

# ENORTH

The Northwest Territories Epidemiology Newsletter

## IN THIS ISSUE

- 2 Editor's Notes
- 3 Canada Prenatal Nutrition Program, First Nations and Inuit Component: Activities and Outcomes in 2002 - 2003
- 8 Upstream Health Promotion and Prevention: Breastfeeding
- 11 Midwifery
- 18 **HEALTH**.online  
BabyCenter
- 20 **NOTIFIABLE** diseases

## Exploring Fetal Alcohol Spectrum Disorder Surveillance in the NWT

**Andrea Wilhelm, McMaster University MD Program, Class of 2004**  
**Lona Hegeman, Health Promotion Specialist, Department of Health and Social Services**

Diagnosis, prevention, and surveillance of Fetal Alcohol Spectrum Disorder (FASD)<sup>a</sup> in the Northwest Territories may be of particular importance as studies have shown a higher prevalence of FASD amongst northern Canadian and Alaskan aboriginal peoples.<sup>1</sup> Reports from a 1985 study found a rate of FASD among aboriginal Canadian children to be 46 per 1,000 births in British Columbia and 25 per 1,000 births in the Yukon.<sup>2</sup> There are no data on prevalence in the NWT at this time.

Since 1999, health promotion funding within the Department of Health and Social Services has been used to support regional and local interdisciplinary teams in their prevention, awareness, mentoring, or capacity-building initiatives incorporating cultural and linguistically appropriate terms and images. Through this funding, FASD messages and initiatives are more accessible, accounting for the 93.1% of NWT residents that reported an awareness of FASD when interviewed for the *2002 NWT Alcohol and Drug Survey*.<sup>3</sup>

**Table 1: Characteristic Findings in Children Exposed to Alcohol in Utero<sup>4</sup>**

<p><b>Characteristic facial anomalies</b></p> <ul style="list-style-type: none"> <li>• Short palpebral fissures (lines around the eye)</li> <li>• Ptosis (droopy eyelid)</li> <li>• Flat midface</li> <li>• Upturned nose</li> <li>• Smooth philtrum (groove between nose and upper lip)</li> <li>• Thin upper lip</li> </ul> <p><b>Growth retardation</b></p> <ul style="list-style-type: none"> <li>• Low relative birthweight</li> <li>• Growth retardation despite adequate nutrition</li> <li>• Low weight relative to height</li> </ul> <p><b>CNS neurodevelopmental findings</b></p> <ul style="list-style-type: none"> <li>• Microcephaly (smaller than normal head size)</li> <li>• Structural brain abnormalities, including incomplete growth</li> <li>• Other neurologic signs, such as fine motor difficulties, sensorineural hearing loss, poor gait coordination, and poor eye-hand coordination</li> </ul>	<p><b>Unexplained behavioural abnormalities</b></p> <ul style="list-style-type: none"> <li>• Learning disabilities</li> <li>• Poor school performance</li> <li>• Poor impulse control</li> <li>• Problems with social perception</li> <li>• Poor language abilities</li> <li>• Poor abstract reasoning</li> <li>• Poor math skills</li> <li>• Impaired memory and judgment</li> </ul> <p><b>Birth defects</b> Including but not limited to:</p> <ul style="list-style-type: none"> <li>• Congenital heart defects</li> <li>• Skeletal and limb deformities</li> <li>• Anatomic renal abnormalities</li> <li>• Ophthalmologic abnormalities</li> <li>• Hearing loss</li> <li>• Cleft lip or palate</li> </ul>
--	--

<sup>a</sup> The term that is currently being used to encompass all effects of prenatal and alcohol exposure is Fetal Alcohol Spectrum Disorder (FASD), replacing the term Fetal Alcohol Syndrome (FAS). Even though most of the research in this article was based on FAS; the later term FASD will continue to be used for the purposes of this article, unless a direct quote is used from an older paper that uses FAS.

## HOW TO REACH EPI-NORTH

Letters to the editor and articles are welcome but may be edited for space, style and clarity. Please contact the Managing Editor for article guidelines. All submissions must be sent electronically.

Tel: (867) 920-8758  
Fax: (867) 873-0204

E-mail  
epi\_north@gov.nt.ca

Internet Access  
www.hlthss.gov.nt.ca

Mail  
Planning, Accountability  
and Reporting  
Health & Social Services  
Government of the NWT  
Box 1320, CST-6  
Yellowknife, NWT  
X1A 2L9

Jennifer Carey  
*Managing Editor*

André Corriveau, MD, FRCPC  
*Scientific Editor*

### EDITORIAL BOARD

Joyce Bourne  
Cheryl Case  
Elsie DeRoose  
Dr. Amy Hendricks  
Tami Johnson  
Sandy Little  
Maria Santos

*EpiNorth* is a publication of the GNWT Department of Health and Social Services. Inclusion of material in *EpiNorth* does not preclude publication elsewhere. Views expressed are those of the author and do not necessarily reflect departmental policy. Permission is granted for non-commercial reproduction provided there is a clear acknowledgment of the source.

## Editor's Notes

*Jennifer Carey, Managing Editor, EpiNorth, Department of Health and Social Services*

With this Issue I have decided to modify a pattern that has existed with *EpiNorth* since 1998.

Prior to this publication, past Issues were referenced according to the season during which they were being published, along with the corresponding Volume and Issue Number. Initially for example, this Issue would have been referenced 'Winter 2004 Vol. 16 Issue 1'. Yet, whether it is because I am a past resident of Ontario who thinks that this season is still the winter of 2003 (not 2004), or because you will not receive this Issue until winter is almost over (March 2004), I thought confusion would be best eliminated by taking out the seasonal reference of *EpiNorth*. This will not only prevent the necessity to publish an Issue within each season, but also allows for some flexibility around deadlines, all the while ensuring that four Issues continue to be published within each calendar year. Acknowledging this change, I present you with your first Issue of *EpiNorth* for 2004; namely '2004 – Volume 16, Issue 1'.

In keeping with the theme of change, and hence, new beginnings, this first Issue of 2004 focuses on the topic of prenatal care. The ability of moms-to-be to take care of their baby before it is born is of optimal importance in the Northwest Territories as is evidenced through the subject material covered throughout this issue.

McMaster MD student, Andrea Wilhelm, teams up with the Department's Health Promotion Specialist, Lona Hegeman in focusing on the diagnosis, prevention, and surveillance of Fetal Alcohol Spectrum Disorder (FASD) in the NWT. Backed by several studies and their knowledge in the field, they inform us about the widespread effects prenatal alcohol consumption can

have on the fetus and further emphasize the importance of the data that could be attained to mitigate the effects if birth defect registries included FASD as a diagnosis.

Jasmin Mirza (Wellness Planner, Department of Health and Social Services) is back, this time presenting us with her expertise regarding the activities and outcomes of the Canadian Prenatal Nutrition Program related to the First Nations and Inuit Component for 2002-2003. Writing about the program's four major activities and the evaluations, Jasmin explores the impacts that each activity had on its target population, and further provides us with a brief look at what the program's future will look like.

Elsie DeRoose, Health Promotion Team Leader, provides us with an article on the impacts breastfeeding has on the development of healthy children. Writing on behalf of the *NWT Breastfeeding-Friendly Initiative* Committee, Elsie not only discusses the benefits related to breastfeeding, but she also presents us with a picture of both the historical rates of breastfeeding as well as the current breastfeeding activities being undertaken in the NWT.

Prior to completing her Nursing Consultant contract with the Department of Health and Social Services, Rachel Munday provided us with an overview of the midwifery profession. In her article, Rachel is able to answer various questions surrounding the profession, including the specific question of what a midwife does.

I again remain as a regular contributor to the *Health.online* section and continue with the prenatal theme with a review of the *BabyCenter.org* website. In summarizing the wealth of prenatal tools, information, and resources that this website in particular provides you, I not only discuss what

*continued on page 7*

# Canada Prenatal Nutrition Program, First Nations and Inuit Component: Activities and Outcomes in 2002-2003

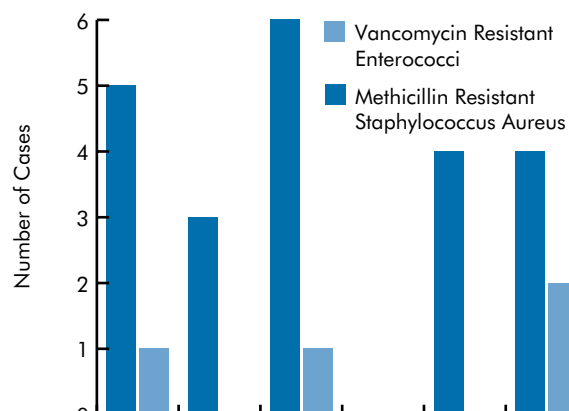
Jasmin Mirza, PhD, Wellness Planner, Department of Health and Social Services

In 1994 the federal government announced the Canada Prenatal Nutrition Program (CPNP) to help improve birth outcomes by providing high-risk prenatal women with nutritional support. Through the CPNP, high-risk pregnant women receive healthy food supplementation; prenatal nutrition and health information/counseling; and breastfeeding support.<sup>1</sup> In the Northwest Territories, the CPNP First Nations and Inuit (FN&I) component has been implemented since 1995-1996. This federal wellness program is administered by the Department of Health and Social Services on behalf of Health Canada.<sup>a</sup>

In 2002-2003 the Northwest Territories' budget for CPNP (FN&I) was \$693,872. Through that budget, the following projects and activities were funded (see Figure 1) and are detailed further in the sections that follow in this article:

- community-based prenatal nutrition programs;
- a Nutrition Support Program (co-funding);
- online training for community-based CPNP coordinators;
- the publication of a newsletter for CPNP coordinators; and
- evaluations of these four program components.

**Figure 1: Canada Prenatal Nutrition Program (FN&I) Funding Breakdown 2002 - 2003<sup>b</sup>**



## Community-based Prenatal Nutrition Programs<sup>2,3,4</sup>

Between April 1, 2002 and March 31, 2003 prenatal nutrition programs were implemented in 27 communities across the Northwest Territories.

Major activities included:

- cooking groups (which included a healthy snack, information about healthy eating/ food choices, a healthy meal, and cooking store foods);
- education sessions (which included information about breastfeeding, prenatal and postnatal care);
- nutrition information (which included information about recipes and nutrition needs during pregnancy);
- nutrition assessments;
- breastfeeding promotion, education and support; and
- the distribution of food supplements.

Table 1 shows the number of communities in which each of these CPNP program components was implemented.

**Table 1: CPNP Project Activities Offered in 2002-2003**

Activities	Communities <sup>c</sup>
Cooking groups . . . . .	23
Separate education sessions/activities . . . . .	15
Nutrition information – usually provided during cooking groups and/or education sessions . . . . .	24
Distribution of food supplements . . . . .	23
Breastfeeding promotion, education and support . . . . .	21
Nutrition assessments . . . . .	12

**Table 2: Strengths and Weaknesses of CPNP Projects 2002-2003**

	Strengths	Weaknesses
Program Participants <sup>a</sup>	<ul style="list-style-type: none"> <li>• Cooking groups</li> <li>• Opportunity to meet other women</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of transportation</li> <li>• Conflicting schedules</li> <li>• Limited prenatal information</li> </ul>
CPNP Coordinators	<ul style="list-style-type: none"> <li>• Cooking groups</li> <li>• Information about nutrition &amp; healthy pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>• Poor facility and/or cooking equipment</li> <li>• Lack of childcare</li> <li>• Limited funding</li> </ul>
Community Stakeholders	<ul style="list-style-type: none"> <li>• Variety of activities offered</li> <li>• Cooking groups</li> <li>• Community-based program</li> </ul>	<ul style="list-style-type: none"> <li>• Poor attendance</li> <li>• Lack of knowledge/training of CPNP coordinator</li> </ul>

The major strengths and weaknesses of the community-based prenatal nutrition programs have been summarized in Table 2. These results are based on telephone interviews with 21 out of 27 CPNP coordinators,<sup>d</sup> a short survey completed by 17 stakeholders from 12 communities, and a survey of 21 CPNP program participants from five communities.

Despite the identified weaknesses, the overall satisfaction with the CPNP projects was high. Of the 21 program participants who completed an evaluation form, 18 respondents (85.7%) were very happy with the program in their respective communities.

### Nutrition Support Project

The goal of the Nutrition Support Project is to increase nutrition support and build capacity within the community-based CPNP programs. This is achieved through two fulltime Regional CPNP Nutritionists – one responsible for the Northern region, and one for the Southern region. Although the Nutrition Support Project commenced in December 2001, no CPNP nutritionist was available in the Northern region to commence the project until December 2003.

In the 2002-2003 fiscal year, the following activities were carried out under the Nutrition Support Project:

#### Training

Four regional training workshops for CPNP coordinators were held with a total of 33 program coordinators from 26 communities participating.<sup>f</sup> The topics covered during the workshops included basic nutrition assessment, infant feeding, how to use new resources, food budgeting and shopping, prenatal nutrition, exercise in pregnancy, breastfeeding promotion/support, FASD, how to run a cooking class, and planning a session.

The overall satisfaction of CPNP coordinators participating in the regional training workshops was high. Twenty-six of the 29 workshop participants who completed an evaluation form were very satisfied with the workshop they had attended. Three of the four workshops were also rated on a scale of 1 to 10 where 1 was “did not help at all” and 10 was “helped a lot”. The ratings ranged between 7.5 and 9.0.

a In addition to CPNP funding targeting First Nations and Inuit people, CPNP “general population” funding is also available for the NWT and is administered by the Northern Secretariat. It is used, *inter alia*, to co-fund some of the prenatal nutrition programs receiving First Nations and Inuit funding, and to fund most of the Nutrition Support Project, which will be discussed in another section of this article.

b The percentage distribution is based on funds allocated to each component and might differ from actual expenditures.

c The figures are based on 25 CPNP (FN&I) programs, as information on CPNP projects in 2 communities was not available.

Additional training needs identified by the workshop participants included topics such as breastfeeding promotion, counseling techniques, and planning sessions. Most of the training needs, however, related to the administration of a prenatal nutrition program (e.g. proposal and report writing, budgeting, evaluation and computer training).

### Site Visit Training

The regional CPNP nutritionists provided one-on-one and/or small group support and training in 17 prenatal nutrition programs as well as support via telephone, mail and facsimile. Training/support covered the contents and administration of CPNP programs and included topics such as planning program activities, food histories, the use of resources, record keeping, and reporting requirements.

### Nutrition Consultation

Nutrition assessments with program participants were conducted in five communities.

### Kitchen Tool Bag/Box

The southern regional CPNP nutritionist developed and distributed 300 kitchen Tool Bags with kitchen utensils, a cookbook and food guide, and a soup mix to CPNP program participants. The northern regional CPNP nutritionist distributed a Tool Box containing kitchen utensils, food, and recipes to each program participant in the region.

### Breastfeeding Promotion

A breastfeeding promotional kit was developed and distributed to all prenatal

nutrition programs in the NWT. The promotional kit included display materials, games, resources, activities and a magnet. As well, nursing pillow sewing kits, breast pumps, breast pads, and plastic collection bags were distributed to the programs.

### Promotional Items

A variety of promotional items were purchased and distributed to the prenatal nutrition programs. These included drinking glasses with the CPNP logo, CPNP potholders, tote bags, and briefcase bags.

### Resource Development/Distribution

The southern regional CPNP nutritionist developed various resources, including a snack match-up game and planning sheets. The northern regional CPNP nutritionist distributed recipes for use during cooking sessions, created a recipe binder for program participants, and developed a calcium food display as well as an education session.

With the exception of the regional training workshops, evaluations of the different components of the Nutrition Support Project were not carried out. However, the CPNP coordinators' overall satisfaction with Nutrition Support was high. Although only less than half of the interviewees (11 out of 21) had received site visit training or support, their overall rating of the extent to which the regional nutritionists' support had helped them to deliver their programs was 8.2 on a scale of 1 to 10. There was no considerable difference between ratings of the northern and southern regional CPNP nutritionist.

d The term "CPNP Worker" and "CPNP Coordinator" have historically been used interchangeably by the regional CPNP nutritionists, within program-related documents, and in evaluation reports. However, there is a difference between a CPNP Worker and a CPNP Coordinator. A CPNP worker is a frontline worker who might hold cooking classes, do grocery tours, or implement other components of the community-based CPNP program. A CPNP coordinator does the same but also administers the program (e.g., writes the workplan, reports). In some communities, the CPNP program is run by a CPNP coordinator. Other communities have a CPNP coordinator as well as a CPNP worker, and some communities only have a CPNP worker. In the latter case the program is administered by an employee of the Band office (who could be called "CPNP Administrator"). During some of the evaluations this article is based on (Northern Nutrition Association 2003a and 2003b) the individuals interviewed were those who coordinated and delivered the CPNP program and who defined themselves as the program coordinator as well as someone involved in organizing and running the CPNP program (correspondence with principal investigator, December 19, 2003). The term "CPNP Coordinator" is therefore used throughout this article although it might sometimes include CPNP workers and even CPNP administrators.

e Weaknesses were identified by only three program participants.

f It should be mentioned here that several program workers attended more than one workshop.

## CPNP Newsletter

Three editions of the CPNP newsletter *The Inside Story – CPNP Connections North* were published and sent to CPNP program coordinators. Topics included news from the communities, healthy recipes, nutrition labeling, breastfeeding, CPNP training initiatives, and practical games/activities that program workers could use in their prenatal programs. Each newsletter also included a continuing education article, and a quiz which encouraged program coordinators to send in the correct answers and win a prize.

Almost half of the CPNP coordinators interviewed had used the newsletter in delivering their prenatal nutrition programs, either by using the information and recipes included in the newsletters or by making copies of the newsletter available to the program participants. These results demonstrate an improvement compared to the previous fiscal year. In 2001-2002, only one in five of the CPNP coordinators interviewed indicated that they had used the newsletter in delivering their programs, and almost half of the interviewees could not even recall receiving a copy of the newsletter.<sup>5</sup>

## Online Training

From February 3 to 28, 2003 McGill University offered an online course for NWT CPNP coordinators, which took about 22 hours to complete. The goal of the online course titled *Traditional Food and Nutrition for Northern Aboriginal Women* was to improve or develop skills and knowledge in the topic areas of traditional food and nutrition, especially as they relate to pregnancy, breastfeeding, and early infancy.<sup>6</sup> Although 30 CPNP workers or coordinators from 22 communities enrolled in the program, only three completed it fully and eight others partly. These figures show an increase in registration but a decrease in completion rates compared to the previous year.

In 2001-2002, 28 individuals enrolled in, and 11 completed, the online nutrition course.<sup>6</sup>

Reasons for the lack of participation/completion most likely include a lack of time, a lack of computer and Internet access, as well as difficulties logging onto the website due to the installation of a new server at McGill University. As well, the online course had more course material than in the previous year and, consequently, the participants had to accomplish more work over the same period of time. There was also no obvious distinction between new and returning participants, presenting the same subject matter to both audiences. According to the evaluation carried out by McGill University, it is likely that six of the registrants who had completed the online course in the previous year were not as interested in reviewing “old” material.

## Discussion

It is difficult to assess whether the objectives of CPNP, (e.g. improvements in the diet of prenatal and breastfeeding women or an increase in breastfeeding support initiation and duration rates<sup>7</sup>) have been achieved. Data for the Northwest Territories are not available or have high fluctuation due to the small sample size. However, a CPNP national impact evaluation reveals that CPNP-funded projects appear to be having a positive impact on the target population based on two indicators: breastfeeding initiation rates and low birth-weight rates.<sup>8</sup> The information provided in this article supports these findings. It indicates that community-based CPNP programs positively impact prenatal women attending these programs. Almost all of the interviewed program participants were very satisfied with the prenatal nutrition programs in their respective communities and particularly liked the cooking classes and the opportunity to network with each other.

g Similar online courses have been offered in the past three years.

h The figures relate to the question “Most Useful Nutrition Support Provided”.

i The reasons identified by the Southern Nutritionist include a low travel budget, no-shows of program participants in some of the communities, cancellation of community visits due to unexpected unavailability of air charters or the program coordinator, and the lack of CPNP program workers’ knowledge in gathering the information required for a nutrition assessment.

This article also indicates that the Nutrition Support Project successfully enhanced the knowledge and skills of CPNP coordinators. Nineteen of the 21 program coordinators interviewed felt that their nutrition knowledge had improved during the 2002-2003 fiscal year, mainly through the information and ideas provided by the regional CPNP nutritionists (34.8%), the regional training workshops (17.4%), the site visits (13.0%) and telephone support (13.0%).<sup>8</sup> Many CPNP coordinators (62.5%) also requested an increase in the number and/or length of site visits by the regional CPNP nutritionist.

One area of weakness identified was the low number of nutrition assessments carried out by the CPNP nutritionists.<sup>1</sup> A national evaluation of CPNP projects across Canada conducted in 1997-1998 reveals that similar services were offered to a considerably greater extent: 66% of the program participants had received some type of dietary assessment, and 80% had received nutrition counseling.<sup>9</sup> Interest in the regional training workshops was high with some CPNP coordinators participating in more than one workshop, while only three program coordinators completed the online training course. Changes in the contents of the course, the workload, the time during which the course is offered, and the way the course is being delivered might have to be considered.

## The Future of CPNP

During the present fiscal year, CPNP has continued to fund community-based prenatal nutrition programs across the NWT. In 2003-

2004, CPNP programs will be available to prenatal and postnatal women in at least 27 communities. Despite the overall good results of the evaluations, some changes to CPNP program implementation have been made. The online training has been discontinued and efforts are being made to offer the training course to CPNP coordinators and workers on CD ROM. As well, two regional CPNP nutritionists continue to provide support and capacity building to community-based CPNP programs while possibilities to enhance the number of nutrition assessments and dietary counseling carried out by the nutritionists are being explored.

## REFERENCES

- 1 Health Canada, Canada Prenatal Nutrition Program: First Nations and Inuit Component. *National Framework for Program Expansion*, June 2000.
- 2 Northern Nutrition Association, CPNP – First Nations and Inuit Health Branch. *Summary Evaluation Report 2002-2003*, 2003a.
- 3 Northern Nutrition Association, CPNP Nutrition Support Program, *Summary Evaluation Report 2002-2003*, 2003b.
- 4 McGill University, *Report on the development, delivery and evaluation of an online course for NWT Canada Prenatal Nutrition Program (CPNP) Project Workers*, 2002-2003.
- 5 Northern Nutrition Association, CPNP Nutrition Support Program. *Summary Evaluation Report. 2001-2002*, 2002, p. 32.
- 6 Northern Nutrition Association, CPNP Nutrition Support Program. *Summary Evaluation Report. 2001-2002*, 2002, p. 32.
- 7 Health Canada, Canada Prenatal Nutrition Program: First Nations and Inuit Component. *National Framework for Program Expansion*, June 2000, p.11.
- 8 Health and Policy Research Bulletin. *A Tale of Two Evaluations: CAPC and CPNP*, March 2002, p.16f.
- 9 Health Canada. *CPNP: A Portrait of Participants*, Minister of Public Works and Government Services Canada. 2000 ([http://www.hc-sc.gc.ca/dca-dea/publications/pdf/cpnp\\_portrait\\_e.pdf](http://www.hc-sc.gc.ca/dca-dea/publications/pdf/cpnp_portrait_e.pdf)).

*continued from page 2*

*BabyCenter.org* is, but I also emphasize the extent to which this site goes in order to ensure that it truly is “the most complete online resource for new and expectant parents to be”.

My hopes for incorporating a letter to the editor on a regular basis did not pan through for this

issue. However, I still encourage each of you to write about your various experiences and/or insights regarding specific issues that arise out of *EpiNorth*, or about healthcare in general.

Helping keep you informed to live healthy and happy lives!

# Upstream Health Promotion and Prevention: Breastfeeding

*Elsie DeRoose, Health Promotion Team Leader, Department of Health and Social Services, for the NWT Breastfeeding-Friendly Initiative Committee<sup>a</sup>*

## Introduction

Health determinants are those factors and conditions that influence health. These determinants do not act in isolation; rather, their complex interactions with each other have important impacts on health. Healthy child development is one of twelve health determinants.<sup>1</sup> The effects of prenatal and early childhood experiences, such as breastfeeding, are very powerful on subsequent health, well-being, coping skills, and competence.

Breastfeeding initiation and duration rates are two important health status indicators of populations the world over. Breastfeeding has beneficial impacts on healthy child development and both are affected by, and affect, health determinants. Recognizing the role breastfeeding plays in healthy child development, the World Health Organization recently recommended exclusive breastfeeding for at least six months with introduction of complementary foods and continued breastfeeding thereafter<sup>2</sup>. Despite the knowledge of the benefits to mothers and babies, breastfeeding has suffered through a century of ups and downs. The current custom of supplementing breastmilk with formula early on in an infant's life, then discontinuing breastfeeding altogether after a few weeks or months, is identical to the practices a century ago that prompted municipalities to alert mothers to the connection between infant mortality and babies' consumption of cow's milk.<sup>3</sup>

At one point, breastfeeding rates decreased as breastfeeding appeared to go 'out of fashion,' resulting in generations starting out their lives on 'formula'. Between 1930-1970, less and less mothers breastfed at all. By 1971, breastfeeding reached an all time low in the United States, with a 24 percent initiation rate.<sup>4</sup> The debate around breast versus bottle-feeding is still ongoing (free choice versus health benefits), much like the

debates about the 'right' to smoke in public places. There are also parallels to the influence tobacco companies have on youth through targeted advertising – formula companies have a powerful influence on mothers in their promotion of breastfeeding.<sup>5</sup>

Within this context, it is not surprising that the protection, promotion and support of breastfeeding is complex and is affected by medical, social, economic and cultural issues. These issues are well beyond the mere discussion of its health benefits. Despite the controversy, the health benefits to both mother and baby are indisputable and improving breastfeeding initiation and duration rates continues to be a major public health initiative at the international, national, local and individual levels.

In this article, we present breastfeeding promotion activities, breastfeeding rates, benefits, and a select synopsis of current breastfeeding activities in the NWT.

## Breastfeeding Promotion

Canada is one of a large number of countries involved in the *Baby-Friendly™ Initiative*.<sup>6</sup> This initiative is an international program that supports better breastfeeding outcomes for mothers and babies by improving the quality of their care. Moreover, it has adopted principles complementary to the population health approach in the protection, promotion and support of breastfeeding by:

- improving the health of a population;
- implementing upstream approaches to address root causes;
- promoting and sharing evidence-based best practice;
- using multiple strategies to act on the determinants of health;



- collaboration across levels and sectors – supporting breastfeeding continuums of service;
- working towards empowerment and public participation; and
- increasing accountability for health outcomes.

As of April 2003, 18,285 hospitals worldwide have been designated *Baby-Friendly*. Of this total, only 345 (1.8%) of all Baby Friendly designated hospitals are located in industrialized nations.<sup>b</sup>

Table 1 provides data on some selected industrialized countries.

**Table 1: Number of Baby Friendly Designated Hospitals in Selected Industrialized Countries.**

Country	Total Hospitals/ Maternities	# of Hospitals designated Baby Friendly
Australia	*	3
Canada <sup>a</sup>	*	2**
Germany	1000	1
Norway	60	36
Sweden	66	64
United Kingdom	300	42
United States	*	34

Source: UNICEF, New York

\* data not available from source

\*\* The two Canadian hospitals designated as Baby-Friendly are: St. Joseph's Healthcare, Hamilton, Ontario and the Brome-Missisquoi-Perkins Hospital in Cowansville, Quebec.

## Breastfeeding Rates

A historical perspective of breastfeeding rates in the NWT can be found in the NWT Database on Breastfeeding<sup>7</sup>. The following summarizes information from 1973-1993:

- The largest changes in breastfeeding practices occurred between 1973 and 1983. Between 1983 and 1993, there was a slight drop in breastfeeding rates while between 1973 and 1993, there were increases in breastfeeding rates for Dene (from 33.3% to 64.6%) and

non-aboriginal women (from 49.2% to 91.1%). Breastfeeding rates for Inuit women remained relatively stable over the 20-year period, with 61.6% initiating breastfeeding in 1973 compared to 69.7% in 1993.

- Changes were also seen in the length of time women breastfed. In 1973, only 4.6% of non-aboriginal women were breastfeeding at six months compared to 50% in 1993. At six months, 5.1% of Dene and 21.4% of Inuit women breastfed in 1973 compared to 24.7% of Dene and 47.7% of Inuit in 1993.
- Overall, 74.5% of respondents in the 1993 survey initiated breastfeeding, 55.9% were breastfeeding at three months, 43.3% at six months and 31.6% at 12 months.

Since breastfeeding rates are a population health status indicator, some information about breastfeeding practices is collected nationally and territorially, providing data primarily on initiation rates. Between 2003-05 in the NWT, the *Breastfeeding and Infant Nutrition Survey* is collecting data through all health centres and public health units and will eventually provide a wide variety of information related to breastfeeding, such as initiation and duration rates and infant feeding practices. This data collection began in April and to date, approximately 200 surveys have been completed. It is too early to provide an analysis of these survey results, so, in the interim, we will provide information from two other sources: the *Canadian Community Health Survey (2000/01)*<sup>8</sup> and the *NWT Health Status Report (1999)*.

According to the *Canadian Community Health Survey*, almost 80 percent of NWT mothers surveyed who gave birth in the previous five years reported breastfeeding their last child. This is very similar to reported practices in Canada and also very similar to results from the *1993 NWT Breastfeeding Survey* (as reported in the *Health Status Report*).



a The members of the Breastfeeding-Friendly Initiative Committee represent a variety of professional and lay backgrounds from across the NWT and Health and Social Services Authorities.

b The BFI designation is a process that takes a number of years; however achieving international recognition is an outstanding achievement. Several hospitals in Canada are currently working on achieving this designation. Barriers do exist that make this process difficult, including societal factors and the influence of free formula 'contracts'.

**Table 2: Breastfeeding Practices of Recent Mothers – NWT and Canada**

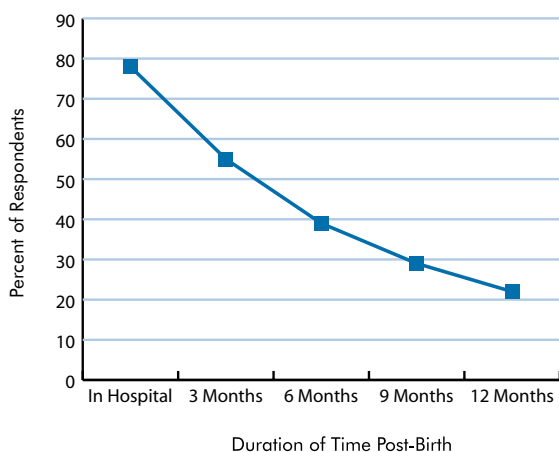
	NWT	CANADA	NWT 95% Confidence Interval <sup>b</sup>	
			Low	High
Number of women who gave birth in the last five years	3,353	1,527,887		
Breastfed or tried to breastfeed last child				
Yes	80.0%	81.5%	72.4%	87.6%
No	20.0%	18.5%	12.4%	27.7%

Source: Canadian Community Health Survey Share File; Prepared by the Department of Health and Social Services

a Women aged 15-55 who gave birth in the last five years

b Bootstrapping techniques were used to produce the 95% confidence intervals.

The only real source of information for breastfeeding duration rates is the *1993 Breastfeeding Survey*. As can be seen in Table 3, almost 80 percent of NWT mothers surveyed reported breastfeeding initially while still in hospital. By three months, the rate of breastfeeding had declined to 54 percent and to less than 40 percent by six months.

**Table 3: Percentage of Mothers Breastfeeding**

Source: 1999 NWT Health Status Report, Department of Health and Social Services, p. 55, from the 1993 Breastfeeding Survey).

As can be seen from currently available data, initiation rates have remained relatively the same nationally as well as in the NWT, at around 80 percent. This is not surprising, since reported initiation rates are often good. It is the maintenance of an 80 percent duration rate for the first six months of life that remains to be the goal. As evidenced by the *1993 NWT Breastfeeding*

*Survey*, the major causes for the decline in duration of breastfeeding, as reported by the mothers, was either due to the mother returning to work or school; followed by suffering from cracked or sore nipples.<sup>9</sup>

## Breastfeeding Benefits – A commonly studied area

The benefits and promotional activities of breastfeeding which have appeared in past issues of *EpiNorth*,<sup>10,11</sup> have continued to mount since that time. Breastfeeding benefits both mother and baby by:

- providing significant nutritional, immunological and psychological benefits;
- causing less gastrointestinal and respiratory illness and infections in breast-fed infants;
- helping protect against Sudden Infant Death Syndrome<sup>12</sup>
- preventing numerous diseases and conditions, such as obesity, breast cancer, asthma, etc.

A new report by Palmer<sup>13</sup> reviewed decades of research comparing death rates of formula-fed and breastfed babies. This report indicates that the use of infant formula costs the lives of an estimated 9,335 babies a year in the United States. Although further research is needed to corroborate these results, the evidence presented indicates that formula does not meet nutritional and immunological needs of infants and leaves the immune system 'flailing'. The report also addresses evidence that contradicts claims that formula 'is just as good as breastmilk'. According to

continued on page 17

### Recommended Websites:

[www.breastfeedingcanada.ca](http://www.breastfeedingcanada.ca)  
[www.infactcanada.ca](http://www.infactcanada.ca)  
[www.lalecheleague.ca](http://www.lalecheleague.ca)  
[www.canadianhealthnetwork.ca](http://www.canadianhealthnetwork.ca)  
[www.babyfriendly.ca](http://www.babyfriendly.ca)

# Midwifery

Rachel Munday, Nursing Consultant, Department of Health and Social Services

With the re-emergence of midwifery across Canada and the passage of Bill 24 (*Midwifery Profession Act*) in the NWT in October 2003 the following questions are often raised: “What exactly is a midwife? What does a midwife do? How does midwifery differ from other health care professions? How is midwifery similar to other health care professions? How will midwifery fit into the existing system of health care within the NWT?” This article clarifies these questions, while presenting an overview of the practice of midwifery.

## International and Canadian Midwifery

The word “midwife” is derived from Old German and means “with woman.” In the NWT “A midwife is a person who has acquired the requisite qualifications to be licensed to practice midwifery in the Northwest Territories.”<sup>1</sup> At present, the NWT/Nunavut Midwifery Association has 10 registered members, seven of whom are actively practicing midwifery (four in the NWT and three in Nunavut). In Canada, there are just over 400 registered midwives throughout the five regulated provinces. By contrast, the UK, which has just celebrated the centenary of regulated midwifery, has approximately 81,000 registered midwives. Moreover, even though midwifery tends to be a female-dominated profession, interestingly, in Australia, approximately 15 percent of midwives are male.<sup>2</sup>

Most countries in the world have some sort of midwifery service. Canada has lagged behind most other western nations in establishing regulated midwifery, but the situation is slowly changing with Ontario becoming the first province to regulate midwifery in 1993, and Manitoba, BC, Ontario, Alberta, and Quebec, having enacted midwifery legislation.

It is through the Canadian Association of Midwives that provincial and territorial midwifery associations are represented both

nationally and internationally.<sup>3</sup> In the regulated jurisdictions, registration, along with the setting of practice standards, are the main functions of the Colleges of Midwives. Provincial/Territorial midwifery associations also provide more practical services to consumers (e.g. where and how to find a midwife), as well as to midwives (e.g. links to other organizations and midwifery practice, professional advice, etc).

In the NWT, the regulatory function will be assumed by the Department of Health and Social Services, through the office of the Registrar, as are many other health professions (e.g. physicians, LPNs, dentists).

## Midwifery Education

Midwifery training in most western developed countries is now a four-year direct entry degree. Until recently, midwifery in many countries had two entry-into-practice routes: a post-RN diploma program and a direct-entry diploma program. Similarly to nursing, most countries are now working towards degrees as the standard entry to practice. It is recognized in all countries where midwifery is established, that regardless of the educational route taken to gain registration, once registered, a midwife performs the same duties and has the same expertise in midwifery care whether she started out as a lay midwife, a registered nurse, or a direct entry diploma/degree midwife.

It is agreed internationally that you do not need to be a nurse in order to be a midwife, despite the fact that North America often uses the term “nurse-midwife.” There is no such profession as “nurse-midwife.” Having said that, it is possible to have trained in two separate professions, have the right to register in both, and to use a dual designation “Registered Nurse/Registered Midwife (RN/RM).” When a midwife is practicing within the scope of midwifery care, she practices as a midwife. If the course of care deviates from the normal, and obstetric intervention is required, the midwife may share care with, or transfer the

care of the woman completely, to a physician. Any care the midwife still provides to a woman in shared care is still midwifery care. There may, however, be situations where, in the interests of efficiency and sustainability (both principles of primary health care) it becomes preferable to employ a dual-registered practitioner (RN/RM).

## What Does a Midwife Do?

Midwifery care revolves around several philosophical principles<sup>3</sup>:

- Pregnancy is a state of health and a normal physiological process
- Pregnancy, labour and birth are profound experiences that carry significant meaning for a woman, her family and her community
- Midwifery care is woman- and family-centred
- Women are the primary decision makers in their care
- Midwives promote wellness in women, babies and their families
- Midwives honour traditional and cultural birth practices.

The midwife gives the necessary care and advice to women prior to and during pregnancy, labour and the postpartum period, as well as conducts deliveries on her own responsibility, and cares for the infant and the mother. This care includes preventative measures, the detection of abnormal conditions in the mother and child, accessing medical assistance when necessary and taking emergency measures in the absence of medical help. The midwife also has a mechanism for consultation, referral, continued involvement and collaboration and practices in a variety of settings, including health-care facilities, hospitals, clinics, health units, community health centres, birth centres and homes.

The midwife has an important task in health promotion, counselling and education for the woman, and also for the family and the community. To this end, midwifery practice involves antenatal education and preparation for parenthood, extending to certain areas of

gynecology, family planning and childcare, including well-woman and well-baby care.

The scope of practice and the level of responsibility dictate that a midwife must be an autonomous practitioner. With that autonomy comes a high degree of accountability for her own actions. This accountability extends to those actions taken on the advice and orders of others. The midwife is accountable not only for the care and outcomes of the mother, but also of the baby (in utero) during childbirth and postnatally. This scope of practice differs from that of general nursing, but resembles that of nurse practitioners and physicians, with regards to regulations surrounding the ability to prescribe, order, perform and interpret results of tests, and perform certain invasive surgical procedures (such as amniotomy, episiotomy and suturing).

## The Midwifery Profession

Midwifery as a profession is complimentary to, and complemented by, nursing and medicine as well as other allied health professions. There will be times when scopes of practice overlap. For instance, it is well within the scope of practice of nurses to provide routine prenatal care, and physicians to deliver babies. What midwives bring to the arena of maternal and infant health is a focus and degree of specialization that may not be possible on the part of other health care providers. Midwives also offer choice in care—the chance for a pregnant woman to choose a different style or setting of care, including the option to choose homebirth. It is often not possible for other health care professionals to offer this choice because of competing demands on their time.

There is now an abundance of literature supporting the evidence that midwifery care leads to similar outcomes for mother and baby as physician care, in terms of mortality rates, but with a much-decreased level of intervention during the period of pregnancy and childbirth. The result is a decrease in morbidity for mother and baby, and greater maternal satisfaction with care.

### Useful web sites/e-mail addresses:

International Confederation  
of Midwives  
[www.internationalmidwives.org](http://www.internationalmidwives.org)

Canadian Association of Midwives  
[http://members.rogers.com/  
canadianmidwives/](http://members.rogers.com/canadianmidwives/)

NWT/NU Midwives Association  
[midwives.nwt.nu@auroranet.nt.ca](mailto:midwives.nwt.nu@auroranet.nt.ca)

International Caesarean  
Awareness Network  
[http://www.ican-online.org/  
resources/  
statistics3.htm](http://www.ican-online.org/resources/statistics3.htm)

In developed health care systems, maternal mortality is now so low as to be negligible, so is not a good indicator of the success of a maternal health program. Measures of morbidity rather than mortality are better indicators of the success of a maternal health program. These would include: caesarean section rates, instrumental deliveries, induction of labour, numbers of ultrasounds performed and amount of continuous fetal monitoring in labour, number of episiotomies performed, number of lacerations, and client satisfaction surveys.

The caesarean section rate for instance, is lowest in industrialized countries where midwifery services are most developed and autonomous (Netherlands 9.2%, Sweden 12% vs Canada 18.7% and USA 27.4%).<sup>4</sup> Perinatal mortality rates are also lower in countries where midwives are the primary caregivers for healthy childbearing women.<sup>5</sup>

## Midwifery in the NWT

In the NWT, the integration of midwives into the health care system is very much under discussion since legislation is currently not in force. Once the *Midwifery Act* is in force, several possible scenarios could exist depending on the community or region the midwives will serve in. Regardless of the scenario, what will be true is that midwives and birthing services will be part of an integrated primary community care team that offers a variety of health care services to people in the NWT.

### REFERENCES

- 1 Adapted from Draft NWT Midwifery Practice Framework, 21 August 2003.
- 2 [www.internationalmidwives.org](http://www.internationalmidwives.org)
- 3 <http://members.rogers.com/canadianmidwives/>
- 4 [www.internationalmidwives.org](http://www.internationalmidwives.org)

Continued from page 1

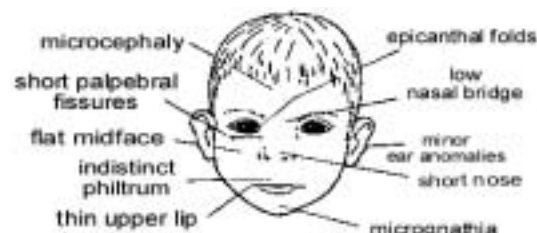
## Diagnosis

FASD is a clinical diagnosis. A confirmed history of maternal alcohol consumption is an important part of diagnosis of FASD. An infant with a combination of congenital anomalies and poor growth should prompt an investigation into prenatal alcohol exposure (see Table 1 for characteristics of children exposed to alcohol in utero). A confirmed history of maternal alcohol consumption is also an important part of FASD diagnosis.

Prenatal alcohol exposure has a wide spectrum of effects on the fetus. These effects are thought to depend on a number of factors, including the quantity of alcohol consumed, the peak concentrations of alcohol in maternal blood, the stage of the pregnancy when the alcohol was consumed, the mother's ability to metabolize

alcohol, and the genetic susceptibility of the fetus.<sup>7</sup> Exposure to alcohol in the first trimester of fetal development affects organogenesis and craniofacial development, leading to minor and major malformations such as the characteristic FASD facial features (see Figure 1) and Alcohol-

**Figure 1: Facies in Fetal Alcohol Syndrome – Main Features of FAS**



Source: [www.educarer.org](http://www.educarer.org)

a The term that is currently being used to encompass all effects of prenatal and alcohol exposure is Fetal Alcohol Spectrum Disorder (FASD), replacing the term Fetal Alcohol Syndrome (FAS). Even though most of the research in this article was based on FAS; the later term FASD will continue to be used for the purposes of this article, unless a direct quote is used from an older paper that uses FAS.

Related Birth Defects. Likely affecting central nervous system development throughout the entire pregnancy, continued alcohol use later in pregnancy can cause decreased fetal growth, low birth weight and limited postnatal growth<sup>8</sup>.

FASD also involves physical, behavioural, and cognitive abnormalities. Features of FASD include prenatal or postnatal growth deficiency, characteristic abnormal facial features, and central nervous system anomalies<sup>10</sup>. Approximately 80% of children with FASD have a smaller than normal head size as well as behavioural abnormalities. Moreover 50 percent of affected children also exhibit poor coordination and muscle tone, attention-deficit hyperactivity disorder, decreased body fat, and identifiable facial anomalies such as the upper or lower jaw failing to grow adequately. Cardiac defects, arterial malformations, eye or ear abnormalities, and skeletal malformations are also common.<sup>11, 12</sup> Even when children with FASD have normal IQ scores, they may have significant neurobehavioural deficits and are at higher risk for severe behavioural problems and psychiatric disorders.

Studies have demonstrated that 62% of people with FASD have severe behavioural problems and face more difficulties holding a job, maintaining social relationships, and living independently than people who have Down syndrome with similar or even lower IQ scores.<sup>13</sup> Moreover, adolescents and adults with FASD have been found to have mathematical deficiency, difficulty with abstract concepts, poor attention and concentration skills, memory deficits, and impaired judgment, comprehension, and abstract reasoning. They also frequently have poor social functioning, evidenced by failure to consider consequences of their actions, lack of response to social cues, lack of reciprocal friendships, social withdrawal, mood lability, bullying behaviour, disproportionate rates of mental health problems, chemical dependency, and resultant legal problems.<sup>14</sup> Research has suggested that early diagnosis and intervention may reduce the occurrence and severity of these secondary disabilities.<sup>15</sup>

In spite of these substantial challenges, there remains a need for earliest possible clinical diagnosis of FASD in order to refer the affected child to appropriate services quickly.<sup>16</sup> As well, there remains an urgent need to offer help to the mother, who is at continued risk for self-harm from alcohol abuse and who may have a subsequent pregnancy where the fetus is alcohol exposed.

## Surveillance

Current public health surveillance for FASD demonstrates that multiple data sources must be collected, such as information from newborn hospital discharge data, the maternal and infant medical record, subsequent clinical visits during the child's life, and perhaps even school records.<sup>17</sup> Due to a lack of surveillance for this congenital anomaly and the difficulty in diagnosing FASD, however, studies have only been able to provide preliminary prevalence estimates of FASD. A Manitoba study of birth and health records from birth to two years of age for instance, discovered that only one fifth of FASD cases were indicated in patient records.<sup>18</sup> Similarly, a study in Alaska found that a mere nine percent of FASD cases were diagnosed at birth.<sup>19</sup> Another study by the US Centers for Disease Control and Prevention noted that 89 percent of FASD cases are diagnosed after the age of six years.<sup>20</sup>

Reasons for difficulty in diagnosing FASD include:

- The fear of applying a social stigma to the affected child has clinicians, parents, and care providers hesitant to diagnose FASD.<sup>21, 22</sup>
- Many congenital anomalies surveillance programs feature a restriction to diagnoses made in the first year of life; and FASD is usually difficult to diagnose within that age range. Note: Since FASD is frequently not diagnosed until after one year of age, registries which include cases diagnosed after that time frame show increased prevalence rates.<sup>23</sup> Moreover, FASD facial features are most prominent between the ages of 2 and 11, and cognitive and behavioural patterns are often

identified when the child is preschool or school age.

- Many of the physical manifestations and behaviours are not exclusive to FASD, so a diagnosis may be difficult to confirm with certainty.
- Some diagnostic features of FASD are subjectively based on ethnic background or method of assessment of learning disabilities.<sup>24</sup>

With this in mind, attempts are being made to devise clearer and more specific diagnostic criteria and screening tools for FASD. Perhaps the most commonly used diagnostic criteria are that of the US Institute of Medicine, listed in Table 2.

**Table 2: Diagnostic categories for the spectrum of alcohol-related effects (US Institute of Medicine)<sup>26</sup>**

**Fetal Alcohol Spectrum Disorder (all categories must be present for diagnosis)**

- Confirmed maternal alcohol exposure (excessive drinking characterized by regular intake or heavy episodic drinking)
- Characteristic facial anomalies
- Growth retardation
- CNS neurodevelopmental findings

**Partial FASD with confirmed maternal alcohol exposure**

- Confirmed maternal alcohol exposure
- Characteristic facial anomalies
- Either growth retardation, CNS neurodevelopmental findings, or other unexplained behavioural abnormalities

**Alcohol-related birth defects**

- Confirmed maternal alcohol exposure
- Birth defects

**Alcohol-related neurodevelopmental disorder**

- Confirmed maternal alcohol exposure
- Either CNS neurodevelopmental abnormalities or other unexplained behavioural abnormalities

Like the US Institute of Medicine diagnostic criteria, the Health Canada *Best Practices* statement about Fetal Alcohol Spectrum Disorder cites expert consensus to support routine screening of pregnant women for drug and alcohol use, especially using the clinical history. It further found evidence that brief prenatal interventions can reduce alcohol use during pregnancy, and that active FASD case finding and screening programs accompanying maternal and child services can minimize the effects of FASD on children and can raise community awareness, acting to prevent FASD<sup>27</sup>.

## Prevention

A recent US study found that 46 percent of pregnant women who drank while pregnant were not warned by their physician about drinking during pregnancy<sup>28</sup>. Another study of the failure to diagnose FASD implicated lack of communication between obstetric and pediatric medical staff; most commonly one doctor cared for the mother and recorded her history of alcohol use during pregnancy, but a second doctor cared for the infant and was not aware of the alcohol exposure<sup>29</sup>.

These findings demonstrate an advantage to be found in a collaborative and coordinated model of health care such as exists in the Northwest Territories, where the same health care team performs both prenatal and postnatal care. Furthermore, the prenatal charting form used in the Northwest Territories already features a T-ACE questionnaire (see Table 3) to inquire about maternal alcohol use, a history that is advocated by Health Canada's best practice document for identifying FASD<sup>30</sup>.

**Table 3: The T-ACE Questionnaire<sup>31</sup>**

Two points are scored if the answer to the T question is > two drinks; and one point is scored for each positive answer to the other three questions. A score of two or more correctly identified 69 percent of women drinking enough to potentially damage their fetus.

Tolerance	How many drinks does it take to make you feel high (can you hold)?
Annoyance	Have people annoyed you by criticizing your drinking?
Cut down	Have you felt you ought to cut down on your drinking?
Eye-opener	Have you ever had to drink first thing in the morning to steady your nerves or get rid of a hangover?

Despite difficulties with early diagnosis, inclusion of FASD in a birth defects registry would provide an essential information source for initiating and evaluating interventions to address FASD. It has been noted by the World Health Organization that congenital anomaly surveillance systems that cover a small birth series are able to assemble a wider variety of data, including multiple

anomalies and a broader sample population.<sup>34</sup>

Extending the surveillance age beyond the common cutoff date of 1 year of age would be feasible in the Northwest Territories, allowing for an improved survey of FASD incidence.

In the NWT, the health and social services community may feel the time has come to act on surveillance. Regardless, further discussion is needed, honouring the differing perspectives. In the meantime, public engagement and consensus among education, health, and social services professional circles will remain factors in successful developments regarding the diagnosis, surveillance, and prevention of FASD across the lifespan.

## REFERENCES

- Burd L, Moffat ME. Epidemiology of Fetal Alcohol Spectrum Disorder in American Indians, Alaskan Natives, and Canadian Aboriginal Peoples: a review of the literature. *Public Health Reports*. 1994; 109(5):688-93
- Asante KO, Nelms-Matzke J. *Report on the survey of children with chronic handicaps and Fetal Alcohol Spectrum Disorder in the Yukon and Northwest British Columbia*. Whitehorse: Council for Yukon Indians, 1985.
- NWT Bureau of Statistics. *2002 NWT Alcohol and Drug Survey*. 2002.
- American Academy of Pediatrics Committee on Substance Abuse and Committee on Children With Disabilities. *Fetal Alcohol Spectrum Disorder and alcohol-related neurodevelopmental disorders*. *Pediatrics*. 2000; 106(2).
- Burd L, Moffat ME. Epidemiology of Fetal Alcohol Spectrum Disorder in American Indians, Alaskan Natives, and Canadian Aboriginal Peoples: a review of the literature. *Public Health Reports*. 1994; 109(5):688-93
- Asante KO, Nelms-Matzke J. *Report on the survey of children with chronic handicaps and Fetal Alcohol Spectrum Disorder in the Yukon and Northwest British Columbia*. Whitehorse: Council for Yukon Indians, 1985.
- Canadian Perinatal Surveillance System. *Alcohol and Pregnancy*. Ottawa: Health Canada, 1998. [http://www.hc-sc.gc.ca/pphb-dgsp/rhs-ssg/factshts/alcprg\\_e.html](http://www.hc-sc.gc.ca/pphb-dgsp/rhs-ssg/factshts/alcprg_e.html)
- Thackray HM, Tiff C. Fetal Alcohol Spectrum Disorder. *Pediatrics in Review*. 2001; 22(2):47.
- Ibid.
- Birth Defects and Genetic Diseases Branch. Update: Trends in Fetal Alcohol Spectrum Disorder – United States, 1979-1993. *MMWR*. 1995; 44(13):249-51.
- Riley E, Mattson S, Sowell ER, Jernigan TL, Sobel DF, Jones KL. Abnormalities of the corpus callosum in children prenatally exposed to alcohol. *Alcohol Clin Exp Res*. 1995;19:1198-1202.
- Clarren SK, Smith DW. The Fetal Alcohol Spectrum Disorder. *N Engl J Med*. 1978;298:1063-1067.
- Thackray HM, Tiff C. Ibid.
- Streissguth AP, Aase JM, Clarren SK, Randels SP, LaDue RA, Smith DF. Fetal Alcohol Spectrum Disorder in adolescents and adults. *JAMA*. 1991;265:1961-1967.
- Streissguth A, Kanter J, eds. *The Challenge of Fetal Alcohol Spectrum Disorder: Overcoming Secondary Disabilities*. Seattle: Washington Press, 1997.
- Health Canada – Canada's Drug Strategy Division. *Best Practices – Fetal Alcohol Spectrum Disorder/Fetal Alcohol Effects and the effects of other substance use during pregnancy*. Ottawa: Health Canada, 2000
- Mathis MP, Lavoie MA, et.al. Birth certificates as a source for Fetal Alcohol Spectrum Disorder case ascertainment – Georgia, 1989-1992. *MMWR*. 1995; 44(13):251-3.
- Williams RJ, Odaibo FS, McGee JM. Incidence of Fetal Alcohol Spectrum Disorder in northeastern Manitoba. *Canadian Journal of Public Health*. 1999; 90(3)192-4.
- Egeland GM, Perham-Hester KA, et.al. Fetal Alcohol Spectrum Disorder in Alaska, 1977 through 1992: an administrative prevalence derived from multiple data sources. *American Journal of Public Health*. 1998; 8(5):781-6.
- Fetal Alcohol Spectrum Disorder Prevention Section. Surveillance for Fetal Alcohol Spectrum Disorder using multiple sources - Atlanta, Georgia, 1981-1989. *MMWR*. 1997; 46(47):1118-20.
- Health Canada – Canada's Drug Strategy Division. *Best Practices - Fetal Alcohol Spectrum Disorder/Fetal Alcohol Effects and the effects of other substance use during pregnancy*. Health Canada. 2000.
- Duimstra C, Johnson D, et.al. A Fetal Alcohol Spectrum Disorder surveillance pilot project in American Indian communities in the Northern Plains. *Public Health Reports*. 1993; 108(2)225-9.
- Hobbs CA, Hopkins SE, Simmons CJ. Sources of variability in birth defects prevalence rates. *Teratology*. 2001; 64:S8-S13.
- Health Canada – Canada's Drug Strategy Division. Ibid.
- Ibid.
- Stratton K, Howe C, Battaglia F (eds.). *Fetal Alcohol Spectrum Disorder: Diagnosis, epidemiology, prevention and treatment*. Washington DC: National Academy Press, 1996.
- Health Canada – Canada's Drug Strategy Division. Ibid.
- Flynn HA, Marcus SM, Barry KL, et.al. Rates and Correlates of Alcohol Use Among Pregnant Women in Obstetrics Clinics. *Alcohol Clin Exp Res*. 2003; 27(1):81-7.
- Little BB, Snell LM, et.al. Failure to recognize Fetal Alcohol Spectrum Disorder in newborn infants. *Am J Dis Child*. 1990; 144(10)1142-6.
- Chatel, Nicole. Personal Interview, December 19, 2002.
- Sokol RJ, Martier SS, Ager JW: The T-ACE questions: practical prenatal detection of risk-drinking. *Am J Obstet Gynecol*. 1989; 160:863.
- World Health Organization. Guidelines for the development of national programmes for monitoring birth defects. Prepared by The International Centre for Birth Defects of the International Clearinghouse for Birth defects Monitoring Systems (ICBDMS). Geneva: WHO. 1993.
- Walker DK. Integrating birth defects surveillance in maternal and child health at the state level. *Teratology*. 2000; 61:4
- World Health Organization. Guidelines for the development of national programmes for monitoring birth defects. Ibid.

Continued from page 10

Palmer, comparing illness rates between breastfed or bottlefed infants is actually a more important health determinant than socio-economic factors.

New information is available about breastfeeding from every perspective possible on an almost daily basis. This information is too numerous and broad to present in this article. However, the references provided at the end of this article as well as the website links provided in the sidebar, be reviewed for further information regarding the benefits of breastfeeding.

## Current Breastfeeding Activities in the NWT

A number of initiatives are currently being implemented in the NWT to promote, support and protect breastfeeding. Here is a summary of three of those initiatives.

### NWT Breastfeeding and Infant Nutrition Survey

Comprehensive NWT breastfeeding data is outdated (last survey period was 1993). The *2003-05 NWT Breastfeeding and Infant Nutrition Survey* is being completed at the community level, tracking breastfeeding-related information for the first 12 months of life of each baby born in the NWT (that is, of each mother/baby pair participating in the survey).

### Healthcare Workers Survey

A survey of health care workers will be conducted from February - March 2004. This survey is a companion to the *2003-05 NWT Breastfeeding and Infant Feeding Survey*, as it will capture the knowledge, attitudes and beliefs of community and hospital health and related workers. It is hoped that together, these surveys will further provide information on the status of the *Baby-Friendly Initiative* work being conducted in the NWT and also indicate where limited resources and efforts should be best placed.

### First Time Northern Visit by Breastfeeding Expert

Dr. Jack Newman will visit Yellowknife and Inuvik in February, to speak to nurses,

physicians and community health care workers from around the NWT about breastfeeding issues, trends and solutions.

Dr. Newman is an internationally renowned expert in the field of breastfeeding, a pediatrician, and co-author of Dr. Jack Newman's *Guide to Breastfeeding*. He established the first hospital-based breastfeeding clinic in Canada, at Toronto's Hospital for Sick Children, and has also been a consultant with UNICEF's Baby Friendly Hospital Initiative.

## Conclusion

Breastfeeding rates and infant feeding practices are indicators of infant health status and proper growth and development—the benefits of which have been overwhelmingly established. Determining ways to support longer duration rates is one of the current health promotion issues that all of us who work in the health and social services system can and will address.

## REFERENCES

- 1 Health Canada. (this is a much better source of info for health determinants so I have changed it to: <http://www.hc-sc.gc.ca/hppb/phdd/resources/determinants/index.html>)
- 2 World Health Organization. *The Optimal Duration of Exclusive Breastfeeding: A Systematic Review*. 2002. Online: [www.who.int/child-adolescent-health](http://www.who.int/child-adolescent-health)
- 3 Low Breastfeeding Rates and the Public Health in the United States, Jacqueline H. Wolf, PhD, American Journal of Public Health, December 2003. Volume 93, No. 12, pp 2000-2010
- 4 Ibid.
- 5 INFACT Canada. *Out of the Mouths of Babes, How Canada's Infant Foods Industry Defies WHO Rules and Puts Infant Health at Risk*. 2002.
- 6 Breastfeeding Committee for Canada (BCC). *The National Authority for the WHO/UNICEF Baby-Friendly Initiative (BFI) in Canada*. October 2003. Online: [www.breastfeedingcanada.ca](http://www.breastfeedingcanada.ca)
- 7 GNWT. Database on Breastfeeding. 1996.
- 8 Department of Health and Social Services. Canadian Community Health Survey: Share File, 2001.
- 9 GNWT. Database on Breastfeeding. 1996.
- 10 EpiNorth: Spring 1998.
- 11 EpiNorth: May/June 1996.
- 12 Department of Health and Social Services. *The NWT Health Status Report*. 1999.
- 13 Online: [www.naturalfamilionline.com/BF200312-fomula-report2.htm](http://www.naturalfamilionline.com/BF200312-fomula-report2.htm)



*Jennifer Carey, Evaluation Specialist, Department of Health and Social Services*

Every time I begin an article for this section of *EpiNorth*, it amazes me how much I learn. For example, when I first began this article on prenatal care my knowledge of the topic was limited, perhaps because I do not have children of my own and therefore, haven't needed to research prenatal care before. A Google™ search presented various credible sites that provided general information regarding care before and during pregnancy. However, the sites seemed somewhat incomplete in terms of the information and resources I thought should be adequate for someone wanting to know about prenatal care, and found myself needing to look at multiple sites to get complete information.

Since my Internet search wasn't giving me exactly what I was looking for, it occurred to me that the best resource would be to ask a mother. Who would know better about possible websites on prenatal care! What information would she want to know when pregnant? What were the websites that a parent would find useful in providing online information, resources, and tools for questions about pregnancy and child rearing? When I asked a mother these questions, she said she only used one website as her source for online information—[www.baybcenter.org](http://www.baybcenter.org). In researching this article, the site proved to be what it promotes—"the most complete online resource for new and expectant parents to be"<sup>a</sup> (thanks Jill!).

### What is BabyCenter?

More than just an online resource, *BabyCenter* is the umbrella site for a myriad of information, tools, and resources related to prenatal care, including:

- **Community:** bulletin boards; join a birth club or live chat; vote in today's poll; meet other parents in your area by joining regional boards;
- **Shop and Save:** baby products; store sales; baby gift registry; parent reviews; checklists and paying guides; as well as
- **Must-have health and safety tools:** ultimate Pregnancy Safety guide; recall alerts; consumer reports; as well as birth and parenting videos.

Although some of these resources and tools are only applicable to American residents, the information—including the expert advice provided by credible practitioners—makes *BabyCenter* the online resource that not only would any expectant or new parent be fascinated to enter, but it's also interesting for those of us who don't have children!

### The BabyCenter website

The first noticeable difference of this site compared to other sites that I reviewed occurred as soon as I typed in the domain name: [www.babycenter.org](http://www.babycenter.org). Once the *BabyCenter* site appeared on my screen, it switched my domain name to read [www.babycenter.com](http://www.babycenter.com). Was I just being redirected to an updated domain? Apparently so. But what intrigued me about this second dot-com site, was that if you mistakenly got caught up in the classic 'center' vs. 'centre' editorial challenge, and instead typed in [www.babycentre.com](http://www.babycentre.com), you are directed to a separate, yet very similar website – namely, the United Kingdom version. Aside from being sponsored by Johnson's® Baby and sporting a different layout, *BabyCentre* United Kingdom does not stray too far from providing the same information, tools, and resources that *BabyCenter* United States does; which is a good thing if you tend to get caught up (like I did) with 'center' vs. 'centre'.

<sup>a</sup> [www.babycenter.org](http://www.babycenter.org) – any information quoted within this article will be referenced from this website unless otherwise stated.

So what is it about *BabyCenter* United States that made it stand out compare to the rest of the prenatal care websites that I explored? The following are just a few of the various examples that made *BabyCenter* a site I would recommend.

Unlike many parenting websites, you are not inundated with ads for the latest and greatest products for your baby when you first enter *BabyCenter*. You are also not force-fed the latest advice on what to do or not do as a new or future parent. Unique about *BabyCenter's* homepage is that you can sign up to be a member at no cost. This membership allows you to personalize the sites within *BabyCenter* to automatically show you information applicable to your child's age for things like parenting, health, learning and child development.



Personally, I was curious to learn how specific this information could be, so I signed up as a member, using my nephew's birth date. Instant results! The next time I logged into *BabyCenter*, the information provided was geared directly towards the needs of my 4-year-old nephew's age group. This included tips on feeding a picky eater, using the activity planner and what to do when a toddler refuses to go to bed. I was impressed!

If, however, you do not want to become a member, *BabyCenter* also offers a tool bar at the top of each one of its sites to provide you with specific prenatal and postnatal information. Categories are:

- Preconception
- Pregnancy – categorized by week
- Baby – categorized weekly up to two months, and then monthly up to 11 months

- Toddler – monthly from 12 months to 35 months
- Kids – directs you to [www.parentcenter.com](http://www.parentcenter.com) for kids aged 3 to 8.

I was also impressed with the credibility of information provided in the 'Ask the Experts' section. For every question, past and present, a biography of the expert who provides the response is always provided. Moreover, the questions and answers are categorized by preconception, pregnancy, new parents, baby, and toddler, and then are further categorized by topic areas. This site helps ensure that the information provided is not only credible and reliable, but easily accessible as well.

### BabyCenter in Canada

The information provided within *BabyCenter* is based on the universal subject of prenatal care. Therefore, the information accessed is relevant to both the American and Canadian populations. Even the useful tools provided by *BabyCenter* are relevant to the Canadian population. For instance, in reviewing the Fetal Length and Weight Chart tool as well as the Growth Percentile Calculator tool, measurements were provided in either inches and pounds, or centimeters and kilograms.

After reviewing the entire website, there was only one problem I found in being a Canadian resident using this American-based website. The problem related to not having an address in the United States. For example, the Cost of Raising a Child Calculator tool only provided a selection of American States to choose from when picking a location. Similarly, the Local Allergy Alert tool only allowed for United States postal codes to be inputted. The Store section of the site also proved to be difficult for a Canadian citizen. Not only were the prices based on the American dollar, but in order to fully process the order on VISA, it needed to be billed to an American address—not allowing for shipment within Canada.

Other than not having an American address to use, however, I would have to say that *BabyCenter* is an invaluable website. I would suggest that any parent-to-be or current parent, regardless of living in the United States or Canada, should definitely visit often. I give it my two thumbs up!!

Happy Surfing ☺

# NOTIFIABLE diseases

for the Northwest Territories (NWT) October 2003 - December 2003<sup>a</sup>

		October - December 2003	Cumulative Totals 2003
		NWT	NWT
<i>Vaccine Preventable Diseases</i>	Hepatitis B	0	0
	Haemophilus Influenzae	0	0
	Influenzae A	74	75
	Influenzae B	0	5
	Pertussis	0	1
<i>Sexually Transmitted/ Bloodborne Diseases</i>	Chlamydia	70	499
	Gonorrhoea	35	192
	Hepatitis C	10	23
	Hepatitis, Other	0	0
	Syphilis	0	0
<i>Diseases by Direct Contact/ Respiratory Route</i>	Chicken Pox	67	125
	Invasive Group A Strep	0	5
	Invasive Group B Strep in neonates	0	0
	Invasive Pneumococcal Disease	5	11
	Legionellosis	0	0
	Listeriosis	0	0
	Meningitis, Other Bacterial	0	0
	Meningitis, Unspecified	0	0
	Meningitis, Viral	0	0
	Meningococcal Infections	1	1
	Respiratory Syncytial Virus	2	32
	Tuberculosis	0	8
<i>Enteric, Food and Waterborne Diseases</i>	Botulism	0	0
	Campylobacteriosis	1	7
	Cryptosporidiosis	0	0
	E.Coli 0157:H7	0	1
	Giardiasis	1	5
	Hepatitis A	0	0
	Salmonellosis	0	5
	Shigellosis	0	1
	Tapeworm Infestation	0	0
	Trichinosis	0	0
<i>Vectorborne/Other Zoonotic Diseases</i>	Yersinia	0	0
	Brucellosis	0	0
	Malaria	0	0
<i>Antibiotic Resistant Microorganisms</i>	Rabies Exposure	0	1
	Methicillin-resistant Staph.Aureus	2	5
	Vancomycin-resistant Enterococci	0	2

## NWT HIV Infections Reported from 1987 to 2004

Total	<i>Age Group at Diagnosis</i>								<i>Gender</i>		<i>Risk Category</i>					
	0-9	10-14	15-19	20-29	30-39	40-49	50-59	60+	Female	Male	MSM <sup>b</sup>	MSM/ IDU <sup>c</sup>	IDU	Hetero- sexual	Perinatal	Blood Products
25	1	0	0	4	14	5	0	1	3	22	11	1	6	5	1	1

a Statistics are based on currently available data and previous data may be subject to change

b Men who have sex with men

c Injection Drug User