Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women

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Abstract

Women who are disadvantaged have higher rates of smoking during pregnancy and are at higher risk of tobacco-related harm. Smoking cessation interventions have been developed for pregnant and parenting women who smoke however, improvements to smoking cessation interventions for rural, disadvantaged pregnant and parenting women are needed. A multiple case study design was used to (1) describe the level of implementation of a smoking cessation intervention, Expecting to Quit (ETQ), in five Healthy Baby Clubs (HBC) in western Newfoundland; (2) describe barriers and facilitators to implementing ETQ; and (3) collect preliminary evidence of its effectiveness among rural, disadvantaged pregnant and parenting women. This study describes implementation of ETQ from the perspective of pregnant and parenting women (n=12), managers (n=5), and HBC Mothers (n=6). It offers insight into factors (i.e., training, policies and procedures, acceptability, appropriateness of the program) associated with implementation of ETQ. Data were collected through: (1) in-person one-on-one interviews; (2) focus group interviews; (3) training evaluation questionnaires; (4) knowledge, attitudes and beliefs questionnaires; (5) socio-demographics and smoking behaviour questionnaires; and (6) document review of annual reports, staff meeting minutes, and records of polices and procedures. Inductive analyses of data were undertaken including content analysis, constant comparison, and thematic analysis. Six integrated themes emerged: (1) Stigma and Judgment: Walking a Fine Line; (2) Social Context, Health and Place: Rural Living Affects Women; (3) Social Networks: Supporting Women Like Us; (4) Community Empowerment: A Catalyst to Get the Message

Across; (5) Complexities in the Lives of Women: Just Trying to Get Through; and (6) Tobacco Reduction: It is a Success. The integrated themes suggest that cessation interventions in this context must address each of these issues. These findings may provide guidance on how to reduce smoking among rural, disadvantaged pregnant and parenting women by enhancing awareness of the role that each of stigma and judgment; social context, health, and place; social networks; community empowerment; complexities of the lives of women; and tobacco reduction play in implementing smoking cessation programs for pregnant and parenting women.

Résumé

Les femmes désavantagées sont plus à risque de fumer pendant leur grossesse et sont plus exposées aux risques associés à la consommation du tabac. Des interventions visant l'arrêt de la consommation du tabac ont été développées pour les femmes enceintes et les jeunes mères qui fument. Néanmoins, des améliorations doivent être apportées à ces programmes pour les femmes enceintes ou jeunes mères désavantagées en milieu rural. Une étude de cas multiples à été utilisée pour (1) décrire le niveau d'implémentation du programme d'intervention visant l'arrêt de la consommation du tabac « Expecting to Quit » (ETQ), dans cinq clubs « Healthy Baby Club » de la région ouest de Terre-Neuve, (2) décrire les obstacles et les aspects facilitant l'implémentation des « ETQ », et (3) rassembler les preuves préliminaires de son efficacité pour les femmes enceintes ou les jeunes mères désavantagées en milieu rural. Cette étude décrit la mise en place, des interventions « ETQ » du point de vue des femmes enceintes et des jeunes mères (n=12), des responsables du programme (n=5) et des mères, membres du club « HBC » (n=6). Cette étude apporte des éclairages sur certains facteurs (formation, règles et procédures, acceptabilité, niveau de pertinence) associés à la mise en place des interventions « ETQ ». Les données ont été récoltées à travers: (1) des entretiens en personne, (2) des entretiens en groupe, (3) des questionnaires d'évaluation de la formation, (4) des questionnaires de connaissances, d'attitudes et de croyances, (5) des questionnaires socio démographiques sur le comportement des fumeurs, et (6) la lecture de documents tels que: rapports annuels, compte rendu de réunion des employés, règles et procédures. Des analyses inductives des données ont été faites, incluant, l'analyse du contenu, la

comparaison des constantes, et des analyses thématiques. Six thèmes intégrés en sont ressortis: (1) Stigmatisation et jugement: Marcher droit, (2) Le contexte social, la santé, le lieu: L'impact de la vie en milieu rural sur les femmes, (3) Les réseaux sociaux: Supporter les femmes comme nous, (4) La prise du pouvoir par la communauté: L'agent promoteur de la diffusion de l'information, (5) La complexité de la vie des femmes: Juste essayer de vivre, et (6)La réduction de la consommation du Tabac: C'est un succès. Les thèmes intégrés suggèrent que les interventions, dans ce contexte doivent adresser tous ces points. Ces conclusions peuvent servir de guide pour déterminer comment réduire le tabagisme parmi les femmes enceintes et les jeunes mères défavorisées en milieu rural, en augmentant le niveau de conscience du rôle de chaque thème: stigmatisation et jugement, le contexte social, la santé, le lieu, les réseaux sociaux, la prise du pouvoir par la communauté, la complexité de la vie des femmes, la réduction de la consommation du tabac, joue dans la mise en place des interventions visant l'arrêt de la consommation du tabac chez les femmes enceintes et les jeunes mères.

Dedication

This thesis is dedicated to my parents who are my source of inspiration and to Derrick who was always supportive and encouraging throughout this journey.

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Chapter 1
Introduction

> *"I never actually tried a program. I know when I found out I was pregnant with my little boy I quit, pretty much quit, except I was smoking one or two a day because I just couldn't get to sleep without them. And now, I was quit and then with this pregnancy and then I had some problems and I was constantly stressed and I started up again. You know, I can quit again but, you know it is not exactly…"*
>
> *"The more that people saying, 'You should quit smoking, you should quit smoking.' The more you smoke. I knows it is, because people say like… 'You are going to have a baby.' And yourself, you got to quit smoking. Every time you sit down you are like, 'Okay, I got to quit smoking.' But all I can think about is cigarettes."*
>
> *"You spend a full 24 hours in a house with a baby. When you just managed to get him down and things put away and sit down. And all of a sudden you are back to the same routine that you started at. And all of a sudden that craving hits you. You just want to step outside and have that cigarette."*
>
> *(Stories from pregnant and parenting women).*

Pregnant, alone, stressed, and unable to quit smoking are enormous challenges for rural, disadvantaged women. Indeed, women's stories of pregnancy, being stressed and being alone, compounded by the pressure from family and friends to quit smoking, may seem insurmountable for pregnant and parenting women in attempting and maintaining smoking cessation. In order to assure services in this context five Family Resource Centres (FRCs) have been funded and implemented in western Newfoundland. The FRCs offer a variety of programs and services to children (0-6 years) and their families, which are designed to promote healthy child development, enhance positive parenting skills and build on community capacity. One such service is the Healthy Baby Clubs

(HBCs), which provide pre- and post-natal support services (Health & Community Services Western, 2002). HBCs are staffed by HBC Mothers who provide health education and supportive services.

There are also enormous challenges for communities in providing smoking cessation programs for pregnant and parenting women including recruitment, resources, staff training and education, and providing supportive, non-judgmental environments. These challenges are complicated as many of the women attending HBCs have *"so many stresses in their lives,"* including *"trying to afford anything"* with *"their only stress relief [is] smoking."*

> *"Smoking is a big issue. Especially what we are finding with the population that we are dealing with. They have so many stresses in their lives that …you know, they are dealing with so many anyway and then a pregnancy and trying to quit. That ah... you know it is something that is needed. And a lot people are finding it difficult to do on their own. Like I was saying that mainly we are dealing with low-income women. So they are going through a lot of stresses in their lives of trying to afford anything right from eating nutritiously while they are pregnant right down to the whole household management sort of thing. A lot of times their only stress release is smoking. And to take that away then, I guess you are taking away that, that stress release. And they need something in their lives to help them cope and to help them… to help them deal with the stress right, better than the smoking. Whether or not it is quitting outright or cutting down and the education. But you know the babies; the babies need them to not smoke."*
>
> *(Story from a community agency manager).*

"The babies need them to not smoke" is particularly salient for the HBCs in western Newfoundland as they strive to improve the health and well being of disadvantaged women and children. *"Smoking is a big issue"* as the staff and managers of the HBCs are confronted by the complex issues of poverty, stress and smoking as coping, while at the same time, being concerned with the health

effects of smoking on the women and children. Additionally, they struggle with the delicate balance of supporting women in their individual decisions and providing effective smoking cessation information in a non-stigmatizing and non-judgmental manner. There is a growing body of evidence concerned with the detrimental effects of smoking on the health of women and their children (American College of Obstetricians and Gynecologists, 2000; Browne, Shultis, & Thio-Watts, 1999; Cnattingius, 2004; Giarelli, 2006; Pletsch, Morgan, & Pieper, 2003; Quinn et al., 2006; Roberts-Clarke, Morokoff, Bane, & Ruggiero, 2002), thus, contributing to the urgency of implementing and evaluating smoking cessation interventions for disadvantaged women.

Problem and Significance

Smoking during pregnancy is associated with a wide range of preventable health risks to the mother and unborn child (American College of Obstetricians and Gynecologists, 2000; Browne, Shultis, & Thio-Watts, 1999; Cnattingius, 2004; Pletsch, Morgan, & Pieper, 2003; Quinn et al., 2006; Roberts-Clarke, Morokoff, Bane, & Ruggiero, 2002) including: miscarriage, growth retardation, pre-term birth, and perinatal mortality (Coleman, 2004). Additionally, it may cause changes in fetal brain and nervous system development and it has been found to contribute to sudden infant death syndrome (Anderson & Cook, 1997; DiFranza, Aligne, & Weitzman, 2004; DiFranza & Lew, 1996; Lowry, Hardy, Jordan, & Wayman, 2004; Pollack, 2001). Smoking continues to be the single most important modifiable cause of poor pregnancy outcomes (Blalock, Robinson, Wetter, & Cinciripini, 2006; Haviland et al., 2004; Melvin, Dolan-Mullen, Windsor, Whiteside, & Goldenberg, 2000; Orleans, Barker, Kaufman, &

Marx, 2000; Pbert, et al., 2004). Despite this evidence, 20 to 30 per cent of Canadian women smoke during pregnancy (Colman & Joyce, 2003; Devries & Greaves, 2004; Ebrahim, Merritt, & Floyd, 2000; Klesges, Johnson, Ward, & Barnard, 2001) and 31 per cent of Newfoundland women aged 20 to 39 years smoke (Government of Newfoundland & Labrador, 2002a). Smoking is disproportionately greater among disadvantaged (i.e. single, low socio-economic status) women (Baird & Wilcox, 1985; Gilligan, Sanson-Fisher, Eades, & D'Este, 2007; McDermott & Graham, 2006). Smoking-related morbidity and mortality for women is increasing (Giarelli, 2006) thus, contributing to the grave concern of public health professionals as they search for effective smoking cessation interventions for this special group of smokers.

Smoking cessation programs during pregnancy have been tested with low-social-risk women and some are effective in increasing quit rates (Greaves et al., 2003; Klesges, Johnson, Ward, & Barnard, 2001; Moner, 1994; Lumley, Oliver, Chamberlain, & Oakley, 2004). High-social-risk women who smoke during pregnancy are characterized by: greater social disadvantage, lone-parenting, lower educational attainment, and lower income levels (Coleman, 2004; Greaves et al., 2003; Health Canada, 1993; Health Canada, 1995; Millar, 1997; Ockene et al., 2002; Stewart, Gillis, et al., 1996; Tappin, Ford, Nelson, & Wild, 1996). Despite high rates of smoking among rural, disadvantaged pregnant women, there are few smoking cessation programs that address the unique needs of this population (Devries & Greaves, 2004; Edwards, Sims-Jones, & Holtz, 1996; Greaves, 1996; Greaves et al., 2003; Horne, 1995; Stewart, Brosky, et al., 1996).

Living in poverty is a particular challenge facing women in Newfoundland. Based on before-tax income, 26 per cent of children in Newfoundland were living in poverty in 2000, up from 21 per cent in 1991 (Government of Newfoundland & Labrador, 2003b). That percentage is higher than for Canada as a whole where only half this number of children lived in low-income families. Lone-parent families are primarily headed by women (Newfoundland & Labrador Statistics Agency, 2004), comprising approximately 13.9 per cent of families in western Newfoundland with half of the families living in poverty (Government of Newfoundland & Labrador, 2003a). The vast rural geography in western Newfoundland presents unique challenges in providing programs to women who are socially disadvantaged. Approximately 82,585 people live in western Newfoundland in over 150 communities (Government of Newfoundland & Labrador, 2002b). Living in a rural isolated community is associated with high rates of smoking among socially disadvantaged women (Avidano Britton, Brinthaupt, Stehle, & James 2004).

Expecting to Quit (ETQ) (Calgary Health Region, 2003) is a smoking cessation intervention that has shown promise with disadvantaged pregnant women by its supportive non-blaming philosophy and its applicability for this population (Calgary Health Region, 2004). The elements of ETQ are congruent with best practices (Greaves et al., 2003; Health Canada, 1993) and conclusions from systematic reviews (Lumley, Oliver, Chamberlain, & Oakley, 2004) including: length and intensity of contact, tailoring of the program, stigma reduction, and a focus on the needs of these women in the context of their

community and life circumstances. Therefore, it is of interest for immediate implementation in Newfoundland due to the high smoking rates in this group.

Policy makers want to decrease, and if possible, eliminate smoking among pregnant and parenting women because of the detrimental effects of smoking on the health of the women, their children and families. They are mostly interested in which tobacco reduction measures might work. Therefore, prior to full implementation of ETQ in rural communities of Newfoundland, an implementation evaluation using a multiple case study design is needed to determine acceptability of the program to the women and providers, barriers to implementation, the appropriateness of the program with disadvantaged women and to determine potential detrimental effects of participation (Greaves et al., 2003; Lumley, Oliver, Chamberlain, & Oakley, 2004). There is a dearth of effective smoking cessation interventions for rural, disadvantaged pregnant and parenting women (Devries & Greaves, 2004; Edwards, Sims-Jones, & Holtz, 1996; Greaves, 1996; Greaves et al., 2003; Horne, 1995; Lumley, Oliver, Chamberlain, & Oakley, 2004; Stewart, Brosky, et al., 1996). Therefore it is anticipated this study will contribute to advance knowledge in this important domain of smoking cessation intervention research.

Conceptual Framework

This study was guided by Scheirer's framework on program implementation (see Appendix A) (Scheirer, 1981, 1994). The framework has been successfully used to study program implementation in mental health (Scheirer, 1981), dental health (Scheirer, 1990) and tobacco control (Richard et al., 2004) and is an integration of many theoretical perspectives including

organizational development, political and psychological. The conceptual model defines organizations as open systems comprised of subsystems. The model identifies three levels of influence: macro-level of an organization with the political perspectives of the broader institutions of the community at large, intermediate level of the organizational unit and micro-level of the individual workers. The central thesis of the model is that program implementation involves the whole set of processes and interacts as a social system.

Research Objectives

The purpose of the present study was to describe the implementation of ETQ in five HBCs in western Newfoundland (NL) and to collect preliminary evidence on its effectiveness among rural, disadvantaged women. The specific objectives include to:

(1) describe the level of implementation of ETQ in the five HBCs in western NL (i.e., the number of HBCs implementing the program, the number of women targeted by the program who registered and completed the program, the pattern of attendance in each session, the number of HBC Mothers trained to deliver the program and the number and type of program activities planned that are actually delivered), and

(2) describe barriers and facilitators to implementing ETQ in HBCs in western NL (i.e., Micro-level: (1) whether or not individuals trained to implement the program felt confident to deliver the program; (2) the level of commitment of HBC Mothers to the program; and (3) acceptability and appropriateness of the program for disadvantaged smoking women from the perspective of HBC Mothers. Intermediate-

level: (1) level of commitment of managers to the program; and (2) organizational arrangements (schedule, location, child care, and transportation). Macro-level: if/how existing HBC policies interfered with or facilitated program implementation.

Benefits of the Study

This implementation evaluation of ETQ will contribute to understanding smoking cessation program implementation and evaluation in a complex, challenging environment. It is anticipated that this research will add to the body of knowledge regarding rural pregnant and parenting women and effective smoking cessation interventions. It will provide insight into the factors (i.e., training, policies and procedures, acceptability and appropriateness of the program) associated with successful implementation of a smoking cessation program for pregnant and parenting women living in rural, socially disadvantaged circumstances. It will address a research gap identified in a best practices review of smoking cessation interventions for pregnant and postpartum girls and women, which recommends evaluating smoking cessation interventions for disadvantaged women (Greaves et al., 2003; Lumley, Oliver, Chamberlain, & Oakley, 2004).

Organization of the Dissertation

This dissertation consists of four more chapters. Chapter two consists of a review of the literature. Chapter three is a presentation of multiple case study methods selected for this study. Chapter four presents the findings of the study. Finally, chapter five presents a discussion of the study findings. The reference list and appendices are presented at the end of the dissertation.

Chapter 2
Literature Review

Cigarette smoking among pregnant and parenting women is a complex physiological and psychosocial phenomenon. Smoking cessation for pregnant and parenting women has been addressed extensively by both researchers and policy makers; therefore, there is a large volume of research on the topic. This review will describe research that addresses: (1) the health effects of smoking; (2) determinants of smoking and smoking cessation; (3) successful smoking cessation interventions; (4) program implementation and evaluation; and (5) the Newfoundland context. Finally, a summary of what can be learned from existing research literature and research limitations will be presented.

1. Health Effects of Smoking

This section will describe the research that addresses the health effects of smoking on: (a) children; and (b) pregnant and parenting women.

Ia. Child Health Effects

Prenatal and postnatal exposure to tobacco smoke adversely affects child health (Tong, England & Glantz, 2005). Child health effects associated with smoking during pregnancy include: low birth weight; intrauterine growth retardation; sudden infant death syndrome; infant mortality; and other developmental impacts (DiFranza, Aligne, & Weitzman, 2004; French, Groner, Wewers, & Ahijevych, 2007; Kallen, 2001; Pollack, Lantz, & Frohna, 2000; Public Health Agency of Canada, 2008). Children who are exposed to second-hand smoke are at increased risk of asthma and other respiratory diseases (Barber, Mussin, & Taylor, 1996; Cook & Strachan, 1996; Pollack, 2001; Wisborg,

Henriksen, Jesperson, & Secher, 2000; Zlotkowska & Zejda, 2005). There is strong evidence linking maternal smoking with child health effects.

Iai. Low Birth Weight

A low birth weight has a significant impact on an infant's chances of survival and healthy growth and development. Low birth weight (less than 2500 grams) is a major predictor of infant and child mortality and morbidity (Pollack, 2001; Ventura, Hamilton, Mathews, & Chandra, 2003). In 2004, there were 36 infants born in western Newfoundland with a low birth weight (5.6 per cent) as compared to the province of Newfoundland with 262 infants born with a low birth weight (5.8 per cent) (Newfoundland & Labrador Center for Health Information, 2006). In 2005-2006, 6.1 per cent of babies born in hospital in Canada had a low-birth weight which ranged from 4.3 percent in Central Manitoba and North Vancouver Island to 7.7 per cent in western Newfoundland and 7.8 per cent in Calgary (Canadian Institute for Health Information, 2007, p. 11).

Heavy cigarette smoking during pregnancy has been identified as an independent predictor of low birth weight (Ahluwalia, Grummer-Strawn, & Scanlon, 1997; Brooke, Anderson, Bland, Peacock, & Stewart, 1989; England et al., 2001; Haglund & Cnnattingius, 1990; Melvin, Dolan-Mullen, Windsor, Whiteside, & Goldenberg, 2000; Public Health Agency of Canada, 2008; Secker-Walker & Vacek, 2003). Prenatal smoking and low birth weight are strongly associated and both occur more frequently with socio-economic disadvantage (Magee, Hattis, & Kivel, 2004). A study of low-income women indicated that many of the detrimental effects of tobacco on birth weight of term infants occur at less than eight cigarettes a day (England et al., 2001). Therefore, to achieve birth

weights approaching those of never smokers, pregnant women may have to quit entirely. The association between low birth weight and smoking are not concerns for all pregnant women as some feel that low birth weight can be *"fixed"* later on as they do not understand the long term consequences of under weight babies (Haviland et al., 2004). There is strong evidence linking maternal smoking with low birth weight. However, there is limited research regarding rural, disadvantaged women's knowledge of the impact of low birth weight on child health, including the long term implications.

Iaii. Asthma

Asthma is a cause of significant child morbidity (Kelley, Mannino, Homa, Savage-Brown & Holguin, 2005; Otten, Engels, & van den Eijnden, 2005). It is suggested that maternal smoking in pregnancy may impact the development of the fetal respiratory system (Elliot, Carroll, James, & Robinson, 2003; Gilliland, Berhane, Li, Rappaport, & Peters, 2003; Jaakkola & Gissler, 2004). Asthma affects approximately five million children in the United States (Akinbami & Schoendorf, 2002; Maddox & Schwartz, 2002). In 2000-2001, 13 per cent (586,000) of Canadian children aged 0 to 11 were diagnosed with asthma (Garner & Kohen, 2008). Exposure to tobacco during fetal development and through second-hand smoke is one of the most dangerous environmental hazards for children (Aligne & Stoddard, 1997; DiFanza, Aligne & Weitzman, 2004). There is no evidence to suggest that low exposure to environmental tobacco smoke is harmless (Kelley, Mannino, Homa, Savage-Brown & Holguin, 2005).

A population based prospective study assessed the effects of cigarette exposure during pregnancy and early postnatal life (Lannerö, Wickman,

Pershagen, & Nordvall, 2006). A birth cohort of newborn infants (n=4089) were followed for two years, with parental information obtained on symptoms of allergic and respiratory diseases and environmental exposure to tobacco smoke, at one and two years of age. Parental information on lifestyle factors, including maternal smoking during pregnancy and post-natal were obtained when the infants were two months old. The study found that when women smoked during pregnancy but not during postpartum there was an increased risk for wheezing up to two years of age (OR=2.2); with exposure to environmental tobacco smoke regardless of maternal smoking during pregnancy there was an increased risk of wheezing (OR=1.6); and maternal cigarette smoking during pregnancy with or without exposure to environmental tobacco smoke increased the risk of physician diagnosed asthma (OR=2.1). These findings were similar to other studies (Gilliland, Li, & & Peters, 2001; Li et al., 2000). The authors concluded that exposure to maternal cigarette smoking during pregnancy is an important risk factor for wheezing and physician diagnosed asthma for children up to two years of age.

A recent study explored the adverse effects of pre-natal and post-natal tobacco exposure on children's health, using data from 12 cross-sectional studies (n=53,879 children) (Pattenden et al., 2006). The pooled analysis provided an opportunity to examine critical periods of tobacco exposure (i.e., maternal smoking during pregnancy; parental smoking during the child's first two years of life; and current parental smoking), address co-linearity between prenatal and postnatal tobacco exposure, and to assess the effects of three exposures. The study found evidence linking parental smoking to wheeze, asthma, bronchitis and

nocturnal cough. These findings suggest that all tobacco smoke exposure has serious consequences for children's health. The authors concluded that pre- and post-natal parental smoking effects children's respiratory health.

The evidence is strong linking maternal smoking and exposure to second-hand smoke to childhood asthma.

Iaiii. Sudden Infant Death Syndrome

Sudden infant death syndrome (SIDS) is a leading cause of infant mortality (Hunt & Hauck, 2006; Pollack, 2001; Rusen, Liu, Sauve, Joseph, & Kramer, 2004). In 1999, 26 per cent of postneonatal deaths in Canada were caused by SIDS (Statistics Canada, 2002). Prenatal exposure by maternal smoking is a risk factor for SIDS (Cnattingius, 2004; Chong, Yip, & Karlberg, 2007; Hunt & Hauck, 2006; Pollack, 2001; Shah, Sullivan, & Carter, 2006). Exposure to second-hand smoke is linked with SIDS (Anderson & Cook, 1997; Tong, England & Glantz, 2005). A case control study in the United States analyzed the relationship between prenatal maternal smoking and SIDS (Pollack, 2001). All recorded singleton SIDS deaths (n=3064) were matched to a comparison group obtained from children in the 1995 birth cohort, who survived to one year of age. The authors concluded that 23.6 per cent of SIDS deaths appear to be attributable to prenatal maternal smoking.

A retrospective cohort study used the Colorado Birth Registry (n=488,918) to examine the relationship between prenatal smoking and infant death from 1989 to 1998 (Anderson, Johnson, & Batal, 2005). The study found that 59 per cent (101/172) of SIDS deaths in smoke-exposed infants were attributable to maternal smoking. The study confirmed a two-fold increased risk

of SIDS in infants born to mothers who smoke. The authors suggest that preventing maternal smoking is important in reducing SIDS.

Shah, Sullivan, and Carter (2006) examined the effect of maternal smoking during pregnancy on the relative risk of SIDS. The birth (n=510,209) and death certificates (n=4,495) from 1997 to 2000 in Georgia, were analyzed using reported smoking as the primary exposure and SIDS as the outcome. The authors concluded that smoking was an important modifiable risk factor for SIDS and estimated that 20.7 per cent of SIDS cases may be preventable.

The evidence is strong that maternal smoking during pregnancy is an important modifiable risk factor for SIDS.

Iaiv. Behavioural Effects

There are long term child health effects resulting from maternal smoking during pregnancy, including behavioral problems, developmental delay, inattention and attention-deficit/hyperactivity disorder (Vuijk, van Lier, Huizink, Verhulst, & Crijnen, 2006). Maternal smoking during pregnancy is associated with neuro-psychological and physiological deficits in infants, and behavioral disruptions and cognitive impairment in children (Fried, Watkinson, & Gray, 2003; Linver, Brooks-Gunn, & Kohen, 2002; Niaura et al., 2001). The behavioral and cognitive impairments continue in childhood and may include learning disabilities, inattention, difficulties with speech and language skills and hyperactivity (Niaura et al., 2001).

A Québec study examined the relationship between maternal smoking, low birth weight and socio-demographic factors in relation to cognitive abilities (verbal ability, visuospatial ability and short term memory) of children aged 3.5

years (n=1544) (Huijbregts et al., 2006). The study findings suggest that prenatal maternal smoking impacted cognitive abilities but it did not independently predict cognitive ability when maternal education was considered. However, low birth weight was a robust predictor of all outcome measures. The authors concluded that the impact of moderating and mediating factors (i.e., parenting, family functioning, maternal education, and socio-economic conditions) warrant further investigation to provide information on children most at risk for cognitive impairment.

A recent quasi-experimental study analyzed maternal smoking during pregnancy in relation to 14 developmental outcomes of children from birth to seven years of age (Gilman, Garder, & Buka, 2008). Data from the Collaborative Perinatal Project (1959-1974; n= 52, 919) were used in the study. The study found that the associations between maternal smoking and 12 indicators (Apgar score, intelligence, academic achievement, conduct problems, and asthma) were eliminated after adjusting for confounders. The results indicated that maternal smoking of greater than 20 cigarettes a day was associated with a birth weight difference of -85.68 grams. The authors suggest that the lack of association between the 12 child outcomes and maternal smoking may be the effect of a broader range of familial factors or that the effects were not identified using the study assessment methods. Other studies (Gilman, Abrams, & Buka, 2003; Gilman, Breslau, Subramanian, Hitsman, & Koenen, 2008) have found that maternal cigarette smoking is impacted by a broad range of social, environmental, and clinical factors that may impact child development.

The literature suggests long term behavior problems in children of mothers who smoked during pregnancy. However, the evidence is limited linking maternal smoking with longer term child behavioral effects.

Ib. Health Effects in Pregnant and Parenting Women

The relationship between smoking during pregnancy and poor health and reproductive outcomes are well known (Blalock, Robinson, Wetter, & Cinciripini, 2006; Gilligan, Sanson-Fisher, Eades, & D'Este, 2007; Haviland et al., 2004). Smoking is a threat to the health of pregnant and parenting women (Acharya, Jauniaux, Sathia, Griffin, & Morgan, 2002; Barker, Orleans, Halpin, & Barry, 2004; Cnattingius, 2004; Kahn, Certain, & Whitaker, 2002; Quinn et al., 2006) and their children who are exposed to second-hand smoke if their mothers smoke in the home or car (Perkins, 2001). Adverse health risks accrue to periconceptual women and pregnant women including: primary and secondary infertility; abruptio placenta; placenta previa; premature rupture of membranes; and pre-term delivery (Ananth, Savitz, & Luther, 1996; Baird & Wilcox, 1985; Cnattingius, 2004; Curtis, Savitz, & Arbuckle, 1997; Ernster, Kaufman, Nichter, Samet, & Yoo, 2000; Hadley, Main, & Gabbe, 1990). Pregnant and parenting women who smoke are at increased risk of cardiovascular disease and cancer (Croft & Hannaford, 1989; Ernster, Kaufman, Nichter, Samet, & Yoo, 2000; Pletsch & Morgan, 2002). Mortality and morbidity from tobacco smoking is increasing for women (Giarelli, 2006). Although smoking has well documented health risks, it also has positive attributes for some women, including using smoking as a coping strategy during difficult times throughout pregnancy (Thompson, Parahoo, McCurry, O'Doherty, & Doherty, 2004). Smoking is preferred by some women as

a way to have a smaller baby and consequently an easier birth experience (Graham, 1976; Haviland et al., 2004). The evidence is strong linking smoking with adverse health effects for pregnant and parenting women. However, there is limited research regarding the positive attributes of smoking for rural, disadvantaged pregnant and parenting women.

Ic. Summary

Although some women and health care providers are aware of the health impacts of smoking, socially disadvantaged pregnant and parenting women continue to smoke at high rates (Baird & Wilcox, 1985; Benowitz & Dempsey, 2004; Dolan-Mullen et al., 2000; Gilligan, Sanson-Fisher, Eades, & D'Este, 2007; McDermott & Graham, 2006) and they do not understand the full range of adverse effects (Haviland et al., 2004). As smoking is one of the most important modifiable risk factors for harmful pregnancy outcomes (Benowitz & Dempsey; Cnattingius, 2004), interventions including effective smoking cessation programs are required (Cnattingius; McClure, 2004). However, there is limited research regarding designing effective smoking cessation interventions for rural, disadvantaged women considering the meaning and impacts of the health effects of smoking (Giarelli, 2006).

In summary, the literature on health effects of smoking shows the evidence is strong: (a) linking smoking with adverse child health effects (low birth weight, asthma and SIDS); and (b) linking smoking with adverse health effects for pregnant and parenting women. The evidence is limited: (1) linking maternal smoking with long term child health behavioral effects; and (2)

identifying the positive attributes of smoking for rural, disadvantaged pregnant and parenting women.

II. Determinants of Smoking and Smoking Cessation

This section will describe the research on determinants of smoking and smoking cessation among pregnant and parenting women including: (a) socio-economic disadvantage; (b) stigma and social disadvantage; (c) context of smoking behaviours; and (d) partners' role in smoking cessation.

IIa. Socio-Economic Disadvantage

Smoking is more common among pregnant women who are disadvantaged socio-economically, including lower educational attainment, employment status and income (Browne, Shultis, & Thio-Watts, 1999; Derby, Lasater, Vass, Gonzales, & Carleton, 1994; Haslam & Lawerence, 2004; Klesges, Johnson, Ward, & Barnard, 2001; Yu, Park, & Schwalberg, 2002). Women with multiple social disadvantages are more likely to smoke during pregnancy and least likely to quit (McDermott & Graham, 2006). Smoking during pregnancy is prevalent in white, low socio-economic women who are more highly addicted to nicotine (Dolan-Mullen et al., 2000). Low socio-economic status and cumulative social risks impact on pregnant women who are more dependent on nicotine and less likely to consider cessation and to successfully quit smoking (Spencer, 2006, p. 1256). Smoking has become an indicator of low socio-economic status and deprivation (Lindström, Hanson, Östergren, & Berglund, 2000).

Low-income pregnant and parenting women smoke for a variety of reasons. Data from a randomized clinical trial in the United States described factors associated with smoking among low-income women (n=609) during

pregnancy and postpartum (Ma, Goins, Pbert, & Ockene, 2005). Data were collected at five intervals: baseline upon study enrollment; nine-month prenatal; one-month postpartum; three-month postpartum; and six-month postpartum. Separate analyses were completed on women (n=327) who smoked at the time of enrollment in the study and women (n=109) who reported not smoking at the time of delivery. Of the 327 women, 18 per cent (n=59) quit smoking before delivery and of the 109 women, 37 per cent (n=40) remained smoke-free at six-month postpartum. The study found that women continuing to smoke were older, received Medicaid coverage, were more addicted and had a husband or partner who smoked. The authors concluded that the study has implications for exploring the role of partners in smoking cessation programs. An ethnographic qualitative study explored smoking trajectories and the factors contributing to undermining harm reduction or quit attempts in low-income women (n=53) who smoked at the onset of pregnancy (Nichter et al., 2007). The study found three patterns of smoking during pregnancy: quitters (n=16) who quit smoking completely; harm reducers (n= 23) who were able to reduce their smoking by 50 per cent and able to maintain this to the end of pregnancy; and shifters (n=14) who reduce their smoking intermittently. The analysis revealed that women who were able to quit completely had stability in their living arrangements as compared to the harm reducers and shifters. The qualitative analysis found concern for the health effect of smoking on the fetus and identities as mothers were key motivators for smoking cessation. The study found that woman's moral identities as mothers should be considered when developing and implementing smoking cessation programs. The authors concluded that comprehensive smoking cessation

programs for disadvantaged women are required, focusing on basic life needs and methods to reduce harm to infants and children.

What are the factors in the lives of low-income pregnant women that impact their smoking behavior? A longitudinal study (Crittenden, Manfredi, Cho, & Dolecek, 2007) explored the smoking outcomes of low socio-economic women (n=943) including: stage of readiness, quitting, motivation, self-efficacy, confidence, and action. These findings suggest that longitudinal smoking outcomes are positively related to health concerns and negatively related to perceived stress. This is consistent with other studies (Curry, Grothaus, & McBride, 1997; Curry, McBride, Grothaus, Lando, & Pirie, 2001) suggesting health concerns are an important element of the motivation to quit smoking.

The literature suggests that disadvantaged women continue to smoke during pregnancy and parenting and socio-economic disadvantage, lower educational attainment, and a partner who smokes influences their smoking behavior. However, the evidence is limited about the factors that influence rural, disadvantaged women's smoking behavior.

IIb. Stigma and Social Disadvantage

Stigma imposes burdens on those who are already at a social disadvantage (Bayer & Stuber, 2006; Struber, Galea, & Link, 2008). A low income contributes to feelings of isolation, a sense of not belonging and contributes to social exclusion (Stewart, Reutter, Veenstra, Love, & Raphael, 2007). Hence rural, disadvantaged pregnant and parenting women may be impacted by the double burden of stigma and social disadvantage. Stigma, socio-economic disadvantage and smoking are interrelated, with a greater number of people with socio-

economic disadvantage suffering from smoking-related morbidity and mortality (Broms, Silventoinen, Lahelma, Koskenvuo, & Kaprio 2004; Jarvis & Wardle, 2006). Studies have identified an association between socio-economic disadvantage and poor health outcomes (Diez Roux et al., 2001; Sundquist, Winkleby, Ahlen, & Johansson, 2004). Stigma regarding smoking behavior may prevent women who smoke from seeking health services (Bayer & Stuber, 2006; Chapple, Ziebland, & McPherson, 2004). To compound this health issue, women who are disadvantaged are marketing targets for the tobacco industry and this likely results in increased smoking (Barbeau, Leavy-Sperounis, & Balbach, 2004). Smoking behavior will become increasingly stigmatizing, "In a society where smoking is not viewed as an acceptable activity, fewer people will smoke, and as fewer people smoke, smoking will become ever more marginalized" (Gilpin, Lee, & Pierce, 2004, p. 38).

Why do disadvantaged pregnant and parenting women not disclose their smoking behaviour? Some pregnant women are reluctant to disclose they smoke because of social pressure and expectation for non-smoking by health professionals (Bull, Burke, Walsh, & Whitehead, 2007; Melvin & Gaffney, 2004), with one study finding that 13 per cent of low-income women under-report smoking (Boyd, Windsor, Perkins, & Lowe, 1998). Although conjecture exists as to why pregnant smokers do not disclose their smoking behaviour including; embarrassment, shame, or not wanting to hear about it, limited research has been done to determine why women are reluctant to disclose (Boyd, Windsor, Perkins, & Lowe). Women who smoke face stigma, thus they may be unwilling to admit they smoke or to attend a smoking cessation program (Pollack et al., 2006; Webb,

Boyd, Messina, & Windsor, 2003). Therefore, strong messages about the health impacts of smoking may cause underreporting of tobacco use. Studies have found that up to 25 per cent of pregnant smokers will not admit they smoke because of the social pressure to quit and knowledge of the adverse effects of smoking (Lawrence, Aveyard, & Croghan, 2003; Owen & McNeill, 2001).

"Stigma is linked to the working of social inequality" (Parker & Aggleton, 2003, p. 16). Because of the stigma of smoking many women conceal their smoking behaviour (Bull, Burke, Walsh, & Whitehead, 2007; Pollack et al., 2006). Women are increasingly being blamed for harming their children because of exposure to cigarette smoke. Farrimond and Joffe (2006), in a qualitative study described the "poor young single mother who smokes" (p. 487). The study explored the stigmatization of low socioeconomic status smokers (n=40 non-smokers; n=40 smokers). The analysis revealed that lower socioeconomic status smokers are accepting of the negative aesthetic of smoking (smell and negative appearance) and their smoking status as a risk to others (second-hand smoke and pollution) (p. 485). It is felt by some that smokers who are disadvantaged internalize stigma rather than attempt to change their smoking behaviour (Bull et al., 2007). The authors concluded that the role of stigma and marginalization need to be addressed in smoking cessation programs. This is consistent with other research (Bayer & Stuber, 2006; Gilpin, Lee, & Pierce, 2004) which found that marginalization and stigmatization are counterproductive to encouraging smoking cessation.

The literature suggests that stigma may adversely impact smoking cessation program attendance for disadvantaged women. Little is known about the

reasons rural, disadvantaged pregnant and parenting women are reluctant to disclose their smoking behavior and how to address stigma in smoking cessation programs. Further empirical evidence is required exploring the impact of stigma on smoking cessation among disadvantaged pregnant and parenting women including the design and implementation of programs.

IIc. Context of Smoking Behaviours

To ensure that health promotion interventions, including smoking cessation programs are effective, the context of the issue has to be understood (Rychetnik, Frommer, Hawe, & Shiel, 2002). Smoking and smoking cessation cannot be separated from the context of women's lives. Socio-economic and psychosocial factors including social and cultural norms influence smoking behavior and cessation during pregnancy and parenting (Bull, Burke, Walsh, & Whitehead, 2007; DiGiacomo, Davidson, Davison, Moore, & Abbott, 2007). Cigarette smoking is linked with place, gender and socio-economic disadvantage (Andrews, Felton, Wewers, Waller, & Humbles, 2005).

Smoking reduction and cessation has to consider the social and emotional contexts of women's lives. A recent Australian qualitative study with indigenous pregnant women explored the place of smoking in pregnancy and the attitudes towards smoking in the broader context of women's lives (Wood, France, Hunt, Eades, & Slack-Smith, 2008). Focus groups and in-depth interviews with pregnant women (n=40) and aboriginal health workers (n=10) were conducted. The social and emotional contexts of smoking were described as: smoking as "normal" and acceptable behaviour, a "stress release," a low health priority, and a social experience. The study participants described smoking reduction or "cutting down"

during pregnancy however this was not viewed as a pathway to smoking cessation (p. 2386). These findings suggest that women view tobacco reduction as an achievable goal. This finding is consistent with other studies (Bull, Burke, Walsh, & Whitehead, 2007; Dunn, Pirie, & Lando, 1998). It is challenging to approach smoking cessation with women who are struggling with domestic violence, mental health issues and acute health needs (Wood et al. 2008, p. 2387). The authors concluded the study provided insights into the context of smoking during pregnancy. The evidence is developing that the context of pregnant and parenting women's lives influence smoking behaviours. Further research is required to identify how to address these issues in a comprehensive manner.

The context of women's lives including support, financial resources, and parenting roles may influence smoking behavior. A recent qualitative study explored smoking cessation during pregnancy and the factors associated with women (n=94) remaining smoke-free (Ripley-Moffitt et al., 2008). Women were motivated to quit because of concerns for fetal health. Five themes for relapse avoidance emerged including: continued acknowledgment of the health benefits of a smoke-free state for themselves and their children; a strong internal belief system reinforcing a decision not to return to smoking; significant social support; negative experiences with renewed exposure to cigarettes; and concrete and effective strategies for dealing with temptation (p. 1357). In contrast, analysis of women who relapsed post-partum revealed: easy social access to cigarettes; lack of social and financial support; insufficient resources for coping with the challenges of child rearing; physical addiction to cigarettes; reliance on cigarettes as a primary source of stress management; and feelings of regret, shame, or low

self esteem, often linked to depression (p. 1358). The authors concluded that women who quit smoking during pregnancy should be accessed for relapse risk. There is limited research regarding the context of rural, disadvantaged women's lives and its impact on smoking cessation.

The values and beliefs of health, pregnancy, psychological and social consequences of smoking are important to women in making a decision whether to continue to smoke. Women who smoke perceive both smoking and not smoking in a negative light (Näsman & Ortendahl, 2007). This may be related to a conflict between two equally negative conditions (Shadel, Niaura, Goldstein, & Abrams, 2001). A recent study tested an expected utility model based on the values and beliefs of the addictive behaviour of smoking (Näsman & Ortendahl, 2007). Over a two-week period pregnant (n=40) and non-pregnant (n=40) women completed questionnaires regarding their values and beliefs of the consequences of smoking and smoking cessation. These results suggest there were no differences between pregnant and non-pregnant women in the expected utility of smoking, indicating that pregnancy did not influence the women's judgments. The expected utility for health and pregnancy consequences was evaluated by the women as more negative as compared with the psychological and social consequences of smoking. Further evidence is required exploring the influence of rural, disadvantaged women's values and beliefs on their smoking behavior during pregnancy.

Pregnant and parenting women's social identities may impact their smoking behavior. A social identity approach seeks to understand the influence of peers and social contexts on smoking behaviour (Kobus, 2003; Nichter, Nichter,

Vuckovic, Quintero, & Ritenbaugh, 1997). An Australian qualitative study using a social identity approach, explored the perceptions of smoking and strategies to address smoking cessation challenges with young women aged 16 to 28 years (Lennon, Gallois, Owen, & McDermott, 2005). Focus groups (n=13) and interviews (n=6) were conducted regarding the influence of social identities on young women's smoking behaviour. Three social identities emerged including: the cool smoker; the considerate smoker; and, the good mother. The pregnant and parenting women in the study reported quitting or trying to quit smoking for the health of the baby or to be a "good mother." However, they expressed regret with the loss of the positive benefits of smoking including stress management, the fun of smoking and the use of smoking to alleviate boredom. Pregnancy was a strong motivation for cessation, which is consistent with other studies (Curry, McBride, Grothaus, Lando, & Pirie, 2001; Greaves et al., 2003; McBride, Emmons, & Lipkus, 2003); however, some women planned to return to smoking after the birth of their child. These findings suggest that social norms of a "good mother" support women remaining smoke-free during pregnancy; however because of ambivalence and regret with stopping smoking, they have not changed their identity to that of a non-smoker. Other studies have found that although low-income pregnant women continue to smoke, this is adaptive behaviour and they are still concerned with their baby's health (Lawson, 1994; Thompson, Parahoo, McCurry, O'Doherty, & Doherty, 2004). The authors concluded that because pregnancy may be a strong motivator for quitting smoking, interventions should promote smoking cessation as positive behaviour for mothers. The literature is adequate supporting pregnancy as a motivator for smoking cessation. However,

further research is required identifying how pregnancy impacts the smoking behavior of rural, disadvantaged women.

Social discourses influence pregnant and parenting women's decision to smoke. Two powerful discourses influence pregnant woman and tobacco use including the "good mother" (Bottorff, Johnson, Irwin, & Ratner, 2000; Murphy, 1999; Murphy, 2000) and the repugnancy of smoking tobacco, particularly exposing vulnerable children to second-hand smoke (Graham, 1976; Greaves, 1996). Women's participation in smoking cessation interventions are impacted by the messages portrayed by the motherhood and tobacco discourses (Gillies & Willig, 1997; Willig, 2000). Irwin, Johnson, and Bottorff (2005), used qualitative interviews to analyze how social discourses were internalized and used by women to justify using tobacco. The qualitative analysis revealed that women use a number of strategies to support their positions as "good mothers," including: knowledge of the health risks of tobacco; confessing guilt and shame; deflecting accusations of neglect; taking an antismoking stance; and indicating that they use tobacco for the sake of the child (Irwin et al., 2005, p. 585). These findings are important in developing a comprehensive understanding of pregnant and parenting women's tobacco use. The authors concluded that understanding the influence of discourses related to smoking and mothering may help health professionals to be more responsive to the reasons women give for their tobacco use. The literature identified social discourses used to justify tobacco use. However, the evidence is developing of how social discourses influence rural, disadvantaged women's smoking behavior.

The literature identified that the context of smoking impacts pregnant and parenting women's smoking behavior. There is limited research regarding the context of rural, disadvantaged pregnant and parenting women's lives, its impact on smoking behavior, and how to address these issues in a comprehensive manner.

IId. Partners' Role in Smoking Cessation

Many studies have identified that pregnant smokers are more likely to smoke if they have a partner who smokes (Cnattingius, Lindmark, & Meirik, 1992; Edwards & Sims-Jones, 1998; Everett et al., 2005; Johnson, Ratner, Bottorff, Hall, & Dahinten, 2000; Klesges, Johnson, Ward, & Barnard, 2001; McBride et al., 1998; Pollack & Mullen, 1997; Wakefield, Gillies, Graham, Madeley, & Symonds,1993; Wakefield & Jones, 1991). Spousal tensions during pregnancy may be heightened, with some women reluctant to let their partners know they smoke during pregnancy (Bottorff, Johnson, Irwin, & Ratner, 2000). Additionally, men's smoking, independent of smoking by the pregnant women, is associated with low birth weight, sudden infant death syndrome and respiratory disease in children (Martinez, Wright, Taussig, & Group Health Medical Associates, 1994).

Pregnant and parenting women have support needs for smoking cessation including support from their partners. In a study of the perceived support pregnant women receive for quitting smoking, 66.7 per cent of women identified that their partner quitting smoking would be an important factor in helping them to quit (Thompson, Parahoo, McCurry, O'Doherty, & Doherty, 2004). Perceptions of support for smoking cessation during pregnancy, likelihood of quitting and

partner smoking status were explored in an intervention study (McBride et al., 1998), with greater support reported from non-smoking partners than from partners who smoked. These findings suggest that cessation interventions developed for expectant fathers may increase cessation among pregnant women. An exploratory study of factors associated with smoking cessation in socio-economically disadvantaged women revealed that having a non-smoking partner was independently associated with cessation among this group of women (Wakefield, Gillies, Graham, Madeley, & Symonds, 1993). The authors conclude that an understanding of how socio-economic and social ties influence smoking is essential to developing effective smoking cessation strategies for disadvantaged women.

Living with a smoking partner creates difficulties with smoking cessation for pregnant and parenting women. A telephone survey of low-income expectant fathers (n= 138) explored pregnancy as a teachable moment and described smoking and associated behaviours during their partner's pregnancy (Everett et al., 2005). The study found high rates of smoking in low-income fathers (49.3 per cent) and an expectant father's smoking was related to the pregnant women continuing to smoke. The expectant father's current smoking was associated with having a lower level of education, current smoking status of their pregnant partner, a higher quantity of daily alcohol use and smoking permitted within the home. These findings suggest that interventions targeting both pregnant women and their partners could lead to a reduction in tobacco use. An analysis of a cohort of pregnant, low-income smokers revealed that living with a partner who smoked predicted the inability to stop smoking (Woodby, Windsor, Snyder, Kohler, &

DiClemente, 1999). This is consistent with other studies in which a partner's smoking status is a predictor of a women's inability to quit smoking (Everett et al., 2005; Sanders, Peveler, Mant, & Fowler, 1993; Severson, Andrews, Lichtenstein, Wall, & Zoref, 1995). There is adequate evidence that partners' smoking status influence pregnant women's decision to smoke.

The transition to fatherhood may provide an opportunity for men to support women's smoking cessation attempts. A qualitative study with 31 couples in Canada, examined men's smoking in the context of women's tobacco reduction and cessation during pregnancy and postpartum (Bottorff, Oliffe, Kalaw, Carey, & Mroz, 2006). Interviews were conducted with men (n=20) who smoked at two stages; at 0-6 and 16 to 24 weeks following their child's birth. The analysis revealed four themes including: expressing masculinity through smoking, reconciling smoking as a family man, losing the freedom to smoke and resisting a smoke-free life (p. 3096). These findings suggest that men's thoughts regarding masculinity may prevent them attempting smoking cessation. However, the authors concluded that expectant and new fathers should be targeted for smoking cessation interventions as concern for the health of the baby may provide an opportunity for smoking cessation. There is limited evidence to support the transition to fatherhood as a time to target smoking cessation among male partners.

Couple dynamics during pregnancy and postpartum are considerations in women's decision to smoke. A grounded theory study (Bottorff, Kalaw, Johnson, Stewart, & Greaves, 2005) examined women's tobacco reduction during pregnancy and post-partum in the context of couple dynamics. The study's intent

was to use the information gleaned to inform the development of women-centered programs, polices and interventions. These findings suggest that given the attention to the social context of health, an enhanced understanding of the "micro social context of the home is needed" (p. 574). These findings are important for tobacco researchers because conjoint couple or group interviews are not always recommended due to strong stigmas and varying relationships among disadvantaged families. The recruitment of women who smoke is challenged by the context of social stigma and the vulnerability of pregnant women participating in tobacco research. The authors concluded that pregnant women who smoke are particularly "vulnerable to social censure and vilification from their partners as well as from strangers" (p. 570). Spousal tensions during pregnancy may be heightened, with some women reluctant to let their partners know they smoke during pregnancy (Bottorff, Johnson, Irwin, & Ratner, 2000) thus, compounding the challenge of smoking cessation for disadvantaged women. Further evidence is required exploring couple dynamics with pregnant women's decisions to smoke.

IIe. Summary

The determinants of smoking and smoking cessation for pregnant and parenting women are impacted by socio-economic disadvantage, stigma, the context of pregnant and parenting women's lives, and partners who smoke. Pregnant smokers are a population subgroup from whom available knowledge is limited; however the benefit of influencing cessation on the health of women and children is great (Crittenden, Manfredi, Cho, & Dolecek, 2007). There is a lack of qualitative studies identifying the determinants of smoking behaviour of disadvantaged women (McDermott & Graham, 2006). Women reporting high

levels of social isolation are at risk for higher tobacco use during pregnancy (McCormick et al., 1990). Newfoundland is comprised of isolated rural communities; however, rural locality has not been a focus of study as a barrier to smoking cessation among Newfoundland pregnant and parenting women. There is a dearth of studies exploring rurality as a barrier to smoking cessation among pregnant and parenting women (Avidano Britton, Brinthaupt, Stehle, & James; 2004).

In summary, the literature on the determinants of smoking and smoking cessation shows adequate evidence that: (a) socio-economic disadvantage influence pregnant and parenting women's smoking behavior; (b) the context of women's lives must be considered when offering smoking cessation interventions; (c) partners influence women's smoking cessation decisions; and (d) social disadvantage and stigma impact smoking cessation. There is limited evidence of the impact of these factors on rural, disadvantaged women.

III. Smoking Cessation Interventions

This section will describe the research on smoking cessation interventions including: (a) smoking cessation programs; (b) ETQ; and (c) pharmacological interventions.

IIIa. Smoking Cessation Programs

To assist pregnant and parenting women with smoking cessation, a variety of smoking cessation programs have been developed. The National Cancer Institute (1998) advise that smoking cessation programs should target high risk populations, focus education for targeted audiences, use community networks to promote programs to high risk populations and target the intervention to specific

stages of cessation. Interventions to assist pregnant and parenting women to quit smoking vary considerably in the type, intensity, time of delivery of the program during pregnancy and the type of provider (Lumley, Oliver, Chamberlain, & Oakley, 2004). It is difficult to compare the effectiveness of interventions across research studies because of this wide variability. Lumley et al. 2004 conducted a systematic review of randomized and quasi-randomized trials assessing smoking cessation interventions for pregnant women. Regardless of differences in the intervention, setting and provider, significantly more women who received an intervention, quit smoking with an average difference of 6.4 per cent between the intervention and control group. More intense interventions led to an increase in the difference between the intervention and control group of over 8 per cent. However, to date there is no single intervention for smoking cessation for pregnant women who are socially disadvantaged that had been identified as ideal (Greaves et al., 2003). Nine studies of smoking cessation programs for low-income pregnant and parenting women were reviewed, with no ideal smoking cessation intervention found (see Appendix B). Some women find a group format for smoking cessation interventions helpful in providing social support and cohesion (Bjornson et al., 1995; Reynoso, Susabda, Cepeda-Benito, 2005; Schmitz, Stotts, Mooney, DeLaune, & Moeller, 2007). A systematic review identified the need for future smoking cessation research among pregnant women to include process evaluations determining the extent of program implementation (Lumley et al., 2004). The evidence is strong that smoking cessation interventions increase smoking cessation. However, further evaluations are required to identify

effective smoking cessation interventions for rural, disadvantaged pregnant and parenting women.

A consideration when offering smoking cessation programs are the potential financial costs of both offering and not offering a program. There are substantial savings to the health care system associated with a reduction in maternal smoking. It is estimated that for every $1 invested in a smoking cessation intervention, there are savings of approximately $6 (Adams & Melvin, 1998; Orleans, Barker, Kaufman, & Marx, 2000; Shipp, Croughan-Minihane, Petitti, & Washington, 1992; Windsor, Lowe, & Perkins, 1993). Thus, during a time of increasing health care costs, effective smoking cessation interventions may be cost effective and viable. The evidence is adequate that effective smoking cessation programs contribute to health system savings.

Low income pregnant and parenting women who smoke are an important population to target smoking cessation interventions (Greaves et al., 2003). A study examining smoking behaviour and the desire to quit among low-income women identified that 74 per cent of smokers expressed a desire to quit with 55 per cent indicating an interest in attending a smoking cessation program (Sheahan, Free, & Rayens, 2003). It is suggested that smoking cessation programs be targeted to low-income, young women, because they are more likely to smoke, they have thoughts about quitting and they may be more amenable to smoking cessation interventions (Klesges, Johnson, Ward, & Barnard, 2001; Sheahan et al., 2003). In a randomized controlled trial of low-income women examining two self-help smoking cessation programs, smoking cessation rates of 11 per cent were obtained in both programs by the last month of pregnancy (Mayer, Hawkins,

& Todd, 1990). The authors concluded that smoking cessation programs for low-income pregnant women are feasible and can be effective, with multiple health education contacts improving cessation rates. There is limited evidence concerning how to design and implement smoking cessation interventions for rural, disadvantaged pregnant and parenting women.

Some have found smoking cessation programs for disadvantaged women difficult to implement (Klesges, Johnson, Ward, & Barnard, 2001). Although smoking cessation is beneficial to the health of women there may be risks of implementing a smoking cessation program to vulnerable women (Health Canada, 1997; Silva & Ross, 2003). Potential detrimental effects of participation, include low self-esteem, fear of failure and stress (Greaves et al., 2003; Stewart, Gillis, et al., 1996). A consideration for smoking cessation programs for women is whether to invite partners because of concern for unanticipated outcomes (Bottorff, Kalaw, Johnson, Stewart, & Greaves, 2005; Greaves et al., 2003; Millar, 1997). The evidence is limited about the detrimental effects to women of participating in a smoking cessation program.

Women and their health care providers are concerned that smoking cessation will cause psychological symptoms (depression, anxiety and stress) for women who stop smoking during pregnancy. Although pregnancy is a normal life stage for women, some report depressive mood during pregnancy, with higher psychological symptoms reported in pregnant women living in socio-economic disadvantage (Bennett, Einarson, Taddio, Koren, & Einarson, 2004; Hoffman & Hatch, 2000; Ritter, Hobfroll, Lavin, Cameron, & Hulsizer, 2000). Current or former smokers who are pregnant are more likely to identify depressive mood

than pregnant women who have never smoked (Zhu & Valbo, 2002). Many people smoke to relieve anxiety and stress (West & Hajek, 1997), which suggests that quitting smoking may reduce their coping mechanism. However, a retrospective study reported that rural, pregnant women who have never smoked or stopped smoking during pregnancy reported less stress than the women who continued to smoke (Bullock, Mears, Woodcock, & Record, 2001). A study by Solomon et al. (2006) examined the relationship between smoking status and psychological symptoms in pregnant women. The participants included women who quit smoking early in their pregnancy (n=45), women who quit later in pregnancy (n=22) and women who smoked throughout their pregnancy (n=84). The assessment of smoking status and psychological symptoms occurred at three points; near the first prenatal visit, the second visit and at the end of pregnancy. These findings indicate that women who quit smoking earlier in pregnancy reported decreased psychological symptoms (depression, anxiety and stress) as compared to women who continued to smoke. Furthermore, women who stopped smoking later in pregnancy, as compared to women who continued to smoke, did not show increased psychological symptoms either in the immediate period following smoking cessation or later in pregnancy. The evidence is adequate that smoking cessation during pregnancy does not cause adverse psychological effects for women.

Using child health effects as motivation for prenatal smoking cessation is challenging. Pregnant women are increasingly aware that smoking is harmful to their unborn baby and they experience significant social pressures to quit (Haviland et al., 2004; Melvin, Dolan-Mullen, Windsor, Whiteside, &

Goldenberg, 2000; Mullen, 1999; Orleans, Melvin, Marx, Maibach, & Vose, 2004). Conversely, some studies note that using the health of the baby as a motivator to quit smoking may not work in the postpartum period as women have not developed coping skills and intrinsic motivation to sustain smoking cessation (Mullen, 2004). A number of studies have attempted to understand the decision to continue smoking among pregnant women (Colman & Joyce, 2003; Lendahls, Ohman, Liljestrand, & Hankansson, 2002; Mullen, 1999; Pickett, Wakschlag, Dai, & Leventhal, 2003; Valanis et al., 2001; Wakefield, Gillies, Graham, Madeley, & Symonds, 1993), with stress and negative affect presenting special challenges for smoking cessation (McKee, Maciejewski, Falba, & Mazure, 2003; Reynoso, Susabda, & Cepeda-Benito, 2005). The evidence is weak that knowledge of child health effects will maintain smoking cessation in the postnatal period.

Quit lines may be useful for pregnant and parenting women living in rural and remote communities seeking confidential smoking cessation support (Zhu & Valbo, 2002). Great Start is a public education and smoking cessation program designed for pregnant women and provides confidential smoking cessation counseling through a quit line (Haviland et al., 2004). An evaluation was conducted to determine whether television ads reached pregnant smokers and the effectiveness of a quit line in decreasing smoking. The authors concluded that television ads are a way to reach pregnant smokers, provided the messages are positive and support women to take action towards cessation. The cessation rates of pregnant women were not measured. A limited number of women (2.5 per cent of current, pregnant smokers) used the quit line, thus suggesting there are inherent

challenges for women in calling the quit line and usage may be related to the limited duration of the television ads. The evidence is weak for quit lines decreasing smoking cessation among pregnant and parenting women.

The provision of smoking cessation pamphlets is a method to provide smoking cessation services to pregnant women. Researchers in the United Kingdom evaluated a government policy of providing smoking cessation literature to pregnant women (Acharya, Jauniaux, Sathia, Griffin, & Morgan, 2002). The participants included non-smokers (n=117) and active smokers (n=63), and of the non-smokers, 39 were passive smokers. The study evaluated the impact of the policy on the smoking behaviour of women with planned pregnancies, utilizing a questionnaire provided during the first trimester of pregnancy to be completed mid gestation period. The information requested included: smoking habits; involuntary exposure to tobacco at home; direct antismoking advice; change in their or their partners' smoking behaviour during pregnancy; and awareness of the health impacts of smoking. Of the active smokers, 53 women did not change their smoking habit, seven reduced the number of cigarettes smoked and three women quit smoking. Three non-smokers started smoking during pregnancy. These findings suggest that despite awareness of the dangers of smoking, women continue to smoke. The authors conclude that the government policy of providing smoking cessation literature to pregnant women was ineffective in changing smoking behaviour. The evidence is weak that smoking cessation literature alone will decrease smoking among pregnant women.

Self-help interventions are a component of some smoking cessation programs. A systematic review and meta-analysis (Naughton, Prevost, & Sutton,

2008) explored the efficacy of self-help smoking interventions for pregnant smokers and whether the intensity, type and delivery of self-help material are correlated with cessation. The authors identified the potential of self-help as being low cost with the potential to reach large numbers of women including those living in rural communities. Additionally, self-help may encourage attendance as face-to-face programs may have low attendance rates (Naughton et al., 2008). The primary meta-analysis (n=12 studies) found that self-help interventions for pregnant smokers increased cessation (median quit rate 13.2 per cent) over usual care (median quit rate 4.9 per cent), with a pooled odds ratio of 1.83. Further meta-analysis did not find evidence that intervention materials of higher intensity yielded increased rates of cessation over materials of lesser intensity. The study did not exclusively address the self-help need of low-income women. The meta-analysis concluded that self-help interventions are better than standard care, which included routine advice to quit smoking and the provision of brief written materials; however, it is uncertain as to whether more intensive interventions increase effectiveness. The study findings are similar to a Cochrane Review (Lancaster & Stead, 2005), which found self-help materials increased cessation rates only marginally among non-pregnant smokers. The evidence is strong that self-help marginally increases smoking cessation among pregnant and parenting women.

Are nurse-managed smoking cessation programs effective with rural pregnant women? Avidano Britton, Brinthaupt, Stehle, and James (2004) using a quasi-experimental design, examined the effectiveness of a nurse-managed smoking cessation program on the cessation rates of rural pregnant smokers (n=

194) and assessed the characteristics related to successful smoking cessation. The effects of usual care (n=93) which included smoking cessation information was compared to women (n=101) attending the Smoke Free Baby & Me program. These findings noted that smoking cessation was positively correlated with women's level of education and negatively associated with gravidity, parity and the number of cigarettes smoked per day at the first prenatal visit. Self-report smoking status was reported at four intervals: first prenatal, 16 weeks of pregnancy, 28 weeks of pregnancy and first postpartum visit. At the first prenatal visit the percentage of women who self-reported non-smoking was higher in the experimental group (27.5 per cent) as compared to the usual care group (8.3 per cent). There were no significant differences in smoking status between the two groups at 16 or 28 weeks of pregnancy. At the postpartum visit, more women in the experimental group reported non-smoking as compared to the usual care group (37.3 per cent vs. 16.7 percent). A significant discrepancy between self-report and urinary cotinine assays was observed. The authors concluded that the study contributed to the small database of information regarding the smoking behaviours of rural women. There is limited evidence regarding the characteristics contributing to successful smoking cessation among rural pregnant and parenting women.

The relapse prevention needs of women who quit smoking during pregnancy are a focus of some smoking cessation programs. A formative evaluation of Forever Free, a minimal relapse-prevention intervention for women who had recently quit smoking during pregnancy, was conducted using semi-structured interviews (n= 38) and learner verification activities (Quinn et al.,

2006). The study examined the perceptions of quitting smoking during pregnancy and identified barriers and benefits to initiating and maintaining smoking cessation. The key themes suggested that relapse prevention resources be targeted towards specific stressors in the women's lives including: (a) reduced social support after childbirth; and (b) the timing and plans of "truly quitting" as opposed to reducing the numbers of cigarettes smoked or deciding to quit at a later date. The study found that women required coping and stress reduction strategies to stay smoke-free postpartum as they wanted to return to their former selves physically and emotionally (p. 240). This is consistent with other studies (Bottorff, Johnson, Irwin, & Ratner, 2000) that identified women resumed smoking because of wanting to control their smoking, being susceptible to smoking, and wanting to return to their pre-pregnancy self. Postnatal smoking relapse is confirmed by other studies which found pregnant quitters are less likely to have a plan to quit and are more likely to return to smoking (Greaves et al., 2003; McBride et al., 1999; Ortendahl, 2007; Stotts, DiClemente, Carbonari, & Mullen, 2000; Pletsch, 2006). A longitudinal qualitative descriptive study explored the context surrounding smoking behaviours during pregnancy and the first three months following birth (Pletsch & Kratz, 2004). The study's intent was to obtain insight into the reasons women (n=15) resume smoking post-partum. A thematic content analysis revealed that the majority of women experience a dislike of the smell and taste of tobacco smoke and attribute this change to pregnancy. During postpartum, the taste and smell of tobacco smoke resumed to pre-pregnancy levels. Pregnancy is a teachable moment for behavioural change and a motivator for smoking cessation (Curry, McBride, Grothaus, Lando, &

Pirie, 2001; Greaves et al., 2003; McBride, Emmons, & Lipkus, 2003). These findings suggest using the aversion towards the smell and taste of tobacco during pregnancy as a motivator to assist women in cessation. The authors concluded that providing women with this information during a smoking cessation program might assist in understanding the physiological changes and their response to smoking and pregnancy. The evidence is adequate that pregnancy provides an opportunity to encourage and support smoking cessation. However, there is limited evidence about what motivates rural, disadvantaged women to remain smoke-free during pregnancy and the postpartum period.

Home visiting is a method used by some to support smoking cessation among pregnant and parenting women. Difficult behaviours from smoking to other multi-factorial factors were reduced in high risk mothers and children through nurse home visiting prior to birth and during infancy (Olds, Henderson, & Tatelbaum, 1994). A recent pilot study using a prospective two-group design evaluated the effectiveness of a nurse home visiting program during the postpartum period for women who quit smoking during pregnancy (French, Groner, Wewers, & Ahijevych, 2007). The low-intensity smoking relapse-prevention intervention consisted of a brief intervention during the postpartum hospitalization, a home visit and two follow up telephone calls (n=137) over a one- to two-month period, which was compared to a routine home visit without a focus on tobacco use (n=130). At three months post enrolment 26.4 per cent of the intervention group were abstinent as defined by biochemically verified salivary cotinine, as compared to 12.4 per cent of the comparison group; and at six months obtained 21.5 per cent abstinence (intervention) and 10.2 per cent abstinence

(comparison). However, the study found the greatest barrier was reaching women. This is consistent with other studies (Groner, French, Ahijevych & Wewers, 2005), which found that women living in poverty and at increased risk for smoking are difficult to reach. These findings suggest the intervention has promise with racially diverse, low-income women. The authors concluded that the intervention might be feasible in communities offering post-natal visiting programs thus providing support for postnatal smoking avoidance. There is limited evidence about the long-term effectiveness of home visiting as a method of smoking cessation for rural, disadvantaged pregnant and parenting women.

In summary, for some pregnant smokers, pregnancy provides a strong incentive to quit (Cnattingius, 2004; DiClemente, Dolan-Mullen, & Windsor, 2000; Edwards & Sims-Jones, 1998; Johnston, Ratner, Bottorff, Hall, & Dahinten, 2000; Penn & Owen, 2002; Sit & Wisner, 2004). Effective smoking cessation interventions are one method to support pregnant and parenting women in quitting smoking. There is a vast array of smoking cessation interventions, some of which are effective in reducing smoking. The evidence is strong that smoking cessation interventions increase smoking cessation. However, further evidence is required regarding the design and implementation of effective smoking cessation interventions for rural, disadvantaged pregnant and parenting women.

IIIb. Expecting to Quit

ETQ was chosen as the study intervention due to its applicability for use with disadvantaged women who smoke, its supportive non-blaming philosophy, its suitability for use with non-professional providers, and ease of incorporation into existing HBC programming. It is a smoking cessation program for women

who are soon to be pregnant, are pregnant or are new mothers designed by the Calgary Health Region (2003). Briefly, the first session focuses on understanding smoking and building awareness of smoking behaviour; the second prepares for quitting including identifying social support networks; the third identifies and prepares for smoking triggers; the fourth includes developing a quit plan and making homes smoke-free; the fifth includes redefining the quit plan; and the sixth celebrates the hard work of the participants over the last six weeks. Additional information on ETQ is provided in the appendix (see Appendix C).

Prior to selecting ETQ, as the smoking cessation intervention for this study, several smoking cessation programs were reviewed by the researcher. Baby's Coming, Baby's Home (Newfoundland and Labrador Lung Association, 1994) was developed in Newfoundland and Labrador to assist low-income pregnant smokers to create smoke-free environments for their children. However, Baby's Coming, Baby's Home is not a smoking cessation program for pregnant and parenting women and there was no evaluation data available on this program. Therefore, it was not considered as the intervention for this study. Stop Smoking: A Program for Women (Canadian Public Health Association, 1990) was also reviewed. The strengths of the program include an adult education format, encouragement of peer support, group setting format and designed for low-income women. However, as the program was not specifically designed for pregnant and parenting women, it was not considered for the study intervention. Similarly, Catching our Breath (Canadian Women's Health Network, 1999) a smoking cessation program for women, was not considered for the intervention as it was not designed specifically for pregnant women. Some interventions were not

considered because they were not able to be delivered in a group format, including interactive web sites and self-help manuals. PREGNETS (2002) is a web site for pregnant women with information on smoking cessation and pregnancy; however it did not meet the criteria for use in a group setting. Why Women Smoke? (Action On Women's Addictions-Research and Education, 2000) is a self-help manual for women who smoke, however, it is not specifically designed for pregnant women. Therefore, it was not considered as the intervention for this study.

There have been limited studies evaluating ETQ. A pilot evaluation of ETQ (n=13) found it to be effective in smoking cessation with six (6/13) women reporting smoking cessation at four weeks post intervention, confirmed by urinary cotinine (Calgary Health Region, 2004; Calgary Health Region, 2002). The majority of participants in the pilot evaluation had education levels of high school or less and nine participants had gross family incomes of less than $35,000. Two focus groups of pregnant and parenting women highlighted the need for classes to be held in a "neutral" environment, such as a community centre rather than a health center; a need to focus on the mother rather than the baby; downplaying the severity of consequences of smoking during pregnancy as they were readily dismissed; and support but non-attendance by their partners. These findings are consistent with other studies (Greaves et al., 2003; McBride et al., 2004).

In summary, there have been limited studies (one pilot study) evaluating the effectiveness of ETQ. However, it has shown promise with pregnant and parenting women. Further evidence is required regarding the context of

implementing ETQ in Newfoundland with rural, disadvantaged pregnant and parenting women.

IIIc. Pharmacological Interventions

Pharmaceutical interventions are a smoking cessation method used with the adult population. Pharmacotherapy with counselling or behavioural therapy is identified as the best practice for tobacco dependence (Fiore et al., 2000). Although pharmacological interventions have been considered as treatments to reduce smoking among pregnant women, its use is controversial (Benowitz & Dempsey, 2004; Benowitz et al., 2000; Bonollo et al., 2002; Fiore et al., 2000; Hughes, Goldstein, Hurt, & Shiffman, 1999; Ogburn et al., 1999; Wisborg, Henriksen, Jesperson, & Secher, 2000). Many women continue to smoke during pregnancy, despite compelling reason to quit, indicating an addiction to nicotine (Benowitz, 1999; Benowitz & Dempsey, 2004). However, there is a paucity of research on the safety and efficacy of pharmacological interventions among pregnant women, which has limited the use of this smoking cessation option (Benowitz et al., 2000; Chun-Fai-Chan et al., 2005; Lerman, Patterson, & Berrettini, 2005; Melvin & Gaffney, 2004). Health care providers are hesitant to expose pregnant women to medications because they are concerned they may have negative impacts on the pregnancy or fetus (Benowitz & Dempsey, 2004). The safety and efficacy of Nicotine Replacement Therapy (NRT) and buproprion is well established in the adult population; however, there is no clear evidence for efficacy among pregnant women (Greaves et al., 2003). The safety of pharmacological treatments on the fetus has been questioned (Barrueco et al., 2005; Mayer, Hawkins, & Todd, 1990) and some researchers suggest that there

may be a critical period of exposure that increases the risk of fetal or obstetrical toxicity (Wright et al., 1997). Expert consensus indicates that using NRT in pregnancy is likely to be safer than smoking, provided that pregnant women do not receive more nicotine than they would by smoking (Fiore, Hatsukami, & Baker, 2002; West, McNeill, & Raw, 2000). However, health professionals will require empirical evidence of safety to inform their prescribing decisions, including evidence from randomized clinical trials investigating the effectiveness and safety of NRT in pregnancy (Herbert, Coleman, & Britton, 2005). The evidence is limited on the safety of NRT during pregnancy.

The cost and acceptability of NRT are factors considered by pregnant and parenting women in deciding to use such a smoking cessation method. The cost of the pharmacotherapy may be an issue for low-income populations (Bonollo et al., 2002) because the cost of such therapy is not covered under most provincial drug plans, including in Newfoundland. Furthermore, there is limited research into the acceptability of NRT by women during pregnancy (Hotham, Atkinson, & Gilbert, 2002). Due to the lack of testing of pharmocotherapy agents with pregnant women, the relative ratio of risk to benefit is not known (Melvin & Gaffney, 2004). The evidence is weak as to the acceptability of NRT by pregnant women.

Pregnant and parenting women have expectations of NRT, which may impact their decisions to use such a smoking cessation method. A recent study in the United Kingdom used qualitative and quantitative methodologies to explore why smokers do not want to use nicotine dependence medication (NDM) to assist with smoking cessation (Vogt, Hall, & Marteau, 2008). Following semi-structured interviews with men (n=8) and women (n=19), three themes emerged as factors

for decision making to use NDM: the effectiveness; the desirability including adverse effects; and access to NDM. The quantitative cross-sectional design entailed a questionnaire (n=97 men; n=109 women) used to examine the relationship between self-efficacy, outcome expectations and intention to use NDM. The study found that effectiveness outcome expectations were strong predictors of intentions and the expectations of effectiveness appear to be influenced by the ability of the medication to control cravings. These findings suggest that interventions using NDM have to address smokers' expectations regarding effectiveness, adverse effects and access. A survey of pregnant women (n=145) in their third trimester used a questionnaire format to explore the acceptability of nicotine replacement therapy (NRT) during pregnancy, assess the motivators to stop smoking, and to determine knowledge of fetal and maternal health risks (Griffiths, Woolley, Avasarala, Roy, & Wiener, 2005). These findings suggest that women are aware of maternal smoking risks however, a lower proportion of women are aware of the health effects on the fetus. Additionally, 74 per cent of the women wanted to quit smoking, with 68 per cent willing to use NRT. These results suggest that pregnancy is an opportune time to assist women with smoking cessation and NRT may be an option to assist some women with smoking cessation.

There is limited evidence regarding the safety and acceptability of NRT by rural, disadvantaged pregnant and parenting women.

IIId. Summary

The low smoking cessation success during pregnancy has been identified as a high priority issue (Higgins et al., 2004; Ussher, West, & Hibbs, 2004).

Women are more likely to attempt to quit smoking during pregnancy (Cnattingius, 2004; DiClemente, Dolan-Mullen, & Windsor, 2000; Sit & Wisner, 2004), providing a critical opportunity to support women in their cessation initiatives (Chalmers et al., 2004; Ripley-Moffitt et al., 2008). Barriers to quitting smoking exist including: addiction; stress; low awareness of pregnancy-related consequences; denial: pregnancy not being "real;" healthy lifestyle a low priority; stigma; and being surrounded by smokers (Haviland et al., 2004).

Pregnant and parenting women may not attend a smoking cessation intervention because of the fear of self-disappointment and of being judged (Ussher, Etter, & West, 2006. The women want advice about smoking cessation (Lendahls, Ohman, Liljestrand, & Hakansson, 2002); however, they also require non-judgmental advice and support (Arborelius & Nyberg, 1997; Tod, 2003). Because of the grave impact on the health of the mother and child it is important that effective non-judgmental smoking cessation interventions are developed, implemented and disseminated. Some group smoking cessation interventions are available for disadvantaged pregnant and parenting women, however, such programs are not available for the women living in western Newfoundland. Effective evaluations of smoking cessation interventions are necessary to design programs that are effective within communities and to direct initiatives for vulnerable groups (Gilligan, Sanson-Fisher, Eades, & D'Este, 2007).

In summary, the literature on smoking cessation interventions shows strong evidence that: (a) disadvantaged women are "hard to reach" by smoking cessation programs; and (b) some smoking cessation programs are effective in reducing smoking among pregnant and parenting women. However, further

evidence is required identifying the design and implementation of effective smoking cessation interventions for rural, disadvantaged women. ETQ shows promise as a smoking cessation intervention for rural, pregnant and parenting women. There is limited evidence on the acceptability and safety of NRT for pregnant women.

IV. Program Implementation and Evaluation

This section will describe research on program implementation and evaluation including: (a) program implementation; (b) Scheirer's framework on program implementation; (c) process evaluation; (d) organizational capacity; and (e) program providers.

IVa. Program Implementation

Program implementation is the provision of health promotion activities considering the comprehensiveness and level and number or extent of program activities implemented (Green & Kreuter, 1991). Measuring program implementation has gained increased emphasis because of variability in program delivery (Scheirer, Shediac, & Cassady, 1995). Adapting programs to local conditions are common and program delivery may vary under natural community conditions therefore, it is important to understand the factors that support successful program implementation (Dariotis, Bumbarger, Duncan, & Greenberg, 2008). It is suggested by some (Backer, 2000; Domitrovich & Greenberg, 2000) that variation in program implementation is acceptable as long as the adaptation does not affect quality. The gap between the planned and actual program delivery may be both negative and positive and program implementers may attempt to improve quality through the addition of local contextual factors (Meyer, Miller, &

Herman, 1993; Scheirer, 1994). It is important to document the adherence of a program to its intended protocols to determine whether outcomes relate to a failure of the program or not implementing it as intended (Mowbray, Holter, Teague, & Bybee, 2003). This is particularly relevant in multi-site studies to ensure that the program being studied is the same across sites or that differences are identified and documented (Paulson, Post, Herinckx, & Risser, 2002).

Effective program implementation is a key component in achieving the intended intervention outcomes (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000). It is supported by the congruence of the program to the organizational practices and constraints, resources (human, financial, material and facility), supportive administration and training of program implementers (Greenberg, 2004; Kam, Greenberg, & Walls, 2003).

Programs work within an organizational system that can facilitate or pose barriers to successful implementation (Chen, 1998). The quality of implementation is affected by the implementer, organization, program and community context (Chen, 1998). The characteristics of program implementers (knowledge, attitudes and skills) may contribute to successful implementation. Their confidence may increase motivation to adhere to the implementation plan (Domitrovich & Greenberg, 2000). The organizational characteristics including: program champions; structure; policy standards; resources; and congruence of the program goals with organizational priorities influence successful program implementation. Program characteristics including: a user-friendly program; resources (manuals and materials); training; and ongoing support are important considerations. The characteristics of program recipients are important. Programs

that target “hard to reach” individuals, such as rural, disadvantaged women, may encounter challenges to recruitment and retention including: contextual factors; transportation and child care; and willingness to participate. The community context and environment are important considerations for program implementation.

Models have been developed to guide program implementation. Potvin, Cargo, McComber, Delormier, and Macaulay (2002) identified an implementation model for community interventions as a “dynamic social space” which is shaped through an ongoing process of negotiation. There were four principles identified in the model: the integration of community people and researchers as equal partners; the structural and functional integration of the intervention and evaluation research components; a flexible, responsive agenda, cognizant of the broader environment; and promoting a learning environment (p. 1303). The above model was developed following the implementation and evaluation of the Kahnawake Schools Diabetes Prevention Project.

There are barriers and facilitators to implementing smoking cessation programs. Studies have established the cost effectiveness of smoking cessation programs for pregnant women (Melvin, 1997). However implementation barriers exist (Miller, 2006; Ussher, Etter, & West, 2006) including: limited organizational support; insufficient time and perceived priority, program providers smoking at high rates, and inadequate training in smoking cessation (Sarna, Wewers, Brown, Lillington, & Brecht, 2001; Schroeder, 2005; Wewers, Kidd, Armbruster, & Sarna, 2004). A study by Ussher, Etter, and West (2006) assessed the perceived barriers and benefits of attending a smoking cessation program with pregnant

smokers and recent ex-smokers (n=443). The barriers most frequently articulated include: being afraid of disappointing myself if I failed (54 per cent) and not tending to seek help for this kind of thing (n= 41 per cent). The benefits of smoking cessation program attendance included: advice about cigarette cravings (74 per cent) and praise and encouragement with quitting (71 per cent).

The evidence is adequate that barriers and facilitators exist affecting smoking cessation program attendance. There is limited evidence about the contextual barriers and facilitators of implementing smoking cessation programs for rural, disadvantaged women in western Newfoundland.

IVb. Scheirer's Framework on Program Implementation

Understanding the factors that determine successful implementation of a smoking cessation intervention contributes to effective programs (Oldenburg, Sallis, French, & Owen, 1999). An intervention aimed to change behaviour is complex and requires changes in various levels, both within and outside of the organization (Visser, 2004).

Scheirer's framework on program implementation identifies levels of influence at the macro-, intermediate- and micro-level of the organization when programs are implemented (Scheirer, 1981, 1994). The premise of the framework is that program implementation is explained by the organizational context. It is an integrated approach involving the organizational social system. The macro-level involves analysis from a political perspective of the roles of institutions of the larger community, although not directly involved but whose support affects implementation. The intermediate-level focuses on the organizational unit

involved in program implementation. Finally, the micro-level focuses on the characteristics of the individuals responsible for program implementation.

Scheirer's model of program implementation was used to identify factors facilitating ecological tobacco control programming in Québec (Richard et al., 2004). An exemplary case study design examined two public health units with high levels of the ecological approach in their tobacco control programming. The study findings identified the key roles of provincial ministerial guidelines and financial resources, human resources, and relationships and collaborative alliances with other organizations as important in program implementation (Richard et al., 2004, p. 418). The authors concluded that Scheirer's model of program implementation was beneficial in identifying characteristics of the environmental, organizational and professional environments that facilitated tobacco control programming. They suggest the findings may assist in the implementation of health promotion programs.

Factors that promote the organizational adoption and discontinuation of a fluoride rinse program were explored using Scheirer's framework on program implementation (Scheirer, 1990). The author suggests that these findings have implications for fostering dissemination of health promotion programs including: the importance of external change agents in creating opportunities for adoption decisions; the change agent's message must include the effectiveness of an intervention; and funding may be required for the change agent function to ensure program adoption and consistent patterns of use (Scheirer, 1990, p. 212).

IVc. Process Evaluation

Process evaluation assesses what occurred with implementation and the influence on program outcomes (Bouffard, Taxman, & Silverman, 2003). Process evaluation includes using information to modify programs to make decisions about the level of planned versus actual implementation and whether the intended audience was reached (Devaney & Rossi, 1997; Helitzer, Yoon, Wallenstein, & Garcia-Velarde, 2000). Process evaluation is important in understanding why or why not a program was successful (Saunders, Evans, & Joshi, 2005) and in validating program implementation prior to using limited resources to measure its effectiveness (Scheirer, Shediac, & Cassady, 1995).

Process evaluation provides valuable information for program implementers and administrators. This includes important information about the type of smoking cessation programs that can be delivered in specific settings, appropriate providers, and the suitability of the program for women (Windsor et al., 2000). The information obtained from process evaluations provide practical information about the structure and functioning of the organization delivering the smoking cessation program. The data obtained in process evaluations are critical in determining the efficacy, internal validity, cost effectiveness, and external validity of a smoking cessation intervention (Rossi & Freeman, 1997). The introduction of a new smoking cessation program requires policy, management and practice support (Windsor et al., 2000).

IVd. Organizational Capacity

Understanding the organization is vital when implementing health promoting programs (Riley, Taylor, & Elliott, 2003). The relationship between

organizational capacity and effective program implementation is intricately linked (Frank, 1993; McKinlay & Marceau; 2000). Organizational capacity to provide effective programs is impacted by the dimensions of knowledge and skills of staff, partnerships with other organizations, resources, leadership and infrastructure (Goodman et al., 1998; Hawe, King, Noort, Gifford, & Lloyd, 1998; Jackson et al., 1994). The values and behaviours of an organization are important components of program implementation (Kernick, 2002; Plsek & Wilson, 2001; Rowe & Hogarth, 2005). A case study review (n=5) within the Canadian Heart Health Initiative examined barriers and facilitators to health promotion practice (Robinson, Driedger, Elliott, & Eyles, 2006). These findings suggest that health promotion practices are influenced by collective factors including: the presence or absence of committed, skilled people; funding and resources; and priority and interest.

An essential component of organizational capacity is the congruence of the smoking cessation program with the organization. An organization's history impacts on its resource availability and adaptability to change (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000; Goodman, 2000). Therefore, compatibility between the intervention and the organization is paramount. Through organizational knowledge, it is possible to "weave programs into the basic fabric of a setting" (Elias, 1987, p. 550). An intervention has a greater chance of success when its goals and values are in sync with the organizational culture. Successful implementation requires attention to the change process including: resource provision; skill development; and problem-solving assistance.

Organizational capacity has to be considered when implementing smoking cessation programs.

IVe. Program Providers

The commitment of program providers is a critical success factor when implementing a smoking cessation intervention (Aquilino, Goody, & Lowe, 2003). Changing provider behaviour when implementing new programs and services may be challenging (Nutley, Walter, & Davies, 2003). One way to change behaviour is to use robust evidence to encourage and support program implementation. However, efforts to incorporate research evidence into program implementation are difficult (Fitzgerald, Ferlie, & Hawkins, 2003; Oxman, Thomson, Davis, & Haynes, 1999).

Training is one way to support program providers to successfully implement a program (Visser, 2004). Some program providers perceive that smoking behaviour cannot be changed (Klerman & Rooks, 1999) therefore, it is important to include evidence of smoking cessation effectiveness during program training. As the personal commitment of program providers is linked to successfully assisting pregnant women with cessation, training promoting provider self-efficacy is important (Zapka et al., 2000). If providers believe they can successfully use a program they will be more likely to use it (Bolman, de Vries, & Mesters, 2002). Provider characteristics including smoking status are important factors to successful smoking cessation programs. In one study (Scott & Mcllvain, 2000), non-smoking staff did not perceive that their smoking status might exclude them from providing smoking cessation programs.

Program implementation success is influenced by the program providers' thoughts about the complexity and superiority of a program, a supportive workplace, and the internal rules related to program implementation. Studies suggest that the providers' perspective of the superiority and complexity of a new program are important factors to successful implementation (Bolman, de Vries, & Mesters, 2002; Mesters & Meertens, 1999), with perceived superiority an advantage and perceived complexity a disadvantage to program use. A supportive work place and co-workers contribute to successful implementation (Mesters & Meertens, 1999). The internalized rules of the staff help anticipate, predict and determine actions within an organization (Miller, Grabtree, McDaniel, & Strange, 1992; Plsek & Greenhalgh, 2001). Gaining insight and challenging the internalized rules of staff are critical to implementing programs, as key elements such as rules, policies and procedures, and organizational structure can encourage certain ways of working and discourage others (Argyris & Schon, 1974).

IVf. Summary

Implementing smoking cessation interventions in rural communities and at multiple sites pose significant logistical and financial barriers to evaluation (Joffres et al., 2004). Barriers to smoking cessation program attendance for pregnant women are not adequately identified and addressed (Ussher, West, & Hibbs, 2004). Further studies are needed that identify barriers and facilitators and evaluate the effectiveness of smoking cessation interventions which try to overcome attendance barriers (Ussher, Etter, & West, 2006). To ensure that program implementation adheres to the implementation plan, priority must be

given to identifying and addressing the "real life" barriers to program implementation (Dariotis, Bumbarger, Duncan, & Greenberg, 2008).

Diffusion of effective programs is a goal of researchers and program developers (Dariotis, Bumbarger, Duncan, & Greenberg, 2008; Rohrbach, Grana, Sussman, & Valente, 2006). However, little is known about the quality of program implementation when programs are disseminated outside of the research context (Karachi, Abbott, Catalano, Haggerty, & Fleming, 1999). This is important as program adaptation is common and implementation may vary under natural community conditions.

In summary, literature on program implementation and evaluation shows that: (a) contextual factors impact program implementation; (b) multiple supports are required to support program implementation; (c) program implementation is influenced by the implementer, organization, program, and community context; (d) barriers and facilitators exist affecting smoking cessation program attendance; and (e) process evaluations provide essential information on the implementation of smoking cessation programs. Further research is required to identify the barriers and facilitators to implementing smoking cessation programs for rural, disadvantaged women.

V. Newfoundland Context

Smoking among pregnant women is a priority health issue in Newfoundland (Alliance for Control of Tobacco, 2005; Government of Newfoundland & Labrador, 2002a). In 2001, the proportion of pregnant women reporting smoking over the previous year increased by 3.7 per cent (Government of Newfoundland & Labrador, 2003b). This may reflect better reporting or

increased acknowledgement of smoking among pregnant women, or it may be a true increase. This section will explore the literature related to the Newfoundland context of smoking cessation for pregnant and parenting women including: (a) Healthy Baby Clubs; (b) context of Newfoundland families; and (c) lay health providers.

Va. Healthy Baby Clubs

This section describes the challenges of offering smoking cessation programs to pregnant and parenting women in Newfoundland and the role of Healthy Baby Clubs (HBC) in providing services to women. The rural geography in western Newfoundland presents unique challenges in providing programs to women who are socially disadvantaged (Government of Newfoundland & Labrador, 2002b). Rural settings pose challenges for delivering health services because populations and resources are widely distributed (Romanow, 2002). As previously discussed in Chapter 1, in order to assure services in this context five Family Resource Centres (FRC) have been funded and established in the western region of the province. The FRCs offer a variety of programs and services to children (0-6 years) and their families, which are designed to promote healthy child development, enhance positive parenting skills and build on community capacity. One such service is the HBC, which provides pre- and post-natal support services (Health & Community Services Western, 2002). While HBCs do offer help with smoking cessation (i.e. health-related advice on smoking dangers, smoking cessation advice and distribution of smoking cessation literature) (Health & Community Services Western, 2002), the help is ad hoc and not necessarily

according to best practice standards. Lack of cessation services has been identified as a program gap (Government of Newfoundland & Labrador, 2001).

HBCs are staffed by HBC Mothers who provide education, support and outreach to pregnant and parenting women. The premise of the model is that HBC Mothers are from the same communities, have similar attitudes, values and beliefs thus, providing non-judgmental support and understanding (Andrews, Felton, Wewers, & Heath, 2004; Swider, 2002). Furthermore, they have insider knowledge of their communities and may be better able to communicate with "hard to reach" populations (Hill, Bone, & Butz, 1996).

HBC Mothers provide limited smoking cessation services to rural, disadvantaged pregnant and parenting women. Further research is required to explore the role of HBC Mothers in delivering smoking cessation programs for rural, disadvantaged pregnant and parenting women.

Vb. Context of Newfoundland Families

Strong family networks have been associated with smoking cessation among pregnant women (Pletsch & Johnson, 1996; Yu, Park, & Schwalberg, 2002). Traditionally, Newfoundlanders have enjoyed strong family and social networks. Social support agencies such as FRCs play a supportive role to women and are becoming increasingly important as the fabric of life in rural Newfoundland is changing as a result of out-migration in search of employment. Between 1977 and 2002 it is estimated that 330,700 people left the province, while only 32,000 entered, a net loss of 298,700 people (Newfoundland & Labrador Statistics Agency, 2004). A survey of Newfoundlanders in 2001 revealed that one-third of women as compared to 22 per cent of men said that they

sometimes or often felt lonely (Newfoundland & Labrador Statistics Agency, 2004). The social context of families is impacted by the outmigration of men seeking work in other provinces. This recent phenomena is changing the face of the family unit in rural Newfoundland because of the absence of fathers (Brautigam, 2008). The provincial government estimates anywhere from three to five per cent of its workforce - approximately 6,000 to 10,000 people mainly men - leave Newfoundland for work (Brautigam, 2008). This is commonly referred to as the "mobile workforce." These changes may impact on how smoking cessation interventions are structured since traditional social support networks may be unavailable. Community agencies such as FRCs may provide opportunities to broaden the context in which tobacco reduction is addressed in a holistic perspective, appropriate for and accessible to disadvantaged women who smoke (Browne, Shultis, & Thio-Watts, 1999; Stewart, Brosky, et al., 1996; Stewart, Gillis, et al., 1996).

HBCs provide supportive services to pregnant and parenting women in western Newfoundland. The evidence is limited of the role of community-based agencies such as HBCs in implementing tobacco reduction and cessation programs acceptable and appropriate for rural, disadvantaged women.

Vc. Lay Health Providers

Lay health providers offer information and advice to pregnant and parenting women. The role of lay health providers has evolved and includes activities such as community liaising, promoting community capacity and advocacy, providing social support, and providing culturally appropriate health education and direct services (Swider, 2002). They are being used increasingly

with “hard to reach” populations, including disadvantaged women (Andrews, Felton, Wewers, & Health, 2004). Despite the growing popularity of the use of lay health providers and their varied roles and functions, there is no accepted definition for a lay health provider or common job description (Giblin, 1989; Witmer, Seifer, Finnocchio, Leslie, & O’Neil, 1995). Further, there is limited knowledge about the smoking cessation advice provided by lay health providers (Dunn, Pirie, & Hellerstedt, 2004).

A qualitative study explored the advice-giving role of female friends and relatives (Dunn, Pirie, & Hellerstedt, 2004). Survey data collected from low-income women (n=105) and focus groups (n=9) with female friends and family (confidants) of pregnant smokers examined advice offered regarding substance use, their perceptions of the behaviours and their role with giving advice. The confidants considered their role to be influential and distinct from the information given by doctors. The advice-giving role of family and friends was compared with that of doctors and focused on three themes: the content, order and quality of the advice. The confidants agreed that: (1) they advise on general health matters and childbirth, with doctors providing medical information on health concerns and symptoms; (2) they provide initial advice before physicians because of established trust and comfort; (3) they are more approachable than doctors as women may be embarrassed to ask questions and appear ignorant; and (4) the advice provided was similar to that of the doctors. The focus groups (confidants) identified low risk perception and a high acceptance for smoking among pregnant women. Total abstinence for smoking cessation is prudent advice for pregnant and parenting women (Dunn, Pirie, & Hellerstedt, 2004) however, the physicians and confidants

of pregnant women may provide conflicting advice, because they may perceive smoking risks differently. These findings suggest that confidantes have an important role in smoking cessation during pregnancy, as they have regular contact with women, provide support and may have had similar issues during their pregnancies as they are from similar backgrounds. The authors concluded the confidants of women have the ability to influence smoking cessation behaviour and attendance at smoking cessation programs. However, the evidence is limited regarding confidants' smoking cessation knowledge.

The effectiveness of lay health providers in providing smoking cessation programs has been studied in a limited manner. A literature review (Swider, 2002) explored the effectiveness of community health workers in smoking cessation. One study investigated the effectiveness of community health workers in recruiting inner-city women to a smoking cessation program (Lacey, Tukes, Manfredi, & Warnecke, 1991) and found the community health workers were more effective than a mass media campaign in recruitment however, there was limited documented effect on smoking cessation. The findings of the review noted that community health workers may increase health promotion activities such as smoking cessation and assist in reaching the "hard to reach" population (Swider, 2002).

Other studies have explored the role of lay health providers in smoking cessation including program recruitment and retention, social support and self-efficacy. A small pilot study in the United States explored the feasibility and effectiveness of a community-partnership model (nurse and community health worker) to deliver a smoking intervention to African American women (n=15)

living in a subsidized housing development (Andrews, Felton, Wewers, Waller, & Humbles, 2005). The community health workers assisted in the recruitment and retention to the study and promoted social support and self-efficacy to women during the cessation program, with the nurse providing the group smoking cessation intervention, behaviour strategies and NTR. The study found the 24-hour point prevalence abstinence rates at six and twelve weeks were 80 per cent and 73 per cent respectively, with the two-month sustained abstinence rate being 60 per cent. These findings suggest community health workers are important in recruiting and retaining women, as they assist researchers to understand the world-view of the women and the intrapersonal, community, cultural and policy factors that affected their health (Eng, 1992; Hill, Bone, & Butz, 1996; Love, Gardner, & Legion, 1997). The authors concluded the study has implications for further evaluation of the role of lay health providers and their use and level of activity with smoking cessation for disadvantaged women.

The evidence is limited on the role of lay health providers in delivering smoking cessation programs for rural, disadvantaged women.

Vd. Summary

There are no known studies that have used HBC Mothers to provide smoking cessation interventions for disadvantaged Newfoundland women. There are limited studies that have used lay health providers to provide smoking cessation interventions to low-income women (Andrews, Felton, Wewers, Waller, & Humbles, 2005; Lacey, Tukes, Manfredi, & Warnecke, 1991; Lacey et al., 1993; O'Loughlin, Paradis, Renaud, Meshefedjian, & Barnett, 1997). Health care professionals may lack the training, resources and time to provide smoking

cessation programs for pregnant and parenting women (Strecher et al., 2000). Therefore, the use of lay health providers such as HBC Mothers warrants exploration. Andrews, Felton, Wewers, and Heath (2004) identified the need for process evaluations using community health workers (CHW) to enhance understanding of recruitment and retention strategies for both women and CHW; training and support needs; frequency, intensity, quality and competency of CHW interventions; levels of social support and social influence within the community network: and intervention characteristics such as barriers, time and costs.

In summary, literature on the Newfoundland context is limited regarding the role and effectiveness of lay health providers in facilitating smoking cessation programs for rural, disadvantaged pregnant and parenting women.

VI. Summary of the Literature

This section will summarize literature reviewed on the health effects, determinants of smoking and smoking cessation, smoking cessation interventions, program implementation and evaluation, and Newfoundland context; with the summarized gaps in the literature outlined.

VIa. Limitations of the Existing Literature

Eight gaps in the literature were revealed including: (1) the meaning, understanding and impact of the health effects of smoking on rural, disadvantaged women are not considered by smoking cessation programs; (2) a dearth of research on certain aspects of smoking cessation interventions for rural, disadvantaged women including: (a) knowledge of effective interventions for disadvantaged women; (b) the determinants of smoking behaviour; and (c) acceptability and safety of NRT; (3) limited availability of smoking cessation

interventions for disadvantaged women considering the context of their lives and communities with no programs available in Newfoundland; (4) knowledge of barriers and facilitators to smoking cessation program attendance for disadvantaged women living in rural areas; (5) limited research on the impact of broad socio-ecological factors (stigma, poverty and social disadvantage) on smoking cessation for disadvantaged pregnant and parenting women; (6) "real life" implementation of programs has been addressed in a limited manner; (7) limited studies on the role of lay health providers in providing smoking cessation programs for rural, disadvantaged women; and (8) limited process evaluations of smoking cessation programs for rural, disadvantaged women.

Studies have identified that women who quit smoking during pregnancy have difficulty maintaining cessation following birth (Bottorff, Johnson, Irwin, & Ratner, 2000; Ripley-Moffit et al., 2008; Stotts, DiClemente, Carbonari, & Mullen, 2000; Quinn et al., 2006). Therefore, it is important to provide smoking cessation programs before, during and after pregnancy (Ruggiero & de Groot, 1998), including information on the health effects of smoking. To support pregnant and parenting women in quitting smoking, implementation evaluation is needed to guide the development of effective smoking cessation interventions and to ensure the intervention is tailored to the needs of rural, disadvantaged women (Greaves et al., 2003; Lumley, Oliver, Chamberlain, & Oakley, 2004). At this time there is little attention paid to the meaning, understanding and impacts of the health effects of smoking for rural, disadvantaged women.

Smoking cessation interventions have been developed for pregnant and parenting women who smoke (Glasgow, Whitlock, Eakin, & Lichtenstein, 2000;

Stotts, DeLaune, Schmitz, & Grabowski, 2004; Stotts, DiClemente, & Dolan-Mullen, 2002; Valanis et al., 2001), however, the interventions are less effective with women who have a partner that smokes, are less educated, and are more addicted (Kendrick et al., 1995; McBride et al., 1999). Improvements for smoking cessation interventions for rural, disadvantaged women are needed (Pollack et al., 2006), including: knowledge of the needs of rural, disadvantaged women; determinants of smoking; and the acceptability and safety of NRT. Qualitative research may provide rich descriptions of the lives of rural, disadvantaged women who smoke. To date there is a dearth of qualitative research exploring smoking cessation interventions for rural, disadvantaged pregnant and parenting women.

There are limited smoking cessation programs for disadvantaged women developed with an understanding of the context of women's lives and communities. Current hospital or clinic based smoking cessation programs and strategies are not accessible for "hard to reach" populations including women who are disadvantaged and lack resources (Voorhees et al., 1996). Thus, highlighting the need for innovative community partnership models to reach rural, disadvantaged women who smoke (Flaskerud, et al., 2002). At this time, there are no smoking cessation programs for rural, disadvantaged pregnant and parenting women living in western Newfoundland.

Women who are socially disadvantaged have higher rates of smoking during pregnancy and are at higher risks of tobacco-related harm (Woodby, Windsor, Snyder, Kohler, & DiClemente, 1999). Additionally, women living in economically-disadvantaged areas face multiple challenges affecting the success

of smoking prevention and cessation (Stueve & O'Donnell, 2007). Despite the emphasis that has been placed on smoking cessation for pregnant and parenting women (Alliance for the Control of Tobacco, 2005), a significant proportion of women continue to smoke (Colman & Joyce, 2003). Pregnancy offers an opportunity for smoking cessation as women may be receptive to smoking cessation messages. Therefore, making an argument for smoking cessation interventions to help them reduce or stop smoking (Ockene et al., 2002). To date there are limited studies exploring the barriers and facilitators for rural, disadvantaged women in attending smoking cessation programs.

The World Health Organization Commission on the Social Determinants of Health (WHO, 2008) calls for a renewed emphasis on early life, education, employment and working conditions, food security, health care services, housing, income and its distribution, social safety net, social exclusion, and unemployment and employment security. Through women telling their stories about the impact of the social determinants of health on their lives it may enable the focus to shift from a biomedical to a lifestyle paradigm (Raphael, 2008). Income, the quality of early life, food and housing security do not exist in a vacuum (p. 16); to this end, smoking cessation has important implications for the social determinants of health for rural pregnant and parenting women and their children. The significant health effects of smoking on women and children heighten the importance of providing information regarding the health impacts (Castrucci, Culhane, Chung, Bennett, & McCollum, 2006). At this time, there are limited studies that have addressed the broad socio-ecological factors (stigma, poverty and social disadvantage) impacting smoking cessation programs for rural pregnant and parenting women.

To date no study has evaluated a smoking cessation program for disadvantaged pregnant and parenting women in Newfoundland using HBC Mothers (lay health providers) to deliver the program. There is a dearth of research exploring the role of lay health providers in smoking cessation. Process and outcome evaluations are needed to effectively evaluate smoking cessation interventions for rural, disadvantaged women (Andrews, Felton, Wewers, Waller, & Humbles, 2005: Gilligan, Sanson-Fisher, Eades, & D'Este, 2007; Greaves et al., 2003; Lumley, Oliver, Chamberlain, & Oakley, 2004). There is a need for studies describing whether programs are implemented as planned and what factors impacted adaptations (Scheirer, Shediac, & Cassady, 1995) and understanding program implementation in "real life" naturalistic conditions. To date there are limited studies on the implementation of smoking cessation programs for rural, disadvantaged women in multi-site, naturalistic conditions; the role of lay health providers in smoking cessation program implementation; and process evaluations of smoking cessation interventions for rural, disadvantaged pregnant and parenting women.

The literature on the health effects, determinants of smoking, smoking cessation interventions, program implementation and evaluation, and the Newfoundland context are important to the present study and have implications for understanding smoking cessation program implementation; however, there are limitations in the literature. Many studies on smoking cessation and pregnancy are cross-sectional, limiting the extent to which conclusions about causality may be drawn. Results may not be generalizable due to the small and select samples included in many studies. Use of self-reports may lead to under or over reporting

of data on smoking. Smoking has been defined inconsistently in the literature making comparisons between studies difficult. The majority of studies were carried out in the United States and differences between countries may contribute to differing experiences and findings. Social stigma attached to smoking among pregnant and parenting women may limit participation in research studies.

Chapter 3
Methods

A multiple case study design was used to: (1) describe the level of implementation of a smoking cessation intervention, Expecting to Quit (ETQ), in five Healthy Baby Clubs (HBC) in western Newfoundland; (2) describe barriers and facilitators to implementing ETQ; and (3) collect preliminary evidence of its effectiveness among rural, disadvantaged women.

I. Rationale for Multiple Case Study Design

A case study design, using a qualitative approach, is supported by a belief that social processes are constructed, complex and ever changing (Rubin & Rubin, 2005). Additionally, it is through interacting and talking with participants about their experiences of the processes in which they are involved, that social process is understood (Yin, 2003). Thus, "the intricate details of phenomena that are difficult to convey with quantitative methods" are obtained (Strauss & Corbin, 1990, p. 19). Creswell (1998) described a case study as, "An exploration of a bounded system or case or multiple cases over time through detailed, in-depth data collection involving multiple sources of information rich in context. This bounded system is bounded by time and place, and it is the case being studied- a program, an event, an activity, or individuals" (p. 61). Yin identifies a case study as not just a methodology, but a "comprehensive research strategy" based on the research question (2003, p. 14). The case study approach has many varieties and as a research method it has many variations that attempt to describe, understand, or explore phenomena using a number of data collection techniques not requiring manipulation or control of events (Yin, 2003).

This approach is indicated when the researcher has little or no control over the events and is focusing on contemporary real life phenomena, especially when the boundaries between the phenomenon and the context are not clearly evident (Yin, 2003, p. 13). A multiple case study is well suited to an implementation evaluation of a smoking cessation intervention for pregnant and parenting women, as it fits well with investigating a "phenomenon within its real-life context" (Stake, 1995, p. 13). This is important when the goal is to study complex social phenomena in their natural setting and context (Pope & Mays, 1995). Additionally, a multiple case study design is appropriate when broad complex questions have to be addressed in complex circumstances (Keen & Packwood, 1995). A case study approach is particularly valuable when evaluating programs as it is capable of depicting the complexity and attaining enhanced understanding of an intervention (Crabtree & Miller, 1992).

A case study design allows for flexibility of data sources (Martin & McKneally, 1998). Yin (2003) describes the process of case inquiry as, "Copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis" (p. 14). Thus, a multiple case study design was selected as the best fit for this study.

Yin (2003) identified six types of data that may be used in a case study: documents, interviews, direct observation, participant-observation, physical artefacts, and archival records. Interviews are an essential element of case study

research however, it is advised that interview data be corroborated with information from other sources (Yin, 2003). The strength of qualitative interviews is describing social and political processes, that is, how and what things change (Rubin & Rubin, 2005, p. 3).

Focus group interviews are useful in exploring subjects that are sensitive and socially objectionable. A focus group setting promotes a sense of security as the attention is on the group rather than an individual, thus allowing for the expression of ideas and opinions that may be difficult to express in an individual interview (Stewart, Shamdasani, & Rook 2007). Focus groups permit perceptions and knowledge to be shared within the context of a peer group and at the same time decreasing the perceived risk to the participant (Morse & Field, 1995). Limitations of focus groups include the number of questions that can be addressed and the difficulty of taking notes during the interview (Patton, 2002). Flick (2006) describes the difficulty of documenting the data in a manner that permits the identification of individual focus group participants as well as the differentiation between statements of several parallel speakers (p. 199).

Finally, a case study methodology is useful in examining processes. Merriam (1998) notes that, "The interest is on the process rather than outcomes, in context rather than a specific variable, in discovery rather than configuration. Insights gleaned from case studies can directly influence policy, practice, and future research" (p. 19).

II. Setting

This study was conducted in five Healthy Baby Clubs (HBC) in western Newfoundland. Each was considered a "case" for the purposes of this study. The

HBCs were selected because of their important role in providing pre- and post-natal support services to disadvantaged women, their unique knowledge of the communities in which the women live, and the willingness, support and participation of the managers and HBC Mothers to be involved in the study.

In considering the important role of the HBCs in providing programs to disadvantaged women and their unique knowledge of the context of their lives, the managers were approached regarding participation in the research study. They viewed participation as a way to address a gap in smoking cessation programming and assist in staff development and training. Additionally, they felt it had potential for sharing knowledge in the development, implementation, and evaluation of smoking cessation programs and services for pregnant and parenting women in Newfoundland. The managers of the HBCs provided an office for data collection, space for the program training and for the smoking cessation program, salary support and transportation for the HBC Mothers to attend the training program, and transportation for the women to attend the smoking cessation program.

III. Research Design

A multiple case study design was selected to examine the implementation of a smoking cessation program, ETQ. Sources of data used in this research study included: (1) semi-structured interviews (managers); (2) focus groups (pregnant and parenting women, and HBC Mothers); (3) training evaluation questionnaires; (4) knowledge, attitudes and beliefs (pre- and post-training) questionnaires; (5) socio-demographics and smoking behaviour questionnaires; and (6) document review of annual reports, staff meeting minutes, records of polices and

procedures, and activity logs. The multiple sources of data provided an in-depth understanding of program implementation.

IV. Scheirer's Framework on Program Implementation

As previously discussed in Chapter 1, Scheirer's framework on program implementation (Scheirer, 1981, 1994) was the conceptual framework for this study. The model identifies three levels of influence: macro-level of an organization with the political perspectives of the broader institutions of the community at large; intermediate level of the organizational unit; and micro-level of the individual workers. The study protocol included consideration of three levels of influence on program implementation; macro, intermediate, and micro. Interviews, focus groups, and questionnaires were used to seek information on program implementation from three groups of participants (managers, HBC Mothers, and women). Barriers and facilitators of implementing ETQ were described at the macro, intermediate, and micro levels of influence.

V. Study Procedures

The following procedures were conducted in this study: (1) questionnaires with managers (socio-demographics and smoking behavior); (2) interviews with managers; (3) questionnaires with HBC Mothers (knowledge, attitudes, and beliefs, and socio-demographics and smoking behavior); (4) focus group pre-implementation ETQ with HBC Mothers; (5) training evaluation HBC Mothers (pre- and post-training ETQ); (6) program training on ETQ for HBC Mothers; (7) questionnaires with pregnant and parenting women (socio-demographics and smoking behavior); (8) focus group pre-implementation ETQ pregnant and parenting women; (9) implementation ETQ HBC 1 and completion of activity

logs; (10) implementation ETQ HBC 2 and completion of activity logs; (11) changes to ETQ; (12) implementation ETQ HBC 3 and completion of activity logs; (13) document review (policies and procedures, staff meeting and annual general meeting minutes); (14) focus group post-implementation ETQ HBC Mothers; (15) focus group post-implementation ETQ pregnant and parenting women; (16) questionnaires pregnant and parenting women post-implementation ETQ (smoking behavior); and (17) data validation with five HBCs at two time intervals. Table 1 describes the procedures used in this study.

Table 1 – Study Procedures: Data Sources and Data Collection

Study Procedures	Data Sources			Data Collection
Interviews	Initial and follow-up interviews	Managers	(n=5)	July-September 2006
Focus Groups	Pre-Implementation	HBC Mothers	(n=6)	September 2006 -
	Pre- Implementation	Women	(n=4)	October 2006
	Post-Implementation	HBC Mothers	(n=6)	May 2007
	Post- Implementation	Women	(n=2)	May 2007
Questionnaires	Knowledge, Attitudes, and Beliefs	HBC Mothers	(n=6)	September 2007
	Training Evaluation	HBC Mothers	(n=6)	September 2007
	Socio-demographics and	Managers	(n=5)	July 2007- January 2008
	Smoking Behavior	HBC Mothers	(n=6)	
		Women	(n=12)	
Smoking Cessation Program Implementation	HBC 1 HBC 2			October 2006 November 2006
Program Changes				December 2006
Smoking Cessation Program Implementation	HBC 3			March 2007
Document Review	Policies and Procedures Annual General Meetings Staff meetings Activity logs			April – August 2007
Data Validation	Meetings HBC 1-5 Meetings HBC 1-5			October 2007 January 2008

VI. Expecting to Quit: Smoking Cessation Intervention

ETQ is a smoking cessation program for women who are soon to be pregnant, are pregnant or are new mothers and was developed by the Calgary Health Region (2003). As previously described in Chapter Two, ETQ consists of six two-hour group sessions (see Appendix C for program information).

ETQ was chosen as the study intervention due to its applicability for use with disadvantaged women who smoke (Calgary Health Region, 2004), its supportive non-blaming philosophy, its use with non-professional providers, and the ease of incorporation into existing HBC programming. The elements of ETQ are congruent with best practices (Greaves et al., 2003; Health Canada 1993) and conclusions from systematic reviews of smoking cessation interventions for pregnant women (Lumley, Oliver, Chamberlain, & Oakley, 2004). A best practices review of smoking cessation interventions for pregnant and parenting women identified a general lack of availability of programs for disadvantaged women (Greaves et al., 2003).

VII. Implementation of Expecting to Quit

ETQ was incorporated into the existing programs of the HBCs and was delivered by the HBC Mothers. It was implemented at three HBCs, two located in rural areas and one located in an urban community, from October 2006 to March 2007. Recruitment efforts for ETQ included posters, personal invitations, newspaper advertisements, and cable television notices. Despite extensive recruitment efforts, two additional rural HBCs were unable to recruit women to the ETQ program.

VIIa. Program in Three Healthy Baby Clubs 1-3

The HBC Mothers were contacted to identify a convenient date to conduct the smoking cessation program. Following confirmation of the date of the program, the pregnant and parenting women were contacted by the HBC Mothers. Child care, transportation and nutritious snacks were provided to the women attending ETQ. Ninety dollars were given to each HBC for the purchase of

healthy snacks for the women attending the program. Activity logs on session attendance and the commencement and completion dates of the program were maintained by the HBC Mothers. HBC Mothers were telephoned weekly to identify any issues or concerns. Following the completion of the program at the three sites, face-to-face meetings with the HBC Mothers were held to identify the need for adaptation or changes to the program. Minor revisions to ETQ (i.e., development of ice breakers for the class sessions) were made prior to program implementation in HBC 3.

VIIb. Healthy Baby Club 4

Weekly calls were made to the HBC Mother of HBC 4 to discuss recruitment of women. The HBC Mother was unable to recruit participants despite using posters, newspaper ads, cable television ads and word of mouth through the other programs in the HBC. The HBC Mother stated, "We have a good problem here, we have no smokers." The HBC Mother affirmed her commitment to offer ETQ. An information session/open house for women who have attended HBCs was offered to discuss and describe the research study with a goal of recruiting women to the program. The HBC Mother and manager did not feel that this would enhance recruitment. They stated that they are aware of the population of women that they serve and their smoking status. It was decided to continue with recruitment during the winter of 2007. The HBC Mother from HBC 4 continued to be called on a weekly basis but was unable to recruit participants. In March 2007, following consultation with the Research Advisory Committee the decision was made to stop recruitment at this site.

VIIc. Healthy Baby Club 5

Initially it was felt by the staff at HBC 5 that the recruitment of women to ETQ would not be difficult. However, after extensive recruitment efforts including posters, newspaper ads, cable television ads and word of mouth through the other programs in the HBC, they were unable to recruit women to attend ETQ. The HBC Mother suggested that it may be worthwhile to explore individual, home visiting interventions as opposed to a group intervention due to the rural geography. The HBC Mother affirmed her commitment to offering the program and expressed disappointment in being unable to do so. An information session/open house to discuss and describe the research study was offered, but the HBC Mother and manager did not feel that this would enhance recruitment. Following consultation with the Research Advisory Committee the decision was made to stop recruitment at this site.

VIII. Participants in the Study

Twelve pregnant and parenting women participated in the study. Of the 12 women, 10 participated in ETQ. Five managers and six HBC Mothers participated in the study and constituted all of the population for this category of participants, as they are the full-time staff employed by the five HBCs in western Newfoundland.

The sample size was adequate as the researcher obtained a "new and richly textured understanding of the experience" (Sandlelowski, 1995, p. 183) and ensured that descriptions and analysis of the participants' experiences were in-depth. As it is noted by Sandlelowski (1995), sample sizes in qualitative research

are typically modest due to the large volume of data generated from intensive contact with participants.

VIIIa. Inclusion and Exclusion Criteria

Inclusion criteria for pregnant and parenting women to participate in ETQ were self-reported current, daily cigarette smoking (≥ 1/day) and attendance in a HBC in western Newfoundland at any time in the past five years. Recall that in order to attend a HBC, women had to have met the following criteria: lone-parenting (single parent), social disadvantage (isolation, socio-demographic challenges), lower income levels or lower educational attainment (Government of Newfoundland & Labrador, 2001; Health & Community Services Western, 2002). Therefore, the women attending HBCs meet the criteria for high-social-risk (Coleman, 2004; Greaves et al., 2003; Health Canada, 1993, Health Canada, 1995; Millar, 1997, Ockene et al., 2002; Stewart, Gillis et al., 1996; Tappin, Ford, Nelson, & Wild, 1996). Non-smokers were excluded from the study.

VIIIb. Recruitment

Following ethical approval by the Institutional Review Board, Faculty of Medicine, McGill University and the Western Health Research Ethics Board, Western Regional Integrated Health Authority (Appendix D), meetings were held with the managers and HBC Mothers at five HBCs in western Newfoundland to explain the study and to train them to recruit in a way which would ensure consistency across the five sites. A copy of the ethical approval and an executive summary of the research proposal were provided. Each site was contacted by telephone on a weekly basis to inquire regarding recruitment, any issues that arose and to maintain interest in the study.

Shortly after the initial meeting, a follow-up meeting was held to begin the recruitment process. The managers, with the assistance of HBC Mothers, had begun to compile a list of potential women that fit the criteria for inclusion in ETQ and the focus group interview. The meeting offered insights into the HBCs and the support and assistance that they would provide to the study.

Recruitment was carried out in a sequential manner as follows: (1) posters were placed at each HBC (see Appendix E); (2) managers invited women personally using invitations; (3) managers explained the study to potential participants (see Appendix F); (4) a research assistant or the principal investigator obtained consent from women eligible for participation (see Appendix G); (5) participants meeting the study inclusion criteria were enrolled in the study; and (6) participants attending ETQ were offered $20 with a thank-you note at the first and fourth class of ETQ to compensate for additional costs incurred for childcare and travel.

IX. Data Collection

As previously mentioned, qualitative case study uses multiple sources of data as the researcher builds a comprehensive picture of each case (Creswell, 1998). The Healthy Baby Clubs were identified as five separate cases for the within-case analysis. The across-case analysis included an integrated analysis of all cases. An array of data sources was used including: (1) interviews; (2) training evaluation questionnaires; (3) knowledge, attitude and beliefs (pre- and post-training) questionnaires; (4) socio-demographic and smoking behavior questionnaires; (5) focus groups; and (6) documents including policies and procedures, staff meeting, annual general meeting minutes, and activity logs.

Therefore, different actors' perspectives on the implementation of ETQ and the preliminary evidence of its effectiveness among rural, disadvantaged Newfoundland women were obtained.

IXa. Interviews

Five managers were contacted to arrange a convenient time and location to conduct the semi-structured interviews. The five interviews were held in a private office at each of the HBCs and were conducted from July to September 2006. Written consent (see Appendix H) was obtained and interviews were conducted using 12 pre-determined semi-structured interview questions (Appendix I). The interview questions consisted of topics including HBC priorities, smoking cessation programming, the role of managers in implementing programs, indicators of successful program implementation, issues to be considered when implementing programs and how to improve smoking cessation programs provided for HBCs. The use of an interview guide ensured that all the investigated themes were covered. To promote a natural flow of conversation and to increase confidence in the truth of the findings, probes were used only after the participants had finished expressing their thoughts (Lincoln & Guba, 1985). The probes included: (1) 'Could you say some more about that?'; (2) 'I'd appreciate it if you could give me more detail'; and (3) 'Why do you think that happened?' The interviews were audio-taped to ensure that all data were captured. The interviews ranged from 60 to 90 minutes in length.

A second follow-up interview was arranged for one to four weeks following the first interview from August to September 2006. The purpose of the second interview was to validate the transcribed interview data and to elicit

additional information. A copy of the transcribed interview was provided to the managers and three questions were asked by the principal investigator: (1) 'Does the transcript accurately reflect what you told me?'; (2) 'Are there any changes you would like to make?'; and (3) 'Would you like to add anything to the interview?' Two of the follow-up interviews were conducted in a private office at the HBCs and three follow-up interviews were conducted by telephone as this was preferred by the managers. The second interviews were audio-taped. The interviews were approximately 10 minutes in length.

IXb. Training and Evaluation Related to Expecting to Quit

A mental health and addictions consultant with a graduate degree in social work and specific expertise in addictions, smoking cessation and group facilitation, was contracted to train the six HBC Mothers on the delivery of ETQ. The ETQ program, training format, and dates for staff training were discussed. The consultant also provided ongoing support to the HBC Mothers delivering the smoking cessation program for the duration of the project.

Written consent for participating in the ETQ training was obtained from the HBC Mothers (see Appendix J). Six HBC Mothers then attended a seven-hour training session in September 2006 on the delivery of ETQ (see Appendix K). The training was based on best practices models (Abrams, et al., 2003; Health Canada, 1997). It was held at one HBC site with refreshments, lunch and transportation provided. Program materials to assist in the delivery of ETQ were standardized and consisted of a program manual, overhead transparencies, quit kits (gum, candy, tooth brush and paste, paper, pencils and water) for the participants, door prizes for each session, and activity logs.

A short, five-minute questionnaire evaluating the training program was distributed to HBC Mothers by a research assistant (see Appendix L). It was adapted from a questionnaire that explored factors determining cardiac nurses' intentions to continue to use a smoking cessation protocol (Bolman, de Vries, & Mesters, 2002). The questionnaire consisted of 16 questions (e.g., In general, the program… (1) Provide me with an opportunity to improve my performance in smoking prevention; (2) Is an improvement compared with the normal smoking cessation approach I use; (3) Is feasible in my daily work; and (4) I have had enough instruction on the program). Each HBC Mother (n=6) completed the questionnaire at the end of the seven-hour training session.

IXc. Knowledge, Attitudes and Beliefs Questionnaire

Open-ended questionnaires were completed by the HBC Mothers (n=6) before and after the training session to collect data on knowledge, attitudes and beliefs about smoking (see Appendix M). The 12-item questionnaire was adapted for this study from a nurses' knowledge, attitude and beliefs questionnaire related to the promotion of breastfeeding among women who bear children during adolescence (Spear, 2004). There were three knowledge questions on pregnancy and smoking cessation (e.g., (1) Many pregnant women stop smoking when they find out they are pregnant; and (2) It is easy to quit smoking); four statements on attitudes about pregnancy and smoking cessation (e.g., (1) Pregnant women should be encouraged to stop smoking; and (2) Information about smoking cessation should be provided to women attending HBCs); and five statements on beliefs about smoking and pregnancy (e.g., (1) A smoking cessation program should be offered in the HBC; and (2) I need to do more to encourage smoking

cessation during pregnancy). They took approximately 15 to 30 minutes to complete. Questionnaires were reviewed for missing or incomplete data; no missing data were identified.

IXd. Socio-demographic and Smoking Behavior Questionnaire

Self-report questionnaires were used to collect socio-demographic data (age, marital status, education, employment, and income) and information on smoking behaviours (frequency, amount, and history) (see Appendix N). Data were collected on the managers (n=5), HBC Mothers (n=6) and women (n=12). The socio-demographic data were based on a socio-demographic questionnaire used in Newfoundland (Newfoundland & Labrador Statistics Agency; 2004). The smoking behaviour questions were adapted from a questionnaire on maternal smoking cessation and relapse prevention (Valanis et al., 2001). The questionnaires took approximately five minutes to complete. One manager declined to complete the smoking behaviour questionnaire. No other data were missing on smoking behaviours. Two women declined to answer one question on the socio-demographic questionnaire regarding income; all other socio-demographic information was complete.

IXe. Focus Groups

Focus group interviews were used to explore perspectives and experiences on smoking cessation in pregnant and parenting women, as this methodology is appropriate in exploring multifaceted experiences (Flaskerud & Calvillo, 1991). The participants for the focus groups were selected based on having characteristics in common that relate to smoking cessation and disadvantaged women (Krueger & Casey, 2000; Morgan, 1998). While it is recommended that a

focus group interview be composed of six to 12 participants (Marshall & Rossman, 1999; Patton, 2002), this is not always possible due to recruitment difficulty.

There were four focus group interviews undertaken in this study and they were conducted from September 2006 to May 2007. One was with HBC Mothers prior to program implementation; a second with pregnant and parenting women prior to program implementation; a third with HBC Mothers after program implementation; and the last was with pregnant and parenting women following the implementation of ETQ. Different facilitators were used for the pre- and post-implementation focus groups. The pre-implementation focus groups were facilitated by two experienced facilitators, both nurses with graduate degrees. Because of the unavailability of the facilitators who conducted the pre-implementation focus groups, the post-implementation focus groups were facilitated by a community services manager and a teacher with a graduate degree in literacy, both experienced facilitators.

IXei. Focus Groups Healthy Baby Club Mothers

A letter confirming the date and time of the meeting was sent to each HBC Mother with a copy sent to the managers. Six HBC Mothers participated in the focus group interviews both prior to and following program implementation. The focus groups were held in a private community meeting room with no interruptions and a living room set up with couches and coffee tables, with refreshments available. The facilitators conducted the focus groups applying pre-established interview guides, with nine semi-structured questions for the pre-implementation group (see Appendix O) and 13 semi-structured questions for the

post-implementation group (see Appendix P). They led the group discussion on the questions in the interview guide and encouraged participants to discuss the questions freely. One facilitator took field notes during the focus group and recorded non-verbal behaviours. The pre-implementation focus group questions consisted of topics including: experience in providing smoking cessation programs, training in smoking cessation, issues to be considered in improving smoking cessation programs, and barriers to providing smoking cessation programs. The post-implementation focus group questions included topics such as experience in providing ETQ, actual versus planned program implementation, preparedness to offer ETQ, outcomes of ETQ, program implementation supports, and implementation of ETQ. Probes were used including: (1) 'Could you say more about that?'; (2) 'We'd appreciate it if you could give us more detail'; and (3) 'Why do you think that happened?' The pre- and post-implementation focus groups lasted approximately 90 minutes. The data from the focus groups were audio-taped. The audio-tapes and field notes were collected from the focus group facilitators immediately following the interviews. Following the focus groups HBC Mothers were thanked for their participation. Following the post-implementation focus group, HBC Mothers were given a thank-you note and lunch was provided.

IXeii. Focus Group Pregnant and Parenting Women

The focus groups were conducted by facilitators using pre-established interview guides, with 10 semi-structured questions applied pre-implementation (see Appendix Q) and 10 semi-structured questions post-implementation (see Appendix R). They led the group discussion on the questions in the interview

guide and encouraged participants to discuss freely, with one facilitator taking field notes during the focus group and recording non-verbal behaviors. The pre-implementation focus group questions included topics such as: experience with smoking cessation programs, supports required to attend ETQ, and perceptions of an "ideal" smoking cessation program. The post-implementation focus group questions consisted of topics including the women's experience of attending ETQ, supports required for attendance, and suggestions to improve the program. Probes were used including: (1) 'Could you say some more about that?'; (2) 'We'd appreciate it if you could give us more detail'; and (3) 'Why do you think that happened?' The pre- and post-implementation focus groups lasted approximately 90 minutes. The data from the focus group were audio-taped. Audio-tapes and field notes were collected from the facilitators immediately following the interviews. Women were thanked for participating in the focus group and lunch was provided.

IXeiii. Focus Group Pre-Implementation Pregnant and Parenting Women

Each HBC Mothers was contacted by telephone to discuss recruitment of women for a focus group. One expressed a keen interest in hosting the focus group at her site and arrangements were made to do so. Five women expressed interest in attending the focus group. Following discussion, the HBC Mother confirmed a mutually acceptable time and location with the five women. Follow-up phone calls were made by the HBC Mother three days prior to the focus group, with the women confirming their attendance. The day of the focus group four women presented at HBC 2. The fifth woman did not attend. She called the HBC Mother the morning of the focus group and stated that she was unable to attend, as

her child had an acute illness and she had to seek medical attention. The decision was made to proceed with the four women. The four women represented HBC 2. The focus group was held in a private room at the HBC with a round table set up used. Childcare was provided on site by a child care worker provided by the HBC with four children requiring this service.

IXeiv. Focus Group Post-Implementation Pregnant and Parenting Women

Each HBC Mother was contacted by telephone to discuss recruitment of women for a focus group post-implementation of ETQ. Of the 10 women who had attended ETQ, two women had moved out of the region without leaving a forwarding address or telephone number. The eight remaining women were telephoned; four women expressed interest in attending the focus group and four declined to participate. Two of the four interested in attending subsequently declined as they would have to travel to a focus group, even though transportation would be provided. Following discussion with the remaining two women, a mutually acceptable time and location for the focus group was identified. A follow-up phone call to the women was made prior to the focus group by a HBC Mother with the women confirming their attendance. The day of the focus group, two women presented at the HBC. The two women represented HBC 3. The focus group was held in a private room at a community health office, using a round table set up. Transportation to the focus group was provided. Childcare was not required as the women's children were attending school at the time of the focus group.

IXf. Document Review

Following a meeting with the managers and HBC Mothers, the following documents were obtained: staff meeting minutes, annual general meeting minutes and policy and procedure documents. Yin (2003) describes access to documents as one of the challenges in using archival records. In this study, the managers were receptive to sharing information and provided access to documents. The documents were reviewed in a private room at the HBC with data extracted by hand. Activity logs were completed by the HBC Mothers following the last session of ETQ.

The staff meeting minutes for the years 2005, 2006 and 2007 (January to June) were reviewed for references to smoking cessation programs and smoking policies. Secondly, the annual general meeting minutes for the years 2005-2006 and 2006-2007 were reviewed for references to smoking cessation programs. Finally, the policy and procedures manuals of HBCs were reviewed for the presence of policies including: staff no smoking, client no smoking, smoke-free properties, designated smoking area and smoking cessation programs.

Following the initial document review, results were discussed with the managers via telephone, providing clarification and seeking further information. There was variation in the development of policies and procedures. Specifically, the researcher looked for written policies and procedures. Two of the managers noted that a particular policy was not written but it was verbally discussed with staff and clients and was, in fact, an unwritten policy of their HBCs.

IXg. Transcription

The audio-taped interviews were transcribed within 72 hours of the interviews by a secretary. All pauses and emotional expression were noted on the transcripts. All identifying information such as names and communities were omitted from the transcripts. Following receipt of the transcripts and audio-tapes from the secretary, the tapes and transcripts were reviewed to correct errors. A total of five initial and follow-up interviews and four focus groups were transcribed.

X. Data Analysis

The data analysis techniques used in this study include qualitative analysis and descriptive statistics. Table 2 describes the data analysis used including research procedure and data sources.

Table 2 – Data Analysis: Research Procedure and Data Sources

Research Procedure	Data Source		Data Analysis
Interviews	Initial and follow-up interviews	Managers (n=5)	Content analysis Constant comparison Thematic analysis
Focus Groups	Pre-Implementation Pre- Implementation Post-Implementation Post- Implementation	HBC Mothers (n=6) Women (n=4) HBC Mothers (n=6) Women (n=2)	Content analysis Constant comparison Thematic analysis
Questionnaires	Attitudes, Knowledge and Beliefs Training Evaluation Socio-demographics and Smoking Behavior	HBC Mothers (n=6) HBC Mothers (n=6) Managers (n=5) HBC Mothers (n=6) Women (n=12)	Thematic analysis Descriptive statistics
Document Review	Policies and Procedures Annual General Meetings Staff meetings Activity logs		Descriptive statistics (frequency and range)

Xa. Qualitative Analysis

Consistent with qualitative research, inductive analyses of the data were undertaken. Techniques of content analysis, constant comparison, and thematic

analysis were used (Sandelowski, 1995). The data analysis was a dynamic process interspersed with periods of data collection in a back and forth manner (Sandelowski; Thorne, Kirkham, & MacDonald-Emes, 1997). Personal reflections of the researcher were acknowledged and this assisted in counteracting the effects of bias and in contributing to effective data analysis.

Coding of the data occurred manually rather than using computer software. A manual process was chosen supporting an in-depth review of the data, with key phrases by participants captured and given appropriate meaning.

Comprehensive and in-depth data from three participant groups (women, HBC Mothers and managers) were obtained thus providing different perspectives on the implementation of ETQ. Similarities and differences in group perspectives were noted and compared. Triangulation of data sources allowed comprehensive and in-depth information to be obtained, thus providing a comprehensive overview of the level of implementation and the barriers and facilitators of implementing ETQ. Documenting the perspectives of women, managers and HBC Mothers allowed an understanding of the implementation evaluation of ETQ using qualitative methodologies. Thematic linkages across the study groups were identified and integrated in the study findings.

Qualitative content analyses (Flick, 2006) were conducted on the findings of the focus group and semi-structured interviews (Benner, 1994) with the narrative analyzed to determine themes or patterns (Polit & Beck, 2004). A qualitative content analysis permitted unanticipated responses and rich descriptions of the participants' experiences, as codes were not determined prior to data analysis (Morgan, 1993). A within-case and across-case analysis was used

(Ayres, Kavanaugh, & Knafl, 2003). The within-case analysis focused on participant groups, while the across-case analysis explored patterns across the participant groups. A sequential approach was used. First, the transcripts were read with a focus on answering the study research questions and specific interview questions among all groups. The field notes from the focus groups were also reviewed. Second, a more in-depth analysis was completed. This consisted of multiple re-readings of the transcripts to identify any key sentences, phrases or paragraphs. Sentences with similar meaning were clustered together and summarized. Vague, unclear and contradictory sentences were noted. Third, passages which were coded similarly among the transcripts were extracted into larger, more interpretive categories. Finally, the interpretive categories were categorized into themes. In vivo labels were used for the names of the themes, using the words of the participants instead of phrases developed by the researcher (Denzin & Lincoln, 2000). This included such themes as "turning to others," "smoking so many triggers" and "you have to keep it behind closed walls."

During the data analysis process, three external reviewers read the verbatim interview transcripts of the semi-structured interviews (five), the focus group transcripts (four), the preliminary thematic analysis, the coding lists and the integrated synthesis of the findings. The external reviewers consisted of a physician with expertise in tobacco cessation programs, policies and procedures; a nurse with a graduate degree and experience in program planning and evaluation; and a nurse with a graduate degree and experience in population health and qualitative methodologies. When the external reviewers reviewed the findings, the major themes were similar; however, they highlighted content that they felt

should be assigned greater importance. Additionally, the thesis supervisors reviewed the multiple sources of data and qualitative thematic analysis. The completeness of the codes and themes was discussed and verified with a research co-supervisor, Dr. Franco Carnevale, thus contributing to the credibility of the findings (Creswell, 1998).

Xb. Document Analysis

Document analysis is viewed as an essential element of most evaluations (Stake, 1995). The documents analyzed included activity logs, staff meeting minutes, policies and procedures, and annual general meeting minutes provided by the HBCs. Basic descriptive statistics (frequency and range) were used to describe the data. Specifically, the staff meeting minutes from five HBCs were reviewed as to the frequency of meetings and whether they discussed smoking cessations programs and policies. Secondly, the annual general meeting minutes for 2005 and 2006 were reviewed as to whether a meeting was held and if smoking cessation programs were discussed or identified as an issue of concern. Thirdly, the policies and procedures of the five HBCs were reviewed. Finally, the activity logs were reviewed with the program attendance described. The documents were reviewed and summarized with the information used to identify themes. Findings from these data were juxtaposed with the interview and focus group analysis.

Xc. Questionnaires: Socio-demographic, Smoking Behaviors, and Training

Basic descriptive statistics (average, frequency and range) were used to describe the socio-demographic and smoking behaviors of the participants. The pre- and post-evaluations of training were described by the HBC Mothers using a

five-point scale ranging from strongly disagree to strongly agree. The qualitative comments were juxtaposed with the interview and focus group analyses, with basic descriptive statistics used to describe the training evaluation.

XI. Methodological Rigor

For qualitative studies, trustworthiness is measured in terms of credibility, transferability, dependability and confirmability (Sandelowski, 2004; Speziale & Carpenter, 2007). The following criteria are used to obtain rigor in qualitative studies: credibility or truth value, transferability or fittingness, consistency or auditability and confirmability (Lincoln & Guba, 1985; Sandelowski, 1986). It is suggested that strategies for attaining rigor in qualitative research must be interwoven or built into the research process and includes researcher analytical stance and data saturation to ensure rigor in an active and ongoing way (Morse, Barrett, Mayan, Olson, & Spiers, 2002). Table 3 describes the methods used to ensure study trustworthiness.

XIa. Credibility

Credibility is related to the trustworthiness of qualitative research findings (Speziale & Carpenter, 2007) and ensures the findings and interpretation of the study are plausible (Lincoln & Guba, 1985). Speziale and Carpenter (2007) suggest that qualitative studies are said to be credible when the descriptions are such that the people having the experience would immediately recognize it as their own. To that end, firstly the researcher provided the reader of this study a thorough description of the research documentation and process, therefore permitting the reader to judge the accurateness of the documentation (Flick, 2006). Secondly, the participation of the various actors (HBC Mothers, managers

and pregnant and parenting women) and the similarities of their accounts added to the likelihood that the data obtained in the research are reflective of their experiences with smoking cessation and program implementation as opposed to the experiences of the researcher. Credibility is assessed by the researcher's knowledge of the content area (Lincoln & Guba). The researcher has over 28 years of varied nursing and administrative experience focusing on population health and program implementation and evaluation. Additionally, the researcher has conducted a qualitative study with adolescent women and the social influences related to smoking (Gillam, 2000).

Credibility is obtained by member checking through returning the findings to the participants to see if they recognize the findings to be true to their experience (Yonge & Stewin, 1988). To confirm the credibility of this study, each manager received a summary of their interview transcript and verified its accuracy. Copies of the focus group transcripts were offered to the focus group participants, although they declined this offer.

Data triangulation promoted credibility in the study. Triangulation is a method of data collection where evidence is obtained and data gathered from a variety of sources by a variety of means and through analysis develop "converging lines of inquiry" (Yin, 2003, p. 98). It is recommended that data triangulation be used as a method for ensuring the validity of research and contributing to rigor (Berg, 2007, Yin, 2003). Therefore, the data sources for this study included five interviews with managers, two focus groups with HBC Mothers, two focus groups with women, training evaluations, socio-demographic and smoking behavior questionnaires and a document review of staff meeting

minutes, annual reports, policies and procedures and activity logs from each HBC. In this way data triangulation was woven throughout the research design.

XIb. Dependability

Dependability is a criterion used to measure trustworthiness in qualitative research and will be met once the credibility of the findings has been demonstrated (Speziale & Carpenter, 2007). Morse and Field (1995) suggest that the emphasis on dependability is whether the findings would be consistent if the study was replicated with the same participants using the same context. To that end, the researcher documented the data collection and analysis process including field notes, interview transcripts and research journal detailing discussions held during the study period in the event that a researcher would replicate the study. Additionally, an audit trail was used indicating that the findings are grounded in the data. Finally, dependability was fostered through the principal investigator, by assuming the major responsibility for analyzing the data and communicating with the research team. Validity was supported by careful attention to the composition of the focus group including size and homogeneity thus enhancing the possibility of sharing the experiences of the group (Krueger & Casey, 2000; Morgan, 1998; Speziale & Carpenter, 2007).

XIc. Confirmability

Confirmability is a criterion for measuring trustworthiness of qualitative research. Speziale and Carpenter (2007) suggest that if a study demonstrates credibility, auditability and fittingness, the study is also said to possess confirmability. Others note it refers to the freedom of bias in a study and is the extent to which the data accurately reflects the participants' views and not the

researcher's views or biases (Lincoln & Guba, 1985). First, confirmability in this study was demonstrated through recording activities over the course of the research to permit another researcher to follow the audit trail. Second, the researcher identified and bracketed personal experiences and ideas that may contribute to bias in the study in order to promote neutrality of the research. Third, confirmability was supported by describing data collection and analysis procedures, reviewing research decisions and confirming data analysis with three external reviewers and research co-supervisors. This added to the audit trail to permit assessment of confirmability (Koch, 2006). Finally, the researcher confirmed that the data are a reflection of the perceptions of the participants by presenting the findings to HBC Mothers and managers for data verification at two separate time intervals, thus ensuring that their experiences were captured accurately.

XId. Transferability

Transferability or fittingness is used to demonstrate the probability that the research findings have meaning to others in similar situations (Speziale & Carpenter, 2007). It refers to the extent the findings can be applied to other situations and will have meaning for the readers in relating the findings to their own context. Morse and Field (1995) suggest that studies provide rich descriptions of the research that permit readers to consider how the findings may pertain to another situation. To that end, the researcher recorded personal perspectives prior to and during data collection and during consultation with the research co-supervisors. Additionally, the transcripts were reviewed several times to re-identify the thoughts, feelings and reflections expressed during the

interviews and focus groups. Finally, to promote the transferability of the results, a descriptive account of the findings was presented. "Thick" and "rich" descriptions of the findings were provided so that the reader can determine if the results can be applied to other situations. Thus, permitting the reader to determine if the study results fit within the context of their experiences.

Table 3 – Study Methods to Ensure Study Trustworthiness

Trustworthiness	Study Method
Credibility	Through description of research process Researcher knowledge of content area Member checking- verification by participants of accuracy of transcripts Triangulation of data
Dependability	Audit trail documenting data collection and analysis Research journal Principal investigator responsibility for data analysis and communication Composition of focus groups
Confirmability	Audit trail Bracketing Data validation with external reviewers, research co-supervisors and participants
Transferability	Rich descriptions of findings Personal reflections of principal investigator

XIe. Data Validation

To strengthen the truth value of the findings, the results of the study were validated. Throughout data collection, the researcher verified the ongoing analyses directly with the HBC Mothers and managers. Furthermore, meetings were arranged with the HBC Mothers, managers and staff at each HBC in October 2007. The purpose of the five meetings was to review the preliminary findings of the research study including: thematic analysis; training evaluation; policy and procedure, staff meeting, annual general meeting review; socio-demographic and smoking behavior; and to provide the opportunity to verify the preliminary results of the study. The meetings were held in each HBC with the managers, HBC Mothers and other staff of the centers in attendance. A total of 19 people attended the five sessions, with attendance ranging from two to six staff at each site. The meetings ranged from 60 to 90 minutes in length. The participants validated that

their perceptions had been captured correctly. New information received from the meetings was used as further data.

A second series of five data validation meetings was held in January 2008. The intent of the meetings was to validate the findings and to share the level of implementation, the implementation barriers and facilitators, data on preliminary effectiveness and implications of the research. Four face-to-face meetings were held at meeting rooms in the HBC Clubs. One meeting was conducted by a telephone conference call due to the travel distance and winter driving conditions. The meetings ranged from 40 to 90 minutes in length. A total of 14 staff attended including managers, HBC Mothers and other staff of the centers, with attendance ranging from two to three staff at each site. The following questions were asked of the audience: (1) 'Have I forgotten anything important?'; (2) 'Do you recognize yourself in this research?'; and (3) 'Do the results correspond to your reality?' The participants supported and confirmed the study findings. New information received was used as further data. My e-mail address and telephone number was given in the case of additional information that the participants wanted to share either privately or at a later date. Additional information has yet to be received.

XIf. Researcher Bracketing

With qualitative research, the researcher is a critical instrument in the study (Patton, 2002). The researcher has an ethical onus to be introspective and honest with her role in the research study (Morrow, 2005). This includes identifying what interested the researcher in the research topic and to conduct the study, and to understand how this may influence the research findings. Through understanding and acknowledging biases researchers may understand how they

may influence the study. Following an understanding of the thoughts, feelings and perceptions of the phenomena, it is recommended that they be bracketed (Speziale & Carpenter, 2007). Thus, after researchers put aside their beliefs and not make judgments about what is observed, they are open to the data. Furthermore, this permits the researcher to be aware of when the data collection and analysis reflects personal beliefs rather than the beliefs of the participants.

The researcher of this study was attracted to research with pregnant and parenting women and smoking cessation because of her experience as a rural public health nurse. Through working with rural pregnant and parenting women she often confronted the challenge of poverty, lower educational attainment, and lone parenting combined with tobacco addiction. Additionally, through her work as an administrator, she was also interested in the development, implementation and evaluation of effective smoking cessation programs. The researcher was interested in the work of the HBCs as she was a volunteer board member when one of the HBCs was established in 1994. Furthermore, she had conducted previous smoking cessation research with female adolescents and was interested in conducting further research on this topic.

When studying smoking cessation the researcher reflected on her roles both professionally and as a graduate student and how this may bias her assumptions as a researcher. In the communication to the managers, HBC Mothers and staff it was explicit that she was conducting research as a graduate student, however, it was also acknowledged that she was a nurse and working in administration for a regional health authority.

Additionally, it is recommended that researchers address the relationship with the participants, the researchers overall impression of the participants, and personal reaction to the research process (Miles & Huberman, 1994), as it may affect the data collection methods and interpretation. Specifically, this was addressed in several ways. First, a research journal was kept to assist with recall and to analyze personal reactions. Second, throughout data analysis, the researcher reflected on subjective responses to the research process. Third, use of the Research Advisory Committee and colleagues to review the data and audit trail assessed the researcher's objectivity to the research process.

XII. Ethical Considerations

The guidelines as set out by the Tri-Council Code of Conduct for Research Involving Humans (2005) served as the ethical guide for the research. The rights of individuals participating in the research study were protected to the fullest extent possible. Ethical approval was obtained for this study from the Institutional Review Board, Faculty of Medicine, McGill University and the Western Health Research Ethics Board, Western Regional Integrated Health Authority before it was begun. A copy of the ethical approval was provided to the HBC managers.

There were a number of ethical issues to be addressed with this study. First, it was communicated to all participants that their involvement in the study was entirely voluntary and that they could withdraw from the study at any time. Furthermore, all participants signed a consent form before entering the study with minor assent and parental consent obtained from one participant not of the age of majority of 19 years. The participants were given a copy of the signed consent form with the name and telephone number of the principal investigator. Potential

participants were informed about the purpose of the study as well as benefits and risks of participation. The full extent of participation was described including the methods used to collect data, the average time needed to participate in the study, the management of data and the measures undertaken to protect confidentiality so the participants could make a fully informed decision as to their participation. The participants were informed of their right to discontinue participation at any time without impact on the services received from the HBC.

Secondly, to ensure that participants did not feel coerced to participate, staff of the HBC first asked the women whether they agreed to be contacted by the principal investigator. As the principal investigator was not an employee of the HBC, the services received by the women would not depend on their participation in the research study.

Thirdly, to address issues of confidentiality, all information was held in strictest confidence. To ensure confidentiality during data collection a private room at the HBC or a site selected by the participant was used. The participants were advised at the beginning of the focus group that the information shared was to be kept confidential. However, they were advised that confidentiality and anonymity of group discussions cannot be guaranteed. Participants could only be requested to respect each other's confidentiality; however, their subsequent actions were beyond the researcher's control. All identifying information was removed from the interview transcripts, which were typed verbatim from the audio-tapes. Only code numbers appeared on the data collection forms and aggregate data were reported. The files were stored in a locked filing cabinet available only to the principal investigator. The audio-tapes were only available to

the secretary and principal investigator. The participants were told that the audio-tapes will be kept for five years following the end of the study and then they will be destroyed. This is a requirement of the ethical approval from the Western Health Research Ethics Board, Western Regional Integrated Health Authority. In the final research dissertation, no individual stories were presented; rather short excerpts of the interviews were described.

Finally, participants were provided with the principal investigator's name and telephone number and were encouraged to make contact if they have further questions or concerns arising from their participation in the study. Participants were provided with a list of available health and community services professionals if health and social issues were identified during the course of the study. In this study, participants did not identify health and social issues; therefore, the assistance of health and community services professionals were not required. It is recognized that there is a risk that qualitative interviews may cause distress, however there is no evidence to suggest that the distress is greater than that the stress of daily life (Corbin & Morse, 2003). Additionally, there may be therapeutic benefits for women participating in sensitively conducted interviews (Corbin & Morse; Ortiz, 2001) and processing their experiences related to tobacco reduction (Bottorff, Kalaw, Johnson, Stewart, & Greaves, 2005). The participants were advised that a summary of the research results would be mailed to them if they were interested. All participants requested a summary of the research results.

Chapter 4
Findings

This chapter presents the findings in three sections. The first section presents descriptive findings of the: (i) within-case analysis; (ii) analysis of the HBCs' experiences implementing a smoking cessation program for pregnant and parenting women; (iii) level of implementation of ETQ; and (iv) preliminary evidence of the effectiveness of ETQ including: smoking status of participants at program completion, intention to quit smoking at baseline and program completion, and decreases in the amount smoked. The second section describes the themes that emerged from the focus groups and interviews (i.e., the across-case analysis) for each participant group including pregnant and parenting women, HBC Mothers and managers. The thematic interconnections, and the differences and similarities between themes, are outlined. The third section describes the barriers and facilitators to implementing ETQ in five HBCs in western Newfoundland identified in the across-case analysis. Finally, an integrated synthesis of the findings is presented. For each theme, there is included verbatim quotations from participants to illustrate how the themes are reported, to depict the extent to which the themes are grounded in text, to describe participants' thoughts so the reader may experience the impact of their words and to portray the depth of the meaning associated with the phenomena revealed. Because the aim of the study was to provide an integrative analysis of cases to ensure that a range of perspectives is provided, the reader will note that the chapter shifts from describing the within-case (i.e., section one) to the across-case analyses (i.e., sections two and three). Creswell (1998) describes a cross case

analysis as: “qualitative, inductive, multiple case study seeking to build abstractions across cases” (p. 194-195).

I. The Five Healthy Baby Clubs

This section provides a within-case analysis of the five HBCs. A comparison of HBCs is presented, that describes similarities and differences across HBCs. Finally, an analysis of the policies and procedures, annual general meetings, and staff meetings is presented.

Ia. Within-Case Analysis of Healthy Baby Clubs

Table 4 describes the programs and services available for pregnant and parenting women in the five HBCs. All HBCs provide pre- and post-natal education and support for disadvantaged women, including home visiting and group education sessions. Food supplementation during pregnancy is provided to promote a healthy birth weight, assistance with child care and transportation is available, and educational programs are provided for children up to six years of age and their parents. The educational programs may include literacy, nutrition, play time, and parenting. Sources of funding for HBCs include: provincial, federal or a combination of provincial and federal funding. Staffing patterns are similar across HBCs, with the largest number of staff working in HBC 3. HBC 3, located in an urban center has the amenities of a small city including a regional hospital, a university, post-secondary institutions, and shopping centers.

Health services available locally varied from public health nursing services to the services of a regional hospital. HBC 4 is the greatest distance from a regional hospital. To access regional hospital services including obstetrical care,

people have to travel 320 kilometres. The narrative description of the five HBCs is located in Appendix S.

Table 4 – Profile of Five Healthy Baby Clubs (HBC)

HBC	Staffing	HBC Program and Support Services	Funding Source	Local Services	Health Services	Education Services	Transit Systems
HBC 1	1.Director 2. Secretary 3. HBC Mother 4. Resource Mother 5. Parent Program Coordinator	Pre- and post-natal education and support Prenatal food supplementation Educational programs Child care Transportation	Provincial	Recreation Churches Shopping Groceries Stores	Physician Public Health Nurses Ambulance Service Pharmacies Community Health Center	Schools (K-12)	Regional Airport Taxi Service
HBC 2	1. Director 2. Secretary 3. HBC Mother 4. Resource Mother 5. Early Childhood Educator	Pre- and post-natal education and support Prenatal food supplementation Educational programs Child care Transportation	Federal and Provincial	Recreation Churches Convenience Stores	Physician Public Health Nurses Ambulance Service Pharmacy Hospital (30 km)	Schools (K-12)	Airport (30 km) Taxi Service
HBC 3	1.Director 2.Secretary 3.HBC Mother 4. Resource Mothers 5.Community Worker 6. Early Childhood Educator 7.Playroom Resource Coordinator 8.Home visitors	Pre- and post-natal education and support Prenatal food supplementation Educational programs Child care Transportation	Federal and Provincial	Recreation Churches Shopping Centers Groceries Stores	Physician Public Health Nurses Ambulance Service Pharmacies Regional Hospital	Schools (K-12) University Community College	Airport (50 km) Taxi Service Regional Public Bus System
HBC 4	1. Director 2.Secretary 3. HBC Mother 4. Resource Workers	Pre- and post-natal education and support Prenatal food supplementation Educational programs Child care Transportation	Provincial	Recreation Churches Shopping Groceries Stores	Physician Public Health Nurses Ambulance Service Pharmacy Health Center	Schools (K-12)	No
HBC 5	1.Director 2.Secretary 3.HBC/ Resource Mother 4. Resource Workers	Pre- and post-natal education and support Prenatal food supplementation Educational programs Child care Transportation	Federal	Recreation Churches Convenience Stores	Public Health Nurses Ambulance Service	Schools (K-12)	No

Ib. Cross Group Comparison of Healthy Baby Clubs

Similarities across HBCs include the presence of an elected board of trustees, similar staffing models and programs, and a commitment to provide community outreach through satellite sites. However, there were differences in the population served, the number of communities, and the availability of public transportation. Table 5 describes the comparison of five HBCs in 2008.

Table 5– Comparison of Five Healthy Baby Clubs (HBC), 2008

HBC	Offered ETQ	Location	Year	Board Trustee	Sites	Population Served[3]	Number of Communities	Plan	Public Transit
HBC 1	Yes	Rural[1]	1999	11	9	15,480	28	Yes	No
HBC 2	Yes	Rural[1]	1993	8-12	13	39,000	70	Yes	No
HBC 3	Yes	Urban[2]	1994	10	2	24,870	3	Yes	Yes
HBC 4	No	Rural[1]	2003	11	4	2,900	11	No	No
HBC 5	No	Rural[1]	1995	12	4	3,770	7	Yes	No

[1] Rural Individual community populations less than 15,000
[2] Urban Individual community populations greater than or equal to 15,000
Source: Adapted from: Western Regional Health Authority. (2008). Strategic plan 2008-2011. Corner Brook, NL: Author.
[3] www.communityaccounts.ca

Ic. Summary of Similarities and Differences across Five Healthy Baby Clubs

HBCs were established between five and 15 years ago. HBC 4 was the newest. Four of the five HBCs have a strategic plan; HBC 4 is developing a plan. The staffing complement is similar across HBCs and include managers, HBC Mothers, Resource Workers and secretaries. However, the number of staff and position titles varied across HBCs. The five HBCs provided outreach to communities, with the number of satellite sites ranging from two to 13. The programs offered by the HBCs are similar, including pre- and post-natal education, pregnancy food supplementation, and programs for parents and children to age six. The populations served by the HBCs ranged from 2,900 to 39,000 people. The number of communities served by the HBCs ranged from

three to 70, with the majority of communities being rural. HBC 4 and 5 do not have access to a local taxi service and serve the smallest populations (2,900 and 3,770 people respectively).

II. Policies and Procedures

The written policies and procedures of the five HBCs were reviewed to determine if the following policies were applicable: staff no smoking, client no smoking, smoke-free properties, designated smoking area or existence of a smoking cessation program. Table 6 describes HBCs' smoking cessation policies and procedures in 2007. The staff of four HBCs are not permitted to smoke on the property; however, there are no written policies. Three HBCs verbally advise clients that they are not permitted to smoke during programming. HBC 3 is currently developing a designated smoking area policy. Three HBCs have a smoke-free properties policy, thus eliminating the need for a designated smoking area policy. The five HBCs did not have a written smoking cessation program policy; however, they stated that smoking cessation is a program focus.

Table 6 – Smoking Cessation Policies and Procedures in Health Baby Clubs (HBC) (2007)

HBC	Staff No Smoking	Clients No Smoking	Smoke-Free Properties	Designated Smoking Area	Smoking Cessation Program
HBC 1	No[1]	Yes	Yes	No	No[4]
HBC 2	No[1]	No[2]	Yes	No	No[4]
HBC 3	No[1]	No[2]	No	No[3]	No[4]
HBC 4	No[1]	No[2]	No	No	No[4]
HBC 5	Yes	Yes	Yes	No	No[4]

[1]No written policy, however staff are verbally advised to not smoke during programs or on site
[2] No written policy, however clients are verbally advised to not smoke during programs or on site
[3]Under development, draft not available
[4]No written policy, however smoking cessation is an area of focus

III. Annual General Meeting

Annual general meetings are held at each HBC. Meetings are advertised and open to the public. They provide an opportunity for sharing programming highlights, providing financial reports and outlining upcoming challenges. Additionally, the Board of Trustees is elected in the annual general meeting. Written minutes for the annual general meetings are available.

IIIa. Annual General Meeting and Smoking Cessation Programs

All five HBCs held an annual general meeting for the fiscal year 2006-2007. For the fiscal year 2005-2006, HBC 4 did not hold an annual general meeting due to staffing changes. Table 7 provides a summary of the minutes of the annual general meeting of HBCs and the discussion of smoking cessation programs. Smoking cessation programs were discussed by HBC 2 during the two annual general meetings. However, HBC 1 and 5 did not discuss smoking cessation programs. HBC 3 and 4 discussed smoking cessation programs at the annual general meeting in 2006-2007.

Table 7 – Discussion of Smoking Cessation Programs in Annual General Meeting (AGM) for Healthy Baby Clubs (HBC) in 2005-2006 and 2006-2007

HBC	2005-2006 AGM Held	Smoking Cessation Programs Discussed	2006-2007 AGM Held	Smoking Cessation Programs Discussed
HBC 1	Yes	No	Yes	No
HBC 2	Yes	Yes	Yes	Yes
HBC 3	Yes	No	Yes	Yes
HBC 4	No	N/A	Yes	Yes
HBC 5	Yes	No	Yes	No

IV. Staff Meetings

Staff meetings are held regularly at four HBCs. HBC 4 does not have formal staff meetings; the staff meet informally daily but there are no written records of the meetings. The frequency of meetings ranged from every 2-6 weeks. Written minutes of the meetings vary in format, making cross-comparison between HBCs difficult.

IVa. Staff Meetings and Smoking Policies

The written staff meeting minutes from four HBCs were reviewed to identify the content of the smoking policy discussion. Table 8 provides a summary of the smoking policy discussion. The HBCs did not discuss smoking policies in 2005. In 2006 and 2007 (January-June), HBC 3 discussed the development and implementation of smoking policies, and whether to develop a smoke-free properties policy. The remaining HBCs did not discuss smoking policies at staff meetings in 2006 and 2007 (January-June).

Table 8 – Smoking Policy Discussion in Healthy Baby Club (HBC) Staff Meetings 2005 to 2007

HBC	Staff Meetings Held	Frequency of Staff Meetings	2005 Smoking Policy Discussed	2006 Smoking Policy Discussed	2007 Smoking Policy Discussed
HBC 1	Yes	Every 6 weeks	No	No	No
HBC 2	Yes	Every 2 weeks	No	No	No
HBC 3	Yes	Every 2 weeks	No	Yes	Yes
HBC 4	No[1]	-	-	-	-
HBC 5	Yes	Monthly	No	No	No

1. No formal staff meeting held, minutes not available.

IVb. Staff Meetings and Smoking Cessation Programs

The staff meeting minutes for four HBCs for the years 2005, 2006, and 2007 (January-June) were reviewed to identify discussion on smoking cessation programs (Table 9). The HBCs did not discuss smoking cessation programs at

staff meetings in 2005. Three HBCs discussed smoking cessation programs at staff meetings in 2006, and in particular they discussed the implementation of ETQ. Smoking cessation programs were not discussed at HBC 5.

Table 9 – Smoking Cessation Program Discussion in Healthy Baby Club (HBC) Staff Meetings 2005 to 2007

HBC	Staff Meetings Held	Frequency of Staff Meetings	2005 Smoking Cessation Program Discussed	2006 Smoking Cessation Program Discussed	2007 Smoking Cessation Program Discussed
HBC 1	Yes	Every 6 weeks	No	Yes	No
HBC 2	Yes	Every 2 weeks	No	Yes	No
HBC 3	Yes	Every 2 weeks	No	Yes	Yes
HBC 4	No[1]	-	-	-	-
HBC 5	Yes	Monthly	No	No	No

[1]No formal staff meeting held, minutes not available.

V. Socio-Demographic Characteristics and Smoking Behaviour of Participants in the Study

This section describes the socio-demographic characteristics and smoking history of the three groups that participated in the study: pregnant and parenting women, HBC Mothers and managers of the HBCs. The knowledge, attitudes and beliefs of HBC Mothers pre- and post-implementation of ETQ are described. Finally, the evaluation of the training for ETQ is presented.

Va. Socio-Demographic Characteristics and Smoking Behavior of Pregnant and Parenting Women

Seven of the 12 pregnant and parenting women who participated in the study were single parents, and five had partners (Table 10). They ranged in age from 15 to 34 years, with an average age of 25 years. The highest level of education completed ranged from less than grade 9 to some university; four women had not completed high school. All were unemployed. The family income ranged from less than $5,000 to $39,999 per annum; five women had family

incomes between $5,000 and $9,999 annually and three had incomes from $15,000 to $19,999. Two women declined to answer the question regarding family income.

Table 10 – Socio-Demographic Characteristics of Pregnant and Parenting Women (N=12)

Characteristic		Characteristic	
Age		**Marital Status**	
15-19	2	Couple Family	5
20-24	4	Lone Parent Family	7
25-29	3		
30-34	3	**Employment**	
		Unemployed	12
Education Level			
Less than Grade 9	1	**Family Income**[1]	
Grade 9-12	3	Less than $5,000	1
Finished High School	3	$5,000 - $9,999	5
Some Trade School	1	$15,000 - $19,999	3
Finished Trade School	2	$35,000 - $39,999	1
Some University	2	[1]Two women declined to answer	

All smoked cigarettes. Nine of the 12 women had smoked for four or more years, two had smoked 2-4 years and one woman had smoked less than two years (Table 11). The amount of cigarettes smoked daily ranged from 0-5 to 16-20 cigarettes; five women smoked 16 to 20 cigarettes daily. Five women quit smoking during pregnancy but restarted, six women reduced the amount smoked during pregnancy, and one woman reported no change. Ten women decreased the number of cigarettes they smoked daily and, for two women, the number of cigarettes smoked remained the same. Six women planned to quit smoking in the next month, three women planned to quit in the next six months, and three planned to quit smoking but were unsure when.

Table 11 – Smoking Behavior of Pregnant and Parenting Women (N=12)			
Characteristic		**Characteristic**	
Do you smoke cigarettes?		**Smoking status during pregnancy?**	
Yes	12	Quit but restarted smoking	5
		Cut down	6
How long have you smoked?		No change	1
Less than two years	1		
Two to four years	2	**Has the number of cigarettes you smoke during pregnancy:**	
Four years or more	9	Stayed the same	2
		Decreased	10
How many cigarettes do you smoke a day?			
0 – 5	2	**Do you plan to quit smoking?**	
6 – 10	3	Yes, in the next month	6
11 – 15	2	Yes, in the next six months	3
16 – 20	5	Yes, but not sure when	3

Vb. Socio-Demographic Characteristics and Smoking Behavior of Healthy Baby Club Mothers

Table 12 provides a description of the characteristics of the six HBC Mothers who participated in this study. All were members of couple families (i.e., they were married or living common-law). The women ranged in age from 29 to 58 years; the average age was 37.8 years. The highest level of education completed ranged from trade school to university. Five HBC Mothers were employed; one was unemployed due to extended sick leave.

Table 12 – Socio-Demographic Characteristics of Healthy Baby Club Mothers (N=6)			
Characteristic		**Characteristic**	
Age		**Marital Status**	
24-29	1	Couple Family	6
30-34	2		
35-39	1	**Employment**	
40-44	1	Full time	5
55-59	1	Unemployed	1
Education Level		**Family Income**	
Finished Trade School	2	$20,000 - $24,999	2
Some University	2	$30,000 - $34,999	1
Finished University	2	$35,000 - $39,999	1
[1]Finished Trade School and some University		$60,000 or more	2

All HBC Mothers were currently non-smokers. Table 13 provides a description of the smoking behavior of these HBC Mothers. One HBC Mother was a former smoker who quit smoking during pregnancy, but began again after

the birth of her child. The HBC Mothers who were non-smokers questioned their ability to understand the addictive nature of tobacco.

Table 13 – Smoking Behavior of Health Baby Club Mothers (N=6)			
Characteristic		**Characteristic**	
Former Smoker		**Current Smoker**	
No	5	No	6
Yes	1		

Vc. Socio-Demographic Characteristics and Smoking Behavior of Managers

Table 14 provides a description of the characteristics of the five managers who participated in this study. All were members of couple families (i.e., they were married or living common-law). They ranged in age from 32 to 46 years; the average age was 40 years. All had completed university and were employed full time. The family income ranged from $45,000 to greater than $60,000.

Table 14 – Socio-Demographic Characteristics of Managers (N=5)			
Characteristic		**Characteristic**	
Marital Status		**Employment**	
Couple Family	5	Full time	5
Education Level		**Age**	
Finished University	5	30-34	1
		35-39	1
Family Income		40-44	1
$45,000 - $49,999	1	45-49	2
$50,000 - $59,999	1		
$60,000 or more	3		

Four managers were non-smokers (Table 15). One manager declined to complete the smoking behavior questionnaire.

Table 15 – Smoking Behavior of Managers (N=5)			
Characteristic		**Characteristic**	
Former Smoker[1]		**Current Smoker**[1]	
No	4	No	4
[1]One Manager declined to respond			

VI. Knowledge, Attitudes and Beliefs of Healthy Baby Club Mothers Pre- and Post-training for Expecting to Quit

The themes identified from the data on knowledge, attitudes, and beliefs in regard to smoking cessation and pregnancy from the questionnaires completed by HBC Mothers are described in this section.

VIa. Knowledge of Healthy Baby Club Mothers Pre- and Post-training for Expecting to Quit

"We are Knowledgeable: But Quitting Smoking is Difficult" – described the HBC Mothers' knowledge regarding pregnancy and smoking pre-training for ETQ (Table 16). The HBC Mothers were knowledgeable about the relationship between pregnancy and smoking, including the health impacts of smoking. They realized that quitting smoking is difficult and that support is required including having *"supports in place."* Although some women may stop smoking during pregnancy, "*most women cut back on the number of cig [cigarettes] they smoke."* HBC Mothers were aware of the health impacts of prenatal smoking and in particular, low birth weight, *"the babies born to mom's who smoked their babies are less in weight."* One HBC Mother stated, *"it is not always true."* Tobacco addiction was described by HBC Mothers as "*No, it's never easy to give up an addiction, especially without encouragement and support from those around us."* In contrast, one HBC Mother had *"no idea"* of the difficulty quitting smoking.

Table 16 – Healthy Baby Club Mothers' Response to Questions on Knowledge, Pre-training for Expecting to Quit (N=6)

	Agree	Disagree	Not Sure
Many pregnant women stop smoking when they find out they are pregnant.	3	1	2
There is little difference in the weight of babies born to women who smoke compared to the babies born to non-smokers.		5	1
It is easy to quit smoking.		5	1

"Many Women Try to Quit Smoking: But it is Not Easy to Quit" - described the HBC Mothers' knowledge regarding pregnancy and smoking post-training for ETQ (Table 17). Many women try to quit smoking when they learn that they are pregnant. However, *"many find it very difficult"* and *"start after the baby is born."* HBC Mothers were knowledgeable about the health impacts of smoking, and in particular the effect on low birth weight because "*generally babies of smokers weigh less than those of non-smokers."* HBC Mothers understood "*it is not easy to quit smoking,"* and *"I hear that it is hard."* They were aware of the addictive nature of smoking because it is *"an addiction, a habit, all of which are hard to break."* Although it is hard to quit smoking, it is "*attainable."*

Table 17 – Healthy Baby Club Mothers' Response to Questions on Knowledge, Post-training for Expecting to Quit (N=6)

	Agree	Disagree	Not Sure
Many pregnant women stop smoking when they find out they are pregnant.	2	4	
There is little difference in the weight of babies born to women who smoke compared to the babies born to non-smokers.		5	1
It is easy to quit smoking.		5	1

VIb. Attitudes of Healthy Baby Club Mothers Pre and Post Training for Expecting to Quit

"Smoking is Dangerous to Women: We Need to Provide Information"- described the HBC Mothers' attitudes regarding pregnancy and smoking pre-training for ETQ (Table 18). All HBC Mothers agreed that pregnant women should be encouraged to stop smoking and that information on smoking cessation should be provided to women attending HBCs. Providing information is important because "*some new pregnant women don't really know the effects of cigarette smoke on the unborn child."* Training HBC Mothers was perceived as necessary,

because in the words of one HBC Mother, *"I am not informed as much as I should so that's what I like about taking this training."*

A comfortable relationship between pregnant women and HBC Mothers contributed to pregnant women asking for help with smoking cessation. One HBC Mother described this relationship, *"A lot of Healthy Baby Club Moms are of low income background and low education. Thus they may not seek out the program but through HBC and comfort with Resource Mothers would make them more comfortable to ask."* Although pregnant women should be informed about the dangers of smoking, one HBC Mother cautioned, *"You can't push too hard."* In view of the overwhelming evidence on the health impacts of smoking, HBC Mothers were uncomfortable seeing pregnant women smoking. They shared their feelings of sadness, concern, discomfort, and "*cruel[ty] to your unborn child."* However, after they became aware of tobacco addiction, they were more understanding of why pregnant woman smoke.

> *"Since I've gotten to know the moms better and I know that it's an addiction I am not as uncomfortable as before.*

Table 18 – Healthy Baby Club Mothers' Response to Questions on Attitudes, Pre-training for Expecting to Quit (n=6)

	Yes	No
Pregnant women should be encouraged to stop smoking.	6	
Information about smoking cessation should be provided to Women attending Healthy Baby Clubs.	6	
Healthy Baby Club Mothers should inform pregnant women about the dangers of smoking.	6	
I am uncomfortable when I see pregnant women smoking.	4	2

"Expecting to Quit is a Useful Tool: Smoking Cessation is Part of our Role"- described the HBC Mothers' attitudes regarding pregnancy and smoking post-training for ETQ (Table 19). After ETQ training the HBC Mothers felt the *"program is a very useful tool in helping moms to stop."* They expressed positive

attitudes about their role of encouraging women to stop smoking and *"to help them in any way possible."* Their encouraging attitudes were linked to the benefits of smoking cessation, *"Every pregnant woman should be encouraged to stop smoking not only for her baby, but for herself as well."* HBC Mothers were positive about providing smoking cessation information, *"women need to know correct information about smoking, how to deal with the effects of smoking and the supports in place to help quit smoking,"* and being *"better able to make educated decisions."* They supported informing women about the dangers of smoking "*because not everyone knows of the danger and providing facts sometimes makes the difference."* However, the information must be provided with sensitivity and understanding, *"I feel HBC Moms should inform pregnant women about dangers of smoking in a very sensitive and understanding way."*

HBC Mothers expressed attitudes of concern and non-judgmental support of pregnant women smoking. One HBC Mother felt *"sad and concerned when I see a pregnant women smoking. I wish to be a supportive person and help."* In contrast, one HBC Mother because of the information and support available, felt pregnant women *"should know the difference."*

Table 19 – Healthy Baby Club Mothers' Response to Questions on Attitudes, Post-training for Expecting to Quit (N=6)

	Yes	No
Pregnant women should be encouraged to stop smoking.	6	
Information about smoking cessation should be provided to women attending Healthy Baby Clubs.	6	
Healthy Baby Club Mothers should inform pregnant women about the dangers of smoking.	6	
I am uncomfortable when I see pregnant women smoking.	5	1

VIc. Beliefs of Healthy Baby Club Mothers Pre- and Post-training for Expecting to Quit

" I Need to Encourage Women to Stop Smoking: It has Lasting Effects on Babies"- described the HBC Mothers' beliefs regarding pregnancy and smoking pre-training for ETQ (Table 20). HBC Mothers believed that by encouraging and offering help for smoking cessation, both mothers and babies will benefit. They believed that a smoking cessation program should be offered at the HBC because, *"even if you reach only one (hopefully more) mom the benefit will be great,"* and, "*all pregnant women should be encouraged to stop smoking."* A salient belief expressed was the danger of smoking on the health of women and babies *"smoking can cause many problems to both mother and baby."* They believed in the lasting effects of smoking on the health of babies including, *"low birth weight, respiratory problems"* and *"It may be a couple of years down the road."* However, one HBC Mother was unsure of the lasting health effects*, "I am not sure, but I have heard that the babies of smoking mothers have more illnesses."*

HBC Mothers believed they could "*do more to encourage smoking cessation."* In contrast, one HBC Mother believed, *"I encourage it as much as possible. I feel that if you push the issue too much some pregnant women kinda back away from you. Some people are just so set in their ways. 'My Mom smoked and I'm fine.' This is the attitude of some people."* She viewed her challenge with smoking cessation being the "*attitude"* and women being *"set in their ways."*

Table 20 – Healthy Baby Club Mothers' Response to Questions on Beliefs, Pre-training for Expecting to Quit (N=6)			
	Yes	**No**	**Not Sure**
A smoking cessation program should be offered in the Healthy Baby Club.	6		
Pregnant women should be encouraged to stop smoking.	6		
Smoking is dangerous to the health of pregnant women.	6		
Smoking during pregnancy has lasting effects on the health of babies.	5		1
I need to do more to encourage smoking cessation during pregnancy.	5		1

"Smoking has Lasting Effects: With This Information I Can Make a Difference" - described the HBC Mothers' knowledge of pregnancy and smoking post-training for ETQ (Table 21). After ETQ training, HBC Mothers agreed that ETQ should be offered because it is *"a very useful tool to have in HBC."* The role of HBC Mothers was viewed as to "*provide not only correct information but also provide support."* One HBC Mother was concerned *"if time allows"* the program to be offered. Smoking during pregnancy "*is very dangerous"* and has *"lasting effects on the health of babies,"* therefore inspiring HBC Mothers to provide smoking cessation because *"any extra encouragement would be an asset to any pregnant woman."* They expressed that training and information on ETQ would enable them to do more in smoking cessation. *"I need to encourage smoking cessation during pregnancy and I feel that this session has given me the tools to successfully implement this program to my HBC."* One HBC Mother discussed the importance of individual choice in smoking cessation, *"Encouragement is great but it has to be the individual's choice."*

Table 21 – Healthy Baby Club Mothers' Response to Questions on Beliefs, Post-training for Expecting to Quit (N=6)				
	Yes	**No**	**Not Sure**	**No Response**
A smoking cessation program should be offered in the Healthy Baby Club.	6			
Pregnant women should be encouraged to stop smoking.	6			
Smoking is dangerous to the health of pregnant women.	6			
Smoking during pregnancy has lasting effects on the health of babies.	6			
I need to do more to encourage smoking cessation during pregnancy.	5			1

VId. Summary of Knowledge, Attitudes, and Beliefs

Following completion of ETQ training, the knowledge, attitudes, and beliefs of HBC Mothers appeared to differ somewhat. Table 22 describes differences in knowledge, attitudes and beliefs among HBC Mother pre- and post-training for ETQ.

Table 22 – Comparison of Differences in the Knowledge, Attitudes and Beliefs of Healthy Baby Clubs Mothers, Pre- and Post-Training for Expecting to Quit (N=6)						
Knowledge, Attitudes, and Beliefs	**Pre-Training**			**Post-Training**		
	Yes	**No**	**Unsure**	**Yes**	**No**	**Unsure**
Knowledge - Many pregnant women stop smoking when they find out they are pregnant.	3	1	2	2	4	
Attitude - I am uncomfortable when I see pregnant women smoking.	4	2			5	1
Beliefs - Smoking during pregnancy has lasting effects on the health of babies.	5		1	6		

VII. Evaluation of Training for Expecting to Quit

Six HBC Mothers attended a 7-hour training session on smoking cessation and the ETQ program (see Appendix K for the training session agenda). Following training, they completed a questionnaire to evaluate the training session. All HBC Mothers strongly agreed that the program training prepared them to provide ETQ (Table 23). Five HBC Mothers agreed or strongly agreed that ETQ is an improvement over the current program they provide; one HBC Mother was neutral. Four HBC Mothers agreed or strongly agreed that ETQ was

feasible in their day-to-day work; however, two were neutral. The program was viewed as flexible and easy to adjust to daily practice by five HBC Mothers; one person was neutral. HBC Mothers were *"looking forward to implementing the program,"* and "*highly recommend this program to anybody."* The comments on the training and ETQ were positive including, *"Appears to be an excellent program. Manual appears to be easy to use. Looking forward to doing this program."* One HBC Mother discussed concerns with *"getting the commitment from the Moms."*

Table 23 – Responses from HBC Mothers to Items that Evaluate the Training for Expecting to Quit (N=6)

In general, the program…	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Has more advantages than disadvantages.				2	4
Is a useful tool to help women think about the pros of quitting.				2	4
Is a useful tool to motivate people to quit smoking.				2	4
Provide me with an opportunity to improve my performance in smoking prevention.				3	3
Helps me address smoking behavior in a systematic way.				3	3
Helps me address smoking cessation in an easier and more pleasant way.				1	5
Is more effective in reducing smoking than usual care.				2	4
Is an improvement compared with the normal smoking cessation approach I use.			1	2	3
Emphasizes people's own responsibility for their smoking behavior.				2	4
Is congruent with my present working methods.				4	2
Is feasible in my daily work.			2	2	2
Is flexible and easy to adjust to daily practice.			1	3	2
The program is easy to understand.				1	5
The program is easy to use.				1	5
I have had enough instruction on the program.				2	4
The training has prepared me to provide the program to women attending the Healthy Baby Clubs.					6

Adapted from: A questionnaire in Bolman, C., de Vries H., & Mesters, I. (2002). Factors determining cardiac nurses' intentions to continue using a smoking cessation protocol. *Heart and Lung, 31*(1), 15-24.

VIII. Level of Implementation of Expecting to Quit

Indicators of ETQ implementation included the number of HBCs that implemented the program, the number of women targeted by the program who registered and completed the program, the patterns of attendance in each session, the number of HBC Mothers trained and the number and type of program activities planned that were delivered. The following section describes the level of implementation of ETQ.

VIIIa. Number of Healthy Baby Clubs that Implemented Expecting to Quit

Among the five HBCs in western Newfoundland that participated in the study, three HBCs- one urban and two rural, offered ETQ in a group setting. Because the two rural HBCs were not able to recruit any women to ETQ, they offered components of the program on a one-on-one basis to pregnant women during prenatal home visiting. During data validation sessions, managers and HBC Mothers from the five HBCs reported that they were interested in continuing to offer ETQ.

VIIIb. Number of Women Registered and Completed Expecting to Quit

There were ten women registered for ETQ in three HBCs. Seven of the ten women completed the program. The number of women registered to attend ETQ in each HBC ranged from three to four. The number of women who completed the program in each HBC ranged from one to four. One manager during the data validation phase described the value of ETQ, *"We only had two come to the group, not a large number but we only wanted four to five. If you can make a positive change for two people. Out of the two, one quit and the other had a life altering, major stress."*

VIIIc. Patterns of Attendance at Expecting to Quit

The patterns of attendance in each of the six sessions of ETQ varied (Table 24). Two women attended the first session at HBC 1 and HBC 3 and did not return to attend further sessions. These two women were contacted by the HBC Mothers three times by telephone after class one. Although they indicated they would return to the next class, neither did. At HBC 3 one woman did not attend session one but attended subsequent sessions. The patterns of attendance were explored with the managers and HBC Mothers during data validation. They offered their perspectives and noted that this is their general experience in offering all programs, *"Welcome to our world."*

> *" No answer or reason. No one tells us why. People don't want to say no. They feel bad saying no."*

One manager provided her insight into the *"multiple issues"* facing women:

> *"It is so complex because there are so many reasons. One of many health and well being issues. They have multiple issues in life and risks for health and well being, safety, violence. It may have nothing to do with the facilitator or content. Sometimes they have partners but no support."*

Table 24 – Patterns of Attendance by Pregnant and Parenting Women at Expecting to Quit (ETQ) in Healthy Baby Clubs 2006-2007

HBC	Implemented ETQ	Number of Women Recruited to Program	Number of Women in Each Class						Date Program Started and Ended
			Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	
HBC 1	Yes	3	2	1	1	1	1	1	10/ 31/06 to 12/12/06
HBC 2	Yes	4	4	2	3	4	4[1]	4[1]	11/ 8/06 to 12/5/06
HBC 3	Yes	3	2	2	2	2	2[1]	2[1]	3/16/07 to 4/27/07
HBC 4	No	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HBC 5	No	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[1]Class 5 and 6 combined

VIIId. Number of Staff Trained for Expecting to Quit

Six full time HBC Mothers from five HBCs attended training on ETQ. All five HBCs were interested in further ETQ training for other staff members after the study was completed. The training was considered by HBC Mothers as a *"great asset to the HBC itself."* During the data validation process one HBC Mother stated: *"The program material is wonderful and the training was wonderful. It only enhances what we do in the Healthy Baby Club."*

VIIIe. Number and Type of Expecting to Quit Activities Planned and Delivered

Two rural HBCs were unable to recruit women to attend ETQ. However, they incorporated components of the program on a one-on-one basis during home visiting and as a part of their regular HBC programming for parents.

> *"We were not actually able to put off a program but we have used the program in HBC as a whole. We don't have a lot of smokers here. We have used the training and the smoking cessation program, not as a program but as a part of the HBC."*

Geographical spread and transportation issues contributed to difficulties in providing ETQ during home visits, *"We have a larger geographical area from [community] to [community]. In the outlying areas we do more home visits than in group settings because it is an hour drive for them to come."* Two of the three HBCs that implemented ETQ combined sessions five and six. The low number of participants enabled faster completion of the program. One HBC Mother did not combine classes but felt it was a good idea, depending on the numbers of participants.

VIIIf. Similarities and Differences in Levels of Implementation Across Healthy Baby Clubs

Similarities between HBCs include the commitment to attend ETQ training by HBC Mothers, and the difficulty recruiting women and participants leaving the program after the first session. Differences included the number of ETQ sessions offered. This difference will be explored in the thematic analysis.

IX. Preliminary Evidence of Effectiveness

While program outcomes were not measured, data were collected on perceived effectiveness of ETQ through questionnaires and focus groups with HBC Mothers and pregnant and parenting women. Effectiveness is "a measure of the extent to which a specific intervention, procedure, regimen, or service, when deployed in the field in routine circumstances, does what it is intended for a specific population" (Cochrane, 1972). Preliminary evidence of the effectiveness of ETQ was defined as any indication of smoking cessation, intention to quit, or reduction in the number of cigarettes smoked following program completion.

IXa. Smoking Cessation

Two women who moved without forwarding contact information could not be located at follow up. HBC Mothers described the challenges facing two women in attending ETQ, *"She has been in and out of the program. Her life is in total upheaval"* and *"She probably wasn't allowed to come back by her partner."*

Table 25 describes the smoking status of pregnant and parenting women post-ETQ attendance, in January 2008. Two of the eight women reported that they had quit and remained non-smoking. One woman stated, *"Everything is great. I am so glad I took part in the program [ETQ]."* Following completion of ETQ,

three of the eight women quit but subsequently began smoking again. They identified their reasons for smoking again as a result of "*nerves were bad," "nerves were gone"* and *"stress,"* resulting from significant, catastrophic life events including the death of babies, and the breakup of a relationship. In their own words they relayed their stories of loss and coping through smoking:

> *"I was quit and started smoking again. I was in [City] and ended up losing my baby. My nerves were bad and I had so much stress. I have cut down from one and a half to two packs to five cigarettes [daily]."*

> *"I started up because of stress. It was the stress from the break up with my significant other. I'm trying to quit."*

However, even after the loss of her baby, one woman reduced the number of cigarettes smoked daily. Three women reduced the number of cigarettes they smoke.

Table 25 – Smoking Status of Pregnant and Parenting Women, Post-attendance at Expecting to Quit, January 2008 (N=8)

Characteristic		Characteristic	
Do you smoke cigarettes?		**Smoking status after the program?**	
Yes	6	Quit and stayed non-smoking	2
No	2	Quit but restarted smoking	3
		Cut down	3
How long have you smoked?			
Less than two years	1	**Has the number of cigarettes you smoke during pregnancy:**	
Four years or more	5	Stayed the same	1
		Increased	2
How many cigarettes do you smoke a day?		Decreased	3
0 – 5	2	**Do you plan to quit smoking?**	
6 – 10	2	Yes, in the next month	6
11 – 15	2	(N=8, N=2 unable to locate)	

IXb. Intention to Quit Smoking

At baseline, ten women intended to quit smoking; four women planned to quit in the next month, and three women in the next six months. Three women intended to quit smoking but were not sure when. In January 2008 following completion of ETQ, all women who could be contacted (six out of six) intended to

quit smoking (two women could not be located, and two women had quit smoking). Five women planned to quit within the next month and one woman intended to quit within six months.

IXc. Decrease in Amount Smoked

Three women reported reducing the amount of cigarettes smoked (Table 25). They described smoking reduction as, *"But I don't smoke as much as I did"* and *"I didn't quit smoking but I went from a pack a day to seven with these steps [ETQ]."*

Thematic Analysis

The findings presented in this section focus first on the 19 themes identified within and across participant groups of pregnant and parenting women (four themes pre-implementation and three themes post-implementation), HBC Mothers (four themes both pre- and post-implementation) and managers (four themes pre-implementation). Second, four interconnected themes identified from interrelated patterns across the themes of two participant groups: HBC Mothers and managers will be outlined. Third, differences across the themes identified for the three participant groups will be discussed.

X. Themes: Women Pre-Implementation Expecting to Quit

The analysis of the data from the focus group of pregnant and parenting women revealed four themes including, No Ideal Program: But If You Fail You Feel Worse; Stress and Life Circumstance: So Many Smoking Triggers; Addiction and Craving: It is Hard to Quit; and Supporting Pregnant and Parenting Women: Turning to Others.

Xa. No Ideal Program: But If You Fail You Feel Worse

All women discussed what it means to try to quit smoking. They explained that there is *"no ideal"* smoking cessation program and shared their experiences with unsuccessful cessation methods. The absence of smoking cessation programs for *"women like us"* illustrated their feelings of being different from others. The lack of smoking cessation programs may reflect the non-response of health agencies to the smoking cessation needs of this important group of women. Women highlighted how individuality and differences need to be respected and considered in a smoking cessation program.

The sense of failure when women were unable to quit smoking was described as, "*If you fail you feel worse*." Fear of failure may indeed paralyze women from making positive life changes including smoking cessation. The fear of failure may be heightened among women struggling with a low income, lower educational attainments and single parenting combined with a tobacco addiction.

Women talked about their difficulty in quitting smoking and its effect on their lives as mothers, daughters and partners. Their sense of meaning as mothers was impacted by a fear of failure. They were fearful of exposing the fetus to the effects of tobacco and its toxins and exposing children to second-hand smoke. The mothers cared deeply for their children. However, their ability to protect children from the health effects of tobacco was challenged because women with nicotine addiction have difficultly fulfilling this commitment, contributing to "*if you fail you feel worse*." One pregnant woman described smoking as her "*one little flaw in life"* and how programs failed to *"cater to the low-end smoker."*

> *"Like a pack of smokes would last me almost five days, but I could never give up. So all the other smoking agents, tools to quit, never catered to the low-end smoker. It was always those who smoked a pack or more a day. And it was too difficult. And then again I figured I wasn't a drinker and I didn't go bar hopping so if I had one little flaw in life and I wanted to have a cigarette once in a while, what was the harm."*

Quitting smoking impacts on mothering roles. Women described how quitting smoking impacts their families including *"take[ing] it out on them."* One woman described the impact of her quit attempts on her children:

> *"My husband works a lot and I have a nine-year-old boy and a four-year-old girl and I am telling you I love them to death. But some days they will make you just want to sell them to the circus. And when you are trying to quit smoking you are hoping the circus will come by because you don't even need to make a profit. I'll pay you to take them. You just have to I find… I had to focus on something else so I wouldn't take it out on them. Even if it meant that I had to go upstairs for a couple of minutes, close my door, put my face in the pillow and scream."*

The demands of mothering including the physical, social and emotional caring for children, detracted from the women's ability to care for themselves. "*Putting yourself first"* is difficult for many women.

"Quitting" was viewed negatively and women didn't "*want to hear the word quit."* They agreed that there is *"No ideal. Regardless of what kind of program there is no such thing as an easy delivery to it."* The individual nature of smoking cessation was highlighted as *"what works for one person is not necessarily going to work for another"* and is dependent on "*how much they smoke, what they associate their smoking."*

Supportive mothers and families helped women in their smoking cessation attempts. One woman discussed the support from her mother as being able to *"leave him [baby] for a couple of hours."*

> *"Well I am lucky in that aspect because my Mom only lives five minutes away from me. If I think I am getting stressed out and I think I am going to be contrary with the baby I will bring him over to Mom's and leave him for a couple of hours."*

In contrast, one woman expressed the challenge of having limited family support. She described the benefit of leaving her children with family members even for a short respite from the demands of parenting. Instead, when visiting her family she had *"to stay there with them."*

Xb. Stress and Life Circumstance: So Many Smoking Triggers

Stress and life circumstances compounded women's smoking cessation challenges. They were influenced by *"so many smoking triggers."* Eating, sleeping and driving a vehicle are all activities that women undertake daily that often trigger the desire to smoke and increase the difficulty of trying to reduce or quit smoking. All women reported daily triggers that encourage smoking: *"First thing in the morning with that hot cup of coffee"* and *"As soon as I'd get in and turn the ignition on in the vehicle."* The difficulty that women face is apparent when smoking is linked with *"so many triggers."* One woman shared her difficulty sleeping, *"I can't get to sleep decently. I will lie there for hours, hours if I don't have a smoke before I goes to bed."*

The women, all mothers, have busy lives caring for their families. Limited incomes challenged their ability to provide the basics for their families. Therefore,

"putting ourselves first" by attending a smoking cessation program is challenging for women. One women noted that *"it is a selfish thing"* to put yourself first.

> *"Go to a meeting or something. Mental health time for you. 'What are you thinking?' It is a selfish thing to say but we have got to think of ourselves. We got to start putting ourselves first sometimes."*

Cigarettes are viewed as the "*one luxury"* in the lives of women living on a low income. Smoking a cigarette is also the luxury of time, as it is *"five minutes to yourself."*

> *"Don't you find too, that it's the five minutes to yourself? When you go outside to have a cigarette, that's your time, that's your time."*

It is difficult to change a habit that is considered a *"lifeline."* The difficulty overcoming this challenge may at times appear insurmountable as a woman stated, *"I experienced cigarettes as a lifeline." "Making your life smoke-free"* and *"avoiding your friends for awhile"* were seen as necessary elements in supporting smoking cessation because, *"everyone around you smokes. All your friends do."* Having friends who smoke posed difficulty for many women, because friends are their support systems and an important part of their lives. Struggling to quit smoking while being around friends who smoke was apparent in the stories the women shared. Women have to decide to either give up their friends and their cigarettes or to stay with their friends and risk sabotaging their smoking cessation efforts.

There were many sources of stress in the lives of women including relationships, parenting and pregnancy as well as trying to quit smoking. There

were commonalities in women's description of stress including *"family issues," "isolation,"* and *"living alone."*

> *"My boyfriend is supportive but it's just… He works up on a dairy farm in [Community]. So he is not home pretty often."*

Pregnancy *"problems"* were an issue for one woman in restarting smoking, *"I was quit and then with this pregnancy and then I had some problems and I was constantly stressed and I started up again."* Conversely, pregnancy was also a cessation incentive. One woman's urge to smoke increased postpartum, which she described as the *"craving kicked in."*

> *"When I found out I was pregnant I didn't even want to. I didn't want to until I had the baby and then the craving kicked in. The minute I stopped breastfeeding it was like as if things were worse."*

Cigarettes were used as a stress reliever during stressful periods in women's lives. To relieve stress while attending university, one woman started smoking. However, she shared, "*I regret picking it up in university"* and *"it hasn't been the same since."* Another discussed her experience of sitting next to her uncle's bed while he was in hospital dying from lung cancer. After she "*watched him take his last breath"* she went outside to smoke because she *"couldn't handle the stress."* Nonetheless, the connection between smoking cigarettes and cancer was contested by one pregnant woman.

> *"When it comes to cancer, a lot of people will argue though that there is so many things out there now days that they say will give you cancer."*

Stress and weight gain are connected to women's smoking trajectories, including restarting smoking if weight is gained, "*Get on the scales and, gee I*

have quit smoking and gained 15 pounds. When happens? You start smoking." One woman verbalized that her *"biggest fear was putting on more weight if I stopped smoking."* However, women varied in their concern with weight gain. For one woman, weight gain "*was the least of my concerns,"* because she was more intent on quitting smoking and felt she *"can lose weight again."* The need for a smoking cessation program emphasizing stress management and healthy eating was noted, "*Steps to deal with stress, but eating as well. Because the minute you stop is the minute you are picking up eating."*

Xc. Addiction and Craving: It is Hard to Quit

Addiction and craving contributed to difficulty with smoking cessation, *"it is hard to quit."* Women shared their experience with tobacco addiction using phases such as *"strong craving,"* and *"on needles"* to illustrate their addiction experience.

> *"I remember my son, it was the third day I quit smoking. I don't know what it was but I had a really strong craving. I was in the middle of laundry. I just let the laundry basket go on the floor, turned around, walked up the stairs; turned on the TV, shut the door. And I heard my son, 'Dad… Mom's going crazy again.'."*

Tobacco addiction was described as "*controlling women's lives,"* impacting on relationships with children, family and friends. One woman described smoking as "*totally controlling"* her life. One woman shared her story of *"being a complete slave to the cigarette,"* contributing to depression and increased smoking.

> *"The fact that I was a complete slave to the cigarette used to just drive me crazy… And the more depressed I got the more I wanted a smoke."*

Women portrayed tobacco addiction as being harder to overcome than drug addiction. One woman described cigarette smoking as *"the biggest addiction."* To illustrate the addictive nature of tobacco, women shared their experience of quitting marijuana use during pregnancy but being unable to quit smoking.

> *"I used to smoke weed, marijuana. I dropped it like anything when I found out I was pregnant but I couldn't quit smoking."*

They felt tobacco addiction was not as well understood as drug addictions, and not given the same priority in treatment programs.

> *"Because we have all these programs for all these addictions: for alcohol addictions, gambling addictions, sex addictions, this addiction, drugs. But there is nothing out there for … there are no groups for smoking which is just as big an addiction."*

Addiction and craving contributed to women minimizing the health warnings on cigarette packages. One woman discussed her experience going to a convenience store on a Friday night and watching people buy cigarettes, as deliberately choosing a package with a specific health message. Pregnant women avoided packages with health warnings related to babies.

> *"I know it is hilarious but that's the attitude that people take. Go to [Store] on a Friday night and watch them pick the package of cigarettes that doesn't apply to them."*

The women dismissed the health warnings on cigarette packages because of *"denial," "it is a psychological thing"* and "*that one won't hurt me."*

> *"Smoking during pregnancy can hurt your baby. I'll take the other one. I won't take that one. I'll take the other one. That one won't hurt me."*

To minimize exposure to the health warnings, one woman purchased covers to hide the health messages on the cigarette packages.

> *"Touching my pack of cigarettes can be harmful to your health. That's what mine used to say… I'd buy the leafs that fit right over so you wouldn't see what it [health warning] said on the other side.*

Marketing by tobacco companies elicited a reaction from women as they expressed concern for children bearing the brunt of cigarette advertising.

> *"They are targeting. Like they are making them [cigarette packages] colorful. They are making them pretty so that younger people are looking at them and they are like, 'Oh that looks cute, let's get that.' "*

It is essential that smoking cessation methods are acceptable to women. Nicotine replacement therapy (NRT) was described as, *"What's the point?"* One woman depicted a friend who constantly chewed nicotine gum but restarted smoking, *"It's almost like, what's the point if you are replacing one addiction with another."* The women were concerned with being addicted to NRT.

Xd. Supporting Pregnant and Parenting Women: Turning to Others

Pregnancy and parenting are stages during women's lives when support needs may be heightened. This may include *"turning to"* spouses, family, friends, and HBCs for support. When women attempt to quit smoking they may *"turn to others"* for support in attending smoking cessation programs.

Women varied in their support systems. One woman described her *"loving, supportive husband"* as assisting her to quit smoking. Another woman identified her boyfriend and mother as supportive. Women wanted to be supported by someone, "*going through the same thing that you are."* The difficulty of *"turning to"* a non-smoking parent or sibling for support was discussed: *"It is not the same when you turn to a parent or sibling who doesn't smoke."* Lack of support for their smoking cessation efforts and *"trying to quit*

when it is being put in front of your face" was described. One woman talked about her brother visiting the hospital after her baby's birth and bringing his cigarettes.

> *"My brother came home from [province] when I was in the hospital and had him [baby]. And over on the ledge next to my bed was a pack of cigarettes. And I told him he can leave or the pack leaves. The pack went out the window. But it is hard."*

Support to attend smoking cessation programs may involve services such as quality child care. All women agreed that child care is essential in supporting them to attend ETQ. A *"perfect"* child care experience was depicted by one woman.

> *"A perfect program would include somewhere you can put the children, you can put them with you. They can go off and do something else while you are sitting down."*

Support plans focusing on *"avoidance of triggers"* were identified as core elements for successful smoking cessation. Family involvement was seen as essential when implementing a support plan because *"it has to be a family thing."* A *"quit plan"* was viewed as unsupportive of smoking cessation because it reminded women of their unsuccessful quitting attempts: *"I agree that it should be a support plan not a quit plan. Cause the more you hear quit, quit. It is just going to drive you around the bend."*

XI. Themes: The Women Post-Implementation Expecting to Quit

This section describes three themes identified in a focus group of pregnant and parenting women post-ETQ. The analysis revealed three themes including: The Shame of Smoking: You Have to Keep it Behind Closed Walls; Smoking So Many Triggers; and It is a Pretty Good Program: But We Have Suggestions for Change.

XIa. The Shame of Smoking: You Have to Keep it Behind Closed Walls

Smoking by pregnant and parenting women elicits feelings such as disgust with women for smoking and dismay over the thought of the health effects of smoking on the women and children. The most disconcerting feeling however was shame. Shame may cause women to feel worse. It may prevent women from seeking cessation support because they may attempt to keep their smoking habit *"behind closed walls."* Women shared their experience of feeling "*ashamed you do it."*

> *"Cause the guy that I am going out with he quit and it was like I was going behind his back. So whenever he was not at my place I was smoking. And then I was hiding it from my kids"*

One woman identified guilt because of the possible impact on the health of her unborn child as the reason one mother stopped attending ETQ.

> *"And it was just me and her that day and I think she felt guilty, because she was pregnant and she was reading up on this information, about you know, what was in the cigarette and how it could be harmful to your baby and stuff. I think she felt guilty."*

Shame was viewed as a *"personal thing"* and *"If you feel ashamed of going [to ETQ] you are not going to convince anybody."*

Confidentiality was linked to feeling *"ashamed"* of smoking. Women were adamant that smoking cessation be kept "*within closed walls*" and *"nothing leaves the room."* One woman described being concerned that her daughter may find out that she attended ETQ.

> *"But for the shame thing. I mean if you don't do the confidentiality thing. We know each other so it is not a big deal. If I was in a group with someone and I was out at [grocery store] say with [Daughter] and she came up and said, 'How are you doing with your smoking?' That would*

> *be embarrassing. So you have to keep it behind closed walls, right."*

"Confidentiality contracts" were viewed as important in assisting women to feel comfortable, *"So I think that is the main thing to have as soon as you start the program off."*

Women may judge others for their smoking behavior. Women described how they spent the money that they received during the research, which was intended to assist with child care expenses, *"I didn't buy cigarettes. [Daughter] spent it, but that's beside the point"* and *"I took my kids to the dollar store or something like that."* They felt that some women may use the money to buy cigarettes, *"With your mind concept you are thinking that is two free packs of cigarettes, right."* Illustrating their feelings of being different from other women who smoke, *"I am not everybody either."*

Supportive environments may help to overcome shame as an impediment to seeking out smoking cessation interventions. However, interventions focused on the fear associated with the health impacts of smoking were viewed as non-supportive. One woman verbalized that fear was *"not going to work for me."* ETQ was seen as supportive because it focused on "*showing you how to quit not telling you, you had to quit."* Tips on stress reduction helped women cope with smoking cessation *"cause that is mainly why you smoke."*

XIb. Smoking So Many Triggers

There are *"so many triggers"* that encourage smoking including eating, being with friends who smoke, boredom, and stress. ETQ assisted women in better understanding their own smoking triggers.

> *"It's a little check list and you fold it up and put in your cigarette pack and you write when you have one and why you had one. That was extremely helpful. Because then you are realizing like, okay. For me when [Daughter] makes me mad I am having a smoke."*

One woman described *"eating to have that cigarette,"* which included having a *"big meal"* and then smoking a cigarette.

A relaxed environment such as during the focus group and when meeting friends at the HBC, contributed to women not wanting to smoke. Being at home when *"frustrated"* or *"bored"* contributed to smoking.

> *"Like I am here now and if I go to the center to meet my friends I don't even take them [cigarettes] with me because I don't smoke when I am out. It is when I am home. I am either bored or frustrated. If I am in a relaxed environment like now [focus group] I don't even think about it."*

Smoking was associated with stress relief during stressful life events such as the death of a friend, although stress was one reason that women smoked, *"if you feel bad you are going to smoke."* One woman talked about her experience with ETQ and the stress associated with a friend's unexpected death.

> *"During the session I had a really bad time I had a death, one of my friends died. I mean I lost it and everything I learned. I went back to smoking a pack and a half a day."*

For some women, pregnancy affected their decision to smoke. One woman shared that she *"just quit smoking because I had to"* during pregnancy, because she was *"reading more into it."* In contrast, after her pregnancy the smoking cravings returned stronger than ever. One woman discussed the implications of smoking after pregnancy and stated, *"and now it is killing me but who cares."*

> *"And the thing is with me when I was pregnant I just quit smoking cause I had to. Now it is killing me but I don't have to. You know it is the way the mind works."*

XIc. It is a Pretty Good Program: But We Have Suggestions for Change

ETQ was described by women as a *"pretty good program."* Making decisions about smoking, being comfortable with the group, program location, supportive family and friends, and relationships with HBC Mothers were important to women. *"It is a pretty good program"* was portrayed by women as *"informative," "interesting," "learning stuff"* and *"most convenient thing I have ever attended."* Child care, transportation, support, comfort and incentives were important components of *"it's a pretty good program."* In contrast, ETQ participants had *"suggestions for change"* including an increased focus on statistics, more information on pregnancy and offering ETQ at more convenient times. Women discussed the importance of *"being in control"* and supported in *"making their own decisions"* regarding smoking cessation.

> *"Make my own decisions. I mean they weren't telling me, you got to do this, you need to do that and you have to do this. It was like well, 'Here are the steps, you follow the steps and they will help'."*

The size of the ETQ group was important - it may be more difficult to talk and share opinions in a large group. Women may be *"uncomfortable"* in a large group, *"especially if you didn't know them [other participants]."*

> *"I liked the size of the group. It was only a couple of people and you felt comfortable."*

The location of ETQ was important to women. HBCs were described as a place where woman *"feel comfortable"* and *"not be judged."* One woman described her comfort level with the location of ETQ because *"where you were going the*

people were in the same boat." Women described the location of the focus group [community health center] or the hospital as places they would not want to attend ETQ because it was *"not familiar"* and *"too clinical."*

ETQ was viewed as beneficial because it helped women reduce smoking and making their homes smoke-free. One woman explained that she would recommend ETQ because *"I have cut back a great deal. I no longer smoked inside because I was killing my little one basically."*

Support from women attending ETQ was important to other women in their quitting process. One woman relayed her personal experience with such support.

> *"Like whenever, like if [name of woman] had one more [cigarette] than what she had yesterday or whatever, or even if she cut back. Like when she was up at the center I said, 'That's good though, like that's good though'. You need support like that when you get up there, right."*

This support extended to recommending programs to *"people that you care about." "Knowing what it [smoking] does to people over time"* was a rationale for endorsing ETQ. One woman described why she recommended HBC programs:

> *"Like I recommend programs all of the time from the community center. My Mom died of lung cancer so I know what it does to people over time. It's just people that you care about and that you are doing something to help them. I would tell them about it."*

HBC Mothers supported and encouraged women to attend ETQ. Feeling comfortable with the HBC Mothers was *"the only reason I went."*

> *"So I said to [Name], I said, 'I don't even think this would benefit me because I think I am going to be quitting soon,*

> *kind of thing.' And she said, 'No, come anyway because it will help you.' And it did really."*

HBC Mothers promoted an informal atmosphere using "*relaxed group discussion,"* thus facilitating attendance.

> *"Just a relaxed group discussion. She gave us the facts then she asked us for our input."*

Women's comfort with ETQ was attributed to the sessions being *"across the table and lots of discussion"* and not being "*talking down to you because they are on a higher level."*

> *"... if someone is pointing at the board and that you think you are back to school. Someone is lecturing you and talking down to you because they are on a higher level."*

Although it is *"a pretty good program,"* women had *"suggestions for change."* One woman suggested that more information on pregnancy is needed, including details on the impacts of smoking on the health of the baby. One mother who spent hours on the Internet looking for information thought that more statistics would improve ETQ.

> *"I wanted to know what it did to the baby. I wanted to know the statistics on women smoking and non-smoking and what linkages it was, and SIDS. I wanted to know all that. I spent hours on the computer looking up the information and maybe it could have been provided on certain things."*

In contrast, one woman stated, *"I am not pregnant. I am not in that boat."*

Women agreed that offering ETQ at a more convenient time for the sessions would be helpful.

> *"Cause if it was a better time we could have stayed there. But where it was a bad time we had to cram it a little more."*

The women concurred that *"only little bits and pieces"* need to be added to ETQ.

XII. Themes: Healthy Baby Club Mothers Pre-Implementation Expecting to Quit

This section describes the four themes in the focus group with HBC Mothers: A Challenging Environment: Taking Something They Love Away; An Ideal Program: Smoking Women Need Kinder Understanding; Supporting Healthy Baby Club Mothers: Training is the Biggest Thing; and Counteracting Smoking Cessation Myths.

XIIa. A Challenging Environment: Taking Something They Love Away

HBC Mothers discussed the challenges in meeting the smoking cessation needs of women with low income, lower educational attainment, low literacy and limited support; *"taking something they love away;"* providing non-judgmental environments; overcoming stigma; providing smoke-free environments; logistical concerns; and living in the *"here and now."*

The reading levels of the women were the *"biggest issue."* Written materials in smoking cessation programs should contain *"plain language"* adapted for women with low literacy skills.

> *"Some of our Moms do have low literacy and it's something, you want something that you are going to give them. It's got to be very plain language."*

One HBC Mother addressed the low literacy levels by basing programming on *"minimal reading"* and "*do[ing] the reading for them."*

Cigarettes were described as something *"you have loved for a period of time."* Finding something to replace smoking in women's lives, when it is perceived as the only thing *"you do for you"* is a challenge. "*Taking something away"* from women when there may not be something to replace it with is

difficult. *"Find[ing] an activity"* when you are *"stressed"* and want a cigarette is challenging because many recommended activities such as going to a movie, going out, may not work with disadvantaged women in whom smoking *"is the only thing I do for me."*

> *"And you read a lot of this stuff too and what cracks me up is when they say, find an activity. Like when you are stressed and feel like having a cigarette. Find an activity. And I have someone looking at me and saying, 'I have three kids at home and a fourth one on the way. Excuse me but this is the only thing I do for me'."*

HBC Mothers expressed the discordance between being non-judgmental towards women who smoke and encouraging smoking cessation. They explained that they *"want to be able to understand what they are actually going through."* The need to be *"open"* with a *"kinder understanding"* so that women who smoke do not feel like *"outcasts"* was described:

> *"Smokers need kinder understanding. And we would have a big chat then, right and people could relate to it more. They didn't feel that they were the outcasts."*

HBC Mothers had personal conflicts with being non-judgmental of smoking, *"I find it a very fine line of trying to deliver information and still remain non-judgmental. It is hard, right."* When discussing smoking cessation with women, there is a *"fine line you can't cross with them."* HBC Mothers described the need for sensitivity because smoking is a *"touchy situation"* and may affect the "*openness"* of communication in women.

> *"And like there is a fine line you can't cross with them. If you do, you can watch them draw back. And then that openness is gone for a while. It is a touchy situation. A very touchy situation I find."*

Overcoming stigma is challenging. Pregnant and parenting women *"feel guilty about going but they need to go out for that smoke."* Non-smokers attending HBC may be a source of stigma towards, and judgment about, women who smoke.

> *"And what I find too is in a group setting you can have smokers and non-smokers. And like when it is said, the non-smokers they are pretty judgmental…You know what's going on their heads there and you can tell on their faces."*

Permitting women to smoke when attending HBC sessions created angst for HBC Mothers. One HBC Mother described the discordance between trying to support healthy eating and permitting women to smoke outside during breaks.

> *"One of my Moms really likes to have her pop. And sometimes she will bring, if we are having a session, a bottle of 7-up with her. And we are always saying, 'Nutrition, nutrition, nutrition.' And she will say, 'Well you know what, the girls are outside the building having a smoke. And you guys are grumbling because I am having a 7-up.' So it is, like you know, we do let them go out, you can't stop them, they are adults."*

They struggle with permitting women to leave the sessions because they are concerned they "*will not come back"* if they are not permitted to leave for a smoke break. They are torn between portraying a non-judgmental attitude towards smoking and allowing women to make their own decisions.

> *"Non-judgmental. So how do you really, you know, try to change their idea and their perceptions around some things when you can't say a lot of times what you would like to say? You know and it is tough. Like you said, if you don't allow them to go out or whatever and then it is like, 'Oh well, How come I can't go out and whatever?' "*

Logistical challenges for women attending smoking cessation programs include child care, transportation and family commitments.

> *"It is huge getting them there. And having someone to take care of their other children and whatever to get them there."*

Finally, HBC Mothers are challenged by women "*live[ing] in the moment*" and not focusing on the longer term. Living in the *"here and now"* impacts on the smoking cessation messages portrayed by HBC Mothers:

> *"Most of the information I think we give them, that we have and the resources we give them has got to be about the here and now, the baby and the first month or two and how it's going to maybe effect. Because really, they are hearing it but it means nothing to them."*

XIIb. An Ideal Program: Smoking Women Need Kinder Understanding

Understanding the needs of disadvantaged pregnant and parenting women is essential in developing a responsive smoking cessation program. HBC Mothers described several essential components in understanding women's smoking cessation needs, including understanding addiction and craving, feeling supported and accepted and exploring smoking reduction. HBC Mothers struggle with understanding tobacco addiction because many have never smoked and have not experienced addiction.

> *"I have never smoked. I have never been addicted to anything. So I can't really empathize with these people. Cause I have no clue."*

One HBC Mother, a former smoker, described her personal difficulty in quitting smoking, *"Believe me [how hard it is to quit smoking]. I was a heavy smoker."* Also, she shared her smoking history during pregnancy and noted, *"You didn't know the dangers years ago."*

> *"When I was pregnant I used to be so sick that I couldn't smoke. And I used to be upset with myself, you didn't know the dangers years ago."*

The impact of living in a *"smoking home"* when she was a teenager contributed to one HBC Mother's understanding of tobacco addiction.

> *"My father smoked probably three or four packs a day and I lived in it, it was just the same as if I smoked so I didn't feel nothing. When I would go somewhere else where no one smoked and I would smell. 'Was that me?' And I didn't even smoke, like. But you don't notice it when you are living in it."*

They felt it was important to discuss withdrawal and craving, to prepare women for what to expect during smoking cessation.

> *"If you are going to do something with our Moms and those who are smoking give them the information of what they can probably expect from quitting. The withdrawals. Like it is not going to last forever. Most times the withdrawals it is only the first week, which is really bad. And then eventually, they still got their cravings but it gets easier and easier as time goes on."*

HBC Mothers talked about the difficulty in trying to recruit women who smoke, *"the ones that need you the most."*

> *"But the smokers are the ones that you can't even get them to come at all. They are too busy home smoking. I don't know. The ones that need you the most."*

One HBC Mother questioned whether the women were being truthful about their smoking habits:

> *"And I wonder if they [women] are telling you the truth when you are asking them like, 'Have you been able to cut back on your smoking?'. They are saying, 'Yes I quit.' Like, but you really don't know."*

The need to communicate caring and concern for women and their children was salient in the mind of one HBC Mother, *"I really care for you and I care for your health. And maybe that may break the barriers."*

Reducing the number of cigarettes smoked was seen as a viable option for women by some HBC Mothers.

> *"You know the reasons why or what could happen, but if you can't quit, even if you could cut down, then eventually they probably would get to quit."*

However, one HBC Mother questioned whether or not she should encourage tobacco reduction as an option, *"I don't outright tell them not to smoke. That may be wrong, I don't know."*

XIIc. Supporting Healthy Baby Club Mothers: Training is the Biggest Thing

HBC Mothers described their support needs, including smoking cessation training specific to the needs of pregnant and parenting women, ongoing resource needs and consistent information. They were committed to offering ETQ and felt they were the appropriate personnel to provide the program.

Training is essential to ensure that facilitators have the necessary skill to effectively deliver programs. The lack of smoking cessation training, prior to ETQ was viewed as a gap by the HBC Mothers.

> *"I can't say that I have received any formal training. This probably will be the first time that I received formal training."*

One HBC Mother described receiving training on Kick the Nic, a smoking cessation program for teens. She also described attending training on Baby's Coming, Baby's Home, a program encouraging parents to make their homes smoke-free. One HBC Mother shared her experience with Baby's Coming, Baby's Home and that she *"really like[ed] that one,"* but the training *"left her wanting more."*

> *"And what I used to find especially with Baby's Coming, Baby's Home. 'Cause I really like that one. But it left me wanting more because there wasn't enough time."*

HBC Mothers stressed that training on smoking cessation was the "*biggest thing*."

> *"You know you can receive a package in the mail and go through it yourself and then try to deliver it. But actually being given the training to help you figure out what is going to be the best way that you are going to be able to take it back and implement it."*

Because HBC Mothers were non-smokers (who felt they did not understand the quitting process), incorporating the experiences of women in a smoking cessation program was perceived as a way to increase understanding of smoking from the perspective of women who smoke.

> *"I think it would be nice to, I think if you had a resource that actually drew on the experiences of women who were pregnant and smokers and what they, like what they did, how they coped, how they got through, those who quit and what have you. So that then I could say, 'Okay, well like here, here are some things that these women actually tried and did and it worked for them. Let's figure out what's going to work for you.' Because I am not a smoker. I've never tried to quit, I've never had to."*

Changing the way smoking cessation messages are delivered to women may improve the effectiveness of smoking cessation programs. One HBC Mother noted, *"we have to think differently on how we portray it to them."*

> *"Sometimes it is how you word it. Even teaching us how to. Cause we are just sticking our head… smoking can cause this, this and that."*

HBC Mothers described the resources required to implement ETQ, including interactive activities such as group discussions, print materials, research-based information and innovative facilitation strategies.

> *"Something that is really interactive, because nobody likes to have somebody just sitting there and talking to them."*

Providing consistent smoking cessation information across the five HBCs was seen as a valuable method to ensure that women in western Newfoundland receive standardized education, because women attending HBCs frequently move to communities throughout the region.

> *"So if I have a transfer [women] from my program into [HBC] program, I know she has received the same information in that area as well."*

HBC Mothers were concerned that if ETQ was provided inconsistently, it may *"lose the effectiveness"* as the program delivery methods *"can be very different."*

> *"So if I walk away from the training tomorrow without a set of resources that I can take back and implement, then the way I deliver the information can be very different from the way somebody else delivers it and then you lose the effectiveness, maybe."*

HBC Mothers were emphatic that they themselves were the appropriate persons to provide ETQ. Their role as home visitors helped to build and maintain a relationship with women.

> *"But I think for a lot of our Moms if they saw the public health nurse coming in, they wouldn't be as receptive to certain programs as they would me coming in. Because I am the one that goes into the home and sees them."*

The comfortable relationship between HBC Mothers and pregnant and parenting women was viewed as a strength because the women would not respond well to *"the lecture."* One HBC Mother described the relationship:

> *"You got them more comfortable with us. When you got like a nurse coming in the room, they are expecting the lecture, I think about smoking and stuff. Whereas with us,*

> *or with me, like they don't get that same, it's not the same feeling."*

HBC Mothers characterized the importance of their relationship with the women *"like a friend,""I am there to support them"* and *"I mean, we've got invited to weddings."*

XIId. Counteracting Smoking Cessation Myths

"Counteracting smoking cessation myths" originating from physicians, the women themselves, or their family members were significant challenges for HBC Mothers. In particular HBC Mothers felt they should address misinformation from physicians. A predominant myth is that smoking cessation may stress the fetus.

> *"The doctor told her not to quit cold turkey cause of the impact on the baby."*

Particularly salient was the myth that their mothers' smoked during pregnancy and it did not have effects on the health of their children, *"My Mom smoked and I'm okay."* Of particular concern for HBC Mothers was the issue of prenatal smoking affecting birth weight.

> *"So they look at you and they say, 'Well like, you know she was nine pounds 12 ounces and I smoked the whole time with her.' "*

To assist in debunking myths HBC Mothers expressed the need for correct information about smoking cessation.

> *"I think it is important that we are educated enough to know what to do when they come to us for help."*

One HBC Mother expressed her thoughts regarding *"hard evidence"* that would help to counteract the myths.

> *"But even if you have something on paper saying that, 'Yes these are the benefits of quitting while you are pregnant and you should quit.' Type thing. But at least you have hard evidence to give them"*

HBC Mothers felt that ETQ participants may not accept the information that they provide because they are not health care professionals. Physicians and nurses have more professional credibility with women.

> *"Cause a lot of times they will look at us because we are not doctors or nurses, they are going to take the word of the nurse or doctor over what we are telling them."*

HBC Mothers were receptive to new information, *"If the doctor was correct we need to know that also."* The need for confronting myths extended to breastfeeding.

> *"I think there are a lot of misconceptions too around breastfeeding and smoking. I'd like to have more information on that."*

XIII. Themes: The Healthy Baby Club Mothers Post-Implementation Expecting to Quit

This section describes the four themes identified in focus group discussions among HBC Mothers after implementation of ETQ: Difficult to Commit: The Lives of Women; The Reality of Rural Recruitment; It is a Good Program: I Can Do This; and Committed But Challenged.

XIIIa. Difficult to Commit: The Lives of Women

Pregnant and parenting woman have busy lives, with many commitments including parenting, being a partner or spouse, attending physician appointments and prenatal care. Women's perceived lack of commitment to attend ETQ was described as *"commitment overall."* However recruitment was a general issue not

specific to ETQ. HBC Mothers had difficulty recruiting women to all HBC programs including prenatal classes.

> *"…We were offering prenatal classes with the public health nurse. And you know, it was hard too, to get them out to that."*

Commitment of women to attend ETQ was questioned, *"It was just always something that comes up."* "*Getting the commitment"* from women with children was particularly difficult.

> *"I think it was getting the commitment from the girls. Especially the ones that had children already, like even though sometimes they brought their child with them or whatever. But it was just always something that comes up, now whether that was just excuses, I don't know."*

In contrast, one HBC Mother talked about a woman who was committed, "*She was committed I must say*," and *"when we had the commitment, they were committed to complete the program."* The story of a young mother committed to ETQ was shared.

> *"I had one, one of my… well that one girl that finished it. She in between had her baby. She went into the hospital, had her baby and the next week she come out and continued with the sessions."*

ETQ was viewed as *"one more thing"* women had to commit to attend. *"Someone had an ultrasound, someone had a doctor's appointment and someone's child wasn't feeling well."* This is the reality for women in their parenting role. However, there are many added challenges for women who have issues of low income, lower educational attainment and limited social support. One HBC Mother stated that women, *"were just trying to get through the pregnancy."* Adding stress to the lives of women by expecting them to quit

smoking was a concern, *"as they don't need stress when they are pregnant."* The value of ETQ was that *"the information is there"* for women, when they *"are ready."*

Stigma was not perceived by HBC Mothers as a factor preventing women from attending ETQ. They felt there was *"no stigma"* related to smoking by pregnant and parenting women because *"they don't seem to care."*

> *"Once upon a time they were almost embarrassed to tell you they were smoking."*

In contrast, some women were hiding their smoking habit from their children. One HBC Mother described her experience with stigma, *"one of my Moms was hiding it [smoking] from her kid,"* because she did not want her children to know she smoked.

> *"I find that after they have their kids, you got more people, like some... one of my Moms was hiding it from her kids because she has older kids and she didn't want her kids to know she was smoking, type of thing."*

XIIIb. The Reality of Rural Recruitment

Recruitment of women in rural communities may be affected by geographically isolated communities, limited public transportation systems, small populations and by women waiting to see how others in their community perceive ETQ. Word of mouth in rural communities is often the primary source of communicating the benefit and value of new programs. Women may avoid attending a smoking cessation program if the behavior the program is trying to change is socially unacceptable. The stigma of smoking while pregnant and parenting, contributed to women feeling unsupported and smoking going

"underground." In small, rural communities threats to confidentiality may be a barrier to women attending ETQ.

Western Newfoundland has approximately 150 communities over a large geographic land mass with a low population density. HBC Mothers described providing ETQ as, *"A real challenge for rural."*

> *"I think some of it was geographical, too. We are located in [Community], but we serve such a wide area. Like some are in [Community], some are like up at the end of [Community], some were [Community], one girl was from [Community]. Right. Just getting them all together, like at the same time."*

Winter weather conditions in western Newfoundland *"definitely"* impacted the timing and location of smoking cessation programs. Recruitment is difficult for all programs when women have to travel during the winter months.

> *"It is hard on all the programs to get people travelling from communities to a central site in January, February and March."*

Nonetheless, for one HBC Mother *"the time of the year was fine for me."*

In western Newfoundland, an aging population, outmigration and declining birth rates have contributed to a reduction in the number of women eligible to attend ETQ. There are few public transportation systems except in large, urban communities. An urban HBC Mother commented on the challenges facing small, rural communities.

> *"I can't imagine in the smaller communities. How much harder it would be cause we have so much… so many people to draw on. And I know in smaller communities they have a lot less."*

Employment opportunities in rural communities may be limited and often women have to work whenever the work is available. This is evident in rural,

natural resource-based communities, such as in western Newfoundland where the fishing industry is seasonal. Basically, women work when the fish are available for processing, making it challenging to identify an ideal time to offer a smoking cessation program. Although women working were not an issue in the current implementation of ETQ, it may impact on future program delivery.

> *"… But then in the smaller communities there is the fish plants, right. So all the Moms are working in the fish plants."*

This issue is a challenge for one HBC Mother because the fish plants are opening earlier in the fall and closing later.

> *"And then you've got the fall and they [fish plants] are usually not shutting down until into November now."*

In rural communities, "*word of mouth"* works best in advertising and promoting the success of programs. The implementation of a first aid program in a rural community was compared by one HBC Mother as a parallel to the implementation of ETQ. She commented that when the community accepts a program, you have *"so many people trying to get in."*

> *"It is just like the first aid [program] when it started out home, too. And now they have so many [people], you have to try to get in. And now there are people calling you and you have a wait list. 'When are you having another one?' …So I think this will be a sort of first aid for them."*

HBC Mothers agreed that although ETQ was *"well advertised,"* many of the mechanisms, including *"going to the media,"* cable television, newspapers, radio and email did not work.

> *"Well we done our recruitment, we did it on Cable 9 [television station], in the paper, on the radio. At the end we had a date set to start and we didn't have anybody."*

They attributed recruitment success to direct calls by HBC Mothers, *"And I called them up. But that's the only way I got them."* In contrast, one HBC Mother tried many mechanisms to encourage recruitment but was unable to recruit any women: *"nothing, just couldn't do it."* HBC Mothers questioned the reasons participants attended ETQ, wondering if they attended because they were asked to and felt they had to attend or if they really wanted to quit smoking, *"The girls that done it with me only done it because I asked them right."* One HBC Mother stated that she would like to offer the program to a group that was *"really interested."*

> *"The girls they just came, they really didn't want to be there. It's not that they didn't want to be there, they really didn't want to quit."*

One HBC Mother compared her inability to recruit with the recruitment success of other HBC Mothers, *"but at least they came for you."*

XIIIc. It is a Good Program: I Can Do This

ETQ was described by HBC Mothers as *"a good program,"* because it was flexible, user friendly, visually pleasing, easy to implement and required minimal training. They expressed confidence, *"I can do this"* and were excited about their experience with ETQ.

> *"It is great to have been involved in something like this. Because I wasn't aware of this specific program. We do have programs that have been provided to our centers and what not and our programs. But this one is really good and it was a nice change from the other ones that we have to use as resource material…. It was great to have exposure to this program that I would not necessarily have got. That was really appreciated."*

One success of ETQ was in reducing the amount that women smoked, providing accurate information, creating a comfortable setting and supporting

women in the quitting process. The opportunity to deliver ETQ in a flexible manner was viewed positively by HBC Mothers, *"It was more casual. It was more of a sit down."* Being able to use the program individually and in a group setting was another hallmark of the program's flexibility.

> *"But it is also a good guide to use as an individual like counseling role whatever, to help somebody. So it can be used two ways."*

In contrast, one HBC Mother did not combine the sessions although she supported reducing the number of sessions. HBC Mothers felt ETQ was applicable for a wide variety of audiences, including *"anybody."*

> *"It is such a versatile thing that you could take it with seniors groups and that such thing. That would be good."*

The lack of preparation required for facilitation was an advantage of ETQ because it was *"user friendly."* This is important when considering the many work commitments of HBC Mothers.

> *"The book was excellent, like going through just take it and go."*

The program information was perceived as "*being down to earth*" and this was important to HBC Mothers because they felt it was congruent with the learning needs of the women.

> *"So it was, you know the terminology and all that there like it wasn't above their head and stuff. It was more down to earth. In everyday language and stuff."*

"Positive thinking" and rewards for women attempting to quit smoking were considered a benefit of ETQ.

> *"And there [*ETQ*] they tell you to reward yourself and a lot of women don't, right. A lot of our Moms don't. And it is good to be able to hear that. And you deserve it. So I*

> *think that is a good point there. A simple thing like being able to sleep longer."*

Finally, HBC Mothers described the visual components of the program including the posters, as *"some of it was really good that actually stuck with them."*

XIIId. Committed but Challenged

HBC Mothers are *"committed but challenged"* when offering ETQ. Challenges include recruitment of women, understanding the impact of second-hand smoke, and addressing smoking cessation misconceptions. Recruitment was particularly challenging; even though the women smoke, it was difficult to *"just [getting] them willing to participate."*

> *"It was a bit more challenging. It's not the fact that we didn't have anyone who smoked, just them willing to participate. I started off that I had five. 'Yes we are going to do it.' Three showed up and two finished."*

Being unable to recruit woman and offer ETQ was disappointing for two HBC Mothers who received the training. One HBC Mother expressed her thoughts that women *"weren't ready"* and *"it wasn't me."* When participants did not continue with ETQ, it led the facilitators to question their skills and they advised other HBC Mothers to not *"go into it with high expectations."*

> *"Don't be disappointed like when people do give up. Because it is not the facilitator, this is their choice."*

HBC Mothers did not anticipate difficulty with recruitment prior to commencing ETQ - they "*didn't think it was going to be so hard to get the group going."* Although two HBC Mothers were unable to recruit women, they remained enthusiastic about the possibility of offering ETQ in the future, *"I would do it next week if I could."*

Conveying information about the health impact of second-hand smoke on the children of women who smoke is challenging for HBC Mothers. One HBC Mother relayed her experience with a woman smoking outside her home to reduce harm to her children. However, because she was pregnant, the fetus was exposed to the detrimental effects of tobacco. The HBC Mother had difficulty understanding and supporting the pregnant woman.

> *"I had a Mom in my group who was smoking while pregnant. She had a four-year-old child still in the home. And when she went out for her cigarette, she went outside to smoke. She didn't want to expose the four-year-old to the second-hand smoke..... I said to her one day. 'Like, so what's the difference?' I said. 'Explain to me really, right. Explain to me the difference.' And she said, 'Well I suppose really there is no difference. It just feels like it is better for me this way.' "*

Other HBC Mothers supported pregnant women in making their homes smoke-free to protect their children, *"It is good that she is not exposing one child to second-hand smoke."* One HBC Mother shared her personal experience of being pregnant and smoking, *"The last thing a parent wants to do is hurt their children."*

> *"Until you see the baby you don't really believe that you are hurting that baby…They don't believe, no matter how much we tell them or show them, they don't believe it. I was smoking while pregnant, right."*

Smoking cessation myths continue to challenge HBC Mothers, *"We have doctors too in telling you not to quit smoking."* They are concerned that *"word of mouth"* may spread smoking cessation myths and impact on women's smoking cessation decisions.

> *"It takes one doctor to say that to one patient and then that patient goes and tells the next person."*

Physician education on smoking cessation was seen as a way to confront misinformation, *"I think the doctors got to be more educated on this, right."* Myths originating from family and friends are also challenging for HBC Mothers, *"My baby was… just like they said eight pounds. And then I said, 'Yes, but this is researched.'' No, that is not true.' "*

HBC Mothers viewed smoking cessation success as women reducing smoking, telling others about ETQ, attending the sessions and having accurate information.

> *"Just taking in the information and talking about it and sharing their stories."*

HBC Mothers described ETQ participant's success with tobacco reduction:

> *"She did really well. She lowered the amount of cigarettes that she smoked per day considerably."*

XIV. Themes: Managers

This section describes four themes identified in the interviews with managers: So Many Stresses; Supportive, Non-Judgmental Environments: Setting the Stage; Committed but Challenged: We are the Vehicle to Get the Message Across; and An Ideal Program: It's the Little Things That Make a Difference.

XIVa. So Many Stresses

The multitude of stressors challenging pregnant and parenting women attending HBCs was described by managers as, *"so many stresses."* The stressors varied individually among the women although many stressors, included *"just the day to day basics."*

> *"So it is hard sometimes when people are struggling. And not certainly everybody at the club, but we do have a high*

> *percentage of people that have just the day to day basics is just so high so we're providing food supplements, they may be getting out of a violent situation so we are doing referrals to the Woman's Center, [Shelter for abused women]."*

A manager described the challenges facing a new mother which impacted on her inability to stop smoking:

> *"All along in her pregnancy [Name] was trying to help her stop smoking. Her baby was born with Down's syndrome and she had no sort of pre-warning of this. [Name] and her were still chatting about stopping smoking. Not a good time to stop smoking. And now her baby is in [City] receiving dialysis, not dialysis, chemotherapy. [Baby] had leukemia as well. So she needs, or feels she needs, to smoke to cope with all of this."*

Many HBCs serve high-risk populations including pregnant teens, single parents, and families living in poverty, which collectively contributed to *"so many stresses."*

> *"I guess a high need area with regard to the HBC. A lot of teen pregnancies, of course the socio-economic factors. There was a lot of poverty, a lot of people, and a lot of families, depending on support."*

Women smoke to relieve stress, but smoking and its impacts create stress. Smoking was described as a *"bit of a stress reducer"* used to confront *"a lot of stress"* facing women. Smoking may be used as a *"coping mechanism"* to deal with the many stresses in women's lives. One manager was concerned that cessation will take away the *"stress release."*

> *"A lot of times their only stress release is smoking. And to take that away then, I guess you are taking away that, that stress release."*

Pregnancy in the context of *"so many stresses"* combined with the stress of quitting smoking was a concern of managers.

> *"They have so many stresses in their lives that, you know, they are dealing with and then a pregnancy and trying to quit smoking."*

Providing for families on a limited income is a stressor for women. A manager described the stress of living on a low income as, *"trying to afford anything."*

> *"So they are going through a lot of stresses in their lives of trying to afford anything right from eating nutritiously while they are pregnant right to the whole household management sort of thing."*

HBCs focus on financially challenged families because they are *"generally challenged in other areas as well."*

Pregnant and parenting women smoke for many reasons, one of which is intergenerational smoking. One manager described women smoking at a young age and then becoming *"fairly seasoned smokers."*

> *"I think it might be a little intergenerational. There seems to be a high, in the area that we are a lot of it [smoking]. So people start very young smoking. So again you know, by the time they are in their late teens, early twenties, they are fairly seasoned smokers."*

XIVb. Supportive, Non-judgmental Environments: Setting the Stage

Creating supportive non-judgmental environments are a prerequisite to *"set the stage"* for smoking cessation programs. The difficulty of creating this environment was described by one manager, *"But sometimes it is the subtly. Just the way that you say something."*

Managers view their role in smoking cessation as "*setting the stage,*" by supporting HBC Mothers.

> *"Certainly the role would be anywhere from giving support, ensuring training, getting involved as best as I*

> *could and in some programs, I actually offer the parent program."*

The challenge of *"encouraging women to stop smoking"* but at the same time, *"not judging"* their smoking behavior was shared by managers. However because of the fear of implementing a judgmental smoking cessation program, the HBCs did not offer a program.

> *"I have been here 10 years now and we haven't done anything around smoking cessation. Because I think maybe it is the programs, we have fearing that they are judgmental towards women."*

One manager expressed her feelings of *"being afraid"* to offer a smoking cessation program because of fear of judging women because they smoke: *"Like I say, it has been taboo, like almost afraid to offer it to them."*

Stigma associated with women who smoke is challenging for smoking cessation providers. The defensiveness associated with smoking impacts on women's attendance in a smoking cessation program because *"they feel you are judging them,"* and it is a *"touchy subject"*

> *"…And I think that a lot of people if they do smoke especially if they are pregnant, they put up a barrier because they are defensive… you are wanting them to do something or they feel you are judging them."*

To address the challenge of stigma and judgment, the managers attempted to create a *"very comforting, welcoming, open atmosphere,"* supportive of smoking cessation. Such an environment entails *"setting the stage up front."*

> *"The first word that always comes to mind is support. It's a supportive environment, so if you've got a group of women there, a group of pregnant moms, obviously you don't want to make them feel judged in anyway."*

Such supportive environments assist women in coping and dealing with stress. One manager described how women smoke to cope with and reduce stress, although she noted, "*the babies need them not to smoke"*

> *"And they need something in their lives to help them cope and to help them… to help them deal with stress right, better than smoking. Whether or not it is quitting outright or cutting down and the education. But you know the babies; the babies need them not to smoke."*

Supportive environments are enhanced if women have an opportunity to meet and share experiences. Support networks for parenting and pregnant women enabled them to have an *"adult conversation."*

> *"Also wanting to get out of the house and have some… to meet some other adults, and have adult conversations and learn I guess about your baby and that sort of thing. The support."*

Supporting women by being involved in their family issues and family celebrations is an important component of the relationship between HBC Mothers and pregnant and parenting women, *"You are really involved in their families and their family problems and also I guess their family celebrations."*

Managers are concerned that women may not understand the harmful effects of smoking. One manager discussed the need to be frank with women about the impacts of smoking, but at the same time, provide information within a framework of non-judgmental support.

> *"You talk about the education and the importance of letting people know and I think you can't sugar coat that, you can't. You really can't, this is the impact and I have certainly heard our [staff] talk that we had one young mother who was cutting back and you know in some ways being quite frank about it every time you smoke you realize what happens."*

Agencies that provide services to disadvantaged women are challenged to engage women who are *"fearful of the system."* One manager raised this issue and felt the HBCs were *"somewhat outside of the system."*

> *"How do you engage families who are so fearful of the system? One of the reasons people come to the HBC is that they see us somewhat outside of the system, even though the public health nurse and everybody is there."*

The success of HBCs in engaging women who are *"fearful of the system"* was attributed to several factors including HBC Mothers being from the community in which they work, the working relationship between HBC Mothers and public health nurses and word of mouth from women attending HBC programs.

> *"We have wonderful Resource Mothers, they are from the community, and they are from the community in which they work. And again the nurses, they are the key to that…And word of mouth gets around pretty fast. The biggest way that people come to us is that someone else in HBC told them to give us a call."*

XIVc. Committed but Challenged: We are the Vehicle to Get the Message Across

Smoking cessation is a priority for the HBCs and managers were committed to offering ETQ. However, they identified program implementation challenges including poverty, lack of funding and resources, smoking cessation myths, logistical considerations and providing programs in rural areas. One manager identified that her *"biggest priority"* was low income women and explained that many challenges confront individuals living on a limited income.

> *"The goal primarily of HBC is a healthy birth weight and a healthy baby. So even in promoting that, that would be helping someone to quit smoking."*

ETQ addresses a gap in HBC programming. One manager shared her experience in implementing a smoking cessation program, but was concerned that it was not designed specifically for pregnant and parenting women and had low participation rates.

> *"It wasn't specifically for pregnant women because I think it was opened up more. There were more people coming."*

Smoking cessation for pregnant and parenting women was described as, "*their biggest challenge."* However, the HBCs did not have *"any specific smoking cessation programs."*

> *"We don't really have any specific smoking cessation programs, but we do offer it as a topic during the sessions, so they would have maybe six months or so a topic on that for an hour and a half. So it is not a whole lot really."*

Financial challenges also affected the ability of HBCs to offer ETQ. There were limited funds and few staff to be trained to offer the program. Managers described the impact of limited resources, which have *"been the same for the past 10 years,"* and *"I mean, it all comes down to resources."*

> *"But again to be able to fund and have the women and families come in specifically for [ETQ] we would not be able to afford that. Because we have a very limited budget and it's been the same for the past 10 years. But we don't, we don't have the time or the money, I guess, to focus specifically on that, that issue as much as we'd like to."*

Although a high percentage of pregnant and parenting women smoke, limited funding affects the ability of HBCs to provide smoking cessation programs.

> *"But there is I guess no program [smoking cessation] that we do on a regular basis and that is probably more to do with lack of funding and lack of resources rather than to say that we don't see the importance of doing it. A high percentage of our Moms do smoke."*

Counteracting myths originating from health care professionals, the women themselves and their families presented a challenge for managers. One manager questioned her ability to counteract and challenge misinformation from physicians advising pregnant women not to quit smoking.

> *"We've had doctors actually tell women that they shouldn't try to quit while they are pregnant because it will only add extra stresses to their lives, right…And if the doctors are telling people those things how do we counteract that?"*

Confronting the myths held by the women was a challenge because "*there is still some that has this mentality that, my Mom smoked when they had me and, you know, I am fine."*

HBCs are "*the main contacts"* and were therefore viewed by managers as an *"ideal location"* or *"vehicle to get that message [non-smoking] across."*

> *"I mean, we're in the community. We are the ones that people are coming out, they bring their children out to and they are coming."*

HBC Mothers were identified as the appropriate staff to provide ETQ because their comfortable relationship with pregnant and parenting women supported offering ETQ.

> *"Our HBC Mother is a very personable type of person which is a good thing. She is welcomed in their home. They are very comfortable. I don't think we have ever been refused."*

A model of peer support was used to provide HBC programs. One manager felt that this support contributed to the *"comfort level of the participants."*

> *"But for our Moms, a lot of it is we want them to have the comfort level that the participants would open up to the Moms, be able to get into the home freely, almost a peer support."*

Involvement of HBC Mothers in providing ETQ was seen as important because it may foster participation.

> *"I think it is a good idea to offer it with our current resource moms. Because I think it would help facilitate the participation and involvement of the moms. Maybe if we brought in someone new, they would take awhile to warm up to someone new and you know more or less sit there and not vocally be part of the group."*

Even though the HBCs are an *"ideal location"* to offer ETQ, one manager expressed concern that program facilitation may be challenging for HBC Mothers because it is *"a lot bigger"* than what they currently provide.

> *"A lot of them may not have experience in a lot of program facilitation, in that way. They are comfortable with their HBC sort of role but they may feel this is a lot bigger."*

Transportation and child care are challenges for HBCs in recruiting disadvantaged women to attend smoking cessation programs.

> *"Their spouse may or may not be available. They may not have a spouse. But they may not be available to watch another child. Transportation is also an issue."*

Logistical challenges to offering ETQ include the need for physical space for implementation. One manager described the unique challenge of sharing space in the HBC with a community group: *"We are at this point sharing facilities with another organization and finding that difficult."* The uniqueness of communities must be considered when providing programs, including identifying a convenient time to offer sessions since *"every site is different."*

> *"It seems for the HBCs the afternoons are best for our people in [Community]. But say if it was in [Community] they want evenings."*

Offering smoking cessation programs in small, rural communities is challenging, including recruiting program facilitators.

> *"It is difficult to find facilitators and topics in a rural community. I mean who do you find if you are in [Community] right?"*

Managers were challenged with delivering a smoking cessation program to rural, pregnant and parenting women:

> *"Like the area that we cover is so far in between. I mean, just trying to get people together we might have to look at doing a session in one part and going to the other end to do another."*

XIVd. An Ideal Program: It's the Little Things that Make Difference

It is *"little things that make a difference"* in *"an ideal"* smoking cessation program. Managers depicted their vision of *"an ideal"* program as collaborative working environments, supporting women, promoting smoke-free homes, effective, non-judgmental programs and considering the *"little things that make a difference."*

Collaborative working relationships with health care professionals including public health nurses, nurse practitioners, addiction counselors and social workers, were seen as a necessary component of smoking cessation programs for women. One manager described referring women to Humberwood, an inpatient treatment addiction program. Partnering with other health care providers because *"it fits both our needs"* was an important value.

> *"But our postnatal program is a program that we partner with Western Health and the public health nurses because it fits both our needs."*

A collaborative working relationship with public health nurses was portrayed by managers as an important *"connection"* when providing programs for women.

> *"I guess that what we've seen is the connection that the HBC Mother with our public health nurse. It has enabled the public health nurses to basically facilitate prenatal education with Moms and families that normally would not access or participate in any prenatal education."*

Finally, a close working relationship with social workers was nurtured by the HBCs: *"We have had a close relationship, I must say with our social worker."*

Support is an element of *"an ideal"* smoking cessation program for women. Pregnancy contributes to *"raising more of an issue"* for women who smoke, increasing the need for proper support.

> *"So I think that when ah... a lady, a woman becomes pregnant the issues of smoking probably is more important and raises more of an issue for them. ... So I think the ongoing support needs to be there."*

This may include *"the little things that make a difference"* for women attending a smoking cessation program, such as providing small incentives or gifts for women attending programs.

> *"Even some times some sort of incentives. Most of the people in the target group they love to receive free things. It doesn't have to be… I mean if we get say samples of Today's Parent magazine and we give everyone a magazine. They think it is wonderful."*

Food supplements were considered an important component of the services provided by the HBCs. Food security is a salient need of low income women, with the goal of food supplementation being a *"healthy birth weight."*

> *"Well that is based on a number of different areas. Some being financial, just sort of your income and outcomes. Maybe you are working, but you are a single mom with three children. We look at things even maybe you are*

> *working with a fairly good job but a student loan that is outrageous. So we look at these things. Previous pregnancy history, maybe if you had a high-risk pregnancy or currently high risk. Look at these different areas and then anyway you would get seven litres of milk, a dozen eggs and seven oranges per week. And then that is to promote the healthy baby weight."*

Smoking outside when the baby is brought home from the hospital was considered a success. Small initiatives including women choosing to smoke outside, were viewed as important in women's path to smoking cessation. Smoking outside was viewed as important to the health of the babies because *"their lungs are so tiny."*

> *"So even the mothers choosing to go outside and smoke when their babies come, when they bring their babies home. Like we might think, 'Oh that, oh it is not a big deal.' But I think it is a big deal. When you think that they would probably be feeding their baby and smoking at the same time."*

XV. Interconnection of Themes

Four interconnected themes identified across the two participant groups (HBC Mothers and managers) were identified through the analysis of themes for interrelated patterns. Three external reviewers concurred with the four interconnected themes. Interconnected themes identified were validated by HBC Mothers and managers during the data validation process and were reviewed by Dr. Franco Carnevale, a research co-supervisor. The interconnected themes include: So Many Stresses: The Reality of the Lives of Rural Pregnant and Parenting Women; An Ideal Program: Creating Supportive Environments; A Challenging Environment: Addiction, Craving, Shame and Myths; and It is a Good Program: But Attention to Rurality and Flexibility Required (Table 26).

Table 26 – Summary of Thematic Interconnection between Managers and Healthy Baby Club Mothers

Interconnected Themes (4 themes)	Managers (4 themes)	Healthy Baby Club Mothers (8 Themes)
So Many Stresses: The Reality of the Lives of Rural Pregnant and Parenting Women	- So Many Stresses	- Difficult to Commit: The Lives of Women - An Ideal Program: Smoking Women Need Kinder Understanding - The Reality of Rural Recruitment
An Ideal Program: Creating Supportive Environments	- Supportive, Non-judgmental Environments: Setting the Stage - An Ideal Program: It's the Little Things that Make a Difference	- An Ideal Program: Smoking Women Need Kinder Understanding - Supporting Healthy Baby Club Mothers: Training is the Biggest Thing - Committed but Challenged
A Challenging Environment: Addiction, Craving, Shame and Myths	- Committed but Challenged: We are the Vehicle to get the Message Across	- A Challenging Environment: Taking Something They Love Away - Committed but Challenged - Counteracting Smoking Cessation Myths
It is a Good Program: But Attention to Rurality and Flexibility Required.	- An Ideal Program: It's the Little Things that Make a Difference	- An Ideal Program: Smoking Women Need Kinder Understanding - The Reality of Rural Recruitment - It is a Good Program: I Can Do This - Committed but Challenged

XVI. Thematic Difference

There were differences across the 19 themes identified in the data for the three groups of participants: women, HBC Mothers and managers. Differences identified across themes include: Program Content Expecting to Quit; Differences in Perceptions Regarding Shame Related to Smoking; Expecting to Quit: For Everyone or Pregnant and Parenting Women?; Facilitation Skills Healthy Baby Club Mothers; Amount of Information in Expecting to Quit; Reasons for Attending Expecting to Quit; and Reducing Exposure to Second-Hand Smoke. The following section outlines thematic variation.

XVIa. Program Content Expecting to Quit

HBC Mothers and women differed in their opinions regarding program content and in particular, in the use of statistics. One pregnant woman acknowledged that she would have preferred *"more statistics"* because she was

very interested in *"facts"* and the health impacts of smoking on her baby. She described ETQ as a "*good starter program"* because she felt compelled to spend *"hours on the computer looking up the information and maybe it could have been provided on certain things."* However, ETQ assisted her "*to explore more things in that way."* A parenting woman concurred with this perspective, although she was not interested in receiving this information because she was not pregnant. In contrast, HBC Mothers noted that the lack of statistics was a strength of ETQ because they thought it was *"user friendly"* and *"not like the other programs that's all statistics."*

The discrepancy in the points of view between the HBC Mothers and women regarding the utility of statistics were discussed with HBC Mothers during the data validation process. They felt that the need for statistics was based on the specific needs of one individual woman, as opposed to the learning needs of a group of women. The challenge associated with low literacy in providing smoking cessation information was endorsed by HBC Mothers. Women with low literacy and those with more advanced literacy skills may be attending the same program, thus compounding the challenge of meeting diverse learning needs. Women with computer skills and access may be in the same program as women who lack both. This illustrates that disadvantaged women are not a homogeneous group and that the individual learning needs of a broad-based group of women need to be considered.

XVIb. Differences in Perceptions Regarding Shame Related to Smoking

Perceptions of shame associated with smoking varied between the women and HBC Mothers. HBC Mothers described their experiences with women *"being*

open" about their smoking behavior, not feeling shame, not *"seem[ing] to care"* and not *"hiding it."*

> *"They don't hide any of it, the drinking, the drugs or… Especially the younger ones."*

One HBC Mother talked about a parenting woman hiding her smoking behavior from her children, but at the same time smoking in public. However women hiding smoking was not relevant to other HBC Mothers; *"basically they will tell you on their first visit."* The comments of HBC Mothers were in marked contrast to those of women who attended ETQ. Women adamantly identified feeling *"ashamed you do it"* and trying to hide smoking.

Women expressed feeling comfortable with and being able to talk to HBC Mothers about their smoking experiences.

> *"Cause your Resource Mother has home visits and they are talking to you all of the time. So you feel comfortable with this person anyway."*

This contrasts with the statement of one HBC Mother, *"they don't even know us."* The relationships with HBC Mothers were valued by women and may assist in recruitment to ETQ. In contrast, feeling *"ashamed"* of smoking may impede women in their health seeking behavior. The need to keep smoking cessation within *"closed walls"* was articulated by one woman. This conflicts with the impression of HBC Mothers that the women are not ashamed of smoking.

Feeling *"ashamed"* of smoking impacted on women attending ETQ. Managers outlined the implications of women feeling ashamed of smoking, especially women living in small, rural communities.

> *"They want to keep it quiet. Don't tell so and so. They don't want to tell people. If they are successful, they tell people."*

Recruitment and retention of women to smoking cessation programs may be enhanced by understanding the feelings of shame and stigma in women who smoke. Women acknowledged the positive impact of a non-judgmental environment on program attendance.

XVIc. Expecting to Quit: For Everyone or Pregnant and Parenting Women?

ETQ is a smoking cessation program developed for pregnant and parenting women. HBC Mothers and women differed in their opinions regarding the target audience for ETQ. The women identified the need for more focus on the needs of pregnancy and parenting. One woman shared that she was aware that smoking is *"harmful to the child"* but she specifically wanted to know *"what it can actually do to the baby."*

> *"...If it is going to be a program where pregnant women are going to be there. It could just mean a thing for them, another booklet or something."*

However, women cautioned that *"it's OK to touch on it"* and identified that ETQ cannot focus solely on the needs of pregnant women and has to consider parenting women. One woman stated, *"Why should someone who is not pregnant sit down and go through all this?"* In contrast, HBC Mothers post-ETQ expressed the opinion that the program should be *"open to the general public."*

> *"Have it open to the general public. And I don't think it would really make a difference if you had and because I know this one was just for just women. I don't think would make a difference if you had men and women together, type thing because it is a common goal that they are after."*

This was in direct contrast to the opinions of the women who requested more specific program content regarding pregnancy. However, one HBC Mother questioned the *"comfort level"* of pregnant and parenting women participating in a smoking cessation program with a broader group. One manager outlined her experience with how a program offered to pregnant and parenting women did not work because it was offered to a broader audience and *"didn't get a big participation in it."*

XVId. Facilitation Skills Healthy Baby Club Mothers

HBC Mothers were selected as ETQ facilitators because they have established relationships with women attending HBCs. Managers and HBC Mothers differed in their thoughts regarding the skill of HBC Mothers to facilitate ETQ. The managers questioned the ability of HBC Mothers, citing lack of experience and educational preparation as concerns. One manager described her concern that the *"manual or instruction they receive is too lofty it may not work as well."*

> *"Most of our Resource Moms ... I shouldn't say aren't highly educated, that wouldn't be right. But they only, they have say college diplomas. But for her to understand it and present it in an effective way to the participants."*

In contrast, one manager articulated the benefit of HBC Mothers offering ETQ, with training described as a *"wonderful opportunity for staff."* HBC Mothers were portrayed as *"wonderful Resource Mothers"* with the benefit of being *"from the community in which they work,"* with co-facilitation offered to support the HBC Mothers. HBC Mothers expressed confidence in their abilities to facilitate ETQ*: "When I looked at the binder. And I said, 'OK. OK I can do this.'"*

XVIe. Amount of Information in Expecting to Quit

HBC Mothers and women differed in their opinions regarding the appropriate amount of information offered in ETQ. The ability to be flexible, including the number and length of sessions, was perceived by HBC Mothers as an advantage of ETQ. Program flexibility was viewed as assisting women to meet their children's needs.

> *"But out of the two participants, they both had kids in school so one had to be home by five to three. So we changed it…they agreed to start earlier."*

Low program enrollment was a reason for flexibility in the number of program sessions, *"since we've had low numbers the amount of sessions could be reduced or compressed."* HBC Mothers noted that with a larger group, the number and amount of time allocated for ETQ may be *"perfect."* The women differed from HBC Mothers in describing an appropriate length and number of sessions for ETQ. Women described *"having to cram so much into the session."*

> *"I had to be home at 2:45 [p.m.] when my daughter gets out of school, right and it was from one to three. So we used to always have to leave early or cram so much into the session right."*

However, there may be differences with women who have child care responsibilities.

> *"…if you have people in the program with no kids it would be OK….if you got someone with kids. You would have to put everybody in different categories. So it would be best to change the time for everybody."*

Women preferred attending ETQ in the morning to accommodate parenting responsibility.

> *"Evening are difficult for most people anyway due to the fact that you want to be home when your child gets home. Whether there is another parent or anything at home you still want to be there."*

HBC Mothers and women were consistent in their views on the benefits of flexibility and informal program delivery when facilitating ETQ. One HBC Mother described how she was flexible in facilitating ETQ.

> *"It was only two of them so, I just I had the overheads in front of me I read it off and they followed along in their binders…So we just read it off together, they done their sheets that they had to do…It was more informal."*

XVIf. Reasons for Attending Expecting to Quit

HBC Mothers and women differed with respect to the reasons women attended ETQ. Women described attending ETQ because they were *"comfortable with the HBC Mothers*" who encouraged them to attend.

> *"I didn't even want to go. But [HBC Mother] said it was good, you will learn this and you will learn that."*

This differed strikingly from the perspectives of HBC Mothers who were unaware of their positive influence in assisting women with smoking cessation. The value that women place on their relationship with HBC Mothers may not be apparent. For example, an HBC Mother expressed concern that women very freely shared information and "*we don't even know them."* In contrast, women feel that they have established a relationship with HBC Mothers and agreed to attend the smoking cessation program because of their comfort level with them.

XVIg. Reducing Exposure to Second-Hand Smoke

HBC Mothers and women differed in their opinions regarding the value of a smoke-free environment. Women described their attempts to reduce exposure of

their children to second-hand smoke. One woman discussed the impact of not smoking indoors, *"I have cut back a great deal. I no longer smoke inside, because I was killing my kid."* This extended to smoking outside during bad weather.

> *"And I mean I decided to start smoke outdoors because bad weather would stop you from smoking. But no sir, I would go out and freeze my arse off and it wouldn't bother me. Just to get that rush."*

Attempts by women to reduce exposure to second-hand smoke were not always viewed positively by HBC Mothers. Instead of supporting the pregnant woman in reducing her child's exposure to second-hand smoke, the woman was questioned as to why she protected one child while at the same time putting her unborn child at risk. There was no consensus among HBC Mothers that this was unusual or inappropriate. They supported women in reducing exposure to second-hand smoke even if they continued to smoke during pregnancy, *"It's good that she is not exposing one child to second-hand smoke."* Reducing exposure to second-hand smoke was also supported by managers. One manager viewed women choosing to go outside to smoke as important because if not "*they would probably be feeding their baby and smoking at the same time."*Concern with exposure to second-hand smoke extended to the health impacts on HBC Mothers, *"It won't leave either, it doesn't matter if they smoke in front of you or not you still you leaving stinking and have to go home and change with a headache."* One non-smoking HBC Mother addressed her concerns with second-hand smoke by asking the women not to smoke during a home visit.

> *"I'm sorry I am a non-smoker and like what you are doing is fine, but while I am here please refrain from smoking, and they do."*

XVIh. Thematic Differences: Analytical Integration

The following section describes the analytical integration of the thematic differences across three participant groups (women, HBC Mothers, and managers).

First, satisfaction with the program content of ETQ varied between HBC Mothers and pregnant and parenting women. The significance of this difference is that disadvantaged women vary in their educational needs for smoking cessation. Smoking cessation programs have to be contextualized to meet the individual needs of disadvantaged women.

Second, the differences in the perceptions regarding the shame of smoking varied between HBC Mothers and pregnant and parenting women. Shame impacted on the recruitment and retention of women to ETQ. Understanding the importance of shame on a woman's smoking cessation trajectory is paramount. The perceptions of pregnant and parenting women in terms of feeling ashamed has to be considered in the development and implementation of smoking cessation programs, in order to meet their needs.

Third, there were differences in the opinions of HBC Mothers and women regarding expanding ETQ to an audience beyond pregnant and parenting women. This is related to the comfort level of women who want to attend programs with women who are *"in the same boat."* The consequences of an uncomfortable environment, including difficulty with recruitment and program non-attendance, have to be understood by HBC Mothers. Quite simply, if women are not comfortable they will not attend. This underscores the importance of education

and training for HBC Mothers to fully understand the smoking cessation needs of disadvantaged women.

Fourth, HBC Mothers and managers differed in their perception of the abilities of HBC Mothers to facilitate ETQ. Following the ETQ training, HBC Mothers felt prepared to facilitate the program. This is an important consideration for managers, because training is an important component of implementing smoking cessation programs. Management support is essential to implementing effective smoking cessation programs.

Fifth, there were differences in perception between HBC Mothers and pregnant and parenting women regarding the amount of information in ETQ. There was consistency across the participant groups in the perceived value of flexibility in program delivery. Consideration of individual learning needs of pregnant and parenting women is paramount. This has implications for future offerings of ETQ because HBC Mothers have to be aware of the diverse learning needs of women and implement programs to meet their needs.

Sixth, reasons to attend ETQ were a salient difference between HBC Mothers and pregnant and parenting women. HBC Mothers were not aware of the significant role they played in encouraging and supporting women to attend ETQ. The women are open and share smoking behavior information with HBC Mothers because they feel they have a trusting relationship. HBC Mothers interpreted this openness as not being ashamed of smoking. Additionally, they were not aware of the importance that women place on this relationship. Enhanced understanding of the significance of the relationship by HBC Mothers may affect the delivery of

smoking cessation programs, including recruitment and retention of program participants.

Seventh, the perceived importance of reducing exposure to second-hand smoke differed between HBC Mothers, managers, and pregnant and parenting women. Managers and pregnant and parenting women concurred that reducing exposure to second-hand smoke is important. However, there were differences among HBC Mothers as to the relevance and value of reducing smoking exposure to children if the pregnant women continue to smoke and expose the fetus to the health effects of tobacco. The smoking cessation trajectories of pregnant and parenting women may range from reducing exposure to second-hand smoke to smoking cessation. HBC Mothers may benefit from education on second-hand smoke so they would be able to effectively support pregnant and parenting women in creating smoke-free environments for their children.

Barriers and Facilitators to Implementing Expecting to Quit

One of the research objectives was to: "describe barriers and facilitators to implementing ETQ in five HBCs in western Newfoundland." As presented in Chapter 2, Scheirer's Framework on Program Implementation (Scheirer, 1981, 1994) guided the study. This model separates organizational phenomena into three levels of influence: (1) the macro-level of an organization including the political perspectives of the community at large; (2) the intermediate level of the organizational unit; and (3) the micro-level of the individual workers. This study included the perspective of the women at the micro-level of influence.

The findings presented in this section focus on barriers and facilitators to implementing ETQ. Themes were identified within and across participant groups

of pregnant and parenting women, HBC Mothers and managers of the five HBCs. Important comments that may have been attributed by one or two participants are included. Second, differences and similarities across the HBCs were outlined. Finally, individual groups and the number of HBCs that contributed to each theme are presented (Tables 27 and 28).

XVII. Barriers

Barriers to implementing ETQ include: feeling ashamed, competing commitments for women, addiction and craving, and so many stresses (micro-level); time constraints and logistics, and creating supportive and non-judgmental environments (intermediate-level); and smoking cessation myths, rural recruitment, and community acceptance of smoking (macro-level).

XVIIa. Feeling Ashamed

A barrier to implementing ETQ was pregnant and parenting women *"feeling ashamed"* because they smoke. "*Feeling ashamed"* impacted on women's decision to attend ETQ. In discussing what was meant by *"shameful,"* one woman described hiding her smoking habit because of *"feeling ashamed."*

> *"But it is shameful; I mean I tries to hide my smoking because you are ashamed you do it."*

Women stressed the need for confidentiality while attending ETQ and to *"keep it within closed walls."* One woman stated she would be *"embarrassed"* if her daughter knew she attended ETQ. Managers felt that pregnant women realized that smoking during pregnancy is *"not the right time."* Women attempted to minimize the health effects of smoking by discussing the fact that their mothers' prenatal smoking had no apparent adverse health impacts.

> *"I think that deep down now when people become pregnant, I think they realize that smoking is not the right time. They may tell themselves that my Mom did it and I'm okay. But I think they realize that it is not."*

Nonetheless, HBC Mothers, in discussing stigma described the women as, "*they don't seem to care*," *"they are not shy"* and "*they don't hide it.*" But, one HBC Mother stated that some women are ashamed of smoking and attempt to hide their smoking habit.

XVIIb. Competing Commitments for Women

Competing commitments for women was a barrier to attending ETQ. HBC Mothers identified many competing commitments for women and that ETQ was *"just one other thing"* to attend.

> *"What I found with the participants that I already have to my Healthy Baby group, it was just one other, one other thing, like to commit to that. I had them [women] say to me, 'Don't get me wrong, I enjoy it. But I am already doing this and I am doing that and now you want me to do this.'"*

One HBC Mother in discussing the commitment of women to attend ETQ felt *"it wasn't about the smoking at all,"* rather the *"commitment of coming."*

> *"It was just the commitment of coming. Something else to do, like I said, doctor's appointments, and prenatal visits and whatever."*

Competing commitments may be linked to lack of child care. Managers provided examples of single parents challenged in attending programs. Child care was not an issue for ETQ although this is a consideration for future programs.

> *"Child care is a big issue in getting people to come if they have other children at home."*

One HBC Mother questioned the commitment of the women to attend ETQ, particularly if they have children. It appeared to her that there was always

something that competed with attendance. She questioned as to *"whether that was just excuses, I don't know."* In contrast, the commitment of a woman who attended ETQ after the premature birth of her second child was highlighted. One HBC Mother expressed the sentiment that *"when we had the commitment they were committed to complete the program."* Commitment to ETQ was portrayed by one woman's commitment to smoking reduction following a friend's death. She described the stress of her friend's death as a *"setback."* However, she prevailed with cessation and *"just start[ed] over next week."*

> *"And [HBC Mother] said, 'Well, that was a setback, just start over next week.' And that's what I did. So if you screw up you start from scratch."*

Many women challenged with competing commitments do not *"put themselves first."* One woman pleaded for women to *"think of ourselves,"* but still questioned that this was a *"selfish thing to say."* A challenge for smoking cessation programs is the perspective, that smoking is, *"your time"* in a day filled with competing commitments. One woman described smoking cigarettes as *"five minutes to yourself"* and as a *"lifeline."*

> *"Do you know how hard it is to give up your time? You know, I experienced cigarettes as a lifeline."*

XVIIc. Addiction and Craving

During interviews with women, they agreed that addiction and craving are barriers to successful smoking cessation. In discussing their addiction to cigarettes they described *"being on needles"* and *"You are afraid. You feel you are a complete slave."* The craving for cigarettes was heightened after childbirth. One woman described that her cigarette craving *"kicking in"* after stopping

breastfeeding and *"it was as if things were worse."* One woman shared her routine of "*spending 24 hours in a house with a baby,"* which contributed to cigarette cravings.

Marijuana usage was revealed by two women as they compared addictions. They felt the tobacco addiction was stronger because they were able to stop using marijuana during pregnancy but were unable to quit smoking. Stopping smoking was viewed as *"the hardest thing you will ever face."* Being reminded to quit smoking because of pregnancy was a barrier to smoking cessation. "*But all I can think about is cigarettes"* was one young mother's response to being reminded to quit smoking because of her pregnancy.

During interviews with HBC Mothers, all except a former smoker agreed that they did not understand tobacco addiction. They shared concerns with their ability to *"empathize"* and *"understand"* the addiction and to *"know where they are coming from."*

> *"I never did smoke myself. I don't know what it is like to, you know. And it is hard to understand and when you go into their homes and being pregnant. And you know you are breathing in all of this. Even if they are not smoking at the time."*

In contrast, one HBC Mother who used to smoke articulated the need for an *"open, kinder understanding"* of women who smoke because without understanding, they may feel like *"outcasts."*

XVIId. So Many Stresses

Women and managers had similar perspectives regarding *"so many stresses"* being a barrier to smoking cessation. Multiple stressors were identified

as barriers to cessation including socio-economic factors, lower educational attainment, literacy and lack of family and partner support.

"So many stresses" was identified by women as affecting their lives and smoking cessation efforts; *"family issues," "pregnancy problems,"* death of a family member, isolation and relationship issues.

> *"I have an eight-year-old and a two-year-old and I am living by myself. So have fun quitting smoking. Good luck."*

Managers also described *"so many stresses"* as barriers to smoking cessation. They depicted women as *"high risk moms"* dependent upon support from the HBCs. The term *"high risk moms"* was used by one manager to reflect a broad range of stressors from income level to a high risk pregnancy.

> *"The women who participate in our program are high risk moms. It can be anything from their income level to pregnancy risks."*

Compounding the challenge of "*so many stresses*," is that *"a lot of times their only stress release is smoking*." This contributes to difficulty among women in achieving success with smoking cessation. One HBC Mother, who used to smoke, was concerned with taking away women's cigarettes, *"To take something [cigarettes] away that you have loved for a period of time. You do, you miss it."*

HBC Mothers did not focus on the stressors facing women. They perceived the women as not being *"future-oriented," and "living in the moment."*

XVIIe. Time Constraints and Logistics

Time constraints and logistics were barriers to implementing ETQ. This included HBC Mothers having to incorporate an *"extra program"* into their daily routine and adjusting other programs to offer ETQ.

> *"I am working 30 hours a week and in that 30 hours I am doing this and this and this. So where am I also incorporating this extra time to tack on this extra program?"*

The limited physical space to offer ETQ was challenging. One HBC Mother had a unique logistical challenge resulting in women attending an all day session.

> *"When our space was available to do it was either a Wednesday afternoon or Friday afternoon. Wednesday morning and Friday morning we would do HBC. So if I had a participant coming into group, depending on what group she came to she was there for the whole day."*

Her commitment to provide ETQ in view of the logistical challenges was highlighted by the lengths she undertook to provide transportation.

> *"We got to pick them up in the morning, get them home for lunch, get them back to do group and..."*

Challenges of sharing office space and trying to ensure a location offering *"privacy"* and *"confidentiality"* were highlighted. HBC Mothers were concerned that if women are not in an environment that is a *"comfortable, safe setting"* they will not return to the sessions.

> *"Where do I find the space that I know is going to ensure privacy and confidentially for these woman that want to participate but still be able to have them in a comfortable, safe setting? Cause you want it to be inviting. They are not coming back if they were uncomfortable the first time."*

The women agreed with HBC Mothers regarding time constraints. Having to either *"leave early or cram so much into the session"* to accommodate the schedule was an inconvenience. If the schedule was different, women may have stayed at the session longer. However, ETQ participants agreed they received all of the information. Not only did managers agree with the barrier of time constraints and logistics, they described the need for *"resources at every single*

level. You know, right down when you are trying to offer the program and you need some money to get people in."

XVIIf. Creating Supportive and Non-judgmental Environments

Creating supportive non-judgmental environments is challenging for HBC Mothers and managers, and is a barrier to smoking cessation. *"It is a very fine line,"* for HBC Mothers remaining non-judgmental when confronted with women choosing to smoke. An empathetic, supportive environment may assist women in smoking cessation, although such an environment may be jeopardized by the inability of HBC Mothers to empathize with the women. HBC Mothers were concerned with being able to *"empathize"* with women who smoke because they are non-smokers and do not understand the addiction, *"I don't know what it is like to [smoke], you know."* Creating supportive, non-judgmental environments may be impacted by the judgmental attitudes of non-smoking women. One HBC Mother described the judgmental behavior exhibited by non-smoking women towards pregnant women who smoke.

> *"You can see them over there sneering and sitting there and saying, 'You know, she shouldn't be smoking, she's pregnant, she's got a baby in her belly'."*

Supportive environments were described by women as a place *"where you wouldn't be judged."* The impact of a non-supportive judgmental environment on a smoking cessation program, included participants dropping out of the program and *"not going to want to go back."* A pregnant woman expressing her feelings regarding the impact of an uncomfortable environment on program attendance, *"Because I mean if you go somewhere and you don't feel comfortable you are not*

going to want to go back. No matter what you are doing." Women felt uncomfortable attending a program in an "*unfamiliar"* or *"too clinical"* location.

> *"A place where you are going to feel comfortable. I would not feel comfortable coming here. For sessions [other] than the community centre. It's not familiar. It is too clinical here. Or like other places, like you know other[s] in the hospital, or anything like that."*

Managers felt challenged to recruit women who are *"fearful of the system."* The success of the HBC model is that women view the HBCs as *"somewhat outside of the system"* and "*providing a supportive environment."* Managers were committed to creating a supportive environment for smoking cessation. This includes encouraging women to become involved in ETQ, although ultimately it is a woman's choice to quit smoking.

> *"So, I think for us it would be talking to these ladies who do smoke, telling them what the program is about, encouraging them to become involved. And you know telling them this is a program for you, about you, for you, it's for your betterment. But whatever you do in the end is still your choice."*

XVIIg. Smoking Cessation Myths

Counteracting smoking cessation myths from health professionals, as well as the family and friends of women is challenging. HBC Mothers described the challenge of being confronted by smoking cessation myths presumably perpetrated by physicians.

> *"We have doctors now telling our Moms not to quit smoking; it is too stressful on the baby. But as to say it is too stressful on the baby?"*

They were concerned that women *"believe the doctors"* when inaccurate information on smoking cessation is provided.

> *"So the doctors say, you got to believe the doctors. The doctor told her [pregnant woman] not to quit smoking cause of the impact on the baby."*

Counteracting the myths perpetrated by some physicians is imperative. If needed, professional development for physicians is a way to counteract misinformation about smoking cessation. Physicians will need to be consulted regarding their knowledge, attitudes and beliefs about smoking cessation and pregnant and parenting women, as women may be misreporting the smoking cessation information provided by their physicians.

The health impacts of prenatal smoking including low birth weight, were discussed by HBC Mothers during home visits. HBC Mothers were frustrated when women suggested that the baby's weight is not adversely affected by prenatal smoking, which may counteract their smoking messages. Empirical evidence of the health impacts of tobacco is not necessarily believed because many healthy birth weight babies are born to mothers who smoke.

> *"When you got to the low birth weight and stuff did they all come up with…? 'Oh my baby was…just like they had said...eight pounds.' And then I said, 'Yes, but this is researched.' 'Oh... No, that is not true'."*

The focus on birth weight being affected by prenatal smoking was challenged by one HBC Mother, who suggested that the long term health impacts should be an educational focus because women who smoke may have a healthy birth weight baby. She was concerned that if women have a healthy birth weight baby they may be convinced to smoke during future pregnancies. This could encourage them to believe the smoking myths.

> *"And if I had a baby that was … didn't have a low birth weight and I smoked all then, then I am going to continue smoking now. And so I think like the here and now is fantastic but I like, I also agree with what you are saying if you know make the consequences real in terms of you know, your baby can come out at nine pounds but that doesn't mean that, you know that there's not going to be respiratory problems, you're not going to develop asthma, that there's not going to be…."*

Managers agreed that smoking cessation myths are challenges to providing smoking cessation programs, especially because HBC Mothers are not doctors or nurses. This creates difficulties *"counteracting"* the conflicting information from health care providers.

> *"Some of those things are questionable and what we need to do to counter act those sorts of things. Because you know we are not doctors, we're not nurses, we are support."*

In contrast, during the interviews pregnant and parenting women did not describe myths as a barrier to quitting smoking. In fact, they felt they were aware of the health impacts of smoking.

> *"I just like the fact, usually when you go you got to quit smoking, you are going to die, blab, blab. That's not going to work with me. I know that."*

XVIIh. Rural Recruitment

HBC Mothers and managers had similar experiences with rural recruitment as a barrier to implementing ETQ, including geographical challenges with providing programs over rural areas with a low population density. HBC Mothers articulated the challenge associated with persuading women to attend ETQ when they had to travel outside their rural, home community.

> *"My problem was in recruitment, again I ran into similar areas as some of the other girls. I'm from [community] to*

> *[community] which doesn't seem like a huge area, but in the winter time and when you are trying to convince people to come in from [Community] over that hill."*

An urban HBC Mother acknowledged the challenges facing her colleagues in rural communities, stating that they have a limited number of women to *"draw on."*

Managers agreed that the lack of public transportation and awareness may further hamper rural recruitment, in particular when programs are provided over a large geographical area. One manager felt that she was unable to reach the families that have the greatest need, but were trying to address this by *"outreach to so many communities."*

> *"We are such a geographically wide spread area, if you look at [Geographical area] Newfoundland with 70 communities. So quite often even though we have, you would look at, Oh God, 13 Family Resource Centers isn't it marvelous. We do outreach to so many communities and that looks very, very good and of course we do access you know, a lot of families."*

One manager described her concerns with the effect of lack of public transportation on recruitment:

> *"There is no public transportation. We said we would provide gas mileage or money but that is just a big issue for them. If you get someone to bring you it covers the gas but not the wear and tear on the vehicle. It is not even worth it. What is a person going to do for two hours while you are in class? Sometimes they just can't get anyone to bring them."*

In contrast, women did not identify rural issues as barriers to attending programs, but did discuss the importance of transportation in attending ETQ.

XVIIi. Community Acceptance of Smoking

Community acceptance of smoking was viewed as a barrier to implementing smoking cessation programs and may affect cessation efforts of women. One woman who compared tobacco addiction to an alcohol addiction described her experience walking to distract herself from nicotine cravings while attempting to quit. Unfortunately she met *"someone walking down the road lighting a cigarette at the same time."* Women see others smoking in their daily activities such as walking and shopping, which may impact quit attempts. Being exposed to tobacco in their daily activities was described as *"having to face it more often."*

> *"I know with, with alcoholism, generally it is confined to like bars or homes. You are not going to see someone walking down the road with a beer in their hands. You are going to go out for a walk, trying to quit smoking and seeing someone walking down the road lighting a cigarette at the same time. You have to face it more often."*

Women described seeing *"walls"* of cigarettes when walking into a convenience store and being bombarded by choices including low-priced, no-name cigarette brands.

> *"They have so many kinds out right now; there are walls of them."*

To counteract community acceptance of smoking, one woman suggested making her home and *"life smoke-free."* That is a challenge for women because many communities accept smoking by permitting smoking in public spaces, the marketing of tobacco products and easy access to relatively inexpensive cigarettes. To overcome community acceptance of smoking women suggested

introducing early smoking education into schools. One woman described how education was needed to *"scare them"* because if the children are not afraid they will smoke. She noted that education in Grade 9 was too late because these students feel "*invincible"* and *"you have already lost them."*

> *"So starting at Grade 9 and talking about smoking, and smoking and pregnancy, it is too late. They are already gone, you have already lost them, they are invincible. You go into my son's class; you go into a Grade 5 class room. With these pictures of people dying of lung cancer, or you show them a tongue cancer or show them what happens to them. It will scare them. And it is a sin to say that you got to scare them. Because if they are not afraid they are going to do it anyway."*

HBC Mothers did not discuss the community acceptance of smoking; however they described the acceptance of smoking on an individual level by women. One HBC Mother noted that women are very willing to tell them about their smoking habits: *"Are you a smoker? 'Yep.'... Are you trying to cut back? 'No, not really, some days'."*

One manager described how smoking is not as accepted in her community because of the *"negativity"* and *"defensiveness"* associated with smoking. She stated that this has caused women to *"put up a barrier"* to smoking cessation. In contrast, one manager described in her own *"circle [of friends]"* people are *"almost ostracized"* if they smoke, whereas with many pregnant and parenting women it is almost the *"norm."*

> *"I don't know about you [Name] in your circle but in my circle there are not very many people who smoke, right. So you would sort of have to go outside, you know, you would be almost ostracized if you were a smoker. But I don't know if it is more the norm."*

When it is *"acceptable"* to smoke in homes the health of babies and children are impacted.

> *"Where it is acceptable in the homes, you know and we talk about that like especially the babies, especially their lungs so tiny, the second-hand smoke how difficult it is on them."*

XVIII. Facilitators

Facilitators to implementing ETQ include: positive attitudes and beliefs (HBC Mothers and managers) and the acceptability of ETQ (micro-level); staff education and training, practical support and resources, and creating welcoming supportive environments (intermediate-level); and supportive organizational priorities and policies, and flexibility and attention to rurality (macro-level).

XVIIIa. Positive Attitudes and Beliefs

Positive attitudes and beliefs of the HBC Mothers and managers facilitated implementing ETQ. Managers believed that ETQ was congruent with the goals of HBCs. One manager described the high percentage of women who smoke and was *"excited about the intervention."*

> *"We have up to 10 Moms at one time and their families or support partners. We could have anywhere, from on average anywhere from 40 to 80 per cent of those smokers. So it is really, so you know it is high. And ah… again a lot of the other risk factors like poor nutrition that combines with smoking, and all that. So we certainly do have a high need area. That is one of the reasons why I am excited about this intervention."*

Their description of HBCs, as a *"vehicle to get the message out"* underscores their belief in the importance of offering ETQ within the context and support of HBCs.

> *"And I mean, obviously the HBC is a vehicle to get that message across. But more than that it is to support women in their efforts and individual plans you know with regard to quitting, quitting smoking or reducing how much they are smoking especially during pregnancy."*

Managers believed that offering ETQ would improve their HBCs by demonstrating to women that we are *"here for you"* and *"interested in you."* They believed it would assist HBCs in *"meeting the needs of our communities and our people"* and *"improve our Club."*

> *"Everybody knows that we are here and we are... our presence is known. And we are the ones that offer these types of programs. There is nothing else in our area. Whether it be from smoking cessation to having a baby, or coming out for programs in the Centre. We are the main contacts and we are the ground workers."*

HBC Mothers supported program implementation through their positive attitudes and beliefs. They were enthusiastic when talking about ETQ training, and described ETQ as *"awesome."*

> *"I would really love to run the program in our area. I really enjoyed the training when I went and did it. I think it is an awesome program."*

They felt that ETQ may assist them in building relationships with women.

> *"Cause I'm the one that goes in to the home and sees them. Like you know, I meet them in the mall and we sit down and have a chat"*

The positive attitudes and beliefs of the HBC Mothers affected women in terms of their decision to attend ETQ. The women felt it was because of encouragement from HBC Mothers that they agreed to attend, *"I felt comfortable with [Name] and that's the only reason I went."*

XVIIIb. Acceptability of Expecting to Quit

ETQ was acceptable to women, HBC Mothers and managers in terms of program content and format, ease of use and congruence with the HBCs' philosophy thus, facilitating program implementation. The acceptability of ETQ supported the smoking cessation endeavors of women. Prior to participating in ETQ, one woman described her feelings regarding program acceptability. In her opinion this included *"a story that you can completely relate to"* and *"how they successfully did it."* Women described ETQ as "*It is a pretty good program"* and *"valuable"* for both women who want to quit smoking and those who are contemplating quitting:

> *"I just found it, I just found it valuable to somebody who wants to quit or is thinking about quitting, or maybe don't even want to quit but this is something that, OK read up on it."*

The willingness of participants to recommend programs in which they have participated is a component of acceptability. Women stated they would recommend ETQ to their friends. Others described recommending programs because of their value for the *"people you care about"* and *"to help them."*

The information provided during ETQ was acceptable to the women. One benefit of program attendance was described by women as being its practicality in terms of giving quitting tips, *"it makes you think"* and *"show[s] you ways."*

> *"It is very informational and it makes you think. And I mean no one is telling you, you have to quit. They are just showing you ways that you can quit. That's what I like."*

The program was well organized and the format of sessions was acceptable to ETQ participants. They explained that the program format, "*discussion"* and *"not*

being preached to" were very helpful and that the HBC Mothers encouraged them to provide input.

> *"The program is well-organized. I must say. There was no lecture it was more of a discussion. She gave us the facts then she asked for our input. I don't like to be preached to and it wasn't like that. It was more like you were sitting down talking to your buddies."*

HBC Mothers described ETQ as *"user friendly," "every day language" and "down to earth."* They felt the program was acceptable to women; *"improvements," "enjoyed it"* and *"having knowledge"* was used to explain their thoughts on program acceptability.

> *"Just taking in the information and talking about it and sharing their stories and that."*

When women share their opinions on program acceptability, it facilitates successful implementation by promoting recruitment. One HBC Mother described a conversation at her HBC with women telling others about the acceptability of ETQ. She felt that the sharing of information was a *"good sign"* that the program was *"good."*

> *"I know that up at the centre they come in for different programs. And the, some of the girls in the playroom and that said that they overheard them telling other people about the program. So that was a good thing that they are obviously, if they are telling other people. Because someone said, 'I wish I had known, I wish I had known.' Where were you guys three months ago? But you know, when they go out and after the program is done, and talk about how much they liked the program, and how much it helped them. Then that it is a sign that it is good."*

Although two HBC Mothers were not able to offer ETQ, they stated that they would recommend the program, *"Without having directly implemented it I would definitely recommend it."*

Managers were accepting of offering ETQ. They felt ETQ was congruent with the HBC philosophy. Acceptance and commitment of the managers was demonstrated by supporting staff training and program provision. ETQ was described as a *"wonderful opportunity," "excited about the intervention*" and it will *"improve our club*."

> *"... for us as a project right, to be able to focus on these issues. Because there are so many other competing issues sometimes you really do not get that opportunity until something like this comes along."*

XVIIIc. Staff Education and Training

Education and training facilitated implementing ETQ; six HBC Mothers attended a 7-hour training session (see Appendix K for the training session agenda). This enabled them to be prepared to deliver ETQ. Prior to attending the training, they had minimal smoking cessation education without a specific focus on pregnant and parenting women.

> *"You know, I think the training is just the biggest thing. You know you can receive a package in the mail and go through it yourself and then try to deliver it. But actually being given the training to help you figure out what is going to be the best way that you are going to be able to take it back and implement it."*

After providing ETQ, one HBC Mother shared her ease with using the material which may decrease training needs, *"If you didn't have any training in the program itself you could just pick up the book and done it."* Resources such as a *"resource type case,"* and *"tear offs"* assist with successful program implementation.

Managers supported training through providing paid leave and transportation for HBC Mothers. The benefit of training was described as *"helping our pregnant Moms"* and *"learning new information."*

> *"Also by participating our Resource Mom would be learning this new knowledge that she can bring into her job after the program"*

Managers articulated their role in smoking cessation as supporting the training of HBC Mothers and assisting by co-facilitating the program.

> *"And my role…could be anywhere from supporting it and ah... offering or helping to facilitate the training for staff, to actually participating in it myself and perhaps to facilitating or co-facilitating it."*

XVIIId. Practical Support and Resources

Women, HBC Mothers and managers had similar perspectives on the benefit of the practical support and resources in facilitating program implementation. Practical resources and support provided to the women attending ETQ included transportation, child care, incentives at each session, quit kits and nutritious snacks. This practical support and resources were identified by the managers as essential to enable women to attend ETQ.

> *"So you would have to make sure that either child care is provided at home or someone there on site that can provide the child care while they are doing that program. That is a big thing. And it's got to be something that they are interested in. Like they have got to see a benefit from coming... like. They've got to... basically what it comes down to they got to want to do it. And having a nice inviting environment when they come in. Someone to welcome them, and a lot of time we find food always draws. You have a snack or some kind of door prizes, and things like that. That always attracts participants to our program."*

"Providing for those who need it" was a success of the HBCs. The managers noted the high percentage of women who require support including transportation and child care. Child care, healthy snacks and, in one HBC, a full meal was provided to the women.

> *"When we offered the program we offered free child care, travel expenses free, a free meal, and door prizes."*

One manager discussed how providing a *"healthy snack or a full meal"* enabled the women to have *"one less lunch or meal to worry about."*

> *"I think one of the reasons why our HBC is successful is that we provide for those who need it. We provide usually a high percentage of our participants, we provide transportation, there is always a, either they cook or prepare a healthy snack or a full meal. Also a cooking session, so that is there. That is one less lunch or a meal that they have to worry about. And sometimes even if there is food left over, they get to take a little bit home for their family to try as well. Those basic needs are met."*

However, although extensive resources were provided, HBCs had difficulty recruiting women. One HBC Mother expressed her frustration with the inability to recruit women, *"Pretty much the only thing that we didn't offer was to go grab them and take them there."* Women were very complimentary of the practical support and resources provided that enabled them to attend ETQ. One woman described the program as the *"most convenient thing I have ever attended"* and *"Basically you had no excuses why you could not be there."* The small incentives and quit kits were helpful in their smoking cessation journey, but the women would have *"went anyway."*

> *"I would have went anyway. But the incentive, like the money part and the gifts and stuff like that, is an incentive to go. Like some people would go anyway. I would have*

> *went anyway besides whatever there was there to offer. I found the comfort bag and stuff really helpful and stuff."*

The women noted that without transportation, "*we wouldn't be able to go."* This is significant given that many rural communities do not have public transportation. Public transportation was only available at the urban HBC, and women at the four rural HBCs provide their own transportation or are dependent upon family, friends or neighbours.

XVIIIe. Creating Welcoming Supportive Environments

A welcoming, supportive environment facilitated program implementation. Prior to ETQ implementation, HBC Mothers, managers and women agreed that a welcoming, supportive environment is important in assisting women with smoking cessation. Managers perceived a welcoming supportive environment as *"ongoing support," "nutritious snacks"* and *"transportation."*

> *"The first word that always comes to mind is support. It's a supportive environment, so if you've got a group of women there, a group of pregnant moms, obviously you don't want to make them feel judged in any way. And to set that stage up front you know. And the atmosphere to make a nutritious snack, and you know and milk, a cup of tea, whatever so if they have that supportive environment."*

They identified key factors in establishing such environments including *"wonderful Resource Mothers,"* facilitator self-awareness and partnerships with health professionals.

> *"And I mean I just see the wonderful relationships they have with the Moms and their families as well. Ah... so that is key, that is supporting environments and that relationship."*

The support from HBC Mothers extended to *"caring"* for the women:

> *"I care for every one of those girls that come in here, that come to the HBC. And I tell them, I care for you and I want to see, you know, you healthy and I want to see your baby healthy."*

A supportive environment enabled women to attend ETQ. Non-stressful, comfortable surroundings contributed towards creating a supportive environment:

> *"Because if you are an alcoholic you are not going up to them and say 'You have to quit, you have to quit.' And if you are a smoker, 'You have to quit, you have to quit.' So I just tell them it is a non stressful environment that you can go."*

Support systems were beneficial to pregnant and parenting women trying to quit smoking, including talking to friends when you *"need a cigarette."* Women were appreciative of acknowledgement when they were successful with smoking reduction. When they were having a *"bad day"* and smoked more, they valued supportive feedback from friends.

> *"Well with our group we had like a support system. I could have called [name] if I need to talk or [name] if I was having a problem and was...really, really needed a smoke."*

XVIIIf. Supportive Organizational Priorities and Policies

Supportive organizational priorities and polices facilitated implementing ETQ. Preventing low birth weight and working with high risk families are priorities for the five HBCs. One avenue to reduce low birth weight and to improve health outcomes for the mother and baby is preventing smoking and reducing second-hand smoke exposure. Managers described their organizational priorities:

> *"I guess our main priority is to make sure those women have a healthy pregnancy and a healthy baby and a good birth weight, birth weight when their babies are born. And then to give them support as well after they have their babies. To support them."*

Nonetheless, although smoking cessation was a priority for the HBCs, the smoking cessation offered was episodic and often limited to the provision of pamphlets or an isolated session on smoking prevention. One manager noted that she was hesitant to offer a smoking cessation program because she feared it may be *"judgmental"* towards the women and therefore prevent attendance at other sessions. Managers identified value in offering ETQ because it heightened their profile in the community and furthered the philosophy of HBCs.

> *"Every time we acquire new training or a new program, it just shows that we are here for you, we are interested in you. And I think that is our whole philosophy."*

HBC Mothers were supportive of smoking cessation policies. Women were not permitted to smoke at the HBCs; some HBCs had written policies and others had verbal policies. Nonetheless, one HBC Mother questioned whether or not she would *"lose"* women from her program if she did not permit them to leave the session and smoke outside during their break.

> *"You have to be understanding. So I think if you say okay, 'Look you can't go and have a cigarette on break.' I think you are going to lose them."*

The women did not comment on the organizational priorities or policies of the HBCs. However, they discussed the lack of smoking cessation programs for *"women like us"* indirectly.

XVIIIg. Flexibility and Attention to Rurality

The implementation of ETQ was facilitated by flexibility and attention to rurality. HBC Mothers and women had similar opinions on the benefit of flexibility. A flexible approach in delivering ETQ was described by HBC Mothers as providing informal, *"more casual"* sessions, not using overheads, and combining classes to meet the needs of pregnant and parenting women.

> *"Except I didn't use the overheads. They looked at me the first day and said, 'You didn't need to use that.' So I just read it off."*

One HBC Mother spoke of the benefits of flexibility in delivering ETQ, *"It wasn't anything rigid and set in stone. You have to be flexible."* Flexibility was also described as the applicability of using ETQ in other groups. HBC Mothers discussed using the information from ETQ with other women in the HBCs, and on a one-on-one basis.

> *"I assumed it was going to be a group I was going to meet and it ended up to being an individual. That was the only thing that was different."*

Flexibility in responding to rural issues facilitated program implementation. Flexibility in rural communities was required to accommodate women's employment in fish plants. Limited employment opportunities in rural communities pose a challenge in offering HBC programs. When employment opportunities arise it often involves long hours because women have to work when the fish are available for processing. HBC Mothers were attentive to the working schedules of women attending HBCs and attempted to arrange programs around women's work schedules. Although all women attending ETQ were

unemployed, HBC Mothers indicated that they still need to be responsive to the *"best time of the year"* to offer the program.

> *"The late fall is the best time of the year for group attendance and that sort of thing. Cause in the winter months you have the crappy weather. Then you've got the spring when the plant opens and everything revolves around the plant [fish plant]."*

Flexibility and attention to rurality were discussed by managers who described several rural issues, including transportation and community awareness of the program.

> *"With all of us here we are pretty flexible with our schedules and we do what we can to help each other"*

The importance of the HBCs in rural areas was highlighted. One manager talked about the HBCs being the *"main contacts"* in rural communities and the staff as *"the ground workers"* as *"there is nothing else in our area."* Flexibility was described by women as *"being open-minded*" and willing to *"hear other people's views and opinions."*

> *"You got to have it in your head, you got to be open minded and to hear other people's views and opinions, I think that would benefit."*

Women valued the flexible approach used by HBC Mothers to the delivery of ETQ, *"It wasn't a lecture style… So it was like across from the table and lots of discussion."* However, they did not identify attention to rurality as a facilitator to ETQ. Nonetheless, they did describe the value of transportation, which facilitated attendance.

XIX. Differences and Similarities of the Barriers and Facilitators Across Healthy Baby Clubs

The five HBCs were similar in their assessment of barriers to implementing ETQ (Table 27). The smoking cessation myths related to family and friends was relevant across all five HBCs. However, the manager and HBC Mother of a rural HBC disagreed with one component of the barrier *Smoking Cessation Myths.* They felt the smoking cessation myths related to misinformation by physicians did not pertain to HBC 5. The manager stated during data validation:

> *"The whole myth my mother smoked and I'm OK. That myth is bigger than the doctor thing. Our pregnant moms go to the nurse practitioner and they emphasize [non]smoking as much as we do.*

Table 27 – Frequency Data for Barriers to Implementing Expecting to Quit

Barriers	Data Sources	Managers	Healthy Baby Club Mothers	Pregnant and Parenting Women	Number of HBCs
Feeling Ashamed	Interviews Focus Groups Data Validation	Yes	No	Yes	5
Competing Commitments for Women	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Addiction and Craving	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
So Many Stresses	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Time Constraints and Logistics	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Creating Supportive and Non-judgmental Environments	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Smoking Cessation Myths	Interviews Focus Groups Data Validation	Yes	Yes	No	5[1]
Rural Recruitment	Interviews Focus Groups Data Validation	Yes	Yes	No	5
Community Acceptance of Smoking	Interviews Focus Groups Data Validation	Yes	No	Yes	5

Smoking cessation myths for physicians not applicable for one HBC, the myths from woman and family are applicable.

The facilitators to implementing ETQ were similar across the HBCs (Table 28).

Table 28 – Frequency Data for Facilitators to Implementing Expecting to Quit

Facilitators	Number of Data Sources	Managers	Healthy Baby Club Mothers	Pregnant and Parenting Women	Number of HBCs
Positive Attitudes and Beliefs	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Acceptability of Expecting to Quit	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Staff Education and Training	Interviews Focus Groups Data Validation	Yes	Yes	No	5
Practical Support and Resources	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Creating Welcoming Supportive Environments	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5
Supportive Organizational Priorities and Policies	Interviews Focus Groups Data Validation Policy and Procedure Minutes	Yes	Yes	No	5
Flexibility and Attention to Rurality	Interviews Focus Groups Data Validation	Yes	Yes	Yes	5

XX. Integrated Synthesis of Findings

Six integrated themes emerged following the analysis of the findings for interrelated patterns (i.e., (1) within-case analysis of the HBC's experiences of implementing ETQ; (2) level of implementation of ETQ; (3) preliminary evidence of the effectiveness of ETQ; (4) themes for each participant groups (women, HBC Mothers and managers) including: thematic interconnections, and differences and similarities between the themes; (5) barriers and facilitators to implementing ETQ; and (6) data obtained through data validation). Three external reviewers concurred with the results of the integrated synthesis. They were validated by the HBC Mothers and managers. Finally, the integrated synthesis of the findings were reviewed by a research co-supervisor, Dr. Franco Carnevale. The integrated

themes include: Stigma and Judgment: Walking a Fine Line; Social Context, Health and Place: Rural Living Affects Women; Social Networks: Supporting Women Like Us; Community Empowerment: A Catalyst to Get the Message Across; Complexities in the Lives of Women: Just Trying to Get Through; and Tobacco Reduction: It is a Success (Figure 1).

The first finding, Stigma and Judgment: Walking a Fine Line, impacted on women's smoking cessation decisions, including non-attendance of ETQ and making their homes smoke-free. Women were influenced by stigma and judgment, including feeling *"ashamed"* because they smoke and "*hiding"* smoking behaviour. Socio-economic disadvantage impacted on their ability for self-care and care for their children including *"not being able to provide the day-to-day basics."* Many of the traditional smoking cessation supports may not be acceptable because disadvantaged women were not comfortable attending smoking cessation programs held in locations, such as hospitals or community clinics. Low income impacted on the structural support available, including child care and transportation, because without such support they *"would not be able to attend."* Stigma and judgment impacted on the recruitment of women for ETQ. Although the HBCs provide for *"those who need it the most,"* they have been hesitant to offer smoking cessation programs. The concern with *"judgmental"* smoking cessation programs has resulted in HBCs not offering comprehensive smoking cessation programs, because smoking cessation has been *"almost taboo."* Therefore, further stigmatizing women because of a lack of smoking cessation programs; which ultimate impacts on the health outcomes of women and children. HBC Mothers faced the challenge of providing a non-judgmental

program in an atmosphere charged with the potential to further stigmatize and judge vulnerable women. They are *"walking a fine line"* between supporting and being non-judgmental of women who smoke and being non-supportive and judgmental of tobacco use. It is truly a balancing act.

The second finding, Social Context, Health and Place: Rural Living Affects Women, influenced the implementation of ETQ. "*Rural living affects women"* because of isolation, concerns with confidentiality and access to services, which impacted recruitment and retention of women to ETQ. Socio-economic disadvantage is linked with poor health outcomes and involvement in risk behaviors, including tobacco use. A lack of resources may prevent women from participating fully in improving their health. Contextual factors (social context, health and place) influenced ETQ implementation. HBCs were highlighted as an appropriate location for providing ETQ.

The third finding, Social Networks: Supporting Women Like Us, impacted smoking cessation decisions of rural, disadvantaged women. Social networks such as family and friends, presented an interesting dichotomy; they both supported women in smoking cessation and acted as a barrier to successful cessation. Friends and family provided encouragement when women were reducing smoking and helped them get through the *"rough times"* during their addiction. Support networks provided assistance with child care and transportation. However, women associated smoking with friends and various social activities, which discouraged women who are trying to quit smoking. This presented a conflict for women: to give up their smoking friends or to give up cigarettes, *"something they have loved for so long"* and to make their *"lives smoke-free."* Family and friends promoted

misinformation on smoking cessation including myths regarding smoking cessation and low birth weight, which may cause women to disregard the smoking cessation messages delivered by HBC Mothers.

The fourth finding, Community Empowerment: A Catalyst to Get the Message Across, highlighted the importance of community empowerment in supporting the design and implementation of smoking cessation programs for disadvantaged women. Women viewed the HBCs as an appropriate environment to offer a smoking cessation program, in short a *"catalyst to get the message across."* The HBCs' philosophy and priorities are supportive of women, through providing a supportive, community-based environment. Limited resources and funding impacted on the ability of HBCs to provide smoking cessation programs for disadvantaged women. Using community empowerment as a catalyst for social change, women and their advocates will demand smoking cessation programs *"for women like us,*" including the necessary structural supports of child care and transportation. Community empowerment may be a catalyst to influence healthy public policy including policies and procedures supportive of smoking cessation and smoke-free environments. Such healthy public policy may have an impact on the marketing of tobacco and result in women not being confronted with *"walls of cigarettes"* when going to a convenience store, assisting them in their smoking cessation journey.

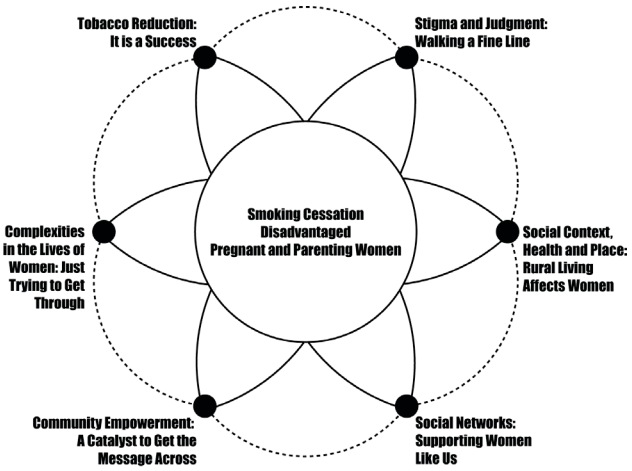
The fifth finding, Complexities in the Lives of Women: Just Trying to Get Through, impacted on the implementation of ETQ. Challenges faced by the women in *"just trying to get through,"* included poverty, lack of support, lone parenting and lower educational attainment; and may appear at times

insurmountable. While participating in ETQ, several women experienced major life crises, including the deaths of children and the end of a relationship. However, they exhibited openness, willingness, and resilience in their smoking cessation journey. Throughout their participation in ETQ, they acknowledged their challenges but they did not let their challenges define them. Through almost overwhelming odds, they exhibited resilience, thus providing hope for smoking cessation for disadvantaged women. This finding highlighted the importance of supporting women through providing structural support and non-judgmental environments. The women cannot be defined by their challenges but rather by their strengths and resilience.

The sixth finding, Tobacco Reduction: It is a Success, illustrated the importance of tobacco reduction for rural, disadvantaged women. HBC Mothers, managers and women viewed tobacco reduction as a success. Even if women were not able to achieve cessation, they were proud of reducing smoking and perceived it as a positive step towards smoking cessation. Women talked about and measured their success in terms of reducing smoking. Women, who suffered catastrophic life events, including the deaths of children and the end of a significant relationship, described reducing smoking and their intention to quit smoking. Women may relate positively to a process of gradually reducing tobacco usage and this may assist them in achieving cessation. HBC Mothers viewed ETQ as supportive of a process of tobacco reduction. Decreasing tobacco usage may reduce the feelings of guilt on the part of the women if they *"slip up"* therefore enabling them to continue with smoking cessation. The women did not want to be *"preached to"* or told *"they had to quit,"* which may make tobacco reduction an

acceptable option. Tobacco reduction may provide an opportunity to improve health outcomes for disadvantaged women who smoke.

Figure 1: Integrated Synthesis of the Findings



XXI. Summary of Findings

In this chapter, the results from an implementation evaluation of a smoking cessation program for disadvantaged women were presented, including: (1) an overview of five HBCs with similarities and differences described; (2) level of implementation of ETQ; and (3) preliminary evidence on the effectiveness of ETQ. The literature related to the synthesis of the findings will be presented in the discussion chapter. Figure 2 provides a summary of the findings.

The thematic analysis and thematic interconnections were presented from the perspective of three participant groups (pregnant and parenting women, HBC Mothers and managers). Included in each of these sections are rich sections of text in the participant's own words. The thematic analysis for pregnant and parenting women revealed four themes pre-implementation (No Ideal Program: But If You Fail You Feel Worse; Stress and Life Circumstance: So Many Smoking Triggers; Addiction and Craving: It is Hard to Quit; and Supporting Pregnant and Parenting

Women: Turning to Others), and three themes identified post-implementation (The Shame of Smoking: You Have to Keep it Behind Closed Walls; Smoking So Many Triggers; and It is a Pretty Good Program: But We Have Suggestions for Change). The thematic analysis of the focus groups with HBC Mothers revealed four themes pre-implementation ETQ (A Challenging Environment: Taking Something They Love Away; An Ideal Program: Smoking Women Need Kinder Understanding; Supporting Healthy Baby Club Mothers: Training is the Biggest Thing; and, Counteracting Smoking Cessation Myths), and four themes post-implementation (Difficult to Commit: The Lives of Women; The Reality of Rural Recruitment; It is a Good Program: I Can Do This; and Committed But Challenged). Finally, the thematic analysis of the interviews with managers revealed four themes, including So Many Stresses; Supportive, Non-Judgmental Environments: Setting the Stage; Committed but Challenged: We are the Vehicle to Get the Message Across; and An Ideal Program: It's the Little Things That Make a Difference. There were four thematic interconnections between the interviews and themes with HBC Mothers and managers including: So Many Stresses: The Reality of the Lives of Rural Pregnant and Parenting Women, An Ideal Program: Creating Supportive Environments, A Challenging Environment: Addiction, Craving, Shame and Myths, and It is a Good Program: But Attention to Rurality and Flexibility Required.

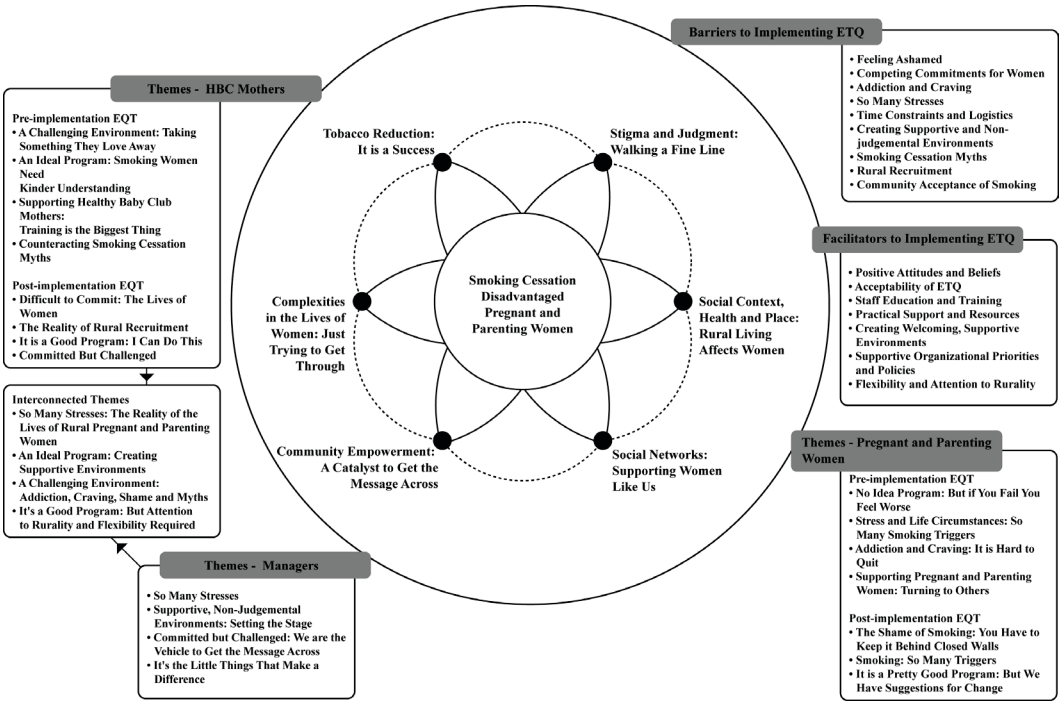
Barriers and facilitators to implementing ETQ, which were identified from the perspectives of study participants, were outlined. There were nine barriers identified including: Feeling Ashamed; Competing Commitments for Women; Addiction and Craving; So Many Stresses; Time Constraints and

Logistics; Creating Supportive and Non-judgmental Environments; Smoking Cessation Myths; Rural Recruitment and Community Acceptance of Smoking. Seven facilitators to implementing ETQ include: Positive Attitudes and Beliefs; Acceptability of ETQ; Staff Education and Training; Practical Support and Resources; Creating Welcoming Supportive Environments; Supportive Organizational Priorities and Policies; and Flexibility and Attention to Rurality.

Finally, an integrated synthesis of the study findings was presented. The integrated findings include: Stigma and Judgment: Walking a Fine Line; Social Context, Health and Place: Rural Living Affects Women; Social Networks: Supporting Women Like Us; Community Empowerment: A Catalyst to Get the Message Across; Complexities in the Lives of Women: Just Trying to Get Through; and Tobacco Reduction: It is a Success.

Figure 2 provides a summary of the salient study findings. The inner circle represents disadvantaged pregnant and parenting women and signifies the importance of women-centered approaches to smoking cessation with the needs of women (child care, transportation, nutritious snacks, and supportive environments) a consideration of program implementation. The middle circle conveys the integrated synthesis of the study findings with a direct relationship to disadvantaged pregnant and parenting women and smoking cessation, with the broken line indicating the interconnection between the six key findings. Finally, the outer parameter of the circle represents the interconnection between components of the individual study findings: barriers, facilitators and themes (women, HBC Mothers and managers). Collectively, these findings are then expanded from the individual level to the whole or synthesized study findings.

Figure 2- Summary of the Findings: Implementation Evaluation Expecting to Quit (ETQ) in Five Healthy Baby Clubs (HBC)



Chapter 5
Discussion

The rural, disadvantaged women in this study found ETQ to be acceptable and appropriate with respect to program content and format, and ease of use. These features facilitated program implementation. The study identified barriers - including: Feeling Ashamed; Competing Commitments for Women; Addiction and Craving; So Many Stresses; Time Constraints and Logistics; Creating Supportive and Non-judgmental Environments; Smoking Cessation Myths; Rural Recruitment; and Community Acceptance of Smoking and facilitators including: Positive Attitudes and Beliefs; Acceptability of ETQ; Staff Education and Training; Practical Support and Resources; Creating Welcoming Supportive Environments; Supportive Organizational Priorities and Policies; and Flexibility and Attention to Rurality - to implementing ETQ from the perspectives of women, HBC Mothers and managers.

The final chapter of this dissertation will discuss the integrated study findings, including: (1) Stigma and Judgment: Walking a Fine Line; (2) Social Context, Health and Place: Rural Living Affects Women; (3) Social Networks: Supporting Women Like Us; (4) Community Empowerment: A Catalyst to Get the Message Across; (5) Complexities in the Lives of Women: Just Trying to Get Through; and (6) Tobacco Reduction: It is a Success. The implications for theory, practice, policy, and further investigation will be outlined. The researcher's personal perspective on the study will be described. Finally, the study limitations will be described and then the conclusions will be presented.

I. Stigma and Judgment: Walking a Fine Line

Stigma and Judgment: Walking a Fine Line is a salient finding. Knowledge of the impact of stigma on pregnant and parenting women who smoke is important in understanding smoking cessation program attendance by women and may be linked with nonattendance. HBC Mothers were not cognizant of the full impact of stigma on women's attendance in ETQ. There are characteristics in rural communities such as visibility, which limit anonymity when women seek smoking cession services (Boyd et al., 2006). Visibility within rural communities may compound the stigma of smoking, thus affecting women's attendance. This may limit pregnant and parenting women's opportunities to participate in smoking cessation programs.

Recruitment of disadvantaged women into smoking cessation programs has to consider the context of stigma (Bottorff, Kalaw, Johnson, Stewart, & Greaves, 2005). The social stigma of smoking when pregnant or parenting may have prevented women from participating. In this study, many recruitment strategies were not effective with this group of women. HBC Mothers were frustrated with failed recruitment attempts and did not understand why women did not attend. They felt challenged to "engage" women. However, recruitment challenges are not unique to smoking cessation programs. People who have been marginalized or have traditionally remained silent are difficult to access and recruit (Chandra & Paul, 2003; Killien et al., 2000; Woelk, 1992).

Stigma is a significant barrier to implementing smoking cessation programs. It has far reaching consequences that are not only related to smoking cessation, but also for women seeking mental health service (Boyd et al., 2008;

Jesse, Dolbier, & Blanchard, 2008; Nadeem et al., 2007). In this study, the stigma of smoking while pregnant and parenting contributed to women's feelings of shame, hiding smoking behaviour, concerns with confidentiality and delays in seeking help for smoking cessation. A unique challenge was the subtle nature of stigma towards pregnant and parenting women who smoke, including judging women's choices to buy cigarettes when living on a low income. Concerns with confidentiality extend to the use of services such as a Smoker's Quit Line because it may be perceived by women as sharing personal health information to other agencies, such as child protection. Therefore, reassurances of confidentiality for women attending smoking cessation programs are important.

Rural, low-income households are less likely to restrict exposure to second-hand smoke in their homes (Gilpin, White, Farkas, & Pierce, 1999; Kegler & Macoe, 2002; McMillen, Breen, & Cosby, 2004; McMillan, Winickoff, Klein, & Weitzman, 2003; Okah, Choi, Okuyemi, & Ahluwalis, 2002; Pizacani et al., 2003). In a qualitative study of rural households, concern for the health of children provided an impetus for smoking household bans (Kegler, Escoffery, Groff, Butler, & Foreman, 2007). Smoke-free homes and environments need to be encouraged, as low-income women who implement smoking restrictions in their homes are more likely to quit smoking (Severson, Andrews, Lichtenstein, Wall, & Akers, 1997; Ward, Weg, Sell, Scarinci, & Read, 2006). Stigma and judgment were apparent in this study when HBC Mothers described women's attempts to make their homes smoke-free. One HBC Mother challenged a pregnant woman to explain the difference between exposing her unborn baby to the effects of cigarette smoke and at the same time smoking outside to protect her older child

against second-hand smoke. HBC Mothers may benefit from education on the health advantages of reducing exposure to second-hand smoke. Women also play an important role in initiating conversations with family members regarding household smoking bans. However, women's educational levels and income may impact on the establishment of household bans (McMillen, Breen, & Cosby, 2004), highlighting the importance of HBC Mothers supporting women in implementing smoking restrictions.

HBC Mothers *"walk the fine line"* in terms of providing smoking cessation information without being perceived as authoritarian and judgmental (Naughton, Prevost, & Sutton, 2008). Disadvantaged women may have experienced negative educational experiences such as being "*talked down to."* It may be prudent to consider women's educational experiences when designing and implementing smoking cessation programs. Concerns of managers and HBC Mothers in providing a non-judgmental smoking cessation program delayed program implementation in the HBCs. Some have argued that the influence of socio-economic status on health receives limited attention due to the policy makers' unwillingness to distribute more funding to people who are disadvantaged (Walker & Sterling, 2007). Some HBCs are challenged by a lack of funding to expand smoking cessation programs. The lack of smoking cessation programs may cause women to be further stigmatized because of the absence of this important health service.

II. Social Context, Health, and Place: Rural Living Affects Women

The relationships between social context, health and place (Andrews & Moon, 2005; Gillis, 2005; Wu, Eschbach, & Grady, 2008) are important findings

in understanding smoking cessation among rural, disadvantaged women. Place, including *"rural living,"* influences the health of both the individual and community, through exposure to health risks, the environment and the availability of health and community services (Solberg & Way, 2007) and is an important determinant of health (Stafford & McCarthy, 2006). Geographical location or place is an important consideration when developing policies to improve the health of people and communities (Ommer, 2006). Studies have documented an association between socio-economic disadvantage and poor health behaviours and outcomes (Haas, Meneses, & McCormick, 1999; Lynch 1996; Lynch, Kaplan, & Shema, 1997; Poland, Coburn, Robertson, & Eakin, 1998; Wilson, Syme, Boyce, Battistich, & Selvin, 2005; Yen & Kaplan, 1999). The social context and physical environments where women live influences their smoking behaviour (Barnett, 2000; Duncan, Jones, & Moon, 1999; Idris et al., 2007; Rejineveld, 1998; Ross, 2000). There is a knowledge gap about the health needs and impact of place on women living in rural communities (Leipert, 1999).

There are factors that relate to living in a rural community that increase difficulty with cessation including: rural isolation; lack of confidentiality; multiple stressors; lower income; and limited smoking cessation programs. "Rural living affects women's health, not only because of geographic isolation or limited access to health services, but often because of socio-cultural characteristics that influence health seeking behaviours" (Center of Excellence for Women's Health, 2003, p. 5). The characteristics of rural communities may compound problems for disadvantaged women (Fraser et al., 2005; Smith, Humphreys, & Wilson, 2008). There are limited opportunities for women living in rural communities including

employment and leisure activities. Smoking is an activity used by some pregnant and parenting women as a *"pass-time"* and something they look forward to in *"filling"* their day.

The findings provided insights into barriers and facilitators to implementing smoking cessation programs for rural pregnant and parenting women. It provides support for rural recruitment issues discussed in the literature (Ruggiero, Webster, Peipert, & Wood, 2003; Woelk, 1992). While rural pregnant and parenting women who smoke have many of the same issues as urban smokers, they face other challenges related to geographical and transportation difficulties (Hutchenson et al., 2008). Women living in rural communities often lack resources to participate in a smoking cessation program and, additionally, provision of services in rural areas is challenging (Meed, Witkowski, Gault, & Hartmann, 2001). Access to health services (i.e., prevention and treatment), including smoking cessation, is more difficult for rural women living in areas with a low population density (Etowa, Wiens, Bernard, & Clow, 2007; Fraser et al., 2005; Humphreys, 2005; Romanow, 2002; Taylor, Hughes, & Garrison, 2002; Wainer & Chesters, 2000). Tobacco control programs are needed to address the unique needs of rural populations (Hutchenson et al., 2008) with new ways to make smoking cessation programs available and accessible. This is a consideration for western Newfoundland because several communities are only accessible by aircraft or boat.

Women living in rural communities may be separated by geography, but they may be considered socially close, as they may have greater knowledge of each other's lives as compared to women living in urban communities (Boyd et

al., 2008). This has been described as the "rural paradox of proximity and distance" (Parr, Philo, & Burns, 2004). The close connections in small, rural communities may affect attendance in smoking cessation programs because "*everybody knows each other's business."* Women fearing stigma because they smoke may choose to hide their smoking behaviour by not attending a smoking cessation program.

The effects of inequality on health and how smoking behaviour is shaped by place warrants further exploration (Barnett, Pearce, & Moon, 2005). Geographical contextual influences need to be considered in developing, implementing and evaluating smoking cessation programs. Smoking by disadvantaged women have a number of benefits, including: socializing with friends (McKie, Laurier, Taylor, & Lennox, 2003); relieving stress (Graham, 1993); or as a part of community identity (Stead, MacAskill, MacKintosh, Reece, & Eadie, 2001). Health-promoting behavior, such as smoking cessation, occurs in a social context that affects the way this behaviour is initiated, maintained or stopped (Bottorff, Kalaw, Johnson, Stewart, & Greaves, 2005, p. 564). When designing and implementing smoking cessation programs for pregnant and parenting women, the context of smoking in the lives of these women must be considered.

III. Social Networks: Supporting Women Like Us

Social Networks: Supporting Women Like Us impacts on the smoking cessation trajectories of rural pregnant and parenting women. Social networks are multidimensional and have both positive and negative attributes (Cramer & McDonald, 1996; Falkin & Strauss, 2003). Social context and environmental

factors play an important role in influencing a woman's smoking and patterns of quitting attempts (Nichter et al., 2007), as well as contributing both positively and negatively to women's smoking cessation attempts (Musgrave, Allen, & Allen, 2002; Wu et al., 2008; Westmaas, Wild, & Ferrence, 2002). Women described their social networks and the dichotomy of friends helping them quit, and in contrast, the challenge of trying to quit when *"all"* your friends smoke.

Family, friends and health professionals play key roles in providing women with accurate smoking cessation information. There have been few studies examining the advice of family and friends and whether it complements or counteracts advice from health professionals (Dunn, Pirie, & Hellerstedt, 2004). Disadvantaged women are reliant on the support and advice of family and friends (Aaronson, 1989; Price et al., 1991), as they may find the information provided by health professionals unrealistic and impractical (Dunn, Pirie, & Lando, 1998). A study (Dunn, Pirie, & Hellerstedt, 2004) found that family and friends have a low risk perception and high acceptance of smoking and felt it is safe when done in moderation. Other studies indicated that disadvantaged women do not always perceive the health consequences of prenatal smoking to be severe enough to quit, as it is *"one little flaw"* (Oakley, 1989; Price et al., 1991). Some pregnant women do not associate low birth weight with smoking or other longer term child health issues and feel that low-birth weight can be *"fixed"* later on (Haviland et al., 2004), thus highlighting the value of harm reduction for women who have low intentions to quit (Ershoff, Solomon, & Dolan-Mullen, 2000).

IV. Community Empowerment: A Catalyst to Get the Message Across

Community Empowerment: A Catalyst to Get the Message Across is a significant finding. It illustrates the potential of HBCs to be "*catalysts"* for communities to work together to support smoking cessation programs for pregnant and parenting women. Community empowerment consists of people uniting to achieve a common goal (Rodwell, 1996). HBCs, through their supportive, community-based environments, such as advisory committees, are a foundation to build on when designing and implementing smoking cessation programs. Implementation of smoking cessation programs in rural communities may be enhanced by the development of coalitions, which may assist in securing funding and providing comprehensive programs (Hutchenson et al., 2008; Novotny, Romano, Davis, & Mills, 1992). This is consistent with the literature, which suggests a broad range of community support to assist women to stop smoking (Devries & Greaves, 2004; Secker-Walker et al., 2000).

Smoking cessation programs for disadvantaged women need to be non-judgmental and accessible, supporting and promoting understanding of their situations and offering strategies specific to their lives (Andrews, Felton, Wewers, & Heath, 2004; Gritz, Nielsen, & Brooks, 1996). The findings supported HBCs as appropriate settings (i.e., location, structural supports, familiar environment and accessible) to offer smoking cessation for disadvantaged women. Women stated they would not be comfortable attending a hospital-based smoking cessation program. Hospital and clinic-based smoking cessation programs may be inaccessible to women who are socio-economically disadvantaged and lack resources (Devries & Greaves, 2004; Voorhees et al., 1996). Community-based

organizations such as HBCs are an avenue to reach disadvantaged women, to enable access and to promote smoking cessation (Flaskerud et al., 2002). They are able to disseminate information to "hard to reach" women and impact on community norms regarding women who smoke (Andrews, Felton, Wewers, Waller, & Humbles, 2005).

HBCs are based on a model of peer support, with HBC Mothers sharing similar attitudes, beliefs and cultures as the pregnant and parenting women (Government of Newfoundland and Labrador, 2001). This is based on the premise that HBC Mothers have "first hand" knowledge of the problems of their communities and are able to communicate with women (Hill, Bone, & Butz, 1996). Research with minority women described the value of lay community workers supporting women's access to community resources because of their unique "insider" status and providing culturally relevant information based on the perspective of their communities (Andrews, Felton, Wewers, & Heath, 2004). Women identified comfort and familiarity with HBC Mothers as a reason they attended ETQ. HBC Mothers did not necessarily see themselves in this way, however. The intent of HBCs is for HBC Mothers from similar socio-cultural environments to offer realistic suggestions and to empower women to identify their solutions and strategies to quit smoking. The findings differ from this premise as many HBCs Mothers view themselves as having different opinions from women regarding shame and acceptability of smoking while pregnant and parenting. A sense of "we and they" was pervasive throughout the interviews with HBC Mothers. HBC Mothers viewed themselves as being different from pregnant and parenting women which are congruent with the differences in their

smoking behaviour and socio-demographics. There are limited studies that have used HBC Mothers or lay health providers to deliver a smoking cessation intervention for disadvantaged women (Andrews, Felton, Wewers, Waller, & Humbles, 2005; O'Loughlin, Paradis, Renaud, Meshefedjian, & Barnett, 1997). This study provides insights into the role of HBC Mothers in facilitating smoking cessation programs.

V. Complexities in the Lives of Women: Just Trying to Get Through

Complexities in the Lives of Women: "Just Trying to Get Through" - whether it was smoking cessation, pregnancy, parenting or life overall - was a salient finding. The characteristics of pregnant smokers in this study (i.e., lower educational attainment, low income and single parenting) have also been identified in other studies (Coleman, 2004; Greaves et al., 2003; McBride et al., 1999; Ockene et al., 2002; Wakschlag et al., 2003).

The values, beliefs and health practices of women must be respected. Moralizing or imposing value judgments are barriers to effective smoking cessation programs (Harvey et al., 2002). Incorporating the context of women's lives when implementing a smoking cessation program is important (Walker & Sterling, 2007). Walker (1999) described the "spill over" among life domains of disadvantaged women because of the impact of poverty (p. S96). Disadvantaged women are focused on their immediate needs, *"just trying to get through"* and *"living in the moment,"* rather than on the longer term. Compartmentalizing experiences from one life domain to another requires resources and energy that maybe less available to disadvantaged women (Walker, 1999). When implementing ETQ the "spill over" from women's life domains (i.e., mother,

partner, daughter, friend and provider) impacted smoking cessation. Interventions for disadvantaged women may need to consider social cognitive approaches, building coping skills, education and social support resources (Peden, Rayens, Hall, & Grant, 2005; Walker & Sterling, 2007). The content of ETQ focused on those domains and has the potential to provide smoking cessation education and support to disadvantaged women.

Women in this study did not view Nicotine Replacement Therapy (NRT) as a smoking cessation option. This may be because of their inability to pay for NRT. Low-income individuals are less likely to use NRT than people with higher incomes (Bonollo et al., 2002; Cummings, Hyland, Ockene, Hymowitz, & Manley, 1997; Frank, Winkleby, Altman, Rockhill, & Fortmann, 1991). As NRT is likely to be safer than cigarette smoking, it should be considered for pregnant and parenting women who cannot quit smoking (Benowitz et al., 2000; Bonollo et al., Fiore et al., 2000; Kapur, Hackman, Selby, Klein, & Koren, 2001; Ogburn et al., 1999; Schnoll, Patterson, & Lerman, 2007).

HBC Mothers described women's many commitments (i.e., doctor's appointments, sick children and parenting responsibilities). Supportive family and friends also place demands on women's time, energy and resources. Low-income women with children are challenged by the "trial of economic hardship" affecting every aspect of their lives (Durden, Hill, & Angel, 2007, p. 345). The little things that are taken for granted such as a coffee and snacks for children are not affordable for low-income women.

Women smoke because cigarettes give them *"pleasure,"* it's their *"one little flaw in life,"* provide them with *"that five minutes alone,"* and is *"the only*

thing that I do for me." This is consistent with research findings with African-American women living in subsidized housing developments (Andrews, Felton, Wewers, Waller, & Tingen, 2007; Manfredi, Lacey, Warnecke, & Balch, 1997). The studies found that cigarette smoking is a source of pleasure and a way for women to manage stress.

Women face barriers to smoking cessation, including a lower level of quitting motivation (Etter, Prokhorov, & Perneger, 2002). Disadvantaged women may face more stressors resulting in increased smoking and less confidence in their ability to attempt quitting (Jun & Acevedo-Garcia, 2007). They feel that "*nothing [is] worse than failure."* Some pregnant and parenting women believe cigarettes relieve stress (Chaney & Sheriff, 2008; Miller, 2002; Ward, Klesges, Zbikowski, Bliss, & Garvey, 1997). Therefore, smoking cessation programs need to acknowledge smoking as a stress reliever among disadvantaged women and advocate for programs and services to meet their needs.

Disadvantaged women are a heterogeneous group. Although, some of the complexities of their lives are similar (i.e., low-income and single parenting), there are differences that must be identified and acknowledged (i.e., literacy, computer skills and family support). Differences among rural pregnant and parenting women need to be considered when designing and implementing smoking cessation programs (King et al., 2006; Ruggiero & de Groot, 1998).

VI. Tobacco Reduction: It is a Success

Tobacco Reduction: It is a Success is a key finding. Tobacco reduction may benefit populations of women, including pregnant, drug-dependent women

(Haug, Stitzer, & Svikis, 2001) and those who are challenged with quitting smoking (Greaves et al., 2003).

As a method of smoking cessation, tobacco harm reduction is controversial (Jimenez-Ruiz, Kunze & Faberström, 1998; Parascandola, 2005). It refers to the implementation of policies, strategies, products or interventions that attempt to minimize the risk of harm associated with certain behaviours, including tobacco use (Stratton, Shetty, Wallace, & Bondurant, 2001). Thus, measures are taken to mitigate health risks (Hirschhorn, 2002), including tobacco-related mortality and morbidity (Warner, 2002). Concerns with harm reduction include: (1) a false sense of security of the potential health benefits (Pierce, 2002; Warner, 2002); (2) it is inconclusive that tobacco reduction results in smoking abstinence (Pierce, 2002; Warner, 2002); (3) concern with increased inhalation causing exposure to dangerous toxins because of compensation for tobacco reduction (Hurt et al., 2000); and (4) enhanced credibility of the tobacco industry because of approval of harm reduction strategies (Fox & Cohen, 2002). In contrast, others will argue that tobacco harm reduction is a new method in the battle towards complete tobacco cessation (Hatsukami et al., 2002) and that individuals have the right to information on harm reduction methods and choices about reducing health risks (Kozlowski, 2002). Tobacco reduction is of interest for smokers who are unable to quit despite repeated quit attempts because decreasing the number of cigarettes smoked daily may be a method to control smoking (Hatsukami, Henningfield, & Kotlyar, 2004; McNeill, 2004; Wennike, Danielsson, Landfeldt, Westin, & Tønnesen, 2003).

The success of ETQ was defined by women, HBC Mothers and managers in terms of tobacco reduction. Tobacco reduction was seen as a success by one woman who was able to continue to reduce the number of cigarettes she smoked following the catastrophic loss of her child. HBC Mothers viewed *"reduction is a success in itself"* and described the linkage between tobacco reduction and abstinence. However, it is challenging to measure tobacco reduction (Hurt et al., 2000) and whether it is a step on the pathway to smoking cessation. Although HBC Mothers viewed tobacco reduction as a success, they were unsure whether they should present it as an option to women. There have been no studies examining lay health providers' knowledge of tobacco harm reduction, but others have found that nurses' knowledge about the risks of smoking and how harm can be reduced may not be accurate (Borrelli & Novak, 2007), therefore highlighting the need for education for HBC Mothers on tobacco reduction.

Some have argued that tobacco reduction may increase self-efficacy and control over tobacco use, thus ultimately promoting smoking cessation (Fagerström, Tejding, Westin, & Lunell, 1997). "*If you fail you feel worse*," described the sense of failure felt by women when they are unable to quit smoking. "*All or nothing"* thinking about smoking cessation may prevent women from attempting to quit. Reducing tobacco use was viewed by women as *"being in control"* and "*making their own decisions."*

Pregnant and parenting women cannot be given a false sense of security that tobacco reduction is as beneficial to their health as smoking cessation. The greatest improvement to health is achieved through women becoming tobacco and nicotine-free (deRuiter & Faulkner, 2006). The "ideal" method to reduce the

mortality and morbidity attributed or associated with tobacco use is smoking cessation (Shields, 2002; Shiffman et al., 2002). The ultimate goal for HBC Mothers to pursue is complete cessation. Therefore, tobacco reduction may be considered within a continuum of prevention to complete cessation (Warner, 2002).

Research is required to determine whether tobacco reduction can be maintained, if it contributes to smoking cessation and what new and innovative harm reduction strategies need to be developed and evaluated (deRuiter & Faulkner, 2006; Hughes, 2000). Lumley, Oliver, Chamberlain and Oakley (2004) identified the need for research in harm reduction and offered this question for consideration: "Is there a place for including smoking reduction as one of the goals, in line with 'harm minimization' strategies for other harmful substances and practices? (p. 14)." Others suggest that tobacco reduction has significant potential for low-income women who continue to smoke throughout their pregnancy and it should be explored as a component of women's smoking cessation trajectory (Greaves, et al., 2003; Hanna, Faden, & Dufour, 1997; Hatsukami et al., 2002).

Theoretical Considerations

Smoking cessation program implementation for rural, disadvantaged women is complex and the researcher proposes that it can be understood by drawing on theoretical approaches including: (1) Scheirer's Framework on Program Implementation (1981, 1994); and (2) Goffman's Theory of Stigma (1963). Scheirer's Framework on Program Implementation (Scheirer, 1981, 1994) guided the study and was helpful in providing a conceptual framework to organize

the evaluation of ETQ. Goffman's Theory of Stigma (1963) may enrich the theoretical understanding of stigma, social exclusion and participation in smoking cessation programs by pregnant and parenting women.

I. **Scheirer's Framework on Program Implementation**

Scheirer's Framework on Program Implementation (1981, 1994) has been used to study: mental health (1981); dental health (Scheirer, 1990); and tobacco control programs (Richard et al., 2004). As discussed in Chapter 2, the model identifies three levels of influence in program implementation: macro-level of an organization with the political perspectives of the broader institutions of the community at large, intermediate level of the organizational unit and micro-level of the individual workers.

II. Goffman's Theory of Stigma

Erving Goffman's Theory of Stigma (1963) has been used to study: albinism (Wan, 2003); families with children requiring mechanical ventilation at home (Carnevale, 2007); Hepatitis C (Fraser & Treloar, 2006); HIV positive mothers (Ingram & Hutchinson, 1999); and mental illness (Forrester-Jones & Barnes, 2007). In Stigma: Notes on the Management of Spoiled Identity (Goffman, 1963), it is suggested that all human conditions may be stigmatized and, as such, may be devalued by society, with stigmatized persons having "an attribute that is widely discrediting." Goffman identifies three types of stigma: (1) abomination of the body which includes physical deformities; (2) blemishes of individual character which includes addiction; and (3) the tribal stigma of race nation and religion. Tobacco addiction is congruent with Goffman's typology of stigma as it is an attribute now widely discredited by society. A strategy of many

smoke-free advocates is the "de-normalizing" of tobacco use. Smoking by pregnant and parenting women may "discredit" their many positive attributes such as being a good mother, friend or spouse. Smoking has evolved from a desired attribute to a "stigma and undesired differentness":

> *"... an individual who might have been received easily in ordinary social intercourse possesses a trait that can obtrude itself upon attention and turn those of whom he meets away from him, breaking the claim that his other attributes have on us. He possesses a stigma, an undesired differentness from what we had anticipated* (Goffman, 1963, p. 5).

"Normals" are referred to by Goffman, as persons having potential to stigmatize others and have many different attributes, but not the attribute of "difference," and as such they do not represent "undesired differentness." Goffman distinguishes between the "discredited and the discreditable." The discredited assume that their differences are recognized and evident to others. The attributes of the discreditable are not readily apparent and stigmatization may or may not occur. The discreditable fear their secret will be revealed and take steps to hide their differences for example, women hiding smoking, refusing to attend a smoking cessation program or minimizing tobacco use. They take steps to protect themselves against exposure, thus "passing" is used as a way to protect undisclosed discrediting information (Goffman, 1963, p. 42). There are great advantages for the woman as being considered "normal," and almost all who are able to "pass" will do so (Goffman, 1963, 74). The "visibility" of a particular stigma is a "critical factor" as to whether an individual will be discriminated against (Goffman, 1963). To further the concept of "passing," some will "cover and conceal" the stigma, which may include covering the smell of tobacco smoke,

non-smoking in homes and cars, and non-disclosure of smoking status. It is possible on one level to hide the "blemish" of smoking through nondisclosure and hiding, however the smell of tobacco smoke on clothing, houses, cars and other objects preclude the "covering" of tobacco.

Many pregnant and parenting women who smoke "conceal" smoking as they attempt to "pass" as non-smokers (Goffman, 1963). Women who smoke react to stigma in different ways: hiding smoking, dropping out of smoking cessation programs, stop being with friends, not attending smoking programs, and being ashamed and embarrassed that others know they smoke. Women have attempted to "conceal" their true selves, which may include denying or minimizing that they smoke.

111. Theoretical Contribution of the Study

This study has made a contribution to theory including: the expansion of Scheirer's framework on program implementation to include the perspectives of women (program users) and the use of Goffman's Theory of Stigma in understanding the impact of stigma and social exclusion on smoking cessation among rural, disadvantaged women.

111a. Scheirer's Framework on Program Implementation

As discussed in chapter 2, this framework considers three levels of influence in program implementation (micro-, intermediate-, and macro-levels of influence). The micro-level of influence focuses on the characteristics of the individuals responsible for program implementation however, it does not include the characteristics of the program users including the acceptability and appropriateness of the program for women. The categorizing of women at the

micro level of this framework was fraught with discussion and debate as to whether the perspectives of these women were at this level. Other researchers have included the individual worker in the framework but the perspective of the client was absent (Richard et al., 2004; Scheirer, 1981; 1994). However, this study included the perspectives of women at the micro-level of influence (see Appendix A).

Women in the study described concerns with being *"talked down to"* and the lack of programs for *"women like us."* Unless the perspectives of disadvantaged women (program users) are considered in the development, implementation and evaluation of smoking cessation programs they may continue to feel *"talked down to"* as their perspectives will be absent. The involvement of disadvantaged women may result in giving them a "voice" in smoking cessation programs. Smoking cessation program recruitment and retention may be enhanced because if women are involved in program design and implementation it may result in a program appropriate for and acceptable to women. Additionally, they may be more likely to recommend acceptable and appropriate programs to their friends. This study has identified the importance of ensuring the perspectives of rural, disadvantaged women (program users) are included in the design and implementation of smoking cessation programs.

111b. Stigma, Social Exclusion, and Smoking Cessation

Stigma is a major barrier to health services, including access to smoking cessation programs (Deacon, 2006). There is no common theoretical perspective on stigma (Deacon, 2006; Link & Phelan, 2001). Others argue that the concept of stigma suffers from "conceptual inflation" and lack of analytical clarity (Miles &

Brown, 2003). “Stigma… is creaking under the burden of explaining a series of disparate, complex and unrelated processes to such an extent that the use of the term is in danger of obscuring as much as it enlightens” (Prior, Wood, Lewis, & Pill, 2003, p. 2192). Others have argued for a better understanding of stigma and its relationship to discrimination and disadvantage (Deacon, 2006).

This study may enrich the theoretical understanding of stigma, social exclusion and smoking cessation from the perspective of women, HBC Mothers and managers. Measuring stigma by considering knowledge, attitudes, discriminatory behaviour, perceived stigmas and enhanced understanding of why people are thinking and behaving in certain ways are logical next steps (Nyblade, 2006). Single parenting, poverty and lower educational attainment, overlaid with smoking during pregnancy and parenting, creates a social context in which stigma and social exclusion flourishes. Stigma impacts women by blaming, naming and shaming (Deacon, 2006), and provides “normals” with an opportunity to distance and dissociate themselves from women, leading to stigma and social exclusion.

Goffmans’ Theory of Stigma provides a framework to enhance understanding of the lives of rural pregnant and parenting women and the impacts of stigma and social exclusion. Women are impacted by the influences of social disadvantage, which is a determinant of health. Pregnant and parenting women who smoke experience stigma and social exclusion, which influence their decision to attend smoking cessation programs. The women experience stigma and social exclusion from various sources, including family, friends, non-smokers, partners and health professionals. They feel stigmatized because they understand the negative reactions of others and try to “hide” their smoking behavior. They face

negative social repercussions from a society that marginalizes and stigmatizes pregnant and parenting women who smoke and praises the "good mothers" who are non-smokers. Women felt "*fearful of the system"* including the potential for involvement of child protection and this may extend to negative percussions for pregnant and parenting women who smoke including the care and custody of their children. This may result in *"smoking going underground"* making it increasingly difficult to address smoking cessation with rural, disadvantaged women.

They suffer additional stigmatization, marginalization and social exclusion because of the challenges of educational levels, income, limited social support and single parenting. This is important because vulnerability and disadvantage are not personal flaws but rather the interaction of processes over which women have little or no control, including socio-cultural, economic, geographical, historical and political environments (Lancaster, 1999; Leipert & Reutter, 2005). Pregnant and parenting women who smoke employ coping mechanisms to deal with stigma and social exclusion including the persona that they don't care, hiding smoking and smoking program attendance and heightened needs for confidentiality. *"Fitting in"* is easier when they are with *"women who are in the same boat,"* or when attending a smoking cessation program in a place they feel comfortable, such as the HBCs. In short, they feel included and welcomed. The women feel the pain of exclusion, including being looked down on because they smoke, being judged that they do not care about their children's health and suffering because of a lack of programs for *"women like us."* Despite this adversity the women have developed coping mechanisms, including supporting others, referring smoking

cessation programs to friends and recognizing and addressing their smoking triggers.

Implications for Theory

There are important theoretical implications of this study. This study makes a contribution to theory and suggests: Stigma and Judgment: Walking a Fine Line; Social Context, Health and Place: Rural Living Affects Women; Social Networks: Supporting Women Like Us; Community Empowerment: A Catalyst to Get the Message Across; Complexities in the Lives of Women: Just Trying to Get Through and Tobacco Reduction: It is a Success, as inherent components that need to be considered in implementing smoking cessation programs for rural, disadvantaged women. Stigma, judgment and social exclusion are challenges when implementing smoking cessation programs. This may explain why HBCs did not provide smoking cessation programs for women prior to implementing ETQ as they felt smoking cessations programs were *"almost taboo."*

First, a multiple case study design using a qualitative approach has provided a deep understanding of smoking cessation with rural, disadvantaged women, confirming many of the elements in the literature and providing insight of the challenges of smoking cessation among this group of women.

Second, this study has contributed towards theory development. It builds on theoretical development of smoking cessation among rural, disadvantaged women. A greater use of theory to underpin smoking cessation interventions are essential to develop a theoretical understanding of smoking cessation beyond the stages of change model, which may be ineffective in designing interventions for

pregnant women (Lumley, Oliver, Chamberlain, & Oakley, 2004). This study has made a contribution in that direction.

Finally, this study has provided insights into the utility of Goffman's Theory of Stigma in understanding smoking cessation among disadvantaged pregnant and parenting women. The knowledge gleaned regarding stigma and social exclusion is beneficial in understanding disadvantaged women's smoking cessation trajectories and smoking cessation program attendance, thus addressing a need for enhanced understanding of stigma, social disadvantage and social exclusion (Deacon, 2006).

Implications for Practice

The results of this study bring to light important considerations in implementing a smoking cessation program for rural, disadvantaged women. The benefits of smoking cessation for pregnant and parenting women have been well documented in the literature (Melvin, Dolan-Mullen, Windsor, Whiteside, & Goldenberg, 2000; Orleans, Barker, Kaufman, & Marx, 2000; Pbert et al., 2004). Additionally, facilitators (i.e., supportive environments and structural supports) that support women in attending smoking cessation programs have been identified (Devries & Greaves, 2004). The findings of this study have supported the literature. However, the literature is limited in the identification of factors that facilitate as well as impede smoking cessation in pregnant women (Ussher, Etter, & West, 2006; Ussher, West, & Hibbs, 2004), living in rural communities (Hutchison et al., 2008). Shame and stigma experienced by some women are important considerations in implementing smoking cessation programs.

The study contributed to practice in a number of ways. Firstly, the results of this study suggest that to recruit and retain rural, disadvantaged women to smoking cessation programs, supportive, non-judgmental environments are essential. This includes an environment where women feel comfortable and are not judged for their smoking behaviour. The study found that women feel *"ashamed"* of smoking and that shame is a deterrent to program attendance. Because of the *"subtle"* nature of stigma, HBC Mothers have to be cognizant of the importance of supportive, non-judgmental environments in decreasing stigma and facilitating women's attendance.

Second, the results suggest that HBCs are an appropriate community-based setting to offer smoking cessation programs for women. The women stated they were comfortable attending ETQ at the HBCs; however, they would not attend a program in an uncomfortable environment such as a hospital. The appropriate setting to offer smoking cessation programs contributes to women's attendance. Using the practical experience and knowledge of women to assist with facilitating a program may assist in creating an acceptable environment. The managers are in a unique position to advocate for smoking cessation programs and ensure they are appropriate for and accessible to disadvantaged women.

Third, a supportive environment for HBC Mothers is essential. This includes continuing education on smoking cessation to ensure that HBC Mothers are up to date and current on new research and best practices. Professional development is required, focusing on the development of supportive, non-judgmental environments for smoking cessation. Sufficient staffing to offer smoking cessation programs is essential.

Fourth, smoking cessation may be incorporated into HBC programs and home visiting. Taking advantage of opportunistic teaching is essential in meeting the needs of women living in small, rural communities because of geographical barriers. This may help address the travel challenges for women living in rural and remote communities.

Fifth, physician education including best practice on smoking cessation and pregnancy is required. Physicians will need to be consulted regarding their knowledge, attitudes and beliefs about smoking cessation and pregnancy. Professional education may then be implemented to address their educational needs.

Sixth, managers are essential in *"setting the stage"* for smoking cessation. Through supporting HBC Mother training and workload, advocating for funding and ensuring feedback from participants, they will promote quality smoking cessation programs for women. Dialogue between the women, HBC Mothers and managers is essential in ensuring that the smoking cessation needs of women are being met. The structural support of transportation, child care and nutritious snacks are required to assist women in attending smoking cessation programs.

Seventh, opportunities to train other staff of the HBCs to deliver smoking cessation programs should be explored. They provide services for women and their children from age one to six, which may enable smoking cessation programs to be extended into other program areas (i.e. Family Resource Centre programs). This may provide an opportunity to broaden the program and improve recruitment.

Eighth, the study findings have important implications for the education of HBC Mothers on smoke-free homes and environments. The advantages of reducing exposure to second-hand smoke need to be explored with HBC Mothers and women. The benefits of smoking reduction need to be discussed as an option with pregnant and parenting women.

Ninth, disadvantaged pregnant and parenting women are a heterogeneous group. Women attending smoking cessation programs may have varying levels of literacy skills. Therefore, this has to be considered when implementing smoking cessation programs. The individual needs of women have to be considered and may entail having a range of smoking cessation resources available to meet their diverse literacy needs.

Finally, collaborative networks aimed to reduce smoking have to be developed and supported. Managers and HBC Mothers should work with the Tobacco Free Network, Western Regional Health Authority and Newfoundland and Labrador Lung Association to support and expand smoking cessation programs for women. They should continue to forge relationships with physicians, public health nurses and social workers to create communities of practice with a goal of reducing smoking among disadvantaged women.

Implications for Policy

This study has important healthy public policy implications. One of the cornerstones of a comprehensive smoking cessation plan is the protection of children from the health effects of tobacco smoke (Alliance for the Control of Tobacco, 2005). The research findings support the continued development of policies to protect women and children from the health impacts of second-hand

smoke. Recent legislation has been introduced in municipalities and provinces across Canada banning smoking in cars with children (Leslie, 2009). Policies protecting children against tobacco smoke need to be strengthened and are a logical step in the development of effective smoke-free environments.

Secondly, a priority policy direction is funding for smoking cessation programs for disadvantaged women. Managers play an important role in lobbying for appropriate program funding. Funding to support women's attendance at smoking cessation programs is critical. Unless sufficient funding for resources such as nutritious snacks and lunches, quit kits, child care and travel are available, it may be difficult to continue to offer smoking cessation because the women will not be able to attend. Funding is also required for staff training. Sufficient funding may permit exploration of alternate settings and strategies to offer ETQ, including during home visits.

A third policy implication is the need for changes to the education of physicians. An educational focus on smoking cessation for disadvantaged women is essential. Misconceptions about smoking cessation and pregnancy must be corrected. Smoking cessation may be enhanced through the opportunities provided by a focus on interdisciplinary education and professional practice. Interdisciplinary professional education is a focus of many universities and may strengthen the battle against tobacco (Health Canada, 2006; Memorial University of Newfoundland, 1999). This will assist in the formation of communities of practice in which smoking cessation is a priority.

Additionally, the findings have policy implications for rural communities. The development of alternative program delivery methods to meet the needs of

small, geographically-dispersed populations is a necessary step in meeting the goal of smoking cessation in rural, disadvantaged women. A policy commitment for funding and conducting research in rural communities is important to meet the needs of this important group of individuals.

Finally, the study findings support community-based initiatives as the *"vehicle to get the message across"* and can bring about changes in smoking cessation for rural, disadvantaged women. A policy commitment for ongoing funding support for the HBCs is necessary to meet the challenging needs of rural, disadvantaged women who smoke.

Implications for Future Research

This study was the first implementation evaluation in Newfoundland to explore in-depth the level of implementation of a smoking cessation program for rural, disadvantaged pregnant and parenting women. It is unique because it endeavors not only to describe the implementation of a smoking cessation program and the preliminary evidence of effectiveness, but also to understand the perspectives of women, HBC Mothers and managers.

The need for research with disadvantaged women was identified in the best practices literature (Devries & Greaves, 2004). A systematic review identified the need for future smoking cessation research with pregnant women to include process evaluations determining the extent of program implementation (Lumley, Oliver, Chamberlain, & Oakley, 2004). This study provides a step in that direction with credible qualitative research to enhance understanding of the implementation of a smoking cessation program.

The results of this study merit further qualitative and quantitative research to provide more definitive conclusions about the effectiveness of ETQ. Clearly, there is a need for research to confirm and extend ideas about what promotes attendance of rural, disadvantaged women in smoking cessation programs. Research to explore partner and family support and their role in effective smoking cessation programs for women needs to be conducted. Finally, researching the effectiveness of smoking reduction on the smoking cessation trajectories for pregnant and parenting women needs to be considered. A high-quality impact evaluation may be the logical next step.

Longitudinal research, both qualitative and quantitative, would be a research strategy to determine the effectiveness of a smoking cessation program over time. The longitudinal research would offer unique perspectives into smoking cessation and the impact on the lives of women. This will enable researchers to focus on the transitional phases of women's lives including pregnancy, postpartum and parenting, and the implications for smoking cessation.

Large-scale quantitative studies, using high-quality design, such as randomized controlled trials, are needed to produce stronger evidence of the effectiveness of ETQ. A study in the province of Newfoundland or an inter-provincial study may be beneficial to provide further research evidence with large-scale populations. It may be worthwhile to conduct an economic analysis to determine the cost-effectiveness of the smoking cessation intervention and the economic practicality of offering a universal smoking cessation program.

Further research to explore Goffman's Theory of Stigma (1963) as a theoretical framework for understanding smoking cessation and rural,

disadvantaged women is warranted. This will assist in developing a theoretical understanding of smoking cessation beyond the stages of change model. Exploring the utility of Scheirer's Framework on Program Implementation (Scheirer, 1981, 1994) as a model for evaluating the implementation of smoking cessation interventions for rural, disadvantaged pregnant and parenting women is suggested. This includes exploring the perspectives of women (program users) at the micro-level of influence. A concern with health research in vulnerable populations such as disadvantaged women is that studies are conducted "on" rather than "with" the participants (Mays & Pope, 2000). This concern may be addressed by including the perspectives of women.

Finally, research with rural, disadvantaged women is challenging but rewarding. Future studies need to identify the specific differences in social context, health and place that put rural, disadvantaged women at greater risk of smoking. This is essential to build knowledge of this unique population with challenging smoking cessation needs. This research provides an opportunity to share information and knowledge with other health organizations that otherwise would be kept within organizations and not used to further knowledge on rural, disadvantaged women. Opportunities to continue to promote research in rural communities are essential if the smoking cessation needs of rural, disadvantaged women are to be met.

Researcher Perspective

My research journey with women, HBC Mothers and managers was personally inspiring. Through living and working in a rural community as a public health nurse, manager and chief executive officer, I felt I understood the smoking

cessation needs of women and the role of HBCs. I naively thought that if transportation, child care and resources were provided the women would attend ETQ. It was a "build it and they will come" type of thinking.

Through reading the women's stories and talking with women, HBC Mothers and managers I gained deep insight into the complexities and social context of women's lives. The obstacles of stigma and shame as deterrents to smoking cessation were ever present. I struggled with feelings of sadness at the marginalization experienced by women when they are confronted with the challenges of low income, lower educational attainment and lone parenting. How can women provide for themselves and their families on such a limited income? I was saddened with the excess that is part of my life. It just felt so unfair and it made me question why. I often wondered how women were able to succeed with smoking cessation against such incredible odds. When I reflected on their challenges it was almost a miracle that they reduced or stopped smoking. I was saddened when I thought of smoking as the *"one thing you do for yourself."* The challenges that they talked about, the death of a child and the end of a relationship, made me think of the privilege of them sharing their lives with me. I often felt saddened when I thought of women and children without enough food and some of the basic necessities of life. In particular, I remember one pregnant woman walking home with her child in the autumn rain after a focus group. She didn't want a ride but I felt saddened watching her walk away. I also thought how wonderful it was that she was willing to be a part of my study and share her stories.

I felt joy witnessing the support and encouragement the HBC Mothers and managers provided. They were always willing to meet with me, share their thoughts and take my telephone calls and visits. I greatly admire women who support other women and take great joy in their success and achievement. It caused me to personally reflect on what success actually means. Along with the sadness, I felt there were many bright lights of hope and encouragement. Through sharing the lives of women, staff and managers even in a small way, it has changed the way I think about smoking cessation. My reflections are in the context of strong, resilient women living in rural communities and how do we, as a society, continue to nurture and support women and their families. It is an experience that I will cherish.

Limitations of the Study

Although strategies were used to strengthen the credibility of the study, there are limitations in any research study. The need for evaluation research with disadvantaged women in small, rural populations is critical to advancing knowledge in this field for this population (Avidano Britton, Brinthaupt, Stehl, & James, 2004; Devries & Greaves, 2004). Evaluations using randomized controlled trial (RCT) methodology are needed once ETQ is implemented and customized in western Newfoundland (Devaney & Rossi, 1997). This study is expected to make a contribution in that direction.

One limitation is the short time frame for follow-up and recruitment. Resource constraints prevented the study with a lengthier follow up period; however, this is the first study of an implementation evaluation of a smoking cessation program for disadvantaged pregnant and parenting women living in

rural Newfoundland. Therefore, without a lengthier period of follow up, information was obtained on the needs of these women. The research was conducted in the entire western region of Newfoundland with the potential for dissemination throughout the province of Newfoundland.

The study is also limited by the small number of participants and the difficulty of recruiting women to participate in ETQ. While the sample size and procedure for participant selection and data analysis were appropriate for this design, it supports only limited generalizability to a population. Initially the research study plan included the recruitment of 20 to 25 women to participate in ETQ. Despite an extensive recruitment strategy, the actual number of women who participated was smaller than originally planned. However, the women who did participate in the study provided rich insight into their world and experiences. The preliminary evidence of effectiveness requires further research in outcome evaluations using larger populations.

Another limitation of the study was the self-reporting on smoking history and hence was subject to the effects of social desirability. There were no concerns expressed about the questionnaire or the self-report format. However, this does not eliminate the possibility that participants may have consciously or inadvertently tailored their responses to appear in a favorable light.

HBC Mothers are all currently non-smokers, with one a former smoker. Thus, they may not have understood tobacco addiction and the quitting process. There were no concerns expressed from the women, but this does not preclude the possibility that the smoking status of HBC Mothers may have influenced program implementation.

Finally, this research is limited by the choice to include only women. There are strengths in considering the involvement of partners, however the interest and goal of the study was to determine the acceptability and appropriateness of ETQ with disadvantaged pregnant and parenting women. Future research in exploring smoking cessation and pregnant and parenting women may be enhanced by the participation and perspectives of their partners. However, the research would have to be sensitively designed to protect women from unanticipated outcomes from their partners.

Conclusion

This study provided descriptions of the implementation of a smoking cessation intervention from the perspective of women, managers and HBC Mothers. The integrated study findings conclude that we must focus our attention on Stigma and Judgment: Walking a Fine Line; Social Context, Health and Place: Rural Living Affects Women; Social Networks: Supporting Women Like Us; Community Empowerment: A Catalyst to Get the Message Across; Complexities in the Lives of Women: Just Trying to Get Through and Tobacco Reduction: It is a Success.

A community-based approach to smoking cessation with rural, disadvantaged pregnant and parenting women provides promise for reducing smoking among this important group of women. A partnership between women, HBCs and communities is essential in implementing effective smoking cessation interventions. The information gleaned from this study will provide guidance to those interested in reducing smoking among rural pregnant and parenting women. It is anticipated that this study will enhance awareness of the role that stigma and

judgement, social context, health, and place, social networks, community empowerment, complexities of the lives of women and tobacco reduction play in implementing effective smoking cessation programs. It may help to define the role in smoking cessation of lay health providers such as HBC Mothers.

I close with hope for the future for the women and children who participated in this study. My hopes are best summarized by the haunting voice of a woman who described the importance of smoking cessation for her family: *"I watched my mother die of leukemia and watched my father die from brain cancer and this was all before I turned twenty-five. And I thought, you know what, I was seventeen when Mom died and twenty- five when Dad died. I don't want to die before my child is thirty. No. I don't want to do it. I don't want to do it to him."*

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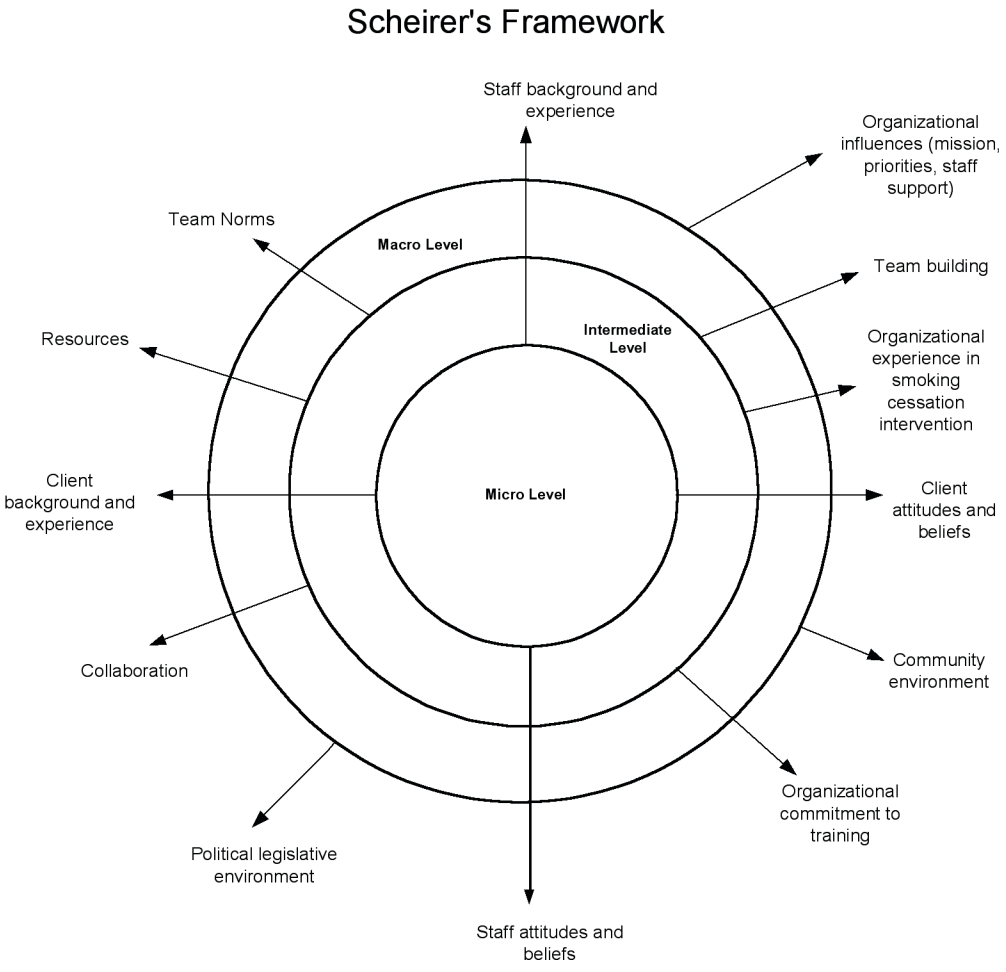
Appendix A
Scheirer's Framework on Program Implementation



Appendix B
Pregnancy Smoking Cessation Intervention Studies For Low-income Women

1. Author and Year	Browne et al., 1999
Design	Qualitative Process Evaluation
Intervention	Focus group with Pregnancy Outreach Program (POP) staff; Solution focused interviewing and counseling
Setting	Community-based POP in a northern Canadian city
Sample	N=57 socio-economically disadvantaged pregnant women
Measures and Instruments	Smoking Abstinence Self-Efficacy Scale at intake and 34 weeks gestation; Demographical information; Open ended questions to describe what they have learned as a result of the solution-focused interventions
Results	Process evaluation revealed that solution-focused approaches provide effective, client-centered, respectful ways of discussing tobacco reduction with disadvantaged clients. Solution focused approaches positively impacted on clients' sense of self-efficacy regarding tobacco reduction
Limitations	High attrition rate with pre-test and post-test scores only obtained on 16 clients. No confirmation of smoking status (Self-report or biochemical measure)

2. Author and Year	Dolan-Mullen et al., 2000
Design	Single blind, historical and intervention cohort
Intervention	Intervention; enhanced case management with individually tailored feedback delivered by the case manger at the second prenatal care visit, motivational interviewing counselling at the feedback session and at 2-4 follow up visits to promote smoking cessation during pregnancy, and reinforcing take home materials to promote family change. Comparison group received the case management care as described above but it did not focus on smoking cessation
Setting	10 prenatal clinics in Texas

Sample	Comparison group n=154; Intervention group n=142 Low income smokers
Measures and Instruments	Measured at baseline and late pregnancy: Mental Health Index-5, and smoking status assessed by self-report and urine cotinine levels.
Results	The development of the intervention component and the staff training were the most significant accomplishments. No between-group differences were found at the eighth month assessment. Both groups had the same percentage of cessation (2.2%).
Limitations	System changes resulting in a high turnover of case managers. Insufficient funding to complete the study High loss to follow up (42% of the comparison group and 37% of the intervention group).

3. Author and Year	Donatelle et al., 2000
Design	Randomized, experimentally designed smoking cessation study
Intervention	Baseline all participants given verbal and written information on the importance of smoking cessation and a smoking cessation self-help kit, A pregnant women's guide to quit smoking. Treatment group were asked to designate a social supporter, with both eligible for a $50 voucher if the participant was biochemically confirmed as quit. All participants were called on a monthly basis (maximum 10 months) and were asked to self report their smoking status. If they self reported as quit they were asked to return to the WIC site for biochemical confirmation of smoking status.
Setting	Low-income pregnant women attending four Oregon Women Infant and Children program sites.
Sample	Treatment group n=112, Control group n= 108
Measures and Instruments	Written surveys and salivary cotinine for smoking status at baseline, eight months gestation and two months postpartum. Thiocyanate analysis was used to confirm the treatment group quitters.
Results	Significant differences existed between the treatment quit rate at 8 months (32% n=105) and control groups (9% n=103). The 2-month postpartum quit rate was 21% (n=103) for the treatment group and 6% (n=102) for the control.
Limitations	Social support not measured.

4. Author and Year	Emmons et al., 2000
Design	Quasi-experimental historical comparison
Intervention	The first 12 months of the study comprised the usual care phase in which participants received the standard smoking cessation intervention (recommendation to quit smoking). The intervention was delivered by nurses and utilized a motivational interviewing technique, focusing on smoking cessation and the reduction of second hand smoke.
Setting	Low-income women served by the Healthy Baby Program in Boston.
Sample	Usual care n=62; Intervention n=52
Measures and Instruments	Study assessments were conducted at baseline, 6-week prenatal follow up and one month postpartum. Household nicotine levels were measured and a salivary cotinine levels
Results	There were no statistically significant differences in cessation rates between the 2 groups.
Limitations	High attrition rate in the intervention group (48% as compared to 30% for the control. Recruitment of low-income women to a research project is challenging. It is often difficult for "outsiders" to gain trust when doing community research

5. Author and Year	Gielen et al., 1997
Design	RCT
Intervention	Experimental group; usual clinic and inpatient smoking cessation education; brief discussion with nurse about risks of smoking, a recommendation to quit and pamphlets plus 4 components; A Pregnant Woman's Guide to Quit Smoking, a 15 minute counselling session with a peer health counsellor, educational material, and clinic reinforcement and support from RN's and MD's. Control group received usual care.
Setting	Obstetrical care outpatient clinic at the Johns Hopkins Hospital
Sample	N= 391 Women were low income receiving medical assistance. Approximately 85% were African-American

Measures and Instruments	Self-report and biochemical confirmation of smoking status at the third trimester interview using salivary cotinine Questions on advice to quit.
Results	6.2% of the experimental group (n=193) were cotinine confirmed quitters and among the control group (n=198) the quit rate was 5.6%
Limitations	Loss to follow up rate (only able to collect 6 month data on 107 (E=54 and C=53). The data did not allow definitive recommendations

6. Author and Year	Manfredi et al., 2004
Design	Longitudinal study
Intervention	The intervention group received a motivational smoking cessation program, It's Time. It consisted of clinic based minimal interventions delivered by clinic staff (passive exposure to posters, 17 minute video, provider advice to quit, a motivational self-help booklet and a patient-provider Agreement Form), a reminder letter and one time 15- minute telephone counselling call. Control group received usual care.
Setting	Low SES pregnant women attending 12 Public Health Clinics located in Chicago and 2 suburbs
Sample	Six intervention clinics (n=541), six control clinics (n=527).
Measures and Instruments	Pre-intervention measures included demographic and smoking related characteristics and the Action, Motivation and Stage of Readiness Scale. Study outcomes were measured at 2, 6, 12, and 18 months by telephone including; self-reported abstinence, and three scales; Action Towards Quitting, Motivation to Quit, and Stage of Readiness to Quit.
Results	Number of actions toward quitting, motivation, and stages of readiness to quit remained better in the intervention than in the control group up to 18 months. The program effect on abstinence was significant at 2 months but not at 18 months. Smoking cessation outcomes as follows; 2 months C=7.68% I=14.51%, 6 months C=11.49% I=20.15%, 12 months C=17.73% and I=21.50%, and 18 months C=24.21% and I =26.11%
Limitations	Smoking status was not confirmed with a biochemical measure. Self-report bias. Significant attrition bias due to inability to contact women by telephone a common problem among low SES women.

7. Author and Year	Mayer et al., 1990
Design	RCT
Intervention	Pregnant smokers were randomly assigned to one of two self-help smoking cessation programs or usual care. The usual care group received printed information about the risks of smoking during pregnancy and completed the clinic in the traditional manner. The 2 self-help groups consisted of; a multiple component group (MC) and a risk information group (RI) The MC group received a 20- minute one-to-one counselling session which included both risk information (Because I Love My Baby materials and a flip chart used by a health educator to present the information and a printed brochure given to clients to take home) and behaviour change components (Freedom From Smoking program with an individual behavioural contract). The RI intervention was a face- to- face session of 10 minutes duration with a health educator presenting the same information on the flip chart as the MC group, the factual brochure was provided but did not present behavioural change counselling or a self-help manual.
Setting	Low-income pregnant women attending a health department Women, Infants and Children (WIC) Clinic in Michigan.
Sample	N=219 (MC=72, RI=70, UC=77).
Measures and Instruments	A pre-test was completed on baseline. During the postpartum WIC visit the post-test was completed, which included questions about smoking in the final month of pregnancy as well as postpartum. Smoking status was assessed by self-report and salivary thiocyanate. Demographic and health services data were abstracted from the WIC program records.
Results	The multiple components program resulted in a larger quit rates than usual care during the last month of pregnancy (11 % vs. 3%)) and postpartum (7% vs. 0%).
Limitations	Small sample size, lack of complete biochemical verification

8. Author and Year	Ockene et al., 2002
Design	Cross sectional design (part of a larger RCT)
Intervention	Quit Together, a smoking cessation intervention delivered by the pregnant woman's usual caregiver. The study compared the characteristics between spontaneous quitters of smoking during pregnancy and current smokers.
Setting	Low income pregnant women participating in the Special Supplemental Nutrition Program for Women, Infants and Children in the greater Boston area
Sample	N=601 with subjects currently smoking or smoking when they became pregnant.
Measures and Instruments	Baseline interviews included the following measures; Perceived Stress Scale, Mental Health Index-5, and Smoke-Free Families Core Measure. Personal characteristics, substance use and addiction variables, environmental context variables, and behavioural outcomes were assessed. Saliva cotinine verified self-reported smoking status.
Results	Spontaneous cessation of smoking and alcohol use was reported by 28% and 80% of women, respectively; 25% spontaneously quit both and 15% stopped neither. Smoking cessation was less likely in women who had previous births, had a husband or partner who smoked, were born in the U.S., were black, had less than a high school education, were highly addicted, reported lower perceived risk to the fetus, and reported too many problems to stop.
Limitations	Study not generalizable to all low-income women. Cross sectional design therefore cannot infer causality

9. Author and Year	Pbert et al., 2004
Design	Intervention trial
Intervention	Community Health Centres were randomized to either special intervention consisting of provider training to deliver a smoking cessation intervention, an office management system to routinely screen for smoking status, prompt providers to intervene, document the encounter, distribute materials and arrange the follow up and, establishment of program boards to coordinate the transfer of documentation among clinics. Providers were taught common intervention objectives. Usual care consisted of the usual prenatal services received from the WIC program.
Setting	Five Community Health Centres in the greater Boston area receiving Women, Infant and Children's Services (WIC).
Sample	Pregnant women who have low income and are current smokers or had quit with pregnancy. N=601
Measures and Instruments	Data were collected at 5 points; Baseline upon enrolment, 9 month interview before delivery, 1 month post partum within 30 days after delivery, 3 month post partum interview and 6 month postpartum interview. Smoking status confirmed by salivary cotinine at the end of pregnancy, and 1, 3, and 6 months post partum. Measures were collected on personal characteristics, tobacco use variables and smoking outcome measures.
Results	There was a statistically significant difference in the 30-day abstinence rates between SI (26%) and UC (12%) conditions at the end of pregnancy among women who had not quit spontaneously with pregnancy (OR=2.57). This effect remained at 1 month postpartum but was lost at 3 and 6 months postpartum.
Limitations	Intervention did not appear to be delivered as intended due to the "chaotic" environment of the research setting. Low recruitment at one site resulting in the site being dropped from the study.

Appendix C
Overview of Expecting to Quit

Session	Goal	Equipment	Objectives
Class 1 (2 hrs)	**Understand Smoking** To increase participants' knowledge about the effects of smoking and build awareness of their smoking behaviour.	Flip chart, overhead projector, markers, pencils, name tags, masking tape, pack track cards, sugar-free chewing gum, & Participant Handbook	a. Understand nicotine addiction b. Identify why they smoke c. Understand the effects of smoking on their health, their unborn baby and infants d. Know where they are in the stage of change e. Identify what they want to get out of the program
Class 2 (2 hrs)	**Thinking about Quitting** To increase participants' knowledge about the process of quitting smoking and possibly motivate participants to quit or reduce the amount they smoke.	Flip chart, overhead projector, markers, pencils, name tags, sugar-free chewing gum, pack track cards.	a. Know differences between approaches to quitting b. Assess pros and cons of smoking c. Identify 3 benefits of quitting d. Identify personal reasons for quitting e. Identify 3 fears about quitting f. Set a SMART goal h. Develop a reward plan
Class 3 (2 hrs)	**Preparing for the Day You Decide to Quit** To have participants prepare themselves mentally for quitting smoking by identifying and preparing for triggers.	Flip chart, overhead projector, markers, pencils, name tags, masking tape, sugar-free chewing gum, pack track cards,	a. Understand what triggers are and how they can affect smoking cessation b. Identify personal triggers c. Develop strategies to deal with triggers d. Set a SMART goal for next week
Class 4 (2 hrs)	**Developing a Quit Plan** To have participants try to quit/reduce the amount they smoke.	Flip chart, overhead projector, markers, pencils, name tags, masking tape, sugar-free gum, pack track cards.	a. Identify their support network b. Identify what kind of support they need c. Practice dealing with negative people d. Knowledge on how to set a quit date f. Signed a quit contract
Class 5 (2hrs)	**Refining the Plan** To have participants improve upon their quit/reduction plan	Flip chart, overhead projector, markers, pencils, name tags, masking tape, sugar-free gum, pack track cards.	a. Discuss their experience quitting ot reducing tobacco b. Discuss how people reacted to their decisions c. Discuss how to handle slips d. Reassess quit plans e. Set a goal for next week
Class 6 (2 hrs)	**Graduation** To celebrate all the hard work the participants have done over the last 6 weeks.	Certificates Cake Gum	a. Debrief about their quit/reduction attempts b. Firm up quit plans c. ETQ certificate

Appendix D
Ethical Approval

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25 April 2006.

Dr. Anita Gagnon
Royal Victoria Hospital
Room F2.27
687 Pine Avenue West
Montreal Quebec H3A 1A1

RE: IRB Initial Review Number A00-B14-06B

Dear Dr. Gagnon,

On April 24, 2006, the Institutional Review Board provided full Board review to the study entitled, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women".

The Committee raised the following issues for your consideration:

Scientific Protocol

A) Regarding the three subject groups (Healthy Baby Club Mothers, High-social-risk smoking women and Family Resources Centre coordinators): please clarify which objectives will target each group and how the data for the three groups will be interrelated to achieve the study objectives.

B) Clarify recruitment procedures for the 2nd subject group (High-social-risk smoking women). The protocol offers no details for this group.

C) It is to the Committee's understanding that the mature minor doctrine and statutory provisions apply only with regard to therapeutic care and medical treatment, and not to research projects. The *Child, Youth and Family Service Act (CYFSA)* deals with matters of protection of endangered children, and therefore the Committee could not assess the relevance of this statute to the research subjects, nor confirm what the investigator states. Neither the *Children's Law Act* nor the CYFSA make reference to "mature minors" or to "consent to research projects" or to "emancipated" or "married minors" (except at Art. 43 to CYFSA which concerns protection orders; and Art. 65 of the CLA that states that guardianship can be removed *by a court order* if a child marries). It is the Committee's conclusion that children under the age of majority will all need to obtain parental consent to participate in the project and this should be clearly stated in the protocol. The Committee also recommends, as an alternative, to recruit subjects that are strictly 19 and over; again making the necessary revisions in the protocol.

Consent Form

D) Please increase the font size for the consent form.

E) Please provide a consent form for each of the three subject groups ensuring that each form is clear on the varying procedures for each group.

F) Under "Possible Risks, Discomforts or Inconveniences" – The second sentence that begins "You may refuse…" should be placed under a section headed "voluntary participation".

G) Under "Possible Risks, Discomforts or Inconveniences" – the fifth sentence that begins "All information that you provide…" should be placed under the section for 'confidentiality'.

H) Under "Possible Risks, Discomforts or Inconveniences" – please revise the last sentence of this section omitted the word "cost"; cost cannot be truly known for each individual.

This study is provided with ethics approval pending the submission of the requested revisions and appropriate responses to the issues indicated above, and following review by the primary reviewer of the study.

Sincerely,

Serge Gauthier, MD
Chair
Institutional Review Board

Cc: Susan Gillam
A00-B14-06B

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July 11, 2006

Dr. Anita Gagnon
Royal Victoria Hospital
Room F2.27
687 Pine Avenue West
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RE: IRB Initial Review Number A00-B14-06B

Dear Dr. Gagnon,

We have received correspondence in support of the study entitled, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women" which was reviewed at a full Board meeting of the Institutional Review Board on April 24, 2006.

The responses and revisions were found to be acceptable and final ethics approval for the:

- Revised Protocol (June 26, 2006)
- Revised Pregnant and Parenting Women consent form (June 26, 2006)
- Revised Healthy Baby Club Mothers consent form (June 26, 2006)
- Revised Family Resource Centre Coordinators consent form (June 26, 2006)

was provided on July 10, 2006, valid until **April 2007.** The Certificate of Ethical Acceptability is enclosed.

Please note that an IRB acceptable French translation of the approved consent form should be available for the subjects during the consent process.

All research involving human subjects is required to undergo an annual review in accordance with the date of initial approval. It is the responsibility of the investigator to submit a completed application form for Continuing Review to the IRB prior to the expiration of ethics approval. A copy of the Continuing Review form can be found on the IRB's website at: http://www.medicine.mcgill.ca/research/irb/ .

Any modifications or unanticipated developments that may occur to the study prior to the annual review must be reported to the IRB promptly.

The IRB has assigned this study with the following **IRB Study Number: A04-B14-06B.** Please reference this number in all correspondence with our office.

Sincerely,

Serge Gauthier, MD
Chair
Institutional Review Board

cc: Susan Gillam
A04-B14-06B

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CERTIFICATION OF ETHICAL ACCEPTABILITY FOR RESEARCH INVOLVING HUMAN SUBJECTS

The Faculty of Medicine Institutional Review Board (IRB) is a registered University IRB working under the published guidelines of the Tri-Council Policy Statement, in compliance with the Plan d'action ministériel en éthique de la recherche et en intégrité scientifique, (MSSS, 1998) and the Food and Drugs Act (17 June 2001); and acts in accordance with the U.S. Code of Federal Regulations that govern research on human subjects. The IRB working procedures are consistent with internationally accepted principles of good clinical practice.

At a full Board meeting on April 24, 2006, the Faculty of Medicine Institutional Review Board, consisting of:

SERGE GAUTHIER, MD	PAUL BRASSARD, MD
VICTOR COHEN, MD	MARYLNNE GURSKY, BN, M.ED.
MARIGOLD HYDE, BSC	PETR KAVAN, MD
LARA KHOURY, LL.B., BCL, D. PHIL	HARVEY SIGMAN, MD

SALLY TINGLEY, BCOM

Examined the research project **A04-B14-06B** entitled **"Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women"**

As proposed by: Anita Gagnon (Applicant) to _____ (Granting Agency, if any)

And consider the experimental procedures to be acceptable on ethical grounds for research involving human subjects.

July 11, 2006
Date

Chair, IRB

Dean of Faculty

Institutional Review Board Assurance Number: FWA 00004545

McGill

Faculty of Medicine
3655 Promenade Sir William Osler
Montreal, QC H3G 1Y6

Faculté de médecine
3655, Promenade Sir William Osler
Montréal, QC, H3G 1Y6

Fax/Télécopieur: (514) 398 3595

April 24, 2007

Dr. Anita Gagnon
Royal Victoria Hospital
Room F2.27
687 Pine Avenue West
Montreal Quebec H3A 1A1

RE: IRB Initial Review Number A04-B14-06B

Dear Dr. Gagnon,

We are writing in response to your request for continuing review for the study **A04-B14-06B** entitled, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women".

The progress report was reviewed and we are pleased to inform you that full Board re-approval for the study was provided on **April 23, 2007** valid until **April 22, 2008**. The certification of annual review has been enclosed.

We ask that you take note of the investigator's responsibility to assure that the current protocol and consent document are deposited on an annual basis with the Research Ethics Board of each hospital where patient enrolment or data collection is conducted.

Should any modification or unanticipated development occur prior to the next review, please advise the IRB promptly.

Yours sincerely,

Serge Gauthier, MD
Chair
Institutional Review Board

cc: Susan Gillam
A04-B14-06B

McGill

Faculty of Medicine
3655 Promenade Sir William Osler
Montreal, QC H3G 1Y6

Faculté de médecine
3655, Promenade Sir William Osler
Montréal, QC, H3G 1Y6

Fax/Télécopieur: (514) 398-3595

April 29, 2008

Dr. Anita Gagnon
Royal Victoria Hospital
Room F2.27
687 Pine Avenue West
Montreal Quebec H3A 1A1

RE: IRB Initial Review Number A04-B14-06B

Dear Dr. Gagnon,

We are writing in response to your request for continuing review for the study **A04-B14-06B** entitled, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women".

The progress report was reviewed and we are pleased to inform you that full Board re-approval for the study was provided on **April 28, 2008,** valid until **April 27, 2009**. The certification of annual review has been enclosed.

We ask that you take note of the investigator's responsibility to assure that the current protocol and consent document are deposited on an annual basis with the Research Ethics Board of each hospital where patient enrolment or data collection is conducted.

Should any modification or unanticipated development occur prior to the next review, please advise the IRB promptly.

Yours sincerely,

Serge Gauthier, MD
Chair
Institutional Review Board

cc: Susan Gillam
A04-B14-06B

July 11, 2006

Ms. Susan Gillam
Chief Executive Officer
Western Regional Integrated Health Authority
Corner Brook, NL
A2H 6J7

Dear Ms. Gillam,

Re: Expecting to Quit: An implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women

The Research Ethics Board met on July 11, 2006 and reviewed all documents related to the above study. I have received the recommendations of the Western Health Research Ethics Board and am pleased to advise you that this study has been approved with the following recommendations and clarifications:

1. In Appendix M, Consent for Pregnant or Parenting Women, under Voluntary Participation- "you may stop the focus group at any time" should be changed to "you may leave the focus group at any time". The participant may think they can actually stop the focus group as opposed to making a personal decision to leave while the focus group continues.
2. In Appendix Q, Demographics and Smoking History, a statement should be included that advises the participants that they do not have to answer all questions if they are not comfortable with them.
3. Audiotapes for research purposes have to be retained for a 5 year period to maintain research integrity. Although this is not legislated, many Research Ethics Boards are stipulating that source data be maintained for a specified time period as agreed upon by each individual board. For example, the Human Investigation Committee in St. John's requires researchers to retain source data for a 5 year period.
4. In Appendix L, Verbal Explanation of Research by Family Resource Centre Coordinator, there was some discussion regarding the introduction. Members thought that within the introduction should be a statement regarding the fact that you are no longer a clinical nurse but in administration at Western Health. Participants may feel as though they have been mislead if they find out in the future that you are actually the Chief Executive Officer (CEO) at Western Health. The REB also recognised that potential participants may feel coerced or intimidated into participating in the study if they know you are the CEO, and so recommended stating that you now hold an administrative position.

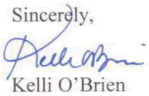
Please provide clarification regarding the following concerns:

1. In Appendix M, Consent for Pregnant or Parenting Women, under Voluntary Participation- please provide clarification regarding the compensation. For example, if the woman does not have children, will she still receive $40.00? Will this be the total amount of compensation including travel, childcare, and other expenses related to participating in the study?
2. Please clarify whether this program is currently implemented within the Health Baby Clubs in Western Newfoundland or if you will be implementing this program.
3. Please clarify how literacy issues will be addressed specifically with the informed consent. As one of the criteria for inclusion is low educational status, there were concerns regarding whether the participants would understand the information provided within the informed consent.

Please respond in writing to the Research Ethics Board, C/O Darlene Hutchings, Regional Research Coordinator/Planner, SD. Cook. If you have any questions or concerns, please contact Darlene Hutchings, Regional Research Coordinator/Planner at 709-637-5000 (ext. 6389).

We wish you the best of luck with your project.

Sincerely,



Kelli O'Brien
VP~ Quality Management and Research
On behalf of the
Research Ethics Board

• Research Ethics Board • P. O. Box 2005 • Corner Brook, NL • A2H 6J7 •
• Telephone: 709-637-5000 (Ext. 6389) • Facsimile: 709-637-5226 •
• Web Site: www.westernhealth.nl.ca •

Western Health

September 7, 2006

Ms. Susan Gillam
Chief Executive Officer
Western Regional Integrated Health Authority
Corner Brook, NL
A2H 6J7

Dear Ms. Gillam,

Re: Expecting to Quit: An implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women

The Western Health Research Ethics Board (REB) met on September 6, 2006 and reviewed your responses to issues identified by the members of the board at the July 11th meeting. I am pleased to advise you that the above study has been approved by the REB.

We wish you the best of luck with your study. Should you have any further questions or concerns, please contact Darlene Hutchings, Regional Research Coordinator/Planner at 709-637-5000 (ext. 6389).

Sincerely,

Lisa Hoddinott
VP~ Quality Management and Research
On behalf of the
Research Ethics Board

• Research Ethics Board • P. O. Box 2005 • Corner Brook, NL • A2H 6J7 •
• Telephone: 709-637-5000 (Ext. 6389) • Facsimile: 709-637-5226 •
• Web Site: www.westernhealth.nl.ca •

Appendix E
Recruitment Poster

SMOKING CESSATION IS HERE FOR YOU

The Right Program, When and
Where You Need It
Better Access to a Smoking Cessation Program
"Expecting to Quit'

New Approach for
SMOKING CESSATION
Improved Services at the
Healthy Baby Club

Focus on Healthy Living
Promoting Smoking Cessation
Healthy Lifestyles

TAKING CARE OF YOU AND YOUR BABY
For further information on "Expecting to Quit" contact your Healthy Baby Club
(709) 634-2316 or Susan Gillam McGill University (709)785-5463

Appendix F
Explanation of Study to Participants by Managers

Susan Gillam is a nurse working in health care administration and a PhD student at McGill University. She will be doing research with the Healthy Baby Clubs. She is interested in evaluating the smoking cessation program, Expecting to Quit. Susan would like to talk to you about participating in the research study. May I provide her with your name so that she can speak with you and provide you with information about the research? Then you can decide if you want to take part in the research study.

Appendix G
Consent Pregnant and Parenting Women

McGill University, Montreal, Quebec
Client Information Letter and Consent Form
Title: *Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women*

Principal Investigator: Susan Gillam, RN, Ph.D. Candidate McGill University
Thesis Supervisor: Anita Gagnon, R.N. Ph.D. McGill University
Study Site: Healthy Baby Clubs
Western Newfoundland

Introduction
This study will be conducted in five Healthy Baby Clubs (HBC) in western Newfoundland and will evaluate the implementation of *Expecting to Quit*, a smoking cessation program for pregnant and parenting women. *Expecting to Quit* consists of six two-hour group sessions, which will be incorporated into the existing programs of the HBC. Pregnant and parenting women are being invited to participate in the study and to share their perspectives on smoking cessation programs for pregnant and parenting women. The purpose of this study is to conduct an implementation evaluation of a smoking cessation program, *Expecting to Quit.*

Study Procedures
Pregnant and parenting smoking women will be invited to participate in a focus group of approximately 90 minutes, to share their thoughts on smoking cessation programs. Pregnant and parenting smoking women will be invited to participate in the smoking cessation program, *Expecting to Quit,* consisting of six two-hour sessions. Pregnant and parenting women will be invited to participate in a focus group following participation in the program to share their experiences of program participation. The focus group is anticipated to be approximately 90 minutes.

Benefits of Participation
You may not benefit from participating in the study. However, your participation may help gain knowledge about smoking cessation programs for pregnant and parenting women. Additionally, the study will provide important information about the implementation evaluation of the program, *"Expecting to Quit*".

Possible Risks, Discomforts, or Inconveniences
There are no expected risks from participating in this study however, participants will be provided with a list of available health and community services professionals if health and social issues are identified during the course of the study. Your participation in this study may be stopped if you feel it is in your best interest. An inconvenience of participating in the study may be your time to attend the smoking cessation program and/or the focus groups.

Voluntary Participation
You may refuse to answer any questions that make you feel uncomfortable and you may leave the focus group at any time. If you are attending the smoking cessation program you may stop attending at any time.

Withdrawal from the Study
Your decision of whether or not to participate will not affect your care or services provided at the Healthy Baby Clubs, now or in the future. If you decide to participate, you may also decide to withdraw your consent and participation in the study at any time without explanation or notice.

Compensation
You will not receive compensation for participating in the study. Participants attending the smoking cessation program, Expecting to Quit will receive $40.00 compensation for costs incurred for childcare and travel with $20 given at the first and fourth class. Childcare costs in NL are approximately $5/hour

Participant's Rights
Your participation in this study is entirely voluntary. You may ask questions or request information at any time during the study.

Confidentiality and Anonymity
Your name will not appear on any of the questionnaires or data sheets used in this study. All personal information will be assigned a code number to ensure your anonymity. All information that you provide will be kept strictly confidential and secured in a locked filing cabinet and available only to the principle investigator and members of the investigative team. Your consent will be received to audiotape the focus group. The audio-tape of the focus group will be destroyed five years following the end of the study. Participants will be instructed at the beginning of each focus group that all information shared is to be kept confidential, however confidentiality and anonymity of group discussions cannot be guaranteed.

Liability Statement
Your signature indicates your consent to participate in the research study. In no way does this waive your legal rights nor release the investigators or involved agencies from their legal and professional responsibilities.

Other Relevant Information
Findings of this study will be made available to you upon request. Findings will be published but you will not be identified. The investigator, Susan Gillam will be available to you throughout the study to address any questions or concerns. If you require further information on the study, she can be reached at (709) 785-5463 or by email at susangillam@westernhealth.nl.ca.

Participant's Rights
I agree that the research study and consent form has been explained to me and that all of my questions have been answered.

The following rights have been explained to me:

1. I have the right to ask questions at any time
2. My participation is voluntary. Refusal to participate will not affect my care or my family's care in any way
3. I have the freedom to withdraw from the study at any time, and it will not affect the care received by the Healthy Baby Club
4. I will not be required to answer any question I am uncomfortable with

5. The information I share will be kept confidential
6. I have been given a copy of the signed and dated consent form.

A: Consent Signatures

Participant's Name (capital letters) Signature
Date

Researcher's/Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

B: Assent and Consent for participation of Minor Child:
Assent of Minor Child

Minor Participant's Name (capital letters) Signature
Date

Relationship to Parent/Guardian named below: Age:

Researcher's/Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

Parental/Guardian Consent

Parent/Guardian's Name (capital letters) Signature
Date

Researcher's/Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

C: Consent for audio-taping during focus group:

Participant's Name (capital letters) Signature
Date

Researcher's /Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

D. Consent for audio-taping during focus group for a minor child:
Assent of Minor Child

Minor Participant's Name (capital letters) Signature
Date

Relationship to Parent/Guardian named below: Age:

Researcher's/Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

Parental/Guardian Consent

Parent/Guardian's Name (capital letters) Signature
Date

Researcher's/Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date
Would you like a copy of the summary of the findings when they are completed?
Yes No

Mailing address to send summary of findings:

Appendix H
Consent Managers

McGill University, Montreal, Quebec
Client Information Letter and Consent Form

Title: *Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women*

Principal Investigator: Susan Gillam, RN, Ph.D. Candidate McGill University

Thesis Supervisor: Anita Gagnon, R.N. Ph.D. McGill University
Study Site: Healthy Baby Clubs
Western Newfoundland

Introduction
This study will be conducted in five Healthy Baby Clubs (HBC) in western Newfoundland and will evaluate the implementation of *Expecting to Quit*, a smoking cessation program for pregnant and parenting women. *Expecting to Quit* consists of four two-hour group sessions, which will be incorporated into the existing programs of the HBC. Family Resource Center Coordinators are being invited to participate in the study and to share their perspectives on smoking cessation programs for pregnant and parenting women. The purpose of this study is to conduct an implementation evaluation of a smoking cessation program, *Expecting to Quit.*

Study Procedures
Interviews will be held with the Family Resource Center Coordinators and are anticipated to be from 30 to 60 minutes.

Benefits of Participation
You may not benefit from participating in the study. However, your participation may help gain knowledge about smoking cessation programs for pregnant and parenting women. Additionally, the study will provide important information about the implementation evaluation of the program, *"Expecting to Quit*".

Possible Risks, Discomforts, or Inconveniences
There are no expected risks from participating in this study however, participants will be provided with a list of available health and community services professionals if health and social issues are identified during the course of the study. An inconvenience of participation in the study may be your time to attend the interviews.

Voluntary Participation
You may refuse to answer any questions that make you feel uncomfortable and you may stop the interview at any time. Your participation in this study may be stopped if you feel it is in your best interest.

Withdrawal from the Study
If you decide to participate, you may also decide to withdraw your consent and participation in the study at any time without explanation or notice.

Compensation
You will not receive compensation for participating in the study.

Participant's Rights

Your participation in this study is entirely voluntary. You may ask questions or request information at any time during the study.

Confidentiality and Anonymity

Your name will not appear on any of the questionnaires or data sheets used in this study. All personal information will be assigned a code number to ensure your anonymity. All information that you provide will be kept strictly confidential and secured in a locked filing cabinet and available only to the principle investigator and members of the investigative team. Your consent will be received to audiotape the interview. The audio-tape of the interview will be destroyed five years following the end of the study.

Liability Statement

Your signature indicates your consent to participate in the research study. In no way does this waive your legal rights nor release the investigators or involved agencies from their legal and professional responsibilities.

Other Relevant Information

Findings of this study will be made available to you upon request. Findings will be published but you will not be identified. The investigator, Susan Gillam will be available to you throughout the study to address any questions or concerns. If you require further information on the study, she can be reached at (709) 785-5463 or by email at susangillam@westernhealth.nl.ca.

Participant's Rights

I agree that the research study and consent form has been explained to me and that all of my questions have been answered.

The following rights have been explained to me:

1. I have the right to ask questions at any time
2. My participation is voluntary.
3. I have the freedom to withdraw from the study at any time.
4. I will not be required to answer any question I am uncomfortable with
5. The information I share will be kept confidential
6. I have been given a copy of the signed and dated consent form.

A: Consent Signatures

Participant's Name (capital letters) Signature
Date

Researcher's/Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

B: Consent for audio-taping during interviews:

Participant's Name (capital letters) Signature
Date

Researcher's /Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

Would you like a copy of the summary of the findings when they are completed?
Yes No

Mailing address to send summary of findings:

Appendix I
Interview Questionnaire: Managers

Hi I am Susan Gillam a nurse working in health care administration and a student in the PhD program in nursing at McGill University. I am conducting a research study, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women."

The purpose of the interview is to get information that will help improve the smoking cessation program, "Expecting to Quit." As a Family Resource Coordinator you are in an important position to identify your expectations of the smoking cessation program, "Expecting to Quit" and how it affects smoking cessation among pregnant and parenting women who attend Healthy Baby Clubs. The interview is about your thoughts and expectations on smoking cessation programs to help pregnant and parenting women stop smoking.

The information from the interview will be used as a part of a research study. Nothing you say will ever identify you personally. The interview will be tape recorded, with the tapes destroyed five years after the end of the study. You name will not appear on the notes transcribed from the audiotapes. As we go through the interview if you have any questions about why I am asking you something, please feel free to ask. Or if there is something that you do not want to answer, just say so. The purpose of the interview is to get your insights about smoking cessation programs. We are expecting the interview to be about ½ to 1 hour.

Any questions before we begin?

1. Please tell me about your Healthy Baby Club and describe what you offer in smoking cessation prevention and counseling for pregnant and parenting women.
2. Tell me about your program priorities for the Healthy Baby Club.
3. Describe your role in offering a new program such as a smoking prevention program for pregnant and parenting women.
4. Describe an "ideal" smoking cessation program. Prompt; length, time, content
5. What do you see as benefits to offering a smoking cessation program to women attending Healthy Baby Clubs?

6. Please tell me about what you hope to accomplish by having the smoking cessation program, "Expecting to Quit" offered at the Family Resource Center.
7. Describe what you would identify as indicators of a successful implementation of "Expecting to Quit."
8. Describe what you feel would facilitate participation in a smoking cessation program for pregnant and parenting women?
9. Tell me about issues that need to be considered in improving the smoking cessation services provided to women attending the Healthy Baby Clubs.
10. Describe what you see as things that would prevent you from offering smoking cessation programs in the Healthy Baby Clubs.
11. Is there anything else that you would like to share with me?
12. Other questions or comments?

Probes (examples)

1. Could you say some more about that?
2. I'd appreciate it if you could give me more detail.
3. Why do you think that happened?

Follow-up Interview with Managers:

The participants will be given a copy of their interview transcript to review. The follow questions will be asked:

1. Does the transcript accurately reflect what you told me?
2. Are there any changes that you would like to make?
3. Would you like to add anything to the interview?

Appendix J
Consent Healthy Baby Club Mothers

McGill University, Montreal, Quebec
Client Information Letter and Consent Form

Title: *Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women*
Principal Investigator: Susan Gillam, RN, Ph.D. Candidate McGill University
Thesis Supervisor: Anita Gagnon, R.N. Ph.D. McGill University
Study Site: Healthy Baby Clubs
Western Newfoundland

Introduction
This study will be conducted in five Healthy Baby Clubs (HBC) in western Newfoundland and will evaluate the implementation of *Expecting to Quit*, a smoking cessation program for pregnant and parenting women. *Expecting to Quit* consists of six two-hour group sessions, which will be incorporated into the existing programs of the HBC. Healthy Baby Club Mothers are being invited to participate in the study and to share their perspectives on smoking cessation programs for pregnant and parenting women. The purpose of this study is to conduct an implementation evaluation of a smoking cessation program, *Expecting to Quit.*

Study Procedures
Healthy Baby Club Mothers will participate in a seven-hour training session on Expecting to Quit, and a pre and post training interview and training evaluation anticipated taking 30 minutes. Two focus groups will be held with HBC Mothers, one prior to delivering the smoking cessation program and one after the program is implemented. The focus groups are anticipated to be approximately 90 minutes.

Benefits of Participation
You may not benefit from participating in the study. However, your participation may help gain knowledge about smoking cessation programs for pregnant and parenting women. Additionally, the study will provide important information about the implementation evaluation of the program, *"Expecting to Quit.*"

Possible Risks, Discomforts, or Inconveniences
There are no expected risks from participating in this study however, participants will be provided with a list of available health and community services professionals if health and social issues are identified during the course of the study. The inconvenience of participation in the study may be your time to attend the interviews, focus groups or smoking cessation program training.

Voluntary Participation
You may refuse to answer any questions that make you feel uncomfortable and you may stop the interview at any time. You may leave the focus group at any time. Your participation in this study may be stopped if you feel it is in your best interest.

Withdrawal from the Study
If you decide to participate, you may also decide to withdraw your consent and participation in the study at any time without explanation or notice.

Compensation
You will not receive compensation for participating in the study.

Participant's Rights
Your participation in this study is entirely voluntary. You may ask questions or request information at any time during the study.

Confidentiality and Anonymity
Your name will not appear on any of the questionnaires or data sheets used in this study. All personal information will be assigned a code number to ensure your anonymity. All information that you provide will be kept strictly confidential and secured in a locked filing cabinet and available only to the principle investigator and members of the investigative team. Your consent will be received to audiotape the interview and/or focus groups. If the interview or focus group is audio-taped the tape will be destroyed five years following the end of the study. Participants will be instructed at the beginning of each focus group that all information shared is to be kept confidential, however confidentiality and anonymity of group discussions cannot be guaranteed.

Liability Statement
Your signature indicates your consent to participate in the research study. In no way does this waive your legal rights nor release the investigators or involved agencies from their legal and professional responsibilities.

Other Relevant Information
Findings of this study will be made available to you upon request. Findings will be published but you will not be identified. The investigator, Susan Gillam will be available to you throughout the study to address any questions or concerns. If you require further information on the study, she can be reached at (709) 785-5463 or by email at susangillam@westernhealth.nl.ca.

Participant's Rights
I agree that the research study and consent form has been explained to me and that all of my questions have been answered.
The following rights have been explained to me:

1. I have the right to ask questions at any time
2. My participation is voluntary.
3. I have the freedom to withdraw from the study at any time.
4. I will not be required to answer any question I am uncomfortable with
5. The information I share will be kept confidential
6. I have been given a copy of the signed and dated consent form.

A: Consent Signatures

Participant's Name (capital letters) Signature
Date

Researcher's/Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

B: Consent for audio-taping during interviews and focus groups:

Participant's Name (capital letters) Signature
Date

Researcher's /Research Assistant's Name (capital letters) Signature
Date

Witness's Name (capital letters) Signature
Date

Would you like a copy of the summary of the findings when they are completed?
Yes No

Mailing address to send summary of findings:

Appendix K
Training Session on Expecting to Quit

Training Agenda
September 2006
930 am to 5 pm

1. Welcome and Introductions	15 minutes
2. Review of Course Expectations	15 minutes
3. Overview of Adult Learning Principles	1 hour
4. Review of Smoking Cessation Needs of Pregnant Women	1 hour
5. Review of Expecting to Quit classes Class 1: Understanding smoking Class 2: Thinking about quitting Class 3: Preparing for the day you decide to quit Class 4: Developing a quit plan Class 5: Refining the plan Class 6: Graduation	3 hours
6. Problem Solving Attendance Lists	1 hour
7. Review of Course Expectations and Next Steps	15 minutes
8. Conclusion	15 minutes

Petries Street
Corner Brook, NL
A2H 3M1

Dear [Healthy Baby Club Mother]

Thank you for your interest in and agreement to participate in the training session, Expecting to Quit: A Smoking Cessation Program for Pregnant and Parenting Women. The training session is a component of the research project, *"Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women,"* being conducted by Susan Gillam, a nurse and PhD Candidate at McGill University.

The agenda for the training session is attached. It is scheduled for September [date] 2006 from 930 am to 5 pm and will be held at [place]. Lunch and refreshments will be provided. Ms Carol Anne Wight will be facilitating the training session. Ms Wight is a social worker and addictions counselor and has extensive experience in group facilitation and smoking cessation programs. A copy of the smoking cessation program is enclosed for your review prior to the training session.

I look forward to working with you on this important research project. If you have questions I would be glad to answer them. I can be reached at (709) 785-5463. Again, thank you for your interest in and commitment to Expecting to Quit.

Sincerely

Susan Gillam PhD (c)
McGill University

Appendix L
Evaluation of Training on Expecting to Quit

In general, the program…	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Has more advantages than disadvantages					
Is a useful tool to help women think about the pros of quitting					
Is a useful tool to motivate people to quit smoking					
Provide me with an opportunity to improve my performance in smoking prevention					
Helps me address smoking behaviour in a systematic way					
Helps me address smoking cessation in an easier and more pleasant way					
Is more effective in reducing smoking than usual care					
Is an improvement compared with the normal smoking cessation approach I use					
Emphasizes people's own responsibility for their smoking behaviour					
Is congruent with my present working methods					
Is feasible in my daily work					
Is flexible and easy to adjust to daily practice					
The program is easy to understand					
The program is easy to use					
I have had enough instruction on the program					
The training has prepared me to provide the program to women attending the Healthy Baby Clubs					

Comments:

Adapted from: A questionnaire in Bolman, C., de Vries H., & Mesters, I. (2002). Factors determining cardiac nurses' intentions to continue using a smoking cessation protocol. *Heart and Lung, 31*(1), 15-24.

Appendix M
Knowledge, Attitudes and Beliefs Questionnaire: Healthy Baby Club Mothers

Please respond to the following statements about your attitude towards smoking.

1. Pregnant women should be encouraged to stop smoking.
2. Information about smoking cessation should be provided to women attending Healthy Baby Clubs
3. Healthy Baby Clubs Mothers should inform pregnant women about the dangers of smoking.
4. I am uncomfortable when I see pregnant women smoking.

Please comment on the following statements about your knowledge about smoking and pregnant women:

1. Many pregnant women stop smoking when they find out they are pregnant.
2. There is little difference in the weight of babies born to women who smoke compared to the baby's born to non-smokers.
3. It is easy to quit smoking.

Please respond to the following statements about your beliefs about smoking and pregnancy.

1. A smoking cessation program should be offered in the Healthy Baby Club.
2. Pregnant women should be encouraged to stop smoking.
3. Smoking is dangerous to the health of pregnant women.
4. Smoking during pregnancy has lasting effects on the health of babies.
5. I need to do more to encourage smoking cessation during pregnancy.

Adapted from: Spear, H.J. (2004). Nurses' attitudes, knowledge, and beliefs related to the promotion of breastfeeding among women who bear children during adolescence. *Journal of Pediatric Nursing, 19*(3), 176-183.

Appendix N
Socio-demographics and Smoking Behaviour Questionnaires

Please answer the following questions. You may refuse to answer any question that you are not comfortable answering.

Demographics[1]	
Characteristic	**Characteristic**
1. Marital Status	**2. Age**
Couple Family	
Lone Parent Family	**4. Income**
	Less than $5,000
3. Employment	$5,000 to $9,999
Working Full Time	$10,000 to $14,999
Working Part Time	$15,000 to $19,999
Unemployed	$20,000 to $24,999
	$25,000 to $29,999
Education Level	$30,000 to $34,999
Less than grade 9	$35,000 to $39,999
Grade 9 to 12	$40,000 to $44,999
Finished high school	$45,000 to $49,999
Some trade school	$50,000 to $59,999
Finished trade school	$60,000 or more
Some university	
Finished university	

1. **www.community** accounts.ca

Smoking History[2]	
Characteristic	**Characteristic**
1. Do you smoke?	**2. If yes, how long have you smoked cigarettes?**
Yes	Less than two years
No	Two to four years
Former Smoker	Four years or more
3. How many cigarettes do you smoke a day?	**4. Smoking Status during pregnancy***
	Quit and stayed non-smoking
5. Has the number of cigarettes you smoke a day during pregnancy:*	Quit but restarted smoking
Stayed the same	Cut down
Increased	No change
Decreased	
6. Do you plan to quit smoking?	
Yes – In the next month	
Yes – In the next six months	
No	

* Questions for high-social-risk women only

[2] Adapted from: Valaris, B., Lichtenstein, E., Mullooly, J.P., Labuhn, K., et al. (2001). Maternal smoking cessation and relapse prevention during health care visits. *American Journal of Preventative Medicine, 20*(1), 1-8.

Appendix O
Focus Group Interview
Healthy Baby Club Mothers Pre-implementation Expecting to Quit

Hi we are [Names], Research Assistants with the research project, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women".

The purpose of the discussion is to identify factors that can support the successful implementation of the smoking cessation program, "Expecting to Quit."As Healthy Baby Mothers you are in an important position to describe factors that support smoking cessation programs and to identify barriers to the program being successfully implemented. The interview is about your thoughts on smoking cessation.

The information from the focus group will be used as a part of a research project conducted by Susan Gillam. Susan is a nurse working in health care administration and is a student in the PhD program at McGill University. Nothing you say will ever identify you personally. The discussion will be tape recorded, with the tapes destroyed five years after the end of the study. You name will not appear on the notes transcribed from the audiotapes. As we go through the focus group if you have any questions about why we are asking you something, please feel free to ask. Or if there is something that you do not want to answer, just say so. We are expecting the focus group to be about 1 1/2 hours.

Any questions before we begin?

1. Please tell us about your experience in providing smoking cessation education to the women attending the Healthy Baby Clubs? Other experience with smoking cessation programs?
2. Tell us about the training you have received on smoking cessation.
3. Describe for us your thoughts regarding your preparation in smoking cessation education.
4. Describe for us the "ideal" training and education that you feel is needed for Healthy Baby Club Mothers to deliver smoking cessation programs.
5. Describe what you feel is necessary to support the successful implementation of the smoking cessation program, "Expecting to Quit."

6. Tell us about issues that need to be considered in improving the smoking cessation services provided to women attending the Healthy Baby Clubs.
7. Tell us about the barriers (potential or actual) to providing smoking cessation programs to women attending Healthy Baby Clubs.
8. Is there anything else that you would like to share with us?
9. Other comments or questions?

Probes (examples)

1. Could you say some more about that?
2. We'd appreciate it if you could give us more detail.

Appendix P
Focus Group Interview
Healthy Baby Club Mothers Post-implementation Expecting to Quit

Hi we are [Names], Research Assistants with the research study, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women."

The purpose of the discussion is to identify factors that supported the successful implementation of the smoking cessation program, "Expecting to Quit" and to discuss the planned versus actual implementation of the program. As Healthy Baby Club Mothers you are in an important position to describe what the program does and how it affects pregnant and parenting women. The interview is about your experiences with the program and your thoughts about your experiences.

The information from the interview will be used as a part of a research study conducted by Susan Gillam. Susan is a nurse working in health care administration and is a student in the PhD program at McGill University. Nothing you say will identify you personally. The interview will be tape recorded, with the tapes destroyed five years after the end of the study. You name will not appear on the notes transcribed from the audiotapes. As we go through the interview if you have any questions about why I am asking you something, please feel free to ask. Or if there is something that you do not want to answer, just say so. We are expecting the focus group to be about 1 1/2 hours.

Any questions before we begin?

1. Tell us about your experience in providing the program, "Expecting to Quit."
2. Please describe for us how you implemented the smoking cessation program, "Expecting to Quit."
3. Describe how the actual implementation differed from the planned implementation.
4. Did you feel prepared to offer smoking cessation education to the women attending "Expecting to Quit?" Why or why not?

5. What did you consider to be indicators of success for the smoking cessation program?
6. Tell us about the outcomes of the smoking cessation program.
7. Was there anything that happened with the program that you didn't expect to happen?
8. Tell us what you found supported the implementation of the smoking cessation program, "Expecting to Quit."
9. What are your recommendations for improvement to the program, "Expecting to Quit?"
10. Tell us about the difficulties, if any, in providing the program.
11. Would you recommend the program to other Health Baby Clubs? Why or why not?
12. Is there anything else that you would like to share with us?
13. Other questions?

Probes (examples)

1. Could you say some more about that?
2. I'd appreciate it if you could give us more detail.

Appendix Q
Focus Group Interview
Pregnant and Parenting Women Pre-implementation Expecting to Quit

Hi we are [Names], Research Assistants with the research project, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women."

The purpose of the discussion is to get information that will help improve the smoking cessation program, "Expecting to Quit." As a pregnant or parenting woman you are in an important position to talk about a smoking cessation programs that works and how it affects women. The interview is about your ideas on smoking cessation programs to help pregnant and parenting women stop smoking.

The information from the discussion will be used as a part of a research study conducted by Susan Gillam. Susan is a nurse working in health care administration and is a student in the PhD program in nursing at McGill University. Nothing you say will ever identify you. The discussion will be tape recorded, with the tapes destroyed five years after the end of the study. You name will not appear on the notes typed from the tapes. As we go through the discussion if you have any questions about why I am asking you something, please feel free to ask. Or if there is something that you do not want to answer, just say so. The purpose of the interview is to get your thoughts about stopping smoking. We are expecting the discussion to be about 1 1/2 hours.
Any questions before we begin?

1. Please tell us about your experiences with programs to stop smoking?
2. Describe for us what would be helpful to you to stop smoking?
3. Describe for us the "ideal" smoking cessation program. Prompt; length, time, content.

4. The smoking cessation program, “Expecting to Quit” has six classes and covers things such as understanding smoking and quitting, preparing for quitting, understanding stress and making your home smoke free. What are your feelings regarding this program and the classes that we have described?
5. Describe what you see as necessary to support you to attend, “Expecting to Quit.”
6. Tell us about things that need to be done to improving the services to stop smoking for women attending the Healthy Baby Clubs.
7. Describe for us what you see as things that prevent you from stopping smoking?
8. Tell us about the things that stop you from attending a program to stop smoking.
9. Is there anything else that you would like to share with us?
10. Other questions or comments?

Probes (examples)
1. Could you say some more about that?
2. We’d appreciate it if you could give us more detail.
3. Why do you think that happened?

Appendix R
Focus Group Interview
Pregnant and Parenting Women Post-implementation Expecting to Quit

Hi we are [Names], Research Assistants with the research project, "Expecting to Quit: An Implementation Evaluation of a Smoking Cessation Intervention for Pregnant and Parenting Women."

The purpose of the discussion is to get information that will help improve the smoking cessation program, "Expecting to Quit."As someone who has been in the "Expecting to Quit" program, you are in an important position to describe what the smoking cessation program does and how it affects women. The discussion is about your experience with the program and your thoughts about your experience.

The information from the discussion will be used as a part of a research study conducted by Susan Gillam. Susan is a nurse working in health care administration and is a student in the PhD program in nursing at McGill University. Nothing you say will ever identify you personally. The discussion will be tape recorded, with the tapes destroyed five years after the end of the study. You name will not appear on the notes typed from the tapes. As we go through the discussion if you have any questions about why I am asking you something, please feel free to ask. Or if there is something that you do not want to answer, just say so. We are expecting the discussion to be about 1 1/2 hours.

Any questions before we begin?

1. Please tell us about your experience in attending "Expecting to Quit."
2. Describe what you found supported you to attend, "Expecting to Quit."
3. Describe what you would like the program to do differently to assist you in stopping smoking.
4. Tell us about things that need to be thought about to improve the services to stop smoking provided to women attending the Healthy Baby Clubs.
5. Would you recommend the program to other women? Why or why not?

6. Was there anything that happened to you while attending the program that you didn't expect to happen?
7. Tell us about the things that made it difficult for you to attend, "Expecting to Quit."
8. What could be done to make it easier for you to take part in, "Expecting to Quit?"
9. Is there anything else that you would like to share with us?
10. Other questions?

Probes (examples)

1. Could you say some more about that?
2. I'd appreciate it if you could give us more detail.
3. Why do you think that happened?

Appendix S
Narrative Description of Healthy Baby Clubs

I. Healthy Baby Club 1

Healthy Baby Club 1, located in a rural community in western Newfoundland, provides programs to 28 rural communities with a population base of 15,480 people (www.communityaccounts.ca). The organization has a main center with nine satellite sites that provide services to outlying communities. The staff complement includes an Executive Director, a secretary, an HBC Mother, a Family Resource Educator, a part-time Parent Program Coordinator and four full-time staff with dual-roles of providing early childhood education and HBC programming. Provincial operating funding is received through the National Child Benefit program. The organization was established in 1999 and is governed by an 11-member elected board of directors consisting of five family and six community representatives. The organization has a strategic plan including vision and mission statements.

The HBC provides pre- and post-natal education and support to high-social-risk women, including home visiting and group education sessions. Food supplementation during pregnancy is provided. Assistance with child care and transportation is available. Educational programs are provided for children up to six years of age and their parents. The educational programs vary and may include literacy, toy lending, nutrition, child development and parenting.

The community has the amenities of a small town including grocery stores, restaurants, a shopping area, physician offices, pharmacies, a community health center, a community ambulance service, churches, schools, and recreation

facilities such as a skating rink, a swimming pool, a bowling alley, and exercise facilities. A regional airport is located in the town. The community is located approximately 50 kilometers from a regional hospital. There is no public transportation system, although a taxi service is available.

1I. Healthy Baby Club 2

A rural community located in western Newfoundland is the site of HBC 2. Federal funding is provided through the Canadian Prenatal Nutrition Program and the Community Action Program for Children, and provincial funding through the Early Child Development Initiative. The organization was established in 1993. Services are provided to 70 rural and remote communities with a population of 39,000 people (www.communityaccounts.ca). The organization has a main center and 13 satellite sites; HBC 2 is located in a satellite office. The main office is staffed by a program director, secretary, and an Early Childhood Educator. Healthy Baby Club 2 has a dual-role HBC and Resource Mother on staff. The elected volunteer board of trustees consists of a minimum of eight and a maximum of 12 persons, including four to six parents and four to six community representatives. The organization has a strategic plan including vision and mission statements. The HBC is located approximately 30 kilometres from a main center and hospital.

Pre- and post-natal education and support to high-social-risk women, including home visiting and group education sessions, are provided. Food supplementation during pregnancy is provided to promote a healthy birth weight. Assistance with child care and transportation is available. Educational programs

are provided for children up to six years of age and their parents. The educational programs vary and may include literacy, nutrition, play time, and parenting.

The rural community has a town office, gas stations, a post office, convenience stores, churches, schools, a pharmacy, and a physician and public health nursing office. There is no public transportation system: however, a taxi service is available. For many services, including shopping, airport services, post-secondary education and hospital services, people must travel 30 kilometres to a larger center.

1II. Healthy Baby Club 3

Healthy Baby Club 3 is located in an urban center with a population base of approximately 24,870 people (www.communityaccounts.ca). The main office is located in a rented commercial building with outreach provided at two satellite sites. The organization was established in 1994. An elected volunteer 10-member board of directors that includes three parent representatives, governs the organization. The staff complement includes an Executive Director, two Home Visitors, an HBC Mother, two Resource Mothers, a Resource Center Community Worker, a Resource Worker Coordinator, two Early Childhood Educators, a Playroom Resource Coordinator and a secretary. The HBC is funded through the Canadian Prenatal Nutrition Program, but other programs at the center receive funding through the Community Action Program for Children and the National Child Benefit program. The organization has a strategic plan, and a vision and mission statement. The HBC owns a seven passenger van.

The HBC provides pre- and post-natal education and support to high-social-risk women, including home visiting and group education sessions. Food

supplementation during pregnancy is provided. Assistance with child care and transportation is available. Educational programs are provided to children up to six years of age and their parents. The educational programs vary in content and may include literacy, toy lending, parent resource lending, nutrition, development and parenting.

The small city in which it is located has many amenities including a university, a community college, shopping centers, recreation centers, churches and the services of a regional hospital. Additionally, there are a number of community health clinics and physician offices throughout the city. Public housing and transportation is available.

IV. Healthy Baby Club 4

Healthy Baby Club 4 is located in a northwest, rural community, which is wide spread geographically. Services are provided to 11 rural communities in a 200 kilometres radius. The organization has a main center and provides outreach to four satellite sites. It services a population of 2,900 people (www.communityaccounts.ca). The organization is the youngest of the five HBCs and was established in 2003. It is governed by an 11-member volunteer Board of Directors consisting of parent representatives from each community. It is staffed by a Coordinator, an HBC Mother, two Resource Assistants and a part-time secretary. Provincial funding is provided through the Early Childhood Development Initiative. The organization is currently developing a strategic plan, including vision and mission statements.

Pre- and post-natal education and support are provided to high-social-risk women, including home visiting and group education sessions. Food

supplementation during pregnancy is provided to promote healthy birth weights. Assistance with child care and transportation is available. Educational programs are provided to children up to six years of age and their parents. The educational programs vary in content and may include literacy, play-time and parenting.

The amenities of a small, rural community are enjoyed by HBC 4. The community has a skating rink, convenience stores, gas stations, several restaurants, churches, schools and a health center. To access regional hospital services including obstetrical care, people have to travel 320 kilometres. There are no public transportation or taxi systems.

V. Healthy Baby Club 5

A series of six coastal communities spread over 30 kilometres represent the geographical area covered by HBC 5. The population covered by the organization is 3,770 people (www.communityaccounts.ca), living in seven communities. There is a main center with four satellite sites. The organization was established in 1995. Federal funding is provided through the Canadian Prenatal Nutrition Program and the Community Action Program for Children. The staff complement includes a Coordinator, a Resource Mother, a secretary and three Resource Workers. A 12-member elected volunteer board of directors governs HBC 5 including four parent representatives. The organization has a strategic plan, and mission and vision statements.

The HBC provides pre- and post-natal education and support to high-social-risk women, including home visiting and group education sessions. Food supplementation during pregnancy is provided. Assistance with child care and transportation is available. Educational programs are provided for children up to

six years of age and their parents. The educational programs vary in content and may include literacy, nutrition, development, and parenting.

For many services, including shopping, recreation facilities, post-secondary education, physician clinics and the services of the regional hospital, people have to travel approximately 45 kilometres. The community enjoys the local services of community centers, a public health nursing office, gas stations, volunteer fire departments, convenience stores, a fish plant, senior citizens clubs, churches and schools.