



## Special Bulletin: Preconception Health

This special bulletin that contains recent information related to preconception health. We invite you to actively discuss and exchange other relevant information such as work your organization is doing or other links of interest.

[Share your information with the MNCHP network](#)

*\*Please note that the Best Start Resource Centre does not endorse or recommend any events, training, resources, services, research or publications of other organizations.*

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## **I. News & Views**

### **Heavy Drinking Among Women: Normalising, Moralising and the Facts**

An article by the Canada FASD Research Network (January 24, 2017) discusses a recent article in the Washington Post that examines the normalization of heavy drinking among young women. The Canada FASD Research Network explains the dangers of heavy drinking amongst young women. In particular, it highlights the potential increase in the number of alcohol-exposed pregnancies resulting from the normalizing of this type of drinking. In addition to the article, there are links to helpful information for service providers, including the message that FASD prevention begins well before pregnancy.

[Read the article](#)

### **Heavy Drinking Among Women: Normalising, Moralising and the Facts**

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the number of alcohol-exposed pregnancies resulting from the normalizing of this type of drinking. In addition to the article, there are links to helpful information for service providers, including the message that FASD prevention begins well before pregnancy.

[Read the article](#)

## **Joint SOGC–CCMG Opinion for Reproductive Genetic Carrier Screening: An Update for All Canadian Providers of Maternity and Reproductive Healthcare in the Era of Direct-to-Consumer Testing**

The Society of Obstetricians and Gynaecologists of Canada (SOGC) and the Canadian College of Medical Geneticists (CCMG) recommend the use of carrier screening before pregnancy. The two groups have drafted a guideline to update “Canadian maternity care and reproductive healthcare providers on pre- and postconceptional reproductive carrier screening for women or couples who may be at risk of being carriers for autosomal recessive (AR), autosomal dominant (AD), or X-linked (XL) conditions, with risk of transmission to the fetus” (Wilson, et. al. 2016). This update is intended to facilitate informed reproductive decision-making among women (and if applicable, their partners) planning a pregnancy and/or who are currently pregnant.

[Read the article](#)

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## **II. Recent Reports & Research**

*\* indicates journal subscription required for full text access*

### **Rethinking Preconception Care: A Critical, Women's Health Perspective\***

(Thompson et al. 2017)

**ABSTRACT:**

#### **Objectives:**

Preconception care aims to provide care to reproductive aged individuals in order to improve pregnancy and birth outcomes. Given that preconception care is a public health priority, it is important to evaluate the evolution of this health paradigm and the promotion of preconception messages that are obtained by the public. We identified online preconception health messages, which were critically assessed through a women's health perspective.

## **Methods**

We searched for "preconception care" on three major search engines. Websites were included if they were U.S.-based, provided content in English, and mentioned preconception care. Blogs and journal articles were excluded. The final sample included 52 websites. Using a content analysis approach, we assessed the presence of gender bias and identified other emergent themes.

## **Results**

The majority of websites focused on preconception care for women only (67%). The recommendations centered on: (1) health behaviors for women (e.g., folic acid, drinking, smoking); (2) visiting healthcare providers; and (3) evaluating medical risks. Moreover, most content implied that women desired, or should desire, pregnancy. Overall, the messages used biomedical language and rarely mentioned other important health topics, such as social support and violence.

## **Conclusions**

The primary messages presented on preconception care websites emphasized biomedical aspects of women's health. The current context of preconception care medicalizes this pre-pregnancy period by defining it as a biomedical condition requiring lifestyle changes and interventions. Additionally, the biases presented in these messages assumed women want and are capable of pregnancies and excluded an integral factor for heteronormative reproduction-men.

[Read the abstract](#)

## **Informing the Development and Uptake of a Weight Management Intervention for Preconception: A Mixed-Methods Investigation of Patient and Provider Perceptions.\*** (Harden et al. 2017)

ABSTRACT:

### **Background**

It is recommended for women to have a healthy body mass index before conception. However, there is limited research on appropriate preconception interventions for weight loss. Furthermore, there is a lack of knowledge on providers' willingness to refer to particular behavioral interventions and the degree to which patients would attend those interventions.

### **Methods**

A cross section of 67 patients and 21 providers completed surveys related to their demographics and willingness to refer/attend a number of interventions for weight loss. A case study of three patients from the target audience was used to elicit detailed feedback on preconception weight status and weight loss intervention.

### **Results**

Overall, patients were willing to attend a variety of interventions, regardless of BMI category. Focus group participants shared that weight loss prior to conception would be beneficial for them and their child, but cited barriers such as time, location, and the way providers encourage weight loss. Providers were willing to refer to a number of behavioral interventions, and were less willing to prescribe weight loss medications than other

intervention options.

### **Conclusions**

A number of intervention strategies may be well received by both patients and providers in preconception care to assist with weight loss prior to conception. Future research is needed on intervention effects and sustainability.

[Read the abstract](#)

### **Why Women Do Not Ask for Information on Preconception Health? A Qualitative Study**

(Bortolus et al. 2017)

#### **ABSTRACT:**

##### **Background**

Preconception care involves health promotion to reduce risk factors that might affect women and couples of childbearing age. The risk factors of adverse reproductive outcomes include recognized genetic diseases in the family or the individual, previous congenital diseases, miscarriage, prematurity, fetal growth restriction, infertility, chronic maternal diseases, lifestyle, and occupational or environmental factors. Effective preconception care involves a range of preventive, therapeutic and behavioural interventions. Although in Italy there are national preconception care recommendations concerning the general population, they are usually encouraged informally and only for single risk factors. At present there is increasing interest in offering a global intervention in this field. The aim of this study was to investigate attitudes and behaviours of Italian women of childbearing age and healthcare professionals regarding preconception health.

##### **Methods**

We conducted a qualitative study among women of childbearing age and healthcare professionals between February 2014 and February 2015. Five focus groups were held: 2 with non-pregnant women aged 22 to 44 years and 3 with healthcare professionals. Discussion topics included women's questions about preconception health, worries and barriers regarding preconception care interventions, attitudes and behaviours of women and healthcare professionals towards preconception health, women's information sources. In the analysis of the focus groups priority was given to what was said by the women, supplemented by information from the healthcare professionals' focus groups.

##### **Results**

Fourteen women of childbearing age (8 nulliparae and 6 multiparae) and 12 healthcare professionals (3 nurses, 4 midwives, 5 doctors) participated in the focus groups. The results indicate the presence of many barriers and a lack of awareness of preconception health relating to women, healthcare professionals and policies. Women's knowledge and attitudes towards primary preconception care information are described. The main reference source of information in this field for Italian women seems to be their obstetric-gynaecologist.

##### **Conclusions**

The study indicates that several barriers influence preconception care in Italy. Moreover, a lack of awareness of preconception health and care among Italian women of childbearing

age and healthcare professionals emerges. The findings might contribute to strategies for the implementation of preconception care guidelines.

[Read the article](#)

### **Folic Acid Advisories: A Public Health Challenge?\***

(Herrera-Araujo 2016)

#### **ABSTRACT:**

Neural tube defects are neurological conditions affecting one in 1000 fetuses in France each year. If a fetus is affected, there is a 90% chance that the pregnancy will be terminated. Increasing folic acid intake to 400µg per day 2months before and 2months after conception reduces prevalence rates by at least 40%. In 2005, France introduced a social marketing campaign seeking to increase the intake of folic acid by to-be-pregnant and pregnant women through information provision. This paper sets up a quasi-experimental setting to measure the impact of the French social marketing campaign on availability and preferences for folic acid. I combine detailed scanner data on grocery purchases with a dataset on macronutrients and micronutrients. The identification strategy exploits the variation in the usefulness of folic acid information between households: households that are pregnant or want to conceive a child use it, while those that are not pregnant do not. Results suggest evidence of a positive impact of the information campaign on folic acid household availability and preferences. A value per statistical neural tube defects case is found to be of at least 12 million.

[Read the abstract](#)

### **Iodine Supplementation for Women Before, During or After Pregnancy\***

(Harding et al. 2017)

#### **ABSTRACT**

##### **Background**

Iodine is an essential nutrient required for the biosynthesis of thyroid hormones, which are responsible for regulating growth, development and metabolism. Iodine requirements increase substantially during pregnancy and breastfeeding. If requirements are not met during these periods, the production of thyroid hormones may decrease and be inadequate for maternal, fetal and infant needs. The provision of iodine supplements may help meet the increased iodine needs during pregnancy and the postpartum period and prevent or correct iodine deficiency and its consequences.

##### **Objectives**

To assess the benefits and harms of supplementation with iodine, alone or in combination with other vitamins and minerals, for women in the preconceptional, pregnancy or postpartum period on their and their children's outcomes.

##### **Search methods**

We searched Cochrane Pregnancy and Childbirth's Trials Register (14 November 2016), and the WHO International Clinical Trials Registry Platform ([ICTRP](#)) (17 November 2016), contacted experts in the field and searched the reference lists of retrieved studies and

other relevant papers.

### **Selection criteria**

Randomized and quasi-randomized controlled trials with randomisation at either the individual or cluster level comparing injected or oral iodine supplementation (such as tablets, capsules, drops) during preconception, pregnancy or the postpartum period irrespective of iodine compound, dose, frequency or duration.

### **Data collection and analysis**

Two review authors independently assessed trial eligibility, risk of bias, extracted data and conducted checks for accuracy. We used the GRADE approach to assess the quality of the evidence for primary outcomes.

We anticipated high heterogeneity among trials, and we pooled trial results using random-effects models and were cautious in our interpretation of the pooled results.

### **Main results**

We included 14 studies and excluded 48 studies. We identified five ongoing or unpublished studies and two studies are awaiting classification. Eleven trials involving over 2700 women contributed data for the comparisons in this review (in three trials, the primary or secondary outcomes were not reported).

### **Maternal primary outcomes**

Iodine supplementation decreased the likelihood of the adverse effect of postpartum hyperthyroidism by 68% (average risk ratio (RR) 0.32; 95% confidence interval (CI) 0.11 to 0.91, three trials in mild to moderate iodine deficiency settings, 543 women, no statistical heterogeneity, low-quality evidence) and increased the likelihood of the adverse effect of digestive intolerance in pregnancy by 15 times (average RR 15.33; 95% CI 2.07 to 113.70, one trial in a mild-deficiency setting, 76 women, very low-quality evidence).

There were no clear differences between groups for hypothyroidism in pregnancy or postpartum (pregnancy: average RR 1.90; 95% CI 0.57 to 6.38, one trial, 365 women, low-quality evidence, and postpartum: average RR 0.44; 95% CI 0.06 to 3.42, three trials, 540 women, no statistical heterogeneity, low-quality evidence), preterm birth (average RR 0.71; 95% CI 0.30 to 1.66, two trials, 376 women, statistical heterogeneity, low-quality evidence) or the maternal adverse effects of elevated thyroid peroxidase antibodies (TPO-ab) in pregnancy or postpartum (average RR 0.95; 95% CI 0.44 to 2.07, one trial, 359 women, low-quality evidence, average RR 1.01; 95% CI 0.78 to 1.30, three trials, 397 women, no statistical heterogeneity, low-quality evidence), or hyperthyroidism in pregnancy (average RR 1.90; 95% CI 0.57 to 6.38, one trial, 365 women, low-quality evidence). All of the trials contributing data to these outcomes took place in settings with mild to moderate iodine deficiency.

### **Infant/child primary outcomes**

Compared with those who did not receive iodine, those who received iodine supplements had a 34% lower likelihood of perinatal mortality, however this difference was not statistically significant (average RR 0.66; 95% CI 0.42 to 1.03, two trials, 457 assessments, low-quality evidence). All of the perinatal deaths occurred in one trial conducted in a severely iodine-deficient setting. There were no clear differences between groups for low birthweight (average RR 0.56; 95% CI 0.26 to 1.23, two trials, 377 infants, no statistical heterogeneity, low-quality evidence), neonatal hypothyroidism/elevated thyroid-stimulating

hormone (TSH) (average RR 0.58; 95% CI 0.11 to 3.12, two trials, 260 infants, very low-quality evidence) or the adverse effect of elevated neonatal thyroid peroxidase antibodies (TPO-ab) (average RR 0.61; 95% CI 0.07 to 5.70, one trial, 108 infants, very low-quality evidence). All of the trials contributing data to these outcomes took place in areas with mild to moderate iodine deficiency. No trials reported on hypothyroidism/elevated TSH or any adverse effect beyond the neonatal period.

### **Authors' conclusions**

There were insufficient data to reach any meaningful conclusions on the benefits and harms of routine iodine supplementation in women before, during or after pregnancy. The available evidence suggested that iodine supplementation decreases the likelihood of postpartum hyperthyroidism and increases the likelihood of the adverse effect of digestive intolerance in pregnancy - both considered potential adverse effects. We considered evidence for these outcomes low or very low quality, however, because of study design limitations and wide confidence intervals. In addition, due to the small number of trials and included women in our meta-analyses, these findings must be interpreted with caution. There were no clear effects on other important maternal or child outcomes though these findings must also be interpreted cautiously due to limited data and low-quality trials. Additionally, almost all of the evidence came from settings with mild or moderate iodine deficiency and therefore may not be applicable to settings with severe deficiency.

More high-quality randomised controlled trials are needed on iodine supplementation before, during and after pregnancy on maternal and infant/child outcomes. However, it may be unethical to compare iodine to placebo or no treatment in severe deficiency settings. Trials may also be unfeasible in settings where pregnant and lactating women commonly take prenatal supplements with iodine. Information is needed on optimal timing of initiation as well as supplementation regimen and dose. Future trials should consider the outcomes in this review and follow children beyond the neonatal period. Future trials should employ adequate sample sizes, assess potential adverse effects (including the nature and extent of digestive intolerance), and be reported in a way that allows assessment of risk of bias, full data extraction and analysis by the subgroups specified in this review.

[Read the abstract](#)

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## **III. Current Initiatives**

### **RentSafe**

This CPCHE-led, multi-sectoral initiative aims to address housing-related health risks for low-income tenants and their families.

[Go to the RentSafe website](#)

[View the presentation](#) from the 2017 Best Start Resource Centre Preconception Health



Pre-Conference session

## **My Health eSnapshot**

Wellington-Dufferin-Guelph Public Health (WDGPH) developed a patient-driven electronic preconception health (PCH) risk assessment tool using tablet technology called My Health eSnapshot. It is comprised of sixty-two questions organized into eighteen topic areas and also includes a patient handout with evidence-informed PCH messages.

[Go to the research study](#)

[View the presentation](#) from the 2017 Best Start Resource Centre Preconception Health Pre-Conference session

## **Middlesex-London Health Unit: Got a Plan? Day**

Middlesex-London Health Unit offers a workshop to high school teachers and students who are studying topics related to human reproduction, pregnancy, child development and parenting.

[Go to the \*Got a Plan? Day\* website](#)

[View the presentation](#) from the 2017 Best Start Resource Centre Preconception Health Pre-Conference session

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## **IV. Resources**

### **Preconception Interventions**

Dr. Nancy Poole presented at the 2017 Best start Resource Centre Preconception Pre-Conference session. She provided a handout on preconception interventions for the web coverage of the conference. It was prepared by Rose Schmidt, Natalie Hemsing and Dr. Nancy Poole, Centre of Excellence for Women's Health.

[View the handout](#)

### **Sex & U Online Resource**

Sex & U is an online resource developed by the Society of Obstetricians and Gynaecologists of Canada to frankly discuss and provide information related to sex and sexuality. This resource has a section dedicated to preconception health and in particular, information related to planning a pregnancy.

[Go to the resource](#)

### **Preconception Health Care Tool**

MacHealth (an educational research and development group within the Michael G DeGroote School of Medicine at McMaster University) has created a Preconception Health Care Tool that supports parental and infant health. This tool identifies a range of risk factors for adverse pregnancy outcomes (e.g. physical, genetic, psychosocial, environmental, and behavioural) and provides health care providers with strategies on how to address them.

[Learn more about the tool](#)

### **Ready or Not Alberta**

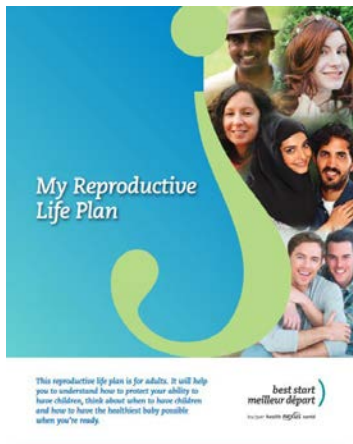
This online resource is an interactive website dedicated to sharing information about preconception health, whether individuals (males and females) are planning a pregnancy or not. For those planning a pregnancy, a range of topics are explored, including: folic acid, healthy mind/body, tobacco use, drugs and alcohol use, age, healthy weight, environmental risks, and more. For those not trying to become pregnant, a range of different topics are explored, including: birth control, STI's and safer sex practices, folic acid, age and fertility, among others.

[Learn more](#)

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## **IV. Featured Resources by the *Best Start Resource Centre***

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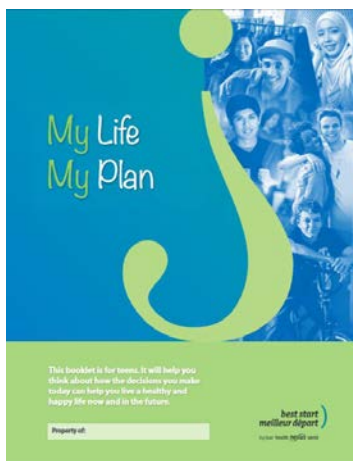


## My Reproductive Life Plan – Adults

This booklet is for adults who want to have children someday, but not right now. It helps individuals understand how to protect their ability to have children, think about when to have children and how to have the healthiest baby possible when they are ready. Topics include writing a reproductive life plan, physical health, sexual health, mental health, family health history, and next steps. Also included are websites and organizations to support next steps.

Available in PDF in [English](#) and [French](#)

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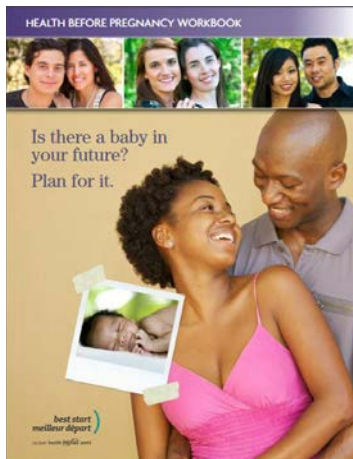


## My Reproductive Life Plan – Teens

This booklet for teens will guide them through six topic areas, providing them with facts and referrals, and the opportunity to respond to a series of questions that will help them to make healthy decisions, set goals and plan for their future. Topics include: physical health, mental health, reproductive health, relationships, family health history and their future.

Available in [English](#) and [French](#)

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## Is there a baby in your future? Plan for it - Health Before Pregnancy - Workbook

This workbook for young adults and couples raises issues that can affect men and women and the health of their future children and provides answers to commonly asked questions people think about as they consider parenting. The workbook offers checklists and activities to do. It also provides web links and phone numbers of places to go and people to talk to for more information on how to be as healthy as possible before embarking on a pregnancy.

Available in English and French in HTML and PDF on the Health Before Pregnancy website [healthbeforepregnancy.ca](http://healthbeforepregnancy.ca) and [www.sante-avant-grossesse.ca](http://www.sante-avant-grossesse.ca)



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- [Click4HP](#) is an international dialogue on health promotion. Participants exchange views on issues and ideas, provide leads to resources, and ask questions about health promotion.
- [The Maternal Newborn and Child Health Promotion \(MNCHP\) Network](#) - A province-wide electronic forum for service providers working to promote preconception, prenatal and child health.
- [Ontario Prenatal Education Network](#) - A space where professionals can share information and resources, ask questions and collaborate with peers on topics related to prenatal education.
- [Health Promotion Today](#) - Our blog keeps you informed of news and topics related to health promotion.
- [The Best Start Aboriginal Sharing Circle \(BSASC\) Network](#) is a distribution list designed for service providers working with Aboriginal Peoples in areas of preconception, prenatal and child health. The network is a forum to share news, ideas, questions and best practices.

En français:

## Restez branché!

- Le bulletin francophone [Le Bloc-Notes](#) est un outil indispensable pour les intervenants professionnels qui aiment être à l'affût des nouveautés dans le domaine de la promotion de la santé.
- Le [Bulletin de santé maternelle et infantile](#) est un bulletin électronique mensuel à l'intention des fournisseurs de services œuvrant dans le domaine de la promotion de la santé maternelle et infantile.
- [Promotion de la santé aujourd'hui](#) – Notre blogue sur lequel on partage des nouvelles et réflexions liées à la promotion de la santé.

