



The British Columbia Centre of Excellence for Women's Health
is committed to improving the health of women

Expecting to Quit:

A best practices review of smoking cessation interventions for pregnant and postpartum girls and women (Second Edition)

Lorraine Greaves and Nancy Poole

April 2011

Acknowledgments

The Project Team

Dr. Lorraine Greaves; Nancy Poole; Natalie Hemsing; Dr. Chizimuzo Okoli; Annie Qu; Dr. Lauren Bialystok; and K. Renee O'Leary

- This project was conducted at the British Columbia Centre of Excellence for Women's Health, Vancouver, Canada and funded by Health Canada.



The British Columbia Centre of Excellence for Women's Health is committed to improving the health of women

Outline

- Background on women's smoking
- Key differences in 1st and 2nd editions
- Results
 - 14 Interventions
 - 11 Components
 - 7 Approaches
- Additional chapter – 3 under-studied subgroups
- Ongoing issues and action

Background

- **Approximately 13-27% of women smoke during pregnancy**

Higher in other countries (eg. 28% in Denmark)

Retrospective self report in Canada (13% in 2005, downward trending)

But spontaneous quitting confounds these data

- **50% report a quit attempt**
- **23-47% quit spontaneously in early pregnancy**
- **25% relapse before delivery**
- **70-90% relapse by one year postpartum**

Background

- **There have been numerous interventions aimed at pregnant smokers**
- **Cessation programs have generally not been effective in preventing relapse**
- **Existing programs tend to focus only on the period of pregnancy, with little emphasis on pre pregnancy or postpartum**

As Jacobson claimed in 1986, “In rich countries, *most* women are *not* pregnant *most* of the time,” concluding that smoking cessation campaigns *ignore most women most of the time* (p. 125)

Cessation Patterns

Pregnant women more likely to quit

- More educated
- Older women
- Lighter smokers
- Those with social support
- Those with non-smoking partners and family members
- Immigrant and minority (US) women

Pregnant women more likely to continue smoking

- Women living on low income
- Less social support
- Heavier smokers

Relapse Issues for Pregnant and Postpartum Women

- **Cessation may be really ‘temporary abstinence’**
- **Stages of change do not necessarily apply to pregnant women in typical ways**
- **May be experiencing a suspended identity as a non-smoker**
- **Because cessation is externally motivated, no actual shift in identity from smoker to non-smoker occurs**
- **Relapse is viewed as a reward after pregnancy**

Methods

Approaches to 1st and 2nd editions

First Edition (2003)

- Methodology from Miller et al. (2001)
- **58** studies, recommended **six** interventions

Second Edition (2011)

- Methodology from *Methods for Development of NICE Public Health Guidance* (2006)
- **97** studies, recommended **fourteen** interventions
- Added a chapter on 3 vulnerable under researched groups

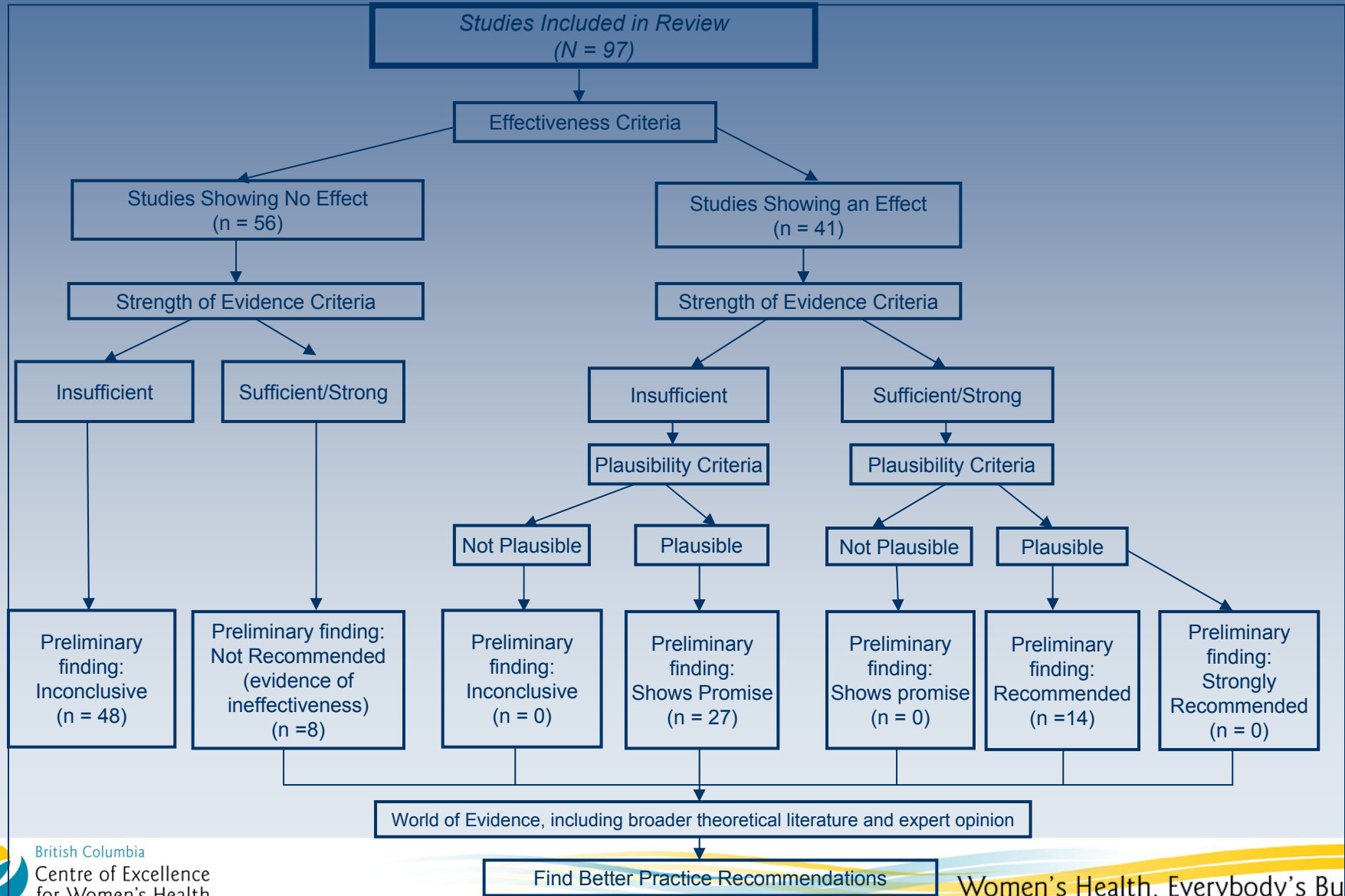
Miller, S. J., Manske, S. R., Phaneuf, M. R., & Moyer, C. (2001). Identifying best practices for group smoking cessation: Comparing CCS Fresh Start to best practices. Waterloo, ON: Centre for Behavioural Research and Program Evaluation, University of Waterloo.

National Institute for Health and Clinical Excellence (NICE). (2006). *Methods for development of NICE public health guidance*. London, UK: National Institute for Health and Clinical Excellence.

Methodology

- Study inclusion criteria
 - published studies evaluating the efficacy or effectiveness of a smoking intervention targeted at pregnant and/or postpartum girls or women
 - from Canada, USA, Europe, and Australia
 - published between January 1990 and March 2010
- Examined the quality of evidence, then the plausibility of using the intervention in real practice - based on efficacy and effectiveness

Study Classification Scheme



Results

Results

- From the literature, we identified 14 interventions and 11 components of programs as effective
- From our analysis, we identified 7 approaches to take in helping pregnant women to quit smoking

Changes since 2003

- Reported rates of smoking during pregnancy in Canada and the USA have slightly declined but postpartum relapse rates appear to be just as high
- Some new approaches in recommended studies:
 - 1 study on spontaneous quitters (Gadomski et al)
 - 4 studies include post partum (Higgins et al; French et al; Gadomski et al; Reitzel et al)
 - 4 studies using vouchers (Gadomski et al; Higgins et al; Heil et al; Reitzel et al)
 - 3 studies using brief intervention (Ferreira-Borges, Reitzel et al; French et al)

Fourteen Interventions to Recommend

- Gadomski et al., 2011
- Reitzel et al., 2010
- Heil et al., 2008
- French et al., 2007
- de Vries et al., 2006
- Ferreira-Borges, 2005
- Higgins et al., 2004
- Hegaard et al., 2003
- Donatelle et al., 2000
- Windsor et al., 2000
- Walsh et al., 1997
- O'Connor et al., 1992
- Hjalmarson et al., 1991
- Ershoff et al., 1989, 1990
& Mullen et al., 1990

Eleven Components to Include

- Quit Guides
- Counselling
- Buddy/Peer Support
- Partner counselling/social context
- Information
- Nicotine Replacement Therapies
- Personal Follow-up
- Other Follow-up
- Incentives
- Feedback about Biological Changes
- Groups

Seven Approaches

- Tailoring
- Woman-centred Care
- Reducing Stigma
- Relapse Prevention
- Harm Reduction
- Partner/Social Support
- Integrating Social Issues

1. Improve Assessment and Tailoring

- *All* pregnant women should be assessed for smoking.
- *Spontaneous quitters* should be monitored and supported during pregnancy and postpartum to prevent relapse.
- Smokers who cannot quit using behavioural interventions should be encouraged to *try NRTs*.

2. Provide Woman-centred Care

- Focus on the woman's own health as a motivator for quitting
- Encourages internal motivation and postpregnancy health and decreases relapse once the baby is born



3. Reduce Stigma

- Acknowledge the negative social responses (including those of health practitioners) to pregnant women smoking and assist in dealing with stigma, punishment and blame
- Recognize that smoking is an addiction. Although many pregnant smokers may want to quit, it is difficult for them to do so

4. Do Relapse Prevention

- Despite being smoke-free for a long period, the woman may be at an earlier stage of change
- Do they see themselves as smokers or non-smokers?
- Identify spontaneous quitters and help them to avoid relapse
- Recognize post-partum physical, social & emotional changes that result in increased cravings

5. Practice Harm Reduction

- Encourage women who cannot quit to reduce the number of cigarettes they smoke
- Encourage women to abstain for brief periods of time, even for 24 hours around birth
- Encourage women to decrease their exposure to environmental tobacco smoke

6. Engage Social Support in the Woman's Life

- What is the pattern of smoking by family and friends?
- Address partner smoking in a de-linked fashion
- Recognize power dynamics between partners



7. Integrate Social Issues into the Intervention

- Offer free cessation aids and referrals to community support organizations in the area
- In the context of many women's lives, poverty, violence, lone motherhood and other factors affect health



3 Under-studied Subgroups

Second Edition (2011)

- Final chapter, *Further Challenges: Focusing on pregnant smokers who are young, drinking alcohol and/or experiencing violence or trauma*
 - These subpopulations constitute three specific groups with significant challenges in smoking cessation during pregnancy and postpartum.
 - Our systematic review turned up little published research on interventions for pregnant and postpartum women in these three groups.

1. Adolescent/Young Women and Smoking in Pregnancy

Characteristics and Challenges

- Young women most likely to smoke during pregnancy
 - The Canadian Maternal Experiences Survey 2006/07 - younger mothers (15–19 years) reported the highest proportion of pre-pregnancy smoking: 54.7% smoked daily or occasionally (Heaman et al., 2009)
- Experience lower success with cessation
- Alcohol use, prenatal depression, living with a smoker, and gender-based violence all have an impact on rates of smoking during pregnancy for women under twenty-five years old

Adolescent/Young Women and Smoking in Pregnancy

Links to Best Practices Approaches

- *Tailoring* - integrate education and support for reducing and quitting smoking: in more settings, over time and linked to a range of connected health and social experiences
- *Harm Reduction* - starting where adolescent girls and young women “are at,” building on what is important to *them*, listening for their interests and readiness, assisting in non-judgmental ways
- *Partner Social Support* - vital where partners’ substance use plays a significant role in girls’ and young women’s smoking, and orientation to peers and partners is high
- *Social Issues Integration* - a central focus to include violence, alcohol use, mental health etc

2. Alcohol and Tobacco Use During Pregnancy

Characteristics and Challenges

- Significant overlap between use of alcohol and use of tobacco during pregnancy
 - Canadian Maternal Experiences Survey from 2005/06 showed that 13.3 percent of women reported having smoked *and* consumed alcohol during their pregnancy (Al-Sahab, et al., 2010)
- Rates are higher for certain subgroups (young women, Aboriginal women)
- Combined use of substances such as drugs, alcohol, and tobacco during pregnancy has an enhanced deleterious effect

Alcohol and Tobacco Use During Pregnancy

Links to Best Practices Approaches

- *Pre-conception Care* - comprehensive women-centred care focuses on women's health before *and* following pregnancy
- *Integrated Messaging* - should incorporate “triple messaging” (address alcohol, tobacco and other drugs); could also be tailored to local, regional, or subpopulation needs
- *Social Issues Integration* - including a full awareness of domestic violence as well as childhood abuse and its residual effects
- *Intervening by Addressing Determinants of Health* - strategies should focus on a range of social issues as well as individual behaviours
- *Stigma Awareness* - approaches to reducing stigma need to be cognizant of both internal and external sources of stigma and shame, and need to highlight stigmatizing attitudes and behaviours of practitioners and intervenors

3. Trauma-Informed Interventions

Characteristics and Challenges

- High correlation between smoking and trauma, this persists through pregnancy
- Standard approaches have not factored in the unique needs of those with trauma, so accessing help may seem unsafe to women with trauma histories
- Most-reported type of trauma affecting pregnant women is intimate partner violence (IPV) Average smoking rate among pregnant women with history of IPV $\geq 50\%$ (Bailey & Daugherty, 2007; Fanslow, et al., 2008; Morland et al., 2007)

Trauma-Informed Interventions

- Links to Best Practices Approaches
 - *Tailoring* - models of trauma-informed care provide specific suggestions for tailoring a care environment to the needs of this population
 - *Women-Centred Care* - recognizes that smoking is a woman's response to personal challenges (which often have a gendered nature, such as IPV) and is not an isolated decision about her pregnancy
 - *Social Issues Integration* - women experiencing trauma are typically burdened with a host of stressors (financial, legal, social, and so on)

Ongoing Issues and Action

Key ongoing issues

- More improvements in interventions aimed at smoking cessation for pregnant women are needed
- Sub-populations of pregnant smokers need more specific attention (Aboriginal girls and women, young women, etc)
- Attention required to both biological and social issues in cessation strategies
- More attention to the overlap of issues facing some groups of women
- Generic approaches will be less effective

Recent program developments in Canada

- Some focus on women's health and on relevant structural factors to encourage longer-lasting cessation (including couple dynamics, power and control issues during pregnancy, and the impact of low income on smoking during pregnancy).
 - Action on Women's Addictions – Research and Education (AWARE; www.aware.on.ca),
 - British Columbia Centre of Excellence for Women's Health (BCCEWH, www.bccewh.bc.ca),
 - Families Controlling and Eliminating Tobacco (FACET; www.facet.ubc.ca)

Report and Materials Available

Greaves, L., Poole, N., Hemsing, N., Okoli, C. T. C., Qu, A., Bialystok, L., O'Leary, K. R. (2011) *Expecting to Quit: A best practices review of smoking cessation interventions for pregnant and postpartum girls and women*. (2nd ed.) Vancouver, BC: British Columbia Centre of Excellence for Women's Health.

www.expectingtoquit.ca

To request copies of the report, please contact Phoebe Long, at 604-875-2424 ext. 5351 or plong@cw.bc.ca