

Dogs Are Talking: San Francisco's Social Marketing Campaign to Increase Syphilis Screening

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Abstract: To promote regular syphilis testing among men who have sex with men in San Francisco, a social marketing campaign, Dogs Are Talking, was created. An evaluation of the campaign found no difference in syphilis testing among men who recalled the campaign and those that did not. A significant difference was seen among HIV-infected men.

Following historic lows in the late 1990s, syphilis rates increased dramatically in San Francisco in 2001, with a peak of 552 early syphilis cases (71.1 per 100,000) in 2004. Since 2001, nearly all new syphilis cases (>90%) were found among men who have sex with men (MSM).¹ Additionally, almost two-thirds of MSM with syphilis were co-infected with human immunodeficiency virus (HIV). The San Francisco Department of Public Health recommends that MSM be screened for syphilis every 3 to 6 months.² To increase awareness and promote regular syphilis testing among MSM, we implemented a social marketing campaign, Dogs Are Talking. Previous social marketing campaigns in San Francisco were shown to be positively associated with increased syphilis testing.^{3,4}

Social marketing has been utilized for several decades to promote social causes and behavior change using traditional marketing techniques.⁵ Product, promotion, place and price are all key elements of traditional marketing campaigns that can be used in social marketing.⁵ Several cities across the United States have used social marketing campaigns to improve public awareness about syphilis. In a review by Vega and Roland, 8 cities with high incidence rates of syphilis used social marketing campaigns tailored to their local audiences to improve syphilis testing among MSM; 5 cities reported campaign awareness of at least 70%.⁶

Dogs Are Talking was a syphilis awareness social marketing campaign created in conjunction with a local social marketing firm. On the basis of feedback from community

members and the available bids from advertising agencies, a team of social marketers, public health practitioners, and community members decided on a dog-themed campaign, which was meant to appeal to the large number of dog owners within the gay and bisexual community in San Francisco. Refer to the Supplementary guide for more information on campaign design

TABLE 1. Proportion of Survey Respondents Reporting at Least One Syphilis Test in the Past Six Months, San Francisco, 2008

| | Total (n = 289) | Proportion Reporting Syphilis Testing in Last 6 mo | | P |
|---------------------------|--------------------|--|--------------------|--------------|
| | | Recall (n = 94) | No Recall (195) | |
| Total | 289 | 62 (66.7%) | 110 (56.4%) | 0.097 |
| Age group, yr | | | | |
| <25 | 20 (80.0%) | 5 (71.4%) | 15 (83.3%) | 0.597 |
| 25–34 | 61 (64.9%) | 23 (65.7%) | 38 (64.4%) | 0.898 |
| 35–44 | 48 (46.7%) | 21 (75.0%) | 27 (55.1%) | 0.083 |
| 45–54 | 34 (46.6%) | 7 (50.0%) | 27 (45.8%) | 0.775 |
| 55+ | 9 (47.4%) | 6 (66.7%) | 3 (30.0%) | 0.179 |
| Race | | | | |
| American Indian | 3 (75.0%) | 1 (50.0%) | 2 (100.0%) | 1.0 |
| Asian/Pacific | | | | |
| Islander | 17 (70.8%) | 4 (75.0%) | 13 (65.0%) | 1.0 |
| Black | 15 (55.6%) | 5 (62.5%) | 10 (52.6%) | 0.638 |
| Hispanic | 29 (64.4%) | 11 (78.6%) | 18 (60.0%) | 0.314 |
| Other | 15 (75.0%) | 7 (71.4%) | 8 (61.5%) | 1.0 |
| White | 95 (56.5%) | 37 (63.8%) | 58 (52.7%) | 0.169 |
| Education | | | | |
| Some high school | 6 (75.0%) | 2 (66.7%) | 4 (80.0%) | 1.0 |
| High school | 33 (56.9%) | 8 (72.7%) | 25 (50.2%) | 0.239 |
| Some college | 48 (57.1%) | 15 (57.7%) | 33 (57.9%) | 0.986 |
| College graduate | 50 (56.8%) | 20 (62.5%) | 30 (53.6%) | 0.416 |
| Some graduate | 35 (68.6%) | 17 (81.0%) | 18 (60.0%) | 0.113 |
| Income, annual | | | | |
| <\$35,000 | 88 (57.9%) | 30 (65.2%) | 58 (55.2%) | 0.252 |
| \$35,000–\$50,000 | 18 (56.3%) | 6 (75.0%) | 12 (50.0%) | 0.412 |
| \$50,000–\$75,000 | 21 (53.8%) | 5 (45.5%) | 16 (57.1%) | 0.510 |
| \$75,000+ | 41 (68.3%) | 20 (76.9%) | 21 (61.8%) | 0.211 |
| HIV status | | | | |
| Uninfected | 107 (54.6%) | 34 (56.7%) | 73 (54.1%) | 0.737 |
| Infected | 61 (72.6%) | 26 (86.7%) | 35 (64.8%) | 0.031 |
| Unknown | 3 (37.5%) | 1 (50.0%) | 2 (33.3%) | 1.0 |
| Casual partners* | 106 (37.1%) | 38 (74.5%) | 68 (63.6%) | 0.171 |
| Internet partners† | 65 (73.9%) | 23 (76.7%) | 42 (72.4%) | 0.667 |
| Sex club or bathhouse‡ | 36 (70.6%) | 17 (77.3%) | 19 (65.5%) | 0.362 |

*Respondents who reported having at least one sex partner that they did not know very well (casual acquaintances or had just met for the first time) in the past month.

†Respondents who reported at least one sex partner met through the Internet in the past month.

‡Respondents who reported attending a sex club or bathhouse to have sex in the past month.

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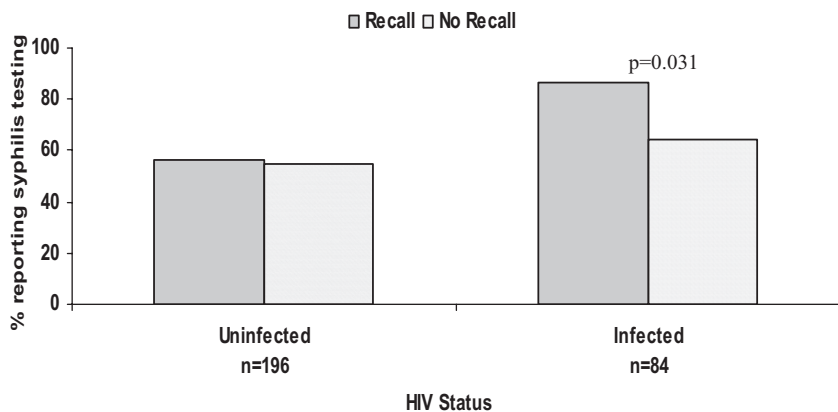


Figure 1. Proportion of respondents reporting syphilis testing in past 6 months based on campaign recall by HIV-infection status, San Francisco, 2008.

and implementation (Supplemental Digital Content 1, available online only at <http://links.lww.com/OLQ/A5>).

The campaign, which launched in July 2007, ran for approximately 15 months. It targeted 2 neighborhoods within the city where MSM live and socialize—Castro and South of Market—and had a budget of approximately \$60,000. Dogs Are Talking (www.dogsaretalking.com) utilized promotional posters, weekly advertisements in a community newspaper, and dog-themed giveaways. Monthly campaign posters incorporated several consistent themes such as syphilis symptom recognition and risk factors for infection including having multiple partners, meeting partners on the Internet, coinfection with HIV, and methamphetamine use. The campaign also promoted the municipal sexually transmitted disease clinic and a website through which San Francisco residents could be tested for syphilis and other sexually transmitted diseases. Using a community-based sample of MSM, we evaluated the effectiveness of the Dogs Are Talking campaign. Specifically, we assessed whether exposure to the campaign was associated with syphilis testing and syphilis knowledge.

Interviewers administered a street-intercept survey among a convenience sample of gay and bisexual men between June and August 2008, in the Castro and South-of-Market neighborhoods in San Francisco. Eligible respondents were male or transgender, aged 18 and 60 years, reported male or male-to-female transgender partners, and were San Francisco residents. Interviewers collected demographic information, campaign knowledge, key campaign messages, syphilis knowledge, sexual practices in the past month, HIV-infection status, and syphilis testing in the past 6 months. If respondents identified the campaign either spontaneously or with the help of a visual aid, they were categorized as recalling the campaign; all others were considered to have no campaign recall. Pearson's chi-squared and Fisher's exact tests were used to assess differences in reported syphilis testing in the past 6 months and syphilis knowledge by campaign recall. As this evaluation was a form of public health activity, this study was considered exempt from human subjects' considerations in accordance with the Code of Federal Regulations, Title 45.

Two hundred and eighty-nine eligible MSM completed the survey between June and August 2008. Characteristics of those surveyed are shown in Table 1. Overall, 58% (168) were white, 77% (223) had at least some college education, and 60% (172) (95% CI: 54%–65%) reported at least one syphilis test in the past 6 months. The median age was 38 years (range: 18–60), and 29% (84) reported being HIV-infected. Approximately 33% (94) (95% CI: 27%–38%) reported recall of the

campaign; of those respondents, 56% (53) (95% CI: 46%–67%) recalled the campaign spontaneously, and 44% (41) (95% CI: 33%–54%) recalled the campaign when prompted with a visual aid.

Overall, 67% of men who recalled the campaign had a syphilis test in the past 6 months compared with 57% who did not recall the campaign ($P = 0.097$). There was no association between syphilis testing in the past 6 months and campaign recall, when analyses were stratified by age group, racial or ethnic group, education or income level, or among respondents who reported at least one casual partner in the past month, having met sex partners on the internet, or attending a sex club or bathhouse to have sex. However, 86.7% of HIV-infected men who recalled the campaign reported being tested for syphilis in the past 6 months compared with 64.8% of HIV-infected men who did not recall the campaign ($P = 0.031$) (Fig. 1).

In addition to promoting regular syphilis screening, the campaign also intended to increase syphilis knowledge through messages about common symptoms. We examined associations between recall status and syphilis knowledge, stratified by HIV-infection status. Among HIV-uninfected MSM there were no significant differences (all $P > 0.05$) in syphilis knowledge based on recall of the campaign (Fig. 2A). However, HIV-infected men who recalled the campaign were more likely to know how to determine if you were infected with syphilis than those who did not recall the campaign ($P = 0.031$) (Fig. 2B).

Approximately one-third of survey respondents recalled the Dogs Are Talking campaign. Campaign awareness can be used to measure the effectiveness of social marketing. While a 30% population-level prevalence of awareness is considered the baseline for the beginning of successful behavioral change, highly successful campaigns have been shown to reach between 45% and 88% of the target population.⁶ The Healthy Penis campaign, which ran from June 2002 to December 2005, was previously used to promote syphilis testing among MSM in San Francisco, and was considered successful in increasing awareness and testing among the target population; campaign recall was 80% and 85% respectively during 2 evaluations over the 3-year campaign period.³ In contrast, Dogs Are Talking was recalled by only 33% of survey respondents. However, Dogs Are Talking was actively promoted for a shorter time period and had a substantially smaller budget than Healthy Penis (\$400,000 over 3 years). Additionally, Healthy Penis was created and marketed in conjunction with the Los Angeles County Department of Public Health's Stop the Sores campaign, which provided additional exposure throughout California.

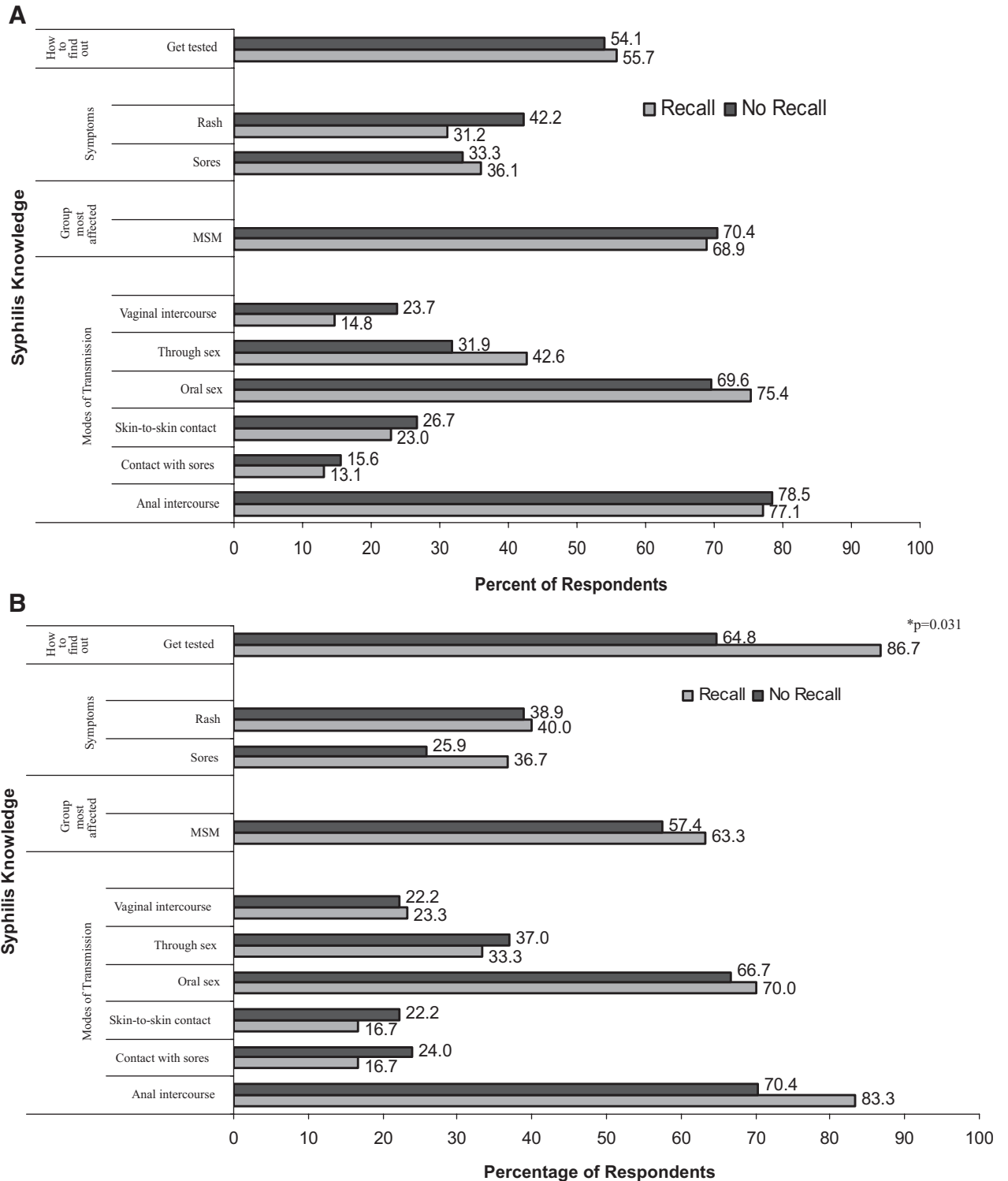


Figure 2. A, Syphilis knowledge among HIV-uninfected survey respondents, San Francisco, 2008. B, Syphilis knowledge among HIV-infected survey respondents, San Francisco, 2008.

Overall, there was no association between the recall of the campaign and syphilis testing in the past 6 months, the primary goal of the campaign. However, recall of the Dogs Are Talking campaign was significantly associated with syphilis

testing among HIV-infected MSM, a population disproportionately affected by syphilis. Because of the cross-sectional design and targeting of HIV-care sites, it cannot be determined from this evaluation if HIV-infected MSM were already getting

regular syphilis tests as part of their routine care or whether Dogs Are Talking was effective in encouraging more routine syphilis testing in this population. However, existing data suggest that HIV-infected men in San Francisco report more syphilis testing than HIV-uninfected men; 70% of HIV-infected men compared with 50% of HIV-uninfected men reported syphilis testing in the past 6 months (unpublished data from the San Francisco STOPAIDS Project). These findings are reassuring given a majority of syphilis cases in San Francisco are found among HIV-infected men.

There were several limitations to this evaluation. The population surveyed was a convenience sample from 2 neighborhoods within the city. Therefore, the sample may not be representative of all MSM in San Francisco. However, these were the 2 neighborhoods where the campaign was focused. Additionally, because this survey was interviewer administered, there may have been some response bias. The survey was conducted over a period of 3 months, which also could have possibly allowed for respondents to complete the survey more than one time. Furthermore, this study was designed and powered to assess the primary association between campaign recall and syphilis testing in the prior 6 months, assuming a much higher campaign recall rate. As a result, this analysis may have been underpowered particularly in the subgroup analyses. Additionally, the cross sectional nature of this evaluation prevents assessing causality. For example, men may have seen Dogs Are Talking materials when they went to get syphilis tested, and not prior.

While campaign recall was not associated with syphilis testing among the general population of MSM surveyed, among HIV-infected MSM, exposure to the Dogs are Talking campaign was associated with increased syphilis screening. Given that a majority of early syphilis cases in San Francisco are HIV-infected, these findings are encouraging. Future social marketing campaigns should examine the impact among high-risk subgroups of the target population through continued evaluations, and should use ongoing quality improvements to tailor campaigns appropriately and effectively.

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