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Implementing Bathhouse-Based Voluntary Counseling and Testing has no Adverse Effect on Bathhouse Patronage among Men who have Sex with Men

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Abstract

Background—Implementing HIV voluntary counseling and testing (VCT) in bathhouses is a proven public health strategy for reaching high-risk men who have sex with men (MSM) and efficiently identifying new HIV cases. However, some bathhouse managers are concerned that VCT programs could adversely affect business. This study examined whether offering VCT on the premises of a bathhouse changed patterns of patron visits.

Methods—A collaborating bathhouse provided electronic anonymized patron data from their entire population of attendees. VCT was offered on premises with varying frequencies over the course of 3 years. Club entrances and exits were modeled as a function of intensity of VCT programming.

Results—Club entrances did not differ as a function of how many days per week testing was being offered in a given month. Additionally, club entrances did not decrease, nor did club exits increase during specific half-hour time periods when testing was offered.

Conclusions—Implementing bathhouse-based VCT did not have any demonstrable impact on patronage. Public health officials can leverage these results to help alleviate club managers' concerns about patron reactions to providing testing on site, and to support expanding sexual health programs for MSM in these venues.

Keywords

HIV Counseling and Testing; Outreach; Men who have sex with men; Bathhouses

Introduction

Diagnosing unidentified HIV infections is a cornerstone of the international approach to HIV prevention.¹ To achieve this, routine HIV screening in healthcare settings is increasingly recommended, together with provision of voluntary counseling and testing

(VCT) outside medical settings in locations frequented by high-risk individuals who are willing to test.^{1, 2} A large proportion of men who have sex with men (MSM) who report recent unprotected anal intercourse also indicate that they frequent bathhouses or sex clubs.^{3, 4} Research documents that bathhouse-based VCT using both standard and rapid testing technologies is a feasible strategy for reaching high-risk men who are recently untested, and VCT in this setting often returns a higher proportion of HIV-positive cases among MSM than other testing locations.^{5–9} Despite the promise of bathhouse-based VCT, distribution of testing programs to these venues is incomplete. A recent study of bathhouses and sex clubs in North America revealed that 32% do not offer any kind of testing program onsite.¹⁰ One concern venue managers have in collaborating with public health officials to offer VCT is that testing will adversely affect business, as patrons might be put off by reminders of HIV and STDs.¹¹ This study examined whether offering VCT on the premises of a bathhouse changed patterns of patron visits.

Method

A collaborating bathhouse provided anonymized electronic records of every entrance and exit to their establishment from their entire population of patrons. Data were analyzed for consecutive 3-month periods (end of October through end of January) in each of 3 years. A VCT program was implemented in the bathhouse with different frequencies during various segments of time.

Details of the testing program have been reported elsewhere.^{12, 13} All testing was done anonymously, using oral testing technologies. Both standard and rapid tests were offered at different times. To advertise services, an outreach worker actively recruited patrons to test as they passed through the area of the club where the program was set up, fliers announcing the testing were posted around the club, and periodic announcements were made over the public address system. During 2001–2002, testing occurred once weekly on Saturdays for 6 hours. During 2002–2003 and 2003–2004 testing was added for another 3 hours on Wednesday evenings. Additionally, for 5 weeks during 2002–2003 an intensive “test-a-thon” provided testing 5 days per week for 3–6 hours per day. This variability allowed us to examine two potential impacts of testing: (a) that increasing frequency of testing within a club creates an overall pall on patronage, evidenced by fewer entrances to the club during phases when testing is offered more regularly, and (b) that any specific testing session creates an isolated effect on patronage, evidenced by either decreased entrances or increased exits to the club during an isolated testing session, relative to comparable days/times when testing is not offered.

We carved each day into 48 half-hour periods, and calculated the number of entrances to and exits from the club within each period. This yielded a total of 13,821 half-hour periods for analysis. Periods were coded to indicate whether a specific testing session overlapped with the period, and whether the period fell during a larger phase when testing was offered once, twice, or five times weekly.

Results

To examine whether increasing testing frequency created overall changes to patronage, we modeled the number of entrances to the club across all half hour periods. The primary predictor was the number of days per week that testing was occurring in the club during that month. Day of week, month, and year were included to account for temporal trends in club use unrelated to testing. Although expected differences were observed across days of the week (i.e., Saturdays were busier), club entrances did not differ depending on how many days per week testing was offered (see Table 1).

To examine whether implementing a specific testing shift had an isolated impact on patronage during the shift, we first selected only the 1567 half hour periods that overlapped with a day and time when testing might have been offered during certain months. We then modeled the number of club entrances and exits as a function of whether testing was actually being offered during that specific half-hour time. Relative to day and time-matched half-hours without testing, during half hours periods when testing was occurring, there was no decrease in the number of entrances to the club or increase in exits from the club.

Discussion

Implementing bathhouse-based VCT did not have any demonstrable impact on patronage. Bathhouse entrances remained stable, regardless of whether VCT was being offered once, twice, or 5 times weekly. Moreover, men did not enter the bathhouse with less frequency or exit more rapidly during times when specific testing shifts were occurring. Thus, concerns about the financial impact of testing on bathhouse business appear to be unfounded.

These findings must be qualified by two limitations. Because testing was operating within the bathhouse at least one day/week throughout our observation period, we cannot be certain that having absolutely no testing program on site might not improve patronage. Additionally, although we observed little effect of one specific model of testing, we cannot rule out the possibility that testing programs using other methods (e.g., more aggressive outreach; less sensitive staff) might impact patronage.

These data provide further support for the feasibility of collaborating with bathhouses to implement VCT – sensitive programs appear to have no negative impact on business. Moreover, they successfully attract high-risk men into testing and efficiently identify new HIV cases.^{5, 7, 8} Public health officials may find these results help alleviate club managers' concerns about patron reactions to providing testing on site. Additionally, the approach of monitoring patron turnover can provide an objective basis for negotiating new or expanded public health programs in these venues.

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Table 1

Negative Binomial Regression Models Predicting Club Entrances and Exits

	Effects of overall testing frequency on patronage (n = 13,821, ½ hour blocks)	Effects of specific testing session on patronage during session (n = 1567, ½ hour blocks)	
	Club Entrances per ½ hour	Club Entrances per ½ hour	Club Exits per ½ hour
<i>Predictor</i>	e^{β} (95%CI) ¹	e^{β} (95%CI) ¹	e^{β} (95%CI) ¹
# Days Per Week Testing Offered	1.00 (0.98–1.02)		
Testing Session Occurring during ½ hour?			
Yes		1.02 (0.96–1.07)	1.00 (0.94–1.06)
No		Ref	Ref
Weekday			
Sunday ²	1.10 (1.05–1.15)		
Monday ²	0.71 (0.68–0.75)		
Tuesday	0.59 (0.56–0.62)	0.64 (0.61–0.68)	0.71 (0.66–0.75)
Wednesday	0.62 (0.59–0.65)	0.64 (0.61–0.67)	0.75 (0.71–0.79)
Thursday	0.64 (0.61–0.67)	0.76 (0.71–0.80)	0.73 (0.68–0.79)
Friday	0.79 (0.75–0.82)	0.77 (0.72–0.82)	0.56 (0.52–0.60)
Saturday	Ref	Ref	Ref
Month			
November	1.04 (1.00–1.08)	1.02 (0.98–1.06)	1.05 (1.00–1.10)
December	1.05 (1.02–1.09)	1.03 (0.99–1.07)	1.06 (1.01–1.11)
January	Ref	Ref	Ref
Year			
2001–2002	1.05 (1.01–1.09)	1.00 (0.96–1.04)	1.01 (0.96–1.06)
2002–2003	1.04 (1.00–1.08)	1.00 (0.96–1.04)	0.97 (0.93–1.02)
2003–2004	Ref	Ref	Ref

¹The exponentiated coefficient from negative binomial regression reflects the amount of change in the count of the outcome, as a function of change in the predictor; for continuous predictors (# days/week testing offered) the exponentiated coefficient indicates that for every one day per week that testing is increased, the expected count of club entrances per half hour should change by a multiple of that value (i.e., 1.00); for categorical predictors (e.g., Weekday), the expected number of entrances or exits to the club should differ by a multiple of the value of the exponentiated estimate, relative to the reference group. Thus, confidence intervals overlapping with 1.0 indicate no effect.

²Because testing was never offered on Sundays or Mondays, these days of the week were not included in the analysis of the effects of specific testing sessions on patronage.