

SEXINFO: A Sexual Health Text Messaging Service for San Francisco Youth

Deborah Levine, MA, Jacqueline McCright, MPH, Loren Dobkin, MPH, Andrew J. Woodruff, MPH, and Jeffrey D. Klausner, MD, MPH

In response to rising gonorrhea rates among African American youth in San Francisco, Calif, Internet Sexuality Information Services, Inc, in partnership with the San Francisco Department of Public Health, developed SEXINFO, a sexual health text messaging service. SEXINFO is an information and referral service that can be accessed by texting "SEXINFO" to a 5-digit number from any wireless phone. A consortium of community organizations, religious groups, and health agencies assisted with identifying culturally appropriate local referral services. We conducted focus group sessions among youth aged 15 to 19 years to discuss the viability of the service. Usage of the service has been greater than expected, and an initial evaluation to assess the impact of SEXINFO on increasing access to sexual health services among at-risk adolescents has had promising results. (*Am J Public Health*. 2008;98:XXX–XXX. doi:10.2105/AJPH.2007.110767)

SAN FRANCISCO, CALIF, HAS

been experiencing an increase in gonorrhea among heterosexuals, particularly among African American youths aged 15 to 19 years. In this group, there were 45 more cases of gonorrhea in 2005 than in 2004, an increase of over 100%.1 In 2005, African American women in San Francisco had a rate of gonorrhea that was 12 times the rate of White women—a 69% increase from 2004.1

Contemporaneous with the rising sexually transmitted infection (STI) rates, mobile phone use has been increasing among the same populations. A survey by Dobkin et al.² revealed that 85% of San Francisco youths, aged 12 to 24

years owned cellular phones, whereas the Pew/Internet & American Life Project found that 33% of all US adolescents aged 12 to 14 years and 66% of high school seniors own cellular phones.³

In response to these trends, Internet Sexuality Information Services, Inc. (ISIS-Inc), in partnership with the San Francisco Department of Public Health (SFDPH), developed SEXINFO, a sexual health text messaging service in April 2006. The service was inspired by London's Brook Centres' program.⁴ SEXINFO provides basic facts about sexual health and relationships, as well as referrals to youth-oriented clinical and social services.

The service is opt-in, whereby youths text the word, "SEXINFO," to a 5-digit number, then receive a phone tree with codes instructing them to text, for example: "B2 if u think ur pregnant," "D4 to find out about HIV," or "F8 if ur not sure u want to have sex."

No diagnoses are made over the system; instead, all messaging includes basic STI and HIV info and referrals for in-person consultation. There is a companion Web site (http://www.sextextsf.org), where parents and others can see sample messages online. SEXINFO cost \$20 000 to develop, \$15 000 for initial marketing and evaluation efforts, and \$1500 per month to maintain.

DEVELOPMENT AND IMPLEMENTATION

Four focus groups of youths were conducted by ISIS-Inc and SFDPH to discuss the feasibility of the service and assist with its development and marketing. The participants had access to unlimited text messaging on their phones and considered SEX-INFO a private and valuable service as long as they initiated the messaging.

A consortium of community organizations met regularly to provide guidance to ISIS-Inc and SFDPH, including staff from clinics serving African American youths, high school health programs, juvenile probation departments, and clergy from a large African American congregation.

New text message scripts were developed by health educators at ISIS-Inc, incorporating knowledge from the focus group transcripts. Each message conformed to a 160-character limit, including spaces.

ISIS-Inc worked with contract engineers to set up SEXINFO,



Sample palm card used for marketing SEXINFO.

> ensure the confidentiality of users and speed, and accuracy of the service, and to establish methods for simple record keeping.

> ISIS-Inc and SFDPH worked with SFDPH's Youth United Through Health Education program⁵ to develop and test materials to promote SEXINFO. Posters, palm cards, and bus shelter ads were placed in strategic

locations in the neighborhoods populated by African American youths. Outreach workers distributed palm cards on the street and in schools. Banner ads targeted to youths aged 18 to 24 years ran for 2 weeks on Yahoo! (http://www.yahoo.com). A media press release was picked up by multiple news publications, including local television and radio, the San Francisco Chronicle, and USA Today.

DISCUSSION AND EVALUATION

In the first 25 weeks of service (April–October 2006), there were more than 4500 inquiries; 2500 of those inquiries led to access to more information and referrals. The top 3 messages accessed were: (1) "what 2 do if ur condom broke"; (2) "2 find out about STDs"; and (3) "if u think ur pregnant" (Table 1).

To assess the demographic characteristics of SEXINFO users who accessed sexual healthcare, SFDPH conducted surveys in July of 2006 of a convenience sample of patients in 3 clinics to which

SEXINFO users were most commonly referred. Registration staff at the 3 select clinics collected anonymous data regarding sexual behaviors and SEXINFO awareness and use from 322 patients aged 12 to 24 years. Consistent positive associations were found between demographic risk factors for STIs and campaign awareness. Overall, 11% of respondents reported awareness of the SEX-INFO campaign. In univariate analysis, African American youths were more likely to report awareness, compared with all other races (16% vs 9%; odds ratio [OR] = 2.02; 95% confidence interval [CI] = 0.96, 4.23; P = .06). Youths living in geographic target areas were significantly more likely to be aware (20% vs 8%; OR = 2.88; 95% CI = 1.39, 5.37; P=.004) than were younger participants aged 12 to 18 years (23% vs 6%; OR = 5.03; 95% $CI = 2.39, 10.58; P \le .001$) or those with the least expensive cell phone provider (21% vs 5%; OR = 5.00; 95% CI = 2.26, 11.10; $P \le .001$).

Public health staff surveyed 214 additional youth aged 12 to

TABLE 1-All Messages in the SEXINFO Information and Referral Service, Ranked by Frequency of Selection Over a 25-Week Period: San Francisco, Calif, April-October 2006

nking	Code (Message)	No. of Inquiries
1	A1 (if ur condom broke)	532
2	C3 (to find out about STDs)	486
3	B2 (if u think ur pregnant)	372
4	D4 (to find out about HIV)	277
5	E9 (if ur sexually active)	199
6	F6 (if they're cheating on u)	181
7	F8 (if ur not sure u want to have sex)	158
8	E7 (if u think u might be gay)	110
9	E5 (Need to speak to some one now)	78
10	G11 (if u need a place to stay)	59
11	F10 (if someone's hurting u)	44

Note. STD = sexually transmitted disease.

FIELD ACTION REPORT

24 years at 10 different San Francisco locations to further assess the demographic reach of the marketing campaign in August to November 2006. Overall, 44% of youths interviewed remembered seeing ads for SEX-INFO. Similar to the prior survey, 93% of youths who saw the campaign were African American, 77% lived in the target neighborhoods, and 90% had a cell phone.

Those who saw the campaign were more likely to be concerned about STIs, with 79% stating they were extremely concerned about sexually transmitted disease (9 or 10 on a 1-10 scale). Of those who saw the ad, nearly 10% sent a text message to the SEXINFO service. Text-sending youths were similar in age (mean $\pm SD = 15.6 \pm 1.7 \text{ years} \cos$ pared with youths who saw the ad but did not use the service (15.6 ±2.6 years), but younger than those who did not report seeing the ad at all (18.1 \pm 3.2 years; P=.03). Those who saw the ad reported that the text messaging feature and the fact that the program was cell phone-based caught their attention.

Next Steps

SEXINFO is an innovative means to reach youths with sexual health information and referrals. Based on preliminary evaluation data, it addresses a key way young people today access information and offers a highly specific means to reach lower-income youths. Further plans include expanded marketing and improved functionality, as well as more-rigorous research into its effectiveness in reducing disease transmission. Through small grants from private foundations, the services are being augmented and enhanced. With additional

evaluation, SEXINFO could be easily replicated in other cities and states, or could become a national service for all US youths.

Conclusions

Text messaging is a feasible and culturally acceptable way for at-risk youths to receive sexual health information and referrals to sexual and reproductive health services. Preliminary evaluation data show consistent positive associations between demographic and geographic risk factors for STIs and campaign awareness.

About the Authors

At the time of study, Deborah Levine was with Internet Sexuality Information Services, Oakland, Calif. Jacqueline McCright was with San Francisco Department of Public Health, San Francisco, Calif. Loren Dobkin was with the School of Public Health, University of California, Berkeley. Andrew J. Woodruff was with the School of Public Health, University of California, Berkeley, and the Internet Sexuality Information Services, Oakland. Jeffrey D. Klausner was with San Francisco Department of Public Health, San Francisco.

Requests for reprints should be sent to Deborah Levine, Internet Sexuality Information Services, 436 14th St, Oakland, CA 94612 (e-mail: deb@isis-inc.org). This report was accepted July 31, 2007.

Contributors

D. Levine conceptualized and implemented the program and wrote the brief. J. McCright assisted with focus groups, implementation, and marketing. L. Dobkin implemented the surveys and performed some data analysis. A. J. Woodruff edited the report and performed some data analysis. J. D. Klausner assisted with project conceptualization, evaluation, and arranged financial support for the pilot program.

Acknowledgments

This study was funded in part by a gift from the Kwan-Eustas Family Foundation to the University of California at Berkeley School of Public Health. Evaluation funded by the Full Circle Fund and the City and County of San Francisco.

We thank Alonzo Gallaread and the Youth United Through Health Education program members, San Francisco Department of Public Health Sexually Transmitted Disease Section staff, Reveal Communications, Rubye D. Peeples, Shelley Ball, Raul Cabra, Janet Kornblum, Jacob Moody, and the Community Partners of the San Francisco Bayview Hunter's Point Neighborhood.

Human Participant Protection

As public health practice, this evaluation was considered non-research. No human subjects approval was required.

References

- Sexually Transmitted Disease Prevention and Control Services. Increasing gonorrhea among African American heterosexuals in San Francisco: health advisory, March 28, 2006. San Francisco, Calif: San Francisco Department of Public Health: 2006.
- 2. Dobkin L, Kent C, Klausner J, Mc-Cright J, Kohn R, Levine D. Is text messaging key to improving adolescent sexual health? *J Adolesc Health*. 2007;40 (suppl):S14.
- 3. Lenhart A, Madden M, Hitlin P. Teens and Technology: Youth Are Leading the Transition to a Fully Wired and Mobile Nation. Available at: http://www.pewinternet.org/PPF/r/162/report_display.asp. Accessed April 11, 2007.
- 4. Teenagers to get safe sex texts. BBC News; November 10, 2004. Available at: http://news.bbc.co.uk/ 1/hi/health/3993963.stm. Accessed April 11, 2007.
- 5. Moss N, Gallaread A, Siller J, Klausner JD. "Street medicine": collaborating with a faith-based organization to screen at-risk youths for sexually transmitted diseases. *Am J Public Health*. 2004;94:1081–1084.