



ENORTH

The Northwest Territories Epidemiology Newsletter

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Fall Immunization Reminder

Wanda White, Communicable Disease Specialist, Department of Health and Social Services

Community and public health nurses will need to start early in order to plan for their seasonal immunization programs. Late summer/early fall is the time to order vaccines and prepare for school and community immunization programs such as Hepatitis B, Adacel, Pneumococcal and Influenza.

Of particular importance are the requirements for the influenza vaccine program. The influenza vaccine changes every year to reflect the current and projected circulating strains of influenza virus. For the upcoming season, the World Health Organization (WHO) recommended the following influenza vaccine strains:

- A/New Caledonia/20/99 – (H1N1)-like antigen
- A/Panama/2007/99 – (H3N2)-like antigen
- B/Hong Kong/330/2001-like or B/Shangdong/7/97-like antigen

The influenza vaccine is to be given in late October or early November because the seroprotective levels are highest the first four to five months post immunization. This is especially true in the elderly. Giving the vaccine later in the fall affords protection throughout the typical flu season, which is usually December to April in the Northwest Territories (NWT). Last winter (2002/03), the flu season was late and did not start until the month of February.

Long-term care facilities reported 100% influenza vaccine coverage of residents, but only 52% coverage of staff last year. This represents a significant drop in coverage as the previous two years had 77% coverage for facility staff. This drop is a concern, since staff may pose a risk to the residents, particularly for the elderly and those with a compromised immune system who have a sufficient immune response to the vaccine. It is these people who will require the added protection from the staff.

The NWT Advisory Committee on Immunization recommends that the influenza vaccine should be offered free-of-charge to the following risk groups:

- Adults aged 65 or older;
- Adults and children with chronic cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis and asthma) severe enough to require medical follow-up or hospital care;
- Adults and children with chronic conditions such as diabetes or other metabolic diseases, cancer, immunodeficiency (including HIV infection), renal disease, immunosuppression, anemia and hemoglobinopathy;
- Persons of any age who are residents of nursing homes or other chronic care facilities;

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.

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Editor's Notes

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

I am pleased to publish my first issue of *EpiNorth*, but must admit that I cannot accept full credit for its contents. Martha Lamon, former Managing Editor, was instrumental in soliciting most of the articles for the next two issues. For that, and for the extensive notes she left behind, I am indebted to Martha for ensuring that whoever assumed the role of Managing Editor could do so smoothly. I would also like to thank the members of the Editorial Board for their support and encouragement as I try to take on this challenging editorship role.

During the time that the Managing Editor position was going under a change of guard, it had been decided that in order to make this issue less cumbersome to publish in the allocated timeframe, it would be decreased in size from 20 to 8 pages. As a result, the articles in this issue represent diverse issues, authored by staff at the Department of Health and Social Services (H&SS).

Wanda White is back again with an update on immunization information. With her experience as a Communicable Disease Specialist, Wanda is able to highlight the influenza vaccine strains recommended by the World Health Organization, as well as

the high-risk population groups requiring the vaccine, as recommended by the NWT Advisory Committee on Immunization. This information comes timely for nurses-in-charge to prepare in advance of the fall immunization programs.

Maria Santos, Territorial Epidemiologist, provides us with a descriptive analysis of the preliminary NWT cancer data that she presented at the 2003 Canadian Society of Epidemiology and Biostatistics biennial meeting. In her summary, Maria also provides us with a description of how H&SS has been proactive in response to these findings.

Within my role as Evaluation Specialist, I remain as a regular contributor to the *Health.online* section of *EpiNorth*. In this issue I provide an overview of the Canadian Health Network's website and examine the extent to which it provides "health information you can trust".

Helping to keep you informed to live healthy and happy lives!

NWT Cancer Findings – A Descriptive Analysis

Maria Santos, Territorial Epidemiologist, Department of Health and Social Services

In June 2003, the Canadian Society of Epidemiology and Biostatistics held its biennial meeting in Halifax with the theme of “Healthy Communities – Healthy Environments”. This was an opportunity for me to connect with professional colleagues working in the area of epidemiology, seek further consultation for methods of examining Northwest Territories (NWT) data and present a descriptive analysis of the NWT cancer findings. The following is a summary of those findings presented.

In the NWT, the annual incidence (number of new cases) averaged 75 cases from 1992 to 2000. The annual incidence of cancer mortality averaged 34 deaths from 1990 to 1999.¹

Recognizing that cancer tends to affect older people, and the NWT has a population younger than Canada’s, it is not surprising that the rates of cancer in the NWT are half the Canadian value. Despite this finding, the NWT should still be concerned about cancer. As the population continues to age due to improvements in life expectancy, baby boomers getting older and the birth rate declining, more and more chronic diseases such as cancer are expected to increase.

The first step towards planning strategies for dealing with the future impact of cancer is to describe the current state of the disease in the population. What cancers are prevalent/more common? What are the trends? Who is affected by cancer? Which geographic areas have higher rates?

Descriptive analyses may shed some light on these questions but they cannot answer the question of why (i.e. the cause of cancer) – they can only generate hypotheses. The current state of cancer in the NWT is described below.

What Cancers Appear in the Population?

- Top three types of cancer in males: colorectal (22%), lung (19%) and prostate (11%).
- Top three types of cancer in females: breast (28%), colorectal (15%) and lung (14%).

- Cancer is the leading cause of death in females (31%), meanwhile, it is the third leading cause of death in males (21%), following injuries, poisonings and diseases of the circulatory system.
- Lung cancer is responsible for most cancer deaths (32%) in both men and women.

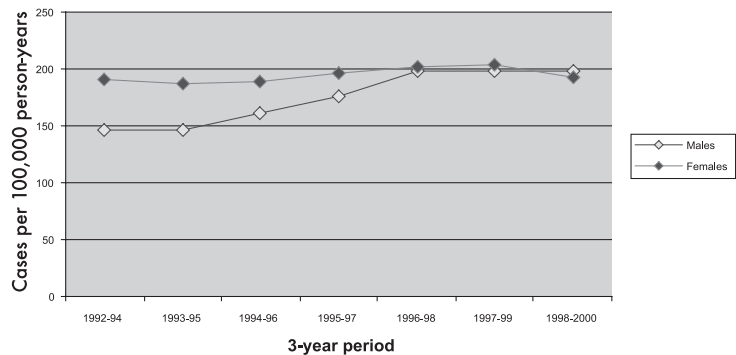
Survival from lung and colorectal cancer is relatively poor in comparison to breast and prostate cancer. In addition, lung cancer is responsible for almost a quarter of potential years of life lost due to cancer.

“...the NWT should still be concerned with cancer.”

Trends

- Between 1992-1994 and 1998-2000, the three-year rolling rate for cancer incidence increased by 36% in males from 146 to 198 cases per 100,000 person-years, while the female rate remained relatively constant (Figure 1).

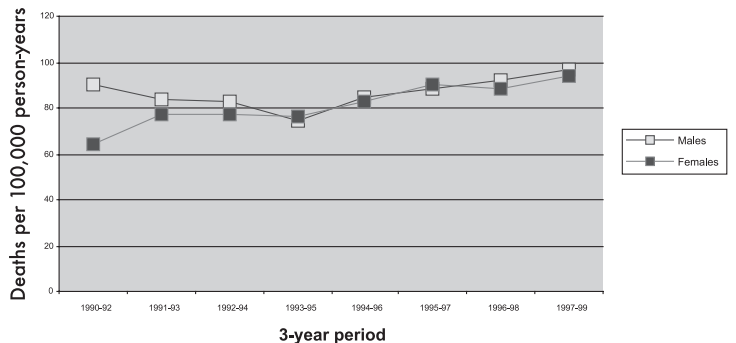
Figure 1: Three-Year Rolling Cancer Incidence Rate, 1992-2000



Source: NWT Cancer Registry

- From 1990-1992 to 1997-1999, the three-year rolling female mortality due to cancer increased by 47% from 64 to 94 deaths per 100,000 person-years. Male mortality did not significantly increase (Figure 2).

Figure 2: Three-Year Rolling Cancer Mortality Rate, 1990-1999



Once the population is adjusted for aging, this increasing trend for both male incidence and female mortality collapses. This means that changes in population demographics (aging) is largely responsible for the observed trends.

Male vs. Female Cancer Rates

Typically the national rates for cancer incidence and mortality are higher among males than females. Several reasons can explain this variation, including biological, behavioural and occupational differences. An example of a behavioural difference is in smoking patterns between males and females. Cigarette smoking was predominantly a male behaviour in the 1910s and increased dramatically during and subsequent to World War I. Smoking was less common in females until the 1930s when a major national advertising campaign was targeted to females – “Reach for a Lucky (cigarette) instead of a Sweet”. Approximately 20 to 25 years after the increase in cigarette smoking among males, lung cancer deaths began to rise and peaked in the late 1980s. As for females, these rates did not start to increase until the late 1960s. The peak rates for lung cancer in females are yet to be reached.²

While incidence rates seem higher in NWT females and mortality rates appear higher in NWT males (Figures 1 and 2), statistical tests do **not** show a significant difference in the rates between males and females. This is an important finding as it differs from the national profile where male rates are typically higher than female rates. Upon adjusting for age differences in the population, males in the NWT are 15% less likely to have cancer than Canadian males. This finding might suggest that NWT males possess more protective factors (e.g. hereditary, behavioural) against cancer than Canadian males.

As well, females in the NWT are 20% more likely to die of cancer than Canadian females, thus increasing the NWT female mortality rates. This finding raises the question of whether there are differences in the way cancer is detected and treated. Currently, person-level information (such as certain socio-demographics or specific details concerning cancer detection and treatment) is not captured in either the NWT Cancer Registry or the NWT Vital Statistics Registry. However, it is expected that within the next two years, the Cancer Registry will be starting to capture information about stage of diagnosis. This should enable some further analysis on whether NWT females are diagnosed late for cancer.

Actions Currently Undertaken in the NWT

The Department of Health and Social Services (H&SS) has been proactive in developing responses to these findings. For instance, in order to improve coverage, recall and follow-up of the top cancer diagnoses in both males (colorectal) and females (breast), H&SS is undertaking a needs assessment for a colorectal screening program and is also participating in the development of an organized breast screening program.

Furthermore, in attempts to decrease the amount of deaths due to lung cancer, the Department has been actively taking a part in the following deliverables:

- development of a tobacco unit within the School Health Curriculum;
- the creation of by-laws for restricting smoking in public places; and
- the training of health professionals for counseling smoking cessation.

As part of the Action on Tobacco strategy developed by H&SS, these deliverables support the Departmental outcome of reducing smoking in the NWT and in turn, reduces deaths due to lung cancer.

1. Data is derived from the *NWT Cancer Registry* and the *NWT Vital Statistics Registry*. All analysis in this article were performed by the Department of Health and Social Services.

2. Burns DM, Garfinkel L and Samet JM. (1997). Introduction, Summary, and Conclusions. In Burns DM, Garfinkel L and Samet JM. (Eds). *Changes in Cigarette-Related Disease Risks and Their Implication for Prevention and Control. 8th monograph in the Smoking and Tobacco Control series.* Bethesda. National Cancer Institute (NCI), 1-11

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

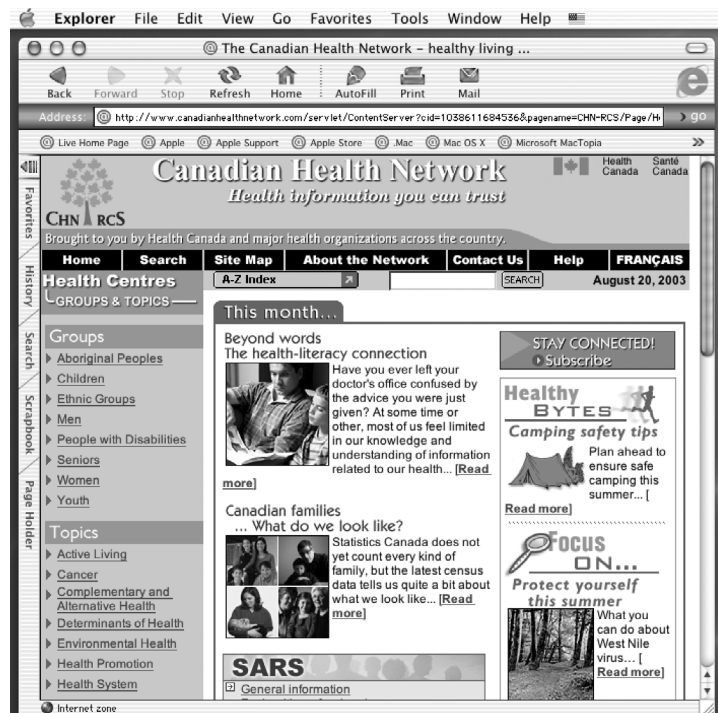
The world we live in is becoming increasingly dependent on quick accessibility of reliable information. Website providers need to assure browsers that their information is credible, relevant, useful and timely. The subject of reliability of on-line information has been recently described in a 2002 *EpiNorth* issue¹.

In this issue, I provide a review of the *Canadian Health Network (CHN)* website found at <http://www.canadianhealthnetwork.ca/>.² With its vision to become “your preferred choice in Canada for helpful, e-health information you can trust”, this site meets the most common reliability and evaluation criteria. However, browsers must decide for themselves how much this or any other site influences one’s knowledge or health choices.

What is the Canadian Health Network?

Sponsored by Health Canada and major health organizations across the country, CHN is a national, non-profit, bilingual web-based health information service. It provides a single door of entry to a comprehensive range of information on 26 key health topics and population groups, ranging from Aboriginal health and HIV/AIDS, to societal health issues such as violence prevention and workplace safety. CHN’s goal is to help Canadians find information on how to stay healthy and prevent disease and injury. The CHN website also offers:

- feature articles on current health issues (e.g. SARS and West Nile Virus);
- monthly health event highlights;
- free subscriptions to HealthLink – an email newsletter delivered twice monthly that features new, intriguing facts about health promotion and disease prevention, as well as other health-related facts; and
- guided, keyword, or A-Z topic searches.



Launched in November 1999, CHN has become an overarching “umbrella gateway” for well over 500 credible health and health-related affiliates and organizations. CHN meets its goal of helping Canadians find the information they are looking for through a unique collaboration with Health Canada, national and provincial/territorial non-profit organizations, universities, hospitals, libraries and community organizations.

CHN’s Quality Assurance Process

CHN has a rigorous quality assurance process that assures the information it provides is of high quality. The process consists of three steps:

1. Resource selection criteria

Resources are selected through a systematic ‘mapping’ of health sector organizations and must meet these criteria:

- (a) authorship – needs to be specific to Canadian, non-profit organizations that provide credible and timely information;
- (b) resource quality checklist – 8 specific questions are asked with regard to the quality of the information provided.

2. Quality assurance process specific to the CHN website

Involves criteria to ensure:

- (a) the accuracy, currency, accessibility and retrievability of all information, in English and French;
- (b) that search capabilities are operating as designed and with the intended results.

3. Tools to assess health information on the internet

CHN recognizes that it is up to consumers to decide if information they present is timely and relevant enough to influence their decisions. For this reason, the CHN homepage provides links to two tools designed to help take a critical look at other health websites:

- how to find the most trustworthy health information websites; and
- what to look for in a health promoting website.

Although these tools are useful in critiquing other sites, they were developed by CHN. It is therefore suggested that you use caution in

using these tools to evaluate CHN, as it is unlikely that CHN would post tools that would question the quality and credibility of its own website.

The Final Decision Rests With You

CHN most certainly provides a website that maintains credible resources, and its quality assurance process ensures that information is timely, relevant and accurate. Although CHN hopes you will make its website “your preferred choice” of accessing e-health information online, the ultimate decision rests with you. The only thing that CHN can say is that it will provide, to the best of its ability, “health information you can trust”.

1. Alana Kronstal. ‘Evaluating Health Information on the Internet: How Reliable Are Your Sources?’ EpiNorth. Volume 14, Issue 4. Department of Health and Social Services, Fall 2002: 14-15.
2. www.canadianhealthnetwork.com - any information quoted within this article will be referenced from this website unless otherwise noted.

Continues from page 1

- Children and adolescents (aged six months to 18 years) with conditions treated for long periods with acetylsalicylic acid (ASA therapy may increase the incidence of Reyes Syndrome after influenza); and
- Persons at high risk of influenza complications who have trips planned to destinations where influenza is likely to be circulating.

The influenza vaccine should also be actively promoted and offered free-of-charge to:

- health care workers and care givers who may transmit the virus to those at risk (Note: health care workers often have low coverage rates, and unimmunized health care workers are the leading cause of institutional outbreaks);
- people who provide essential services to their community (e.g. law enforcers, ambulance drivers, firefighters, etc.); and
- household contacts of high-risk individuals, including children of parents who either cannot be vaccinated or may not respond to vaccinations.

Members of the general public (including children) should be provided access to the influenza vaccine once an appropriate supply is obtained for the high priority groups.

The following immunization programs are also routinely offered in the fall:

- Pneumococcal, for all those over 65 years and those with chronic health conditions, such as diabetes, asthma, cardiac and immunosuppressed conditions;
- Hepatitis B, for the Grade 4 program;
- Adacel (tetanus, diphtheria and acellular pertussis), for the Grade 9 program; and

- Synagis (RSV Prophylaxis) for children born less than 32 weeks gestation and/or with bronchial pulmonary dysplasia (Note: the use of Synagis started in the NWT last winter and has been incorporated into the NWT immunization schedule for premature babies less than 32 weeks gestation. The protocol for administration of Synagis, as well as educational material for parents and health care workers will be distributed to all health centers prior to September 2003).

Every year it takes time and attention to detail in order to prepare for seasonal immunization programs. Although the NWT's immunization programs do not vary greatly from year to year, it is important to remember that there are always some changes, such as the Synagis Immunoprophylaxis that was added this year and the Adacel vaccine that was added last year.

It is critical that the nurse-in-charge assesses the population that will require these vaccines and orders the required doses from his/her regional pharmacist. The upcoming fall immunization programs will run more efficiently if this early planning and preparation occurs.

If you have any questions about vaccines or NWT immunization programs, contact the Communicable Disease Specialist at 867-920-8646.



NOTIFIABLE diseases

for the Northwest Territories (NWT) April 2003 - June 2003^a

		April - June 2003	Cumulative Totals - 2003
		NWT	NWT
<i>Vaccine Preventable Diseases</i>	Hepatitis B	0	0
	Haemophilus Influenzae	0	0
	Influenzae A	1	1
	Influenzae B	4	5
	Pertussis	1	1
<i>Sexually Transmitted/ Bloodborne Diseases</i>	Chlamydia	150	321
	Gonorrhoea	51	79
	Hepatitis C	4	10
	Hepatitis, Other	0	0
	Syphilis	0	0
<i>Diseases by Direct Contact/ Respiratory Route</i>	Chicken Pox	25	50
	Invasive Group A Strep	0	4
	Invasive Group B Strep in neonates	0	0
	Invasive Pneumococcal Disease	1	1
	Legionellosis	0	0
	Listeriosis	0	0
	Meningitis, Other Bacterial	0	0
	Meningitis, Unspecified	0	0
	Meningitis, Viral	0	0
	Meningococcal Infections	0	0
	Respiratory Syncytial Virus	16	25
	Tuberculosis	1	5
<i>Enteric, Food and Waterborne Diseases</i>	Botulism	0	0
	Campylobacteriosis	3	4
	Cryptosporidiosis	0	0
	E.Coli 0157:H7	0	0
	Giardiasis	1	1
	Hepatitis A	0	0
	Salmonellosis	3	4
	Shigellosis	1	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	2	2
	Vancomycin-resistant Enterococci	2	2

NWT HIV Infections Reported from 1987 to 2003

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
23	1	0	0	4	12	5	0	1	2	21	11	1	5	4	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