449	(25.0)	1.0	
The Bronx	1354	(15.2)	560	(41.4)	1.1	(0.8 – 1.4)
Brooklyn	2906	(32.6)	803	(27.6)	1.0	(0.8 – 1.2)
Queens	2194	(24.6)	464	(21.1)	0.8	(0.6 – 1.0)
Staten Island	660	(7.4)	91	(13.8)	0.6	(0.4 – 0.8)
Has a personal doctor						
Yes	7420	(83.3)	1966	(26.5)	1.6	(1.3 – 2.1) *
No	1425	(16.)	394	(27.6)	1.0	
Insurance type						
Medicaid	1276	(14.3)	584	(45.8)	1.6	(1.2 – 2.1) *
Medicare	1381	(15.5)	197	(14.3)	1.3	(0.9 – 2.0)
Other	387	(4.3)	123	(31.8)	2.2	(1.5 – 3.3) *
Uninsured	1259	(14.1)	351	(27.9)	0.8	(0.6 – 1.0)
Private	4424	(49.6)	1069	(24.2)	1.0	
Number of Sex Partners						
none	2714	(30.5)	436	(16.1)	0.6	(0.5 – 0.7) *
one	4324	(48.5)	1278	(29.6)	1.0	
two	385	(4.3)	183	(47.5)	1.7	(1.2 – 2.5) *
three or more	441	(4.9)	234	(53.1)	3.0	(2.1 – 4.2) *
Doc recommended HIV test past yr						
Yes	956	(10.7)	743	(77.7)	10.1	(7.6 – 13.5) *
No	7907	(88.7)	1602	(20.3)	1.0	
Received lipid measurement ^(a)						
Yes	5919	(66.4)	1669	(28.2)		
No	2792	(31.3)	645	(23.1)		
Received pap smear ^(b)						

	Total		Had Recent HIV Test		Adjusted Odds Ratio	
	(n)	(%)	(n)	(%)	AOR	95% CI
Yes	3048	(34.2)	1072	(35.2)		
No	2343	(26.3)	395	(16.9)		
Received mammography (c)						
Yes	2246	(25.2)	420	(18.7)		
No	1619	(18.2)	240	(14.8)		
Received colonoscopy (d)						
Yes	888	(10.)	164	(18.5)		
No	3524	(39.5)	469	(13.3)		

[†]To account for the survey's complex sampling design, post-stratification sampling weights were applied to extrapolate survey findings to neighborhood populations, based on the respondent's age, gender, and race/ethnicity

[§]Totals may not match covariate totals because of missing values

* Denotes Statistical Significance at $p < 0.05$ (chi-square test was used to test univariate associations)

(a) Restricted to persons over the age of 45

(b) Includes all women <65 years

(c) Restricted to women 40 years

(d) Restricted to persons aged 50 and older

TABLE 2
Screening Subgroup Adjusted Odds Ratios and 95% CI of HIV Testing, NYC Community Health Survey 2007

	Subgroups Eligible for Other Health Screening ^f											
	Lipid Measurement (a)			PAP (b)			Mammography (c)			Colonoscopy (d)		
	# HIV tested (n =5436)	AOR	(95% CI Range)	# HIV V tested (n=4183)	AOR	(95% CI Range)	# HIV V tested (n=3910)	AOR	(95% CI Range)	# HIV V tested (n=4467)	AOR	(95% CI Range)
Age												
18–24				238	3.3	(2.1 – 5.2)	*					
25–44				1848	2.6	(2.1 – 3.4)	*	517	1.9	(1.3 – 2.7)	*	
45–64	3447	1.0		2086	1.0		2086	1.0		2478	1.0	
65+	1989	0.3	(0.2 – 0.4)	*			1307	0.4	(0.3 – 0.7)	*	1989	0.3 (0.2 – 0.5)
Race/Ethnicity												*
White	2557	1.0		1374	1.0		1661	1.0		2211	1.0	
Black	1372	3.3	(2.3 – 4.8)	*	1220	3.3 (2.4 – 4.7)	*	1076	4.0 (2.6 – 6.0)	*	1095	3.0 (2.0 – 4.6)
Hispanic	1087	3.1	(2.1 – 4.5)	*	1206	3.0 (2.1 – 4.3)	*	892	3.9 (2.5 – 6.1)	*	838	3.3 (2.1 – 5.0)
Asian/PI	290	1.1	(0.6 – 2.0)		266	1.8 (1.0 – 3.1)		185	1.3 (0.5 – 3.2)		217	1.4 (0.7 – 2.8)
Other	130	3.0	(1.4 – 6.4)	*	117	7.0 (3.3 – 14.6)	*	96	5.7 (2.8 – 11.6)	*	106	2.5 (1.0 – 6.3)
Birthplace												
Unites States	3480	1.0		2525	1.0		2480	1.0		2896	1.0	
Foreign born	1956	1.1	(0.8 – 1.4)	1658	1.0	(0.7 – 1.2)	1430	1.1	(0.8 – 1.5)	1571	1.0	(0.7 – 1.4)
Education												
Less than high school	936	1.2	(0.8 – 1.9)	609	0.9	(0.6 – 1.3)	688	1.0	(0.6 – 1.7)	801	1.2	(0.7 – 2.0)
High school graduate	1399	0.9	(0.6 – 1.3)	1041	1.2	(0.8 – 1.6)	1046	0.8	(0.5 – 1.2)	1163	0.9	(0.6 – 1.4)
Some college/tech	1046	1.1	(0.7 – 1.6)	917	1.5	(1.1 – 2.1)	*	782	1.1 (0.8 – 1.7)	832	1.0	(0.6 – 1.5)
College graduate	2018	1.0		1599	1.0		1371	1.0		1638	1.0	
Income/Poverty												
Missing	496	1.2	(0.6 – 2.2)	335	2.2	(1.2 – 3.9)	*	393	1.1 (0.5 – 2.2)	437	1.5	(0.8 – 2.9)
<100% poverty	1015	1.6	(1.0 – 2.7)	816	2.6	(1.6 – 4.5)	*	792	1.5 (0.8 – 3.0)	854	1.5	(0.8 – 2.9)
100% – <200% poverty	766	1.2	(0.8 – 2.0)	634	1.5	(0.9 – 2.5)		589	0.9 (0.5 – 1.8)	641	1.4	(0.8 – 2.4)
200% – <400% poverty	836	1.2	(0.8 – 1.9)	719	1.8	(1.2 – 2.8)	*	626	1.0 (0.5 – 1.7)	685	1.1	(0.6 – 2.0)
400% – <600% poverty	792	1.0	(0.6 – 1.5)	645	1.4	(0.9 – 2.2)		521	0.8 (0.4 – 1.5)	640	1.1	(0.7 – 1.8)

	Subgroups Eligible for Other Health Screening [†]											
	Lipid Measurement (a)			PAP (b)			Mammography (c)			Colonoscopy (d)		
	# HI V tested (n =5436)	AOR	(95% CI Range)	# HI V tested (n=4183)	AOR	(95% CI Range)	# HI V tested (n=3910)	AOR	(95% CI Range)	# HI V tested (n=4467)	AOR	(95% CI Range)
> 600% poverty	1064	1.0		754	1.0		654	1.0		840	1.0	
Gender												
Male	2043	1.0								1666	1.0	
Female	3393	0.8	(0.6 – 1.0)							2801	0.6	(0.4 – 0.8) *
Borough												
Manhattan	1161	1.0		791	1.0		841	1.0		995	1.0	
The Bronx	756	1.3	(0.9 – 1.9)	736	0.9	(0.6 – 1.4)	615	1.3	(0.8 – 2.0)	599	1.2	(0.8 – 2.0)
Brooklyn	1682	0.9	(0.6 – 1.2)	1409	0.9	(0.6 – 1.3)	1208	1.0	(0.7 – 1.5)	1343	1.0	(0.7 – 1.4)
Queens	1381	1.1	(0.8 – 1.6)	952	0.7	(0.5 – 1.0) *	950	0.8	(0.5 – 1.2)	1146	1.2	(0.8 – 1.8)
Staten Island	456	0.6	(0.3 – 1.0)	295	0.5	(0.3 – 0.8) *	296	0.5	(0.2 – 1.0)	384	0.7	(0.4 – 1.3)
Has a personal doctor												
Yes	4751	2.1	(1.4 – 3.2) *	3496	1.4	(1.0 – 2.0)	3440	2.2	(1.4 – 3.6) *	3937	3.3	(2.0 – 5.3) *
No	645	1.0		665	1.0		440	1.0		494	1.0	
Insurance type												
Medicaid	641	1.7	(1.0 – 2.7) *	790	1.7	(1.2 – 2.5) *	547	1.5	(0.9 – 2.4)	519	1.6	(0.9 – 2.8)
Medicare	1280	1.6	(1.0 – 2.3) *	199	1.4	(0.7 – 2.7)	878	1.1	(0.6 – 2.0)	1235	1.5	(0.9 – 2.3)
Other	257	1.5	(0.9 – 2.5)	146	2.4	(1.4 – 4.1) *	161	1.6	(0.9 – 2.9)	230	1.5	(0.8 – 2.6)
Uninsured	585	0.9	(0.6 – 1.5)	640	1.1	(0.8 – 1.6)	426	1.0	(0.7 – 1.7)	436	0.7	(0.4 – 1.2)
Private	2540	1.0		2358	1.0		1810	1.0		1934	1.0	
Number of sex partners last year												
none	2280	0.7	(0.5 – 1.0) *	1118	0.5	(0.4 – 0.7)	1884	0.6	(0.4 – 0.8) *	2067	0.9	(0.6 – 1.2)
one	2182	1.0		2306	1.0		1449	1.0		1634	1.0	
two	136	1.9	(1.0 – 3.7)	186	1.5	(0.9 – 2.5)	59	1.8	(0.8 – 3.8)	99	2.2	(1.1 – 4.3) *
three or more	141	3.5	(2.0 – 6.3) *	91	2.0	(0.9 – 4.3)	24	3.6	(0.8 – 15.7)	97	2.8	(1.5 – 5.3) *
Doc recommended HIV test past yr												
Yes	402	12.8	(9.0 – 18.3) *	558	8.1	(5.4 – 12.2) *	298	8.4	(5.4 – 13.1) *	302	12.9	(8.6 – 19.2) *
No	4998	1.0		3607	1.0		3584	1.0		4135	1.0	
Received lipid measurement												

Subgroups Eligible for Other Health Screening [†]												
Lipid Measurement (a)						PAP (b)		Mammography (c)			Colonoscopy (d)	
	# HIV V tested (n =5436)	AOR	(95% CI Range)	# HIV V tested (n=4183)	AOR	(95% CI Range)	# HIV V tested (n=3910)	AOR	(95% CI Range)	# HIV V tested (n=4467)	AOR	(95% CI Range)
Yes	4151	2.2	(1.6 – 3.0)	*								
No	1188	1.0										
Received pap smear												
Yes				2550	2.7	(2.1 – 3.5)	*					
No				1588	1.0							
Received mammography												
Yes							2246	1.1	(0.8 – 1.5)			
No							1619	1.0				
Received colonoscopy												
Yes										888	1.3	(0.9 – 1.8)
No										3524	1.0	

[†] Post-stratification sampling weights were applied to extrapolate survey findings to neighborhood populations, based on the respondent's age, gender, and race/ethnicity. The population age structure from the 2000 U.S. Census was used to age-adjust estimates. Odds ratios were calculated using post-stratification weights.

* Denotes Statistical Significance at p<0.05 (chi-square test was used to test univariate associations)

a) Lipid Measurement: adults aged 45 and older

b) Cervical Cancer Screening: women aged below 65

c) Breast Cancer Screening: women aged 40 and older

d) Colorectal Cancer Screening: adults over 50