Looking further upstream to prevent fetal alcohol spectrum disorder in Canada

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ABSTRACT

Half of all pregnancies in Canada are unintended. Whether a pregnancy is intended or unintended has a bearing on the risk of prenatal alcohol exposure. Research indicates that women who experience an unintended pregnancy are significantly more likely to consume alcohol while pregnant. Most fetal alcohol spectrum disorder (FASD) prevention frameworks in Canada have adopted a mid-stream approach focused on preventing alcohol consumption among women who are already pregnant. Yet there is a second approach, further upstream, that is rarely discussed as an FASD prevention tool in this country – preventing unintended pregnancy itself. Improving access to long-acting reversible contraceptives for women and girls who are experiencing cost and access barriers to these methods could do much to stem the incidence of FASD and the prohibitive health and social costs associated with this disorder in Canada.

KEY WORDS: FASD; prenatal alcohol exposure; primary prevention; access to contraception; public health

La traduction du résumé se trouve à la fin de l'article.

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Alcohol use among pregnant women can cause a range of birth defects and developmental disabilities and continues to be an important public health concern. While the adverse effects of low to moderate prenatal alcohol exposure remain inconclusive, research does not support a non-harmful threshold of alcohol consumption during pregnancy. In Canada, it is estimated that 10.5% of women consume alcohol while knowing they are pregnant.¹ Fetal alcohol spectrum disorder (FASD) is an umbrella term describing an array of disabilities caused by prenatal alcohol exposure including fetal alcohol syndrome (FAS), partial FAS, and alcohol-related neurodevelopmental disorder (ARND).² In the United States, the prevalence of FASD is estimated at 2-5%, whereas the prevalence of FAS, the most severe expression of FASD, is approximately 2 to 7 per 1,000.³ Inadequate clinical capacity is a limiting factor in establishing the true prevalence of FASD in Canada, although if prevalence rates at all approximate those in the US, there are hundreds of thousands of individuals in Canada living with this condition. The economic burden of FASD is staggering. In Canada, based on an estimated prevalence of FASD of 1 in 100, the projected annual cost of supporting individuals with FASD is \$5.3 billion,⁴ with annual costs of \$2.1 billion in health care services alone, most of which are directed at those with the most severe expression of this disorder.⁵

Current efforts to prevent FASD in Canada

In research and practice, FASD prevention efforts are described within universal, selective, and indicated domains. Universal prevention aims to educate pregnant women and the general public about the deleterious effects of alcohol use during pregnancy. Examples include awareness campaigns and alcohol labelling. Selective prevention focuses on women of childbearing

age who may misuse alcohol. Brief intervention or motivational interviewing is used to decrease risky drinking and typically one contraception counselling session is provided. Indicated prevention focuses on women who are most vulnerable to alcohol-exposed pregnancies, including women who experience multiple psychosocial risk factors such as substance dependence, poverty, and mental illness, and involves wrap-around supports addressing multiple needs.⁵

Although universal prevention efforts seek to increase knowledge, evidence that these efforts reduce alcohol-exposed pregnancies is lacking.⁶ This is not surprising given that educational approaches are frequently ineffective in eliciting lasting behaviour change.⁷ Research suggests that evidence of effectiveness of selective and indicated approaches in reducing alcohol-exposed pregnancies is similarly weak.⁶

Looking further upstream to prevent FASD

FASD prevention efforts currently share one primary focus in Canada – to prevent alcohol use among women *who are already pregnant*. Yet there is a second approach, further upstream, that is rarely discussed as an FASD prevention tool in this country – to prevent unintended pregnancy itself. In North America, half of all pregnancies are unintended, a third of these ending in abortion.⁸ Canadian women who are unhappy that they have become pregnant are 2.5 times more likely than their contented counterparts to consume alcohol during pregnancy;⁹ women indifferent to their pregnancy are almost twice as likely to do so.⁹

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Though access to birth control has improved in recent decades, it remains limited for those under 18, those living in poverty, and those living in northern, rural and remote locations. These women are also at higher risk of unintended pregnancy.¹⁰ While current efforts to prevent alcohol consumption after pregnancy should not be abandoned, it is our contention that greater reductions in FASD incidence could be achieved across the socio-economic spectrum through a dual focus on preventing alcohol use during pregnancy and improving access to birth control among Canadian women, with particular attention paid to those who experience cost and/or access barriers to birth control. The addition of this upstream approach to current FASD prevention programming could do much to stem new cases of FASD in this country.

These efforts should focus on birth control methods that provide the greatest efficacy and effectiveness in preventing pregnancy. A nationally representative study found that Canadian women use a narrow range of contraceptive methods – namely condoms (54.3%), oral contraceptives (43.7%) and withdrawal (11.6%) – and that these methods are not used consistently.¹⁰ Failure rates of 3% to 17% for condoms and 2% to 9% for oral contraceptives suggest that these methods are not the best choices to prevent unintended pregnancy. Longer-lasting methods that require less strict adherence include depot medroxyprogesterone acetate (DMPA) injections, intrauterine devices (IUDs), contraceptive patches and vaginal rings. These long-acting methods result in a 20 times lower risk of failure. Yet few women use these methods in Canada.^{10,11} As an example, withdrawal as a method is almost twice as commonly used as DMPA and IUDs combined.

Knowledge, cost and access remain considerable barriers to these more effective methods.¹⁰ Long-acting methods require services from and multiple appointments with trained health professionals.¹⁰ As well, the upfront costs of an IUD can be prohibitive and serve as an access barrier for women experiencing financial difficulty. Although, over 5 years, IUD costs are half those of most oral contraceptives, many health insurance and health care plans do not cover these more effective methods.

Taking action to reduce FASD in Canada

We can take action to reduce these barriers in Canada by doing a better job of educating women on the full range of contraceptive options available to them. This should include information regarding the efficacy of various methods when used without error, and the average effectiveness among couples (i.e., the likelihood of human error by method). Upfront cost barriers associated with more effective, long-lasting methods must also be addressed for women experiencing financial difficulty in Canada.

A successful model that provides an excellent example is the *Contraceptive CHOICE Project* which began in 2007 in Missouri. This program educates women about various contraceptive methods and provides them with the method of their choice at no cost.¹² More than 9,000 women and girls have enrolled in the program. Program results indicate that once cost barriers were removed, 75% of girls and women chose long-acting reversible contraceptives (e.g., IUDs, subdermal implants) over short-acting options (e.g., birth control pills). For those in the program, unintended pregnancy dropped across age and socio-economic

spectrums. As an example, rates of teenage pregnancy among girls in the program were 5 times lower than the national average. Rates of abortion were 2 to 4 times lower than the regional average after 3 years of program implementation.¹² Similarly, a Canadian study has also found immediate IUD insertion post-abortion reduced repeat abortions by half compared to immediate oral contraception.¹³ The development of a larger Canadian program addressing birth control knowledge, cost and access issues before pregnancy rather than after abortion, would address the many issues associated with unintended pregnancy in this country (e.g., poverty, domestic violence) and reduce FASD incidence.

The Public Health Agency of Canada has developed a Four-Part Model of Prevention to address FASD. Level 1 is focused on broad awareness and health promotion, Level 2 on reducing alcohol use among women of childbearing years, Level 3 on reducing alcohol use among pregnant women, and Level 4 on providing support postpartum.¹⁴ The main focus of Level 1 efforts is educating women on the dangers of alcohol use once they become pregnant. There is space here, within these Level 1 efforts, to work further upstream to reduce unwanted pregnancy, as a complementary FASD prevention tool. Funds directed at reducing FASD through Level 1 efforts could be used to educate women on effective long-term birth control options, in addition to other educational messaging.

In closing, we recommend that a segment of targeted FASD prevention funds in Canada be redirected toward reducing unintended pregnancy. The Contraceptive CHOICE Program provides an excellent model we can follow to achieve this goal. For maximum impact, we recommend that these programs focus on providing access to women who experience the greatest barriers to contraceptive access, namely youth, women in financial difficulty, and women living in remote areas of Canada. We recommend that those who choose to use long-acting reversible contraceptive methods, but who encounter access and cost barriers, gain access to these methods at no cost with administration taking place during the visit they are requested. Such upstream efforts could do much to stem the incidence of FASD and the prohibitive health and social costs associated with this disorder. It is an FASD prevention approach that is overdue, and a hypothesis that deserves testing in this country.

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RÉSUMÉ

La moitié des grossesses au Canada sont non désirées. Qu'une grossesse soit voulue ou non a une incidence sur le risque d'exposition prénatale à l'alcool. Des études ont montré que les femmes qui vivent une grossesse non désirée sont de manière significative plus susceptibles de consommer de l'alcool lorsqu'elles sont enceintes. La plupart des cadres de prévention du trouble du spectre de l'alcoolisation fœtale (TSAF) au Canada emploient une approche à mi-parcours, qui vise à prévenir la consommation d'alcool des femmes déjà enceintes. Pourtant, il existe une deuxième approche, plus en amont, dont on discute rarement en tant qu'outil de prévention du TSAF dans ce pays : prévenir les grossesses non désirées. Le fait d'améliorer l'accès aux contraceptifs réversibles et à longue durée d'action pour les femmes et les filles qui n'ont pas les moyens de s'en procurer ou qui n'y ont pas accès contribuerait beaucoup à réduire l'incidence du TSAF et les coûts sanitaires et sociaux associés à ce trouble au Canada.

MOTS CLÉS : syndrome d'alcoolisme fœtal; exposition prénatale à l'alcool; prévention primaire; accès à la contraception; santé publique