QUIT SMOKING
TELEPHONE COUNSELLING PROTOCOL
FOR
PREGNANT AND POSTPARTUM WOMEN

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Introduction

Smoking during pregnancy has harmful health effects for both the woman and the fetus. This protocol is designed to support existing Canadian smoking cessation telephone helplines (or "quitlines") in reaching pregnant and postpartum women who smoke. Quitlines in general have several benefits in providing support for smoking cessation, including improved access to services, anonymity, and clients' expressed feelings of control and empowerment. Tailoring a quitline to pregnant smokers could assist with increased cessation during pregnancy, harm reduction and lower relapse rates during and post partum.

Approaches to smoking cessation for pregnant women often focus on the health of the fetus and give less attention to the woman's own health. Indeed, a *fetus*-centered approach continues to characterize many cessation campaigns aimed at pregnant women (Greaves et al., 2003). In this protocol, we also emphasize a *woman*-centered approach, focusing on the health of the woman in addition to the health of the fetus, thus encouraging sustained abstinence in the postpartum period.

This quitline protocol is based on three main goals. First, efforts to recruit and then retain callers are key to each part of the protocol. Second, we encourage a paradigm shift in tobacco cessation during pregnancy to a woman-centred rather than fetus-centred model. And finally, supporting a shift in identity in the caller from smoker to non smoker, is seen as critical.

In designing this protocol we interviewed informants from numerous telephone counselling lines and services for pregnant and postpartum women across Canada and the United States, and asked them about specialized and tailored approaches and harm reduction measures. In addition, we reviewed in detail two existing telephone counselling protocols designed specifically for pregnant smokers; Quit Victoria from Australia and Great Start from the United States. This protocol integrates some of the approaches and methods of these existing initiatives and builds upon them.

Estimates of tobacco use among pregnant women in Canada and the United States range from approximately 20-30% (Coleman & Joyce, 2003; Connor & McIntyre, 1999), with one reported estimate as low as 11% (CTUMS, 2002). Canadian data suggests that the rate of smoking during pregnancy varies greatly with the age of the mother. In a 1998-1999 survey of mothers with children under two years of age, 12% of mothers age 35 years or older had smoked during pregnancy, compared with 53% of mothers under 20 years of age (Health Canada, 2003).

About half of women attempt to quit smoking when they discover they are pregnant (Klesges et al., 2001), but 21% relapse prior to delivery (Quinn et al., 1991) and up to 70% to 90% relapse within one year postpartum (Klesges et al., 2001; Fingerhut et al., 1990; Ratner et al., 2000). Thus, although pregnancy itself may act as a motivator for abstinence from smoking, its effect appears to be temporary.

This report contains three sections. First, we review existing quitline protocols as well as the scientific literature on appropriate approaches and interventions for use with pregnant women smokers. Second, we provide recommendations for counsellor training; and third, we outline the counselling protocol we have developed. We strongly recommend that counsellors read the entire report, as the earlier sections will provide a foundation for counsellor training as well as the protocol itself.

Section I: Existing Protocols and Review of Literature

I. Telephone Counselling for Smoking Cessation

Canadian Quitlines

Currently, all Canadian provinces have toll-free smoking cessation telephone helplines. However, there are currently no quitlines for pregnant women in Canada. The Canadian Council for Tobacco Control and the Canadian Cancer Society have partnered to develop a national network of quitlines in order to provide telephone services as part of the Federal Tobacco Control Strategy and to establish counselling protocols for pregnant and postpartum women, youth, and Aboriginals (Sutherland-Brown, 2001). Canadian quitlines provide ongoing telephone counselling sessions with callers, with no restriction on the caller's frequency or duration of contact with the helpline.

American Quitlines

Quitlines are in operation in more than 30 American states. On February 3, 2004, the U.S. Department of Health and Human Services (HHS) Secretary announced that the HHS will help fund a national American network of smoking cessation telephone helplines where smokers will be able to obtain comprehensive information on medication and counselling in assistance to help them quit. Currently, each state differs as to quitline counselling protocols, funders and level of access to quitlines. In the future, HHS will have one central telephone number, from which callers can then be routed to the quitline in their state. If that state does not have a quitline, the call will be routed to the American Cancer Society. The HHS is providing $20 million for the support and development of quitlines in each state. The HHS also recommends increasing the federal cigarette tax by $2 per pack and using at least half the revenue for smoking cessation initiatives (Corr, 2004; U.S. Newswire).

Connecticut

The United Way of Connecticut runs a smoking quitline as a branch of their 211 information line, and also includes materials developed specifically for pregnant women. The 211 information line is an integrated system of telephone help for information about community services, referrals to human services, and crisis intervention. It can be accessed toll-free from anywhere in Connecticut by dialling 211. It operates 24 hours per day, 365 days per year. Multilingual caseworkers and TDD access are available. It is funded through the Department of Public Health's tobacco settlement fund and the Center for Disease Control.

The United Way works in collaboration with the Hartford Hospital to operate the quitline. The Hartford hospital provides 3-5 proactive counselling sessions with follow-up at 3 months, 6 months, and 1 year later. When a person calls 211 Infoline, a trained specialist answers the call, taking care to listen, demonstrate interest and concern, and build a relationship with the caller. The specialist works with the caller to assess and identify needs as well as to prioritize them. The comprehensive database of 211 Infoline allows the specialist and caller to discuss various assistance programs and provide referral information. Follow-up telephone calls are offered as well. The materials provided to pregnant women were designed by the American Legacy Foundation, which develops national programs to assist adults and youth in quitting smoking and focuses on those who have limited access to prevention and cessation services.

San Diego, California

In San Diego, three health care systems have collaborated to create the Partnership for Smoke-Free Families (PSF) initiative, which focuses on smoking cessation for pregnant women and reduction of exposure to environmental tobacco smoke (ETS) among infants and young children (PSF, 2004a). The California Smokers' Helpline (CSH) is one of its many initiatives. All services are free, funded by the California Department of Health Services.

The PSF program is based on Smoking Cessation Clinical Practice Guideline No. 18, including the 5A's: Ask about tobacco use; Advise patients to quit; Assess willingness to quit; Assist in quit attempt; Arrange follow-up. In the pilot phase of CSH, PSF contacted health care providers at clinics or hospitals with maternity care and supplied them with brochures on assisting pregnant women with smoking cessation and prenatal surveys to assess smoking status among pregnant women. The providers were asked to complete the survey with each client and mail or fax it to CSH. Subsequently, CSH counsellors attempted to contact all pregnant smokers for follow-up and tobacco cessation support. Substantial media coverage of the program, including radio and press conference, was also carried out.

PSF observed that 45% of pregnant smokers reported quitting smoking and remaining abstinent at the time of delivery. Among spontaneous quitters (i.e., those women who stop smoking immediately upon discovering they are pregnant), only 14% of PSF clients relapsed prior to delivery, compared with 15-30% relapse for other interventions (Windsor et al., 1998; Ershoff et al., 1995; Secker-Walker et al., 1998).

CSH continues to distribute the materials developed with PSF although the two organizations are no longer in partnership. Brochures are left in obstetricians' and gynecologists' offices and women are encouraged to fill out a small survey asking for their contact information, smoking status, and consent to have CSH call them. The physician's office sends the surveys to CSH, where a counselor will call the woman. The key contributing feature to this successful model is the proactive and seamless link to intervention-delivery from outside the clinician's office (PSF, 2004b).

International Quitlines

Quitlines are in operation in multiple countries across Europe, in Australia and New Zealand, and elsewhere.

Royal Women's Hospital and Quit Victoria, Australia

The Royal Women's Hospital in Melbourne, Australia, conducted a pilot study to develop a telephone counselling callback intervention for pregnant women who are smokers or recent quitters. Smokers and recent quitters receive similar interventions. The pilot study was conducted during 1998 and 1999 at Royal Women's Hospital antenatal clinic, and was evaluated in 2000 (Trotter, 2000).

A 'current smoker' was defined as a woman who had smoked tobacco in the previous seven days and a 'recent quitter' was defined as one who had quit within the last six months due to pregnancy. The pilot study showed that smokers received an average of 7.3 calls and recent quitters received an average of 6.5 calls, with a different counsellor contacting the client each time. However, although most calls last for an average of 20 to 30 minutes, recent quitters tended to have a longer length of call than smokers.

Self-reported smoking status was validated by urine cotinine tests at time of delivery and also at six months postpartum for recent quitters and smokers. Among recent quitters, 89.5% of the 67 participants whose smoking status could be validated were non-smokers at the time of delivery. At six months postpartum, 31% of the 48 recent quitters who could be contacted and whose smoking status was validated remained abstinent from smoking.

Among smokers, the quit rates were much lower at time of delivery and at 6 months post partum. The validated quit rate was 8% at the time of the baby's birth. Contact was made with 36 (54%) of the smokers at six months postpartum. With the assumption that the women who could not be contacted were still smoking, only 3% of smokers remained abstinent six months after delivery. Increased support during the postpartum period may help to increase abstinence rates (Trotter, 2000).

Counsellors reported that most women accessing this service were motivated to quit smoking by the pregnancy, rather than for an internal reason, which may account for the temporary nature of their abstinence. Further, it has been noted that women who have smoked and had successful pregnancies in the past tend to be less concerned about the health effects of tobacco on the fetus (Trotter, 2000).

Client feedback on the Quit Victoria service was very positive. Women reported the counsellors to be very informative and understanding. However, many expressed a preference to have support from one counsellor throughout the duration of the program rather than receiving calls from a number of different counsellors (Trotter, 2000).

This pilot study led to the development of the service called Quit Victoria, a telephone smoking cessation helpline designed specifically for pregnant smokers in the state of Victoria, Australia. Quit Victoria receives calls from women at any stage in their pregnancy or post partum. Counsellors at Quit Victoria support callers in quitting smoking and provide information on the health effect of smoking on both the woman and the fetus as needed. Women are free to call the quitline as often as they like and Quit Victoria counsellors schedule proactive calls to the woman as well.

II. Review of Literature

Below are key points from a review of existing literature on telephone counselling services and on smoking cessation interventions for pregnant and postpartum women. Further, based on *Expecting to Quit: A Better Practices Review of Smoking Cessation Interventions for Pregnant and Post partum Girls and Women* (Greaves et al., 2003), we also discuss several recommended 'better practice' approaches in responding to pregnant and postpartum women smokers.

Proactive and Reactive Telephone Counselling Services

Telephone counselling services can be either *proactive* or *reactive*. Proactive helplines have counsellors initiate all telephone calls to the client, whereas reactive helplines have clients initiate all telephone calls to the helpline counsellor. Many helplines use a combination of proactive and reactive approaches; for example, some helplines will arrange proactive counselling calls to the client following the first client-initiated call (Zhu et al., 1996; 2002).

In general, proactive telephone counselling is thought to provide greater opportunity for communication and thus may be an effective intervention component for pregnant women who smoke (Kelley et al., 2001). The Partnership for Smoke-Free Families (PSF) conducted a study to determine outcomes of proactive and reactive telephone counselling approaches for pregnant and postpartum women. Among women who were provided with the phone number of the California Smokers' Helpline (CSH) by obstetric providers, only 2% actually initiated a telephone call. In contrast, when women were asked by their doctor to consent to be contacted by CSH, 67% were successfully contacted and 40% accepted further service.

However, no differences in smoking cessation outcomes were detected between the small group of women who initiated contact with CSH compared to those who received proactive counselling. Borland (2001), in his study of 998 adult smokers calling a state-wide Quitline service, noted that proactive call-back counselling around the time of smoking cessation was associated with an increase in the number of quit attempts and a reduction in relapse. Hence, while the quit rates are similar for callers using a proactive and a reactive helpline, the proactive approach reaches many more pregnant and postpartum women within the population. As the frequency of contact with clients also appears to influence smoking cessation outcomes, this is an important difference. In a randomized control trial by Zhu et al. (2002), smoking abstinence rates were approximately doubled among clients who received seven call-backs from quitline counsellors compared to clients who did not receive any call-backs.

Combined Interventions

There has also been considerable investigation into the most effective combination of telephone counselling and other interventions for adult smokers. In a meta-analysis of 16 randomized controlled smoking cessation trials, Mullen (1999) reported that a single 5-15 minute counselling session by a trained provider with printed materials approximately doubles the typical cessation rates of 5-10% (achieved without counselling and with materials alone) to about 20%.

However, the effectiveness of telephone counselling as an additional intervention component for smokers who are using nicotine replacement therapy (NRT) is less clear. Reid et al. (1999) observed that when physician advice and NRT were readily available, telephone counselling by a nurse had no significant effect in increasing cessation rates. The overall quit rates at 52 weeks were 23.4% for participants in the intervention group (physician advice on 3 occasions, NRT, and telephone counselling) and 24.1% for participants in the usual care group (physician advice on 3 occasions and NRT). Even at earlier follow-up periods (4, 12, and 26 weeks), no significant difference was observed in the quit rates of the two groups.

On the contrary, Macleod et al. (2003) observed that telephone counselling by a trained counsellor, in conjunction with NRT, increased smoking abstinence rates when compared to NRT alone. Participants who received telephone counselling were significantly more likely to achieve 29-day abstinence at both 3 months ($p=0.04$) and 6 months ($p=0.01$). Participants who received telephone counselling were also more likely to achieve long-term (90-day) abstinence at 6 months ($p=0.004$).

The difference in results obtained by Reid et al. (1999) and Macleod et al. (2003) may be explained by the amount and quality of counselling in each study.

In the study by Macleod et al., participants who were provided with six scheduled telephone counselling sessions and four brief non-counselling telephone follow-up calls in addition to NRT had increased smoking abstinence rates when compared to participants who received NRT alone. Counsellors were able to deliver a number of techniques (e.g. cognitive, behavioural, and motivational interviewing) depending on the needs of each individual caller. Reid et al. offered research participants only three telephone counselling sessions in addition to NRT, and did not observe a difference in their smoking cessation outcomes as compared to those who received NRT alone.

Finally, Stead et al. (2004) reviewed 27 randomized or quasi-randomized controlled trials in which proactive or reactive telephone counselling was evaluated in combination with other interventions to assist in smoking cessation for smokers or recent quitters. The addition of proactive telephone counselling to face-to-face intervention or to NRT showed no significant increase in successful cessation rates. However, it was observed that telephone counselling resulted in increased quit rates as compared to less intensive interventions, such as written self-help material, alone. In general, these studies reflect the difficulty in disentangling the precise effects of individual components of multi component interventions.

The Transtheoretical Model of Change and Motivational Interviewing Practice

An examination of the research on telephone counselling for smoking cessation indicates that quitlines are effective in increasing quit attempts among smokers and reducing relapse, but reveals a lack of specialized strategies for pregnant and postpartum women who smoke (McPhillips-Tangum, 1998). This section of the literature review focuses on the cognitive and behavioural process of quitting for pregnant and postpartum women.

The Transtheoretical Model of Change (TMC) describes stages of behaviour change that can be applied to a wide variety of problem behaviours. The TMC was originally used in therapy but has also been applied to smoking cessation in adults since the 1980s (McDonald et al., 2002). The five stages that occur in successfully changing smoking behaviour are pre-contemplation, contemplation, preparation, action and maintenance (Prochaska et al., 1988). In designing any intervention with pregnant women smokers, it is essential to assess how the TMC applies to pregnant women, particularly with respect to motivation for change and action.

The process-of-change measure of the TMC provides a description of behavioural and experiential (cognitive and affective) activities that take place during a behaviour change (Prochaska et al., 1988; Pallonen, 1998). Five processes are experiential (consciousness-raising, dramatic relief, environmental re-evaluation, social liberation, self re-evaluation) and five are behavioural (helping relationships, stimulus control, counter-conditioning, reinforcement management, self-liberation). The use of experiential processes during the early stages of change and use of behavioural processes during the later stages of change is optimal for progress in smoking cessation (Pallonen, 1998).

The research on process-of-change for smoking cessation suggests that pregnant women may experience the stages of quitting in a unique way. In 1996, Stotts, DiClemente, Carbonari & Mullen compared women who had stopped smoking during pregnancy with non-pregnant women who were in the preparation or action stages of change (i.e., seriously considering quitting within 30 days or had quit smoking within the previous 6 months) on two measures: (1) behavioural and experiential activities (processes of change); and (2) level of confidence in

smoking abstinence during challenging situations. The researchers noted that women who had quit smoking while pregnant were not engaging in experiential processes at levels associated with the action stage of change. However, it was interesting to note that pregnant women who had quit smoking reported higher levels of confidence to abstain from smoking in challenging situations than the non-pregnant women.

Prochaska et al. (1985; 1991) suggest that pregnant smokers may move quickly through the pre-contemplation and contemplation stages into the preparation and action stages, therefore under-using the experiential processes and over-using the behavioural processes involved in cessation maintenance. Prochaska et al. (1985; 1991) warn that moving too quickly or too slowly through these processes will be detrimental to smoking cessation progress and maintenance. Pregnant women are often externally motivated to quit (i.e., for the health of the fetus), and the low levels of experiential process use and high efficacy reported in these studies reflect this. In a study of women who had stopped smoking during pregnancy and had relapsed postpartum, Bottorff et al. (2000) found that some women reported they had never really quit because they quit for their fetus/baby and not for themselves. It is suggested that external motivation for cessation, rather than internal motivation, may contribute to the high relapse rates postpartum (Klesges et al., 2001).

This protocol for pregnant and postpartum women smokers is designed to support providers in assisting women to develop internal motivation for change by employing a woman-focused approach as opposed to a fetus-focused approach. Throughout the protocol women are asked to think about their reasons for quitting beyond the health of the fetus. The ultimate goal is to create an identity shift in the woman from smoker to non-smoker that will outlast the pregnancy and postpartum period.

Tailored Approaches

Lancaster & Stead (2004) carried out a review to determine the effectiveness of approaches tailored to the individual compared with non-tailored material. Tailored approaches to smoking cessation take into account equally the client's motivation and readiness to quit and other life circumstances, such as socioeconomic status, cultural backgrounds, level of social support, level of nicotine addiction, other substance use issues, etc. There was evidence from fourteen trials that materials tailored for the characteristics of individual smokers are more likely to be effective than standard manuals.

An approach tailored to readiness to change and other life circumstances is important when providing smoking cessation support. Pregnant smokers vary in their readiness to quit and life situations and will require various interventions to cope with symptoms of withdrawal. For example, a woman may not feel at all prepared to quit smoking, in which case the counsellor could work on discussing the meaning of smoking in her life as well as harm reduction measures, with the ultimate goal of assisting the woman in thinking about becoming a non-smoker.

Pharmaceutical Interventions for Smoking Cessation and Harm Reduction

In cases where a pregnant smoker is unable or unwilling to quit, there is a place for harm reduction counselling. Sometimes, this can be augmented with pharmaceutical interventions. While there is a clear need for ongoing research on the use of various nicotine replacement therapies (NRT) during pregnancy and postpartum, from a harm reduction perspective, where the

goal is to reduce harm to the fetus and reduce exposure to nicotine and carbon monoxide (CO), intermittent NRT use may be advantageous.

Nonetheless, there is no evidence that the use of nicotine replacement therapy (NRT) as a smoking cessation intervention during pregnancy is harmful to the fetus (Ogburn et al., 1999; Wisborg et al., 2000; Schroeder et al., 2002). Human and animal data indicate that the risk of cigarette smoking during pregnancy is far greater than the risk of exposure to pure nicotine (Dempsey & Benowitz, 2001).

Wisborg et al. (2000) examined infant birth weight outcomes among pregnant women who were attempting to quit smoking, with low birth weight as an indicator of poor infant health. The study randomly assigned pregnant women who smoked ten or more cigarettes after the first trimester of pregnancy to receive either nicotine patches or placebo patches. The mean birth weight was higher among women in the intervention group than in the placebo group. Ogburn et al. (1999) suggest that NRT is less harmful to the fetus than smoking because it delivers nicotine at a low and consistent rate. Intermittent-use formulations of NRT, such as nicotine gum, spray or inhaler, may be preferable because they deliver a lower total daily dose of nicotine than transdermal patches (Benowitz et al., 2000; Dempsey & Benowitz, 2001).

Ogburn et al. (1999) conducted a study with pregnant smokers beyond 24 weeks gestation. Each mother and fetus were assessed at three separate times: while the mother was smoking, while abstinent, and while using nicotine patch therapy for four days in a special care hospital unit. While the mother was smoking, the morning baseline fetal heart rate was significantly reduced. In contrast, there was no evidence that use of NRT adversely affected fetal heart rate, fetal heart rate reactivity or fetal breathing. The results suggest that nicotine patch therapy has a less adverse effect on uterine blood flow than cigarette smoking.

Although there is no clear evidence of the efficacy of NRT in assisting pregnant women to quit smoking, such interventions do diminish exposure to CO and other toxins (Wisborg et al., 2000; Ogburn et al., 1999). NRT may assist in smoking cessation during later stages of pregnancy among women smoking more than 10 cigarettes per day. Greaves et al. (2003) recommend that intermittent formulations of NRT be used with women who are unable to quit during pregnancy using other cessation interventions.

Incentives

An accelerated process of change and high postpartum relapse rates can pose challenges for assisting pregnant and postpartum women with smoking cessation. In addition, some pregnant women experience smoking cessation as only one of many competing health priorities. When other life circumstances such as poverty, unemployment and care-giving represent pressures, some programs have found that a promising intervention with pregnant and postpartum women is to offer incentives (e.g., vouchers contingent on meeting a predetermined therapeutic target) (Higgins et al., 2004; Donatelle et al., 2000).

A study carried out by Donatelle et al. (2000) on low-income, high risk, pregnant women showed that using vouchers to promote abstinence during pregnancy and postpartum is very successful. Women were randomly assigned to receive a smoking cessation self-help kit alone or the kit plus vouchers contingent on verified smoking abstinence. Smoking cessation rates among women in the latter group were 23% higher than in the former group at the end of pregnancy, and were

15% higher at the 2-month postpartum assessment. Higgins et al. (in press) are currently conducting a study in which the intervention group of women receives vouchers contingent on smoking abstinence, while the control group receives vouchers independent of smoking status. Women in the intervention group who maintain abstinence throughout pregnancy and three months postpartum can earn up to $1147 USD. Preliminary results show that at two ante-partum assessments, women in the intervention group have an abstinence level four times higher than that of women in the control group.

Hence, the idea of incorporating incentives into telephone smoking cessation counselling services for pregnant women shows potential. However, incentives are a form of short term external motivation, and thus need to be accompanied by the development of internal motivation regarding the woman's own health and well-being to achieve long-term cessation. Items that are smaller in value but that reinforce a woman's image of herself as a non-smoker may be a viable form of incentive for a smoking cessation telephone line, and would not necessitate biochemical verification. Cost of such symbolic incentives could be covered by local health care organizations, businesses, and foundations.

De-linking Partner Cessation from Women's Cessation

There is evidence that partners and family members play a powerful role in influencing whether pregnant women quit smoking and whether they are able to maintain abstinence in the postpartum period (Johnson et al., 2000; McBride et al., 1998; Pollak & Mullen, 1997; Wakefield & Jones, 1991). Compared to pregnant women who live with non-smokers, those who live with a partner who smokes are less likely to stop smoking during pregnancy and more likely to relapse during the postpartum period (McBride et al., 1990). There is ample research demonstrating that individual behaviour change influences, and is influenced by, all family members (Wright & Leahey, 2000). Despite this, partners have been largely ignored as targets of intervention for pregnancy smoking cessation.

A woman's pregnancy and potential efforts to stop smoking can cause a shift in the dynamics of a relationship (Bottorff et al., 2004). While the partner of the pregnant woman can play a very important supportive role in the woman's cessation process, in some cases, the woman's pregnancy and change in smoking behaviour can create stress and tension in the relationship. Doherty & Whitehead (1986) discuss the important role cigarette smoking can play between smokers when predictable interaction patterns surround smoking in a relationship. Bottorff et al. (2004) suggest that women's tobacco reduction can alter a couple's tobacco-related routines. For example, smoking plays a big role in the social life of some couples and in an attempt to keep the woman from being exposed to her partner's smoke the couple may distance themselves while socializing. In attempting smoking cessation, partner interaction patterns change and may need to be replaced by non-smoking alternatives (Bottorff et al., 2004).

Among some men whose partners are pregnant, concerns about stress-induced discord associated with smoking cessation can make quit attempts for women complex (Greaves et al., 2003; Wakefield et al., 1998). If the partner is resistant to quitting smoking, encouraging the woman to ask her partner to quit with her may cause tension in the relationship. In other cases, the woman is pressured by the partner to quit, making her process more difficult. Considering the possible stress that smoking cessation may put on a woman's relationship, with the possibility for elevated frustration and anger, it is recommended that telephone counsellors be aware of these issues and offer suggestions that would assist the woman, but consider partner cessation an issue separate from the woman's own attempt to quit.

Section II: Recommendations for Counsellor Training

This section presents some issues for the smoking cessation counsellor to be aware of when working with pregnant and postpartum women. There are three main goals for the counsellor to bear in mind throughout the process.

1. **Recruit and retain callers, seek opportunity for retention at all stages.**
2. **Operate from a paradigm that is woman-centered rather than fetus-centered.**
3. **Support an identity shift in the caller from smoker to non-smoker.**

Be careful to avoid the following assumptions:

1. *Pregnancy is a good thing and is therefore an opportunity for positive change*. Keep in mind that the pregnancy may not have been planned or may be causing a lot of stress in the woman's life. She may not have considered quitting at all prior to pregnancy, and may be resistant to the idea of not smoking.

2. *Expectant mothers know that tobacco is harmful to the fetus*.
Some women are not necessarily well-informed about the health affects of smoking on the fetus. Ask the client what she knows about the harmful health effects of tobacco and then what her concerns are, if any.

3. *The health of the fetus should be a strong enough motivation for the woman to quit.*
The fetus-centered approach may be harmful and temporal. It encourages external motivations, as well as feelings of guilt and fear. It is important to focus on the mother as well as the fetus. If a woman (unprompted) brings up the fetus as her motivation, be sure to acknowledge and support this, but also work to move her to consider several additional internal and longer term motivators. It is important to give the message that she will be most successful in quitting if she does it for herself. Any positive impact of her cessation for others (fetus, baby, or other non-smokers in the house) can be construed as an important 'bonus' rather than a primary reason to quit.

4. *The pregnant woman's partner will want her to quit smoking also.*
Remember that the woman may or may not have a partner present in her life, and if present, the partner may not be supportive about the pregnancy or about the woman's attempt to quit smoking. Also, a partner may be male or female.

5. *Helping pregnant women to quit smoking is no different from helping any smoker.*
Keep in mind that pregnant smokers have unique cessation issues (e.g. stigma, high rate of relapse, physiological changes, brief time period) compared to the general population. High postpartum relapse rates demonstrate that it is inappropriate to treat pregnant women the same way as general smokers. Pregnant women often appear to experience the "quit" process, but end up returning to smoking behaviour.

6. *The woman has told her doctor and other health care providers that she smokes.*
Pregnant women who smoke are often stigmatized and are thus uncomfortable telling others that they smoke. Her health care providers may or may not be aware that she is smoking or that she may have spontaneously or temporarily quit.

Stigma surrounding smoking and pregnancy
Service providers and counsellors may have personal feelings about pregnant women who smoke. When a woman is visibly pregnant, she may feel harassed by strangers when smoking in public, which can exacerbate her feelings of shame. It is important that counsellors acknowledge that quitting is a difficult process and that the woman may have difficult public experiences as a pregnant smoker. Counsellors must be sensitive to the women's feelings about continuing to smoke.

Effective communication
There is an art to information exchange and maximizing counselling opportunities. Whatever points or concerns come up in the conversation with the caller can function as *hooks* to provide her with information and support. The information will be more meaningful to the caller if it self-directed.

Upon providing information, an effective counsellor will try to determine whether the caller has:
1. heard the information or knows it;
2. understands it;
3. believes it; and
4. is prepared to apply it.

Be sure to ask the caller regularly if they have any further questions or concerns and welcome their comments.

Other issues surrounding pregnancy and smoking cessation
Morning sickness
Women may lose the desire to smoke if they are experiencing nausea. However, the desire may return when this sickness has passed.

Not feeling pregnant
Women who do not feel pregnant may be less inclined to quit or think about quitting.

Unplanned pregnancy
Women who have not planned to get pregnant may not have thought about quitting smoking.

Physical discomfort due to pregnancy
Pregnant women experiencing discomfort may have exhausted all their usual coping strategies in trying to feel more comfortable, without success. By viewing smoking as the only thing that "keeps them sane", pregnant women may cling to smoking.

Physical discomfort:
- In late pregnancy – urinary frequency, swelling of ankles and legs, difficulty moving around, backache, kicking fetus.

- Postpartum – physical fatigue or soreness from delivery (either vaginal or caesarean), sore breasts, fluctuating hormone levels.

Stress
Stress may be heightened during pregnancy and postpartum for a number of reasons. Among others, these may include:

- Fear of unknown, of not being a good mother, of the process of birth;
- Lack of sleep;
- Social pressure to stop smoking;
- Complications with the pregnancy/birth;
- Relationship difficulties.

Weight gain
Weight gain is not an issue for all pregnant women who smoke. Nevertheless, weight gain is normal in pregnancy and some women may see smoking as a way to manage their weight. If appropriate, present women with the facts around weight gain and pregnancy. Weight gain during pregnancy includes fat deposition as well as the weight of the baby, and is necessary to prepare for breast-feeding.

Belief that "damage is already done"
If the woman initiates her first telephone call in the later stages of pregnancy, she may feel that damage has already been done to the fetus and it is "too late" to quit smoking. Remind the woman that quitting at any time has immediate health benefits for both her and the baby, regardless of previous smoking or future relapse (Quit Victoria, 2003). Although quitting smoking early in pregnancy is most desirable, quitting late in pregnancy also has benefits when compared with continued smoking (Klesges et al., 2001).

Postpartum depression
Many women experience emotional distress and tearfulness after the birth of the baby. Be open to discussing the woman's feelings. Let her know that her feelings of unhappiness and anxiety are common for many women after giving birth. Callers who appear to be experiencing postpartum depression must be referred to their doctors. Encourage the caller to schedule another appointment with you for further support and services.

(Quit Victoria, 2003)

Breastfeeding
Nicotine is water- and lipid-soluble and hence can be secreted in breast milk. The concentration of nicotine in breast milk will vary depending on how many cigarettes have been smoked since the last breastfeeding and how much time has passed since the mother has last smoked a cigarette (Dempsey & Benowitz, 2001; Luck & Nau, 1985). Suggest that the woman wait a minimum of one hour between smoking and breastfeeding.

Caller retention
Always be aware of opportunities to maintain a caller's contact with the quitline and attempt to schedule future calls. Calls initiated by the counsellor can ensure contact with the woman and demonstrates active support.

Section III: Protocol

I. Recruitment

This protocol was designed for integration into existing Canadian quitlines. We suggest using a combination of recruitment methods from broad based advertising to partnerships with health care providers to encourage pregnant women to make contact with existing quitlines. A longer-term goal to encourage pregnant women smokers to seek assistance might be the creation of a "linked" service, in which callers reach general quitline counsellors by dialling a separate telephone number with its own unique advertising strategy targeted to pregnant women smokers.

Broad advertising
Directed advertising campaigns can transmit the message that in calling a general quitline, there will also be a special understanding of pregnant women's issues and concerns. Advertising can be done through radio, television, newspapers and brochures at community centres and doctors' offices.

Partnerships with pregnancy outreach programs
Collaboration with pregnancy outreach programs and infant development programs across Canada can support recruitment to quitlines. These program providers can refer women to the quitlines for counselling, and the quitlines can refer callers to these programs when appropriate to support their health during pregnancy and in the postpartum period. Examples of programs:

- Pregnancy Outreach Programs in BC (for information and listing of the over 40 programs throughout BC see www.bcapop.ca)
- Canada Prenatal Nutrition Programs – for a description of these programs and a full listing see http://www.phac-aspc.gc.ca/dca-dea/programs-mes/cpnp_main_e.html
- National online resources on pregnancy may also support recruitment – for example Motherisk (www.motherisk.org/) and the Infant Feeding Action Coalition (www.infactcanada.ca)

Action by other professionals
Women will be prompted to think of smoking as a problem if health care and other professionals with whom she comes into contact discuss smoking with her. Doctors, counsellors, and other community based professionals can be provided with information sheets about the quitline which they can in turn distribute to the pregnant women in their care. This can facilitate their discussions with women about pregnancy and smoking as well as referral to the quitlines..

Proactive recruitment by the quitline
Health care professionals can obtain written consent from pregnant women to have the quitline call them proactively. The Newfoundland Lung Association's Smokers' Helpline has developed a simple fax form to be filled out by the women with her doctor. The doctor then faxes the referral to the helpline which gives consent for the helpline to initiate calls with the woman (see Appendix A for an example of a consent form).

Scheduling the Calls

- Trotter (2000) suggests that a longer call is better, i.e., up to 30 minutes.

- Quit Victoria recommends offering between 5 and 10 calls.
- During each call, ask the woman if she would like to be telephoned again.
- Suggest a timeline for quitting; for example, if she is contemplating cessation, encourage her to set a quit date.
- If the woman has no current intention to quit, schedule follow-up calls with her to discuss how the pregnancy is going and harm reduction measures.
- Offer more follow-up telephone calls, especially at postpartum.

Minimum suggested call-back schedule [1, 2]

- initial call
- one call within 2 months of initial call
- one call around month 7 or 8 of initial call
- one call in first month after delivery
- one call around 3 months postpartum
- one call around 6 months postpartum

If the caller has not set a quit date

- If the caller has not set a quit date, call once per week for two weeks.
- Assess her *motivation* to attempt cessation and her *willingness* to quit.
- Go to the *harm reduction* screen if she has no intention to quit smoking or does not want any further contact with the quitline.

If the caller has recently quit or has set a quit date[1,2]

- initial call
- one call 1 day before quit date
- one call 1 day after quit date
- one call 3 days after quit date
- one call 7 days after quit date
- one call 14 days after quit date
- one cal 28 days after quit date

Note that some callers with receive more calls than other callers. It will depend at what stage in her pregnancy the quitline makes initial contact with her and her desire for further calls and information.

Directing the call

In keeping with a woman-centered approach, we propose a list of topics that might be of concern to pregnant smokers to guide counsellors in their conversations. Different screens addressing different topics should be available as 'sub-protocols' (e.g. harm reduction, sources

[1] Quit Victoria, 2003

[2] Great Start

of support, the postpartum period, etc.) and may or may not be utilized in each call depending on the issues raised by the caller. This protocol is deliberately designed to help guide a free-flow discussion in no pre-set order, as opposed to a highly structured 'decision-tree' protocol. It is important for the counselor to bear the three overall goals in mind as they work through the semi structured discussions on the range of topics. Encourage women to talk about their concerns, but avoid "grilling" them. Not all screens will be addressed in all telephone calls.

The first call

- Ask all women callers if they are pregnant.
- If yes, re-route to additional "pregnancy protocol" screens.

Remember, the three main goals in ***all*** interventions are:
Retention,
Women-centeredness, &
Identity change.

II. Screens included the Quitline Protocol

1. Identity and motivation issues
   1.a. Assessing motivation for change
   1.b.Instructions for creating a decisional balance list
   1.c. Identifying triggers and working with smoking diaries
2. Relapse prevention
3. Exchange of information
4. Rewards and reinforcement
5. Sources of support
6. De-linked partner cessation
7. Harm reduction
8. Calls initiated in the late stages of pregnancy
9. Follow-up calls
   9.a. During pregnancy
   9.b. Calls postpartum

1. Identity and Motivation issues

- The goal is to create an **identity shift** from smoker to non-smoker.
- First, discuss the caller's smoking history and smoking identity separate from that related to the pregnancy.
- Ask the woman if she wants to quit smoking.
- Ask her questions about her smoking history and her motivations for quitting.
  - What is her smoking history?
  - How long has she been interested in quitting?
  - Does she see herself as a non-smoker in the future?
  - Has the women ever tried quitting before? For how long did she quit last time?
  - Can she suggest any reasons for relapsing in the past?
  - Has she wanted to quit for a long time?
- What things are happening in her life right now that could make it easy or difficult to quit? If callers bring up issues such as violence or mental health issues that go beyond

the training of the counsellor affirm the caller that these issues are connected to smoking and quitting, then provide referrals to other agencies.

1.a. Assessing Motivation for change

- Determine where on the continuum of motivation, from internal (quitting for herself) to external (quitting for the fetus), the woman's motivations to quit is. Support her in moving towards quitting for herself rather than for the fetus.
- If her reason for smoking cessation is pregnancy-related, demonstrate your understanding of the pressure she may be facing from other people and herself to quit.
- Commend her on her attempt to quit smoking.
- Stress the positive health effects of cessation for both her and the fetus. Benefits of smoking cessation start immediately[1]:
  - After only one day of abstinence, blood pressure decreases, pulse rate drops and body temperature of hands and feet increases.
  - After just two days of abstinence, the ability to smell and taste improves.
  - Carbon monoxide level in blood drops to normal and oxygen level in blood increases, thus supplying more oxygen to the fetus.
  - As early as 2 years after smoking cessation, the increased risk of heart attack due to smoking is eliminated (among people without previous heart disease).
  - More money is available to spend on other things for herself and her children.

- Discuss social and economic issues. Recognize that in the context of women's lives, smoking is often a secondary issue to other stressors.
- Encourage and assist her to develop a decisional balance list acknowledging the drawbacks of quitting and the advantages of continuing to smoke as well as the benefits of quitting and drawbacks to continuing. Such lists help people fully explore their ambivalence about changing, and help them acknowledge and find alternative ways of addressing the costs of quitting and the benefits of continuing to smoke. Encourage women to take their time building and reflecting on these lists, so that greater resolution of ambivalence can be achieved, more internal motivators can be identified, etc. Preparation of a decisional balance sheet can help a woman get perspective on why and how she can change and the review of it can be an important connector with the quitline counselor. Below is an example of a decisional balance list you can describe to the client.

1.b. Instructions for working with a decisional balance list[2]:

When preparing lists of the advantages and disadvantages of quitting and continuing to smoke the following questions may be useful for the caller. Place the benefits of quitting and the benefits of continuing beside each other. Which list is longer? Ask are there other, healthier ways you can achieve some of the benefits of continuing to smoke? Put the lists of the costs of quitting and the costs of continuing side by side. Which list is longer? Ask are there ways that you could reduce the disadvantages of quitting. These lists help you can weigh you reasons for change and if you like we can discuss them together. Over time hopefully your can find ways

[1] For more information, please see: Health Canada Quit4Life, www.quit4life.com; Gottlieb, 1992; Aurora Centre clients, as cited by Poole, 2000.

[2] adapted from materials produced by the Guided Self Change Unit of the Centre for Addiction and Mental Health

to tip the "decisional balance" to quitting. Taking the time to work through both the benefits and costs of quitting and continuing can help you make more effective long term change.

	QUITTING SMOKING	CONTINUING TO SMOKE
BENEFITS OF :		
DISADVANTAGES OF:		

1.c. Identifying Triggers and Working with Smoking Diaries:
Help the caller become aware of smoking triggers; how they might have changed during pregnancy and how they may change again after the birth. This is an opportunity to maintain contact with her throughout the pregnancy and postpartum.

Examples[3]*:*
- Have her think about when she enjoys and needs a cigarette and help her anticipate how she will cope in these circumstances. For example, if she always has a cigarette in the morning with a coffee, then suggest that she change her routine in some way. Perhaps she could vary the timing, or have fruit juice, water or tea instead so there is not the association connected to smoking.
- Identify diversions or distractions that can replace the desire to smoke - physical exercise, chatting with a friend, brushing her teeth, deep breathing, chewing nicotine replacement gums, etc.
- Remember cravings increase in intensity for up to 3 minutes and then subside. Help her plan how she will distract herself, deep breathing might be helpful.
- Encourage her to create a smoking diary for two days, recording when she had a cigarette and what she was doing or feeling at that time. Schedule an appointment to go over the diary together and identify danger points.

Example Diary:

Smoking diary	Day 1	Day 2
Time:		
What were you doing?		
Who were you with?		
How were you feeling?		
How much did you enjoy it?		
How much did you need it?		
How did it make you feel?		

[3] Adapted from Quit UK, www.quit.org.uk/

2. Relapse prevention

It is important to establish a positive, non-judgemental connection between the quitline counsellor and the caller.

- Let the caller know that you understand it is hard to quit and stay quit.
- Normalize cessation as a journey.
- Distinguish between slips and full relapse.

Understanding Postpartum Relapse

- Cessation during pregnancy may really be a 'temporary abstinence' from smoking, rather than a permanent behaviour change.
- Some women may be experiencing a 'suspended identity' as a non-smoker.
- No actual shift in identity from smoker to non-smoker may have occurred, particularly if cessation is externally motivated (i.e., for the fetus/baby).
- Relapse is often viewed as a reward after pregnancy and may have been planned.

Apply Stotts' questions to assess relapse[4]:

(1) At this time, which of the following best describes your personal goal with regard to smoking after pregnancy?

i. To stay off cigarettes;
ii. To control where and when you smoke;
iii. To go back to smoking;
iv. You are not sure what your goal is right now.

(2) How likely are you to smoke in the first six months after the baby is born?

i. Extremely likely to smoke;
ii. Very likely;
iii. Somewhat likely;
iv. Not very likely;
v. Not at all likely to smoke.

(3) Since your prenatal visit, have you smoked a cigarette, even a puff?

i. Yes
ii. No

Considering the high likelihood of relapse after the baby is born it is important to continue to make follow up calls. Again, focus on the woman's health and the continued benefits of staying quit. Discuss the additional stressors in her life after the birth. Discuss the harmful effects of ETS to the baby's health and to the woman's health

[4] Stotts et al., 2002

3. Exchange of information

The woman may or may not have full knowledge of the harmful health effects of smoking, particularly around pregnancy and post partum. It is important to be willing to provide information and discuss the benefits of quitting.

- Rather than listing the harmful effects, communicate with her about the dangers of smoking within the conversations about motivation for change.
- Some useful approaches for asking questions are to use open-ended question, such as, "Can you see yourself making any changes to your use of smoking?" rather than telling her she must quit. [5]
- Be prepared with other follow-up questions, such as, "When will you make these changes?" or "Have you ever tried quitting before?" [5]
- If the caller presents misinformation, provide her with accurate information as needed. For example, a common myth is: if smoking didn't hurt my baby during my last pregnancy, it won't be hurtful during this pregnancy either.

Take note if the woman has other children. Ask her how mothering is going and how the other children are doing. Provide information on the effects of environmental tobacco smoke in this context.

- Always allow the woman opportunity to ask questions.

4. Rewards and reinforcement

- Consider offering incentives to pregnant women for quitting.
- Gifts and vouchers for retail items are some examples of incentives.
- Rewards might help assist with shift in identity from smoker to non-smoker, particularly if they are non smoking paraphernalia (e.g. a keychain with a congratulatory or encouraging message).
- Rewards may help with retention.
- Consider offering quitting incentives for her "quit buddy" as well.

Note that incentives can be short term external motivations and are useful as encouragement and reinforcement for change. There needs to be a transition to internal motivators in concert with a shift in identity.

5. Sources of Support

- Emphasize the positive and helpful relationships in the woman's life, i.e., friends, family, co-workers.
- Don't assume that the caller has a partner.
- Discuss how the caller is being supported and cared for.
- Does the caller have a quitting mentor or buddy?
- Are significant others encouraging or discouraging her?
- Focus on other activities the caller does, i.e. shift the focus away from smoking as a social activity and help her move towards healthier lifestyle choices.

[5] AWARE, 2002
[6] (Quit Victoria, 2003, p.8)

Offering support

- Acknowledge the societal pressures on pregnant women to quit smoking[6].
  - *We're here to help you if you want to (stay) quit.*
  - *We won't be disappointed in you for smoking cigarettes.*
  - *We're not here to tell you to quit.*
  - *We can call you when you want us to, to see how you're doing.*

6. De-linked partner cessation

Partner

- Don't assume that there is a partner.
- Don't assume that a partner is male.
- Don't assume the partner is supportive about the pregnancy.
- Don't assume the partner is supportive about her quitting smoking.
- Recognize the differences and power dynamics between partners.
- Pregnancy is often a period of transition and change in relationships.

Address partner smoking, but in a de-linked fashion (i.e., separately from the woman). Here are some suggested questions for the counsellor to ask:

- Is your partner thinking about quitting or modifying smoking behaviour?
- "How does your partner feel about your present decision to try to quit smoking'?
  - If there is a conflict in the relationship, quitting smoking may increase the conflict OR continuing to smoke may increase the conflict.
  - If people around her are angry with her for continuing to smoke it may be useful to help the caller verbalise her fear or knowledge about smoking and pregnancy.

7. Harm reduction

- Harm reduction strategies are generally better for the health of the mother and the health of the fetus as compared to continued smoking with no change.
- The aim of harm reduction strategies is to lessen and mitigate harm.
- There is no evidence that NRT is harmful for pregnant women or their fetus.
- Recommend that the woman consult with her physician about using NRT or contact Motherisk for more information. (URL: www.motherisk.org / Phone: 1-877-327-4636)
- Increase folic acid, iron, and vitamin intake as additional measures to improve health.
- Recommend smoking outdoors, if possible and safe, to reduce exposure to unfiltered environmental tobacco smoke.

8. Calls initiated in late stage of pregnancy

- The above issues still apply even if the first call is initiated during a later stage of pregnancy.
- The woman may be wondering at this stage whether or not it is still worth trying to quit.
- Discuss evidence that there are benefits for the baby in quitting during the 24 hrs around birth.
- Discuss evidence that there are immediate benefits to her after quitting smoking.

- With women in later stages of pregnancy, "long-term" abstinence will take on a different meaning. "Long-term" will not be the duration of their pregnancy, which may only be a few months more, but rather into the postpartum period.

9. Follow-up calls

9.a. During pregnancy

- Begin by asking how she is doing in general before moving to questions about how the pregnancy is going.
- Address issues in her life that she raises in addition to the pregnancy.
- If callers bring up issues beyond the scope of the training of the quitline counsellor such as abuse or mental health issues, then provide referral sources or invite her to call back for more information.
- Can she see herself as a non-smoker? If yes, how far into the future?
- The long term goal is to get women to remain quit once the child is born.
- If the woman is "stuck" on external motivation (i.e. for the health of her fetus, family or others), then try to transform it to a long term external motivation.
- Give the woman space to ask questions.

9.b. Calls postpartum

- A call placed soon after the baby is born will be less about smoking and more about how she is feeling in general.
- Focus on the benefits smoking cessation has for her and the continued motivation of improving her own health.
- Discuss the baby as a continuing motivation for not smoking. Let her know she has done a wonderful job so far and that protecting her child from ETS is another way she can make a positive impact on her baby's wellbeing.
- Discuss effects of secondhand smoke.
- Discuss effects of smoking on breast milk.
- Try to schedule a future call with her to provide long-term cessation help.

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Appendix A – Consent for further contact

We are interested in contacting women who have used the telephone counselling for the purposes of follow-up, and for improvement in our service. Our goal is to further assist you in making changes in your smoking, to better understand your experience of smoking and quitting, as well as what has been helpful to you.

Are you interested in this follow-up?

Permission to contact you: __ yes, please contact me with more information

__ no, do not contact me

First Name:_____

Last Name: _____

Please indicate how you would like to be contacted:

- by regular mail ? ☐ Yes☐ No *If yes, please provide your mailing address*

Street _____ City _____ Postal Code _____

- or by phone ☐ Yes ☐ No *If yes, please provide your phone number and preference re messages*

Phone # _____ Check (✓) if it is ok to leave message ☐

- or by email ? ☐ Yes ☐ No *If yes, please provide your email address*

Email address _____

Thank you!