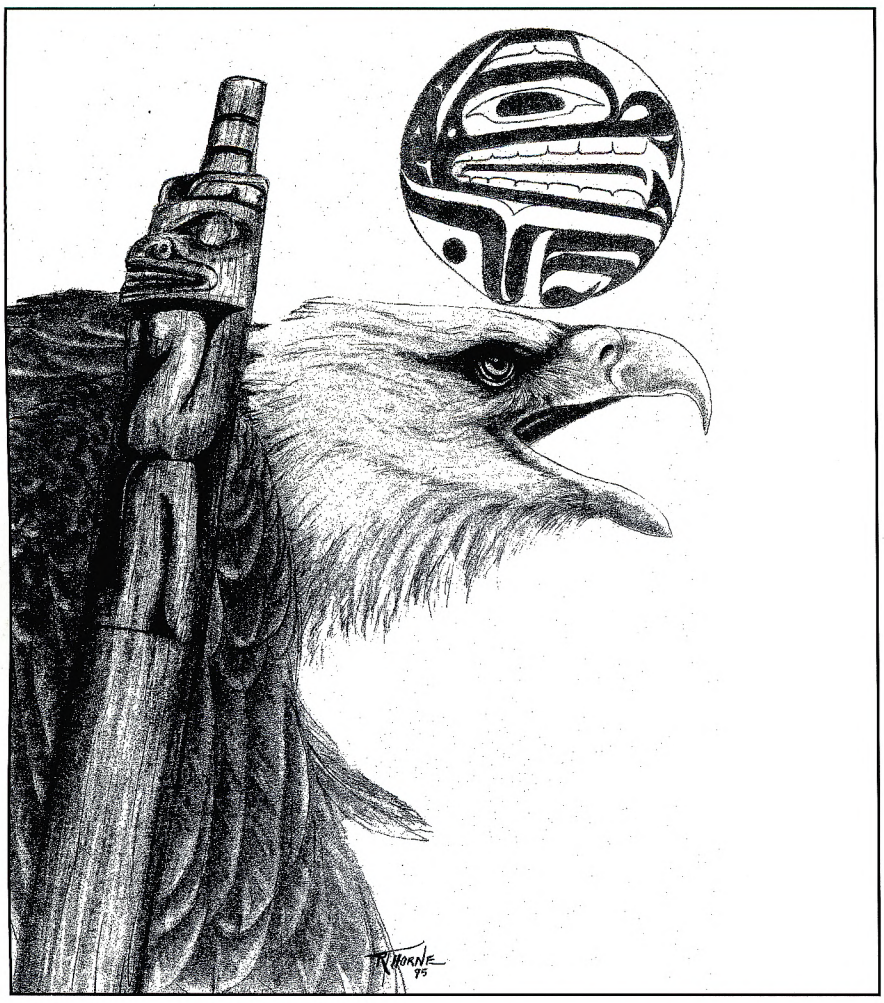
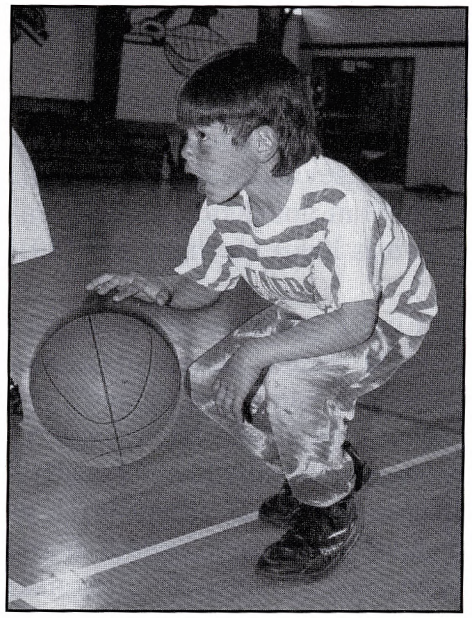
Health Canada Santé Canada



A STATISTICAL REPORT ON THE HEALTH OF FIRST NATIONS IN BRITISH COLUMBIA

1995

Canada



A STATISTICAL REPORT ON THE **HEALTH OF FIRST NATIONS** IN BRITISH COLUMBIA

1995

Our mission is to help the people of Canada maintain and improve their health.

Health Canada

Également disponible en français sous le titre
Rapport statistique sur la santé des Autochtones de la Colombie-Britannique

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Summary

The Pacific Region of Medical Services Branch (MSB) is a division of Health Canada, and shares responsibility for the provision of health services to the First Nations[1] population in British Columbia. This report is a compilation of data collected from a number of sources, including the Medical Services Branch, the Division of Vital Statistics of the B.C. Ministry of Health, Indian and Northern Affairs Canada, and Statistics Canada (The Aboriginal Peoples Survey of 1991).

Obtaining accurate health status information has delayed production somewhat. Consequently, this report is a compilation of data for the years 1987 to 1992.

The First Nations with the support of the Medical Services Branch, the provincial Ministry of Health, and a variety of health agencies, ensures the provision of a broad range of treatment services, including medical, dental, nursing, family counselling and hospital services. In addition, community nursing services are provided by federal, provincial and First Nations community health nurses, to the First Nations throughout the province. A large number of para-professionals a broad range of services. These workers include community health representatives, dental therapists, and alcohol and substance abuse workers. Service to the First Nations population in British Columbia is complex owing to the large number of First Nations (198) and relatively small size of the communities.

A multitude of health programs are available including a full range of community nursing programs: maternal and child health, communicable disease control, school health, care to the elderly, and health education and promotion activities. Dentists and dental therapists provide treatment and preventive programs concentrating on the pre-school and school-age groups. Health education and promotion activities are provided by health education and nutrition specialists, community health development workers, community health nurses, community health representatives and alcohol and substance abuse workers. First Nations have access to federal contribution funds for a wide variety of health promotion activities including HIV/AIDS education, "Brighter Futures" directed at First Nations children up to six years of age, alcohol and substance abuse prevention programs, and family violence prevention.

In addition to the insured health services provided by the province, MSB provides non-insured health benefits, including prescription and over-the-counter drugs, dental care, eyeglasses, medical equipment and devices, and medical transportation.

The Medical Services Branch works closely with First Nations to transfer resources associated with community health programs to the control of the First Nations. Since 1989, there have been six transfers comprising approximately 46 bands.

From a population estimated at approximately 105 000 in the late 1700s, the First Nations population was reduced to a low of 22 000 in 1929 by epidemics including tuberculosis, influenza and smallpox. Improved health services, gradually improving socio-economic conditions and a high fertility rate have resulted in a fairly steady increase in population to approximately 92 000 Status Indians in British Columbia in 1991, of whom 53.3% reside on-reserve. Seventeen percent of the registered Status Indian population in Canada resides in British Columbia.

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1 Registered Indians living on-reserve in British Columbia

Morbidity (illness) on-reserve continues to be high. Although hospital stays for the First Nations have decreased considerably in the past ten years, they still continue to be high when compared with the total population (one-and-a-half times higher). A substantially higher proportion of First Nations report disability and chronic health conditions compared with the total Canadian population. These problems include rheumatism and arthritis, diabetes mellitus, and tuberculosis. The Aboriginal Peoples Survey of 1991 provides much useful information on behaviour contributing to morbidity and mortality, including excessive rates of cigarette smoking, alcohol and substance abuse, family violence, and less than optimal use of devices to prevent injury, including seat belts, helmets and life-jackets.

Socio-economic factors have a great impact on health. Canadian and international studies have shown a positive and strong correlation between higher levels of income and better health. Low levels of employment continue on-reserve. Low individual and family incomes restrict the capaeity of families and communities to obtain adequate housing, good nutrition and appropriate cultural and recreational pursuits. Low levels of employment restrict achievement of financial security and independence. They also undermine confidence and self-esteem, leading to physical and mental health problems associated with poverty, dependence, and socio-cultural alienation. Although on-reserve housing in British Columbia has improved in recent years, many older houses of inferior standard are still in use. Although much improved from the past, crowded conditions continue, and contribute to communicable disease, tension, and violence within family and community.

A detailed report on health statistics for First Nations people residing both on-and-off-reserve in British Columbia has been compiled by the Division of Vital Statistics of the provincial Ministry of Health for the years 1987 to 1992. High birth-rates for young mothers reflect traditional patterns of child rearing; low birth-rates among elderly gravida reflect traditional nurturing patterns. The slightly elevated low birthweight rates reflect high levels of cigarette smoking in native communities. They may also reflect less than adequate nutrition. Higher premature birth-rates and stillbirth rates may be attributed to a number of factors, including poor nutrition, cigarette smoking and alcohol and substance abuse.

The infant mortality rate (13.89) is approximately double the provincial rate (7.36) and is steadily declining (41.2 in 1977). Early neonatal and neonatal mortality rates are actually slightly lower than the provincial rates and likely reflect better prenatal care and nursing/medical care provided immediately preceding, during and immediately following birth. A high post-neonatal mortality among First Nations compared with the total population, reflects a combination of limited post-natal care, poor nutrition, adverse environmental conditions, and the effect of placing an infant in the prone as opposed to the preferred supine position (on the side or baek).

The rates of mortality among young adults account for the lower life expectancy among First Nations compared with the total population. First Nations mortality rates continue to be high as a result of poor nutrition, unhealthy housing and living conditions, the hazards often associated with traditional pursuits, poor socio-economic and cultural conditions, violence, and suicide. It is believed by health experts and community leaders that alcohol and substance abuse contribute to the high incidence of violent deaths including accidental drowning, motor vehicle accidents, accidental discharge of firearms, unsafe operation of heavy equipment, and carelessness or neglect in the operation of heating and electrical systems.

Efforts to reduce the incidence of violent death and suicide among First Nations in British Columbia will require a continuing focus on the root causes of these problems (socio-economic and living conditions), as well as appropriate prevention and early treatment services, including individual and family counselling and home and on-the-job safety training.

The change in the political environment supporting the aspirations of First Nations through land claims negotiations and self-government initiatives is expected, in the long term, to lead to improved socio-economic status and an inevitable improvement in overall health.

Acknowledgements

To First Nations people for providing information from their communities, and to the First Nations Summit Health Committee and Gerald Wesley, Health Committee Chair, for advice and comments; to Mr. Ron Danderfer, Director, and Mr. Soo Hong Uh and staff of the Division of Vital Statistics, Ministry of Health in Victoria and Statistics Canada in Ottawa; to Mr. Phil Nicholson and Associates, Ottawa, Ontario and the Department of Indian Affairs and Northern Development; to Shirley Forkin and Veronica McGraw for word processing and graphics; to Jost Stal, Regional Planning Officer, for his assistance, patience and perseverance; to Dr. Pat Prestage, and Larry McCafferty, Regional Directors, and Paul Kyba, Associate Regional Director, for their longstanding support and encouragement; to Marie Danielle Ménard for editing; to Ahmad Humayun for design and layout; to zone staff and particularly to field nurses and community health representatives.

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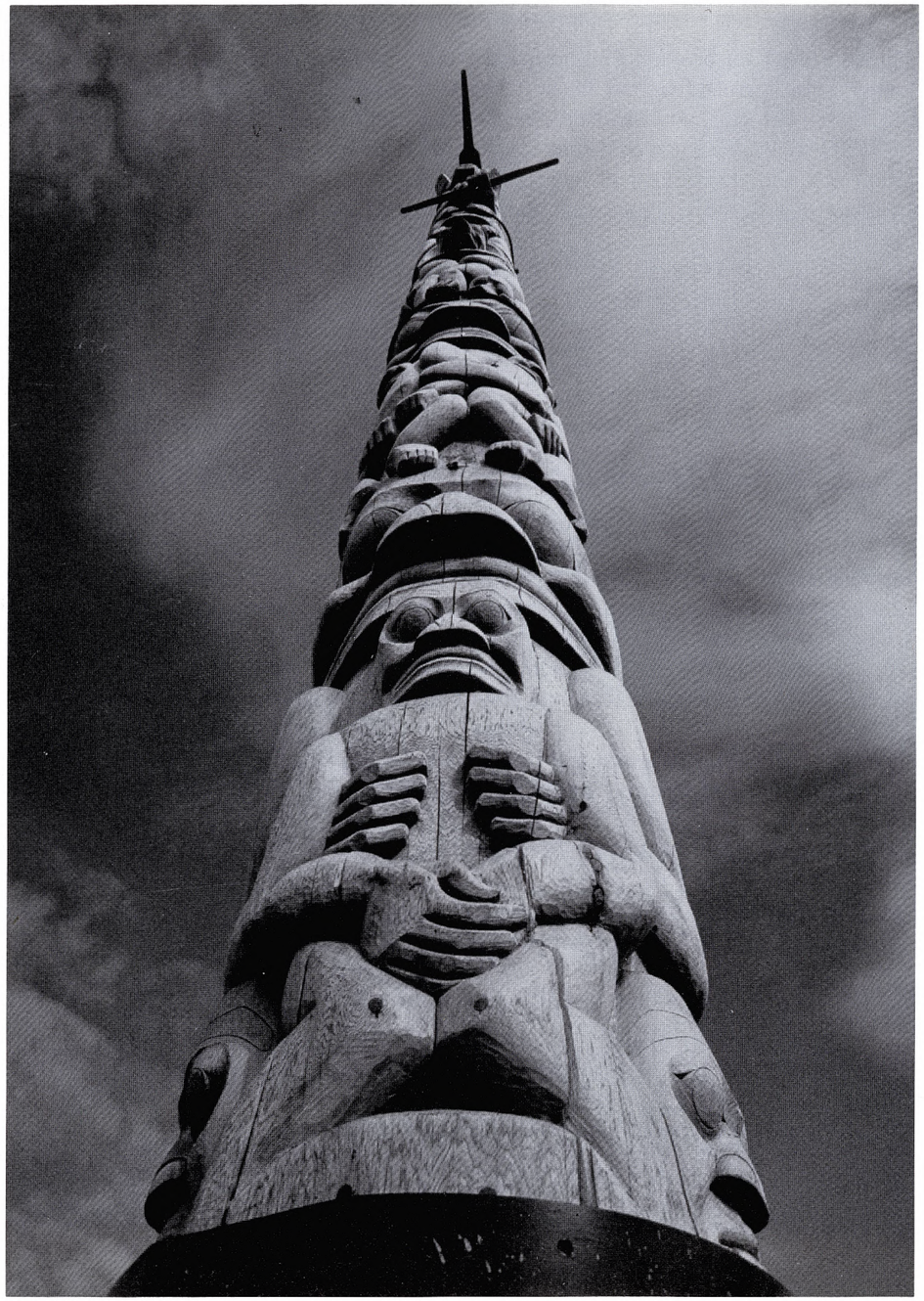

I. INTRODUCTION:

Purpose of Report

This report has been prepared by the Pacific Region of Medical Services Branch (MSB), Health Canada (HC). It describes the health of First Nations people[2] in British Columbia, and outlines MSB's activities in providing and/or co-ordinating health programs and services in co-operation with First Nations people.

The report is intended to:

- create better awareness of First Nations health conditions and issues in British Columbia;
- describe MSB services and initiatives throughout the province;
- provide a basis for developing future First Nations health policies and programs; and
- establish a framework for regular review and evaluation of health issues, strategies and accomplishments.

The report will be of particular interest to health professionals and other community leaders and workers who are concerned with health services for the First Nations and their communities throughout the province. Throughout this report the terms "First Nations" and "Status Indians" are used interchangeably to refer to registered Indians living on-reserve. The terms "Aboriginal" and "Native" may also be used to refer to this group. The section on Health Status - Indicators, beginning on page 99, uses these terms to refer to the native population on-and off-reserve, since the data was compiled for the total Status Indian population in B.C.

This report uses data compiled from a number of sources, including Medical Services Branch, the Department of Indian Affairs, divisions of the Provincial Ministry of Health including Hospital Programs and Vital Statistics, and the 1991 Statistics Canada Aboriginal Peoples Survey (APS). This survey, conducted in the months following the 1991 Census, included persons identified with at least one Aboriginal group (North American Indian, Métis, Inuit, or a specific group such as Cree or Inuvialuit, or reported as being registered under the *Indian Act*). All statistics obtained from the APS database are estimates based on a probability survey carried out with a sample of Canada's Aboriginal population. These statistics can be subject to two different types of errors: sampling errors and non-sampling errors. For further technical discussion of this subject, the reader is referred to the 1991 Aboriginal Peoples Survey produced by Statistics Canada.

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[2] Registered Indian people on-reserve in British Columbia.

Background

The Pacific Region of Medical Services Branch shares responsibility for the provision of health services to the Status Indian population living on reserve in British Columbia. Treatment services to Native people are provided by the provincial Ministry of Health, through insured health services available to all residents of the province, including physician services and hospital services.

The Medical Services Branch provides public health services in on-reserve health centres staffed by federal community health nurses (CHNs). There are 19 health centres in the province. A wide range of community health programs include maternal and child health, communicable disease control, school health, chronic disease, and services to the elderly.

Service to the Aboriginal population in British Columbia is complex due to the large number and small size of reserves.

Treatment and public health services are provided in nursing stations located in isolated and remote locations. Services are provided to both Aboriginal and non-Aboriginal people. There are nine nursing stations in the province.

In addition, there are 37 health stations located on reserve. They are usually staffed by a community health representative (CHR), a Native para-professional serving the Band and providing health education and first aid to local residents. Band-employed alcohol and drug counsellors also work in the communities.

Federal community health nurses provide services to the majority of the 196 First Nations Bands in the province. The remainder are serviced by provincial and municipal public health nurses and by nurses employed directly by transferred First Nations who provide community health programs similar to the federal programs.

Medical and dental treatment services are provided by physicians and dentists in private practice, and by departmental dentists. Contractual arrangements are made for clinics in isolated locations. In addition, departmental dentists provide supervision to dental therapists who work in a number of communities and provide basic dental services, directed mainly at the school-age population.

Environmental health services are provided by federal health officers and include inspection, advice and education on water and sewage facilities, solid waste disposal, and environmental contaminants.

Program administration is carried out through a regional office located in Vancouver, and zone offices in Prince George, Prince Rupert, Victoria and Vancouver.

II Concepts of Health and Health Care

a) A Working Definition of Health

In the past, when various forms of infectious disease were the predominant cause of illness and death, health was typically defined in terms of the absence of physical disease. By the middle of this century, however, the incidence of many of the most common infections had been successfully reduced through a combination of medical innovations (e.g., inoculations and improved treatment of the sick or injured) and basic improvements to housing and community services, including water and sewer facilities. At the same time, perceptions of health had expanded from a focus on the purely physical conditions (e.g., disease, injuries and chronic ailments) to a broader perspective that embraces virtually all facets of life, namely a state of complete physical, mental and social, and spiritual well being. Health is also viewed as the extent to which an individual or group is able, on the one hand to realize aspirations and satisfy needs, and on the other to change or cope with the environment. The Medical Services Branch (MSB) adopts such a broad definition of health to guide the design and delivery of its programs and services.

b) The Mission of the Medical Services Branch

The overall mission of the Medical Services Branch (MSB) of Health Canada is:

> "— to provide and/or co-ordinate the provision of high-quality health care to the client groups for which it has responsibility, by:
>
> - exercising effective leadership; questioning established methodologies; and adopting a pro-active and innovative approach to health care delivery;
> - ensuring that health programs and related activities are responsible to client health needs; and that consultation with client groups becomes an integral part of branch management;
> - promoting professional and technical excellence among health care providers; and monitoring the achievement of results;
> - co-ordinating the development and implementation of health programs with other sectors of the Canadian health care system and with other departments and agencies of the federal government; and
> - maximizing efficacy and efficiency of the use of human and financial resources; and, as required, reallocating resources to areas of highest priority."

This mission assumes a broad interpretation of the term "health care", that embraces not only treatment services, but also a full range of prevention and health promotion activities.

c) First Nations Health Policy

The above working definition of health and MSB's mission statement are firmly rooted in the three pillars of the 1979 First Nations Health Policy, the primary goal of which was stated as follows:

> "— to achieve an increasing level of health in First Nations communities, generated and maintained by the First Nations communities themselves."

The above goal is to be achieved by building on the three pillars outlined in the First Nations Health Policy, namely:

1. Community Development:

Socio-economic, cultural, and spiritual development is needed to remove the poverty and apathy that are barriers to physical, mental and social well-being.

2. The Traditional Relationship of the First Nations People to the Federal Government:

The federal government serves as an advocate for First Nations communities, and helps promote the capacity of these communities to achieve their aspirations.

3. The Canadian Health System:

The First Nations are seen as participants in an existing health care system involving federal, provincial and municipal governments, as well as First Nations Bands and the private sector. The federal government is committed to promoting the capacity of First Nations communities to play an active and positive role in the health system, and in decisions affecting their health.

Making it Work: The Involvement of Others

As outlined above, MSB provides a broad range of programs and services that either directly provide health services to the First Nations or, increasingly, enable First Nations and their governments and institutions to take positive steps to promote and secure their own good health. MSB and First Nations health workers at all levels do not work in isolation. Instead, they function as part of a broader network of professionals and para-professionals concerned with the overall health, security and well-being of their families and their communities. This includes not only those directly involved in conventional health services and functions, but also those individuals and organizations involved in areas that significantly affect health conditions and prospects, such as social and economic development, housing, community infrastructure and services (e.g., water, sewer and recreation facilities), family and community counselling, education, criminal justice and security, and safety at home, at school and in the workplace.

- MSB works closely with the provincial Ministry of Health in most aspects of health service delivery. Medical premiums are paid by MSB on behalf of Status Indians who are thus eligible to receive the benefits of the provincial Medicare program. Status Indians have the same access to physician and hospital programs as all other eligible provincial residents. MSB also makes available additional benefits that are known as non-insured health benefits not covered under the provincial program. These include eyeglasses, dental treatment and preventive services, prescription and over-the-counter drugs, medical transportation and the provision of special medical equipment such as wheelchairs and prostheses.

- The regional office of MSB is similar to a provincial health unit, staffed by administrators, clerks, and program consultants administering health services in the entire province, and managing the operation of zone offices, health centres, nursing stations and health stations.

III The First Nations Population In British Columbia

Introduction

This chapter reviews key demographic characteristics of the British Columbia First Nations population, highlighting major implications for health policies and programs. These characteristics include:

(a) First Nations History in British Columbia

(b) Population Size

(c) Fertility

(d) On-and Off-Reserve Population in British Columbia

(e) British Columbia and Canadian Status Indian Population

(f) Language and Culture

(g) Community Organization and Geographical Distribution

(h) Age and Sex

a) First Nations History In British Columbia[3]

Canada's first peoples have flourished for at least 12 000 years. About 5 000 years ago, more stable settlements began to emerge and increasingly complex cultures developed in all areas of British Columbia.

By the 1700s, just before contact with Europeans, relatively large First Nations populations had settled throughout British Columbia. Fourteen tribes with as many as 25 000 members lived in the northern and central parts of the province. Another five tribes with 10 000 members settled in the southeastern plateau. Seven tribes representing about 70 000 members lived on the west coast.

For North America, this was an extremely high population density of Aboriginal people. At the time, about 40% of the total First Nations population of Canada lived within the present boundaries of British Columbia.

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3 ***The Aboriginal Peoples of British Columbia, A Profile,*** **British Columbia Ministry of Abrigional Affairs.**

Contact with Spanish and British explorers in the late 1700s brought the fur trade, which increased the wealth of First Nations societies and strengthened the existing social and economic systems. Contact also brought diseases, firearms and alcohol. From the time of contact up to 1835, the population dropped from 105 000 to 70 000. By 1885, the number had dropped to 28 000 and, in 1929, the population reached a low of 22 000, mainly due to major epidemics of tuberculosis, influenza and smallpox. From about 1939 on, the First Nations population in all parts of the province began to climb rapidly.

The Colonial Period

In 1849 the British Government established Vancouver Island as a colony in order to encourage settlement and confirm British sovereignty in the area. With increasing pressure for land from settlers it became necessary to set policies to establish ownership of land.

The chief Factor of the Hudson's Bay Company, James Douglas, recognized that although absolute title to the land was held by the Crown, First Nations should continue to exercise some rights of use. Between 1850 and 1854, he negotiated 14 treaties that covered a small part of southern Vancouver Island. On the mainland, the colonial government maintained a policy of allocating reserve lands to First Nations peoples.

Confederation to Today

When British Columbia joined Canada in 1871, jurisdiction for First Nations matters passed from the local governor to the office of the Secretary of State in Ottawa. The trusteeship and management of the lands reserved for First Nations use and benefit was assumed by the Government of Canada. The provincial government was required to convey lands needed by the federal government to implement its First Nations policy.

The first omnibus legislation for First Nations was passed in 1874. It consolidated and revised all previous legislation dealing with First Nations in all existing provinces and territories. The *Indian Act* defined the position of First Nations in Canada.

The only treaty made by the federal government in British Columbia was with five bands in the Peace River area in the northeastern region of the province. It was signed in 1899.

b) Population Size

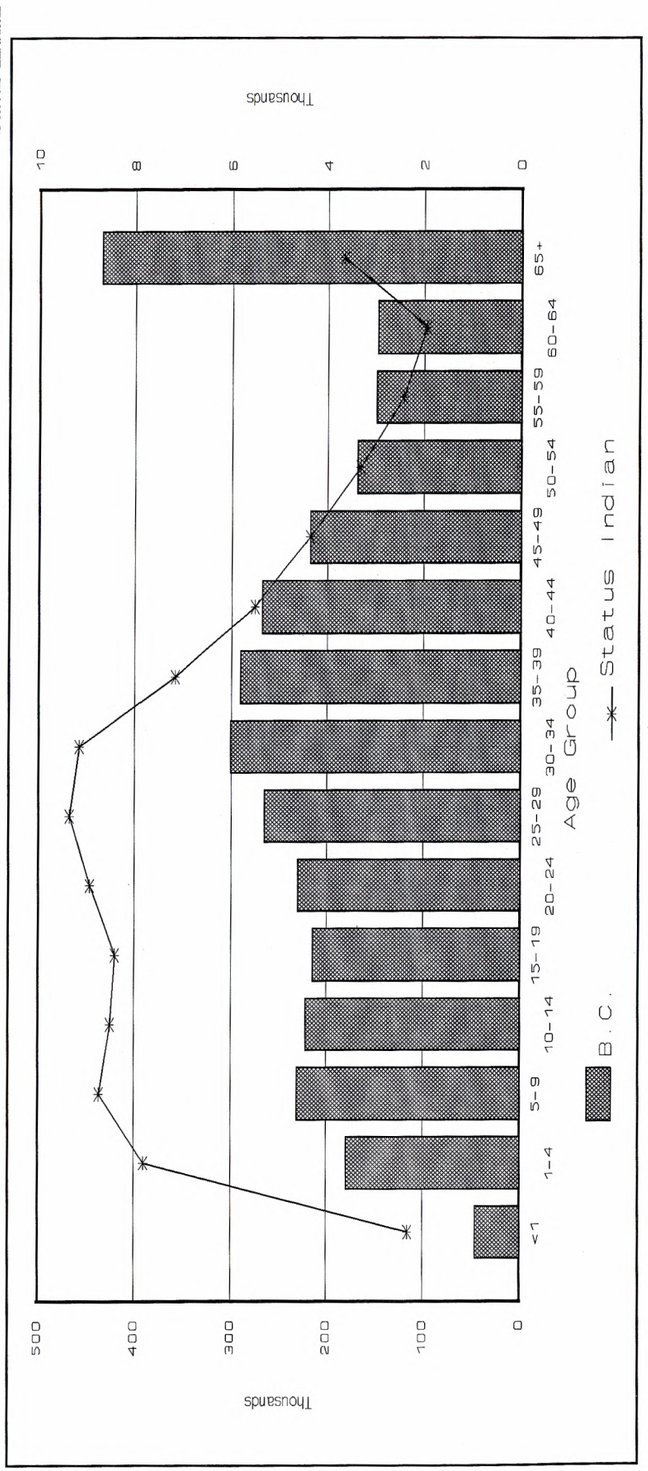
In 1971, the total on-and off-reserve First Nations population in British Columbia was approximately 50 000, and by 1986, it had risen to approximately 66 000. In 1992, this population was 91 622 and the total British Columbia population was 3 372 372. Between 1987 and 1992, the First Nations comprised approximately 2.7% of the total British Columbia population.

As a whole, the First Nations population is younger than the provincial population. In 1991, 59.0% were under age 30 compared with 41.2% for the province. In the older age groups this pattern was reversed, especially in the 65+ age group, which was only 4.0% of the First Nations population, compared to 12.9% of the total population of British Columbia.

The distribution of the total British Columbia population by age group was trimodal, with high points at ages 5 to 9, 30 to 34, and 65+ for all years from 1987 to 1992. The distribution of the First Nations population was bimodal, with high points at ages 5 to 9 and 20 to 24 in 1987, and with high points at ages 5 to 9 and 25 to 29 for all years between 1988 and 1992.

The recent rapid growth in the B.C. First Nations is the result of two major factors. First, natural increase (an excess of births over deaths) accounts for much of the population growth. Second, the new registrants resulting from successful applications under the terms of Bill C-31 (an amendment to the *Indian Act* that enables the reinstatement of persons who had lost status for various reasons, including marriage to non-Natives) were expected to add a total of 17 000 Status Indians by the end of 1994. As of July 31, 1993, almost 15 839 had been instated or reinstated and a further 900 were under consideration. Even though the fertility rate is declining, the B.C. First Nations population is relatively young, with a large portion of individuals in prime family-formation and child-bearing ages. Consequently, there will continue to be an excess of births over deaths for the next two decades. As a result, the population is expected to grow before any appreciable stabilization or decline may be anticipated (i.e., as a result of increased mortality as the current population ages, assuming that the fertility rate continues to decline).

Figure 1
Population by Age Group
Status Indians vs. B.C., Both Genders
British Columbia, 1992[1]



British Columbia

Source: Vital Statistics
[1] For additional graphs see Appendix D, Pages 1 and 2

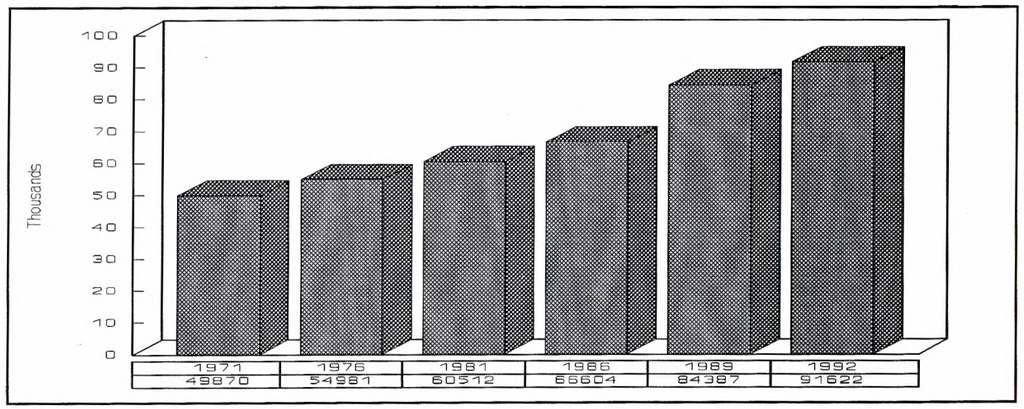
Table 1
POPULATION ESTIMATES - STATUS INDIAN VS. B.C.
BRITISH COLUMBIA, 1992[1]

Age Group (in years)	Status Indian Population			Total B.C. Population		
	Male	Female	Total	Male	Female	Total
<1	1 187	1 129	2 316	23 687	22 371	46 058
1-4	4 004	3 801	7 805	91 755	87 758	179 513
5-9	4 474	4 258	8 732	118 416	112 684	231 100
10-14	4 344	4 164	8 508	113 752	108 170	221 922
15-19	4 325	4 082	8 407	110 334	104 621	214 955
20-24	4 491	4 443	8 934	115 790	114 329	230 119
25-29	4 552	4 792	9 344	132 171	132 964	265 135
30-34	4 342	4 803	9 145	149 205	151 371	300 576
35-39	3 270	3 903	7 173	143 958	147 262	291 220
40-44	2 543	2 975	5 518	134 912	133 294	268 206
45-49	1 898	2 470	4 368	110 620	107 417	218 037
50-54	1 423	1 902	3 325	85 836	83 748	169 584
55-59	1 100	1 344	2 444	76 386	74 057	150 443
60-64	845	1 098	1 943	75 067	74 156	149 223
65+	1 647	2 013	3 660	188 332	246 949	435 281
Total	44 445	47 177	91 622	1 670 221	1 701 151	3 371 372

Source: Vital Statistics

[1] For additional tables see Appendix C Pages 1, 2 and 3.

Figure 2
Total First Nations Population, British Columbia



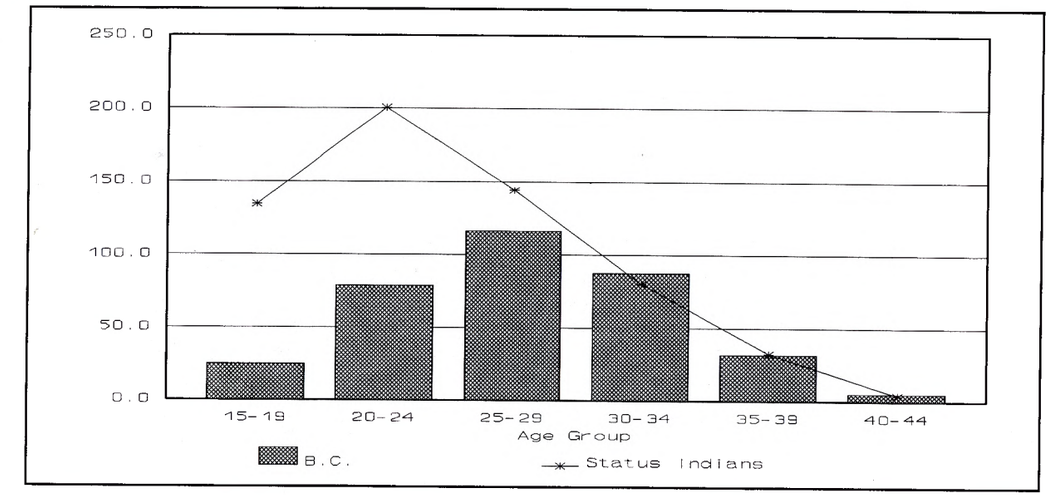
Sources: 1971-81: Adjusted First Nations Register Data, Research Branch, INAC, 1985.
1986-89-92: First Nations Register, as of December 31 in corresponding year.
Vital Statistics, Ministry of Health

c) Fertility

As noted above, the fertility rate among First Nations in British Columbia has been declining in recent decades. In fact, the total fertility rate[4] declined by 40% in the period 1971 to 1981, compared with a 20% decline for the British Columbia population as a whole. For the period 1987-1992 the total fertility rate for the Status Indian population was 3 042.3, 1.8 times the provincial rate of 1 731.5.

Status Indian live birth fertility rates for the six-year period 1987-1992 were higher than provincial rates for all age groups. The Status Indian/B.C. ratio was most pronounced for the age group 15 to 19 where the Status Indian live birth fertility rate (128.0) was 5.4 times the provincial rate (23.9). For the age group 20 to 24, this ratio was lowered by more than half to 2.5 times the provincial rate (207.6 compared with 83.5), and it was lowered by half again for the 25 to 29 age group (150.5 compared with 119.7). For the older age groups (35 to 39 and 40 to 44), Status Indian live birth fertility rates were only slightly higher than provincial rates (32.0 and 4.8 compared with 30.1 and 4.4 respectively).

Figure 3
Live Birth Fertility Rate
Status Indian vs. B.C.
British Columbia, 1992[1]



Rate Per 1000 Childbearing Female Population.
Source: Vital Statistics
[1] For additional graphs see Appendix D Page 3.

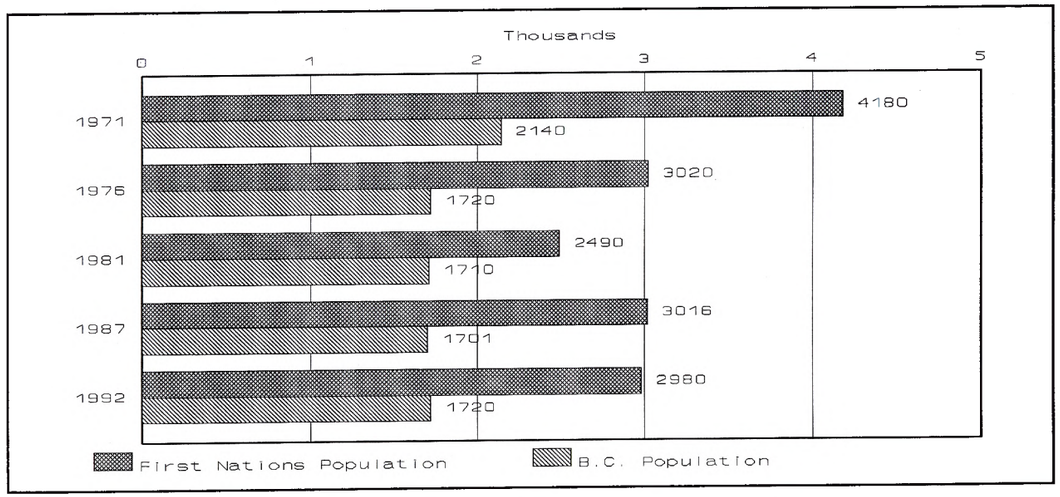
[4] **Total live births per 1000 females throughout their prime child-bearing years, namely, 15 to 49 years.**

Table 2
LIVE BIRTH FERTILITY RATE
STATUS INDIAN VS, B.C.
1987-1992 TOTAL[1]

Age Group (in years)	1987-1992				
	Status Indian		B.C.		Ratio Indian/B.C.
	No.	Rate	No.	Rate	
15-19	3 135	128.0	14 870	23.9	5.36
20-24	5 538	207.6	55 051	83.5	2.49
25-29	4 301	150.5	95 124	119.7	1.26
30-34	2 177	85.6	72 005	84.8	1.01
35-39	628	32.0	24 060	30.1	1.06
40-44	74	4.8	3 094	4.4	1.09
Total Fertility Rate		3 042.3		1 731.5	1.76

Source: Vital Statistics
Total live births per 1000 females.
[1] For additional tables see Appendix C, Pages 3 and 4.

Figure 4
Total Fertility Rate[1]
Status Indian vs. British Columbia
1971-1992



Source: Adjusted First Nations Register Data, Research Branch, INAC, 1985.
Provincial Population:
1971-76: Statistics Canada, Vital Statistics, Births, 1971-76, Vol. 1. Cat. No. 84-204, Nov. 1978, Table 6.
1981: Statistics Canada, Vital Statistics, Births and Deaths, 1981, Vol. 1, Cat. No. 84-204, Feb. 1983, Table 5.
1987-92: Analysis of Status Indians in B.C., Division of Vital Statistics, B.C. Ministry of Health.

[1] Total live births per 1000 females throughout their prime child-bearing years, 15 to 49 years.

d) On-and Off-Reserve Population in British Columbia

The on-reserve[5] First Nations population in British Columbia (including those on Crown lands) amounted to 48 409 in 1992 — representing 53% of the total First Nations population in the province. The on-reserve population in B.C. is somewhat lower than the Canadian average of 59%, and appreciably lower than the high of 67% in the Yukon[6] and Northwest Territories combined. By 1992 the on-reserve population in B.C. had increased to 48 409, but with an appreciable growth in the off-reserve population resulting from Bill C-31, the on-reserve share declined to approximately 53%.

The on-reserve population experienced an absolute increase of more than 14 766 in the period 1971 to 1992 — a 43% growth in the 21-year period. The average growth of about 1.7% per year amounts to a doubling of the on-reserve population every 40 years.

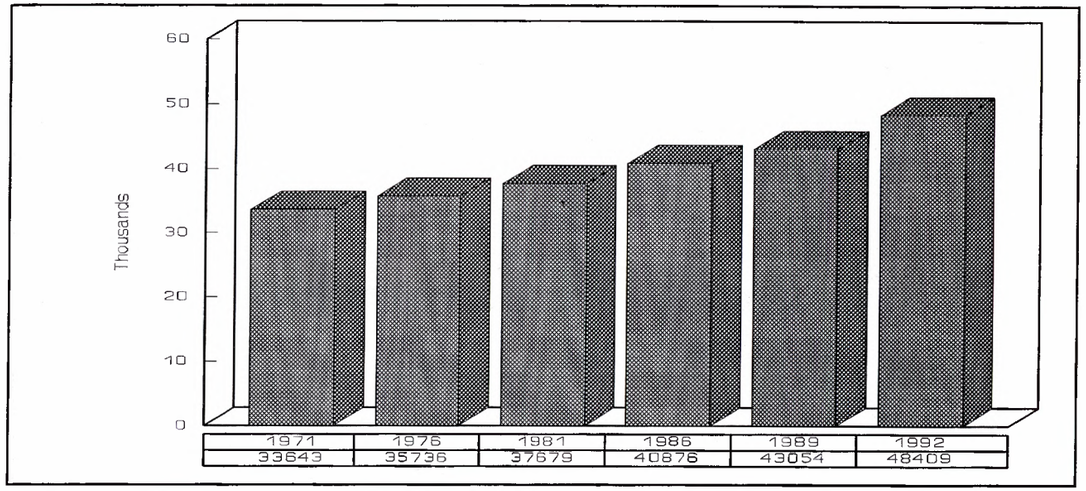
While the on-reserve portion of the total First Nations population in B.C. experienced relative declines in the 1960s and 1970s, it remained relatively stable throughout the early 1980s. A major offsetting factor is the increase in the Bill C-31 segment of the First Nations population — approximately 95% of whom remain off-reserve. (Bill C-31 registrants have added only about 1000 to the 1992 on-reserve population — about 5% of all Bill C-31 registrants. This additional population amounts to approximately 2.5% of the total on-reserve population.)

The higher numbers of Bill C-31 registrants living off-reserve more than offset the higher fertility rates on-reserve, thereby contributing to recent declines in the on-reserve proportion of the total First Nations population in the province. Once the bulk of Bill C-31 applicants have been dealt with, the percentage of the First Nations population on-reserve should stabilize or perhaps increase as a result of higher fertility rates among First Nations people on-reserve compared with those off-reserve.

5 **For purposes of this document, the on-reserve population includes those living on Crown land as well as those on reserves.**

6 **In Yukon, approximately 55% of First Nations peoples are classified as living on reserves or Crown land (including 6% on reserves, and 49% on Crown lands, and the remaining 45% living off-reserve).**

Figure 5
On-Reserve First Nations Population, British Columbia



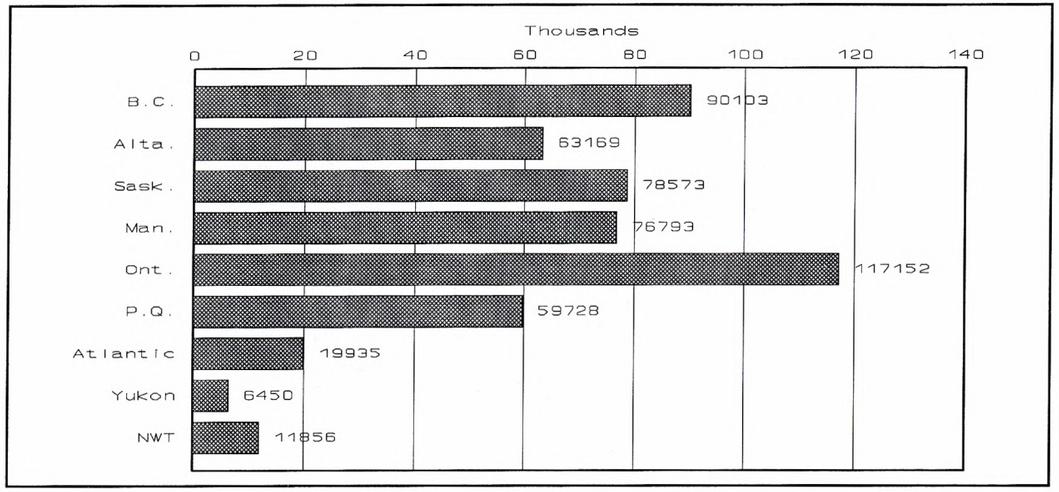
Percent of Total First Nations Population					
1971-67.5%	1976-63.9%	1981-62.3%	1986-61.4%	1989-53.3%	1992-52.8%

Source: 1971-1981: Adjusted First Nations Register Data, Research Branch, INAC, 1985.
1986, 1989, 1992: First Nations Register, population as of December 31, corresponding year.

e) British Columbia and Canadian Status Indian Population

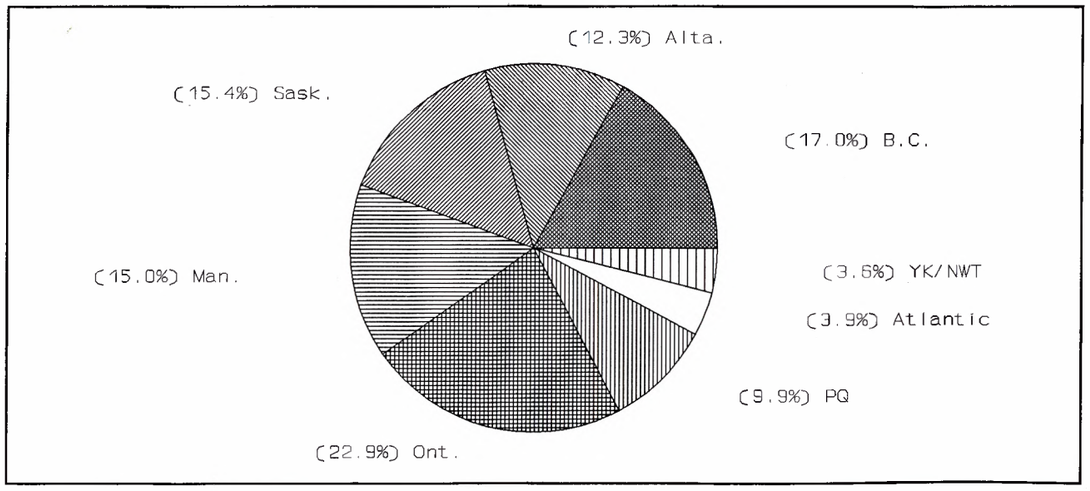
In 1991, the total on-and off-reserve Status Indian Population in British Columbia was 90 103, accounting for 2.7% of the total British Columbia population, but about one fifth (17%) of the total First Nations population in Canada, (approximately 530 000).

Figure 6
Registered Status Indians in Canada, 1991
(number of Status Indians, by Province)



Source: Indian Registry, INAC, Vital Statistics

Figure 7
Registered Status Indians in Canada, 1991
(percentage of total Status Indians, by province)



Source: Indian Register

Population Size and Growth:
Implications

- The recent and continuing significant increases in the total First Nations population, for those on-reserve and off-reserve alike, means that there will continue to be an increasing demand for health programs and services, but also some opportunities for improved economies of scale.
- The rapidity of the increase in the total population will continue to place strains on First Nations communities and organizations, as well as on MSB itself, in responding to the growing demand for services.
- The current and potential influx of Bill C-31 registrants adds to increased demand for services, especially in urban and other off-reserve locations. Bill C-31 may also influence the level and nature of expectations on the part of MSB clientele, since many of the new registrants will come from different (and generally more urbanized) socio-geographic and possibly cultural backgrounds.
- Continuing high fertility will mean continuing emphasis on pre-and postnatal care and related services for mothers and their children. As fertility declines, this emphasis will diminish in relative terms.
- Over the next decade or two, the health needs of infants, adolescents and young families will continue to require attention.

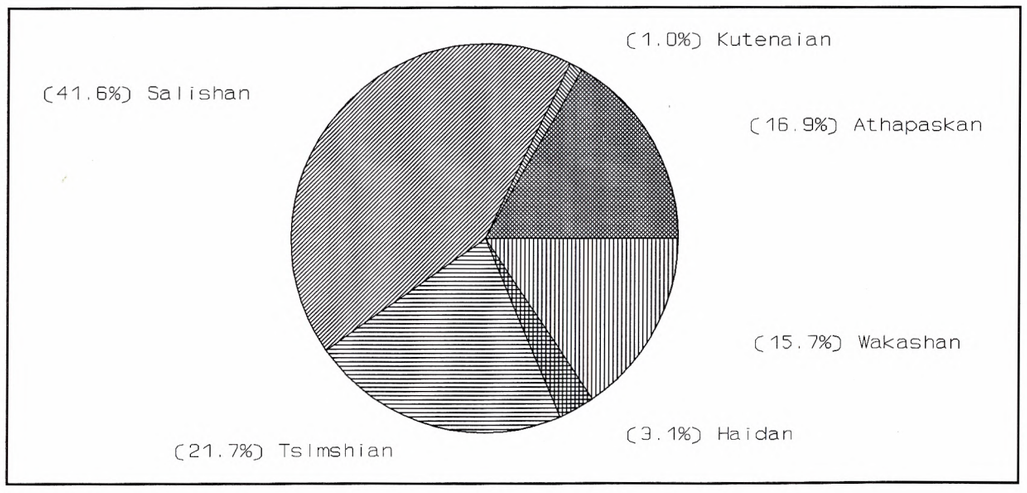
f) Language and Culture

The First Nations populations in British Columbia comprise six major linguistic groups, four of which account for more than 10 000 people each. These groups further comprise approximately 30 distinct languages. The cultural identity of the respective population is strongly linked to each linguistic group and, to a lesser extent, the various language sub-groups.

Among all broad age groups, the majority of First Nations peoples in British Columbia employ English as a principal language (i.e., the language spoken at home). This is especially true for the younger age groups, where more than 90% speak English at home. Among those 45 to 64 years of age, almost one fifth (17%), however, speak a native language at home. In fact, in this age group, more than one quarter (27%) speak either a native language or a language other than English at home.

Among those 65 years of age or over, almost a third (30%) speak a native language at home, and a further fifth (16%) speak some other language at home. This means that almost half of First Nations seniors in British Columbia do not speak English as a principal language. (Less than one half of one percent of First Nations in B.C. speak French at home).

Figure 8
British Columbia First Nations Linguistic Groups, 1987



Source Indian Registry 1987

Table 3
PERCENTAGE OF LANGUAGE SPOKEN AT HOME BY
BRITISH COLUMBIA FIRST NATIONS ON-RESERVE, 1981

Age (years)	% English	% Native	French	% Other
0-14	93	6	0	1
15-24	94	5	0	1
25-44	90	8	0	2
45-64	73	17	0	10
65+	54	30	0	16

Source: INAC Customized Data based on 1981 Census of Canada

Language and Culture:
Implications

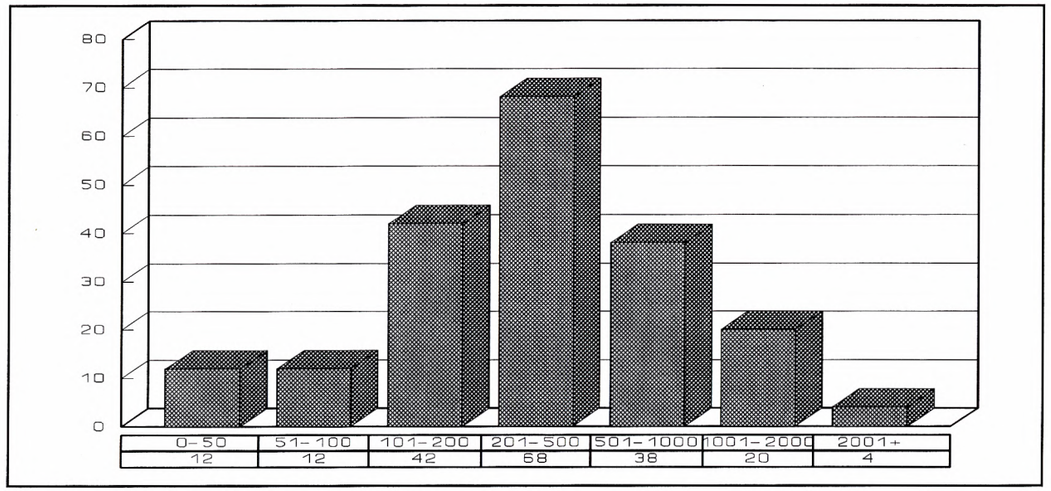
- The linguistic and cultural diversity of First Nations Bands in British Columbia demand a continuing sensitivity on the part of MSB personnel to respect different cultures, traditions and norms from one community or region to another.

- Since the majority (and among younger populations, the vast majority) of First Nations in B.C. speak English as a principal language, communication and public education programs aimed at the First Nations population can continue to rely heavily upon English-language material — including source materials that may readily be drawn from other English-language sources across Canada, from the United States, or other English-speaking nations. Cultural differences and varying socio-economic and geographic circumstances, however, may diminish the usefulness of such material.

g) Community Organization and Geographic Distribution

A band is the basic unit of organization of First Nations people for political and administrative functions. Bands typically have a Chief and Council responsible for leadership and for co-ordination and delivery of many programs and services at the community level — often through Band-established offices and agencies. The B.C. First Nations population in 1992 comprised 198 Bands. These range in population size from fewer than 50 to almost 2 300 people. More than three quarters of the bands fall in the range of 100 to 1000, with an average size of 460 (based on total on-and off-reserve population of approximately 92 000).

Figure 9
Distribution of Bands in B.C.
By Population Size
1987



Percent of Bands												
0-50	6.1%	51-100	6.1%	101-200	21.4%	201-500	34.8%	501-1000	19.4%	1001-2000	10.2%	2000+ 2.0%

Source: First Nations Register, Population By Sex and Residence, 1987.

Tribal councils are First Nations organizations that provide various forms of collective leadership and/or administrative or development functions on behalf of several member Bands. Not all First Nations have a tribal council affiliation. There were 32 Tribal Councils or associations as of July, 1993.

Table 4
ON-RESERVE POPULATION AND RESERVE COMMUNITIES, BRITISH COLUMBIA
BY MEDICAL SERVICES BRANCH ZONE 1992

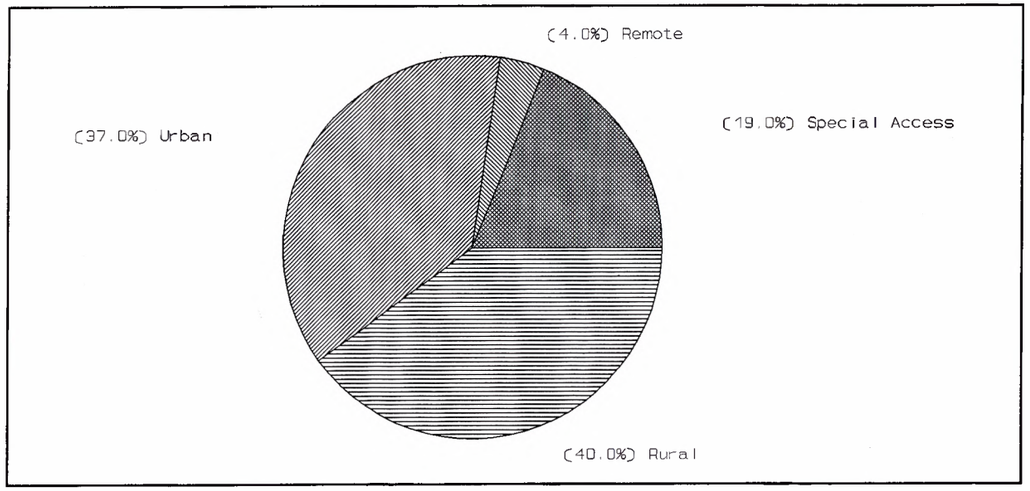
Zone	Population		Band	Reserves Communities	
	#	%	#	#	%
South Mainland	18 060	37.3	85	111	38.4
Vancouver Island	11 425	23.6	51	88	30.3
Northwest	9 410	19.4	23	23	7.9
Northeast	9 514	19.7	37	68	23.4
Total	48 409	100.0	196	290	100.0

Source: Indian Register, Population, December 31, 1992.

There is no direct one-to-one relationship in numbers between Bands and communities. Some Bands have several distinct communities, often located at different reserves, while in a few instances, more than one Band may share a single reserve.

In contrast with the total British Columbia population, 80% of whom live in urban centres, 37% of B.C. First Nations people living on reserve are in urban locations. Fully 40% are in rural areas, while a further 23% are in remote or extremely remote locations requiring special access (i.e., boat, float plane, or conventional plane, with no year-round road access).

Figure 10
Distribution of On-Reserve Population In British Columbia
by INAC Geographic Zones, 1982

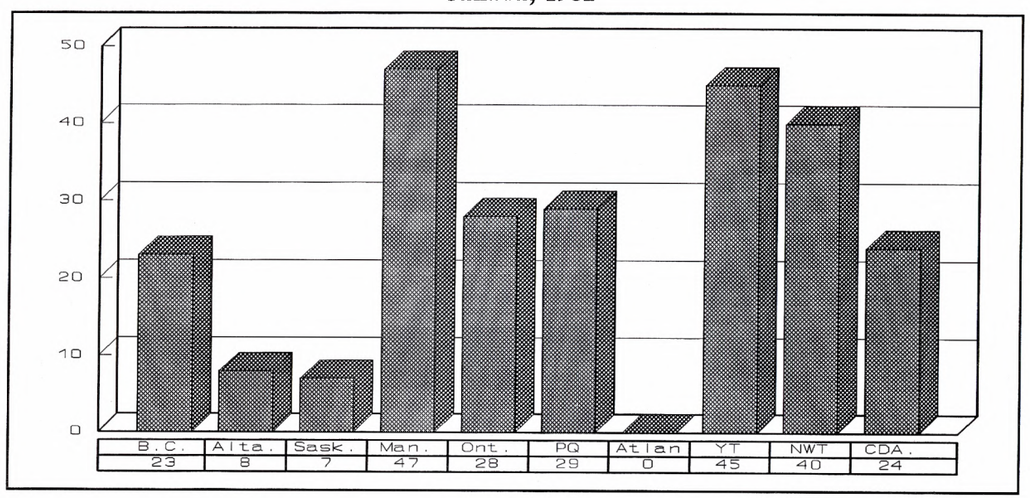


Urban:	within 50 km of nearest regional centre by year-round road access
Rural:	50-350 km from nearest regional centre by year-round road access
Remote:	> 350 km from nearest regional centre by year-round road access
Special Access:	no year-round road access to nearest regional centre

Source: Nicholson, J. Phillip and Paul MacMillan, *An Overview of Economic Circumstances of Registered First Nations in Canada* (First Nations and Northern Affairs Canada, 1985).

The proportion of the on-reserve population living in remote and special access communities in B.C. (23%) very closely matches the Canadian average for First Nations living on-reserve. It is approximately three times the proportion among First Nations in Alberta and Saskatchewan, but only half the proportion of First Nations in Manitoba, Yukon and Northwest Territories.

Figure 11
Proportion of On-Reserve Population Living in Remote or Special Access Communities
Canada, 1982



Sources:

Reserves and Trusts; First Nations and Inuit Affairs Program, INAC, Registered First Nations Population by Sex and Residence - 1982, November, 1983.

Housing and Band Support Branch, First Nations and Inuit Affairs Program, INAC, Classification of First Nations Bands by Geographie Zone, December, 1983.

Housing and Band Support Branch, First Nations and Inuit Affairs Program, INAC, Classification of First Nations Bands by Geographic Zone, Revised Listing, Confirmed Changes of Classification, 21 August, 1984.

Community Organization and Geographic Distribution: Implications

- The large number of Bands, Tribal Councils and reserve communities requires a highly decentralized network for program and service delivery. This is true for medical services, as well as other related and mutually reinforcing services such as housing, community infrastructure, education and socio-economic development.
- With relatively small populations in each community, and in many cases considerable distance between communities, there are limited opportunities for economies of scale in program delivery.
- Since available program resources are spread over a large area, with limited opportunities for permanent facilities and staff located within the community, there is a heavy reliance on, and considerable scope for, community-based initiatives including self-help and mutual-aid efforts, voluntary support, and close co-ordination amongst all community services that play meaningful roles in health promotion and health care.
- Tribal Councils and other forms of inter-band co-operation and co-ordination will be crucial to the transfer of responsibilities for health care.

h) Age and Sex

As of 1992, the First Nations population in British Columbia could be described, in demographic terms, as being very young. Almost 75 275 of the total 90 769[7] First Nations people in the province were under the age of 45 years, in fact, they represented fully one half of the population on-and off-reserve alike. The major exception is that the off-reserve population has a slightly higher proportion in the 25 to 44 year age group, shifting the balance to a somewhat older population than those on-reserve. This may reflect a tendency for some older adults to move off-reserve to seek alternative employment or other opportunities.

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7 **Indian Registry figures differ slightly from those of the Division of Vital Statistics, due to differences in compilation of data. Age and sex analysis based on the Indian Registry of December, 1992.**

Table 5
AGE DISTRIBUTION OF BRITISH COLUMBIA
FIRST NATIONS POPULATION, 1992

Age	On Reserve			Off Reserve			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-14	7 831	7 148	14 979	5 334	5 107	10 441	13 165	12 255	25 420
15-24	4 728	4 403	9 131	4 407	4 475	8 882	9 135	8 878	18 013
25-44	8 209	7 597	15 806	6 915	9 121	16 036	15 124	16 718	31 842
45-64	3 340	2 824	6 164	2 075	3 552	5 627	5 415	6 376	11 791
65+	1 136	1 193	2 329	540	834	1 374	1 676	2 027	3 703
Total	25 244	23 165	48 409	19 271	23 089	42 360	44 515	46 254	90 769

Source: Indian Register, December 1992.

In the youngest age group (birth to 14 years) males very slightly outnumber females, both on-and off-reserve. This reflects the natural phenomenon — found in the First Nations and non-First Nations populations alike — that slightly more than 50% of all newborns are males.

In the older age groups, however, there is a tendency for females to outnumber males in the total First Nations population. This reflects the higher risk of premature death among males in the adolescent and young adult age groups, and the corresponding longer life expectancies of females.

There are sharp differences between on-and off-reserve populations in terms of male-female ratios in the middle and upper age groups. Males living on-reserve increasingly outnumber females in the age groups 15 to 24, 25 to 44, and 45 to 64 years. This reflects a tendency for young males to remain on the reserve, free to pursue traditional economic pursuits and to occupy positions in Band administration. Conversely there is a tendency for young adult females to move off-reserve to pursue alternative employment opportunities. The longer female life expectancy, coupled perhaps with a tendency for older females to return to the reserve, may account for a slightly higher proportion of females on-reserve in the age group 65 years plus.

Table 6
MALE/FEMALE DISTRIBUTION OF BRITISH COLUMBIA
FIRST NATIONS POPULATION, BY AGE, 1992

Age	On-reserve		Off Reserve		Total	
	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)
0-14	52.3	47.7	51.1	48.9	51.8	48.2
15-24	51.8	48.2	49.6	50.4	50.7	49.3
25-44	51.9	48.1	43.1	56.9	47.5	52.5
45-64	54.2	45.8	36.9	63.1	45.9	54.1
65+	48.8	51.2	39.3	60.7	45.3	54.7

Source: First Nations Register, December 1992

Table 7
DEPENDENT-AGED FIRST NATIONS POPULATION AS PERCENTAGE
OF TOTAL POPULATION, BRITISH COLUMBIA, 1971-1993

	1971	1981	1991	1992	1993
British Columbia First Nations					
On-Reserve	50.0	40.0	36.0	35.8	35.95
Off-Reserve	49.0	39.0	27.6	27.9	27.93
British Columbia Population	37.0	32.0	34.0	N/A	N/A

Source: Registered Indians:

1971, 1981:Adjusted Indian Register Data, Research Branch, INAC, 1985
1991: Population Projections of Registered Indians, Research Branch, INAC, 1985

Province Population:

1971: Statistics Canada, Revised Annual Estimates of Population by Marital Status, Age and Sex, for Canada and the Provinces, 1971-76, Cat. No. 91-519, July 1979.
1981: Statistics Canada, 1981 Census of Canada, Population, Age, Sex and Marital Status, Cat. No. 92-901, Sept. 1982, Table 1.
1991: Statistics Canada, Population Projections for Canada and the Provinces, 1976-2001, Cat. No. 91-520, Feb. 1979, Projection 4.

The youthfulness of the First Nations population in British Columbia is best reflected in figures that show the dependent-aged population (birth to 14 years and 65-plus) as percentages of the total population. In 1971, with the First Nations population experiencing very high fertility rates (i.e., a baby boom comparable to that experienced in the general Canadian population, but approximately 10 to 15 years after the national baby boom), the dependent-aged population accounted for 50% of the total First Nations population. This contrasts with the general British Columbia population in the same year, when only 37% of the total population was of dependent-age.

Since less than 4% of the First Nations population in 1971 was 65 years and over, the vast majority of the dependent-aged population were young people. The aging of the population will not make a significant impact on the dependent proportion of the population as the First Nations baby boom generation enter adolescence and progress through adulthood. For example, in 1981 the dependent-aged population had declined to 40% on-reserve (39% off-reserve), and was projected to decline further to 36% on-reserve in 1994 (28% off-reserve). By this time, the dependent-aged population among First Nations closely compares with that of the general B.C. population. This has been accelerated somewhat by the influx of Bill C-31 registrants — many of whom are in the middle-age groups.

With steadily declining fertility rates amongst First Nations people in the province, the dependent population should remain relatively low and steady for two or three decades, before an appreciable proportion of the population reaches senior ages.

Age and Sex:
Implications

- The relative imbalances in the proportions of males and females among age groups 25 years and over, both on-and off-reserve, do not pose major implications for health conditions or health care. The most obvious implications will be in the relative incidence of various health conditions or ailments for which males and females have different susceptibilities.

- The current high proportion of the population of dependent age (in particular the very young) will continue to place heavy burdens on families and on a variety of social services, including infant and child health-care, family counselling and support, and other services involved with the needs of families and youth.

- As the young population enters and progresses through school there will be a major opportunity, and need, for enhanced health promotion services in the school system.

- The gradual aging of the population will provide an evolution of high priority health challenges, as the dominant groups progress through adolescence, early adulthood, middle age, and older age. Those in the adolescent and early adult stages will be faced with health challenges associated with dangers in the work environment, and the social and psychological pressures of adapting to family life and child-rearing. These will be compounded by the pressures of coping with cultural and socio-economic insecurity — especially within families, communities and regions plagued by chronic under-employment, low self-esteem and limited opportunities for personal or collective advancement.

IV Morbidity and Factors Contributing to Health Conditions

a) Hospitalization

b) Health hazards and behaviour

c) Tuberculosis among Aboriginal communities in British Columbia

d) Disabilities

e) Diabetes mellitus

g) Communicable disease

a) Hospitalization

One means of assessing the overall incidence of morbidity (illness) is to measure the rate of hospital separations (i.e. hospital caseload measured by the number of patients released following treatment). In the period April 1, 1989 to March 31, 1990, the four leading causes of hospitalization for First Nations people (which also ranked among the highest leading causes for the provincial population) were diseases of the respiratory system; injuries and poisonings; complications of pregnancy, childbirth and puerperium; and diseases of the digestive system. The hospital separation rate for these forms of morbidity (per 1000 population) ranged from 1⅓ to almost twice that of the provincial population.

Hospital separation rates were higher for First Nations people than for the provincial population, with the notable exceptions of diseases of the genitourinary system and diseases of the musculoskeletal system and connective tissue (where First Nations rates were slightly less than those of the provincial population); diseases of the circulatory system (where the First Nations rate was approximately half that of the provincial population); and neoplasms (cancers) where the First Nations rate was only 2/5 that of the provincial population.

On a per capita basis, the First Nations hospital separation rates in the province were more than 1.4 times those of the provincial population.

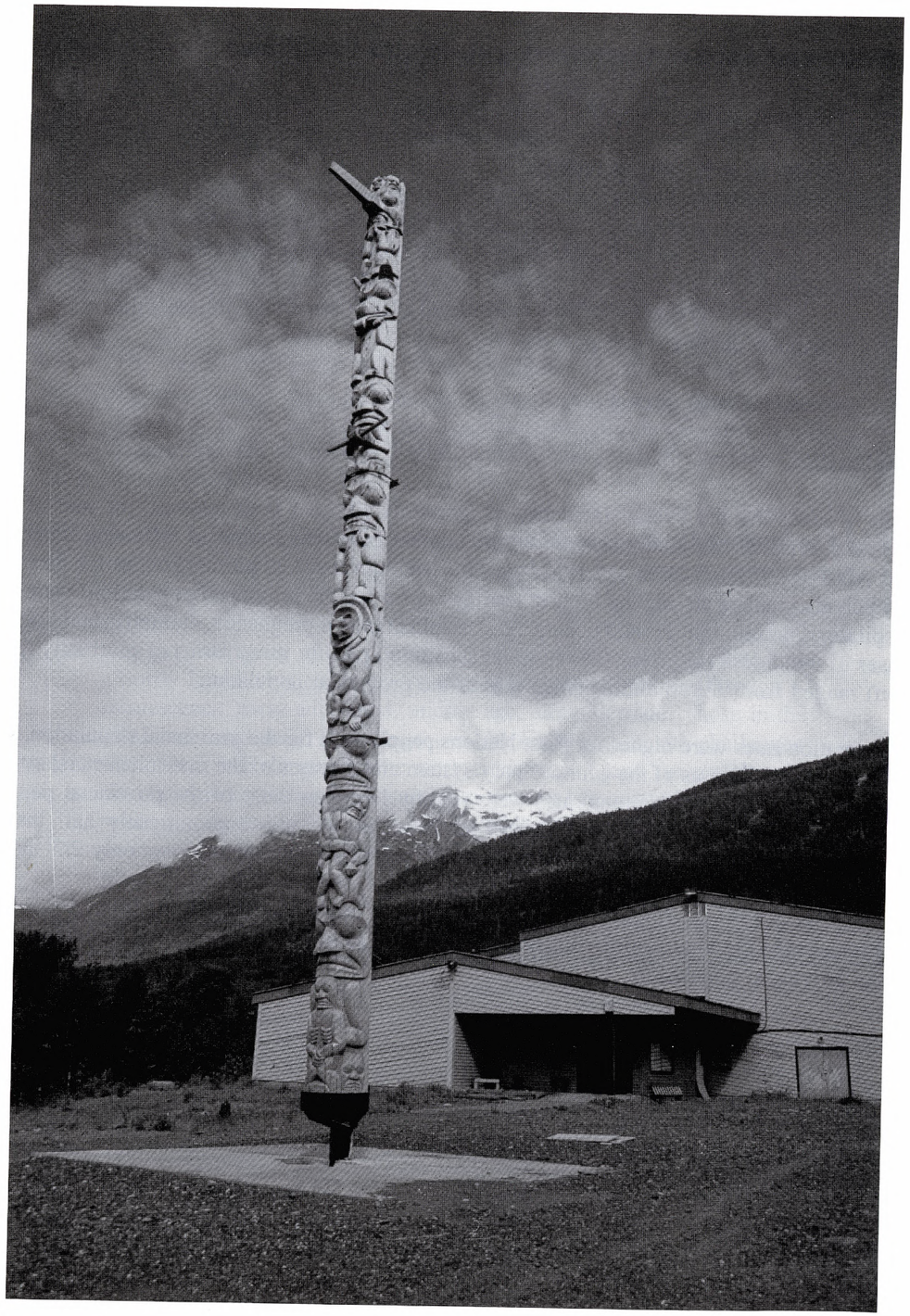


Table 8
HOSPITAL SEPARATIONS, BRITISH COLUMBIA,
APRIL 1, 1989 - MARCH 31, 1990, PER 1000 POPULATION

	First Nations	Provincial Population
Complications of pregnancy, childbirth and puerperium (XI)*	26.1	19.4
Diseases of the circulatory system (VII)	7.9	16.5
Diseases of the digestive system (IX)	19.3	14.7
Diseases of the genitourinary system (X)	7.6	9.5
Diseases of the musculoskeletal system and connective tissue (XIII)	5.9	7.5
Diseases of the nervous system and sense organs (VI)	6.6	5.4
Diseases of the respiratory system (VIII)	23.7	12.3
Diseases of the skin and subcutaneous tissue (XII)	3.0	1.6
Endocrine, nutritional, metabolic diseases and immunity disorders (III)	2.8	2.5
Infectious and parasitic diseases (I)	3.4	2.2
Injury and poisoning (XVII)	25.0	15.2
Mental disorders (V)	9.1	6.6
Neoplasms (II)	2.3	9.8
All other categories	16.8	13.7
Total	159.5	136.9

* Roman numerals indicate International Classification of Disease Chapters.

Source: Derived from data provided by Hospital Programs, B.C. Ministry of Health.

Overall, hospital separations have improved considerably since 1984, when these were last reported. The overall separation rate in 1984 was 209.8 per 1000 population for First Nations and 148.6 per 1000 for the total British Columbia population. One must interpret reductions in hospital separations day figures with caution since this is not necessarily a result of improved health, but rather a reflection of changing approaches to hospitalization, including day care procedures.

Table 9
PATIENT DAYS, BRITISH COLUMBIA,
APRIL 1989 - MARCH 1990, PER 1000 POPULATION.

	First Nations	Provincial Population
Complications of pregnancy, childbirth and puerperium (XI)*	99.5	76.1
Diseases of the circulatory system (VII)	64.9	165.2
Diseases of the digestive system (IX)	95.3	94.2
Diseases of the genitourinary system (X)	40.2	50.0
Diseases of the musculoskeletal system and connective tissue (XIII)	55.3	64.8
Diseases of the nervous system and sense organs (VI)	30.8	44.3
Diseases of the respiratory system (VIII)*	116.9	70.1
Diseases of the skin and subcutaneous tissue (XII)	25.4	13.9
Endocrine, nutritional, metabolic diseases and immunity disorders (III)	20.9	24.2
Infectious and parasitic diseases (I)	22.2	16.3
Injury and poisoning (XVII)	130.6	119.7
Mental disorders (V)	55.2	101.1
Neoplasms (II)	31.1	105.5
All other categories	92.0	117.2
Total	880.3	1 062.6

* Roman numerals indicate International Classification of Disease Chapters.

Source: Derived from data provided by Hospital Programs, B.C. Ministry of Health.

Patient day figures for the Status Indian population have dropped drastically since 1984. The total patient days per 1000 Status Indian population in 1984 were 1 352.9, and for the total British Columbia population, 1 116.9.

b) Chronic Health Problems

Of the 388 900 persons nationwide aged 15 and older who identified with an Aboriginal group in the 1991 Aboriginal Peoples Survey, 31% were told by health care professionals that they had a chronic health problem. Thirty-three percent of Métis, 30% of North American Indians and 23% of Inuit reported a chronic health problem.

Fifteen percent of Aboriginal adults aged 15 and older, nationwide, reported having arthritis or rheumatism. The proportion was 10% for Inuit and 17% for Métis. According to the 1991 General Social Survey, arthritis or rheumatism among the Canadian population aged 15 and older was 14%. Differences in age distribution have been adjusted to permit comparisons between the two populations.

Three percent of Aboriginal adults aged 15 and older reported they had tuberculosis at some time in their lives. For the Canadian population aged 15 and older, the incidence of tuberculosis was less than 1% in 1991. Among adults identified as North American Indians living on First Nations Reserves and Settlements, 3% reported tuberculosis as a chronic health problem. Among Inuit adults, 7% reported having had tuberculosis at some time in their lives.

Table 10
CHRONIC HEALTH PROBLEMS, 1991

	Total		N.A.I.[1] On-Reserve		N.A.I. Off-Reserve		Métis		Inuit	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Aboriginal Population 15 and Older	388 900	100.0	102 075	100.0	186 295	100.0	84 155	100.0	20 805	100.0
Diabetes	23 255	6.0	8 635	8.5	9 790	5.3	4 670	5.5	405	1.9
High Blood Pressure	44 735	11.5	13 110	12.8	20 635	11.1	9 555	11.4	1 995	9.6
Arthritis, Rheumatism	57 995	14.9	14 410	14.1	22 870	15.0	14 375	17.1	2 150	10.3
Heart Problems	25 580	6.6	6 940	6.8	11 695	6.3	5 905	7.0	1 275	6.1
Bronchitis	32 650	8.4	6 190	6.1	17 040	9.1	8 875	10.5	1 035	5.0
Emphysema/Shortness of Breath	22 155	5.7	6 785	6.6	9 685	5.2	4 835	5.7	1 120	5.4
Asthma	22 135	5.7	4 545	4.5	11 375	6.1	5 755	6.8	690	3.3
Tuberculosis	11 655	3.0	3 445	3.4	4 970	2.7	2 075	2.5	1 350	6.5
Epilepsy, Seizures	5 910	1.5	1 640	1.6	2 870	1.5	1 030	1.2	380	1.8

[1] North American Indians

Source: The Daily, Statistics Canada, June 1993. Based on 1991 Aboriginal Peoples Survey

In British Columbia in 1991, 6 100 persons on-reserve reported chronic health problems as follows:

Table 11
CHRONIC CONDITIONS, B.C. 1991

	%
Diabetes	14.0
High Blood Pressure	35.0
Arthritis, Rheumatism	57.0
Heart Problems	24.0
Bronchitis	22.0
Emphysema/Shortness of Breath	22.0
Asthma	13.0
Tuberculosis	12.0
Epilepsy, Seizures	7.0
Other Health Problems	43.0

Source: 1991 Aboriginal Peoples Survey

In terms of self-perceived health status:

19 775 persons on-reserve in British Columbia reported in the Aboriginal Peoples Survey:

20% — Excellent health status
30% — Very good
34% — Good
14% — Fair
2% — Poor

Morbidity:
Implications

- As with mortality, the high levels of morbidity amongst First Nations people likely result from a combination of factors closely related to lifestyle and living conditions. Illness among First Nations likely relates strongly to poor nutrition, overcrowding, exposure to physical hazards associated with traditional pursuits and occupations in the blue-collar and primary sectors, and the effects of substance abuse.

- Except for hospital data, there is little information available on acute mobidity. This offers a challenge to researchers.

c) Health Hazards and Behaviour

A variety of lifestyle factors affect the health of First Nations people both individually and collectively. These include diet, exercise, smoking, alcohol consumption, substance abuse, infant feeding and care, and health and safety practices at home and on the job. Lifestyles vary from one First Nations community to another, but it is evident to health professionals that the above factors are often associated with health problems in both individuals and communities.

Food Nutrition and Diet

Prenatal Nutrition

A survey of births in Pacific Region from 1988, 1989, 1991 and 1993, indicated prenatal nutrition as **"good"** for approximately 30-48% of all women, **"fair"** in 30-48% and **"poor"** in 5-12%. In 1988, 70% of women gained between 9.1 to 18.2 kg during pregnancy, 7% reported weight gains of less than 9.1 kg, 23% reported weight gains of 18.2 kg or more. **(National Database on Breast-Feeding Among Indian and Inuit Women).**

Diabetes is increasing as a family risk factor for prenatal clients, from 16.5% in 1989 to 30.1% in 1993.

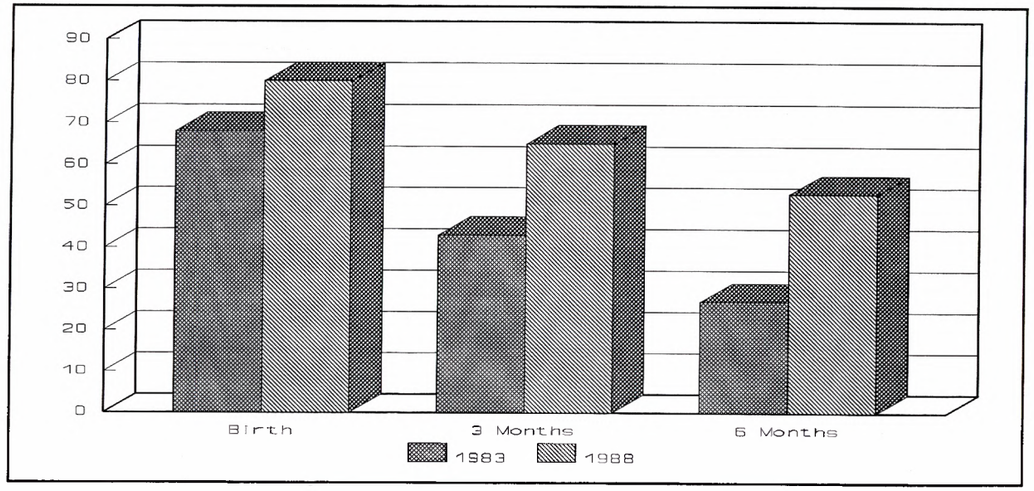
Infant Feeding

Breast-feeding rates have improved. In 1983, 68% of women on-reserve breast-fed their babies at birth, 43% continued to do so for up to three months after birth, and 27% continued breast-feeding for six months. In 1988, 80% of women were breast-feeding at birth, 65% continued until three months, and 53% breast-fed until six months after birth.

The reasons most often reported for breast-feeding cessation, by mothers from all participating regions, included not having enough milk, returning to work or school, or problems with breast care (eg: cracked nipples).

Other improvements were made to infant feeding practices between 1983 and 1988. In 1983, a majority of infants were receiving solid foods by 3 to 4 months of age. By 1988, 51% of infants were receiving solids at 4 to 6 months of age, the latter being the ideal period for introducing iron-fortified cereals to both the bottle- and breast-fed baby. In 1988, vitamin D supplementation was provided to 25% of breastfed babies by three months, and 32% of exclusively breastfed babies were receiving vitamin D by six months.

Figure 12
Breast Feeding Rates - Percentage
On-Reserve British Columbia
1983 and 1988



Source: Medical Services Branch, Pacific Region

The current diets of First Nations people contain a combination of market and traditional foods. The proportions vary considerably among communities, depending upon remoteness from urban centres, the transport system for store foods, the cost of store foods, the presence of a fisherman, hunter or trapper in the household and concerns with contamination of traditional foods and legislation restricting access to traditional harvesting areas. Traditional meats, including wild game, birds and fish, continue to be important sources of nutrients in the diets of Native people living throughout the northern areas of Canada.

While traditional food use continues, the use of imported foods is increasing, particularly with younger generations. Imported foods are expensive and often of inferior nutritional quality.

In 1990, food price surveys were completed in 36 communities in B.C. In 18 of the 27 located near First Nations communities, the minimum cost for a nutritionally adequate diet exceeded the total income for a family dependent on social assistance.

The following is a summary of monthly food costs for a family of four in 36 communities across B.C., based on a survey of the week of June 16-24, 1990.

Table 12
MONTHLY COST OF FEEDING A FAMILY OF FOUR
IN 36 COMMUNITIES
IN BRITISH COLUMBIA JUNE, 1990.

	Monthly Cost
Vancouver	$475.54
Mission	405.83
Chilliwack	387.99
Kamloops	439.37
Kelowna	383.90
Victoria	506.28
Nanaimo	519.14
Port Hardy	586.09
Gold River	528.51
Powell River	544.68
Port Renfrew	523.31
Comox	503.62
Smithers	533.29
Fort Ware	936.63
Hazelton	576.97
Kitimat	542.14
Alert Bay	557.28
Masset	605.91
Skidegate	633.35
Iskut	707.35

Source: Medical Services Branch, Pacific Region

The basic needs allowance provided through social assistance (the same rates apply to Native and non-Native residents of the province), is $632.00 (average, 1994) per family of four per month, to cover food as well as clothing, household cleaning supplies, personal care items, transportation and recreation.

The Regional Nutrition Program supports community-based programs and activities that encourage local and traditional food use and improved management of household income. Education and support to those at nutritional risk is also made available.

Smoking and Alcohol

Smoking is known to have a variety of deleterious effects on human health and is associated with lung cancer, other types of cancer, cardiovascular disorders, chronic bronchitis, emphysema, and harmful effects on the fetus such as low birth-weight in the case of maternal smoking. Second-hand smoke may also have a significant effect on non-smokers.

In the 1991 B.C. Aboriginal Peoples Survey[8], 19 675 persons on-reserve reported on their smoking habits. Forty nine percent were current smokers. This compares with 31% of the total Canadian population.

Table 13
CIGARETTE USE
BRITISH COLUMBIA, 1991
ON-RESERVE

Reported	Number	Percent
1 to 10 cigarettes daily	3 140	16.0
11 to 20 cigarettes daily	2 000	10.0
21 to 25 cigarettes daily	245	1.0
26 or more cigarettes daily	305	2.0
Smoke occasionally	3 970	20.0
Does not smoke now	9 845	50.0
Used to smoke daily	3 435	19.0
Non-smokers living with daily smokers	4 175	21.0

Source: 1991 Aboriginal Peoples Survey

Alcohol is known to play a role in a variety of individual and community health problems, including accidents, violence, fetal alcohol syndrome, and other mental and physical health problems.

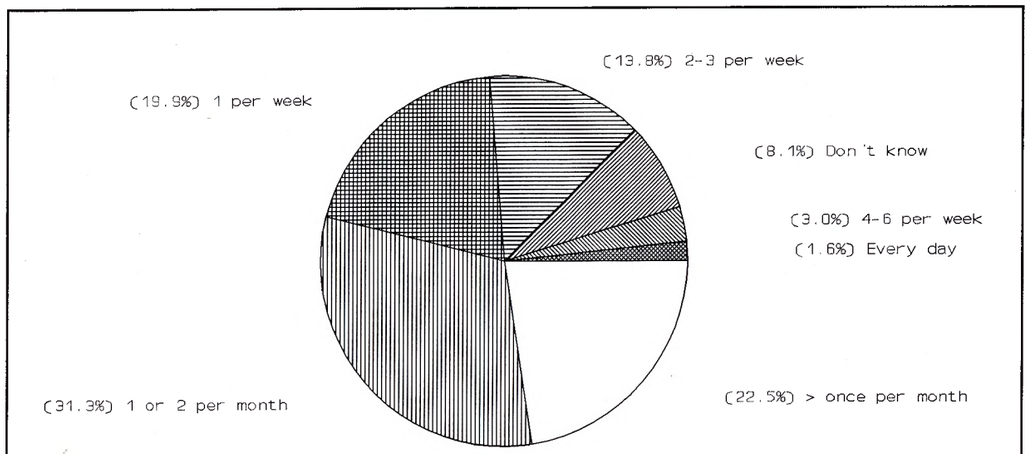
A 1987 survey conducted in three northern B.C. communities indicated that alcohol consumption was a significant problem. Community resource workers identified alcohol, drug abuse, and mental health problems as the most significant health issues in those communities. Almost half the youth surveyed identified alcohol and drug abuse control and/or prevention as a way to make their community a better place to live.

8 **Smoking among Aboriginal People in Canada 1991, Health Canada.**

A large majority of young people surveyed in these communities reported consuming alcohol. Sixty percent of those aged 12 to 15 years reported consuming beer in the two months prior to the survey, compared with 80% of those aged 16 to 20 years. Almost half of the group aged 16 to 20 reported "getting drunk" and "blacking-out" in the two months prior to the survey. Overall 40% of the total number of young people surveyed reported "blacking-out" at least once during the two months prior to the survey.

In the 1991 Aboriginal Peoples Survey of 12 190 persons on-reserve in British Columbia who drank alcohol in the past year, drinking habits were reported as follows:

Figure 13
People Drinking On-reserve
In British Columbia, 1991

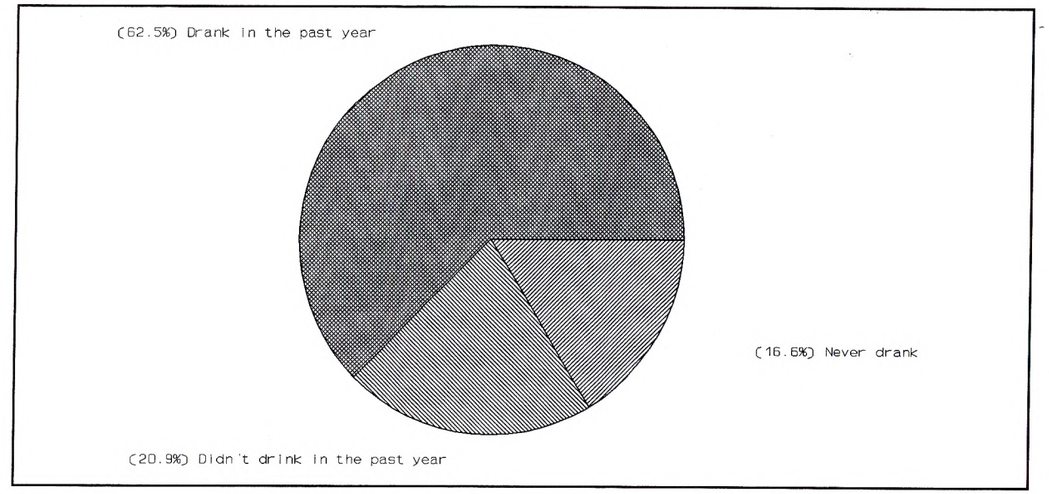


Reported	Number	Percent
Everyday	190	1.6
4-6 times per week	360	3.0
2-3 times per week	1 685	13.8
Once per week	2 420	19.9
Once or twice per month	3 810	31.3
Less than once per month	2 740	22.5
Don't know amount	985	8.1

Source: 1991 Aboriginal Peoples Survey

These statistics suggests a pattern of "Binge Drinking". Of 19 515 persons on-reserve in British Columbia who reported on alcohol use:

Figure 14
People Reporting Alcohol Use
On-reserve
In British Columbia, 1991

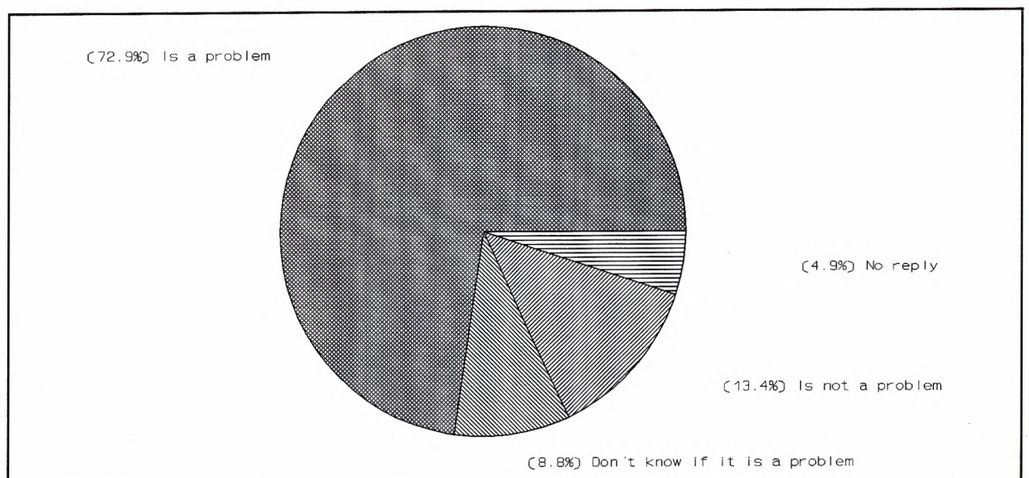


Reported	Number	Percent
Drinking in the past year	12 190	62.5
Never drinking alcohol	3 245	16.6
Not drinking alcohol during the past year	4 080	20.9

Source: 1991 Aboriginal Peoples Survey

Of 20 140 persons on-reserve in British Columbia reporting alcohol abuse as a problem in their communities:

Figure 15
Alcohol Abuse as a Problem
On-reserve
In British Columbia, 1991

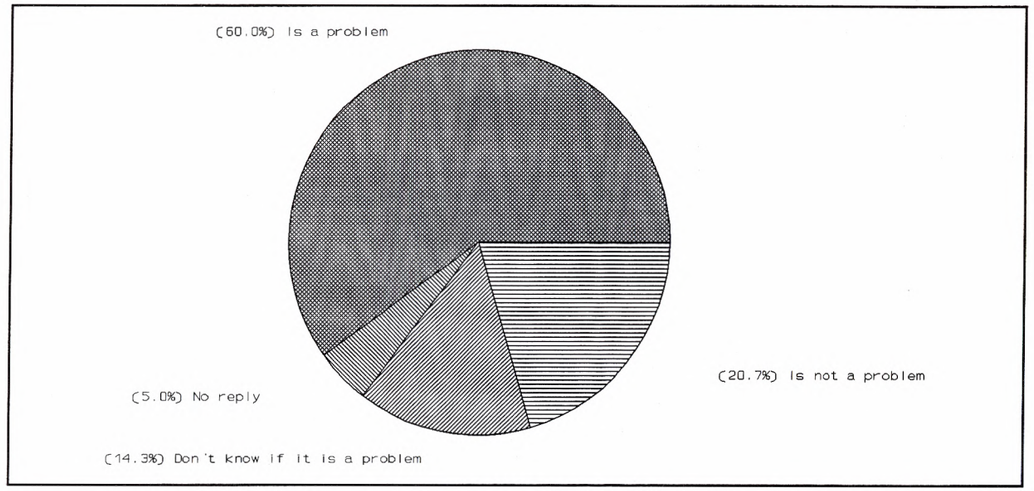


Reported	Number	Percent
Alcohol abuse is a problem	14 685	72.9
Alcohol abuse is not a problem	2 695	13.4
Don't know if alcohol abuse is a problem	1 780	8.8
Did not reply to question about alcohol abuse	980	4.9

Souree: 1991 Aboriginal Peoples Survey

Of 20 140 persons on-reserve in British Columbia reporting drug abuse as a problem in their communities:

Figure 16
Drug Abuse as a Problem
On-reserve
In British Columbia, 1991



Reported	Number	Percent
Drug abuse is a problem	12 075	60.0
Drug abuse is not a problem	4 160	20.7
Don't know if drug abuse is a problem	2 890	14.3
Did not reply to question about drug abuse	1 015	5.0

Source: 1991 Aboriginal Peoples Survey

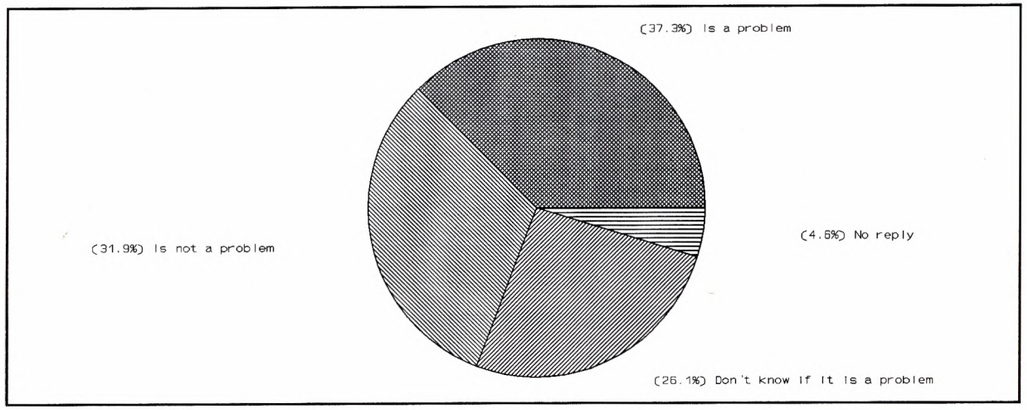
Family Violence

Reports of family violence including child sexual abuse continue to escalate on-reserves in all parts of the province. Some families are more at risk than others. The higher-risk families include those that are geographically or socially isolated, those in which there is special stress or dysfunction, and those in which there are rigid roles, poor communication, alcoholism and any type of violence.

An especially high risk factor is a family history of previous sexual abuse. Child sexual abuse is often cyclical, with abused children developing attitudes and expectations that sometimes cause them to see such abuse as normal. Adults abused as children have a high risk of themselves abusing others, or of accepting abuse since it seems to be "the way things are".

In the 1991 Aboriginal Peoples Survey, 20 140 persons on-reserve in British Columbia reported family violence as a problem in their communities .

Figure 17
Family Violence as a Problem
On-reserve
In British Columbia, 1991

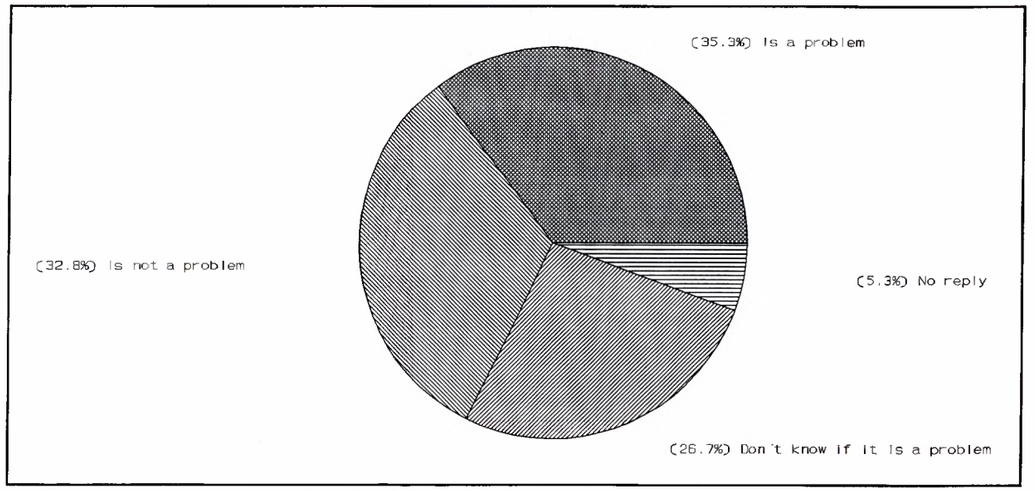


Reported	Number	Percent
Family Violence is a problem	7 690	37.3
Family Violence is not a problem	6 580	31.8
Don't know if family violence is a problem	5 370	26.1
Did not reply to question about family violence	955	4.8

Source: 1991 Aboriginal Peoples Survey

Of 20 140 persons on-reserve in British Columbia reporting sexual abuse as a problem in their communities:

Figure 18
Sexual Abuse as a Problem
On-reserve
In British Columbia, 1991

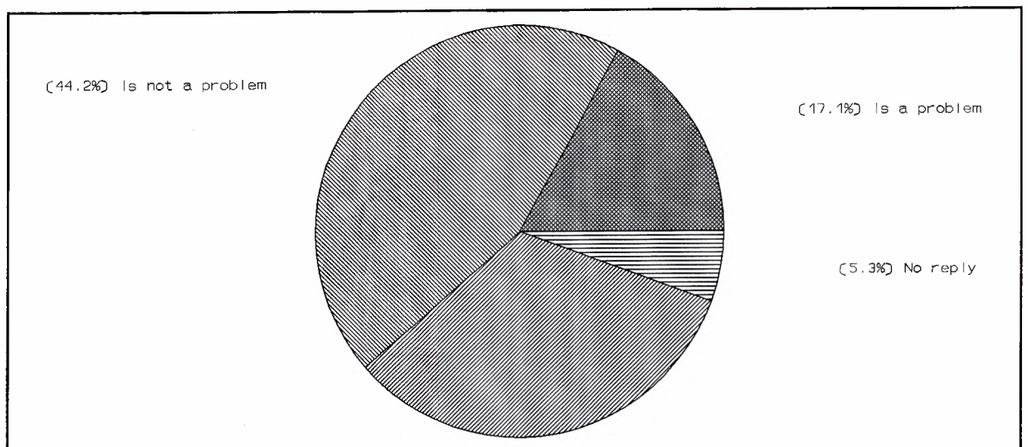


Reported	Number	Percent
Sexual abuse is a problem	7 105	35.3
Sexual abuse is not a problem	6 600	32.8
Don't know if sexual abuse is a problem	5 370	26.7
Did not reply to question about sexual abuse	1 065	5.3

Source: 1991 Aboriginal Peoples Survey

Of 20 140 persons on-reserve in British Columbia reporting rape as a problem in their communities:

Figure 19
Rape as a Problem
On-reserve
In British Columbia, 1991

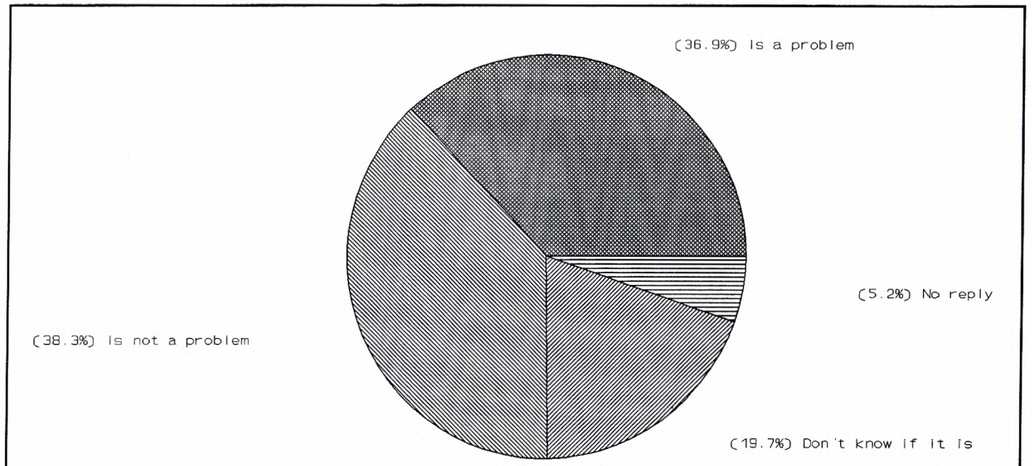


Reported	Number	Percent
Rape is a problem	3 450	17.1
Rape is not a problem	8 900	44.2
Don't know if rape is a problem	6 725	33.4
Did not reply to question about rape	1 065	5.3

Source: 1991 Aboriginal Peoples Survey

Of 20 140 persons on-reserve in British Columbia reporting on suicide as a problem in their community:

Figure 20
Suicide as a Problem
On-reserve
In British Columbia, 1991



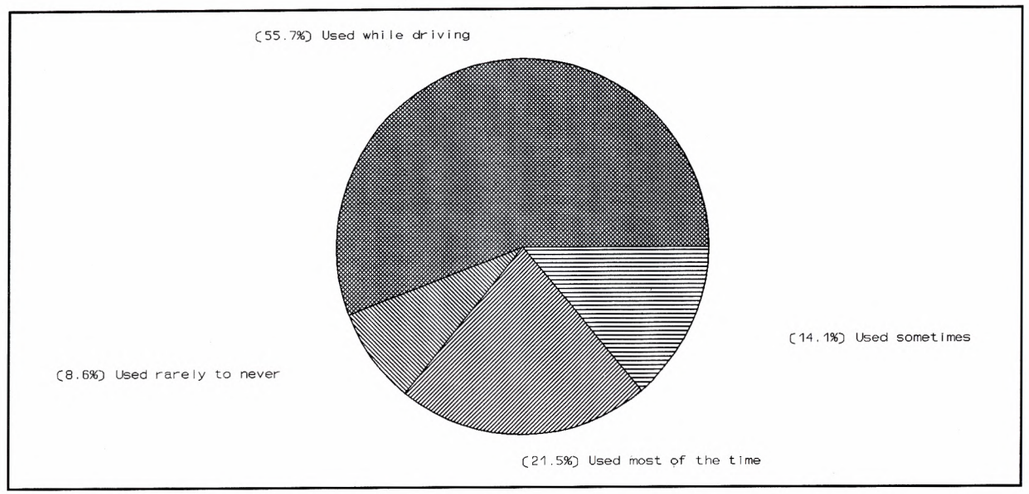
Reported	Number	Percent
Suicide is a problem	7 425	36.9
Suicide is not a problem	7 715	38.3
Don't know if suicide is a problem	3 960	19.7
Did not reply to question about suicide	1 040	5.2

Source: 1991 Aboriginal Peoples Survey

Behaviour Related to Accident Prevention

In the 1991 Aboriginal Peoples Survey, 19 235 persons on-reserve in British Columbia reported on personal seat belt use:

Figure 21
Seat Belt Use
On-reserve
In British Columbia, 1991

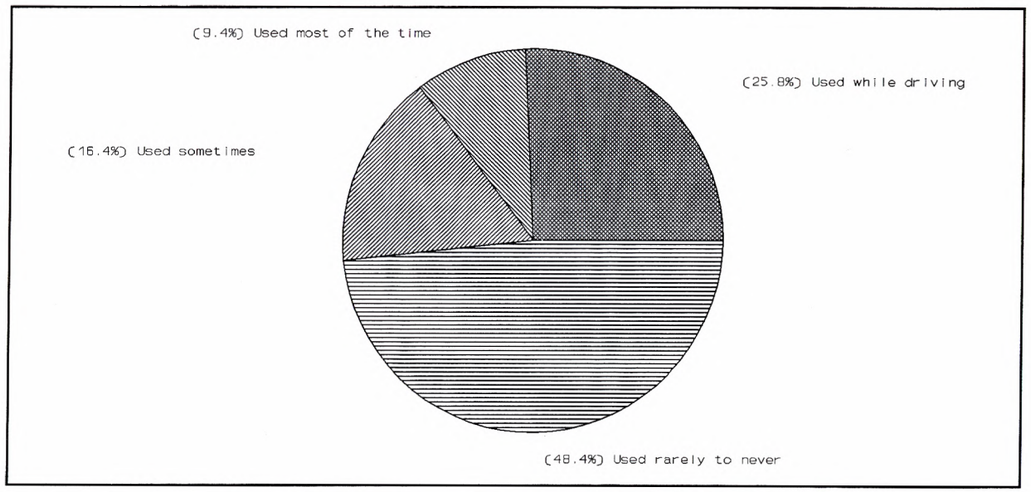


Reported	Number	Percent
Using seat belts while driving	10 715	55.7
Using seat belts most of the time	4 145	21.5
Using seat belts sometimes	2 718	14.1
Using seat belts rarely to never	1 657	8.6

Source: 1991 Aboriginal Peoples Survey

Of 3 080 persons on-reserve in British Columbia who reported on personal use of helmets when driving a snowmobile or all-terrain vehicle:

Figure 22
Helmet Use While Driving
Snowmobile or All-Terrain Vehicle
In British Columbia, 1991

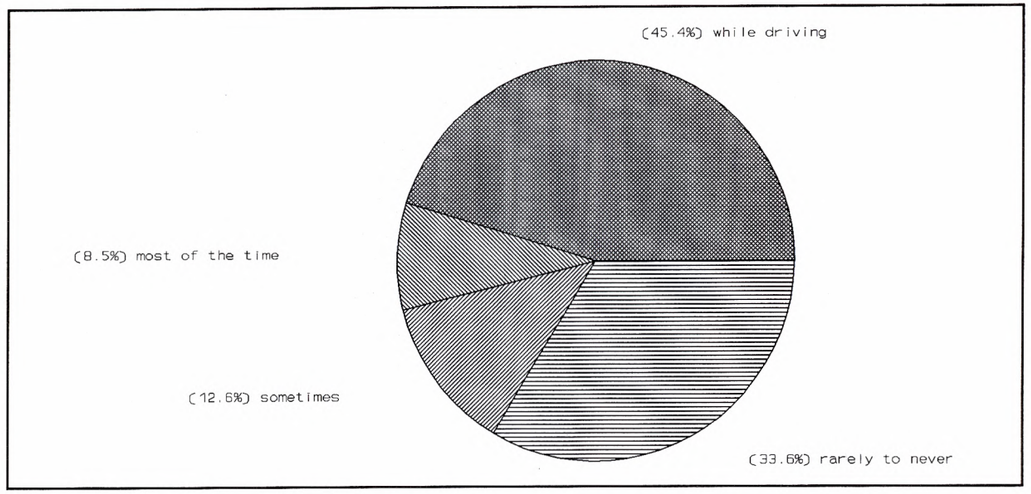


Reported	Number	Percent
Using helmets while driving	795	25.8
Using helmets most of the time	290	9.4
Using helmets sometimes	505	16.4
Using helmets rarely to never	1 490	48.4

Source: 1991 Aboriginal Peoples Survey

Of 2 425 persons on-reserve in British Columbia who reported on personal use of helmets when driving a motorcycle:

Figure 23
Helmet Use While Driving
a Motorcycle
In British Columbia, 1991

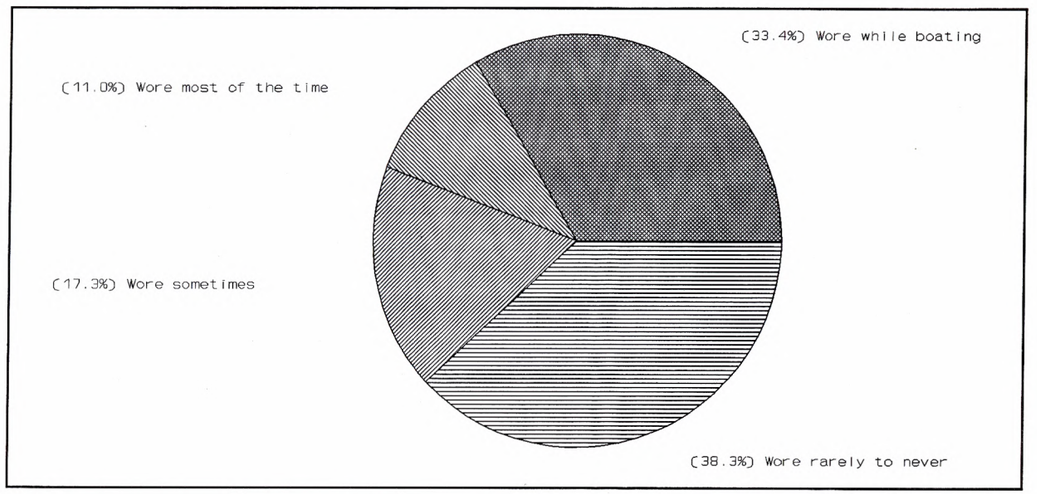


Reported	Number	Percent
Using helmets while driving	1 100	45.4
Using helmets most of the time	205	8.5
Using helmets sometimes	305	12.6
Using helmets rarely to never	815	33.6

Source: 1991 Aboriginal Peoples Survey

Of 9 745 persons on-reserve in British Columbia who reported on personal use of life-jackets when riding in an open boat:

Figure 24
Life-Jacket Use
While Boating
In British Columbia, 1991



Reported	Number	Percent
Wearing life-jackets while boating	3 250	33.4
Wearing life-jackets most of the time	1 075	11.0
Wearing life-jackets sometimes	1 690	17.3
Wearing life-jackets rarely to never	3 730	38.3

Source: 1991 Aboriginal Peoples Survey

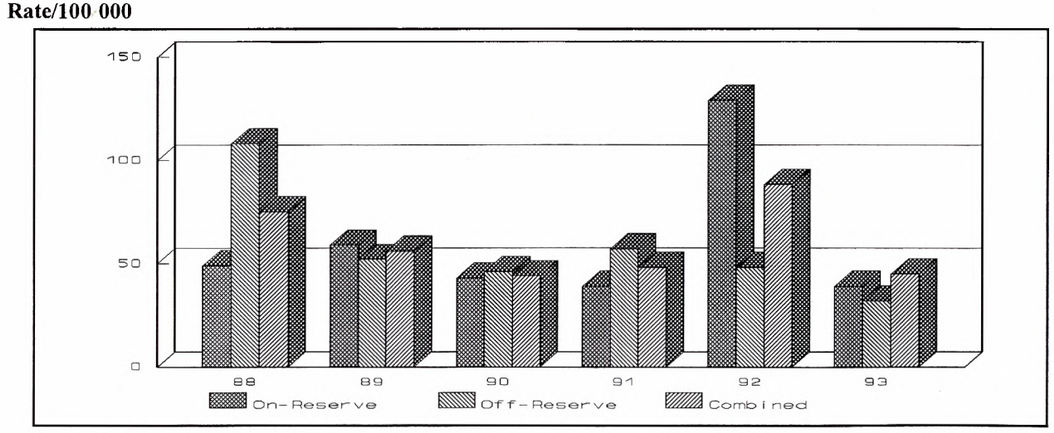
Health Hazards and Behaviour: Implications

- Continuing health problems resulting from hazardous behaviour and lifestyle factors imply a need for enhanced health education and promotional initiatives leading to increased awareness, as well as social, economic and institutional changes that will provide a supportive environment for healthy decisions and choices.
- With improved economic opportunities and better living conditions come greater self-esteem and other benefits that reinforce healthy lifestyles.

d) Tuberculosis Among Aboriginal People in British Columbia[9]

Rates of TB continue to be high among Aboriginal people in British Columbia, both on- and off-reserve. It is encouraging to note the overall downward trend in Aboriginal tuberculosis rates. Although the rates for First Nations people living on-reserve are approximately five times the overall provincial rate (8.7/100 000 in 1991), rates in the 1990s have been lowered considerably from those in the 1970s and 1980s. (Average 108/100 000, 1976 to 1979 and 84/100 000, 1980 to 1988). The total number of cases diagnosed during the study period, the types of disease, and the male-female ratios are displayed in figures 26, 27, 28 and 29.

Figure 25
Tuberculosis Rates, On-and Off-reserve
Status Indians in British Columbia, 1988-1993



9 **Dr. Mark Fitzgerald, Division of Tuberculosis Control, Ministry of Health, Province of British Columbia**

The data have been skewed by the occurrence of a number of cluster outbreaks of TB on Vancouver Island and in Northern B.C. in 1992. These episodes appear to be under control, but continued caution is required due to the documented high prevalence of tuberculous infection in the First Nations population.

Figure 26
Number of Cases of Tuberculosis
by Age and Sex, Status Indian
On-and Off-reserve 1988-1993, B.C.

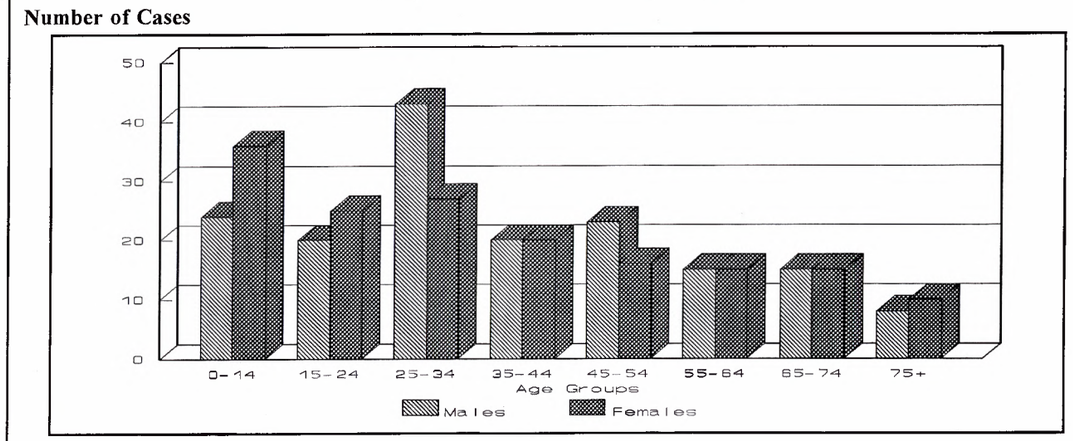


Figure 27
Type of Tuberculous Disease
by Age Group, Status Indian,
On-and Off-reserve, 1988-1993, B.C.

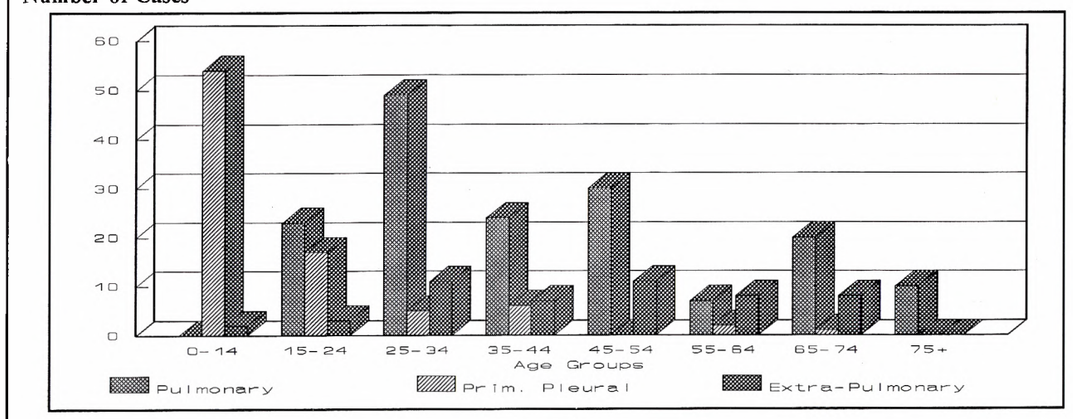
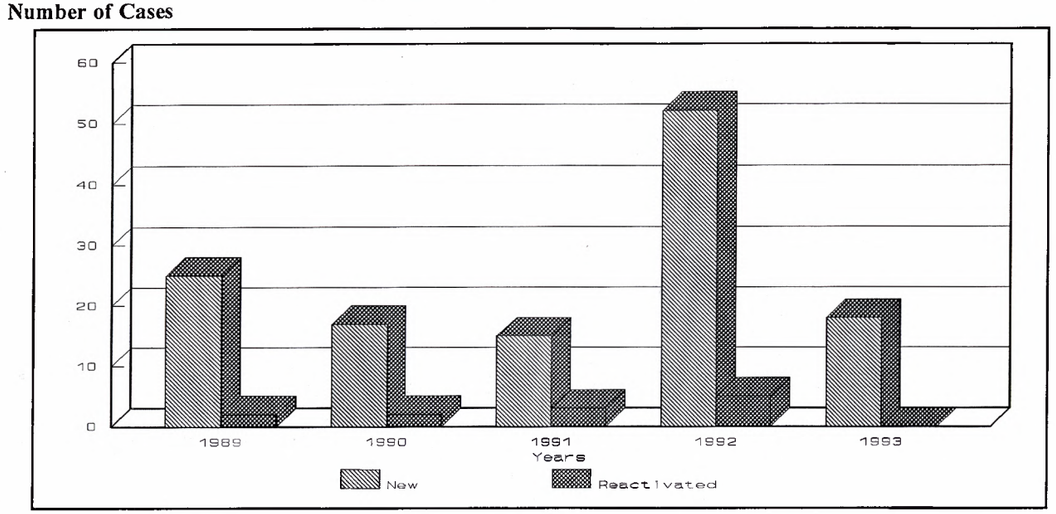


Figure 28
Number of New Active and Reactive Cases of Tuberculosis in Status Indians On-and Off-reserve in British Columbia 1989-1993



A recurring aspect of the current status of TB Control in B.C. First Nations is the low rate of reactivation in people previously treated for TB. In 1993 in fact, no on-reserve cases were deemed reactivated TB cases. This reflects the fact that although the rates of disease are high once the diagnosis is made, therapy is usually successful. In addition, it is reassuring to note that there is no significant documented drug-resistant disease among individuals on-reserve.

A note of concern has been the fact that in the latter part of 1993, a number of cases of tuberculosis related to HIV occurred both in Aboriginal and non-Aboriginal members of the skid row and intravenous drug-user population in Vancouver. The concern is that these cases may spill over into the reserves and continued caution is required in regard to making predictions about control of TB in the First Nations.

In the screening program of the latter part of the 1980s and early 1990s, a poor yield from community-based chest X-ray surveys was demonstrated and therefore a switch has been made to more concentrated and systematic tuberculin skin testing of on-reserve subjects. A change in emphasis is reflected in the fact that from 1991 to 1993, 8 487 skin tests have been recorded. Arising from this screening, 747 subjects have been offered chemoprophylaxis, with 392 subjects accepting chemoprophylaxis. Analysis is underway in the acceptance rate for chemoprophylaxis, particularly in evaluating the impact of twice-weekly supervised chemoprophylaxis completion rates and compliance.

In future, the program will continue to focus more on identifying subjects with dormant tuberculous infection and giving them the option of chemoprophylaxis as well. Even if this is declined, they will be made aware of their infection with TB, their future risk for reactivation, and the importance of early evaluation if symptoms develop. Close liaison will be maintained with the Provincial TB Control Program.

Tuberculosis: Implications

- Tuberculosis is a very sensitive indicator of the socio-economic status of the population and in particular reflects overcrowded housing and less-than-adequate nutritional status.
- As socio-economic conditions improve (higher standards of living, including less overcrowding and more disposable income for a more nutritious and improved diet), the incidence of tuberculosis should continue to decline.

e) Disability[10]

In 1991, 117 090 nationwide or 31% of Aboriginal adults aged 15 and older reported some degree of disability — more than twice the national rate. The 1991 Health and Activity Limitation Survey showed the disability rate of Canada's adult (aged 15 and older) population (excluding the population in institutions and on First Nations reserves and settlements) to be 15%. Rates for Canada's total population have been adjusted for differences in age distribution in order to permit more meaningful comparisons between the two populations.

The various forms of disability are:

Mobility: Limited ability to walk, move from room to room, carry an object for 10 metres, or stand for long periods.

Agility: Limited ability to bend, dress or undress oneself, get in or out of bed, cut toenails, use fingers to grasp or handle objects, reach or cut one's own food.

Seeing: Limited ability to see a printed page or to see someone from four metres, even when wearing corrective glasses.

Hearing: Limited ability to hear what is being said in a conversation with one or more people, even when wearing a hearing aid.

Speaking: Limited ability to be understood when talking.

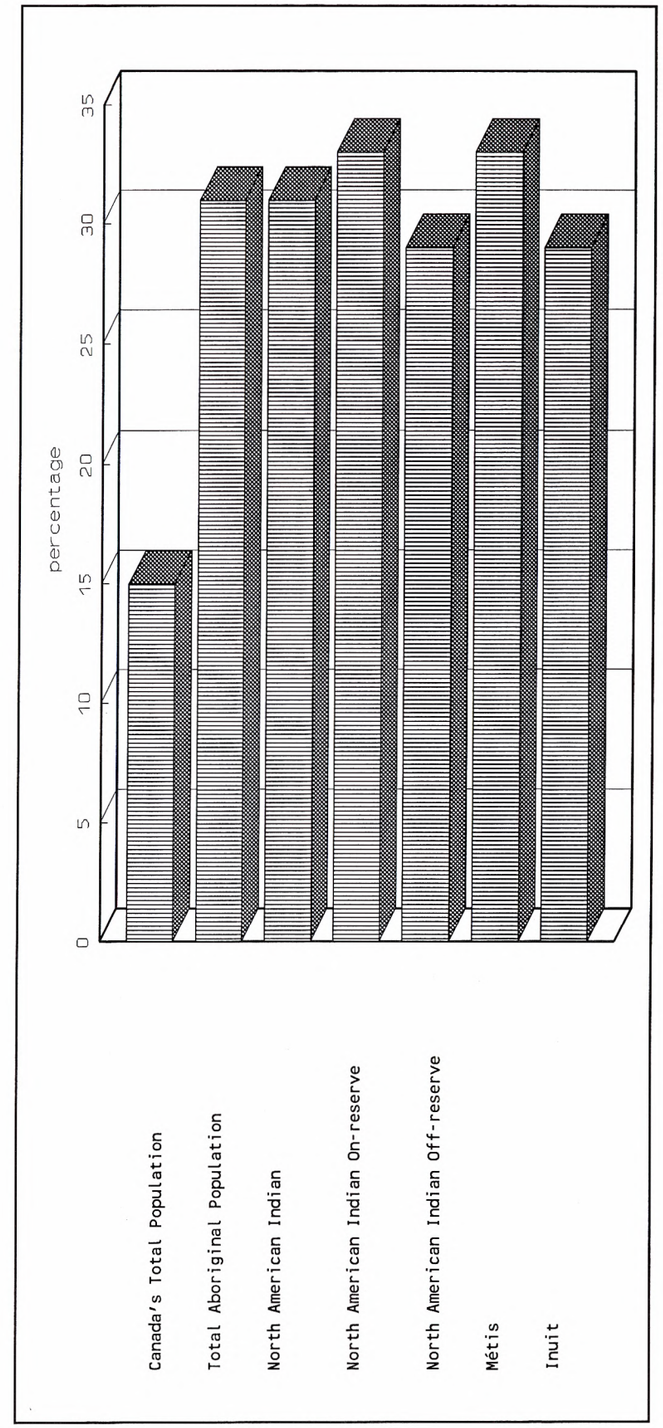
Other: Limited because of a learning disability or because of a mental health condition or problem.

Among Aboriginal groups, North American Indians living on First Nations reserves and settlements reported the highest disability rate (33%); the Inuit reported the lowest rate (29%).

This is consistent with the observation made over a decade ago by the Special Parliamentary Committee on the Disabled and the Handicapped. The *"Follow-up Report: Native Population"* observed that "Native communities, and native people living in non-Native communities, suffer on a daily basis from living conditions which other Canadians experience only rarely. These adversities — political, economic, social and cultural in nature — greatly increase the probability of being disabled at some point in a person's lifetime. Although hard data is not available, it is generally felt by those who are knowledgeable about Native lifestyles, that the percentage of disabled persons is much higher among the Native population than it is among other groups of Canadians."

10 **Statistics Canada, Census of Canada, Aboriginal Peoples Survey 1991.**

Figure 29
Disability Rate for Adult Aboriginal and for the Population of Canada (Age 15 and Older), 1991



Source: The Daily, Statistics Canada, March 1994. Based on Aboriginal Peoples Survey 1991.

Table 14
AGE GROUP DISABILITY RATES
CANADA'S TOTAL POPULATION
AND FOR ABORIGINAL CANADIANS
1991

Age Group	Canada's Total Population	Total Aboriginal Population	North American Indian	North America Indian On-Reserve	North American Indian Off-Reserve	Métis	Inuit
	%						
15 to 34	7.9	22.6	22.7	22.4	22.8	22.5	22.0
34 to 54	13.7	35.5	35.4	35.5	35.3	37.2	33.3
55 and older	52.8	66.5	66.4	70.1	63.3	68.1	62.5

Source: The Daily, Statistics Canada, March 1994. Aboriginal Peoples Survey 1991.

As with the total population, disability among the Aboriginal population increases with age. Among young Aboriginal adults aged 15 to 34, the rate (23%) is almost three times higher than among Canada's total population in the same age group (8%). Among those aged 55 and older, the difference in disability rates between Aboriginal persons and the total population is less pronounced. Nevertheless the rate is still markedly higher for Aboriginal persons.

Among North American Indians (living on-or off-reserves and settlements) and Métis adults with disabilities, mobility was the most common (more than 4 out of 10) type of disability — the same is true of Canada's adult population as a whole. However, for Inuit adults with disabilities, hearing was the most prevalent (44%) type of disability. Hearing disabilities were also high (39%) among North American Indian adults living on First Nations reserves and settlements. Their hearing disability rates were almost double those of Canada's adult population. The higher incidence of hearing disabilities among these Aboriginal groups may be attributed to the prevalence of chronic ear infections (otitis media) and the resulting hearing loss, especially among Aboriginal people living in northern areas.

As with the total Canadian population, a substantial proportion of Aboriginal adults (36.3%) reported that they were limited because of a hearing disability or because of a mental health condition (included in "Other" in the following table).

Table 15
ABORIGINAL ADULTS (AGE 15 AND OVER)
AND TOTAL CANADIAN POPULATION
WITH DISABILITY, 1991

Nature of Disability	Canada's Total Population	Total Aboriginal Population	North American Indian	North America Indian On-reserve	North American Indian Off-reserve	Métis	Inuit
	%						
Mobility	45.4	44.8	45.6	46.8	44.8	44.2	35.6
Agility	43.8	35.3	35.2	33.8	36.0	38.1	26.3
Hearing	22.7	35.1	34.9	38.7	32.6	33.6	44.0
Seeing	9.2	24.4	25.1	31.8	20.9	22.1	24.1
Speaking	9.8	12.9	13.2	13.6	12.9	12.9	9.6
Other	37.4	36.3	36.7	36.9	36.5	35.1	36.4

Source: The Daily, Statistics Canada, March 1994. Aboriginal Peoples Survey 1991.

In British Columbia, 36.19% of adults on-reserve (7 135 reporting) 15 years of age and older reported having a disability. Broken down by age groups, the disability rates were as follows:

Table 16
DISABILITY RATE
BY AGE GROUP
IN BRITISH COLUMBIA,

Age Group	Percent
15-24 years	22.9
25-34 years	25.6
35-54 years	38.0
55 years and older	72.7

Also, in British Columbia on-reserve (7 135 reporting), 64% reported mild disability, 21% reported moderate disability and 15% reported some disability.

f) Diabetes Mellitus

Diabetes mellitus is becoming an increasing problem on-reserve in British Columbia. In 1987[11], as part of a national effort to obtain current data on the prevalence of this disease in the Native population, a survey was carried out in British Columbia. One hundred and four communities responded and reported 348 cases of diabetes mellitus. The overall rate was 1.24% and for the over-35 age group, 4.5%. The highest rates were found in coastal and southern communities. Of the 326 cases for which therapy was reported, therapy in 83 (25.5%) consisted of diet alone, in 114 (35%) diet plus oral hypoglycemics, and in 129 (39.6%) diet plus insulin, a high percentage considering that the majority of patients were non-insulin dependent.

As would be expected, the younger the age at diagnosis, the higher the percentage on insulin. Also, those diabetics having had their disease the longest were more likely to be receiving insulin. There is concern about the large number of Native diabetics receiving insulin as the reasons are not clear. This may be a reflection of poor compliance in following diet and exercise programs, and raises the question of the adequacy of diabetes education provided to adult diabetics.

The survey was repeated in 1995. In a preliminary analysis it was noted that 112 communities reported 833 cases of diabetes mellitus. The overall rate increased to 2.0% for males and 2.6% for females. These increases are of concern and point out the need for education on proper nutrition and the requirement for increased exercise.

In the British Columbia study, rates varied considerably by geographic location:

Table 17
DIABETES PREVALENCE RATES
B.C. REGISTERED INDIANS
1987 AND 1995

Geographic Area	Rate/1000 Total Population			Rate/1000 Age 35+		
	1987	1995	Percentage Increase	1987	1995	Percentage Increase
British Columbia	12.4	22.0	+77	44.9	63.0	+40
South Mainland Zone	15.3	24.0	+57	51.7	66.0	+42
Vancouver Island Zone	15.4	27.0	+94	62.6	79.0	+26
Northwest Zone	12.5	20.0	+60	45.7	53.0	+16
Northeast Zone	5.0	15.0	+200	19.3	49.0	+153

11 **Martin, J.D. and Bell, P. "Diabetes Mellitus in the Native Population of British Columbia, Canada" in the Proceedings of the 8th International Congress on Circumpolar Health, Whitehorse, Yukon, May 20-25, 1990.**

In comparison with the other provinces[12] B.C. rates are relatively low. The overall prevalence rates in British Columbia First Nations were generally lower than in the non-Native population and are among the lowest of the Native rates in Canada. Of the communities studied, 30 had prevalence rates of 6% or greater in the 35-plus age group. Of these communities, 14 were selected as being of particularly high risk due to the high prevalence of diabetes and/or the total number of diabetics. In one small community of 140, 7 of 25 persons aged 35 and over had diabetes, a rate of 28%. Twenty seven of the 30 communities were located on the coast or in the southern part of the province. Only three of the 30 communities were located in the northern part of the province. One community with a total population of 90 had one diabetic (6.25% in the 35-plus age group), and a second (total population 185) had four diabetics (6.78% in the 35-plus age group). A third (total population 345) had seven diabetics (7.95% in the 35-plus age group).

In the above 30 communities, the number of diabetics in the 35-plus age group ranged from a low of one to a high of 25. In these communities, the total population in the 35-plus age group ranged from 14 to 279.

The coastal and southern distribution is interesting and warrants further study. The North-South gradient is similar to that found elsewhere in Canada and has been attributed to acculturation, the adoption of a non-traditional diet with a high proportion of carbohydrates, and a more sedentary lifestyle. It is not clear why the coastal communities are involved to this extent.

Table 18
DIABETES MELLITUS IN REGISTERED INDIANS
IN CANADA, 1990.

Area	Percent
Atlantic	8.7
Québec	4.8
Ontario	7.6
Manitoba	5.7
Saskatchewan	3.9
Alberta	5.1
Yukon	1.2
Northwest Territories	0.8
British Columbia	1.6

In the national study, prevalence rates varied according to language family, culture area, latitude, longitude and geographical isolation. Generally, the rates were highest for urban Natives and lowest for those living in remote areas. A clear North-South gradient was observed. Rates were generally higher in southern latitudes compared with northern ones. Rates for women were generally higher than for men.

12 **Young, TK et al., "Geographical Distribution of Diabetes Among the Native Population of Canada: A National Survey", Soc. Sci. Med. Vol 31, No. 2, pp. 129-139, 1990.**

g) Communicable Disease

Fortunately, communicable disease outbreaks on reserves are becoming less frequent as community members and elected officials become more aware of the measures available to prevent such occurrences. Vaccine-preventable diseases occur only rarely as a result of the high rate of immunization in the on-reserve population. Water-borne outbreaks, e.g., dysentery, rarely occur due to the high percentage of Native homes in British Columbia with piped water and sewage systems.

Table 19
ON-RESERVE REGISTERED INDIANS
COMMUNICABLE DISEASE
IN BRITISH COLUMBIA, 1993

	Northwest Zone		North East Zone		South Mainland Zone		Vancouver Island Zone		Region	
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Vaccine Preventable										
Measles	3	4.14	1	1.02	0	0	0	0	4	1.07
Pertussis	1	1.38	0	0	0	0	0	0	1	.27
Haemophilus Influenza	2	2.76	0	0	0	0	0	0	2	.54
Enterics										
Shigella	0	0	0	0	0	0	20	22.73	20	5.36
Salmonella	1	1.38	1	1.02	2	1.44	0	0	4	1.07
Staphylococcus	3	4.14	0	0	0	0	0	0	3	.80
Non-specific	58	80.02	0	0	0	0	0	0	58	15.56
Viral	1	1.38	0	0	0	0	0	0	1	.27
Giardiasis	0	0	3	3.07	1	.72	4	4.55	8	2.15
Hepatitis										
Hepatitis A	0	0	1	1.02	1	.72	1	1.10	3	.80
Hepatitis B	2	2.76	0	0	0	0	0	0	2	.54
Hepatitis Non A & B	0	0	0	0	1	.72	0	0	1	.27
Sexually Transmitted Disease										
Gonorrhea	1	1.38	6	6.14	18	12.94	0	0	25	6.70
Chancroid	1	1.38	0	0	0	0	0	0	1	.27
Chlamydia	1	1.38	5	5.12	8	5.75	1	1.14	15	4.02
Herpes	2	2.76	2	2.05	0	0	1	1.14	5	1.34
Meningitis	0	0	1	1.02	0	0	0	0	1	.27
Influenza Non-Specific	9	12.42	0	0	0	0	0	0	9	2.41

Rates /10 000 Population Reported by Federal Community Health Nurses serving reserves.

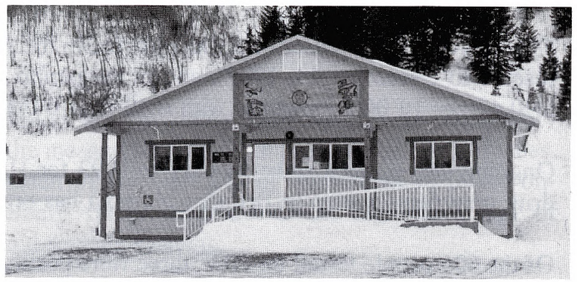
There have been 39 cases of AIDS reported in the Aboriginal population in British Columbia (on-and off-reserve to December 31, 1993), and in the period 1987-1992, 22 deaths, (20 men and 2 women), a rate of 0.42 per 10 000 compared with 0.39 per 10 000 for the British Columbia population.

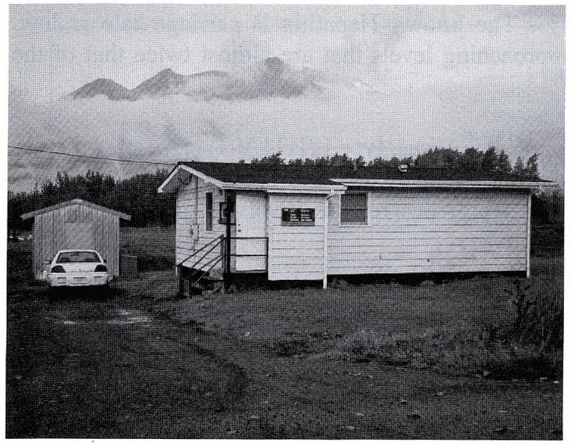
Ongoing surveillance since January 1, 1992 for HIV and Hepatitis B in three First Nations alcohol and drug treatment centres in British Columbia has provided the following data (June 30, 1994).

Of the 605 people tested for HIV, three were positive, (one male and two females) for an overall positivity rate of 0.50%. This is in the same order as rates in B.C. for individuals with risk factors. Two individuals are HBsAg positive for Hepatitis B, a rate of 0.37%. The known Hepatitis B carriage rate is low. Regardless, the overall Hepatitis B infection rate is approaching levels that are almost twice that of the B.C. blood donor population.

In November 1993, eight cases of Human T-Cell Lymphotropic Virus, type I (HTLV-I) associated disease in Aboriginal people in British Columbia were reported in the medical literature. These were the first cases reported in Canada for individuals born in this country (previous reports involved immigrants from endemic areas in the Caribbean, Africa and South America).

Six of the cases had HTLV-I associated myelopathy (HAM) or tropical spastic paraparesis (TSP). Two had adult T-cell leukaemia. Surveillance is being carried out to determine the extent of infections in the First Nations population. Fortunately, only one to four percent of those infected with HTLV-I actually go on to develop the associated diseases. Reports to date suggest that these diseases are very rare in British Columbia.





V) Socio-Economic Factors

Introduction

This chapter outlines several socio-economic factors that are believed to significantly affect the health conditions and/or the delivery of health programs to First Nations people in British Columbia. They include the following:

a) Family and Household Characteristics

b) Employment and Occupations

c) Income

d) Education

e) Housing and Community Infrastructure

f) Social Problems Facing First Nations Communities

g) Possible Solutions to Socio-Economic Conditions On-Reserve in B.C.

a) Family and Household Characteristics

According to the 1981 Aboriginal Peoples Survey, the average size of B.C. First Nations families is greater than that of the provincial population. This is especially true among those living on-reserve, where the average family size is 1⅓ times that of the provincial population as a whole.

Table 20
AVERAGE SIZE OF CENSUS FAMILIES*, 1981

British Columbia Families	
On-reserve	4.2
Off-reserve	3.5
British Columbia Population	3.1
Among residents on-reserve in Canada, British Columbia (at 4.2) compares with:	
High of 4.7 (Manitoba and Saskatchewan)	
Low of 3.8 (Yukon)	
Canadian average on-reserve	4.4
National average for total population	3.2

* Family of related individuals only (i.e. husband and wife with or without children, or lone-parent with children)

Source: INAC Customized Data based on 1981 Aboriginal Peoples Survey

The proportion of lone-parent census families among B.C. First Nations is double that of the provincial population. Almost one fifth (19%) of all First Nations peoples living in census families on-reserve in 1981 were in lone-parent situations.

Table 21
DISTRIBUTION OF POPULATION
LIVING IN FAMILIES
BY TYPE OF FAMILY, 1981

	B.C. First Nations On-Reserve	B.C. First Nations Off-Reserve	B.C Provincial Population
Husband-Wife	81%	77%	91%
Lone-Parent	19%	23%	9%
Total	100%	100%	100%

Source: INAC Customized Data based on 1981 Aboriginal Peoples Survey.

The vast majority of lone-parent families on-reserve (as with the off-reserve and total provincial populations) consisted of families headed by a lone female.

Table 22
CENSUS FAMILY STRUCTURE 1986

Type of Census Family	B.C First Nations On-Reserve		B.C. First Nations Off-Reserve		B.C. Provincial Population	
Husband-Wife	5 135	77%	4 675	69%	669 415	88%
Lone-Parent						
male	495	7%	200	3%	16 960	2%
female	1 050	16%	1 930	28%	75 965	10%
Total	1 545	23%	2 130	31%	92 925	12%
Total	6 680	100%	6 805	100%	762 335	100%

Source: INAC Customized Data based on 1986 Aboriginal Peoples Survey, Quantitative Analysis and Socio-Demographic Research, 1989.

Taking into account not only individuals living in census families, but also individuals living alone or sharing with non-family members, it can also be seen that the average household size is higher for First Nations than for the general population. In fact, the average household size on-reserve in B.C. is 1.4 times that of the general population. The average household size on-reserve in British Columbia is slightly less than that on-reserves across Canada.

Table 23
AVERAGE HOUSEHOLD SIZE, 1991

British Columbia First Nations	
On-reserve	3.8
Off-reserve	3.2
Among First Nations on-reserve in Canada, British Columbia (at 3.8) compares with the Canadian average on-reserve of 4.3 and with the Canadian total non-Native population of 2.7.	

Source: 1991 Aboriginal Peoples Survey.

The average size of Census families and households tells only part of the story concerning family and household characteristics. Of equal significance is the distribution of families and households by size (i.e. by the number of persons living in the family and the household).

In 1986 more than 22.7% of First Nations Census families comprised five or more persons, and 3% comprised seven or more persons. By contrast, fewer than 12% of Census families in the general population of British Columbia comprised five or more persons, and less than 0.5% consisted of seven or more.

Table 24
DISTRIBUTION OF CENSUS FAMILIES
BY SIZE, BRITISH COLUMBIA, 1986

Persons	Registered First Nations Percent	Provincial Population Percent
2	40.40	45.30
3	23.80	20.80
4	22.70	23.00
5	13.70	8.20
6	5.90	2.00
7	1.90	0.30
8	0.80	0.09
9+	0.40	0.05
5+	22.70	11.90

Source: INAC Customized Data based on 1986 Census of Canada, Quantitative Analysis and Socio-demographic Research, 1989.

Family and Household Characteristics: Implications

- The large size of families and households among First Nations — especially on-reserve — suggests that parents have a heavy burden, not only with the basic care and feeding of their children, but also with coping with illness within the family.
- Given the low levels of employment and average income, large families heavily restrict available money for adequate housing, good nutrition and a healthy balance between work, leisure and personal development.
- Large families and household sizes are major contributing factors to overcrowded and unsafe living conditions. Given inadequate housing and community recreational facilities in many communities, it may also add to tension and stress within the family and within the community.
- With a high proportion of lone-parent families — most of them headed by women with particular difficulties in obtaining employment — there is a need for family assistance and alternative support mechanisms such as mutual aid and child care. This is particularly acute in cases where lone parents must cope with illness within the family.

b) Employment and Occupations

Labour force participation rates are a crude measure of the extent of participation in an economy. The rate measures the proportion of the population of so-called working age (15-64 years) that was either employed or actively seeking employment at the time of enumeration (in this case, the 1991 Census).

According to the 1991 Census, slightly more than half the individuals of working age living on-reserve in British Columbia, and about two-thirds of those off-reserve, were in the labour force. This compares with the Canadian total population level of 68% of the working age population and with 45.3% labour force participation on-reserves across Canada.

Table 25
LABOUR FORCE PARTICIPATION RATES, 1991

British Columbia First Nations	
On-reserve	54.7%
Off-reserve	65.4%
Canadian Population	68.0%
Among First Nations on-reserve in Canada, B.C. compares with:	
67.4% (Yukon) and 44.8% (Alberta)	
Low of 37.6% (Saskatchewan)	
Canadian average 45.3%	

Source: 1991 Aboriginal Peoples Survey.

Conventional measures of unemployment (i.e. the unemployment rate) are inappropriate since they measure unemployment only among those who participate in the labour force, and do not take into account entrenched unemployment among discouraged workers who no longer actively seek work. A more meaningful figure is the employment rate that measures the proportion of those of working age (i.e. 15-64 years), who were successfully employed at the time of enumeration.

In British Columbia, as in other provinces, for individuals on-and off-reserve alike, employment rates are significantly lower than those for the total population. Among persons off-reserve in B.C., fewer than half were employed in 1991, and among those on-reserve, only slightly more than one third were employed. This contrasts with the general population across Canada where three fifths or more of the population of working age were employed. Nonetheless, employment among First Nations people on-reserve living in B.C. ranks among the highest in Canada, and compares favourably with the Canadian average of 31%.

Table 26
EMPLOYMENT RATE, 1991

British Columbia First Nations	
On-reserve	36%
Off-reserve	48%
Canadian Population	61%
Among First Nations on-reserve in Canada, B.C. compares with:	
High of 54% (New Brunswick)	
Low of 23% (Nova Scotia)	
Canadian average 31%	

Source: 1991 Aboriginal Peoples Survey.

In the 1981 Aboriginal Peoples Survey almost a quarter of the on-reserve labour force was active in primary occupations such as fishing, forestry and logging. Among males, more than a third followed such pursuits.

A further 14% were involved in secondary occupations — the majority in processing operations likely associated with fishing, forestry and logging.

More than half the on-reserve workers were involved in tertiary (i.e. service) occupations. Among males the proportion was almost two fifths, while among females it was more than four fifths. Among males, the leading occupations in the tertiary sector were in the construction and managerial fields. Employment in the managerial, service and clerical occupations accounted for more than three quarters of total female employment.

Table 27
EXPERIENCED ON-RESERVE LABOUR FORCE,
BY OCCUPATION, 1981

	Male (%)	Female (%)
Primary		
Fishing & Trapping	11	1
Forestry & Logging	17	1
Other	6	3
Sub-Total	34	5
Secondary		
Processing	11	10
Machinery, Product Fabricating, Assembly & Repairs	11	10
Sub-Total	15	11
Tertiary		
Managerial	10	27
Clerical	1	22
Sales	1	5
Service	5	26
Construction	17	1
Transportation, Equipment Operating	4	0
Sub-total	38	81
Other	13	3
Total	100	100

Source: INAC Customized Data based on 1981 Aboriginal Peoples Survey

Nationally, about one third (31 790) of adults aged 15 and older who identify as Status Indians living on-reserves and settlements were looking for work in 1990 and 1991. Those questioned (23 900) reported difficulty in finding employment because there were few or no good jobs available, and of these 41% (12 890) stated that their education or work experience did not match available jobs. Just over 22% (7 050) reported trouble in finding a job because they were Aboriginal.

Just over one fifth (21 440) of adults aged 15 and over who identify as North American Indians living on-reserve nationally reported other wage earning activities during 1991. Those activities included carving, trapping, guiding etc.

Twenty percent (20 480) of adults aged 15 and older who identify as North American Indians living on-reserve nationally reported they participated in other activities to support themselves and their families for which they did not receive money. The activities included fishing, and trapping for food.

Just over five percent (5 375) nationally reported that they had owned or operated a business and among this group, 3 410 (63%) currently owned or operated a business. About seven percent considered going into business over the next two years.

Employment and Occupations: Implications

- Low levels of labour force participation and low levels of employment among First Nations people are indicative of pervasive dependence on social support.
- Lack of employment on-reserves may contribute to low self-esteem and may add to frustrations and tensions that may contribute to poor psychological well-being, self-abuse and family and community violence.
- With a large proportion of First Nations — especially males — employed in high-risk professions (e.g. fishing, forestry, logging, processing and construction), there is a greater-than-average likelihood of exposure to accidental injury or death. At the same time, the relatively low levels of involvement in high-stress white-collar professions and relative isolation from heavy industries where exposure to toxins is more prevalent, may offset these risks.

c) Income

Of 20 140 British Columbia on-reserve residents reporting in the 1991 Aboriginal Peoples Survey, 84% had an income of less than $20 000 compared with 57% of the total Canadian population.

Table 28
DISTRIBUTION OF POPULATION
15 YEARS OR OVER,
BY INCOME LEVEL,
FROM ALL SOURCES 1991

	B.C. First Nations			
	On-Reserve	Off-Reserve	First Nations On-reserve (Canada	Total Population (Canada)
	(%)	(%)	(%)	(%)
No income	14	14	11	9
Under $ 2 000	11	8	17	6
$2 000 - $ 9 999	37	29	36	20
$10 000 - $ 19 999	22	23	22	22
$20 000 - $ 39 999	13	19	12	28
$40 000 and over	3	7	2	15
Total	100	100	100	100

Source: 1991 Aboriginal Peoples Survey

More than a third (36%) of First Nations people living on-reserve and (26%) of those off-reserve in B.C. were dependent on government transfers as their major source (i.e. largest single source) of income in 1980. This is approximately double the proportion for the provincial population as a whole.

Table 29
PERCENT OF PERSONS RECEIVING SOCIAL ASSISTANCE
(EXCLUDING FAMILY ALLOWANCE CHILD TAX CREDIT),
1991

British Columbia First Nations	
On-reserve	36%
Off-reserve	26%
First Nations on-reserve (Canada)	41%

Source: 1991 Aboriginal Peoples Survey

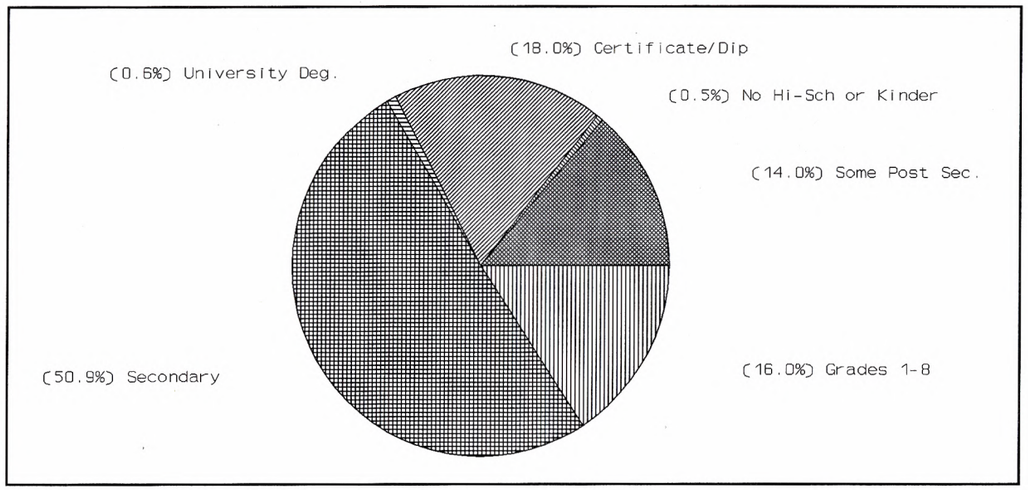
Income:
Implications

- Low individual and family incomes among Status Indians in B.C. — especially among those on-reserve — restrict the capacity of families and communities to obtain adequate housing, good nutrition and appropriate cultural and recreational pastimes.
- Low individual and family incomes also restrict reserve communities from investing in community facilities ranging from water and sewer facilities and fire protection services to recreational facilities, all of which are important for the health, safety and welfare of the community.
- Canadian and international studies have clearly shown that there is a positive and strong correlation between higher levels of income and better health. While much can be done to provide needed services and to assist in coping with adverse conditions, a successful health strategy must embrace efforts to improve employment and income conditions.

d) Education

The highest level of education attained by Status Indians in the 15 to 49 year age group living on-reserve is still far below that of the general Canadian population. (1991 Aboriginal Peoples Survey).

Figure 30
Educational Attainment
Among B.C. First Nations On-Reserve
(Highest Level Attained),
Population 15 to 49 Years, 1991[1]



Source: 1991 Aboriginal Peoples Survey.
[1] 95 of 15 900 reporting did not specify level of education attained.

Among the total Canadian population aged 15 to 49:

- Six percent reported no formal schooling or less than grade 9 as their highest level of education, and 51% reported having some post-secondary education, including a university degree.

Education:
Implications

- Low levels of educational attainment amongst First Nations people limit prospects for successful employment and achievement of financial security and independence. They also undermine confidence and self-esteem, leading to physical and mental health problems associated with poverty, dependence and socio-cultural alienation.

- The increasing numbers and proportion of First Nations people attending school provide an opportunity and stimulate demand for health promotion initiatives that can effectively draw upon school resources and the school setting. Educated members of the community also facilitate better awareness and acceptance of health promotion initiatives and corresponding materials among an increasingly literate population.

- With improved education, First Nations people will gradually strengthen their own capacities for control and delivery of health and other social and economic development programs, and to avail themselves of employment opportunities.

e) Housing and Community Infrastructure

As reported in the 1991 Aboriginal Peoples Survey, 54% of Aboriginal dwellings have been constructed since 1971, compared with 46% of dwellings in Canada as a whole. Among the Aboriginal groups, North American First Nations people living on-reserves and settlements have by far the greatest proportion (79%) of housing built since 1971, followed by the Inuit (69%). For North American First Nations people living outside reserves and settlements, the period of construction of their dwellings was very similar to that of dwellings in Canada as a whole. For the Métis, 53% of the dwellings were built after 1970.

Table 30
ABORIGINAL DWELLINGS
PERIODS OF CONSTRUCTION AND
HOUSING CONDITIONS, 1991

	Canada's Total Dwellings	Total Aboriginal Dwellings	North American Indians	North American Indians On-Reserve	North American Indians Off-reserve	Métis	Inuit
Number of Dwellings	10 018 265	239 240	177 450	39 870	137 580	65 005	9 655
			%				
Period of Construction							
Before 1971	53.7	46.0	46.3	21.4	53.6	47.2	31.3
1971-1991	46.3	54.0	53.7	78.6	46.4	52.8	68.7
Dwellings In Need Of:							
Major Repairs	8.2	19.6	20.8	38.8	15.6	16.8	18.3
Minor Repairs	23.6	29.5	29.4	28.7	29.6	30.3	21.2
Regular Maintenance	68.2	50.9	49.8	32.5	54.8	52.9	57.4
Dwellings where needs were not adequately met.		21.0	21.7	39.2	16.7	18.6	32.9

Source: The Daily Statistics Canada - March, 1994, Based on 1991 Aboriginal Peoples Survey

About 20% of Aboriginal dwellings were reported to need major repairs, compared with nine percent of all dwellings in Canada. Among the Aboriginal groups, North American First Nations people living on-reserves and in settlements reported a much greater percentage of dwellings in need of major repairs, at 39% — almost twice as high as any of the other Aboriginal groups, and more than four times the national rate.

Table 31
ABORIGINAL DWELLINGS,
DWELLING FACILITIES,
1991

	Canada's Total Dwellings	Total Aboriginal Dwellings	North American Indians	North American Indians On-Reserve	North American Indians Off-reserve	Métis	Inuit
			%				
Furnace Heating	66.4	55.6	52.2	33.7	57.6	62.8	70.9
Electric Heating	29.8	31.9	34.3	42.3	31.9	27.7	16.0
Wood Stoves	4.4	17.2	18.8	41.3	12.2	13.8	9.7
Bathrooms	99.4	91.2	90.3	83.4	92.3	93.4	96.3
Smoke Detectors	87.9	77.6	76.2	63.3	79.9	80.6	89.6
Fire Extinguishers	46.3	44.0	42.4	38.0	43.7	43.0	75.7

Source: The Daily Statistics Canada - March, 1994, Based on 1991 Aboriginal Peoples Survey

Residents in 21% of Aboriginal dwellings reported that their housing needs were not adequately met. The percentages were much higher for North American First Nations people living on-reserves and in settlements (39%) and for the Inuit (33%). The types of housing inadequacies varied among Aboriginal groups, ranging from need for additional space (e.g., additional bedrooms or a larger kitchen) to better ways to keep the house warm and the need for new roofing.

Among Aboriginal groups, crowding was highest in Inuit dwellings and in dwellings on-reserves and in settlements, with an average of 0.8 persons per room — twice the average for Canada as a whole. The next highest level of crowding was found among Métis dwellings and among Aboriginal dwellings off-reserve, with an average of 0.6 persons per room.

Aboriginal dwellings on First Nations reserves and settlements had almost equal dependence on electricity (42%) and wood stoves (41%) as heat sources. The use of wood stoves as a heat source by this group was 10 times greater than in Canada as a whole. Métis (63%) and Inuit dwellings (71%) were mostly dependent on furnace heating (oil, gas or other types of furnaces).

The vast majority (more than 9 out of 10) of Aboriginal dwellings, like dwellings for Canada as a whole, were reported to have bathroom facilities. But the proportion was lower (83%) for Aboriginal dwellings on First Nations reserves or in settlements.

The presence of safety devices such as smoke detectors and fire extinguishers was almost as prevalent in Aboriginal dwellings (8 out of 10 dwellings) as it was in dwellings in Canada as a whole (9 out of 10 dwellings). One exception was the Aboriginal dwellings on-reserves and settlements, which had the lowest percentage of dwellings with smoke detectors (63%) and fire extinguishers (38%).

Inuit dwellings were better equipped with safety devices than were dwellings in Canada as a whole. About 90% of Inuit dwellings had smoke detectors (compared with 88% for Canada), and 76% of their dwellings had fire extinguishers (more than 1½ times the rate for Canada as a whole).

In 1991, Aboriginal dwellings were reported to have an average of 0.6 persons per room. By comparison, the corresponding average for dwellings in Canada was 0.4 persons per room. Although both these averages were below the "overcrowding" standard of more than one person per room, Aboriginal dwellings were on average 50% more crowded than those in Canada as a whole.

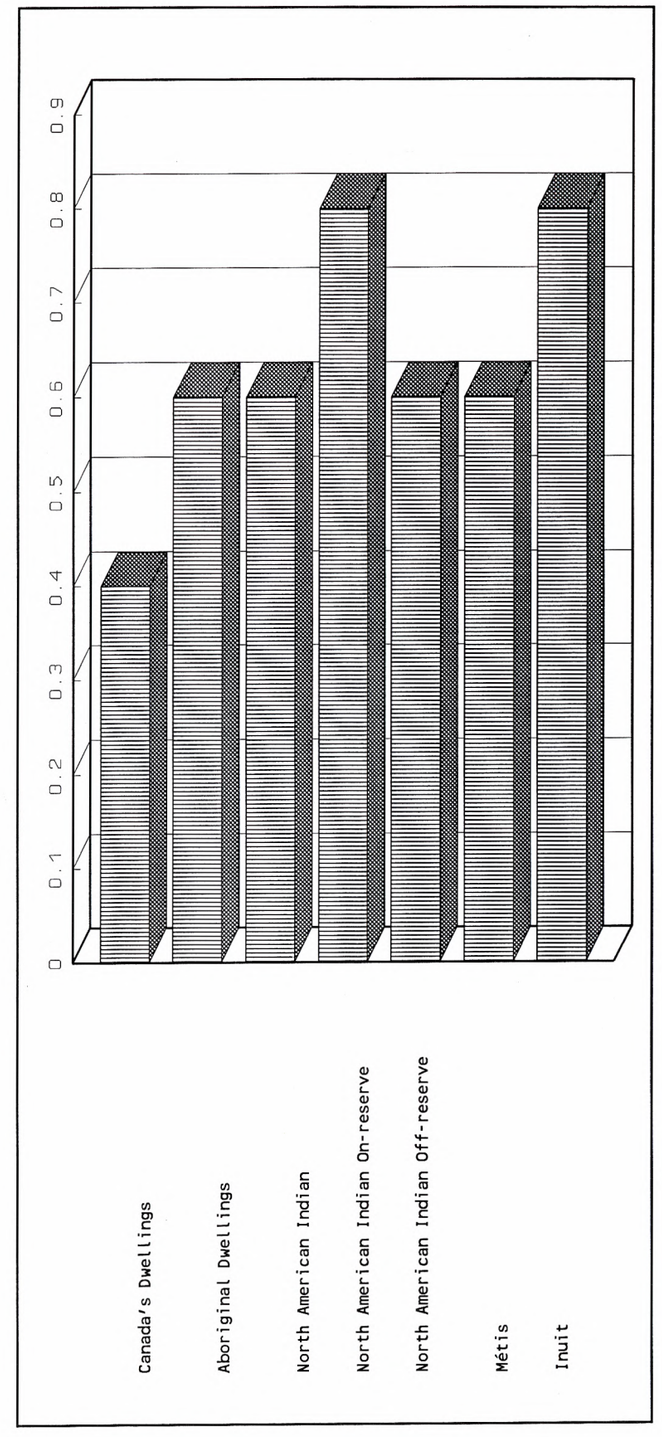
Table 32
HOUSING CHARACTERISTICS AND CONDITIONS
OF OCCUPIED PRIVATE DWELLINGS
ON FIRST NATIONS RESERVES IN B.C., 1991

	B.C. First Nations		Canada	
Population	On-reserve	Off-reserve	First Nations On-reserve	Total Canadian Population
Average number of persons per occupied private dwelling	3.8	3.2	4.3	2.7
Average number of rooms per occupied private dwelling	5.8	5.9	5.5	6.1
Average number of persons per room	0.6	0.5	0.8	0.4
Water obtained from:				
Municipal Water System	42.0	77.0	36.0	N/A
Community System Such As Wells or Cisterns	39.0	5.0	35.0	N/A
Household well	8.0	7.0	14.0	N/A
Surface water lake, river or stream	6.0	3.0	10.0	N/A
Require regular maintenance	38.0	54.0	33.0	N/A
Require minor repairs	28.0	30.0	29.0	N/A
Require major repairs	33.0	17.0	39.0	N/A

Source: 1991 Aboriginal people Survey

In recent years, water and sewer facilities have been significantly extended and upgraded, to the point where the vast majority of households on-reserve in B.C. have water and sewer facilities. In fact, B.C. ranks highest of all provinces in terms of the proportion of households with water and sewer facilities on-reserve. Nonetheless, there are a number of households and communities where water and sewer facilities are either non-existent or remain inadequate. Moreover, the data does not provide an accurate picture of the quality and reliability of the water and sewage facilities, nor of their present state of repair.

Figure 31
Crowding Indicator, 1991
Average Number of Persons Per Room



Source: The Daily Statistics Canada, March 1994, based on Aboriginal people Survey, 1991.

Table 33
PROPORTION OF HOUSING ON RESERVE WITH WATER AND SEWER SERVICES, 1987

	Water Percent	Sewer Percent
British Columbia	97	95
Alberta	77	76
Saskatchewan	42	45
Manitoba	64	25
Ontario	71	67
Québec	89	77
Atlantic	95	95
Yukon & NWT	61	55
Canada (on-reserve)	75	75

Source: Unpublished Data, First Nations Housing Review (INAC) 1989.

Housing and Community Infrastructure: Implications

- Although great progress has recently been made in British Columbia to improve the quantity and quality of housing, sub-standard houses continue to contribute to unsafe and unhealthy conditions. Inadequate heating and electrical systems contribute to a high incidence of fire injuries and deaths, while poor heating and ventilation systems contribute to a variety of other illnesses and chronic ailments. Moreover, crowded conditions contribute to tension and violence within the family and community and to communicable diseases and infant mortality.

- Inadequate or unreliable sewer and water facilities contribute to outbreaks of infectious diseases.

- The relative scarcity of community recreational facilities contributes to boredom, frustration and tension — especially among youth — and may be a contributing factor to the high incidence of substance abuse.

f) Social Problems Facing First Nations Communities

The Aboriginal population aged 15 and older were asked for their opinion on the social problems in their communities. Unemployment was identified by 78% and alcohol by 73% of North American Indians living on-reserve and in settlements.

Table 34
SOCIAL PROBLEMS FACING ABORIGINAL COMMUNITIES 1991

	Total		N.A.I.[1] On-Reserve		N.A.I. Off-Reserve		Métis		Inuit	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Aboriginal Population 15 and Older	388 900	100.0	102 075	100.0	186 295	100.0	84 155	100.0	20 805	100.0
Social Issues[2]										
Suicides	98 690	25.4	35 195	34.5	38 005	20.4	18 200	21.6	8 575	41.2
Unemployment	261 100	67.1	79 900	78.3	112 195	60.2	56 330	66.9	15 505	74.5
Family Violence	152 435	39.2	44 975	44.1	67 820	36.4	32 805	39.0	9 040	43.5
Sexual Abuse	95 400	24.5	29 555	29.0	40 605	21.8	19 350	23.0	7 305	35.1
Drug Abuse	186 423	47.9	60 010	58.8	80 390	43.2	38 060	45.2	10 195	49.0
Alcohol Abuse	237 680	61.1	74 715	73.2	104 280	56.0	49 520	58.8	11 980	57.6
Rape	58 120	14.9	16 735	16.4	24 725	13.3	12 305	14.6	5 190	25.0

[1] North American Indians
[2] Persons reporting that they feel social issues are a problem in the community where they are living now.

Source: The Daily, Statistics Canada, June 1993. Based on 1991 Aboriginal Peoples Survey

g) Possible Solutions to Socio-Economic Conditions On-Reserve in B.C.

Of persons who reported in the Aboriginal Peoples Survey, solutions to on-reserve problems were suggested as follows:

Table 35
SUGGESTED SOLUTIONS
TO SOCIAL PROBLEMS ON-RESERVE
IN BRITISH COLUMBIA 1991

Solutions	Number Reporting
More Policing	3 070
Shelters for Abused Women	1 305
Rape Crisis Lines	170
Family Service Counselling	3 190
Counselling Services Other Than Family	2 155
Improved Community Services	2 450
More Employment	1 390
Improved Education	1 000
Improved Government Service	320
Self-Government	250
Return to Tribal Lifestyle	255
Alcohol Banned From Community	170
Other Solutions	1 656

Source: Aboriginal Peoples Survey

VI Health Programs and Services

During the time for which this information was collected, MSB services was organized, either formally or informally, into the following areas:

a) Nursing

b) Dental Services

c) Nutrition

d) Addictions and Community Funded Programs

e) Health Education and Community Health

f) Non-insured Health Benefits

g) Communicable Disease Control

h) Environmental Health Services

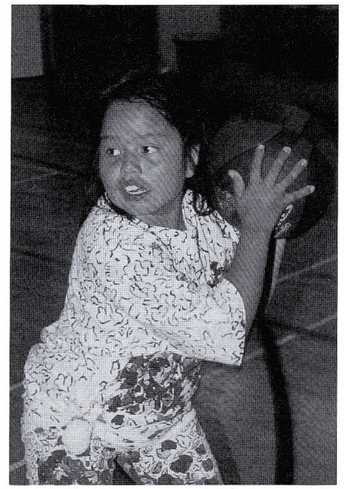
i) Training and Health Careers

j) Program Transfer Activities

k) Mental Health

l) Brighter Futures Initiative

m) Human and Financial Resources



a) Nursing

Demands for nursing services continue to rise as community populations increase and more community health care needs are identified. Additional resources have been allocated, allowing an increase in nursing positions. All nursing stations now have at least two nurses on staff, except at the Takla Landing nursing station. Additional nursing positions have been allocated to some Health Centres with one additional position to each of the Hazelton Health Centre, Kamloops Health Centre, Williams Lake Health Centre, Prince George Health Centre, Fort St. James Health Centre and a half-time position at the Fort St. John Health Centre.

Staffing levels throughout the Region have been much higher as the general shortage of available nurses has decreased. Vacancy rates have averaged two to three throughout the Region at any point in time.

All nurses, except those recently employed, have received training in HIV pre-and post-test counselling through the B.C. Centre for Disease Control. Other training has included the Northern Clinical Training Program taught at McMaster University. This is mandatory training in advanced clinical skills required of all nurses who work in nursing stations. All nurses have received mandatory training and certification in the Theory and Practice of Immunization.

Maternal and child health remain major priorities. Prenatal education and counselling is provided on a one-to-one basis and attendance at prenatal classes is improving. The support philosophy of post- partum care has been introduced in a few communities on a trial basis. This program requires a partnership with the local hospitals to provide a focus and continuity of post-partum care from the time of delivery until the return to the community. An evaluation of the process will be carried out in 1994. Services for infants and preschoolers are provided in all communities and include home visits, well-baby clinics and preschool clinics. These services include the monitoring of the child's health as well as counselling, education and support to the parents.

Communicable diseases have demanded a large portion of nursing time, particularly in those communities with large tuberculosis follow-up and chemotherapy requirements. Extra nurses have been brought on staff in Burns Lake, Merritt and Mount Currie to manage the daily supervision of the tuberculosis chemotherapy program.

HIV and AIDS education have been provided extensively throughout the Region. Condoms remain available in all of the health centres and nursing stations.

Demands with respect to mental health-related issues continue to increase. While counselling services are more readily available from qualified mental health workers, there remains a growing demand on nurses, as front-line workers, to effectively and appropriately respond to client needs, from crisis intervention to referrals for service.

The promotion of community participation in the health care services, including problem solving and priority setting, are ongoing. Community representation on all interviews for new nursing staff has been ongoing for many years.

The following tables are not inclusive of all community nursing services reported, but reflect some key services in the areas of health education, as well as counselling services, and treatment services for all age groups throughout the Region.

Table 36
NURSING ACTIVITY REPORTING SYSTEM (NARS)
SERVICES TO CLIENTS FOR 1993
ACTIVITY: TREATMENT

Name	0-6 Wks	6 Wks to 12 Mos	1 to 5 Yrs	6 to 12 Yrs	13 to 16 Yrs	17 to 20 Yrs	21 to 35 Yrs	36 to 65 Yrs	65 Plus	Total
Upper Respiratory & Infect	6	65	168	89	35	17	120	90	47	637
Otitis Media	4	115	337	124	41	14	150	136	19	940
Injuries	3	7	128	188	59	53	283	180	54	955
Bronchitis	0	12	52	34	7	11	34	39	27	216
Tonsillitis	2	8	112	120	48	13	77	32	6	418
Arthritis	0	0	0	0	3	4	23	95	36	161
Sore Throat	0	5	59	53	19	9	86	64	14	309
Chronic Disease	1	0	1	3	0	3	54	148	110	320
Tuberculosis Control	0	0	0	34	19	4	34	58	30	179
Family Plan/Birth Control	0	0	0	0	2	8	38	3	0	51
Gerontology	0	0	0	0	0	0	0	5	31	36
First Aid, CPR, Safety	0	0	1	2	0	0	1	8	24	36
Diabetes	0	0	0	0	0	0	2	12	27	41
Communicable Disease	0	0	1	0	0	0	0	11	3	15
Mental Health	0	0	0	0	0	0	8	0	0	8
Epilepsy	0	0	0	0	0	0	4	4	0	8
Nutrition	1	1	0	1	0	0	2	0	1	6
Child Health Conference	1	0	3	0	0	0	0	0	1	5
AIDS (Includes Education)	0	0	0	0	0	0	0	0	4	4
Contraceptive Advice	0	0	0	0	2	7	40	5	0	54
Hypertension	0	0	0	0	0	0	1	19	17	37

Source: Medical Services Branch, Nursing Activity Reporting System

Table 37
NURSING ACTIVITY REPORTING SYSTEM (NARS)
SERVICES TO CLIENTS FOR 1993
ACTIVITY: COUNSELLING

Name	0-6 Wks	6 Wks to 12 Mos	1 to 5 Yrs	6 to 12 Yrs	13 to 16 Yrs	17 to 20 Yrs	21 to 35 Yrs	36 to 65 Yrs	65 Plus	Total
Tuberculosis Control	0	6	7	7	10	16	200	154	17	417
Child Health Conference	15	114	101	16	3	13	69	20	15	366
Chronic Disease	0	0	2	2	0	2	19	83	78	186
Gerontology	0	0	0	0	0	1	1	46	97	145
Postnatal (0-6 wks)	9	0	0	1	5	33	89	2	0	139
Lifestyles Topics	0	1	1	3	6	12	54	47	5	129
Mental Health	0	0	0	1	5	3	56	49	8	122
Third Trimester Pregnancy	0	0	0	0	5	23	37	1	0	66
Second Trimester Pregnancy	0	0	0	0	4	21	34	2	1	62
Alcohol Abuse	0	0	0	0	0	4	31	20	5	60

Source: Medical Services Branch, Nursing Activity Reporting System.

b) Dental Services

Dental treatment services in British Columbia are provided, in part, by private dental practitioners to the Status Indian population on-reserve, and to eligible recipients off-reserve, under the Medical Services Branch comprehensive Non-Insured Health Benefits Program.

Preventive dental programs are a co-operative venture between MSB and the communities. Preventive programs are designed to fit each situation. Community programs designed to prevent problems before they get started are known as primary prevention.

Because dental decay, gum and jaw diseases are due to bacterial infections, prevention is directed toward the recognition and elimination of bacterial colonies called plaque. Plaque is the collective name for the bacterial colonies that form in the mouth. Plaque control is the first defence against oral infections. A second approach is to increase resistance.

The use of fluoride can make teeth more resistant to plaque attacks. Fluorides are needed during the growing years to form hard teeth and bones, and must be provided as part of the diet. Fluorides in the form of pastes and rinses keep the teeth hard once they are fully formed. Consequently, plaque control and fluorides form the basis for primary prevention in most communities.

Infant Program

Plaque control for infants is part of the program. The form and frequency of carbohydrate intake are the greatest controlling factors. The prevention of baby-bottle tooth decay (BBTD) remains a major challenge.

There are almost no fluoridated water supplies in B.C., so most infants depend on early exposure to a fluoridated toothpaste to prevent decay. A washcloth is the best toothbrush during the first year of life.

Thirty Months

Thirty months is considered a significant milestone in the development of a child's dental health. This is usually when a child's first visit to the dentist or dental therapist takes place. This visit is stressed because it has a great impact on a child's future attitude towards dentistry. It is a good time to learn self-help methods to keep teeth and gums healthy.

Community-Based Dental Programs

Comprehensive, community-based dental programs are currently provided in 76 First Nations communities in B.C. Sixty of these were served during the past year by the Dental Therapy Program. At this time, the Pacific Region employs nine field dental therapists, two Zone Dental Officers (dentists), a Regional Dental Therapist and a Regional Dental Officer (dentist).

MSB field and zone dental staff provide both clinical and public health dental services, with an emphasis on the prevention of oral diseases. Medical Services Branch staff provide the majority of restorative, surgical and clinical preventive procedures required by their clients. They also refer clients to other medical and dental practitioners who provide services that are outside their scope of practice.

There have recently been changes in the procedures used to restore teeth. Tooth-coloured materials are preferred in restoring front teeth. These dental materials are now controlled with a new technique using a light source (a wand) to cause the material to harden. MSB staff have all implemented this new technique.

Public health measures include, among others:

- classroom teaching;
- school-based, daily brushing programs (all grades);
- school-based, weekly fluoride rinse programs (students aged 6 to 13);
- pre and post-natal counselling; and
- community presentations, displays and newsletters.

Implementation of a Dental Claims Processing System

The growing volume of claims for dental care performed in the 2200 private dental practices in B.C. is now processed by the Medical Services Association (MSA). The MSA is the largest dental insurance carrier in the province, providing this service as part of the national Blue Cross network. It is now possible for First Nations patients to have dental care in any part of the country because the system permits the operation of a plan that is "portable" when people move to a new location.

Orthodontics is one area where, over the past few years, there has been a significant increase in the number of claims and requests for prior approval of funding for services. Growth in these numbers indicates an increasing dental awareness and interest in oral health.

The Dental Claim Processing System-2 (DCPS-2) was introduced in 1995. This is the first major revision of claims processing methods since the Dental Claims Processing System (DCPS). DCPS-2 brings a major conversion of manual to on-line processing procedures and a number of changes to existing manual and on-line systems.

Measurement of Oral Health Status

Every four years, students in Band schools take part in a province-wide study of oral health status. This longitudinal project was started in 1972. The information permits communities to establish health service priorities, and it is also useful in determining special oral health issues to be addressed. Table 38 uses 1980 and 1988 survey results, to identify trends in malocclusions of specific age groups, between the two survey years. Malocclusions form only one of the many aspects of oral health status which can be measured and analyzed from the collected data. The World Health Organization survey methodology is available to all communities needing to plan future services based on dental health needs of their members.

Table 38
PERCENTAGE OF 7-15 YEAR-OLD NATIVE CHILDREN WITH SPECIFIC TYPES OF MALOCCLUSION IN 1980 AND 1988.

Age	7 Years		9 Years		11 Years		13 Years		15 Years		All Ages		7-15 Years	
Years of Survey	1980	1988	1980	1988	1980	1988	1980	1988	1980	1988	1980	1988	1980	1988
Number of children examined	(310)	(324)	(333)	(330)	(322)	(316)	(316)	(282)	(301)	(186)	(1 582)	(1 438)		
Type of Malocclusion Abnormal molar relationship	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Distal	5.2	10.5*	9.0	13.3	15.2	13.0	12.3	15.2	9.6	15.1	10.3	13.2		
Mesial	7.7	4.8	1.4	6.1*	13.7	10.8	12.0	17.4	12.3	16.7	11.4	10.4		
Posterior Mandibular Cuspid	4.8	5.6	10.5	6.1*	15.5	9.2*	14.9	12.1	15.0	7.0*	12.1	7.9		
Drifting	18.7	9.3*	33.3	17.3*	30.7	18.0*	25.9	17.7*	29.6	15.6*	27.7	15.5*		
Crowding	15.5	10.5	35.1	27.6	46.9	35.8	39.6	34.8	35.2	41.4	34.6	28.0		
Crossbite (Anterior or Posterior)	14.8	19.1	26.1	19.7	20.5	26.3	23.1	25.5	24.2	22.6	21.8	22.5		
Overjet > 4mm	13.2	12.0	26.1	24.2	27.3	27.2	25.9	23.8	20.2	24.7	22.7	22.1		
Overjet = negative	7.1	6.8	7.5	4.2	5.6	6.6	6.0	6.4	5.3	7.5	6.3	6.2		
Overbite > 4mm	7.4	7.1	15.3	15.5	16.8	19.3	12.0	16.3	9.3	10.7	12.2	14.0		
Openbite	11.3	7.7	11.4	9.4	10.2	9.2	11.3	9.2	16.3	14.5	12.1	9.6		

*Percentage of Native children in 1988 with malocclusion significantly different than percentage in 1980. $p < 0.05$

c) Nutrition

Direct nutrition service at the community level is provided by community health representatives and community health nurses. The aim of this program is to provide First Nations with the knowledge and motivation to adopt healthy eating habits. A special emphasis is placed on high-risk groups such as expectant and nursing mothers, the elderly and others with chronic health problems, such as those suffering from diabetes. Special counselling and workshops also provide advice and support on the development of food budgeting skills and fostering or rekindling an appreciation of the nutritional value of traditional Native foods. Efforts are made to ensure that promotional and educational materials do not reflect a non - Native and urban bias, but instead provide relevant examples consistent with local available food supplies, and the Native cultural traditions.

A Regional Nutritionist makes field visits to all zones to review progress on nutrition efforts, and to provide support and expertise to community based workers.

Examples of special projects and typical initiatives include:

- establishment of a working group to address concerns about diabetes. This has resulted in identification of the communities most affected, and development of strategies to support local health care workers.

- Nutrition Month promotional activities have involved school-based contests, as well as special activities for adult target groups. Traditional foods, nutrition and dental health, nutrition for elders, and weight control are some of the issues that have been targeted.

d) Addictions and Community Funded Programs

The Pacific Region provides administrative and financial support to the National Native Alcohol and Drug Abuse Program (NNADAP), which provides prevention and treatment services dealing with a broad range of community substance abuse problems and related social, economic and mental health issues. Alcohol and Substance Abuse Workers are located on-reserves throughout the region.

The program provides capital and operating support for a network of treatment centres providing residential and outreach services to abusers and recovering addicts. In B.C., there are 10 Native treatment centres in operation, with a total of 112 beds. In the fiscal year 1988-89, there were 14 250 patient-bed days of residential treatment, catering to the needs of 597 persons, 468 of whom completed the 28-day treatment cycle.

The treatment centres and locations are as follows:

Hey'-Way'-Noqu Healing Centre	Vancouver, B.C.
Ktunaxa/Kinbasket Wellness Centre	Meares Island, B.C.
Nenqayni Treatment Centre Society	Creston, B.C.
Nimpkish Health Centre	Williams Lake, B.C.
Northern Native Family Services	Alert Bay, B.C.
Round Lake Treatment Centre	Prince George, B.C.
Sicamous Lodge Spallumcheen Recovery Home	Armstrong, B.C.
Treaty 8 Tribal Association	Enderby, B.C.
Tsow-Tun Le Lum Alcohol and Substance Abuse Treatment Centre	Fort St. John, B.C.
Wilp Si'Satxw Community Healing Centre	Lantzville, B.C.
	Kitwanga, B.C.

A major emphasis of the program (accounting for approximately half the total annual budget) is a range of prevention services. These include activities aimed at increasing knowledge and awareness of alcohol and drug abuse risks, as well as initiatives aimed at fostering pride and enhanced self-esteem — especially amongst youth. The program also provides advice and support to other programs and initiatives related to community development, such as the provision of recreational services and the development of school curricula dealing with alcohol and drug abuse and related mental health problems. NNADAP is concerned with contributing toward general improvement in quality of life, recognizing that many of the root causes of alcohol and drug abuse are perceived to rest in the underlying social, economic and environmental conditions within First Nations communities.

First Nations staff bring a wide variety of professional skills and life experience to program operations. This creates a wealth of inside knowledge and first-hand experience regarding First Nations communities, including Indian health, living conditions, history, culture, and traditional ways of living in British Columbia. In addition, the community-funded program staff workers provide administrative direction and support for the following program areas:

- Canada's Drug Strategy, AIDS Awareness, NNADAP Treatment, the Community Health Representative Program and the Family Violence Initiative.

- It is recognized by the Community Health Programs Unit that in order to make positive and substantial changes to First Nations health, the root causes of longterm trauma must be addressed. It is this basic principle that motivates community workers.

e) Health Education and Community Health

Health Education activities in the Pacific Region have been carried out by two Health Educators, with a northern position to be staffed shortly. A wide range of services have been provided. Some examples are:

- **Parenting Programs:** Using the "Nobody's Perfect" Parenting Program model, the Regional Health Educator (Trainer) has held six week-long Training of Facilitator sessions, which graduated 80 Nobody's Perfect Co-facilitators for 40 communities. These communities now have the opportunity to implement parenting sessions.

- **Training of Trainers:** Six weeks of Adult Education practice and theory has been provided to four First Nations Community Health Development Officers (CHDOs) who are located at the zone offices. This training has provided CHDOs with skills that are transferrable to other health promotion programs.

- **HIV/AIDS Training:** Programs have been carried out in two of four zones. Four-day conferences have provided community band staff with basic HIV/AIDS information and the means to impart this knowledge to their clients.

- **Research** is a large part of the Health Education activity. A staff person has been assigned to develop materials for the "Brighter Futures Program": (i.e. mental health, solvent abuse and injury prevention). A large collection of materials is now available for community use. The main focus of research has been on grief, loss, and healing, and supporting communities on their path to wellness.

- **Membership in Focus Groups** is an important aspect of a Health Educator's tasks, providing support to the Regional Brighter Futures Task Force, the AIDS Focus Group and the Northwest Zone AIDS Focus Group.

- **Community Education** provided training in team building for band teams, including "Project Charlie" (training in self-esteem), grief, loss, and healing, and personal development.

- **The Audio Visual Resource Centre** provides library loan services to 650 community health professionals and MSB staff. The library collection includes 5000 video programs, teaching kits, books and a 10-module Cultural Orientation Distance Learning project for new staff.

f) Non-Insured Health Benefits

In keeping with the First Nations Health Policy announced in September, 1979, MSB facilitates access to the health care system. Generally, medical services are available to Native people through programs offered by the Province of British Columbia, including physicians' services, hospitalization, diagnostic procedures, and ambulance services.

Because a number of important services are not universally available, direct assistance is provided in order to facilitate access to these services for Native people. These additional services are called *Non-Insured Health Benefits* and are summarized below.

Patient Transportation

Because many Native people reside in isolated, remote or rural areas, transportation assistance is provided to ensure access to medical care. In emergency situations, transportation may also be provided for dental services.

Dental Care

The Medical Services Branch offers a comprehensive dental plan for the provision of basic dental care.

Pharmaceutical and Medical Supplies

The Medical Services Branch has entered into an agreement with the British Columbia Pharmacist's Society to provide a comprehensive program to Native peoples for drugs, as well as other medical supplies required for the control of chronic conditions such as diabetes. Arrangements are also made for the provision of medical devices such as prosthetics and wheel chairs.

Optometrics

Provision of eyeglasses and, where necessary, other optical prosthetics is arranged through agreements with the Association of Optometrists and the Association of Opticians. Replacement of eyeglasses is provided, if required, at intervals of two years for adults and one year for children (up to 19 years).

g) Communicable Disease Control

The Medical Services Branch provides services in an effort to reduce the incidence of communicable diseases and to control outbreaks when they occur. The major preventive method employed in the war against communicable disease is the administration of disease-specific vaccines by community health nurses.

Primary immunization is provided at two, four and six months of age, with a pentavalent vaccine against diphtheria, pertussis (whooping cough), tetanus, polio and Hemophilus Influenza B meningitis. At 12-15 months, MMR vaccine against red measles, mumps, and German measles is administered. At 18 months, a booster of the pentavalent vaccine is administered. An additional booster is given upon starting school. Immunization against tuberculosis using BCG vaccine is made available to all infants.

Should an outbreak of disease occur, e.g., infectious hepatitis (jaundice), the community health nurse will work with the regional medical officer in controlling the epidemic. The environmental health officer may assist in the investigation of the outbreak by assessing the safety of community water supplies and providing educational workshops on safe food handling practices.

Each fall, influenza vaccine is made available to those 65 years of age and over and to people of all ages who have certain chronic diseases. Pneumococcal vaccine against a severe form of pneumonia is administered to high-risk groups (only once in a lifetime). Medical Services Branch nurses, environmental health officers and the regional medical officer work closely with their provincial counterparts in all aspects of communicable disease control, including sexually transmitted diseases. The tuberculosis control program is managed on behalf of the federal government by the Division of Tuberculosis Control of the provincial Ministry of Health.

h) Environmental Health Services

Environmental health services are provided by federal Environmental Health Officers (EHOs) who work closely with community leaders and community health workers (nurses and community health representatives) to ensure a healthy environment on-reserve, consistent with the requirements of the provincial *Health Act.*

EHOs make regular visits to reserves and carry out inspections of water and sewage systems, food premises, recreational facilities, public buildings and waste disposal facilities. The EHOs make recommendations on lack of conformity to acceptable standards of public health practice. Environmental Health Officers will inspect septic fields during the construction of buildings on reserves and issue a certificate of approval.

EHOs also provide advice to community health nurses, community health representatives, chiefs and Band Councils. They are available to provide workshops and seminars on environmental health issues such as water-borne diseases, safe practices in food handling, environmental contaminants such as dioxins and mercury, and occupational health and safety.

In all of the above, the health officers' main objective is to assist local residents in understanding, developing and maintaining safe health practices that will lead to a healthy environment on their reserves.

i) Training and Health Careers

The focus of programs within the Region is the education and training of health workers (community health representatives and alcohol and substance abuse workers) to serve First Nations communities.

Health Worker training and continuing education are provided to project workers serving 200 communities. The Sal'i'shan Institute Society is a non-profit educational agency that specializes in post-secondary training of First Nations. In co-operation with regional staff, the society has, since July 1988, played a major role in designing, developing and delivering training programs in Band and Tribal health care and health care management.

The Pacific Region sponsors projects aimed at increasing enrolment in the health professions, and the region has been increasingly successful in providing education in health career programs with appropriate career-related employment opportunities. Overall there has been a modest increase in enrolment in the health professions.

j) Program Transfer Activities

First Nations in the Pacific Region continue to be at the forefront of managing and controlling their own health services and programs. Medical Services transfer policy recognizes both the desire of First Nations in this regard and also the greater efficacy of community-managed health programs.

Transfer of Health Services Agreements were initially developed with the Nisga'a Valley Health Board and the Nuu-chah-nulth Health Board in 1989, and were among the first in Canada.

Health services are currently managed by First Nations through Health Services Transfer Agreements with:

- **Nisga'a Valley Health Board:** Gitwinksihlkw (Canyon City), Lakalzap (Greenville), Gitlakdamix (New Aiyansh) and Kincolith. Kincolith joined the Nisga'a Valley Health Board in 1993.

- **Nuu-chah-nulth Health Board:** Ahousaht, Ditidaht, Ehattesaht, Hesquiaht, Kyuquot, Mowachaht, Nuchatlaht, Ohiaht, Opetchesaht, Tla-o-qui-aht, Tseshaht (Sheshaht), Toquaht, Uchucklesaht, Ucluelet. In 1992, the Health Services Transfer Agreement was integrated with the Nuu-chah-nulth Tribal Council's (NTC) Alternate Funding Agreement with Indian and Northern Affairs Canada. In 1994 the NTC Health Board amalgamated with the Nuu-chah-nulth Tribal Council Human Services Board.

- **Sto:lo Tribal Council:** Chawathil, Cheam, Fort Langley, Ohamil, Popkum, Scowlitz, Seabird Island, Soowahlie, Sumas, Yakweakwioose, Aitchelitz, Kwaw Kwaw Apilt, Lakahahmen, Matsqui, Peters, Shawahlook, Skowkale, Skway, Squiala, Tzeachten, Union Bar.

- **Cowichan Band Council:** Duncan, B.C.

- Negotiations are underway with the **Office of the Hereditary Chiefs of the Western Gitksan:** for the communities of Gitanmaax, Gitsegukla, Gitwwangak, Glen Vowell, Kispiox, Gitanyow, and transfer is anticipated in the near future.

In order to enter into a Health Services Transfer Agreement, the First Nation develops a Community Health Plan based on identified health needs and priorities. This phase is called Pre-Transfer Planning, and has been undertaken by the following Native organizations.

- **Carrier-Sekani Family Services on behalf of:** Broman Lake, Burns Lake, Cheslatta, Nadleh Wuten (Nautley/Fraser Lake), Nak'azdli, Stellaquo, Stony Creek, Takla Lake, Tl'azt'en Nation and Tsay Keh dene (Ingenika/Mesilinka).

- **Mid-Island Tribal Council:** Chemainus, Lyacksun, Penelakut.

- **Lake Babine Band**

- **Sliammon Native Council**

Discussions and meetings have also taken place with groups representing a further 25 First Nations that intend to commence Pre-Transfer Planning.

Transfer of Health Services is an administrative arrangement and First Nations in the Pacific Region will wish to move beyond this through self-government initiatives and the current treaty process. The Nisga'a and the Gitksan are currently involved in such discussions.

k) Mental Health and Family Violence

Mental Health Services (Through NIHB)

Mental health services in British Columbia are a responsibility of the provincial Ministry of Health. With the marked increase in disclosures of sexual abuse in Native communities, the Medical Services Branch found it necessary to enhance existing provincial services by making available the counselling services of private practitioners, including psychologists, social workers and family therapists. Under contract with the Medical Services Branch, these workers provide individual and group sessions and a limited amount of preventive work in the communities. They also provide in-service education for field workers, including nurses, community health representatives, band social workers and alcohol and substance abuse workers.

The focus of service delivery in this area recently has been:

1. To ensure the timely delivery of crisis mental health services, and

2. To ensure that the above services are provided by qualified professionals and to ensure that the quality of service delivered meets generally accepted standards of practice.

The above objectives have been addressed in the following ways:

1. By responding (through the zone offices), to community and individual mental health crises, by working with communities in defining their needs, and assisting in developing responses.

2. By implementing and maintaining screening mechanisms to help ensure that a roster of competent, qualified, and appropriate professionals are available to provide crisis intervention services.

3. By developing and implementing "audit" procedures that will ensure:

   a) services are delivered according to current standards of practice, and

   b) services are delivered in a manner consistent with the operational policies of the Medical Services Branch.

l) Brighter Futures First Nations Initiative.

The Brighter Futures Initiative was announced by the Minister of National Health and Welfare in April, 1992. A program framework was developed by a joint working group of Medical Services Branch and representatives from the Health Commission of the Assembly of First Nations.

The program is intended to improve the quality of, and access to, culturally sensitive wellness services at the community level. The overall goal is to help create healthy family and community environments in which children and all community members can thrive.

The fundamental principles on which the program is based include strengthening and supporting the child/family/community through a holistic approach; community-based and paced implementation; support for a "continuum of care"; community-wide participation; and linkages with other community-based programs.

The desired outcomes of the First Nations component of the program include: development of healthy family and community environments; a partnership and collaboration between government and First Nations; an increase in the awareness of conditions of risk; culturally appropriate strategies; accessible services that provide a continuum of care; increased capacity of First Nations to deliver programs; increased knowledge and skills of personnel involved in service delivery; and a community-based evaluation process.

Funding provided to the Region for support of these First Nations initiatives is intended to increase each year for five years. The funding level for the Pacific Region during fiscal year 1994-95 was $3.9 million.

Six "program elements" are defined in the Initiative: mental health, child development, solvent abuse, injury prevention, healthy babies and parenting skills.

This program is directed at First Nations children their families and communities (there are a number of other initiatives occurring under the Brighter Futures program for non-Aboriginal groups).

The projects meet identified community needs and must not duplicate existing services. They must include a strong evaluation component and a planning and implementation process that involves community members.

In the fall of 1992, a funding allocation formula was developed in the Pacific Region through consultation between the Medical Services Branch and First Nations communities, organized by the First Nations Congress. In addition, funding allocations were decided in each zone through consultation with Bands and Tribal Councils.

Each zone has adopted its own allocation and implementation strategy. Steering Committees or consultation meetings of First Nations have provided direction at the zone level. On a regional basis, a Brighter Futures Task Force has provided consistency and sharing of information as the initiative develops. Members include MSB program staff as well as community members from each of the four zones who provide suggestions and feedback for the development of the initiative.

In 1992-1993 and 1993-1994, projects generally addressed three categories of community need:

a) The need for pre-planning support. This included workshops, training and awareness-raising activities for community workers and members;

b) The need for planning support. This included the employment of community staff or consultants to begin working toward the development of community plans; and,

c) The need for service delivery funding. This included the provision of direct services in conjunction with other existing community-based services where planning had already been completed prior to the announcement of Brighter Futures.

The vast majority of activities focused on planning and pre-planning at the community level. The approximately four-to-six months of funding support provided in 1992-1993 was not sufficient to develop meaningful long-term plans, and therefore this activity was continued into 1993-1994. Planning and pre-planning activity will continue throughout the initial period to 1995-1996 as the Bands develop their plans at their own pace (community-paced principle).

First Nations are determining the extent to which there is information/understanding of health status and the availability of services to address conditions. Methodologies range from consultations with elders and other leaders to academic studies. A range of activities have been carried out to support community awareness and understanding of health issues in each of the elements of the initiative. These include healing circles, workshops, gatherings, training, video production and a wide range of community development processes. Special efforts are being made to develop community infrastructure (committees, societies, women's groups, youth clubs, etc.) that can form the basis for Brighter Futures planning and implementation.

Some communities have constructed program models based on existing approaches to service delivery (often in other sectors or through other programs). Training has been a critical aspect of most projects, both in support of workers and for clients (personal growth, parenting, injury prevention, traditional practices and cultural enhancement etc.).

The demand for resource materials and expertise has steadily grown with the implementation of the program. The Regional Resource Centre in Vancouver is developing resource packages (promotional literature, curricula, videos, etc.) on a variety of subjects for use in the planning and implementation of Brighter Futures activities at the community level.

Brighter Futures is providing an opportunity to develop a unique "Made in B.C." delivery structure that is more responsive to community need. A collaborative approach to the development of a management regime that ensures accountability to First Nations and the federal government is a challenge that will continue to require understanding on all sides.

m) Human and Financial Resources

Total allocation of staff and financial resources for the above activities for 1992-93 were as follows:

Table 39
HEALTH CANADA, MEDICAL SERVICES BRANCH
FIRST NATIONS HEALTH SERVICES ACTIVITY, PACIFIC REGION
(1992-1993 HUMAN RESOURCES)

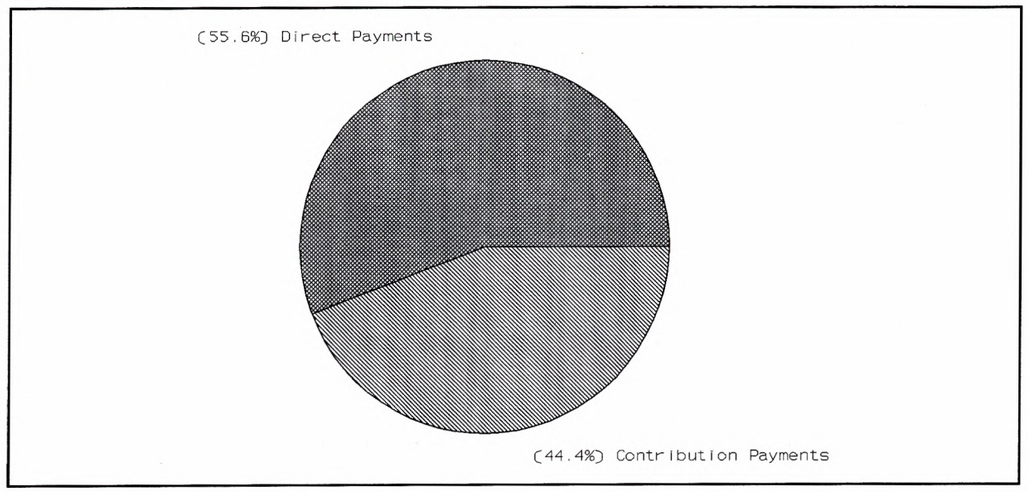
	Person Years Public Service	Contract/ Contribution Workers	Total Workers
Nursing	47	7	54
Dental	15	0	15
Medical	1	0	1
Nutrition	1	0	1
NNADAP	5	163	168
Health Education and Community Health	23	133	156
Mental health	2	0	2
Communicable Disease Control	1	0	1
Transfer Activities	2	0	2
Sub-Total	97	303	400
Regional management, administrative and support services	74	7	81
Total	171	310	481

Notes:

1. Until March 31, 1995 Environmental Health Services were under the auspices of the Occupational and Environmental Service Activity (formerly Public Service Health).

2. Administrative person-years include a Finance Division of 20 person-years serving other Health Canada units, as well as Medical Services.

Figure 32
Total Expenditures
1993-1994

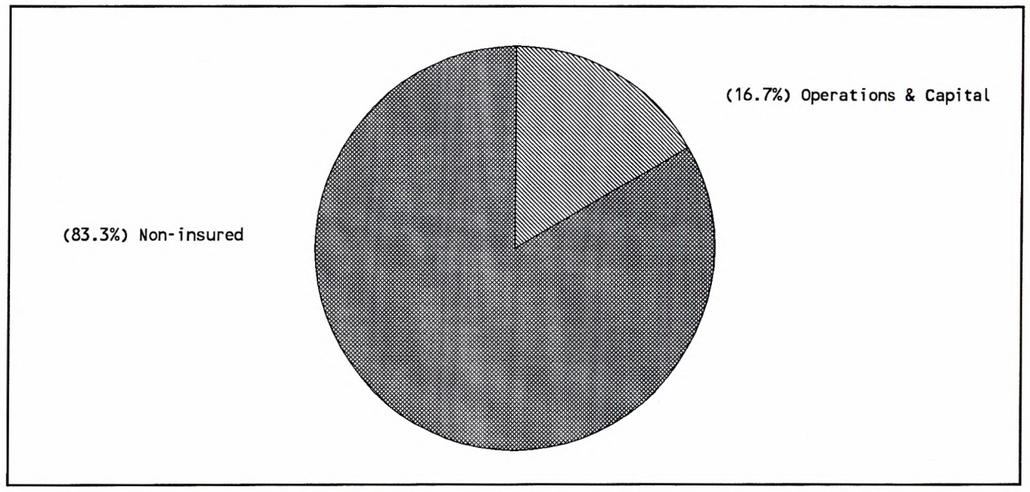


	1993-1994 Expenditures ($000s)	Percent
Medical Services Branch Direct Payments Operating and Maintenance and Non-Insured Health Benefits	39 613.30	55.6
Contribution Payments to Bands and Tribal Councils	31 654.60	44.4
Total	71 267.90	100.0

Note: Figures may not add due to rounding.

Source: Health Canada, Medical Services Branch, Pacific Region

Figure 33
Operating and Capital Expense
1993-1994

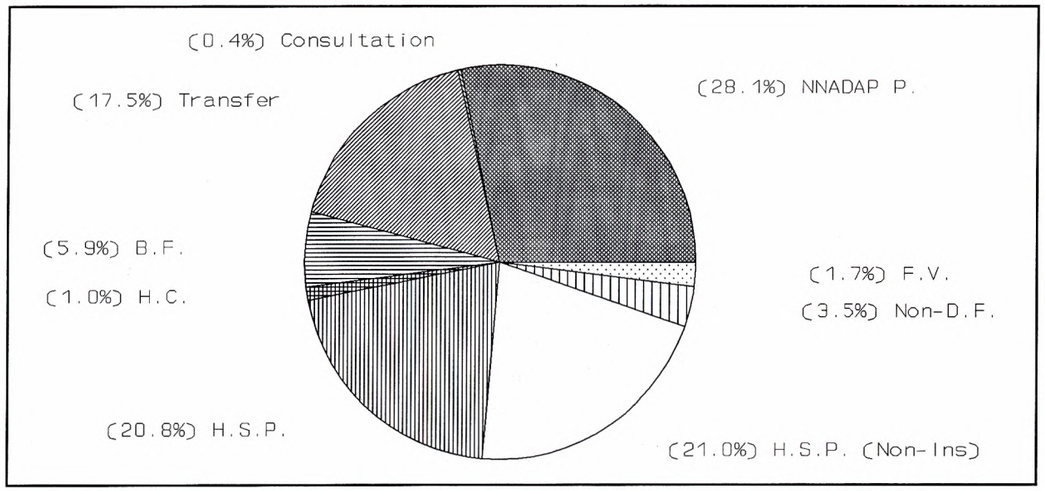


Description	1993-1994 Expenditures ($000s)	Percent
Support Services	182.50	0.5
Administrative Support Services	2 144.50	5.4
EDP Services	388.00	1.0
Assistant Regional Management and Direction	120.90	0.3
Brighter Futures	111.00	0.3
Community Health	1 325.00	3.3
Nursing	1 358.00	3.4
Dental	185.60	0.5
Communicable Diseases	525.70	1.3
NNADAP	129.90	0.3
AIDS	127.70	0.3
Health Services Program (Non-Insured)	33 014.50	83.4
Total	39 613.30	100.0

Note: Figures may not add due to rounding

Source: Health Canada, Medical Services Branch, Pacific Region

Figure 34
Contributions,
1993-1994



Description	1993-1994 Expenditures ($000s)	Percent
NNADAP Program	8 906.10	28.1
Health Services Program (Non-Insured)	6 647.30	21.0
Health Services Program	6 587.60	20.8
Transfer	5 551.00	17.5
Brighter Futures	1 855.20	5.9
Non-Departmental Facilities	1 116.20	3.5
Family Violence	539.70	1.7
Health Careers	316.00	1.0
Consultation	135.50	0.4
Total	31 654.60	100.0

Note: Figures may not add due to rounding.

Source: Health Canada, Medical Services Branch, Pacific Region

VII Health Status Indicators

Introduction

This chapter reviews key indicators of health conditions among First Nations in British Columbia, and highlights major contributing factors and related implications. These include the following:

a) Early history of health among First Nations in B.C.

b) Life expectancy

c) Health statistics

d) Birth-related statistical summaries

e) Infant mortality

f) Death-related statistical summaries

g) Age-standardized mortality rates 1987-1992

h) Potential years of life lost

i) Major leading causes of death

j) Motor-vehicle accident deaths

k) Suicide deaths

a) Early History of Health Among First Nations in B.C.

Pre-European Contact

Relatively little has been published about the health and quality of life of First Nations in what is now called British Columbia, prior to contact with Europeans. By all accounts, however, First Nations enjoyed average life expectancies that compared favourably with other non-industrial societies around the world. Like most agrarian and subsistence-economy societies, infant mortality was relatively high, and principal hazards to health were directly related to the perils of traditional pursuits (injuries and accidental death) and the hostility and uncertainty of nature (i.e. disease and death associated with periodic famine or exposure to the elements).

Impact of Contact with Europeans

The first contact with B.C. First Nations is unknown, but the first *recorded* contact was in 1774. The Europeans not only brought goods to trade, but also diseases for which the First Nations people had no immunity. The result was a series of epidemics that decimated the Native population.

It is estimated that in 1780 there were at least 105 000 Native people living within the present boundaries of B.C., making up about 40% of the First Nations population living in the area that is now Canada. Most of these people lived on or near the coastline. The population began to decline as smallpox epidemics hit the northern coast during the 1780s and 1790s, and again in 1836.

Smallpox was not the only disease of European origin to cause illness and death among First Nations: others included measles, influenza, tuberculosis, and sexually transmitted diseases.

Health Problems of the Early mid-1900s

This century has witnessed the successful containment, and in some cases complete elimination of many of the infectious diseases that plagued First Nations people in British Columbia and elsewhere in Canada.

Modern health hazards for the First Nations in British Columbia relate to poor housing and living conditions, adverse socio-economic circumstances, cultural alienation, and inappropriate and hazardous lifestyles. Average life expectancy has increased for First Nations, but these new health problems raise serious questions about the quality of that life. Certain groups such as young adults are particularly susceptible to physical and mental health problems for which conventional medical interventions can provide only modest relief.

b) Life Expectancy

In the period 1982 to 1985 the average life expectancy at birth for First Nations people (both on-and off-reserve combined) in British Columbia was 63.2 years for males and 74.2 for females.

The life expectancy for B.C. Status Indian males and females is lower than the Canadian average.

Table 40
LIFE EXPECTANCY AT BIRTH,
FOR STATUS INDIANS
(1982-1985 AVERAGE)

	Males		Females	
	First Nations	Total Population	First Nations	Total Population
British Columbia	63.2	73.3	74.2	80.8
Alberta	60.0	72.9	69.0	80.5
Saskatchewan	64.1	73.0	71.8	80.7
Manitoba	66.6	72.6	74.3	80.3
Ontario	64.0	72.8	72.7	80.1
Québec	63.9	71.4	75.8	80.1
Atlantic	71.3	71.7	75.3	79.6
Yukon	63.5	69.0	80.8	80.2
NWT	64.6	69.4	71.9	83.7
Canada	64.0	72.4	72.8	80.1

Source: Health Indicators derived from Vital Statistics for Status Indian and Canadian Populations 1978-1986, Health and Welfare Canada.

For males and females alike in virtually every region of the country, the life expectancy of First Nations is appreciably lower than that of the general population. (The one notable exception is Yukon, where Status Indian females have slightly higher average life expectancy than the general population.)

Table 41
FIRST NATIONS LIFE EXPECTANCY AT BIRTH
FOR STATUS INDIANS
AS PERCENT OF TOTAL CANADIAN POPULATION
(1982-1985 AVERAGE)

	Males %	Females %
British Columbia*	86.2	91.8
Alberta	82.3	85.7
Saskatchewan	87.8	89.0
Manitoba	91.7	92.5
Ontario	87.9	90.8
Québec	89.5	94.6
Atlantic	99.4	94.6
Yukon	92.0	100.7
NWT	93.1	85.9
Canada	88.3	90.9

* 1982-1984 only

Source: Health Indicators derived from Vital Statistics for Status Indian and Canadian Populations 1978-1986, Health and Welfare Canada.

Table 42
EXTRA YEARS TOTAL POPULATION EXPECTED TO LIVE
COMPARED TO FIRST NATIONS, 1982-85 AVERAGE
(NUMBER OF YEARS)

	Males	Females
British Columbia	10.1	6.6
Alberta	13.0	11.5
Saskatchewan	8.8	7.4
Manitoba	6.0	6.0
Ontario	8.8	8.9
Québec	7.5	4.3
Atlantic	0.4	4.2
Yukon	5.5	(0.6)
NWT	4.8	11.8
Canada	8.4	7.4

Source: Health Indicators derived from Vital Statistics for Status Indian and Canadian Populations 1978-1986, Health and Welfare Canada.

Data are not readily available to show the added impact of chronic diseases and disabilities on life-expectancy. As will be seen later in this report, the First Nations population in British Columbia (as in other parts of the country) experienced higher levels of certain trauma and illnesses that would suggest higher levels of disease and disability. If data were available, they would likely show an even greater discrepancy between First Nations and non-First Nations in terms of disability-free life expectancy at birth (i.e., the number of years expected to live free of serious disabilities). Such a measure would better reflect the overall quality of life for First Nations. In other words, it would likely show not only the shorter average life expectancy (for which data are available), but also the decreased proportion of life that is disability-free compared with the general population.

Life Expectancy: Implications

- As will be shown later, the shorter average life expectancies among First Nations in British Columbia reflects the higher levels of infant mortality at all stages, and the higher levels of mortality among adolescents and young adults, including accidents, violence and suicide, often related to alcohol and substance abuse.

c) Health Statistics

First Nations Health Statistics - 1987-1992

This report is a continuation and update of a previous study, *Status Indians in British Columbia: A Vital Statistical Overview (1989),* by the Division of Vital Statistics, Ministry of Health and Ministry Responsible for Seniors prepared for, and funded by, Medical Services Branch, Health Canada. The 1989 report addressed the historical problems of collecting reliable vital statistical data on the Status Indian population in British Columbia. These problems stem from such factors as incomplete registrations for vital events of Status Indians, the reluctance to participate in any government programs by some Status Indian Bands, and the introduction of the Charter of Rights, which may have influenced the elimination of identification of cultural groups on registration documents. While most provinces, including British Columbia, are returning to the identification of Status Indians on registration documents, this process has just begun, necessitating certain assumptions regarding the analysis of the population and the health of Status Indians.

This study presents birth and death statistics for Status Indians living on-and off-reserve in British Columbia, and the British Columbia population as a whole, and examines some of the differences between these populations. Status Indians and their vital events were identified by linking the Indian and Northern Affairs Canada (INAC) status and verification file, the British Columbia Medical Services Plan (MSP) registration and premium billing file, and the British Columbia Vital Statistics birth and death files. Throughout the narrative, the terms Status Indian and First Nations are used interchangeably to refer to the registered Indian population living on-and off-reserve.

Each of these administrative files has its own limitations. The INAC Indian Register, which is subject to reporting delays, under-reporting, coding and editing errors[13], likely underestimates the Status Indian population in British Columbia. The provincial Medical Services Program file, which contains a flag to indicate Indian Status and consequent coverage by Health Canada, may overestimate the number of MSP clients who are Status Indians. In the Vital Statistics files, records are flagged as Status Indian when the birth registration, Physician's Notice of Live Birth, or death registration indicate that the decedent or a parent of the neonate is a Registered Indian or has Aboriginal status[14].

The total British Columbia population was used in the calculation of the Age Standardized Mortality Rates (ASMRs) for all British Columbia residents. ASMRs for the Status Indian population were calculated using population estimates of Registered Indians, developed by Statistics Canada for the Division of Vital Statistics, which were then adjusted for the births and deaths identified in the Vital Statistics file only.

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13 **Remillard, S. (1992). Band level population projections of Registered Indians by Health Unit, British Columbia, 1986 to 2006. Statistics Canada.**

14 **There were a number of form changes over the period covered by this study and the questions asked about Registered Indians status or ancestry changed on each form.**

d) Birth-Related Statistical Summaries

- The Status Indian Crude Live Birth Rate (31.1 per 1000 population) was more than twice the provincial rate (14.0) for the period 1987-1992.

- The Status Indian Birth Rate for Teenage Mothers (200.2 per 1000 live births) was four times the provincial rate (56.9) for the period 1987-1992; however the trends for both the Status Indian and the provincial populations showed little change over the period.

- The Status Indian Birth Rate for Elderly Gravida (mothers aged 35 or more) at 44.1 per 1000 live births was less than half the provincial rate (102.9); the trend for both these populations showed a gradual rise over the six-year period.

- The Status Indian Cesarean Section Rate (158.0 per 1000 live births) was about three quarters the provincial rate (214.8) for the period 1987-1992. The rate for the province showed a slight decline after 1990 but this decline was not seen in the Status Indian population.

- The Status Indian Low Birth-Weight Rate (58.5 per 1000 live births) was slightly higher than the provincial rate (49.7) for the period 1987-1992; both populations showed similar trends until 1989, but after that year the rate for the province showed a greater decline.

- The Status Indian Premature Birth Rate (93.8) was over 1½ times the provincial rate (60.9); the rates for both populations increased in the first three years of the period, but following 1989, the Status Indian rate showed a greater decline than was seen for the province as a whole.

- The Status Indian Stillbirth Rate (9.8 per 1000 total births) was about 1½ times the provincial rate (6.6) for the period 1987-1992. For the Status Indian population there was an increasing trend until 1989 followed by fluctuating rates over the next three years. The provincial rates showed no discernable trend.

Table 43
BIRTH-RELATED STATISTICAL SUMMARIES
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION 1987-1992

Status Indian		1987		1988		1989		1990		1991		1992		1987-1992	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Population	Total	75 692		80 729		84 381		88 605		90 101		91 622		511 130	
Live Births	Male	1 247		1 389		1 426		1 375		1 456		1 384		8 277	
	Female	1 194		1 249		1 240		1 325		1 342		1 281		7 631	
	Total	2 441	32.25	2 638	32.68	2 666	31.59	2 700	30.47	2 798	31.05	2 665	29.09	15 908	31.12
Teenage Mother <20 Years Old		479	196.23	553	209.63	506	189.80	541	200.37	550	196.57	556	208.63	3 185	200.21
Elderly Gravidas, 35 Years +		79	32.36	91	34.50	113	42.39	144	53.33	137	48.96	138	51.78	702	44.13
C. Section	Total	383	156.90	405	153.53	434	162.79	423	156.67	446	159.40	422	158.35	2 513	157.97
Low Birth-Weight <2 500 Grams		144	58.99	154	58.38	180	67.52	146	54.07	161	57.54	145	54.41	930	58.46
Premature < 37 Weeks Gestation		239	97.91	242	91.74	284	106.53	254	94.07	239	85.42	234	87.80	1 492	93.79
Still Births:		24	9.74	28	10.50	31	11.49	20	7.35	23	8.15	32	11.87	158	9.83
Infant Deaths (Age under 1 Year)	Male	21		20		31		20		18		21		131	
	Female	16		12		16		17		17		12		90	
	Total	37	15.16	32	12.13	47	17.63	37	13.70	35	12.51	33	12.38	221	13.89
Early Neonatal (Age <7 days)	Male	5		2		8		7		2		3		27	
	Female	6		2		6		4		4		5		27	
	Total	11	4.51	4	1.52	14	5.25	11	4.07	6	2.14	8	3.00	54	3.39
Neonatal (Age <28 days)	Male	7		2		12		8		3		4		36	
	Female	7		2		7		4		6		6		32	
	Total	14	5.74	4	1.52	19	7.13	12	4.44	9	3.22	10	3.75	68	4.27
Post Neonatal (Age 28 to 364 Days)	Male	14		18		19		12		15		17		95	
	Female	9		10		9		13		11		6		58	
	Total	23	9.42	28	10.61	28	10.50	25	9.26	26	9.29	23	8.63	153	9.62

Table 44
BIRTH-RELATED STATISTICAL SUMMARIES
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION 1987-1992

B.C. POPULATION		1987		1988		1989		1990		1991		1992		1987-1992	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Population	Total	2 938 208		3 006 616		3 087 923		3 185 331		3 284 538		3 371 372		18 873 988	
Live Births	Male	21 367		21 920		22 332		23 185		23 253		23 380		135 437	
	Female	20 287		20 993		21 250		22 148		22 057		22 330		129 065	
	Total	41 654	14.18	42 913	14.27	43 582	14.11	45 333	14.23	45 310	13.79	45 710	13.56	264 502	14.01
Teenage Mother <20 Years Old		2 204	52.91	2 400	55.93	2 549	58.49	2 607	57.51	2 679	59.13	2 599	56.86	15 038	56.85
Elderly Gravidas, 35 Years +		3 637	87.31	4 119	95.98	4 308	98.85	4 832	106.59	4 982	109.95	5 345	116.93	27 223	102.92
C. Section	Total	8 744	209.92	9 213	214.69	9 606	220.41	9 957	219.64	9 708	214.26	9 588	209.76	56 816	214.80
Low Birth-Weight <2 500 Grams		2 113	50.73	2 145	49.98	2 265	51.97	2 255	49.74	2 181	48.14	2 173	47.54	13 132	49.65
Premature < 37 Weeks Gestation		2 522	60.55	2 624	61.15	2 731	62.66	2 742	60.49	2 732	60.30	2 762	60.42	16 113	60.92
Still Births:		289	6.89	288	6.67	305	6.95	285	6.25	290	6.36	288	6.26	1 745	6.55
Infant Deaths (Age under 1 Year)	Male	212		204		202		188		175		170		1 151	
	Female	141		150		149		144		109		102		795	
	Total	353	8.47	354	8.25	351	8.05	332	7.32	284	6.27	272	5.95	1946	7.36
Early Neonatal (Age <7 days)	Male	95		105		105		103		82		91		581	
	Female	67		83		79		83		52		58		422	
	Total	162	3.89	188	4.38	184	4.22	186	4.10	134	2.96	149	3.26	1003	3.79
Neonatal (Age <28 days)	Male	120		119		121		125		94		107		686	
	Female	77		98		92		99		64		63		493	
	Total	197	4.73	217	5.06	213	4.89	224	4.94	158	3.49	170	3.72	1179	4.46
Post Neonatal (Age 28 to 364 Days)	Male	92		85		81		63		81		63		465	
	Female	64		52		57		45		45		39		302	
	Total	156	3.75	137	3.19	138	3.17	108	2.38	126	2.78	102	2.23	767	2.90

Birth-Related Statistics: Implications

- The high birth rates for young mothers reflect traditional patterns of child rearing. However, the high rates of teenage pregnancy are an indication of a reluctance to use contraception by this age group and the high rate of sexual activity similar to the non-Native population. Infants born to teenage mothers tend to be adopted by the extended family and there is a reluctance to terminate pregnancy through abortion.
- The lower birth rates among elderly gravida reflect the traditional nurturing patterns.
- The slightly higher low birth-weight rates are indicative of the high levels of cigarette smoking in Native communities. They may also be an indication of less than adequate nutrition in spite of nutritional supplements being available to pregnant women receiving social assistance.
- The higher premature birth rates and stillbirth rates probably represent a number of contributing factors including poor nutrition, cigarette smoking, and alcohol and substance abuse.

Table 45
NUMBER OF STATUS INDIAN BIRTHS BY SOURCE
BRITISH COLUMBIA, 1987-1992

Source	Year of Birth						Total 1987-1992 Percent
	1987	1988	1989	1990	1991	1992	
VS Only	313	284	252	258	336	341	1 784 11.2
MSP Only	148	144	146	156	173	94	861 5.4
INAC Only	229	252	239	201	254	196	1 371 8.6
MSP/INAC	735	797	876	957	955	980	5 300 33.3
VS/INAC	19	15	22	28	18	35	137 0.9
VS/MSP	20	28	34	53	39	21	195 1.2
VS/MSP/INAC	977	1 118	1 099	1 050	1 023	998	6 265 39.4
Year Total	2 441	2 638	2 668	2 703	2 798	2 665	15 913 100.0

Note: VS - Vital Statistics: MSP - B.C Medical Services Plan (Registration & Premium Billing) INAC - Indian and Northern Affairs Canada

Table 46
NUMBER OF STATUS INDIAN DEATHS, BY SOURCE
BRITISH COLUMBIA, 1987-1992

Source	Year of Death						Total 1987-1992 Percent
	1987	1988	1989	1990	1991	1992	
VS Only	89	42	109	204	187	264	895 25.4
MSP Only	57	221	149	78	67	88	660 18.7
INAC Only	28	27	19	14	15	20	123 3.5
MSP/INAC	7	55	42	16	29	30	179 5.1
VS/INAC	12	3	1	5	5	20	46 1.3
VS/MSP	201	73	202	321	294	232	1 323 37.6
VS/MSP/INAC	32	15	28	53	72	97	297 8.4
Year Total	426	436	550	691	669	751	3 523 100.0

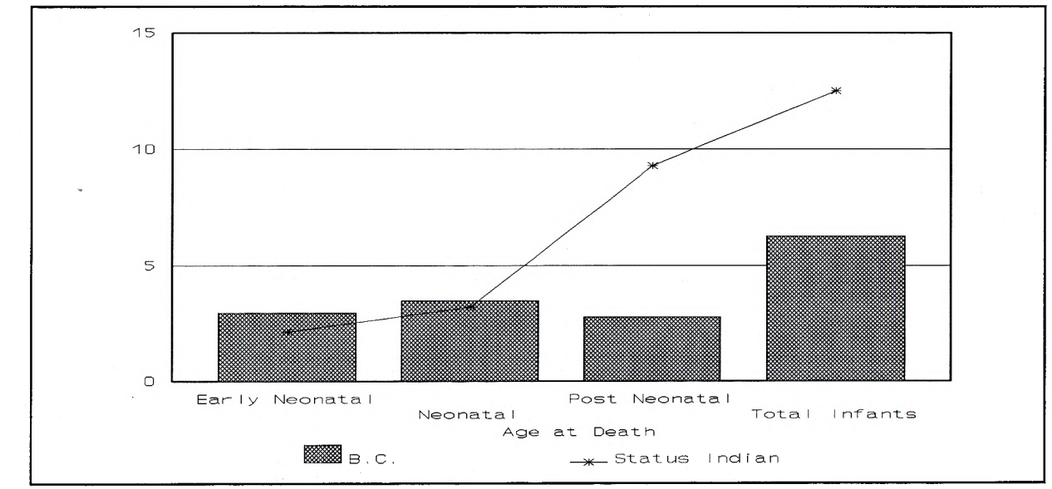
Note: VS - Vital Statistics MSP - B.C Medical Services Plan (Registration & Premium Billing) INAC - Indian and Northern Affairs Canada

e) Infant Mortality

In British Columbia, neonatal[15] mortality rates over the period 1987 to 1992 were slightly lower among First Nations than the total population. This contrasts sharply with post-neonatal[16] mortality rates, where First Nations rates are considerably higher than those for the total population. In B.C., post-neonatal mortality among First Nations is more than three times that of the total population.

The Status Infant Mortality Rate[17] (13.9) was about twice that of the province (7.4) for the six-year period 1987-1992. Since the early Neonatal[18] and Neo-Natal Mortality Rates for Status Indians were slightly less than the provincial rates (3.4 and 4.3 compared with 3.8 and 4.5), the observed difference in infant mortality rates can be attributed to post-neonatal deaths.

Figure 35
Infant Mortality
Status Indians vs. B.C., Both Genders
British Columbia, 1991.



Rate per 1000 Live Births
Source: Vital Statistics

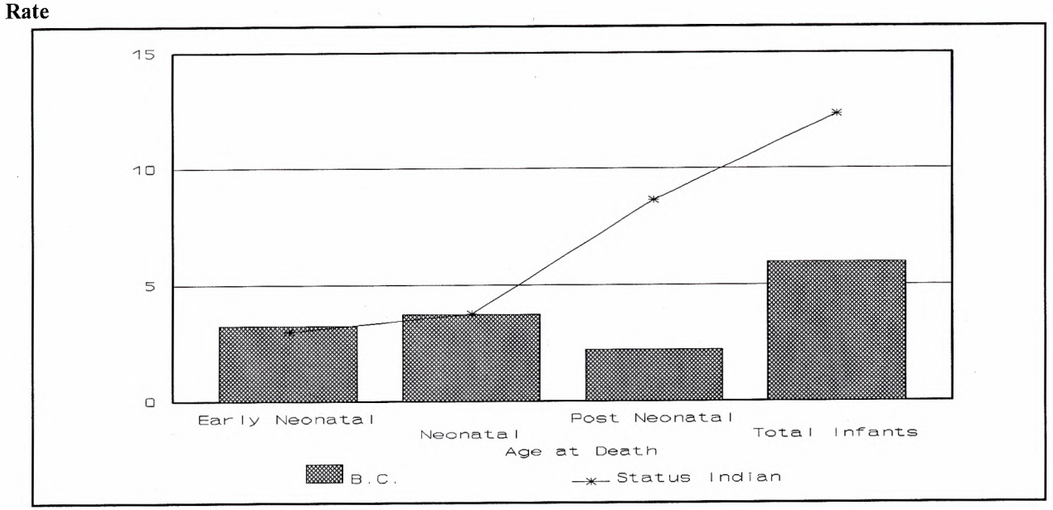
15 **Age at death less than 28 days**

16 **Age at death greater than 28 days to under one year.**

17 **Age at death less than one year.**

18 **Age at death seven days or less.**

Figure 36
Infant Mortality
Status Indian vs. B.C., Both Genders
British Columbia, 1992



Rate per 1000 Live Births
Source: Vital Statistics

Table 47
INFANT MORTALITY
STATUS INDIANS VS BRITISH COLUMBIA POPULATION, 1987-1992[1]

Sex	Indian/ B.C.	Age at Death							
		Early Neonatal		Neonatal		Post Neonatal		Total Infants	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	Indian	27	3.26	36	4.35	95	11.48	131	15.83
	B.C.	581	4.29	686	5.07	465	3.43	1 151	8.50
Female	Indian	27	3.54	32	4.19	58	7.60	90	11.79
	B.C.	422	3.27	493	3.82	302	2.34	795	6.16
Total	Indian	54	3.39	68	4.27	153	9.62	221	13.89
	B.C.	1 003	3.79	1 179	4.46	767	2.90	1 946	7.36

Total number of live births in B.C. 1987-1992
Status Indian: 15 908
Provincial: 264 502
Source: Vital Statistics

[1] For additional detailed statistics by year (1987-1992), see Appendix C: Pages 5, 6 and 7

Note: Early Neonatal: Age at death less than 7 days.
Neonatal: Age at death less than 28 days.
Post Neonatal: Age at death greater than 28 days to under one year.
Infant: Age at death less than one year.
Rate per 1000 live births.

Infant Mortality:
Implications

- The generally high infant mortality rates among First Nations in B.C., as in other regions of the country, reflect a combination of factors. Chief among these are likely to be poor nutrition and health of the mother, and a high incidence of alcohol and other substance abuse.
- Recent declines in the neonatal mortality rate may reflect some improvement in mothers' nutrition but it is more likely that they reflect better pre-natal and nursing/medical care provided immediately preceding, during, and immediately following the birth.
- The high post-neonatal mortality among First Nations people compared with the total population reflects a combination of limited post-neonatal care, poor nutrition, adverse environmental conditions, and deaths from sudden infant death syndrome (SIDS). SIDS may be reduced by a combination of interventions including positioning on the side or back, breast feeding and a smoke-free environment.

f) Death-Related Statistical Summaries

- The Status Indian Age Standardized Mortality Rate (ASMR) for all cancer deaths (16.3 per 10 000 population) was higher than the provincial ASMR (13.8) for the period 1987-1992, but the trends in these two populations were very different. The provincial rate remained relatively stable over the period. The Status Indian rate (10.l), however, was lower than the provincial rate (13.7) in 1987, but by 1992, the rate (19.1) was 1.4 times higher than the rate for the province (13.3). This dramatic increase could be due to an increase in the incidence of cancer in Status Indians over this period, an increase in cancer mortality among Status Indians with no change in cancer incidence, more complete diagnosis of cancer in the First Nations population, or to other factors.
- The Status Indian ASMR for diseases of the circulatory system (28.3 per 10 000 population) was 1.4 times the provincial ASMR (19.2) for the period 1987-1992. The Status Indian and provincial populations showed opposing trends over the five-year period. In 1987 the Status Indian rate (23.4) was only slightly higher than the provincial rate (20.7), but by 1992 the Status Indian rate (34.7) was almost twice the provincial rate (18.1).
- The Status Indian ASMR for respiratory diseases (10 per 10 000 population) was more than twice the provincial ASMR (4.5) for the period 1987-1992. The provincial rate remained relatively stable over the period, while the Status Indian rate, though fluctuating from year to year, showed a definite increase after 1989.

- The Status Indian ASMR for digestive system diseases (8.0 per 10 000 population) was four times higher than the provincial ASMR (2.0) for the period 1987-1992. The provincial rate remained stable over the six-year period, but fluctuations in the Status Indian rate made it difficult to determine a trend.

- The Status Indian ASMR for external causes of death (18.9 per 10 000 population) was more than three times the provincial ASMR (5.1) for the period 1987-1992. The provincial rates showed a very slight declining trend over the period, while the Status Indian rates showed a steady increase until 1991. The sudden jump in the rate in 1991 was likely due to random fluctuation.

- The Status Indian ASMR for motor vehicle traffic accidents (5.7 per 10 000 population) was 3½ times the provincial ASMR (1.6) for the period 1987-1992. Both the provincial and the Status Indian rates declined over the six-year period.

- The Status Indian ASMR for suicide (3.8 per 10 000 population) was more than three times the provincial ASMR (1.2) for the period 1987-1992. The provincial rate remained stable over the period, but the Status Indian rate showed an increasing trend.

- The Status Indian ASMR for medically treatable diseases (1.4 per 10 000 population) was five times the provincial ASMR (0.3) for the period 1987-1992. Small numbers resulted in random fluctuations within the Status Indian population over the period and there was no discernable trend.

- The Status Indian smoking-related ASMR (25.4 per 10 000 population) was slightly higher than the provincial ASMR (19.7) for the period 1987-1992. Although the rates in the Status Indian population fluctuated over the period, there appeared to be a rising trend in ASMRs that was in contrast to the steady decline in the provincial ASMRs for smoking.

- The Status Indian alcohol-related ASMR (11.5 per 10 000 population) was 6½ times the provincial ASMR (1.9) for the period 1987-1992. The provincial rate was relatively stable over the period, while the fluctuations in the Status Indian ASMR made it difficult to determine if the apparent increase over the period was simply due to random fluctuation.

Table 48
DEATH-RELATED STATISTICAL SUMMARIES
STATUS INDIAN VS BRITISH COLUMBIA POPULATION, 1987-1992

Status Indian	1987		1988		1989		1990		1991		1992		1987-1992	
	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR
Deaths:														
Male	251		263		297		420		391		440		2 062	
Female	172		173		247		263		272		294		1 421	
Total	423	81.83	436	79.87	544	90.91	683	115.82	663	107.86	734	117.11	3 483	100.32
All Cancer Site	41	10.06	51	12.14	69	15.03	104	20.68	94	18.81	99	19.05	458	16.32
Lung Cancer	6	1.68	6	1.48	11	2.51	19	4.25	12	2.40	22	4.47	76	2.89
Female Breast Cancer	4	1.70	3	1.13	12	4.63	8	2.83	4	1.44	7	2.63	38	2.41
Circulatory System	90	23.41	92	21.89	104	22.93	169	34.89	144	29.61	174	34.69	773	28.33
Ischaemic Heart Disease	45	11.99	46	11.57	43	10.25	95	20.17	65	13.38	81	16.79	375	14.23
Cerebrovascular/Stroke	20	5.32	22	4.62	28	6.24	35	7.40	31	6.44	46	8.64	182	6.54
Respiratory System	40	10.11	31	6.98	33	7.10	51	10.74	50	10.28	70	13.32	275	9.88
Pneumonia/Influenza	21	5.45	17	3.85	22	4.42	25	5.32	32	6.20	35	6.44	152	5.33
Chronic Lung Disease	9	2.51	8	2.05	7	1.72	15	3.34	9	2.06	22	4.57	70	2.76
Digestive System	29	6.41	28	6.10	34	6.82	56	10.58	41	6.77	62	10.34	250	7.98
External Cause of Death	132	17.25	142	17.88	158	18.76	166	19.07	190	21.20	175	18.53	963	18.89
Motor Vehicle Tr. Accident	55	6.76	48	5.69	50	5.95	57	5.88	51	5.43	44	4.36	305	5.66
Suicide	29	3.36	27	3.34	37	3.98	30	3.27	44	4.36	43	4.38	210	3.80
Medically Treatable	10	1.76	5	0.68	10	1.30	13	1.66	13	1.57	12	1.46	63	1.42
Lifestyle: Smoking-Related	72	19.73	81	20.57	79	19.02	150	32.38	119	25.18	159	32.98	660	25.43
Alcohol-Related Deaths	57	10.53	56	10.49	87	12.64	79	12.51	73	10.49	96	12.32	448	11.54

Source: Vital Statistics Standard rates of ASMR are based on 1971 Canada Census per 10 000 population.

Table 49
DEATH-RELATED STATISTICAL SUMMARIES
STATUS INDIAN VS BRITISH COLUMBIA POPULATION, 1987-1992

British Columbia Population	1987		1988		1989		1990		1991		1992		1987-1992	
	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR	Number	ASMR
Deaths:														
Male	11 842		12 203		12 431		12 689		12 974		13 310		75 449	
Female	9 772		10 158		10 341		10 700		10 817		11 100		62 888	
Total	21 614	53.16	22 361	53.38	22 772	52.48	23 389	51.93	23 791	50.81	24 410	50.66	138 337	52.02
All Cancer Site	5 557	13.70	5 927	14.11	6 160	14.16	6 214	13.80	6 355	13.68	6 382	13.27	36 595	13.78
Lung Cancer	1 432	3.54	1 523	3.63	1 646	3.81	1 680	3.73	1 737	3.77	1 799	3.74	9 817	3.71
Female Breast Cancer	466	2.34	511	2.50	506	2.42	552	2.56	502	2.24	557	2.38	3 094	2.41
Circulatory System	8 915	20.73	8 909	20.06	8 807	19.11	8 957	18.71	9 228	18.56	9 214	18.05	54 030	19.15
Ischaemic Heart Disease	5 262	12.29	5 041	11.40	4 959	10.81	4 929	10.35	4 898	9.90	4 870	9.60	29 959	10.67
Cerebrovascular/Stroke	1 736	4.00	1 833	4.09	1 792	3.86	1 908	3.95	1 976	3.94	1 953	3.78	11 198	3.93
Respiratory System	1 937	4.45	2 086	4.65	2 149	4.62	2 183	4.50	2 175	4.33	2 425	4.68	12 955	4.54
Pneumonia/Influenza	895	2.05	957	2.12	997	2.14	1 053	2.15	1 016	2.02	1 136	2.17	6 054	2.11
Chronic Lung Disease	767	1.74	826	1.83	856	1.82	796	1.63	820	1.61	892	1.71	4 957	1.72
Digestive System	832	2.03	816	1.91	820	1.87	899	1.99	900	1.92	963	1.99	5 230	1.95
External Cause of Death	1 826	5.51	1 744	5.22	1 676	4.83	1 872	5.12	1 937	5.12	1 806	4.71	10 861	5.08
Motor Vehicle Tr. Accident	562	1.88	527	1.73	483	1.54	539	1.64	479	1.43	415	1.24	3 005	1.57
Suicide	415	1.22	407	1.21	413	1.21	374	1.00	443	1.17	448	1.18	2 500	1.16
Medically Treatable	89	0.28	101	0.31	98	0.27	103	0.29	112	0.30	110	0.29	613	0.29
Lifestyle: Smoking-Related	8 911	20.94	9 014	20.49	9 078	19.93	9 158	19.36	9 278	18.96	9 405	18.65	54 844	19.67
Alcohol-Related Deaths	779	2.09	749	1.92	751	1.89	800	1.95	780	1.82	799	1.82	4 658	1.91

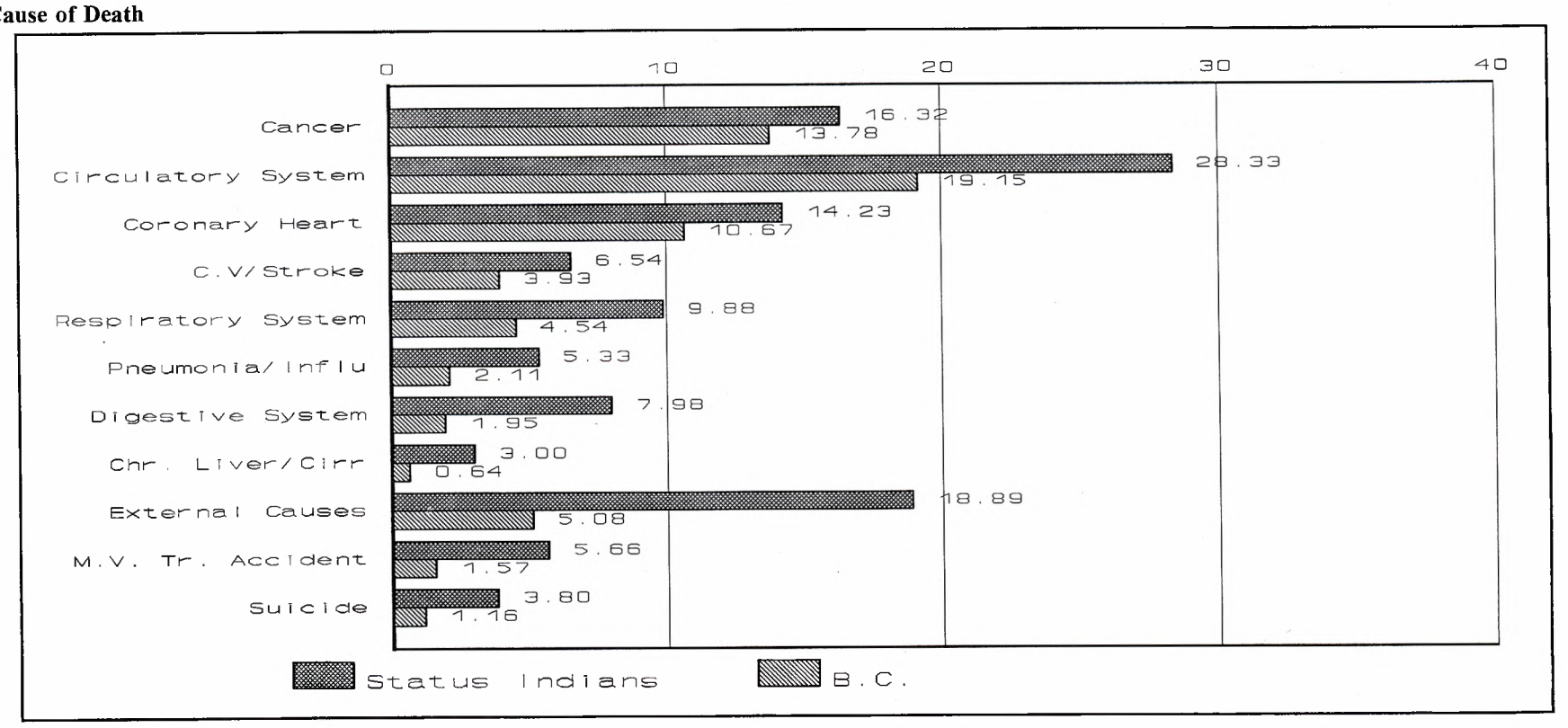
Source: Vital Statistics Standard rates of ASMR are based on 1971 Canada Census per 10 000 population.

g) AGE STANDARDIZED MORTALITY RATES 1987-1992

The tables in this section provide Age Standardized Mortality Rates (ASMRs) for several broad and several specific cause of death categories for the six-year period 1987-1992. The ICD9 codes for each category are shown in the table. The following section provides Potential Years of Life Lost (PYLL) for the same time period and for the same cause-of-death categories. Information for five leading causes of death is presented for individual years in the following sections.

- The Age Standardized Mortality Rate (ASMR) for Status Indians (100.3) was almost twice the provincial rate (52.0).
- The ASMR for Status Indian deaths from digestive system diseases (8.0) was four times the provincial rate (2.0). The ASMR for Status Indian deaths from chronic liver diseases and cirrhosis (3.0) was about five times the provincial rate (0.6).
- The ASMR for Status Indian deaths from external causes (18.9) was three times the provincial rate (5.1). The ASMRs for Status Indian deaths from motor vehicle traffic accidents and suicide (5.7 and 3.8) were also three times the provincial rates (1.6 and 1.2), while the ASMR for accidental poisonings (2.0) was more than five times the provincial rate (0.4).
- The age standardized mortality rates for Status Indians were about twice the provincial rates for the following causes of death: infectious and parasitic diseases (1.6 compared with 0.7), endocrine, nutritional, and metabolic diseases (2.8 compared with 1.2), diabetes (1.8 compared with 0.9), respiratory system diseases (9.9 compared with 4.5), pneumonia and influenza (5.3 compared with 2.1), and accidental falls (1.4 compared with 0.6).
- The ASMRs for Status Indians were similar to the provincial rates for the following causes of death: AIDS (both 0.4), cancer (16.3 compared with 13.8), circulatory system diseases (28.3 compared with 19.2), asthma (both 0.2), congenital anomalies (both 0.5), and conditions originating in the perinatal period (0.6 compared with 0.5).

Figure 37
Age Standardized Mortality Rates
Status Indian vs. B.C.
By Selected Causes of Death
British Columbia, 1987-1992



Rate per 10 000 Standard Population
Source: Vital Statistics

Table 50
AGE STANDARDIZED MORTALITY RATES
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION
FOR AGE GROUP 0-65+ 1987-1992

Cause of Death	ICD-9 Code	Status Indian						British Columbia					
		Male		Female		Total		Male		Female		Total	
		Deaths	ASMR	Deaths	ASMR	Deaths	ASMR	Deaths	ASMR	Deaths	ASMR	Deaths	ASMR
Infectious/Parasitic Oiseases	001-139	44	2.25	16	0.98	60	1.58	1 370	1.13	469	0.35	1 839	0.74
AIDS/HIV -related	042-044	20	0.78	2	0.11	22	0.42	889	0.75	24	0.02	913	0.39
Cancer	140-208	235	17.21	223	15.48	458	16.32	19 682	15.04	16 913	12.64	36 595	13.78
-Lung	162	41	3.17	35	2.61	76	2.89	6 210	4.76	3 607	2.71	9 817	3.71
-Female Breast	174	0	0.00	38	2.41	38	2.41	0	0.00	3 094	2.41	3 094	2.41
-Colorectal	153-154	27	2.03	24	1.74	51	1.87	1 859	1.40	1 719	1.23	3 578	1.31
-Cervical	180	0	0	9	0.44	9	0.44	0	0.00	247	0.19	247	0.19
-Prostate	185	32	2.54	0	0	32	2.54	2 525	1.81	0	0.00	2 525	1.81
Endocrine/Nutritional/Metabolic	240-279	43	2.98	40	2.63	83	2.8	1 565	1.18	1 821	1.29	3 386	1.24
-Diabetes	250	25	1.85	26	1.78	51	1.82	1 187	0.88	1 293	0.90	2 480	0.89
Circulatory	390-459	452	33.38	321	23.47	773	28.33	28 524	21.13	25 506	17.26	54 030	19.15
-Coronary Heart	410-4144292	256	19.3	119	9.29	375	14.23	17 374	12.93	12 585	8.48	29 959	10.67
-Cerebrovascular/Stroke	430-4436-8	84	6.19	98	6.88	182	6.54	4 829	3.53	6 369	4.33	11 198	3.93
-Arteries	440-448	21	1.63	15	1.1	36	1.38	1 949	1.41	1 606	1.08	3 555	1.24
Respiratory	460-519	149	10.65	126	9.1	275	9.88	7 191	5.21	5 764	3.93	12 955	4.54
Pneumonia/Influenza	480-487	75	5.19	77	5.49	152	5.33	2 864	2.07	3 190	2.15	6 054	2.11
*Chronic Pulmonary Oisease	491-2496	45	3.54	25	1.94	70	2.76	3 268	2.34	1 689	1.15	4 957	1.72
-Asthma	493	3	0.19	3	0.2	6	0.19	215	0.17	243	0.18	458	0.17
Digestive	520-579	119	7.73	131	8.27	250	7.98	2 647	2.06	2 583	1.84	5 230	1.95
Chronic Liver/Cirrhosis	571	46	2.72	60	3.26	106	3.00	991	0.82	578	0.46	1 569	0.64
Congenital Anomaly	740-759	21	0.62	17	0.47	38	0.54	452	0.54	334	0.39	786	0.47
Perinatal	760-779	26	0.64	22	0.54	48	0.59	470	0.60	326	0.42	796	0.51
External Causes	800-999	674	27.27	289	11.24	963	18.89	7 572	7.28	3 285	2.88	10 857	5.08
-Motor Vehicle Tr. Accident	810-819	201	7.94	104	3.57	305	5.66	2 136	2.27	869	0.87	3 005	1.57
-Poisoning	850-869	59	2.73	35	1.31	94	1.96	557	0.49	233	0.21	790	0.35
-Falls	880-888	29	1.60	18	1.13	47	1.36	862	0.68	851	0.58	1 713	0.63
-Suicide	950-959	168	6.20	42	1.53	210	3.80	1 930	1.82	569	0.51	2 499	1.16
All Other Causes		299	15.17	236	11.71	535	13.40	5 971	4.83	5 887	4.32	11 858	4.57
Total Deaths		2 062	117.90	1 421	83.87	3 483	100.32	75 444	59.00	62 888	45.31	138 332	52.02

Note: * Chronic Bronchitis 491 - Emphysema 492 - Chronic Obstructive Pulmonary Disease 496

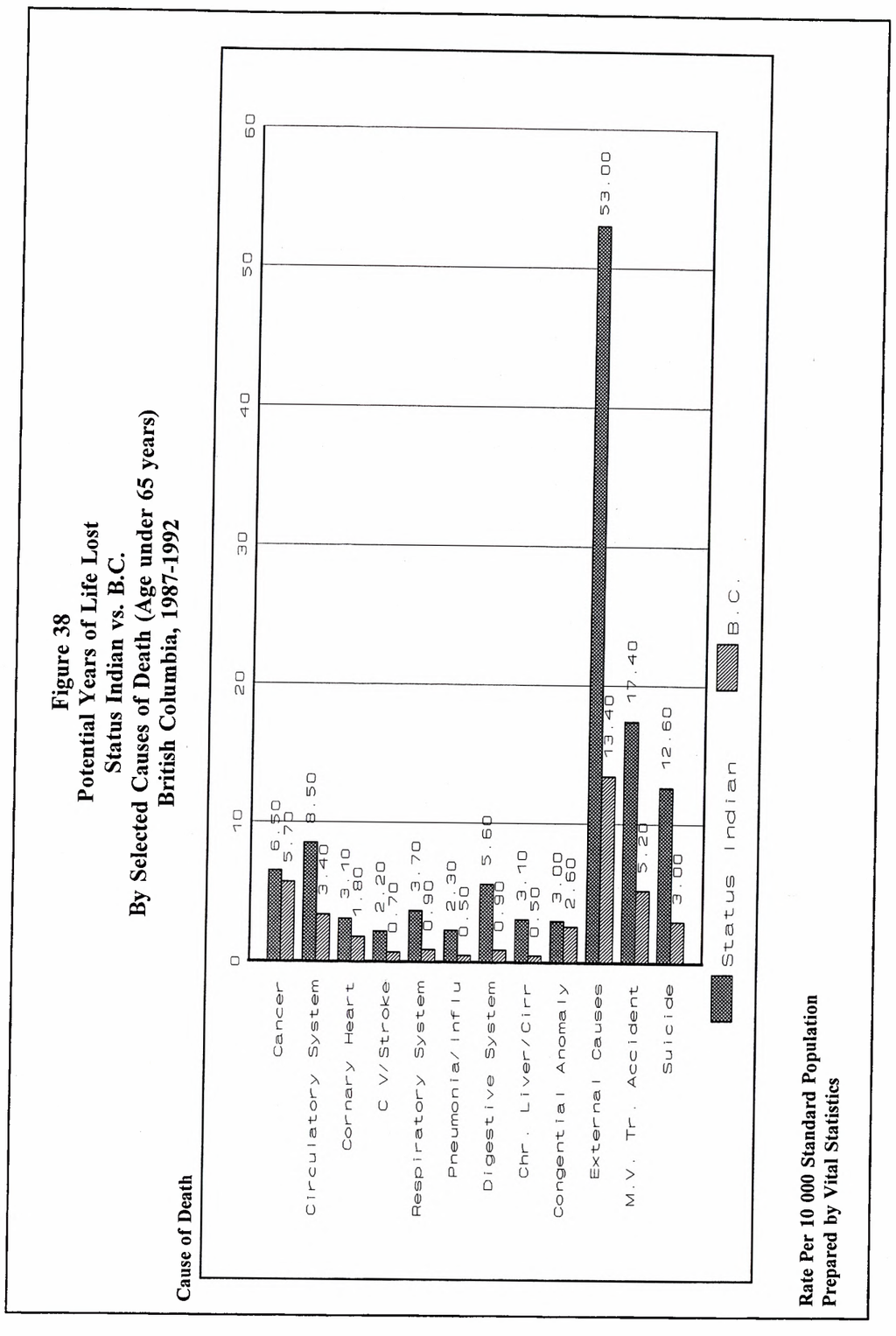
Standard rates of ASMR are based on 1971 Canada census per 10 000 population.

h) Potential Years Of Life Lost, 1987-1992

Measures of Potential Years of Life Lost (PYLL) complement Age Standardized Mortality Rates (ASMRs). Since PYLL is calculated using only those deaths where the age at death was less than 65, this measure gives greater weight to premature death than the ASMR.

- The potential years of life lost for Status Indians (109.6) was almost three times the provincial rate (37.2).
- Almost half (48.7%) the Potential Years of Life Lost (PYLL) for Status Indians were due to deaths from external causes; while only about a third of the provincial PYLL were due to external causes of death.
- For almost all causes of death, the average Potential Years of Life Lost (PYLL) for Status Indians was greater than the provincial average.

Figure 38
Potential Years of Life Lost
Status Indian vs. B.C.
By Selected Causes of Death (Age under 65 years)
British Columbia, 1987-1992



Rate Per 10 000 Standard Population
Prepared by Vital Statistics

Table 51
POTENTIAL YEARS OF LIFE LOST STATUS INDIAN VS. BRITISH COLUMBIA POPULATION
1987-1992 (FOR AGE GROUPS 0-65 YEARS)

Status Indian		Male					Female					Total				
Cause of Death	ICD-9 Code	No of Deaths	Total PYLL	% PYLL	Std. Rate	Avg. PYLL	No. of Deaths	Total PYLL	% PYLL	Std. Rate	Avg. PYLL	No. of Deaths	Total PYLL	% PYLL	Std. Rate	Avg. PYLL
Infectious/Parasitic Diseases	001-139	34	964	2.4	3.4	28.3	10	222	0.9	0.7	22.2	44	1 186	1.8	2.0	26.9
AIDS/HIV -related	042-044	20	550	1.3	2.0	27.5	1	28	0.1	0.1	27.5	21	578	0.9	1.0	27.5
Cancer	140-208	92	1 418	3.5	6.6	15.4	88	1 685	7.0	6.4	19.1	180	3 103	4.8	6.5	17.2
-Lung	162	10	95	0.2	0.6	9.5	11	143	0.6	0.7	13.0	21	238	0.4	0.6	11.3
-Female Breast	174	0	0	0.0	0.0	0.0	21	358	1.5	1.4	17.0	21	358	0.5	1.4	17.0
-Colorectal	153-154	11	108	0.3	0.7	9.8	7	128	0.5	0.4	18.2	18	235	0.4	0.5	13.1
-Cervical	180	0	0	0.0	0.0	0.0	7	158	0.7	0.6	22.5	7	158	0.2	0.6	22.5
-Prostate	185	4	20	0.0	0.1	5.0	0	0	0.0	0.0	0.0	4	20	0.0	0.1	5.0
Endocrine/Nutritional/Metabolic	240-279	22	443	1.1	1.7	20.1	23	424	1.8	1.5	18.4	45	867	1.3	1.6	19.3
-Diabetes	250	11	118	0.3	0.7	10.7	15	148	0.6	0.6	9.8	26	265	0.4	0.6	10.2
Circulatory	390-459	159	2 265	5.5	10.9	14.2	99	1 755	7.3	6.5	17.7	258	4 020	6.2	8.5	15.6
-Coronary Heart	410-4144292	87	923	2.3	5.2	10.6	27	273	1.1	1.3	10.1	114	1 195	1.8	3.1	10.5
-Cerebrovascular/Stroke	430-4436-8	28	417	1.0	1.9	14.9	37	643	2.7	2.4	17.4	65	1 060	1.6	2.2	16.3
-Arteries	440-448	3	33	0.1	0.1	10.8	5	73	0.3	0.3	14.5	8	105	0.2	0.2	13.1
Respiratory	460-519	48	1 201	2.9	4.5	25.0	40	878	3.6	3.0	21.9	88	2 079	3.2	3.7	23.6
Pneumonia/Influenza	480-487	27	745	1.8	2.8	27.6	23	574	2.4	1.8	24.9	50	1 319	2.0	2.3	26.4
*Chronic Pulmonary Disease	491-2496	8	60	0.1	0.4	7.5	7	53	0.2	0.3	7.5	15	113	0.2	0.3	7.5
-Asthma	493	2	50	0.1	0.2	25.0	1	43	0.2	0.1	42.5	3	93	0.1	0.2	30.8
Digestive	520-579	73	1 330	3.2	6.0	18.2	75	1 278	5.3	5.1	17.0	148	2 607	4.0	5.6	17.6
Chronic Liver/Cirrhosis	571	37	685	1.7	3.0	18.5	49	798	3.3	3.2	16.3	86	1 482	2.3	3.1	17.2
Congenital Anomaly	740-759	21	1 173	2.9	3.3	55.8	17	1 040	4.3	2.8	61.2	38	2 213	3.4	3.0	58.2
Perinatal	760-779	26	1 677	4.1	4.1	64.5	22	1 419	5.9	3.5	64.5	48	3 096	4.8	3.8	64.5
External Causes	800-999	639	2 2271	54.3	77.1	34.9	266	9 435	39.0	30.4	35.5	905	31 705	48.7	53.0	35.0
-Motor Vehicle Tr. Accident	810-819	194	6 739	16.4	23.5	34.7	102	3 709	15.3	11.7	36.4	296	10 448	16.0	17.4	35.3
-Poisoning	850-869	57	1 448	3.5	5.4	25.4	33	948	3.9	2.9	28.7	90	2 395	3.7	4.1	26.6
-Falls	880-888	20	625	1.5	2.3	31.3	9	233	1.0	0.8	25.8	29	858	1.3	1.6	29.6
-Suicide	950-959	161	6 058	14.8	20.4	37.6	41	1 488	6.2	5.1	36.3	202	7 545	11.6	12.6	37.4
All Other Causes		219	8 252	20.1	25.8	37.7	174	6 036	25.0	18.2	34.7	393	14 288	21.9	21.9	36.4
Total Deaths		1 333	40 992	100.0	143.3	30.8	814	24 170	100.0	78.3	29.7	2 147	65 161	100.0	109.6	30.3

Note: * Chronic Bronchitis 491 - Emphysema 492 Chronic Obstructive Pulmonary Disease 496

Standard rates of PYLL are based on 1971 Canada Census per 1000 population.

Table 52
POTENTIAL YEARS OF LIFE LOST STATUS INDIAN VS. BRITISH COLUMBIA POPULATION
1987-1992 (FOR AGE GROUPS 0-65 YEARS)

British Columbia Population		Male					Female					Total				
Cause of Death	ICD-9 Code	No of Deaths	Total PYLL	% PYLL	Std. Rate	Avg. PYLL	No. of Deaths	Total PYLL	% PYLL	Std. Rate	Avg. PYLL	No. of Deaths	Total PYLL	% PYLL	Std. Rate	Avg. PYLL
Infectious/Parasitic Diseases	001-139	1 049	25 822	5.6	2.2	24.6	116	2 979	1.3	0.3	25.7	1 165	28 800	4.2	1.3	24.7
AIDS/HIV -related	042-044	877	22 063	4.8	1.8	25.2	22	652	0.3	0.1	29.6	899	22 714	3.3	1.0	25.3
Cancer	140-208	5 649	56 996	12.4	5.6	10.1	5 194	59 596	26.3	5.9	11.5	10 843	116 592	17.0	5.7	10.8
-Lung	162	1 881	14 448	3.1	1.4	7.7	1 144	10 305	4.5	1.0	9.0	3 025	24 752	3.6	1.2	8.2
-Female Breast	174	0	0	0.0	0.0	0.0	1 311	15 788	7.0	1.5	12.0	1 311	15 788	2.3	1.5	12.0
-Colorectal	153-154	482	4 165	0.9	0.4	8.6	370	3 450	1.5	0.3	9.3	852	7 615	1.1	0.4	8.9
-Cervical	180	0	0	0.0	0.0	0.0	128	2 290	1.0	0.2	17.9	128	2 290	0.3	0.2	17.9
-Prostate	185	224	1 145	0.2	0.1	5.1	0	0	0.0	0.0	0.0	224	1 145	0.2	0.1	5.1
Endocrine/Nutritional/Metabolic	240-279	372	6 064	1.3	0.6	16.3	278	4 060	1.8	0.5	14.6	650	10 124	1.5	0.5	15.6
-Diabetes	250	250	3 190	0.7	0.3	12.8	176	1 830	0.8	0.2	10.4	426	5 020	0.7	0.2	11.8
Circulatory	390-459	5 334	51 081	11.1	4.9	9.6	1 854	19 954	8.8	2.0	10.8	7 188	71 035	10.4	3.4	9.9
-Coronary Heart	410-4144292	3 583	30 673	6.7	2.9	8.6	832	6 495	2.9	0.6	7.8	4 415	37 168	5.4	1.8	8.4
-Cerebrovascular/Stroke	430-4436-8	678	7 789	1.7	0.7	11.5	526	6 701	3.0	0.7	12.7	1 204	14 490	2.1	0.7	12.0
-Arteries	440-448	221	1 725	0.4	0.2	7.8	100	1 040	0.5	0.1	10.4	321	2 764	0.4	0.1	8.6
Respiratory	460-519	740	9 531	2.1	1.0	12.9	471	6 751	3.0	0.8	14.3	1 211	16 282	2.4	0.9	13.4
Pneumonia/Influenza	480-487	276	4 616	1.0	0.5	16.7	182	3 525	1.6	0.4	19.4	458	8 141	1.2	0.5	17.8
*Chronic Pulmonary Disease	491-2496	271	1 552	0.3	0.1	5.7	153	853	0.4	0.1	5.6	424	2 405	0.4	0.1	5.7
-Asthma	493	59	1 008	0.2	0.1	17.1	52	820	0.4	0.1	15.8	111	1 828	0.3	0.1	16.5
Digestive	520-579	944	11 790	2.6	1.1	12.5	490	6 191	2.7	0.6	12.6	1 434	17 980	2.6	0.9	12.5
Chronic Liver/Cirrhosis	571	572	7 022	1.5	0.6	12.3	272	3 235	1.4	0.3	11.9	844	10 257	1.5	0.5	12.2
Congenital Anomaly	740-759	423	23 805	5.2	3.0	56.3	293	16 479	7.3	2.1	56.2	716	40 284	5.9	2.6	56.3
Perinatal	760-779	469	30 229	6.6	3.9	64.5	326	21 027	9.3	2.7	64.5	795	51 256	7.5	3.3	64.5
External Causes	800-999	6 078	184 957	40.3	20.4	30.4	1 855	55 952	24.7	6.4	30.2	7 933	240 909	35.1	13.4	30.4
-Motor Vehicle Tr. Accident	810-819	1 922	66 198	14.4	7.9	34.4	664	21 637	9.5	2.6	32.6	2 586	87 835	12.8	5.2	34.0
-Poisoning	850-869	523	13 203	2.9	1.2	25.2	194	4 995	2.2	0.5	25.7	717	18 198	2.7	0.8	25.4
-Falls	880-888	238	5 831	1.3	0.6	24.5	60	1 290	0.6	0.1	21.5	298	7 120	1.0	0.4	23.9
-Suicide	950-959	1 653	45 948	10.0	4.8	27.8	449	11 393	5.0	1.1	25.4	2 102	57 340	0.4	3.0	27.3
All Other Causes		2 122	58 574	12.8	6.6	27.6	1 251	33 964	15.0	3.9	27.1	3 373	92 538	13.5	5.2	27.4
Total Deaths		23 180	458 846	100.0	49.3	19.8	12 128	22 6952	100.0	25.0	18.7	35 308	685 798	100.0	37.2	19.4

Note: * Chronic Bronchitis 491 - Emphysema 492 Chronic Obstructive Pulmonary Disease 496
Standard Rate of PYLL based on 1971 Canada Census per 1000 population.

i) Major Leading Causes of Death

The tables in this section provide information for five leading causes of death for the six-year period 1987-1992 and for each individual year. The ICD9 codes for each cause of death category are shown in the table. Please note that the malignant neoplasms category shown in the tables in this section include the same cause of death codes as the cancer category shown in the ASMR and PYLL tables.

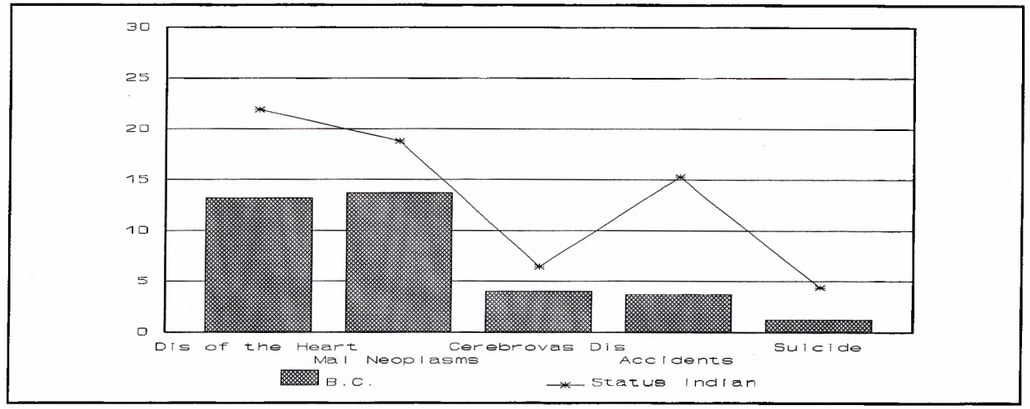
- For the period 1987-1992, the Age Standardized Mortality Rates for Status Indians for the five leading causes of death were slightly higher than the provincial rate for deaths due to malignant neoplasms (16.3 compared with 13.8), higher than provincial rates for deaths from heart and cerebrovascular diseases (20.2 and 6.5 compared with 13.7 and 3.9), and more than three times higher than provincial rates for accidental deaths and suicides (13.9 and 3.8 compared with 3.7 and 1.2).

- The same pattern observed for both sexes combined is also seen for males and females separately. Generally the ASMRs are higher for males than for females for both Status Indians and the B.C. population. Over the six-year period 1987-1992, the Status Indian ASMR was 1.8 times the provincial rate for males (74.4 compared with 41.3) and 1.5 times the provincial rate for females (48.0 compared with 31.2).

- Similar patterns to those described above were found for the individual years.

Figure 39
Major Leading Causes of Death
Status Indian vs. B.C., Both Sexes
British Columbia, 1991

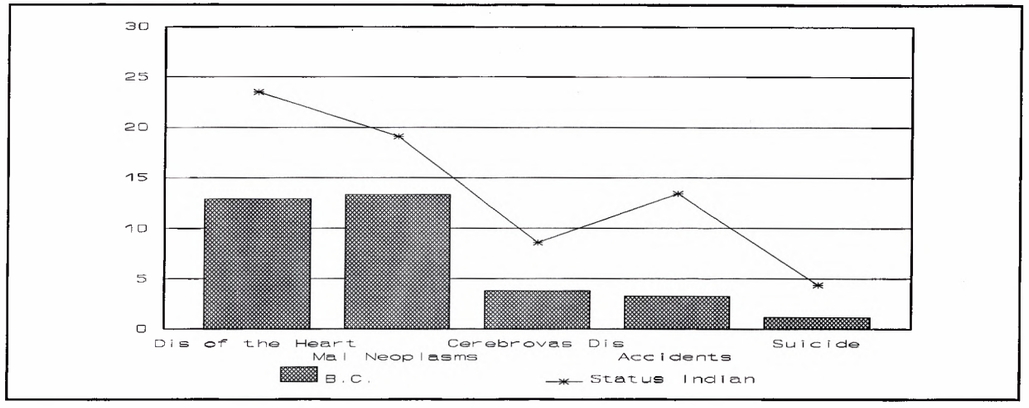
Age Standardized Mortality Rate



Rate Per 10 000 Standard Population
Source: Vital Statistics

Figure 40
Major Leading Causes of Death
Status Indian vs. B.C., Both Sexes
British Columbia, 1992

Age Standardized Mortality Rate



Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 53
MAJOR LEADING CAUSES OF DEATH
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION
1987-1992[1]

Cause of Death (ICD9 Code)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
Diseases of the Heart* (390-398, 402,404, 410-429)	344	25.40	21 396	15.90	1.60	204	15.20	17 154	11.60	1.31	548	20.20	38 550	13.70	1.47
Malignant Neoplasms (140-208)	235	17.20	19 682	15.00	1.15	223	15.50	16 913	12.60	1.23	458	16.30	36 595	13.80	1.18
Carebrovascular Disease (430-438)	84	6.20	4 849	3.50	1.77	98	6.90	6 395	4.30	1.60	182	6.50	11 244	3.90	1.67
Accidents** (E800-E949, E970-E999)	461	19.40	5 300	5.10	3.80	222	8.90	2 559	2.20	4.05	683	13.90	7 859	3.70	3.76
Suicide (E950-E959)	168	6.20	1 931	1.80	3.44	42	1.50	569	0.50	3.00	210	3.80	2 500	1.20	3.17
Total	1 292	74.40	53 158	41.30	1.80	789	48.00	43 590	31.20	1.54	2 081	60.70	96 748	36.30	1.67

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
* excluding ICD9 392.9 Code
** excluding suicide and homicide
Source: Vital Statistics

[1]For additional statistics by year see Appendix C: Pages 8, 9 and 10.

Mortality: Implications

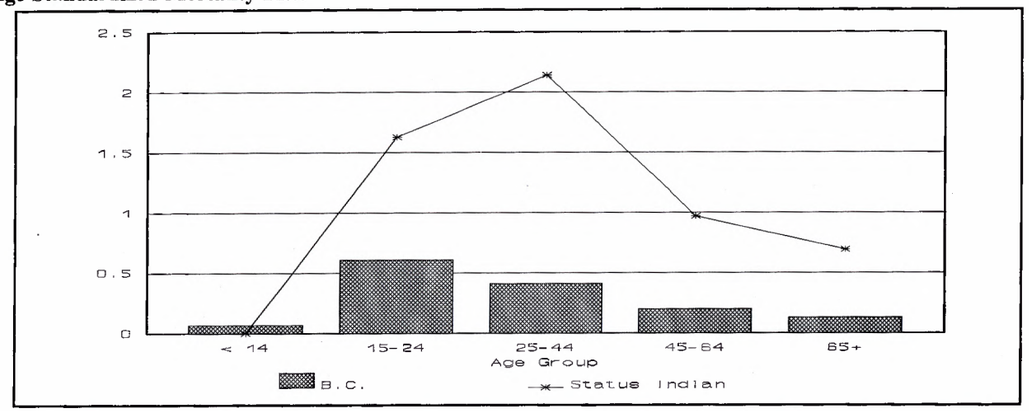
- The high rates of mortality among young adults account for the lower life expectancy among First Nations compared with the total population.
- Most of the leading causes of death relate more to lifestyles and living conditions than exposure to infectious disease or lack of access to medical treatment. First Nations mortality rates continue to be high as a result of poor nutrition, overcrowding, the hazards of traditional pursuits, low socio-economic status, violence and suicide.
- The increasing cardiovascular mortality may be a reflection of a number of factors, including the change from a more physically active traditional lifestyle to a more sedentary one, the impact of adult-onset diabetes mellitus, and adherence to unhealthy dietary habits, including a relatively high fat intake.

j) Motor Vehicle Traffic Accident Deaths

- The Age Standardized Mortality Rates for motor vehicle traffic accidents for Status Indians (5.7) was about 3½ times the provincial rate (1.6) for the period 1987-1992. Status Indian ASMRs ranged from 2½ times to five times the provincial rates, depending on the age group.
- The ASMRs for motor vehicle traffic accidents for males and for female Status Indians were also higher than the corresponding provincial rates for the period 1987-1992. The most pronounced difference between Status Indian and provincial rates was for females aged 25-44, which (at 1.4) was seven times that of the province (at 0.2).
- Male, female, and total Status Indian motor vehicle traffic accident ASMRs were also higher than the corresponding provincial rates for almost all age groups for the individual years from 1987 to 1992.

Figure 41
Mortality by Motor Vehicle Traffic Accidents
Status Indian vs. B.C., Both Genders
British Columbia, 1991

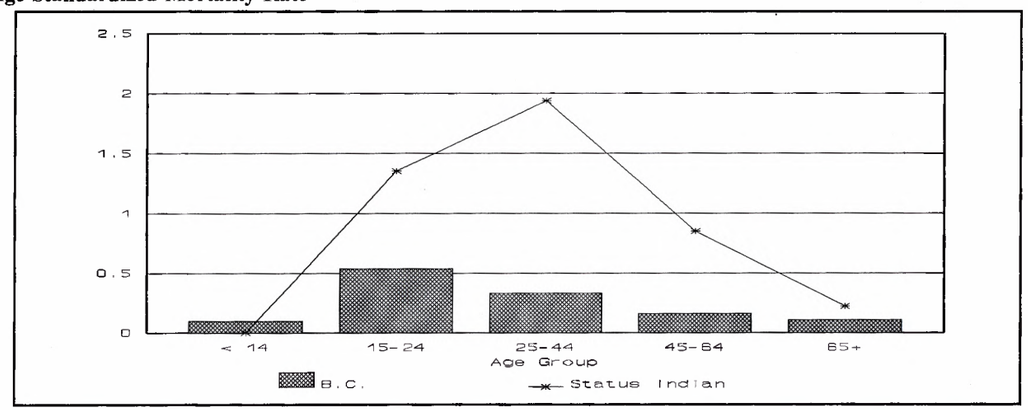
Age Standardized Mortality Rate



Rate Per 10 000 Standard Population
Source: Vital Statistics

Figure 42
Mortality by Motor Vehicle Traffic Accidents
Status Indian vs. B.C., Both Genders
British Columbia, 1992

Age Standardized Mortality Rate



Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 54
Mortality BY MOTOR VEHICLE TRAFFIC ACCIDENTS
STATUS INDIAN VS. BRITISH COLUMBIA
1987-1992[1]

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	11	0.43	100	0.16	2.69	9	0.28	56	0.08	3.50	20	0.36	156	0.12	3.00
15-24	67	2.35	721	1.01	2.33	30	1.09	199	0.29	3.76	97	1.72	920	0.65	2.65
25-44	88	2.77	788	0.65	4.26	52	1.41	251	0.20	7.05	140	2.05	1 039	0.42	4.88
45-64	28	1.82	313	0.30	6.07	11	0.62	158	0.16	3.88	39	1.17	471	0.23	5.09
65+	7	0.56	214	0.15	3.73	2	0.17	205	0.13	1.31	9	0.37	419	0.14	2.64
Total	201	7.94	2 136	2.27	3.50	104	3.57	869	0.87	4.10	305	5.66	3 005	1.57	3.61

Note ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population

Source: Vital Statistics

[1] For additional detailed statistics see Appendix C Pages 11, 12 and 13.

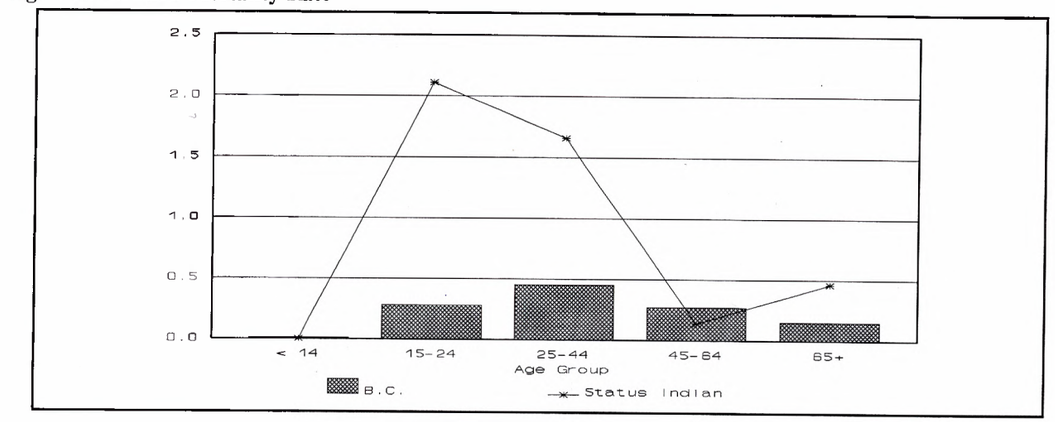
k) Suicide Deaths

- For the period 1987-1992, the Age Standardized Mortality Rate (ASMR) for suicides for Status Indians (3.8) was about three times the provincial rate (1.2). Status Indian ASMRs ranged from almost 1½ times to nine times the provincial rates, depending on the age group. This may be in part explained by the small number of cases involved (i.e. four Status Indian deaths in age group <14 years).

- The ASMRs for suicides for male and female Status Indians were also the same or higher than the corresponding provincial rates for the period 1987-1992. The most pronounced difference in Status Indian and provincial suicide rates was for females aged <14, which was 13 times that of the province (0.13 compared with 0.01). This may be in part explained by the small number of cases involved (i.e. three female Status Indian deaths in age group <14 years).

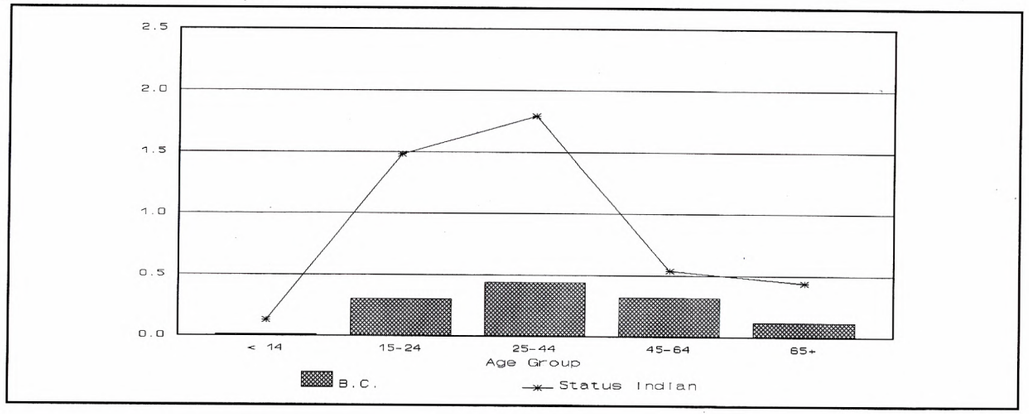
- Male, female, and total Status Indian suicide rates were also higher than the corresponding provincial rates for many age groups for the individual years from 1987 to 1992.

Figure 43
Mortality by Suicide
Status Indian vs. B.C., Both Genders
British Columbia, 1991



Rate Per 10 000 Standard Population
Source: Vital Statistics

Figure 44
Mortality by Suicide
Status Indians vs. B.C., Both Genders
British Columbia, 1992



Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 55
Mortality BY SUICIDE
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION
1987-1992[1]

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	1	0.04	12	0.02	2.00	3	0.13	5	0.01	13.00	4	0.09	17	0.01	9.00
15-24	76	2.70	325	0.45	6.00	15	0.55	61	0.09	6.11	91	1.63	386	0.27	6.04
25-44	73	2.19	841	0.69	3.17	19	0.55	229	0.18	3.06	92	1.32	1 070	0.43	3.07
45-64	11	0.71	475	0.46	1.54	4	0.22	154	0.16	1.38	15	0.44	629	0.31	1.42
65+	7	0.56	277	0.19	2.95	1	0.08	120	0.08	1.00	8	0.33	397	0.13	2.54
Total	168	6.20	1 930	1.82	3.41	42	1.53	569	0.51	3.00	210	3.80	2 499	1.16	3.28

Rate per 10 000 Standard Population

Source: Vital Statistics

[1] For additional detailed statistics see Appendix C: Pages 14, 15 and 16.

Violent Deaths and Suicides: Implications

- In general, the high levels of violent deaths among First Nations reflect a combination of lifestyle and environmental factors. These factors include exposure to hazards associated with traditional pursuits (hunting and fishing) as well as those associated with occupations in construction, manufacturing and logging. Also, the pressure of substandard old houses and poor fire prevention and fire protection services contribute to the high incidence of fire deaths.

- While there are no data readily available to support such claims, it is believed by health experts and community leaders that alcohol and drug abuse contribute to the high incidence of violent deaths, including accidental drowning, motor vehicle accidents, accidental discharge of firearms, unsafe operation of heavy equipment and carelessness or neglect in the operation of heating and electrical systems as the result of impairment.

- Efforts to reduce the incidence of violent deaths and suicides among the First Nations populations in the province will need to focus on the root causes of these problems (socio-economic and living conditions) as well as on appropriate prevention and early treatment services, including individual and family counselling, and home and on-the-job safety training.

Appendix A:

Pacific Region Telephone Directory

Regional Director
Pacific Region Headquarters
Medical Services Branch
Health Canada
540-757 West Hastings Street
Vancouver, British Columbia
V6C 3E6
Telephone: (604) 666-0921
Fax: (604) 666-6024

Regional Director	666-3235
Associate Regional Director	666-3346
Assistant Regional Director, Administration	666-8673
Regional Manager, Financial Services	666-9924
Financial Officer — Native Involvement	666-3978
Regional Nutritionist	666-7983
Regional Dental Officer	666-8550
Assistant Regional Dental Officer	666-4637
Regional Health Educator	666-6768
Regional Program Transfer Manager	666-8431
National Native Alcohol and Drug Abuse Program Coordinator	666-8182
Programs Medical Officer	666-6155
Regional Nursing Officer	666-0838
Regional Nursing Educator	666-8327
Regional Property Manager	666-3212
Regional Coordinator Brighter Futures	666-8509
Regional Contracts Officer	666-0449
Manager Non-Insured Health Benefits	666-3077
Psychological Consultant	666-8871
Resource Centre	666-7958

Zone Director
South Mainland Zone
Medical Services Branch
Health Canada
107-125 East 10th Avenue
Vancouver, British Columbia
V5T 1Z3
Telephone: (604) 775-6309
Fax: (604) 775-6323

Health Centres:

Bella Bella	957-2313
Bella Coola	799-5441
Chilliwack	729-0214
Kamloops	372-8121
Lillooet	256-7017
Lytton	455-2715
Merritt	378-4747
Mount Currie	894-6912
Salmon Arm	832-6185
Seton Lake	259-8232

Health Stations:

Rivers Inlet	N693460 - Campbell River Radio
Chehalis	796-9601
Spallumcheen	838-6496

Nursing Stations:

Klemtu	839-1221

Transferred Bands:

St:lo Tribal Council	858-3366

Zone Director
Vancouver Island Zone
Medical Services Branch
Health Canada
Room 202, 910 Government Street
Victoria, British Columbia
V8W 1X3
Telephone: (604) 363-3565

Health Stations:

Chemainus (Kulleet Bay)	245-8551
Chemainus (Shell Beach)	245-2711
Fort Rupert	949-6625
Kwicksutaineak (Gilford Island)	Radio Campbell River
Nanaimo	753-3481
Penelakut (Kuper Island)	246-9885
Quatsino	949-7161
Saanichton	652-4133
Sliammon (Powell River)	483-3921
Tsartlip	652-4473
Tsawataineak Radio	Kingcome Valley 889-094-5212
Tsulquate (Port Hardy)	949-8252

Health Centres:

Alert Bay (Nimpkish Band)	974-5522
Port Hardy	949-7373
Chemainus	246-2729

Transferred Bands:

Nuu-chah-nulth Tribal Council	724-3232
Cowichan Band Council	748-3196

Health Stations: (Transferred)

Ahousaht	670-9554
Mowachaht (Gold River)	283-7313
Kyuquot	332-5279
Hesquiat (Hot Spring Cove)	Radio 98077
Tla-o-quiaht (Opitsaht)	725-3939
Ucluelet	726-4313
Sheshaht (Port Alberni)	724-2535
Ditidaht (Nitinaht)	Radio 3M084 Nitinaht Raven

Health Centres: (Transferred)

Tofino	725-3367
Campbell River	286-0661
Port Alberni (Admin. Centre)	723-1223

Cowichan Band

Health Centre - Duncan	746-6184

Zone Director
North West Zone
Medical Services Branch
Health Canada
Suite 200, 515 3rd Avenue West
Prince Rupert, British Columbia
V8J 1T8
Telephone: (604) 627-1381
Fax: (604) 624-4085

Health Stations:

Kitamaat	632-3600
Metlakatla (Prince Rupert)	628-9298
Moricetown	847-9328
Skidegate (Queen Charlotte City)	559-4610
Kitsegukla (South Hazelton)	849-5231

Health Centres:

Haida (Masset)	626-3911

Nursing Stations:

Hartley Bay	841-2556
Iskut	234-3511
Kitkatla	628-9366
Port Simpson	625-3331
Telegraph Creek	235-3211

Transferred Bands:

Nisga'a Valley Health Board	633-2212
James Gosnell Diagnostic and Treatment Centre	633-2212
Health Centre-Greenville	621-3274
Health Station - Canyon City	633-2498
Kincolith Nursing Station	326-4258
Gitanmaax (Hazelton)	842-6320
Glen Vowell (Hazelton)	842-6876
Hazelton Health Centre	842-5239
Kispiox (Hazelton)	842-6236
Kitwancool (Gitanyou)	849-5228
Kitwanga	849-5235

Zone Director
North East Zone
Medical Services Branch
Health Canada
409-280 Victoria Street
Prince George, British Columbia
V2L 4X3
Telephone: (604) 561-5372
Fax: (604) 561-5369

Health Stations:

Alkali (Williams Lake)	440-5651
Anaham	394-4511
Babine (Takla Landing)	Radio phone N695906
Binchi (Fort St. James)	648-3673
Blueberry River (Fort St. John)	Band
Canim Lake (Cariboo)	397-2717
Dog Creek (Williams Lake)	440-5645
Doig (Fort St. John)	Band
Halfway (Fort St. John)	Band
Ingenika (Mackenzie)	Band
Nazko (Prince George)	no telephone
Nemiah Valley (Alexis Creek)	Band
Portage (Fort St. James)	H-689306
Redstone (Tatla Lake)	481-1133
Soda Creek (Williams Lake)	297-6416
Stone (Alexis Creek)	394-4518
Stoney Creek (Vanderhoof)	567-9773
Sugar Cane (Williams Lake)	296-3655
Tachie (Fort St. James)	648-3243
Topoley Landing (Granisle)	697-6301
Nautley (Fraser Lake)	690-7595
Stellaquo (Fraser Lake)	699-8922
Prophet River	773-6525

Nursing Stations:

Anahim Lake	742-3305
Fort Ware (Mackenzie)	471-2003
West Chilcotin (Tatla Lake)	476-1114
Takla Landing	564-6525

Health Centres:

Alexis Creek	394-4251
Fort St. James	996-7400
Fort St. John	787-0298
Williams Lake	392-6578
Woyenne (Burns Lake)	692-7787
Prince George	561-5381

Appendix B:

Listing of
Medical Services Branch,
Provincial or Municipal Health Units
and
Transferred Native Organizations
Providing Service to First Nations in
British Columbia by Zone
March 1995

Population figures provided by Department of Indian Affairs and Northern Development, July 1994.

South Mainland Zone Registered Indian Band Populations As at July 31, 1994 (Served by Medical Services Branch)					
Band Name	**Community**	**Health Facility**	**Population**		
			Total	**On-Reserve**	**Off-Reserve**
Adams Lake	Adams Lake	Salmon Arm	557	369	188
Adams Lake	Gleneden	Salmon Arm			
Adams Lake	Hustalen	Salmon Arm			
Adams Lake	Toops #3	Salmon Arm			
Ashcroft	Ashcroft	Kamloops	184	47	137
Bella Coola (Nuxalk)	Bella Coola	Bella Coola	1 128	733	395
Bonaparte	Bonaparte	Kamloops	619	221	398
Bridge River	Bridge River	Lillooet	313	159	154
Cayoose Creek	Cayoose Creek	Lillooet	155	98	57
Chehalis	Chehalis	Chilliwack	787	507	280
Clinton	Whispering Pines	Kamloops	104	58	46
Coldwater	Coldwater	Merritt	605	377	228
Cook's Ferry	Basque	Lytton			
Cook's Ferry	Spence's Bridge	Lytton	271	115	156
Douglas	Port Douglas	Chilliwack	180	56	124
Douglas	Tipella	Chilliwack			
Fountain	Fountain	Lillooet	716	521	195
Heiltsuk	Bella Bella	Bella Bella	1 823	1 189	634
Kamloops	Kamloops	Kamloops	805	514	291
Kanaka Bar	Kanaka Bar	Lytton	150	44	106
Kitasoo	Klemtu	Klemtu	422	335	87
Lillooet	Lillooet	Lillooet	277	168	109
Little Shuswap Lake	Chum Creek	Salmon Arm	258	177	81
Little Shuswap Lake	North Bay	Salmon Arm			
Little Shuswap Lake	Quaaout	Salmon Arm			
Lower Nicola	Lower Nicola	Merritt	776	495	281
Lytton	25 Mile	Lytton			
Lytton	Lytton	Lytton	1 510	835	675
Mount Currie	Mount Currie	Mount Currie	1 494	1 054	440
Neskolith	Neskolith	Salmon Arm	481	250	231
Nicomen	Nicomen	Lytton	88	55	33
Nooaitch	Nooaitch	Merritt	172	129	43

South Mainland Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Medical Services Branch)

Band Name	Community	Health Facility	Population		
			Total	On-Reserve	Off-Reserve
North Thompson	Chu Chua	Kamloops	498	231	267
Okanagan	Okanagan	Salmon Arm	1 385	693	692
Oregon Jack Creek	Oregon Jack	Kamloops	53	11	42
Oweekano	Rivers Inlet	Bella Bella	207	77	130
Pavilion	Pavilion	Lillooet	392	261	131
Samahquam	Samahquam	Chilliwack	230	11	219
Seton Lake	Seton Portage	Seton Lake			
Seton Lake	Shalalth	Seton Lake			
Shackan	Shackan	Merritt	112	76	36
Siska	Siska	Lytton	237	125	112
Skeetchestn	Deadman's Creek	Kamloops	366	143	223
Skookumchuck	Skookumchuck	Chilliwack	301	27	274
Skookumchuck	Sweeten	Chilliwack			
Skuppah	Skuppah	Lytton	60	45	15
Spallumcheen	Enderby	Salmon Arm	565	319	246
Spallumcheen	Sicamous	Salmon Arm			
Upper Nicola	Upper Nicola	Merritt	727	463	264

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

South Mainland Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Provincial or Municipal Health Units)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Anderson Lake	D'Arcy	Coast Garibaldi	221	151	70
Boothroyd	Boothroyd	Upper Fraser Valley	250	108	142
Boston Bar	North Bend	Upper Fraser Valley	190	68	122
Boston Bar	North Bend	Upper Fraser Valley			
Burrard	Burrard Inlet	North Vancouver	295	185	110
Columbia Lake	Columbia Lake	East Kootenay	203	141	62
Coquitlam	Coquitlam	Simon Fraser	80	7	73
High Bar	High Bar	South Central	47	2	45
Katzie	Barnston Island	Boundary			
Katzie	Katzie Wilderness Es.	Cent. Fraser Valley			
Katzie	Katzie #1	Cent. Fraser Valley	377	194	183
Katzie	Katzie #2	Cent. Fraser Valley			
Lower Kootenay	Creston	East Kootenay	156	87	69
Lower Kootenay	Lower Kootenay	East Kootenay			
Lower Similkameen	Lower Similkameen	South Okanagan	336	291	45
Musqueam	Musqueam	Vcr. Health Dept.	894	528	366
Osoyoos	Inkaneep	South Okanagan	319	259	60
Penticton	Penticton	South Okanagan	691	437	254
Sechelt	Sechelt	Coast Garibaldi	887	472	415
Semiahmoo	Semiahmoo	Boundary	61	26	35
Shuswap	Shuswap	East Kootenay	210	136	74
Spuzzum	Spuzzum	Up. Fraser Valley	161	37	124
Squamish	Capilano	North Vancouver			
Squamish	Mission	North Vancouver	2 601	1 679	922
Squamish	Seymour Creek	North Vancouver			
Squamish	Squamish	Coast Garibaldi			
St. Mary's	Kootenay	East Kootenay	245	203	42
St. Mary's	St. Mary's	East Kootenay			
Tobacco Plains	Tobacco Plains	East Kootenay	149	97	52
Tsawwassen	Tsawwassen	Boundary	158	59	99
U Similkameen	Upper Similkameen	South Okanagan	43	43	
Westbank	Westbank	South Okanagan	467	262	205

South Mainland Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Provincial or Municipal Health Units)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Westbank	Winfield	South Okanagan			
Yale	Ruby Creek	Up. Fraser Valley			
Yale	Yale	Up. Fraser Valley	112	49	63

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

Vancouver Island Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Medical Services Branch)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Chemainus	Chemainus #11	Chemainus	817	636	181
Chemainus	Chemainus #12	Chemainus			
Chemainus	Kulleet Bay	Chemainus			
Chemainus	Shell Beach	Chemainus			
Gwa'Sala-Nakwaxda'xw	Fort Rupert	Port Hardy	478	357	121
Gwa'Sala-Nakwaxda'xw	Tsulquate	Port Hardy			
Halalt	Westholme	Chemainus	181	87	94
Kwakiutl	Fort Rupert	Port Hardy	530	278	252
Kwa-Wa-Aineuk	Hopetown	Port Hardy	22	22	
Kwicksutaineuk	Gilford Island	Port Hardy	245	60	185
Malahat	Malahat	Chemainus	215	88	127
Mamaleleqala-Qwe'Qwa' Sot-Enox	Un-we Housing Assn	Alert Bay			
Mamaleleqala-Qwe'Qwa" Sot-Enox	Village Island	Alert Bay	279	48	231
Nimpkish	Nimpkish	Alert Bay	1 336	729	607
Penelakut	Bonsell's Creek	Chemainus	631	425	206
Penelakut	Kuper Island	Chemainus			
Quatsino	New Quatsino	Port Hardy	311	212	99
Quatsino	Quatsino	Port Hardy			
Tanakteuk	Un-we Housing Assn	Alert Bay			
Tlatlasikwala	Un-we Housing Assn	Alert Bay	39	21	18
Tlowitsis-Mumtagila	Turnour Island	Port Hardy	287	102	185
Tlowitsis-Mumtagila	Un-we Housing Assn	Alert Bay			
Tsawataineuk	Kingcome Inlet	Port Hardy	441	128	313
Unknown	Bull Harbour	Port Hardy			
Unknown	Minstrel Cove	Port Hardy			

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

Vancouver Island Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Provincial or Municipal Health Units)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Beecher Bay	Beecher Bay	Cap. Reg. District	178	68	110
Campbell River	Campbell River	Upper Island	486	195	291
Cape Mudge	Cape Mudge	Upper Island	744	348	396
Cape Mudge	Quinsam	Upper Island			
Comox	Comox	Upper Island	237	111	126
Cowichan Lake	Lake Cowichan	Central Van. Island	12	10	2
Esquimalt	Esquimalt	Cap. Reg. District	135	63	72
Homalco	Church House	Campbell River	245	93	152
Klahoose	Squirrel Cove	Campbell River	127	34	93
Kwiakah	Kwiakah	Upper Island	16	4	12
Lyacksum	Lyackson	Central Van. Island	165	45	120
Nanaimo	Nanaimo #1	Central Van. Island			
Nanaimo	Nanaimo #2	Central Van. Island	1 026	444	582
Nanaimo	Nanaimo #3	Central Van. Island			
Nanaimo	Nanaimo #4	Central Van. Island			
Nanoose	Nanoose	Central Van. Island	177	91	86
Pacheenaht	Pacheenaht	Cap. Reg. District	205	76	129
Pauquachin	Pauquachin	Cap. Reg. District	259	175	84
Qualicum	Qualicum	Central Van. Island	90	40	50
Sheshaht	Sheshaht	Central Van. Island	717	511	206
Sliammon	Sliammon	Coast Garibaldi	748	559	189
Songhees	Songhees	Cap. Reg. District	315	194	121
Sooke	Sooke	Cap. Reg. District	148	75	73
Tsartlip	Tsartlip	Cap. Reg. District	657	423	234
Tsawout	Tsawout	Cap. Reg. District	549	380	169
Tseycum	Tseycum	Cap. Reg. District	116	84	32

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

North West Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Medical Services Branch)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Hartley Bay	Hartley Bay	Hartley Bay	581	176	405
Hagwilget	Hagwilget	Moricetown	562	227	335
Iskut	Iskut	Iskut	484	283	201
Kitkatla	Kitkatla	Kitkatla	1 298	391	907
Lax-Kw'alaams	Port Simpson	Port Simpson	2 353	1 058	1 295
Masset	Masset	Haida	2 165	652	1 513
Metlakatla	Metlakatla	Prince Rupert	514	119	395
Moricetown	Moricetown	Moricetown	1 405	651	754
Skidegate	Skidegate	Haida	1 046	494	552
Tahltan	Telegraph Creek	Telegraph Creek	1 264	258	1 006

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

North West Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Provincial Health Units)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Kitamaat	Kitammat	Skeena	1 308	600	708
Kitselas	Kitselas	Skeena	373	93	280
Kitsumkalum	Kitsumkalum	Skeena	546	210	336
Atlin	Atlin	Peace River			
Cassier	Cassiar	Peace River			
Dease Lake	Dease Lake	Peace River			
Good Hope Lake	Good Hope Lake	Peace River			

North East Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Medical Services Branch)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Alexandria	Alexandria	Williams Lake	135	58	77
Alexis Creek	Redstone	West Chilcotin	503	373	130
Alkali Lake	Alkali Lake	Williams Lake	584	378	206
Ahaham	Anaham	Alexis Creek			
Ahaham	Anaham Meadows	Alexis Creek	1 096	677	419
Blueberry River	Blueberry	Fort St. John	251	149	102
Broman Lake	Broman Lake	Woyenne	138	65	73
Broman Lake	Palling	Woyenne			
Burns Lake	Burns Lake	Woyenne	73	27	46
Canoe Creek	Canoe Creek	Williams Lake			
Canoe Creek	Dog Creek	Williams Lake	356	178	178
Cheslatta	Grassy Plains	Woyenne	212	91	121
Doig River	Doig	Fort St. John	192	110	82
Fort Ware	Ware	McKenzie	310	225	85
Fraser Lake	Nautley	Prince George			
Fraser Lake	Sespunkit	Prince George	331	195	136
Halfway River	Halfway	Fort St. John	186	150	36
Ingenika	Ingenika	McKenzie	210	153	57
Kluskus	Kluskus	Anahim Lake	147	98	49
Lake Babine	Fort Babine	Woyenne			
Lake Babine	Topley Landing	Woyenne			
Lake Babine	Woyenne	Woyenne	1 665	1 178	487
McLeod Lake	McLeod Lake	McKenzie	345	165	180
Nazko	Nazko	Prince George	259	235	24
Necoslie Nak'azdli	Necoslie	Fort St. James	1 293	669	624
Nee-Tahi-Buhn	Grassy Plains	Woyenne	133	70	63

North East Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Medical Services Branch)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Nemaiah Valley	Nemiah Valley	Alexis Creek	355	281	74
Saulteaux	Moberly Lake E.	Fort St. John	596	293	303
Soda Creek	Deep Creek	Williams Lake	277	149	128
Soda Creek	Soda Creek	Williams Lake			
Stellaquo	Stellaquo	Prince George	290	201	89
Stone	Alexis Creek	Alexis Creek			
Stone	Stone	Alexis Creek	273	174	99
Stuart-Trembleur Lake	Pinchi	Fort St. James			
Stuart-Trembleur Lake	Portage	Fort St. James			
Stuart-Trembleur Lake	Sunny side	Fort St. James	1 294	913	381
Stuart-Trembleur Lake	Tachie	Fort St. James			
Takla Lake	Takla Landing	Takla Landing	488	251	237
Toosey	Toosey	Alexis Creek	192	101	91
Ulkatcho	Anahim Lake	Anahim Lake	659	522	137
Unknown	Big Creek	Alexis Creek			
Unknown	Bluff Lake	West Chilcotin			
Unknown	Chezacut	West Chilcotin			
Unknown	Chilanko Forks	West Chilcotin			
Unknown	Eagle Lake	West Chilcotin			
Unknown	Fish Lake	Alexis Creek			
Unknown	Kleena Kleen	West Chilcotin			
Unknown	Lovell Cove	Fort St. James			
Unknown	Meldrum Creek	Williams Lake			
Unknown	Nimpo	Anahim Lake			
Unknown	Prince George College	Prince George			
Unknown	Puntzi	West Chilcotin			

North East Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Medical Services Branch)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Unknown	Redstone Meadows	West Chilcotin			
Unknown	Riske Creek	Alexis Creek			
Unknown	Tatla Lake	West Chilcotin			
Unknown	Tatlayoko	West Chilcotin			
West Moberly Lake	Moberly Lake W.	Fort St. John	108	64	44
Williams Lake	Sugar Cane	Williams Lake			
Williams Lake	Williams Lake	Williams Lake	386	239	147

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

North East Zone
Registered Indian Band Populations
As at July 31, 1994
(Served by Provincial Health Units)

Band Name	Community	Health Unit	Population		
			Total	On-Reserve	Off-Reserve
Canim Lake	Canim Lake	Cariboo	483	379	104
Fort George	Shelley North	Northern Interior	215	41	174
Fort George	Shelley South	Northern Interior			
Fort Nelson	295 Mile	Peace River			
Fort Nelson	Fontas	Peace River	550	272	278
Fort Nelson	Kahntah	Peace River			
Prophet River	Prophet River	Peace River	150	99	51
Quesnel/Red Bluff	Quesnel	Cariboo	109	57	52
Stony Creek	Stony Creek	Northern Interior	692	425	267

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

North West Zone
Registered Indian Band Populations
As at July 31, 1994
(Served Under First Nations Health Transfer Agreement)

Band Name	Community	Health Facility	Population		
			Total	On-Reserve	Off-Reserve
Gitlakdamix	New Aiyansh	James Gosnell Diagnostic Treatment Centre	1 417	692	725
Gitwinksihikw	Canyon City	Canyon City	312	195	117
Gitanmaax	Gitanmaax	Hazelton	1 586	709	877
Gitwangak	Gitwangak	Hazelton	882	452	430
Glen Vowell	Glen Vowell	Hazelton	306	163	143
Kincolith	Kincolith	Kincolith	1 544	346	1 198
Kispiox	Kispiox	Hazelton	1 152	556	596
Kitsequkla	Kitsequkla	Hazelton	699	465	234
Kitwancool	Kitwancool	Hazelton	574	380	194
Lakalzap	Greenville	Greenville	1 307	555	752

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

South Mainland Zone
Registered Indian Band Populations
As at July 31, 1994
(Served Under First Nations Health Transfer Agreement)
Sto:lo Tribal Council

Band Name	Community	Health Facility	Population		
			Total	On-Reserve	Off-Reserve
Aitchelitz	Aitchelitz	Chilliwack	18	17	1
Chawathil	Hope	Chilliwack	304	205	99
Cheam	Cheam	Chilliwack	305	156	149
Kwaw Kwaw Apilt	Kwawkwawapilt	Chilliwack	34	23	11
Lakahahmen	Lakahahmen	Chilliwack	258	99	159
Fort Langly	Fort Langley	Chilliwack	128	62	66
Ohamil	Ohamil	Chilliwack	83	30	53
Matsqui	Matsqui	Chilliwack	153	85	68
Peters	Peters	Chilliwack	98	43	55
Popkum	Popkum	Chilliwack	9	7	2
Scowlitz	Scowlitz	Chilliwack	198	91	107
Seabird Island	Seabird Island	Chilliwack	576	343	233
Skawahlook	Skawahlook	Chilliwack	58	7	51
Skowkale	Skulkayn	Chilliwack	153	116	37
Soowahlie	Soowahlie	Chilliwack	246	85	161
Squiala	Squiala	Chilliwack	109	69	40
Sumas	Sumas	Chilliwack	218	140	78
Tzeachten	Tzeatchten	Chilliwack	264	133	131
Union Bar	Union Bar	Chilliwack	81	7	74
Yakweakwioose	Yakweakwioose	Chilliwack	37	21	16

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

Vancouver Island Zone
Registered Indian Band Populations
As at July 31, 1994
(Served Under First Nations Health Transfer Agreement)
Tse-wul-Tun Health Centre, Duncan B.C.

Band Name	Community	Health Facility	Population		
			Total	On-Reserve	Off-Reserve
Cowichan	Clemclemulatz		2 788	2 001	787
Cowichan	Comeakan				
Cowichan	Deerholme				
Cowichan	Khenipsen				
Cowichan	Koksilah				
Cowichan	Quamichan				
Cowichan	Somenos				
Cowichan	Theik				

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

Vancouver Island Zone
Registered Indian Band Populations
As at July 31, 1994
(Served Under First Nations Health Transfer Agreement)
Nuu-chah-nulth Health Board, Port Alberni, B.C.

Band Name	Community	Health Facility	Population		
			Total	On-Reserve	Off-Reserve
Ahousaht	Ahousaht	Tofino Health Centre	1 394	675	719
Ditdaht	Nitinaht	Pt Alberni Health Ctr	457	179	278
Ehattesaht	Queen's Cove	Campbell River	180	89	91
Hesquiaht	Hot Spring Cove	Tofino Health Centre	514	141	373
Kyuquot	Aktis	Campbell River	375	228	147
Kyuquot	Kyuquot	Campbell River			
Kyuquot	Waltons Island	Campbell River			
Mowachaht	Friendly Cove	Campbell River	369	181	188
Mowachaht	Gold River	Campbell River			
Mowachaht	Tahsis	Campbell River			
Nuchatlaht	Zebellos	Campbell River	121	61	60
Nuchatlaht	Oclucje	Campbell River			
Ohiaht	Anacla	Pt Alberni Health Ctr	463	131	332
Ohiaht	Grappler Creek	Pt Alberni Health Ctr			
Ohiaht	Sarita	Pt Alberni Health Ctr			
Opetchesaht	River Road	Pt Alberni Health Ctr	200	92	108
Opetchesaht	Clehcoot	Pt Alberni Health Ctr			
Tia-o-qui-aht	Opitsaht	Tofino Health Centre			
Tia-o-qui-aht	Esowista				
Toquaht	Maacoah	Tofino Health Centre	112	36	76
Tseshaht (Sheshaht)	Tsaheh	Pt Alberni Health Ctr	713	510	203
Tseshaht (Sheshaht)	Alberni	Pt Alberni Health Ctr			
Uchuckleshaht	Kildonan	Pt Alberni Health Ctr	123	19	104
Ucluelet	Itattso	Tofino Health Centre	511	329	182
Ucluelet	Clakamucus	Tofino Health Centre			

Note: Where population figures are missing, total figures will include residents on smaller satellite reserves.

Appendix C: Tables

Table 56
POPULATION ESTIMATES
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1987

Age Group (in years)	Status Indian Population			Total B.C. Population		
	Male	Female	Total	Male	Female	Total
<1	1 091	1 062	2 153	21 157	20 320	41 477
1-4	3 442	3 270	6 712	84 986	79 765	164 751
5-9	4 031	3 853	7 884	101 925	97 217	199 142
10-14	3 983	3 729	7 712	98 676	93 831	192 507
15-19	4 069	3 953	8 022	108 019	102 685	210 704
20-24	4 156	4 337	8 493	111 695	110 588	222 283
25-29	4 005	4 340	8 345	126 553	129 309	255 862
30-34	3 033	3 461	6 494	128 047	131 043	259 090
35-39	2 388	2 493	4 881	122 621	121 534	244 155
40-44	1 862	2 027	3 889	103 391	100 721	204 112
45-49	1 395	1 538	2 933	81 317	78 422	159 739
50-54	1 089	1 100	2 189	72 700	69 293	141 993
55-59	881	964	1 845	71 881	69 653	141 534
60-64	650	675	1 325	65 303	71 101	136 404
65+	1 343	1 472	2 815	157 317	207 138	364 455
Total	37 418	38 274	75 692	1 455 588	1 482 620	2 938 208

Source: Vital Statistics

Table 57
POPULATION ESTIMATES
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1988

Age Group (in years)	Status Indian Population			Total B.C. Population		
	Male	Female	Total	Male	Female	Total
<1	1 129	1 064	2 193	20 911	20 349	41 260
1-4	3 576	3 384	6 960	86 165	81 067	167 232
5-9	4 176	4 006	8 182	105 540	100 385	205 925
10-14	4 140	3 917	8 057	100 042	94 820	194 862
15-19	4 237	4 070	8 307	108 923	103 930	212 853
20-24	4 320	4 400	8 720	108 383	107 639	216 022
25-29	4 304	4 724	9 028	128 587	130 690	259 277
30-34	3 312	3 828	7 140	131 575	135 054	266 629
35-39	2 630	2 872	5 502	125 326	125 034	250 360
40-44	2 022	2 323	4 345	110 667	107 792	218 459
45-49	1 504	1 815	3 319	86 324	83 179	169 503
50-54	1 157	1 334	2 491	73 986	70 623	144 609
55-59	939	1 086	2 025	73 249	70 742	143 991
60-64	682	766	1 448	67 098	71 140	138 238
65+	1 412	1 601	3 013	162 625	214 771	377 396
Total	39 540	41 190	80 730	1 489 401	1 517 215	3 006 616

Source: Vital Statistics

Table 58
POPULATION ESTIMATES
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1989

Age Group (in years)	Status Indian Population			Total B.C. Population		
	Male	Female	Total	Male	Female	Total
<1	1 149	1 077	2 226	21 854	20 783	42 637
1-4	3 689	3 497	7 186	87 096	82 389	169 485
5-9	4 294	4 108	8 402	109 095	104 074	213 169
10-14	4 204	4 007	8 211	102 854	97 624	200 478
15-19	4 316	4 123	8 439	108 173	103 397	211 570
20-24	4 399	4 461	8 860	107 911	106 815	214 726
25-29	4 524	4 829	9 353	131 054	132 895	263 949
30-34	3 547	4 159	7 706	135 634	139 290	274 924
35-39	2 817	3 156	5 973	129 762	129 955	259 717
40-44	2 149	2 562	4 711	116 985	114 781	231 766
45-49	1 625	2 035	3 660	91 683	88 552	180 235
50-54	1 198	1 520	2 718	76 036	72 865	148 901
55-59	1 004	1 146	2 150	74 282	70 646	144 928
60-64	723	868	1 591	68 358	71 392	139 750
65+	1 477	1 724	3 201	168 935	284 703	453 638
Total	41 115	43 272	84 387	1 529 712	1 620 161	3 149 873

Source: Vital Statistics

Table 59
POPULATION ESTIMATES
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1990

Age Group (in years)	Status Indian Population			Total B.C. Population		
	Male	Female	Total	Male	Female	Total
<1	1 156	1 107	2 263	21 749	21 053	42 802
1-4	3 843	3 639	7 482	88 735	84 454	173 189
5-9	4 377	4 180	8 557	113 311	107 546	220 857
10-14	4 348	4 165	8 513	106 611	100 997	207 608
15-19	4 348	4 162	8 510	108 078	103 643	211 721
20-24	4 558	4 513	9 071	109 595	108 270	217 865
25-29	4 648	4 997	9 645	132 832	134 036	266 868
30-34	3 909	4 518	8 427	140 722	144 074	284 796
35-39	3 009	3 513	6 522	134 307	135 310	269 617
40-44	2 313	2 786	5 099	125 282	123 178	248 460
45-49	1 730	2 289	4 019	96 762	93 583	190 345
50-54	1 286	1 718	3 004	78 868	75 839	154 707
55-59	1 054	1 230	2 284	74 990	71 474	146 464
60-64	782	985	1 767	70 582	72 271	142 853
65+	1 576	1 870	3 446	175 647	231 532	407 179
Total	42 937	45 672	88 609	1 578 071	1 607 260	3 185 331

Source: Vital Statistics

Table 60
POPULATION ESTIMATES - STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1991

Age Group (in years)	Status Indian Population			Total B.C. Population		
	Male	Female	Total	Male	Female	Total
<1	1 192	1 149	2 341	22 411	21 693	44 104
1-4	3 942	3 740	7 682	90 650	86 351	177 001
5-9	4 418	4 209	8 627	116 784	110 767	227 551
10-14	4 344	4 162	8 506	110 005	104 375	214 380
15-19	4 331	4 107	8 438	108 267	103 637	211 904
20-24	4 516	4 519	9 035	112 891	111 669	224 560
25-29	4 618	4 898	9 516	133 552	134 612	268 164
30-34	4 156	4 653	8 809	145 710	148 674	294 384
35-39	3 114	3 708	6 822	139 616	141 558	281 174
40-44	2 409	2 874	5 283	132 514	130 623	263 137
45-49	1 819	2 377	4 196	101 823	98 227	200 050
50-54	1 351	1 788	3 139	81 973	79 601	161 574
55-59	1 059	1 270	2 329	75 717	72 321	148 038
60-64	813	1 035	1 848	72 908	73 386	146 294
65+	1 593	1 939	3 532	182 444	239 779	422 223
Total	43 675	46 428	90 103	1 627 265	1 657 273	3 284 538

Source: Vital Statistics

Table 61
LIVE BIRTH FERTILITY RATE
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1987-1988

Age Group (in years)	1987					1988				
	Status Indian		B.C.			Status Indian		B.C.		
	No.	Rate	No.	Rate	Ratio	No.	Rate	No.	Rate	Ratio
15-19	474	119.9	2 182	21.2	5.66	541	132.9	2 374	22.8	5.83
20-24	947	218.4	9 574	86.6	2.52	930	211.4	9 230	85.7	2.47
25-29	643	148.2	15 676	121.2	1.22	708	149.9	15 998	122.4	1.22
30-34	293	84.7	10 562	80.6	1.05	356	93.0	11 165	82.7	1.12
35-39	74	29.7	3 260	26.8	1.11	78	27.2	3 649	29.2	0.93
40-44	5	2.5	369	3.7	0.68	13	5.6	458	4.2	1.33
TFR		3016.1		1700.7	1.77		3099.6		1735.5	1.79

Note: Rate per 1000 Childbearing Female Population
TFR - Total Fertility Rate
Source: Vital Statistics

Table 62
LIVE BIRTH FERTILITY RATE
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1989-1990

Age Group (in years)	1989					1990				
	Status Indian		B.C.			Status Indian		B.C.		
	No.	Rate	No.	Rate	Ratio	No.	Rate	No.	Rate	Ratio
15-19	500	121.3	2 524	24.4	4.97	531	127.6	2 576	24.9	5.12
20-24	943	211.4	9 080	85.0	2.49	909	201.4	9 082	83.9	2.40
25-29	755	156.3	15 996	120.4	1.30	743	148.7	16 282	121.5	1.22
30-34	349	83.9	11 651	83.6	1.00	361	79.9	12 506	86.8	0.92
35-39	98	31.1	3 832	29.5	1.05	128	36.4	4 260	31.5	1.16
40-44	16	6.2	463	4.0	1.55	16	5.7	562	4.6	1.24
TFR		3051.1		1734.7	1.76		2998.9		1765.3	1.70

Note: Rate per 1000 Childbearing Female Population
TFR - Total Fertility Rate
Source: Vital Statistics

Table 63
LIVE BIRTH FERTILITY RATE
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1991-1992

Age Group (in years)	1991					1992				
	Status Indian		B.C.			Status Indian		B.C.		
	No.	Rate	No.	Rate	Ratio	No.	Rate	No.	Rate	Ratio
15-19	539	131.2	2 644	25.5	5.15	550	134.7	2 570	24.6	5.48
20-24	919	203.4	9 078	81.3	2.50	890	200.3	9 007	78.8	2.54
25-29	761	155.4	15 716	116.8	1.33	691	144.2	15 456	116.2	1.24
30-34	431	92.6	12 839	86.4	1.07	387	80.6	13 282	87.7	0.92
35-39	123	33.2	4 377	30.9	1.07	127	32.5	4 682	31.8	1.02
40-44	13	4.5	590	4.5	1.00	11	3.7	652	4.9	0.76
TFR		3101.5		1726.7	1.80		2980.3		1720.1	1.73

Note: Rate per 1000 Childbearing Female Population
TFR - Total Fertility Rate
Source: Vital Statistics

Table 64
INFANT MORTALITY
STATUS INDIANS VS. BRITISH COLUMBIA POPULATION, 1987

Sex	Indians/ 8.C.	Age at Death							
		Early Neonatal		Neonatal		Post Neonatal		Total Infants	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	Indians	5	4.01	7	5.61	14	11.23	21	16.84
	B.C.	95	4.45	120	5.62	92	4.31	212	9.92
Female	Indians	6	5.03	7	5.86	9	7.54	16	13.40
	B.C.	67	3.30	77	3.80	64	3.15	141	6.95
Total	Indians	11	4.51	14	5.74	23	9.42	37	15.16
	B.C.	162	3.89	197	4.73	156	3.75	427	8.47

Note: Total number of births in B.C., 1987
- Status Indian 2 441
- Provincial 41 654
Source: Vital Statistics.

Table 65
INFANT MORTALITY
STATUS INDIANS VS. BRITISH COLUMBIA POPULATION, 1988

Sex	Indians/B.C.	Age at Death							
		Early Neonatal		Neonatal		Post Neonatal		Total Infants	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	Indians	2	1.44	2	1.44	18	12.96	20	14.40
	B.C.	105	4.79	119	5.43	85	3.88	204	9.31
Female	Indians	2	1.60	2	1.60	10	8.01	12	9.61
	B.C.	83	3.95	98	4.67	52	2.48	150	7.15
Total	Indians	4	1.52	4	1.52	28	10.61	32	12.13
	B.C.	188	4.38	217	5.06	137	3.19	354	8.25

Note: Total number of births in B.C., 1988
- Status Indian 2 638
- Provincial 42 913
Source: Vital Statistics.

Table 66
INFANT MORTALITY
STATUS INDIANS VS. BRITISH COLUMBIA POPULATION, 1989

Sex	Indian/ B.C.	Age at Death							
		Early Neonatal		Neonatal		Post Neonatal		Total Infants	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	Indian	8	5.61	12	8.42	19	13.32	31	21.74
	B.C.	105	4.70	121	5.42	81	3.63	202	9.05
Female	Indian	6	4.84	7	5.65	9	7.26	16	12.90
	B.C.	79	3.72	92	4.33	57	2.68	149	7.01
Total	Indian	14	5.25	19	7.13	28	10.50	47	17.63
	B.C.	184	4.22	213	4.89	194	3.17	351	8.05

Note: Total number of births in B.C., 1989
- Status Indian 2 666
- Provincial 43 582
Source: Vital Statistics.

Table 67
INFANT MORTALITY
STATUS INDIANS VS. BRITISH COLUMBIA POPULATION, 1990

Sex	Indian/ B.C.	Age at Death							
		Early Neonatal		Neonatal		Post Neonatal		Total Infants	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	Indian	7	5.09	8	5.82	12	8.73	20	14.55
	B.C.	103	4.44	125	5.39	63	2.72	188	8.11
Female	Indian	4	3.02	4	3.02	13	9.81	17	12.83
	B.C.	83	3.75	99	4.47	45	2.03	144	6.50
Total	Indian	11	4.07	12	4.44	25	9.26	37	13.70
	B.C.	186	4.10	224	4.94	108	2.38	332	7.32

Note: Total number of births in B.C., 1990
- Status Indian 2 700
- Provincial 45 333
Source: Vital Statistics

Table 68
INFANT MORTALITY
STATUS INDIANS VS. BRITISH COLUMBIA POPULATION, 1991

Sex	Indian/ B.C.	Age at Death							
		Early Neonatal		Neonatal		Post Neonatal		Total Infants	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	Indian	2	1.37	3	2.06	15	10.30	18	12.36
	B.C.	82	3.53	94	4.04	81	3.48	175	7.53
Female	Indian	4	2.98	6	4.47	11	8.20	17	12.67
	B.C.	52	2.36	64	2.90	45	2.04	109	4.94
Total	Indian	6	2.14	9	3.22	26	9.29	55	12.51
	B.C.	134	2.96	158	3.49	126	2.78	284	6.27

Note: Total number of births in B.C., 1991
- Status Indian 2 798
- Provincial 45 310
Source: Vital Statistics

Table 69
INFANT MORTALITY
STATUS INDIANS VS. BRITISH COLUMBIA POPULATION, 1992

Sex	Indian/ B.C.	Age at Death							
		Early Neonatal		Neonatal		Post Neonatal		Total Infants	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
Male	Indian	3	2.17	4	2.89	17	12.28	21	15.17
	B.C.	91	3.89	107	4.58	63	2.69	170	7.27
Female	Indian	5	3.90	6	4.68	604	4.68	12	9.37
	B.C.	58	2.60	63	2.82	39	1.75	102	4.57
Total	Indian	8	3.00	10	3.75	23	8.63	33	12.38
	B.C.	149	3.26	170	3.72	102	2.23	272	5.95

Total number of live births in B.C., 1992
- Status Indian: 2 665
- Provincial: 45 710
Source: Vital Statistics

Table 70
MAJOR LEADING CAUSES DF DEATH
STATUS INDIAN VS. 8RITISH CDLUM8IA PDPULATION, 1987

Cause of Death (ICD9 Code	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		8.C.		Ratio	Status Indian		8.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ 8.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
Diseases of the Heart* (390-398, 402,404, 410-429)	36	18.00	3 600	17.60	1.02	30	15.90	2 880	12.80	1.24	66	17.00	6 480	15.10	1.13
Malignant Neoplasms (140-208)	17	8.20	2 989	15.00	0.55	24	12.00	2 568	12.50	0.96	41	10.10	5 557	13.70	0.74
Carebrovascular Disease (430-438)	12	5.90	743	3.60	1.64	8	4.70	998	4.40	1.07	20	5.30	1 741	4.00	1.33
Accidents** (E800-E949, E970-E999)	69	18.60	909	5.70	3.26	23	6.70	422	2.40	2.79	92	12.60	1 331	4.00	3.15
Suicide (E950-E959)	22	5.10	319	1.90	2.68	7	1.70	96	0.50	3.40	29	3.40	415	1.20	2.83
Total	156	55.80	8 560	43.80	1.27	92	41.00	6 964	32.60	1.26	248	48.40	15 524	38.00	1.27

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
* excluding ICD9 392.9 Code
** excluding Suicide and Homicide

Table 71
MAJDR LEADING CAUSES DF DEATH
STATUS INDIAN VS. 8RITISH CDLUM8IA POPULATION, 1988

Cause of Death (ICD9 Code	Male					Female					Total				
	Status Indian		8.C.		Ratio	Status Indian		8.C.		Ratio	Status Indian		8.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
Diseases of the Heart* (390-398, 402,404, 410-429)	48	23.30	3 516	16.70	1.40	18	8.90	2 788	12.00	0.74	66	16.20	6 304	14.30	1.13
Malignant Neoplasms (140-208)	28	13.50	3 159	15.30	0.88	23	10.40	2 768	13.00	0.80	51	12.10	5 927	14.10	0.86
Carebrovascular Disease (430-438)	9	4.00	782	3.60	1.11	13	5.30	1 058	4.60	1.15	22	4.60	1 840	4.10	1.12
Accidents** (E800-E949, E970-E999)	55	15.60	857	5.30	2.94	47	10.90	404	2.20	4.95	102	13.10	1 261	3.80	3.45
Suicide (E950-E959)	22	5.50	313	1.90	2.89	5	1.30	94	0.50	2.60	27	3.30	407	1.20	2.75
Total	162	61.90	8 627	42.80	1.45	106	36.80	7 112	32.30	1.14	268	49.30	15 739	37.50	1.31

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
* excluding ICD9 392.9 Code
** excluding Suicide and Homicide

Table 72
MAJDR LEADING CAUSES DF DEATH
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1989

Cause of Death (ICD9 Code	Male					Female					Total				
	Status Indian		8.C.		Ratio	Status Indian		8.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ 8.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ 8.C.
Diseases of the Heart* (390-398, 402,404, 410-429)	43	19.10	3 512	16.00	1.19	25	10.90	2 805	11.60	0.94	68	14.90	6 317	13.80	1.08
Malignant Neoplasms (140-208)	25	11.50	3 315	15.50	0.74	44	18.60	2 845	13.00	1.43	69	15.00	6 160	14.20	1.06
Carebrovascular Disease (430-438)	12	5.70	795	3.60	1.58	16	6.80	1 000	4.20	1.62	28	6.20	1 795	3.90	1.59
Accidents** (E800-E949, E970-E999)	69	17.60	801	4.80	3.67	40	9.50	398	2.10	4.52	109	13.40	1 199	3.40	3.94
Suicide (E950-E959)	28	6.20	314	1.90	3.26	9	1.90	99	0.60	3.17	37	4.00	413	1.20	3.33
Total	177	60.10	8 737	41.80	1.44	134	47.70	7 147	31.50	1.51	311	53.50	15 884	36.50	1.47

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
* excluding ICD9 392.9 Code
** excluding Suicide and Homicide

Table 73
MAJDR LEADING CAUSES OF DEATH
STATUS INDIAN VS. 8RITISH COLUMBIA POPULATIDN, 1990

Cause of Death (ICD9 Code	Male					Female					Total				
	Status Indian		8.C.		Ratio	Status Indian		8.C.		Ratio	Status Indian		8.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
Diseases of the Heart* (390-398, 402,404, 410-429)	83	34.70	3 508	15.40	2.25	42	17.60	2 856	11.40	1.54	125	25.70	6 364	13.30	1.93
Malignant Neoplasms (140-208)	56	23.10	3 319	14.90	1.55	48	18.20	2 895	12.80	1.42	104	20.70	6 214	13.80	1.50
Carebrovascular Disease (430-438)	23	9.80	818	3.50	2.80	12	5.10	1 101	4.40	1.16	35	7.40	1 919	4.00	1.85
Accidents** (E800-E949, E970-E999)	91	22.10	970	5.50	4.02	36	8.60	442	2.20	3.91	127	14.80	1 412	3.90	3.79
Suicide (E950-E959)	26	5.60	284	1.50	3.73	4	1.10	90	0.50	2.20	30	3.30	374	1.00	3.30
Total	279	95.30	8 899	40.80	2.34	142	50.60	7 384	31.30	1.62	421	71.90	16 283	36.00	2.00

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
2* excluding ICD9 392.9 Code
** excluding Suicide and Homicide

Table 74
MAJOR LEADING CAUSES OF DEATH
STATUS INDIAN VS. BRITISH COLUMBIA PDPULATIDN, 1991

Cause of Death (ICD9 Code	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
Diseases of the Heart* (390-39B, 402,404, 410-429)	66	27.60	3 599	15.20	1.82	41	16.B0	2 942	11.20	1.50	107	21.90	6 541	13.20	1.66
Malignant Neoplasms (140-20B)	51	20.90	3 43B	15.00	1.39	43	17.30	2 917	12.50	1.38	94	1B.B0	6 355	13.70	1.37
Carebrovascular Disease (430-43B)	10	4.50	B70	3.60	1.25	21	B.30	1 114	4.30	1.93	31	6.40	1 984	4.00	1.60
Accidents** (EB00-E949, E970-E999)	87	20.50	91B	5.00	4.10	42	10.60	473	2.30	4.61	129	15.30	1 391	3.70	4.14
Suicide (E950-E959)	37	7.60	352	1.90	4.00	7	1.30	91	0.50	2.60	44	4.40	443	1.20	3.67
Total	251	B1.10	9 177	40 70	1.99	154	54.30	7 537	30.80	1.76	405	66.B0	16 714	35.B0	1.87

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
* excluding ICD9 392.9 Code
** excluding Suicide and Homicide

Table 75
MAJDR LEADING CAUSES OF DEATH
STATUS INDIAN VS. BRITISH COLUMBIA PDPULATION, 1992

Cause of Death (ICD9 Code	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
Diseases of the Heart* (390-39B, 402,404, 410-429)	68	27.60	3 661	15.00	1.84	48	19.80	2 883	10.B0	1.83	116	23.50	6544	12.90	1.82
Malignant Neoplasms (140-20B)	58	23.40	3 462	14.60	1.60	41	15.10	2 920	12.10	1.25	99	19.10	63B2	13.30	1.44
Carebrovascular Disease (430-43B)	1B	7.10	841	3.40	2.09	2B	10.10	1 124	4.20	2.40	46	B.60	1965	3.B0	2.26
Accidents** (E800-E949, E970-E999)	90	20.80	845	4.60	4.52	34	7.10	420	2.00	3.55	124	13.40	1265	3.30	4.06
Suicide (E950-E959)	33	6.90	349	1.90	3.63	10	2.00	99	0.50	4.00	43	4.40	448	1.20	3.67
Total	267	85.80	9 158	39.50	2.17	161	54.10	7 446	29.60	1.B3	428	69.00	16604	34.50	2.00

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
* excluding ICD9 392.9 Code
** excluding Suicide and Homicide

Table 76
MORTALITY BY MOTOR VEHICLE TRAFFIC ACCIDENT
STATUS INDIAN VS. BRITISH COLUMBIA PDPULATIDN, 19B7

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	5	1.26	20	0.20	6.30	3	0.56	16	0.15	3.73	8	0.91	36	0.17	5.35
15-24	1B	4.02	140	1.1B	3.41	4	0.B9	40	0.35	2.54	22	2.44	180	0.77	3.17
25-44	13	2.94	136	0.73	4.03	6	1.19	43	0.22	5.41	19	2.01	179	0.47	4.28
45-64	3	1.36	65	0.41	3.32	2	0.90	33	0.21	4.29	5	1.11	98	0.32	3.47
65+	1	0.54	43	0.20	2.70	0	0.00	26	0.11	0.00	1	0.29	69	0.15	1.93
Total	40	10.12	404	2.72	3.72	15	3.54	158	1.05	3.38	55	6.76	562	1.88	3.60

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 77
MORTALITY BY MOTOR VEHICLE TRAFFIC ACCIDENT
STATUS INDIAN VS. BRITISH COLUMBIA POPULATIDN, 1988

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	0	0.00	16	0.17	0.00	4	0.77	11	0.10	7.70	4	0.3B	27	0.13	2.92
15-24	6	1.31	135	1.16	1.13	9	1.95	39	0.34	5.74	15	1.63	174	0.75	2.17
25-44	9	1.78	11B	0.62	2.87	12	1.99	40	0.21	9.48	21	1.B9	15B	0.41	4.61
45-64	6	2.71	57	0.35	7.74	1	0.48	25	0.15	3.20	7	1.53	B2	0.25	6.12
65+	1	0.51	3B	0.17	3.00	0	0.00	48	0.20	0.00	1	0.27	B6	0.1B	1.50
Total	22	6.31	364	2.45	2.58	26	5.19	163	1.00	5.19	48	5.69	527	1.73	3.29

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 78
MORTALITY BY MOTOR VEHICLE TRAFFIC ACCIDENT
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 19B9

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	0	0.00	20	0.18	0.00	1	0.19	B	0.07	2.71	1	0.09	28	0.12	0.75
15-24	11	2.31	119	1.01	2.29	7	1.56	34	0.30	5.20	18	1.94	153	0.66	2.94
25-44	11	1.98	120	0.60	3.30	9	1.45	51	0.25	5.80	20	1.70	171	0.42	4.05
45-64	4	1.50	45	0.27	5.56	4	1.47	24	0.15	9.80	8	1.46	69	0.21	6.95
65+	3	1.47	34	0.15	9.80	0	0.00	2B	0.11	0.00	3	0.76	62	0.13	5.85
Total	29	7.26	338	2.21	3.29	21	4.67	145	0.88	5.31	50	5.95	483	1.54	3.86

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 79
MORTALITY BY MOTOR VEHICLE TRAFFIC ACCIDENT
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1990

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	6	1.36	19	0.18	7.56	1	0.24	9	0.09	2.67	7	0.80	28	0.14	5.71
15-24	9	1.87	110	0.93	2.01	4	0.B5	27	0.24	3.54	13	1.37	137	0.59	2.32
25-44	22	4.07	173	0.84	4.85	8	1.18	38	0.18	6.56	30	2.51	211	0.51	4.92
45-64	7	2.69	59	0.34	7.91	0	0.00	32	0.19	0.00	7	1.20	91	0.27	4.44
65+	0	0.00	39	0.16	0.00	0	0.00	33	0.13	0.00	0	0.00	72	0.14	0.00
Total	44	9.99	400	2.46	4.06	13	2.28	139	0.83	2.75	57	5.88	539	1.64	3.59

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 80
MORTALITY 8Y MOTOR VEHICLE TRAFFIC ACCIDENT
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1991

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	0	0.00	11	0.10	0.00	0	0.00	4	0.04	0.00	0	0.00	15	0.07	0.00
15-24	14	2.81	117	0.97	2.90	2	0.43	29	0.25	1.72	16	1.63	146	0.61	2.67
25-44	1B	3.10	135	0.64	4.84	B	1.27	42	0.19	6.6B	26	2.14	177	0.41	5.22
45-64	3	1.10	44	0.24	4.5B	3	0.87	27	0.16	5.44	6	0.97	71	0.20	4.85
65+	1	0.45	39	0.15	3.00	2	0.92	31	0.12	7.67	3	0.69	70	0.13	5.31
Total	36	7.48	346	2.10	3.56	15	3.50	133	0.78	4.61	51	5.43	479	1.43	3.80

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 81
MORTALITY BY MOTOR VEHICLE TRAFFIC ACCIDENT
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1992

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	0	0.00	14	0.13	0.00	0	0.00	8	0.07	0.00	0	0.00	22	0.10	0.00
15-24	9	1.86	100	0.82	2.27	4	0.83	30	0.25	3.32	13	1.35	130	0.54	2.50
25-44	15	2.62	106	0.49	5.35	9	1.37	37	0.16	8.56	24	I.94	143	0.33	5.88
45-64	5	1.63	43	0.23	7.09	1	0.24	17	0.09	2.67	6	0.85	60	0.16	5.31
65+	1	0.44	21	0.08	5.50	0	0.00	39	0.14	0.00	1	0.22	60	0.11	2.00
Total	30	6.55	2B4	1.76	3.72	14	2.43	131	0.72	3.38	44	4.36	415	1.24	3.52

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 82
MORTALITY BY SUICIOE
STATUS INOIAN VS. 8RITISH COLUMBIA POPULATION, 19B7

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind / B.C.
< 14	0	0.00	1	0.01	0.00	0	0.00	0	0.00	0.00	0	0.00	1	0.01	0.00
15-24	12	2.80	44	0.37	7.57	3	0.65	7	0.06	10.83	15	1.72	51	0.21	8.19
25-44	9	1.72	130	0.69	2.49	4	1.03	36	0.19	5.42	13	1.35	166	0.44	3.07
45-64	0	0.00	95	0.60	0.00	0	0.00	32	0.21	0.00	0	0.00	127	0.41	0.00
65+	1	0.54	49	0.23	2.35	0	0.00	21	0.09	0.00	1	0.29	70	0.16	1.81
Total	22	5.05	319	1.90	2.66	7	1.68	96	0.55	3.05	29	3.36	415	1.22	2.75

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 83
MORTALITY BY SUICIOE
STATUS INOIAN VS. BRITISH COLUMBIA POPULATION, 1988

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind / B.C.
< 14	0	0.00	1	0.01	0.00	1	0.27	1	0.01	27.00	1	0.13	2	0.01	13.00
15-24	13	2.82	60	0.51	5.53	1	0.20	9	0.08	2.50	14	1.51	69	0.30	5.03
25-44	6	1.22	127	0.66	1.85	2	0.31	41	0.20	1.55	8	0.74	168	0.43	1.72
45-64	2	0.93	85	0.52	1.79	1	0.48	27	0.18	2.67	3	0.69	112	0.35	1.97
65+	1	0.51	40	0.18	2.83	0	0.00	16	0.07	0.00	1	0.27	56	0.12	2.25
Total	22	5.49	313	1.88	2.92	5	1.26	94	0.54	2.33	27	3.34	407	1.21	2.76

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 84
MORTALITY 8Y SUICIOE
STATUS INOIAN VS. 8RITISH COLUMBIA POPULATION, 1989

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	0	0.00	6	0.06	0.00	2	0.52	2	0.02	26.00	2	0.26	8	0.04	6.50
15-24	12	2.57	65	0.55	4.67	2	0.43	13	0.11	3.91	14	1.51	78	0.33	4.58
25-44	12	2.00	135	0.6B	2.94	4	0.60	35	0.17	3.53	16	1.26	170	0.42	3.00
45-64	4	1.62	72	0.43	3.77	1	0.39	22	0.14	2.79	5	0.95	94	0.29	3.28
65+	0	0.00	35	0.15	0.00	0	0.00	27	0.11	0.00	0	0.00	62	0.13	0.00
Total	28	6.20	313	1.87	3.32	9	1.94	99	0.55	3.53	37	3.98	412	1.21	3.29

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table B5
MORTALITY BY SUICIOE
STATUS INOIAN VS. 8RITISH COLUMBIA POPULATION, 1990

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	0	0.00	0	0.00	0.00	0	0.00	1	0.01	0.00	0	0.00	1	0.01	0.00
15-24	12	2.37	38	0.32	7.41	2	0.46	9	0.08	5.75	14	1.43	47	0.20	7.15
25-44	11	2.08	137	0.65	3.20	1	0.21	37	0.17	1.24	12	1.07	174	0.40	2.68
45-64	2	0.70	63	0.37	1.89	0	0.00	22	0.13	0.00	2	0.31	85	0.25	1.24
65+	1	0.46	46	0.19	2.42	1	0.48	21	0.08	6.00	2	0.47	67	0.13	3.62
Total	26	5.61	284	1.53	3.67	4	1.15	90	0.47	2.45	30	3.27	374	1.00	3.27

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

Table 86
MORTALITY BY SUICIDE
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1991

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	0	0.00	2	0.02	0.00	0	0.00	1	0.01	0.00	0	0.00	3	0.01	0.00
15-24	17	3.54	60	0.50	7.08	3	0.66	8	0.07	9.43	20	2.11	68	0.28	7.54
25-44	17	2.87	157	0.73	3.93	4	0.59	40	0.18	3.28	21	1.66	197	0.45	3.69
45-64	1	0.31	70	0.39	0.79	0	0.00	25	0.15	0.00	1	0.14	95	0.27	0.52
65+	2	0.91	63	0.25	3.64	0	0.00	17	0.06	0.00	2	0.46	80	0.15	3.07
Total	37	7.63	352	1.88	4.06	7	1.26	91	0.47	2.68	44	4.36	443	1.17	3.75

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

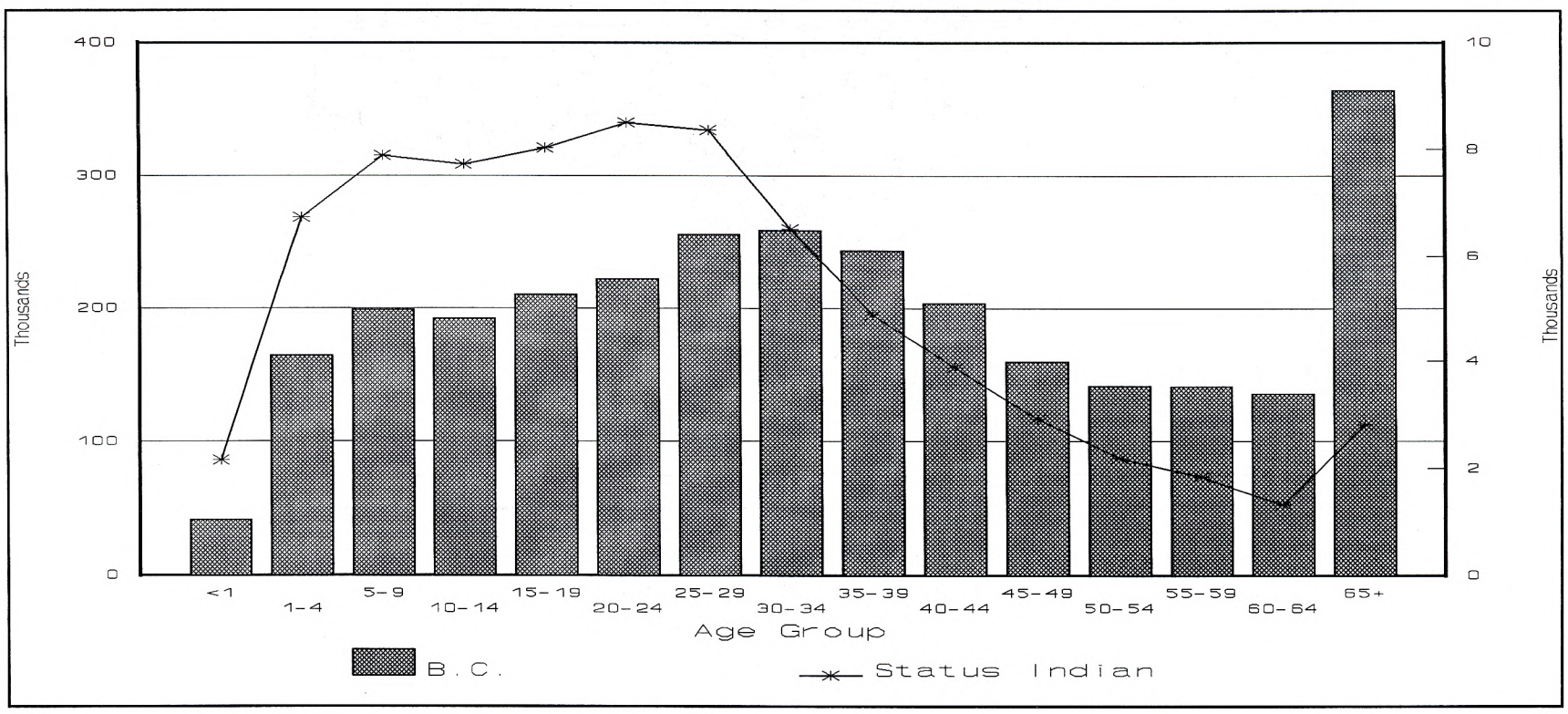
Table 87
MORTALITY BY SUICIDE
STATUS INDIAN VS. BRITISH COLUMBIA POPULATION, 1992

Age Group (In Years)	Male					Female					Total				
	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio	Status Indian		B.C.		Ratio
	No.	ASMR	No.	ASMR	IND/ B.C.	No.	ASMR	No.	ASMR	Ind/ B.C.	No.	ASMR	No.	ASMR	Ind./ B.C.
< 14	1	0.25	2	0.02	12.50	0	0.00	0	0.00	0.00	1	0.13	2	0.01	13.00
15-24	10	2.09	58	0.48	4.35	4	0.87	15	0.12	7.25	14	1.48	73	0.30	4.93
25-44	18	3.02	155	0.71	4.25	4	0.69	40	0.18	3.83	22	1.79	195	0.44	4.07
45-64	2	0.64	90	0.48	1.33	2	0.47	26	0.14	3.36	4	0.54	116	0.32	1.69
65+	2	0.88	44	0.17	5.18	0	0.00	18	0.07	0.00	2	0.44	62	0.12	3.67
Total	33	6.87	349	1.86	3.69	10	2.03	99	0.51	3.98	43	4.38	448	1.18	3.71

Note: ASMR: Age Standardized Mortality Rate Per 10 000 Standard Population
Source: Vital Statistics

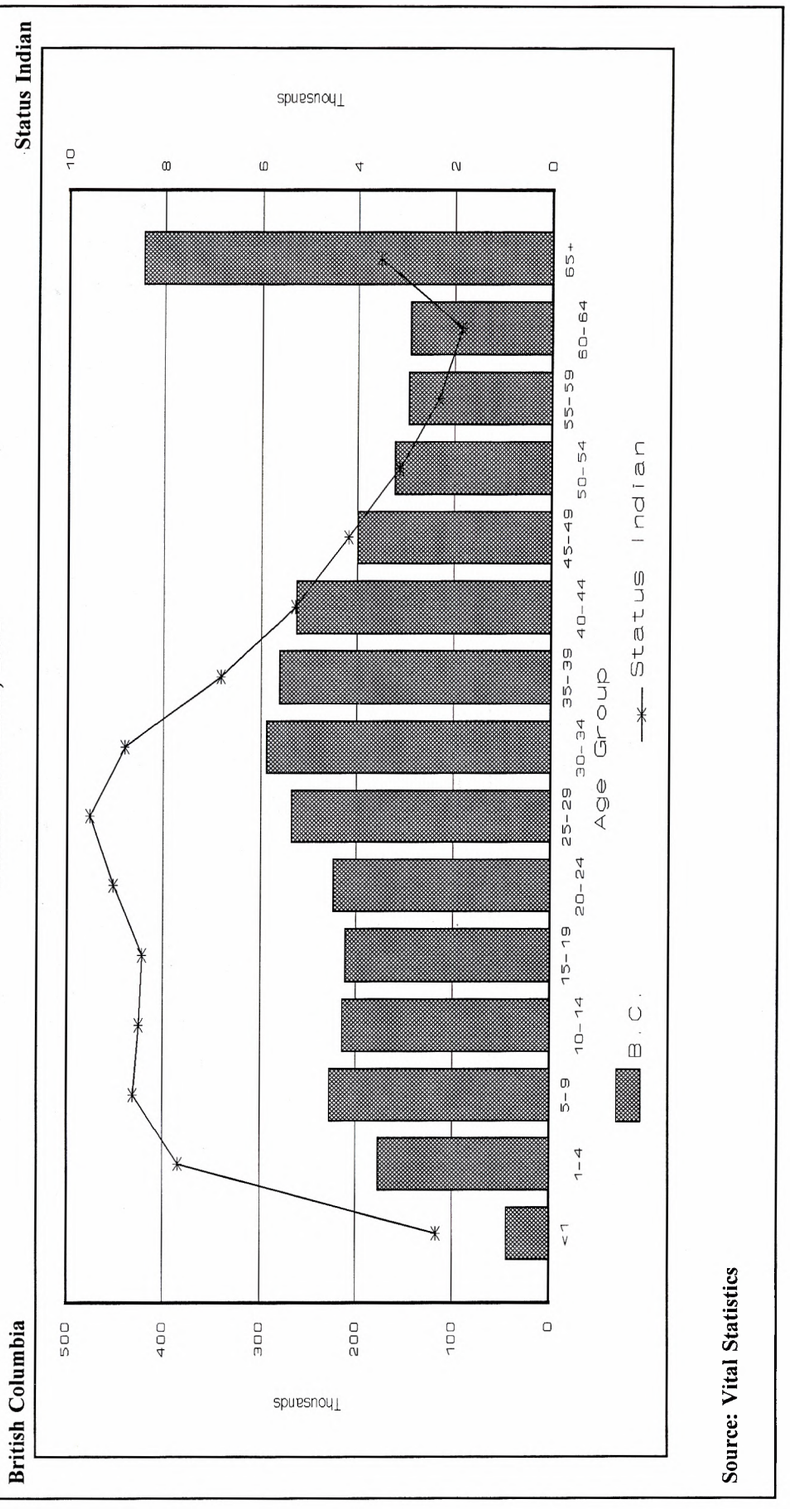
Appendix D: Graphs

Figure 45
Population by Age Group
Status Indian vs. B.C., Both Genders
British Columbia, 1987



Source: Vital Statistics

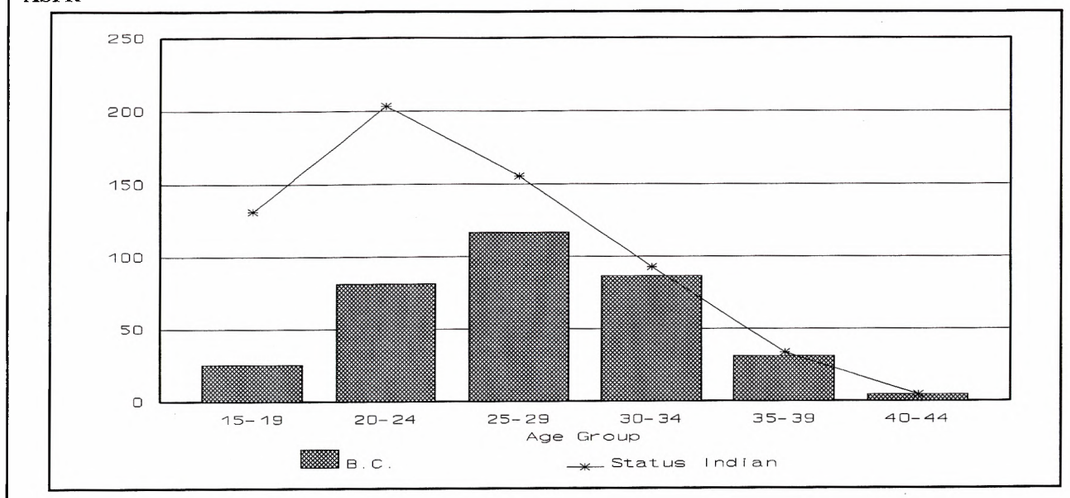
Figure 46
Population by Age Group
Status Indian vs. B.C., Both Genders
British Columbia, 1991



British Columbia

Source: Vital Statistics

Figure 47
Live Birth Fertility Rate
Status Indian vs. B.C.,
British Columbia, 1991



Note: Rate per 1000 Childbearing Female Population
Source: Vital Statistics