

Youth Pregnancy Prevention

A Rapid Review

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Key Messages

1. Client contraception use should be assessed at least every 4 months to improve effective use, prescriptions should not be provided for longer periods
2. Pregnancy prevention education and contraceptive use promotion interventions should be provided concurrently in schools to help decrease youth pregnancy rates. This should be done for the entire school population
3. Advance provision of emergency contraception to women and adolescents does not reduce youth pregnancy rates

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Executive Summary

Purpose

The Timiskaming Health Unit conducted a rapid review to determine the most current and effective interventions for reducing pregnancy rates among youth aged 13-25 in the Timiskaming region. The rationale for focusing on this population was based on local data for the area.

Research Question

Among youth aged 13-25 years, which interventions have the greatest impact on reducing pregnancy rates?

Context

There are many significant and high-impact negative consequences associated with youth pregnancy and childbearing, both in the short- and long-term.² Teen pregnancy in particular is associated with poor health outcomes can also be related to a disadvantaged social environment, not completing school, biological immaturity, social deprivation, inadequate prenatal care and increased likelihood of risky health behaviours such as smoking.² Not only are the young parents and their children impacted, so too is the health care system.² In Timiskaming, teen pregnancy rates are significantly higher than in Ontario and are some of the highest in the province.⁷ In 2016, 6.3% of Timiskaming women aged 19 years or younger gave birth, which was statistically higher than the 1.8% of Ontario women who gave birth in the same age group.¹ Timiskaming has also experienced statistically higher birth rates among mothers aged 20 – 24 compared to Ontario.¹ Youth pregnancy in Timiskaming is also a concern because it goes against the trend in Canada where youth pregnancy has steadily been decreasing, in Timiskaming it is increasing.⁸

Methods and Results

A search for published literature was conducted in May 2017 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: CINAHL, Embase, Medline, Psychinfo, Socindex, and Grey Literature/Websites.

The search identified 1542 potentially relevant results. After removing duplicates, title and abstract review, and the full text review, 11 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 Client contraception use should be assessed at least every 4 months to improve effective use, prescriptions should not be provided for longer periods
2. Pregnancy prevention education and contraceptive use promotion interventions should be provided concurrently in schools to help decrease youth pregnancy rates. This should be done for the entire school population
3. Advance provision of emergency contraception to women and adolescents does not reduce youth pregnancy rates

1 Issue

The Timiskaming Health Unit conducted a rapid review to determine the most current and effective interventions associated with the reduction of pregnancy rates among youth aged 13-25 years of age in the Timiskaming Health Unit region.

From a social determinants of health perspective, there are many significant and high-impact negative consequences associated with youth pregnancy and childbearing, both in the short- and long-term. Not only are the young parents and their children impacted, so too is the community in general and the health care system.

This review was conducted to identify which health unit initiatives may need to be modified or discontinued, which should be continued or enhanced, and what new initiatives could be considered for implementation to best meet current and emerging needs in Timiskaming.

As public health units operating in the province of Ontario, the programs and services associated with youth pregnancy prevention are primarily based on the following provincial health care requirements:

- **Provincial Legislation** - [Health Protection and Promotion Act](#), R.S.O. 1990, c.H.7. (HPPA)³
- **Provincial Standards** - [Ontario Public Health Standards](#), 2017 (OPHS)⁴, specifically:
 - Healthy Growth and Development
 - Infectious and Communicable Diseases Prevention and Control
- **A Provincial Protocol** – [Population Health Assessment and Surveillance Protocol](#), 2016 (PHASP)⁵

The OPHS and PHASP, in particular, establish the requirement that health units utilize evidence-informed decision making methodology in the context of their program planning, implementation/delivery, management, and evaluation activities. Applying this approach better ensures public health:

- Programs and services are planned and implemented in such a way as to avoid unintended harm, particularly in association with their most vulnerable populations;

- Demonstrates accountability through effective, efficient and transparent use of public health resources. This may be achieved by only allocating/implementing/deploying health unit resources which are evidence-based versus opinion-based in nature.

Youth pregnancy is a public health issue because it is common, preventable and associated with negative consequences for both the young women who become pregnant and for their children.²¹ Babies born to teen mothers are more likely to have lower birth weights, increased infant mortality, an increased risk of hospital admission in early childhood, less supportive home environments, poorer cognitive development, and if female, a greater risk of becoming pregnant as teenagers when compared to babies born of older mothers.^{21, 22} Teen mothers are more often socially isolated, have mental health problems, and have fewer educational and employment opportunities.²³

1.1 Local Context

Timiskaming

The youth pregnancy rates in Timiskaming are higher than in Ontario. These numbers for different age groups are listed in the Table below.

Table 1. Teen pregnancy numbers in Timiskaming vs. in Ontario as per BORN Ontario.¹

	Age of Mothers (%)					
	14-17		18-19		20-24	
	Timiskaming	Ontario	Timiskaming	Ontario	Timiskaming	Ontario
2012 (Apr-Dec)	3.5	0.8	4.9	2	22.6	11.8
2013	0.3	0.7	3.6	1.9	26.4	11.4
2014	2.7	0.6	5.4	1.7	22.8	11.2
2015	2.1	0.6	4.4	1.6	24.3	10.7
2016	1.1	0.4	5.2	1.4	22.9	10.2
2017 (Jan-Jul)	1	0.6	3.9	1.4	22.1	9.4
Average	1.783333	0.616667	4.566667	1.666667	23.51667	10.78333
Difference	3x larger		3x larger		2x larger	

- In 2016, 6.3% of Timiskaming women aged 19 years or younger gave birth, which was statistically higher than the 1.8% of Ontario women who gave birth in the same age group.¹

- In 2016, 22.9% of Timiskaming mothers aged 20-24 years gave birth, which was statistically higher than the 10.3% of Ontario women who gave birth in the same age group.¹

2 Context

2.1 Background

Youth pregnancy is defined as the pregnancies in women between the ages of 12 and 24. Teen pregnancy are pregnancies between the ages of 12-19. Teen pregnancy in particular is associated with poor health outcomes can also be related to a disadvantaged social environment, not completing school, biological immaturity, social deprivation, inadequate prenatal care and increased likelihood of risky health behaviours such as smoking.² Teen pregnancy is more common in disadvantaged teens and is known to be associated with social, educational and employment problems later in life.²

When the mother is young, there are also increased health risks associated with both mother and baby during the pregnancy, labour and postpartum.⁹ This makes it a public health issue because of the potential effect on the health care system for both the mother and the child.

In Timiskaming, the youth pregnancy rates are significantly higher than the Ontario rates, and are some of the highest in the province.⁷ Youth pregnancy is also a concern as it goes against the trend in Canada where youth pregnancy has steadily been decreasing.⁸

3 Research Question

The research question examined in this review is as follows:

Among youth aged 13-25 years, which interventions have the greatest impact on reducing youth pregnancy rates?

3.1 PICO Question

Table 1. PICO Question

P (Population)	Teens/young adults 13 to 25 years old
-----------------------	---------------------------------------

I (Intervention)	Unknown – Include all results which evaluate/report on actual interventions
C (Comparison)	Any used in the research
O (Outcome)	Impact on pregnancy rates

3.2 Search Strategy

An existing search strategy was reconstructed and translated to additional databases based on a previous search from the 2016 Teen Pregnancy Rapid review that was completed in 2016 as a collaboration between Middlesex London Health Unit and the Timiskaming Health Unit. Refer to Appendix A for the complete search strategy.

3.3 Search Results

The databases that were searched by the Thunder Bay Librarian in May 2017 were CINAHL, Embase, Medline, Psychinfo, Socindex, and Grey Literature/Websites. The search identified 1560 potentially relevant articles. First 114 studies were removed as duplicates, leaving 1426 for title and abstract relevance assessment. After the title and abstract review, 1344 studies were not relevant leaving 82 documents for full text review. After the full text review 11 articles were relevant and selected for critical appraisal. Refer to Appendix B to view the literature search flow chart.

3.4 Relevance Assessment

Two reviewers independently assessed titles and abstracts of the articles to determine relevance. They then came together and discussed their findings; discrepancies about inclusion or exclusion of an article were resolved by consensus between the two reviewers. The studies were assessed using the following criteria:

Table 2: Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Primary focus on the prevention of pregnancy	Parity: 2 nd pregnancy/repeat pregnancies. It was decided that it was a different issue with different factors. This decision was made at the NCCMT with the mentor in the first rapid review.
Female only or female/male combined	Focus on underlying specific diseases (Type I Diabetes, HIV)
13-25 years in age (median and mean age is up to and including 19 years)	Exclusively developed countries
Parity: 1 st pregnancy	Exclusive focus on STI/HIV, risk factors, SES, SDOH
English and French only	Antenatal care/postpartum
Years of publication: Up to and including 5 years back (2012) to current. It was decided with the amount of literature that studies prior to 2012 would not need to be included	Focus on parenting strategies
Study types: Guidelines, Meta-analysis and Systematic Reviews of Intervention studies	Focus on efficacy of drug(s)/contraception
All settings: urban and rural	Secondary effects of pregnancy
	Neonatal care
	Opinion-based papers
	Exclusively qualitative

4 Quality Assessment

4.1 Quality Assessment Tools and Strategy

After the full text review, there remained 11 systematic reviews (SR) to critically appraise. The assessment of the methodological quality of the SRs was completed by two independent reviewers using the AMSTAR tool for the critical appraisal of systematic reviews. This instrument helps assess the methodological quality of systematic reviews through 11 different domains, which results in the assessor making a judgement about the quality of the SR, and also whether not to recommend the use of the SR. Any discrepancies in critical appraisal outcomes were resolved by consensus. Two of the SRs were rated high with scores of 9, 4 were moderate with scores of 6, and the rest were rated low or weak. Based on the number of strong and moderate quality systematic reviews, the authors included these 6 SRs.

4.2 Description of Included Studies

Blank, L., et al. (2012). "Systematic review and narrative synthesis of the effectiveness of contraceptive service interventions for young people, delivered in health care settings".

This systematic review, rated as moderate, examined the effectiveness of contraception service interventions for young people delivered in health care premises for pregnancy prevention. These services included condom, emergency contraception and general contraception provision. The review included a mix of RCT's, controlled retrospective cohort studies and interrupted time series studies for a total of 23 studies which assessed services among 218,782 participants aged 12 - 24. Studies were assessed using the NICE checklist and ranged in quality from moderate to high. The majority of studies (18/23) originate from a high income country, the USA. Interventions assessed included new adolescent services, outreach to existing services, advanced provision of emergency contraception, condom provision and advice, general contraceptive provision and advice among adolescents. Outcome measures were pregnancy compared to no pregnancy. Results of the systematic review showed teenage focused outreach programs to whole population services were effective in terms of pregnancy and contraceptive use. However, this may only be relevant for interventions delivered in health care settings. Systematic review authors noted low quality effectiveness of the studies and a lack of studies that measured key outcomes of pregnancy rates may have affected the strength of the review results.

Mason-Jones, A. J., et al. (2016). “School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents”.

This systematic review, rated as strong, evaluated the effects of school-based sexual and reproductive health programs on sexually transmitted infections (including HIV, herpes and syphilis) and pregnancy among adolescents. The review included 8 RCT’s which assessed effects among 55,157 adolescents ages 10 – 19. RCT’s were assessed using the GRADE tool and ranged in quality from low to high. RCT settings included 1 in South America, 2 in Europe and 5 in Africa. This study was included because it was conducted in Europe. Interventions assessed included school-based sexual and reproductive health programmes on STI’s and pregnancy. Outcome measures included reduced pregnancy rates compared to no pregnancy. Results of the review showed educational programs have no effect on the number of adolescent pregnancies.

Oringanje, C., et al. (2016). “Interventions for preventing unintended pregnancies among adolescents.”

This systematic review, rated as strong, examined the effects of primary prevention interventions including school-based, community/home-based, clinic-based and faith-based on unintended pregnancies among adolescents. The review included 53 RCTs which assessed interventions among 105,368 adolescent women between ages 10 and 19 years. The authors assessed the RCT’s using the GRADE approach and RCT’s ranged in quality from low to high. Interventions assessed included educational, contraceptive promoting and mixed interventions that compared unintended pregnancy to no pregnancy in mostly high income settings including the USA, England, Scotland, Canada and Italy. Results of the systematic review showed only interventions involving a combination of education and contraception promotion were seen to significantly reduce unintended pregnancy rates over the medium-term and long-term follow-up period.

Rodriguez, M. I., et al. (2012). “Advance Supply of Emergency Contraception: A Systematic Review”.

This systematic review, rated as moderate, examined the advance provision of emergency contraceptive pills (ECP’s) to reduce unintended pregnancy among women. The review included 17 RCT’s which assessed advance provision of ECP’s among 8445 women between the ages of 13 – 49 years of age and compared results to a control group of 1009 women. RCT interventions originated from both upper and

middle income countries. Outcome measures were the measurement of pregnancy compared to no pregnancy. Results of the systematic review showed advance provision of ECP did not result in a statistically significant reduction in pregnancy at 12 months when compared with standard provision of ECP.

Shackleton, N., et al. (2015). “School Based Interventions Going Beyond Health Education to Promote Adolescent Health: Systematic Review of Reviews.

This systematic review, rated as moderate, assessed health education in school classrooms, healthy school policies and mixed school interventions to improve school bullying, smoking and drug and alcohol use rates and teen sexual health. The review included 22 reviews of mixed quality ranging from low to high among students aged 11 – 19 years. The majority of the studies originated from middle to high income countries. Interventions assessed were alternative school-based approaches including whole school approaches, policy, school response and parent outreach among students. Outcome measures included pregnancy compared to no pregnancy. Results of the review showed there is good evidence that various whole-school health interventions were effective in preventing teenage pregnancy, smoking and bullying.

Wilson, A., et al. (2015). “Motivational interviews to improve contraceptive use in populations at high risk of unintended pregnancy: a systematic review and meta-analysis”.

This systematic review, rated as moderate, explored the effects of motivational interviewing to improve contraceptive use among women to prevent unintended pregnancy. The review included 8 RCT’s which assessed interventions among 3424 women between the ages of 12 – 44 (women of child bearing age) and compared results to a control group of 1704 women. The authors assessed the RCT’s using the CONSORT statement checklist. RCT’s ranged in quality from moderate to high. RCT’s interventions originated from mostly upper income countries (7) and middle income countries (South Africa). Interventions assessed included motivational interviews compared to standard practice on effective contraception use in women of child bearing age. Outcome measures were use of effective contraception and subsequent births compared to no pregnancy. Results of the systematic review showed that motivational interviews increased effective contraceptive use in women ages 12 – 44 in the period of zero to four months after the intervention had been first been delivered. The reinforcement should continue to prevent pregnancies.

5 Synthesis of Findings

The effectiveness of interventions to lower the incidence of teen pregnancy is summarized in Table 3.

Intervention	Findings (Evidence)
Combination of education and contraception	Significantly reduced unintended pregnancy over the medium and long-term (Oringanje, strong). Whole school health programs are effective in preventing teen pregnancy (Shackleton, moderate). One study demonstrated that education alone was not effective in decreasing teenage pregnancies (Mason-Jones, strong).
Motivational interviewing every zero to four months	Significantly improves contraception use (Wilson, moderate)
Advanced provision of emergency contraception	This did not result in a statistically significant reduction in pregnancy (Rodriguez, moderate)
Long term contraception (LARC) to reduce pregnancy rates	There is a lack of high quality studies to demonstrate a link between pregnancy rate and LT contraception use in teens (Blank, moderate)
Teen focused outreach programs	Effective in decreasing pregnancy rates and increasing contraception use (Blank, moderate)

6 Key Messages

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

1. Client contraception use should be assessed every 0 - 4 months to improve effective use, prescriptions should not be provided for longer periods
2. Pregnancy prevention education and contraceptive use promotion interventions should be provided concurrently in schools to help decrease youth pregnancy rates. This should be done for the entire school population
3. Advance provision of emergency contraception to women and adolescents does not reduce youth pregnancy rates

7 Next Steps

Following the synthesis of research findings, THU's Healthy Growth and Development and Sexual Health teams can consider adaptability and transferability of the evidence (6).

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 Evidence Informed Decision Making cycle back to its starting point.

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Appendix A - Search Strategy

Search Strategy

CINAHL

Exported 264 results

#	Query	Results
S15	S13 or S14	264
S14	Narrow by language French	1
S13	Narrow by language English	263
S12	S10 AND S11	271
S11	Limiters - Published Date: 20120101-20171231 Search modes - Boolean/Phrase	1,158,339
S10	S8 AND S9	806
S9	PT systematic review or review or meta-analysis	307,826
S8	S4 AND S7	6,809
S7	S5 OR S6	1,154,896
S6	S6 TI ((prevent* or promot* or educat* or school* or curricul## or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service# or program* or contracept* or condom# or "the pill" or "birth control" or LARC or "intrauterine device#" or "intra-uterine device#" or IUD or IUDs or spermicide# or "vaginal spong*" or "barrier method#" or "TCu380?" or "CuT-200" or gynefix or abstinen* or "cervical cap#" or (ovulat* N1 (suppress* or inhibit* or prevent*)) or abortion# or "morning after pill?" or planB? or "plan B" or abortifacient* or (pregnan* N2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic# or rate# or control* or prevalen* or counsel* or "motivational interview*" or "coitus interrupt*" or vasectom* or ((female# or male# or wom#n or man or men or reproduct* or genital*) N1 sterili*) or ((population* or reproduct* or fertil*) N2 (regulat* or control*)) or "family planning" or "birth spac*" or "planned parenthood#") OR AB ((prevent* or promot* or educat* or school* or curricul## or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service# or program* or contracept* or condom# or "the pill" or "birth control" or LARC or "intrauterine device#" or "intra-	990,973

	uterine device#" or IUD or IUDs or spermicide# or "vaginal spong*" or "barrier method#" or "TCu380?" or "CuT-200" or gynefix or abstinence* or "cervical cap#" or (ovulat* N1 (suppress* or inhibit* or prevent*)) or abortion# or "morning after pill?" or planB? or "plan B" or abortifacient* or (pregnan* N2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic# or rate# or control* or prevalen* or counsel* or "motivational interview*" or "coitus interrupt*" or vasectom* or ((female# or male# or wom#n or man or men or reproduct* or genital*) N1 sterili*) or ((population* or reproduct* or ferti*) N2 (regulat* or control*)) or "family planning" or "birth spac*" or "planned parentho#")))	
	(MH "Preventive Trials") OR (MH "Preventive Health Care") OR (MH "Student Health Services+") OR (MH "School Health Services+") OR (MH "Health Education") OR (MH "Patient Education") OR (MH "School Health Education") OR (MH "Student Health Education") OR (MH "Family Planning") OR (MH "Family Services") OR (MH "Counseling") OR (MH "Community Health Nursing") OR (MH "Community Health Services") OR (MH "Health Promotion+") OR (MH "Program Evaluation") OR (MH "Program Development+") OR (MH "School Policies") OR (MH "Public Policy") OR (MH "Health Policy Studies") OR (MH "Policy Studies") OR (MH "Policy Making") OR (MH "Health Policy") OR (MH "Family Planning Policy") OR (MH "Contraception+") OR (MH "Contraceptives, Oral Combined") OR (MH "Contraceptive Agents, Male") OR (MH "Contraceptive Agents+") OR (MH "Diaphragms, Contraceptive") OR (MH "Contraceptives, Oral") OR (MH "Contraceptive Devices+") OR (MH "Abortifacient Agents+") OR (MH "Adolescent Health Services") OR (MH "Child Health Services") OR (MH "Health Services") OR (MH "Sex Education") OR (MH "Sexual Abstinence") OR (MH "Sterilization, Sexual+") OR (MH "Abortion, Induced+")	278,229
S5		
S4	S1 OR S2 OR S3	8,991
	TI (((pregnan* or conceiv* or conception? or prenatal* or pre-natal* or reproduc*) and (teen* or adolescen* or youth* or "emerging adult*" or (young N1 (adult# or people# or person# or individual# or population# or wom#n or man or men or female# or male#))))) OR AB (((pregnan* or conceiv* or conception? or prenatal* or pre-natal* or reproduc*) and (teen* or adolescen* or youth* or "emerging adult*" or (young N1 (adult# or people# or person# or individual# or population# or wom#n or man or men or female# or male#))))))	
S3		6,688
S2	(MH "Pregnancy in Adolescence")	4,020

S1 ((MM "Pregnancy") OR (MH "Pregnancy, High Risk") OR (MH "Pregnancy, Unplanned") OR (MH "Pregnancy, Unwanted")) AND ((MH "Adolescence") OR (MH "Minors (Legal)") OR (MH "Young Adult")) 1,030

Database: Embase 1974 to 2017 May 22

#	Searches	Results
1	Tertiary Prevention/ or Secondary Prevention/ or Primary Prevention/ or exp preventive health services/ or exp health promotion/ or exp health education/ or program development/ or program evaluation/ or policy/ or exp social control/ or management/ or family planning/ or exp contraception/ or exp counseling/ or child health care/ or exp contraceptive device/ or Sexual Abstinence/ or exp contraceptive behavior/ or sexual education/ or population dynamics/ or agents acting on the genital system/ or exp abortive agent/ or exp contraceptive agent/ or exp induced abortion/ or exp reproductive sterilization/	1333674
2	(prevent* or promot* or educat* or school* or curricul?? or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service? or program* or contracept* or condom? or "the pill" or birth control or LARC or intrauterine device? or intra-uterine device? or IUD or IUDs or spermicide? or vaginal spong* or barrier method? or "TCu380?" or "CuT-200" or gynefix or abstinen* or cervical cap? or (ovulat* adj1 (suppress* or inhibit* or prevent*)) or abortion? or "morning after pill?" or planB? or plan B or abortifacient* or (pregnan* adj2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic? or rate? or control* or prevalen* or counsel* or motivational interview* or coitus interrupt* or vasectom* or ((female? or male? or wom?n or man or men or reproduct* or genital*) adj1 sterili*) or ((population* or reproduct* or fertil*) adj2 (regulat* or control*)) or family planning or birth spac* or planned parenthood?).tw.	11519275
3	adolescent pregnancy/	8534
4	(unwanted pregnancy/ or unplanned pregnancy/ or pregnancy rate/ or pregnancy/) and (adolescent/ or young adult/)	41839
5	((pregnan* or conceiv* or conception? or prenatal* or pre-natal* or reproduc*) adj2 (teen* or adolescen* or youth* or emerging adult* or (young adj1 (adult? or people? or person? or individual? or population? or wom?n or man or men or female? or male?))))).tw,kw.	8099
6	3 or 4 or 5	48499
7	1 or 2	12076527
8	6 and 7	31748

9	family planning/ or exp contraception/ or exp contraceptive device/ or Sexual Abstinence/ or exp contraceptive behavior/ or sexual education/ or population dynamics/ or agents acting on the genital system/ or exp abortive agent/ or exp contraceptive agent/ or exp induced abortion/ or exp reproductive sterilization/	513666
10	(prevent* or promot* or educat* or school* or curricul?? or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service? or program* or contracept* or condom? or "the pill" or birth control or LARC or intrauterine device? or intra-uterine device? or IUD or IUDs or spermicide? or vaginal spong* or barrier method? or "TCu380?" or "CuT-200" or gynefix or abstinen* or cervical cap? or (ovulat* adj1 (suppress* or inhibit* or prevent*)) or abortion? or "morning after pill?" or planB? or plan B or abortifacient* or (pregnan* adj2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic? or rate? or control* or prevalen* or counsel* or motivational interview* or coitus interrupt* or vasectom* or ((female? or male? or wom?n or man or men or reproduct* or genital*) adj1 sterili*) or ((population* or reproduct* or fertil*) adj2 (regulat* or control*)) or family planning or birth spac* or planned parenthood?).tw.	11519275
11	9 or 10	11755383
12	adolescent/ or young adult/ or (teen* or adolescen* or youth* or emerging adult* or (young adj1 (adult? or people? or person? or individual? or population? or wom?n or man or men or female? or male?))))).tw.	1739687
13	exp pregnancy/ or (pregnan* or reproduc* or conceiv* or conception* or prenatal* or pre-natal*).mp.	1581483
14	and/11-13	74813
15	8 or 14	76174
16	limit 15 to "reviews (best balance of sensitivity and specificity)"	6799
17	limit 16 to (english or french)	6233
18	limit 17 to yr="2012 -Current"	2155
19	remove duplicates from 18	2037
20	limit 19 to exclude medline journals	257

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present

Exported 597 results

#	Searches	Results
1	Tertiary Prevention/ or Secondary Prevention/ or Primary Prevention/ or exp preventive health services/ or exp health promotion/ or exp health education/ or program development/ or program evaluation/ or policy/ or exp social control policies/ or policy making/ or family planning services/ or exp contraception/ or exp counseling/ or adolescent health services/ or exp contraceptive devices/ or Sexual Abstinence/ or contraception behavior/ or sex education/ or family planning policy/ or population control/ or reproductive control agents/ or exp abortion, induced/ or sterilization, reproductive/	820560
2	(prevent* or promot* or educat* or school* or curricul?? or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service? or program* or contracept* or condom? or "the pill" or birth control or LARC or intrauterine device? or intra-uterine device? or IUD or IUDs or spermicide? or vaginal spong* or barrier method? or "TCu380?" or "CuT-200" or gynefix or abstinen* or cervical cap? or (ovulat* adj1 (suppress* or inhibit* or prevent*)) or abortion? or "morning after pill?" or planB? or plan B or abortifacient* or (pregnan* adj2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic? or rate? or control* or prevalen* or counsel* or motivational interview* or coitus interrupt* or vasectom* or ((female? or male? or wom?n or man or men or reproduct* or genital*) adj1 sterili*) or ((population* or reproduct* or fertil*) adj2 (regulat* or control*)) or family planning or birth spac* or planned parenthood?).tw.	9451572
3	or/1-2	9753688
4	pregnancy in adolescence/	7415
5	(pregnancy, unwanted/ or pregnancy, unplanned/ or pregnancy rate/ or *pregnancy/) and (adolescent/ or young adult/)	7052
6	((pregnan* or conceiv* or conception? or prenatal* or pre-natal* or reproduc*) adj2 (teen* or adolescen* or youth* or emerging adult* or (young adj1 (adult? or people? or person? or individual? or population? or wom?n or man or men or female? or male?))))).tw,kw.	8978

7	or/4-6	18529
8	3 and 7	14113
9	limit 8 to "reviews (best balance of sensitivity and specificity)"	1301
10	limit 9 to (english and yr=2012-current)	345
11	family planning services/ or exp contraception/ or exp contraceptive devices/ or Sexual Abstinence/ or contraception behavior/ or sex education/ or family planning policy/ or population control/ or reproductive control agents/ or exp abortion, induced/ or sterilization, reproductive/	101569
12	(contracept* or condom? or "the pill" or birth control or LARC or intrauterine device? or intra-uterine device? or IUD or IUDs or spermicide? or vaginal spong* or barrier method? or "TCu380?" or "CuT-200" or gynefix or ((sex* or reproduc* or conjugal* or coit*) adj2 abstin*) or cervical cap? or (ovulat* adj1 (suppress* or inhibit* or prevent*)) or abortion? or "morning after pill?" or planB? or plan B or abortifacient* or (pregnan* adj2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or coitus interrupt* or vasectom* or ((female? or male? or wom?n or man or men or reproduct* or genital*) adj1 sterili*) or ((population* or reproduct* or fertil*) adj2 (regulat* or control*)) or family planning or birth spac* or planned parenthood? or sex education* or ((sexual* or reproduct*) adj2 (educat* or program* or curricul?? or intervention* or initiativ* or strateg* or policy or policies or service? or promot*))) .tw.	204943
13	11 or 12	236237
14	adolescent/ or young adult/ or (teen* or adolescen* or youth* or emerging adult* or (young adj1 (adult? or people? or person? or individual? or population? or wom?n or man or men or female? or male?))) .tw.	2275002
15	13 and 14	53424
16	exp pregnancy/ or (pregnan* or reproduc* or conceiv* or conception* or prenatal* or pre-natal*).mp.	1668525
17	15 and 16	28085
18	limit 17 to "reviews (best balance of sensitivity and specificity)"	2010
19	limit 18 to ((english or french) and yr=2012-current)	462
20	10 or 19	644
21	remove duplicates from 20	597

Psychinfo Search -1987 to May 2017

Teen pregnancy prevention - timiskaming – psychinfo

#	Searches	Results
1	preventive medicine/	1739
2	prevention/	23909
3	exp INTERVENTION/	83438
4	health promotion/ or health education/	29853
5	program development/ or program evaluation/	16387
6	policy making/	16052
7	exp social control/	2191
8	exp family planning/	7795
9	exp birth control/	6958
10	counseling/	15950
11	exp counseling/	52591
12	health care services/	35056
13	limit 12 to (200 adolescence or 320 young adulthood)	6181
14	limit 12 to adolescence <13 to 17 years>	2815
15	exp contraceptive devices/	4911
16	sexual abstinence/	477
17	sex education/	2476
18	((abort* or contracept* or reproduct*) adj agent*).hw,mh,sh,ti.	3
19	exp induced abortion/	1856
20	exp "Sterilization (Sex)"/	1839
21	or/1-20	246359
22	21 not 11	193768
23	(prevent* or promot* or educat* or school* or curricul?? or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service? or program* or contracept* or condom? or "the pill" or birth control or LARC or intrauterine device? or intra-uterine device? or IUD or IUDs or spermicide? or vaginal spong* or barrier method?	617444

	or "TCu380?" or "CuT-200" or gynefix or abstin* or cervical cap? or (ovulat* adj1 (suppress* or inhibit* or prevent*)) or abortion? or "morning after pill?" or planB? or plan B or abortifacient* or (pregnan* adj2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic? or rate? or control* or prevalen* or counsel* or motivational interview* or coitus interrupt* or vasectom* or ((female? or male? or wom?n or man or men or reproduct* or genital*) adj1 sterili*) or ((population* or reproduct* or fertil*) adj2 (regulat* or control*)) or family planning or birth spac* or planned parenthood?).ti.	
24	21 or 23	728634
25	22 or 23	702271
26	adolescent pregnancy/	2532
27	((unwanted or unplanned) adj pregnan*).hw,mh,sh,ti.	124
28	limit 27 to (200 adolescence or 320 young adulthood)	78
29	limit 27 to adolescence <13 to 17 years>	55
30	28 or 29	78
31	27 and 30	78
32	26 or 31	2588
33	((pregnan* or conceiv* or conception? or prenatal* or pre-natal* or reproduc*) adj2 (teen* or adolescen* or youth* or emerging adult* or (young adj1 (adult? or people? or person? or individual? or population? or wom?n or man or men or female? or male?))))).ti,id.	2025
34	32 or 33	2985
35	24 and 34	1450
36	exp family planning/ or exp birth control/ or exp contraceptive devices/ or sexual abstinence/ or sex education/ or exp induced abortion/ or exp "Sterilization (Sex)"/ or ((abort* or contracept* or reproduct*) adj agent*).hw,mh,sh,ti.	13660
37	(contracept* or condom? or "the pill" or birth control or LARC or intrauterine device? or intra-uterine device? or IUD or IUDs or spermicide? or vaginal spong* or barrier method? or "TCu380?" or "CuT-200" or gynefix or ((sex* or reproduc* or conjugal* or coit*) adj2 abstin*) or cervical cap? or (ovulat* adj1 (suppress* or inhibit* or prevent*)) or abortion? or "morning after pill?" or planB? or plan B or abortifacient* or (pregnan* adj2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or coitus interrupt* or	9078

	vasectom* or ((female? or male? or wom?n or man or men or reproduct* or genital*) adj1 sterili*) or ((population* or reproduct* or fertil*) adj2 (regulat* or control*)) or family planning or birth spac* or planned parenthood? or sex education* or ((sexual* or reproduct*) adj2 (educat* or program* or curricul?? or intervention* or initiativ* or strateg* or policy or policies or service? or promot*))) .ti.	
38	36 or 37	15598
39	(teen* or adolescen* or youth* or emerging adult* or (young adj1 (adult? or people? or person? or individual? or population? or wom?n or man or men or female? or male?))) .ti.	145358
40	38 and 39	2605
41	35 or 40	3554
42	limit 41 to "reviews (best balance of sensitivity and specificity)"	1767
43	limit 41 to (english or french)	3442
44	limit 42 to last 5 years	505
45	limit 44 to (english or french)	485
46	limit 45 to human	482
47	limit 46 to (peer reviewed journal or journal article)	392

Socindex

Exported 32

#	Query	Results
S21	S18 OR S20	32
S20	(S16 AND S19)	18
S19	TI review	132,166
S18	S16 AND S17	22
S17	((systematic review* or meta analys* or metanalys* or meta-analys* or "review of reviews") OR (((pooled or pooling or combined or combining) N1 (review* or data or studies or results or trials or information))) OR (((research or data) N1 synthesis)) OR ((((comprehensive* or integrative or systematic*) N3 (bibliographic* or review* or literature))) OR ("research synthesis" or ((information or data) N3 synthesis))	10,440
S16	S14 AND S15	812
S15	Limiters - Date of Publication: 20120101-20171231; Language: English, French Search modes - Boolean/Phrase	247,110
S14	S6 AND S13	5,460
S13	S7 OR S8 OR S9 OR S10 OR S11 OR S12	1,152,293
S12	TI ((prevent* or promot* or educat* or school* or curricul## or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service# or program* or contracept* or condom# or "the pill" or "birth control" or LARC or "intrauterine device#" or "intra-uterine device#" or IUD or IUDs or spermicide# or "vaginal spong*" or "barrier method#" or "TCu380?" or "CuT-200" or gynefix or abstinen* or "cervical cap#" or (ovulat* N1 (suppress* or inhibit* or prevent*)) or abortion# or "morning after pill?" or planB? or "plan B" or abortifacient* or (pregnan* N2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic# or rate# or control* or prevalen* or counsel* or "motivational interview*" or "coitus interrupt*" or vasectom* or ((female# or male# or wom#n or man or men or reproduct* or genital*) N1 sterili*) or ((population* or reproduct* or fertil*) N2 (regulat* or control*)) or "family planning" or "birth spac*" or "planned parenthood#") OR AB ((prevent* or promot* or	1,136,256

	<p>educat* or school* or curricul## or learn* or intervention* or initiativ* or strateg* or approach* or policy or policies or service# or program* or contracept* or condom# or "the pill" or "birth control" or LARC or "intrauterine device#" or "intra-uterine device#" or IUD or IUDs or spermicide# or "vaginal spong*" or "barrier method#" or "TCu380?" or "CuT-200" or gynefix or abstin* or "cervical cap#" or (ovulat* N1 (suppress* or inhibit* or prevent*)) or abortion# or "morning after pill?" or planB? or "plan B" or abortifacient* or (pregnan* N2 (terminat* or interrupt* or abort*)) or "RU-486" or yuzpe or clinic# or rate# or control* or prevalen* or counsel* or "motivational interview*" or "coitus interrupt*" or vasectom* or ((female# or male# or wom#n or man or men or reproduct* or genital*) N1 sterili*) or ((population* or reproduct* or fertil*) N2 (regulat* or control*)) or "family planning" or "birth spac*" or "planned parenthood#"))</p>	
S11	DE "INTERVENTION (Social services)" OR DE "HEALTH care intervention (Social services)"	1,715
S10	((DE "SEX education" OR DE "SEX education for youth" OR DE "SEX counseling") OR (DE "SEXUAL abstinence")) OR (DE "STERILIZATION (Birth control)") OR (DE "STERILIZATION of women"))	2,330
S9	DE "MEDICAL care"	27,755
S8	(((((DE "GOVERNMENT policy") OR (DE "POLICY sciences")) OR (DE "MEDICAL policy")) OR (DE "CONTRACEPTION" OR DE "MALE contraception" OR DE "NATURAL family planning" OR DE "STERILIZATION (Birth control)" OR DE "COMMUNITY-based family planning")) OR (DE "CONTRACEPTIVES" OR DE "MALE contraceptives")) OR (DE "BIRTH control" OR DE "CONDOMS")) OR (DE "ABORTION")) OR (DE "CHILD health services")	43,436
S7	(((((DE "PREVENTIVE health services" OR DE "HEALTH education") OR (DE "SCHOOL health services")) AND (DE "FAMILY planning" OR DE "FAMILY planning services")) OR (DE "COUNSELING")) OR (DE "COMMUNITY health services")) OR (DE "HEALTH promotion")) OR (DE "SOCIAL services -- Evaluation" OR DE "OUTCOME assessment (Social services)"))	19,365
S6	S3 OR S4 OR S5	6,702
S5	TI (((pregnan* or conceiv* or conception? or prenatal* or pre- natal* or reproduc*) and (teen* or adolescen* or youth* or "emerging adult*" or (young N1 (adult# or people# or person# or	6,161

individual# or population# or wom#n or man or men or female# or male#))))) OR AB (((pregnan* or conceiv* or conception? or prenatal* or pre-natal* or reproduc*) and (teen* or adolescen* or youth* or "emerging adult*" or (young N1 (adult# or people# or person# or individual# or population# or wom#n or man or men or female# or male#)))))

S4	DE "TEENAGE pregnancy"	1,655
S3	S1 AND S2	632
S2	DE "ADOLESCENCE" OR DE "TEENAGERS" OR DE "YOUNG adults" OR DE "YOUTH"	32,550
S1	(DE "PREGNANCY") OR (DE "PREGNANT women" OR DE "UNPLANNED pregnancy" OR DE "UNWANTED pregnancy")	6,226

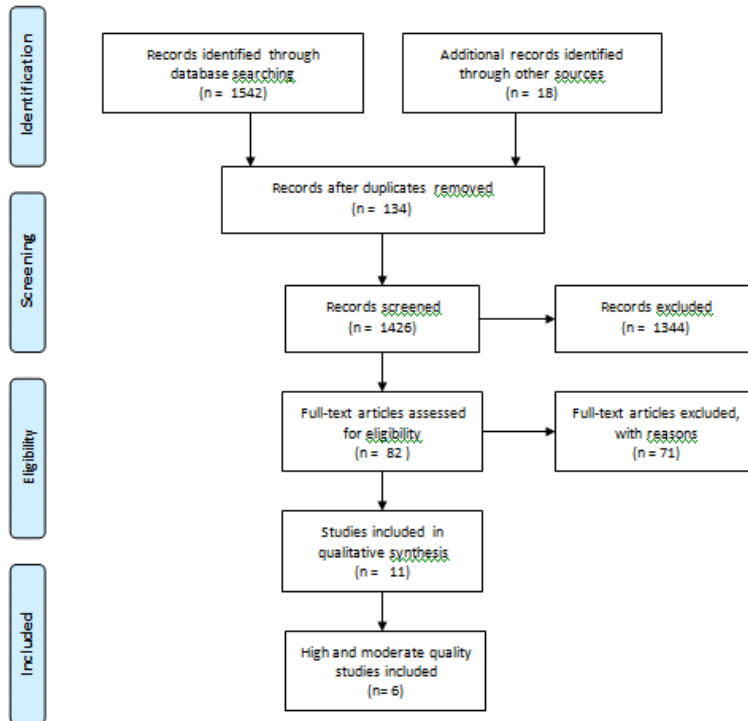
Grey Literature/Website Searching

National Guideline Clearinghouse –	5
Adolescent pregnancy	
Teen Pregnancy	
“Pregnancy prevention”	
NICE –	4
Adolescent pregnancy	
Teen Pregnancy	
“Pregnancy prevention”	
ACOG –	1
SOGC –	0 guideline search not free
Royal college of obstetricians and gynaecologists -	0
Royal Australian and New Zealand College of Obstetricians –	0
Canadian Paediatric society -	0
American Academy of Pediatrics - -	2
American Pediatric Society -	0
The community Guide	
Canadian Task force on Preventive Health Care –	0
CDC –	1..
Royal college of nursing	0
Canadian Nurses association	0
RNAO	0
American Nurses Association	0
US Department of Health and Human Services	3
Google Search	2+(duplicates)
teen pregnancy prevent review or analysis (updated within last year)	
adolescent pregnancy prevent "systematic review" OR "meta analysis" filetype:pdf updated since Jan 1 2014	
Site:.gov	
Prevent adolescent pregnancy guideline filetype:pdf	0

Appendix B - PRISMA Flow Diagram



PRISMA 2009 Flow Diagram



Appendix C- AMSTAR TOOL

1. Was an 'a priori' design provided?

The research question and inclusion criteria should be established before the conduct of the review.

- Yes
- No
- Can't answer
- Not applicable

2. Was there duplicate study selection and data extraction?

There should be at least two independent data extractors and a consensus procedure for disagreements should be in place.

- Yes
- No
- Can't answer
- Not applicable

3. Was a comprehensive literature search performed?

At least two electronic sources should be searched. The report must include years and databases used (e.g. Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.

- Yes
- No
- Can't answer
- Not applicable

4. Was the status of publication (i.e. grey literature) used as an inclusion criterion?

The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports (from the systematic review), based on their publication status, language etc.

- Yes
- No
- Can't answer

Not applicable

5. Was a list of studies (included and excluded) provided?

A list of included and excluded studies should be provided.

Yes

No

Can't answer

Not applicable

6. Were the characteristics of the included studies provided?

In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed e.g. age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported.

Yes

No

Can't answer

Not applicable

7. Was the scientific quality of the included studies assessed and documented?

'A priori' methods of assessment should be provided (e.g., for effectiveness studies if the author(s) chose to include only randomized, double-blind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.

Yes

No

Can't answer

Not applicable

8. Was the scientific quality of the included studies used appropriately in formulating conclusions?

The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.

Yes

No

Can't answer

- Not applicable

9. Were the methods used to combine the findings of studies appropriate?

For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e. Chi-squared test for homogeneity, I²). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e. is it sensible to combine?).

- Yes
- No
- Can't answer
- Not applicable

10. Was the likelihood of publication bias assessed?

An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression test).

- Yes
- No
- Can't answer
- Not applicable

11. Was the conflict of interest stated?

Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.

- Yes
- No
- Can't answer
- Not applicable

Appendix D- Data Extraction Tool

Please see attached [chart](#) for more information. A summary is provided below

		Notes	
Author (Year)	Results	Author's Notes	Key Findings
Oringanje, Eko, Meremikwu & Ehiri, 2016	Limited information suggests that programs that involve concurrent application of multiple interventions (educational, skill building and contraception promotion) can reduce rates of unintended pregnancies in adolescents (moderate quality). Promoting the use of contraception measures alone did not appear to reduce the risk of unintended pregnancy (moderate quality). There was insufficient data to show whether education as a single intervention would reduce the risk of unintended pregnancy.	Only interventions involving a combination of education and contraception promotion (multiple interventions) was seen to significantly reduce unintended pregnancy over the medium-term and long-term follow-up period.	Primary interventions involving a combination of education and contraception reduces rates of unintended pregnancy
Wilson, Nirantharakumar, Truchanowicz, Surenthirakumaran, MacArthur & Coomarasamy, 2015	It is apparent from this review that motivational interviews increase effective contraceptive use in a population at high risk of unintended pregnancy in the period of zero to four months after the intervention has been delivered. Collectively no effect is seen on contraceptive use after four months of post intervention.	Motivational interviews appear to significantly improve effective contraceptive use between zero to four months, but effects are reduced with time with no difference in subsequent pregnancies or births at the 2 yr. period post intervention	Primary Motivational interviews appear to significantly improve effective contraceptive use between zero to four months

<p>Rodriguez, Curtis, Gaffield, Jackson & Kapp, 2012</p>	<p>Available evidence supports that advance provision of Emergency Contraceptive Provision (ECP) to women and adolescents is safe and increases use of ECP following unprotected intercourse. There is no evidence that advance provision increases the likelihood of unprotected intercourse, frequent ECP use, STI's or changes in regular contraceptive use.</p>	<p>Advance provision of Emergency Contraception did not result in a statistically significant reduction in pregnancy at 12 months when compared with standard provision of ECP (RR 0.97, 95% CI 0.77 - 1.22)</p>	<p>Primary</p> <p>Advance provision of Emergency Contraception did not result in a statistically significant reduction in pregnancy at 12 months when compared with standard provision of ECP</p>
<p>Blank, Baxter, Payne, Guillaume & Squires, 2012</p>	<p>Teenage focused outreach programs to whole population services were effective in terms of service initiation and continued attendance but also in terms of pregnancy and contraceptive use (where that was measured). However, this may only be relevant for interventions delivered in health care setting, as new clinics for young people based in alternative settings (i.e. schools) have been shown to be effective.</p>	<p>Low quality effectiveness of studies, lack of studies measuring the key outcomes of pregnancy rate and LT contraception use</p> <p>Majority of studies from USA so may compromise generalizability to other areas</p>	<p>Secondary</p> <p>Teen focused outreach programs to whole populations effective in preventing pregnancy</p>

<p>Shackleton, Jamal, Viner, Dickson, Patton & Bonnell, 2015</p>	<p>Overall, there is good evidence that multicomponent school interventions, for example, including school policy changes, parent involvement, and work with local communities are effective for promoting sexual health and preventing bullying and smoking. There is little evidence that on their own sexual health clinics, antismoking policies and various approaches targeting at-risk students are effective. For sexual health, there is good evidence that multicomponent interventions prevent teenage pregnancy and risky sexual behaviours.</p>	<p>There is good evidence that various whole-school health interventions are effective in preventing teenage pregnancy, smoking and bullying</p>	<p>Secondary</p> <p>There is good evidence that various whole-school health interventions are effective in preventing teenage pregnancy</p>
<p>Mason-Jones, Sinclair, Mathews, Kagee, Hillman and Lombard. (2016)</p>	<p>Educational programs have no effect on the number of adolescent pregnancies (moderate certainty evidence)</p>		

Appendix E: Applicability & Transferability Worksheet

Starting a New Program Applicability and Transferability Worksheet

Factors	Questions	Notes
Applicability (feasibility)		
Political acceptability or leverage	<ul style="list-style-type: none"> • Will the intervention be allowed or supported in current political climate? • What will the public relations impact be for local government? • Will this program enhance the stature of the organization? <ul style="list-style-type: none"> ○ <i>For example, are there reasons to do the program that relate to increasing the profile and/or creative a positive image of public health?</i> • Will the public and target groups accept and support the intervention in its current format? 	
Social acceptability	<ul style="list-style-type: none"> • Will the target population find the intervention socially acceptable? Is it ethical? <ul style="list-style-type: none"> ○ <i>Consider how the program would be perceived by the population.</i> ○ <i>Consider the language and tone of the key messages.</i> ○ <i>Consider any assumptions you might have made about the population. Are they supported by the literature?</i> ○ <i>Consider the impact of your program and key messages on non-target groups.</i> 	
Available essential resources (personnel and financial)	<ul style="list-style-type: none"> • Who/what is available/essential for the local implementation? • Are they adequately trained? If not, is training available and affordable? • What is needed to tailor the intervention locally? • What are the full costs? <ul style="list-style-type: none"> ○ <i>Consider: in-kind staffing, supplies, systems, space requirements for staff, training, and technology/administrative supports.</i> • Are the incremental health benefits worth the costs of the intervention? <ul style="list-style-type: none"> ○ <i>Consider any available cost-benefit analyses that could help gauge the health benefits of the intervention.</i> ○ <i>Consider the cost of the program relative to the number of people that benefit/receive the intervention.</i> 	
	<ul style="list-style-type: none"> • 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')? 	

Organizational expertise and capacity	<ul style="list-style-type: none"> • Does the intervention conform to existing legislation or regulations (either local or provincial)? • Does the intervention overlap with existing programs or is it symbiotic (i.e., both internally and externally)? • Does the intervention lend itself to cross-departmental/divisional collaboration? • Any organizational barriers/structural issues or approval processes to be addressed? • Is the organization motivated (learning organization)? <ul style="list-style-type: none"> ○ <i>Consider organizational capacity/readiness and internal supports for staff learning.</i> 	
Transferability (generalizability)		
Magnitude of health issue in local setting	<ul style="list-style-type: none"> • 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? <ul style="list-style-type: none"> ○ <i>Consider the Comprehensive Health Status Report, and related epidemiological reports.</i> 	
Magnitude of the “reach” and cost effectiveness of the intervention above	<ul style="list-style-type: none"> • Will the intervention appropriately reach the priority population(s)? <ul style="list-style-type: none"> ○ What will be the coverage of the priority population(s)? 	
Target population characteristics	<ul style="list-style-type: none"> • 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? <ul style="list-style-type: none"> ○ <i>Consider if there are any important differences between the studies and the population in Peel (i.e., consider demographic, behavioural and other contextual factors).</i> 	
<p>Proposed Direction (after considering the above factors):</p>		

Form Completed by: _____

Worksheet adapted from: Buffet C., Ciliska D., and Thomas H. National Collaborating Centre for Methods and Tools. November 2007. *Can I Use this Evidence in my Program Decision? - Assessing Applicability and Transferability of Evidence.*