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## Editorial Note: Fall Vaccine Programs



While most of us have no desire, in the middle of July, to face the inevitable fact that fall is coming, it is indeed that...inevitable! And what does fall bring???? Immunization campaigns!!! Influenza, pneumococcal and Hepatitis B.

The purpose of this note is to reinforce planning, planning, planning!!! Now is the time to review charts and determine your target populations...and get those orders into your regional pharmacists! They need to plan too, and without your help NOW, they will have a difficult time filling your order in late September or October.

Now, for those of you who are new to any of these programs (or who need a quick refresher!), here is a quick review of the NWT Recommendations for these programs. Specifics of this year's Influenza vaccine will follow in the next issue of EpiNorth (September/October).

### Influenza

- Adults 65 years of age or older
- Adults and children with chronic cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis and asthma) severe enough to require regular follow-up.
- Adults and children with chronic conditions such as diabetes and other metabolic diseases, cancer immunodeficiency (including HIV infection), immunosuppression, renal disease, anemia and hemoglobinopathy.
- Active promotion to caregivers and other people who may transmit the virus to those at risk, as well as those who provide essential community services.
- Influenza vaccine should be made available to anyone who wants it on a cost-recovery basis.

### Pneumococcal & Hepatitis B Recommendations

(continued on page 9)

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# Slips and Falls:

As the population of the Northwest Territories begins to age, the number of seniors in society is expected to increase. The Canadian Housing and Mortgage Corporation projects that in Canada the number of people 65 years and over will reach 25% of the population by the year 2031.<sup>1</sup> This is a sharp contrast over the current 12% of the population that is 65 years and over in Canada today.<sup>1</sup> In the Northwest Territories during 1996, there were 1881 people over 65 years of age.<sup>2</sup> Approximately 2% of the population in Yellowknife is over age 65, or 300 seniors out of the city's 18,000.

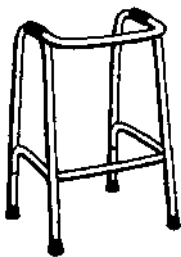
*"Independent living, while adding to the quality of life, can expose a senior to a higher potential of injury."*

Northern society is aging. More seniors are retiring in the North or are returning to the Northwest Territories after retirement in southern Canada. Senior citizens in the NWT and across Canada are living longer and more independently than ever before. In this country, approximately 95% of seniors 65 years of age and over live independently within the community.<sup>3</sup> Independent living is a major lifestyle choice for seniors and a valued concept for quality of life issue with the elderly.

## Slips and Falls

Independent living, while adding to the quality of life, can expose a senior to a higher potential of injury. The most common injury accident involving seniors is slips and falls. There are numerous intentional and unintentional injury areas that seniors face with independent living, but the most common and the most medically significant is slips and falls. Dr. Elaine Gallagher, with the University of Victoria School of Nursing provides some key points to outline the seriousness of this accident category.<sup>3</sup>

*"One in three Canadians over 65 will experience a fall this year."*



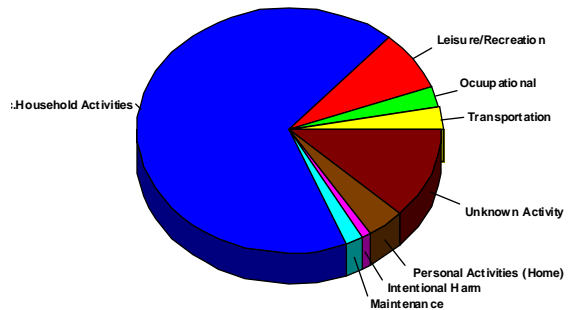
- Injuries caused by slips and falls to seniors 65 years of age and over cost the Canadian health care system three billion dollars annually.
- 40% of admissions to nursing homes are directly or indirectly related to falls.
- One in three Canadians over 65 will experience a fall this year.
- Of those Seniors that fall this year, 25% will experience moderate to severe injuries.
- Women are twice as likely to fall as men.
- Falls are the most frequent cause of hospitalization for those 65 years of age and over.
- 75% of falls occur in the daylight.
- 80% of falls occur in areas the senior is familiar with such as the home, regularly used sidewalks or frequently visited stores.

Walking (In and out of home)	42%
Household Activities	12%
Transportation	10%
Using Stairs	10%

The following graphs are taken from the national CHIRPP database (Canadian Hospitals Injury Reporting and Prevention Program)<sup>4</sup>. The NWT participates in the CHIRPP database through Stanton Regional Hospital.

## Activity where falls occur

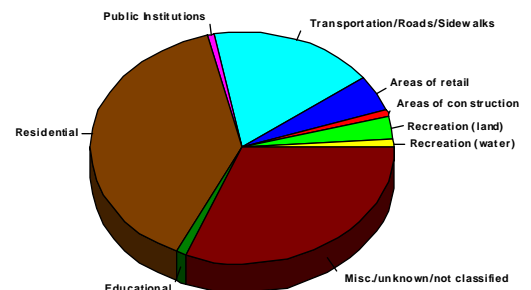
Figure 1: CHIRP database (1991-1995)



Both 'Household Activities' and 'Personal Activities' occur in a residential setting. When added together, the result is that 71.67% of activities resulting in a slip or fall take place in a residential setting. Figure 2 illustrates the specific location that the falls occur. Unfortunately, 31% are unclassified or unknown.

## Location of slips/falls

Figure 2: CHIRPP data 1991-1995



# A Health Crisis for Senior Citizens

*Mike Lowing  
Deputy Fire Chief  
City of YK Fire Dept.*

## Types of Injuries

Figure 3: CHIRPP data 1991-1995

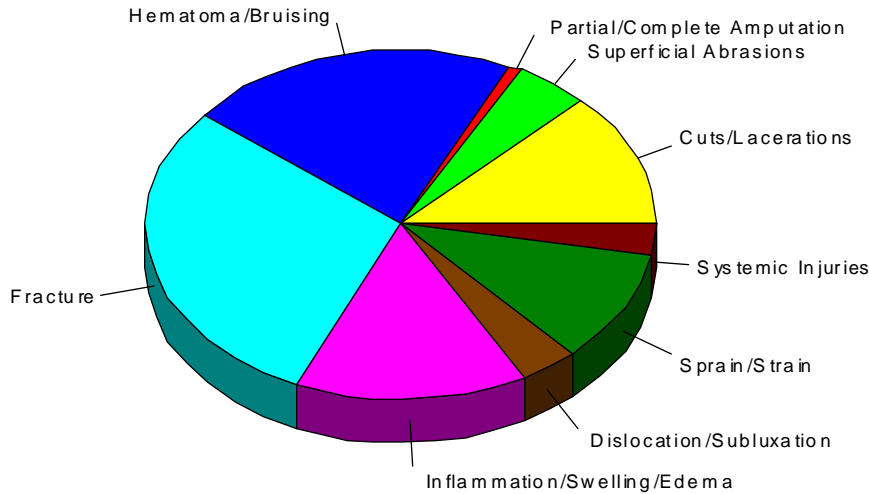


Figure 3 shows the types of injuries that seniors are most likely to incur following a slip or fall. The most common injury is a fracture. The hip fractures represent 7.3% of fractures.

Category	Percentage
Slipped On	22.37%
Tripped On	4.56 %
Fell on same level	54.79%
Fell from other level (up to one metre)	10.95%
Fell from other level (over one metre)	7.30%

A breakdown of the slips and falls shows that over half of the falls occurred on the same level or on a surface that the senior was walking, standing or sitting on.

### Slip and Fall Injury Prevention

The most effective way to eliminate slips and falls in seniors is through primary prevention programs which focus on preventing trauma, impairment, functional limitation and disability.<sup>5</sup> These can be accomplished by effective public education and distribution of information on the scope of the problem and its prevention.

Typical approaches that can be taken are:

1. Awareness talks with senior's groups to identify the slip and fall problem to seniors and promote positive lifestyle choices such as physical fitness and correct footwear.

2. Include an injury prevention component for slips and falls in Senior's Health Promotion programs.
3. Assessments of public walkways and other pedestrian environments to reduce the risk of a slip and fall in a public space.
4. Conducting residential assessments and promoting home adaptations to reduce the potential for a slip and fall in a senior's home.
5. Senior's health and well-being fairs which focus on all the slip and fall preventative measures.

### Conclusion

The first step in reducing mortality and morbidity from slips and falls with our seniors is to increase our understanding of the problem and its many preventative solutions. To accomplish this large task will take a major push and stakeholder response on the part of the medical community and all levels of government. Slip and falls are a medical health crisis within our elderly population. There are numerous prevention programs available to assist in reducing slip and fall injuries. All that is required is the commitment of health care providers in the NWT to undertake an aggressive delivery of these programs. As the over 65 population in the NWT begins to rapidly grow into the next century, the size of this health care crisis and its devastating effect upon seniors will experience parallel growth.

**For more information contact: Mike Lowing, DFC City of Yellowknife Fire Department @ 873-4506.**

***"There are numerous preventative programs available to assist in reducing slip and fall injuries."***

### References:

- <sup>1</sup> Canadian Housing and Mortgage Corporation (1994). *Safeguard Your Best Years.*
- <sup>2</sup> Government of NWT, Bureau of Statistics, 1996.
- <sup>3</sup> Gallagher, E. & Scott, V. (1995). *Taking Steps: Modifying Pedestrian Environments.* University of Victoria.
- <sup>4</sup> Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP database) (1995).
- <sup>5</sup> Hawkins, B. A. et al. (1996). *Therapeutic Activity Intervention with the Elderly,* Venture Publishing.



# Do YOU know...Your EHO?

## Who should you call?

A child presents at the health centre after being bitten by a dog...who should you call?

A community feast is held, and the next day quite a few people who attended are complaining of diarrhea...who should you call?

The water in your local pool looks, tastes or smells funny...who should you call?

Complaints have been received about a local daycare, and you wish to file a report...who should you call?

Who should you call...your EHO!

*"The water in your local pool looks, tastes or smells funny...who should you call?...  
YOUR EHO!!!"*

## What is an EHO?

While the main thrust in medicine is treatment of disease, the environmental health profession is concerned with the prevention of disease and ensuring a safe environment.

The term Environmental Health Officer (EHO) is widely used across Canada and other parts of the world. Though some are specialists, the majority are generalists who must be ready to respond to all kinds of problems. EHOs are well trained, certified and recognized as being community environmental health specialists.

The Commissioner of the NWT, under the Public Health Act, appoints EHOs as Health Officers. As such, the EHO in the NWT does the work of both a southern style public health inspector and the Federal EHO.

## EHO...What for?

The main functions of an EHO are to:

- Determine whether exposure to environmental hazards is linked to adverse human health conditions
- Develop prevention systems to eliminate or minimize hazards and their adverse effects.

### EHO Tasks

- makes inspections
- conducts special studies
- samples air, water, soil and food
- acts as educator, public relations officer and community organiser
- acts as a consultant
- enforces environmental and public health laws

These goals can only be accomplished by working as a team with other community health professionals to help reduce the incidence of communicable diseases and hazards, and to foster healthy environments.

## They do all that?

The EHO uses the knowledge and skills of the natural, behavioural, and environmental sciences to prevent disease and to promote well-being. The main responsibilities of the EHO are to improve and preserve community and individual environments, in order that people may have optimum health and safety.

## Communication, Consultation, and Education

- Training of food handlers, sewage disposal operators, water treatment plant operators, day care workers, etc.
- Health promotion activities to improve community awareness and development.
- Develop communication skills in verbal, written and computerized modes.

## Food Protection & Disease Control

- Monitor food conditions from the farm to the consumer to prevent contamination and food borne illness.
- Control of enteric and non-infectious diseases and outbreaks.

## Water Supplies

- Ensure potable water is available through treatment of water supplies.
- Protection of water supplies from hazardous wastes and pollutants, and investigation of complaints.

## Sewage Disposal & Hazardous Materials

- Waste-water treatment and water pollution control.
- Monitor landfills and collection systems, and follow up on complaints.

## Environmental Contaminants

- Evaluation of environmental contamination of foods (fish, wildlife), soils, water, and air.
- Work with community members to address

# Making Use of a Valuable Resource

*Frank Hamilton, EHO  
Consultant,  
Environmental Health  
GNWT - H&SS*

environmental contaminant concerns.

## Air Quality

- Involved in regulating emissions of pollutants to the atmosphere.
- Monitor and test air quality in homes, institutions, schools and arenas, and recommend solutions to problems.

## Zoonoses, Vectors and Pests

- Identify organism, determine life cycle stages, transmission, health risks and degree of intervention necessary.
- Recommend method of eradication and control procedures.

## Disaster Planning

- Involved with emergency response plan and disaster sanitation (chemical spills, forest fires, floods, contamination of drinking water, food poisoning).

## Housing, Institutions and Licenced Establishments

- Monitor housing conditions that will affect physiological and psychological well-being.
- Regulate and monitor institutions to prevent the spread of nosocomial and other infections, and to reduce health risks to occupants.
- Identify occupational hazards and work with safety inspectors to solve problems

## Recreational Facilities & Special Events

- Monitor pools and other recreational facilities to prevent unsafe conditions.
- Inspection of special events facilities and supplies (band meetings, traditional games, community feasts, etc.).

## EHO Education

The tasks and responsibilities of an EHO are expansive, and the training required to become an EHO reflects this. EHO education has progressed to include, as of 1995, a degree in Environmental Health, of which chemistry, microbiology, food processing science, mechanical and civil engineering and law are the major components. Epidemiology and biostatistics are also included in training.

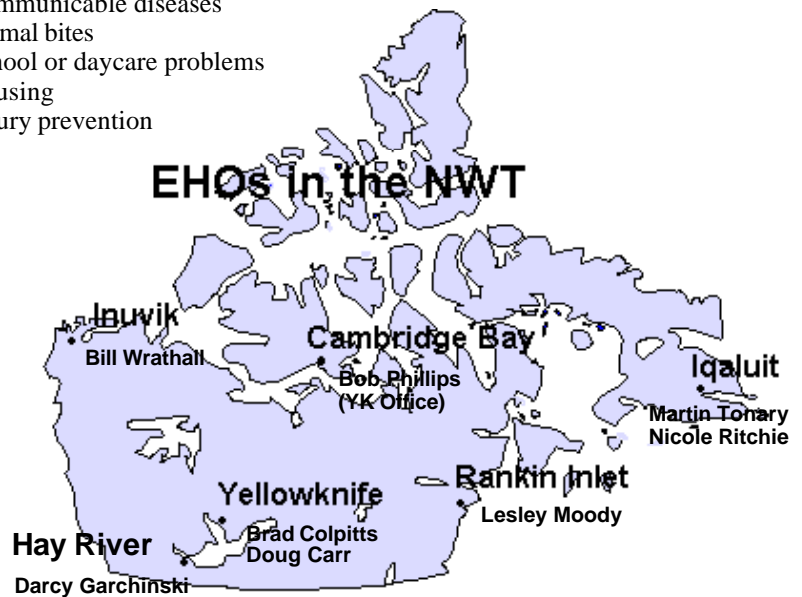
New technology and population growth lead to environmental health issues of increasing complexity. An EHO must keep themselves up to date by reviewing literature, and taking part in in-service training, educational workshops and conferences and special courses.

## Make the EHO part of your team!

As you can see, the role of the EHO overlaps with those of other community health professionals. In order to work as an effective health team, it is essential that the EHO be included, both as a resource and as a key player. Communication between the EHO and the health care team may occur on a daily basis.

Contact is made with community health nurses with concerns of:

- communicable diseases
- animal bites
- school or daycare problems
- housing
- injury prevention



Social services workers can call upon the EHO to assess foster homes, child apprehension concerns, housing, etc. Similar interplay occurs in the areas of home care and mental health.

<b>EHO Contact numbers:</b>	
Inuvik Region	(403) 979-2955
Hay River & district	(403) 874-6552
Yellowknife & district	(403) 920-6592
Kitikmeot Region	(403) 920-6529 (YK office)
Keewatin Region	(819) 645-2171
Baffin Region	(819) 979-5306

Now you know...your EHOs!



# Prenatal Nutrition Programs:

Of all areas of public health nutrition, maternal and infant programs have been the most studied. The importance of adequate nutrition in pregnancy has been unequivocally established. However, recent reviews of maternal nutrition are going beyond discussions of gestation and lactation to consider the interrelationships of physical, behavioural and social consequences of reproductive events for women.

## Prenatal Nutrition Programs

In 1993, Health Canada initiated a comprehensive prenatal health promotion study to gather information on existing community-based prenatal nutrition programs for socially disadvantaged families in Canada. Partly as a result of this preliminary work, the federal government initiated the Canada Prenatal Nutrition Program (CPNP), one of several healthy children initiatives. The CPNP targets pregnant women who are at risk of having unhealthy babies due to poor health and malnutrition.

## CPNP Objectives

The primary objective of the CPNP is to provide "at-risk" prenatal women with food supplementation, nutrition counselling, support, education, referral and counselling on lifestyle issues such as alcohol abuse and other factors, including stress and family violence. Moving towards community-wide approaches and creative partnerships has been shown, nationally and internationally, to be effective in the improvement of birth outcomes.

## CPNP in the NWT

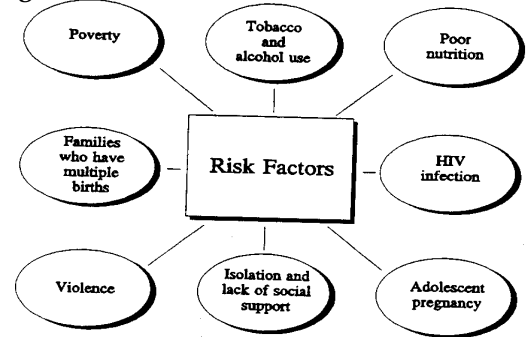
The CPNP is co-managed by Health Canada and provincial/territorial governments. In 1996/97, 24 community-based programs were funded (see Figure 2). Communities are funded following a call for proposal and review process by the CPNP Advisory Group. It is expected that there may be up to 28 community-based programs running in 1997/98. CPNP is not a universal program, it is targeted at those pregnant women most likely to have unhealthy babies due to poor health and nutrition.

## "At Risk" Pregnant Women

Nationally, women who may have unhealthy birth outcomes (such as low birthweight) have one or more of the following risk factors (Figure 1).

**Low birth weight (LBW)** (less than 2500 gm) is a major predictor of infant morbidity and mortality and increases the incidence of mental retardation, cerebral palsy, learning disabilities, visual, hearing and neurological defects and poor growth and development. Low birth weight is a determining factor in about two-thirds of all deaths among newborns. In 1990, Canada's LBW rate was 5.4%.

Figure 1:



**Poor Nutrition** - disadvantaged women are less likely to get the recommended amount of calories and nutrients they need to maintain their own health, let alone those of the growing fetus. Women who do not gain at least 10 kilograms (22 lbs) during pregnancy are 2 - 3 times more likely to have a low birth weight baby. Low income levels limit the ability to buy wholesome food and low levels of education can limit knowledge of nutrition and health. Women with multiple pregnancies are also at risk for nutritional deficiency.

One example of a nutrition program is the Montreal Diet Dispensary which addresses the needs of high-risk urban women. The program consists of:

- individual dietary assessment and regular one-on-one nutrition counselling
- vitamin and food supplements of milk, orange juice and eggs
- interagency referral for other health care needs.

In 1989-90, the Montreal Diet Dispensary reported low birth weight rates of 5.2%, comparable or better than the provincial rate (6.7%). This program has also been found to be cost-effective. The cost of food and professional help is on average \$275 per mother.

**Poverty** - about 12% of Canadian families live in poverty. Poor children are 40 - 50% more likely to be born too small or too soon and are twice as likely to suffer long-term health problems as a result. Low-income pregnant women face barriers to basic prenatal care, including transportation problems and discomfort with "medically-based" services. The majority of prenatal programs contacted in the 1993 national study were still unable to provide financial help with transportation costs, food supplements, child care, maternity clothes and birth control devices. Advocating the reduction of poverty and overcoming bureaucratic obstacles to supplying food and other tangible supports were felt to be a priority by these programs.

**Tobacco and Alcohol Use** - recent Canadian reports show a 35% smoking rate among women of child-bearing age. This is consistent with other studies showing that 30-40% of women smoke pre-pregnancy and about 20-35% continue to smoke during

## GOALS OF THE CPNP\*

- More babies will be born healthy and will have healthy birth weights
- The health of pregnant women will be improved
- There will be more partnerships and collaboration among pregnant women, families, community groups, nutritionists, health professionals and governments
- More mothers will breastfeed and will breastfeed for longer periods of time

\* source: Health Canada, NWT CPNP workshop, Yellowknife; March, 1997.

# Improving Maternal and Infant Health

pregnancy. A pregnant smoker has about twice the risk of a non-smoker to deliver a low-birth weight baby. This effect can be eliminated if the mother ceases smoking in the first and second trimesters. Disadvantaged women and their families are more likely to smoke than well-educated parents. Reasons for continuing to smoke include addiction, using smoking as a way to cope with stress, and a lack of support for quitting.

The prevalence for heavy drinking among Canadian women is estimated to be about 3% - 5%, however, certain populations are greatly affected by alcohol use. Some surveys among native communities suggest that as many as 85% of residents consider alcohol abuse to be a major problem. Fetal Alcohol Effects/Syndrome are well known to be associated with alcohol use and abuse.

**Adolescent Pregnancy**-in Canada in 1985, the incidence of low birth weight among adolescents was nearly 30% higher than for women 20 - 24 years of age. Young maternal age is not itself a determinant of poor health, rather it is a marker of social disadvantage. Adolescent pregnancies are usually unplanned and often occur in situations of poverty, low education and single parenthood.

Optimal weight gain for pregnant teens is compounded by the fact that they are still growing and therefore the fetus and mother compete for nutrients. Society's emphasis on slimness and a misbelief that labour and birth are easier with a smaller baby can cause teens and women with low levels of education to restrict their weight gain.

**Isolation and Lack of Support** - geographical or social isolation and a lack of social support are increasingly seen as detriments to health and well-being. Social support has important benefits, including improved emotional well-being and satisfaction, enhanced partner involvement and elevated self-esteem.

Aboriginal women are at higher risk for social isolation because of living in communities that are geographically isolated. Violence, loss of spiritual and traditional values, the stress of acculturation, low self-esteem, poverty, mission school syndrome and depression have been identified as threats to their mental well-being.

**Violence** - in Canada, one in 4 women is subjected to sexual abuse before the age of 18. At least one in every 10 women in Canada has been battered by her spouse or partner. The Statistics Canada Violence Against Women survey states that 21% of women abused by a marital partner were assaulted during pregnancy with 40% of these women report-

ing that abuse began during pregnancy. Women who are abused are the least likely to seek early and regular prenatal care.

## Improving NWT Maternal & Infant Health

In the NWT, community partnerships are providing support for pregnant women, with an emphasis good nutrition. One example is a nutritional

Figure 2: CPNP Projects in the NWT - 1997



supplementation cooking group, which provides pregnant women with a chance to learn about basic nutrition and to develop cooking skills using both traditional and store bought foods. Promotion of healthy lifestyles, such as smoking cessation, exercise, and decreased alcohol use, among other activities are also included. Support and knowledge are provided in part by community elders, who are a valuable resource.

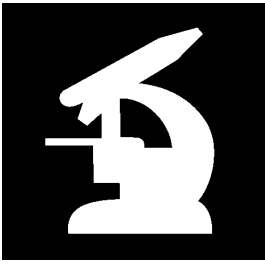
Studies done in Inuit and First Nations communities indicated fundamental issues were food security and dietary intake. The high cost of food, lack of money and not having enough to eat were serious problems. These studies also found low intakes of calcium, Vitamin A and folacin among child-bearing women. These are nutrients required in adequate amounts for healthy birth outcomes. It has been estimated, for example, that if all women of childbearing age consumed sufficient folic acid, 50-70% of all birth defects of the brain and spinal cord could be prevented.

In 1997/98, all of the CPNP projects across Canada, including the NWT, will complete project and client questionnaires. Information gained from this process will help communities and health care providers determine the effectiveness of the program, ensure funding is used effectively and provide accountability from those involved.

Elsie De Roose, BSc, HEC, PDt, Consultant - Infant/Child Nutrition GNWT-H&SS

## NWT Fast Facts

- Average birth weight in 1996: 3450 grams, range 385 to 5075 grams. The incidence of LBW (less than 2500g) was 5.43 %.
- 1996: LBW by maternal age group: 13-19 years: 6.1% 20-29 years: 4.8% >30 years: 6.6%
- High BW (greater than 4000 g) was 15.5% in 1996.
- 1996 HBW by maternal age group: 13 - 19 years: 10.2% 20 - 29 years: 16.2% >30 years: 15.3%
- HBW more frequent among aboriginal women and associated with maternal obesity, age, prolonged gestation and gestational diabetes.
- The mean age of mothers was 25.7 years in 1996. Range: 13-45 years.
- # & % of births by age group (1996): 13-19 yrs: 246 (17.6%) 20-29 yrs: 744 (55.3%) >30 yrs: 379 (27.1%)
- Smoking rates(1993) 59% of the women smoking during pregnancy. Inuit - 78% Metis - 63% Dene - 60% Non-aboriginal - 25% More smokers among women <25.
- Canadian birth rate - 12.8/1000 people Nunavut birth rate - 2 1/2 times Western birth rate- 1 1/2 times



## Laboratory Corner:

As a result of the recent mass measles vaccine campaign, measles surveillance will be stepped up across Canada and the NWT. The documentation of elimination of measles will be a nation-wide goal. Many health care providers have never seen measles and as a result of increased control measures (a two-dose measles schedule), we will expect to see even less.

Measles manifests as an acute, highly communicable viral disease with prodromal fever, conjunctivitis, coryza (runny nose), cough and Koplik spots on the buccal mucosa. A characteristic, red blotchy rash on the third to seventh day, beginning on face, becoming generalized and lasting 4-7 days.

Diagnosis of measles virus infection can be technically and clinically difficult even to the most astute clinicians. The red rash that signifies measles can be confused with parvovirus or rubella. While the differential diagnosis is not limited to these 2 viral illnesses identified for the rash screen, for public health purposes they are the most important to rule out. The symptoms of measles are not always flagrantly obvious, so one must depend on laboratory confirmation. Measles virus can be diagnosed by viral isolation in tissue cultures from nasopharyngeal secretions, conjunctiva, blood and urine during the febrile phase of the illness. Many measles cases can be diagnosed by comparing the antibody concentrations in acute sera obtained shortly after appearance of the rash with that in convalescent sera collected 2 to 4 weeks later. The following are recommendations for "Red Rash Screen" and interpretation of measles serology results.

### Recommendations for "Red Rash Screen" test:

- testing for diagnosis of measles, parvovirus or rubella can be done by serology or culture
- disease specific IgM serology is the test of choice for rapid diagnosis
- venipuncture blood sample with 3 mls of whole blood should be collected 3 to 28 days after onset of symptoms, preferably by 7 days
- a second sample for IgG should be collected 10-14 days after the first sample
- in addition to the blood sample, a urine sample and/or N/P swab should be obtained for virus isolation
- 50 to 100 cc of sterile urine should be collected within 7 days after the onset of rash

Sterile swabs can be used to wipe nose and throat approximately 4 days after the onset of rash. Place

both swabs in a tube containing 2-3 ml of VTM (viral transport media). The virus is extremely cell-associated, so attempt to swab the throat and nasal passages to collect epithelial cells.

Both of the above specimens should be transported as soon as possible on ice. Keep chilled to at least 4 degrees C. Specimens should be processed by lab within 48 hours after collection.

### Definitions:

IgM antibody is always indicative of recent infection - either from wild virus or from immunization

- measles IgM can be detected as early as the day of the rash onset and will persist for at least 28 days after rash onset
- in the first 72 hours after rash onset, up to 20% may be negative for IgM - these tests should be repeated in 7 days if there are clinical indications of disease. (IgM antibody detection may be delayed up to 7 days after rash onset)
- following immunization, IgM can be detected in the blood as early as 10 days, and most certainly between 3 and 4 weeks following immunization.
- IgG antibody is an indicator of immunity
- IgG response is an indicator of the immune system's development of protective antibodies against measles and can usually be detected in the blood sample as early as 7 to 10 days following infection, peaking around 3 to 4 weeks. IgG antibodies can usually be detected for years following the development of an immune response, and may persist for life.
- following revaccination or exposure to natural infection in an individual who has immunity, the IgG antibody response is detectable within 5 to 6 days and peaks around 12 days. This "booster" effect produces faster and often higher antibody levels than the initial exposure to vaccine or disease and almost always does not have an IgM component.
- IgM and IgG positive results can reflect current infection and/or a history of immunization where the vaccine did not provide protective levels.

If you suspect measles notify your Medical Health Officer or the Health Protection Unit immediately. One case of measles is considered an outbreak and outbreak measures will be instituted if confirmation of a measles case occurs.

### Rash Differentiation:

#### Parvovirus B19

- often manifested as erythema infectiosum (EI), mild systemic symptoms and,
- frequently a distinctive rash on face (intensely red with a "slapped cheek" appearance)
- circumoral pallor
- symmetric maculopapular, lace-like rash on arms, moving caudally to involve trunk, buttocks & thighs

#### Rubella

- mild, febrile viral disease with a diffuse pinpoint and maculopapular rash, sometimes resembling that of scarlet fever or measles.
- the most characteristic feature is postauricular, occipital & posterior cervicle lymphadenopathy which precedes the rash by 5-10 days
- Because the rash resembles measles, the lymphadenopathy becomes an important sign



# Screening For Red Rash

**Wanda White, RN BSN**  
**Comm. Disease Consultant**  
**Health Protection Unit**

**Table 1: Interpretation of measles enzyme immunoassay results**

IgM Result	IgG Result	Interpretatin Guidelines and Action
+	- or +	<b>Has recently had measles immunization or had measles disease</b> <i>The IgG response depends on timing of specimen collection and immunization history. Detailed clinical history including full immunization history essential in interpreting results.</i>
-	+	<b>Previously vaccinated/had disease.</b> <i>Not considered a case. However, if individual meets clinical or suspect cases definition, repeat test in 7 days, and ask lab to run acute and convalescent specimen in parallel.</i>
Indeterminate	-	<b>False positive due to non-specific reaction. If history of immunization, probably primary vaccine failure.</b> <i>Specimen collection taken too early in infection process - repeat test 7 days later if individual meets clinical or suspect case definition.</i>
+	Indeterminate	<b>Recent infection from either vaccine or disease with beginning detection of the IgG response</b> <i>Detailed clinical history including full immunization history essential in interpreting results.</i>
Indeterminate	+	<b>Indicates previous vaccination and/or disease along with possible recent infection through either disease or vaccine.</b> <i>The following information is critical for interpretation and determining further action: symptoms/clinical picture and history; hx of known exposure to confirmed case; immunization history; history of disease.</i>
Indeterminate	Indeterminate	<b>False positive due to non-specific reaction.</b> <i>Ensure full clinical and immunization history is obtained; repeat test in 7 days.</i>
-	-	<b>No exposure to measles or development of immune response: if history of immunization, did not mount immune response, i.e. primary vaccine failure.</b> <i>Immunization should be provided</i>
Low positive	-	<b>Specimen collection may have been collected too early.</b> <i>If individual meets clinical or suspect case of definition and/or there is a direct link with a confirmed case, this would be a confirmed case and there is no need to repeat test. If no clinical symptoms, question if recently immunized.</i>



## Fall Vaccine Programs (continued from page 1)

### Pneumococcal vaccine should be given to:\*

- Adults 65 years of age or older
- Adults with chronic conditions: cardiac, respiratory, renal disease, alcoholism, diabetes mellitus, chronic cerebrrspinal leak, asplenia, and other conditions associated with immunosuppression
- Children 2 yers of age or older with asplenia, splenic dysfunction, nephrotic syndrome, chronic cerebrospinal fluid leak, and other conditions associated with immunosuppression
- HIV positive individuals over the age of 2 years.

\*No boosters will be required except: patients with nephrotic syndrome or who are asplenic (for whom boosters are recommended every 6 years).

### Universal Hepatitis B Program

Hepatitis B is recommended for:

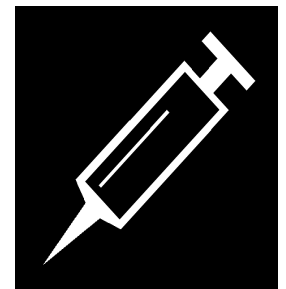
- All newborns in the NWT
- All students entering into Grade 4

Schedule:

This is a three dose schedule. The second booster follows one month after the first dose and the third dose follows six months after the first.

Dosage:

- Infants to 10 years - Recombivax 0.25 ml
- 11 to 19 years - Recombivax 0.5 ml





## Reportable Diseases in the NWT...E. Coli

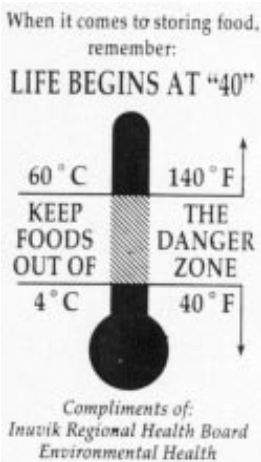
*Over the span of a week early in June 1997, 4 people, 2 female children and 2 male adults (fathers), presented at the Gjoa Haven Health Centre with symptoms of diarrhea and cramps. Test results came back positive for E.coli O157:H7 in all four cases. It was ascertained that frozen raw ground beef, left to thaw in a cooler for 2-3 days, was consumed by the first two cases in a meal while on a camping trip two weeks earlier. Person-to-person transmission likely infected the second family as the 2 families often visit each other's homes.*

### What is E.coli O157:H7?

An acute bacterial disease of the gastrointestinal tract characterized by watery diarrhea (often bloody), abdominal cramps, vomiting and a mild fever. The symptoms generally start about 2 days after consumption of contaminated food and last between five and ten days. In a few cases, the E.coli toxin results in a serious and sometimes fatal illness called Haemolytic Uraemic Syndrome (HUS) characterized by kidney failure, anemia and internal bleeding.

**Infectious agent:** Escherichia coli O157:H7 (most common), also O26:H11, O111:H8 and O104:H21 have been implicated.

**Occurance:** Serious outbreaks, including some deaths, have occurred in the USA and Canada from inadequately cooked hamburgers; several outbreaks have been caused by unpasteurized milk and more recently apple cider made from apples contaminated by cow manure.



## Can you pass the food safety test?

What comes to mind when you think of a clean kitchen? Shiny waxed floors? Gleaming stainless steel sinks? Spotless counters and neatly arranged cupboards? They can help, but a truly "clean" kitchen--that is, one that ensures safe food--relies on more than just looks: it also depends on safe food practices. In the home, food safety concerns revolve around three main functions: food storage, food handling, and cooking. The following is a list of common questions, answers and rationale for safer food practices.

**Q. I left caribou stew on the counter overnight, is it safe to eat?**

**A.** No. Caribou stew, like all other cooked foods such as meat, poultry, fish, milk and milk products, dressings and gravies, should not be left at room temperature for more than 2 hours. These foods may contain harmful bacteria which multiply at room temperature and can cause food poisoning. If food has been left sitting out, don't taste test it, throw it out.

**Q. I went camping with a cooler full of meat and all of the ice thawed. Do I have to throw out all of the food?**

**Reservoir:** The bacteria that produce the E.coli toxin are found in most food animals including beef, pork and poultry products. Humans may also serve as a reservoir for person-to-person transmission.

**Mode of transmission:** Transmission occurs by ingestion of contaminated foods, as with Salmonella, most often inadequately cooked beef and also raw milk. Transmission also occurs person-to-person, as with Shigella, in families, childcare centres and custodial institutions. Waterborne transmission occurs, such as swimming in a crowded lake or drinking contaminated unchlorinated municipal water.

**Incubation period:** Typically relatively long, ranging from 3 to 8 days.

**Period of communicability:** The duration of excretion of the pathogen, which is typically for a week or less in adults but 3 weeks in one third of children. Prolonged carriage is uncommon.

**Treatment:** Most persons recover without antibiotics or other specific treatment in 5-10 days. Antidiarrheal agents, such as loperamide (Imodium), should also be avoided. Drinking lots of clear fluids is important.

**Preventative measures:** The best protection against getting infected with E.coli is a combination of two things: preparing food safely in the first place and then cooking it well. Blocking person-to-person transmission involves instructing people on the importance of hand-washing with soap and water.

**A.** It depends. Foods which still have ice crystals on them or are cold to the touch with no signs of spoilage are safe to be refrozen or eaten. It is best to discard all other thawed items, unless you are sure they have not been completely thawed for more than 2 hours.

**Q. Why take so many precautions in cleaning the kitchen? Why can't I just wipe off the cutting board and counters?**

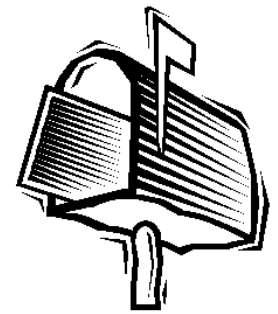
**A.** Bacteria are difficult to remove. A quick wipe may only move the bacteria around. It is especially important to ensure that cutting boards are thoroughly cleaned after cutting raw meat, poultry or fish. Here are three steps which will kill or remove bacteria: (1) Remove food residues (2) wash with hot, soapy water (3) disinfect with a mild chlorine bleach solution.

**Q. Why shouldn't I eat my hamburgers rare?**

**A.** The safest way to eat hamburgers is to cook them until they are no longer red in the middle, and the juices run clear. Cooking meat rare or medium does not kill bacteria and toxins, and can cause a food-borne illness.

*Questions modified from American FDA Food Safety Test and Perish The Thought Q & A sheet from Health and Welfare Canada.*

# Health Protection Unit Mailbox



## Anaphylaxis...what to do

**Q:** How often does anaphylaxis occur when giving childhood immunization.

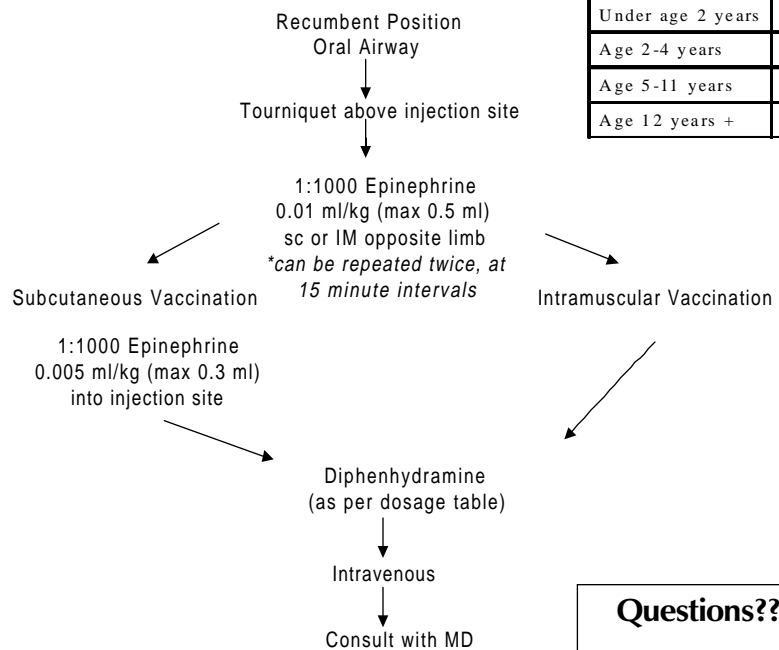
**A:** Anaphylaxis is extremely rare after immunization. Anaphylaxis is a potentially life-threatening allergic reaction to a foreign substance. Four types of hypersensitivity reactions believed related to vaccine constituents are (1) allergic reactions to egg or egg-related antigens, (2) mercury sensitivity in some recipients of immune globulins or vaccines, (3) antibiotic-induced allergic reactions, and (4) hypersensitivity to some component of the infectious agent or other vaccine components (Red Book, 1994).

In Canada from 1991 to 1997 to date, 163 cases of anaphylaxis have been reported out of approximately 12,000,000 doses of vaccine given on a yearly bases. It is extremely important to note that these numbers are inflated as the old reporting form did not have the same stringent guidelines for classifying anaphylaxis as the current form. With the old form, if a person complained of difficulty breathing or had difficulty swallowing post immunization, this could be constituted as anaphylaxis. The present form requires that anaphylaxis be defined as "an explosive severe reaction that occurs within minutes after immunization, and evolves rapidly towards cardiovascular collapse AND requires resuscitative therapy".

The Health Protection Unit has not received any reports of anaphylaxis for the Northwest Territories in the last 10 years. Ms Jan Stirling, Nurse in Charge of Yellowknife Public Health who has been administering vaccines for the last 50 years has never encountered a true anaphylactic reaction. This does not mean that it won't occur, and knowing the difference between a vasovagal syncope (faint) and true anaphylaxis is imperative because action must be taken in a matter of seconds.

Because anaphylactic reactions are so rare, there are many gaps in understanding potential risk factors. For instance, one contraindication for MMR is a history of anaphylactic reaction to egg proteins. However, one study reviewed by the the Institute of Medicines had 28 reports of anaphylactic reactions to MMR, they found that only two were attributable to hypersensitivity to egg proteins. It is very difficult to know who will be predisposed, thus familiarity with the standard procedure for handling anaphylaxis is absolutely necessary.

**Figure 1: Anaphylactic Reaction Flow Sheet**



Age Group	Dosage
Under age 2 years	0.25 ml
Age 2-4 years	0.5 ml
Age 5-11 years	1.0 ml
Age 12 years +	2.0 ml

SYSTEM	FAINING	ANAPHYLACTIC REACTION*
Skin and Tissues	-Clammy -Pale -Excessive perspiration	-begins with mild itching and burning -tingling sensation often first noted around the mouth or face -flushing, sweating can progress to hives over large area of body followed by bright red flare -neck and facial swelling includes tongue
Respiratory	-Shallow -Irregular -Laboured	-mild irritating cough -chest tightness or pain -can progress to wheezing, dyspnea and cyanosis due to edema of the glottis and bronchospasm
Cardiovascular	-sudden slowing of pulse -fall in blood pressure	-rapid and weak or imperceptible pulse -can progress to collapse, arrhythmia, cardiac arrest, death within 10 minutes
Gastro Intestinal	-nausea	-nausea and vomiting -abdominal pain, diarrhea
Other	-dizziness -blurring or loss of vision -loss of consciousness -tremors (less likely if patient immediately placed in recumbent position)	-history of exposure to allergic substance -apprehension, anxiety, restlessness, dizziness, seizures -urinary incontinence -loss of consciousness -anaphylactic reaction happens in stages

\*Anaphylactic reactions may start immediately or may be delayed for 10-30 minutes.

In health centers an intravenous access for drugs and fluid administration will be necessary and endotracheal intubation and other life-saving maneuvers may be required. For all but the mildest cases of anaphylaxis, patients should be hospitalized overnight or monitored for at least 12 hours.

All anaphylactic and other adverse reactions are to be reported to the Health Protection Unit on the Report of a Vaccine-Associated Adverse Event form as discussed in May/June 1997 issue of Epi-North.

**Questions??**

**Contact:**

**Wanda White**

**Communicable Disease Consultant  
Health Protection Unit**

**GNWT - H&SS**

**(403)920-8646**



# Launching Forth on the INTERNET

With increased access to and availability of information via the Internet, more and more people are taking responsibility for obtaining information relevant to them. For the past year, EpiNorth has attempted to review a different health-related website with each issue that might be valuable to health care or other professionals. Here's some new sites to check out. Don't forget to bookmark!

## In-Depth Health Info

*Many of the large health organizations have gone online to make their information more readily available to those interested.*

<b>BC Ministry of Health</b>	<a href="http://www.hlth.gov.bc.ca">http://www.hlth.gov.bc.ca</a>	Reviewed Nov/Dec 1996
<b>Breakthrough Medical News</b>	<a href="http://www.ivanhoe.com">http://www.ivanhoe.com</a>	Contains weekly topics (eg.thyroid cancer), herbs, archives, consults.
<b>CDC (Atlanta)</b>	<a href="http://www.cdc.gov">http://www.cdc.gov</a>	Reviewed Sept/Oct 1996
<b>Healthgate</b>	<a href="http://www.healthgate.com">http://www.healthgate.com</a>	An online source for health, wellness and biomedical information.
<b>Medscape</b>	<a href="http://www.medscape.com">http://www.medscape.com</a>	Reviewed Mar/April 1997

## Associations/Organizations

*Other organizations and associations are also online in order to give more information about who they are and what they do.*

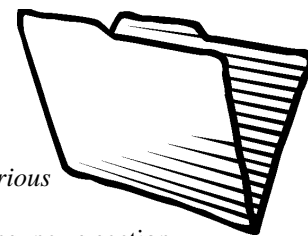
<b>AMA (America Medical Assoc.)</b>	<a href="http://www.ama-assn.org">http://www.ama-assn.org</a>	Links to other health sites, info on medical sciences, teen health on-line.
<b>Communicable Disease Surveillance Centre</b>	<a href="http://www.open.gov.uk/cdsc/cdschome.htm">http://www.open.gov.uk/cdsc/cdschome.htm</a>	Links to health services, overviews, nat'l programs reports, guidelines, continuing education.
<b>CLA (Canadian Lung Assoc.)</b>	<a href="http://www.lung.ca">http://www.lung.ca</a>	Reviewed Jan/Feb 1997
<b>CMA (Canadian Medical Assoc.)</b>	<a href="http://www.cma.ca">http://www.cma.ca</a>	Links to medical journals, reference and WebMed.
<b>CNA (Canadian Nursing Assoc.)</b>	<a href="http://www.cna-nurses.ca">http://www.cna-nurses.ca</a>	Career/education opportunities, conference listings, CNJ link.
<b>Canadian Public Health Assoc. (CPHA)</b>	<a href="http://www.cpha.ca">http://www.cpha.ca</a>	Links to Prov/Ter CPHA. Plainword game demo.
<b>FDA (Food &amp; Drug Administration)</b>	<a href="http://www.fda.gov">http://www.fda.gov</a>	Info on all areas of FDA regulation, training programs, travel opportunities.
<b>GNWT Dept of Health &amp; SS</b>	<a href="http://www.hlthss.gov.nt.ca">http://www.hlthss.gov.nt.ca</a>	Reviewed May/June 1996
<b>Red Cross</b>	<a href="http://www.ifrc.org">http://www.ifrc.org</a>	Red Cross news releases, publications, aid requests.
<b>PAHO (Pan American Health Organization)</b>	<a href="http://www.paho.org">http://www.paho.org</a>	Links to journals, country health profiles, in Spanish/English.
<b>WHO (World Health Organization)</b>	<a href="http://www.who.ch">http://www.who.ch</a>	Links to all sections of WHO, including disease reports, journals
<b>UN (United Nations)</b>	<a href="http://www.unsystem.org">http://www.unsystem.org</a>	Links to UN System of organizations web-locator.

## Journals

*Different health-related journals have online journal access or electronic subscription services to make their products more readily available to their readers.*

<b>ANJ (Amer. Journal of Nursing)</b>	<a href="http://www.anj.com">http://www.anj.com</a>	Online journal access, career/education opportunities, links.
<b>EID (Emerging Infectious Diseases Journal)</b>	<a href="http://www.cdc.gov/ncidod/EID/eid.htm">http://www.cdc.gov/ncidod/EID/eid.htm</a>	Online journal access to the latest studies on infectious diseases, includes electronic mail services.
<b>JAMA (Journal of the American Medical Assoc.)</b>	<a href="http://www.ama-assn.org">http://www.ama-assn.org</a>	HIV/AIDS Centre, journal archives, education, membership, online catalogue.
<b>The Lancet</b>	<a href="http://www.thelancet.com">http://www.thelancet.com</a>	Password req'd (free), online issues, classifieds, search engine.
<b>12 MMWR (Morbidity &amp; Mortality Weekly Report)</b>	<a href="http://www.cdc.gov/epo/mmwr/mmwr.html">http://www.cdc.gov/epo/mmwr/mmwr.html</a>	International bulletins, NETSS (online disease reporting) search engine.

# A Directory of Health Sites



## Outbreak

Check out the latest in infectious disease outbreaks around the world, including information on the various deadly diseases, prevention, treatment, frequency and transmission.

<b>Outbreak</b>	<a href="http://www.outbreak.org">http://www.outbreak.org</a>	Info service addressing emerging diseases, news section, resource library.
<b>Promed</b>	<a href="http://www.healthnet.org/programs/promed.html">http://www.healthnet.org/programs/promed.html</a>	An electronic info resource for reporting disease outbreaks around the world. Links to many related sites.
<b>MMID (Univ. of Alberta)</b>	<a href="http://bugs.uah.ualberta.ca">http://bugs.uah.ualberta.ca</a>	Reviewed July/Aug 1996

## Wire Services

Various news agencies now bring up-to-date news coverage on the Internet. Internet users are given access to the latest weather reports, entertainment, business, government and health information.

<b>CIDA (Canadian Internat'l Development Agency)</b>	<a href="http://www.acdi-cida.gc.ca">http://www.acdi-cida.gc.ca</a>	News releases, development programs & awards, articles.
<b>CNN</b>	<a href="http://www.cnn.com">http://www.cnn.com</a>	News network with the latest news, links.
<b>Reuters Healthnews Online</b>	<a href="http://reutershealth.com">http://reutershealth.com</a>	Password req'd (free), online medical news, Journal of Irreproducible Results.
<b>Washington Post</b>	<a href="http://www.washingtonpost.com">http://www.washingtonpost.com</a>	News network with the latest news.
<b>USDA (US Dept of Agriculture)</b>	<a href="http://www.usda.gov/news/releases/1997">http://www.usda.gov/news/releases/1997</a>	News releases on areas relating to the USDA.

## Travel Health

Are you planning on taking a trip around the world? Make sure you find out if you need to be immunized against diseases prevalent in the places you plan to visit. Check out these websites for immunization information as well as for facts on different countries that will help make your stay more relaxed and safer.

<b>CSIH (Canadian Society International Health)</b>	<a href="http://www.csih.org">http://www.csih.org</a>	Info for Canadian travellers, online newsletter, list for travellers of health centres in Canada.
<b>Internat'l Society of Travel Medicine</b>	<a href="http://www.istm.org">http://www.istm.org</a>	Online newsletter, travel clinic directory.
<b>Internat'l Travellers Clinic</b>	<a href="http://www.intmed.mcw.edu/travel">http://www.intmed.mcw.edu/travel</a>	Info on diseases, environmental hazards and immunization, travel tips, many travel links.
<b>Travel Health Online</b>	<a href="http://www.tripprep.com/index">http://www.tripprep.com/index</a>	Country health profiles, health concerns, meds, illnesses, list of medical providers in other countries.

## Other Health Sites

Have you ever thought about what universities are doing to further medical knowledge and social wellness, or the latest experimental drugs being tested by pharmaceutical companies? Many of these institutions contain information on who they are and what they do, including topics on specialized areas of interest such as molecular biology.

<b>Yale University</b>	<a href="http://info.med.yale.edu/EIINet">http://info.med.yale.edu/EIINet</a>	Contains Pediatrics newsletter, info on nursing/medical programs, resources for physicians.
<b>Hardin Meta Directory</b>	<a href="http://www.arcade.uiowa.edu/hardin-www/md.html">http://www.arcade.uiowa.edu/hardin-www/md.html</a>	A metadirectory of Internet sources in the Health Sciences set up by area of interest.
<b>Institut Pasteur</b>	<a href="http://www.pasteur.fr">http://www.pasteur.fr</a>	Links to biological sites, newsletter, software downloads for molecular biology.

The above list of websites is by no means exhaustive, but is useful in giving a general overview of the various types of medical sites on the internet today. It is hoped in the future that more sites will be added that are useful to healthcare professionals and other concerned individuals. If you know of any webpages that you think should be included be sure to email us at Epinorth:

Epi\_North@gov.nt.ca

# Notifiable Diseases by Region for May & June 1997

DISEASE	Month	Cumulative		REGIONS (YTD - 1997)							
	May & Jun 1997	1996 YTD	1997 YTD	Baffin	Fort Smith/Mackenzie	Inuvik	Keewatin	Kitikmeot			
<b>Vaccine Preventable Diseases</b>											
H. influenzae B	0	2	0	0	0	0	0	0			
Influenzae	0	0	15	0	0	0	15	0			
Measles											
Mumps	0	1	0	0	0	0	0	0			
Pertussis	7	11	15	0	13	1	0	1			
Rubella											
<b>Enteric Diseases</b>											
Botulism	0	1	1	0	1	0	0	0			
Campylobacteriosis	3	12	6	0	13	0	1	2			
Cryptosporidiosis	2	0	8	8	0	0	0	0			
E.Coli 0157:H7	4	0	6	0	2	0	0	4			
Food Poisoning	0	0	5	0	5	0	0	0			
Giardiasis	1	10	3	1	2	0	0	0			
Salmonellosis	3	9	7	3	3	1	0	0			
Shigellosis	1	0	1		1						
Tapeworm Infestation	0	0	1	0	1	0	0	0			
Trichinosis	0	0	0								
<b>Sexually Transmitted Diseases</b>											
Chlamydia	165	329	370	139	141	64	80	46			
Gonorrhea	24	41	76	49	15	5	2	6			
Syphilis											
<b>Viral Hepatitis</b>											
Hepatitis A	0	1	0								
Hepatitis B	0	1	2	0	2	0	0	0			
Hepatitis C	1	10	9	0	7	2	0	0			
Hepatitis, Other	0	1	0								
<b>Other Systemic Diseases</b>											
Brucellosis	1		1	0	0	0	0	1			
Chickenpox	41	171	145	3	30	11	49	52			
Group A Strep	1	0	2	0	1	0	0	1			
Meningitis/Encephalitis	1	1	6	1	3	0	1	1			
Meningococcal infection											
Rabies Exposure	0	0	4			4					
Tuberculosis	11	20	19	2	17	0	0	0			
<b>HIV INFECTIONS BY YEAR SEEN IN NWT RESIDENTS</b>											
YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
NUMBER/YEAR	3	2	2	3	3	8	4	2	0	2	1
CUMULATIVE	3	5	7	10	13	21	25	27	27	29	3

# Notifiable Diseases Reported By Community

## May 1997

**Campylobacteriosis, 1:** In Yellowknife.

**Chickenpox (varicella), 28:** Yellowknife, 13; Ft Simpson, 7; Whale Cove, 3; Chesterfield Inlet, 2; Repulse Bay, 2; Rankin Inlet, 1.

**Chlamydia, 58:** Yellowknife, 9; Kugluktuk, 5; Rae Edzo, 5; Arviat, 3; Gjoa Haven, 3; Iqaluit, 3; Baker Lake, 2; Clyde River, 2; Ft McPherson, 2; Inuvik, 2; Lutselk'e, 2; Tuktoyaktuk, 2; Tulita, 2; Wrigley, 2; Aklavik, 1; Arctic Bay, 1; Broughton Island, 1; Deline, 1; Ft Resolution, 1; Ft Simpson, 1; Ft Smith, 1; Hall Beach, 1; Hay River, 1; Norman Wells, 1; Rae Lakes, 1; Rankin Inlet, 1; Taloyoak, 1; Whale Cove, 1.

**Cryptosporidiosis, 2:** In Clyde River.

**Gonorrhea, 12:** Taloyoak, 3; Iqaluit, 2; Yellowknife, 2; Broughton Island, 1; Ft McPherson, 1; Holman, 1; Pangnirtung, 1; Resolute Bay, 1.

**Hepatitis C, 1:** In Inuvik.

**Meningitis, 1:** In Iqaluit.

**Pertussis, 7:** In Ft Simpson.

**Salmonellosis, 1:** In Ft Smith.

**Tuberculosis, 8:** Yellowknife, 4; Cape Dorset, 1; Ft Simpson, 1; Hay River, 1; Lutselk'e, 1.

## June 1996

**Brucellosis, 1:** In Gjoa Haven.

**Campylobacteriosis, 2:** In Gjoa Haven.

**Chickenpox (varicella), 13:** Ft Simpson, 7; Coral Harbour, 2; Resolute Bay, 2; Chesterfield Inlet, 1; Rae Edzo, 1.

**Chlamydia, 107:** Yellowknife, 11; Arviat, 9; Deline, 8; Iqaluit, 8; Baker Lake, 6; Rankin Inlet, 6; Arctic Bay, 5; Inuvik, 5; Kugluktuk, 4; Pond Inlet, 4; Rae Edzo, 4; Cape Dorset, 3; Ft McPherson, 3; Hall Beach, 3; Cambridge Bay, 2; Hay River, 2; Kimmirut, 2; Pangnirtung, 2; Pelly Bay, 2; Wha Ti, 5; Aklavik, 1; Broughton Island, 1; Ft Resolution, 1; Igloolik, 1; Lutselk'e, 1; Norman Wells, 1; Rae Lakes, 1; Resolute Bay, 1; Sanikiluaq, 1; Tuktoyaktuk, 1; Tulita, 1; Wrigley, 1.

**E. Coli O157: H7, 4:** In Gjoa Haven.

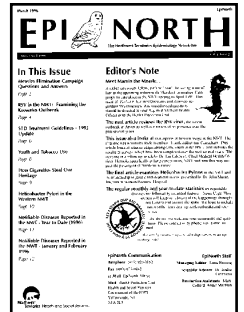
**Giardiasis, 1:** In Yellowknife.

**Gonorrhea, 12:** Iqaluit, 3; Pangnirtung, 3; Yellowknife, 3; Lutselk'e, 2; Inuvik, 1.

**Group A Streptococcus, 1:** In Yellowknife

**Salmonellosis, 2:** Ft Liard, 1; Pond Inlet, 1.

**Tuberculosis, 3:** Rae Edzo, 2; Cape Dorset, 1.

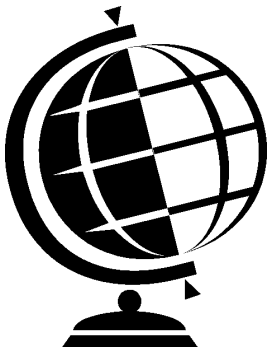


**EpiNorth** is a publication of the Health Protection Unit, Division of Population Health, Department of Health and Social Services.

**Contributions are welcome** and should be sent to the Managing Editor. Articles should be in WordPerfect format. Inclusion of material in **EpiNorth** does not preclude publication elsewhere.

Views expressed are those of the authors and do not necessarily reflect departmental policy.

Notifiable disease information reported in **EpiNorth** on a monthly basis reflects reports *received* in the **Health Protection Unit** during the current month, not the month in which the cases occurred. Health professionals who suspect or diagnose a Notifiable Disease are required to report it to their **Regional Medical Health Officer** within the time frame legislated in the Public Health Act/Communicable Disease Regulations.



## News Clips:

### Around the NWT

#### Pertussis in Yellowknife

One confirmed and two highly suspicious cases of pertussis have been recently reported in Yellowknife. There is a need to keep a high index of suspicion and refer to Public Health where necessary.

#### Diarrheal Illness in the Keewatin & Ft Smith Regions

Reports of diarrheal illness has come from several communities in the Keewatin and Ft Smith Regions. No organisms have been isolated. Please consult with your EHO and send stools for C&S and O&P when an increase in diarrheal activity is reported.

*Source: Health Progection Unit - Yellowknife*

### Elsewhere in Canada

#### Botulism: Nunavik

A female adult from Nunavik was admitted to hospital with suspected botulism in the Province of Quebec in mid to late June. The patient recovered after receiving antitoxin. Subsequent laboratory investigations confirmed the diagnosis of botulism and demonstrated the presence of type E toxin in misiraaq with seal meat. Since 1971, 54 incidents of botulism have been recorded in Nunavik. Fermented marine products were the most frequently documented associated foods.

*Source: Region of Nunavik and Quebec MOH*

#### Rubella reporting: Manitoba

Between October 14, 1996 and June 15, 1997 a total of 3659 cases of Rubella were reported in Manitoba; the peak of reporting appears to have occurred in mid March, 1997. The incidence rate for 1997 to mid-June was 312 per 100,000 population and was the highest reported in Manitoba since before 1970. The majority of cases (60%) have occurred in the age group 15-19 years, and 2054 (89%) of the 2297 cases in this age

group were in males. To June 15th, 408 of the reported cases were women of childbearing age. Immunization status was not available for 26% of cases. For those whose immunization schedules were available, 15% had been immunized in the past.

### In the USA and beyond...

#### Unusual Hantavirus Outbreak in Argentina: Person-to-Person Transmission?

Hantavirus pulmonary syndrome is a rodent-borne zoonosis first recognized in the United States in 1993. Person-to-person transmission has not been reported; however, in the outbreak of 20 cases reported here, epidemiologic evidence strongly suggests this route of transmission.

Twenty-one and 20 days, respectively, after the index patient became symptomatic, his 70-year-old mother (patient B) and one of his doctors (patient A) contracted HPS. The doctor's spouse, also a doctor (patient C), became ill with HPS 27 days after her husband's first symptoms (19 days after his death). She traveled to Buenos Aires for medical care. In a Buenos Aires hospital, an admitting doctor (patient D) spent 1 hour taking a clinical history and examining her. The doctor (patient D) applied pressure to a venipuncture site on patient C's arm with multiple layers of gauze; no obvious blood contact occurred. The only other contact between this doctor and patient C occurred 2 days later, when the doctor briefly visited the hospital's intensive care unit to attend to another patient. Twenty-four days after attending patient C, the doctor became ill with HPS. The doctor, patient D, had not traveled outside Buenos Aires, and she reported no contact with rodents during the 2 months preceding her illness (5).

The probable transmission of hantavirus from patient C to her doctor (Patient D) is the best epidemiologic evidence available to support the hypothesis that person-to-person transmission of hantavirus occurred during this outbreak.

*Source: <http://www.cdc.gov/ncidod/EID/eid.htm>*

- ***Pertussis in Yellowknife***
- ***Diarrheal Illness in the Keewatin & Ft Smith Regions***
- ***Botulism: Nunavik***
- ***Rubella reporting: Manitoba***
- ***Unusual Hantavirus Outbreak in Argentina: Person-to-Person Transmission?***

### Prenatal Nutrition Programs: References (continued from page 7)

Database on Breastfeeding. Survey of Infant Feeding Practices from birth to twelve months, NWT 1993. Printed 1996.

Strengthening Prenatal Health Promotion for Disadvantaged Families, Health Canada, 1994.

Air Stage Subsidy Monitoring Program Final Report. Volume 2: Food Consumption Survey, DIAND, March 1994.

Effectiveness of Public Health Nutrition Programs and Services: A Review, Middlesex-London Health Unit, October 1995.

Prevention of Low Birth weight in Canada: Literature Review and Strategies, Prepared for the Health Promotion Branch Ontario Ministry of Health by the Canadian Institute of Child Health, 1993.

Evaluation of the Canada Prenatal Nutrition Program - NWT Region, First Nations and Inuit Component (Phase I 1997 - 1998) Interim Report, March 1997.

Tips and Tricks for Teaching Nutrition and Counselling for Lifestyle Change, 2nd Annual NWT Prenatal Nutrition Workshop Report, March 18 - 20, 1997, Yellowknife, NWT.