

What Affects Acceptance of Routine HIV Screening in Pediatric Emergency Departments by Adolescents?

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Background

Routine HIV screening of adolescents has been endorsed by the Centers for Disease Control (CDC) since 2006, by the American College of Physicians (ACP) since 2009, and by the American Academy of Pediatrics (AAP) since 2011. More specifically, all patients ≥ 13 years in health care settings are recommended by the CDC to be screened regardless of their chief complaint.^[1] The ACP endorses universal screening in addition to repeat screening^[2] for the adolescents starting 13 years of age, while the AAP recommends a minimum of one HIV test for all adolescents by the age of 16-18 years.^[3]

In 2009 Children's National Medical Center, located in an area of high HIV prevalence (3.4%) in Washington, District of Columbia (DC), implemented a universal opt-out rapid oral fluid HIV screening of adolescents ≥ 13 years old in the Sheikh Zayed (SZ) Emergency Department (ED). Subsequently, the HIV screening program extended to the new Children's National ED at United Medical Center (UMC), also located in DC. The long term goal of this program is to achieve high rates of identification of HIV infection, linkage to care and treatment among metropolitan DC youth and, ultimately, to contribute to the fight against the persistent HIV epidemic in the USA. To date, the experience with such programs in the settings of pediatric hospital and the data on HIV screening in pediatric EDs are limited.

This study aimed to investigate the factors affecting the acceptance of rapid oral fluid HIV screening by the adolescents in two large urban pediatric EDs located in an area of high HIV prevalence.

Methods

- A prospective, cross-sectional study of patients ≥ 13 years in two pediatric EDs was conducted over 36 months (01 March 2009 – 29 February 2012)
- Study population included adolescents and young adults ≥ 13 years old who were approached for universal opt-out oral fluid HIV screening in both EDs
- Study protocol was approved by the Children's National IRB
- Universal screening was performed on all patients ≥ 13 years old according to the institutional algorithm of oral rapid HIV screening with OraQuick *ADVANCE*, provided by the DC Department of Health (DOH)
- Data were collected from the ED HIV screening program database on the presence of the guardian, whether patients and/or guardians opted-out of the HIV test and the reasons for opting-out were recorded
- Patient demographic data included age, race, and sex
- Logistic regression was used to identify factors associated with acceptance of HIV screening

		ED Patients	Patients	Patients	Patients Opting-
		(n=17348)	Approached	Screened	Out
		n	n	n (%)	n (%)
Age	13-14	5167	4076	2732 (67.0)	1009 (36.9)
	15-17	9073	7389	5226 (70.7)	1914 (36.6)
	18-23	2839	2234	1725 (77.2)	495 (28.7)
	21-23	208	118	90 (76.2)	27 (30.0)
	24+	61	35	22 (62.9)	11 (50.0)
Race	Asian	63	39	27 (69.2)	9 (33.3)
	Black	14112	11401	8115 (71.2)	2833 (34.9)
	Hispanic	1300	1018	732 (71.9)	240 (32.8)
	White	865	624	387 (62.1)	185 (47.8)
	Other	144	79	64 (81.0)	13 (20.3)
	Unknown	864	730	470 (64.4)	176 (37.4)
Sex	Male	7339	5666	4009 (70.8)	1364 (34.0)
	Female	10008	8186	5786 (70.7)	2092 (36.2)
Residence	DC*	11355	9349	6716 (71.8)	2302 (34.3)
	MD*	5406	4090	2828 (69.1)	1030 (36.4)
	VA*	370	247	160 (64.8)	64 (40.0)
	Other	217	166	91 (54.8)	60 (65.9)
Guardian present	Yes	9464	9407	6639 (70.6)	2185 (32.9)
	No	4199	4175	2962 (70.9)	1202 (40.6)

*DC – District of Columbia; MD – Maryland; VA – Virginia.

Table 1. Acceptance of Oral Rapid HIV Screening

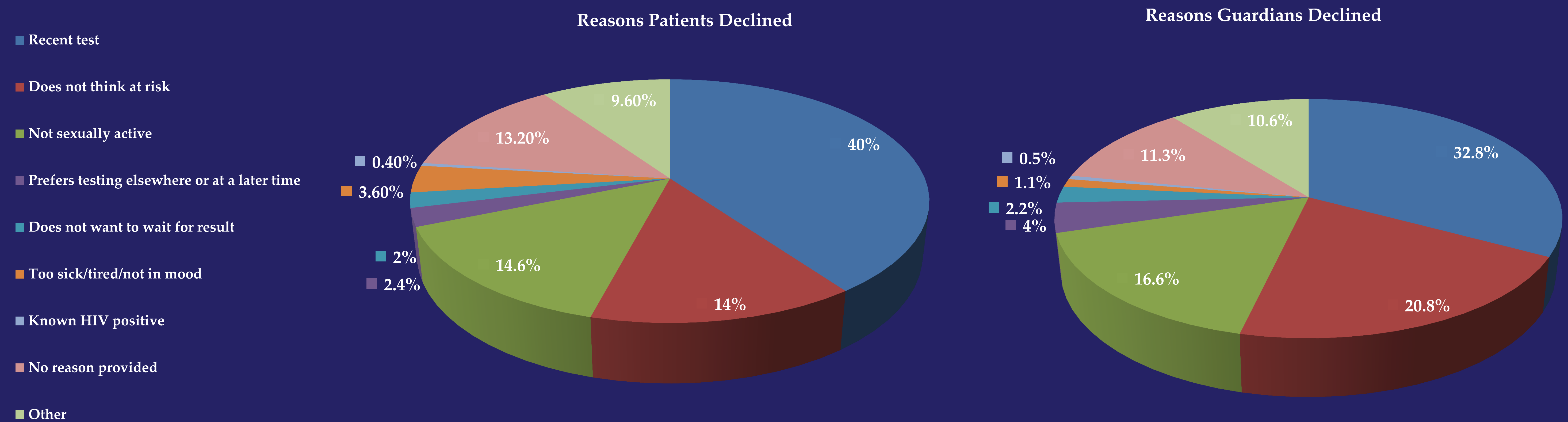


Figure 1. Reasons Patients and Guardians Declined HIV Screening

Results

- A total of **13,899 HIV tests were offered** to patients ≥ 13 years old, 10,455 (75%) adolescents did not opt-out, and of those 9,837 (94%) were screened
- SZ ED approached 11,328 (24%) and tested 7,977 (17%) of all patients aged ≥ 13 years old during March 2009 - February 2012
- UMC campus approached 2571 (46%) and tested 1860 (33%) of all patients aged ≥ 13 years during October 2010 - February 2012
- Among those tested, 10 adolescents (0.1%) were identified as HIV-infected and were linked-to-care
- The most common reasons adolescents cited for opting-out of HIV screening included a **recent negative test** (40%; n=1318), reporting **no sexual activity** (15%; n=481), and reporting **not being at risk** (14%; n=460).
- The most common reasons guardians cited for opting-out include patient having a **recent negative test** (33%; n=553), patient **not at risk** (21%; n=351), and patient **not sexually active** (17%; n=280).
- The majority of patients screened were black (83%), female (59%), the median age was 16 years, and 68% were DC residents
- Younger adolescents (13-14 years) were significantly more likely to opt-out of testing than older adolescents ≥ 15 years of age (OR: 1.79; 95% CI: 1.48-2.16)
- Overall, 7% of patients (n=458) who accepted the test were not tested due to the guardian declining the screening
- Patients not tested due to the guardian declining decreased over time. During the initial two years (Mar 2009 – Feb 2011), 15% of patients were not tested due to guardians declining.

	Patient Response	
	Accept (100%)	Decline (100%)
Guardian Response		
Accept	6640 (93%)	871 (41%)
Decline	458 (7%)	1270 (59%)

Table 2. Patient and Guardian Concordant and Discordant Responses.

Literature cited

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Conclusions

- Children's National is among the first pediatric hospital nationwide to implement routine HIV screening in the ED and to investigate the factors affecting acceptance of rapid oral fluid HIV screening among adolescents in urban pediatric EDs.
- Routine oral fluid rapid HIV screening during an ED visit is accepted by the majority of patients and guardians in pediatric EDs located in an area of high prevalence of HIV.
- Older adolescents (≥ 15 years of age) were more likely to accept HIV screening compared to younger adolescents.
- 7% of the adolescents who accepted the HIV test were not tested due to their guardians choosing to opt-out.
- During 36 months following the implementation of the HIV screening program, there has been a significant decline in the number of the guardians refusing HIV screening of adolescents.
- Further studies aimed at evaluating the factors affecting acceptance of routine HIV screening may help develop educational and programmatic interventions to increase the number of adolescents and guardians accepting routine screening as a standard of care in pediatric EDs.

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