Delayed parenthood on the rise: A call for upstream preconception health promotion in Canada

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ABSTRACT

The trend toward delayed parenthood is on the rise across Canada. Societal emphasis on attaining higher education, career advancement and financial security may be some reasons why individuals delay becoming a parent; whatever the reason, this trend is linked to significant health and economic impacts. Many Canadians are unaware of the impact this may have on their fertility and potential birth outcomes. It is important that health care professionals apprise individuals in their reproductive years about these issues and the steps they can take to mitigate these risks. Implementing a health equity and broader determinants of health approach through social policy development may also prove beneficial. Such upstream approaches could enhance maternal and child health outcomes, and also help ensure that people of reproductive age are making an informed decision about delaying parenthood. This article calls for developing a comprehensive preconception health promotion and care strategy encompassing individual, community and population level approaches.

KEY WORDS: Preconception care; health promotion; public health; Canada; fertility; health knowledge; attitudes; practices

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The trend towards delayed parenthood is on the rise across Canada. It is estimated that almost one in every five live births is to a woman aged 35 years or older.¹ This rate has increased from 16.5% in 2001 to 19.2% in 2011, and this trend is expected to continue.¹ In Ontario, the average age of a woman at the time of a live birth increased from 28.2 years in 1991 to 30.3 years in 2011; and the average age of a man increased from 31.0 years in 1991 to 33.2 years in 2011 (Figure 1).^{2,3} Another source confirms that this trend continues to increase in Ontario with a reported average maternal age of 30.4 years in 2013.⁴

Reasons for the trend towards delayed parenthood are complex and may include a greater societal emphasis on attaining higher education, career advancement and financial security before starting (or enlarging) a family.^{5,6} As well, improvements in contraception enable people to have more control over timing of parenthood.⁵ Absence of supportive work-family policies and environments, such as maternity and paternity benefits and affordable and accessible childcare, may also have an impact.⁷

Health impacts of delayed parenthood

Delayed parenthood is linked to significant health impacts. Fertility begins to decline in a woman's early 30s and continues with age.⁵ As men age, there is also an increased risk of fertility issues, such as the deterioration of semen quality.⁵ Although many men and women are aware of the impact age can have on their fertility, they appear to be less aware of the influence advanced age can have on birth outcomes as well as the costs and variable success rates of fertility treatments.⁶

Women of advancing age are at greater risk of developing chronic medical conditions, such as obesity and diabetes, which may impact both fertility and fetal health outcomes.⁸ They are also

at higher risk for miscarriage and prenatal complications, which may increase the need for caesarean section.^{5,8} Children born to older women are at increased risk for poor birth outcomes, such as preterm birth, low birth weight, congenital anomalies, and stillbirth.^{5,8} For example, in Ontario from 2001–2011 there were 92 stillbirths out of 10,000 deliveries among women aged 35–49 years compared to 66 stillbirths out of 10,000 deliveries among women aged 20–34 years. This is a 39% (95% CI = 33%–45%) increased risk for older women. Although the risk of stillbirth in any age group appears to be small, the increased risk among older women is statistically significant ($p < 0.05$).³ Children born to older men (≥ 40 years of age at time of conception) are also at increased risk of health concerns, such as some autosomal dominant conditions, schizophrenia, and autism spectrum disorders.⁵ Prevention of many of these adverse perinatal and birth outcomes is most effective before conception.⁸

Cost burden of delayed parenthood

The costs of health outcomes associated with delayed parenthood are significant. In terms of fertility complications, provinces wrestle

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Figure 1. Average parental age at time of live birth, 1991–2011, Ontario/Canada.

with supporting public funding for treatment due to the growing demand and need for these services. While the Government of Ontario recently announced it will pay most of the cost for one cycle of in-vitro fertilization, Quebec is attempting to reign in the ballooning costs of publicly funded fertility care. More alarming are the costs of birth complications. In 2014 the estimated total hospital costs, excluding physician billing, for infants born both preterm (<37 weeks) and low birth weight (<2500 g) in Canada was over \$290 million.⁹ The immediate financial burden on society and families is of importance; however, psychosocial and lost economic potential must also be considered.^{6,8}

Preconception health – An upstream approach to delayed parenthood

Delayed parenthood and its associated health and economic burdens are an important emerging public health concern. There is an urgent need for improved public awareness and supportive social policies to facilitate more informed reproductive choices.⁵ An upstream approach, such as preconception health, presents opportunities and potential benefits worth consideration.

Preconception health refers to the health of all individuals during their reproductive years. It is an approach that promotes healthy fertility and focuses on promoting healthy lifestyles and increasing readiness for pregnancy whether or not becoming a parent someday is desired. A comprehensive preconception health approach includes actions on individual, community and population levels.⁸

On an individual level, a preconception health approach offers the opportunity to inform individuals of the risks associated with delayed parenthood, including the impact on fertility, pregnancy and birth outcomes. It also assists individuals to make informed decisions on whether, when and how to have children; additionally, it provides an opportunity for general health promotion and healthy lifestyle messaging to support lifelong health and chronic disease prevention. We know that women of advanced age are more likely to develop chronic medical conditions, and women with chronic medical conditions are more likely to experience an unintended pregnancy, which may be due to lack of contraceptive use.¹⁰

Targeted messaging, such as the importance of folic acid supplementation, is also a component of individual preconception health promotion. Currently, only 19% of women over the age of 35 years meet the Canadian clinical guidelines for folic acid supplementation.¹¹ This low compliance supports the need for

preconception health efforts to inform women to take folic acid daily to prevent neural tube defects.¹¹ Targeted messaging for men of advanced age is also important. Findings indicate that approximately one third of men aged 35–39 years are in need of preconception health care to address health risks, including obesity, sexually transmitted infection rates and substance use.¹²

Often there is emphasis on individual-level preconception health interventions; however, there is an important role for public health to play on community and population levels. Such approaches are critical as many aspects of delayed parenthood, and health in general, are complex, often encompassing issues beyond an individual's control. Social policy incentives that improve work-family compatibility, such as maternity and paternity leave benefits, have been shown to encourage earlier childbearing.⁷ Public health policy incentives that employ both economic incentives and a broader family-friendly culture and attitude within society will likely provide the greatest impact when addressing delayed parenthood.⁷

An integrated and coordinated preconception health approach for all

An integrated and coordinated approach to preconception health is needed in Canada.^{5,8} The trajectory of maternal and child health outcomes is of concern as it has levelled off without significant signs of improvement. There is growing evidence that a focus on preconception health can positively support change on this issue.^{7,8} Delayed parenthood is merely one example that could benefit from a preconception health approach.

A position paper by the Ontario Public Health Association addresses the benefits of an integrated and coordinated preconception health approach and identifies ten recommendations for action.⁸ Although it is recognized that some progress has been made in the area of preconception health, a comprehensive approach and a strategic framework with specific guidelines are lacking.⁸ While preconception health programming is a required area of programming under the Ontario Public Health Standards, there is no standardized program for public health units to follow. As a result, the prioritization of resources and the development and delivery of programming is haphazard and duplicative.⁸ Additionally, there are no standardized surveillance indicators, which hampers monitoring and evaluation of existing health promotion efforts on a population level. In primary care settings, preconception health care fits well into periodic health exam guidelines and integrates evidence from the Canadian Task Force on Preventive Health Care,¹³ which aims to support primary care providers in delivering preventive health care. All periodic health exam visits should screen for and provide education about nutrition, immunization, exercise, mental health and risk behaviours, such as substance use. Although preventive care is important, delivery parameters remain fragmented and guidance to integrate preconception health care into practice is often lacking. As a result, inconsistent and deficient care is provided across regions and institutions.⁸

Although individual approaches may prove to be promising when addressing delayed parenthood, a truly comprehensive, coordinated and integrated strategy must also be considered. Issues related to health equity and the broader determinants of health, such as income, access to affordable housing, and physical environment, demonstrate a need to invest in upstream

preconception health initiatives. By implementing and coordinating a range of comprehensive preconception health efforts on multiple levels, there is an opportunity to create a greater shift in both individual and population health outcomes than by targeting individual efforts alone.

CONCLUSION

To address the complexity of this issue, an integrated and coordinated preconception health approach for all is recommended. It is our position that an intersectoral, interdisciplinary, national coordinating body be convened to lead efforts and establish an integrated preconception health strategy. Adopting this recommendation would not only benefit those who may delay parenthood but would also strengthen preconception health promotion and care for all people of reproductive age in Canada, leading to improved maternal and child health outcomes.

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RÉSUMÉ

La tendance à différer la condition parentale est en hausse au Canada. L'importance accordée par la société aux études supérieures, à l'avancement professionnel et à la sécurité financière pourrait expliquer pourquoi on retarde le moment de devenir parent; quelle qu'en soit la raison, cette tendance a d'importantes conséquences pour la santé et l'économie. De nombreux Canadiens et Canadiennes ignorent l'impact que cela pourrait avoir sur leur fécondité et sur les issues possibles de la grossesse. Il est important que les professionnels de la santé informent les personnes en âge de procréer de ces enjeux, et des mesures qu'elles peuvent prendre pour atténuer les risques. La mise en œuvre d'une démarche axée sur l'équité en santé et sur les grands déterminants de la santé par l'élaboration de politiques sociales pourrait aussi s'avérer bénéfique. De telles démarches d'amont pourraient améliorer les résultats de santé maternelle et infantile et contribuer à faire en sorte que les personnes en âge de procréer prennent la décision de différer la condition parentale en connaissance de cause. Notre article préconise l'élaboration d'une stratégie globale de promotion de la santé et des soins préconceptionnels qui englobe des démarches individuelles, communautaires et populationnelles.

MOTS CLÉS : soins préconceptionnels; promotion de la santé; santé publique; Canada; fécondité; connaissances; attitudes; pratiques en santé