# TABLE OF CONTENTS - CASE STUDY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>i</td>
</tr>
<tr>
<td>Background</td>
<td>1</td>
</tr>
<tr>
<td>Program Development</td>
<td>5</td>
</tr>
<tr>
<td>Prenatal Program Components</td>
<td>11</td>
</tr>
<tr>
<td>Postpartum Program Components</td>
<td>21</td>
</tr>
<tr>
<td>Program Launch</td>
<td>27</td>
</tr>
<tr>
<td>Recruitment, Training and Retention</td>
<td>31</td>
</tr>
<tr>
<td>Database Development, Management and Output</td>
<td>39</td>
</tr>
<tr>
<td>Program Budget and Staffing</td>
<td>43</td>
</tr>
<tr>
<td>Program Outcomes</td>
<td>47</td>
</tr>
<tr>
<td>Publications, Presentations and Recognition</td>
<td>57</td>
</tr>
<tr>
<td>Summary and Future Directions</td>
<td>61</td>
</tr>
<tr>
<td>References</td>
<td>63</td>
</tr>
</tbody>
</table>
This manual outlines the development and implementation of the Partnership for Smoke-Free Families program (PSF), a collaborative effort among three large health care systems in San Diego, California. PSF is focused on smoking cessation for pregnant women and reduction of environmental tobacco smoke exposure among infants and young children. The manual contains valuable lessons learned, recommendations for program implementation, and samples of program materials. It is designed to provide other organizations with the information they need to create similar programs in their own unique health care settings.

SMOKING AND PREGNANCY

Addressing tobacco use across the childbirth continuum is a key element of PSF. To realize why we have focused the program on this issue, it helps to first understand the significant impact of maternal smoking on infants and children.

SCOPE OF THE PROBLEM

Despite the well-documented health effects of smoking during pregnancy, maternal smoking continues to pose a serious threat to the health of many infants. In 1999, 12.3 percent of women giving birth reported smoking during pregnancy. This rate is estimated to be even higher for pregnant women who are socially disadvantaged, including women who are covered by Medicaid, and those who are unmarried, unemployed, or have less than a high school education.

Many female smokers are motivated to stop smoking when they find out they are pregnant. Studies have shown that between 25 and 60 percent of pregnant smokers quit smoking spontaneously when they learn they are pregnant. These spontaneous quitters tend to be better educated, have a higher socioeconomic status, and be less dependent on nicotine than pregnant smokers. However, quit attempts during pregnancy are not always successful. Relapse among spontaneous quitters prior to delivery ranges from 15 to 30 percent and over two-thirds of women who quit smoking during pregnancy relapse within six months after delivery. It is estimated that 35 percent of children in the U.S. (21 million) are regularly exposed to tobacco smoke at home.

HEALTH EFFECTS OF SMOKING DURING AND AFTER PREGNANCY

Smoking is the single most important modifiable cause of poor pregnancy outcome in the U.S. Smoking during pregnancy has been shown to cause adverse outcomes including miscarriage, placental abruption and separation, low birth weight, and increased perinatal mortality. It accounts for 20 percent of low birth weight deliveries, eight percent of preterm births, and five per-
Economic estimates indicate that the direct medical costs of a complicated birth for a smoker are 66 percent higher than for a non-smoker. The average hospital cost for an infant born to a smoker is over $500 more at delivery than that for an infant born to a nonsmoker.

Exposure to environmental tobacco smoke (ETS) is also a health threat to infants and children. Active smokers and those exposed to ETS inhale the same components of tobacco smoke and are likely to experience similar health-related effects. Children exposed to ETS are more likely to suffer from sudden infant death syndrome (SIDS), bronchitis, pneumonia, asthma, and ear infections, as well as behavioral problems and lower achievement and intelligence test scores. The annual direct medical costs of parental smoking in the U.S. are estimated at $4.6 billion and loss of life costs are estimated at $8.2 billion.

### BENEFITS OF PHYSICIAN INTERVENTION AND SMOKING CESSATION

Health care providers have compelling reasons to help pregnant women and mothers quit smoking. Smoking cessation provides immediate and long-term benefits for pregnant women and their young children. The U.S. Surgeon General reported that infants of women who quit smoking by the third trimester weighed more than infants of women who continued to smoke throughout pregnancy. In addition, researchers who followed pregnant smokers for three years after delivery found children of mothers who quit smoking during pregnancy were taller and achieved higher test scores measuring cognitive function than children whose mothers continued to smoke. While quitting early in pregnancy is best, health benefits can be achieved from cessation at any time before delivery.

Research has shown that brief tobacco cessation counseling of five to 15 minutes by a trained health care provider, combined with pregnancy-specific self-help materials, significantly increases rates of cessation among pregnant smokers. As shown in Chart 1, quit rates using these “best practice” interventions are 14 to 16 percent, versus five to six percent achieved with usual care.

Prenatal smoking cessation intervention has proven to be cost-effective. Every dollar spent on best practice prenatal interventions saves an average of $3 in newborn hospital costs and $6 when accounting for the costs of long-term care for infants with disabilities secondary to low birth weight. As shown in Chart 2, smoking cessation is extremely cost-effective compared to other common prevention interventions. A cost analysis of the U.S. Public Health Service’s Clinical Practice Guideline’s recommendations calculated a cost of only $2,587 per life-year saved with smoking cessation intervention, versus approximately $50,000 per life-year saved with mammography screening and over $100,000 per life-year saved with the treatment of high cholesterol.
BARRIERS TO CLINICIAN INTERVENTION
Getting clinicians to implement procedures outlined in national clinical guidelines such as those for tobacco is very challenging. Despite the benefits of cessation and the national goal of reducing cigarette smoking among pregnant women to a prevalence of no more than two percent by 2010, many prenatal care providers do not provide even basic interventions for their smoking patients. National data indicate that only 49 percent of obstetricians and gynecologists routinely advise cessation and provide assistance and follow up for all their patients who use tobacco and only 28 percent go on to discuss cessation strategies. In a survey of 1,000 urban California pediatricians, only 30 percent reported referring parents who smoke to a cessation program, 18 percent reported asking for a quit date, and only five percent discussed quitting at a follow-up visit.

Clinicians face significant barriers to providing smoking cessation treatment. These barriers include the absence of systems to identify tobacco users, limited provider time, lack of training resulting in negative attitudes and low confidence regarding counseling skills, lack of available treatment resources, and lack of clinician incentives or remuneration. Health care systems must address these barriers and develop policies and procedures to support clinician implementation of tobacco cessation interventions.
“Health care systems are in a unique position to come together and share their expertise and resources for the benefit of the community, especially in this competitive marketplace.”

Blair Sadler - President and CEO, Children's Hospital and Health Center

BACKGROUND

In June 1998, the chief executive officers (CEOs) of three leading health care systems in San Diego County – Children’s Hospital and Health Center, Scripps, and Sharp HealthCare – came together to initiate a partnership designed to improve the health and well-being of children and families in San Diego. This Trilateral Partnership was formed with the belief that a significant impact on the health of San Diego County residents could be achieved through collaboration on prevention programs.

The CEOs of the Trilateral Partnership member organizations (see page 2) initially held a series of meetings with designated physician leaders representing each of the three partnering health care systems to determine the focus of the partnership. With the overall mission of improving the health and well-being of San Diego children and families, they decided that reduction of tobacco exposure among pregnant women and small children should be their first initiative. This decision was strengthened by the unique collaboration among the participating organizations. Although Children’s Hospital and Health Center treats the direct health effects of smoking on children, its health care providers do not provide care to pregnant women. Conversely, hospitals affiliated with both Scripps and Sharp HealthCare treat pregnant women, but do not routinely treat children. The partners realized that successful prevention efforts and the resulting positive health outcomes could best be accomplished with the cooperation of all three organizations. This collaborative approach capitalizes on the strengths of each health care system, shares resources, and eliminates duplication of services. In addition, the partners recognized that collaboration would allow for more patients to receive services because health care providers from all three systems reach patients and have affiliations with numerous hospitals and health plans throughout San Diego County.

With the aim of addressing the issue of tobacco exposure across the childbirth continuum from prenatal to postpartum, the partnering organizations decided to allocate financial resources to providing a service
program rather than conducting a research study. At that time, each partner made a financial pledge of $150,000 per year for three years and agreed to hire a full-time project manager to be dedicated solely to the program. It was determined that this first initiative of the Trilateral Partnership would be called the Partnership for Smoke-Free Families (PSF).

The Trilateral Partnership is comprised of three large not-for-profit health care systems, Children’s Hospital and Health Center, Scripps, and Sharp HealthCare. Together these organizations represent over 50 percent of the approximately 40,000 annual births in San Diego County.

Children’s Hospital and Health Center is San Diego’s designated Pediatric Trauma Center and provides care to about 21,000 children annually. Children’s Hospital and Health Center includes:

- the only hospital in San Diego County dedicated solely to caring for children;
- neighborhood centers throughout the San Diego region offering primary care and specialized services;
- two affiliated physician groups; and
- more than 700 physicians on staff.

Scripps is a community-based health care delivery network that cares for patients at many locations throughout San Diego County. The Scripps health care system includes:

- five acute-care hospitals;
- two convalescent hospitals;
- outpatient facilities throughout San Diego County;
- two physician groups; and
- more than 2,600 affiliated physicians.

In 1999, 23 percent (8,825) of all births in San Diego occurred at Scripps hospitals. Of those giving birth, approximately 34 percent were women with Medi-Cal insurance (California’s Medicaid program).

Sharp HealthCare is the largest integrated, regional health care delivery system in San Diego. Sharp HealthCare includes:

- four acute-care hospitals;
- three specialty hospitals;
- three physician groups; and
- approximately 2,500 physicians on medical staff.

In 1999, 31 percent (11,600) of all births in San Diego occurred at Sharp HealthCare hospitals. Of those giving birth, approximately 35 percent were women with Medi-Cal insurance.

In 1999 there were 37,810 births in San Diego County and 169 practicing obstetricians affiliated with Scripps and/or Sharp HealthCare. Affiliated obstetricians are defined as those practitioners who had delivery privileges at any of the nine Scripps or Sharp HealthCare hospitals. In 1999, PSF staff identified 369 pediatricians practicing in a variety of community settings.

The Children’s, Scripps, and Sharp HealthCare systems include hospitals and physician groups. Each physician group contracts with numerous health plans to provide services to health plan members. Physicians within each group may provide patient care at several hospitals. Therefore, physicians in each physician group may provide care to patients from a variety of health plans and treat patients at numerous hospitals throughout the region. In addition, many physicians affiliated with the partnering organizations routinely treat Medi-Cal patients as part of their regular practices.

Competition for health plan contracting is very strong in San Diego. The Scripps and Sharp HealthCare systems regularly vie for managed care contracts. This competitive environment emphasizes the uniqueness of this unprecedented collaborative partnership.
CORE TEAM
Once the initiative was determined, a core team was established to oversee program development and implementation. Team members included:

- **A key physician leader** from each of the three partnering organizations. Each physician had participated in the initial meetings to determine the focus of the initiative. These physician leaders included a pediatrician, an obstetrician, and a physician with expertise in community health programs. All are well-known within the health care community and respected among their colleagues. Responsibilities included serving as liaisons between PSF and their respective CEOs in order to keep them informed and motivated, communicating with other physicians to facilitate their participation in the program, and providing input on program development.

- **A full-time project manager** whose responsibilities included overall program development and implementation, management of budget, hiring and training staff, development of data collection systems, and coordination of core team meetings.

- **A full-time program specialist** was hired within three months of the project’s inception and added to the core team. Her responsibilities included recruitment and training of physicians and serving as a liaison between medical personnel and the PSF core leadership team.

Each PSF core team member made a commitment to meet as a group twice a month throughout the duration of the program. In order to represent the interest of each partnering health care system, it was decided that all key decisions would be made as a group. From the beginning, the core team members decided to take equal responsibility for all successes as well as any failures.

PROGRAM INITIATION
In October 1998, the Trilateral Partnership initiated the Partnership for Smoke-Free Families (PSF), a tobacco control program focusing on pregnant women and small children. The following goals were established for the PSF program:

- reduce tobacco exposure among pregnant mothers and their unborn, developing babies; and
- reduce environmental tobacco smoke (ETS) exposure among small children.

In order to meet the goal of addressing tobacco use across the childbirth continuum (both during pregnancy and for six months after delivery), it was decided that the program would be developed to work directly through the partnering organizations’ affiliated obstetricians, hospital postpartum staff, and pediatricians using office-based systems to systematically identify and treat tobacco use.

SYSTEM-LEVEL APPROACH
Typically, preventive health and health education programs are initiated by individual health plans and are only accessible by members of those plans. With this health plan approach, patients either receive program materials directly through the originating health plan’s offices or physicians are required to offer the education program only to patients who are enrolled with the health plan sponsoring the program. This approach presents numerous problems. First, these programs can be difficult to administer, since physicians must determine which of their patients are eligible (i.e., which patients are enrolled with the sponsoring health plan). Most clinician offices do not have the capability to easily track patient eligibility. Second, these programs reach a limited number of patients, and thus, their impact is minimal.

Through this unprecedented collaboration among San Diego’s health care leaders, the Trilateral Partnership CEOs had a vision to establish a preventive health model that would be much broader in scope than the health plan approach and that would reach the greatest number of patients. Because patients affiliated with all health plans are served by the three partnering health care systems, the core team decided that the PSF program would be made available at no cost to all patients of all affiliated obstetricians and pediatricians. **This unique system level approach assures that all patients of eligible physicians have access to the PSF program, regardless of their health plan affiliation.**
LESSONS LEARNED

• **Core team meetings** – Several approaches have helped the PSF core team to work effectively. Core team members committed to meet as a group at least twice monthly; having standing meetings has helped to avoid scheduling conflicts. Communication between meetings is usually conducted via email, which is a medium used by all core team members. Minutes, including assigned action items, are taken for each meeting and emailed to all team members.

• **Clinician access** – Because all PSF core team members are employed by the partnering health care systems and these systems have existing relationships and contracts with clinicians, access to clinicians is much easier compared to an outside entity.

RECOMMENDATIONS FOR IMPLEMENTATION

• **Get support from the top** – It is critical to garner as much support from top administrators as possible and to try and secure some level of financial contribution, even a small amount. A financial contribution from the sponsoring organization(s) will help to leverage funding from other sources.

• **Focus on outcomes for pregnant women** – Focusing your program on smoking cessation among pregnant women – rather than among the general population – will allow the opportunity to achieve significant outcomes, cost savings, and health benefits to both mothers and children. These potential program impacts may make it easier to get the buy-in of administrators and physicians. It is hard to argue with the goal of reducing tobacco exposure among pregnant women and small children.

• **Be realistic** – Educate top administrators up front regarding quit rates that are generally yielded by best practice interventions. Most people have unrealistic expectations of reasonable quit rates during pregnancy.

• **Involve physicians and administrative personnel** – Your core team should be comprised of well-respected leaders within your organization in order to gain the support of physicians and other key personnel. It is critical to involve core team members who have administrative as well as clinical experience. In particular, including both a pediatrician and an obstetrician will give your team important perspectives in program development.

• **Choose a qualified program manager** – It is important to have a dedicated program manager. This person should have a good understanding of your unique health care setting. In addition, the ideal program manager should have a public health background with experience and knowledge in health promotion theory, behavior modification, smoking cessation, and program administration.

• **Make the program available to all patients** – It is extremely difficult to implement a program within a physician’s office and expect the office staff to administer the program only to a select group of patients (i.e., those belonging to a particular health plan). Availability to all patients, regardless of health plan affiliation, greatly increases the ease and likelihood of successful implementation.
PROGRAM DEVELOPMENT

STEERING COMMITTEE
During the early stages of program development, a steering committee was established comprised of PSF core team members, the CEOs, high-level researchers, physicians from the partnering organizations, and experts in the field of smoking cessation. Because the core team recognized the importance of benefiting from the knowledge of local experts outside the partnering organizations, researchers from San Diego State University’s School of Public Health were invited to participate on the committee.

The steering committee initially met monthly to provide input and direction in establishing the partnership’s first initiative. The committee determined that the program would be service-oriented, clarified program goals, reviewed and formalized basic program elements, and established program evaluation components. The committee also had input into hiring the program manager. Once the basic program elements were established, the steering committee began meeting biannually to review program outcomes, make decisions about future funding, and identify topics for new initiatives.

BEST PRACTICES
Rather than design new methodologies, the PSF core team began by reviewing current published literature and examining established smoking cessation and prevention programs for pregnant women. This approach allowed PSF staff to identify best practices and to adopt or modify components of proven existing programs in order to meet program needs. The team identified the 1996 Smoking Cessation Clinical Practice Guideline No. 18 that was sponsored by the Agency for Health Care Policy and Research (now called the Agency for Health Care Research and Quality), U.S. Department of Health and Human Services, as the basis for program development. This original practice guideline reflected the scientific literature published between 1974 and 1994 (approximately 3,000 articles). An updated version of the guideline, enti-
tled Clinical Practice Guideline: Treating Tobacco Use and Dependence, was published in June, 2000 (see below). The updated guideline included recommendations for new, effective clinical treatments for tobacco dependence based on studies published since 1994. An additional 3,000 articles were screened and reviewed and contributed to the development of the updated guideline.

The Partnership for Smoke-Free Families program is based on the recommendations outlined in the Clinical Practice Guideline including the “5 As”.

Specifically, the Clinical Practice Guideline calls for health care providers to systematically:

- **Ask about tobacco use** – Identify and document tobacco use status for every patient at every visit.
- **Advise patients to quit** – In a clear, strong and personalized manner urge every tobacco user to quit.
- **Assess willingness to quit** – Ask if the tobacco user is willing to make a quit attempt.
- **Assist in quit attempt** – For the patient willing to quit, use counseling and pharmacotherapy.
- **Arrange follow-up** – Schedule follow-up contact with patients to discuss progress made toward quitting.

In addition, the guideline points out that pregnancy is an appropriate time to initiate smoking cessation intervention and that brief cessation counseling offered with pregnancy-specific self-help materials can significantly improve cessation rates. Key recommendations for pregnant women include:

- Due to the serious risks of smoking to the pregnant smoker and the fetus, pregnant smokers should be offered extended or augmented psychosocial interventions that exceed minimal advice to quit whenever possible.
- Although cessation early in pregnancy will produce the greatest health benefits, quitting at any time during pregnancy can yield benefits. Therefore, clinicians should offer effective smoking cessation interventions at the first prenatal visit and throughout the course of pregnancy.
- Pharmacotherapy should be considered when a pregnant woman is otherwise unable to quit and when the potential benefits of quitting outweigh the risks of the pharmacotherapy and potential continued smoking.
EXISTING PROGRAMS
Rather than recreate services that already existed, the PSF core team wanted to identify and evaluate existing programs to ascertain which established programs and materials could be used or adapted to work within their unique health care setting. The project manager reviewed existing smoking cessation programs and materials from numerous resources including the following:

- American Cancer Society’s “Make Yours a Fresh Start Family” Program (MYAFSF) – This comprehensive program is designed to train health care providers to help pregnant women and mothers to stop smoking by providing in-office counseling. Some program materials from MYAFSF were used or modified to meet PSF program needs.

- Group smoking cessation programs offered by the partnering health care systems – Both Scripps and Sharp HealthCare offered group smoking cessation classes. A review of the literature on group smoking cessation classes demonstrated that group programs are not typically well attended. In addition, these classes were not pregnancy-specific, times and locations were sporadic, and attendance barriers due to issues of privacy, location, and transportation were likely to occur for pregnant women. For these reasons, it was determined that these classes would not meet the needs of the PSF program.

- Telephone-based smoking cessation help lines – The PSF core team assessed the services provided by national telephone-based smoking cessation quit lines as well as the state quit line, California Smokers’ Helpline (CSH). Ultimately, PSF partnered with CSH to develop a cessation protocol specifically for pregnant women (see page 15).

- Brochures and other smoking-related materials from non-profit and other health organizations – A collection of smoking-related brochures and materials were collected and reviewed before developing PSF-specific collateral materials. These included materials from the American Lung Association, the American Cancer Society, the National Cancer Institute, the March of Dimes, and the National Clearinghouse for Alcohol & Drug Information.

Upon review of existing resources, PSF staff found that while certain materials could be used or adapted, no tobacco cessation intervention developed specifically for pregnant women currently existed that would by itself meet the needs of the PSF program.

PHYSICIAN INPUT
PSF core team members recognized that it was crucial to obtain physician input and support for the program early in the planning process in order to be successful. They began by attending key meetings of obstetricians within each partnering health care system. These included physician leadership meetings, medical group meetings, and hospital obstetrician staff meetings, among others. Importantly, all core team members were present at all physician meetings as a way to communicate the commitment from each partnering health care system.

The core team developed a presentation for these meetings that included speaking roles for each core team member. The presentation included a brief overview of program concepts and distribution of preliminary sample program materials. Physicians were asked their opinions about the feasibility of the proposed program, to provide feedback on program elements and sample materials, and to identify any perceived barriers to program implementation. The PSF core team used the meetings to gauge the level of support they might expect from the physicians. An added benefit was the identification of potential early adopter physicians, i.e., those who were particularly supportive during the early stages of program development.

The obstetricians were generally very supportive of the PSF program, but did raise some issues regarding program delivery. The most significant concern was how much time the program would take up in busy offices. They wanted to be sure that the program could be implemented in as short a time as possible so as not to disrupt patient care. Additionally, physicians wanted to be sure that no PSF program elements would interfere with the delivery of prenatal care.
DEMOGRAPHIC PROFILING

PHYSICIANS – PSF staff members developed a database including all obstetricians affiliated with each partnering health care system. This process began by collecting electronic lists of obstetricians in Microsoft® Excel format. In most cases, these lists came from the credentialing departments. Next, the data were merged, verified, and updated. This process included physician reviews led by PSF core team members to exclude inactive physicians or add physicians who might have been missed. The initial list contained information on 538 obstetricians. Once the list was compiled, each physician was contacted by phone to verify all demographic data and to collect the name of an office contact person. A preliminary database was set up in Microsoft® Access (a database application) to hold all physician information. The following data were collected for each obstetrician’s office:

• Name
• Title
• Address(es)
• Phone number(s)
• Office manager’s name
• Health care system affiliation
• Practice name, if any

TARGET POPULATION – PSF staff collected hospital delivery data in order to get a profile of the target population (pregnant women). Data collected include:

• Ethnicity
• Race
• Payor mix
• Age

Findings from this research indicated that Scripps patients were predominantly white or Hispanic (78.6 percent), with some black (4.6 percent), Asian (4.3 percent), and other (12.1 percent). Sharp HealthCare patients were similarly distributed, with 45 percent white, 34.4 percent Hispanic, 6.6 percent black, and 8.6 percent Asian. Overall, 13 percent of patients were age 20 or younger; 49 percent were aged 21 to 30, and 36 percent were aged 31 to 40. Approximately 38 percent of Sharp patients and 27 percent of Scripps patients were insured by Medi-Cal (California Medicaid).

WORK TEAM DEVELOPMENT

The importance of developing a collaborative approach among the three partnering organizations was recognized early on. To assure that the input and interest of all partners would be considered in the decision-making process, the PSF core team eventually established three key work teams:

• Communications
• Legal
• Evaluation/Outcomes

COMMUNICATIONS WORK TEAM – PSF core team members developed the communications work team by appointing director-level marketing/communications professionals from each of the three partnering organizations. These individuals met periodically with the PSF program manager to provide expertise and make decisions regarding communications, marketing, and public relations activities. Specifically, the communications work team provided input on program identity and logo development, collateral materials, press releases, press conferences, and other communications issues.

LEGAL WORK TEAM – Due to the unique collaboration that is represented by PSF, core team members recognized the need for a formal legal document that would outline the specific responsibilities of all parties involved. In-house attorneys from each partnering organization’s risk management department were appointed to the legal work team (along with the PSF
program manager) by the PSF core team. The legal work team’s goal was to develop a memorandum of understanding among the partnering organizations and to advise the PSF core team on other legal issues.

**EVALUATION/OUTCOMES WORK TEAM** – Although PSF was designed as a service program and not a research study, the core team recognized that some measures were necessary to track program outcomes. The evaluation/outcomes work team was created to guide the development and ongoing measurement of program evaluation components. This work team was comprised of research analysts from each of the partnering organizations, as well as the program manager.

**RECOMMENDATIONS FOR IMPLEMENTATION**

- **Seek out expert advice** – Contact your local school of public health or other university-based researchers to identify individuals with expertise in the area of tobacco control. Meet with interested individuals to let them know about your program. They may be willing to participate as members of your steering committee, able to give you suggestions for program implementation, and/or interested in collaborating on a research study.

- **Communicate regularly with your steering committee** – Be sure to maintain regular communication with members of your steering committee, especially after the program has been established and you are meeting with them less frequently. This can be accomplished in the form of brief, one-page program updates highlighting successes, milestones, or other noteworthy accomplishments. This will keep your program on the minds of individuals who may be responsible for key decisions about future funding for your program.

- **Plan meetings carefully** – While it can be helpful to have a group of experts and other key leaders from your organization as members of your steering committee, it is important to realize that each participant comes from a different background with different priorities and may bring his/her own agenda to the table. To keep the group on track, plan your meetings carefully and always include a specific agenda with time limits for each topic. Ask members to react to proposed plans, rather than asking for general input. Also, ask individual participants for specific input or feedback based on their expertise.

- **Carefully investigate existing programs** – When developing a new program, take the time to conduct a thorough investigation of what already exists and learn from established programs. As you research, keep your unique health care setting and needs in mind. Having a good understanding of your target population is crucial.

- **Conduct thorough research** – Review current literature, check websites, and contact program managers and researchers who have implemented or tested similar interventions. Don’t be afraid to directly call or email program managers or researchers to ask for advice or consultation.

- **Get physician support early on** – It is extremely important to solicit buy-in from physicians before asking them to participate in a new program. Get on the agenda at established physician meetings. Physicians like hearing from other physicians, so whenever possible, include physicians who support your program (i.e., core team members) to participate in these presentations. Keep the presentations brief. Present a well-thought-out plan that specifies what you anticipate physicians’ responsibilities to be, but make it clear that you would like feedback in order to shape the details of the program. After asking for input, be sure you then take their suggestions into consideration.

- **Importance of early adopters** – It is important to identify individual physicians and/or groups who are particularly supportive of your program during the early stages of program development. These early adopters will likely champion your project among other clinicians and may be interested in helping with aspects of program development and implementation. In addition, you can count on these physicians to be the first in line to implement
your program in their offices. To identify these individuals, ask your core team members or other clinician supporters for recommendations. Then ask these individuals to contact the physicians to solicit their support. After confirming their interest, keep your early adopters in the loop. Meet with them individually to educate them about your program, solicit their input on program materials as you develop them, and keep them apprised of your progress with program planning.

• **Anticipate barriers** – Your program has the greatest chance of success if you are aware of the barriers to clinician participation and you keep these in mind during every step of program development.

• **Keep it simple** – Clinicians are more likely to accept your program if it is relatively easy to implement. Keep in mind that program delivery should be simple and shouldn’t take up too much time in busy offices.

• **Use compatible data** – If you are pulling demographic data from more than one source, make sure the same definitions and criteria are being used so the data is consistent across data sources.

• **Create a resource library** – When conducting a thorough literature search, create a resource library and file articles by author. Keep up with new publications. Register with on-line literature search services like PubMed (a service of the National Library of Medicine), specify key areas of interest, and check periodically for newly published articles. To build your library even more quickly, check the reference lists on articles you acquire to find new articles. Route all new articles among program staff and summarize key findings via email updates to your core team members.
Prenatal Program Components

With the initiative defined and the goal of addressing tobacco exposure across the childbirth continuum from prenatal to postpartum established, PSF staff set to work on building program components. The decision was made to use the five-step intervention outlined in the Clinical Practice Guideline (the “5 As”) as the foundation of the program. Recognizing that the greatest impact could be achieved among the population of pregnant women by reaching them through their obstetricians, PSF staff focused the first phase of program development on the prenatal care setting.

The First “A” – Ask

Screening for tobacco use among pregnant women should occur as part of the initial health history and at every subsequent visit. The manner in which clinicians ask about smoking status can improve the accuracy of response, especially since many pregnant women may be uncomfortable discussing whether they smoke. Rather than asking a simple yes or no question such as, “Do you smoke?,” clinicians are recommended to use a multiple-choice format. For example, options such as, “I smoke now, but cut down after I learned I was pregnant,” or, “I smoke from time to time,” offer the opportunity to collect more accurate information on smoking status and frequency while allowing pregnant women to portray themselves in a more positive light (see Figure 1). Using a multiple-choice format has been shown to improve disclosure by as much as 40 percent,¹ provides clinicians with additional information, and is effective whether delivered verbally or in writing.

Prenatal Survey – PSF wanted to identify not only pregnant smokers, but also spontaneous quitters (women who quit smoking when they discover they are pregnant) and pregnant women who reside in homes with smokers so that targeted interventions could be implemented for each of these groups. In addition, they knew that collecting data on all pregnant women – not only women in these three categories – would allow PSF to determine

"Obstetricians play the key role in providing access to this program, thus assuring success and a reduction of the harmful health effects of tobacco exposure on pregnant women and their families."

Jack M. Schneider, M.D. - Chief Medical Officer, Sharp Mary Birch Hospital for Women PSF Core Team Member
the overall prevalence of smoking during pregnancy in San Diego County. (Accurate prevalence rates were not previously available since these data were not uniformly collected by clinicians.)

PSF staff began by developing a measurement tool in order to insure that data would be collected consistently among all participating obstetricians. They initially met with a local American Cancer Society (ACS) tobacco control expert to discuss utilizing the ACS’s Make Yours a Fresh Start Family (MYFSF) questionnaire. Using this questionnaire as a guideline, PSF staff developed a survey to be administered by prenatal care providers in their offices to ask all pregnant patients about their smoking status. Some questions related to outcomes were added with input from the evaluation/outcomes work team. The resulting PSF prenatal survey was entitled “Health Survey for New Moms” (see Figure 1 and Appendix, page 2). The survey was developed in both English and Spanish.

**Formative Research** Research was conducted to obtain feedback from clinicians and patients and identify any issues or concerns regarding prenatal survey content and process for implementation. The following formative research steps were taken:

- Met with key obstetricians, who provided feedback on the survey.
- Met with nurse supervisors from individual obstetrician offices, who reviewed the survey and provided input regarding implementation.
- Conducted focus groups with staff members from one of the partnering organization’s department of community health who have experience in developing screening tools. They completed the survey and provided feedback.
- Pilot-tested the survey in obstetrician offices and obtained feedback from patients.

No major problems with survey content were revealed as a result of this research. Pilot testing identified the need for a simplified way to report information from completed surveys back to PSF. The solution was to create a two-part NCR (non-carbon reproduced) form with one copy to be placed in the patient’s chart and one to be mailed to PSF. Once the survey form is received by PSF, data is entered for all surveys as a means to collect program data and to initiate interventions including referral for smoking cessation counseling, when indicated.

With input from clinician offices, it was determined that office staff should be responsible for having each patient complete the survey at her first prenatal appointment, for putting a copy of the completed survey in the patient’s chart, and for sending all completed surveys to PSF, regardless of smoking status. This process was designed to allow for modification as needed for each individual office. Office staff members were requested to mail or fax forms to PSF at least weekly. Postage-paid envelopes were created so that office staff members could send copies of the surveys to the PSF office at no charge to them.
The survey contains a place for the patient’s signature to provide consent for the physician to share the information contained on the survey with PSF and, if appropriate, a cessation counselor. With the understanding that some surveys would likely be turned in unsigned, PSF staff decided to collect data from surveys that were submitted without signatures, but not to provide interventions for these patients since no consent would be indicated without a signature.

Formative research revealed a concern by some physicians that collection of patient-specific information would necessitate approval by the Institutional Review Board (IRB). Because of this concern, PSF staff members submitted the prenatal survey to the IRB for human subjects review. Upon review, it was determined that because the program was service oriented and not a research study, PSF was exempt from submitting a human subjects protocol for approval.

**THE SECOND “A” – ADVISE**

Advice from clinicians to pregnant women about quitting smoking should be brief, clear, strong, and personalized with messages about the benefits of quitting for both patient and baby. Communicating unequivocal advice to quit smoking is important, but admonishing or criticizing the patient is ineffective. Because patients may doubt that clinicians understand how difficult it is to quit, acknowledging the barriers to quitting may make patients more receptive to advice. Importantly, advice should be targeted specifically to each individual patient’s situation and smoking status.

**PRENATAL ADVICE GRID** – PSF staff created an informational Prenatal Advice Grid (see Appendix, page 3) for clinicians, which outlines recommended approaches to smoking cessation advice, referral, and follow-up based on the patient’s diagnosis as assessed in the prenatal survey. The Prenatal Advice Grid provides examples of specific messages clinicians can give, depending on the smoking status of the patient. For example, recommended advice for a pregnant woman who has reduced smoking is different from that for a woman who has quit. The Prenatal Advice Grid also points out that effective advice can be very brief, taking up only a few minutes of a clinician’s time.

**BROCHURES AND POSTERS** – PSF staff designed a prenatal brochure (see Appendix, page 5) that covers the health risks of smoking to the mother, the unborn child, and the newborn.

**CHART STICKERS**

The Clinical Practice Guideline recommends that clinicians record smoking status along with vital signs in each patient’s chart. Because survey forms can become “lost” in the chart, PSF staff designed a sticker (see Appendix, page 4) to be placed in a conspicuous location on the chart as a way to remind clinicians of the smoking status of the patient at every visit.

**SAMPLE ADVICE**

As noted on the PSF Prenatal Advice Grid (see Appendix, page 3), clinicians are recommended to give the following advice to patients who smoke now but have cut down since learning they were pregnant:

“I see from your health survey form that you have cut down on your smoking. This is a good first step. However, smoking is not good for you and it can harm your baby. Because I want you to have the healthiest baby possible, I strongly advise you to quit smoking completely.”
baby, and other children. The prenatal brochure, entitled "Don’t Let Your Baby Start Life Under a Cloud," includes the toll-free telephone number for PSF’s smoking cessation intervention (see below). Importantly, it is intended to be distributed to all pregnant women at their first prenatal visit so that they will have the information available to them throughout their pregnancies. In addition, complementary posters (see Appendix, page 6) were designed that included pockets in which to hold the brochures for placement in obstetricians’ offices.

THE THIRD “A” – ASSESS
The Clinical Practice Guideline recommends routinely assessing each patient’s willingness to quit smoking. The smoking cessation intervention resource used by PSF includes routine assessment of readiness to quit.

THE FOURTH “A” – ASSIST THE PATIENT TO QUIT
Having designed the prenatal survey to identify pregnant smokers, spontaneous quitters, and pregnant women who are exposed to ETS, PSF needed targeted interventions for each of these populations. They identified two key components that were necessary for all interventions. Specifically, they wanted interventions that would be:

1. Proactive in nature (i.e., patients would be contacted directly by program staff rather than waiting for patients to make contact); and
2. Delivered outside the clinician office, thereby eliminating the need for the clinician and/or office staff to implement the intervention.

INTERVENTION 1: PREGNANT SMOKERS – The Clinical Practice Guideline recommends that clinicians provide support, self-help materials, and problem-solving techniques to patients who smoke, as well as to help identify other sources of support for these patients. The guideline acknowledges that greater intensity of counseling increases its effectiveness and specifically recommends proactive telephone counseling for smokers. Recognizing that taking up too much time in busy offices would be a barrier to success, PSF staff needed a smoking cessation program that would be quick and easy to implement by clinicians and office staff. They desired a program that was specifically targeted to pregnant women, extended to the postpartum period for relapse prevention, easily accessible, low cost, and self-sustaining into the future. With these requirements in mind, PSF staff felt that a telephone intervention would be best suited to this population.

Telephone intervention for smoking cessation has several advantages. It offers services to those with limited mobility. It appeals to those who may be reluctant to seek out face-to-face counseling, especially in group settings. Telephone counseling is conducted on an individual basis, allowing the counselor to focus on the unique needs of each client. It is semi-anonymous since the client and the counselor never meet in person, which seems to facilitate frank discussion. In addition, the telephone format allows the use of a structured counseling protocol, assuring that each session is thorough, yet brief. Importantly, the telephone makes it practical to conduct proactive counseling, rather than waiting for the client to initiate the intervention.

PSF staff designed a prescription pad (see Appendix, page 4) as a way to make it easy for clinicians to advise pregnant patients to quit smoking and refer them to the smoking cessation intervention. At the appointment, after reviewing the health survey form and identifying the patient as a smoker, the clinician gives the prescription to the patient along with appropriate advice to quit smoking.

PRESCRIPTION PADS

![figure3.png]

PSF staff designed a prescription pad (see Appendix, page 4) as a way to make it easy for clinicians to advise pregnant patients to quit smoking and refer them to the smoking cessation intervention. At the appointment, after reviewing the health survey form and identifying the patient as a smoker, the clinician gives the prescription to the patient along with appropriate advice to quit smoking.
Following extensive review, PSF staff selected the California Smokers’ Helpline (CSH) as a program uniquely positioned for collaboration (see below). CSH had the expertise and resources to provide the necessary program elements for the population of pregnant smokers.

**Pregnancy-specific Protocol** CSH had previously provided telephone counseling for pregnant smokers using their standard adult protocol. However, no pregnancy-specific program intervention existed. Capitalizing on the experience of CSH staff with pregnant smokers, CSH agreed to develop a counseling protocol specific to this population. PSF staff participated in the ongoing development meetings to ensure that the resulting protocol adequately addressed the needs of women referred by PSF. The pregnancy-specific protocol was developed based on the theory, approach, and content of the adult protocol, but targeted the specific needs and issues relevant to pregnant women. CSH staff counseled pregnant smokers during the development period using a modified version of the regular adult protocol. Counselors met weekly to compare notes from these counseling sessions and provided input to the development team to make ongoing modifications. Counseling was available in both English and Spanish.

Unique aspects of the pregnancy-specific protocol include:

- On a weekly basis, PSF staff sends contact information for all identified pregnant smokers electronically to CSH in order to initiate smoking cessation counseling.

- Patients who have completed a prenatal survey and do not contact the Helpline themselves are proactively called by CSH counselors to receive smoking cessation assistance.

- The protocol addresses the two relapse curves seen among pregnant smokers, one during pregnancy and one immediately after delivery.

- Educational materials are sent to patients in addition to the telephone counseling sessions.

- The protocol is designed to provide continuity of care. CSH is presented as an extension of the clinician’s office, thereby eliminating confusion for patients.

- CSH counselors are specially trained to work with PSF patients recruited through this direct referral system.

---

**Case Study | Prenatal Program Components**

The California Smokers’ Helpline (CSH) is a free, statewide, telephone-based smoking cessation service. It is funded by the California Department of Health Services, Tobacco Control Section, with state tobacco tax revenues. CSH has provided smoking cessation services to California residents since 1992. The CSH counseling protocol for adults has been tested in two large randomized controlled studies. The first study proved the efficacy of the protocol showing that multiple counseling sessions doubled the rate of success over a self-help materials group. The second study not only confirmed that counseling doubles the success, it did so in a “real world” setting without the constraints imposed by a rigorous clinical study. Intervention includes one-on-one telephone counseling with trained smoking cessation counselors and mailing of self-help quitting materials. Administered by the Cancer Prevention and Control Unit of the University of California San Diego Cancer Center, CSH is noted for its emphasis on evidence-based practice.

CSH’s regular adult counseling protocol follows a combination of the principles of motivational interviewing for inducing behavior change and those of the cognitive-behavioral approach to treating substance abuse. The role of the counselor is to promote the motivation to quit and to help the client develop competence in self-management.
The pregnancy-specific protocol includes up to 10 counseling sessions and is divided into two phases, prenatal and postpartum (see Chart 3).

**Prenatal Phase** The prenatal phase of the pregnancy-specific protocol was designed to help pregnant women quit smoking and/or to support positive changes in smoking behavior as early and for as long as possible in their pregnancies. The first step of this phase is an intake call, in which the counselor explains the intervention; assesses the patient’s smoking and quitting history, current smoking behavior, readiness to change, and environmental and social factors; and collects demographic information. The intake call is designed to be appropriate whether the patient calls CSH or is proactively contacted. A unique toll-free number was established for PSF and promoted to the clinicians’ offices to facilitate tracking of any calls from PSF patients who take the initiative to call for services. Educational materials are sent to each patient upon completion of the intake call.

The pre-quit counseling session is designed for the counselor to establish rapport with the patient; build motivation; boost self-efficacy; discuss smoking history; assess social support; address pregnancy-related issues; establish a plan for quitting; increase stress management and coping skills; and set a quit date.

Up to five follow-up calls are made to prevent relapse and are timed according to when relapse is most likely to occur up to one month after the quit date. These calls are designed to assess progress; discuss withdrawal; evaluate coping strategies; examine relapse situations; revise plans as needed; bolster self-efficacy and motivation; address depression/mood; and begin the development of the woman’s self-image as a nonsmoker.

Patients receive three mailings prior to their due dates, approximately six weeks apart. Materials include a “Pregnancy Facts” brochure; a picture frame magnet including the PSF toll-free number; and a planning worksheet, which is used during the pre-birth counseling call. This call is made in the final trimester to discuss the risks of relapse immediately after childbirth. The call is designed to increase the patient’s awareness of the potential for relapse, reaffirm her commitment to abstinence, and begin to change the motivation for quitting from extrinsic sources (i.e., the baby) to intrinsic sources (i.e., the patient herself).

**Postpartum Phase** Pregnant smokers have two high-risk points for relapse when they are attempting to quit. The first is during the pregnancy, at which time the relapse curve is similar to that of those who are not pregnant. The second is after giving birth, at which time there is a sharp relapse among those who were still quit at the end of the pregnancy. By one year postpartum, approximately 70 percent of those who quit during pregnancy have relapsed.

The postpartum phase of the pregnancy-specific protocol entails two telephone counseling sessions within the first six weeks after delivery. The first call is made two to four weeks after the due date and the second is made two weeks later. Counselors discuss tempting situations and how they have been handled and offer help if the patient has relapsed. Each patient is sent a birth congratulations card and a “Tips for New Moms” brochure.

**Collaboration** PSF and CSH entered into a three-year contract stipulating that one-half of CSH fees would be paid by PSF. Costs were estimated based on PSF’s projections of an estimated 960 intake calls per
year and counseling services for 480 patients per year during the contract period, along with costs of protocol development and feedback reports. Partly on the strength of the collaboration between PSF and CSH, CSH received a grant from the State of California Tobacco-Related Disease Research Program to support evaluation and some of the overall program expenses. For their portion, PSF paid approximately $134,000 per year to CSH. Services were extended at no cost for three months at the conclusion of the three-year contract period (ending March, 2002) due to an overestimation of projected intake and counseling rates. Currently, CSH is testing the pregnancy protocol statewide and utilizing other funding in order to provide services to PSF patients at no cost.

**INTERVENTION 2: SPONTANEOUS QUITTERS**

Despite the fact that 15 to 30 percent of women who quit smoking when they find out they are pregnant relapse prior to delivery, little research has been conducted related to interventions for spontaneous quitters. The research that has been done has not revealed an effective method or best practices for preventing relapse among this population. The PSF program manager conducted extensive interviews with experts in the area of relapse prevention for this population, including Daniel H. Ershoff, Dr. P.H., a nationally recognized expert in smoking cessation methods for pregnant women. This research revealed that previous methods were not targeted toward relapse prevention, did not target materials toward the postpartum period, or did not create a systematic link between the patient and the clinician. At the recommendation of experts in the field, PSF staff created the design and content of the intervention for spontaneous quitters to include these components. The goal was to develop an intervention that would focus on preventing relapse as well as providing a resource for women to access should they relapse.

The PSF spontaneous quitter intervention is mail-based and involves six sequenced mailings of educational materials (see Chart 4 and Appendix, page 7). To create a link between the intervention and the patient’s obstetrician, materials refer to the patient’s prenatal visit when the health survey form was originally completed. The first mailing is sent by PSF approximately one week after receiving the prenatal survey identifying the woman as a spontaneous quitter. Subsequent mailings are sent over an extended period of time (approximately 10 months in duration for a woman who enters prenatal care by the eighth week of pregnancy) and continue until three months postpartum. All six mailings are sent regardless of when the woman enters prenatal care. All materials are available in English and Spanish.

The first mailing includes a letter of congratulations and a copy of *Your Smoke-Free Pregnancy*, a 40-page booklet published by Krames Health and Safety Education that is targeted to pregnancy and relapse prevention. Two weeks after the first mailing, participants receive a tip sheet, followed two weeks later by a picture frame along with an encouraging note. A second tip sheet is sent one month later and a planning sheet is sent one month prior to the participant’s scheduled due date. Two tip sheets are sent during the postpartum period, one at two to four weeks postpartum and one at three months postpartum.

The tip sheets sent during the prenatal period offer suggestions for helping to remain smoke-free and avoid the urge to smoke. The first tip sheet details common triggers and suggests coping strategies. The

<table>
<thead>
<tr>
<th>PSF SPONTANEOUS QUITTERS – SEQUENCED MAILINGS TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Prenatal Visit</td>
</tr>
<tr>
<td><strong>Week 1</strong></td>
</tr>
<tr>
<td>Congratulations Letter and Living Smoke-Free Booklet</td>
</tr>
<tr>
<td><strong>Week 3</strong></td>
</tr>
<tr>
<td>Prenatal Tip Sheet #1</td>
</tr>
<tr>
<td><strong>Week 5</strong></td>
</tr>
<tr>
<td>Picture Frame Magnet</td>
</tr>
<tr>
<td><strong>Week 9</strong></td>
</tr>
<tr>
<td>Prenatal Planning Sheet</td>
</tr>
<tr>
<td>One Month Before Due Date</td>
</tr>
<tr>
<td><strong>2-4 Weeks Postpartum</strong></td>
</tr>
<tr>
<td>Postpartum Tip Sheet #1</td>
</tr>
<tr>
<td>Delivery In Hospital</td>
</tr>
<tr>
<td><strong>3 Months Postpartum</strong></td>
</tr>
<tr>
<td>Postpartum Tip Sheet #2</td>
</tr>
</tbody>
</table>

*Chart 4*
second tip sheet encourages women to evaluate what they know about tobacco exposure and to engage in reflective planning for the future. The prenatal planning sheet is designed to stimulate women to shift their motivation for staying quit from the health of the unborn baby to their own health, as well as the health of the newborn baby. The postpartum tip sheets focus on relapse prevention and the health of the baby. They include information on the links between smoking and SIDS, asthma, and other childhood illnesses as well as reminders that free smoking cessation telephone counseling is available to them if they relapse.

INTERVENTION 3: PREGNANT WOMEN EXPOSED TO ETS – The intervention for pregnant women who report there are smokers residing in their households involves one mailing of educational materials sent by PSF. The mailing is sent approximately one week after receiving the “Health Survey for New Moms” identifying the woman as living with a smoker. Materials refer to the prenatal visit when the health survey form was completed as a way to link the intervention back to the patient’s obstetrician. The materials discuss the harmful effects of and ways to reduce ETS exposure. Family members who smoke are invited to call the California Smokers’ Helpline for free assistance in quitting.

THE FIFTH “A” – ARRANGE FOR FOLLOW-UP
Tobacco dependence exhibits many features of a chronic disease. Few smokers achieve permanent abstinence in their initial quit attempt and the majority cycle through multiple periods of relapse and remission. It is important for clinicians to understand this chronic nature of tobacco dependence so that their expectations about abstinence and relapse are realistic. There is no one intervention that works for all smokers and success should not be defined only on the basis of permanent abstinence.

Many women who quit smoking spontaneously when they discover they are pregnant relapse prior to delivery. In addition, smokers who have relapsed don’t typically self-report their smoking status if not asked. For these reasons, clinicians are advised to repeatedly assess smoking status at follow-up visits. Assessment should include monitoring progress, reinforcing any
steps taken to quit, and promoting problem-solving skills for patients attempting to quit. Patients who are currently smoking should be advised to quit at every visit and those who smoke heavily or relapse continually may need intensive counseling.

In order to assist clinicians in providing follow-up advice, PSF staff included this topic as part of their training program. Examples of specific follow-up questions are provided on the advice grid, which is delivered to all participating offices. Clinicians are trained to follow-up at every visit with specific messages that are based on each patient’s individual smoking status, with special emphasis on the six-week postpartum visit. For example, if referral for smoking cessation counseling or prescription for pharmacologic intervention has been made at a previous visit, follow-up should include determining whether action has been taken and if the patient has initiated a quit attempt.

LESSONS LEARNED

• Improving disclosure – Many providers already have a tobacco use question on their standard health history forms in a yes/no format. We find it helpful to explain to clinicians that using a multiple-choice format when inquiring about smoking status has been proven to improve disclosure and the quality of information received.

• Utilization of chart stickers – Results from the annual PSF clinician satisfaction survey show that only 39 percent of clinicians report consistent use of the chart sticker (see Figure 2). This low utilization rate may be because some offices do not permit “stickering” on the actual chart. We found that having clinicians place the sticker on the chart’s “problem list” helps solve this problem.

• The right approach for spontaneous quitters – In developing interventions, we initially felt that counselors at the California Smokers’ Helpline could provide telephone counseling services to spontaneous quitters in order to help prevent relapse. We pilot-tested this approach and found that spontaneous quitters were not at all receptive. They stated that they had already quit smoking and didn’t understand why they were receiving a call from a counselor. Based on this feedback, we decided that a mail-based intervention focusing on relapse prevention would be better for this group.

• Setting the stage for counseling – The proactive nature of the pregnancy-specific protocol was new for the counselors at CSH. At program onset, counselors indicated they were uncomfortable making the initial contact with identified smokers, feeling that it was a “cold” call. To address counselors’ concerns, a “warm-up postcard” was developed by PSF staff to notify smokers that they would be receiving a call from a counselor at CSH. Counselors felt that this card improved the receptivity of identified smokers.

• Preparing for all situations – We found it is important to be sensitive to the fact that some pregnant women may miscarry or terminate their pregnancies. As part of their specialized pregnancy training, CSH counselors learn about miscarriage (e.g., signs and symptoms, causes, and the grieving process) so that they are better prepared to provide cessation counseling to patients who have experienced a miscarriage. In addition, spontaneous quitters who receive the PSF sequenced mail-based intervention are given a phone number to call in the event that they would like to be removed from the mailing list. This allows women who are no longer pregnant or who do not wish to receive the intervention a simple way to discontinue.

RECOMMENDATIONS FOR IMPLEMENTATION

• Keep it simple – Health surveys should be as simple and short as possible, preferably kept to a single page, since prenatal patients have a variety of other paperwork to complete.

• Make sure prenatal surveys are signed – The signature box for consent on the prenatal survey
should be highly visible. In addition, prenatal care office staff should be trained to review completed surveys and ask for signatures from patients who may have overlooked the signature box. Of course, women who do not wish to give consent should not be coerced to do so. Ongoing training will help to increase the percentage of surveys with signatures.

- **Be flexible** – While it is important to have a systematic approach to collecting prenatal surveys, be sure to review the process for completing this task at each office. Determine if the general process will work for each individual practice and modify as necessary.

- **Get IRB approval, if necessary** – Whenever implementing a survey tool, it is a good idea to meet with your Institutional Review Board (IRB) to determine whether or not a human subjects protocol needs to be submitted and reviewed.

- **Offer electronic options** – For offices that use electronic medical records or “paperless” charts, you may need to make arrangements to have completed health surveys scanned into the patient’s electronic medical record or to have the survey programmed on the computer so that patients can complete it online.

- **Assure HIPAA compliance** – Meet with the compliance officer from your organization to assure that your program components meet with the Health Insurance Portability and Accountability Act’s (HIPAA) patient privacy regulations. For example, if health information is electronically transmitted to a clinician, use a secure messaging service so that the data is encrypted when it is sent over the Internet; make sure that your confidentiality statement meets with HIPAA requirements; and place chart stickers inside the charts rather than on the outside cover.

- **Research all possible settings** – If you plan to implement a program in more than one type of medical office setting (IPA, group model, community clinic), be sure to conduct your formative research in each of these settings. It is important to have a good understanding of your environment, as procedures and regulations can vary greatly within different medical groups and across office settings.

- **Facilitate use of prescription pads** – Make sure that clinicians know where to find the smoking cessation prescription pads (see Figure 3) at their offices. One recommendation is to provide offices with enough prescription pads so that at least one can be placed in each exam room. In addition, a very effective approach is to have the front desk staff review the completed prenatal surveys and, when a smoker is identified, clip a prescription to the inside of the patient chart so the clinician has it on hand when he or she gives advice to the patient.

- **Reach all OB patients** – Assuring that all prenatal patients receive educational information on smoking and pregnancy, regardless of their smoking status, can be difficult. For example, if a woman states on the prenatal survey that she does not smoke, it is then hard to distribute educational materials without running the risk of offending her. We recommend providing physician offices with educational brochures to be placed in packets that are routinely distributed to all new OB patients.

- **Provide program materials at no cost** – PSF provides all program materials and interventions at no cost to clinicians and patients. Providing materials at no cost will enhance participation in your program.
POSTPARTUM PROGRAM COMPONENTS

A critical element of the PSF program is to facilitate the continuity of care of pregnant smokers and their families from the prenatal period through childbirth and into the period of infancy. High relapse rates among women who quit smoking during pregnancy make it important to address tobacco control across the childbirth continuum and to provide as many opportunities as possible for clinicians to encourage women to stay quit or quit again if they have relapsed. To address this need, PSF staff designed postpartum interventions for both hospital and pediatric office settings.

HOSPITAL INTERVENTION

HOSPITAL SURVEY – Recognizing that the post-delivery hospital stay is an opportunity to screen women for smoking status, PSF staff began by developing a survey to be administered in the hospital postpartum units of the eight delivery hospitals affiliated with the Trilateral Partnership to screen women for smoking status at the time of delivery. The hospital survey (see Figure 4 and Appendix, page 8) was designed to meet the following objectives:

1. To allow comparison of smoking status from the prenatal period to the time of delivery – Using identifying information, attempts are made to link women’s hospital survey responses with the prenatal survey responses to examine patterns of smoking throughout pregnancy.

2. To identify women who are smoking at the time of delivery and determine if they are interested in receiving assistance to quit smoking – Smokers who indicated they would like cessation assistance were contacted by California Smokers’ Helpline to receive telephone counseling. (Note: Although this proactive component of the intervention was discontinued in 2002 due to lack of funding, women may still access counseling by phoning CSH directly.)
3. **To collect the names of infants’ pediatricians** – This step allows PSF to share information about the smoking status of new mothers both prior to and at the time of delivery with pediatricians and facilitates increased communication between prenatal and postpartum care providers.

**FORMATIVE RESEARCH** – Research was conducted to obtain feedback from clinicians and patients to identify any issues or concerns regarding hospital survey content and process for implementation. Development of the survey included feedback from many sources including:

- Input from PSF evaluation/outcomes work team regarding data collection and analysis issues.
- Input and review of the survey process from clinical nurse specialists and nurse managers from participating hospitals.
- Pilot-testing by staff members from one of the partnering organization’s department of community health.
- Pilot-testing among approximately 60 newly delivered women at the largest participating hospital.
- Review from the IRB, which determined that approval was not necessary.
- Input and review from Daniel H. Ershoff, Dr.P.H. as well as other experts in the field.

Based on this feedback, minor modifications were made to the hospital survey and it was determined that the survey would be delivered to patients by hospital staff (nurses or birth certificate clerks) in the postpartum unit after delivery prior to each patient’s discharge.

Hospital staff members are trained to review the completed surveys and to convey a tobacco-free message and referral to CSH, if appropriate. Each hospital’s postpartum unit is provided with postage paid envelopes in which to return completed hospital surveys to the PSF office. The survey contains a place for the patient’s signature to provide consent for the hospital to share the information contained on the survey with PSF and the baby’s pediatrician. Upon receiving completed hospital surveys, PSF staff enters the information into a database to track each woman’s smoking status at the time of delivery. PSF staff initially sent information on women who indicated they are current smokers at the time of delivery and wanted help in quitting to CSH for proactive telephone counseling. As indicated above, this component of the intervention was discontinued in 2002 due to lack of funding.

**POSTPARTUM BROCHURE** – PSF staff developed a single-panel educational brochure to be distributed to each new mother delivering in participating hospitals (see Appendix, page 9). The postpartum brochure complements the materials developed for the prenatal intervention and covers the health risks of smoking to mother and child. Specifically, the brochure contains three messages:

- Keep your baby away from others who smoke.
- If you quit smoking, stay quit.
- If you are currently smoking, now is the time to quit and here is how we can help (by referral to the toll-free CSH telephone number).
PEDIATRIC INTERVENTION
PSF’s pediatric intervention is designed to extend the message across the childbirth continuum by providing new mothers with education about the risks of tobacco use and support to prevent relapse. Pediatricians can play an important role in helping women who have quit smoking during pregnancy to stay quit. New mothers have more contact with pediatricians than with any other health care providers and pediatric office visits provide excellent teachable moments for clinicians to encourage parents to create or maintain a smoke-free environment for their children. Because PSF staff wanted to follow the cohort of pregnant women as comprehensively as possible, they made the pediatric intervention available to all pediatricians in San Diego County regardless of their affiliation with the partnering organizations.

FORMATIVE RESEARCH–PSF staff began the planning process by conducting a series of luncheon meetings with pediatrician leaders from throughout San Diego. The pediatrician from the PSF core team contacted colleagues to let them know they were chosen as thought leaders and to encourage their attendance. At the meetings, pediatricians were asked to review the hospital survey and to discuss how the pediatric intervention could best be implemented in the office setting. Although the pediatricians were generally very supportive of the program, they felt there was not enough time to discuss smoking at every pediatric visit. They recommended an approach that would target the smoking message at specific well-child visits.

Additional research included:
• Consultation with Michael Wall, M.D., who has conducted research examining the effectiveness of pediatric office-based smoking interventions.
• Presentations at a series of standing meetings of pediatricians, at which PSF staff conducted a survey to ascertain current practices related to provision of the “5 A’s” and collected names of pediatricians who were interested in program participation.
• Once the program materials were developed (see below), meeting with front office staff members of 10 pediatric offices to review the materials and discuss the feasibility of different program delivery methods.

• Review of program materials by key pediatricians.

ACTION CUE CARDS – A unique aspect of PSF’s pediatric intervention is communication with the pediatrician regarding new mothers’ smoking status at the time of delivery. PSF staff designed action cue cards (see Appendix, page 10) to be sent to pediatricians with this information. Three color-coded action cue cards were developed, one for mothers who indicated on the hospital survey they quit smoking during pregnancy, one for women who indicated they were current smokers at the time of delivery, and one for women residing in households with a smoker. The action cue cards are generated directly from the PSF database using information from the hospital survey and are printed using a computerized mail merge process. In addition to providing the infant’s name and date of birth along with the mother’s smoking status at the time of delivery, the action cue cards review the “5 As.”

Using the information provided on the hospital survey that identifies the newborn’s pediatrician, PSF staff sends the pediatrician a copy of the hospital survey along with the appropriate action cue card. The pediatrician’s office staff is requested to place the survey and the action cue card in the newborn’s chart as they do with all other patient-specific correspondence. Pediatricians are trained to look for the action cue card in each chart and to engage in the “5 As” at the two-month well-child visit with follow-up at the six-month well-child visit. However, action cue cards cannot be created for all women with a smoking history for numerous reasons (e.g., the pediatrician’s name is omitted from the hospital survey, the physi-
cian practices in multiple locations, the mother was never surveyed in the postpartum unit, etc.). Therefore, pediatricians are also trained to ask all new parents who bring their newborns in for care about their smoking status.

**POSTPARTUM ADVICE GRID** – To assist pediatricians in delivering the “5 A’s,” PSF staff designed a postpartum advice grid (see Appendix, page 11) based on best practices. The information on the advice grid includes recommendations on how pediatricians can easily implement the “5 A’s” in the busy office setting. Training sessions were developed both for pediatricians and their office staffs to assist them in effectively implementing the intervention.

**EDUCATION MATERIALS** – Another component of the PSF pediatric intervention includes three tobacco education handouts (see Appendix, pages 12 and 13) to be distributed to all families along with the other educational materials they receive at well child visits. These handouts cover the risks of smoking to newborns and young children. The first handout – designed to be distributed at the two-month well child visit – covers the relationship of maternal smoking and sudden infant death syndrome. The other two handouts – designed to be distributed at the six-month well child visit – cover the increased risks of asthma to children whose parents smoke, as well as the negative health impacts to children of environmental tobacco smoke. Each handout includes the toll-free number to obtain telephone counseling from CSH and all materials are available in English and Spanish. In addition, pediatrician offices are provided with the chart stickers, prescription pads, and posters that were developed as part of PSF’s prenatal intervention, as well as the postpartum brochures.

**LESSONS LEARNED**

- **The importance of addressing second-hand tobacco smoke exposure for infants and children** – PSF staff conducted a baseline survey with pediatricians regarding their knowledge, attitudes, and behaviors related to parental smoking. When asked to rank order a list of eight preventive services/topics that pediatricians are expected to address, 32 percent of providers surveyed ranked tobacco exposure as the third priority. The highest priority was immunizations followed by child safety.

- **Conducting postpartum surveys in the hospital setting** – Originally, PSF staff planned to implement the postpartum screening survey in pediatric offices. Through our formative research, we learned that pediatricians did not think this was feasible because their office staffs would not have time to survey parents. Based on this feedback, we revised our plan to survey women in the postpartum units of our delivery hospitals. Ultimately, this proved to be an ideal setting, providing our best chance to follow the greatest percentage of pregnant women into the postpartum period. While there are many pediatricians to whom a mother may choose to take her baby, there are a relatively small number of delivery hospitals.

- **Calculating response rates** – Another advantage of surveying women at delivery is that it allows an easy calculation of survey response rates. We call each hospital monthly for delivery rates and compare this to the number of completed surveys received from each hospital.

- **The “5 A’s” in the hospital setting** – Although we train hospital postpartum staff (nurses, nursing assistants, birth certificate clerks, and newborn hearing screening staff) to implement the “5 A’s” in the hospital delivery setting, it is our belief that postpartum staff members do not consistently provide tobacco advice and education. This may be due to the fact that, because hospital postpartum staff members are so busy, we have concentrated most of our energy on getting postpartum staff to obtain completed surveys for all new mothers prior to discharge. Another limiting factor may be that while non-nursing staff (i.e., birth certificate clerks) may be the best at obtaining completed surveys, education is not part of their typical job responsibilities.

- **Improving communication between clinicians** – We established an early goal to enhance communication between obstetricians and pediatricians.
regarding smoking status and smoking history. Prior to PSF there were no systems in place to support this type of communication. We have found that the implementation of our screening survey at delivery provides an ideal opportunity to link information between prenatal and postpartum providers because of our ability to collect the name of the baby’s pediatrician and send information on a new mother’s smoking history to that physician. Positive feedback from pediatricians suggests that they like receiving information about the smoking status of their newborn patients’ mothers and believe that PSF addresses tobacco use in a comprehensive manner.

RECOMMENDATIONS FOR IMPLEMENTATION

- **Plan in stages** – When planning a large-scale program that is implemented in phases (i.e., prenatal and postpartum), it is a good idea to take the time to stop and review your progress to date before continuing to plan subsequent phases. This approach will allow you to identify successes and areas for improvement in the phase already implemented and to apply those lessons learned to the upcoming phases.

- **Look for opportunities to collaborate** – Always include hospital nursing and administrative staff early in the planning phase of a hospital-based intervention, particularly the implementation of a survey. Hospitals receive multiple requests to implement research studies so it is important to solicit buy-in up front and to become aware of potential opportunities to collaborate. For example, during the second year of our program, we modified our hospital survey to meet the needs of a large-scale study being conducted by the Department of Health Services (DHS). This resulted in new mothers being asked to complete only one survey after delivery rather than two and has led to a long-term collaborative relationship with DHS.

  - **Assure HIPAA compliance** – Meet with the compliance officer from your organization to assure that your postpartum program components meet with the Health Insurance Portability and Accountability Act’s (HIPAA) patient privacy regulations. For example, if health information is electronically transmitted to a clinician, use a secure messaging service so that the data is encrypted when it is sent over the Internet; make sure that your confidentiality statement meets with HIPAA requirements; and place chart stickers inside the charts rather than on the outside cover.

  - **Individualize your approach** – Consider the unique aspects of each hospital when determining which staff members will be responsible for facilitating the completion of a screening survey. We have had success with both nursing staff and birth certificate clerks. In our experience, the best approach for each hospital is directly related to the enthusiasm of the management staff for making this a priority.

  - **Simplify survey delivery** – Consider delivering the survey at the same time as other forms or standard procedures such as completion of birth certificate forms or newborn hearing tests.

  - **Use the hospital discharge list** – Work with hospital administrators to incorporate completion of the hospital survey as an item on the discharge checklist as a way to assure that all new mothers are surveyed prior to discharge. Patient refusal can be listed on the discharge checklist if the patient does not wish to complete the survey.
• **Include your message with standard materials** – The distribution of an informational brochure to all new parents in the hospital setting is best achieved by arranging for the brochure to be included in the standard packet of “going home” materials. Check at each hospital to find out who is responsible for putting these packets together.

• **Solicit input from pediatric offices** – Obtain clinician and office staff input regarding the best time and method to distribute educational materials.

• **Provide offices with good quality handouts** – Based on our formative research, we recommend providing participating offices with good quality, color copies of the pediatric handouts. Expecting offices to photocopy handouts from masters will likely affect compliance with distribution and lead to poor quality educational materials.

• **Train clinicians to ask all parents about smoking status** – Since it is impossible to generate action cue cards to send to pediatric offices for 100 percent of new moms with a smoking history, we strongly advise training pediatricians to ask *all* new parents about their smoking status and not rely strictly on the action cue card notification.
“Launching this program gave us an ideal opportunity to build long-term relationships with physicians.”

Cheri Fidler, MEd - Director, Center for Healthier Communities, Children’s Hospital and Health Center PSF Core Team Member

PROGRAM LAUNCH

With program components designed, PSF staff initiated efforts to fully launch the program within the three partnering health care systems. These efforts included letting clinicians and their office managers know about PSF and setting the stage for physician recruitment. In addition, PSF staff wished to educate the general public about the program and the unique collaboration among the three partnering organizations.

INTRODUCTORY LETTERS

Communication efforts began with the distribution of letters to introduce the PSF program to clinicians and office managers. Three versions of an introductory letter were developed, one for OB/GYNs and family practitioners with delivery privileges, one for their office managers, and one for pediatricians. The letters outlined PSF program components and implementation methods. Recipients were invited to contact the physician leaders or PSF project manager with any questions they might have.

LETTERS TO DELIVERING PHYSICIANS – Letters addressed to OB/GYNs and family practitioners with delivery privileges (see Appendix, page 14) were signed by physician leaders from each of the three partnering organizations (PSF core team members). Physicians were notified that a PSF staff member would be contacting them to arrange for an in-service to initiate program implementation in their offices. The letters were accompanied by a written PSF program overview (see Appendix, page 15) outlining their responsibilities and emphasizing the importance of their participation. In addition, a flyer inviting clinicians to attend an upcoming continuing medical education (CME) program designed by PSF staff was included.

LETTERS TO OFFICE MANAGERS – Knowing that the office staff members would play a key role in implementing the program, PSF staff felt it was important to draft letters to the office manager of each of the delivering physicians who received an introductory letter. (The names of the office
managers were collected when physicians in the PSF database were called to verify contact information.) Letters addressed to the office managers were signed by the PSF project manager and outlined the specific steps to program implementation. Each office manager also received the CME flyer/invitation and a copy of the introductory letter sent to the physician(s) at that office.

**LETTERS TO PEDIATRICIANS** – Similar to the other physician letters, letters to pediatricians were signed by the PSF core team physician members. Pediatricians were provided with a brief overview of the prenatal program components and notified that the postpartum program would begin in the second year of the program. They were invited to provide input and to contact the PSF project manager with any questions or suggestions they might have. As with all other recipients, they were invited to attend the CME program.

**CONTINUING MEDICAL EDUCATION PROGRAM**
PSF staff developed a comprehensive CME presentation designed to attract OB/GYNs and family practitioners with delivery privileges, as well as their office staff members. The underlying purpose of the CME presentation was to introduce the PSF program to as many clinicians as possible. The program topic, “Smoking in Pregnancy: Nicotine Replacement Therapy and the Physician’s Role,” was selected because it was thought to be somewhat controversial and PSF staff anticipated that it would capture clinicians’ interest. Richard D. Hurt, M.D., director of the Mayo Nicotine Dependence Center, Division of Community Internal Medicine in Rochester, Minnesota, was invited to present.

The program was held at a local hotel and both morning and evening sessions were offered to make it as convenient as possible. CME credit was offered to all clinicians in attendance. PSF received a grant from Glaxo-Wellcome to cover a portion of the costs associated with this program.

In total, 37 clinicians attended the CME program, including 25 physicians and 12 nurses and mid-level providers. In addition to the CME presentation, all participants were presented with an overview of the PSF program and received written information about the program as well as sample PSF program materials.

**MEDIA CAMPAIGN**
A media campaign was designed with input from the PSF communications work team. Goals of the campaign were to educate the public about the Trilateral Partnership, the benefit to the community, and the science of the program. The campaign included a press conference announcing the program kickoff; radio advertisements and interviews; local television coverage; and articles in local newspapers, partnering organizations’ internal communications, and national publications.

**KICKOFF PRESS CONFERENCE** – PSF held a press conference to publicly announce the program and the Trilateral Partnership. Participants included the CEOs of the three partnering organizations, the director of the San Diego County Health and Human Services Agency; and Blair Sadler, president and CEO of Children’s Hospital and Health Center.
Services Agency, and three PSF core team member physicians. Key messages included the unprecedented collaboration of the three health care systems, the poor health outcomes of smoking for infants and children, and the goals of reducing smoking among pregnant women and reducing ETS exposure among infants and young children. Two local newspapers, the San Diego Union Tribune (see Figure 5) and the Daily Californian, printed articles about PSF following the kickoff press conference. In addition, three local television stations included coverage of the press conference.

**RADIO COVERAGE** - Radio advertisements were created to inform the community about the PSF program. A total of $20,775 was spent on paid radio advertisements and free airtime was negotiated with the purchase of paid spots. In total, four to five radio spots ran per day over a two-week period on eight radio stations. In addition, the PSF program specialist, along with a participating obstetrician, a pediatrician, and a California Smokers’ Helpline counselor, conducted a 30-minute interview/discussion about PSF on a Spanish radio station.

**INTERNAL COMMUNICATIONS** - Various articles about PSF were printed in internal publications from each of the partnering organizations (see Figure 6). These included employee newsletters, email news, websites, and physician publications.

**EXTERNAL COMMUNICATIONS** - Articles about PSF were published in three national newsletters, including the American Association of Health Plans newsletter; Addressing Tobacco in Managed Care, a publication of The National Technical Assistance Office; and Smoke-free Childhood: a Prop 10 Opportunity, a publication of the California Center for Health Improvement.
LESSONS LEARNED

• The kick-off press conference – The CEOs of the three partnering health care systems wanted media coverage to highlight their unique collaboration. The kick-off press conference successfully met this goal at very low cost. The press conference generated a great deal of interest by local media and led to the publication of several articles and the broadcast of television spots.

• An added benefit – The photograph of the CEOs together taken at the press conference (see photo, page 28) proved to be an added benefit. This photo was used in several subsequent publications as a way to highlight the collaborative nature of the PSF program. In addition, each CEO, as well as the director of the San Diego County Health and Human Services Agency, was presented with a framed copy of the photo.

• Radio advertisements – The radio campaign (particularly the advertisements) was designed to meet the goal of educating the general public about the PSF program. This approach was very expensive and proved to be unsuccessful. Although we gave out a contact phone number for general program information, there was very little response and no clear way to measure success. In retrospect, we feel that the paid radio advertisements were not a good use of our funding and that the time and money would have been better spent on educating clinicians.

• Continuing medical education program – The CME program, which was designed to attract as many clinicians as possible, was expensive, time-consuming, and resulted in a lower than expected turnout.

RECOMMENDATIONS FOR IMPLEMENTATION

• Focus on reaching physicians, not the general public – In launching your program, it is important to remember that the primary target audience is most likely not the general public, but the group of physicians who will be responsible for program implementation. It is very important to focus efforts on announcing your program to this group and to take advantage of all existing internal communication mechanisms geared to clinicians including newsletters, magazines, email correspondence, and Internet sites.

• Measure the effectiveness of your media campaign – If launching a media campaign makes sense for your program, be sure to include an evaluation component. For example, log the number of calls received or hits to your website to measure the effectiveness of your efforts.
RECRUITMENT, TRAINING AND RETENTION

RECRUITMENT

Recruitment efforts the first year of the program focused on OB/GYNs and physicians with delivery privileges. Recruitment of pediatric offices and hospital postpartum units began in year two of the program. PSF staff began the process of recruiting physician offices to participate in the program by targeting those who had already indicated an interest in PSF. PSF staff initially contacted six early adopter offices that were identified in the program development phase, as well as the offices of the clinicians who attended the CME program. Recruitment continued by contacting the offices of each of the clinicians who were originally identified and placed on the database list of potential PSF participants. Recruitment of physicians with delivery privileges was heaviest in year one of the program, however recruitment efforts continue on an ongoing basis as new physicians are identified.

PHYSICIAN OFFICE RECRUITMENT – Recruitment of physician offices begins with phone calls made by PSF staff targeted to the office managers. The goal of the recruitment phone call is to arrange an in-service training on the PSF program. During the call, the PSF staff member explains that PSF is a collaboration of three health systems; points out that the program is specifically designed for pregnant women and new mothers; emphasizes that the program is free-of-charge to the office and to patients, regardless of their insurance coverage; and stresses the importance of that particular office’s participation. The PSF staff member requests the opportunity to conduct an in-service training session and offers to provide lunch. A folder is prepared for each office in which to log all contact information.

If a training session is successfully scheduled during the recruitment call, the PSF staff member encourages the clinicians, the office manager, and all staff members who have regular patient contact to attend. Prior to the scheduled training session, a PSF fact sheet that contains general program

“Over time, we have worked to establish connections and build trust with physicians and their office staff members. Development of strong relationships has proven essential for improving and maintaining program participation rates.”

Nicole Howard, M.P.H. - PSF Program Specialist
information (see Appendix, page 16) and a sheet containing details about the in-service are faxed to the office manager to share with other staff. In addition, the office manager is called on the day of the in-service to confirm the appointment.

If during the initial call the office manager cannot or will not set a date for the in-service training, PSF staff faxes a fact sheet to provide the office manager with more information about the program. Follow-up calls are made at regular intervals until four or five attempts have been made or a definite “not interested” message is received. For these offices, a letter is sent directly to the clinicians at that site requesting that a training session be scheduled. Names of clinicians who do not respond to this letter are brought to PSF core team physician members who contact them to make one final attempt at recruitment with a doctor-to-doctor phone call.

HOSPITAL POSTPARTUM UNIT RECRUITMENT – Recruitment of hospital postpartum units begins with PSF core team leaders identifying nurse managers in each unit. PSF staff initially meets with the nurse managers to introduce the program, discuss strategies for implementation, and set up an in-service training session for each unit.

TRAINING
PSF staff developed in-service training sessions based on the model of academic detailing, a form of educational outreach that includes personal visits to clinicians in their own practice settings. This approach provides an opportunity to assess the needs and motivations of the targeted clinician and subsequently tailor the educational intervention to the particular needs, barriers, and motivational readiness of the specific practice environment. Academic detailing involves defining clear educational and behavioral objectives, stimulating active clinician participation in education interactions, and using concise graphic educational materials.

Using this method, PSF staff developed separate training sessions for OB/GYN offices, hospital postpartum units, and pediatrician offices. Each in-service training session is approximately 45 minutes in length and is scheduled at a time that is convenient for clinicians and office staff members. PSF staff provides a meal or refreshments at each in-service.

The in-service training sessions cover the following information:

- Introduction and description of the PSF program.
- Facts about smoking prevalence specific to their geographic area (based on PSF data) and health-related consequences of smoking and ETS to mother and child.
- Overview and distribution of the Clinical Practice Guideline, emphasizing the “5 As”.
- Program goals.
- Overview of prenatal and postpartum program components.
- Review of program materials.
- Steps for program implementation.
- Description of counseling services available through California Smokers’ Helpline.
- Description of mail-based interventions for spontaneous quitters and families with ETS exposure.
- Review of PSF program results to date.
- Distribution of information packet.
- Post-training assessment (see page 33).

At the in-service training sessions, PSF staff provides and reviews information packets for all attendees that include a PSF fact sheet; an overview of services; facts and statistics about maternal smoking; a copy of the appropriate advice grid; step-by-step program implementation guide; and sample brochures, prescription pads, and chart stickers, as well as educational handouts and action cue cards for pediatrician offices. In addition, PSF staff provides enough program materials to get the program up and running and staff members are advised how to order additional materials.

RETENTION: MOTIVATION PLAN AND FOLLOW-UP

OBSTETRIC AND PEDIATRIC OFFICES – Because clinicians and office staff members have many competing demands on their time, PSF has to create as many opportunities as possible to remind them about the PSF
program and keep it top of mind. PSF staff developed a motivation plan for this purpose that is designed to provide ongoing communication and feedback to physicians and office staff members. In accordance with academic detailing principles, PSF staff highlights and repeats the essential educational messages initiated at the in-service training sessions and provides positive reinforcement of improved practices in follow-up visits. Specific strategies of the motivation plan include:

- **Physician welcome letter** – within three business days following the in-service training, PSF staff sends a letter to participating physicians signed by PSF core team member physicians.

- **Thank you gift** – within three business days following the in-service training, PSF staff sends a thank you letter and a pair of movie tickets to the individual who has agreed to serve as the site’s contact person.

- **Telephone contact** – approximately two weeks after the in-service training, PSF staff phones the designated contact person to follow-up on program implementation and address any barriers. For obstetric offices, PSF staff lets the contact person know they will be expecting the first submission of survey forms if none have been received up to that point.

- **Quarterly office visits** – PSF staff makes at least one visit to each participating office on a quarterly basis to inquire about satisfaction with the program and identify any barriers to implementation and/or success stories. Importantly, these visits

---

**POST-TRAINING ASSESSMENT**

**POST-TRAINING ASSESSMENT** – At the end of each in-service training session, PSF staff completes an assessment form that includes collection of the following information.

For all offices:

- The contact person for the office
- The appropriate name of the practice
- The names of all clinicians at the site
- Any additional practice sites and relevant contact information
- Any additional staff members who are not present at the in-service and need training
- If PSF posters will be displayed in exam rooms or lobbies
- How distribution of the brochures will take place

For offices of OB/GYNs and physicians with delivery privileges only:

- Who will be responsible for asking patients to complete the Health Survey for New Moms

For offices of pediatrics only:

- Where and by whom the survey form will be placed in patients’ charts
- Who will be responsible for sending completed survey forms to the PSF office

In the hospital setting, PSF staff collects the name of the contact person who will be responsible for assuring that surveys are completed and sent to the PSF office.

Collecting and going over the above information as the last step of the in-service training helps to better define roles and responsibilities of office staff members and eliminates the need for additional planning prior to program implementation. Those trained are advised to begin implementing the program immediately after the in-service training session.
serve as a mechanism to reinforce the need for physicians and office staff to deliver the “5As” for all prenatal patients and parents of newborns. In addition, PSF staff assesses the need for additional program materials, inquires about staff turnover, and sets up additional in-service training sessions as needed.

- **Incentives** – At the quarterly office visits, PSF staff delivers incentives for office staff members, usually treats such as cookies and chocolates.

- **Provider newsletter** – PSF staff developed a provider newsletter (see Figure 7 and Appendix, pages 17 and 18) as a way to motivate offices, reinforce steps for achieving program implementation, and inform readers of program expansion and accomplishments. The newsletter is published three to four times per year and is usually hand-delivered to the physicians and staff members at all participating offices during the quarterly office visits.

- **Monthly fax alerts** – Once a month, PSF staff sends a fax alert to all participating offices as a way to remind staff members about PSF and provide a mechanism for ordering additional program materials. Each fax alert contains a brief message related to program implementation, a simple graphic to attract attention, and a check-off list of all PSF program materials to fax back if additional materials are needed.

- **Feedback reports** – PSF staff prepares feedback reports (see Appendix, page 19) at least quarterly for obstetric offices based on data collected by PSF. These reports contain a brief cover letter and simple pie charts or graphs depicting information such as the number of referral forms received from the participating office; the smoking status of patients referred by the office compared to all participating offices year-to-date; the number of smokers identified during the previous quarter and the number of those who have opted for counseling; and other relevant feedback.

- **Relevant information** – PSF staff periodically sends relevant information (e.g., selected journal articles, bulletins, etc.) to participating offices.

- **Survey tracking and follow-up** – PSF staff tracks submitted surveys and reviews tracking logs on a weekly basis. Obstetric offices that have submitted no surveys for the previous month are called by PSF staff to address barriers to survey completion and/or submission. If progress is not made, letters
are sent to the physicians in the practice to encourage their participation.

• **Ongoing in-service training** – PSF staff provides ongoing in-service training sessions for participating offices as needed due to staff or physician turnover.

**Noncompliant Offices** Despite implementation of the motivation and follow-up strategies listed above, it may be impossible to retain the participation of every office that has been recruited and trained. Even with regular phone calls to the office contact person to assist staff in overcoming barriers to survey submission, some offices remain non-compliant. The following procedure was developed as a last attempt to either gain the active participation of the office or to drop the office from the program.

1. PSF staff develops a summary sheet of actions taken to assist the noncompliant office and presents the information at core team meetings. This gives core team physician leaders the opportunity to have a doctor-to-doctor chat with one or more of the physicians at the particular office.

2. If all other efforts fail, a final letter is sent to all clinicians at the non-compliant office stating the office will be dropped from the PSF program unless we hear back. Included with this letter is a return postcard that includes a check off box (see Figure 9) so that the clinicians can indicate interest in continuing with PSF and the best way to reach them.

**hospital postpartum units** –

• **Monthly visits** – PSF staff makes monthly visits to the designated hospital contact person to encourage ongoing participation. At these visits hospital staff members are provided with a chart comparing survey completion rates for all hospitals for the previous three-month period, a basket of incentive items to share with all staff members (see Figure 8), and educational handouts highlighting the benefit of providing services to new parents. In addition, PSF staff members assess the need for additional program materials and help the contact person overcome any barriers to program implementation.

• **Breakfast** – On a quarterly basis, PSF staff members bring breakfast to hospital postpartum units as a way of reminding hospital staff about the PSF program and thanking them for their ongoing participation. This also gives PSF staff members the opportunity to chat with obstetricians and pediatricians as they make their rounds.

• **Newsletter** – Multiple copies of the PSF newsletter are delivered to the contact person for distribution to hospital postpartum staff members.
LESSONS LEARNED

- **Global thinking** – The fact that three competing health care systems partnered to create a program for all patients contributes to the successful recruitment of physician offices. Many physicians work for more than one health care system and it makes sense to them that the program is established across health systems. In fact, physicians are more willing to participate because the program involves competing health care systems.

- **Practice name** – We have learned that offices frequently use more than one name for their practice (e.g., Office of Dr. Smith or ABC Pediatrics). We clarify this by asking newly recruited offices for their appropriate practice name as it should appear in correspondence or in any PSF publication.

- **Electronic communication** – We have found that email and/or list serve is not an effective way to reach clinicians and office staff. Many providers do not have or do not routinely check a business email address. Nursing staff members generally do not have email access. A facsimile machine is a standard communication tool that all offices have. Therefore, communicating by fax is a much better approach.

- **Office staff members make the program happen** – Physician support by itself is not enough to make your program successful. We have found that buy-in from and participation of office staff is crucial for successful program implementation. For example, prenatal screening is implemented by front office staff members and likely will not happen without their involvement. We treat them as important collaborators.

- **Chocolate wins out** – Based on the annual PSF satisfaction survey, participating providers and staff have indicated that chocolate – followed closely by cookies – is the most popular incentive item. We place a PSF sticker on each incentive item so that clinicians and staff see our program name and logo and are aware that the treats are a thank you from PSF.

- **Clinician and staff turnover** – Turnover of clinicians and staff members at participating obstetric and pediatric offices has been higher than we initially anticipated. Since program inception, 128 clinicians and 481 staff members have left their positions. Because implementation of the PSF program within an office is usually interrupted when a key staff member or clinician leaves the practice, we closely monitor turnover.

RECOMMENDATIONS FOR IMPLEMENTATION

- **Use existing venues to recruit physicians** – Consider getting on the agenda for regularly scheduled group meetings of physicians (e.g., the local meeting of the American College of Obstetricians and Gynecologists, grand rounds, or hospital departmental meetings) to introduce your program. In these venues, you can reach clinicians by assessing their interest and circulating a sign-in sheet for those who would like to schedule in-office trainings.

- **Schedule time for recruitment phone calls** – Telephoning obstetric and pediatric offices is a task that requires dedicated time. We recommend making the calls on Fridays, as office staff members seem to be more receptive to scheduling in-service training sessions on this day.

- **Be persistent** – Often it takes numerous contacts with an office in order to arrange the initial in-service training session. Track all recruitment attempts so you can remember the last steps taken. Be persistent and don’t give up unless an office clearly refuses to participate.

- **Be patient** – In many cases, office managers are not able to schedule an in-service training session on the spot. Keep in mind that they may need to first discuss the program with the physician(s) in their office. In this case, ask the office manager to identify a date by which he or she expects to have the discussion. Let the office manager know you will be
calling back shortly after the identified date to ascertain if the in-service can be scheduled.

• **Contact physicians if office managers are resistant** – Sometimes the office manager is resistant to scheduling an in-service training session and the physicians are not aware of recruitment attempts. If numerous attempts to recruit an office have been made or a definite “not interested” message has been received, PSF staff sends an individual letter to all physicians in the office to notify them of the program and attempt recruitment.

• **Overcome resistance from smokers** – Office staff members who are smokers may be resistant to your program. Generally, other staff members are very quick to identify co-workers who smoke. In order to make the smoker feel less defensive and resistant to your program, emphasize the fact that your program is for pregnant women and new parents and designed to reduce risks to unborn children and infants. Take the opportunity to let co-workers know that the smoker has to want to quit and that harassment is not helpful. Let smokers know about local resources they can access when they are ready to make a change.

• **Schedule training sessions at a convenient time** – The lunch hour is usually the only time when both office staff and clinicians are able to meet together. Find out exactly how long the lunch period is and make sure the duration of the in-service will leave 10 to 15 minutes for participants to have some personal time.

• **Confirm the in-service training session** – Rescheduling of an in-service training session at the last minute happens quite frequently. Therefore, it is best to wait to confirm the in-service training session until the day of the training and to place the order for lunch only after the in-service has been confirmed.

• **Try to fit into physicians’ schedules** – Some physicians may elect to receive their in-service training as an agenda item at regularly scheduled physician meetings. Keep this option in mind, as it might yield better physician turnout. Presenting at a physician meeting usually means that the in-service will have to be modified to fit within a shorter time period. Try to set up a time to meet individually with physicians who miss the in-service (perhaps between patients).

• **Point out pharmacotherapy recommendations** – Use the in-service training sessions as an opportunity to point out *Clinical Practice Guideline* recommendations for pharmacotherapy for pregnant women. Of course, any decision to prescribe nicotine replacement medications or other pharmacologic interventions is up to each individual clinician.

• **Make training sessions appropriate for all audiences** – The content for your in-service training sessions should be geared to both staff and clinicians. While you want to capture the interest of clinicians, you need to also make sure that the office staff can easily understand the material.

• **Keep training sessions simple** – For busy offices, space may be limited and you may have to provide the in-service in a physician’s private office or an exam room. It is always better to use portable visual materials such as a flip chart or easel pad during your presentation rather than cumbersome audio-visual equipment.

• **Think positively** – When conducting an in-service training session, assume that the office is going to participate in the program. Avoid asking if they are interested or if they intend to participate.
• **Determine roles and responsibilities** – Help staff members identify who in their office will be responsible for completing specific tasks associated with your program. It is very important to identify a contact person who will be responsible for making sure that the PSF program is implemented. Make sure that staff members are clear about their roles and responsibilities so they will not need to meet again in order to get the program up and running after the initial in-service.

• **Schedule hospital training sessions during changes-of-shift** – Change-of-shift is usually the best time to schedule hospital in-services. Depending on the staffing patterns, there will most likely be an early morning and evening change-of-shift and these times can yield maximum attendance.

• **Designate two hospital contacts** – It is helpful to identify two contact persons in hospital postpartum units. A unit manager or the director of maternal/child health can be responsible for assuring your program goals are met and help to identify a second contact person responsible for ensuring day-to-day program implementation. Be sure to provide feedback on survey completion rates to both contacts.

• **Scan core team member physician signatures** – Utilizing scanned signatures for physician introduction and welcome letters allows you to send the letters out within three business days without having to wait to obtain signatures.

• **Closely monitor turnover** – Compile and print out a listing of staff and clinicians at each office before making quarterly office visits. At these visits, review the list with your contact person and make additions and/or deletions as appropriate. At the same time, arrange in-service training sessions for new clinicians or staff members.

• **Highlight success stories** – Quit rates among pregnant smokers, even using best practice interventions, are not high. Therefore, it is important to highlight successful quitters and to share this information among all participating offices. This will help all your offices to feel like their efforts are worthwhile.

• **Keep feedback reports simple** – It is very important to give regular feedback to physicians and office staff members in order to maintain their interest and remind them of their successes. Keep in mind that busy physicians are not likely to spend more than a brief moment reviewing your feedback report. A brief cover letter along with one or two simple, easy-to-read graphic depictions of the data you wish to convey are adequate.

• **Recognize clinicians and staff** – Create opportunities to recognize the important role clinicians and office staff members play in your program. Offices like to see their names in print. One example of this is our annual advertisement in Kids’ NewsDay, a special advertising supplement to our local newspaper, the *San Diego Union-Tribune*. In this advertisement, we thank clinicians and staff and list the names of all participating offices. We then hand-deliver copies of Kids’ NewsDay to participating offices.
PSF staff realized that a comprehensive data management system would be necessary to efficiently store large volumes of program data, implement various program components, and report outcomes. A system was needed that would track data from thousands of patient surveys and numerous provider records, initiate program interventions, and generate various reports. In addition, PSF staff wanted to use the database to answer key evaluation questions established by the PSF core team to determine changes in tobacco use and exposure over time (see page 50).

A consultant was hired to assist staff with database development. Microsoft® Access (a relational database software application) was selected due to its compatibility with other Microsoft® applications used by PSF staff. For example, Microsoft® PowerPoint is used for presentations, Microsoft® Excel is used for data analysis, and Microsoft® Word is used for correspondence.

The consultant began by reviewing PSF program goals, interventions, and survey forms. She created a database that included tables to store survey data (separate tables for prenatal and hospital surveys) and tables for clinician data (separate tables for participating obstetric offices, pediatric offices, and hospital postpartum units). These tables are the fundamental elements of the PSF database.

Numerous queries were designed to use, summarize, and evaluate the data stored in the tables. There are approximately 300 queries in place that are used on a regular basis; some are run independently and others are used in conjunction with forms and reports. On-screen data entry forms (see Figures 10 and 11) were created to facilitate adding records to the tables described above. These forms also facilitate editing existing records and displaying information from one or more tables.

“Figuring out ways to manage the huge amount of data collected by this program has been challenging – we have all learned a lot.”

Monica J.L. King - PSF Data Manager/Administrative Associate
DATABASE MANAGEMENT

On-screen data entry forms for surveys (see Figure 10) include fields for all of the patient information and tobacco use questions that are on the prenatal and hospital surveys. Surveys are data-entered daily. Each survey record is given a unique identifying number upon data entry. Procedures are implemented to protect all personal patient information. For example, the data entry clerk keeps surveys that are currently being entered in a locked box and surveys that have been entered are housed in locked file cabinets. Additionally, the network that contains the PSF database is password protected.

Various procedures are in place to routinely check the accuracy of data. For example, prenatal and hospital survey records are routinely checked for statistical outliers. In addition, prenatal and hospital survey records are matched according to identifiers (such as social security number, date of birth, first and last name, and home phone number) to check for inconsistent data or data entry errors. On a biweekly basis, returned mailings are reviewed and the corresponding survey records are updated to reflect changes.

On-screen data entry forms for tracking participating clinician offices and hospital postpartum units (see Figure 11) include contact information, details about in-service training sessions, and a log of all visits to that site. Data are entered after each initial in-service training session and are updated after each quarterly office visit to reflect any relevant changes such as new contact information due to staff turnover. As with prenatal and hospital survey data, each record is given a unique identifying number upon data entry.

The PSF database is housed on a shared network drive so that all staff members can access the data. The database is backed up daily to a zip disk and weekly to a CD.

DATABASE OUTPUT

PSF’s database is vast and flexible. It allows for the generation of numerous program elements and outcomes reporting. Some examples of regular outputs include:

OFFICE PARTICIPATION REPORTS – Reports track the participation of individual clinicians and offices, such as the number of participating clinicians and office staff trained.

OFFICE STATUS REPORTS – Data forms that include office contact information, names of clinicians/staff members who have received training, PSF contact per-

WHAT IS A DATABASE?

A database is usually comprised of several tables that are related to each other in some meaningful way. Each table contains a specific type of data. Within the database, information is stored, combined, and manipulated through the use of tables, queries, forms and reports.

The PSF database is vast and flexible. It allows for the generation of numerous program elements and outcomes reporting. Some examples of regular outputs include:

OFFICE PARTICIPATION REPORTS – Reports track the participation of individual clinicians and offices, such as the number of participating clinicians and office staff trained.

OFFICE STATUS REPORTS – Data forms that include office contact information, names of clinicians/staff members who have received training, PSF contact per-

The PSF database is housed on a shared network drive so that all staff members can access the data. The database is backed up daily to a zip disk and weekly to a CD.

DATABASE OUTPUT

PSF’s database is vast and flexible. It allows for the generation of numerous program elements and outcomes reporting. Some examples of regular outputs include:

OFFICE PARTICIPATION REPORTS – Reports track the participation of individual clinicians and offices, such as the number of participating clinicians and office staff trained.

OFFICE STATUS REPORTS – Data forms that include office contact information, names of clinicians/staff members who have received training, PSF contact per-
son, etc. are maintained for each participating office. Prior to quarterly office visits, individual office status reports are generated, then updated to reflect any office changes including staff and clinician turnover.

**SURVEY TRACKING REPORTS** – Reports include the number of surveys received from each clinician and the number of surveys entered per month. This information is tracked and used to allow PSF staff to monitor participation and follow up with offices that are not actively participating.

**REFERRAL TO CALIFORNIA SMOKERS’ HELPLINE** – Information on current smokers from the prenatal surveys is exported on a weekly basis to CSH via the Internet (using a secure data transfer system) for proactive recruitment into the pregnancy-specific counseling protocol.

**INTERVENTION MAILINGS** – A complex automated system allows the database to accurately identify and generate mailing labels on a weekly basis for spontaneous quitters and women exposed to ETS who are scheduled to receive sequenced mail-based interventions.

**ACTION CUE CARD MAILINGS TO PEDIATRICIANS** – Data from the hospital surveys are linked with data from clinician offices and the database automatically generates action cue cards for delivery to pediatric offices on a weekly basis to indicate the new mother’s smoking status and prompt advice for relapse prevention or cessation.

**INTERVENTION REPORTS** – Reports track the number of referrals to CSH, as well as other interventions delivered including sequenced mailings to spontaneous quitters and women exposed to ETS, mailing of action cue cards to pediatricians, and delivery of education handouts.

**TREND REPORTS** – Regular reports are run from prenatal survey data to document self-reported tobacco use and exposure for the entire cohort.

**MISCELLANEOUS TREND REPORTS** – Reports are generated on an as-needed basis to look at various elements such as the lag time between the date prenatal surveys are completed and the date they are data entered, smoking status of pregnant women by geographic area, etc.

**MAIL MERGE AND PROVIDER-SPECIFIC CHARTS** – These functions allow PSF staff to create feedback reports for individual offices (see Appendix) and facilitate other communications with clinicians.

**QUARTERLY PROGRESS REPORTS BY FUNDING SOURCE** – This facilitates reporting that is necessary to meet contractual requirements for outside funding sources.

**PROGRAM OUTCOMES** – Changes in tobacco use and exposure over time are determined by linking prenatal and hospital survey data (see page 51).

**LESSONS LEARNED**

- **Database responsibilities** – PSF staff initially contracted with a database consultant with a high level of expertise in Microsoft® Access to design the database. Subsequently, this consultant has been hired on an hourly basis as needed to implement complex changes to the database. The PSF data manager/administrative assistant is responsible for day-to-day data management, analysis, and basic modifications to the database. This arrangement has been cost-effective because it allows the high level consultant who can do the more difficult programming to be used only on an as-needed basis.

- **Prioritizing data entry** – The volume of prenatal and postpartum surveys received varies from week to week. During times of peak survey submission it is necessary to prioritize the order of data entry. To do this, we review surveys for smoking status and data enter the surveys for women who are current smokers, have a smoking history, or who have exposure to environmental tobacco smoke before data-entering surveys for all other women (categorized as non-smokers). This ensures that interventions are delivered in a timely manner.

- **The “Staff Warehouse”** – We needed a way to keep track of clinicians and office staff who had been trained by PSF but who were no longer employed by a participating office. We created a table entitled “Staff Warehouse” in which we enter information for clinicians and staff who leave participating PSF
offices. This allows us to keep track of the total number of clinicians and staff members trained – even those who are no longer active with PSF – and to identify turnover by provider type. As we provide training to more and more individuals, we find that many clinicians and office staff members who are new employees at one office have actually received training on PSF at their previous place of employment. Currently, the “Staff Warehouse” holds the names of over 600 individuals.

• **More efficient data management** – The PSF database is set up with one table that holds all the data from prenatal surveys and one table that holds all the data from hospital surveys. In retrospect, it may have been better to set up the database with one table containing only patient identifying information and two additional tables to hold data from each survey (minus patient information). One advantage of this design is that hospital surveys could be linked at the time of data-entry with previously entered prenatal surveys. In addition, any previously entered survey for a particular patient and/or duplicate survey (i.e., two prenatal surveys for the same patient and same pregnancy) would be easily identified. Inconsistencies in patient information (name, SSN, address, etc.) would be noticed at the time of data entry and could be resolved immediately. This design would reduce the time required for data entry and/or data-checking as well as the amount of data being stored electronically.

• **Anticipate your needs before starting** – Before you get started creating a database for your program, it is important to take the time to think carefully about what information you will need to collect and how you want to use that information to meet your program goals. Think about all aspects of your program and the different areas where you will have data collection and reporting needs. Ask yourself what data will be needed to track and manage program participants, to implement interventions, to evaluate program components, and to determine program outcomes. Create a data collection and management system that is simple enough to meet your initial needs, yet flexible enough to allow for the addition of more complex data management functions in the future.

• **Create a procedure manual** – A relational database such as Microsoft® Access will allow your program staff to run numerous complex queries in order to retrieve necessary data. It is important to develop step-by-step procedures to carry out routine functions involving retrieval of data from the database. For example, the procedure for mailing cards to smokers to remind them that a counselor will contact them involves 13 detailed steps. Documenting procedures such as this is very helpful in training new staff and serves as a reference for current staff.

• **Develop a codebook as you build your database** – A codebook describes in detail the design of each table, query, form, etc. For example, the PSF codebook for tables identifies the name of the table, every field in the table, the type of field, and written descriptions of the fields. The codebook also describes relationships between the elements of the database. For example, if you rename a particular query you will need to identify all of the related elements (other queries or forms) that depend upon the renamed query. A comprehensive codebook can help you identify the related elements so they can be modified as well.
The Partnership for Smoke-Free Families program was initiated with a financial commitment from the CEOs of the three partnering organizations (Trilateral Partnership) to contribute $150,000 each per year for a period of three years. The Trilateral Partnership expected that outside funding would be secured to continue the PSF program after the initial three-year period. The Trilateral Partnership agreed to review program funding annually and to consider rolling over unused funds from the previous year and/or providing some additional funding as needed to offset program costs not covered by grant funding. The initial funding from the Trilateral Partnership has since been supplemented with both state and local grant funds from the State of California’s Proposition 10 (see page 44). Proposition 10 funds have been received on an ongoing basis through a competitive grant process and contract renewals. (Note: At the time of publication, PSF is in year five of the program. Budget information is provided for years one through four.)

PSF YEAR ONE – Spending in year one of the PSF program (October 1, 1998 through September 30, 1999) totaled $223,000. Funds were used for program start-up including staffing (see page 45), program development, launch of the program to obstetricians and physicians with delivery privileges who were affiliated with the partnering organizations, and development and implementation of the pregnancy-specific protocol with California Smokers’ Helpline.

“It’s been exciting and rewarding to have built this program from its infancy and developed an innovative model to help women and children. I feel very fortunate to work with such a competent, dedicated team.”

Phyllis Hartigan, MPH - PSF Project Manager
In year two of the program (October 1, 1999 through September 30, 2000), funding from the Trilateral Partnership was used for retention of participating obstetric offices and expansion of the prenatal program intervention to additional obstetric offices affiliated with partnering organizations. In addition, this funding allowed for development and initiation of the postpartum program components. Funds from the Trilateral Partnership were supplemented by local Proposition 10 funds, which were used primarily for recruitment of pediatric offices. Spending in year two totaled $440,000.

In year three of the program (October 1, 2000 through September 30, 2001), funding from the Trilateral Partnership was used to retain and increase participation among obstetric and pediatric offices within the partnering organizations. These funds were supplemented by state and local Proposition 10 funds, which were used to expand the PSF program to include obstetric and pediatric offices and hospital postpartum units affiliated with health care organizations outside of the Trilateral Partnership. Spending in year three totaled $452,000.
PSF YEAR FOUR – In year four of the program (October 1, 2001 through September 30, 2002), funds from the Trilateral Partnership were again supplemented by state and local Proposition 10 funds. PSF continued to increase the number of participating obstetric and pediatric offices and hospital postpartum units both within and outside the partnering organizations. Spending in year four totaled $422,000.

Note: 1) Indirect costs not covered by grant funds (e.g., office space and supplies, utilities, information systems, and human resources) are paid for by Children's Hospital and Health Center, where program operations are housed, and are not included in program expenses. 2) PSF contracted with California Smokers’ Helpline for $134,000 per year for three years beginning in March, 1999.

The **project manager** is responsible for program development, implementation, and evaluation; managing program staff; budget development and fiscal oversight; data collection and analysis; internal and external communication of program outcomes; facilitation of core team meetings, collaboration with team members and community partners; strategic planning; and grant writing.

The **program specialist**’s responsibilities include oversight of all recruitment, training and retention efforts; serving as PSF’s liaison with clinicians, office staff and hospital postpartum units; supervision of recruitment coordinator and student intern; management of county-funded grant project to expand cohort of participating clinicians; contributing to program development; and grant writing.

The **data manager/administrative associate** conducts data management and analysis duties including oversight of data entry, data checking and linking, and generating regular outcomes reports; modifying existing queries/setting up new queries for reports as needed; ongoing modification of database to accommodate program needs; and maintaining/updating the database housing the library of articles and publications. This position also provides administrative support and oversees monthly reconciliation of project budgets.

The **data specialist** is responsible for data entry of all survey forms; export of smokers’ data to CSH; coordination of regular mailings including intervention for spontaneous quitters, ETS mailings, action cue cards, etc; and providing administrative assistance as needed.

**STAFFING**

Staffing for the PSF program began in year one with the hiring of the project manager (1.0 FTE), program specialist (1.0 FTE), and data manager/administrative associate (1.0 FTE). In year two, staffing changes included the addition of a data specialist (1.0 FTE) and reduction of the program manager to 0.65 FTE due to a personal choice. In year three, staffing was increased to include a recruitment coordinator (1.0 FTE) and a student intern (0.5 FTE).
The **recruitment coordinator** is supervised by the program specialist and, under her direction, assists with the recruitment, training, and retention of clinicians and their staff members; monitors and prepares monthly reports on survey completion by provider offices and hospitals; updates clinic information in the database; maintains provider folders; contributes to PSF provider newsletter; and coordinates fax alerts, quarterly visits, office feedback reports and other retention strategies.

The **student intern** works closely with the recruitment coordinator and provides assistance with in-service training sessions, communication with clinician offices, and ongoing motivation efforts. Tasks include arranging lunch and/or refreshments for in-services; conducting post-training follow up with new offices; assessing provider needs for and delivering program materials; filling brochure racks at office visits; responding to telephone inquiries from participating offices; and delivering quarterly incentives.

**RECOMMENDATIONS FOR IMPLEMENTATION**

- **Seek out funding opportunities** – It is important to consider strategies for long-term sustainability of your program from the very beginning. Keep in mind that most outside funding agencies are not interested in providing funds for an existing program; rather, they are interested in funding new projects. These agencies may be willing to fund the expansion of your existing program or a new component of the program. It is a good idea to become informed about all funding opportunities relevant to your program and to apply for funding from as many different sources as possible. Investigate funding opportunities from your local health department, state government, local and national private foundations, and national government funding agencies. To sustain your program, consider writing proposals where funds can be used to cover a portion of existing costs as well as the new program components.
PROGRAM OUTCOMES

PSF was designed as a service program and not a controlled research study, however care was taken to collect data whenever feasible to determine the outcomes and success of the program. The following presents findings related to program participation; prenatal tobacco use and exposure; interventions delivered; and changes in smoking behavior and ETS exposure through July, 2003.

“...I am thrilled that the PSF program has been recognized nationally as an example of best practices for limiting tobacco exposure. The greatest success of this collaboration has been the widespread adoption of the program among clinicians throughout San Diego County.”

C.H. “Bud” Beck, Jr., M.D. - Vice President, Corporate & Foundation Relations, Scripps Foundation for Medicine and Science PSF Core Team Member

PROGRAM PARTICIPATION

Chart 9 (Health Care System Participation By Births) depicts the approximate number of annual births at hospitals in San Diego and shows that the nine hospitals participating in the PSF program account for nearly 70 percent of all births in the county. Health care systems within the Trilateral Partnership account for approximately 20,000, or 50 percent, of births annually in San Diego County. In year three of the PSF program, state and local Proposition 10 tobacco tax funds were used to expand the PSF pro-
gram to include obstetric and pediatric offices and hospital postpartum units affiliated with health care organizations outside the Trilateral Partnership. These include clinicians and hospitals affiliated with the University of California San Diego Medical Center and obstetric providers affiliated with Naval Medical Center, San Diego, which deliver approximately 3,500 and 4,000 annual births, respectively.

Chart 10 (Obstetrician Participation) shows the PSF participation status of obstetric providers in San Diego County. Recruitment of obstetric providers and office staff members began in early 1999 and continues as new clinicians are identified. As of July, 2003, 356 obstetricians had been identified as eligible to participate based on delivery privileges at any of the nine hospitals participating in PSF and 314 were actively participating. Obstetricians who receive training and regularly screen patients are considered to be active. Obstetricians who receive training but do not screen patients on a regular basis and those who are not interested in participating in the program are categorized as inactive. In addition to clinicians, over 700 obstetric office staff members received in-service training as of July, 2003.

Chart 11 (Pediatrician Participation) shows the PSF participation status of the 459 eligible pediatric providers who were identified in San Diego County. Recruitment of pediatric providers and office staff members began in early May, 2000 and continues on an ongoing basis. The majority of pediatricians in San Diego County are eligible to participate in the PSF program. As of July, 2003, 306 pediatric clinicians were actively participating in PSF and nearly 600 pediatric office staff members received in-service training.

Chart 12 (Prenatal Surveys) shows the number of PSF prenatal surveys received annually from obstetric offices between March 1, 1999 and July 31, 2003. During this period, PSF received 47,509 surveys completed by pregnant women screened for tobacco exposure at their first prenatal visit. (Note: data depicted
for PSF program years one and five do not reflect complete years.) PSF has been unable to determine the percentage of all pregnant women who complete a prenatal survey due to the inability to accurately track the total number of pregnant women seen by participating clinicians.

Chart 13 (Hospital Surveys) shows the number of PSF hospital surveys received annually from hospital post-partum units between May 1, 2000 and July 31, 2003. During this period, PSF received 46,123 surveys completed by new mothers screened for tobacco exposure after delivery. (Note: data depicted for PSF program years two and five do not reflect complete years.)

Chart 14 (Hospital Survey Response Rate) shows the percentage of new mothers who completed hospital surveys at the time of delivery. To determine the percentage, PSF compared monthly hospital delivery rates to total surveys completed at each participating hospital. Response rates for survey completion varied from hospital to hospital from a low of 30 percent to a high of 100 percent. The overall average response rate was 64 percent. (Note: data depicted for PSF program years two and five do not reflect complete years.)

PRENATAL TOBACCO USE AND EXPOSURE

Of the 47,509 pregnant women surveyed at the first prenatal visit, 46,914 answered the five-point question regarding smoking status on the prenatal survey (see Appendix). Chart 15 (Smoking Status At First Prenatal Visit) shows that of these respondents, five percent reported they were currently smoking and 10 percent reported they quit smoking when they found out they were pregnant (spontaneous quitters). Among the subset of women who smoked prior to their first prenatal visit (7,125), 67 percent (4,787) quit smoking when they found out they were pregnant.
**Chart 16** (Smokers Residing In Household) shows that 21 percent of women who completed the PSF prenatal survey and answered the question regarding smokers residing in the household reported living in a household with one or more smokers (including herself) at the first prenatal visit.

**INTerventions**

**Chart 17** (Interventions) shows the number of PSF interventions delivered as of July, 2003. During this period, 2,209 pregnant women and 525 new mothers who indicated they were currently smoking were identified and referred for proactive contact by a California Smokers’ Helpline cessation counselor. In addition, 4,555 spontaneous quitters were identified and enrolled in PSF’s sequenced mail-based intervention for relapse prevention and 9,187 women who indicated there was a smoker in their household were sent a single mailing of education materials. (Note: only pregnant women who sign the consent section of the prenatal survey are referred for proactive telephone counseling or receive the mail-based intervention for spontaneous quitters. Due to budgetary restrictions, new mother smokers were referred for proactive telephone counseling only during program years three and four.)

In addition, as of July, 2003, over 1,500 action cue cards were mailed to pediatricians to indicate the new mother’s smoking status and prompt advice for relapse prevention or cessation. Only pediatricians named on hospital surveys and able to be located were sent action cue cards. During this same period, nearly 20,000 packets of education materials were sent to pediatric offices for distribution to new families.

**FINDINGS**

The primary purpose of the PSF prenatal and hospital surveys is to facilitate delivery of appropriate interventions. However, the surveys were also designed to include questions that would help to determine changes in tobacco use and exposure over time. During the program development phase, the PSF core team established several key evaluation questions that would help to achieve this goal. These questions include:

1. What percent of pregnant smokers quit smoking while they are pregnant?
2. What percent of pregnant smokers decrease the amount they smoke while pregnant?
3. How many pregnant women live with people who smoke in the home?
4. Are there changes in household smoking restrictions during pregnancy?
5. What percent of pregnant women receive advice on tobacco use during pregnancy?

In order to answer these questions, PSF staff analyzed data only from women who completed both a prena-
tal and a hospital survey. PSF staff linked prenatal and hospital survey data on a quarterly basis between March 1, 1999 and September 11, 2002 and included all surveys completed, regardless of smoking status. Surveys were linked by matching records according to specific identifiers (social security number, date of birth, first and last name, etc). In total, 31 percent of prenatal surveys and 32 percent of hospital surveys were linked for a total of 10,296 cases. Because outcomes from linked data remained consistent during this period and due to funding restrictions, the linking process was discontinued after September, 2002.

Program staff used data from linked surveys for two primary reasons. First, the linked data allowed staff to examine only those respondents who had been offered PSF services both during and after their pregnancies. Second, after examining the linked data, PSF staff discovered that many women did not accurately recall their pre-pregnancy or pregnancy smoking history when asked shortly after delivery. On the PSF hospital survey, new mothers are asked to report their smoking history during the three-month period prior to their pregnancy. This question was designed to assess the pre-pregnancy smoking history of all women, regardless of whether they had completed a prenatal survey. However, in comparing prenatal and hospital survey responses, PSF staff found that 43 percent of women with linked surveys who reported on their prenatal survey they had quit smoking when they found out they were pregnant (spontaneous quitters) reported not smoking during the three-month period prior to their pregnancy when completing their hospital survey. Similarly, 21 percent of women who reported on their prenatal survey they were currently smoking subsequently reported not having a smoking history on their hospital survey. Due to the inaccurate recall at the time of delivery, only data collected directly from the prenatal survey was used to assess smoking status during pregnancy.

**Chart 18** (Changes In Smoking Behavior Of Prenatal Smokers) shows the smoking status as reported at the time of delivery of women who were current smokers at their first prenatal visit. According to this self-reported data, 45 percent of smokers quit smoking during their pregnancies and remained quit at the time of delivery, 25 percent had decreased the amount they smoked at the time of delivery compared to their first prenatal visit, and 30 percent increased the amount they smoked or smoked the same amount as they did at the first prenatal visit.

**Chart 19** (Smoking Status Of SQs At Delivery) shows the smoking status of spontaneous quitters (SQs) as reported at the time of delivery. According to this self-reported data, 86 percent of women remained quit throughout their pregnancies and 14 percent relapsed prior to delivery.
Chart 20 (Household ETS Exposure) compares the percentage of women who indicated they resided with one, two, or three or more smokers who smoked inside the home (not including themselves) before pregnancy and during pregnancy as reported on the hospital survey. Over 7 percent of women reported residing with at least one person who smoked in the home prior to pregnancy, compared to 5.1 percent during pregnancy. There is a statistically significant difference in the mean number of reported smokers who smoked in the home before pregnancy (0.12) and during pregnancy (0.08) at a value of p<0.001.

Chart 21 (Smoking Restrictions In Households With Smokers) compares the percent of women residing in households with smokers who indicated it is not okay to smoke anywhere in the home, it is okay to smoke in some rooms, or it is okay to smoke everywhere in their households during the prenatal period and at the time of delivery as reported on the prenatal and hospital surveys. The increase in smoking restrictions in all categories between these two reporting periods is statistically significant at a value of p<0.001.

Chart 22 (Physician Advice During Pregnancy) shows the percent of pregnant women who received advice about tobacco use from their physicians during their pregnancy as reported at delivery. According to this self-reported data, 67 percent of all women received advice from their physicians to not smoke, to quit during pregnancy, to stay quit after pregnancy, and/or to avoid other people's smoke. Further, 88 percent of women with a smoking history (those who smoked during pregnancy or spontaneous quitters) reported receiving advice about tobacco use from their physicians.
DISCUSSION OF FINDINGS – PSF staff has found it useful to compare PSF program findings to those of published studies on best practice intervention outcomes. PSF results compare favorably. For example:

1. While PSF found that 45 percent of pregnant smokers reported quitting smoking and remaining quit at the time of delivery regardless of intervention, published literature indicates that quit rates for the most effective best practice interventions for pregnant women seldom exceed 16 percent.1

2. PSF found that only 14 percent of spontaneous quitters relapsed prior to delivery, compared to relapse rates of 15 to 30 percent reported in published studies.2,3,4

Because the PSF program was designed as a service program, data are not collected using the rigorous controls of a research study. For this reason, PSF program findings have some inherent limitations including:

• All data are self-reported.

• No biochemical validation such as cotinine testing is used.

• Women who completed both a prenatal and hospital survey (linked surveys) are not representative of all women who completed a prenatal survey. Only 3 percent of the women with linked surveys reported smoking at the first prenatal visit, compared to 5 percent of all women who completed a prenatal survey. Therefore, women who reported being a smoker on their prenatal survey were less likely to complete a hospital survey. Two reasons may account for this. First, at the only delivery hospital in East San Diego County – where smoking rates during pregnancy are known to be higher than in other parts of the county – the overall response rate for women completing a hospital survey was only 38 percent, significantly lower than for most other hospitals. Second, women with a smoking history or who are still smoking at the time of delivery may be more likely to refuse to complete the hospital survey.

In order to better evaluate specific components of the program and because PSF did not have the resources to conduct a more rigorous evaluation, the PSF Core Team members determined early on that partnering with research-based organizations would result in more reliable outcomes data. Establishing partnerships with research-based organizations would also allow additional grant funding to be secured in order to evaluate program components. For example, during the time the PSF pregnancy-specific protocol was being developed, Dr. Shu Hong Zhu, principal investigator for University of California San Diego’s California Smokers’ Helpline (CSH), secured funding to evaluate the effectiveness of the protocol. Preliminary results of that study, still underway, are reported below. PSF staff has subsequently partnered with additional research-based organizations such as the San Diego State University Graduate School of Public Health and the State of California Department of Health Services and has several research proposals pending.

PREGNANCY-SPECIFIC PROTOCOL
PROACTIVE APPROACH – Chart 23 (Direct Referrals Through PSF) shows the dramatic effect of a proactive approach. From March, 1999 through September, 2003, PSF obstetric providers referred 2,322 women to the California Smokers’ Helpline. Women were considered to be referred if they completed a PSF prenatal survey and were told to call the Helpline. Of these 2,322 pregnant smokers, only 55 – or 2 percent – called the Helpline. Helpline counselors attempted to proactively contact the other 98 percent.

EFFECTIVENESS OF PROACTIVE CONTACT

<table>
<thead>
<tr>
<th>Helpline Called</th>
<th>Completed PSF Survey &amp; Told to Call Helpline (n=2,322)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (n=55)</td>
<td>No (n=2,267)</td>
</tr>
<tr>
<td></td>
<td>Called Helpline</td>
</tr>
</tbody>
</table>

- Called Helpline: 40%
- Refused Service (n=575): 25%
- Accepted Service (n=915): 40%
- Accepted Service (n=55): 2%

In order to better evaluate specific components of the program and because PSF did not have the resources
Counselors made at least 5 attempts over different days and times to contact each woman who had been referred but had not called. Through these proactive efforts, the Helpline boosted the number of women reached from 2 percent to 67 percent. Of these women, 925 (40 percent) accepted further service and 576 (25 percent) refused. All smokers referred, regardless of contact or interest in further service, were sent self-help materials whenever possible. Thus the proactive approach resulted in a dramatic increase in the number of pregnant smokers receiving cessation counseling, and an even greater increase in the number receiving some form of cessation assistance.

**Efficacy of the Protocol** – The California Smokers’ Helpline is testing the efficacy of its pregnancy-specific counseling protocol with two populations of pregnant smokers. One population is comprised of women who call the toll-free, statewide Helpline on their own initiative. The second is comprised of women referred directly by PSF or other health care providers. With direct referrals, Helpline counselors proactively call and offer cessation services.

At the 2003 World Conference on Tobacco or Health in Helsinki, preliminary results were presented on the efficacy of counseling for women who call for help on their own initiative. Evaluation is still ongoing, but the trend is clear. Women who spoke with counselors are twice as likely to maintain abstinence as women who received only self-help materials. Preliminary results for the proactively recruited women (i.e., PSF referrals and other direct referral pregnant clients) are expected to be reported in 2004.

**Clinician & Staff Satisfaction Surveys**

Beginning one year after the start of the PSF program and continuing on an annual basis thereafter, PSF has surveyed participating clinicians and office staff members to obtain their feedback regarding satisfaction with the program and to identify areas for program improvement, both on a global and an individual office level. A mail-based questionnaire is sent to participating clinicians and offices along with a brief cover letter. Respondents are notified that their names will be entered into a drawing for a $50 gift certificate if they complete and return their questionnaires by an established deadline. Respondents are also offered the option of returning their questionnaires anonymously, if desired.

Interpreting these survey findings is difficult for numerous reasons. First, a baseline survey was not conducted. In addition, the cohort of participants is constantly changing as new clinicians and staff members are added or leave. This transience makes comparison across years difficult. However, among all groups surveyed (obstetric and pediatric clinicians and office staff members), there has been little variation in responses over time.

**Obstetric Clinician Survey** – Following are relevant findings from the most recent obstetric survey conducted in 2002, which was completed by 67 obstetric clinicians (physicians and mid-level providers), yielding a 29 percent response rate.

- When asked how familiar they were with the PSF program, 64 percent said very familiar, 32 percent said somewhat familiar, and 4 percent said not at all familiar.

- When asked how consistently they see the PSF prenatal surveys in patients’ charts, 53 percent responded always, 28 percent responded sometimes, 13 percent responded seldom, and 6 percent responded not at all.

- When asked how consistently they advise smokers to quit, 96 percent said always, 3 percent said sometimes, and 1 percent said not at all.
• When asked how consistently they use the PSF prescription pad to assist smokers by referring them to the helpline, 20 percent said always, 34 percent said sometimes, 18 percent said seldom, and 28 percent said not at all.

• When asked if they follow-up with smokers at subsequent prenatal visits, 50 percent responded always, 44 percent responded sometimes, 5 percent responded seldom, and 1 percent responded not at all.

• When asked to rate the PSF program, 40 percent rated it excellent, 44 percent rated it good, 11 percent rated it adequate, and 5 percent rated it poor.

OBSTETRIC STAFF SURVEY – Following are relevant findings from the 2002 obstetric staff survey, which was completed by 114 obstetric office staff members, yielding a 29 percent response rate.

• When asked how easy it is to implement the PSF program, 83 percent stated very easy, 11 percent stated somewhat easy, 3 percent stated not very easy, and 3 percent didn’t know.

• When asked if their office consistently uses PSF materials, 93 percent indicated they consistently use the health survey, 72 percent use the brochure, 40 percent use prescription pads, and 39 percent use chart stickers.

• When asked to rate the PSF program overall, 73 percent rated it as excellent, 24 percent rated it good, and 3 percent rated it adequate.

PEDIATRIC SURVEY – Following are relevant findings from the 2002 pediatric survey, which was completed by 153 clinicians and staff members, yielding a 28 percent response rate.

• Respondents were asked to recall how they addressed parental smoking prior to their participation in the PSF program compared to their current practices. Survey responses included:
  – 28 percent gave out educational materials prior to PSF versus 68 percent at the time of the survey.
  – 41 percent referred smoking parents for further assistance prior to PSF, versus 83 percent at the time of the survey.
  – 69 percent cited “no resources” as a reason for not referring smoking parents prior to PSF, versus 14 percent citing this reason at the time of the survey.

• When asked what the barriers are to identifying parents who smoke, 44 percent of respondents cited staff time, 44 percent cited making questions part of the routine, and 10 percent said they were uncomfortable asking about smoking status.

• When asked what the barriers are to assisting parents to stop smoking, 62 percent mentioned parents not being interested, 57 percent mentioned lack of time, and 22 percent mentioned lack of resources.

PSF staff members carefully review survey responses in order to identify opportunities for individual training or other program improvements. For example, clinicians who indicate they are not at all familiar with the PSF program or never see prenatal surveys in charts are contacted by PSF staff for further training.

In some cases, survey findings have resulted in more global program changes. For example, with only half of clinicians indicating they follow up with smokers at subsequent prenatal visits, PSF staff emphasized the importance of following up at the six-week postpartum visit by sending fax alerts to all participating obstetricians. Similarly, fax alerts and newsletter articles have been used in an attempt to increase use of chart stickers when surveys results showed low utilization.

LESSONS LEARNED

• Determining participation rates – At program onset, we were interested in knowing the actual number of new prenatal patients seen at individual obstetric offices so that we could determine the percentage of these patients who completed the PSF prenatal surveys. We were surprised to find that obstetric office staff did not have existing procedures in place or the time necessary to keep track of
first prenatal visits. None of the strategies we attempted, including monetary stipends and monthly phone calls, were helpful in obtaining the necessary information.

• **Analyzing data for targeted subgroups** – The overall percentages of smokers, spontaneous quitters, and households with smokers identified by PSF via the prenatal survey have remained consistent since services began in 1999. However, percentages differ by geographic area of the county, ranging from a low of 3 percent to a high of 10 percent. Analyzing data to determine smoking rates for specific populations or subgroups (e.g., patients living in specific geographic areas, by race/ethnicity, by insurance type, etc.), has been helpful when targeting intervention efforts to these populations.

• **Obtaining baseline satisfaction survey data** – We did not collect baseline satisfaction survey data for clinicians or affiliated office staff members prior to their participation in the PSF program. Although we attempted to obtain baseline data from pediatric providers and their office staff members by distributing a survey as the first agenda item during the PSF in-service training session, this proved to be difficult for numerous reasons (the survey took time away from the actual in-service, clinicians and staff often arrive late as they are finishing up with patient care, it is hard to set a friendly tone for the in-service when it starts off with a survey, etc.). A more workable alternative might have been to conduct a baseline survey via mail for all identified clinicians and staff before recruitment and/or training begins.

• **Identifying individual office needs** – The biggest benefit of implementing our annual satisfaction survey among clinicians and office staff members is identification of the specific needs of individual offices. For example, when asked to rate the training provided by PSF, a clinician might indicate that he or she has not been trained. This then gives program staff the opportunity to contact the clinician and arrange an in-service training session. We keep a log of potential areas where we can offer help and then follow-up with all offices on the list.

**RECOMMENDATIONS FOR IMPLEMENTATION**

• **Share program outcomes** – Look for opportunities to share program outcomes with your internal customers. Continually update participating clinicians and their office staff members on the successes of the program using feedback reports, office visits, newsletters, and other available communication mechanisms. Share favorable outcomes with non-participating physicians whom you would like to recruit into your program as well as with your steering committee and/or other individuals who may be responsible for making decisions about future support for your program. Use simple, clear graphs and charts to convey program outcomes.

• **Interpret your results for others** – It is important to carefully explain your findings and put them into context when presenting your program outcomes. For example, quit rates of 45 percent for a program might seem low to an audience that doesn’t understand that the most effective best practice interventions for pregnant women seldom exceed 16 percent.
PSF staff members have published articles and conducted numerous presentations in an attempt to raise awareness of the PSF program on a local and national level. In addition to increasing the visibility and recognition of the program, these efforts have been helpful in securing funding from both the Trilateral Partnership and outside sources. Other added benefits include the opportunity for networking, sharing information, and learning from others in the field. Notable publications and presentations include:

**PUBLICATIONS**
Sadler B, Pappelbaum S, Murphy M. April 14, 2000. Here’s a Smoking Trend that isn’t Improving. [Letter to the editor]. *San Diego Union-Tribune*. (See Figure 12.)


**PRESENTATIONS**


MOTHERS-TO-BE

Here’s a smoking trend that just isn’t improving

By Haif Sadeq, Stan Aeppli and Michael W. Murphy

The California smoking ban bars and taverns has garnered national and local media coverage, repeatedly highlighting that it has reduced rates of smoking among pregnant women. As the tobacco debate continues to roll and Hollywood even turns to the material to create a critically hailed movie, "The Insider," there is scant attention paid to a very private issue that needs part of the spotlight.

The impact of smoking by mothers-to-be is a serious health risk that affects the most vulnerable. It is estimated that 5 percent of all prenatal deaths and 14 percent of premature deliveries are the result of smoking by pregnant women.

But the damage caused by smoking does not end there. Infants born to mothers who smoke suffer a higher incidence of Sudden Infant Death Syndrome (SIDS), and children of parents who smoke face a greater risk of respiratory infections, asthma and middle ear infections. Despite government warnings, anti-smoking advertising and mounting evidence showing that smoking kills, statistics on the number of pregnant women who smoke have barely moved.

Consider: About 20 percent of women smoke during their pregnancy. Of those, only about one in four quit after they discover they are pregnant.

Many women relapse and turn to cigarettes before giving birth, and these numbers rise even higher after the baby is born. About 70 percent of all women who quit smoking during pregnancy will light up again within the first year of their child's life.

This is why the San Diego city health department and the city of San Diego recently launched the "Partnership for Smoke-Free Facilities." The San Diego Joint Tobacco Action Plan was written with the goal of reducing the number of premature births and childhood tobacco use. The partnership includes health care providers, schools, and local businesses.

Infants born to mothers who smoke suffer a higher incidence of Sudden Infant Death Syndrome (SIDS), and children of parents who smoke face a greater risk of respiratory infections, asthma and middle ear infections.

So far, more than 300 obstetricians from the three health systems are participating in the program. The project’s goal is to increase the number of pregnant women who enroll in smoking cessation programs.

"We are seeing a significant amount of interest in our smoking cessation programs," said Dr. Mark Mitty, director of the San Diego County Health Care Plan. "We have seen a 30 percent increase in the number of pregnant women enrolling in our programs, which is a significant improvement."


**RECOGNITION**

The PSF program has received the following awards for innovation:


Recipient, Children’s Hospital and Health Center’s President’s Award for Quality, Innovation and Improvement, San Diego, CA. July, 2003.

**RECOMMENDATIONS FOR IMPLEMENTATION**

- **Be proactive in raising program awareness** – Seek out opportunities to gain visibility and recognition for your program. In most cases, you will need to apply for opportunities to present your program at professional conferences or win awards for your program. Join local and national organizations associated with tobacco control. Attend annual conferences and network with others who are implementing similar programs. Ask about technical assistance opportunities, work groups, email list serves, funding mechanisms, awards, etc. Becoming involved will help you to identify resources to strengthen your program and increase its visibility. Visit the Robert Wood Johnson Foundation Smoke-Free Families website at www.smokefreefamilies.com to learn about The National Partnership to Help Pregnant Smokers Quit as well as resources, current research, funding opportunities, etc. Visit the American Association of Health Plans website at www.aahp.org to learn about the annual Addressing Tobacco in Managed Care conference. Visit the National Conference on Tobacco or Health website at www.tobaccoconference.org to learn about the annual meeting of tobacco control practitioners, researchers, and managers from across the country.

- **Seek the expertise of communications professionals** – Consider convening a team of communications experts to assist your program in gaining recogni-
tion. The PSF communications work team was responsible for coordinating key public relations opportunities, including the publication of the opinion/editorial in the local newspaper and scheduling the local cable television program. This team was comprised of a director-level marketing/communications professional from each partnering health care system and met periodically with the program manager to plan communications, marketing and public relations strategies.

- **Use compelling speakers** – When conducting presentations about your program, choose speakers to whom the target audience can relate. For example, if you are presenting to your local ACOG section, you should present in conjunction with a practicing obstetrician, preferably someone from one of your participating offices who can convey his or her perspective on the program.
SUMMARY AND FUTURE DIRECTIONS

PROGRAM SUMMARY

The PSF program has created a highly successful model for systematically screening pregnant women and new mothers for tobacco exposure and linking them to targeted interventions. Through this comprehensive tobacco control program, more than 90,000 pregnant women and new mothers have been screened for tobacco exposure and over 17,500 women have been linked with appropriate interventions. Prior to the inception of PSF, smoking cessation services specifically for pregnant women were virtually non-existent in San Diego. The PSF program is now becoming a standard of care throughout San Diego.

The PSF core team has identified several key program components that they believe have contributed to the successful model and led to the widespread adoption of the PSF program by provider offices. Key program elements include:

1. Standardized screening system.
2. Consistent messages from clinicians across the childbirth continuum.
3. Proactive link to interventions.
4. Transparent, seamless interventions that are delivered from outside the clinician’s office, but seemingly come from the clinician.
5. Collaboration with community partners.
6. Clear, concise and simple roles for clinicians and office staff members.
7. A focus on staff and clinician retention in the program and retraining.
8. Dedicated program staff who manage and oversee the program.

“I’m very impressed with the quality and accomplishments of PSF and believe that replicating successful methodologies of the program will provide the structure for improving health in other ways.”

Michael W. Murphy - President and CEO, Sharp HealthCare
The PSF model includes a process that is expeditious for clinicians, is easily replicated, and does not create a burden on the health care system. This model is successful in addressing tobacco and may also be effective in dealing with additional maternal and child health issues within the existing infrastructure.

**FUTURE DIRECTIONS**
The Trilateral Partnership is committed to improving the health and well being of children and families in San Diego through collaboration on prevention and treatment programs. In addition to sustaining the tobacco control program, PSF staff and core team members are currently examining ways in which the current model might be used to identify and treat other important health conditions. Feedback from physicians within the PSF provider network, recommendations from both the American College of Obstetrics and Gynecology (ACOG) and the American Academy of Pediatrics (AAP), and a review of the current literature have led the core team to select maternal depression as one of the next important issues to address.

**PARTNERSHIP FOR WOMEN’S HEALTH** – Maternal depression is a common, serious condition impacting the health of mothers, children, and families. Effective screening tools and treatments exist, yet the majority of cases go undetected and untreated. Treating women for depression leads to better parenting practices, resulting in better outcomes for children. The PSF core team recently developed a model replicating successful components of the tobacco program to address maternal depression within obstetric and pediatric offices. PSF received a small grant from Pfizer Pharmaceuticals to pilot-test the new program entitled Partnership for Women’s Health. This program is designed to:

1. Systematically screen women for maternal depression at obstetric and pediatric visits using a standardized screening tool;
2. Proactively contact positive screens in an attempt to link these women with existing local treatment resources;
3. Track the effectiveness of the screening and referral system; and
4. Determine barriers to accessing care.

The pilot study is currently underway in several obstetric and pediatric offices. Findings from this study are expected in early 2004. These results will be used to seek funding for a controlled research trial to further test the feasibility of using the PSF model to identify and address maternal depression.

**MOVING FORWARD** – Through the unprecedented collaboration of the Trilateral Partnership members and the vision of the PSF core team, this program has established a prototype for the delivery of a standardized prevention and treatment program that can be replicated across health care systems and across health topics. Moving forward, PSF staff and core team members will share valuable lessons learned from PSF by providing technical assistance to other health care systems, seek out new opportunities for funding/collaboration in order to continue the successful tobacco control program, and expand current efforts to address additional health priorities.
PREFACE


PRENATAL PROGRAM COMPONENTS


RECRUITMENT, TRAINING AND RETENTION


PROGRAM OUTCOMES


These sample materials are provided as a reference and not intended to be duplicated as is. For more information or copies of program materials, please contact the Partnership for Smoke-free Families program manager at (858) 966-7585.

**TABLE OF CONTENTS - APPENDIX**

<table>
<thead>
<tr>
<th>Material</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prenatal Survey</td>
<td>2</td>
</tr>
<tr>
<td>Prenatal Advice Grid</td>
<td>3</td>
</tr>
<tr>
<td>Rx Pad</td>
<td>4</td>
</tr>
<tr>
<td>Chart Sticker</td>
<td>4</td>
</tr>
<tr>
<td>Prenatal Brochure</td>
<td>5</td>
</tr>
<tr>
<td>Exam Room Poster</td>
<td>6</td>
</tr>
<tr>
<td>Spontaneous Quitters’ Educational Materials</td>
<td>7</td>
</tr>
<tr>
<td>Hospital Survey</td>
<td>8</td>
</tr>
<tr>
<td>Postpartum Brochure</td>
<td>9</td>
</tr>
<tr>
<td>Action Cue Cards</td>
<td>10</td>
</tr>
<tr>
<td>Postpartum Advice Grid</td>
<td>11</td>
</tr>
<tr>
<td>Two-month Well-Child Handout – SIDS</td>
<td>12</td>
</tr>
<tr>
<td>Six-month Well-Child Handout – Asthma</td>
<td>13</td>
</tr>
<tr>
<td>Six-month Well-Child Handout – Secondhand Smoke</td>
<td>13</td>
</tr>
<tr>
<td>Delivering Physician Letter</td>
<td>14</td>
</tr>
<tr>
<td>Program Overview Q &amp; A</td>
<td>15</td>
</tr>
<tr>
<td>Fact Sheet</td>
<td>16</td>
</tr>
<tr>
<td>Sample PSF Newsletter</td>
<td>17-18</td>
</tr>
<tr>
<td>Quarterly Feedback Report</td>
<td>19</td>
</tr>
</tbody>
</table>
Health Survey for New Moms

Patient Information:
Name (print): ___________________ Phone Home: ( ) Work: ( )
Address: ___________________ City: ___________ Zip Code: ___________
Your Date of Birth: ___________ Social Security #: ___________
Obstetrician’s (doctor’s) name: ___________________ Date of last menstrual period: ___________ (mm/day/year)
Where do you plan to deliver your baby (check one)?
☐ Sharp Mary Birch ☐ Sharp Chula Vista Medical Ctr ☐ Scripps Memorial Chula Vista ☐ Scripps Memorial Encinitas
☐ Sharp Coronado ☐ Sharp Grossmont ☐ Scripps Memorial La Jolla ☐ Mercy Hospital
☐ UCSD Medical Center ☐ Other

1. a. How many people (including you) live in your home? _______ (write in number)
b. How many of those people (including you) are 0-14 years of age? _______ (write in number)

2. Please check the box next to the statement that best describes you.
☐ I smoke now
☐ I smoke now, but cut down after I learned I was pregnant
☐ I smoke from time to time
☐ I quit smoking after I learned I was pregnant
☐ I don’t smoke

3. During the past 7 days, how many cigarettes did you smoke on an average day?
☐ ___ Number of Cigarettes (write in number)
☐ ___ Less than 1 cigarette each day
☐ ___ Did not smoke at all

4. a. How many smokers live in your home (include yourself, if you smoke)?
☐ 0 ☐ 1 ☐ 2 ☐ 3 or more
b. Where is it okay to smoke in your house?
☐ okay everywhere ☐ okay in some rooms ☐ not okay anywhere in the house
c. What is the total number of cigarettes smoked inside the house each day by all smokers (including yourself, if you smoke)? _______ Number of cigarettes per day

To help me and my baby stay as healthy as possible, a counselor may contact me to ask if I or one of my family members would like to join a free stop smoking program. I give permission for my doctor to share this survey with a stop smoking counselor. I also give permission for the counselor to share information with my doctor. I understand that signing my name below will in no way change the care I get from my doctor.

Patient Signature: ___________________ Date: ___________

Office Staff - Please send or fax to: Partnership for Smoke-free Families
Write Copy - Please send or fax to: 3201 Children’s Way, MC 9073, San Diego, CA 92123
Yellow Copy - Please place inside patient’s chart. Fax: (619) 956-9026
For additional materials please call (619) 956-7585

PRENATAL SURVEY
ONE COLOR
2 PART NCR FORM
TRIM SIZE: 8.5" X 11"
### Prenatal Advice Grid

<table>
<thead>
<tr>
<th>ASK (Diagnosis)</th>
<th>ADVISE (Treatment)</th>
<th>ASSIST (Referral)</th>
<th>ARRANGE FOLLOW-UP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smoker:</strong></td>
<td>I see from the health survey form that</td>
<td>I can assist you in quitting smoking.</td>
<td>These two questions can be used to re-assess the patient at every visit:</td>
</tr>
<tr>
<td>Patient currently smokes.</td>
<td>you filled out that you are currently</td>
<td>I would like to refer you to the Smokers’ Help Line. This is a free program and trained telephone counselors can work with you to make and follow a plan to quit smoking. Please call the number on this prescription today. We can talk more about this on your next visit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>smoking. I know that quitting is not an</td>
<td></td>
<td>• Do you smoke?</td>
</tr>
<tr>
<td></td>
<td>easy thing to do, but it is one of the</td>
<td></td>
<td>• Do you want to quit?</td>
</tr>
<tr>
<td></td>
<td>most important things you can do for</td>
<td></td>
<td>You may consider personalizing the reassessment based on the last visit.</td>
</tr>
<tr>
<td></td>
<td>your baby and yourself. Women who smoke</td>
<td></td>
<td>• If the patient has not quit, provide the appropriate treatment recommendation (advice to quit).</td>
</tr>
<tr>
<td></td>
<td>during pregnancy can have less healthy</td>
<td></td>
<td>• If the patient has quit, congratulate her and let her know the Smokers’ Help Line is available if she relapses.</td>
</tr>
<tr>
<td></td>
<td>babies. Because I want you to have the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>healthiest baby possible, I strongly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>advise you to stop smoking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reduced Smoking:</strong></td>
<td>I see from your health survey form that</td>
<td>I can assist you in quitting smoking.</td>
<td></td>
</tr>
<tr>
<td>Patient smokes now but cut down after she learned she was pregnant.</td>
<td>you have cut down on your smoking. This is a good first step. However, smoking is not good for you and it can harm your baby. Because I want you to have the healthiest baby possible, I strongly advise you to quit smoking completely.</td>
<td>I would like to refer you to the Smokers’ Help Line. This is a free program and trained telephone counselors can work with you to make and follow a plan to quit smoking. Please call the number on this prescription today. We can talk more about this on your next visit.</td>
<td></td>
</tr>
<tr>
<td><strong>Smokes Intermittently:</strong></td>
<td>I see from your health survey form that</td>
<td>I can assist you in quitting smoking.</td>
<td></td>
</tr>
<tr>
<td>Patient smokes from time to time.</td>
<td>you smoke from time to time. Smoking can harm your baby. Now is a very good time to give up smoking completely.</td>
<td>I would like to refer you to the Smokers’ Help Line. This is a free program and trained telephone counselors can work with you to make and follow a plan to quit smoking. Please call the number on this prescription today. We can talk more about this on your next visit.</td>
<td></td>
</tr>
</tbody>
</table>

---

**Notes:**

---

**ETS Exposed:**

Patient does not smoke but other household members do.

Children who are around smokers are sick more than other children. They are more likely to have asthma, allergies, ear infections and other illnesses. The effects on your child’s health can last a lifetime. There is no safe way to smoke indoors. I recommend you consider making your house a smoke-free place to live.

I am going to give you this brochure. Family members who smoke can call this number, and they can get help with quitting from trained telephone counselors. There is no charge for this program.

The last time you were here you told me that you had stopped smoking. How have you been doing?

The last time you were here we talked about making your house smoke free. How is that going?
RX PAD
ONE COLOR
ONE SIDE

TRIM SIZE: 5.5” X 4.25”

CHART STICKER
ONE COLOR
ADHESIVE BACK

DIAMETER: 1.75”

---

SMOKER’S HELPLINE
Call 1-877-866-BABY (1-877-866-2229)

To protect your baby’s health, your health and the health of your loved ones, I recommend you quit smoking. Trained telephone counselors are ready to help you become smoke-free.

Monday–Friday: 9 a.m.–9 p.m.    Voicemail: 24 hours

Paid for in part by San Diego County Children and Families Commission (Prop. 10)
Smoking doesn’t discriminate. It hurts your unborn baby, it hurts your baby after it is born, it hurts your other kids and it hurts you. Here's how.

Smoking hurts your unborn baby
- When you smoke while you are pregnant:
  - Harmful chemicals in the cigarette can affect your baby's development and health.
  - Exposure to tobacco smoke can cause problems for children.
  - Smokers have higher risks of having a premature birth, low birth weight, and other health issues.

Smoking all your kids
- Babies and children who are exposed to tobacco smoke are more likely to develop health problems:
  - Respiratory illnesses
  - Sudden Infant Death Syndrome
  - Cancer

Smoking hurts you
- If you smoke, your baby is more likely to be born prematurely, have lower birth weight, and have other health problems.
- Your child is more likely to develop asthma and other breathing problems.
- Your child is more likely to start smoking when they are older.
- Your child is more likely to have a higher risk of developing cancer.

Now is the time to quit and there is help
- It's never too late to quit smoking. If you have failed before, try again.
- Quitting smoking can improve your health and the health of your baby.
- Nicotine replacement therapy can help you quit smoking.
- Call 1-877-866-BABY for FREE help to quit smoking.
We Can Help You and Your Family Become Smoke Free.

Don’t Let Your Baby Start Life Under a Cloud

Call The Partnership For Smoke-Free Families
Toll Free 1-877-866-BABY
(En Español 1-877-866-BEBE)

POCKET FOR BROCHURES

TRIM SIZE: 11” X 17”
June 3, 2003

Dear [FirstName] [LastName]:

Your prenatal care doctor is participating in the Partnership for Smoke-Free Families program. At a recent doctor’s appointment, you filled out a survey about smoking. On the survey, you said that you stopped smoking when you became pregnant. Congratulations on this important decision!

Staying smoking is one of the best things that you can do for your health and the health of your baby. Every cigarette you don’t smoke helps you, your unborn child, and your family. To help you stay smoke-free, the Partnership for Smoke-Free Families (PSF) program wants to give you extra support.

Enclosed is your copy of Your Smoke-Free Pregnancy – A Healthier Start for You and Your Baby. This booklet may be helpful if you need help to stay on track (see pages 22-31) or if you stop up and want to get back on track (see pages 2-21). In addition, PSF offers you a free smoking cessation telephone program if, at any time, you or any of your family members need more support. Call 1-877-866-BABY.

Over the next few months, PSF will send you some additional materials to support your decision to quit smoking. If, at any time, you would like us to stop the mailings, please call Monica King at (858) 966-7585.

Sincerely,

Phyllis Hartigan
Project Manager
Partnership for Smoke-Free Families
## Hospital Survey for Delivering Moms

### Patient Information

Thank you for taking a few moments to answer some questions - we would like all delivering moms to fill out this survey. PLEASE PRINT.

<table>
<thead>
<tr>
<th>Your First Name:</th>
<th>Middle/Second Name:</th>
<th>Last Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address:</th>
<th>City:</th>
<th>Zip Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When did you first start living at your current address? Month/Year: ____________

<table>
<thead>
<tr>
<th>Telephone Home:</th>
<th>Work:</th>
<th>Your Date of Birth:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>mm/dd/yyyy</td>
</tr>
</tbody>
</table>

| Social Security #: | Your maiden name: | |
|--------------------|-------------------|
|                    |                   |

Your weight before pregnancy: ___ lbs. Weight gained during pregnancy: ___ lbs. Your height: ___ feet ___ in. or ___ cm.

<table>
<thead>
<tr>
<th>Baby's Name:</th>
<th>Baby's sex:</th>
<th>Birth weight:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First:</td>
<td>M/F</td>
<td>lbs oz. / ___ grams</td>
</tr>
<tr>
<td>Last:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Baby's Date of Birth:</th>
<th>Time of Birth:</th>
<th>Baby's length:</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm/dd/yyyy</td>
<td>___am/pm</td>
<td>___ in. or ___ cm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name of Baby's Pediatrist/Doctor: First: ____________________________ Last: ____________________________

### Survey Questions

1. Tobacco use **DURING** pregnancy: □ Yes □ No
   - If yes, average number of cigarettes per day: _______

2. Think back to before your pregnancy. During the three months **JUST BEFORE YOU FOUND OUT YOU WERE PREGNANT**, how many cigarettes did you smoke on an average day?
   - _____ Number of cigarettes (if none, write 0)

3. a) During the last 7 days (before the birth of your baby), have you smoked a cigarette, even a puff?
   - □ Yes (go to b) □ No (go to c)
   - b) During the last 7 days, how many cigarettes did you smoke per day (on average)?
     - _____ Number of cigarettes (write in number)
   - c) During your pregnancy what is the longest number of days in a row that you went without having a cigarette, even a puff?
     - _____ Number of days (write in number)

4. **Not including yourself**, how many members living in your home smoked cigarettes **INSIDE YOUR HOME** before and during this pregnancy? (Please answer for each time period listed)
   - Before your pregnancy: _____ members or □ None
   - During your pregnancy: _____ members or □ None

5. What kind of advice about tobacco did your doctor give you during this pregnancy? (check all that apply)
   - □ None □ Not to smoke □ Quit during pregnancy □ Avoid other people’s smoke

6. Where is it okay to smoke in your house (check one)?
   - □ Okay everywhere
   - □ Okay in some rooms
   - □ Not okay anywhere in the house

To help me and my baby stay as healthy as possible, I give permission for the hospital to share this survey with the Partnership for Smoke-free Families Program, the California Dept. of Health Services and my baby's doctor. I understand that signing my name below will in no way change the care I receive or that my baby receives at the hospital.

<table>
<thead>
<tr>
<th>Patient Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm/dd/yyyy</td>
</tr>
</tbody>
</table>

### Hospital Survey Use Only

Please send or fax this form to: Partnership for Smoke-free Families, 2920 Children's Way, MC 1975, San Diego, CA 92123, Fax: (619) 666-4520

For additional materials please call (858) 966-7585

**Hospital Code:**
Congratulations on the birth of your baby!

If you don’t smoke—great!
- Keep your baby away from other smokers. Tobacco smoke hurts your baby.

If you quit smoking during your pregnancy—stay quit
- Tobacco smoke hurts you, hurts your baby and hurts your other children.
- Babies born to mothers who smoke are more than two times as likely to die of SIDS (Sudden Infant Death Syndrome).

If you smoke—now is the time to quit and we can help
- Call today for free help to quit.
- Help is also available for your family members who smoke, they can call today.

Call 1-877-866-BABY
(1-877-866-2229) For FREE Help To Quit Smoking

Trained telephone counselors are ready to help you and your family become smoke-free.
**ACTION CUE CARDS**

**ONE COLOR**

**ONE SIDE**

**TRIM SIZE:**

8.5” X 11”

---

**Partnership for Smoke-Free Families**

**March 29, 2005**

Dear Dr. Smith,

This is regarding Laura Doe, the mother of your patient, Baby Ashley Doe, with DOB 01/01/91.

The Partnership for Smoke-Free Families measured the mother's smoking status in the hospital following delivery.

**MOTHER'S SMOKING STATUS: QUIET SMOKING DURING PREGNANCY**

The Partnership for Smoke-Free Families asks that you participate in our program by doing the following:

**Advisor**

- Congratulate your patient's mother on quitting smoking during pregnancy and recommend that she stick to it.
- Remind her that babies and children who live with non-smokers are less likely to die of SIDS and are less likely to get ear infections, asthma, and other illnesses.

**Assist**

- Let your patient's mother know that other household members can get free help with quitting by calling the Smokefree's Helpline at 1-877-Smoke-free (1-877-766-6333) or Spanish Line 1-877-Smokefree (1-877-766-6333). Spanis Line
- Give her a brochure so that she can contact a Smokefree's Helpline counselor if she needs help in stopping smoking.

**Follow-up**

- Distribute Partnership for Smoke-Free Families educational materials at 2-month and 6-month well-child visits.
- Re-assess the mother's smoking status at subsequent visits.

**PLEASE FILE IN PATIENT'S MEDICAL RECORD.**

If you have any questions about the program, please call the PSF office at (888) 966-7550.

---

**Partnership for Smoke-Free Families**

**November 10, 1999**

Dear Dr. Smith,

This is regarding your patient, Baby Jane Doe, with DOB 11/11/99.

The Partnership for Smoke-Free Families surveyed your patient's mother in the hospital following delivery regarding tobacco smoke exposure. Your patient’s mother reported the following:

**HOUSEHOLD SMOKE EXPOSURE**

The Partnership for Smoke-Free Families asks that you participate in our program by doing the following:

**Advisor**

- Advise your patient’s mother or other family members about the dangers of environmental tobacco smoke exposure (ETS).
- Babys and children who live with non-smokers are less likely to die of SIDS and are less likely to get ear infections, asthma, and other illnesses.

**Assist**

- Let your patient’s mother know that household members can get free help with quitting by contacting the Smokefree’s Helpline.

**Follow-up**

- Distribute Partnership for Smoke-Free Families educational materials at the 2-month and 6-month well-child visits.
- Re-assess household smoke exposure at subsequent visits.

**PLEASE FILE IN PATIENT'S MEDICAL RECORD.**

If you have any questions about the program, please call the PSF office at (888) 966-7550.
<table>
<thead>
<tr>
<th>ASK</th>
<th>&quot;Do you smoke?&quot; If the answer is yes, continue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>&quot;Would you be interested in quitting if help were provided?&quot;</td>
</tr>
<tr>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>NO</td>
<td>YES</td>
</tr>
</tbody>
</table>

| ADVISE | Only you can decide when you're ready to quit. Think about what's stopping you from quitting. Remember, not smoking is one of the best things you can do for your health and the health of your children. Mothers and children with parents who smoke have more allergies and asthma, get more coughs and colds and have more difficulty with school work. If you smoke, your children are more likely to smoke. |
| ASSIST | I know it's not easy to quit smoking. When you're ready to quit or cut back, let me know. I can help you. |
| ARRANGE | Access readiness to change at every visit. |
|        | YES | I can help you quit smoking; you don't have to do it alone. I'm going to give you a prescription to call the Smokers' Helpline. This is a free service with trained telephone counselors who will help you make and follow a plan to quit. Call today - I'll check in with you at your next visit to see how you're doing. Give Rx to call 1-877-866-BABY |
|        | NO  | I'd like to refer you to the Smokers' Helpline. Trained counselors can help you to cut back or work towards setting a quit date when you're ready. The service is free and the counselors will work with you to develop a plan that is best for you. Here's a prescription - why don't you give them a call? I'll check in with you at your next visit to see how you're doing. Give Rx to call 1-877-866-BABY |

Ask whether patient called the Helpline and ask about progress at every visit. Ask about readiness to make a change at every visit. Ask if patient called the Helpline.
**Sudden Infant Death Syndrome & Smoking**

*Did you know that...*

Infants whose mothers smoke during and after pregnancy are three times more likely to die from Sudden Infant Death Syndrome (SIDS) than infants of non-smoking mothers.

**What is SIDS?**
Sudden Infant Death Syndrome (SIDS) is the sudden death of an infant that remains unexplained after an autopsy, examination of the death scene, and review of the medical history.

**SIDS Facts**
- SIDS is the leading cause of death among infants between one month and one year of age.
- In the United States, 3,600 infants die from SIDS each year.
- Most infants who die of SIDS are between two and four months of age.
- SIDS is NOT caused by suffocation, choking, immunizations or vaccinations.

**What makes a baby more likely to die from SIDS?**
- Exposure to cigarette smoke during and after pregnancy
- Sleep position of the baby
- Too much bedding in the crib
- Infants whose siblings died of SIDS
- Weighing less than 3 pounds at birth
- Premature exposure to heroin, cocaine, or methadone

**Tips to Reduce the Risk of SIDS**

- Remember to put your baby “BACK TO SLEEP.”
  Always put your healthy baby on its back to go to sleep.
- Do not smoke or let others smoke around your baby.

**Quitting smoking isn’t easy.**
If you or any of your family members would like FREE help to quit or cut back, call the Partnership for Smoke-Free Families Helpline (toll free) at: 1-877-866-BABY

**Partnership for Smoke-Free Families**

**Children’s Health Council**

**Scripps Health**

**SHARP**
Dear Dr. Smith:  
December 17, 1998

We are pleased to announce a new program that we believe will benefit your patients. Partnership for Smoke-Free Families (PSF) is a partnership project between Sharp HealthCare, Scripps and Children’s Hospital and Health Center with a focus on reducing tobacco use and second-hand smoke exposure among pregnant women and young children.

In accordance with clinical practice guidelines developed by national and regional agencies, this program has been designed to help you identify pregnant women who smoke and provide them with an intervention specifically targeted to their needs.

On the attached page, the main components of the PSF program are outlined. We have made every effort to minimize your personal time and provide your office staff with all required support. Here’s how you can help your patients participate:

- Review assessment/referral forms (to be completed by all women at first prenatal visit) to identify which patients are smokers.
- Advise all smokers about the harmful effects of smoking.
- Encourage smokers to quit and to participate in the PSF program.
- Ask about smoking status and reinforce the message to quit at each visit.

The Partnership for Smoke-Free Families program will be available to your office starting February of 1999. For additional information or to get started as soon as possible, please feel free to contact our Project Manager, Phyllis Hargan, MPH at (619) 541-3661 or any of us. Otherwise, we will contact your office to answer questions and assist with implementation.

Mark Hargan, MPH  
Children’s Hospital and Health Center  
(619) 576-5814

cc: Name of Office Manager  
Attachments: CME Byer

---

**PROGRAM LAUNCH**  
DELIVERING PHYSICIAN LETTER  
ONE COLOR  
ONE SIDE  
TRIM SIZE:  
8.5” X 11”
Partnership for Smoke-Free Families (PSF)
Program Overview Q & A

Which of my patients will be included in this program?
All newly diagnosed pregnant women will be included.

What is expected of my office staff?
The following steps will need to be accomplished by your staff:
1. At the first prenatal visit, every patient is given a PSF brochure that outlines the harmful effects of smoking and lists the PSF 800# for cessation counseling (for self-referral or referral of family members to a cessation program).
2. At the first prenatal visit, every patient is asked to fill out a PSF assessment/referral form. This is an 8 1/2" x 11" NCR form used to collect demographic information and assess smoking status, number and relationship of other smokers in the home, and patient consent for follow-up.
3. One copy of the assessment/referral form will be attached to the inside cover of the patient chart and the second copy will be sent to the PSF office (envelopes will be provided). Assessment/referral forms must be sent to PSF for ALL patients including non-smokers and those who decline participation.

What is expected of me (and other providers in my office)?
Your role is to
- Review all assessment/referral forms to identify which patients are smokers.
- Advise all smokers about the harmful effects of smoking
- Encourage them to quit and to participate in the PSF program.
- Ask and reinforce this message at each visit.

What is the content of the PSF smoking cessation intervention? Who will provide it?
Patients who are identified as smokers (and who give their consent), will be contacted and invited to participate in a free telephone-based cessation program designed for pregnant women and available in multiple languages. The program includes regular contacts through a trained cessation counselor from early pregnancy through 6-months postpartum. PSF will partner with the California Smokers’ Helpline, a statewide telephone smoking cessation program with demonstrated success, to deliver this program.

What kind of support and feedback will my office receive from the program?
- Ongoing training and education for you and your office staff (see CME training flyer, attached)
- Provision of all PSF materials including program brochures, posters, assessment/referral forms, quarterly newsletters, etc.
- Regular feedback regarding patient progress and participation rates.
- Communication on patient progress that extends from your office to the patient’s Primary Care Clinician.
- Ongoing program evaluation.
- Incentives for you and your office staff in appreciation of your participation.
- A full-time Program Specialist to provide training, feedback, and support for participating offices.

When does this program start?
The Partnership for Smoke-Free Families program will be available to your office starting February of 1999. We will be contacting offices individually to assist with implementation during February and April. If you wish to get started as soon as possible, please contact our Project Manager, Phyllis Hartigan, MPH at (619) 541-3061.
Fact Sheet

Trilateral Partnership

Children’s Hospital and Health Center, Scripps, and Sharp HealthCare have formed a partnership in order to improve the health and well being of children, youth, and families in San Diego. The leadership of these health systems has partnered together with the belief that they can make a greater impact on the health of our community through collaboration on prevention programs.

Partnership for Smoke-Free Families

The Trilateral Partnership chose tobacco control as its first initiative and made a commitment to sponsor this initiative for a minimum of three years. Tobacco control was chosen because smoking-related health problems remain one of our community’s most pervasive health concerns, affecting all age groups from the unborn child to the elderly, and these effects can be impacted by prevention efforts. In March of 1996, the Trilateral Partnership launched the Partnership for Smoke-Free Families program (PSF). This program is designed to benefit mothers and their families by:

- Reducing tobacco exposure on the mother and the unborn, developing baby
- Reducing environmental tobacco smoke (ETS) exposure by encouraging women to make their households smoke-free.

Smoking Facts

Although smoking rates have declined, approximately 12% of pregnant women nationwide smoke. It is estimated that 25-60% of all female smokers quit shortly after learning they are pregnant (called spontaneous quitters). Among those who quit on their own, 20% to 40% will go back to smoking during pregnancy.

Prenatal Risks

Smoking during pregnancy has been associated with a 20%-30% increased risk in stillbirths, a 30%-70% increased risk of spontaneous abortion, pregnancy complications, preterm delivery, and babies who are small for their gestational age. Twice as many low birth weight babies are born to women who smoke as compared to non-smokers.

Infant/Child Risks

The effects of maternal smoking are not limited to the prenatal period. More infants die of Sudden Infant Death Syndrome (SIDS) whether the mother smoked during pregnancy or after the birth. Infants and children of smokers experience more respiratory infections, ear infections, asthma, and hospitalization. Children whose parents smoke are more likely to have behavior problems and trouble with schoolwork.

PSF Provider Intervention

The Partnership for Smoke-Free Families program is working with obstetricians, hospital postpartum staff, and pediatricians throughout San Diego to implement the Public Health Services’ Clinical Practice Guideline for Treating Tobacco Use to systematically:

- Assess the smoking status of all prenatal patients and new parents.
- Advise prenatal patients and new parents to quit smoking by incorporating appropriate messages in to prenatal and well-child visits.
- Assist smokers and family members by referring them for cessation counseling.
- Follow-up with patients by discussing progress made toward quitting at subsequent visits.

PSF Patient Interventions

PSF has partnered with the California Smokers’ Helpline (CSH) to develop and implement a telephone-based smoking cessation counseling protocol for pregnant women and new parents. The protocol provides ongoing support for smokers throughout their pregnancy and after the baby is born. CSH counselors proactively contact identified smokers. PSF has also developed mail-based interventions for spontaneous quitters and for other smokers in the household.

Program Update

As of June 2003, 311 of 384 (81%) affiliated with the health systems and their staff are participating in the program. Over 45,000 women have been surveyed at their first prenatal visit of which 5% are smokers, 10% are spontaneous quitters, and 21% of households include at least one smoker. In addition, 9 delivery hospitals and 280 pediatrics have been trained and are participating in this program. Via Proposition 10 grant funding, PSF has expanded services to UCSD and Balboa Naval Hospital.

For More Information Contact:

Phyllis Hargan, MPH, Project Manager; or
Nicole Howard, MPH, Program Specialist
3020 Children’s Way, MC 5073
San Diego, CA 92123
(858) 965-7585 • Fax (858) 966-4020

(505 words)
SAMPLE PSF NEWSLETTER

FULL COLOR
4 PANEL

TRIM SIZE:
11” X 17”

FOLD SIZE:
8.5” X 11”

APPENDIX | sample materials

Sample Newsletter:

Patient Profile
A Mother's Motivation to Quit

When Rachel Franta found out she was pregnant, she decided that was just the motivation she needed to quit smoking for good. Up to that point, Rachel had smoked about a pack of cigarettes per day. In her first prenatal visit she filled out the PSI Health Survey for New Moms and was advised by her obstetrician, Dr. Terri Gsell, that for the health of her baby she should quit smoking.

Dr. Gsell also referred Rachel to the PSI’s “Smokers’ Helpline” and encouraged her to call for help with quitting. When a counselor from the helpline called Rachel, she was motivated to quit. Two counselors worked with her over the first five months of her pregnancy, helping her to set a quit date and to identify and plan for avoiding difficult situations. Two months into her pregnancy, Rachel quit smoking completely and has remained smoke-free.

On January 22, 2003, Rachel gave birth to her first child, Devin Smith. Rachel reports that Devin is very healthy and growing quickly.

Rachel has completely changed her view of cigarettes and smoking. “I can’t stand the sight of them any more!” She is working on getting her boyfriend to quit too and reports that he has cut down significantly and only smokes outside. Devin’s pediatrician, Dr. Lina Lee at El Cajon Pediatrics, encourages Rachel to stay quit and has had few discussions with her about the importance of quitting.

Dr. Lee encourages kids to always smoke outside and to wash his hands and change his clothes afterwards. For pregnant women who do smoke, Rachel offers the following advice: “If you’re pregnant, it’s okay to smoke. It’s easier than you think.”

When asked if she thinks the PSI’s “Smokers’ Helpline” would be helpful for other women trying to quit, Rachel instantly replied, “Yes, definitely!” Rachel also believe that advice to do it by your doctor is very important and that all doctors should encourage non-smoking households.

Congratulations to Rachel!

Office Spotlight

UCSD Reproductive Medicine at Pendian Ambulatory Center

La Jolla is a multi-specialty clinic in an academic setting through its affiliation with UCSD. This office joined the Partnership for Smoke-Free Families Program in January of 2002. In just over one year, more than 700 pregnant patients have been surveyed regarding smoking status. Identified smokers have been contacted for cessation counseling and spontaneous quitters sent a mail-based relapse prevention program. Thanks to the hard work of 25 obstetricians and midwives providers, pregnant smokers are being linked with cessation counseling in a timely manner — leading to healthier lives for themselves and their babies.

Because of their great smoking. “Through the power of this program, and encourages all who are interested in quitting to use the free help that UCSD Reproductive Medicine provides. Prenatal counseling and education are very beneficial.

Betty Garbutt, Certified Nurse Midwife, took time from her hectic day to answer some questions for us. She commented that she encourages smokers to identify smokers. At subsequent visits, clinicians ask about smoking status and follow up on each smoker’s progress. In her experience advising smokers to quit, she finds that most patients react with feelings of guilt.

PSF staff would like to thank the providers and staff at UCSD Reproductive Medicine at Pendian Ambulatory Center for their continuing hard work with PSI. We would also like to thank Laurie Behnke, PSI contact, who keeps this office updated with PSI supplies and results in our surveys in a timely manner — ensuring that smokers receive care as soon as possible.

Contact Us!

Non Profit 80114 Permit #2 San Diego, CA

APPENDIX | sample materials

The inside story...

Smokers in East County... page 2
Log Time Report... page 2
PSF Participation... page 3
and always featuring...
How many women have PSF and your office helped so far?

**All OB Offices**
3/1/99-2/21/03
Total Screened ≈ 26,169

- 1,398 Smokers
- 2,630 Spontaneous Quitters
- 5,567 Women with ETS

**Dr. Smith**
3/1/99-2/21/03
Total Screened = 965

- 49 Smokers
- 98 Spontaneous Quitters
- 222 Women with ETS

- All smokers are referred for telephone counseling.
- Spontaneous Quitters are given a mail-based program.
- Women with Environmental Tobacco Smoke (ETS) or other smokers in the home, are sent educational materials.

It takes the efforts of all offices to make this program a success.

How many days does it take your office to send in PSF surveys & how does your office compare?

**Average # of days per time period**

- **All Prenatal Offices**
- **Your Office - Dr. Smith**

<table>
<thead>
<tr>
<th>Month</th>
<th>All Prenatal Offices</th>
<th>Your Office - Dr. Smith</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct-02</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Nov-02</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Dec-02</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Jan - Dec. 2002</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>