

ENORTH

The Northwest Territories Epidemiology Newsletter

Sarah McDermott
Master's Student in
Community Health and
Epidemiology
University of Toronto

Cervical Cancer Screening in the NWT

Given its preventable nature, "the persistence of cervical cancer is a global embarrassment."¹ Through early detection of abnormal cells in regular Papanicolaou (Pap) smears, cervical cancer can be avoided.²

The cervix is the third most common cancer site in women in the world. In the year 2000, it was estimated that nearly 1,500 Canadian women developed the disease, and 430 died from its effects. Although the rate of cervical cancer mortality in Canada, as a whole, is the lowest among all regions under cancer surveillance by the World Health Organization (WHO),³ there are significant regional variations. Some parts of Canada bear a higher burden of cervical cancer morbidity and mortality than others. For instance, Health Canada's 1998 statistics reveal higher rates for both the Atlantic and Northern regions of the country.² Between 1984 and 1993, the Northwest Territories had the *highest* incidence rate of cervical cancer in Canada.²

This article examines cervical cancer screening rates of women in the Northwest Territories over the four-year period between 1997 and 2000. **It is determined that room for improvement remains with regard to cervical cancer screening rates in the NWT. In particular, older women and women of Aboriginal ethnicity are being under-screened. Additionally, under-screening is significantly more likely to occur in the smaller communities of the NWT. It is suggested that an organized recall system for screening in the larger communities and public awareness campaigns in the smaller communities would help to alleviate the problem of under-screening.**

A Review of Screening in Canada

Current Canadian guidelines, developed from the 1989 *National Workshop on Screening for Cancer of the Cervix*, suggest that all women age 18 and older who have ever had sexual intercourse should be screened. Screening should begin annually for the first two years. If these smears are of satisfactory quality and return a negative result, the screening interval can be extended to three years in the presence of an organized screening program with a system for recall and quality assurance.⁴ These guidelines are followed to a varying extent in each of the provinces and territories. The Well Woman health programs offered in most small communities in the Northwest Territories include a Pap smear. All sexually active women are screened annually until three consecutive normal tests are returned, and every two years subsequently.⁵ The age at which screening should be terminated also varies. The Canadian guidelines suggest that screening for women who have had consistently normal smears be continued until the age of 69.⁴ United States guidelines suggest termination of screening for these women at the age of 65.⁶

...continued on page 14

IN THIS ISSUE

- 2 Editorial
- 3 Update on Breast Cancer in the NWT
- 5 Breast Health and Breast Cancer: Meeting Northern Women's Needs
- 7 Position Statement on Breast Self-Examination
- 8 TB in the NWT
- 11 Abortions: Decreasing the Need
- 12 Women's Mental Health in Context
- 18 **IN**brief...
World TB Day –
March 24, 2002
- 19 **CONFERENCES**
&workshops
- 20 **NOTIFIABLE** diseases

a Age standardization is a method used to compare rates from populations with differing age distributions. It involves applying the age-specific rates to the age-specific population count in a standard population. An overall rate is then determined for each population being compared.

HOW TO REACH EpiNORTH

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) 920-8946
Fax: (867) 873-0204

E-mail
epi_north@gov.nt.ca

Internet Access
www.hltss.gov.nt.ca

Mail
Research & Analysis Unit
Population Health
Health & Social Services
CST 6
Government of the NWT
Box 1320
Yellowknife, NWT
X1A 2L9

Martha Lamon,
Managing Editor

André Corriveau, MD, FRCPC
Scientific Editor

EDITORIAL BOARD

Joyce Bourne
Cheryl Case
Elsie DeRoose
Lona Heinzig
Tami Johnson
Sandy Little

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.

Martha Lamon,
Managing Editor, *EpiNorth*
Research & Analysis
Department of Health &
Social Services

Editorial

When I started soliciting articles for this issue of

EpiNorth, potential contributors were keen to submit articles about various aspects of women's health. The interest in the topic, the monitoring and research being done in the NWT, bodes well for northern women.

As in the rest of Canada, northern women live longer than northern men. Men, however, tend to die of *external* causes such as accidents and suicide while women in this age group die more often of diseases such as cancer including preventable conditions such as cervical cancer.^{1,2} In this issue, I present Sarah McDermott's study on cervical cancer. Sarah is a Master's student in Community Health and Epidemiology at the University of Toronto and was a summer student with the Research and Analysis Unit of the Department of Health and Social Services in 2001. She identifies population groups in the NWT that are under-screened for cervical cancer and recommends ways to improve screening for the disease in the NWT.

The incidence of breast cancer has risen steadily among northern women in recent years. The efficacy of screening mammography has been the subject of recent debate. Dr. André Corriveau, Chief Medical Health Officer for the NWT, and Peter Hall, Health Analyst with the Department of Health & Social Services, present their analysis of recent breast cancer incidence and mortality rates in the NWT, along with an overview of the debate on screening.

In a related article, Ruby Trudel, Coordinator of Funded Projects for the Breast Health/Breast Cancer Action Group, highlights resources developed by the Action Group for women experiencing breast cancer in the NWT. This group has done tremendous work in the past three years. Some resources developed by the group have been translated and used by women from as far away as Swaziland, Africa.

I am also pleased to present the *Position Statement* by the NWT Breast Health/Breast Cancer Action Group. It is a response to Dr. Nancy Baxter's study that identified breast self-examination (BSE) as being potentially hazardous to women.

To round out this issue, Cheryl Case's article focuses on tuberculosis. This disease generally affects men and women equally although it was recently brought to the front of our consciousness by the death of a woman from Fort McPherson. Her article is an update on tuberculosis data from 1992 to 2000 with a specific look at the years 1999/2000. She also outlines some of the changes to TB surveillance in the NWT since the program was reviewed in 2001.

Angie McNeil's *opinion piece* on abortions in the NWT stems from her experience of helping women in the Inuvik region through the difficult decision-making and recovery process around having an abortion.

Dr Veronica Horn's article on women's mental health helps to put a human face on many of the statistics around women's health. She paints a picture of some of the challenges facing the women she sees in the course of her day as Inuvik's Regional Psychologist. Readers can extrapolate from this picture and understand some of the context and complexities of northern women's lives raised in past *EpiNorth* articles (see *Abortion: Decreasing the Need* in this issue; *From a Whisper to a Scream*, Fall 2001; and *Yellowknife STD Clinic*, Summer 2001). Dr Horn also argues that the success of individually-focussed treatment will be limited because it does not take into account the complexity of women's lives.

REFERENCES

- 1 <http://www.hcsc.gc.ca/women/english/womenstrat.htm>
- 2 Northwest Territories. *The NWT Health Status Report*. Yellowknife: Department of Health and Social Services, 1999.

Update on Breast Cancer in the NWT – 1992-2000

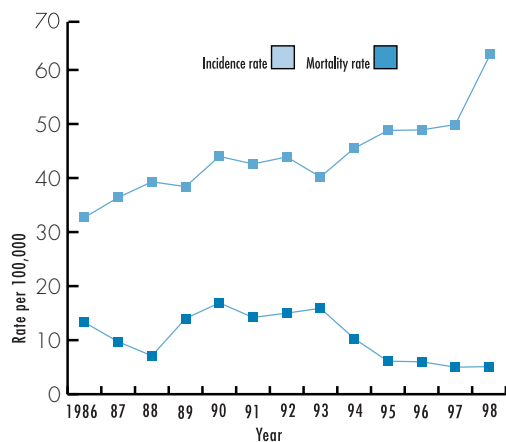
Breast cancer was last profiled in the May/June 1997 issue of EpiNorth (*volume 9, issue 3*), so an update seemed like a timely thing to do. In this report, four years of new data, covering the period up until the end of 2000, are being incorporated.

In the 1997 article, the data presented included residents of Nunavut. These cases have been removed for the purpose of this current analysis. Back then, the information revealed a picture whereby breast cancer incidence rates for NWT were approximately 35% lower than for Canada as a whole. Important differences were also noted in incidence rates by ethnicity and for different age cohorts.

Figure 1 shows the evolution of the crude breast cancer incidence^a and mortality rates for the NWT over the recent past, using a five-year rolling average^b to smooth out the sharp year-to-year fluctuations that occur due to overall small numbers. As suggested in 1997, the incidence of breast cancer has continued to increase, while mortality rates appear to be on the decline. These trends are also observed in southern Canada and in other industrialized countries.

Figure 1

Breast Cancer Incidence and Mortality – five-year rolling average, 1986-1998 (crude rates per 100,000 person years)



Declining mortality rates are generally attributed to more efficient early detection and better treatment methods. It is therefore somewhat comforting to note that the NWT appears to be following a similar trend to elsewhere in Canada in this regard, with widening gaps between incidence and mortality rates.

Due to the important age structure differences between the population of the NWT and that of the rest of Canada, it is necessary to age-standardize rates to enable proper comparisons. Table 1 compares incidence rates between Canada and the NWT and also by ethnicity. The first thing to note is the near doubling of rates when going from crude to age-adjusted ones (ASIR^c). Second is that the NWT standardized rates now appear to be on par with those of Canada as a whole, albeit with a larger 95% confidence interval (the range between low and high ASIR), due to overall small numbers. Finally, note the narrowing of the gap in incidence rates between ethnic groups. This trend had already been identified in the 1997 article.

Table 1

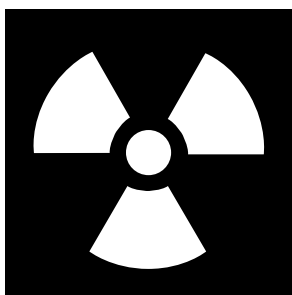
NWT female breast cancer incidence, ethnicity (1992-2000)*

	Other**	Dene	Inuit	All	Canada – 1996
Cases	65	24	8	97	16577
Crude Rate	61.7	46.0	41.1	54.8	110.7
ASIR	108.2	82.7	80.2	97.9	98.5
ASIR Low 95%	84.2	53	34.6	79.8	97.0
ASIR High 95%	138.5	122.4	158.0	120.4	100.0

* Source: Department of Health and Social Services Cancer Registry
 ** 'Other' includes Metis due to small numbers and difficulties with denominator data from various sources
 Note: rates expressed per 100,000 person-years
 Note: age-standardized to the 1991 Canadian population (indirect method)

The increase in incidence rates in the NWT can be in part attributed to improved access to screening and to the decreased proportion of Inuit in the overall population denominator since the creation of Nunavut (given that Inuit

a The number of cases per 100,000 population.
 b The five year rolling average is simply a five year average, centred on the year in the middle. For instance, the average indicated for 1996 is the average of 1994, 1995, 1996, 1997, 1998. The average for 1997 includes 1995, 1996, 1997, 1998, 1999. Hence the term rolling because adjacent years include much of the same data. The technique smooths out the individual year numbers that are quite variable.
 c Age standardized incidence rate: the cancer rate that would have prevailed in the NWT if our population age-structure was equal to that of the rest of Canada.

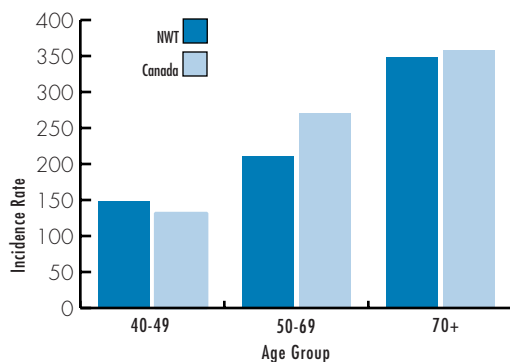


women have traditionally had significantly lower rates of breast cancer). Changes in diet, in reproductive patterns and high rates of smoking in women may also be significant additional contributors to the rising incidence rates in the NWT context.

Figure 2 illustrates the important age gradient in the incidence of breast cancer. This can serve as a reminder that with ageing of the NWT population we can expect to see increasing numbers of breast cancer patients, highlighting the need for improved and sustained efforts in screening, access to effective treatment methods and support services for patients and survivors.

Figure 2

Female Breast Cancer NWT (1992-2000) and Canada (1996) age-specific incidence rate (per 100,000 person years)



Benefits of screening mammography have been consistently documented in the scientific literature only for women in the 50 to 69 age group. Routine screening for younger women, particularly those between 40 and 49, remains a matter of hot debate among experts to this day. On one side of the argument are those who claim that studies done up to now (which, for the most part, show a lack of benefit for routine screening in young women) had significant design flaws and that, besides, newer screening tools and more experienced screeners are now yielding much improved outcomes, which will only become evident on an aggregate basis in the future. On the other side, are those

who say that until there is clear-cut evidence of benefit, it is improper and even harmful to subject large numbers of women to annual screening mammography. There is some evidence that breast cancer in younger (premenopausal) women may behave differently than those occurring in older women and that early detection does not improve outcomes.

It is also important to note that the effectiveness and efficiency of population-based screening programs is strongly impacted by prevalence of the disease in the population, whereby the proportion of false positive results will increase exponentially with decreasing prevalence rates. For example, let us assume a sensitivity^d of 80% and specificity^e of 95% for mammography screening (a generous estimate). Let us then compare two populations of 10,000 women, one where the prevalence of breast cancer is 2/1000, while the other is 4/1000. In the first instance, 515 women will have a positive test, including 16 true positives, for a positive predictive value^f of 3%. In the second group, 531 women will have a positive mammogram, including 32 true cases of cancer, for a positive predictive value of 6%. In both populations, nearly 500 women who do not have breast cancer will nonetheless require further diagnostic work-up. Through this example, it can be seen how prevalence impacts on cost-effectiveness and also on the balance of benefits vs. harm that may result when someone must undergo unnecessary medical procedures.

For all these reasons, most organized breast cancer screening programs actively recruit only women who are 50 years or older. In the NWT, the current guideline for screening mammography similarly recommends a focus on women over the age of 50, although younger women may also be enrolled on the recommendation of their physician, based on the assessment of particular risk factors or perceived benefits.

^d the probability of testing positive if the disease is truly present

^e the probability of screening negative if the disease is truly absent

^f the ability of a screening test to identify positive test results

Breast Health and Breast Cancer – Meeting Northern Women's Needs

The incidence of breast cancer is lower in the north than in southern jurisdictions. Perhaps because of this, women in the north were for many years disadvantaged in accessing information and support concerning breast health and breast cancer. Regardless of incidence rates, any time breast cancer enters a woman's life it is devastating. Determined advocacy by one northern breast cancer survivor began the changes that resulted in crucial resources being developed and made available to women in the NWT and Nunavut.

In 1993, Canadian women gathered in Montreal, PQ at the National Forum on Breast Cancer. They expressed breast cancer survivors' needs for information and support and gained the attention of the federal government. One voice there was from the NWT. In 1997, that one voice joined 15 other breast cancer survivors from the Western Arctic and the Kitikmeot Region. The result was a document titled *Breast Cancer in the NWT: The Voice of Survivors*. This document expressed the unique experiences of these northern women and made several recommendations regarding the breast cancer needs of survivors in the north. These recommendations were the starting point for the projects described below.

In 1998, the NWT Breast Health/Breast Cancer Action Group was formed. It consists primarily of women who have been affected by breast cancer either personally or through a loved one. Their goal is to improve access to information and support for women in the NWT who are faced with issues of breast health or breast cancer. An Advisory Panel, consisting of numerous organizations with an interest in breast health and breast cancer, provides advice on breast cancer projects and is the basis for networking. The Status of Women Council of the NWT provides administrative and collaborative support to the Action Group. Primary funding is accessed from Health Canada's Canadian Breast Cancer Initiative. Some projects have been funded by proceeds

from Run For The Cure (the Canadian Breast Cancer Foundation) and by the Department of Health and Social Services. Each project was created within the last three years and include:

1) The Breast Health/Breast Cancer Resource Manual. In 1999, the Action Group created a resource manual to provide health center staff with up-to-date information on breast health and breast cancer. This will enable staff to meet the information needs of local women. With funding from Health Canada, 60 binders were produced and sent to all community health centres in NWT and Nunavut.

2) Breast Health: Caring For Yourself. Based on information from focus groups held in the communities of Aklavik, Fort McPherson, Rankin Inlet, Kugluktuk and Yellowknife, the Action Group created the booklet *Breast Health: Caring For Yourself*. The booklet raises awareness about the three-pronged approach to breast health as a part of healthy living. This approach comprises breast self-examination (BSE), clinical breast examination (CBE) and mammography. This entry-level information is presented in plain language. In 1999, with Health Canada funding, 8,300 booklets were produced in nine languages. An additional 10,000 English copies were printed in 2001 with funding from the Department of Health and Social Services' Health Promotion Fund. The original booklets were distributed to women through all community health centres in the NWT and Nunavut and through the mammography programs at the Inuvik and Stanton Hospitals. English copies were placed in student orientation packages at Aurora College campuses in Inuvik, Yellowknife and Fort Smith. In 2002, booklets will be available at all Yellowknife Medical Clinics. The booklet is currently being replicated in the Yukon, Manitoba and Alberta. It was also identified as a valuable resource by women in Swaziland, Africa who got funding from the World Health Organization to have the booklet translated into the local language, printed and distributed there.

Ruby Trudel, BScN
Coordinator of Funded
Projects
NWT Breast Health/Breast
Cancer Action Group



3) Breast Health Audio Tape. During the focus groups, Community Health Representatives indicated that a good way to reach northern women was through health messages played on community radio stations and in community health centres. This idea resulted in the creation of the *Breast Health Audio Tape*. The five-minute tape encourages good breast health through the three-pronged approach described above. In 2000, Health and Social Services funded the production of 90 audiocassettes and 36 CDs in all NWT official languages. The Breast Health Audio Tapes were sent to community health centres.



The *Toolkit*

4) The Toolkit. Winnie Greenland, a CHR in Fort McPherson had the dream of visually demonstrating the three components of breast health with appealing pictures and displays in plain language. This would be used in health centres, at health fairs and medical clinics. Proceeds from Run For The Cure made this dream a reality in 2000 when *Toolkits* were produced and sent, free of charge, to health boards and mammography programs across the NWT.

The *Toolkit*, the star project of the Action Group to date, consists of a table top display, a breast model with lumps of various size, the Alberta/NWT Canadian Cancer Society video on Breast Health, bookmarks with telephone information numbers and a hand out entitled, *Breast Health, What's Your Plan?* that outlines appropriate breast health activities for women. The *Toolkit* also includes a handcrafted display showing the size of lumps typically found by women who don't do BSE (largest), women who do BSE, women who have CBE and women who have mammography (smallest).

The *Toolkit* was documented by *CBC NorthBeat* and received national exposure when it was rebroadcast on *CBC Health Matters*. *Toolkits* were also sold at cost to medical facilities from Vancouver to Newfoundland who recognized it as a unique and useful resource. More *Toolkits* are currently being produced in response to further interest.

5) The Patient Care Kit. The Action Group created the *Patient Care Kit* to address a woman's need for information when she is diagnosed with breast cancer. In 2001, 30 kits were produced through funding from Health Canada. The kits are distributed to newly diagnosed breast cancer patients through the Stanton Surgical Clinic. The *Patient Care Kit* is a collection of information that survivors have identified they wished to have at diagnosis. It gives timely information and simplifies the client's necessity to search for information at such a stressful time.

6) A Guide to Breast Health. During Nurses Week, May 2001, all nurses in the NWT involved with breast health and the nursing students and staff at the Aurora College Nursing Program, received a copy of *A Guide to Breast Health*. This booklet was provided as an information tool for nurses, both personally and professionally.

7) Library Books. In August 2001, 25 library books on the subject of breast cancer were presented to NWT Library Services. The books included *Dr. Susan Love's Breast Book* by Dr. Susan Love and *The Intelligent Patient Guide to Breast Cancer* by Drs. Gelmon, Kuusk and Olivotto. Copies were donated to each of the nine libraries in the NWT, to Stanton Medical Clinic and Aurora College Nursing Program. This project was funded by Health Canada.

8) In Your Hands. The video *In Your Hands*, was released in November 2001. This made-in-the-north-for-the-north video aims to increase awareness of the three components of breast health in a visual way. The 17 minute video provides a demonstration of breast self-examination and explains the importance of clinical breast examination and mammography. It also gives messages of encouragement from breast cancer survivors. By the time this project is completed 145 videos in eight NWT official languages will have been distributed to each of the health centres and both mammography programs. This project was funded by proceeds from the Run for the Cure.

...continued on page 10

From the Editor...

This position statement by the NWT Breast Health/Breast Cancer Action Group is a response to Dr Nancy Baxter's study. This study identified not only no benefit from regular performance of BSE compared with no BSE but went on to say "there is good evidence of harm from BSE instruction, including significant increases in the number of physician visits for the evaluation of benign breast lesions and significantly higher rates of benign biopsy results." This study was endorsed by Health Canada and resulted in a downgrading of breast self-examination as a preventative health measure from grade C to grade D. Many women and health professionals are concerned that the study itself has done harm. They say that women want to know how to examine their own breasts properly and they worry that women may be confused when they hear that BSE may actually be harmful. Because it is not consistent with past messages about BSE and because Health Canada has accepted the

findings of the study and changed their recommendations around BSE as a result, they worry that it sends a confusing message to doctors and their patients.

In a commentary accompanying Baxter's article in CMAJ, Larissa Nekhlyudov and Suzanne W. Fletcher write that for over 30 years, women have come to accept BSE as a screening tool for breast cancer. They are comfortable doing it, and by doing it, have gained a sense of control over their health care. They wonder how women will react to a sudden reversal of advice about BSE and how it will affect their reaction to medical advice about other screening methods for breast cancer. They advise: "clinicians have much stronger evidence for mammography and well-done clinical breast examination, and we should emphasize these screening methods with our patients. For BSE, we must honestly share the uncertainties about its potential benefits and harms and then help patients in their decisions about its use."

Martha Lamon,
Managing Editor, EpiNorth
Research & Analysis
Department of Health &
Social Services

REFERENCES

- 1 Baxter, Nancy. 2001. Should women be routinely taught breast self-examination to screen for breast cancer? *CMAJ*. 164(13): 1837-46.
- 2 Nekhlyudov, Larissa and Suzanne W. Fletcher. 2001. Is it time to stop teaching breast self-examination? *CMAJ*. 164(13): 1851-2.

Position Statement on Breast Self-Examination

Recent publicity has brought to light the controversy regarding the effectiveness of breast self-examination (BSE). The NWT Breast Health/Breast Cancer Action Group wishes to address this matter. The Action Group is dedicated to raising awareness and increasing access to information and support concerning breast health and breast cancer.

In light of the common knowledge that most women diagnosed with breast cancer find their own tumours, the importance of regular self-examination cannot be discounted. In addition, as there is no cure for breast cancer, early detection is the key to long-term survival. Standardized BSE methods provide women with the skills to become familiar with their own bodies, thereby increasing awareness of abnormal changes. This awareness could help them discover

potentially cancerous abnormalities at an early stage and confidently seek medical investigation.

The Action Group acknowledges that regular BSE is one of three weapons in the fight against breast cancer. The other important tools are mammography and annual clinical breast exams by trained health care providers. Given the fact that younger women are not eligible for screening mammography and that clinical breast examination may not be available to some women on a consistent basis, BSE is, in many cases, the only option for early detection of breast cancer allowing for prompt follow-up and treatment. The NWT Breast Health/Breast Cancer Action Group therefore supports that all women of the NWT have access to standardized, one-to-one breast self-examination teaching by a trained health care provider.

NWT Breast Health/Breast
Cancer Action Group

For more information on
breast self-examination,
please contact the

Status of Women
Council of the NWT at
(867) 920-6177

or toll free at
1-888-234-4485

a Insufficient evidence regarding inclusion of BSE or its exclusion from a periodical health examination (PHE) but recommendations may be made on other grounds.

b Fair evidence to support the recommendation that BSE be specifically excluded from PHE.

Cheryl Case,
Communicable Disease
Consultant
Health Protection Unit
Department of Health &
Social Services

March 24, 2002 is World TB Day. This year's theme in the NWT is Together We Can Eliminate TB. For many of us, everyday is TB Day in the NWT, but World TB Day will direct the eyes of the public to focus on TB too. I encourage all healthcare providers to take the opportunity to celebrate World TB day in their community. Local papers will be publishing announcements and will offer coverage of any event that you can do around TB awareness on March 24, 2002.

Also, check out the following websites:

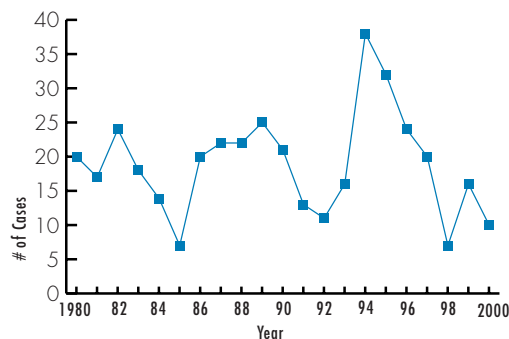
www.stoptb.org

www.who.int/gtb/WorldTBDay

Tuberculosis in the NWT

The incidence of tuberculosis (TB) in the NWT is highly variable due to our small northern population and the fact that cases often occur as part of a community cluster. An outbreak in one community can very easily double the number of TB cases seen for all the NWT in one year. For instance, in *Figure 1*, the high number of cases in 1994 and 1995 was due to TB outbreaks in two Dogrib communities. The average rate of TB in the NWT over the past five years was 61.7 per 100,000 population. This compares to a national average of 6.7. In 2000, 10 cases of tuberculosis were reported to the Health Protection Unit, for a rate of 31.3/100,000. This represented a decrease from 1999, when 16 cases were reported, for a rate of 51.1 per 100,000.

Figure 1
TB Cases in the NWT



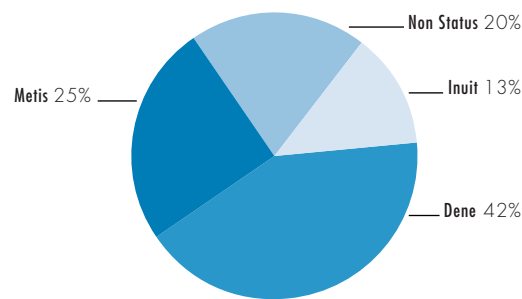
Demographics of TB in the NWT (1992-2000)

Age. The median age of people diagnosed with TB in the NWT between 1992 and 2000 was 39 years. Tuberculosis was epidemic throughout the North in the 1940s-50s. Large portions of the cases diagnosed during the 1992-2000 period were individuals infected during these earlier epidemic years. Typically, *Mycobacterium tuberculosis* (MTB) will reactivate in an elderly person who was infected in his/her younger years.¹ As persons age, their immunity declines and the MTB bacilli can

invade the immune system and cause disease. The individual with pulmonary tuberculosis then has the opportunity to spread the disease. The young are particularly vulnerable to this disease because they are newly exposed and do not have immunity. For this reason, infants are routinely offered Bacille Calmette Guerin (BCG) vaccine at birth to prevent invasive forms of tuberculosis, although they remain at risk of being infected with TB following exposure.²

Ethnicity. *Figure 2* reveals that, in the NWT between 1992 and 2000, the Dene and Metis populations carried the greatest burden of TB, that is, the proportion of the population most often infected with MTB. In 2000, nine of 10 people diagnosed with TB were Dene. Fourteen of the 16 cases reported in 1999 were Dene; one was Metis and one was non-Aboriginal.

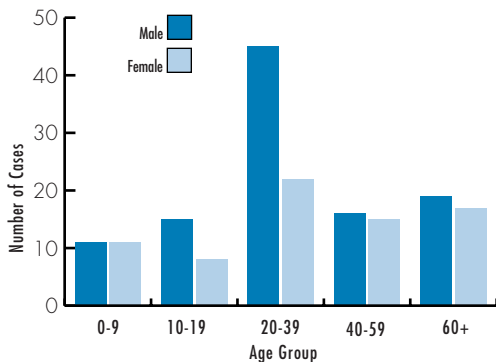
Figure 2
TB in the NWT by Ethnicity (1992 - 2000)



Gender. According to the World Health Organization, TB generally affects both males and females equally, unless some other factor increases the susceptibility of one over another.³ NWT cumulative TB data indicates a higher proportion of the cases are in males, particularly between the ages of 20 to 39 (see *Figure 3*). Generally, males in this age group display a higher frequency of lifestyle factors that may predispose one to develop TB infection such as alcohol and substance abuse, inadequate nutrition, etc.

Figure 3

TB Cases in the NWT by Age/Gender (1992-2000)



Breakdown of TB Cases for 1999/2000

Method of Detection. In 1999 and 2000, not one case of TB was diagnosed through routine surveillance activities (see Table 1). Ten of the 16 cases in 1999 and seven of the 10 cases in 2000 were diagnosed by symptoms. In other words, patients were seeking medical care because they felt ill. This indicates a strong need to enhance TB surveillance in the NWT. The remaining cases were discovered through contact tracing. There were five cases in both years that were smear positive from sputum analysis and thus highly infectious.

Table 1

Method of Detection

	1999	2000
Symptoms	10	7
Contact Tracing	6	3
Surveillance	0	0

HIV Testing. HIV testing is recommended for all newly diagnosed cases of tuberculosis, primarily because tuberculosis is one of the earliest opportunistic infections in those with AIDS.^{2,4} Testing done in 1999 included eight cases out of the 16 cases and in 2000 it included four of the 10 cases being tested. All tests were HIV negative. Nevertheless, this indicates insufficient HIV screening in a high-risk population for HIV/AIDS.

Susceptibility Testing. All confirmed isolates in 1999 and 2000 were susceptible to the first-line antituberculosis drugs: isoniazid, rifampin, pyrazinamide, streptomycin and ethambutol. This suggests that the directly observed therapy (DOT^a) and directly observed preventative therapy (DOPT^b) in the NWT TB Program are so far succeeding in preventing the emergence of drug resistance.

Enhancement of the NWT TB Program

In 2001, the NWT TB Program underwent an external review by Dr. Anne Fanning, a renowned TB expert. The Department of Health & Social Services requested the review following the tuberculosis death of a Fort McPherson woman. Since that time, increased TB awareness and surveillance has been occurring among the general population. When the method for case detection was reviewed in 1999 and 2000, it became apparent that over half of the cases were detected because the patient sought medical attention. More importantly, in 1999 and 2000, 31% and 50% of patients respectively had advanced pulmonary tuberculosis. This increases the risk of morbidity and mortality and of transmitting the infection to others.

The Department’s action plan to strengthen the NWT’s TB program⁵ focuses on: a) enhanced training and awareness for primary health care providers, b) increasing public awareness, and c) ensuring public health resources are available to support the TB program.

The Department’s goal is to reduce the rate of TB in the NWT to the national level of five cases per 100,000 population by 2005. Early case identification and treatment of people with latent TB infection is the key to achieving this goal.

Prior to devolution of health care services in 1988, the Medical Service Branch (Federal Government) provided health services to all

2001 NWT TB STATISTICS:

Total Cases:	8 (5 male, 3 female)
By Age Group:	
< 1	0
1-9	0
10-19	0
20-39	4
40-59	2
60+	2
By Status:	
Dene	7
Inuit	1

Source: Department of Health and Social Services TB Registry

a The process whereby a healthcare worker or pill dispenser directly observes the ingestion of every dose of therapy for active disease.

b The process whereby a healthcare worker or pill dispenser directly observes the ingestion of every dose of preventive therapy for active disease.

remote communities in the NWT. They ran a very comprehensive and thorough TB screening program. In the early 1980s, the NWT like the rest of Canada thought TB was beaten. As TB cases increased again in the 1990s, the need to rebuild this service became evident.

Presently, Health Protection Unit staff are working closely with Health and Social Services Boards to develop a proactive screening program in the NWT. Providing community-specific TB profiles will help identify high-risk groups and allow for early case identification and treatment of people with latent TB infection. As noted in *Table 1*, none of the cases diagnosed in the two reporting years was discovered through surveillance.

We have estimated from available data in the Health Protection Unit that the burden of tuberculosis ranges from 4.4 to 63.2% in the various community populations throughout the NWT. The overall average is 27.5%. This is an alarming burden of tuberculosis, which is substantiated by the ongoing high annual rates of infection. It is imperative that the NWT

devotes time, effort and resources to this very important program.

The NWT TB Program involves many health care personnel. The Health Protection Unit would like to acknowledge the local and regional health centre staff, public health staff, laboratory, radiology and pharmacy staff and TB specialists. It is the commitment of these people that keeps this program viable while resources are stretched and pulled from health care services.

REFERENCES

- 1 Case, Cheryl. 2001. TB — Focus on Seniors. *EpiNorth* 13 2:1011, 17.
- 2 Long, Richard, ed. *Canadian Tuberculosis Standards*. 5th ed. Ottawa: Government of Canada and Canadian Lung Association, 2000.
- 3 Fanning, Anne, et al. *District Tuberculosis Manual*. Geneva: World Health Organization, 1999.
- 4 Northwest Territories. *Tuberculosis Protocol for the Northwest Territories: BCG*. Yellowknife: Department of Health and Social Services, 1997.
- 5 Northwest Territories. *Action Plan to Strengthen Tuberculosis Management and Control in the NWT*. Yellowknife: Department of Health and Social Services, 2001.

Breast Health and Breast Cancer...continued from page 6



The Action Group logo is a flower, which on closer inspection reveals the petals as hands and the center as a breast. From one lone voice in the NWT many hands have come together to improve access to information and support for women and their families who face breast cancer.

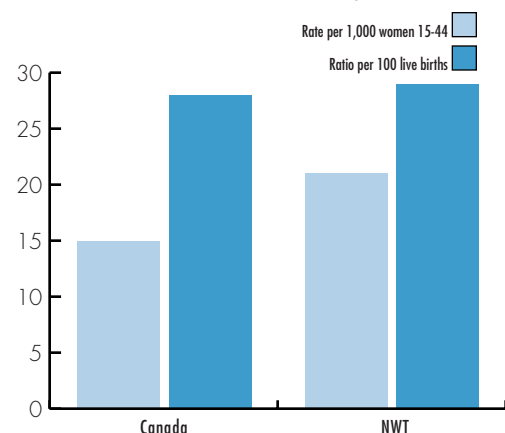
For more information, or if you can't find these resources in your clinic or health centre, please contact the Status of Women Council of the NWT at (867) 920-6177 or toll free at 1-888-234-4485.

Abortion: Decreasing the Need

Abortion rates in Canada and the NWT. Fifty percent of all pregnancies in Canada are unintended and about half of these, over 100,000 per year, end in abortion.¹ In Canada, in 1995, there were 28 abortions for every 100 live births. In the NWT, between 1996 and 1998 this ratio was 29:100 (see Figure 1).² About 16.5 percent of Canadian women had had an abortion by 1993, a steady rise from 4.1 percent in 1975. Statistical analysis also indicated that 29 percent of abortions performed in Canada in 1993 were done on women who had at least one previous abortion.³ It is because of these alarmingly high numbers that I believe this issue is worth looking at from women's health point of view.

Figure 1

**Therapeutic Abortion Rates and Ratios
Canada (1995) and NWT (1996-98 average)**



The challenges facing women around abortion. One of the roles of the Women's Health Project Coordinator is to act as an advocate for women. My experience is that a large number of women entering the health care system need help with the advocacy work around their abortion. This is a challenge because abortion is wrapped in a web of moral, religious and political issues. Some people prefer not to address the subject at all. Nevertheless, it is important to raise awareness about the issue. Ignoring it only isolates women who want an abortion and it complicates their

attempts to access the procedure and get quality counseling and after care.

The majority of women that I have seen seeking abortions in the NWT are not doing so out of birth control failure or because they are victims of rape or incest. They tend to come from dysfunctional home environments and unstable and perhaps violent relationships. They also suffer from alcohol abuse, addictions, financial constraints and lack options and control over their lives. These factors make it difficult for them to use birth control effectively. Abortion, then, becomes a form of birth control for these women. Subsequently, the physical impact of an abortion and the feelings of guilt, shame and regret that many women suffer after the procedure, only complicate an already unhealthy social environment. My experience is that clients are not necessarily more vigilant with birth control after an abortion.

Although abortion is a legal medical procedure and women have the right to choose this as an option in the face of an unwanted pregnancy, health care professionals can also choose not to do abortions as part of their practice. Due to ethical, moral and personal values around abortion, the number of abortion providers is decreasing in the NWT and across Canada.⁴ As well, given the aggressive protesting and even violence directed at abortion providers, many doctors may simply decide not to involve themselves in the procedure. This adds to the difficulty of getting an abortion.

Furthermore, in the north, the large geographical distance between a client's home community and the location of the procedure can act as a communication barrier and hamper follow-up care. Poor communication and follow-up care may contribute to poor birth control compliance for clients who are also dealing with a number of social issues.

The need for prevention. Ideally, abortion should be rare. Nevertheless, abortion is a legal medical procedure available to women in the

Angie MacNeil,
Women's Health Coordinator
Inuvik Regional
Health & Social Services
Board



...continued on page 14

Veronica Horn, Ph.D.,
Regional Psychologist
Inuvik Regional Health &
Social Services Board

- Women are far more likely than men to become depressed
- Although more men than women complete suicide, far more women attempt suicide.
- Women are over-represented in many anxiety disorders, including panic disorder. Many women experience the long-term effects of chronic post-traumatic stress symptoms.



Women's Mental Health in Context

A young woman is admitted to the hospital after an attempted drug overdose. The admitting physician tells me that she is depressed and anxious and had a fight with her boyfriend while they were both drinking. Maybe she is now given medication for depression and anxiety. She likely gets a mental health referral too.

It is her third suicide attempt in as many years. Or rather the third attempt that actually makes it into her medical record. She has already sat with a pill bottle wondering if she will swallow its contents too many times to count. As the psychologist, I am asked to do a suicide risk assessment. I am asked to see that she gets counselling. I see her, and so many women like her, one at a time, over and over again. They are, each of them, the identified patient, removed from the context of their messy lives and plopped into a hospital bed, as strangely and as suddenly as if they had beamed down from another planet.

What I would like to explore briefly in this article is the ultimate futility of this purely individualized and decontextualized approach. Our treatment approaches must reflect the complexity of women's lives.

There are two popular sayings that come to my mind:

- *Women are the carriers of culture, teaching it to their children; and*
- *A people are not conquered until the hearts of its women are on the ground.*

I have some questions to start.

How does a girl who was taken from her family and placed in a residential school at a young age, forbidden her language, her people's songs and dances, and her grandmothers' stories, learn about who she is and where she fits in?

Maybe she adopts the lifestyle of the colonizers. Maybe she takes on the colonizers' religion. Maybe she lives her life in silence with no words to speak of the loss because its dimensions are too broad to encompass and its shape too prickly to hold. Maybe she drifts

from one tradition to another, uncertain of her place. *Women are the carriers of culture...*

How does a girl who watched her parents drink, fight and pass out instead of providing her the care she needs to grow and love life, learn to care for her own babies when she has them? How does a girl child whose parents said, "We don't want you," learn the incomparable worth of a child?

Maybe she gives her children to others to raise out of fear of what she might do. Maybe she loses herself in pain and alcohol and has her children taken from her. Maybe the only thing she knows how to give her children is loss. *...teaching it to their children.*

How does a child who is gang-raped by male relatives ever feel safe again? How does she ever feel like a valued human being to her family and community? How can she look at sexualized images of girls and women on TV and see herself as anything more than a sexual toy?

Maybe she's suicidal now, having turned the rage inward because that's the only safe place to turn it. Maybe she looks depressed because the damage to her spirit has caused her to lose interest in sleeping, eating, having fun, and of course, her physical and sexual being. Maybe she learns to be afraid all the time. Maybe she learns that her place in life is to provide service to men, however they wish it, whatever the cost to her. *The hearts of its women...*

How does a child who watched her father beat her mother – whether drunk or sober – ever learn that a woman deserves respect and honour and seek out men who will treat her well? How does she learn the fundamental humanity of her mother and herself?

Maybe she picks a man like dear old dad. Maybe she turns to alcohol to numb the pain. Maybe she moves from man to man, trying to find someone who'll love her without hurting her. *are on the ground...*

Sometimes I think that the true miracle here is that so few women look depressed, suicidal and

anxious. Drugs, psychotherapy and addictions treatment are often overly-relied upon strategies because we as professionals have little else to offer. I can give no one back her place in the universe. I can give no one safety in her own home. I can protect no one from the ongoing pain of relationships with people who will not love her respectfully. None of us can, nor can an individual, do these things for herself all by herself, even with *treatment*. We want a pill to make it better, or a 28-day program, but eventually we all have to go back to wherever home is. And it is because of this inevitability that I believe individually-focussed solutions are doomed to be second-rate.

None of us is capable of gaining or maintaining health all by ourselves. We need our families and friends and our cultures, communities and societies. As a psychologist, I can help a woman to feel valued by recognizing her worth during our hour or so together. But it is her family, friends and culture who more intensely affect her sense of self-worth.

We, as professionals, need to do more work with families, with groups of friends, with communities. Individualizing broad-scale problems has the effect of placing subtle or not-so-subtle blame on the individual. It, in effect, says things like, "You were weak because after you came back from addictions' treatment you could not maintain sobriety in a family and community where alcohol is the main recreation." Yes, some people can overcome such barriers, through superhuman effort. But most of us cannot. And it doesn't mean that we're weak or not responsible for our actions. It means we live embedded in family, friends, culture, community and it's therein that we are both constrained and given opportunity.

Nothing in what I'm saying precludes giving aid and comfort to individuals as such. However, if we focus only on individuals we are missing the forest. I think there is room for those of us who are in traditionally individually-focussed fields – and certainly my

own field of psychology is very much this way – to consider the ways we can be more family and community oriented. I don't have much in the way of answers.

I try to do psychological assessments that include family, friends and other people involved in the identified client's life. I try to debunk the myth that counselling (or other treatment) solves everything. I speak of mental health as a life with meaning in it, whatever that meaning may be. It gives us a reason to get up each day. I encourage people to bring trusted family and friends into the work of therapy. I encourage people to become more involved in their cultural traditions. I try to do workshops and family therapy instead of individual therapy. Perhaps other professionals who work with people around mental health issues have other strategies to share.

Sometimes people ask me how I can do this kind of work given the tremendous pain I must be witness to each day. Well, it's true that I witness a great deal of pain. But I also witness a great deal of strength and courage. What is remarkable in its ubiquity is the ongoing ability of the women I work with to laugh, to keep on trying, and to hope.

How can women who have lost so much not fall completely into helpless fear? How can women who have been neglected and beaten as children and as adults find a way to love themselves and others? How can women who become addicted through attempts to avoid overwhelming pain ever find reasons for living again?

Maybe they look into the eyes of their children and see that they are given another chance. Maybe they speak to strong and healthy women of their culture and know that they too are seen, are human, are real. Maybe they talk to a mental health professional who sees their strength, courage and love. Maybe they survive because they have to, because they want a better life for themselves and their families. *A people are not conquered...*



Abortion: Decreasing the Need...continued from page 11

NWT. Therefore, it must be made available with appropriate accessibility and supports. While it would be unrealistic to say unwanted pregnancies are 100% preventable, I believe that if the emphasis of health care services and programs was on prevention, the need for medical/surgical interventions could be significantly reduced. Teenage girls, who tend to be the higher number of repeat abortion seekers, especially need to be educated that abortion is not an acceptable form of birth control and told about the physical risks inherent in the procedure and the negative impact that it can have on one's mental health.

Clearly, the prevention of unwanted pregnancies is a complicated and challenging issue. While education about birth control is important, it is just as important to counsel

and support women in those facets of their lives that may contribute to their unwanted pregnancies in the first place. It is imperative to take a preventative approach on an issue that has a huge, but unseen, social and financial impact for clients and the NWT health care system.

REFERENCES

- 1 Dunn, Sheila. 1999. The History and Use of Emergency Contraception. *The Drug Report* 66: 1-3.
- 2 CHIMS database: Department of Health and Social Services, GNWT.
- 3 Millar, Wayne. 1997. Repeat Abortions in Canada. *Family Planning Perspectives* 29(1): 20-4.
- 4 Arthur, Joyce. October 1999. Abortion in Canada: History, Law and Access. <http://www.prochoiceconnection.com/procan/Canada.html>

Cervical Cancer Screening in the NWT...continued from page 1

With the introduction of widespread screening in Canada (first implemented in British Columbia in 1949^{7,8}), a notable decline in age-standardized incidence and mortality^a of cervical cancer has been seen over the last 40 years.³ Nevertheless, since the mid-1970s, the decline has reached a plateau,^{8,9,10} especially for women less than 50 years of age. This trend suggests a possible complacency among women regarding cervical cancer screening resulting from decreased incidence of the disease.

Much discussion has been generated with regard to why cervical cancer has not been eradicated all together, or very nearly so. Under-screening of certain populations is commonly identified as a cause for the persistence of cervical cancer.^{6,11,12} A 1985-1988 study in British Columbia found that Aboriginal women, recent immigrants and women over 60 years of age constituted a disproportionate number of

incident cases of invasive cervical cancer in women who had either never been screened or had been screened more than 5 years prior to disease diagnosis.⁸ Monitoring of cervical cancer screening in Manitoba showed that 43% of Aboriginal women had been screened at least once in the three-year period between mid-1993 and mid-1996, as compared to 60% of non-Aboriginal women.¹³ A 1997 Ontario study revealed "50% of Pap tests had been done on women younger than 35, whereas 95% of deaths due to cervical cancer occurred in women older than 35".¹ Women of low socio-economic status are also identified as an under-screened, at-risk population.¹⁰ Recruitment through public awareness campaigns has been suggested as one method of increasing the number of women screened,¹ particularly from among at-risk populations. The following analysis of screening in the NWT attempts to identify at-risk women from among the territory's population.

b The data were analyzed using *EpiInfo* version 6.04d, *SPSS* 10.1 for Windows and *SAS*, version 8. Analysis includes counts and frequencies, comparison of proportions using the chi-square test, relative risk calculation, and logistic regression to determine the significance of the relationship between age group and the proportion of women screened.

c In some cases, the number of women screened exceeded the estimated population for a given subdivision. It is believed that this is a result of a transient non-Aboriginal population who receives services in the NWT, but is not included in the population estimates.

Screening In The NWT Methodology^b

Dynacare Kasper Medical Laboratories (DKML) in Edmonton, Alberta, has been responsible for cytological testing of all Pap smears collected in the NWT since 1997. The DKML database includes patient healthcare number, age at screening, screening result and service provider code. From the healthcare number, a patient's ethnicity and place of residence can be determined in most cases. It was not possible to determine the place of residence of 271 women screened (2.3% of all women screened). These tests were excluded from analysis by place of residence. The service provider code supplies information on the service provider type, either private physician or registered nurse, and the location of the test.

It was previously determined that women 15 years of age and older constitute the population at risk for cervical cancer in the Northwest Territories.¹⁴ Therefore, the population targeted for screening in the period between 1997-2000 consists of women age 15 and older. This was approximated using the population estimate from July 1999.¹⁵ Estimates of population subdivisions by age, ethnicity and community type were also used in the analysis.^c

Results

Between 1997-2000, 11,707 women aged 10 and older were screened at least once. Of this number, 43.6% were Aboriginal women, 56.3% were non-Aboriginal, and 0.1% was of unknown ethnic status. The age of women at the time of their first test showed 54.1% to be less than 35 years, 41.5% between the ages of 35 and 59, and 4.4% 60 years of age and above. *Table 1* summarizes the number of women tested in each five-year age group by ethnicity. For women tested more than once in the four-year study period, only age at the time of first test was included.

Of the estimated 14,217 women targeted for screening in the NWT between the years 1997-2000 (i.e., 15 years of age and older), 11,597

received a Pap test *at least once*. This results in a crude screening rate of 81.6% of eligible women. In the three-year intervals between 1997-1999 and 1998-2000, 73.8% and 72.4% of the estimated target population (at the mid point in each time interval) was screened respectively. As *Figure 1* demonstrates, 72.8% of the target population of Aboriginal women was screened ($n=5022$), compared to 89.8% of non-Aboriginal women ($n=6575$). These rates are significantly different from one another ($p<0.0001$). The relative risk of being screened for non-Aboriginal women with respect to Aboriginal women is 0.81 (95% confidence interval, 0.80 - 0.82).

Table 1

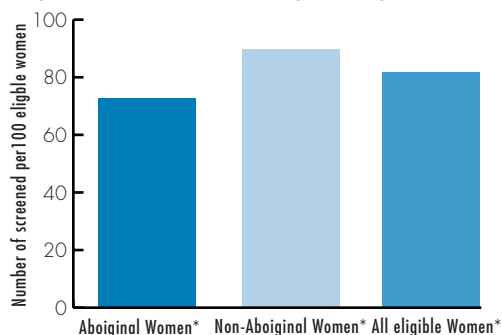
Number of Women Screened by Age Group and Ethnicity, 1997 - 2000

Age group	Number of Aboriginal Women women screened	Number of Non-Aboriginal women screened	Total number of women screened ^d
10-14	78	17	95
15-19	772	423	1195
20-24	702	728	1430
25-29	789	1075	1864
30-34	650	1087	1737
35-39	630	1001	1631
40-44	470	821	1291
45-49	330	627	957
50-54	230	398	628
55-59	153	198	351
60-64	122	100	222
65-69	70	38	108
70 and over	104	79	183

^d Includes women of unknown ethnicity, therefore, some numbers are greater than the sum of the numbers in the two previous columns.

Figure 1

Proportion of Women Screened by Ethnicity, 1997 - 2000



* These proportions differ significantly ($p<0.0001$).





Figure 2 depicts the proportion of the target population screened by age group. Logistic regression reveals a significant relationship ($p < 0.0001$) between the proportion screened and the age group variable.^d A decreasing trend in the proportion of women screened above the age of 30 years is observed. This significant relationship is present for both Aboriginal and non-Aboriginal women.

Table 2 shows the proportions of the target population screened at least once during the study period residing in each of three community groups: Yellowknife, the regional centres (Inuvik, Hay River and Fort Smith), and the remaining small communities. The proportions differ significantly across the groups among all eligible women and non-Aboriginal women. There is no significant difference between the proportions of Aboriginal women screened in each of the community groups. In addition, Table 2 shows non-Aboriginal women are significantly more likely to be screened than Aboriginal women in Yellowknife ($p < 0.0001$) and in the regional centres ($p < 0.0001$). No significant difference is apparent between the proportions of Aboriginal and non-Aboriginal women screened in the remaining small communities ($p = 0.1146$).

Conclusions

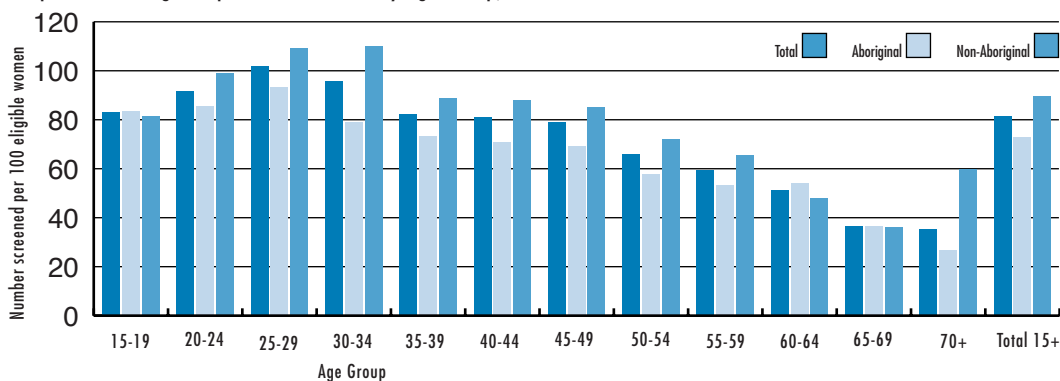
The crude rate of Pap smear screening in the Northwest Territories of 81.6% of eligible women between 1997-2000, has increased from the

rate found previously in a study of 1991-1994 data.¹⁴ At that time, the territory of Nunavut was included in the NWT, and the crude screening rate was 48.1% of eligible women. In each three-year period within the four-year study, approximately 73% of the population of eligible women was screened. Room for improvement remains with regard to adherence to the Canadian guidelines recommending screening of all eligible women at least once every three years. It must be taken into account that Aboriginal women are being screened at a significantly lower rate than non-Aboriginal women suggesting there is a need for better screening of this particular population of women (see Figure 1).

These results suggest a need to target women over the age of 30 years. The relationship between age group and proportion of women screened shows a significant decreasing trend beyond this age. Women over the age of 60 years are being particularly under-screened with proportions at and below 60% of eligible women (see Figure 2). It is possible that many women are being screened during their childbearing years, and are not aware of the necessity of continued screening beyond this time.

Analysis of screening data by place of residence reveals information on the relationship between screening rates and the types of services accessible to the women. Yellowknife possesses a hospital,

Figure 2
Proportion of Target Population Screened by Age Group, 1997 - 2000



N.B. For some age groups, the proportion of non-Aboriginal women screened exceeds 100%, as the number of women screened was greater than the population estimate for this age group.

^d For cases in which the population estimate exceeds the number of women screened, the estimate was increased to equal 0.5 + the number screened in order to perform the logistic regression.

five medical clinics and a public health unit. Physicians perform most of the Pap smears in this community. Inuvik and Hay River each possess a hospital and a medical clinic, and Fort Smith a health centre, where, similarly, physicians performed most of the screening during the period under study. In both Yellowknife and the regional centres, an opportunistic approach to cervical cancer screening has evolved in which women are screened during patient-initiated visits to a physician.

In contrast, registered nurses staffing health centres in the small communities collect Pap smears routinely through the Well Woman program. An organized system for recall of women has been established in most of these communities. In general, a community health representative (CHR) contacts women eligible for the Well Woman program. The CHR is often an Aboriginal woman who speaks the language of the community. Organized recall as opposed to the opportunistic approach to cervical cancer screening obviously has the advantages of reminding women of the need for regular screening, and removing language barriers to communicating this necessity.

Table 2 suggests that the opportunistic approach to screening in combination with greater access to health services and physicians in the larger communities works favourably for non-Aboriginal women compared to Aboriginal women. In contrast, the organized recall approach used by health centres in small communities works equally well for women of both ethnicities. This observation may possibly be explained by the absence in the small communities of a

language barrier to informing all women of the necessity of regular screening. The barrier may not be absent for some Aboriginal women in the larger communities (Yellowknife and the regional centres), contributing to a lack of awareness of the need to access screening through self-initiated physician visits. Given the success of the Well Woman program in the small communities in equally accessing women of both ethnicities, it is possible a system of organized recall in the larger communities would be most effective at removing the discrepancy. Adoption of this approach for Aboriginal women could have an appreciable effect.

Table 2 also reveals that screening rates are significantly lower in the regional centres and the small communities compared to Yellowknife. It is possible this difference is a result of varying accessibility to health care and health service providers. Additionally, average levels of education and socio-economic status of women living in the smaller communities are lower than those of women in Yellowknife, contributing to a lack of awareness about cervical cancer screening. Given the difficulties associated with human resources and the spread of the population, the problem of varying access to health care is difficult to resolve. Nevertheless, this problem, in addition to the latter problem of reduced awareness could be improved upon by undertaking culturally and linguistically sensitive public awareness campaigns emphasizing the importance of regular cervical cancer screening. This would encourage women to take the matter into their own hands and seek screening when it is accessible.



Table 2

Proportion of Women Screened by Community Type and Ethnicity, 1997 – 2000

Community type	Proportion of eligible women screened	Proportion of Aboriginal women screened	Proportion of Non-Aboriginal women screened	Relative Risk* (95% Confidence Interval)	Significance of chi-square statistic
Yellowknife	87.4%* (n=5579)	71.1% (n=1002)	92.0%* (n=4577)	0.77 (0.75, 0.80)	P<0.0001
Regional Centres (Inuvik, Hay River, Fort Smith)	75.2%* (n=2558)	70.0% (n=1208)	80.6%* (n=1350)	0.87 (0.84, 0.90)	P<0.0001
Small Communities	72.3%* (n=3203)	71.9% (n=2701)	74.8%* (n=502)	0.96 (0.92, 1.01)	P=0.1146

+ Relative Risk of screening for Aboriginal women compared to non-Aboriginal women

* Proportions are significantly different from one another (p<0.0001).

** Proportions are significantly different from one another (p<0.0001).

REFERENCES

- Sellors, J.W. 1999. Cervical cancer prevention for all Canadians. What do the new guidelines mean for family physicians? *Can. Fam. Physician* 45: 245-6.
- Health Canada. *Cervical cancer in Canada*. Ottawa: Population and Public Health Branch, 1998.
- Franco, E.L., Duarte-Franco, E. and A. Ferenczy. 2001. Cervical cancer: epidemiology, prevention and the role of the human papillomavirus infection. *CMAJ* 164:7: 1017-25.
- Cervical Cancer Prevention Network. Quality Management Working Group. Programmatic guidelines for screening for cervical cancer in Canada. Ottawa: Health Canada and Society of Gynecologic Oncologists of Canada, 1998.
- Northwest Territories. Department of Health & Social Services. "Well woman health assessment and counselling protocol." in *Community Health Nursing Program Standards and Protocols*. Yellowknife, Northwest Territories: Health & Social Services, 1996. 60-62.
- Sawaya, G.F., et al. 2001. Current approaches to cervical cancer screening. *N. Engl. J. Med.* 344,21: 1602-7.
- Anderson, G.H., et al. 1988. Organisation and results of the cervical cytology screening programme in British Columbia, 1955-85. *BMJ* 296: 975-8.
- Parboosingh, E.J., et al. 1996. Cervical cancer screening: are the 1989 recommendations still valid? *CMAJ* 154: 1847-53.
- Liu, S., et al. 2001. Cervical cancer in Canada: changing patterns in incidence and mortality. *Int. J. Gynecol. Cancer* 11:2431.
- Grunfeld, E. 1997. Cervical cancer: screening hard-to-reach groups. *CMAJ* 157: 543-5.
- Cohen, M.M. 1996. Why is there no progress against cervical cancer? *CMAJ* 154: 1867-9.
- Stuart, G.C.E., et al. 1997. Review of the screening history of Alberta women with invasive cervical cancer. *CMAJ* 157: 513-9.
- Young, T.K., et al. 2000. Monitoring disease burden and preventive behavior with data linkage: cervical cancer among aboriginal people in Manitoba, Canada. *Am. J. Public Health* 90,9: 1466-8.
- Carr, C.A. "Cervical cancer screening: factors associated with utilization and screening results in the Northwest Territories, 1991-1994." Master's thesis. Queen's University, 1998.
- Bureau of Statistics, Government of the Northwest Territories.

I wish sincerely to thank the following people for their assistance in this study and the writing of this report: Rosa Proietto, Andrew Langford, Peter Hall, Sheila Sears, Dr. Ken Seethram and Dr. André Corriveau.

IN brief...

Cheryl Case,
Communicable Disease
Consultant
Health Protection Unit
Department of Health &
Social Services

World TB Day – March 24, 2002

The NWT's theme for World TB Day is: *Together We Can Eliminate TB*. This theme suggests that it is possible to eliminate TB through partnership and collaboration from all levels of government, health care and the general public.

The NWT's average TB rate in the last 5 years was 31 per 100,000 population. Over 90% of these patients were Aboriginal. Our goal is to lower this to the existing national rate of 6 per 100,000 by 2005.

Some accomplishments to date as we strive for the national average include:

- Screening: Health care workers in three quarters of the communities in the NWT are screening the population considered high-risk for developing the disease. Screening improves detection of those sick with TB and provides opportunity to prevent illness by treating those who are infected with the TB germ.

- Monitoring Progress: Quarterly reports are being distributed to each Health and Social Services Health Board to help with evaluation of the TB programs at the community level.
- TB Education: Staff from the Health Protection Unit (HPU) visits communities and boards to provide staff education on the TB program. During the visit, they also evaluate the TB program.

The goal of reducing TB to six cases per 100,000 by 2005 is ambitious and only achievable when acted upon at all levels. The Department of Health and Social Services has stated, "The Department will work with the boards and communities to ensure that we maintain the highest possible vigilance against TB within our health care system, and those who are infected are diagnosed promptly and treated effectively". Our key to success is getting the message to all northerners that *Together We Can Eliminate TB*.

CONFERENCES & workshops

FAS Symposium for Professional Development and Continuing Medical Education Yellowknife, Northwest Territories Saturday, March 16, 2002 Explorer Hotel, Katimavik Room

The symposium will provide training in screening for maternal alcohol consumption, for social risk factors which may trigger alcohol consumption during pregnancy and screening for early childhood developmental delays, using a developmental screening tool uniquely suited to northern families. FAS symposium faculty include Dr. Margaret Clarke, M.D. FRCP (Canadian); Dr. Lionel Crowshoe, M.D. Family Practitioner; Loretta Fuddy, Deputy Director of Health, State of Hawaii; Diane Malbin, M.S.W. internationally renowned FAS advocate.

Symposium enrollment is limited to 75 participants and priority is given to physicians and other health and social services professionals. Application to attend may be completed on-line at www.hlthss.gov.nt.ca or faxed to (867) 873-0202. For more information contact Lona Hegeman at 1-800-661-0782 or via email at lona_hegeman@gov.nt.ca. Symposium registration is free. Lunch is provided.

The symposium is hosted and funded by the Department of Health and Social Services on behalf of the Prairie Northern Pacific FAS Partnership comprising the Yukon, Nunavut, the NWT, Manitoba, Saskatchewan, Alberta and British Columbia.

Taking Wing— Conference on Gender Equality and Women in the Arctic

Time 4 – 6 August, 2002

Place Saariselkä, Inari, Finland

Organisers

The Arctic Council, Nordic Council of Ministers and Finland as the host country.

Goals of the conference

There is a need to raise awareness on the situation of women in the Arctic and to give voice to women to express their experiences, views and interests regarding future action. The conference offers a forum for discussion and contacts and aims to develop ideas and proposals for further action to be taken by the Arctic Council and other relevant institutions.

Crosscutting themes

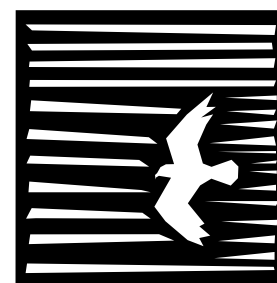
The conference is about women and gender in the Arctic so the issues brought to debate should be considered from an arctic viewpoint, as well as from the viewpoint of indigenous women and indigenous people where appropriate. Social, economic and cultural change is a further crosscutting theme of the conference.

Canadian contact:

Valerie Hume
A/Chief
DIAND
Department of Indian Affairs and Northern
Development
Ottawa, Ontario K1A 0H4

Humev@inac.gc.ca

Further information can also be found at
the Arctic Council web-site
<http://www.arctic-council.org>



NOTIFIABLE diseases

by Region: for the Northwest Territories (NWT) October 2001 - December 2001^a

		October-December 2001	Cumulative Totals - 2001
		NWT	NWT
<i>Vaccine Preventable Diseases</i>	Hepatitis B	0	0
	Haemophilus Influenzae	0	1
	Influenzae A	0	3
	Influenzae B	0	17
	Pertussis	4	0
<i>Sexually Transmitted/ Bloodborne Diseases</i>	Chlamydia	150	532
	Gonorrhoea	27	124
	Hepatitis C	8	3
	Hepatitis, Other	0	0
	Syphilis	0	0
<i>Diseases by Direct Contact/ Respiratory Route</i>	Chicken Pox	22	60
	Group A Strep	0	0
	Invasive Strep Pneumoniae	3	14
	Legionellosis	0	0
	Meningitis, Pneumococcal	0	0
	Meningitis, Other Bacterial	0	0
	Meningitis, Unspecified	0	0
	Meningitis, Viral	0	0
	Meningococcal Infections	0	0
	Respiratory Syncytial Virus	0	17
Tuberculosis	3	8	
<i>Enteric, Food and Waterborne Diseases</i>	Botulism	0	1
	Campylobacteriosis	2	10
	Cryptosporidiosis	8	14
	E.Coli O157:H7	4	6
	Giardiasis	4	14
	Hepatitis A	0	2
	Salmonellosis	9	12
	Shigellosis	0	1
	Tapeworm Infestation	0	0
	Trichinosis	0	0
	Yersinia	0	0
<i>Vectorborne/Other Zoonotic Diseases</i>	Brucellosis	0	0
	Malaria	0	0
	Rabies Exposure	0	0
<i>Antibiotic resistant microorganisms</i>	Methicillin-resistant Staph.Aureus	0	0
	Vancomycin-resistant Enterococci	0	0

NWT HIV Infections Reported from 1987 to 2001

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 ^b	MSM/ IDU ^c	IDU	Hetero- sexual	Perinatal	Blood Products
32	2	0	0	7	14	6	1	2	6	26	17	1	4	7	2	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