Program Report

Giving infants a Great Start: Launching a national smoking cessation program for pregnant women

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Data suggest that 12%–22% of women smoke during pregnancy. The link between smoking during pregnancy and adverse health and reproductive outcomes has been well documented. Great Start is a public education and smoking cessation program developed especially for pregnant women. Launched in December 2001, Great Start was the first national program focused on providing free and confidential smoking cessation counseling to pregnant women through a toll-free quitline. Great Start consisted of a media campaign to raise awareness and direct women to telephone counseling tailored for the pregnant smoker, and educational materials designed to support pregnant women through cessation counseling. The program was evaluated to assess the ability of the television ads to reach pregnant smokers and the effectiveness of a quitline for increasing cessation rates among pregnant women. Great Start demonstrates that it is possible to reach pregnant smokers through television ads that provide information about the consequences of smoking while pregnant, are affirming in tone, and provide direction for women to take action. Initial response to the program indicates that pregnant women want to quit and confirms the need for programs designed specifically to address the needs of this population.

Introduction

The American Legacy Foundation is committed to building innovative partnerships and programs that address the needs of all Americans in the areas of tobacco use prevention and smoking cessation. Although the total number of women smoking during pregnancy declined more than one-third in the 1990s, few national programs have been developed to meet the needs of the approximately 420,000 U.S. women who continue to smoke each year during pregnancy. Great Start, a multifaceted public education and smoking cessation service program, is the first national program focused on providing free and confidential smoking cessation counseling to pregnant women through a toll-free quitline. This brief report provides a description of the rationale and the initial experience of the rollout for the Great Start program.

The concept

Although the health effects of smoking during pregnancy are well known to health care providers and to many pregnant women, the rates of smoking during pregnancy remain high. Birth certificate data indicate that in 2001, 12% of all women in the United States who gave birth self-reported smoking during pregnancy (Martin, Hamilton, Ventura, Menacker, &
Park, 2002). Household survey data suggest that as many as 22% of women may smoke during pregnancy (U.S. Department of Health and Human Services [USDHHS], 2001). The difference in smoking rates is often attributed to underreporting on birth certificates. Legacy designed Great Start to attempt to lower these rates.

Great Start began with a commitment to improving the health of pregnant women and their children. At the suggestion of Jacalyn S. Leavitt, the wife of Michael Leavitt, then governor of Utah, Great Start was first envisioned as a pilot public education program, with a simple premise to encourage pregnant smokers to quit for the health of their children. Great Start was supported by a unique partnership of the board and staff of the Legacy, and the spouses of governors across the United States. Legacy and Great Start gave the spouses of the governors the opportunity to call attention to the problems of smoking during pregnancy in their own states, and to offer services to support pregnant smokers in their quit attempts.

To develop appropriate messages and message treatments, Legacy’s creative services partner, Arnold Worldwide, conducted formative research with women and health care providers to explore the knowledge, attitudes, and behaviors related to discussing tobacco cessation during pregnancy. The qualitative data gathered demonstrated that although some information was known about the poor reproductive health outcomes associated with smoking, neither women nor their providers were aware of the full battery of poor outcomes, and they prioritized the outcomes differently between groups. In addition, the research revealed that both women and their providers were having difficulty discussing how best to reduce smoking during pregnancy. The findings affirmed our commitment to developing a media campaign that would raise awareness of the health risks associated with smoking during pregnancy and encourage pregnant smokers to quit.

Because the media campaign would serve as a call to action for pregnant smokers, Legacy also conducted a national survey to assess the availability of smoking cessation services tailored to meet the needs of pregnant smokers, with a special emphasis on telephone cessation services. Results indicated that quitline services for pregnant smokers appeared to be inconsistent, inadequate, or nonexistent. Fewer than two-thirds of states provided quitline services, and of those that did, the majority did not address the particular needs of the pregnant smoker. Because pregnant smokers face unique barriers to quitting and remaining smoke-free, Legacy was committed to creating tailored services to meet their needs.

The link between adverse health and reproductive outcomes and smoking during pregnancy has been well documented in the literature. Outcomes include low birth weight, intrauterine growth retardation, miscarriage, sudden infant death syndrome, and infant mortality, as well as negative health and developmental effects during childhood (Gilliland, Yu-Fen, & Peters, 2001; Kallen, 2001; Mathews, Curtin, & MacDorman, 2000; Pollack, Lantz, & Frohna, 2000; Schoendorf & Kiely, 1992; Walsh, 1994). Smoking cessation leads to a significant reduction in perinatal morbidity and mortality and maternal risks (USDHHS, 2001).

Understanding pregnant smokers

For pregnant smokers, the adverse health effects of smoking during pregnancy appear to provide strong incentives to quit smoking during pregnancy (Edwards & Sims-Jones, 1998; Johnson, Ratner, Bottorff, Hall, & Dahinten, 2000; McBride et al., 1999; Mullen, Richardson, Quinn, & Ershoff, 1997; O’Campo, Faden, Brown, & Gielen, 1992; Ratner, Johnson, & Bottorff, 1997; Ratner, Johnson, Bottorff, Dahinten, & Hall, 2000). Among pregnant women who smoke, an estimated 25%–40% successfully quit for the duration of their pregnancy. This is not surprising given that, during pregnancy, women pay particular attention to their lifestyle, which may help them achieve a relatively long period of abstinence during pregnancy (Brenner & Mielck, 1993; Edwards & Sims-Jones; Ockene, 1993; Waterston, Evans, & Murray-Lyon, 1990). During pregnancy, some women report quitting due to fear of infant health problems, medical influence, and social stigma (Edwards & Sims-Jones; O’Campo et al., 1992; Stotts, DiClemente, Carbonari, & Mullen, 1996). Smoking cessation also can be linked to pregnancy-related nausea and loss of taste for tobacco (Edwards & Sims-Jones; O’Campo et al.).

Public health literature suggests that self-efficacy, or confidence in quitting, can be an important quality in maintaining smoking abstinence during pregnancy (de Vries & Backbier, 1994; McBride & Pirie, 1990; McBride, Pirie, & Curry, 1992; Quinn, Mullen, & Ershoff, 1991). For the Great Start program, Legacy examined the literature regarding the role of self-efficacy in moving smokers to quit (Conditotte & Lichtenstein, 1981; DiClemente et al., 1991; Prochaska, Velicer, Guadagnoli, Rossi, & DiClemente, 1991; Strecher, DeVellis, Becker, & Rosenstock, 1986; Velicer, DiClemente, Prochaska, & Brandenburg, 1985).

Efficacy of prenatal smoking interventions and quitlines

Evidence points to the general effectiveness of prenatal smoking interventions in terms of rates of smoking cessation, with quit rates ranging from 4.9% to 31.9% (Dolan-Mullen, Ramirez, & Groff, 1994; McBride et al., 1999). In general, the U.S. Public
Health Service endorses telephone quitlines as an effective and recommended smoking cessation intervention, but quitlines have not been specifically tested among pregnant women. Approximately two-thirds of the states and numerous countries have established quitlines (Zhu et al., 2002). Telephone counseling to assist smoking cessation has been shown to be efficacious in increasing quitting success and maintenance rates (Lando, Hellerstedt, Pirie, & McGovern, 1992; Orleans et al., 1991; USDHHS, 2000; Zhu, Melcer, Sun, Rosbrook, & Pierce, 2000).

Quitlines offer smokers cessation services without them needing to leave their homes and may appeal to people who are reluctant to seek face-to-face help (Zhu, Tedeschi, Anderson, & Pierce, 1996). This approach may be helpful for pregnant women who have limited mobility or for those who live in rural or remote areas. Given the social stigma attached to smoking during pregnancy, quitlines may be particularly attractive to pregnant women seeking confidential cessation services. Telephone-based services may increase the accessibility of cessation services and may help to reduce the underrepresentation of the non-White population among those who use them (Zhu et al., 1996).

Rationale

Based on these initial assessments, Legacy began to develop an integrated public education and service program designed to help pregnant smokers quit smoking. Legacy felt that services were an essential component of the program and that it would be unethical to raise awareness and anxiety among pregnant smokers without providing support for quitting. The Great Start program consisted of a media campaign to raise awareness and to offer women telephone-counseling services tailored for the pregnant smoker, educational materials designed to support the pregnant woman through her counseling, and an evaluation that could be used to enhance the effectiveness of similar programs in the future.

The program

Legacy developed a national telephone-based smoking cessation service for pregnant women. In developing the service, Legacy addressed three issues: (a) the development of a science-based smoking cessation protocol for pregnant smokers that could be used to train counselors and quitline staff, (b) the selection of an established, credible vendor that could provide telephone-counseling services, and (c) input and conceptual buy-in from state quitline providers.

Legacy worked with the Smoke-Free Families National Dissemination Office (SFFNDO) in cooperation with the American Cancer Society (ACS) to establish a protocol advisory committee to develop a telephone-counseling protocol for the Great Start Quitline. SFFNDO conducted a literature review of content and operational issues related to quitlines. Existing scripts were collected from states and programs that had a history of operating pregnancy-specific quitlines. Relevant research and guidelines including the *Treating Tobacco Use and Dependence* clinical practice guideline (Fiore et al., 2000) also were reviewed.

Legacy selected ACS as the quitline provider for Great Start based on its history of providing state-based quitline services and its name credibility among Great Start’s targeted consumers. Legacy and ACS trained ACS counselors using the newly developed Great Start protocol in late summer 2001.

Prior to launching the Great Start Quitline, Legacy convened 25 state health department representatives, quitline vendor operators, and research experts at a full-day meeting in June 2001. This meeting gave participants an opportunity to discuss collaboration on proposed operations (including call-intake options), as well as usage and logistical aspects of the planned quitline. Legacy and ACS negotiated with each state on how best to serve the women in that state. Fifteen states opted for a direct transfer option, through which callers from state-specific area codes were routed back to the state of the call origin. Each state was given the option of employing either its own tobacco- and pregnancy-specific protocol or the Great Start protocol. Two additional states decided to use a “warm-transfer” mechanism, through which counselors transfer callers to their respective state quitlines. The Great Start Quitline provided direct services for pregnant smokers in 33 states.

A public education campaign for pregnant smokers

To assess the potential impact of a campaign targeted to pregnant smokers, Legacy commissioned six focus groups with women who recently smoked during pregnancy and six separate focus groups with health care providers who work with pregnant women. These focus groups and individual interviews with women aged 15–25 years who had recently smoked during pregnancy were conducted by Arnold Communications. The overall goal of the research was to explore campaign concepts and taglines, as well as the “Great Start” name and logo.

The young women who participated in the focus groups were primarily of low socioeconomic status. Many of the women had smoked since their early teens; participated in risky behavior in the areas of drinking, illegal drugs, and sex; underperformed academically; had difficult home life situations; and reported low self-esteem. The participants mentioned a long list of barriers to quitting including the
following: power of addiction, stress, low awareness of all of the pregnancy-related consequences, denial, pregnancy not being “real” to many, healthy lifestyle a low priority, stigma associated with talking about their habit, and being surrounded by smokers.

Several different campaign concepts designed to attract the attention of pregnant smokers were tested. Respondents stressed that it would be important to (a) cast women at visibly different stages of pregnancy, (b) ensure that the featured women seemed real, and (c) maintain an encouraging and hopeful tone throughout the campaign and emphasize empowerment and positive reasons to quit smoking. To ensure focus and comprehension, women felt that each ad should feature only one medical consequence of maternal smoking.

Similar results were garnered from the testing of closing taglines. Closing taglines were designed to provide a key message at the conclusion of the Great Start ad. Focus group participants stressed that the program should offer real help and real action steps accessible to each woman seeing the ad. Women suggested having a single phone number they could call for help. They felt that nonspecific references to physicians, such as “talk to your doctor,” would not be effective. Many focus group participants did not have a close or trusting relationship with their doctor.

Arnold and Legacy developed the central concept of Great Start, with a logo, look, and set of operating principles. Great Start ads were meant to be positive, honest, and supportive. The messages were designed to convey real facts and demonstrate real women taking control of their pregnancy by quitting smoking. The ads were meant to increase a woman’s sense of self-efficacy by showing real women taking real actions. Both the name and the approach reflected Legacy’s commitment to pregnant smokers, many of whom are of low socioeconomic status.

Focus groups were used to test the Great Start name and logo. Both were well received by the participants. Women described the name and the concept as “snappy” and “catchy” and felt it conveyed an overall positive tone. They felt Great Start invited them to participate in something bigger than themselves, and that the program set a positive tone. The women thought the logo communicated a very positive message and described it as “cute,” “happy,” “optimistic,” and “nonintimidating.”

Additional research was conducted to explore three main questions: (a) the most motivating medical consequence of maternal smoking, (b) the personality, images, and values associated with the Great Start logo, and (c) awareness and potential of the Great Start name to cause confusion with other similarly named projects (e.g., Good Start, Head Start, Fresh Start).

Focus group participants felt most motivated to quit when maternal smoking was linked to an increased incidence of sudden infant death syndrome or miscarriage. The increased risks of disabilities and asthma also were viewed as highly motivating. Not surprisingly, the link between maternal smoking and premature or low-birth-weight babies did not emerge as a concern for the women; indeed, some of the women thought that low-birth-weight babies might be a positive outcome from smoking during pregnancy. Many of the women were concerned about weight gain and felt that a smaller baby could mean an easier delivery. Most participants did not understand the long-term health and cognitive consequences of children being born underweight and believed this was something that could be “fixed” later on.

The focus group participants also reacted to three logo styles: (a) an original cartoon character used in Phase One, (b) a “Gerber” baby image with real baby face characteristics and, (c) a rosy-cheeked cartoon baby. The latter two images were perceived by the women as being “too traditional.” The original cartoon characters were viewed as communicating newness, freshness, and innovation. In addition, the participants expressed the idea that multicultural faces are universally appreciated and felt the animation would add humanity, personality, and a sense of being healthy and alive. Finally, the name Great Start was affirmed as being positive and uplifting. Although most of the women were aware of other similar names, there was no feeling that Great Start could cause confusion.

The women expressed a desire for a smoking cessation program that would speak directly to their needs. Some women felt that doctors had failed them in the past and that many were condescending. Focus group participants clearly stated a need for smoking cessation programs sensitive to the needs of pregnant women. Participants indicated that airing a health message alone would not affect their smoking habits.

Focus groups with health care providers

Recognizing that campaigns aimed at encouraging pregnant women to quit smoking require a partnership with health care providers. Legacy also conducted focus group research with health care providers. Approximately 50 participants (physicians and nurses) in six locations were convened to discuss Great Start. Health care providers were supportive of the Great Start initiative. The ad concept was perceived as positive, empowering, and well suited to the audience. Participants expressed interest in implementing the project in their respective practices and felt their colleagues would be supportive as well. Professional and patient education materials were considered an important aspect of the program;
however, clear and simple messages that took into account both health care provider time constraints and the receptivity of younger pregnant smokers were recommended. Finally, the health care providers thought that Great Start should be considered for endorsement by the American College of Obstetricians and Gynecologists, the Centers for Disease Control and Prevention, and the Association of Maternal and Child Health Programs to add credibility to the program.

Development of materials
Great Start is a multifaceted outreach campaign designed to meet the needs of pregnant smokers. The program consists of television ads, a science-based telephone cessation protocol, and patient education materials (booklets, posters, video, and Web site). All materials were pretested and refined based on input from the target audience.

Television ads
To reach a large proportion of the target audience, television was used as the primary media vehicle. The program aimed to generate awareness of the dangers of smoking during pregnancy and to empower women to call a confidential toll-free tobacco cessation quitline. As discussed earlier, research was conducted with women around the United States to develop and test appropriate messaging strategies. Three key creative strategies emerged. First, the commercials would need to educate viewers about the consequences of tobacco use while pregnant. Second, the messages needed to be positive and empowering. Finally, Legacy would need to provide an action step for pregnant woman who were motivated by the campaign to quit.

Quitline protocol
The counseling protocol was developed by a committee of scientific experts chaired by Cathy Melvin, director of SFFNDO, and Tom Glynn, director of Cancer Science and Trends at ACS. The quitline protocol is based on scripts developed by Laura Solomon at the University of Vermont. Legacy and ACS also prepared alternative protocols and referral information for callers who were not pregnant or who were not ready to quit smoking. Given the target demographics, the quitline was prepared to provide referrals to maternal and child health providers, WIC clinics, and community health centers. All callers to the quitline were to receive some level of assistance based on their needs, but only pregnant smokers were to be counseled.

Patient educational booklet
Great Start recognized that women who called the quitline would need a variety of support to quit smoking successfully and to remain abstinent. Therefore, patient educational materials were designed to support callers in their quit attempts and to engage women in the Great Start program. Patient education materials needed to be scientifically valid, appealing, and supportive. The Great Start educational booklet is a fun, comprehensive guide designed to complement the telephone counseling. It is written with sensitivity to the low literacy rates of the target population and uses simple language to describe the complex steps involved in quitting smoking and staying abstinent. The booklet was cowritten by an ex-smoker and mother of two, as well as several tobacco control experts and organizations. It was designed to be visually consistent with the television ads and to support a woman as she worked through her various telephone-counseling sessions.

Posters
Committed to engaging the health care provider community, Legacy developed two posters that could be displayed in waiting rooms, community health centers, and doctors’ offices. The posters were designed to capture the attention of pregnant women and encourage them to seek help in quitting smoking. Both display the toll-free number (1-866-66-START) and were designed to be sensitive to the literacy needs of the target population. The posters featured the cartoon baby Rupert.

Educational video
To provide an additional tool for pregnant smokers, and to help women stay abstinent after quitting smoking, a 20-minute educational video entitled “Let’s Not Smoke” was developed. This educational video provides inspirational stories and medical facts about the effects of smoking during pregnancy as well as the effects of second-hand smoke on families. Callers to the Great Start Quitline were sent copies of this video during their counseling. The video, narrated by Rob Reiner, was made possible through Legacy’s partnership with the I Am Your Child Foundation and the Entertainment Industry Foundation.

Web site
The Internet has become an important source of health information for both consumers and providers, and the Great Start program used the Internet to provide a backup source of information for both audiences. Mimicking the layout and functionality of the educational booklet, the Great Start Web site
(www.americanlegacy.org/greatstart) was designed to provide consumers and health care providers with information about Great Start. The Web site provides information on why a pregnant mother should quit smoking, how to prepare to quit, how to handle slips, and how to stay quit.

Launch

Legacy worked in concert with national partners to develop the operational protocol, educational materials, and promotional collateral that would best support the primary target audience of low socioeconomic pregnant smokers aged 18–35 years. Great Start was launched in December 2001.

The launch centered on a media campaign that featured a television ad called “By One,” which was designed to provide viewers with an inspiring message of empowerment coupled with information on the risk of miscarriage. The ad featured a real woman making a commitment to reduce the number of miscarriages caused by smoking “by one”—and the viewer is left with the impression that she is empowered to change her behavior. The ad also featured Legacy’s animated baby Rupert, who had tested well with women and health care providers across the United States. Other components of the media campaign included public relation activities intended to highlight the availability of the Great Start Quitline via a press event; dissemination of the promotional and background materials to local, state, and national maternal and child health and tobacco control stakeholders; a video news release; a satellite media tour; a radio media tour; and online media.

The “By One” ad was aired initially during a spot buy (a local media buy) period for approximately two weeks in 17 states where governors’ spouses supported the campaign. Each spouse recorded a state-specific 5-second tagline, which included a personal message of support for pregnant smokers in the state. All ads featured the Great Start Quitline number. Through the subsequent national media buy, the ad aired throughout the United States via national networks and cable television stations. Overall, Great Start was seen on 511 television stations in 128 of the nation’s 156 media markets.

Great Start reached more than 26 million television viewers and over 541,000 radio listeners between December 2001 and February 2002. Beyond the initial launch, subsequent print, radio, and Internet-based stories continued to keep the story fresh. For example, quitting smoking as a New Year’s resolution was featured on the Today show (6.6 million viewers) and in print stories (circulation of 280,800). Specialized outreach to health reporters yielded 84 placements reaching 3.5 million viewers. The media strategy involved pregnant women smokers who told their own stories and advocated use of the Great Start Quitline, and credible public health experts who spoke about the health consequences of smoking during pregnancy.

Reaching health care providers

Prior to Great Start’s launch, Legacy met with and contacted national health care organizations including the American College of Obstetricians and Gynecologists, the Association of Maternal and Child Health Programs, the Association of Community Health Centers, the National Association of County and City Health Officials, the National Perinatal Association, the Association of State and Territorial Health Officials, and others who agreed to support the initiative by distributing Great Start promotional and educational materials. Legacy mailed information about Great Start, posters, and business cards with the Great Start Quitline number to more than 72,000 individual physicians and health care providers. Legacy staff also gave over 25 presentations to governmental, maternal and child health, and tobacco control professionals.

As a partner in the new National Partnership to Help Pregnant Women Quit (NPHPWQ), Legacy offered to produce a series of public service announcements whose purpose would be to promote and draw traffic to the Great Start Quitline. The public service announcements, titled “The Help You Need,” started airing in fall 2002, via media support of the NPHPWQ. As of November, 103,000 radio listeners had been reached via teen and women’s health shows. More than 24,000 local and cable airings and 230 network airings have been tracked with support from the National Association of Broadcasters.

Response to the campaign

As of September 30, 2003, the Great Start Quitline had received 11,811 calls. The majority of these calls (79%) came in during the television media buy, between December 2001 and February 2002, when ads were airing at about 900 gross ratings points per week (standard units for measuring delivery of media). The majority of callers (76%) indicated that they were calling in response to television ads.

Public relations response and evaluation

The Great Start evaluation will investigate the relationship between a woman’s current smoking status and potential mediating factors and sociodemographic variables including confidence in quitting, stress, social support, quality-of-life perception, employment status, age, educational level, marital status, race or ethnicity, and geographic location.
A wide array of factors are expected to affect women’s success in quitting, including social support, living with a smoker, rules about not smoking in the home, use of medication, use of other forms of assistance, and speaking with a health care provider. Respondents have been asked to rate the effectiveness of Great Start counseling and materials.

Conclusion

Great Start demonstrates that it is possible to reach pregnant smokers through television ads that provide information about the consequences of smoking while pregnant, are affirming in tone, and provide direction for women to take action. Initial response to the program indicates that pregnant women want to quit and confirms the need for programs designed specifically to address the needs of this population. Although only 2.5% of current pregnant smokers called the quitline, this response may be due to the challenges inherent in driving callers to quitlines and the limited duration of the media campaign.

References


