

A Review of Inuit Oncology Patients Treated at the Ottawa Hospital Cancer Centre

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Nunavut

- Eastern-most of the three Canadian territories
- Aboriginal populations make up 85% of population
- 49% of Canada's Inuit population reside in Nunavut

Sharma, S. J. Hum. Nutr. Diet. **2010**, Suppl. 1, 5-17.

Friborg, JT; Melbye, M. The Lancet Oncology. **2008**, 9, 892-900

McDonald, JT; Trenholm, R. Social Science & Medicine. **2010**, 70, 1396-1403

Traditional Lifestyle

- Inuit were nomadic hunter-gatherers
- Diets were largely protein-based
- Inuit were well-adapted to animal product-rich diets allowing them to thrive for thousands of years.

Transition to 20th Century

- Result of social, environmental and economic influences.
- Consisted of establishment larger urban communities, improvement of housing standards.
- Decrease in fishing and hunting

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Outcomes of 20th Century Transition

- Non-traditional foods are more readily available
- Levels of physical activity have declined
- Diet consisting of higher saturated fat and refined carbohydrates

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Cancer in the Late Inuit Populations

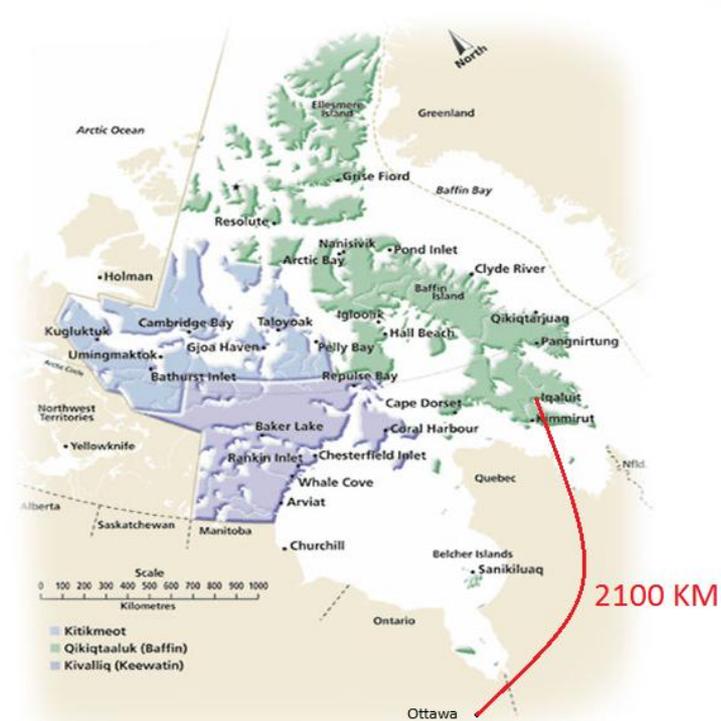
- High frequencies of carcinomas of the:
 - Nasopharynx
 - Salivary glands
 - Oesophagus
- Low frequencies of carcinomas of the:
 - Prostate
 - Breast
 - Lung

Cancer in Today's Inuit Population

- Increase in the incidence of lifestyle-associated cancers including:
 - Lung
 - Breast
 - Colon

The Ottawa Hospital Cancer Centre

- Responsible for all oncology consultations for the Baffin region of Nunavut
- Travel creates significant challenges due to separation from family and community social support networks.



http://www.ohsni.com/index.php?url=/content_pages/v/~Map_of_Nunavut

Methods

- A chart review of all patients from Nunavut seen at the OHCC from January 2002 to December 2010 was conducted.
- Data collected included: demographic information, ethnicity, diagnosis, stage at diagnosis, treatment, TB exposure, etc.
- This research was approved by the Ottawa Hospital Research Ethics Board.

Table 1. Patient descriptions

No. of patients	194
Mean age at dx (years)	62
Range (years)	3-89
No. of female pts (%)	94 (48)
No. of current smokers (%)	99 (51)
No. of pts with previous TB (%)	71 (37)
No. of pts requiring interpreter services (%)	117 (60)
No. of pts with metastatic disease at presentation (%)	65 (34)

Table 2: Cancer type at presentation

Cancer Type	Number of cases (%)	Number of cases with metastatic disease at presentation (%)
Lung	94 (48)	35 (37)
- Squamous	9	4
- Small cell	33	10
- Non-small cell	41	16
- Adenocarcinoma	4	2
- Unspecified	7	3
Colon	20 (10)	7 (35)
Breast	16 (8)	5 (31)
Nasopharynx	14 (7)	4 (29)
Cervix	10 (3)	1 (10)
Prostate	2 (1)	1 (50)
Other	38 (20)	13 (34)

Table 3. Treatment modality given in Ottawa

No. of surgery pts (%)	79 (41)
No. of chemotherapy pts (%)	69 (36)
No. of radiation therapy pts (%)	70 (36)

Table 4. Description of communities surrounding Iqaluit

	Kimmirut	Cape Dorset	Igloolik	Grise Fjord
Population	411	1236	1538	141
Distance to Iqaluit (km)	160	397	825	1700
No. of cancer patients	10	20	12	2

Table 5. Types of cancer in the Inuit population compared to the Canadian population

Cancer type	Total no. of cases in this Inuit population (%) (n = 194)	Total no. of cases in a Canadian population (%) (n = 163,529)
Lung	94 (48)	22,865 (14)
Colon	20 (10)	13,744 (8)
Breast	16 (8)	21,021 (13)
Prostate	2 (1)	23,181 (14)

Conclusion

- Increase in the prevalence of lifestyle associated cancer vs traditional cancers in the Inuit population
- Need for chronic disease prevention programmes in Nunavut
- The national organization representing Inuit in Canada (ITK) has identified the promotion of healthier lifestyles and prevention screening/early detection of cancer to be a priority.

Thank you