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Author manuscript

*J Infect Public Health*. Author manuscript; available in PMC 2020 February 24.

Published in final edited form as:

*J Infect Public Health*. 2020 January ; 13(1): 104–109. doi:10.1016/j.jiph.2019.07.005.

## Patients' Response to an Emergency Department-Based HIV Testing Program and Perception of Their Friends' Attitudes on HIV Testing among Patients Seeking Care at an Urban Emergency Department in Baltimore, Maryland, USA

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### Abstract

**Background**—Little is known regarding the possible role of social network members and peer attitudes on emergency department (ED) patients' willingness to be tested for HIV.

**Methods**—We conducted mixed methods in-depth and quantitative interviews with ED patients from November 2013 to June 2014 to assess peer and personal perceptions of ED-based HIV testing. Patients enrolled were asked about their own attitudes toward HIV testing as well as those of their friends. Interviews were transcribed and categories that capture free responses in the verbatim were independently coded by two reviewers.

**Results**—Overall, 86 patients were enrolled including 22 HIV known positive. Among 64 HIV-negative participants, 50 were tested during the past 12 months and 4 had never been tested. The majority (82.5%) of participants thought that their friends were likely to accept HIV testing in EDs. Participants discussed their perceptions of friends' attitudes toward HIV testing: the majority (60%) believed their friends held positive attitudes about HIV testing. The majority of participants believed that their friends had positive feelings about HIV testing and were likely to accept testing in ED settings.

**Conclusions**—Interventions utilizing peer networks to promote HIV testing and increase testing acceptance could be designed and explored.

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**Conflict of Interest:** None declared.

Ethical approval

This study was approved by the approved by the Johns Hopkins Medicine Institutional Review Board, Baltimore, Maryland, United States (protocol number: NA\_00076957).

## Keywords

HIV Testing; Emergency Department; Peer's Perceptions and Attitudes; HIV Testing History

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## INTRODUCTION

In the last decade, the number of HIV testing programs in U.S. Emergency Departments (EDs) has increased.<sup>1</sup> EDs are now key venues for HIV diagnosis and linkage to care.<sup>2,3</sup> An understanding of patients' attitudes on ED-based HIV testing and social factors affecting patient attitudes are important for designing and improving testing programs.

Most qualitative studies on ED HIV testing have focused on patients' attitudes on opt-out vs. opt-in consent methods.<sup>4-6</sup> One ED study reported that almost all patients interviewed were satisfied with their own experience being offered an HIV test in the ED setting. At the same time, some patients declined testing to avoid psychosocial ramifications because they did not have perceived trust of future confidentiality in disclosure of status in hospital or public health records.<sup>7</sup>

While only a few qualitative studies have examined ED patients' personal perceptions and attitudes of HIV testing,<sup>8,9</sup> none has explored the possible role of social network members and peer attitudes on ED patients' willingness to be tested for HIV. One survey study showed that over 90% of ED patients would recommend ED HIV testing to a friend.<sup>10</sup> Research into social-network and peer attitudes could present opportunities for interventions to increase HIV testing.<sup>11-13</sup> Similarly, a lack of understanding of the role of patient and peer network attitudes could undermine efforts to promote testing.

The goal of this study was to assess patients' perceptions of their friends' general attitudes on HIV testing and likelihood of accepting an HIV test in an ED (referred to as "friends' attitudes" going forward). Additionally, our intent was to investigate the relationship between friends' attitudes and participants' history of HIV testing and demographic and socioeconomic factors such as education and income by participants' HIV status.

## METHODS

### Setting and Population

This study site was an urban adult ED (JHHED) with a long standing HIV testing program offering patients free point-of-care (POC) or blood-based HIV tests using an opt-in, non-targeted approach during the study period.<sup>14</sup> The JHHED serves a diverse and mostly socioeconomically disadvantaged population. Patients who met basic HIV testing program eligibility criteria (age 18–65 years, able to give informed consent, not critically ill) were offered an HIV test by a triage nurse. As of 2013, the seroprevalence of HIV in the JHHED patient population was 5.6%.<sup>15</sup>

### Study Design

We conducted in-depth interviews with JHHED patients during their visit from November 2013 through June 2014. Patients who were 18–64 years, able to provide informed consent

were eligible for this study. Patients who were critically ill, unable to provide informed consent, not English-speaking, or prisoners were excluded. Research coordinators screened the ED electronic tracking board for eligible patients who did not possess characteristics in exclusion criteria. When an eligible patient was identified, the research coordinators asked permission from the treating clinician for the coordinator to approach the patient about the study. Alternatively, providers sometimes referred eligible patients to coordinators. Research coordinators enrolled patients on the basis of availability during the 9am-5pm weekday shifts. Known HIV-positive status was identified from review of the electronic medical record and HIV negative status was based on self-report. The study was approved by the Institutional Review Board of the institution.

Individually structured interviews were conducted with each participant in a private area of the ED. The interview was audio recorded and the research coordinator took notes as well in real time. Consented participants first were asked questions including basic socio-demographic information on age, gender, race, ethnicity, relationship status, education level, employment status, household income, ZIP code, and medical insurance payor type. Other questions addressed topics related to sexual behavior and substance use: smoking/alcohol/drug activity, and partners' genders. Participants were asked about frequency and recency of visits to the JHHED and to other EDs in City of Baltimore. Some questions asked about medical-care seeking behavior, including access to a primary care physician and the number of hospitalizations in the past year. In addition, participants were asked about frequency of HIV testing in the past year, setting of testing, and their preferred setting for HIV care if they were HIV positive.

During the interview, all participants were asked pre-set questions on their experience of being offered HIV tests and on their friends' attitudes toward HIV testing in yes/no questions followed by a series of open ended questions. These key questions included "Did your friends talk about their experience with the HIV program in the ED with you, if they had?", "If we offered [your friends] HIV tests, how likely do you think that they would agree to be tested?", "In general, how do you think your friends feel about HIV testing?", "Why do you think your friends feel this way about HIV testing?"

A qualitative data analysis was performed on structured interview data. First, recordings of the interviews were later transcribed. An independent reviewer reviewed transcripts and entered participant responses to the key questions listed above into a database that also included demographic information and questionnaire responses for each participant. Two reviewers independently reviewed participants' responses to the key questions and generated categories to capture the different kinds of responses given. Reviewers discussed the categories that each generated with each other and the principal investigator and the three decided on a single set of categories after several discussions and revisions. Discrepancies between the reviewers' category assignments were resolved through discussion and consensus. A participant's response was categorized as 'positive attitude', when the participant described only favorable attitudes about HIV testing. Categorization of negative attitude was assigned when the participant only expressed negative attitudes such as apprehension. A response was categorized as 'mixed attitude' when the participant made both positive and negative comments.

Descriptive data analysis was performed, followed by chi-square tests to compare demographic characteristics, socioeconomic factors, HIV testing history and HIV status to distribution of themes. Chi-square tests were also performed to explore the relationship between perceptions of peer attitudes, likelihood of peers accepting HIV testing in the ED with demographic characteristics, socioeconomic factors, HIV testing history, and HIV status. Cochran-Armitage trend test was performed to determine trends among groups.

## RESULTS

### Participant Characteristics and HIV Testing History

Among 255 eligible ED patients approached, 86 (33.7%) who agreed to participate in the study were consented and enrolled. Demographic characteristics of the 86 participants are summarized in Table 1. The majority of them were African American and approximately 50% did not have high school diploma. Twenty-two (25.6%) participants were people living with HIV (PLWH). Among 64 HIV-negative participants, 50 (78.1%) were tested during the last year and four (6.3%) had never been tested. Thirty-eight (59.4%) participants were offered an HIV test during their current visit and 24 (63.2%) accepted. Among 14 participants who declined the test, 12 reported that they had been tested in the last year and two reported that they had never been tested.

### Friends Having Used ED Services

Fifty-one (59.3%) of 86 participants knew of friends who had ever been to the JHHED. Seven (13.7%) believed that their friends had accepted an HIV test offer while four (7.8%) said their friends declined an HIV test offer during their ED visit and the remaining 75 (87.2%) reported that they did not know.

### Participant Perceptions of Their Friends' Likelihood of Accepting an HIV test in an ED

Participants were asked whether they thought their friends were likely to accept an HIV test in an ED. Seventy-one (82.5%) indicated that their friends were likely to accept the test, six (7.0%) thought their friends were unlikely and nine (10.5%) did not know (Table 2). The majority of participants who either tested during the current visit (69%), in the past (86%), or never tested (50%) thought their friends were likely to accept an HIV test in an ED. There were no statistically significant differences in these responses based on self-reported HIV status, demographic, or socioeconomic characteristics listed in Table 1 (all p-values>0.05).

### Participant Perceptions of Their Friends' Attitudes on HIV Testing

The majority (60%) believed their friends had positive attitudes toward HIV testing (Table 2). Others (13%) thought their friends were uncomfortable with HIV testing, 8% were concerned with social stigma, 7% had mixed feelings, and the remaining (12%) did not know how their friends felt. There were no statistically significant differences in perceived positive peer attitudes by age group, sex, and race (Table 3). HIV-negative participants were significantly more likely to indicate purely positive attitudes about testing among their friends (68.8%) compared to PLWH (36.4%) (p=0.007). There was a significant difference when comparing perceived positive peer attitudes among those who were known HIV positive compared to those who were HIV negative but not tested last year, and those who

were HIV negative and tested last year ( $p=0.014$ , chi-square test;  $p=0.003$ , Cochran-Armitage trend test) (Table 4). However, there were no significant difference in perceived positive peer attitudes on HIV testing by HIV testing history in the past year ( $p=0.213$ ). There were no statistically significant differences in perceived peer attitudes based on other socioeconomic factors.

### HIV-negative participants' perception of their friends' attitudes on HIV testing

HIV-negative participants demonstrated a mix of perceptions of friends' attitudes surrounding HIV testing, though overall they were mostly positive (Table 3). Positive attitudes accounted for 68.8% ( $n=44$ ) of responses and negative accounted for 18.8% ( $n=12$ ). Five (7.8%) participants said they did not know [how their friends felt about HIV testing]. Mixed attitudes accounted for the remaining 3 participants (4.6%). For example, an African American male in his mid-fifties said of his friends that "*some care, some don't.*" When asked how their friends felt about HIV testing, many HIV-negative participants indicated that their friends were "okay with it," "cool with it," "have no problem with it" or think "it's important." Several explained that their friends felt this way simply because they want to "know their status" or "know they're clean." For example, a white male in his early 40s explained: "*They all like to know we're clean. Man, you gotta make sure you're all clean out there.*"

Others thought their friends had favorable attitudes because their friends "care about their health" or "want to be safe." Perceived risks for HIV such as past lifestyle, drug use, being in the LGBT community, being sexually active, or "because everyone is at risk" came up as reasons that friends have positive attitudes. A mid-30s African American male stated,

They would get it [tested]... because they're having sex...You gotta' make sure...most of my friends...pretty much use protection...Umm unless they're, ya' know, just messing with that one person...Then they probably won't. Umm, but still, you can never be too sure.

Several participants mentioned death or personal experience as reasons friends felt HIV testing is "very important": "*Cause if they don't get tested, there's a possibility that they might die,*" elaborated an African American woman in her early 20s. A late-30s white female explained that,

They think it's very important, that it should be done on a regular basis and before any new partner gets introduced into the mix. Because we lost an entire generation of our people ...it's something that like, five seconds of your time, is gonna make a difference on.

Among 12 participants who thought their friends had negative attitudes, nine (75.0%) described anxiety or fear of HIV; an African American male in his early 60s said his friends "*never talked about it*" because they were "*scared they might have [HIV].*" Some of these participants attributed these attitudes to presuppositions about the meaning of an HIV diagnosis. According to an African American female participant in her early 30s, "*everybody thinks it's a death sentence.*"

### HIV-positive participants' perception of their friends' attitudes on HIV testing

Among PLWH, eight (36.4%) described their friends' attitudes as favorable and provided reasons similar to those of HIV-negative participants, such as care for one's health, to check one's status, and risk for HIV (Table 3). For example, an African American female in her early 40s indicated that her friends feel "very seriously" about HIV testing "‘cause they don't wanna catch it."

Two PLWH participants, both African American females in their fifties, mentioned that experience with HIV is the reason their peers value HIV testing: one said her friends "think it's critical and absolutely want to know... because they've seen the horrible results," and the other said her friends are "okay with it...cause they're worried about me."

Three (13.6%) participants described mixed feelings among their friends, for example, "Some are with it, some are afraid...because it's HIV," said a mid-30s African American male. Two (9.1%) PLWH mentioned only fearful attitudes. For example, a mid-30s African American man said his friends feel "nervous and uncomfortable...[HIV testing] puts fear in people." Four (18.2%) participants responded that their friends were concerned with social stigma related to HIV testing. For example, friends feel "secretive...worried about what people will say," said an African American woman in her early 40s. The remaining five (22.7%) participants did not know how their friends felt about HIV testing.

### Peer attitudes among participants not tested in the last year

Fourteen participants (21.9%) were not tested in the past year, including four (6.3%) who had never been tested at all and 10 (15.6%) who had not been tested in the past year.

Among them, those who had not been tested in the past year demonstrated positive (n=6, 60%) perceived attitudes among their friends, though a few felt their friends held mixed (n=1, 10%) or unfavorable (n=3, 30%) views. Of note, whether positive, mixed, or negative, many participants' answers indicated that their friends understood the high stakes involved with testing and knowledge of HIV status. A white male in his early 30s said that his friends were "inherently afraid of [testing]," explaining that the reason for the fear was that "nobody wants HIV." A white female in her late 20s, felt her friends would view testing favorably and as "important" because "most are doctors."

Of those who had never been tested, they articulated a range of attitudes among their friends, from somewhat positive to negative. One common theme, however, was a value of avoidance – of either testing or awareness of status. A white female participant in her late 20s said, "[it's] not something anyone wants to think about," adding when asked why her friends would feel that way that "no one wants to live with HIV." An African American woman in her mid-20s, said that her friends "will get tested if they need to."

Of those who had never been tested, two participants (50%) declined the opportunity for HIV testing. One participant, a white female in her late 50s, felt it was unnecessary because of her "old" age and the fact that she had been married for several decades. She opined that her friends would be unlikely to test for the same age-related reason. Another white female

participant in her early 50s said that the topic of HIV testing had never come up with her friends.

Notably, of the six (27.2%) white HIV-negative participants, four (66.7%) were not tested in the past year. Both of the participants who refused testing were white, female, and over the age of 55.

## DISCUSSION

In this pilot study, our results are consistent with other studies in finding that ED patients had generally favorable attitudes toward ED-based HIV testing, with more than 60% of those who were offered an HIV test accepted the HIV test.<sup>7,10</sup> we also found that 60% of participants felt that their friends would have positive attitudes toward HIV testing in general, although their perceptions varied by HIV status but not demographic or socioeconomic characteristics. Of note, almost 70% of those who were HIV-negative thought their friends would have positive attitudes on HIV testing based on the interview conversations with participants but only 36% of PLWH felt this way. In addition, most participants, in all different HIV testing history groups and across different demographic and socioeconomic characteristics, thought they knew how their friends felt about HIV testing and thought they were likely to accept an HIV test in an ED. Our data indicate that our ED-based HIV testing program was well accepted by the patients and this same type of positive attitude toward HIV testing might be similar in their peers based on their own perceptions.

Prior studies have explored the use of peers and networks to recruit for HIV testing.<sup>17,18</sup> Together with our findings, some innovative intervention strategies could be developed by utilizing social networks to promote positive messages and attitudes on HIV testing from the index participants to their peers. For example, if an ED patient just has a positive experience with ED-based HIV testing program, we could design an mHealth-facilitated tool for this ED patient to share their HIV testing experience in the ED with his or her peers. In the near future, they might be more willing to accept an HIV test in an ED or other venues after learning about their friend's experience. Future research might investigate more involved social network research to explore these and other themes. Further study in this area might ask subjects how, where and with whom HIV and HIV testing is discussed among their social network. This information might be used to develop interventions to increase awareness about HIV, testing and behaviors that prevent transmission.

In this exploratory study, we did not find associations between age, sex, race, highest education level, or household income with perceived peer attitudes toward HIV testing. However, we did find that HIV infection and lack of HIV testing in the past year were negatively correlated with perceived positive peer attitudes. More than 60% of PLWH participants did not feel their peers would have positive attitudes toward HIV testing while approximately 70% of HIV-negative patients felt their peers have positive attitudes on this topic. One possible explanation is that many PLWH have experienced stigma or stress related to an HIV diagnosis and assume that awareness of this among their peers may as a result make their peers less likely to have positive attitudes toward HIV testing. One social network study on PLWH provided a relevant finding that internalized stigma could influence

the disclosure of HIV positive status to their social network peers.<sup>16</sup> Interventions to increase engagement of HIV testing among peers of PLWH likely need to overcome stigma, fearfulness, or uncomfortableness around HIV and HIV testing.

Another point of consideration is attitudes among the participants who declined testing. Our results are consistent with other studies in finding that ED patients had generally favorable attitudes toward ED-based HIV testing.<sup>7,10</sup> Two studies<sup>17,18</sup> found that ED patients with undiagnosed HIV were more likely to decline HIV testing than those who were HIV-negative. This points to a need for further research into what factors that inhibit ED patients from accepting ED-based HIV testing, even when they have positive views of testing. Of note, this in-depth interview study as well as other studies,<sup>19</sup> explored the influence of several socio-demographic factors (e.g. age group, gender, and race) with perceived peer's attitudes on HIV testing. Although there were no statistically significant associations with socio-demographic factors in this study, these should not be ignored in future studies in this area.

During the study period, our HIV testing program was on an opt-in basis and non-targeted. Since then, other institutions studying this population in the Baltimore region have used opt-out consent for HIV testing.<sup>20</sup> Existing research has demonstrated that ED patients are receptive to opt-out HIV testing and view it as a solution to stigma associated with testing.<sup>21</sup> It warrants consideration whether and how this would affect patient perceptions, reporting and experience of friends' perceptions. Perhaps with a broader proportion of participation among fellow patients, there would be less stigma towards testing and fewer patients would decline. In light of the phenomenon of linkage between social ties and health status, a shift in testing attitudes may have some cascade effect on patients' peer networks. If so, intervention to educate and engage PLWH about the awareness of HIV status, may be of benefit especially to their peers with undiagnosed infection, who are socio-network connected to those PLWH patients.

## LIMITATIONS

Several limitations are relevant to this study's results. Our findings which were based on participants' perceived viewpoint regarding their friends' opinions HIV testing in general might not accurately reflect their peer's attitudes and actions toward HIV testing. Further studies are warranted to determine the correlation between perceived attitudes of index participants and the actual attitudes of their peers on HIV testing. Another limitation could be that the index participants only described the perceived views of their most important peer or majority of their peers. Perceived attitudes of the remaining friends were not reported to us during the interview. Social desirability bias may also play a role in the results we observed. Due to this bias, participants may have over-reported views among their peer networks that may be more "favorable" and/or under-represented those that may be "unfavorable" to friends or family.<sup>22</sup> Additionally, our ED testing program is long standing, which may make the JHH ED population more familiar with testing than some other urban ED populations. Furthermore, since this is a mixed-methods study intended to explore perceived peer attitudes on HIV testing as well as the correlates, it was not designed to find statistically significant associations. Finally, our sample based on convenience sampling and



coverage hours was likely not representative of our ED patient population. Participants' perception of HIV testing or of their peers' attitudes on HIV testing could also likely be influenced by the prevalence of HIV in their sociodemographic subgroups (e.g. high prevalence in younger age group, African American, lower socioeconomic status, or bisexual/MSM). Therefore, generalizability of our findings may be limited to similar populations.

## CONCLUSIONS

The majority of ED patient participants believed that their friends were likely to accept testing in an ED and had positive attitudes on HIV testing in general. Most participants offered a test in the ED accepted or indicated that they were recently tested. The findings from our study suggest that ED-based HIV testing is acceptable to urban patients and their friends in Baltimore. Future studies could explore interventions utilizing peer networks to address concerns about HIV testing and increase testing acceptance.

## Acknowledgments

### Funding Source

This work was supported by the National Institute of Allergy and Infectious Disease (NIAID), National Institutes of Health (NIH) (grant# K01AI100681).

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**Table 1.**

Characteristics of 86 patients interviewed.

Characteristics	Categories	Number	(%)
HIV Status (self-reported)	HIV negative	64	74%
	HIV positive	22	26%
Age (years)	Mean (SD)	40 ± 11.3	
	18–29	21	24%
	30–39	22	26%
	40–49	14	16%
	50–59	23	27%
	60	6	7%
Gender	Female	45	52%
Race	African American	69	80%
	White	15	17%
	Other	2	2%
Sexually active in last 3 months	Yes	48	56%
Sexuality	Heterosexual	78	91%
	MSM	6	7%
	Bisexual women	1	1%
	Unsure	1	1%
Drug use	Injection drug use (ever)	7	8%
Education level	Grade 12 or less	40	47%
	HS grad or GED	16	19%
	Some college	15	17%
	College or graduate degree	15	17%
Annual household income	0–15K	54	63%
	15–30K	12	14%
	30–50K	8	9%
	>50K	11	13%
	Unknown	1	1%
ZIP code groups	Near JHH ED	29	34%
	Other Baltimore City	43	50%
	Non-Baltimore City	13	15%
	Unknown	1	1%

**Table 2.**

Likelihood of friends accepting HIV tests in an ED compared to friends' attitudes on HIV testing in general, based on patients' perception.

Friends' likelihood of accepting	Friends' attitudes on HIV testing	Total patients	%	Example response
Likely, n=71	Positive attitude	46	65%	<i>They would get it...I'm guessing because umm...because they're having sex...You gotta make sure. (African American female, mid 30s, HIV-negative)</i>
	Mixed feelings	3	4%	<i>Some care, some don't. (African American male, mid 50s, HIV-negative)</i>
	Don't know	7	10%	<i>I don't know...it's a terminal illness (African American female, mid 20s, HIV-positive)</i>
	Uncomfortable, fearful	8	11%	<i>Scared of it...because you never know, anything can happen. (African American male, late 40s, HIV-negative)</i>
	Social stigma concerns	7	10%	<i>Secretive about it...worried about what people will say. (African American female, early 40s, HIV-positive)</i>
Unlikely, n=6	Positive attitude	2	33%	<i>They're ok with it...[unlikely to test because] we're all old people...[testing is a] good way to rule out a disease. (African American female, late 40s, HIV-negative)</i>
	Mixed feelings	1	17%	<i>Some are with it, some are afraid...cause i s HIV. (African-American male, mid 30s, HIV-positive)</i>
	Don't know	1	17%	<i>Never came up. (African-American female, late 50s, HIV-positive)</i>
	Uncomfortable, fearful	2	33%	<i>Scared of it... 'cause of their lifestyle. (African-American female, early 50s, HIV-negative)</i>
Don't know, n=9	Positive attitude	4	44%	<i>Generally, they're for it. (African-American male, late 40s, HIV-negative)</i>
	Mixed feelings	2	22%	<i>Don't think they want AIDS...[They get tested] to know whether or not they have it. (African-American male, late 20s, HIV-negative)</i>
	Don't know	2	22%	<i>Not sure...cause we don't talk. (African-American female, early 50s, HIV-negative)</i>
	Uncomfortable, fearful	1	11%	<i>Not something anyone wants to think about. ("Other"-race female, late 20s, HIV-negative)</i>

**Table 3:**

Perceived Peer's Attitudes on HIV Testing among 86 Emergency Department Patients by Demographic Characteristics

Characteristics	Number N=86	Friends' Attitudes on HIV Testing				
		Positive	Mixed	Don't Know	Uncomfortable	Stigma Concern
Age (years)						
18–39	43 (50)	28 (65)	4 (9)	3 (7)	7 (16)	1 (2)
40–64	43 (50)	24 (56)	2 (5)	7 (16)	4 (9)	6 (14)
Sex						
Male	41 (48)	25 (61)	3 (7)	5 (12)	6 (15)	2 (5)
Female	45 (52)	27 (60)	3 (7)	5 (11)	5 (11)	5 (11)
Race						
African American	69 (81)	42 (61)	4 (6)	9 (13)	8 (12)	6 (9)
Other	17 (19)	10 (59)	2 (12)	1 (6)	3 (18)	1 (6)

P-values for the comparison of positive peer's attitudes on HIV testing by age, sex, and race were 0.378, 0.926, and 0.877, respectively.

**Table 4:**

Perceived Peer's Attitudes on HIV Testing among 86 Emergency Department Patients by HIV Testing History in the Last Year and HIV Positivity Status

Friends' Attitudes on HIV Testing	HIV Status		
	HIV-Positive n=22	HIV-Negative	
		HIV Testing in the Last Year	
		No n=16	Yes n=48
Positive <sup>*†‡</sup>	8 (36)	9 (56)	35 (73)
Mixed	3 (14)	1 (6)	2 (4)
Don't Know	5 (23)	4 (25)	1 (2)
Uncomfortable/Fearful	2 (9)	2 (13)	7 (15)
Social Stigma Concerns	4 (18)	0 (0)	3 (6)

\* p=0.007 regarding perceived peer's positive attitudes by HIV positivity status.

† p=0.213 regarding perceived peer's positive attitudes by HIV testing history.

‡ p=0.014 when comparing the perceived positive attitudes among HIV-positive, HIV-negative but no testing last year, and HIV-negative and having testing last year; there was also a significant trend (p=0.003 for the Cochran-Armitage trend test).

**Table 5.**

Participant self-reported HIV status compared to friends' attitudes on HIV testing in general, based on patients' perception.

Self-Report HIV Status	Friends' attitudes about HIV testing in general	Total patients	%	Example response
HIV Positive, n=22	Positive attitude	8	36.4%	<i>Think it's critical and absolutely want to know... B/c they've seen the horrible results (White male, late 50s)</i>
	Mixed feelings	3	13.6%	<i>Some are with it, some are afraid... cause i s HIV (African American male, mid 30s)</i>
	Don't know	5	22.7%	<i>I don't know... it's a terminal illness (African American female, mid 20s)</i>
	Uncomfortable, fearful	2	9.1%	<i>Nervous and uncomfortable... puts fear in people. (African American male, mid 30s)</i>
	Social stigma concerns	4	18.2%	<i>Secretive about it... worried about what people will say. (African American female, early 40s)</i>
HIV Negative, n=64	Positive attitude	44	68.8%	<i>They would get it... I'm guessing because umm... because they're having sex... You gotta make sure. (African American female, mid 30s)</i>
	Mixed feelings	3	4.7%	<i>Some care, some don't. (African American male, mid 50s)</i>
	Don't know	5	7.8%	<i>Never talked about it. (White female, early 60s)</i>
	Uncomfortable, fearful	9	14.1%	<i>Scared of it... because you never know, anything can happen. (African American male, late 40s)</i>
	Social stigma concerns	3	4.7%	<i>People are scared... would rather go to a private place to test ("Other" race/non-Hispanic male, mid 30s)</i>