Preconception Health: Physician Practices in Ontario

A collaborative project of Best Start Resource Centre and Motherisk.
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Best Start Resource Centre supports service providers across Ontario through consultation, training and resources, in the areas of preconception, prenatal and child health. Best Start is a key program of Health Nexus. For more information about the Best Start Resource Centre, contact:

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1. Introduction

1.1 Purpose

Pregnancy outcomes are influenced by preconception health, lifestyle and personal history (Haas, Berman, Goldberg, Lee, & Cook, 1996). In fact, by the time many women know they are pregnant, it may be too late to prevent some birth defects, for example neural tube defects (NTDs). However, research has shown that fewer than 60% of family physicians and obstetricians in Canada discussed the use of folic acid supplementation prior to conception to prevent NTDs (Tough, Clarke, Hicks, & Cook, 2006). Substance use (alcohol, tobacco, drugs) prior to conception is also associated with poor perinatal outcomes, however, fewer than 50% of health care providers in Canada discussed smoking, alcohol use or addiction history with women of childbearing age (Tough et al., 2006). In addition, the percentage of physicians who discussed nutrition and weight management with women of childbearing age was limited to 44% to 52% (Tough et al., 2006). Other research suggests that women are postponing childbearing until later in life without sufficient information about possible consequences such as preterm delivery (Lampic, Svanberg, Karlstrom, & Tyden, 2006).

The first step in building capacity among primary health care providers is to understand their current attitudes and practices regarding preconception health. This report presents the results of a 2009 survey of Ontario family physicians regarding preconception health. The survey results provide the opportunity to learn about the preconception knowledge, needs and practices of family physicians. The report shares survey highlights, detailed survey results, discusses the context of the information and makes recommendations. This report will help service providers to consider strategies to strengthen preconception care in Ontario.

This is the third in a series of 3 reports on preconception health in Ontario, available at www.beststart.org. In addition to this report, Best Start Resource Centre has completed a survey of awareness and behaviours of men and women of childbearing age and a survey of public health preconception initiatives:

- Preconception Health: Awareness and Behaviours in Ontario (2009)
- Preconception Health: Public Health Initiatives in Ontario (2009)
1.2 Preconception Health

Preconception health promotion is a prevention strategy that helps men and women to prepare for pregnancy by improving their health prior to conception. It includes health practices related to safeguarding fertility, preparing for pregnancy, and identifying and addressing risk factors. It also enhances pregnancy outcomes by optimizing health in the critical first weeks of pregnancy, before many women know they are pregnant. Preconception health strategies encourage men and women to actively plan their pregnancy, seek out health information and advice, and to make health changes prior to conception (Best Start Resource Centre, 2001). Preconception health strategies include aspects related to awareness, knowledge, skills, motivation, opportunity, access, supportive environments, policy development, and ultimately, behaviour change (Alberta Perinatal Health Program, 2007).

The general public understands that a woman’s health during pregnancy can impact the health of her unborn baby, but is less aware of the importance of good health for both men and women prior to conception. The concept of actively preparing for pregnancy prior to conception continues to be a challenge for many Ontarians.

Over the last 10 years, there have been significant efforts to introduce preconception initiatives across Ontario. Public health units, in particular, have planned a range of strategies including awareness campaigns, web-based information, preconception classes and media strategies to encourage men and women to plan their pregnancies, assess their health and make appropriate changes, prior to conception. Province-wide preconception strategies include:

- Release of service provider manual “Preconception Health: Research and Strategies” in 2001 (Best Start Resource Centre)
- Release of a range of provincial preconception resources for the general public in 2001-2003 including a workbook, display, poster and brochure. These were later updated and released with new titles and graphics (Best Start Resource Centre, adapted from resources developed in collaboration by Simcoe District Health Unit and Best Start Barrie)
- Launch of “It’s Never too Early” folic acid provincial awareness campaign in 2002 (Folic Acid Alliance Ontario)
- Launch of “Is there a Baby in your Future?” provincial awareness campaign in 2005 (Best Start Resource Centre)
- Release of brochure “Men’s Information – How to Build a Healthy Baby” in 2006 (Best Start Resource Centre)
- Availability of regional workshops, phone, email and onsite consultation services across Ontario from 2000 – 2008 (Best Start Resource Centre)
1.3 The Survey

To get a sense of the preconception care provided by primary health care practitioners in Ontario, family physicians were invited to participate in a survey. A questionnaire was developed with input from Best Start Resource Centre, Motherisk and other interested service providers. The survey included 9 questions and was designed to take 1-5 minutes to complete. The survey questionnaire gathered information about:

- The family physician’s field of practice and demographics
- The perceived importance of preconception care
- The type and the frequency of preconception care provided
- Counselling about potential teratogens and medications

A list of phone and fax numbers was accessed from the College of Physicians and Surgeons of Ontario (CPSO) website at www.cpso.on.ca/docsearch/default.aspx?id = 2048. The investigator called each 5th family physician on the CPSO list. The investigator contacted 700 family physicians by telephone to invite them to participate in the survey. Introductory letters and survey questionnaires were sent by fax to interested family physicians. Completed questionnaires were returned to Motherisk by fax between December, 2008 and March, 2009. Respondents did not receive any compensation or gifts. Survey highlights are shared in Section 2 of this report, and detailed results in Section 3.

Responses were received from 251 of the 700 physicians who were contacted, for a response rate of 36%. In 2009 there were in excess of 8,200 practicing family physicians in Ontario.

<table>
<thead>
<tr>
<th>Survey Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls</td>
<td>700 (100%)</td>
</tr>
<tr>
<td>Completed Questionnaires</td>
<td>251 (35.9%)</td>
</tr>
<tr>
<td>Received but did not complete questionnaire</td>
<td>103 (14.7%)</td>
</tr>
<tr>
<td>Declined participation</td>
<td>346 (49.4%)</td>
</tr>
</tbody>
</table>

Table 1.3a: Survey Response Rate

Responses were received from all regions of Ontario, including northern, south eastern and south western Ontario and the Greater Toronto Area (GTA). Each geographic area was well represented in the survey results.

<table>
<thead>
<tr>
<th>Location of Practice</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Ontario</td>
<td>16.7</td>
</tr>
<tr>
<td>South eastern Ontario</td>
<td>26.7</td>
</tr>
<tr>
<td>GTA</td>
<td>34.3</td>
</tr>
<tr>
<td>South western Ontario</td>
<td>21.9</td>
</tr>
<tr>
<td>Location not indicated</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Table 1.3b: Geographic Location of Respondents Practices
Limitations:
This report has a few limitations:

- This survey only included family physicians, and does not represent the preconception care that may be provided in Ontario by other primary care providers, for example obstetricians and gynaecologists, midwives and nurse practitioners.
- Individuals who responded to the survey may have had a higher interest in preconception health or greater concern about preconception care services, in comparison to those who declined participation.
- Some questionnaires were completed by family physicians. Other questionnaires may have been completed on behalf of the family physician by office staff or by practitioners who worked with the family physician.
- While the researcher confirmed that each physician was involved in family practice, before sending them a survey form, the questionnaire did not ask about the type of patients that the family physician sees. It is possible that some respondents did not have men and women of child bearing years as patients.

1.4 Additional Resources
This report discusses the data from a survey of family physician preconception knowledge and practices, and the implications to preconception health in Ontario; however it does not review foundational information on preconception health concerns and initiatives. In order to plan and implement effective preconception strategies, the reader may need additional information or resources, for example, information about preconception health risks, information concerning possible strategies or patient handouts. The reader is encouraged to use this report in conjunction with the other 2009 provincial preconception health reports (see Purpose) and the following Best Start Resource Centre resources:

- Preconception Health: Research and Strategies manual
- Is there a Baby in Your Future brochure, poster and display
- Is there a Baby in Your Future online workbook
- Is there a Baby in Your Future camera ready ads
- Men’s Information: How to Build a Healthy Baby brochure
- Is there a Baby in Your Future campaign information, including media resources

These resources are available at: www.beststart.org. Many are provided in both French and English. The direct links to the “Is there a Baby in Your Future” workbook are www.healthbeforepregnancy.ca and www.sante-avant-grossesse.ca.
2. Survey Highlights

This section presents the survey highlights, while Section 3 explores the data in more detail.

2.1 Benefits of Preconception Health

• Most family physicians recognise that preconception care is important to the health of future children (97.2%), with only a small proportion believing it is not very important (2.8%).

• Respondents had broad awareness of the health consequences that could result from poor preconception health and identified a continuum of possible concerns including fertility issues, prenatal complications, neonatal health concerns, and long term consequences for the child. Most respondents recognised the links between poor preconception health/practices and low birth weight (94%), birth defects (90.8%), preterm labour and birth (80.3%), infertility and difficulty conceiving (71.1%), and developmental delays (69.9%).

2.2 Preconception Services

• Most respondents indicated that they provided preconception care on a daily or weekly basis (78.4%). Some respondents rarely provided preconception care (20%) and a few never provided preconception care (1.6%).

• While almost all respondents indicated that they talked to women about making health changes prior to conception (96.8%), only one in five respondents (21.3%) talked to men about making health changes prior to conception.

• About two thirds of respondents (64.3%) stated that they provided preconception check ups for patients planning a pregnancy.

• In terms of print materials, only 1 in 4 respondents displayed preconception posters (26.1%) or gave patients brochures about preconception (25.7%).

• Most respondents indicated that they talked to patients about drinking, smoking and drug use (97.6%), about folic acid and vitamins (96%), and about medications (79.6%) prior to conception. About half of the respondents talked to their patients about environmental and workplace health risks prior to conception (52%). A small proportion of respondents (0.8%) indicated that they did not counsel their patients about medication and toxic exposures.
2.3 Barriers and Supports

- The most commonly mentioned barriers to preconception care included patients not discussing preconception health issues (49.8%) and family physicians not knowing how to access patient handouts on this topic (30.9%).

- Other less common barriers to preconception care included not knowing how to bill a preconception appointment (17.7%), not having time to provide preconception care (14.5%), lacking pertinent knowledge and skills (3.6%) and the perception that patients already know about preconception health (1.6%). Respondents also mentioned the challenges presented by patients not asking about pregnancy planning, patients not seeing a physician until they are pregnant, unplanned pregnancies, limited patient knowledge, low socio-economic status, and language barriers.

- About 1 in four respondents (22.9%) felt there were no barriers to preconception care.

- Respondents were most interested in the following preconception supports: patient handouts (78.5%) and health care provider resources (70.4%). Respondents specified that the resources that would be most helpful to them included patient handouts on smoking, alcohol use, lifestyle and diet, as well as posters.

- There were lower levels of interest in training events about preconception care, whether in person (26.6%) or online (22.3%).

- A small proportion of respondents indicated that they did not need assistance in providing preconception care (5.2%).

- Respondents also indicated support for preconception strategies that went beyond clinical practice, including information on the internet and television for patients, and strategies to reach young people.
3. Survey Results

This section shares detailed survey results.

3.1 Perceived Importance of Preconception Care

Survey Question: How important is preconception care to the health of future children (please check one)?

<table>
<thead>
<tr>
<th>Importance of Preconception Care</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important</td>
<td>72.4</td>
</tr>
<tr>
<td>Important</td>
<td>24.8</td>
</tr>
<tr>
<td>Not very important</td>
<td>2.8</td>
</tr>
<tr>
<td>Not at all important</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3.1: Perceived Importance of Preconception Care (n = 250)

Results: Most respondents indicated that preconception care is very important or important to the health of future children (97.2%). Only a small proportion of respondents felt that preconception care is not very important (2.8%).

3.2 Consequences of Poor Preconception Health

Survey Question: Poor preconception health and practices are associated with the following (please check all that apply).

<table>
<thead>
<tr>
<th>Health Consequences</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low birth weight</td>
<td>94.0</td>
</tr>
<tr>
<td>Birth defects</td>
<td>90.8</td>
</tr>
<tr>
<td>Preterm labour and birth</td>
<td>80.3</td>
</tr>
<tr>
<td>Infertility or difficulty conceiving</td>
<td>71.1</td>
</tr>
<tr>
<td>Developmental delays</td>
<td>69.9</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Table 3.2: Consequences of Poor Preconception Health or Care (n = 249)

Results: Respondents had broad awareness of the health consequences of poor preconception health/services, with 73.1% of respondents selecting 3 or more response options.

Respondents were most likely to identify the links between poor preconception health/practices and low birth weight (94%) as well as birth defects (90.8%). There was also a high level of recognition of consequences to preterm labour and birth (80.3%), infertility and difficulty conceiving (71.1%) and developmental delays (69.9%).

In the “Other” category, the following issues were identified: spina bifida (4), vaccination status (2), low socio-economic status (2) and fetal alcohol (1).
3.3 Frequency of Preconception Care

Survey Question: Please tell us about your practice (choose one response).

<table>
<thead>
<tr>
<th>Type of Practice</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I provide preconception care on a daily basis</td>
<td>30.8</td>
</tr>
<tr>
<td>I provide preconception care about once a week</td>
<td>47.6</td>
</tr>
<tr>
<td>I rarely provide preconception care</td>
<td>20.0</td>
</tr>
<tr>
<td>I never provide preconception care</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Table 3.3: Frequency of Preconception Care (n = 250)

Results: Most respondents provided preconception care on a daily or weekly basis (78.4%). Some respondents rarely provided preconception care (20%) and a few never provided preconception care (1.6%).

3.4 Type of Preconception Care

Survey Question: What type of preconception care do you provide (check all that apply)?

<table>
<thead>
<tr>
<th>Type of Preconception Care</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I talk to women about making health changes prior to conception</td>
<td>96.8</td>
</tr>
<tr>
<td>I provide preconception check-ups for patients planning a pregnancy</td>
<td>64.3</td>
</tr>
<tr>
<td>I have posters in the waiting room/patient rooms about preconception</td>
<td>26.1</td>
</tr>
<tr>
<td>I give patients brochures about preconception</td>
<td>25.7</td>
</tr>
<tr>
<td>I talk to men about making health changes prior to conception</td>
<td>21.3</td>
</tr>
</tbody>
</table>

Table 3.4: Type of Preconception Care (n = 249)

Results: While most respondents indicated that they talked to women about preconception health (96.8%), only one in five respondents (21.3%) talked to men about making health changes prior to conception. About two thirds of respondents (64.3%) stated that they provided preconception check ups for patients planning a pregnancy. About one in four respondents displayed preconception posters (26.1%) and gave patients brochures about preconception (25.7%).

Respondents most commonly indicated that they provided 2-3 of the above preconception services (62.2%). A smaller proportion of respondents indicated that they provided one identified preconception service (24.1%), or more than 3 different preconception services (13.7%).
3.5 Type of Counselling Regarding Medications and Toxic Exposures

Survey Question: What type of counselling regarding medication and toxic exposure do you provide (check all that apply)?

<table>
<thead>
<tr>
<th>Counselling about Medications and Toxic Exposures</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I talk to patients about stopping drinking/smoking/drug use prior to conception</td>
<td>97.6</td>
</tr>
<tr>
<td>I talk to patients about folic acid and vitamins</td>
<td>96.0</td>
</tr>
<tr>
<td>I counsel patients about adjusting medications prior to conception</td>
<td>79.6</td>
</tr>
<tr>
<td>I talk to patients about environmental and workplace risks to health prior to conception</td>
<td>52.0</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>8.0</td>
</tr>
<tr>
<td>I do not provide medication and toxic exposure counselling</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Table 3.5: Counselling Regarding Medications and Toxic Exposures (n = 250)

Results: Most respondents indicated that they talked to patients about drinking/smoking/drug use prior to conception (97.6%), folic acid and vitamins (96%), and adjusting medications prior to conception (79.6%). About half of the respondents talked to their patients about environmental and workplace health risks prior to conception (52%). A small proportion of respondents (0.8%) indicated that they did not counsel their patients about medication and toxic exposures.

In the “Other” category, the following types of patient preconception counselling were identified: diet (8), vaccination check up (7), lifestyle (7), exercise (6), stress (1) and dental hygiene (1).

3.6 Barriers to Providing Preconception Care

Survey Question: Please tell us about any barriers to providing preconception care (check all that apply).

<table>
<thead>
<tr>
<th>Barriers to Preconception Care</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>My patients do not discuss pregnancy planning with me</td>
<td>49.8</td>
</tr>
<tr>
<td>I don’t know where to get patient handouts on preconception care</td>
<td>30.9</td>
</tr>
<tr>
<td>I am not sure how to bill a preconception visit</td>
<td>17.7</td>
</tr>
<tr>
<td>I do not have time to provide preconception care</td>
<td>14.5</td>
</tr>
<tr>
<td>I do not have the knowledge and skills to provide preconception care</td>
<td>3.6</td>
</tr>
<tr>
<td>My patients already know about preconception health</td>
<td>1.6</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>10.4</td>
</tr>
<tr>
<td>There are no barriers to providing preconception care</td>
<td>22.9</td>
</tr>
</tbody>
</table>

Table 3.6: Barriers to Preconception Care (n = 249)

Results: The 2 most common barriers to preconception care as identified by respondents included patients not discussing preconception planning (49.8%) and family physicians not knowing how to access patient handouts on this topic (30.9%). Other less common barriers included not knowing how to bill a preconception appointment (17.7%), not having time to provide preconception care (14.5%), lacking pertinent knowledge and skills (3.6%) and the perception that patients already know about preconception health (1.6%).
About 1 in four respondents (22.9%) felt there were no barriers to preconception care.

In the “Other” category, the following concerns were identified:

- Patients do not visit for preconception care (13)
- Patients do not visit the family physician until they are already pregnant, missing the opportunity for preconception care (2)
- Patients have unplanned pregnancies and miss the opportunity for preconception care (9)
- Patient’s limited knowledge / low social status presents barriers to preconception care (3)
- Language presents a barrier to providing preconception care (2)

3.7 Supports to Strengthen Preconception Care

**Survey Question:** What would assist you in providing preconception care (check all that apply)?

<table>
<thead>
<tr>
<th>Preconception Care Supports</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient handouts (please describe)</td>
<td>78.5</td>
</tr>
<tr>
<td>• Smoking (9)</td>
<td></td>
</tr>
<tr>
<td>• Alcohol (6)</td>
<td></td>
</tr>
<tr>
<td>• Lifestyle (6)</td>
<td></td>
</tr>
<tr>
<td>• Diet (5)</td>
<td></td>
</tr>
<tr>
<td>Health care provider resources (please describe)</td>
<td></td>
</tr>
<tr>
<td>• Posters (10)</td>
<td>70.4</td>
</tr>
<tr>
<td>• Guidelines (4)</td>
<td></td>
</tr>
<tr>
<td>• Provide in all languages (2)</td>
<td></td>
</tr>
<tr>
<td>Workshop</td>
<td>26.6</td>
</tr>
<tr>
<td>Online training</td>
<td>22.3</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>10.7</td>
</tr>
<tr>
<td>N/A</td>
<td>5.2</td>
</tr>
</tbody>
</table>

**Table 3.7:** Supports to Strengthen Preconception Care (n = 233)

**Results:** The preconception supports that most interested respondents included patient handouts (78.5%) and health care provider resources (70.4%). Respondents specified that the resources that would be most helpful to them included patient handouts on smoking, alcohol, lifestyle and diet, as well as posters. About 1 in 4 respondents was interested in training events, whether in person (26.6%) or online (22.3%). A small proportion of respondents indicated that they did not need preconception supports (5.2%).

In the “Other” response category, the following supports were identified: website (11), TV promotion (6), and information for teens (3).

Respondents were also asked if there was anything else they would like to share about preconception care. Responses to this question also focussed on priority strategies to reach patients with key preconception information including:

- More information for teenagers (6)
- TV information (preconception care, vaccination, folic acid) (8)
- Website (easy to understand for patients) (4)
4. Implications for Ontario

Previous sections share highlights and details of the survey results. This section discusses the implications of the survey results. It considers the underlying factors, reflects on the significance to preconception health and preconception services in Ontario and shares recommendations.

4.1 Discussion

Health care providers play a key role in influencing preconception health. They have opportunities to inform, counsel, screen, identify and refer patients regarding a range of preconception health issues.

“This is a good survey and very important issue.”
– Respondent (Family Physician)

Preconception care can be either opportunistic or an appointment designed specifically for individuals who are actively planning a pregnancy. An example of opportunistic preconception care is asking a patient during their regular check-up about their intention to have children in the future, and following up with brief preconception information. In depth preconception services are necessary for individuals planning a pregnancy, for example preconception appointments, or referrals to preconception classes.

General Public Wants Preconception Care

In a 2008 survey about preconception awareness in Ontario, men and women of childbearing age were asked about key sources of preconception information, and about the preconception services they had received (Best Start Resource Centre, 2009a). Most respondents believed that both men and women should talk to their health care provider before conception and most identified health care providers as the most effective source of preconception information. Unfortunately, 52% of women of child bearing age and 80% of men did not recall receiving preconception information from their health care provider. Of those who received preconception information, only 2% recalled receiving print handouts and only 0.4% recalled being advised to talk to a health care provider when planning a pregnancy (Best Start Resource Centre, 2009a). Overall, the results showed a strong interest from men and women of childbearing age in preconception services provided by health care providers.
**Public Health is Planning Preconception Initiatives for Health Care Providers**

Public health departments in Ontario have made considerable efforts to improve awareness about preconception health and to strengthen preconception services (Best Start Resource Centre, 2009b). In the five year period prior to the survey of public health preconception initiatives (2003 to 2008), 44% of Ontario public health departments implemented preconception initiatives designed to reach health care providers. Training events and campaigns for health care providers were considered to be among the most successful preconception initiatives implemented by public health departments. At the time of the survey (2008), 31% of public health departments were planning new preconception initiatives for health care providers. Public health departments are interested in providing needed preconception care supports to health care providers, and feel health care providers play a critical role in preconception care.

**Family Physicians Believe Preconception Health is Important**

The 2009 family physician preconception survey included questions about the importance of preconception care to the health of future children, and the consequences of poor preconception health or poor preconception care. The majority of family physicians believed that preconception care is important to the health of future children, and identified consequences to fertility, prenatal complications, neonatal health issues, and long term developmental problems. The importance of preconception health does not need to be a primary focus of future preconception initiatives for health care providers.

**Family Physicians Have Preconception Knowledge Gaps**

While almost all family physicians identified the links between poor preconception health, low birth weight and birth defects, there were lower levels of recognition regarding the consequences to rates of preterm labour, preterm birth, infertility, difficulty conceiving, and developmental delays. Future efforts to strengthen preconception care services should reinforce the consequences of poor preconception health from fertility through to child development, and the health opportunities provided through timely preconception care.

While most family physicians indicated that they talked to patients about drinking, smoking, drug use, folic acid, vitamins and about medications prior to conception, only about half of the respondents talked to their patients about environmental and workplace health risks prior to conception. Family physicians may benefit from increased knowledge of environmental and workplace risks to preconception health, and strategies to decrease these risks.
Family Physicians May Be Missing Preconception Care Opportunities

Almost half of family physicians indicated that they provided preconception care once a week, and almost a third provided preconception care on a daily basis. About 1 in 5 family physicians rarely or never offered provided preconception care services. While this survey does not identify family physicians who do not provide care to men and women of childbearing age (for example those focussing on geriatric care), it appears that a significant proportion of family physicians may be missing opportunities to provide opportunistic preconception care to patients who might conceive in the next few years. Physicians may benefit from information related to their opportunities to provide preconception care, as well as preconception care strategies.

Family physicians were asked about barriers to preconception care, and the most common response was that patients were not discussing preconception health issues with their family physician. Health care providers can be provided with suggestions on how to encourage disclosure of reproductive health plans, for example asking patients of childbearing age if they plan to have a child in the next few years during unrelated appointments. In addition, efforts are needed to encourage men and women who are planning a pregnancy to talk to their health care provider about assessing and improving their health.

About two thirds of respondents stated that they provided preconception check ups for patients who were planning a pregnancy. The ability to offer specific preconception appointments depends both on the skills of the practitioner, as well as the interest of patients in accessing care prior to conception. In order to increase access to tailored preconception care for those actively planning a pregnancy, public awareness and health care provider skills need to be addressed.

While almost all family physicians indicated that they talked to women about making health changes prior to conception, only one in five talked to men about making health changes prior to conception. Family physicians may benefit from information about the preconception health risks for men, and the opportunities to provide preconception care to men.

Some Family Physicians are Interested in Preconception Training

Only a small proportion of family physicians felt that they did not have the knowledge or skills to provide preconception care, however, about 1 in 4 expressed an interest in training events. Considering the services currently provided and the identified barriers, it may be helpful if training events focussed mainly on the practicalities of providing preconception care, for example, how to bill a preconception appointment, preconception screening tools, responding to common preconception concerns, and opportunities to provide preconception information and care.
**Family Physicians Want Patient Handouts**

Another commonly mentioned barrier was that family physicians did not know how to access patient handouts on this topic. Only about 1 in 4 family physicians had posters about preconception health or distributed patient handouts about preconception health. Family physicians expressed a strong interest in patient handouts and posters concerning preconception health. Health care providers can be provided with information about existing preconception resources for their patients, including posters, brochures and online information.

**Local Information**

When planning preconception initiatives for health care providers, the results of this provincial survey should be balanced with an understanding of local services, needs and interests.

**4.2 Summary of Recommendations**

Men and women of childbearing age, public health staff, and family physicians have indicated an interest in strengthening preconception care services in Ontario, with a special focus on improving clinical practice.

**Increasing Awareness of Preconception Health**

The results of this survey suggest that family physicians have high levels of awareness in some areas. The following topics do not need to be a primary focus of future preconception initiatives for health care providers:

- The importance of preconception care to the health of future children.
- The potential negative consequences of drinking, smoking, drug use and medications prior to conception.
- The benefits of folic acid and vitamins prior to conception.
- The link between poor preconception health, low birth weight and birth defects.

There were lower levels of awareness in some areas, and these could be considered in the design of future preconception initiatives for health care providers:

- The link between poor preconception health and preterm labour and birth, infertility, difficulty conceiving and developmental delays.
- The consequences of preconception exposures to environmental and workplace risks.
**Strengthening Preconception Care**

This survey indicates that family physicians have begun incorporating preconception care into their practices, and that they can take further steps to strengthen their preconception services. A significant proportion of family physicians appear to be missing opportunities to provide preconception care to patients who might conceive in the next few years, as well as those who are actively planning a pregnancy. In addition, family physicians are less likely to provide preconception care to men as compared to women. A few considerations include:

- Health care providers can be provided with information about incorporating preconception health into daily practice, focussing primarily on opportunistic preconception services.
- Health care providers may benefit from information about preconception health risks for men, and the opportunities to provide preconception care to men.
- Health care providers can be provided with information about what to include in preconception appointments for individuals who are planning a pregnancy.
- Men and women who are planning a pregnancy should be encouraged to talk to their health care provider.
- Strategies should be designed to link health care providers to existing preconception patient materials including posters, brochures and web-based information for men and women who are planning a pregnancy.
- Some family physicians indicated an interest in training events about preconception health. It may be helpful if training events focussed on the practicalities of providing preconception care, for example, how to bill a preconception appointment, preconception screening, responding to common preconception concerns, and opportunities to provide preconception information and care.
**Potential Provincial Strategies**

For consistency, impact and cost effectiveness, it is practical to plan some preconception initiatives at the provincial level, bringing together knowledge, expertise and credibility of a range of interested groups. Strategies that may be most suited to a provincial approach include:

- Development of a provincial preconception health framework that includes strategies to strengthen preconception services provided by health care providers.
- Continued leadership role in developing or updating preconception resources.
- Continued leadership role in gathering and sharing information about preconception health, preconception practices, and effective strategies to reach populations of interest.

**References**


The Best Start Resource Centre supports service providers across Ontario through consultation, training and resources, in the areas of preconception, prenatal and child health. The Best Start Resource Centre is a key program of Health Nexus.