

A Syphilis Elimination Media Campaign in Oklahoma County

Marshall K. Cheney, M.A.

Department of Health Promotion Sciences, College of Public Health
University of Oklahoma Health Sciences Center
Oklahoma City-County Health Department
Oklahoma City, Oklahoma

Robert John, Ph.D.

Department of Health Promotion Sciences, College of Public Health
University of Oklahoma Health Sciences Center

Laura Brennan, B.A.

Oklahoma City-County Health Department
Oklahoma City, Oklahoma

Corresponding Author:

Marshall Cheney, Oklahoma City-County Health Department, 921 NE 23rd Street,
Oklahoma City, OK 73105. Email: marshall_cheney@occhd.org

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Abstract

Background: In 2001, Oklahoma County ranked 12th nationally for new cases of primary and secondary syphilis. The Centers for Disease Control and Prevention (CDC) provided funding for expanding an ongoing syphilis elimination program with the introduction of a media campaign based on social marketing principles with the dual objectives of increasing testing for syphilis among at-risk groups, and decreasing incidence of syphilis in Oklahoma County. Campaign messages targeted high morbidity populations; namely, White, African American, and Latino heterosexuals aged 20-39, as well as inmates of the county jail.

Methods: Campaign messages addressed the consequences of untreated syphilis, access to local testing, and treatment. Messages were pretested and refined based on focus-group sessions with the target audience. Results from a media preferences survey and input from additional focus groups guided message placement, which included advertisements on radio, billboards, and bus shelters, and on materials distributed in bars and nightclubs.

Results: Compared to the same months during the previous year, the media campaign was associated with a 14-17% increase in STD clinic visits. The monthly average of syphilis diagnoses increased 18% from the previous year, and the average number of cases per month in the year after the media campaign ended decreased by 43%. Additionally, the campaign was associated with a high level of campaign recall (> 66%) in the target population.

Conclusion: The addition of a media campaign to an established syphilis elimination effort increased syphilis testing, diagnosis and treatment among recognized high-risk populations.

Introduction

Syphilis is a preventable and curable sexually transmitted disease (STD). While the national prevalence of syphilis reached an all-time low of 2.6 per 100,000 people in 1998,¹ those cases have become concentrated and unevenly distributed within the United States. In 2001, 20 counties and one city accounted for half of all reported cases of primary and secondary syphilis in the U.S.² These rates were highest in the South, which accounted for 56% of the new cases in 2001. Syphilis rates are highest in poor communities, those with limited access to health care, and large unemployed and uninsured populations. Non-Hispanic Blacks had the highest rate of infection, almost 16 times that reported for non-Hispanic Whites.²

In 1999, the CDC established a national campaign to eliminate syphilis, targeting its efforts in those counties with the highest reported concentrations of syphilis cases.¹ Among that group was Oklahoma County, with a syphilis rate more than four times the national rate. The CDC provided funding to Oklahoma County through the Oklahoma City-County Health Department (OCCHD) for a multi-year effort that included street outreach and contact investigation, a testing program in the county jail, provider education, development of community partnerships, improved clinical services, and limited media materials (see Table 1, next page). Most of these activities were completed by 2002, before the media campaign

began. Activities that continued with the start of the media campaign were the routine surveillance activities, syphilis testing in the jail, street outreach, and the contact investigation activities of the Disease Investigation Specialists (DIS).

To reach those most at risk of acquiring and spreading syphilis, CDC provided additional funding (\$136,000) for a small media campaign in Oklahoma County, which ran from November 2002 to the end of 2003. The campaign objectives were to (1) increase testing and treatment for syphilis among the target groups and (2) decrease the incidence of syphilis in Oklahoma County.

Media campaigns can inform large groups of people relatively quickly about an issue and persuade them to take action or to change a belief.³ Public health practitioners can use media campaigns to influence a target population, framing an issue by making it salient to members of the target audience.³⁻⁵ In places where they have been introduced, syphilis elimination media campaigns, most as part of larger community-based syphilis elimination programs, worked to increase awareness of syphilis, its diagnostic tests, and treatment options within the community. These campaigns employed various materials and placement strategies, resulting in high awareness of the campaign among target audiences, which in some cases led to increased syphilis testing among those groups.⁶⁻¹⁰

Table 1. Syphilis Elimination Project Key Strategies 1999-2004

Key Strategy	Activities
Expanded OCCHD clinical services	<ul style="list-style-type: none"> • Put up acoustic barriers between STD check-in windows to create more privacy • Gave STD clients their own waiting room • Improved clinic customer service by increasing efficiency of clinic flow and turning away fewer walk-in clients. • Disease Investigation Specialist (DIS) drew blood or took a nurse out into the field to draw blood from clients who resisted coming to the clinic
Strengthen community involvement and partnerships	<ul style="list-style-type: none"> • Community Outreach: presentations to community-based organizations including law enforcement agencies, churches, community clinics, teachers, homeless shelters, drug rehabilitation, and peer groups. • Medical Community: articles in Oklahoma County Medical Society monthly bulletin, each month produced an update on infectious diseases in the county, DIS assigned as liaisons to targeted high risk providers
Improved case finding and treatment	<ul style="list-style-type: none"> • Expanded DIS duties: DIS allowed to transport clients in their cars to the clinic • Additional DIS placed in 2 community-based organizations • Community-based organizations go out with OCCHD DIS for hard to reach cases • DIS assigned to the Jail • Jail: offer free syphilis test to inmates at booking. Treatment begins within 12 hours
Enhanced health promotion	<ul style="list-style-type: none"> • RECAP: street intercept surveys, interviews with community members, providers, and inmates, and focus groups with community members. • Media: Syphilis article in local newspaper, radio interview • Education: created easier to read, more colorful information for STD clients • Medical community: educational presentations to medical groups and emergency room staff to increase testing and reporting • Teen survey: assessed teen understanding of post-diagnosis education provided by the STD nurse and materials given to them. • Latino youth: worked with Latino youth to develop culturally appropriate STD messages • Bus bench advertisements: Utilized materials from another project

Approach

Oklahoma City-County Health Department (OCCHD) staff used social marketing principles to provide guidance and structure to the process of message development and implementation. Social marketing relies on a comprehensive and systematic planning process, focusing campaign efforts on delivering a specific message to a specific segment of the population to change a specific

behavior. A social marketing approach allows the campaign message and strategy to come from the target audience, increasing message efficacy and making it less prone to the “expert view”, that is having opinions held by those who are knowledgeable about the subject but are not part of the affected population.^{5, 11}

Methods

Development of the media campaign involved the following steps: forming the planning group, the Syphilis Elimination Communications Committee; using epidemiological data to identify the target audience; conducting original formative research (focus groups and media preferences survey);

creating and pre-testing the campaign messages; implementing the media campaign; and evaluating the efficacy of the media campaign in meeting campaign objectives (see Figure 1 for the major campaign activities and timeline).

Figure 1. Syphilis Media Campaign Activity Timeline

1999	Syphilis Elimination Program initiated in Oklahoma County.
2001	Syphilis Elimination Communications Committee formed.
2002	
April	Syphilis Elimination Communications Committee developed media campaign objectives. Selected target audience.
May	Media preference survey completed with target audience.
June	Focus groups conducted with target audience. Summarized formative research and background materials and developed the marketing mix. Screened advertising agencies.
July	First interview with advertising agencies. Second interview with advertising agencies, viewed mock poster and discussed ideas for the campaign. Selected advertising agency then worked with agency to develop campaign messages. Tested and revised campaign messages.
Oct	Presentation of revised campaign messages to public health agencies, community agencies, and community members in areas where billboards would be placed.
Nov-Dec	Billboards go up.
2003	
Jan	Radio and Bar campaign launched.
Feb-April	Newspaper articles explaining campaign released.
April	Clinic survey testing exposure to campaign messages.

Media Campaign Planning Group

The Syphilis Elimination Communications Committee was charged with oversight of the media campaign. The Communications Committee was composed of health educators, community outreach staff, public information officers, physicians, health department administrators, the supervisor of the health department STD clinic, an epidemiologist, and a CDC field officer. OC-CHD health promotion staff were brought in to develop and implement the syphilis

media campaign under the guidance of the Communications Committee. Program staff reported periodically to the Communications Committee during the development of the media campaign. Use of this committee (that had overseen previous communication activities of the syphilis elimination project) as the planning group for this phase of the project ensured successful integration of the media campaign with other elements of the ongoing program.

Target Audience

In an effort to identify and treat the greatest number of syphilis cases, it was decided to target those individuals in the primary and secondary stages of the disease. Syphilis is more easily spread during those stages and individuals are more likely to remember recent sexual contacts and provide the DIS (Disease Information Specialist) with enough information to locate those sexual contacts for testing and treatment.

Epidemiological data of syphilis cases in Oklahoma County for 2000-2001 showed that White, African American, and Latino heterosexuals aged 20-39 years had the highest rates of primary and secondary syphilis, as well as county jail inmates. Nine areas of high morbidity (defined by zip code) within Oklahoma County were also identified. These neighborhoods were

characterized by low income levels, localized areas of prostitution and drug use, and growing Latino populations.

In addition to the above high-risk groups and areas, the data identified county jail inmates as a high morbidity group. A voluntary syphilis testing program in the county jail showed that the 25% of inmates who took advantage of the free testing composed almost half of all new cases of syphilis in Oklahoma County. In 2002, Oklahoma County reported the second highest proportion of syphilis cases identified in corrections facilities.¹² This may be due to a combination of factors including the syphilis testing program in the jail, Oklahoma's high rate of syphilis, and a higher rate of incarceration compared to other states.

Formative Research

Accomplishing behavior change in a target audience requires practitioners' comprehension of relevant issues from the audience's perspective. Formative research helps campaign planners create messages that resonate with the target audience.¹³ To make the best use of limited funds, OCCHD staff started their formative research using multiple sources including information from a literature review, expert input from CDC, a review of other syphilis elimination projects, and findings from a statewide Rapid Ethnographic Community Assess-

ment Process (RECAP) on HIV and syphilis conducted in 2000 (see Table 2 for a brief summary of the RECAP findings).¹⁴ These sources provided background information about the disease and the target population and guided the development of the media preferences survey and focus group questions. Findings from the media preferences survey and focus group discussions provided insight regarding local knowledge, beliefs, barriers, and benefits, and aided in message development and framing to promote behavior change.^{3,11,15,16}

Table 2. Oklahoma 2000 Rapid Ethnographic Community Assessment Process (RECAP) Findings

Community members had little knowledge of syphilis. Those under 40 were less knowledgeable than those over 40.
Latinos were the least knowledgeable about syphilis and did the least to protect themselves from sexually transmitted diseases.
Males considered themselves more at risk for syphilis than females.
The three most common strategies used to prevent sexually transmitted diseases were condom use, partner choice, and abstinence (in that order).
Compared to those with less than a high school education, those with a high school diploma or higher education were less likely to use a condom. The more educated had more sex partners, were more likely to use drugs and alcohol during sex, were less likely to consider themselves at risk for syphilis, and were more likely to use partner selection instead of condoms.
2/3 of those interviewed in Oklahoma County used alcohol and/or drugs during sex, and most of those denied that drugs and alcohol impaired their judgment.
Those over 30 chose a doctor or other health care professional as the most trusted source of sexual health information. Most named the health department as the second most trusted source. Those under 30 named doctor and health department as equally trusted and those under 20 named doctor, health department, and family equally.

Focus Groups

A small team from OCCHD and two community-based agencies (that conducted outreach activities during the syphilis elimination program) developed questions for the focus group discussions. Questions assessed the community's and group members' knowledge, attitudes and beliefs about the disease and testing, the vocabulary used to talk about syphilis, perceived barriers to the target behavior (getting tested for syphilis), perceived benefits of having the test, the target audience's opinions of what makes health messages effective (e.g. fear tactics or humor), and how to reach people like themselves with a syphilis elimination message.

Members of the high-morbidity populations participated in one of four focus groups. The two community-based agencies mentioned earlier recruited African American and Latino participants in the high-morbidity zip codes. The focus groups for the Latino and African American communities combined male and female participants and were conducted by an independent facilitator. The following criteria determined selection of focus group participants: residence in or near the high-morbidity zip codes, age between 20-39 years, and either Latino or African American. The Latino focus group was con-

ducted in English and Spanish. At the end of the session, each participant received a \$10 gift card (the maximum value allowed by the funder). After the discussion period, both groups created small posters that represented messages they felt would be effective in reaching their communities.

Two focus groups were conducted in the Oklahoma County Jail by staff from the OCCHD. Males and females were in separate groups. Focus group facilitators were not allowed to select the participants from the inmate population, so jail guards recruited inmate volunteers from specific floors. The guards then chose 10 participants from the volunteer pool for each of the two groups (guards were not comfortable with a random selection process but agreed to select a diverse group). All of the male and female inmates who participated in the focus group were non-violent offenders. Jail regulations only permitted candy bars as incentives for participation. Inmates did not make posters due to safety concerns with bringing scissors and other materials into the jail. Focus group responses were analyzed for themes common to all four groups and those unique to each group (see Table 3, next page, for a summary of focus group findings).

Table 3. Focus Group Findings

Focus Group	Themes
<p>Common to all groups</p>	<p>Presence of syphilis in the community</p> <ul style="list-style-type: none"> • Participants were surprised to learn that syphilis was still a problem in Oklahoma City. <p>Limited knowledge of syphilis/inaccurate information</p> <ul style="list-style-type: none"> • People in the community knew very little about syphilis • Communities needed to be fully educated about syphilis • Most participants had some basic knowledge of syphilis, such as signs and symptoms and how it is transmitted, except the Latina participants. • Group members stated that so much attention had been focused on HIV/AIDS, they had not considered that syphilis was still present in their community. <p>Effective messages should be scary and shocking, but then say what can be done to cure it</p> <ul style="list-style-type: none"> • All groups thought that the most effective messages were the ones that scared people. • Effective messages should make use of fears of consequences of untreated syphilis, but not too scary. • In the end, the groups wanted a message of hope. “Syphilis is real. Syphilis can be cured.” (African American group) <p>Include practical information</p> <ul style="list-style-type: none"> • Provide practical information in the messages “how we got it, what are we going to do about it, how do you get fixed, where do we go”(female inmates) • Provide a local phone number, not an 800 number <p>Use people who look like the target audience</p> <ul style="list-style-type: none"> • Messages should be delivered by people who looked like the target audience and who they could relate to. <p>Influence of drugs on sexual behavior</p> <ul style="list-style-type: none"> • The lifestyle of drug users and sex workers puts them at risk for exposure to syphilis, but they are difficult to reach. • Prevention messages are not successful with drug users
<p>Strengthen community involvement and partnerships</p>	<ul style="list-style-type: none"> • Community Outreach: presentations to community based organizations including law enforcement agencies, churches, community clinics, teachers, homeless shelters, drug rehabilitation, and peer groups. • Medical Community: articles in Oklahoma County Medical Society monthly bulletin, each month produce an update on infectious diseases in the county, DIS assigned as liaisons to targeted high risk providers

Table 3. Focus Group Findings (continued)

<p>Latinos (n=9, age range 20s to early 40s)</p>	<ul style="list-style-type: none"> • The primary concern was their community, the family in particular. • Latino parents want their children taught about sex and STDs in school because many parents do not know enough about STDs to discuss them with their children. • Many immigrants cannot read either Spanish or English so they rely heavily on their friends and neighbors or the local Spanish language radio stations for most of their information. • There is inaccurate information about STDs in the community • Messages should tell real stories or be testimonials to be effective. • Confidentiality should be stressed in the message • The central images in the posters created by group members were young children and families, and focused on prevention messages (in contrast to group members' earlier comments that messages needed to scare people to be effective).
<p>African Americans (n=11, age range 20s to early 40s)</p>	<ul style="list-style-type: none"> • Group members were more knowledgeable about syphilis than the Latino group, and they were aware of the long-term effects of untreated syphilis. • Must have an outreach program to identify people who need to be tested • Group members tended to remember messages with serious consequences of actions • The posters created by the group centered around protection and condoms. One poster mentioned Tuskegee but there was no conversation in the group about the Tuskegee Syphilis Study.
<p>Female inmates (n=10, 2 African-American, 5 White, 3 Latina, age range 20-40 years old)</p>	<ul style="list-style-type: none"> • Inmates were not as concerned with prevention as they were with treatment. • Females thought it was the responsibility of the john rather than the sex worker to use protection against STDs. • Syphilis information should be placed on the radio, signs on buildings and in malls, and in the bus station and bus stops.
<p>Male inmates (n=10, 3 African-American, 1 American Indian, 4 Latino, 2 White, age range 19-48 years old)</p>	<ul style="list-style-type: none"> • Male inmates had misconceptions about syphilis • Suggested putting information about syphilis in bars and tag agencies. They also suggested telling people the testing was free • Male inmates don't respond to prevention messages to use condoms for reasons ranging from not caring what happened as a result to no longer feeling like there was a risk from unprotected sex • Male inmates were also critical about the use of print media, equating fliers and pamphlets to junk mail • Male inmates went back and forth between saying they wanted to hear messages from celebrities and people like themselves.

Media Preferences Survey

To determine the most appropriate and cost-effective methods of reaching the target groups, a media preferences survey (n=400) was administered to target groups in high-morbidity zip codes, either through street intercept interviews (n=200) or in the OCCHD STD clinic (n=200). Clinic clerical staff and outreach workers asked eligible patients if they would like to participate in the survey (only those patients who lived in the target zip codes were eligible; inmates

were not surveyed). The one-page survey (see Figure 2) asked which radio and television stations were listened to and how often, for favorite television programs, about bars and clubs frequented, where participants did their laundry, and where they purchased beer and cigarettes (for placement of billboards and posters). Participants received a \$10 gift card at the completion of the survey.

Figure 2. Media preferences survey

Stop Syphilis – Get Tested
Media Preferences Survey

Dear Client,



We need your help. Please take a few minutes to answer some questions about which radio and television stations you like, and newspapers you read. Your answers will be used to place information about where you can obtain medical services. Thanks for your help.

1. Age: _____ 2. Sex: Female Male 3. Race: Asian Black Indian White 4. Zipcode: _____ 5. Hispanic ethnicity Yes No

6. Where do you: Buy groceries _____
 Buy clothes _____
 Buy gasoline _____
 Buy beer and smokes _____
 Do your laundry _____

7. If you go to clubs or bars, which ones do you go to? _____

8. The next few questions ask about which radio stations or television stations you like. Please tell us which stations you like most for both radio and television.

 Radio Station	 Television Station
In the morning: In your car: When relaxing: When you party: Other times:	In the morning: When relaxing: In the evenings: Late night: Other times

9. What television shows do you always watch?

10. What newspapers do you like to read?

11. What is your favorite part of the newspaper?

Interview with Disease Intervention Specialists (DIS)

A group interview was conducted with DIS, who perform contact investigations when individuals are diagnosed with a sexually transmitted disease. The DIS shared their experiences investigating syphilis cases and tracking contacts. They offered opinions on successful ways to reach the target population and why previous local efforts to reach the target population were not successful.

The DIS provided information about bars, nightclubs, and motels to target as well as epidemiologic trends in syphilis infections among sex workers and drug users within the high-morbidity zip codes. The DIS also provided information on the location of sex workers during the media campaign so that billboards could be placed close to sex worker corners when possible.

Translating Research Findings into a Media Campaign

Steps in the creation of the media campaign included identification of themes relevant to the target audiences, selection of the advertising agency, development and pre-testing of messages with the target audiences, and determination of message placement. To compete in the crowded media market, the syphilis messages had to be distinctive, relevant, and effective in reaching the target audience, yet acceptable within the

politically conservative community of Oklahoma County. Other syphilis and HIV/AIDS media campaigns have faced similar challenges. The range of images and messages that would reach the target audiences is often limited in campaigns that are directed or funded by government agencies working to avoid political controversy and are often forced to address issues in a less direct manner.^{4, 8, 17}

Selection of the Advertising Agency

The Oklahoma City-County Health Department partnered with a professional advertising agency (Third Degree Advertising Agency) to develop the campaign messages based on the formative research, interviews with street outreach workers and DIS, and background information gathered from

other syphilis elimination projects around the country. The selected agency was chosen for its ability to understand the challenge of attracting the attention of the target audience while respecting the social boundaries of a politically conservative climate.

Creating the Message

Third Degree Advertising Agency and OC-CHD staff collaborated in the development of print and radio messages. Considerations

of product, price, place, and promotion (see Table 4), and formative research findings guided message development.

Table 4. Syphilis Elimination Media Campaign Marketing Mix

Strategy	Description	Implementation
Position	A campaign’s position represents how the target audience should think of the campaign message relative to other messages in the community. ¹⁸	Focus on testing and treatment, rather than prevention, for a disease affecting people in this community.
Product	The product is what the media campaign is “selling”. In public health, the product is most often a behavior, and the benefits associated with that behavior. ⁵	<p>Behavior: Get tested and treated for syphilis.</p> <p>Benefits: 1) an available test for the disease, 2) a simple treatment if found positive, 3) treatment will prevent negative health consequences</p>
Price	Price is the cost to the target audience of giving up a behavior to adopt a new one. Costs can be thought of as barriers. ^{3,5}	<ul style="list-style-type: none"> • Requires a blood test, usually at a clinic. • If positive, sexual contacts will be notified. • Time and effort to get tested.
Place	Place refers to where the target audience has access to objects and services associated with the behavior, ³ or where the target audience will perform the new behavior. ⁵	<ul style="list-style-type: none"> • Community clinics • Bars and clubs • Jail • High morbidity neighborhoods • Oklahoma City-County Health Dept.
Promotion	There are 2 parts to promotion, developing the message and placing the message (what is said to the target audience and where it is said).	<p>Message: 1) Untreated syphilis can have serious consequences. 2) A test and treatment are available. 3) Get tested, get cured.</p> <p>Delivered by:</p> <ul style="list-style-type: none"> • Outreach workers • Billboards • Radio stations popular with the target audience • Posters • Coasters, condom matchbooks • Newspaper articles

Specifically, the findings highlighted that:

- Family was very important for Latinos;
- The message should be delivered by people who looked physically similar to the target audience;
- The target audience had little knowledge of syphilis beyond its classification as a sexually transmitted disease;
- Many in the target audience (particularly inmates) were not interested in a prevention message;
- The health promotion messages the target audience thought were most effective were those that used fear tactics (i.e., consequences of untreated syphilis), but also offered hope and information on actions to take and a local telephone number for relevant health services.

The media campaign messages stressed the importance of testing and treatment because the goal of the project was syphilis elimination. Messages focused on the serious

long-term health consequences of untreated syphilis (e.g. blindness and paralysis).

Ads used the tag line, “get tested, get cured,” from previous Oklahoma State Department of Health print materials on syphilis elimination. This simple message tested well in the focus groups, provided a call to action following the threat appeal, and reinforced the media campaign messages stressing the need for testing and treatment after having unsafe sex. The tag line also appeared on bar coasters and condom matchbooks (a matchbook cover with a condom inside) to extend the reach of print and radio messages to settings where many in the target audience met their infected sexual contacts. Outdoor ads were ideal for conveying one message along with the tag line and phone number. In contrast, the radio spots were used not only to reinforce the campaign message and tag line on the outdoor ads, but also to provide additional information about syphilis and condom use. Providing additional information was important because it addressed the target audience’s limited knowledge of syphilis, which was revealed in the focus group discussions.

Testing the Message

A second round of focus group discussions allowed for message pre-testing with the target audience. Pre-testing messages provides an opportunity to gauge message efficacy before investment of significant resources in message production and distribution. It can reveal flaws in the messaging strategy and assess the target audience’s response to the tone and communication style of the messages, as well as the content. Pre-testing can also identify strengths of the messages, showing campaign developers

which parts of the campaign message the target audience responds to positively.

The same community-based agencies recruited new participants for the African American group (n=10) and for the Latino group (n=6). The African-American focus group introduced an unexpected challenge. Breaking with protocol, the community partner agency responsible for recruiting focus group members decided to use the focus group as an opportunity for staff to preview

the ads and provide feedback. The outreach staff from the community partner agency dominated the group until the facilitator asked them to leave the group. Additionally, strong reactions from several of the staff that the ads should take a different direction (addressing initial stages and symptoms) may have influenced participants' reactions, as this group had the widest range of opinions about the campaign. A true social marketing perspective dictates that only members of the target audience should be included in the pre-testing process.

Because the African-American group included staff members, results from this focus group were difficult to interpret. Overall, the participants responded well to the print and radio ads, which captured

their attention by presenting a health threat but then provided hope and clearly outlined next steps. The groups also liked the “normal people” in the print ads, whose appearance increased the relevance of the message to the audience. Group members of each ethnicity responded positively to pictures and voices of other ethnic groups and often chose them over a picture or voice representing their own ethnicity. For example, members of the Hispanic group preferred the non-Hispanic white male for one of the billboards, saying if an “Americano” can have syphilis, they can have it too. Based on these responses, the campaign used multiple ethnicities with each target group. The messages were revised based on the feedback from the focus groups. See Figure 3 for examples of the final print ads.

Figure 3. Campaign Outdoor Advertisements



Syphilis could kill my baby before it's born.

Placing the Message

Effective media campaigns use multiple information channels to expose the target audience to the campaign message. Ideally, information channels will maximize the campaign's reach among the target audience while staying within the campaign budget.^{4,11,17,23} For the present campaign, information channels selected were outdoor advertisements, radio advertisements, and distribution of augmented products⁵ (tangible objects to support the desired behavior) in bars and nightclubs. Factors in the selection of these channels included findings from the media preferences survey, focus groups, input from DIS and community groups, and project budget considerations.

Outdoor messages were placed on billboards and bus shelters in the high-morbidity zip codes or on heavily traveled streets near those zip codes. Staff from OCCHD and the ad agency canvassed the area to determine the best places for outdoor messages. This also exposed advertising agency staff to local neighborhoods. Highly visible billboards and bus shelters near areas where prostitu-

tion was known to occur, low-income neighborhoods and popular “hangouts” within the high morbidity zip codes, bars where syphilis cases met their sexual contacts, and parking lots where men would wait for prostitutes were chosen for message placement. Placement of each message was also guided by focus group responses (for example, both the Latino and White images were used in Latino areas). The three radio stations selected (one Spanish-language and two English-language stations) were popular with the target audience. Bars and clubs in the high-morbidity zip codes (where newly-identified syphilis cases met their sexual contacts) were identified by the survey and by interviews with street outreach workers and DIS. The campaign targeted these bars and nightclubs with augmented products using posters of the outdoor messages, drink coasters with the campaign message, and free condom matchbooks with the campaign message. Because of the modest campaign budget, television was not selected as a distribution channel although this was a popular form of media with respondents.

Implementation

Although the media campaign was ready to launch in early fall 2002, a decision was made to hold the launch of the radio spot until January 2003. November 2002 was a year for several political campaigns, including gubernatorial, Senate, and Congressional campaigns, as well as state and local races. This was also the beginning of the

holiday advertising season. Rates were more expensive, and planners were concerned that listeners might not be as attentive and receptive to messages about a sexually transmitted disease at this time.

Before the outdoor advertising began, OCCHD sent out a press release to introduce

the campaign to members of the media. In addition, OCCHD and Third Degree Advertising Agency presented the campaign to public health and community agency staff, media, and members of the community where the billboards were placed so they would understand why so much attention was suddenly being focused on this sexually transmitted disease. The media campaign was also presented to STD clinic staff at OCCHD before the launch of the campaign to help them prepare for an influx of new patients. The clinic supervisor needed to know the schedule of media so that staffing patterns could be adjusted and appropriate staffing available for the STD phone line. It was important to make sure the clinic could accommodate the increased client load in response to the media campaign. If not, the target audience would have a negative experience at the clinic, which would work against the message of coming into the clinic for testing.

Advertising on billboards and bus shelters began in November 2002 and ran through December 2003, rotating locations through-

out the year. Since many of the billboards and bus shelters were in low-income areas that were not popular locations for advertisers, some stayed up well past their expiration date until a paid advertisement replaced them. The paid 30-second radio spot played January through July 2003 in a pattern of 4 weeks on, 4 weeks off. This pattern allowed the radio spots to play for a longer period of time but also meant that the message was not heard for long stretches during the campaign. Because additional airtime was donated to the campaign by the stations, radio messages continued to play intermittently at no cost over the next 3 months. Community partners promoted the campaign by distributing campaign posters, drink coasters, and condom matchbooks to the bars and clubs in high-morbidity zip codes. DIS also targeted additional bars and clubs as these were identified by sexual contacts and cases. Two newspaper articles featuring the campaign ran during the course of the campaign. These were not intended to reach the target audience but to explain the presence of the billboards and radio spots to the community.

Evaluation of the Campaign

An evaluation plan based on social marketing principles was designed to assess the impact of the media campaign on the campaign objectives - increase testing for syphilis among the target groups and decrease incident cases of syphilis in Oklahoma County. The impact of the campaign was assessed by 1) a clinic survey about campaign recall that was conducted 4 months into the campaign, 2) the number of people who received services in the STD clinic at

OCCHD during the campaign, and 3) the number and types of syphilis diagnoses made during the media campaign compared to the periods before and after the campaign. Establishing the level of awareness and recall of the campaign message would provide support for other evidence of the association between the media campaign and increased testing and diagnoses of syphilis. The number of people seeking services in the OCCHD STD clinic would indicate the

campaign's impact on the target audience's behavior (prompting the target audience to come to the clinic for syphilis testing). Another behavioral measure of success for the syphilis elimination media campaign would be an increase in diagnoses of syphilis. This

would represent a response to the campaign message by individuals who had not sought testing and treatment in the past, leading to the successful identification and treatment of formerly undiagnosed and untreated disease in the community.

Campaign Recall

Four months after the launch of the radio campaign, a brief face-to-face survey was administered to adult clients (n=77) by OCCHD staff in OCCHD clinics that serve the high-morbidity zip codes. Clients were first asked if they could recall any information about syphilis they might have seen or heard recently and then asked to describe it. Surveys were administered to clients in the STD, immunization, and WIC (Women, Infants, and Children) clinics, as well as to general visitors in the lobby. Public health week t-shirts were used as an incentive for participating in the survey.

Overall, 66% of those surveyed recalled hearing or seeing a specific component of the campaign (radio commercial, billboard, bus shelter ad, or poster). For those in the target age range of 20-39 years (n=55), 73% recalled hearing or seeing a specific component of the campaign. These results are

consistent with other syphilis elimination campaigns.⁶⁻⁸ Recall of at least one component of the campaign differed slightly by where the survey was conducted. Seventy-six percent of clients in the STD clinic recalled a specific component of the campaign compared to 60% of clients visiting other clinics.

While degree of exposure and recall of specific campaign elements has been used as a measure of success in some media campaigns, from a social marketing perspective a better measure of the success of a media campaign is its ability to influence the desired behavior.^{24, 25} For example, some market surveys for the anti-drug campaigns of the 1980s found that although many people remembered the campaigns, the initiatives did not persuade the target audiences to change their behavior.²⁰

Clinic attendance

To assess the direct impact of the campaign on behavior, the number of clients seen in the OCCHD STD clinic for the first 6 months of 2003 (the months of the full campaign) were compared to the first 6 months of 2002. OCCHD handles approximately 90% of the county's STD testing and treatment, so attendance at this clinic provides a

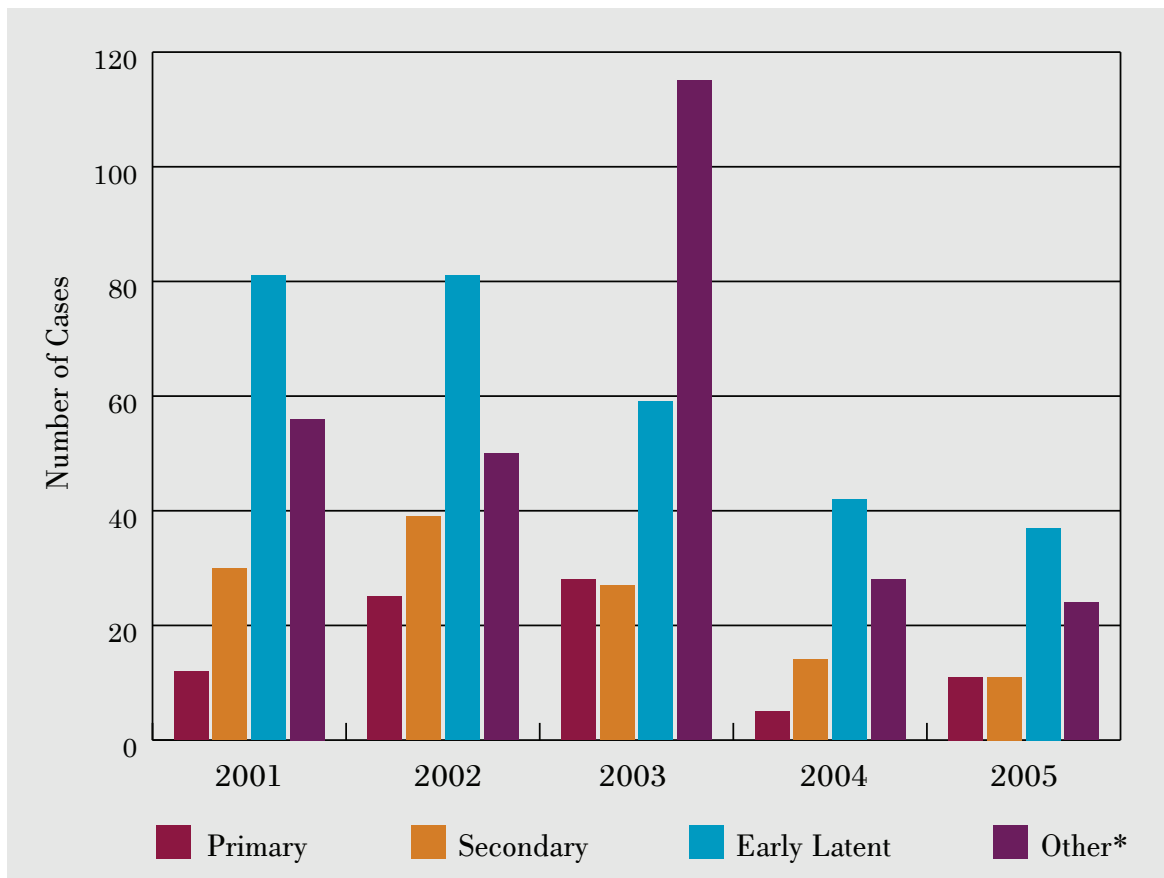
good indication of the response to the media campaign. The full campaign had a modest effect on clinic attendance for the first month, but months 2-4 saw an increase in clients of 14%-17% over the previous year, before decreasing again in months 5 and 6 as the media campaign waned.

Number of syphilis diagnoses

Figure 4 compares the number of syphilis cases diagnosed in Oklahoma County for 2001-2005. The campaign did not appear to have an effect on diagnoses of primary and secondary syphilis. Interestingly, the media campaign appears to have had its greatest influence on those individuals in the later

stages of syphilis. These individuals are the most difficult to identify in the community because they often cannot be connected to a recent case of syphilis. The number of individuals diagnosed with a later stage of syphilis more than doubled from the previous year.

Figure 4. Syphilis Diagnosis by Type & Year, 2001 - 2005



* "Other includes: Late latent, latent of unknown duration, late syphilis and neurosyphilis.

This comparison on a calendar-year basis underestimates the effect of the media campaign because Figure 4 obscures the initial response to the billboards, which went up in November and December 2002. Looking at these two months alone, the number of

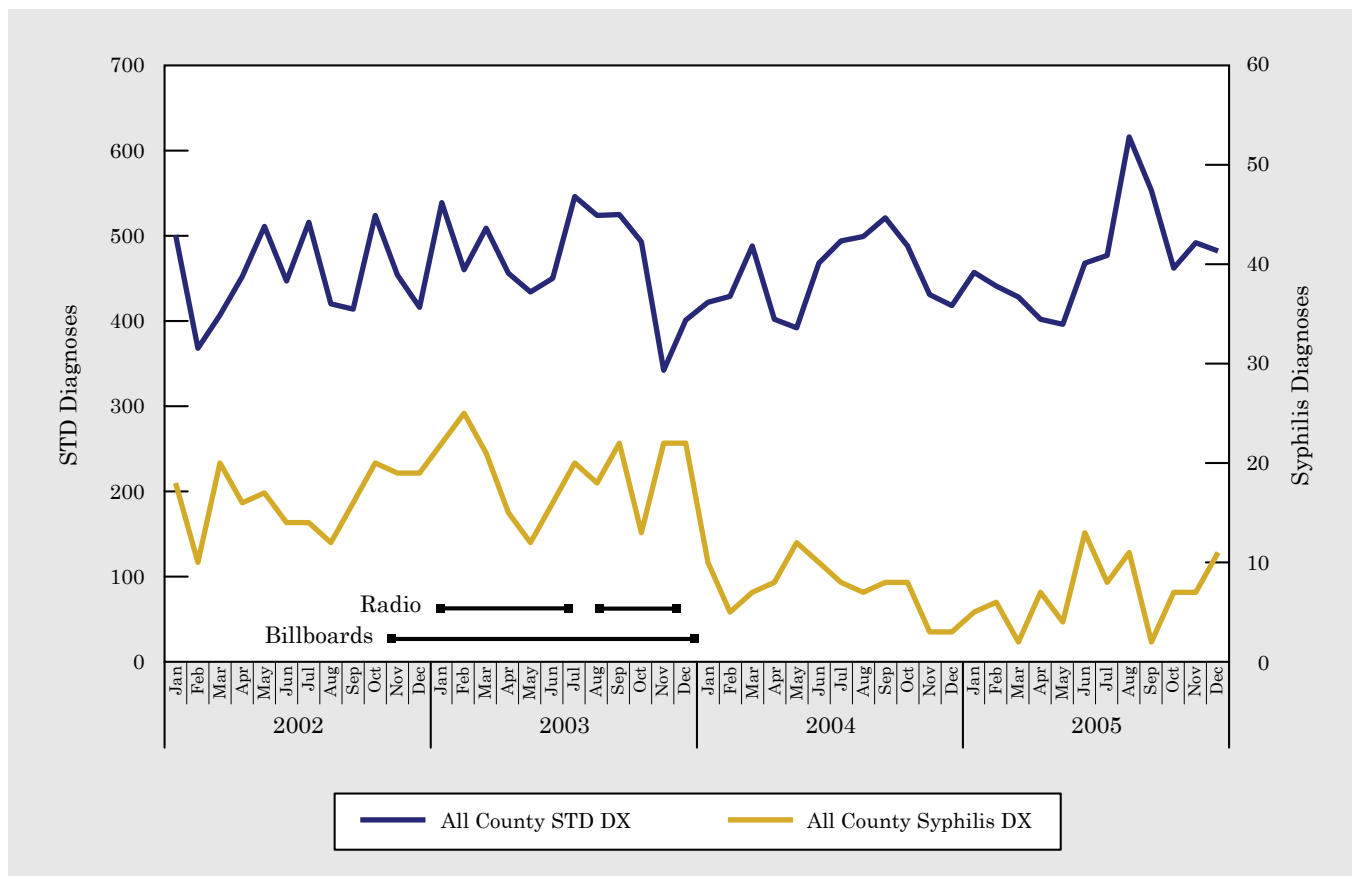
diagnoses of primary and secondary syphilis doubled over the same months during the previous year. This initial response by those in the early stages of syphilis was mirrored by individuals with other STDs. The diagnoses of other STDs in 2002 were 12%

higher than the November/December 2001 levels, and then returned to expected levels in January.

The final piece of evidence for the effectiveness of the campaign can be seen in Figure 5. There was a pronounced increase in the number of syphilis diagnoses during the months of the media campaign compared to before the media campaign began (but while other syphilis elimination efforts were underway), and especially compared to 2004-05 after the media campaign ended. In order to more fully evaluate the effect of

the media campaign on syphilis diagnosis and treatment, the average monthly number of syphilis diagnoses was calculated for the year before, during, and after the media campaign. This finding also supports the effectiveness of the campaign in convincing people to get tested. Compared to the previous year, the media campaign was associated with an 18% increase in the average number of syphilis diagnoses per month. The increase seen during the media campaign was then followed by a 43% drop in the average number of cases per month in the year after the media campaign ended.

Figure 5. All County Syphilis & STD Diagnoses, 2002 - 2005



Discussion

All of the evidence suggests that the drop in syphilis diagnoses in 2004 after the end of the media campaign supports the conclusion that the campaign was effective, particularly for those in the later stages of the disease. By focusing on later-stage symptoms and health consequences of a syphilis infection, the campaign appears to have brought in individuals closer to those stages rather than individuals who acquired the disease more recently, who were the intended targets of the campaign.

The increases in client traffic at the OC-CHD sexually transmitted disease clinic were seen even though the on-off schedule of the radio ads meant that they only played an average of 2 weeks out of every month. This pattern suggests that the media effect takes approximately 1 month to build significant momentum, impacts behavior for approximately 3 months, and then decreases in effectiveness as the campaign continues.

The increase in other STD diagnoses at the start of the media campaign may indicate an initial general effect on many individuals who have had unsafe sex and symptoms of a sexually transmitted disease, but the initial impact appeared to wear off within 2 months.

Alternate explanations for the drop in syphilis diagnoses at the conclusion of the media campaign were considered. For example, the drop in diagnoses could also reflect that after the media campaign ended there was little ongoing outreach to encourage individuals to come in for testing. For this explanation to be credible, there would have to be a similar drop in other STDs since the DIS workers track the contacts of all STD cases not just those with syphilis. Figure 5 reveals that this was not the case. In fact, diagnoses of other STDs was similar (or higher) than in past years. Another explanation for the drop is that the campaign was responsible for securing treatment for most of the cases of syphilis in the community, leaving fewer cases of syphilis to be diagnosed in later years. This explanation seems plausible since the overall level of STDs diagnosed in the county in 2004-05 was similar to, or more than, the number diagnosed in years past, but only the number of syphilis diagnoses dropped. Overall, all of the evidence collected to evaluate the media campaign suggests that it was a success and had a lasting impact.

Lessons Learned

Approach

A systematic and integrated approach is needed to direct the process of message development. A notable strength of the planning group was that it was composed of a diverse array of partners, each with different areas of expertise and engagement within the community. This diversity also created multiple ideas of how the message should be delivered and what the message should be. The social marketing approach provided a consistent framework for a consumer-driven process with a focus on the core message as determined by the target audience.

A social marketing approach to developing media campaigns underscores the importance of allowing the message and its dissemination channels to emerge from dialogue with the target audience. The end result of message development may not appeal to those outside the target audience (including other public health professionals, partners, and funders), so educating colleagues about social marketing principles throughout the process may be necessary to increase internal support for and acceptance of a consumer-driven campaign.²⁶

Community partnerships

Effective media campaigns also rely on the partnership between public health and community-based agencies. Community-based agencies can be an important ally in building a broad base of support for a campaign to reduce a sexually transmitted disease and often provide access to the high-risk target groups. Leading public health agencies should support community groups in taking an active role in campaign development. Unfortunately, there are often challenges in such partnerships because they may have competing interests or goals

for the project and may not have the same motivation to adhere to a strict intervention protocol required by a social marketing effort. It is best to get to know the community agency and understand its position, being sensitive to external pressures and commitments. Clear communication and a firm understanding of roles, responsibilities, and intended outcomes at the start of the project are necessary for the partnership to successfully create a campaign that reaches the target audiences.

Reaction of public health professionals

The strong negative reactions from community agency staff at the African American message-testing focus group illustrate a common response of many public health professionals when the ads were initially presented to the collaborating agencies. Many organizations have become so comfortable with “expert-driven” programs that it is hard for them to allow the target audience to determine the creative process as is required in a social marketing approach.¹⁹ Many of the health educators felt the cam-

paign resorted to a “fear appeal” by overly emphasizing symptoms that would not occur if the disease was treated. However, after realizing that the fear appeal originated with the target audience, these educators gave their support to the campaign. Interestingly, these concerns reflect an ongoing debate in the literature over the use of fear messages in health communication campaigns, some citing overuse²⁰ while others arguing for its effectiveness when paired with a clear, achievable solution.^{21, 22}

Project oversight

At the launch of the media campaign, OCCHD administration transferred oversight of the campaign to the media relations officer because they felt it was more in line with his job responsibilities. The media relations officer was unfamiliar with social marketing as a public health intervention and did not view comprehensive program evaluation as an essential element. There-

fore, necessary steps to refine the campaign and fully document program outcomes were not taken, leaving out some important monitoring and evaluation activities. One recommendation for future campaigns is to leave project oversight with the staff that developed the campaign and to include the media relations officer as a part of the project team.

Focus groups

One weakness of the formative research was the limited number of focus groups. Multiple focus groups for each target audience could have increased understanding of the target audience’s perceptions of costs and benefits of testing for STDs and how to best promote the messages. Another limitation of the focus group research is that a Spanish-speaking facilitator should have conducted all Latino focus groups. It is important to choose a facilitator who not only speaks the language of the target audience but also has

the facilitation skills necessary to effectively guide the group without interjecting opinion or biasing responses in any way. In this campaign, OCCHD staff made the choice to conduct the second Latino group with an interpreter so that they could hear the responses and question participants themselves. In doing so, they knowingly introduced some interruption into the flow of the discussion because they did not understand the primary language of the participants.

A primary benefit of focus group discussions in this campaign was their usefulness during message testing. One lesson learned from the groups was that focus group participants often responded most positively

to faces and voices of ethnicities other than their own. This underscores the value of pre-testing materials with target groups to determine the most effective way to reach them.

Advertising agency

Public health agencies are often reluctant to spend limited media campaign resources on outside professionals. In this campaign, the use of an advertising agency to create the final message and to coordinate the promotion contributed to the overall success of the campaign. A professionally crafted media campaign helped the syphilis message compete with other messages the target audience was exposed to in a crowded media market. The agency was also able to secure better rates and more free airtime and billboards in prime locations because of their established relationships with media vendors.

One recommendation to public health agencies is to ask prospective advertising agencies to submit a sample design (at no charge) based on information from focus groups and other research. Seeing a sample will allow the program planners to assess the advertiser's understanding of the target audience and the constraints on the public health agency within the community. It is also advisable to pre-test campaign messages without staff from the advertising agency. While the advertising staff in this

campaign remained objective during the pre-testing, it is possible that other advertising agency staff may find it difficult to listen to criticism of their work without interjecting explanations or rationales for their approach that stifle further comments by the target audience or bias the results through unintentional nonverbal cues to the focus group participants.

Local public health departments or community organizations that do not have the financial resources or access to an advertising agency can use messages developed by other public health or community-based agencies. Several of these messages can be tested with focus groups to determine which ones resonate with the target audience. It is essential that messages developed elsewhere be pre-tested with the local target audience. Another strategy is to work with the target audience to develop several messages. These can be given to a graphic artist who, at a modest price, can develop several designs that can then be pretested with another sample from the target audience and refined based on their reactions.

Evaluation

The media campaign was considered a very effective campaign by those working in the

local public health field, but neither the media campaign nor the rest of the syphilis

elimination project had a comprehensive formal outcome evaluation among the target audience to establish efficacy. Better program evaluation enhances evidence-based public health practice, gives project staff and the collaborating agencies recognition for their documented successes, and provides convincing evidence of what worked

and what could have been done to make the program more successful. While evaluation takes resources and staff time, it is necessary to provide the causal connection between program activities and outcomes and gives credibility to claims of success for the community, media, and field of public health.

Integration with the community intervention

Media campaigns must be an integrated part of broader community interventions. A stand-alone campaign, working independently from other project efforts, has less chance of success. Media campaign messages need to be consistent with street-level project messages and interventions. Clinic managers and staff need to be informed of

media timelines or, better yet, be included as part of the planning and implementation team. These actions can increase buy-in from clinic staff that might see the media campaign as something imposed upon them and subjects them to unanticipated increases in clinic patrons.

Conclusions

The syphilis elimination media campaign was the final addition to a multi-year syphilis elimination campaign. The campaign objectives were to increase testing for syphilis among the affected target groups and decrease cases of syphilis in Oklahoma County. The media campaign was associated with increases in clinic visits, a dramatic increase in the number of later-stage syphilis diagnoses, as well as a high level of awareness of the campaign among the target population. The symptoms featured in the campaign were those of the later stages, and while not intending to target those in

the later stages of syphilis, the campaign succeeded in bringing them in for diagnosis and treatment. Brief media campaigns should not be expected to result in substantial cognitive and/or behavior changes alone, but their strategic application as part of an integrated public health intervention can influence the effectiveness of an effort to change behavior.¹⁹ The syphilis elimination media campaign described here enhanced the impact of the entire syphilis elimination project, reaching parts of the population who were unaware or unresponsive to other project components.

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