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HOW ARE WE?

WOMEN'S HEALTH AND PREVENTIVE SEXUAL BEHAVIOUR AMONG MEN AND WOMEN

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NUNAVIK REGIONAL BOARD OF HEALTH AND SOCIAL SERVICES
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Québec

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WOMEN'S HEALTH AND PREVENTIVE SEXUAL BEHAVIOUR AMONG MEN AND WOMEN

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BACKGROUND OF THE NUNAVIK INUIT HEALTH SURVEY

The monitoring of population health and its determinants is essential for the development of effective health prevention and promotion programs. More specifically, monitoring must provide an overall picture of a population's health, verify health trends and how health indicators vary over distance and time, detect emerging problems, identify priority problems, and develop possible health programs and services that meet the needs of the population studied.

The extensive survey conducted by Santé Québec in Nunavik in 1992 provided information on the health status of the Nunavik population (Santé Québec, 1994). The survey showed that health patterns of the population were in transition and reflected important lifestyle changes. Effectively, the Inuit population has undergone profound sociocultural, economic, and environmental changes over the last few decades. The Inuit have changed their living habits as contact with more southerly regions of Quebec increased. A sedentary lifestyle, the switch to a cash-based domestic economy, the modernization of living conditions and the increasing availability and accessibility of goods and foodstuffs imported from southern regions have contributed to these changes. These observations suggest the need for periodic monitoring of health endpoints of Nunavik Inuit to prevent the negative impact of risk factor emergence and lifestyle changes on subsequent morbidity and mortality from major chronic diseases.

In 2003, the Nunavik Regional Board of Health and Social Services (NRBHSS) decided to organize an extensive health survey in Nunavik in order to verify the evolution of health status and risk factors in the population. The NRBHSS and the Ministère de la Santé et des Services sociaux (MSSS) du Québec entrusted the Institut national de santé publique du Québec (INSPQ) with planning, administering and coordinating the survey. The INSPQ prepared the survey in close collaboration with the Unité de recherche en santé publique (URSP) of the Centre hospitalier universitaire de Québec (CHUQ) for the scientific and logistical component of the survey. The Institut de la statistique du Québec (ISQ) participated in methodology development, in particular the survey design.

The general aim of the survey was to gather social and health information on a set of themes including various health indicators, physical measurements, and social, environmental and living conditions, thus permitting a thorough update of the health and well-being profile of the Inuit population of Nunavik. The survey was designed to permit a comparison of the 2004 trends with those observed in 1992. Data collected in 2004 also allowed researchers to compare the Inuit to other Quebecers.

Target population

The health survey was conducted among the Inuit population of Nunavik from August 27 to October 1, 2004. According to the 2001 Canadian census, the fourteen communities of Nunavik have a total of 9632 inhabitants, 91% of whom identified themselves as Inuit. The target population of the survey was permanent residents of Nunavik, excluding residents of collective dwellings and households in which there were no Inuit aged 18 years old or older.

Data collection

Data collection was performed on the Canadian Coast Guard Ship Amundsen, thanks to a grant obtained from the Canadian Foundation for Innovation (CFI) and the Network of Centres of Excellence of Canada (ArcticNet). The ship visited the fourteen villages of Nunavik, which are coastal villages. The study was based on self-administered and interviewer-completed questionnaires. The study also involved physical and biological measurements including clinical tests. The survey was approved by the Comité d'éthique de la recherche de l'Université Laval (CERUL) and the Comité d'éthique de santé publique du Québec (CESP). Participation was voluntary and participants were asked to give their written consent before completing interviews and clinical tests. A total of 677 private Inuit households were visited by interviewers who met the household respondents to complete the identification chart and the household questionnaire. A respondent was defined as an Inuit adult able to provide information regarding every member of the household. The identification chart allowed demographic information to be collected on every member of the household. The household questionnaire served to collect information on housing, environment, nutrition and certain health indicators especially regarding young children.

All individuals aged 15 or older belonging to the same household were invited to meet survey staff a few days later, on a Canadian Coast Guard ship, to respond to an interviewer-completed questionnaire (individual questionnaire) as well as a self-administered confidential

questionnaire. Participants from 18 to 74 years of age were also asked to complete a food frequency questionnaire and a 24-hour dietary recall, and to participate in a clinical session. The individual questionnaire aimed to collect general health information on subjects such as health perceptions, women's health, living habits and social support. The confidential questionnaire dealt with more sensitive issues such as suicide, drugs, violence and sexuality. During the clinical session, participants were invited to answer a nurse-completed questionnaire regarding their health status. Then, participants had a blood sample taken and physical measurements were performed including a hearing test, anthropometric measurements, an oral glucose tolerance test (excluding diabetics) and toenail sampling. Women from 35 to 74 years of age were invited to have a bone densitometry test. Finally, participants aged 40 to 74 could have, after consenting, an arteriosclerosis screening test as well as a continuous measure of cardiac rhythm for a two-hour period.

Survey sampling and participation

The survey used a stratified random sampling of private Inuit households. The community was the only stratification variable used. This stratification allowed a standard representation of the target population. Among the 677 households visited by the interviewers, 521 agreed to participate in the survey. The household response rate is thus 77.8%. The individual response rates are obtained by multiplying the household participating rate by the individual collaboration rate since the household and individual instruments were administered in sequence. The collaboration rate corresponds to the proportion of eligible individuals who agreed to participate among the 521 participating households. In this survey, about two thirds of individuals accepted to participate for a response rate in the area of 50% for most of the collection instruments used in the survey. A total of 1056 individuals signed a consent form and had at least one test or completed one questionnaire. Among them, 1006 individuals answered the individual questionnaire, 969 answered the confidential questionnaire, 925 participated in the clinical session, 821 had a hearing test, 778 answered the food frequency questionnaire, 664 answered the 24-hour dietary recall, 282 had an arteriosclerosis test, 211 had a continuous measure of their cardiac rhythm for a two-hour period and 207 had a bone densitometry test. More details on the data processing are given in the Methodological Report.

INTRODUCTION[1]

The object of this theme paper is to describe the state of health of the Nunavik Inuit women and the sexual health profile of men and women as reported during the 2004 Nunavik Inuit Health Survey. Therefore, the discussion will first focus on the preventive attitude among women such as screening techniques of cervical and breast cancer and also focuses on women's behaviour during pregnancy and their bone health status. The second part of the paper concentrates on preventive sexual behaviours among men and women such as the number of sexual partners in the preceding year and the use of contraceptives.

METHODOLOGICAL ASPECTS

The following issues were retained in the individual and the confidential questionnaire of the Nunavik Inuit Health Survey 2004. In the individual questionnaire, an interviewer-completed questionnaire, section 3 evaluates women's health in regard of gynaecological examination, section 6 and 9 estimate their physical activity and smoking habits, and their socio-demographic situation was described in section 13. An evaluation of their alcohol consumption and their sexuality profile were found in the sections 3 and 5 of the confidential questionnaire.

Bone health was estimated by a quantitative ultrasound of the right heel bone during the Clinical session of the survey. Quantitative ultrasound (QUS) of bone is a radiation-free technique that measures bone mass and assesses bone micro architecture. There is now a large body of evidence that QUS discriminates between subjects at risk of fractures and those who are not. Among the population of the survey, women between 35 years and 74 years old, representing 207 women, were selected to go through the heel bone evaluation at the right bone calcis. A clinical index, called the stiffness, a composite parameter obtained by a mathematical combination of Broad Bound Ultrasound attenuation (BUA) and Speed of Sound (SOS), was calculated by the software and expressed as a percentage of young normal values. Stiffness has been shown to be a significantly

[1] For ease of readability, the expression "Inuit" is used throughout the theme paper to define the population under study even though a small percentage of individuals surveyed identified themselves as non-Inuit. Refer to "Background of the Health Survey" for further details regarding the definition of the target population.

better predictor of fractures than BUA and SOS and it has been used to calculate the T-score to define osteoporosis (value at least -2.5 SD below young adult mean), osteopenia (value between -1 SD and -2.5 SD) and normal (value above -1 SD) according to World Health Organization classification (U.S. Department of Health and Human Services, 2004).

Accuracy of estimates

The data used in this module comes from a sample and is thus subject to a certain degree of error. The coefficient of variation (CV) has been used to quantify the accuracy of estimates and the Statistics Canada scale was used to qualify the accuracy of estimates. The presence of an "E" footnote next to an estimate indicates a marginal estimate (CV between 16.6% and 33.3%). Estimates with unreliable levels of accuracy (CV > 33.3%) are not presented and have been replaced by the letter "F".

Statistical analyses for comparisons by sex, age group, education level or personal income have been conducted using chi-square test adjusted for survey design at a threshold of $\alpha = 0.05$. Some comparisons have been made with results obtained during the 1992 survey where the questions asked are comparable. Given the sampling procedures in the two surveys, these comparisons include an adjustment in proportions or rates to take into account the change in the population's age structure. This adjustment is made on a five years age groups basis using Nunavik 2001 census of Statistics Canada as reference population. However, only raw data is reported in the text and tables to avoid any possible confusion with adjusted proportions. It should be noted that no statistical test was used to compare bone status data from Quebec and the present survey.

The questions about women health or sexual health reported over the previous twelve months are not quite identical to those in the 1992 Santé Québec survey (Santé Québec, 1994). For some questions, a list of possible answers was read to participants in the 1992 Santé Québec survey, while no suggested list was included in the 2004 Nunavik Inuit Health Survey. Therefore, the comparison with the 1992 survey results is limited by these changes and must take this into account.

Scope and limitations of the data

Women health and sexual health status could be influenced by memory bias which could overestimating or underestimating results of prevalence of most evaluated conditions happened beyond the twelve-month period covered, particularly in regards of alcohol consumption, physical activity and smoking habits.

In terms of the education variable, it is important to specify that the choice of answers for post-secondary training were not well adapted to the context of the survey's target population. The answers given for this category reveal that there was likely confusion during data collection between training that requires a post-secondary diploma and training that does not (e.g. driver's license, fishing license, etc). Therefore, the number of people with post-secondary education was likely overestimated.

RESULTS

I. PREVENTIVE BEHAVIOUR AMONG WOMEN

Pap test

The Canadian Task Force on Preventive Health Care strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix (Miller et al., 1991; MSSS, 1998). Indirect evidence suggest most of the benefit can be obtained by beginning screening within three years of onset of sexual activity or age 21 (whichever comes first) and screening at least every three years. Although there is little value in screening women who have never been sexually active, many organisations recommends routine screening for all women by age 18 or 21, based on high prevalence of sexual activity by that age and concerns that clinician may not always obtain accurate sexual histories. For that reason, descriptive data are presented in all active or non sexual active women aged 18 years old and over.

More than four of five adult Inuit women had the Pap test in the last two years before the survey (82.3%) (Table 1) and 60.3% had it in the last twelve months. Some women aged between 18-29 years, however, reported never having had a Pap test (6.8%). For Inuit women who had never done it or had it made two or more years ago, 41.2% of them claimed that this examination was not offered to them by their doctor.

Table 1
Last Pap test according to age group (%), women aged 18 years and over, Nunavik, 2004

Age group	Last Pap test	
	Less than 2 years ago	Two or more years ago or never
18-29 years	85.9	14.1[E]
30-49 years	85.0	15.0
50 years and over	70.6	29.4
Total	**82.3**	**17.7**

P-value < 0.0001.
E Interpret with caution.
Source: Nunavik Inuit Health Survey 2004.

Pap test use less than two years before the survey is less frequent among adult women with less education (69.6% vs. 85.1% and 90.2%) ($p < 0.001$) (Table 2), equally, those with less education are proportionally more numerous to never have had the cervical cytology than higher educated women (10.3%[E] vs. 5.0%[E] and too few to report). The practice did not seem to be associated with their personal income. Thus, the number of women with an income under 20 000$ who undergo this screening test in the last two years was similar to the number observed in the women with an income over 20 000$ (83.1% vs. 88.5%, $p = 0.11$) (Table 2).

Table 2
Last Pap test according to education level and personal income (%), women aged 18 years and over, Nunavik, 2004

	Last Pap test	
	Less than 2 years	**Two or more years ago or never**
Education level		
Elementary school completed or less	69.6	30.4
Secondary school not completed	85.1	14.9
Secondary school completed or higher	90.2	9.8[E]
Income		
Less than $20,000	83.1	16.9
$20,000 and over	88.5	11.5[E]

Education level: $p < 0.0001$; Income: $p = 0.11$.
E Interpret with caution.
Source: Nunavik Inuit Health Survey 2004.

Clinical breast examination

Although the national recommendation is that organized breast cancer screening programs with mammography actively screen women aged 50 to 69 every two years (MSSS, 2003), mammography – which is complex, expensive, only partially effective, and has to be achieved by a radiologist – is probably not the appropriate for screening in Inuit population. However, clinical breast examination carried out by a trained health professional is relatively simple and inexpensive, but its effectiveness in reducing mortality from breast cancer has not been directly tested in a randomised setting.

On the whole, 43.3% of women had declared they had a clinical breast examination done by a health professional at least once, with 30.0% in the previous two years. Breast examination within the two years preceding the survey appears to be more frequent among older women; one out of two women aged 50 years and over (52.3%) had a breast examination in the two years preceding the survey, while 29.8% of women aged 30-49 years and 21.1% of those aged 15-29 years said they had this examination within that period (Table 3).

Table 3
Last breast examination by a doctor or a nurse by age group (%), women aged 15 years and over, Nunavik, 2004

Age group	**Last breast examination**			
	Less than 12 months ago	1 year to less than 2 years ago	2 or more years ago	Never
15-29 years	12.6[E]	8.5[E]	6.2[E]	72.6
30-49 years	16.0	13.8	20.7	49.5
50 years and over	36.6	15.7[E]	14.9[E]	32.8
Total	**18.2**	**11.8**	**13.3**	**56.7**

P-value < 0.0001.
E Interpret with caution.
Source: Nunavik Inuit Health Survey 2004.

The percentage of women, who confirmed to ever had the examination, was slightly superior to the one observed in the 1992 Santé Québec survey, which reached 35.5%. However, in the group of women who had never been examined, 61.3% of them affirmed that the examination was not offered to them and 12.7% of women didn't think it was necessary. Since the breast examination is proposed to be included in the general examination of mature women, this explained the high percentage of never done found in younger women.

Women's behaviour during pregnancy

More than three quarters of Inuit women of this survey had ever give birth (76.6%). At evaluation time, a proportion of 5.8% women were pregnant, mostly young women aged 30 years and under (mean age: 24.9 years; 95% Confidence Interval [23.1-26.7]). An evaluation of Inuit women behaviour during their last pregnancy revealed that 53.7% of them reported they took pills to prevent iron deficiency and 49.2% for vitamin deficiency.

One out of four Inuit women (25.7%) gave their last child for adoption. This rate is conformed to the Inuit tradition of custom adoption. As reported in the theme paper entitled *Socio-demographic Portrait of the Nunavik Inuit Health Survey 2004*, «custom adoption is specific to aboriginal peoples and is defined as a privately arranged adoption between two families. Such an adoption is legal even if there are no social workers or lawyers involved» (Rochette et al., 2007).

In regards of feeding the last child that they gave birth, 30.3% used breast-feeding only compared to 29.3% for bottle-feed and 40.4% who used a combination of the two. The lack of milk production was the main reason to cease feeding for 27.2%[E] of breast-feeding mothers. The mean time of breast-feeding was 7.3 months (CI [5.3-9.3]) and 31.3% of women who recently gave birth were breast feeding a child at the time of the survey. To align with the World Health Organization decision in 2001 to change its recommendation for exclusive breast-feeding from four to six months of age to exclusive breastfeeding until six months of age (WHO, 2001), the Canadian Paediatric Society (2005), the Dietitians of Canada (2006) and Health Canada (2004) now recommend exclusive breast-feeding for at least the first six months of life.

Concerning tobacco use or alcohol consumption during pregnancy, 64.9% smoked daily, and 44.2% reported drinking alcohol during last pregnancy.

As for their hormonal status, 22.3% of women reported a lack of periods in the past 12 months. Of this number, 59.1% of women related this lack of menses to menopause, 31.9% to a hysterectomy surgery, and 9.1% to other health problems.

Women's bone status

Data on bone measurements for Inuit women are compared to those gathered from 8000 women from southern Quebec (Dodin et al., 2002). These comparisons should be used for information purposes only since the Quebec data is not representative of the population. The Quebec data is actually derived from a screening campaign of voluntary subjects held in several cities. Identical questionnaires and ultrasound apparatus were used for data collection in both settings. The percentages of Inuit women presenting normal bone results (32.5% vs. 43.0%) or diagnosed to osteoporosis (10.4% vs. 14.3%) are lower than those measured in southern Quebec women (Table 4).

Table 4
Bone status (%), women aged 35 to 74 years, Nunavik 2004, and Quebec 2002

	Nunavik	Quebec
Normal	32.5	43.0
Osteopenia	57.1	42.7
Osteoporosis	10.4	14.3

Sources: Nunavik Inuit Health Survey 2004 and Dodin et al. (2002).

The T-score of Inuit women, used to determine the individual's fracture risk category, revealed a lower mean value than the one observed among Quebec women. However, the Inuit women were younger[2] than the Quebec women in the normal (43.3% vs. 53.1%) and osteopenia (48.3% vs. 56.6%) groups and older in the osteoporosis group (63.1% vs. 61.5%). The Z-score, which is the age-matched comparison, indicates that Inuit women shown an increased risk of fracture compared with Quebec women (-0.777 vs. 0.499), therefore a lower bone mineralization (Table 5).

[2] The age-matched reading compares your bone density to what is expected in someone of your age, sex and size. The young normal reading compares your density to the optimal peak bone density of a healthy young adult of the same sex.

Table 5
Bone status (%), women aged 35 to 74 years, Nunavik 2004, and Quebec 2002

	Nunavik		Quebec
	N = 207	CI 95%	N = 7128
Stiffness	78.6 ± 0.9	76.8 – 80.5	86.6 ± 14.2
T-score	-1.331 ± 0.059	-1.446 – -1.215	-1.175 ± 1.268
Z-score	-0.777 ± 0.057	-0.890 – -0.664	0.499 ± 1.166

Sources: Nunavik Inuit Health Survey 2004 and Dodin et al. (2002).

As well documented in the literature, the benefit of physical activity on bone health is depending of the nature, specially loading exercise, the frequency, the duration and the intensity of the practice exercise. In this survey, more than three quarter of Inuit women were sedentary (76.8%). No classification of exercise was done in regards of the loading potential effect. Furthermore, 79.1% of women described their level of physical activity at work to be sedentary such as usually sitting position or standing or walking without overload during the day.

II. PREVENTIVE SEXUAL BEHAVIOUR AMONG MEN AND WOMEN

Sexual partners

The result of this survey show that 46.4% of individuals had one partner during the year preceding the survey while 21.9% had two or more partners; this proportion being higher among men (25.2% vs. 18.5%) (Table 6). These results are similar to those observed in the 1992 Santé Québec survey (Palda et al., 2004), where 21.6% of men (p = 0.18) and 17.0% of women (p = 0.30) had more than one partner.

Table 6
Number of sexual partners in the last 12 months according to sex (%), population aged 15 years and over, Nunavik, 2004

Sex	Number of partners		
	None	1 partner	2 partners or more
Men	33.0	41.8	25.2
Women	30.3	51.2	18.5
Total	**31.7**	**46.4**	**21.9**

P-value = 0.003.
Source: Nunavik Inuit Health Survey 2004.

Furthermore, in regard of the entire population of the survey, women and men, 31.0% of individual aged between 15 and 29 years old declared to have more than one partner while this proportion was 20.0% for the 30 years old and over (p < 0.0001).

However, a warning had to be imposed in the interpretation of the results of this section. The notion of sexual partners seems to be misunderstood by some Inuit at the time of answering the questionnaire. Some of them had assumed that the definition of partners excluded their spouse.

Contraception

Thirty four percent (34.4%) of Inuit used condom the last time they had sexual intercourse. This utilization was more frequent in younger people, the 15 to 29 years old group, than in respondents aged 30 years and over (p < 0.0001) (Table 7).

Table 7
Condom uses in the last sexual intercourse according to age group (%), population aged 15 years and over, Nunavik, 2004

Age group	Condom uses
15-29 years	48.7
30 years and over	21.1
Total	**34.4**

P-value < 0.0001.
Source: Nunavik Inuit Health Survey 2004.

As for the use of birth control practices in the past twelve months, nearly three out of ten persons (28.0%) declared that they or their partner usually used contraceptives within the last year. Here again, younger people appear to be greater users of birth control with 33.3% of the 15 to 29 age group usually using birth control (Table 8). Among women in age to reproduce (those in 15 to 29 years old), 31.8% of women declared that they or their partner was usually using birth control.

Table 8
Birth control uses in the past 12 months according to age group (%), population aged 15 years and over, Nunavik, 2004

Age group	Birth control uses
15-29 years	33.3
30 years and over	22.9
Total	**28.0**

P-value = 0.006

Source: Nunavik Inuit Health Survey 2004.

DISCUSSION AND CONCLUSION

As already observed in the previous 1992 survey, the Nunavik women participation to the Pap test screening program is higher than the Quebec women: 82.3% in the last two years for Inuit women versus 62.0% for Quebec population (MSSS, 1998). Nevertheless, the efforts should target the least educated and underprivileged women. Health professional should be aware to offer Pap test to their sexual active patients.

A high percentage (56.7%) of the Inuit women have never undergone one clinical breast examination, even among mature women and no change has been observed compared to 1992 survey. More than 60% of these women in this survey reported that the health professional did not ever offer them. Interventions should more implicated health professional who should be aware to include the clinical breast examination in periodic health examinations at least for 50-69 years old women.

Prevalence of pregnancy in youngest Inuit women is very high and Inuit pregnancy women behaviour is not optimal (sixty five percent of pregnant women smoke every day). Pregnant teens are at risk for lower birth weights of their children, preterm delivery without consideration of added risk factors, such as smoking. When smoking is added to the teen's profile, obstetrical risks double. Health care providers should be encourage to screen and address tobacco use at every encounter and should aware that treatments as brief as three minutes have been effective in making change. Inuit women keep initiating and breastfeeding their baby more frequently than Quebec women population.

Compared to the data obtained for Quebec population, Inuit women seem to show a higher risk of fractures but direct comparisons are not available and this conclusion need to be confirmed in a subsequent health evaluation. The Canadian Osteoporosis Society guidelines (SOGC, 2002) recommend screening with Dual energy x-ray absortiometry technique (DEXA) for menopausal women who have one major or two minor clinical risk factors or those 65 years and older. These recommendations should be apply to Inuit women. Nevertheless, those recommendations could be difficult to follow because of the less availability of this apparatus in the Inuit health community services.

KEY ISSUES

- More than four of five adult Inuit women had a Pap test in the two years preceding the survey (82.3%) and 60.3% had one in the last 12 months.
- Overall, 43.3% of women confirmed having had a clinical breast examination performed by a health professional at least once, with 30.0% having had one in the previous two years. However, more than half (56.7%) of Nunavik women reported that they never had a breast examination and this proportion was higher among younger women. Breast examination appears to be more frequent among older women.
- An evaluation of Inuit women's behaviour during their last pregnancy indicated that 53.7% of them reported having taken medication to prevent iron deficiency and 49.2% to prevent vitamin deficiency.
- In regards to tobacco use and alcohol consumption during pregnancy, 64.9% smoked daily and 44.2% reported having drunk alcohol during the last pregnancy.
- With respect to feeding the last child they gave birth to, 30.3% of Inuit women breast-fed only compared to 29.3% who bottle-fed and 40.4% who did a combination of the two.

- The evaluation of women's bone status revealed that 32.5% of them presented normal bone quality, 57.1% had osteopenia, which is a slight diminution of bone quality compared to the results of young adults, and 10.4% had a diagnosis of osteoporosis.
- In terms of preventive sexual behaviour among men and women, 46.4% of individuals declared they had one partner during the year preceding the survey, while 21.9% had two or more partners; this proportion was higher among men (25.2% vs. 18.5% for women).
- Thirty four percent (34.4%) of Inuit used a condom the last time they had sexual intercourse. Condom use was more frequent among younger people. As for the use of birth control in the past 12 months, 28.0% of Inuit declared that they or their partner usually used contraceptives within the last year.

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REFERENCES

Canadian Paediatric Society. (2005). Exclusive breastfeeding should continue to six months. *Paediatrics & Child Health, 10* (3):148. [On-line]. http://www.cps.ca/english/statements/N/BreastfeedingMar05.htm.

Dietitians of Canada. (2006). Is there any link between maternal anemia after delivery and discontinuation of breastfeeding ? *Canadian Journal of Dietetic Practice and Research, 67* (2): 72. [On-line]. http://www.dietitians.ca/news/highlights_research_maternal_anemia.asp

Dodin, S., Blanchet, C., Dumont, M., Laflamme, N., Rousseau, F. (2002). *Environmental risk factors and quantitative ultrasound in French Canadian menopausal women*. 24rd Annual Meeting, American Society of Bone Mineral Research. San Antonio, Texas, USA. September 20-24, 2002.

Health Canada. (2004). *Exclusive Breastfeeding Duration: 2004 Health Canada Recommendation*. Ottawa. [On-line]. http://www.hc-sc.gc.ca/fn-an/index_e.html

Miller, A.B., Anderson, G., Brisson, J., et al. (1991). Report of a National Workshop on Screening for Cancer of the Cervix. *CMAJ, 145*(10), 1301-25.

Ministère de la Santé et des Services sociaux (MSSS). (1998). *Le dépistage systématique du cancer: document produit dans le cadre des travaux du Comité consultatif sur le cancer.* Quebec: Gouvernement du Québec.

Ministère de la Santé et des Services sociaux (MSSS). (2003). *Programme québécois de dépistage du cancer du sein: Rapport d'activités, 2000-2001*. Quebec: ministère de la Santé et des Services sociaux, Gouvernement du Québec.

Palda, V.A., Guise, J.M., Wathen, C.N. (2004). Interventions to promote breastfeeding: applying the evidence in clinical practice. *CMAJ, 170*(6), 976-978.

Rochette, L., St-Laurent, D. & Plaziac, C. (*in press*, 2007). Socio-demographic Portrait. *Nunavik Inuit Health Survey 2004, Qanuippitaa? How are we?* Quebec: Institut national de santé publique du Québec (INSPQ) & Nunavik Regional Board of Health and Social Services (NRBHSS).

Santé Québec, Jetté, M. (ed.) (1994). *A Health Profile of the Inuit; Report of the Santé Québec Health Survey Among the Inuit of Nunavik, 1992*. Montréal: Ministère de la Santé et des Services sociaux, Government of Québec.

Society of Obstetricians and Gynaecologists of Canada (SOGC). (2002). *The Canadian Consensus Conference on Menopause and Osteoporosis*. Ottawa: The Society Update (SOGC guideline no 108). [On-line]. http://www.sogc.org/guidelines/public/108E-CONS1-Sep-Dec2001.pdf (retreived Feb 1, 2007).

U.S. Department of Health and Human Services. (2004). *Bone Health and Osteoporosis: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health Human Services, Office of the Surgeon General. [On-line]. http://www.surgeongeneral.gov/library/bonehealth/docs/Chapter_8.pdf

World Health Organization (WHO). (2001). *Global Strategy for Infant and Young Child Feeding, The Optimal Duration of Exclusive Breastfeeding*. Geneva. [On-line]. http://www.who.int/gb/ebwha/pdf_files/WHA54/ea54id4.pdf

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Qanuippitaa?

HOW ARE WE?