Effective interventions to promote smoking cessation in pregnancy

A Rapid Review

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Key Messages

1. All pregnant women should be screened for smoking status, encouraged to stop smoking, and referred to or provided smoking cessation support, while taking into account the needs of disadvantaged patients.

2. Those providing smoking cessation services should have specialized training and credentials.

3. Contingent incentives are the most effective intervention for smoking cessation among pregnant women, while counselling and health education may be effective for some pregnant women.

4. If NRT is the preferred treatment, once information on the risks and benefits is provided, it should be offered in combination with behavioural counselling.

5. Pregnant women should not take Varenicline (Champix, Chantix) or Buproprion (Wellbutrin, Zyban).

6. All work and public places should be smoke-free.
Executive Summary

Purpose
The Timiskaming Health Unit conducted a rapid review to determine the most current and effective interventions for promoting smoking cessation among pregnant women.

Research Question
Which interventions are effective in promoting smoking cessation among pregnant women?

Context
The rationale for this question was based on local data which demonstrates that the smoking rate in pregnant women in Timiskaming is 3x greater than the Ontario rate.²

Methods and Results
A search for published literature was conducted in January 2016 by Thunder Bay Health Unit’s Librarian through the Shared Library Services Partnership. The search was for guidelines and systematic reviews (SR) published from 2008 onwards, using the following databases: NICE, National Guideline Clearinghouse, Medline, Embase, CINAHL and PsychInfo.

The search identified 357 potentially relevant results. After removing duplicates, title and abstract review, and the full text review, 14 articles were relevant and selected for critical appraisal.

Key Findings
The evidence described in this rapid review suggests the following implications for public health practice:
1. All pregnant women should be screened for smoking status, encouraged to stop smoking, and referred to or provided smoking cessation support, while taking into account the needs of disadvantaged patients.

2. Those providing smoking cessation services should have specialized training and credentials.

3. Contingent incentives are the most effective intervention for smoking cessation among pregnant women, while counselling and health education may be effective for some pregnant women.

4. If NRT is the preferred treatment, once information on the risks and benefits is provided, it should be offered in combination with behavioural counselling.

5. Pregnant women should not take Varenicline (Champix, Chantix) or Buproprion (Wellbutrin, Zyban).

6. All work and public places should be smoke-free.
1 Issue

Smoking in pregnancy was identified by the Timiskaming Health Unit as a key public health issue that should be addressed in its catchment area. Use of tobacco during pregnancy can increase the risk of sudden infant death syndrome, stillbirth, placental complications and an overall increased risk of infant mortality and morbidity (1). In 2015, 23.2% of pregnant women in Timiskaming smoked at some point in their pregnancy (2). This number is concerning as it has consistently been over 3x the Ontario rate over the past 4 years (2). Currently, there are no specific interventions or programs in place in the district to address this issue. By reviewing current evidence and best practice documents, it is hoped that a strategy can be put into place to help decrease local rates of smoking during pregnancy.

2 Context

In Canada, tobacco is the only legal product that kills a large proportion of its consumers when used as intended by manufacturers. It has been shown that tobacco causes adverse outcomes in pregnant women and their fetuses. As such, cigarette smoking is one of the most potentially modifiable causes of adverse pregnancy outcomes (3). Maternal cigarette smoking is associated with increased risks for: ectopic pregnancy, premature rupture of membranes, abruptio placentae, placenta previa, miscarriage, stillbirth, preterm birth, low birth weight, small for gestational age, and congenital anomalies such as cleft lip (3-7). Cigarette smoking can also cause intrauterine growth restriction, due to the reduction of the supply of oxygen and other essential fetal nutrients (5). The impact of low birth weight and preterm births also has an enormous economic cost, causing up to 40% of socioeconomic inequalities in stillbirths and infant deaths (6).

Smoking during pregnancy is a public health issue of great importance in Timiskaming District, as the rates of smoking have been historically higher than that of Ontario and are presently triple the Ontario rate (Figure 1) (2). Moreover, in 2015, 23% of mothers were smoking at the time of delivery (Figure 1) (2). As shown in Figure 2, the amount of
cigarettes smoked daily by pregnant women in Timiskaming is consistently and significantly higher than the provincial average (2). The rate of cigarette smoking in the general population of Timiskaming (which also includes men and non-pregnant women) remains statistically significantly higher than the province as well (8). Moreover, the rate of smoking in Northeastern Ontario is much higher than that of the provincial average (26% compared to 19%, respectively) (8).

The literature has demonstrated that rates of smoking during pregnancy seem to be influenced by socioeconomic status (1). For example, women who are living with lower incomes and lower education levels demonstrate higher rates of smoking during pregnancy compared to women in higher income brackets and higher levels of education (9). In Timiskaming, 19.6% of residents report having no high school diploma as compared to 11% of Ontario residents (9). Furthermore, in Ontario, 28.9% of residents had a university degree compared to approximately 9% of Timiskaming residents. In Timiskaming, females tend to earn less than women in Ontario, making $20,390 vs. $23,882 (9).

In Ontario, all income categories (low, mid, and high) were statistically different from each other showing that as income increased, smoking decreased. There were no statistical differences between categories for Timiskaming and the reader is cautioned that Timiskaming’s data were based on a small sample size (10). Additionally, in Timiskaming, females tend to earn less than women in Ontario, making $20,390 vs. $23,882 (9).

Figure 1. The percentage of mothers who smoked at the time of the newborn’s birth. (2)
Currently, little is known about strategies or interventions in the district that specifically target smoking cessation during pregnancy.

3 Literature Review Question

The question addressed in this rapid review is: Are interventions effective in promoting smoking cessation and if yes, which ones? The PICO format was used to create the literature review question.

The research question in the PICO format is as follows:
Population: Pregnant women
Intervention: Perinatal smoking cessation
Comparison: Usual prenatal care
Outcome: Smoking cessation

4 Literature Search

A search for published literature was conducted in January 2016 by Thunder Bay Health Unit’s Librarian through the Shared Library Services Partnership. The search was for guidelines and systematic reviews (SR) published from 2008 onwards, using the following
databases: NICE, National Guideline Clearinghouse, Medline, Embase, CINAHL and PsychInfo. Refer to Appendix A for the complete search strategy.

5 Relevance Assessment

Five reviewers split into two teams to independently assess titles and abstracts of the articles to determine relevance. Within each team, discrepancies about inclusion or exclusion of an article were resolved by consensus between the reviewers. The studies were assessed using the following criteria:

- Inclusion criteria: English language; published in the last five years; smoking cessation during pregnancy included as an outcome; public health relevant smoking cessation interventions; biochemical verification of quit; SR or guideline study design

- Exclusion criteria: women who smoke during pre-conception and post-partum; anti-depressant medication as intervention; quit attempt only during pregnancy; self-reported quit; single study design

6 Results of the Search

The search identified 357 potentially relevant articles. Fifteen studies were removed as duplicates, leaving 342 for title and abstract relevance assessment. After the title and abstract review, 296 studies were not relevant leaving 46 documents for full text review. After the full text review 14 articles were relevant and selected for critical appraisal. Refer to Appendix B to view the literature search flow chart.

7 Critical Appraisal

After the full text review, there remained 10 SRs and 4 guidelines to critically appraise. The review authors found that critical appraisal had already been conducted on six of the SRs
by healthevidence.org, using the *Health Evidence Quality Assessment Tool: Review Articles*, which the authors of this rapid review chose to use for the remaining SRs. This tool rates SRs with a score of 8 or more (out of 10) as strong, between 5-7 as moderate, and scores of 4 or less are rated as weak. These scores are meant to be an overall reflection of usability by public health decision makers. The remaining 4 SRs were independently appraised by two authors of this rapid review. Of the 10 total SRs, 6 were rated as strong, 3 were rated as moderate and 1 was rated as low.

The assessment of the methodological quality of guidelines was completed by two independent reviewers using the *Appraisal of Guidelines for Research & Evaluation II (Agree II) Instrument* for critical appraisal of guidelines; 3 guidelines were rated as strong and 1 was rated as moderate. This instrument helps assess the methodological quality of guidelines through 23 different domains, which results in the assessor making a judgement about the quality of the guideline, and also whether not to recommend the use of the guideline. Any discrepancies in critical appraisal outcomes were resolved by consensus. Based on the number of strong quality guidelines and systematic reviews, the authors included the 6 SRs and 3 strong guidelines for data synthesis; the other 5 studies rated as moderate or low quality were excluded from the data synthesis.

### 8 Description of Included Studies


This SR, rated as strong, examined the efficacy of incentives and contingency management programmes on higher long-term quit rates. The review includes 8 RCTs assessing smoking cessation during pregnancy in 1295 women over the age of fifteen who smoked. The authors of the synthesis rated the RCTs as moderate in quality (further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate) using the GRADE tool. The programs ranged from ten to twelve weeks and compared incentives to standard care. The incentives included: contingent rewards,
monthly vouchers to confirmed quitters, metered rewards based on percentage of smoking reduction, and non-contingent fixed payment rewards. Abstinence was measured at the longest follow-up (up to 24 weeks) and at least to the end of the pregnancy by biochemical validation (saliva cotinine, urine cotinine, or breath carbon monoxide).


This SR, rated as strong, assessed the effects of psychosocial smoking cessation interventions during pregnancy on smoking behaviour and perinatal health outcomes, as discussed in Appendix D. The authors of this study examined 77 RCTs with nearly 30,000 participants. They used the Cochrane Risk of Bias tool to assess the included studies, with overall quality appraised as high to moderate risk of bias. Biochemical validation (saliva cotinine, urine cotinine, or breath carbon monoxide) was measured from late pregnancy to 18 months postpartum. The interventions include: individual counselling sessions, which are those which provide motivation to quit and support problem solving and coping skills while integrating transtheoretical models of change; health education interventions, which are interventions that inform clients of the risks of smoking and offer advice on quitting but do not provide any further support; feedback interventions, in which the mother is provided with feedback regarding fetal health status or measurements of tobacco smoking by-products in the mother such as ultrasound monitoring or urine cotinine measurements; incentive-based interventions, where women receive a financial incentive such as a gift voucher that is contingent on smoking cessation; social support, in which the support of peers or trained laypersons provide support to the mother. All interventions were compared to either usual care, less intensive interventions, or alternative interventions. Most participants were recruited at one of their first antenatal appointments, receiving an intervention that ranged in duration from mid-pregnancy to delivery.

This SR, rated as strong, aimed to assess the efficacy and safety of smoking cessation pharmacotherapies when used to support smoking cessation in pregnancy. The synthesis includes 9 RCTs, but for the purpose of this rapid review, data were extracted from 8 relevant studies, with a total of 1299 pregnant women. One study was excluded because it examined the use of Buproprion as a smoking cessation intervention during pregnancy. The authors assessed the quality of their included studies with the Cochrane Risk of Bias tool, with all studies being rated with a low risk of bias. The interventions in this synthesis were placebo-RCTs assessing the use of NRT in the form of patches, lozenges, or gum or were assessing NRT with behavioural support compared to behavioural support alone. In this synthesis, behavioural support is the delivery of one-on-one counselling services in person or over the telephone by a health care provider. Abstinence from smoking was the primary outcome, assessed by biochemical verification during late pregnancy and in some studies, up to two years. Details related to the secondary outcome, safety, can be found in Appendix D.


The objective of this SR, rated as strong, was to determine the efficacy and safety of nicotine replacement therapy (NRT) with or without behavioural support for smoking cessation in pregnancy. The review also includes RCTs that did and did not use placebos. Five RCTs were included in the synthesis, totalling 695 participants. The follow-up schedules ranged from the last prenatal visit up until one-year post partum where participants were assessed for abstinence via biochemical verification. The RCTs that were included in the study were appraised using the Cochrane Risk of Bias tool and ranged from low risk of bias to high risk of bias. The authors assessed smoking cessation in later pregnancy by self-reports validated by biochemical measurements. The authors also measured any effects of the interventions on the infant (see Appendix D). The NRT and placebo were in the form of a patch, lozenge, or gum, used for an average of twelve weeks. The studies assessing behavioural therapy offered a variety of counselling sessions compared with either a placebo or brief counselling sessions lasting 2-5 minutes.

The objectives of this SR, rated as strong, were to understand the efficacy of incentives on smoking cessation in pregnancy. The synthesis arranged its meta-analyses into different categories depending on the type of study design. As per the inclusion criteria, only Category A, which included four RCTs, was extracted for the purposes of this rapid review. Category A was the only category that examined RCTs; the other categories looked at other methods such as cross-sectional and qualitative designs that do not meet the inclusion criteria of this rapid review. Category A had a total of 396 pregnant women who smoke and its four RCTs rated as moderate to low risk of bias with the Cochrane Risk of Bias tool. Women were recruited between 20 and 32 weeks of pregnancy and remained in the program until 12 months postpartum. The interventions were delivered by health care practitioners to women partaking in a smoking cessation program that provided incentives (vouchers ranging from $5 - $50 CAD) that were contingent on biochemical validation of smoking abstinence. In the comparison group, women received the same vouchers on a non-contingent basis. Biochemical verification took place up to 36 times during the studies, including at the end of pregnancy and during the postpartum period.


This SR, rated as strong, examined the efficacy and safety of pharmacotherapy for smoking cessation among pregnant smokers. The review includes seven RCTs, quasi-RCTs and a prospective controlled study with a total of 1396 pregnant women of any age. The RCTs were appraised with the Jadad Score with quality ratings from low to high. Women were recruited in early pregnancy, treated for 6-12 weeks, and finally assessed for biochemical verification at the latest point in pregnancy. Some studies followed the women into the postpartum period for as long as 26 weeks. The pharmacotherapy interventions delivered were: daily nicotine patches or gum or lozenges consumed in place for each cigarette smoked. The pharmacotherapy treatment was compared to standard care and the primary
outcome was abstinence on longest follow-up validated by salivary cotinine and/or breath carbon monoxide.


This guideline, rated as strong, synthesizes the findings from 25 high quality SRs appraised by the GRADE tool. The objective of this guideline was to synthesis the efficacy of strategies to reduce tobacco use and second hand smoke exposure in pregnant women. The authors studied health care providers’ delivery of multiple tobacco cessation interventions. The interventions included in this guideline are: active screening for current and past tobacco use and assessment of tobacco dependence; psychosocial interventions such as counselling, health education, incentives, and peer support; NRT. Outcomes included: identification of current or past tobacco-use and/or dependence; tobacco cessation in pregnancy, postpartum and/or a reduction from first antenatal visit to late pregnancy; adherence or compliance with treatment and the efficacy of prescribed NRT. The outcome indicators were identified as: individual smoking status, uptake of interventions, and 4-week quit rates. The guideline compared the outcomes to either standard care or not being exposed to community interventions.

**NICE (2015).** "Smoking: stopping in pregnancy and after childbirth." (15)

The intention of this guideline, rated as strong, is to produce public health information on effective interventions to quit smoking during and after childbirth. The guideline was informed by a combination of qualitative research, surveys, systematic reviews, and field work findings (n=65). The quality of the evidence, appraised with the NICE methodology checklist, ranged from low to high. The intended audience for implementing the recommendations were health care providers, specifically maternal health care providers and those who provide tobacco cessation services. The recommendations include: identifying pregnant women who smoke and referring them to stop smoking services, for service providers to contact and follow-up with referrals, for tobacco cessation support...
services to provide initial and ongoing support, to employ the use of NRT and pharmacological support, to ensure that the needs are met for disadvantaged pregnant women who smoke, and to provide training to deliver interventions. Service providers must assess the woman’s smoking status as well as the smoking status of anyone living in the same home and provide information on the health benefits of stopping smoking; offer local support and referrals to women who are considering smoking cessation and reiterate the health benefits of stopping smoking for both the mother and the infant; telephone or visit any woman who has been referred for help and ensure that any barriers that exist to accessing services are mitigated and when possible, provide NRT or counselling services after taking a baseline breath carbon monoxide or salivary cotinine test; provide NRT to women who have agreed to stop smoking and do not administer bupropion or varenicline to pregnant women; ensure services are impartial and flexible to meeting the needs of disadvantaged women. Lastly, the provision of training and group support for health care providers delivering tobacco cessation services should ensure that all providers meet a standard and are able to care for pregnant women safely and adequately. This guideline did not provide a comparison, defined outcomes, or defined interventions.

NICE (2013). "Smoking: acute, maternity and mental health services." (16)

The objective of this guideline, rated as strong, is to support smoking cessation, temporary abstinence from smoking, and smoke free policies in all secondary care settings. The guideline used 17 articles which were reviews, an economic analysis, or expert papers. The guideline included reviews assessed with the NICE methodology checklist. The target population of the recommendations include: pregnant women, health care providers, health care facility staff, and partners of pregnant women. The recommendations in this guideline are for providers to: identify people who smoke and offer support; provide information and advice for carers, family, or other household members or visitors; and advise on and provide stop smoking pharmacotherapies. Furthermore, it is suggested that health care providers applying the recommendations should present clear information and advice about the risks of smoking and the benefits of stopping smoking, ensure smoke free policies are used, and offer stop smoking services. Finally, it is recommended that
providers do not offer varenicline or bupropion to pregnant or breastfeeding women. This guideline did not offer a comparison, an outcome definition, or defined interventions.

9 Synthesis of Findings

The effectiveness of smoking cessation interventions to reduce the prevalence of smoking during pregnancy is summarized in Table 1.

Three studies also reported on secondary outcomes of safety, infant outcomes such as perinatal deaths, stillbirths, low birthweight infants, preterm births, neonatal deaths or miscarriage. One of these examined psychosocial interventions and two examined NRT. None indicated an effect on the secondary outcomes examined (Appendix D).

<table>
<thead>
<tr>
<th>Table 1: Smoking cessation interventions in pregnancy.</th>
<th>Findings (Evidence)</th>
</tr>
</thead>
</table>
| **Health care provider asks if the patient smokes and makes referral to tobacco cessation services** | It is advised to ask and identify pregnant women who smoke tobacco during prenatal care (5, 15, 16)  
It is advised to refer pregnant women who smoke to smoking cessation services (15) |
| **Health care provider offers advice to support tobacco cessation during pregnancy** | It is advised that health-care providers should routinely offer advice and psychosocial interventions for tobacco cessation to all pregnant women, who are either current tobacco users or recent tobacco quitters (5) |
| **Pharmacotherapy for smoking cessation during pregnancy** | Do not offer varenicline or bupropion to pregnant or breastfeeding women (5, 15, 16)  
There are conflicting recommendations about the evidence related to using NRT during pregnancy (5, 15, 16)  
If an individual wants to use NRT, it is recommended that health care providers advise on the risks and benefits of using NRT during pregnancy (15, 16)  
Using NRT (patch or gum) was found to have an effect on smoking cessation, when used for 6 – 12 weeks, with a few adverse effects reported. Patch: [1.6 (1.05, 2.43)], Gum: [1.21 (0.64, 2.29)] (14) |
| **Establishment of smoke free facilities** | It is advised that all health-care facilities should be smoke-free to protect the health of all staff, patients and visitors, including pregnant women (5)  
It is advised that all work and public places should be smoke-free for the protection of everyone, including pregnant women (5) |
| **Tobacco cessation support** | It is advised that tobacco cessation support services: (15) |
services should provide stop smoking services with continued support during pregnancy

- provide ongoing support throughout the pregnancy with regular monitoring
- ensure that connections are made with other agencies to ensure all providers understand what services are available and how they are accessed
- telephone all women who have been referred to invite them to access smoking cessation services

Tobacco cessation support services must ensure that the needs of disadvantaged pregnant women are met

- It is advised that: (15)
  - services are delivered in an impartial, client-centered manner
  - translation services are provided if needed and culturally sensitive services are available
  - services are flexible, coordinated, and take place at accessible times and locations
  - providers work in partnership with agencies that support women who have complex social and emotional needs

Tobacco cessation service providers should have relevant and standardized training and credentials

- It is advised that: (15)
  - all clinicians who deliver stop-smoking interventions are trained to the same standard
  - health care providers who work with pregnant women know how to assess smoking status and always recommend quitting rather than cutting down

Pharmacological and psychosocial smoking cessation interventions for pregnant women

- Use of NRT and behaviour change therapy compared to placebo and behaviour change showed that using NRT with behavioural support for smoking cessation in pregnancy is effective $[1.41 (1.03, 1.93)]$. There is no evidence that NRT has a positive or negative impact on pregnancy and infant outcomes. (4)

  NRT and behavioural change therapy/motivational interviewing compared to usual care showed that using NRT with psychosocial support for smoking cessation in pregnancy is effective $[1.63 (0.85, 3.14)]$ (6)

  One trial suggested that NRT used in pregnancy for smoking cessation results in improved child development (4)

Psychosocial smoking cessation interventions for pregnant women

- Contingent incentives

  In one systematic review (SR), it was found that 48% of participants in a contingent behavioural incentive group had a 75% reduction in smoking and 31% were abstinent. In another review, contingent incentives were found to boost cessation rates in pregnancy $[3.79(2.74, 5.25)]$ (13)

  In another SR, it was found that incentives are effective [incentives vs. usual care $[3.59(0.10, 130.49)]$] (7)

  In a final review, incentives were found to be effective compared to standard care $[2.58 (1.63, 4.07)]$ (3)

  Non-contingent incentives

  One review concluded that there was insufficient argument to support
that non-contingent incentives are effective (3)

Counselling
There is some evidence to conclude that counselling is effective when compared to usual care [1.25 (1.03, 1.5)] (7)

Health Education
There is some evidence to support health education as an intervention to pregnant women who smoke [compared to usual care 1.29 (0.49, 3.42)] (7)

Feedback
There is some evidence to support feedback as an effective intervention for pregnant women who smoke (7)

10 Key Messages

The evidence described in this rapid review suggests the following implications for public health practice:

1. All pregnant women should be screened for smoking status, encouraged to stop smoking, and referred to or provided smoking cessation support, while taking into account the needs of disadvantaged patients.

2. Those providing smoking cessation services should have specialized training and credentials.

3. Contingent incentives are the most effective intervention for smoking cessation among pregnant women, while counselling and health education may be effective for some pregnant women.

4. If NRT is the preferred treatment, once information on the risks and benefits is provided, it should be offered in combination with behavioural counselling.

5. Pregnant women should not take Varenicline (Champix, Chantix) or Bupropion (Wellbutrin, Zyban).

6. All work and public places should be smoke-free.
11 Next Steps

Following the synthesis of research findings, THU’s management team can consider adaptability and transferability of the evidence (17).

Steps include determining who will be involved in the decision, selecting and weighting criteria and determining any scoring/weighting, and documenting the scoring process used. A worksheet for this step is included in Appendix E.

Considerations may include:

**Applicability**: political and social acceptability, available human and financial resources, organizational capacity and expertise

**Transferability**: magnitude of health issue, magnitude of the “reach” and cost effectiveness of the intervention, characteristics of target population

Once practice decisions have been made, implementation and evaluation of the selected intervention(s) will help bring the EIDM cycle back to its starting point.
References


2- Timiskaming Health Unit. BORN. 2016.


Appendices

Appendix A: Search Strategy

Interventions for Smoking Cessation in Pregnancy

Resources Searched: NICE, National guideline Clearinghouse, Medline, Embase, CINAHL, PsycInfo.

Findings:
- Guidelines searched online via NICE, National guideline clearinghouse 5 referenced below and forwarded via email
- Over 220 systematic review results were, de-duplicated and included in a bibliography
- An additional 35 guidelines were found from database searches and included in a bibliography.

IMPORTANT NOTE – filters for systematic reviews applied to medline embase and CINAHL were exhaustive in order to maximize retrieval of relevant results. Some articles cited in the bibliography are not explicitly systematic reviews. Please assess the validity of the methodology to ensure the review is systematic prior to including it in your review process.

Guideline Searching (full text pdfs will be forwarded in separate emails)

NICE - Search pregnancy smoking
Relevant results
- Smoking: stopping in pregnancy and after childbirth NICE guidelines [PH26] Published date: June 2010
  https://www.nice.org.uk/guidance/ph26/chapter/7-Related-NICE-guidance

National Guideline Clearinghouse
Search
pregnancy or prenatal or maternal or postnatal or antinatal or perinatal' and 'smoking or tobacco' within the above set.

Results (all years) 195
https://www.guideline.gov/search/search.aspx?term=pregnancy%20or%20prenatal%20or%20maternal%20or%20postnatal%20or%20antinatal%20or%20perinatal&subterm=smoking%20or%20tobacco
Relevant results
- Result # 5 - Substance use in Pregnancy – Society of obstetricians and gynaecologists of Canada NGC:008510
- Result #15 - Guidelines for the identification and management of substance use and substance use disorders in pregnancy 2014 – WHO NGC:010619
- Result #17 - Tobacco Treatment 1998 University of Michigan Health System. Revised March 2012 NGC:009056 (FDA warning related to meds discussed)

College of family physicians of Canada Clinical practice guideline search
Canadian Smoking Cessation Clinical practice guidelines 2012 Canadian Action network for the advancement, dissemination and adoption of practice-informed tobacco treatment

7 Related NICE guidance
https://www.nice.org.uk/guidance/ph26/chapter/7-Related-NICE-guidance
- School-based interventions to prevent smoking. NICE public health guidance 23 (2010).
- Smoking cessation services. NICE public health guidance 10 (2008).
- Workplace interventions to promote smoking cessation. NICE public health guidance 5 (2007).
- Weight management before, during and after pregnancy. NICE public health guidance 27 (2010)
- Pregnancy and complex social factors. NICE clinical guideline 110 (2010)

NOTE: Guidelines were also extracted from the following databases using filters MEDLINE, EMBASE, CINAH. These and included in a separate bibliography.

DATABASE SEARCHES
Ovid MEDLINE(R) 1946 to Present  Search Strategy:
1 Pregnancy/ or Pregnancy, High-Risk/ or Maternal Behavior/ or Maternal-Fetal Exchange/ or Maternal Welfare/ or Maternal Health Services/ or Maternal Health/ or Pregnant Women/ or Prenatal Care/ 776262
2 (pregnan* or antinatal or perinatal or mother* or maternal or postnatal).ti,kw,kf. or (pregnan* or antinatal or perinatal or mother* or maternal or postnatal).ab. /freq=2 499095
3 or/1-2 - all pregnancy related articles 921531
4 "Tobacco Use Disorder"/ or "Tobacco Use"/ or Smoking/ 131087
5 (smok* or nicotine or tobacco).ti,kw,kf. or (smok* or nicotine or tobacco).ab. /freq=2 164063
6 or/4-5 207810
7 (cessation or quit or quitting or stop* or give up or cut out or rehab* or "break the habit").ti,kw,kf. or (cessation or quit or quitting or stop* or give up or cut out or rehab*).ab. /freq=2 121374
8 6 and 7 18752
9 "tobacco use cessation"/ or smoking cessation/ 22768
10 8 or 9 all articles on quitting 28512

INTERVENTIONS
11 cut down to quit.ti,kw,kf,ab. 18
12 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ti. 7964
13 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ab. /freq=2 17156
14 11 or 12 or 13 23865 (14 and 3 and 10 169)
15 Therapy, Computer-Assisted/ 5459
16 (mobile phone or cellular or cell phone or text messag* or internet or web or web-based or web based or online or on-line).ti,kw,kf. 124342
17 (mobile phone or cellular or cell phone or text messag* or internet or web or web-based or web based or online or on-line).ab. /freq=2 161601
18 (app or apps).ti,kw,kf. or (app or apps).ab. /freq=2 10968
23

19 or/15-18
19 and 3 and 10
22
20 Counseling/ or directive counseling/ or motivational interviewing/
21 behavior therapy/ or cognitive therapy/
22 Self-Help Groups/ or Group Processes/
23 "acceptance and commitment therapy"/ or mindfulness/ or "acceptance and commitment therapy".ti,ab,kw,kf.
24 Psychological Techniques/
25 nicotine anonymous.ti,ab,kw,kf.
26 (group counsel* or group therap* or cognitive behaviour therapy or cognitive behavior therapy).mp.
27 or/20-26 all psychological or behavioral therapies
27 and 3 and 10
28 "tobacco use cessation products"/ or electronic cigarettes/
29 nicotine replacement.mp.
30 NRT.ti,kw,kf.
31 Smoking/th or "Tobacco Use Disorder"/th
32 (vaping or e-cig* or e cigarette* or electronic cigarette* or e-cigarette* or cigalike).ti,kw,kf.
33 (vaping or e-cig* or e cigarette* or electronic cigarette* or e-cigarette* or cigalike).ab. /freq=2
34. 28 or 29 or 30 or 31 or 32 or 33
34 and 3 and 10
35 (prescri* or medication* or pharmaceutical* or drug therapy).ti,kw,kf.
36 patient education as topic/ or prenatal education/ or health education/ or consumer health information/ or teaching materials/
37 (curricul* or teach* or educat*).ti,kw,kf. or (curricul* or teach* or educat*).ab. /freq=2
38 or/36-37
38 and 3 and 10
39 Media campaigns or policy interventions
39 (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or smoking or nicotine or quit or quitting).ti,kw,kf. or (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or smoking or nicotine or quit or quitting).ab. /freq=2
40 (campaign* or program* or initiative* or project or policies or policy or regulat* or push or drive or movement or strategy or strategies or approach or action or plan*).ti,kw,kf. or (campaign* or program* or initiative* or project or policies or policy or regulat* or push or drive or movement or strategy or strategies or approach or action or plan*).ab. /freq=2
41 communications media/ or mass media/ or Social Media/ or Public Policy/
42 or/40-41
43 39 and 42
44 Smoke-Free Policy/
45 or/43-44 1
45 and 3 and 10
46 Other prevention control or therapeutic interventions - generic
46 Smoking/p, th or "Tobacco Use"/p, th or "Tobacco Use Disorder"/p, th
46 and 3 and 10
47 14 or 19 or 27 or 34 or 35 or 38 or 45 or 46 all interventions
3 and 10 and 48  all interventions with population/outcome  1174

Systematic review filters.
51. (((comprehensive* or integrative or systematic*) adj3 (bibliographic* or review* or literature)) or (meta-analy* or metaanaly* or "research synthesis" or ((information or data) adj3 synthesis) or (data adj2 extract*)).ti,ab. or (cinahl or (cochrane adj3 trial*)) or embase or medline or psyclit or (psycinfo not "psycinfo database") or pubmed or scopus or "sociological abstracts" or "web of science").ab. or ("cochrane database of systematic reviews" or evidence report technology assessment or evidence report technology assessment summary).jn. or Evidence Report: Technology Assessment*.jn. or ((review adj5 (rationale or evidence)).ti,ab. and review.pt.) or meta-analysis as topic/ or Meta-Analysis.pt.

52. meta-analysis/ 252038
53. (systematic review* or meta analys* or metanalys* or meta-analys* or "review of reviews").mp. 149657
54. ((pooled or combined or combining) adj (review* or data or studies or results or trials or information)).mp. 16119
55. ((research or data) adj synthesis).mp. 8304
56. 52 or 53 or 54 or 55 167196
57. 48 and 56 62
58. 48 and 51 86
59. 67 or 68 88
60. limit 59 to (english language and yr="2008-CURRENT") 52

Guidelines or consensus development

limit 48 to (english language and humans and (consensus development conference or consensus development conference, nih or guideline or practice guideline))

EMBASE
1 pregnancy/ 266952
2 exp maternal behavior/ 8161
3 maternal welfare/ 8773
4 maternal care/ 12369
5 pregnant woman/ 40991
6 prenatal care/ 22118
7 (pregnan* or antinatal or perinatal or postnatal or prenatal or mother* or maternal).ab. /freq=2 342470
8 (pregnan* or antinatal or perinatal or postnatal or prenatal or mother* or maternal).mp. 734191 9 or/1-8

734191
10 maternal smoking/ 4168
11 "tobacco use"/ or smoking/ 179638
12 (smok* or nicotine or tobacco).mp. 355238
13 (smok* or nicotine or tobacco).ab. /freq=2 135196
14 or/10-13 355238
15 (cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit").mp. 349837
16 (cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit").ab. /freq=2 87101
17 15 or 16 349837
18 14 and 17 53335
smoking cessation/ 39476
20 18 or 19 53335

INTerventions
21 "cut down to quit".mp. 23
22 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ti. 7320
23 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ab. /freq=2 18618
24. 21 or 22 or 23 24571
25 computer assisted therapy/ 3293
26 (mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based or web based or online or on-line).mp. 906988
27 (mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based or web based or online or on-line).ab. /freq=2 172677
28 social media/ 5135
29 mobile application/ 1696
30 (app or apps).ti. 3466
31 (app or apps).ab. /freq=2 10625
32 25 or 26 or 27 or 28 or 29 or 30 or 31 922234
33 counseling/ or directive counseling/ or motivational interviewing/ or peer counseling/ 37196
34 behavior therapy/ 28231
35 cognitive therapy/ or "acceptance and commitment therapy"/ 37675
36 (acceptance and commitment therapy).mp. 752
37 group therapy/ 9520
38 self help/ 7828
39 nicotine anonymous.ti. 2
40 nicotine anonymous.ab. /freq=2 1
41 (group counsel* or group therapy or cognitive behaviour therapy or cognitive behavior therapy).mp. 14740
42 or/33-31 104900
43 nicotine gum/ 2108
44 nicotine patch/ 1560
45 nicotine lozenge/ 170
46 smoking cessation program/ 2237
47 (NRT or nicotine replacement).ti. 760
48 smoking/th [Therapy] 206
49 "tobacco use"/th [Therapy] 3
50 (vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike).mp. 1575
51 (vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike).ab. /freq=2 623
52 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 7087
53 (prescri* or medication or pharmaceutical or drug therapy).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword] 608389
54 smoking/dt [Drug Therapy] 120
55 tobacco/dt [Drug Therapy] 3
56 53 or 54 or 55 608479
57 patient education/ or health education/ 126846
58 childbirth education/ 213
59 consumer health information/ 2684
60 (curricul* or teach* or educat*).mp. 822935
61 (curricul* or teach* or educat*).ab. /freq=2 178645
62 57 or 58 or 59 or 60 or 61 824755
Policies and media campaigns
63 smoking regulation/ 314
64 smoking ban/ 952
65 smoking regulation/ 314
66 (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or quit or quitting or smok* or nicotine or tobacco).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword] 356864
67 ((anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or quit or quitting or smok* or nicotine or tobacco) adj2 (campaign* or program* or initiative* or project or policy or policies or regulat* or ban or prohibit* or push or drive or movement or strategy or strategies or approach or action or plan*)).mp. 16394
68 mass communication/ 10968
69 policy/ 62405
70 68 or 69 7318
71 66 and 70 2585
72 63 or 64 or 65 or 67 or 71 18057
Generic therapy and prevention...
73 smoking/pc, th [Prevention, Therapy] 4909
74 "tobacco use"/pc, th [Prevention, Therapy] 13
75 73 or 74 4920
All interventions
76. 24 or 32 or 42 or 52 or 56 or 62 or 72 or 75 2329918
77. 9 and 20 and 76 2017 all interventions for pregnant users
Systematic Review Filters
78 (((comprehensive* or integrative or systematic*) adj3 (bibliographic* or review* or literature)) or (meta-analy* or metaanalys* or "research synthesis" or ((information or data) adj3 synthesis) or (data adj2 extract*))).ti,ab. or (cinahl or (cochrane adj3 trial*) or embase or medline or psyclit or (psycinfo not "psycinfo database") or pubmed or scopus or "sociological abstracts" or "web of science").ab. or ("cochrane database of systematic reviews" or evidence report technology assessment or evidence report technology assessment summary).jn. or Evidence Report: Technology Assessment*.jn. or ((review adj5 (rationale or evidence)).ti,ab. and review.pt.) or meta-analysis as topic/ or Meta-Analysis.pt. 297721
79 meta-analysis/ or systematic review/ 159998
80 (systematic review* or meta analy* or metanalys* or meta-analys* or "review of reviews").mp. 233341
81 ((pooled or combined or combining) adj (review* or data or studies or results or trials or information)).mp. 18103
82 ((research or information or data) adj synthesis).mp. 10693
83 78 or 79 or 80 or 81 or 82 359014
84 77 and 83 173
85 limit 84 to (human and english language and yr="2008 - 2016") 110
Limiter for guidelines.
86. limit 77 to (english language and humans and (consensus development conference or consensus development conference, nih or guideline or practice guideline))
CINAHL
63. S8 and Limiters English Language; Publication Type: Practice Guidelines

62. S8 and S61
61. (TI (systematic* n3 review*)) or (AB (systematic* n3 review*)) or (TI (systematic* n3 bibliographic*)) or (AB (systematic* n3 bibliographic*)) or (TI (systematic* n3 literature)) or (AB (systematic* n3 literature)) or (TI (comprehensive* n3 literature)) or (AB (comprehensive* n3 literature)) or (TI (comprehensive* n3 bibliographic*)) or (AB (comprehensive* n3 bibliographic*)) or (TI (integrative n3 review)) or (AB (integrative n3 review)) or (JN "Cochrane Database of Systematic Reviews") or (TI (information n2 synthesis)) or (TI (data n2 synthesis)) or (AB (information n2 synthesis)) or (AB (data n2 synthesis)) or (TI (data n2 extract*)) or (AB (data n2 extract*)) or (TI (medline or pubmed or psyclit or cinahl or (psycinfo not "psycinfo database") or "web of science" or scopus or embase)) or (AB (medline or pubmed or psyclit or cinahl or (psycinfo not "psycinfo database") or "web of science" or scopus or embase)) or (MH "Systematic Review") or (MH "Meta Analysis") or (TI (meta-analy* or metaanaly*)) or (AB (meta-analy* or metaanaly*))

S58 AND S59

S59 Limiters - Published Date: 20100101-20161231; Publication Type: Meta Analysis, Meta Synthesis, Systematic Review

20,420

S58 ($18 OR $26 OR $35 OR $42 OR $43 OR $49 OR $56) AND ($7 AND $15 AND $57)

817

S57 $18 OR $26 OR $35 OR $42 OR $43 OR $49 OR $56

713,485

S56 $50 AND $55

12,493

S55 $51 OR $52 OR $53 OR $54

603,579

S54 (MH "Public Policy") OR (MH "Policy Making") OR (MH "Health Policy") OR (MH "Policy Studies") OR (MH "Health Policy Studies")

45,432

S53 (MH "Social Media")

2,974

S52 (MH "Communications Media") OR (MH "Telecommunications+")

71,771

S51 TI ( campaign* or program* or initiative* or project* or policies or policy or regulation or push or drive or movement or strategy or strategies or approach or plan or action ) OR AB ( campaign* or program* or initiative* or project* or policies or policy or regulation or push or drive or movement or strategy or strategies or approach or plan or action )

523,066

S50 TI ( anti tobacco or anti smoking or anti-tobacco or anti-smoking or smoke free or tobacco free or tobacco control or smok* or nicotine or quit or quitting ) OR AB ( anti tobacco or anti smoking or anti-tobacco or anti-smoking or smoke free or tobacco free or tobacco control or smok* or nicotine or quit or quitting )

41,236

S49 $44 OR $45 OR $46 OR $47 OR $48

253,062

S48 TI ( curricul* or teach* or educat* ) OR AB ( curricul* or teach* or educat* )

206,441

S47 (MH "Teaching Materials"

7,401

S46 (MH "Consumer Health Information"

8,558

S45 (MH "Health Education"

14,514

S44 (MH "Patient Education"

41,035

S43 TI ( prescri* or medication* or pharmaceutical* or drug therapy ) OR AB ( prescri* or medication* or pharmaceutical* or drug therapy ) OR SU ( prescri* or medication* or pharmaceutical* or drug therapy )

326,188

S42 $36 OR $37 OR $38 OR $39 OR $40 OR $41

2,609

S41 (MH "Tobacco Use Cessation Products"

633

S40 TI (nicotine replacement or NRT ) OR AB (nicotine replacement)

832

S39 TI ( (vaping or e-cig* or e cigarette or electronic cigarette* or cigalike) ) OR AB ( (vaping or e-cig* or e cigarette or electronic cigarette* or cigalike) )

589

S38 (MH "Smoking/TH"

309

S37 (MH "Nicotine Replacement Therapy"

1,098
S36 (MH "Electronic Cigarettes")

S35 S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 36,217

S34 TI nicotine anonymous OR AB nicotine anonymous OR SU nicotine anonymous OR TI (group counsel* or group therap* or cognitive behaviour therapy or cognitive behavior therapy ) OR AB (group counsel* or group therap* or cognitive behaviour therapy or cognitive behavior therapy ) OR MJ (group counsel* or group therap* or cognitive behaviour therapy or cognitive behavior therapy )

1,960

S33 (MH "Cognitive Therapy") OR (MH "Acceptance and Commitment Therapy") OR (MH "Mindfulness") 8,991

S32 TI directive counseling OR SU directive counseling OR AB directive counseling 18

S31 (MH "Psychological Techniques") 256

S30 (MH "Support Groups") 6,710

S29 (MH "Behavior Therapy") OR (MH "Cognitive Therapy") 12,922

S28 (MH "Motivational Interviewing") 1,315

S27 (MH "Counseling") 14,703

S26 S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 148,058

S25 TI ((mobile phone or cellular or cell phone or text messag* or internet or web or web-based or web based or online or on-line) ) OR AB ((mobile phone or cellular or cell phone or text messag* or internet or web or web-based or web based or online or on-line) ) OR TI ((app or apps) ) OR AB ((app or apps) )

87,464

S24 (MH "Mobile Applications") 478

S23 (MH "Internet") OR (MH "World Wide Web") 78,494

S22 (MH "Social Media") 2,974

S21 (MH "Text Messaging") OR (MH "Instant Messaging") 483

S20 (MH "Cellular Phone") OR (MH "Smartphone") 461

S19 (MH "Therapy, Computer Assisted") 2,295

S18 S16 OR S17 14,404

S17 TI ((cut down or reduc* or limit* or lower or wean) N2 (intake or gradual or smok* or tobacco or nicotine or consum* or use or cigarette*) ) OR AB ((cut down or reduc* or limit* or lower or wean) N2 (intake or gradual or smok* or tobacco or nicotine or consum* or use or cigarette*) )

14,403

S16 TI "cut down to quit" OR AB "cut down to quit" OR SU "cut down to quit" OR MW "cut down to quit" 11

S15 S13 OR S14 15,811

S14 (MH "Smoking Cessation") 13,822

S13 S11 AND S12

S12 S8 OR S9 OR S10 54,676

S11 cessation or quit or quitting or stop* or give up or cut out or rehab* or (break N/2 habit) Search modes - 134,453

S10 TI (smok* or nicotine or tobacco or cigarette* ) OR AB (smok* or nicotine or tobacco or cigarette* )

46,055

S9 (MH "Smoking") 30,066

S8 (MH "Tobacco Products") 265

S7 S1 OR S2 OR S3 OR S4 OR S5 OR S6 146,125

S6 TI (pregnan* or antinatal or perinatal or mother* or maternal or postnatal or prenatal ) OR AB (pregnan* or antinatal or perinatal or mother* or maternal or postnatal or prenatal ) 94,802

S5 (MH "Maternal-Child Health") 1,853

S4 (MH "Prenatal Care") 8,584

S3 (MH "Maternal Behavior") OR (MH "Maternal Health Services") OR (MH "Maternal Welfare") OR (MH "Maternal-Fetal Exchange") 7,328

S2 (MH "Pregnancy") 100,106
Cochrane Database Search Strategy
Results in the Systematic Reviews Database

S1 (MH "Expectant Mothers") 2,159

S41 S3 AND S8 AND S40 17
S40 S9 OR S10 OR S14 OR S21 OR S24 OR S27 OR S36 OR S38 OR S39 4,277
S39 S28 OR S29 OR S30 702
S38 S35 OR S37 6
S37 (ZE "tobacco industry legislation & jurisprudence") or (ZE "tobacco smoke pollution legislation & jurisprudence") or (ZE "tobacco smoke pollution prevention & control") 3
S36 ((ZE "smoking cessation psychology") or (ZE "smoking prevention & control") or (ZE "smoking therapy")) or ((ZE "tobacco use disorder prevention & control")) 45
S35 (S31 AND S32) AND (S30 OR S33 OR S34) 3
S34 S31 AND S32 3
S33 (anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco) N3 (campaign* or program* or initiative* or project or policy or policies or regulat* or ban or prohibit* or push or drive or movement or strategy or strategies or approach or action or plan) 172
S32 ((ZE "policy making")] or ([ZE "mass media"] or [ZE "communication"]) 17
S31 TI (anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco ) OR AB (anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco ) OR SU (anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco ) 699
S28 (((ZE "patient education as topic") or ([ZE "patient education as topic methods"]) or ((ZE "health education") or ([ZE "health education methods"]) or ([ZE "consumer health information methods"])) 69
S27 S25 OR S26 3,100
S26 TI (prescri* or medication or pharmaceutical* or drug therapy) OR SU (prescri* or medication or pharmaceutical* or drug therapy) OR AB (prescri* or medication or pharmaceutical* or drug therapy) 3,100
S25 (ZE "smoking drug therapy") 5
S24 (TI (nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR AB (nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR SU (nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT )) AND (S22 OR S23) 36
S23 TI (nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR AB (nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR SU (nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) 36
S22 (((((ZE "nicotine therapeutic use") or ([ZE "smoking cessation methods"] or ([ZE "smoking cessation statistics & numerical data"]) or ([ZE "smoking therapy"])) or ([ZE "tobacco use cessation methods"] or ([ZE "tobacco use cessation products"]) 44
S21 S15 OR S16 OR S17 OR S18 OR S19 OR S20 135
S20  TI (cognitive behaviour therapy or cognitive behavior therapy) OR AB (cognitive behaviour therapy or cognitive behavior therapy) OR SU (cognitive behaviour therapy or cognitive behavior therapy)  

27  

S19  TI (group therap* or self help or nicotine anonymous) OR AB (group therap* or self help or nicotine anonymous) AND SU (group therap* or self help or nicotine anonymous)  

9  

S18  TI (acceptance and commitment therapy) OR AB (acceptance and commitment therapy) OR SU (acceptance and commitment therapy)  

6  

S17  TI motivational interview* OR AB motivational interview* OR SU motivational interview*  

22  

S16  TI (directive or peer) N2 (counseling or therapy) OR AB (directive or peer) N2 (counseling or therapy)  

4  

S15  (((((ZE "self-help groups")) or ((ZE "counseling") or (ZE "counseling methods"))) or ((ZE "motivational interviewing methods"))) or ((ZE "behavior therapy") or (ZE "behavior therapy methods"))) or ((ZE "cognitive therapy") or (ZE "cognitive therapy methods"))  

87  

S14  S11 OR S12 OR S13  

720  

S13  TI social media OR AB social media  

1  

S12  TI app or apps  

2  

S11  TI ((mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based over web based or online or on-line) ) OR AB ((mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based over web based or online or on-line) ) OR SU ((mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based over web based or online or on-line) )  

719  

S10  TI (cut down or reduc* or limit* or less* or wean) N3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*) OR AB (cut down or reduc* or limit* or less* or wean) N3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)  

699  

S9  "cut down to quit"  

0  

S8  S6 OR S7  

138  

S7  S4 AND S5  

138  

S6  (ZE "smoking cessation")  

11  

S5  TI (cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit") OR AB (cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit") OR SU (cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit")  

1,088  

S4  TI (smok* or nicotine or tobacco or cigarette*) OR AB (smok* or nicotine or tobacco or cigarette*) OR SU (smok* or nicotine or tobacco or cigarette*)  

254  

S3  S1 OR S2  

1,146  

S2  (((((ZE "pregnancy")) or ((ZE "maternal health services") or (ZE "maternal welfare"))) or ((ZE "pregnant women psychology"))) or ((ZE "prenatal care"))  

18  

S1  TI ((pregnan* or maternal or antinatal or perinatal or postnatal or prenatal or mother*)) OR AB ((pregnan* or maternal or antinatal or perinatal or postnatal or prenatal or mother*)) OR SU ((pregnan* or maternal or antinatal or perinatal or postnatal or prenatal or mother*))  

1,146
psychinfo
1 exp Pregnancy/ or exp Adolescent Pregnancy/ 17670
2 exp Prenatal Care/ 1547
3 (pregnan* or antinatal or prenatal or perinatal or postnatal or mother* or maternal or maternity).mp. 140762
4 or/1-3 140777

5 exp Tobacco Smoking/ 23491
6 (smok* or nicotine or tobacco or cigarette*).mp. 52819
7 5 or 6 52819
8 (cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit").mp. 99091
9 Smoking cessation/ 10411
10 7 and 8 15894
11 9 or 10 15894
12 "cut down to quit".mp. 13
13 ((cut or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual* or smok* or tobacco or nicotine or consum* or use* or cigarette*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures] 36215
14 12 or 13 36222
15 computer assisted therapy/ or online therapy/ 2412
16 social media/ 2251
17 (mobile phone or cellular or cell phone or text messag* or texting or internet or web or we-based or online or on-line).mp. 109963
18 (app or apps).ti. 802
19 15 or 16 or 17 or 18 111801
20 counseling/ or peer counseling/ or rehabilitation counseling/ or support groups/ 20297
21 exp cognitive therapy/ or exp motivational therapy/ or exp cognitive behavior therapy/ 25172 22 (acceptance and commitment therapy).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures] 1316
23 group therapy.mp. or exp Group Psychotherapy/ 16310
24 exp self help techniques/ or exp support groups/ 12759
25 nicotine anonymous.mp. 0
26 (group counsel* or self help or directive counsel* or cognitive behaviour therapy or cognitive behavior therapy).mp. 26476
27 20 or 21 or 22 or 23 or 24 or 25 or 26 74414
28 (nicotine adj (gum or lozenge or patch or replacement)).mp. 1923
29 (smoking cessation program or tobacco cessation program).mp. 668
30 NRT.ti. 28
31 (vaping* or e-cig* or e-cigarette* or electronic cigarette* or cigalike or smokeless tobacco).mp. 1333
32 28 or 29 or 30 or 31 3743
33 (prescri* or medicat* or pharmaceutical or drug therapy).mp. 161582
34 health education/or client education/or health literacy/or health promotion/or prenatal care/ 31907
35 (curricul* or teach* or educat*).mp. 477817
36 consumer health information.mp. 65
37 34 or 35 or 36 492335
38 (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or smoking or nicotine or quit or quitting).mp. 47294
39 exp Printed Communications Media/ or exp Telecommunications Media/ or exp Communications Media/ or exp Audiovisual Communications Media/ or exp Mass Media/ or exp Social Media/ or exp News Media/ 49060
40 government policy making/ 16133
Guideline Searching (full text pdfs will be forwarded in separate emails)

NICE - Search pregnancy smoking

National Guideline Clearinghouse
Search
pregnancy or prenatal or maternal or postnatal or antinatal or perinatal'
and 'smoking or tobacco' within the above set.

DATABASE SEARCHES
Ovid MEDLINE(R) 1946 to Present  Search Strategy:
1 Pregnancy/ or Pregnancy, High-Risk/ or Maternal Behavior/ or Maternal-Fetal Exchange/ or Maternal Welfare/ or Maternal Health Services/ or Maternal Health/ or Pregnant Women/ or Prenatal Care/ 776262
2 (pregnan* or antinatal or perinatal or mother* or maternal or postnatal).ti,kw,kf. or (pregnan* or antinatal or perinatal or mother* or maternal or postnatal).ab. /freq=2 499095
3 or/1-2 - all pregnancy related articles 921531
4 "Tobacco Use Disorder"/ or "Tobacco Use"/ or Smoking/ 131087
5 (smok* or nicotine or tobacco).ti,kw,kf. or (smok* or nicotine or tobacco).ab. /freq=2 164063
6 or/4-5 207810
7 (cessation or quit or quitting or stop* or give up or cut out or rehab* or "break the habit").ti,kw,kf. or (cessation or quit or quitting or stop* or give up or cut out or rehab*).ab. /freq=2 121374
8 6 and 7 18752
9 "tobacco use cessation"/ or smoking cessation/ 22768
10 8 or 9 all articles on quitting 28512

INTERVENTIONS
11 cut down to quit.ti,kw,kf,ab. 18
12 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ti. 7964
13 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ab. /freq=2 17156
14 11 or 12 or 13 23865 (14 and 3 and 10 169)
Therapy, Computer-Assisted/
16 (mobile phone or cellular or cell phone or text messaging or internet or web or web-based or web-based or online or on-line).ti,kw,kf.
17 (mobile phone or cellular or cell phone or text messaging or internet or web or web-based or web-based or online or on-line).ab. /freq=2
18 (app or apps).ti,kw,kf. or (app or apps).ab. /freq=2
19 or/15-18
19 and 3 and 10
20 counseling/ or directive counseling/ or motivational interviewing/
21 behavior therapy/ or cognitive therapy/
22 Self-Help Groups/ or Group Processes/
23 "acceptance and commitment therapy"/ or mindfulness/ or "acceptance and commitment therapy".ti,ab,kw,kf.
24 Psychological Techniques/
25 nicotine anonymous.ti,ab,kw,kf.
26 (group counsel* or group therapy* or cognitive behaviour therapy or cognitive behavior therapy).mp.
27 or/20-26 all psychological or behavioral therapies
27 and 3 and 10
28 "tobacco use cessation products"/ or electronic cigarettes/
29 nicotine replacement.mp.
30 NRT.ti,kw,kf.
31 Smoking/th or "Tobacco Use Disorder"/th
32 (vaping or e-cig* or e cigarette* or electronic cigarette* or e-cigarette* or cigalike).ti,kw,kf.
33 (vaping or e-cig* or e cigarette* or electronic cigarette* or e-cigarette* or cigalike).ab. /freq=2
34. 28 or 29 or 30 or 31 or 32 or 33
34 and 3 and 10
35 (prescri* or medication* or pharmaceutical* or drug therapy).ti,kw,kf.
36 patient education as topic/ or prenatal education/ or health education/ or consumer health information/ or teaching materials/
37 (curricul* or teach* or educat*).ti,kw,kf. or (curricul* or teach* or educat*).ab. /freq=2
38 or/36-37
38 and 3 and 10
Media campaigns or policy interventions
39 (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or smoking or nicotine or quit or quitting).ti,kw,kf. or (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or smoking or nicotine or quit or quitting).ab. /freq=2
40 (campaign* or program* or initiative* or project or policies or policy or regulat* or push or drive or movement or strategy or strategies or approach or action or plan*).ti,kw,kf. or (campaign* or program* or initiative* or project or policies or policy or regulat* or push or drive or movement or strategy or strategies or approach or action or plan*).ab. /freq=2
41 communications media/ or mass media/ or Social Media/ or Public Policy/
42 or/40-41
Systematic review filters.
51. (((comprehensive* or integrative or systematic*) adj3 (bibliographic* or review* or literature)) or (meta-analy* or metaanaly* or "research synthesis" or ((information or data) adj3 synthesis) or (data adj2 extract*))).ti,ab. or (cinahl or (cochrane adj3 trial*) or embase or medline or psyclit or (psycinfo not "psycinfo database") or pubmed or scopus or "sociological abstracts" or "web of science").ab. or ("cochrane database of systematic reviews" or evidence report technology assessment or evidence report technology assessment summary).jn. or Evidence Report: Technology Assessment*.jn. or ((review adj5 (rationale or evidence)).ti,ab. and review.pt.) or meta-analysis as topic/ or Meta-Analysis.pt. 252038
52. meta-analysis/ 60194
53. (systematic review* or meta analys* or metanalys* or meta-analy* or "review of reviews").mp. 149657
54. ((pooled or combined or combining) adj (review* or data or studies or results or trials or information)).mp. 16119
55. ((research or data) adj synthesis).mp. 8304
56. 52 or 53 or 54 or 55 167196
57. 48 and 56 62
58. 48 and 51 86
59. 67 or 68 88
60. limit 59 to (english language and yr="2008 -Current") 52

Guidelines or consensus development

limit 48 to (english language and humans and (consensus development conference or consensus development conference, nih or guideline or practice guideline)) 10

EMBASE
1 pregnancy/ 266952
2 exp maternal behavior/ 8161
3 maternal welfare/ 8773
4 maternal care/ 12389
5 pregnant woman/ 40991
6 prenatal care/ 22118
7 (pregnanc* or antinatal or perinatal or postnatal or prenatal or mother* or maternal).ab. /freq=2 342470
8 (pregnanc* or antinatal or perinatal or postnatal or prenatal or mother* or maternal).mp. 734191 9 or/1-8 734191
10 maternal smoking/ 4168
11 "tobacco use"/ or smoking/ 179638
12 (smok* or nicotine or tobacco).mp. 355238
13 (smok* or nicotine or tobacco).ab. /freq=2 135196
INTERVENTIONS

21 "cut down to quit".mp. 23
22 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ti. 7320
23 ((cut down or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)).ab. /freq=2 18618
24. 21 or 22 or 23 24571
25 computer assisted therapy/ 3293
26 (mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based or web based or online or on-line).mp. 906988
27 (mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based or web based or online or on-line).ab. /freq=2 172677
28 social media/ 5135
29 mobile application/ 1696
30 (app or apps).ti. 3466
31 (app or apps).ab. /freq=2 10625
32 25 or 26 or 27 or 28 or 29 or 30 or 31 922234
33 counseling/ or directive counseling/ or motivational interviewing/ or peer counseling/ 37196
34 behavior therapy/ 28231
35 cognitive therapy/ or "acceptance and commitment therapy"/ 37675
36 (acceptance and commitment therapy).mp. 752
37 group therapy/ 9520
38 self help/ 7828
39 nicotine anonymous.ti. 2
40 nicotine anonymous.ab. /freq=2 1
41 (group counsel* or group therapy or cognitive behaviour therapy or cognitive behavior therapy).mp. 14740
42 or/33-41 104900
43 nicotine gum/ 2108
44 nicotine patch/ 1560
45 nicotine lozenge/ 170
46 smoking cessation program/ 2237
47 (NRT or nicotine replacement).ti. 760
48 smoking/th [Therapy] 206
49 "tobacco use"/th [Therapy] 3
50 (vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike).mp. 1575
51 (vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike).ab. /freq=2 623
52 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 7087
53 (prescri* or medication or pharmaceutical or drug therapy).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword] 608389
54 smoking/dt [Drug Therapy] 120
55 tobacco/dt [Drug Therapy] 3
56 53 or 54 or 55 608479
57 patient education/ or health education/ 126846
58 childbirth education/ 213
59 consumer health information/ 2684
60 (curricul* or teach* or educat*).mp. 829235
61 (curricul* or teach* or educat*).ab. /freq=2 178645
62 57 or 58 or 59 or 60 or 61 824755

Policies and media campaigns
63 smoking regulation/ 314
64 smoking ban/ 952
65 smoking regulation/ 314
66 (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or quit or quitting or smok* or nicotine or tobacco).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword] 356864
67 ((anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or quit or quitting or smok* or nicotine or tobacco) adj2 (campaign* or program* or initiative* or project or policy or policies or regulat* or ban or prohibit* or push or drive or movement or strategy or strategies or approach or action or plan*)).mp. 16394
68 mass communication/ 10968
69 policy/ 62405
70 68 or 69 73184
71 66 and 70 25
72 63 or 64 or 65 or 67 or 71 18057

Generic therapy and prevention..
73 smoking/pc, th [Prevention, Therapy] 4909
74 "tobacco use"/pc, th [Prevention, Therapy] 13
75 73 or 74 4920

All interventions
76. 24 or 32 or 42 or 52 or 56 or 62 or 72 or 75 2329918
77. 9 and 20 and 76 2017 all interventions for pregnant users

Systematic Review Filters
78 (((comprehensive* or integrative or systematic*) adj3 (bibliographic* or review* or literature)) or (meta-anaLy* or metaanalyse* or "research synthesis" or ((information or data) adj3 synthesis) or (data adj2 extract*))).ti,ab. or (cinahl or (cochrane adj3 trial*) or embase or medline or psyclit or (psycinfo not "psycinfo database") or pubmed or scopus or "sociological abstracts" or "web of science").ab. or ("cochrane database of systematic reviews" or evidence report technology assessment or evidence report technology assessment summary).jn. or Evidence Report: Technology Assessment*.jn. or ((review adj5 (rationale or evidence)).ti,ab. and review.pt.) or meta-analysis as topic/ or Meta-Analysis.pt. 297721
79 meta-analysis/ or systematic review/ 159998
80 (systematic review* or meta analys* or metanalys* or meta-analys* or "review of reviews").mp. 233341
81 ((pooled or combined or combining) adj (review* or data or studies or results or trials or information)).mp. 18103
82 ((research or information or data) adj synthesis).mp. 10693
83 78 or 79 or 80 or 81 or 82 359014
84 77 and 83 173
85 limit 84 to (human and english language and yr="2008 - 2016") 110

Limiter for guidelines.
86. limit 77 to (english language and humans and (consensus development conference or consensus development conference, nih or guideline or practice guideline)) 17
CINAHL

64. 58 and Limiters English Language; Publication Type: Practice Guidelines  8

63 Limiters - Published Date: 20080101-20161231; English Language  41
62. 58 and 61
61. (TI (systematic* n3 review*)) or (AB (systematic* n3 review*)) or (TI (systematic* n3 bibliographic*)) or (AB (systematic* n3 bibliographic*)) or (TI (systematic* n3 literature)) or (AB (systematic* n3 literature)) or (TI (comprehensive* n3 literature)) or (AB (comprehensive* n3 literature)) or (TI (comprehensive* n3 bibliographic*)) or (AB (comprehensive* n3 bibliographic*)) or (TI (integrative n3 review)) or (AB (integrative n3 review)) or (IN "Cochrane Database of Systematic Reviews") or (TI (information n2 synthesis)) or (TI (data n2 synthesis)) or (AB (information n2 synthesis)) or (AB (data n2 synthesis)) or (TI (data n2 extract*)) or (AB (data n2 extract*)) or (TI (medline or pubmed or psyclit or cinahl or (psycinfo not "psycinfo database") or "web of science" or scopus or embase)) or (AB (medline or pubmed or psyclit or cinahl or (psycinfo not "psycinfo database") or "web of science" or scopus or embase)) or (MH "Systematic Review") or (MH "Meta Analysis") or (TI (meta-analy* or metaanaly*)) or (AB (meta-analy* or metaanaly*))

S60  S58 AND S59
S59 Limiters - Published Date: 20100101-20161231; Publication Type: Meta Analysis, Meta Synthesis, Systematic Review  28

S58 (S18 OR S26 OR S35 OR S42 OR S43 OR S49 OR S56) AND (S7 AND S15 AND S57)  817

S57  S18 OR S26 OR S35 OR S42 OR S43 OR S49 OR S56  713,485
S56  S50 AND S55  12,493
S55  S51 OR S52 OR S53 OR S54  603,579
S54 (MH "Public Policy") OR (MH "Policy Making") OR (MH "Health Policy") OR (MH "Policy Studies") OR (MH "Health Policy Studies")  45,432
S53 (MH "Social Media")  2,974
S52 (MH "Communications Media") OR (MH "Telecommunications")  71,771
S51 TI ( campaign* or program* or initiative* or project* or policies or policy or regulation or push or drive or movement or strategy or strategies or approach or plan or action ) OR AB ( campaign* or program* or initiative* or project* or policies or policy or regulation or push or drive or movement or strategy or strategies or approach or plan or action )  523,066
S50 TI ( anti tobacco or anti smoking or anti-tobacco or anti-smoking or smoke free or tobacco free or tobacco control or smok* or nicotine or quit or quitting ) OR AB ( anti tobacco or anti smoking or anti-tobacco or anti-smoking or smoke free or tobacco free or tobacco control or smok* or nicotine or quit or quitting )  41,236
S49 S44 OR S45 OR S46 OR S47 OR S48  253,062
S48 TI ( curricul* or teach* or educat* ) OR AB ( curricul* or teach* or educat* )  206,441
S47 (MH "Teaching Materials"  7,401
S46 (MH "Consumer Health Information")  8,558
S45 (MH "Health Education")  14,514
S44 (MH "Patient Education")  41,035
S43 TI ( prescri* or medication* or pharmaceutical* or drug therapy ) OR AB ( prescri* or medication* or pharmaceutical* or drug therapy ) OR SU ( prescri* or medication* or pharmaceutical* or drug therapy )  326,188
S42 S36 OR S37 OR S38 OR S39 OR S40 OR S41  2,609
S41 (MH "Tobacco Use Cessation Products"  633
S40 TI (nicotine replacement or NRT ) OR AB (nicotine replacement)  832
S39 TI ( (vaping or e-cig* or e cigarette or electronic cigarette* or cigalike) ) OR AB ( (vaping or e-cig* or e cigarette or electronic cigarette* or cigalike) )  589
S38 (MH "Smoking/TH")  309
S37 (MH "Nicotine Replacement Therapy")  1,098
S36  (MH "Electronic Cigarettes")
S35  S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34  36,217
S34  TI nicotine anonymous OR AB nicotine anonymous OR SU nicotine anonymous OR TI ( group counsel* or
group therap* or cognitive behaviour therapy or cognitive behavior therapy ) OR AB ( group counsel* or group
therap* or cognitive behaviour therapy or cognitive behavior therapy ) OR MJ ( group counsel* or group therap* or
cognitive behaviour therapy or cognitive behavior therapy )
1,960
S33  (MH "Cognitive Therapy") OR (MH "Acceptance and Commitment Therapy") OR (MH "Mindfulness")  8,991
S32  TI directive counseling OR SU directive counseling OR AB directive counseling  18
S31  (MH "Psychological Techniques")
S30  (MH "Support Groups")  6,710
S29  (MH "Behavior Therapy") OR (MH "Cognitive Therapy")  12,922
S28  (MH "Motivational Interviewing")  1,315
S27  (MH "Counseling")  14,703
S26  S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25  148,058
S25  TI ( (mobile phone or cellular or cell phone or text messag* or internet or web or web-based or
web based or online or on-line) ) OR AB ( (mobile phone or cellular or cell phone or text messag* or
internet or web or web-based or web based or online or on-line) ) OR TI ( (app or apps) ) OR AB ( (app or apps) )
  87,464
S24  (MH "Mobile Applications")
S23  (MH "Internet") OR (MH "World Wide Web")  78,494
S22  (MH "Social Media")
S21  (MH "Text Messaging") OR (MH "Instant Messaging")  483
S20  (MH "Cellular Phone") OR (MH "Smartphone")  461
S19  (MH "Therapy, Computer Assisted")
S18  S16 OR S17  14,404
S17  TI ( (cut down or reduc* or limit* or lower or wean) N2 (intake or gradual or smok* or
tobacco or nicotine or consum* or use or cigarette*) ) OR AB ( (cut down or reduc* or limit* or lower or wean) N2 (intake or
gradual or smok* or tobacco or nicotine or consum* or use or cigarette*) )
  14,403
S16  TI "cut down to quit" OR AB "cut down to quit" OR SU "cut down to quit" OR MW "cut down to quit"
  11
S15  S13 OR S14  15,811
S14  (MH "Smoking Cessation")
S13  S11 AND S12
S12  S8 OR S9 OR S10  54,676
S11  cessation or quit or quitting or stop* or give up or cut out or rehab* or (break N/2 habit) Search modes -
  134,453
S10  TI ( smok* or nicotine or tobacco or cigarette* ) OR AB ( smok* or nicotine or tobacco or cigarette* )
  46,055
S9  (MH "Smoking")
S8  (MH "Tobacco Products")
S7  S1 OR S2 OR S3 OR S4 OR S5 OR S6  146,125
S6  TI ( pregnan* or antinatal or perinatal or mother* or maternal or postnatal or prenatal ) OR AB ( pregnan* or
antinatal or perinatal or mother* or maternal or postnatal or prenatal )  94,802
S5  (MH "Maternal-Child Health")
S4  (MH "Prenatal Care")  8,584
S3  (MH "Maternal Behavior") OR (MH "Maternal Health Services") OR (MH "Maternal Welfare") OR (MH
"Maternal-Fetal Exchange")
S2  (MH "Pregnancy")  100,106
S1  (MH "Expectant Mothers")
  2,159
Cochrane Database Search Strategy

Results in the Systematic Reviews Database

<table>
<thead>
<tr>
<th>Search String</th>
<th>Results</th>
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</thead>
<tbody>
<tr>
<td>S41 S3 AND S8 AND S40</td>
<td>17</td>
</tr>
<tr>
<td>S40 S9 OR S10 OR S14 OR S21 OR S24 OR S27 OR S36 OR S38 OR S39</td>
<td>4,277</td>
</tr>
<tr>
<td>S39 S28 OR S29 OR S30</td>
<td>702</td>
</tr>
<tr>
<td>S38 S35 OR S37</td>
<td>6</td>
</tr>
<tr>
<td>S37 (ZE &quot;tobacco industry legislation &amp; jurisprudence&quot;) or (ZE &quot;tobacco smoke pollution legislation &amp; jurisprudence&quot;) or (ZE &quot;tobacco smoke pollution prevention &amp; control&quot;)</td>
<td>3</td>
</tr>
<tr>
<td>S36 (ZE &quot;smoking cessation psychology&quot;) or (ZE &quot;smoking prevention &amp; control&quot;) or (ZE &quot;smoking therapy&quot;)</td>
<td>45</td>
</tr>
<tr>
<td>S35 (S31 AND S32) AND (S30 OR S33 OR S34)</td>
<td>3</td>
</tr>
<tr>
<td>S34 S31 AND S32</td>
<td>3</td>
</tr>
<tr>
<td>S33 (anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco) N3 (campaign* or program* or initiative* or project or policy or policies or regulat* or ban or prohibit* or push or drive or movement or strategy or strategies or approach or action or plan)</td>
<td>172</td>
</tr>
<tr>
<td>S32 ((ZE &quot;policy making&quot;){&quot; or (ZE &quot;mass media&quot;) or (ZE &quot;communication&quot;)}</td>
<td>11</td>
</tr>
<tr>
<td>S31 TI ( anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco ) OR AB ( anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco ) OR SU ( anti-tobacco or antitobacco or anti tobacco or anti-smok* or anti smok* or antismok* or smoke free or tobacco free or tobacco control or quit or quitting or smoke or nicotine or tobacco )</td>
<td>699</td>
</tr>
<tr>
<td>S30 (ZE &quot;smoking legislation &amp; jurisprudence&quot;)</td>
<td>2</td>
</tr>
<tr>
<td>S29 TI ( curricul* or teach* or educat* ) OR AB ( curricul* or teach* or educat* ) OR SU ( curricul* or teach* or educat* )</td>
<td>36</td>
</tr>
<tr>
<td>S28 (((ZE &quot;patient education as topic&quot;) or (ZE &quot;patient education as topic methods&quot;) or (ZE &quot;health education&quot;) or (ZE &quot;health education methods&quot;))) or ((ZE &quot;consumer health information methods&quot;))</td>
<td>69</td>
</tr>
<tr>
<td>S27 S25 OR S26</td>
<td>69</td>
</tr>
<tr>
<td>S26 TI ( prescri* or medication or pharmaceutica* or drug therapy ) OR SU ( prescri* or medication or pharmaceutica* or drug therapy ) OR AB ( prescri* or medication or pharmaceutica* or drug therapy )</td>
<td>3,100</td>
</tr>
<tr>
<td>S25 (ZE &quot;smoking drug therapy&quot;)</td>
<td>5</td>
</tr>
<tr>
<td>S24 TI ( nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR AB ( nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR SU ( nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT )</td>
<td>36</td>
</tr>
<tr>
<td>S23 TI ( nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR AB ( nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT ) OR SU ( nicotine replacement or vaping or e-cig* or e cigarette* or electronic cigarette* or cigalike or NRT )</td>
<td>36</td>
</tr>
<tr>
<td>S22 (((ZE &quot;nicotine therapeutic use&quot;)) or (ZE &quot;smoking cessation methods&quot;) or (ZE &quot;smoking cessation statistics &amp; numerical data&quot;)) or ((ZE &quot;smoking therapy&quot;)) or ((ZE &quot;tobacco use cessation methods&quot;) or (ZE &quot;tobacco use cessation products&quot;))</td>
<td>44</td>
</tr>
<tr>
<td>S21 S15 OR S16 OR S17 OR S18 OR S19 OR S20</td>
<td>135</td>
</tr>
<tr>
<td>S20 TI ( cognitive behaviour therapy or cognitive behavior therapy ) OR AB ( cognitive behaviour therapy or cognitive behavior therapy ) OR SU ( cognitive behaviour therapy or cognitive behavior therapy )</td>
<td>27</td>
</tr>
</tbody>
</table>
S19  TI (group therap* or self help or nicotine anonymous) OR AB (group therap* or self help or nicotine anonymous) AND SU (group therap* or self help or nicotine anonymous)

S18  TI (acceptance and commitment therapy) OR AB (acceptance and commitment therapy) OR SU (acceptance and commitment therapy)

S17  TI motivational interview* OR AB motivational interview* OR SU motivational interview*

S16  TI ((directive or peer) N2 (counseling or therapy)) OR AB ((directive or peer) N2 (counseling or therapy))

S15  (((((((ZE "self-help groups"))) or ((ZE "counseling") or (ZE "counseling methods"))) or ((ZE "motivational interviewing methods"))) or ((ZE "behavior therapy") or (ZE "behavior therapy methods"))) or ((ZE "cognitive therapy") or (ZE "cognitive therapy methods"))}

S14  S11 OR S12 OR S13

S13  TI social media OR AB social media

S12  TI app or apps

S11  TI ((mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based or web or online or on-line)) OR AB ((mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based or web or online or on-line)) OR SU ((mobile phone or cellular or cell phone or text messag* or texting or internet or web or web-based or web or online or on-line))

S10  TI ((cut down or reduc* or limit* or less* or wean) N3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*)) OR AB ((cut down or reduc* or limit* or less* or wean) N3 (intake or gradual or smok* or tobacco or nicotine or consum* or use* or cigarette*))

S9  "cut down to quit"

S8  S6 OR S7

S7  S4 AND S5

S6  (ZE "smoking cessation")

S5  TI ((cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit") OR AB ((cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit") OR SU ((cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit"))

S4  TI ((smok* or nicotine or tobacco or cigarette*) OR AB ((smok* or nicotine or tobacco or cigarette*) OR SU ((smok* or nicotine or tobacco or cigarette*))

S3  S1 OR S2

S2  (((((ZE "pregnancy"))) or ((ZE "maternal health services") or (ZE "maternal welfare"))) or ((ZE "pregnant women psychology"))) or ((ZE "prenatal care"))

S1  TI ((pregnanc* or maternal or antinatal or perinatal or postatal or prenatal or mother*)) OR AB ((pregnanc* or maternal or antinatal or perinatal or postatal or prenatal or mother*)) OR SU ((pregnanc* or maternal or antinatal or perinatal or postatal or prenatal or mother*))

1,146
psychinfo
1 exp Pregnancy/ or exp Adolescent Pregnancy/ 17670
2 exp Prenatal Care/ 1547
3 (pregnancy* or antinatal or prenatal or perinatal or postnatal or mother* or maternal or maternity).mp. 140762
4 or/1-3 140777

5 exp Tobacco Smoking/ 23491
6 (smok* or nicotine or tobacco or cigarette*).mp. 52819
7 5 or 6 52819
8 (cessation or quit or quitting or stop* or "give up" or "giving up" or "cut out" or rehab* or "break the habit").mp. 99091
9 Smoking cessation/ 10411
10 7 and 8 15894
11 9 or 10 15894
12 "cut down to quit".mp. 13
13 ((cut or reduc* or limit* or less* or lower or wean) adj3 (intake or gradual* or smok* or tobacco or nicotine or consum* or use* or cigarette*)).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures] 36215
14 12 or 13 36222
15 computer assisted therapy/ or online therapy/ 2412
16 social media/ 2251
17 (mobile phone or cellular or cell phone or text message* or texting or internet or web or web-based or online or on-line).mp. 109963
18 (app or apps).ti. 802
19 15 or 16 or 17 or 18 111801
20 counseling/ or peer counseling/ or rehabilitation counseling/ or support groups/ 20297
21 exp cognitive therapy/ or exp motivational therapy/ or exp cognitive behavior therapy/ 25172 22 (acceptance and commitment therapy).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures] 1316
23 group therapy.mp. or exp Group Psychotherapy/ 16310
24 exp self help techniques/ or exp support groups/ 12759
25 nicotine anonymous.mp. 0
26 (group counsel* or self help or directive counsel* or cognitive behaviour therapy or cognitive behavior therapy).mp. 26476
27 20 or 21 or 22 or 23 or 24 or 25 or 26 74414
28 (nicotine adj (gum or lozenge or patch or replacement)).mp. 1923
29 (smoking cessation program or tobacco cessation program).mp. 668
30 NRT.ti. 28
31 (vaping* or e-cig* or e cigarette* or electronic cigarette* or cigalike or smokeless tobacco).mp. 1333
32 28 or 29 or 30 or 31 3743
33 (prescri* or medicat* or pharmaceutical or drug therapy).mp. 161582
34 health education/ or client education/ or health literacy/ or health promotion/ or prenatal care/ 31907
35 (curricul* or teach* or educat*).mp. 477817
36 consumer health information.mp. 65
37 34 or 35 or 36 492335
38 (anti-tobacco or anti-smoking or antitobacco or antismoking or smoke free or tobacco free or tobacco control or smoking or nicotine or quit or quitting).mp. 47294
39 exp Printed Communications Media/ or exp Telecommunications Media/ or exp Communications Media/ or exp Audiovisual Communications Media/ or exp Mass Media/ or exp Social Media/ or exp News Media/ 49060
40 government policy making/ 16133
41 39 or 40 64807
42 38 and 41 1389
43 (campaign* or program* or initiative* or project or policies or policy or regulat* or push or drive or movement
or strategy or strategies or approach* or action or plan).mp. 1077235
44 38 and 43 17733
45 42 or 44 18077
46 14 or 19 or 27 or 32 or 33 or 37 or 45 809024
47 4 and 11 and 46 861
48 meta-analysis/ 3507
49 (systematic review* or meta analys* or metanalys* or meta-analys* or "review of reviews").mp. 32238
50 ((pooled or combined or combining) adj (review* or data or studies or results or trials or information)).mp. 2343
51 ((research or data) adj synthesis).mp. 1161
52 48 or 49 or 50 or 51 34802
53 47 and 52 32
Appendix B: Literature Search Flowchart

Overview of Search Process (January 12-January 20)

Systems (#)  Summaries (206)  Synopses of Syntheses (#)  Syntheses (151)  Synopses of Single studies (#)  Single studies (#)

Total identified articles (357)

Removal of duplicates

Duplicates (15)

Primary relevance assessment

Non-relevant (based on title and abstract) (217)  Non-relevant (Pre-2011) (79)

Potentially relevant articles (46)

Searching citations (Pre-2011) (9)

Relevance assessment of full document versions (37)

Non-relevant articles (23)

Biological Feedback (4)  Smoking during pregnancy (?)  Synthesis (12)

Total relevant articles (14)

Quality assessment of relevant articles (14)

Weak articles (1)

Strong articles (9)  Moderate articles (4)
# Appendix C: Data Extraction Tables

<table>
<thead>
<tr>
<th>Study design</th>
<th>Systematic Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2015</td>
</tr>
<tr>
<td>Organization/Country</td>
<td>Great Britain, USA</td>
</tr>
</tbody>
</table>
| Quality rating               | - Studies included in the systematic review were critically appraised using the GRADE tool  
- The systematic review was rated using the Health Evidence Quality Assessment Tool: Review Articles  
Overall rating: 9/10, systematic review recommended for use |
| Types of evidence used to inform systematic review | Randomized Control Trials |
| Intervention and results     | Ten to twelve week programs comparing incentives to standard care. The incentives included: contingent rewards, monthly vouchers to confirmed quitters, metered rewards based on percentage of smoking reduction, and non-contingent fixed payment rewards.  
OR 3.79 (95% CI 2.74 to 5.25) |

**Title: Psychosocial interventions for supporting women to stop smoking in pregnancy.**  
Chamberlain, C., et al.

<table>
<thead>
<tr>
<th>Study design</th>
<th>Systematic Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2013</td>
</tr>
<tr>
<td>Organization/Country</td>
<td>USA, Canada, UK Norway, Sweden, Holland, Spain, Australia, New Zealand, Latin America, Poland</td>
</tr>
</tbody>
</table>
| Quality rating               | - Studies included in the systematic review were critically appraised using the Cochrane Risk of Bias Tool.  
- The systematic review was rated using the Health Evidence Quality Assessment Tool: Review Articles  
Overall rating: 9/10, systematic review recommended for use |
| Types of evidence used to inform systematic review | Randomized Control Trials |
**Intervention and results**

The interventions include: individual counselling sessions, health education interventions, feedback interventions, incentive-based interventions, and social support. All interventions were compared to either usual care, less intensive interventions, or alternative interventions.

- abstinence in late pregnancy: 1.25 (1.03, 1.50) (RR)
- continued abstinence in late pregnancy for spontaneous quitters: 1.06 (0.93, 1.21) (RR)
- biochemical measures in late pregnancy: mean cotinine: (-0.05 (-0.14, 0.05) (SMD)
- abstinence in late pregnancy: 1.46 (1.15, 1.85) (RR)
- abstinence in late pregnancy: 1.29 (0.49, 3.42) (RR)
- abstinence in late pregnancy: 1.50 (0.97, 2.31) (RR)
- abstinence in late pregnancy: 1.19 (0.45, 3.12) (RR)
- abstinence in late pregnancy: 3.59 (0.10, 130.49) (RR)
- abstinence in late pregnancy: 1.49 (1.01, 2.19) (RR)
- abstinence in late pregnancy: 0.86 (0.48, 1.57) (RR)
- abstinence in late pregnancy: 1.27 (1.11, 1.47) (RR)
- abstinence in late pregnancy: 1.43 (0.98, 2.08) (RR)
- abstinence in late pregnancy: 1.70 (0.71, 4.08) (RR)
- abstinence in late pregnancy: 3.09 (1.34, 7.15) (RR)
- abstinence in late pregnancy: 1.31 (0.90, 1.91) (RR)
- abstinence in late pregnancy: 1.63 (0.62, 4.32) (RR)

**Title:** Pharmacological interventions for promoting smoking cessation during pregnancy

**Coleman et al.**

<table>
<thead>
<tr>
<th>Study Design</th>
<th>Systematic Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2015</td>
</tr>
<tr>
<td>Organization/Country</td>
<td>Developed countries</td>
</tr>
</tbody>
</table>
| Quality Rating     | • Studies included in the systematic review were critically appraised using the Cochrane Risk of Bias Tool
                     • The systematic review was rated using the Health Evidence Quality Assessment Tool: Review Articles
                       Overall Rating: 10/10, systematic review recommended for use |
<p>| Types of evidence used to inform | Randomized controlled trials |</p>
<table>
<thead>
<tr>
<th>Study design</th>
<th>Systematic Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2012</td>
</tr>
<tr>
<td>Organization/Country</td>
<td>Canada, United States, Denmark, Australia</td>
</tr>
<tr>
<td>Quality rating</td>
<td></td>
</tr>
<tr>
<td>Types of evidence used to inform systematic review</td>
<td>Randomized Control Trials</td>
</tr>
<tr>
<td>Intervention and results</td>
<td>Participants received NRT or placebo in the form of a patch, lozenge, or gum, for an average of twelve weeks. The studies assessing behavioural therapy offered a variety of counselling sessions compared with either a placebo or brief counselling sessions lasting 2-5 minutes. 1.63 (0.85, 3.14)</td>
</tr>
</tbody>
</table>

**Title: Efficacy and safety of nicotine replacement therapy for smoking cessation in pregnancy: Systematic review and meta-analysis.**

Coleman, T., et al.

<table>
<thead>
<tr>
<th>Study design</th>
<th>Systematic Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2012</td>
</tr>
<tr>
<td>Organization/Country</td>
<td>Canada, United States, Denmark, Australia</td>
</tr>
<tr>
<td>Quality rating</td>
<td></td>
</tr>
<tr>
<td>Types of evidence used to inform systematic review</td>
<td>Randomized Control Trials</td>
</tr>
<tr>
<td>Intervention and results</td>
<td>Participants received NRT or placebo in the form of a patch, lozenge, or gum, for an average of twelve weeks. The studies assessing behavioural therapy offered a variety of counselling sessions compared with either a placebo or brief counselling sessions lasting 2-5 minutes. 1.63 (0.85, 3.14)</td>
</tr>
</tbody>
</table>

**Title: Benefits of Incentives for Breastfeeding and Smoking cessation in pregnancy (BIBS): a mixed methods study to inform trial design.**

Morgan H., et al.
### Assessment Tool: Review Articles

Overall rating: 10/10, systematic review recommended for use

| Types of evidence used to inform systematic review | Randomized Controlled Trial  
| Quasi Randomized Controlled Trial  
| Non-randomised controlled trial  
| Mixed-methods |

| Intervention and results | Incentives (vouchers, cash, prizes, lottery, gifts) were given, contingent on validated smoking cessation outcomes with non-contingent incentives for participation in a smoking cessation programme.  
| RR: 2.58 (1.63 to 4.07) |

| Title: Efficacy and safety of pharmacotherapy for smoking cessation among pregnant smokers: a meta-analysis.  
| Myung, S. K., et al. |

| Study design | Systematic Review |

| Date | 2012 |

| Organization/Country | Canada, United States, Denmark, Australia |

| Quality rating | • Studies included in the systematic review were critically appraised using the Jadad Score.  
| • The systematic review was rated using the Health Evidence Quality Assessment Tool: Review Articles  
| Overall rating: 10/10, systematic review recommended for use |

| Types of evidence used to inform systematic review | Meta-analysis of randomized control trials, quasi-randomized control trials and retrospective/prospective studies |

| Intervention and results | For 6-12 weeks, pregnant women were given daily nicotine patches or gum/lozenges consumed in place for each cigarette smoked.  
| Abstinence on longest follow-up 1.80(1.32, 2.44) p=0.114  
| Nicotine Patch (4) 1.60(1.05,2.43)  
| Nicotine Gum (1) 1.21 (0.64,2.29) |

| Title: Recommendations for the prevention and management of tobacco use and second hand smoke exposure in pregnancy |

| Date | 2013 |

| Organization/Country | World Health Organization |

| Quality rating | Rated using the Agree II tool  
| Overall Rating: 6/7, guideline recommended for use |

<p>| Types of evidence | Systematic Reviews |</p>
<table>
<thead>
<tr>
<th>Used to inform guideline</th>
<th>Reduce tobacco use in pregnant women (identification, management and prevention of tobacco use in pregnant women.)</th>
</tr>
</thead>
</table>
| Focus and objectives    | 1. Health-care providers should ask all pregnant women about their tobacco use (past and present) and exposure to SHS, as early as possible in the pregnancy, and at every antenatal care visit.  
2. Health-care providers should routinely offer advice and psychosocial interventions for tobacco cessation to all pregnant women, who are either current tobacco users of recent tobacco quitters (e.g. Used tobacco before the pregnancy and who have either spontaneously quit or stopped using tobacco in the pre-conception period or in early pregnancy, before their first antenatal visit).  
3. The panel cannot make a recommendation on use or non-use of NRT to support cessation of tobacco use in pregnancy.  
4. The panel does not recommend use of bupropion or varenicline to support cessation of tobacco use in pregnancy.  
5. The panel recommends that further research be carried out in pregnancy women on safety, efficacy and factors affecting adherence to pharmacotherapeutic cessation agents.  
6. All health-care facilities should be smoke-free to protect the health of all staff, patients and visitors, including pregnant women.  
7. All work and public places should be smoke-free for the protection of everyone, including pregnant women.  
8. Health-care providers should provide pregnant women, their partners and other household members with advice and information about the risks of SHS exposure from all forms of smoked tobacco as well as strategies to reduce SHS in the home. |
| Overall relevant recommendations | N/A for guidelines |
| Study Design | Guideline |
| Date | 2015 |
| Organization/Country | National Institute for Health and Care Excellence (NICE) |
| Quality rating | Rated using the Agree II tool  
Overall Rating: 6/7, guideline recommended for use |
| Types of evidence used to inform guideline | Systematic reviews  
Qualitative research  
Surveys  
Field work findings |
| Focus and objectives | Produce public health information on effective interventions to quit smoking during and after childbirth |
| Overall relevant recommendations | 1. Identifying pregnant women who smoke and referring them to NHS stop smoking services  
2. Identifying pregnant women who smoke and referring them to NHS stop smoking services  
3. NHS stop smoking services - contacting referrals  
4. NHS stop smoking services - initial and ongoing support  
5. Use of NRT and other pharmacological support  
6. NHS stop smoking services - meeting the needs of disadvantaged pregnant women who smoke  
7. Training to deliver interventions |

| Intervention and results | N/A for guidelines |

| Title: Smoking: acute, maternity and mental health services |

| Study Design | Guideline |
| Date | 2013 |
| Organization/Country | National Institute for Health and Care Excellence (NICE) |
| Quality Rating | Rated using the Agree II tool  
Overall Rating: 6/7, guideline recommended for use |
| Types of evidence used to inform guideline | Systematic Reviews |
| Focus and objectives | Support smoking cessation, temporary abstinence from smoking and smoke free policies in all secondary care settings. |
| Overall relevant recommendations | 1. Identify people who smoke and offer to help stop  
2. Provide information and advice for carers, family, other household members and hospital visitors  
3. Advise on and provide stop smoking pharmacotherapies |
| Intervention and results | N/A for guidelines |
## Appendix D: Data extraction of secondary outcomes

<table>
<thead>
<tr>
<th>Author</th>
<th>Intervention</th>
<th>Secondary outcome results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamberlain, C. (2013).</td>
<td>Counselling</td>
<td>Perinatal deaths: 1.10 (0.52, 2.31) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stillbirths: 1.08 (0.51, 2.30) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low birthweight infants: 0.87 (0.70, 1.08) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Preterm births: 0.90 (0.64, 1.27) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neonatal deaths: 2.06 (0.61, 6.92) (RR)</td>
</tr>
<tr>
<td>Feedback</td>
<td></td>
<td>Preterm Births: 0.60 (0.28, 1.29) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stillbirths: 1.28 (0.69, 2.39) (RR)</td>
</tr>
<tr>
<td>All</td>
<td></td>
<td>Perinatal deaths: 1.13 (0.72, 1.77) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stillbirths: 1.22 (0.76, 1.95) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low birthweight: 0.82 (0.71, 0.94) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Preterm births: 0.82 (0.70, 0.96) (RR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neonatal deaths: 1.15 (0.44, 3.06) (RR)</td>
</tr>
<tr>
<td>Coleman, T., et al. (2011).</td>
<td>NRT or placebo, varying durations. Most in tandem with some behavioural counselling/motivational interviewing at baseline or throughout.</td>
<td>Safety (miscarriage and spontaneous abortion): 1.04 (0.20, 5.43)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Safety (perinatal mortality): 0.70 (0.14, 3.60)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Safety (preterm birth): 0.78 (0.39, 1.56)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Safety (post-randomisation fetal deaths): 0.88 (0.30, 2.56)</td>
</tr>
<tr>
<td>Coleman et al, 2015</td>
<td>NRT (patches, lozenges, or gum) &lt;30 weeks + behavioural counselling</td>
<td>Miscarriage and spontaneous abortion: 1.47 (0.45, 4.77)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stillbirth: 1.24 (0.54, 2.84)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low birthweight (2500 g): 0.74 (0.41, 1.34)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Preterm birth: 0.87 (0.67, 1.14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neonatal death: 0.66 (0.17, 2.62)</td>
</tr>
</tbody>
</table>
Appendix E: Applicability & Transferability Worksheet

Starting a New Program
Applicability and Transferability Worksheet

<table>
<thead>
<tr>
<th>Factors</th>
<th>Questions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applicability (feasibility)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political acceptability or leverage</td>
<td>• Will the intervention be allowed or supported in current political climate?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• What will the public relations impact be for local government?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Will this program enhance the stature of the organization?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>For example, are there reasons to do the program that relate to increasing the profile and/or creative a positive image of public health?</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Will the public and target groups accept and support the intervention in its current format?</td>
<td></td>
</tr>
<tr>
<td>Social acceptability</td>
<td>• Will the target population find the intervention socially acceptable? Is it ethical?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>Consider how the program would be perceived by the population.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>Consider the language and tone of the key messages.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>Consider any assumptions you might have made about the population. Are they supported by the literature?</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>Consider the impact of your program and key messages on non-target groups.</em></td>
<td></td>
</tr>
<tr>
<td>Available essential resources</td>
<td>• Who/what is available/essential for the local implementation?</td>
<td></td>
</tr>
<tr>
<td>(personnel and financial)</td>
<td>• Are they adequately trained? If not, is training available and affordable?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• What is needed to tailor the intervention locally?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• What are the full costs?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>Consider: in-kind staffing, supplies, systems, space requirements for staff, training, and technology/administrative supports.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Are the incremental health benefits worth the costs of the intervention?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>Consider any available cost-benefit analyses that could help gauge the health benefits of the intervention.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>◦ <em>Consider the cost of the program relative to the number of people that benefit/receive the intervention.</em></td>
<td></td>
</tr>
<tr>
<td>Organizational expertise and capacity</td>
<td>• Is the intervention to be offered in line with Peel Public Health’s 10-Year Strategic Plan (i.e., 2009-2019, ‘Staying Ahead of the Curve’)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Does the intervention conform to existing legislation or regulations (either local or provincial)?</td>
<td></td>
</tr>
<tr>
<td>Does the intervention overlap with existing programs or is it symbiotic (i.e., both internally and externally)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the intervention lend itself to cross-departmental/divisional collaboration?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any organizational barriers/structural issues or approval processes to be addressed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the organization motivated (learning organization)?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Consider organizational capacity/readiness and internal supports for staff learning.

### Transferability (generalizability)

| Magnitude of health issue in local setting |
| What is the baseline prevalence of the health issue locally? |
| What is the difference in prevalence of the health issue (risk status) between study and local settings? |
  - Consider the Comprehensive Health Status Report, and related epidemiological reports.

| Magnitude of the “reach” and cost effectiveness of the intervention above |
| Will the intervention appropriately reach the priority population(s)? |
  - What will be the coverage of the priority population(s)?

| Target population characteristics |
| Are they comparable to the study population? |
| Will any difference in characteristics (e.g., ethnicity, socio-demographic variables, number of persons affected) impact intervention effectiveness locally? |
  - Consider if there are any important differences between the studies and the population in Peel (i.e., consider demographic, behavioural and other contextual factors).

### Proposed Direction (after considering the above factors):

Form Completed by: ______________________________