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Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Dehghani K, Lan Z, Li P, et al. Determinants of tuberculosis trends in six Indigenous populations of the USA, Canada, and Greenland from 1960 to 2014: a population-based study. *Lancet Public Health* 2018; published online Feb 6. http://dx.doi.org/10.1016/S2468-2667(18)30002-1.

Supplement – Tables, Notes and detailed information for the 7 populations.

Table S1: Summary of timing of three TB-specific Population-wide interventions in the 6 indigenous populations

Population	Routine BCG Vaccination in Infancy		Active Case finding through periodic Chest radiography		Population wide Testing and treatment of Latent TB (INH)	
	Year started	**Year stopped**	**Year started**	**Year stopped**	**Year started**	**Year stopped**
Alaska (American Indian and Alaskan Native), U.S.A.	1936	1953	1936	1975	1957	1970
Alberta First Nations, Canada	1948	2004	1943	1975	None	---
Eeyou Istchee (Cree Territory of James Bay, Quebec), Canada	1946	2004	1946 1982	1977 1986	1982	1986
Greenland	1941 1997	1991 Present*	1955 2007	1971 Present*	None	---
Nunavut, Canada	1965	Present	1960	1975	1967	1982
Nunavik (Quebec), Canada	**1970**	2004	1964	1980	1982	1984

* BCG vaccination was reintroduced through-out Greenland in 1997, and active case finding through chest radiography was reintroduced in 2007 in South Greenland only.

Table S2a. Summary of available data on TB and general health indicators in the study populations from 1960 to 2014 (Indicators measured in same way in different years/populations – unless marked)

	Indigenous: Non-recrudescence			Indigenous: Recrudescence			Canada – General population
	Alaska	Alberta	Cree	Greenland	Nunavik	Nunavut	
Indigenous populations							
Total indigenous population – in 2014	138,312	116,670	16,365	50,229	12,090	27,070	33,467,000
TB Notifications (Notifications of all forms of TB per 100,000 population)							
Year of first available data	1960	1960	1973	1960	1960	1960	1960
Rate in first year	442	489	428	709	2368	1233	55
Rate in 2014	38	11	11	186	270	230	4
Average annual % change over entire interval with available data (95%CI)	-4 (-7, -2)	-6 (-9, -4)	-2 (-12, 7)	-2 (-6, 3)	-2 (-8, 4)	-2 (-6, 3)	-5 (-5, -4)
Average annual % change from 1980-2014 (95%CI)	-2 (-5, 0.5)	-7 (-10, -4)	-2 (-13, 10)	5 (0.2, 10)	3.0 (-5, 11)	5 (-1, 11)	-3 (-3, -2)
Life expectancy (average years for men and women, at birth)							
Year of first available data	1960	1965	1970	1960	1960	1960	1960
Value in first year	60	65	72	60	59	51	71
Value in 2014	71	72	78	71	68	73	81
Average annual % change over entire interval with available data (95%CI)	1·6 (0·8, 2·3)	1·1 (-0·0, 2·2)	0·9 (-0·0, 1·9)	1·7 (0·7, 2·6)	1·5 (-0·3, 3·3)	3·9 (-1·8, 9·6)	1·3 (1·0, 1·5)
Average annual % change from 1980-2014 (95%CI)	1·3 (0·4, 2·2)	0·9 (-0·5, 2·3)	0·9 (-0·3, 2·1)	2·2 (1·5, 2·9)	1·5 (-1·2, 4·2)	1·5 (-0·7, 3·7)	1·2 (0·9, 1·4)
Infant mortality (deaths in 1st year of life per 1000 live birth)							
Year of first available data	1960	1960	1975	1960	1960	1960	1960
Value in first year	60	61	40	68	156	157	27
Value in 2014	9	10	15	9	26	22	5
Average annual % change over entire interval with available data (95%CI)	-16 (-25, -7)	-15 (-24, -6)	-3 (-38, 32)	-18 (-26, -9)	-13 (-29, 3)	-14 (-32, 5)	-15 (-21, -10)
Average annual % change from 1980-2014 (95%CI)	-10 (-19, 0)	-7 (-17, 4)	2 (-38, 42)	-19 (-30, -8)	-6 (-28, 15)	-2 (-26, 23)	-10 (-15, -5)

Average annual percent changes = [100(value in year N - value in year N-1)/value in year N-1]

Table S2b. Summary of available data on other health indicators in the study populations from 1960 to 2014
(Indicators measured in same way in different years/populations – unless marked)

	Indigenous: Non-recrudescence			Indigenous: Recrudescence			Canada – General population
	Alaska	Alberta	Cree	Greenland	Nunavik	Nunavut	
Diabetes (prevalence of diabetes in adults, from registry information)							
Year first available data	2000	1995	1985		1990	1985	1995
Prevalence in first year of data (%)	3·8	10.4	5.2		3·2	0·5	4·5
Prevalence in 2014 (%)	4·4	13·2	23·4		6·0	4·8	8·1
Average % change every 5-year (95%CI)	8 (3, 12)	13 (7, 18)	36 (20, 52)		23 (21, 26)	76 (-15, 166)	35 (4, 66)
***** Data for Nunavik is self-reported age 15+ prevalence, data for Greenland is not available, and data for the rest of the jurisdictions are from local or national diabetes registry (Alaska: age-adjusted prevalence. Alberta: age 30+ crude prevalence. Cree: age 20+ crude prevalence. **Nunavut**: age 20+ crude prevalence. Canada: 20+ age-adjusted prevalence). **Alaska**: Age-adjusted prevalence: diabetes registry Alaska Native Medical Center, CDC; **Alberta**: Age-adjusted ABORIGINAL AB 20+: based on Alberta diabetes surveillance system; **Cree**: Prevalence Cree 20+: from 1997 CDIS diabetes registry - before 1997 other chart review and chronic disease registry; **Nunavik**: Self-report of HCW diagnosis: Prevalence 15+; **Nunavut**: Crude prevalence 20+ Inuit: from diabetes registry before 2009 called NDSS and after 2009 called CCDSS; **Canada general**: registry: Prevalence pop 20+ Age-standardized prevalence: NDSS							
Obesity (prevalence of obesity among adults)							
Year first available data	1985	2000	1980	1980	1980	2000	1980
Prevalence in first year of data (%)	18	30	33	4	11	20	11
Year most recent data	2014	2009	2009	2009	2014	2014	2014
Prevalence in last year of data (%)	34	36	70	22	26	24	18
Average % change - every 5-years (95%CI)	14 (1, 27)	4 (1,8)	17 (7, 27)	48 (0·5, 95)	17 (3, 32)	12 (6, 18)	10 (-3, 24)
Smoking (prevalence of adults currently smoking)							
Year first available data	1990	1990	1980	1990	1980	1985	1980
Prevalence (%)	46	59	50	88	75	76	35
Year most recent data	2014	2009	2009	2009	2014	2014	2014
Prevalence (%)	37	65	56	68	77	73	20
Average % change - every 5-years (95%CI)	-5 (-11, 1)	3 (2, 4)	2 (-3, 8)	-8 (-11, -5)	0·5 (-3, 4)	-3 (-7, 2)	-9 (-11, -6)
Alcohol (Prevalence of adults reporting binge drinking)							
Year first available data	1990	2000	1990		1990	2000	1990
Prevalence (%)	26	40	18		28	20	14
Year most recent available data	2014	2009	2004		2014	2014	2014
Prevalence (%)(95%CI)	20	39	29		34	22	18
Average % change every 5-years	-6 (-17, 6)	-1 (-10, 8)	29 (21, 37)		11 (-28, 49)	4 (-4, 12)	8 (-10, 27)

Table S2c. Summary of available data on socioeconomic indicators in the study populations from 1960 to 2014
(Indicators measured in same way in different years/populations – unless marked)

	Indigenous: Non-Recrudescence			Indigenous: Recrudescence			Canada – General population
	Alaska	Alberta	Cree	Greenland	Nunavik	Nunavut	
Housing - Crowding (persons per room)							
Year first available data		1980	1980	2000	1980	1980	1980
Average persons per room		1·2	1·2	0·9	2·3	1·5	0·5
Year most recent available data		2014	2014	2014	2014	2014	2014
Average persons per room		0·8	0·8	0·8	0·9	0·8	0·4
Average % every 5-year change (95%CI)		-7 (-9, -4)	-6 (-16, 4)	-6 (-16, 5)	-11 (-30, 8)	-10 (-17, -2)	-4 (-7, -1)
Education (% of adult with high school diploma)							
Year first available data	1980	1985	1980	2000	1980	1985	1980
% of Adults	46	28	25	25	14	15	49
Year most recent available data	2014	2014	2014	2014	2014	2014	2014
% of Adults	81	60	57	33	40	39	83
Average % every 5-year change (95%CI)	10 (4, 16)	16 (8, 25)	15 (7, 23)	17 (15, 19)	37 (-41, 115)	27 (-9, 63)	9 (5, 13)
Employment (% of adults who are unemployed)							
Year first available data	1980	1985	1980	1990	1985	1985	1980
% of Adults	20	31	19	12	14	34	7
Year most recent available data	2014	2014	2014	2014	2014	2014	2014
% of Adults	21	17	14	9	16	23	8
Average % every 5-year change (95%CI)	1 (-5, 6)	-10 (-26, 7)	2 (-31, 35)	-3 (-32, 27)	4 (-13, 20)	-9 (-21, 4)	3 (-15, 21)
Native language (% of speaking native language at home)							
Year first available data	1990	1985	1980	1995	1995	1995	
Value	36	40.4	92	92	96	77·1	
Year most recent available data	2014	2009	2014	2014	2014	2014	
Value	32·3	14·7	84·6	94	95	61	
Average % every 5-year change (95%CI)	-3 (-8, 3)	-18 (-53, 17)	-1 (-3, 0·2)	2·2 (-1.0, 4.1)	-0·2 (-3, 2)	-5 (-20, 10)	
Health budget or expenditures (inflated and converted to 2014 $CAD) *							
Year first available data		1995	1980	1990	1980	1980	1980
Value		2970·01	3214·28	3678·969	10220·6	4676·39	2815·74
Year most recent available data		2014	2009	2014	2009	2014	2014
Value		2576·23	10950·72	4928·6102852	13130·29	13221·78	6003·04
Average % every 5-year change (95%CI)		-5 (-12, 3)	29 (8, 51)	8 (2, 14)	8 (-15, 30)	20 (8, 31)	14 (7, 20)

** Health budget/expenditures are for all services (not just TB related services). These are measured differently in all jurisdictions, so should **not** be compared across jurisdictions. In Canada and Nunavut (data from the NWT before 1995) this was health expenditure per capita (estimated over time by the Canadian Institute of Health Information), in Eeyou Itsche and Nunavik this was health expenses per capita (measured and followed over time by the Ministry of health in Quebec). In Greenland this was total health expenses per capita, and in Alberta this was total health budget for First Nations, per capita.*

GENERAL NOTE ON INDICATORS IN THIS STUDY:

Selection of Indicators:
For this study, we tried to find various indicators, as potential determinants of TB trends (including and mainly the recrudescence of TB in some but not all), in general categories of: health status (eg, life expectancy, suicide rate), lifestyle/health behavior (eg, smoking, alcohol binge drinking), health system characteristics (eg, number of physicians per population), socioeconomic status (eg, overcrowded housing, unemployment rate), and cultural continuity (the only indicator retained here, percentage of population using Indigenous language at home) in these Indigenous populations. We initially aimed for numerous different indicators in each category. However, after searching all data sources, and discussions with collaborators working with the six Indigenous populations, we had to drop many of these indicators as comparable data were not available for the proposed indicators in all these populations, or indicators were measured in different ways, or only once or twice over the many years of this study. Below, are examples (but not all) of the indicators in each category that were dropped at the onset of the study:

- Health status: Indicators of nutritional status (specifically vitamin D deficiency and iron deficiency anemia) are examples of indicators that had to be dropped in this category, due to lack of availability of data in most of these populations over time (and the questionable representativeness of available data mainly from small studies). Also, quality data on certain health indicators known to be associated with TB, like diabetes prevalence or HIV incidence, was not available before 1980.
- Lifestyle/health behavior: In this category we dropped the "drug use" indicator, as quality (valid) drug use data was not available for any of these populations over time. Also, when limited information was available, the indicator was not measured the same way in different populations (for example which types of drugs are included in the definition, and the frequency of use in the definition – in the past month vs. past year vs. life-time), and even in the same population over time.
- Health system: An example of an indicator that was dropped in this category is utilization of "Indigenous lay health workers" in the corresponding jurisdictions. This information was not available at the population level for all the study populations over time. Also, when data was available, training and extent of engagement of these lay health workers in each jurisdiction (eg, as part of a systematic programme) was different (and not always clear).
- Socioeconomic status: An example of an indicator that was dropped in this category is "food insecurity". This information was not collected in all of these study populations over time. Also, the definition of the indicator differed in various studies (between populations and in the same population over time (for example: surveys asking individuals about food availability in previous day/week, versus studies on bio-markers like vitamin D or Iron deficiency, versus measures of cost of "Northern food basket"). Even when two populations had similar-sounding indicators (for example, cost of Northern food basket in Nunavik and Cree Territory of James Bay), after reviewing the details of methodology, we concluded that the indicators were not really comparable. Another important indicator that we had to drop in this category was "income", for which was limited quality data was available over time and the definition changed over time. For example, the non-wage economy was important in these Indigenous populations in early years, and still remains important in some populations. We were not able to have comparable data on net income in these populations over time, due to other a variety of outside contributors like taxation (of some but not all of these Indigenous populations), social safety income sources, and supplemental income or support from traditional activities like hunting and fishing.
- Cultural continuity: Percentage of adults participating in traditional activities (like hunting, fishing, trapping and gathering) on a regular basis (during the past week/month) is an example of an indicator in this category that had to be dropped. This information was not collected consistently over many years in any population. Also, when available, the indicator was not comparable in different populations (or even the same population over time).

Total population:
This term generally refers to the total Indigenous population, and not necessarily the total population of a given jurisdiction. The Indigenous proportion of the population is taken from the census data. In Greenland, more than 80% of the population is Inuit and ethnically-based disaggregated data (ie, for Inuit) is generally not available. Hence, we either used the data for the total population or the population born in Greenland (depending on the data availability). In Nunavut, Nunavik and Eeyou Istchee where more than 80% of the total population is Indigenous, depending on availability of data, we used the data for Inuit (in Nunavik and Nunavut) or Cree (in Eeyou Istchee) populations, for the Aboriginal population or for the total population of these jurisdictions. For Alberta, we used the data for First Nations of this province. For comparison, we used the data for general (or total) population of Canada.

Annual TB notification rates per 100 000 population:
TB notification rate refers to cases of TB disease that are reported (eg, by local physicians or other health care workers) to the health authorities for regional/national surveillance purposes (ie, notifications received by health authorities). This is incidence for respiratory and non-respiratory TB disease. At times, we calculated the rates based on available information on counts of TB cases in a jurisdiction during a given year. In these cases, we used an average percentage population growth between each census period for the denominator.
For the total population of Canada, we abstracted information on percentage of reported respiratory (including laryngeal) TB, and the proportion confirmed microbiologically – meaning with a positive AFB smear, and/or positive culture and/or positive nucleic acid amplification test (NAAT) and/or histologic findings of necrotizing granulomas on a biopsy, from same sources. The percentage of respiratory and microbiologically-confirmed TB for the Canadian population was estimated for each 5-year period from 1960-2014. For the

total population of Alaska, we also found more recent data on percentage of microbiologically confirmed TB, and presented this information as 5-year averages from 1985-2014.
Information on International Classification of Diseases (ICD) versions used over the years for surveillance of TB disease (ICD-7 to ICD-10) in Canada was available and noted. TB rates are generally available (and presented) for every year from 1960 to 2014. According to the data from Statistics Canada, the percentage of microbiologically confirmed TB in Canada (total) was: about 50% in 1960's, about 70% in 1970's and about 80% thereafter. Grzybowski and Enarson (1986) reported that a high proportion of pulmonary cases in the "Aboriginal groups" had been bacteriologically confirmed from 1970-1981 in Canada. They detail that results of bacteriologic examination were not reported for only 5% of cases among First Nations, 8·2% among Inuit and 14·7% among other Indigenous groups in Canada.

Population-based TB control Interventions
From historical public health reports and published studies, we obtained information about date of initiation and cessation of three community-based TB prevention and control interventions in the Indigenous population in the respective jurisdictions, including: (1) Screening and treatment of latent TB infection; (2) case finding with chest x-rays (with or without sputum microscopy); and (3) BCG vaccination of infants. Although, the date of onset of these programs were generally evident, the exact date of cessation was not always clear. When the exact dates were not clear and we had a range estimate of dates, we used the last year of that range. All this information was sent to the public health stakeholders in the corresponding jurisdictions for verification.
It should be emphasized that we only considered LTBI screening and treatment programmes that were offered to the general population (and not based on each individual's risk factors for LTBI). Moreover, we only considered LTBI therapies that are considered to be effective based on current evidence (primarily daily isoniazid or INH at 300 mg for at least 6 months). It is important to note that, in principal, all the population-based LTBI therapy programmes included in this study were preceded by TST screening and CXR exam (for those with positive tuberculin skin test or TST). Hence, the population based LTBI treatment programme, included two TB prevention and control programmes in one as it also including active case finding with chest x-ray.
Although, the date of onset of these programmes were generally evident, the exact date of cessation was not always clear. When the exact dates were not clear and we had a range estimate of dates, we used the last year of that range. All this information was sent to the public health stakeholders in the corresponding jurisdictions for verification.

Average Life expectancy at birth
We assessed this indicator from 1960–2014 for all jurisdictions. Limited information was available for the population in Eeyou Istchee before 1980. We used reported average (or men and women) life expectancy at birth for each jurisdiction. Only for the First Nations of Alberta in 1965–69, we estimated the average life expectancy from available information on age group-specific population and mortality counts from public health reports.

Infant mortality rates per 1,000 live births
This indicator was assessed in different jurisdictions from 1960 to 2014. We used reported infant mortality rates (number of death during the first year of life per 1000 livebirth) for each jurisdiction. Limited information was available for the population in Eeyou Istchee before 1980. For the First Nations of Alberta during the period of 1960-79, we estimated the infant mortality rate based on counts of infant (≤1 year old) deaths and livebirth.

Prevalence and/or incidence of Diabetes in Adults:
This indicator (like other health system and socioeconomic indicators) was assessed from after 1980's to 2014, as these data became more available in different jurisdictions. Prevalence estimates were for adults (mainly aged 20+ or 25+, but if different, then we specified this information for the given jurisdiction/time period) and were based on several types of measures in different jurisdictions: (1) Direct measures of serum glucose – either fasting or oral glucose tolerance test (OGTT); (2) based on diagnosis recorded by physicians (either through chart review or through centralized diabetes registries); or (3) based on self-reported doctor diagnosis (ie,"Has a doctor ever told you that you had diabetes?").

For diabetes, much data was missing in different populations (and same population over time), plus the type information available varied differently between sites. Registry data was available from Nunavut, Alaska, Alberta, Canada, and Eeyou Istchee, and self-report of health care worker diagnosis was available for Alaska, Alberta, Canada, and Nunavik. The relationship between self-report of health care worker diagnosis and registry diagnosis was used to extrapolate registry data prevalence of diabetes for Nunavik. In Greenland, blood glucose information was available (ie, through oral glucose tolerance tests); the only other population with information on blood glucose was Nunavik. Hence, we used the values of fasting blood glucose from Nunavik and the values from Greenland to extrapolate self-report of health care workers for diabetes diagnosis for Greenland. We then applied this calculated value and the relationship between self-report and registry from Alaska, Alberta, and Canada to extrapolate registry based estimates diabetes for Greenland.

Prevalence of Obesity in adults.
This indicator was also assessed from after 1980's to 2014, as these data became more available in different jurisdictions. Generally-speaking, in different jurisdictions and over time, obesity was defined as having a body mass index (BMI) of 30 and higher. We used already reported prevalence of obesity in adults or adults with BMI of 30 and higher in different jurisdictions. These reported rates were mainly available from governmental surveys (preferable) or studies (if no official survey data were available). The latter source of

information often included data from limited number of participants who were often non-randomly sampled, and hence may not be representative of the respective target population. Height and weight information used to calculate BMI in these reports were mainly reported by individuals (and less often measured).
We did not include data on "overweight" (ie, BMI of 25-29) in this study. Again, the "adult" definition was slightly variable in different jurisdictions and over time, but generally included individuals aged 18+.

Cigarette consumption - percent of adults who are current smokers:
This indicator was also assessed from after 1980's to 2014, as these data became more available in different jurisdictions. The indicator is defined as proportion of Indigenous adults who report current cigarette smoking. Adults were defined as people aged 18+ in most reports, but in some jurisdictions the teenage population was also included – ie, those aged 12+, or 15+. Current is defined as consuming cigarettes on a daily or occasional basis within the last month.
From the correlation analysis, infant mortality, suicide, education, and diabetes were all significantly associated with smoking. Hence, we applied a model in Proc MI that uses these values to predict the missing values for smoking in each population.

Alcohol consumption – percent of adults who report binge drinking:
This indicator was assessed from after 1980's to 2014, as these data became more available in different jurisdictions. This indicator is meant to estimate current excessive alcohol consumption among Indigenous "adults" in different jurisdictions. The main source for this indicator are governmental surveys. A number of surveys in this study also included teenage population (aged 12+ or 15+). Also, different jurisdictions used different indicators over time periods. The main available indicator we considered for most jurisdictions over time is "binge drinking", which is defined as the percentage of individuals who reported drinking 5 or more standard alcoholic drinks at least once per month (or at least 12 times per year). In Alaska, adult binge drinking is defined as adults aged 18+ who have had 5 or more drinks (for men) or 4 or more drinks (for women) on one or more occasion in the past 30 days. A definition change was implemented in 2013 in Canada to conform with the World Health Organization (WHO) and Health Canada definitions for heavy drinking (ie, of males who reported having 5 or more drinks, or women who reported having 4 or more drinks, on one occasion, at least once a month in the past year). While this indicator remains comparable for males to the 5 or more drinks indicator published in previous years, it is no longer comparable for females.
Another available indicator was the percentage of individuals who reported current (within the last year) or habitual (within the last month) alcohol use. For Greenland, the only consistent measure of alcohol consumption available over time was "sales of liters of pure alcohol annually per inhabitant above 14 years". Hence, this co-variate was not used for Greenland in descriptive and unadjusted regression analysis.

Language used in the home:
Generally, this indicator refers to Indigenous language as language most often spoken at home. This indicator was assessed from after 1980's to 2014, as these data became more available in different jurisdictions. The indicator estimated the use of Indigenous language(s) by local Indigenous people. Most data are taken from the census. In Canada, the indicator's definition changed over time. In 2001 census the indicator was defined as percentage of the Aboriginal identity population with Aboriginal language(s) spoken at home. And, in 2006 and 2011 census, the definition changed to percentage of the Aboriginal identity population who speak an Aboriginal language most often at home.

Unemployment rates:
Standard definition of unemployment rate was used for individuals aged 15+ taken from the census data. This indicator (like other health system and socioeconomic indicators) was assessed from after 1980's to 2014, as these data became more available in different jurisdictions. For all jurisdictions (except for gen population of Canada, and for Greenland) this indicator was mainly for people of indigenous identity.

Educational attainment
This is % of Indigenous adults from a given jurisdiction who reported having finished high school and obtained a high school diploma. This indicator was assessed from after 1980's to 2014, as these data became more available in different jurisdictions. The definition of "adult" for this indicator varied in different jurisdictions and in different time periods for the same jurisdiction. Mainly this information was for people aged 20+ or 25+. However, at times, the percentage was for individuals aged 15+ (we used this only if the indicator for adults aged 20/25+ was not available). Also, at times (eg, for more recent years in Eeyou Istchee) the information was calculated for a given age group (eg, aged 20-65), rather than total population.

Overcrowded housing:
This information was assessed from 1980's to 2014, as these data became more available in different jurisdictions. In analysis of overcrowded housing in different populations, we used persons per room as this is available in 5 Indigenous populations (not AI/AN in Alaska) plus Canada. In order to predict the average number of person per room in Alaska, we used data from Alberta, Nunavut, Nunavik, and Eeyou Istchee where we had a common crowding indicator with Alaska (ie, percent of dwellings with more than 1 person per room) and the main indicator of interest (ie, number of person per room) to derive the relationship between these two indicators. We used this information to convert the values from Alaska of "percent of dwellings with more than 1 person per room" to "number of person per room".

Crowding was associated with life expectancy, suicide, obesity, education, employment, and binge alcohol use. Therefore, we used all of these indicators in Proc MI to predict the missing values for housing.

Physician per population
Refers to the number of medical doctors per total population in a given jurisdiction (reported per 100,000 population). This indicator was assessed from after 1980's to 2014, as these data became more available in different jurisdictions. The data for all Canadian jurisdictions are taken from the Canadian Institute for Health Information (CIHI), which assigns all physicians (family medicine and specialists) to health regions using their primary mailing postal code. The data for Alaska and Greenland were for all population of Alaska and Greenland, respectively (and not Indigenous-specific).

Per capita health expenditure or budget:
The indicators of health budget and health expenditure estimate the health system's financial resources for each jurisdiction. This information was assessed from after 1980's to 2014, as the data became available. These indicators are not measured the same in different jurisdictions. For general population of Canada and Nunavut the indicator of total health expenditure was measured and reported from 1980-2014 by the CIHI. For Nunavik and Eeyou Istchee, health expenditure indicator was estimated by the MSSS QC from 1981-2008. For First Nations of Alberta, limited data on health budget was available from 1999-2013. The data on health expenditure or health budget for Canadian jurisdictions were in CAD, and were calculated per capita and presented as one data point for each 5-year interval mainly from 1980-2014. These data were adjusted for inflation rate of year 2014. The health budget data for Greenland is in Danish Krone, and were also calculated per capita and adjusted for inflation rate of year 2014.
As this data was collected differently and included different information in different population, we only compared the change in health expenditure (or budget) in different populations over time.

HIV incidence
Number of new cases per year (or per multiple years) was available for all jurisdiction during more recent years (for Alaska from 1982,[1,2] Greenland from 1985,[3,4] Alberta /Eeyou Istchee/Nunavik from 2000,[5-8] Canada from 1975[9,10] and Nunvaut from 1991[11,12]). Except for First Nations of Alberta, HIV cases were not common in other jurisdictions (rare in Nunavut, Nunavik and Eeyou Istchee).

Percentage of multi-drug resistant TB (MDR TB)
Number of resistant TB cases (including MDR) was available for all jurisdictions during more recent years (for Alaska from 2000,[13] Alberta from 1988,[14,15] Eeyou Istchee from 1990,[16] Greenland from 1998,[17] Nunavik from 1980,[16] Nunavut from 1999,[18] and Canada from 1998) [14,19]. We calculated the percentage of MDR-TB (in respect to total TB incidence) for each jurisdiction. There have been no MDR-TB reported in Nunavik, Nunavut and Eeyou Istchee.

Additional information on psycho-active drug use (other than alcohol):
We initially aimed to include the prevalence of drug use in this study. However, we found that quality and comparable drug use data was not available for many of these populations over time. The indicator was not measured the same way in different populations (for example which types of drugs are included in the definition, and the frequency of use in the definition – in the past month vs. past year vs. life-time), and even in the same population over time. In order to address this question, we reviewed the preliminary data that we had collected in different populations. Our various jurisdictional collaborators also provided all available data, including data on death or hospitalization from drugs (to estimate the incidence of drug overdose). The available data indicate that binge alcohol drinking (data not available for Greenland) and marijuana use is prevalent in these Indigenous populations studied and significantly higher than the general population of Canada. In this study, we did not observe any significant difference in alcohol binge drinking between recrudescence and non-recrudescence populations. Moreover, the available data for these Indigenous populations also indicates that, except for the First Nations of Alberta (a non-recrudescence populations for TB), use of hard drugs (like cocaine, opioids) and toxicity deaths due to these drugs are not more common in the 5 other Indigenous populations studied, than in the reference general populations.
Additional information is described for each Indigenous population under their corresponding jurisdiction in this supplement.

ALASKA
In Alaska, the American Indian and Alaska Native (AI/AN) population is comprised of three major ethnic groups: Eskimo (57%), Aleut (11%), and Indian (32%).[20-22] Alaska Eskimo populations are further subdivided into the Yup'ik from southwestern Alaska and the Inupiat from northern Alaska. According to the 2010 census, the total Al/AN population was 138,312 (15% of the total population of Alaska).[22] Thirteen Alaska Native Regional Corporations were created after the Alaska Native Claims Settlement Act (ANCSA) was signed into law in 1971. Regional Alaska Tribal health organizations compact with the United States Indian Health Service to provide comprehensive health services to the Alaska Native population.

AI and AN Populations
In Alaska, we included the total AI/AN population as per census. We found the data for Alaska is particularly consistent for definitions and methods over the years of study.[20-24]

Annual TB notification rates per 100 000 population: Yearly notification rates in Alaska are for AI/AN from 1960 to 2014.[13,25-27]

Regarding microbiologically confirmed data, we had data for total population of Alaska (and not AI/AN specific): as such, from1985 to 2014, about 80-90% cases have been bacteriologically confirmed.[13]

Average Life expectancy at birth:
Reported for Al/AN from 1960-2014.[23,28,29]

Infant mortality:
Reported for AI/AN from 1960-2014.[30,31]

Suicide:
Reported rates for AI/AN from 1960-2014.[31,32]

Diabetes:
Two measures were available: (1) self-report of health care worker diagnosis for AI/AN aged 20+ from 1990-2014 (at least one data point for each 5 year period during this time span) [33] (Utermohle CJ, Alaska Department of Health and Social Services, personal communication); and (2) Age-adjusted diabetes prevalence for AI/AN from registry during 2000-2014 (at least one data point for each 5 year period during this time span).[34]

Obesity:
For 1980's the obesity prevalence was obtained from a study that included a sample of Alaskan native adults aged 18+ in Western Alaska.[35] The rest are reported data from Alaska Native Epidemiology Center for adults aged 18+ with BMI ≥ 30.[36]

Smoking:
Data is from Alaska Native Epidemiology Center for adults who are current smoking, defined as individuals aged 18+ who have smoked at least 100 cigarettes during their lifetime and who report smoking every day or some days.[37]

Alcohol:
In Alaska, ***Adult binge drinking*** is defined as adults aged 18+ who have had 5 or more drinks (for men) or 4 or more drinks (for women) on one or more occasion in the past 30 days. One (average) data point is reported for every 5-year-period from 1990-2014.[38]

Note: Additional supporting documents on other drug use in Alaska AI/AN are included in the references of this supplement.[39-43]

Indigenous language at home:
These are reported data from the census indicating percentage of AI/AN aged 5+ in Alaska who speak a another language (than English) at home.[44,45]

Unemployment rate:
All reported data is from the census, for anyone over the age of 16 years who has made an active attempt to find work in the four week period up to and including the week that includes the 12th of the referenced month (one average data point reported for each 5 year period between 1980-2014).[45-47]

Education:
This is percentage of AI/AN adults aged 25+ who report having finished high school and obtained a high school diploma (one average data point for each 5 year period from 1980-2014).[45,46,48]

Over-crowded housing:
In Alaska, the indicator available was the percentage of AI/AN individuals who reported living in households with > 1 person per room. One data point for the periods of 1980-4, 1990-94, 2000-04, 2005-09, and 2010-14.[49-51]

Health budget or expenditure:
We did not have access to this indicator specific to the AI/AN population of Alaska.

Physician per population:
For Alaska this indicator was for the entire population of Alaska (and not specific to AI/AN). We found the data for proportion of non-federal physicians per total population of Alaska for years 1986, 1994 and 2000 from the American Medical Association's reports.[52-54] We then found the total number of physicians (non-federal and federal) in Alaska during these years and calculated the percentage of non-federal physicians accordingly. We then recalculated the proportion of all physicians (non-federal and federal) for total population of Alaska by dividing the proportion of non-federal physicians per population of Alaska by proportion of nonfederal physicians to federal physicians (and presented one data for each 5-10 year periods). For 2006, the number comes from the Physician Supply Task force Report

from the Alaska Department of Health and Social Services.[55] For periods of 2000-4 and 2010-4, we used total (general and specialist) professionally active physicians for Alaska from the Kaiser Family Foundation website per total population of Alaska.[56]

Population-based TB control interventions:
(1) Population-based INH prophylaxis started around 1957 in Alaska, mainly in the context of clinical community trials.[24,26,57-63] It is not clear when exactly this intervention ended in Alaska but the trials continued into mid-1960's, and we approximated the termination date as 1970. At least 18% (and could have been as much as 35%) of the AI/AN population was offered daily INH prophylaxis of 12 months duration (in some persons, up to 24 months).[25,27] About half of these people took at least 60% of doses for 12 months of INH therapy.
(2) Active case finding (mainly by chest x-rays) started for the AI/AN population of Alaska around 1936. Although the end date is not clear, we found evidence of this program up until early 1970's [26,64]. We estimated that this intervention stopped (or significantly slowed down) in mid-1970's. We could not find any precise data on coverage, but in 1970, about 50% of new cases of TB were found by this method.[25]
(3) BCG vaccination was offered to mainly newborns and non-reactive children from 1936-1953, and discontinued thereafter.[25]

Additional information on psycho-active drug use (other than alcohol):
There are no available statewide prevalence data for illicit drug use among Alaska Native adults (Redwood D, Alaska Native Tribal Health Consortium, personal communication). There is a national survey of drug use but the number of Alaska Native persons represented in the sample is too small for meaningful analysis. On the other hand, youth Risk Behavior Surveillance System data on illicit drug use indicate: life time cocaine use at 3·3%,[41] life time inhalant use at 6·5%,[65] lifetime prescription drug abuse at 13·2%,[42] and current marijuana use at 26·1% among Alaska Native high school students in 2015.[43] Lifetime cocaine use did not differ significantly between Alaska Native, Alaska Non-Native, and U.S. White high school students in 2015. A significantly higher percentage of Alaska Native students reported marijuana use compared with Alaska Non-Native students.
Regarding drug and alcohol toxicity deaths, based on a recent report by the Alaska Native Epidemiology Centre, alcohol abuse is the 7th leading cause of death among Alaska Native people (at a rate of 29·8 per 100,000 in 2012-2015), with a significant disparity between Alaska Native and non-Native mortality rates after 1996. [39] Alcohol abuse mortality rates among Alaska Native people have not changed significantly between 1980-2015. During 2008-2013, 72 deaths were attributed to heroin as the underlying or a contributory cause of death in Alaska, 50 (69%) were white, 7 (10%) were AI/AN, and 3 (4%) were persons with two or more races.[40] In 2015, opioid overdose death rates for the State of Alaska was higher than the U.S. national rate (11 vs. 10·4 per 100,000 population, respectively). In 2016, the age-adjusted opioid overdose death rate for the State of Alaska was highest since 2009, and represented a fourfold increase since 2005. The heroin and other illicit opioid overdose death rates increased from 2015 to 2016. On the other hand, Alaska Native and non-Native people had similar rates of overdose mortality in 2016 (16·6 and 16·1, respectively).[66]

ALBERTA

In Alberta, we included the total First Nations (FN) population. According to 2011 census, the total FN population of Alberta is 116,670 - constituting 3·3% of the total population of the province.[67] Of these 63% live on 140 reserves throughout the province, and 37% live off reserve. Health Canada, through its First Nations and Inuit Health Branch, offers (and/or assures) public health and primary health care service delivery to First Nations populations living on- reserve communities.

Total Indigenous Population:
In Alberta, we included both registered and non-registered First Nations people (reported as registered and unregistered Indians from 1960 to 1965, and then for Indians from 1966 to 1970's) per census.[67-71] The First Nations groups do not include other Aboriginal people in this Province, including the Métis and the Inuit. Generally-speaking, all data were obtained for both registered and unregistered First Nations populations. When data for total FN were not available, we used those for "on-reserve" FN (vs. of-reserve FN).

Annual TB notification rates (morbidity) **per 100 000 population:**
The study includes annually reported data for both registered and non-registered First Nations from 1960-2014.[14,15,72] In Alberta, since 1989 when the TB registry was computerized, the bacteriologic confirmation rates (culture-positive) ranged between 30-40% in children 0-14 years of age and 80-90% in adults (>14 years of age).[14,15] The database of the TB registry is housed in the integrated public health information system (iPhis) of Alberta Health Services. Mycobacteriology is automatically downloaded from the Provincial Laboratory for Public Health (ProvLab), which performs all mycobacteriology in the province.

Health budget or expenditure:
Alberta's First Nations health budget per capita in CAD was included from 1999-2013, adjusted for inflation in 2014 (Yacoub W, First Nations and Inuit Health Branch, Health Canada Alberta Region, personal communication).

Average life expectancy at birth:
For the period of 1965-1969, we calculated average life expectancy for registered Indians from age-specific population and mortality counts provided in a Department of Health report on vital statistics.[73] This is a rough estimate as available information was limited for

calculating precise values. From 1999-2013, we used the reported rates by the Government of Alberta (from the census) for the FN of Alberta.[74,75]

Infant mortality:
We calculated infant mortality for registered (were also referred to as *treaty* or *legal*) Indians in Alberta from live birth and mortality data during first year of life in Health Department report on vital statistics for 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1975, 1976, and 1977.[73] We presented this data in averages to fit the 5 year periods of 1960-4, 1965-69, and 1975-79.[73,76]

Suicide:
Suicide rates for total (registered and unregistered) Indians of AB were calculated for the 5 year periods of 1960-1964 and 1965-1969, and for registered Indians for the period of 1975-1979 from the data available in a Department of Health of vital statistics report.[73] From 1980-2009, are data are from reported rates (one average data point for each 5-year-period).[77-79] For the period of 2000-2014, we calculated crude rates (number of death due to suicide / total FN population).[80]

Diabetes:
Four different measures were found: (1) Age-adjusted prevalence for ALL FN of Alberta (at least one data point for each 5 year period during 2000-2014);[81] (2) crude prevalence for FN aged 30+ (3 data points for the 5 year periods of 2000-4, 2005-9 and 2010-14);[82] (3) age adjusted prevalence for FN aged 20+ (3 data points for the 5 year periods of 1995-9, 2000-4 and 2005-9);[83] and (4) self-report of HCW diagnosis for FN OFF-reserve aged 15+ (only 2 data points for the 5 year periods of 1990-4 and 2005-9).[84,85]

Obesity:
In Alberta, we considered the data for "on-reserve" FN only (aged 18+), with one data point for each 5-year period between 2000-2009.[86-88]

Smoking:
Current smokers (defined as sum of daily and occasional smokers): Data for 1990-94 period is for all Aboriginal people in AB aged 15+ who are current smokers.[85] Data for 2000-4 and 2005-9 are for on-reserve FN people in AB only (age not specified).[87,88]

Physician per 1000 population:
This information was not available for First Nations of Alberta.

Alcohol:
In Alberta, we considered the data for on-reserve FN. Limited data were available for the period of 2000-2009.[87,88] Three indicators were found: (1)% of binge drinking (defined as having 5 or more drinks on one occasion, once a month in the past 12 months); (2)% of current drinkers (drank during the last year); and (3) % of habitual drinkers (drinks at least once a month).

Home language:
This data was obtained from the Canadian census. From 1986-2001 census, the indicator was defined as percentage of the FN with Aboriginal language(s) spoken at home,[89-91] and in 2006 and 2011 census, percentage of the Aboriginal identity population who speak an Aboriginal language most often at home.[92,93]

Unemployment:
For the period of 1986-1999, we calculated this indicator using the data from the Canadian census (Computing in the Humanities and Social Sciences or CHASS) as: Unemployment rate = unemployed / total labor force = unemployed / (employed + unemployed); those not in the labor force were not counted.[89-91] For the period of 2000-2014, data is directly from the census.[93,94]

Education:
These rates are for FN population of AB aged 25+. For data points during 1985-2004, we calculated the rates from census data in CHASS (calculation: % of FN 25+ with secondary school graduation certificate or higher / all 25+ FN population with known education status).[89-91,95] For the period of 2005-2014, data points are directly abstracted from reported rates in census.[96-98]

Overcrowded Housing:
Indicators for FN of Alberta: (1) average number of person per room (one data point available for each 5 year period of 1980-4, 1995-9 and 2010-4); and (2) percentage of private dwellings with >1 person per room (one data point available for each 5 year period of 1980-4, 1995-9 and 2010-4) (Statistics Canada, personal communication).

Population-based TB control interventions
(1) Alberta never had a program for population-based LTBI screening and INH treatment.
(2) Active TB case finding among First Nations of Alberta (mainly by mobile chest x-ray) started around 1943 and continued to around 1975.[72,99-102] In early 1960's, a program for registered Indians was initiated by the Division of TB Control Central Registry: ongoing surveys (mobile x-ray unit) and outpatient clinic was to continue on a combined basis with the Division of Indian Health Services. There

are some coverage data available for the whole province (which includes the Indigenous population), but not specifically for the Indigenous population. For example, In the year 1962, 377 cases of new active TB were discovered, most of them by mobile chest x-ray surveys conducted in 210 locations throughout the province covering 160,930 persons. In 1975, 7845 individuals were assessed by mobile chest x-ray in the Province. After 1975 routine surveys by the mobile chest x-ray unit were discontinued, and were used in only selected locations in later years.[101]
(3) BCG vaccination was offered mainly to First Nations school children in Alberta from about 1948 to 2004.[99-101,103] According to the 1999 Health Canada report on TB in First Nations Communities, the BCG vaccination coverage for Alberta region was estimated at 60% in 1996, 54% in 1997, and 49% in 1998.[104] A 2004 study of a birth cohort consisting of 8,447 First Nations children living on reserves in Alberta and born between April 1, 1998 and March 1, 2004, showed that that 56% had received BCG vaccination, 32% had not received BCG vaccination, and about 12% had unknown vaccination status.[103] Public health experts at the First Nations and Inuit Health Branch (FNIHB) in Alberta indicate that these findings are also representative of BCG vaccination coverage (of around 50-60%) among infants in First Nations reserves in Alberta in earlier years before 1996 (Long R, Tuberculosis Program Evaluation and Research Unit, University of Alberta, personal communication).

Additional information on psycho-active drug use (other than alcohol):
Based on information from a newly released report on Opioids and Substances of Misuse among First Nations people in Alberta (November 6 2017), toxicity deaths due to hard drugs tends to be more common in the First Nations of Alberta compared to the other Canadian Indigenous populations in this study. In fact, based on this report, in 2016, among First Nations people in Alberta, accidental non-fentanyl opioid toxicity deaths represented the highest proportion of all confirmed drug and alcohol toxicity deaths (45% of all drug and alcohol toxicity deaths, increasing from about 25% in 2014).[105] Moreover, rates of apparent accidental opioid drug toxicity deaths per 100,000 were three times higher among First Nations people compared to the non-First Nations population from 2016-2017. That being said, the proportion of fentanyl-related opioid toxicity deaths was approximately 18% higher in the non-First Nations population compared to the First Nations people during this time period. Detailed analysis in the same report indicate that in 2016, frequency of substances causing acute toxicity death (accidental and suicides) were 39% with alcohol for First Nations people (vs. 21% for non-First Nations), 32% with codeine for First Nations people (vs. 6% for non-First Nations), 34% with benzodiazepines for First Nations people (vs. 20% for non-First Nations), 24% with Fentanyl for First Nations people (vs. 43% for non-First Nations), 18% with methamphetamine for First Nations people (vs. 18% for non-First Nations), 10% with hydromorphone for First Nations (vs. 6% for non-First Nations), 8% with oxycodone for First Nations people (vs. 12% for non-First Nations), 13% with cocaine for First Nations people (vs. 22% for non-First Nations), and 0% with heroin for First Nations people (vs. 11% for non-First Nations population).

EEYOU ISTCHEE
Eeyou Istchee or the Cree Territories of James Bay is comprised of nine coastal (along the eastern shore of James Bay) and inland communities in a vast territory extending from the 49th to the 55th parallel in northern Quebec (south of Nunavik). In 1975, the Cree of northern Quebec signed the James Bay and Northern Quebec Agreement with the Federal and Quebec governments. The Agreement created the Cree Board of Health and Social Services in 1978, the first Aboriginal-controlled health board in Canada. According to the 2011 census, the total population of Eeyou Istchee is 16,365 - of which 96% is Indigenous (or Cree). The region is served by one hospital, as well as local health centres in each community.[106]

Population:
Most indicators included in this study are for total population of Eeyou Istchee. When denominator data was necessary to calculate rates, we considered the total population count from the census.[106-109]

Annual TB notification (morbidity) rates per 100 000 population:
Limited disaggregated information is available for Cree population of Eeyou Istchee before 1980. The TB notification rates for the years of 1973, 1974 and 1975 were calculated based on public health reports from this period, which included counts of TB cases from some but not all Cree communities.[109-111] Hence, the estimated TB rates for Eeyou Istchee from before 1980 should be considered with caution. From 1980 to 2014, we considered reported notification rates or calculated the rate based on reported number of cases per total population of Eeyou Istchee.[16,112] Since 1990 100% of cases in Eeyou Istchee have been bacteriologically confirmed.

Health expenditure
For Nunavik and Eeyou Istchee, 5-year average health expenditure data were calculated from the yearly data provided by the Ministère de la Santé et des Services Sociaux of Quebec (MSSS QC) from 1981-2008[113] (Denis R and Francois B, Ministère de la Santé et des Services sociaux du Québec, personal communication). Per capita health expenditure was calculated using the census population count.

Physician per population:
Data points for the period of 1980-1999 were calculated based on the number of physicians provided by CIHI and the denominator is the total population of region as per census (Canadian Institute for Health Information, personal communication). For the period of 2000-2014, we used the reported proportions of physicians per 1000 population by CIHI, Supply, Distribution and Migration of Canadian Physicians (2014).[114]

Average life expectancy at birth:
Reported rates for Cree people mainly; more recent reported rates from 2005-2013 are for the total population in the region.[109,115,116]

Infant mortality:
Reported rates mainly for total population in the region[109,112,115-117] (Lejeune P, Public Health Department of the Cree Board of Health and Social Services of James Bay, personal communication).

Diabetes:
Prevalence of DM for Cree 20+ as per registry from 1997 (before 1997, reported rates from other chart review and chronic disease registry) (at least one data point for each 5 year periods of 1985-89, then 1997-2014).[118-120]

Obesity:
Early numbers are based on Cree Health Survey of 1983-84.[117] During 1983-4, the term "obesity" is used without defining the BMI criteria; however, a hand-written note on the report may suggest that the definition used during this earlier period may have been of BMI>27. Also for the years of 1983 and 1991 weight and height used to calculate BMI were measured, whereas these values for 1988 and 2001 were reported (self-report) by the respective individuals.[109,121] Data point for the 2005-9 period is from the sample of Cree individuals (aged 20+) from each of the nine communities (all community value, averaged for women and men) in Eeyou Istchee from the Nituuchischaayihtitaau Aschii Multicommunity Environment and Health Study.[122]

Suicide:
All reported rates per 100,000 for total population in the region.[109,112,116,123]

Smoking:
Data for the period of 1980-2004 (one average data point for each 5-10 year period, as per availability) is for individuals aged 15+ (total population) in Eeyou Istchee who are current (daily and occasional) smokers.[109,117] The data for the 2005-9 period is from a study of sample of 510 Cree adults aged 18+.[112,124,125]

Alcohol:
Limited data were available mainly for the period of 2000-2009.[109,126,127] Three indicators were found: (1) percentage of binge drinking (defined as having 5 or more drinks on one occasion, once a month in the past 12 months); (2) percentage of current drinkers (drank during the last year); and (3) percentage of habitual drinkers (drinks at least once a month).

Home language:
The data from 1981 are reported proportion of Cree people who can speak Cree. The data from 1986-2006 are for language spoken at home from Éco-Santé (defined as "la Population selon la langue parlée à la maison: autres langues").[128] The data from 2011 is from the census for percentage of the Aboriginal identity population with Aboriginal language(s) spoken at home.[129]

Unemployment:
Reported rates are for all population in the region as per the census.[106-109]

Education:
For the indicator of adults with high school diploma or higher, reported data points for 1981 and 1991 are for people aged 15+ in Eeyou Istchee.[109] Data point for 2006 is for adults aged 25+ and for 2011 for adults aged 25-64 in Eeyou Istchee.[106-108]

Over-crowded Housing:
Two indicators were available: (1) Average number of person per room (one data point available for each 5 period of 1980-4, 1985-9, 1990-4, 1995-9, 2000-04, 2005-09 and 2010-14); and (2) Percentage of private dwellings with >1 person per room (one data point available for each 5 year period of 1995-9, 2000-4, 2005-9 and 2010-14).[106-109,111,115] All data is for Aboriginal identity except for year 2010-14 period. The 2011 NHS Aboriginal profile does not have Région des Terres-Cries-de-la-Baie-James, so data for total population in this area is used.

Population-based TB control interventions
(1) In Eeyou Istchee, population-based INH prophylaxis (1982-1987) was applied mainly after PPD administration, for those with positive PPD (or PPD conversation), those with an abnormal chest x-ray, TB contacts, and all individuals younger than 35. An estimated 9-11% of the population of Eeyou Istchee at that time completed 9 months of INH therapy.[109,121,130,131] From 1981to 1987 TST was applied to all the population under 35, of 5843 under 35, 39% tested were tested in 1981, 63% were tested in 1982, and 43% were tested in 1983.
(2) Population-based chest x-ray case finding: According to the information we found in coastal communities only, the programme was initially started about 1946 and continued to about 1977 (cessation date not clear). More clear information about this programme is available from 1982-83, with CXR for all those with positive PPD and for all people aged 35+ in all 8 communities (coastal and in-land).[109,121,131-133] For Chest x-ray the participation rate was 67% for 1981, 58% in 1982, and 82% in 1983.[132]

(3) BCG vaccination for Indigenous infants was started by transient medical teams in 1946, although the scope and coverage is not clear. More systematic program of vaccination of newborns/infants was from 1982-2004 with high (about 90% and higher) coverage.[109,121,130,134,135]

Additional information on psycho-active drug use (other than alcohol):
There is no up-to-date quality data available on prevalence of drug use in Cree Territory of James Bay. Limited available data over time indicate that marijuana and hashish have been by far the most commonly used psychoactive drugs in this jurisdiction. In a 1991 Santé Quebec survey in this region, among participants aged 15 and older, 14% reported using marijuana/hashish, 4% reported using cocaine/crack, less than 1% reported using solvents and 3% reported using other drugs in the preceding year.[109] In a subsequent survey in 2003 in this region, the reported use of marijuana/hashish increased to 21·3%, and cocaine use to 8·6%.[127]
In the wake of the recent opioid crisis in North America, a recent unpublished analysis of drug-related morbidity and mortality data for the Cree Territory of James Bay (using ICD-10 definitions) showed that, other than alcohol, no psychoactive drugs were involved (as primary or secondary cause) in the mortality cases in this region from 2011-2015 (Lejeune P, Public Health Department of the Cree Board of Health and Social Services of James Bay, personal communication).

GREENLAND
Greenland gained the status of an autonomous Danish dependent territory with home-rule as well as its own parliament in 1979 and self-government in 2008. According to Statistics Greenland the total population in 2014 was about 56,282 - of whom approximately 89% were born in Greenland. Although Statistics Greenland does not identify population by ethnicity, the majority of people born in Greenland are Inuit who refer to themselves as "Greenlanders" or "Kalaallit" in their language. The population has universal and free access to health care services. The health care system consists of a central hospital in Nuuk, a medical center in the main towns of every region, and clinics staffed by nurses or health assistants in the smaller settlements.

Population:
The census in Greenland identifies all inhabitants in Greenland by place of birth (Greenland, other, unknown) and not ethnicity (Inuit/non-Inuit).[136] Unless otherwise stated, below indicators are for the entire population of Greenland.

Annual TB notification rates (morbidity) **per 100 000 population:**
Information on yearly number of TB cases (morbidity) was obtained from the Greenlandic TB register (Michelsen SW and Søborg B, Department of Epidemiology Research, Statens Serum Institut, personal communication). Since 1955, TB has been mandatory notifiable in Greenland. Cases are notified to the National Board of Health in Greenland and follow WHO case definitions. The register provides information like date of TB diagnosis and place of birth (Greenland, other, unknown). Only TB cases among individuals born in Greenland were included (as a proxy for the Indigenous population of Greenland). Final yearly data points were calculated as TB cases per 100,000 individuals for the period 1960-2013. The information is consistent with official reports from the National Board of Health in Greenland and published research on TB in Greenland.[137-140]

In Greenland, only respiratory TB cases were reported up until 1985. When data became available from 1990 to 2014, about 50-80% of reported TB cases were bacteriologically confirmed.[137]

Health expenditure:
Data was obtained from Statistics Greenland includes health and social protection expenditure in the government sector.[141] The data is in Danish Krone (DKK), and is also calculated per capita and adjusted for inflation rate for the period of 1990-2014 (one data point for each 5-year period).[142,143]

Physician per population:
The data point for 1988 for the number of medical doctors per population in Greenland was obtained from the report by Misfeldt.[144] The data points for 1995-2014 (one average data point for each 5-year-period) were obtained from the Nososco database for number of physicians (calculated per 1000 population).[145]

Average life expectancy at birth:
Data was obtained from Statistics Greenland. Reported average life expectancy from birth for the population of Greenland (who are born in Greenland) is presented with one data point for each 5-year-period from 1960-2014.[146,147]

Infant mortality:
Reported infant mortality for population of Greenland (who were born in Greenland) with one data point for each 5-year-period from 1960-2014.[31,146-148]

Diabetes:

Limited data was available for Greenland and only from few published studies. Two indicators were considered for this study: (1) Crude prevalence of diabetes as measured by oral glucose tolerance test, with only 2 data points for the 5 year periods of 1960-4 and 2005-10) (Note: Inuit only data; age of study samples in 2 different time periods not comparable);[149-151] (2) Other cross sectional studies reported prevalence of type II diabetes as per survey of medical records from health centers and hospitals, for which only 2 data points are available for the periods of 1960-4 and 2005-9 (Note: Inuit only; age of study samples in 2 different time periods not comparable).[150,152,153]

Obesity:
One average data point is considered for each 5-year-period from 1990-2010. This data is from samples of Inuit population of Greenland aged 18+.[154-157]

Suicide:
These are reported suicide rates for the Inuit population in Greenland per 100,000 for the period of 1960-2011. One average data point is presented for each 5-year-period.[158]

Smoking:
We considered 3 average data points for the periods of 1990-4 (Inuit only), 2000-4 (Inuit only) and 2005-9 (the general population) in Greenland.[31,139,155] Current smokers are daily and regular smokers plus the occasional smokers. The data point from 1993-4 is for the Inuit population 18+.[155] The data point for the 2004-6 period is from a case-control study with a sample population (75% born in Greenland) in Greenland.[139]

Alcohol:
Greenland consistently reported data on "sales of liters of pure alcohol annually per inhabitant above 14 years".[159,160] As information for binge drinking was not available for Greenland, this jurisdiction was excluded from descriptive and unadjusted regression analysis for this co-variate.

Home language:
We considered only 2 data points for the periods of 1995-9 and 2000-4.[155,161,162] Greenland reported the percentage of the Inuit who reported fluency in their Indigenous language.

Unemployment rate:
One data point for the total population of Greenland was presented for each 5-year-period from 1990-2014.[147,163] The data points for the periods of 1995-9 and 2005-9 were already reported rates based on Greenland in Figures annual report (Unemployment rate = Average number of unemployed persons per month/ Total labor force).[147] For the last period of 2010-5, the data point is directly from Statistic Greenland (unemployment as percent of the labor force among permanent residents aged 18-64 years).[163]

Education:
One data for each 5-year-period between 2000-2014 was considered. The data points are from reported information for people aged 25+ who are born in Greenland and have a high school diploma or higher.[164]

Housing:
We calculated one data point for each 5-year-period of 2000-04, 2005-09 and 2010-4 for average number of person per room in towns and villages in Greenland.[165,166] Statistics Greenland provides data for number of persons per dwelling in towns, number of persons per dwelling in villages, population in towns, population in village, and average number of rooms per dwelling. The number of persons per dwelling for Greenland was calculated as weighted average of number of persons per dwelling in towns and villages (using population in towns and villages for weighting). Then, average number of person per room was estimated as average number of person per dwelling for Greenland divided by average number of rooms per dwelling.

Population-based TB control interventions:
Greenland is the only jurisdiction in this study where population-based TB control interventions started decades ago, all were stopped and then a number of interventions were re-started more recently in response to the recrudescence in TB rates.
(1) For this analysis, we considered that Greenland did **not** have an effective INH prophylaxis intervention, because the dose of INH offered in the trial of 1956-57 was suboptimal (at 400 mg twice a week for 6 months as per Stein et al. 1968).[25,167-169]
(2) Population-based active TB case finding (mainly with chest x-ray) started in 1955 and continued to about 1971.[25,109,167,170,171] In 1955, a fully equipped sailing chest clinic was launched in Greenland. In 1971, Erik Iversen wrote that since 1955, annual X-ray examinations and, where indicated, bacteriological examinations, have been made of the whole population of West Greenland, which is about 90% of all Greenlanders.[170] This intervention was re-started in South Greenland in 2007 and continued through 2012.[138,172,173] In 2007, the population offered mass chest x-ray in South Greenland constituted approximately 18% of the Greenlandic population (born in Greenland). (3) Neonatal BCG vaccination was initiated in 1949 and was part of the national childhood vaccination programme from 1955 until 1990.[3,109,170,174,175] In 1976 Gryzbowski et al wrote that BCG vaccination in Greenland started in 1949 with "complete coverage by 1955"[25] (one assumes up to 1976 - the time of this publication); The programme continued until 1991, then was stopped from 1991-1996, then re-

initiated in 1997 and continues to this day.[172,174,176,177] During the time when BCG vaccination was part of the vaccination program, the BCG vaccine coverage was >93%.[177]

Additional information on psycho-active drug use (other than alcohol):
According to this study's co-authors from Denmark, quality data for drug use (or drug overdose) is not publicly available for the population of Greenland (Michelsen SW, Department of Epidemiology Research, Statens Serum Institut, personal communication). In the Greenland Health Interview Survey (from 1990's), 64% of the 18-34 year olds and 25% of the those 35 and older reported having smoke marijuana at least once, while 21% and 6%, respectively, were current users of marijuana.[31] Spein A.R. in Chapter 12 of Health Transition in Arctic Populations (2013) indicates that the use of other (than cannabis) illicit drugs (cocaine, heroin, etc.) has not been reported from Greenland. According to the paper by Larsen et al. (2013), the average alcohol intake has decreased since 1980s, where the alcohol consumption was at its highest, a drinking pattern dominated by binge drinking persists in Greenland. This same paper suggests that the "the use of hard drugs has never been a problem in Greenland".[178]

NUNAVIK
Inuit communities in the northern Quebec region of Nunavik are scattered along a vast coastline between arctic bays of Hudson and Ungava, north of 55th parallel. According to the 2011 census, the total population of Nunavik is 12,090 and 91% of the population is Inuit.[179] The James Bay and Northern Quebec Agreement signed in 1975 with the Inuit in Nunavik, transferred the responsibility of administrating health and social services to the Nunavik Board of Health and Social Services. The Nunavik region with its 14 communities is served by two hospitals as well as local health centres in each community.

Population:
Most indicators are for the total population of Nunavik. When denominator data were needed to calculate rates, the total population of Nunavik per census was considered.[68,180]

Annual TB notification rates per 100 000 population:
TB notification rate is for the total population of Nunavik and presented on a yearly basis from 1960-2014. TB notification rate in Nunavik from 1960 to 1979, was estimated from the Statistics Canada reports of counts of TB among Inuit of Quebec during this time period [15]. For 1980-2011 we considered reported rates from regional and Provincial publications.[16,181,182] For the period of 2012-14, we calculated the notification rate from number of reported cases per year over the population of Nunavik per census.
During 1980-1994, more than 90% of reported TB cases in Nunavik were bacteriologically confirmed. From 2000-2007, about 70% of reported TB cases among the Indigenous people in Quebec had at least a TB culture, and from 2008-2011, about 70% of reported TB cases among Inuit of Quebec were bacteriologically confirmed.

Health expenditure:
For Nunavik and Eeyou Istchee, 5-year average health expenditure data were calculated from the yearly data provided by the MSSS QC from 1981-2008[113] (Denis R and Francois B, Ministère de la Santé et des Services sociaux du Québec, personal communication). Per capita health expenditure was calculated using the census population count.

Physician per population;
CIHI directly provided physician per 1000 population for year 2000-2014 (Canadian Institute for Health Information, personal communication). CIHI provided physician counts for the time period of 1980-1999, so the physician per 1000 was calculated as: Number of physicians / total population from the census.

Average Life expectancy at birth:
Information on average life expectancy from birth was available for the time period of 1960-2014. The earlier data from 1960-1984 is for the Inuit population of Northern Quebec,[115,183-185] and later data from 1985-2013 is for the region of Nunavik[112] (Lejeune P, Public Health Department of the Cree Board of Health and Social Services of James Bay, personal communication).

Infant mortality:
Information on reported infant mortality rates was available for the time period of 1960-2014. The earlier data from 1960-1984 is mainly for the Inuit population of Quebec,[109,186,187] and later data from 1985-2010 is for the region of Nunavik[112] (Lejeune P, Public Health Department of the Cree Board of Health and Social Services of James Bay, personal communication).

Diabetes:
Three measures were found: (1) Prevalence of diabetes based self-report by individuals (aged 15+) of health care worker diagnosis (at least one data point for each 5 year period from 1990-2009);[85,188,189] (2) Diagnosis by fasting blood glucose for people aged18-74 (only 2 data points available for the 5 year periods of 1990-4 and 2000-4);[186,188,190,191] and (3) Diabetes prevalence based on hospitalization data (SISMACQ or le Système intégré de surveillance des maladies chroniques du Québec) for individuals aged 20+ from Nunavik (at least one data point for each 5 year period during 2002-2010) (l'Institut national de santé publique du Québec, personal communication).

Smoking:
Individuals aged 15+ who are current (daily or occasional) smokers for the time period of 1980-2014 (with one average data point for each 5-year, when available).[184,185,192-194]

Alcohol:
Limited data was available for the period of 1990-2014. One average data point was presented for each 5 year period during 1990-2014, when available.[185,192,193,195] Three indicators were found: (1) Percentage of binge drinking (defined as having 5 or more drinks on one occasion, once a month in the past 12 months); (2) Percentage of current drinkers (drank during the last year); and (3) Percentage of habitual drinkers (drinks at least once a month)

Suicide:
All data comes from already reported rates for all people in Nunavik (one average data point for each 5 year period during 1980-2009).[196-199] For the last time period (2010-12), we used the data from CANSIM (Canadian Socio-Economic Information Management System) table 102.4313 Mortality and potential years of life lost, by selected causes of death and sex, three-year average for region of Nunavik (rates are calculated using the total population of Nunavik).[198]

Obesity:
Data comes from governmental surveys: For the period of1980-84, data is for the Inuit aged 15+; for 1992, data is for the Inuit aged 18-74 (BMI is 30 and higher); and from then on we used data for the Inuit aged 18+ as per governmental surveys.[186,190,192,193]

Home language:
The data for 1992 is from Santé Quebec survey for the Inuit participants who spoke Inuktitut at home.[193] Data from 1995 to 2001 is from the census, using the indicator of percentage of the Aboriginal identity population in Nunavik with Aboriginal language(s) spoken at home,[184,200] and in 2006 and 2011 census, percentage of the Aboriginal identity population in Nunavik who speak an Aboriginal language most often at home.[179,192,201]

Unemployment rate:
Unemployment rate based on the census definition (one data point presented for every 5 year period from 1985-2014). During the time period of 1985-1999, data is for all population of Nunavik;[202] during 2000-2009 for Aboriginal population only, and during 2010-2014 data is for the Inuit in Nunavik.[179,200,201]

Education:
One average data point is presented for every 5 year period from 1980-2014 for adults with high school diploma or higher. Data during the time periods of 1980-1984 and 1990-94 is for all population of Nunavik aged 15+,[185,193] and during 1995-2011 for Aboriginal people in Nunavik aged 25+.[90,179,200,201]

Over-crowded Housing:
Data for Nunavik included: (1) Average number of Aboriginal identity person per room (one data point available for each 5 year period of 1980-4, 1985-9 and 2000-04, 2005-09 and 2010-14);[115,179,184,200,201,203] and (2) Percentage of private dwellings with >1 Aboriginal identity person per room (one data point available for each 5 year period of 2000-04, 2005-09 and 2010-14).[179,200,201]

Population-based TB control Interventions:
(1) Population-based LTBI therapy from 1982-84: Based on a public health report from 1986, about 16% of population of Hudson Bay (people younger than 35 with positive PPD) and 2·6% (mainly TB contacts) of population of Ungava Bay were given INH prophylaxis during the years of 1982, 1983, and 1984.[204,205] We could not find any information on treatment completion rates.
(2) Population-based case finding with chest x-ray from 1964 to about 1980: This is mainly based on Federal public health reports.[133,206] The last public health report we could find that reported this program was from 1977. According to these reports, chest X-rays performed in Inuit and Indians in the province of Quebec numbered: 11,120 in 1975, 11,457 in 1976, and 8,360 in 1977. From all reports it appears the program likely ended around 1980.
(3) BCG vaccination of infants from 1950's/1970's to 2004: the onset of BCG vaccination of infants in Nunavik is not clear. We found historical evidence of at least some vaccine given in 1950's and then 1970's;[204,207] therefore, we chose a mid-point date of 1960, as it is also the first year of our data analysis. In 1996-1997, the coverage of BCG vaccination of infants was around 97%. We could not find any other quantitative data on BCG vaccine coverage among neonates in Nunavut. However, anecdotal data from first line workers suggest that the coverage is high (around 90%) (Waites S, Government of Nunavut, personal communication).

Additional information on psycho-active drug use (other than alcohol):
There is no up-to-date quality data available on prevalence of drug use in Nunavik. A recent article by Fortin et al. (2015) summarizes and compares the alcohol and drug use-related results of the 1992 and 2004 Santé Quebec Health Survey in Inuit population of Nunavik.[208] The study showed that although alcohol use prevalence was less in Nunavik compared to the general population of Quebec (82·3% in 2004), the prevalence of alcohol use in Nunavik increased from 1992 (60·3%) to 2004 (76·9%); moreover, compared to the general

population of Quebec, significantly more alcohol was consumed per drinking episode in Nunavik. The study showed that cannabis (marijuana and hashish combined) was by far the most frequently used illicit drug among the Inuit of Nunavik, with more users in 2004 than in 1992. After cannabis, cocaine was the most frequently used drug in 2004: 7·5% of respondents stated they were users in the year preceding the survey; other drugs used in the same period were solvents (5·9%), hallucinogens (2·7%) and injectables (2%). The prevalence of cocaine and solvent use had also increased from 1992 to 2004.
In the wake of the recent opioid crisis in North America, a recent unpublished analysis of drug-related morbidity and mortality data for the regions of Nunavik (using ICD-10 definitions) showed that, other than alcohol, no psychoactive drugs were involved (as primary or secondary cause) in the mortality cases in this region from 2011-2015 (Lejeune P, Public Health Department of the Cree Board of Health and Social Services of James Bay, personal communication).

NUNAVUT

Nunavut is the northernmost and largest territory of Canada. Nunavut became an official Canadian territory in 1999 through the Nunavut Act and the Nunavut Land Claims Agreement Act.[209] According to the 2011 census, the total population of Nunavut is 31,700 (86·5% Inuit).[210] Nunavut is served by a single hospital in Iqaluit and a health centre in each of the 24 other communities.[18,209] Primary health care providers are predominantly family physicians and community health nurses. Family physicians are often only available on temporary short term contracts. Many Nunavut residents travel outside their region (mainly to other provinces in Canada including Ontario, Manitoba, Alberta and the NWT) for hospital care.

Population:

In this study, for the period of 1960-1998, we used the data for the Inuit population of Northwest Territories (NWT).[68] After 1999, we used either data for all population of Nunavut, for Aboriginal population of Nunavut, or for Inuit of Nunavut.[210-213] According to the 2011 census, 86·5% of Nunavut's population is Aboriginal (or Inuit).

Annual TB notification rates per 100 000 population:

For the time period of 1960-1974, 3-year average incident rates (used as yearly rates for the corresponding years in our study) were obtained from Grybowski's paper for new active and reactivated TB among "Eskimos" in Northwest Territories.[25]
According to Grzybowski et al. (1976), the percentage of bacteriologically confirmed TB for the NWT Inuit was about 50% in early 1960's, and about 90% from mid-1960's to mid-1970's.[15,25] Since 1995, about 70-80% of reported cases in that jurisdiction are bacteriologically confirmed.[14,18]

Health expenditure:

Health expenditure data per capita are from the CIHI (one average data point is presented for each 5 year period during 1980-2014).[214] Data for the period of 1975-1994 is for Northwest Territories. For the period of 1995-1999, we considered the data point for Nunavut in 1999. From 1999-2014, the data is from Nunavut. These data are comparable to the corresponding data for the general population of Canada (also reported by the CIHI).

Physician per population:

The data points are all reported proportions taken directly from the CIHI (for specialists and family physicians) per 1000 population.[114] Data for 1980-1998 is for the total population of the NWT. The data from 1999-2014 is for Nunavut.

Average life expectancy at birth:

The data points for the time period of 1960-1982 is for the Inuit of NWT.[183] During 1983-87, the average life expectancy data is for the Inuit population of Baffin.[171,183] Life expectancy for the period of 1991-2009 is for Nunavut.[215] The data point for the last 5-year period of is from 2010 and 2011 for all the population of Nunavut.[216]

Infant mortality:

Data for the time period of 1960-1989 is for the Inuit population of the NWT.[217-220] Data points from 1990 on are from Nunavut (total population).[221,222]

Diabetes:

We considered: (1) For the time period of 2000-2014, crude prevalence of diabetes among Inuit people aged 20+ from the registry (3 data points for the 5-year period) was considered (as per the National Diabetes Surveillance System, and the Canadian Chronic Disease Surveillance System)[223] (Waites S, Government of Nunavut, personal communication); (2) The data point for the 1985-9 period is crude prevalence of diabetes among Inuit people aged 25+ from the NWT (registered medical doctor diagnosed or treated diabetes as per health services agency's data).[33]

Obesity:

Data points are for the Inuit or Aboriginal population of Nunavut aged 18+ from 2000-2009.[224,225] For 2010-14, we used recently released Canadian Community Health Survey's data for Nunavut (Aboriginal identity or Inuit) for people aged 18+ with obesity.[224]

Smoking:
Initial data points from 1985-1989 are for the Inuit people of the NWT aged 15+ [218]. The rest of the data points are for Aboriginal or Inuit people of Nunavut.[85,224,225] For 2010-14, we used the newly released Canadian Community Health Survey's data for Nunavut (Aboriginal identity or Inuit), for current smokers (daily or occasional).[224]

Alcohol:
Two indicators were found: (1) Binge drinking, which is defined as percentage of population aged 12+ having 5 or more drinks on one occasion, once a month in the past 12 months (one average data point is presented for each 5 year period between 2000-2014);[226] and (2) Current drinking, which is defined as percentage of population aged 15+ who drank during the last year (only two data points were available for the periods of 1990-4 and 2010-14).[85,192]

Home language:
Data points are from 1991 to 2011. The 1991 data point is from the Aboriginal Population Survey for Aboriginal language spoken at home (all or most of the time) in Nunavut.[85] The 1996 data point is from the census for Inuktitut as home language (in Nunavut).[227] In 2001, the definition is percentage of the Aboriginal identity people with Aboriginal languages spoken at home (in Nunavut).[211] Later in 2006 and 2011, the definition of this indicator changes to Aboriginal identity people who speak an Aboriginal language most often at home (in Nunavut).[210,212]

Unemployment rate:
Data points for the time period of 1986-1996 are for the Inuit population of the NWT.[89-91] Data points for the time period of 2001-2014 are for Inuit population of Nunavut.[210-212,228] For last period of 2011-14, the data point represents the average of unemployment rates for Inuit individuals aged 15+.

Education:
The data points for the time period of 1986-1991 are for the Aboriginal population of the NWT aged 25+ from the census data (Computing in Humanities and Social Sciences or CHASS).[89,91] The 1996 data point is for the Inuit population of the NWT aged 25+.[90] The data points for the time periods of 2001-5 and 2010-14 are for the Aboriginal population of Nunavut aged 25+.[210-212] The data point for the period of 2006-9 is for the Inuit population of Nunavut.

Over-crowded Housing:
One data point was available from the census for each of these 5-year time periods: During 1980-4 (for Inuit of the NWT), 2000-4, 2005-9 and during 2010-14[192,210-212] (Statistics Canada, personal communication). We considered two indicators: (1) Percentage of private dwellings with >1 person per room (for Inuit only), and (2) Average number of person per room (for Inuit only)

Suicide:
We used Chart A of Dr. Hick's paper, which presents the overall rate of death by suicide for the Inuit in Nunavut, per 100,000 population (as 5-year rolling averages).[229,230] Accordingly, these rates were calculated using demographic data obtained from Statistics Canada and the Nunavut Bureau of Statistics. For the time period of 1970-74, we used data available for 1972-4.

Population-based TB control interventions:
(1) Based on a number of published studies, community-based INH prophylaxis was initiated around 1967 among the Inuit population of the NWT.[25,231-234] In 1971, Grzybowski et al. initiated a chemoprophylaxis trial for TB among the permanent native residents at Frobisher Bay (total Inuit population of approximately 1300). Of the 370 Inuit (about 28% of total population) placed on chemoprophylaxis (INH and ethambutol at three times a week), 326 (25% of total population) completed 18 months of prescribed treatment while 44 discontinued it prematurely (with an average duration of 10.1 months in this latter group).[232] According to Grzybowski et al (1976), 1794 Inuit individuals or approximately 16% (the Inuit population of the NWT was estimated at 11,400 between 1970-74) of the Inuit population of the NWT received a course of chemoprophylaxis between 1967-73.
Furthermore, over the period of 1980-82, 19·5% of the Inuit population of the NWT were given preventive chemotherapy.[102]
(2) Population-based TB case finding (mainly with chest x-ray, but in later years also through sputum surveys) started around 1955 and intensified around 1967 in the NWT.[25,99,233] Although the end date of this intervention was not clear, based on the available reports, the programme seemed to have continued up to the 1970's. According to Grzybowski et al (1976), in 1974, 10,464 chest x-rays, 6113 sputum bacteriology, and 4000 tuberculin tests were done in a population of 13,932 Inuit in the NWT.[25] We considered this programme to have ended (or having significantly slowed down) in 1980.
(3) BCG vaccination of neonates and also of TST negative individuals under the age of 25 started in 1965.[18,25,235] Re-vaccination was common and it was not unusual for a child to receive 3-4 BCG vaccinations during the first 5-10 years of life. We could not find any direct data on BCG vaccination coverage among the Inuit neonates in the NWT or Nunavut. In 1976, Grybowski et al. wrote that "intradermal BCG [is] on a large scale since 1965" among the Inuit population of the NWT;[25] they add that "negative tuberculin reactors and newborn children have been immunized since [1955], thus assuring almost complete coverage". Later in 1998, Enarson wrote that "vaccination using BCG was given to all newborns" among the Inuit population of the NWT. Enarson also reported the "known" vaccination status in the total Inuit population of the NWT to be at 42·4% in 1969, and 57% in 1980.[102] BCG vaccination of neonates continues to this day. In a

more recent LTBI screening study (between 2011-13), which was done as part of a door-to-door TB prevention campaign in Iqualit (capital of Nunavut), of 296 mainly young Inuit individuals (participants were over the age of 6 months with median age of about 23), Alvarez et al. found that about 80% of those with records had received a BCG vaccine in the past.[236]

Additional information on psycho-active drug use (other than alcohol):
In Nunavut also, marijuana and hashish are known to by far the most commonly used drugs (in addition to alcohol). In the 2007-2008 Inuit Health Survey of individuals 18 years of age and older in Nunavut, 43% of all respondents reported marijuana and hashish use in the past 12 months before the survey; this is compared to 10·7% of Canadians (15 years of age and older) in the 2010 Alcohol and Drug Use Monitoring Survey.[237] In contrast, only 5% of participants in Nunavut reported use of "hard drugs" such cocaine and crystal methamphetamine, 3% reported use of gasoline, propane, naphtha, sniffing glue, hairspray, vanilla or other solvents, and 4% reported using over the counter or prescription drugs (eg, Tylenol, Ativan, cough syrup) to get high in the past 12 months. In the 2010 Alcohol and Drug Use Monitoring Survey, fewer than 1% of the Canadians reported using hard drugs such cocaine, crack or heroin. In the 2007-2008 Inuit Health Survey, 59% of respondents reported that they had consumed alcohol in the past 12 months prior to the survey; this is in contrast to 77% of Canadians in the 2010 survey.
The more recent results from a 2013-2014 Survey in Nunavut, are also in accordance with the 2007-2008 survey, in highlighting that marijuana/cannabis/hashish continue to be by far the most used drugs in Nunavut, and that use of other "hard drugs" continues to be limited to about 5% or less of this population (unpublished data from the 2013-2014 Canadian Community Health Survey; Waites S, Government of Nunavut, personal communication). In 2016, no opioid-related deaths were reported in Nunavut.[238]

CANADA

Population:
This refers to the total population of Canada per census (including Aboriginal population, which is about 4% of the total population).[239,240]

Annual TB notification rates per 100 000 population:
Reported yearly TB rates were considered for the period of 1960-2014.[14,19] In Canada, TB disease was defined per ICD-7 criteria from 1960-1969, ICD-8 from 1970-1979, and ICD-9 from 1971-1994.

Health expenditure:
This information is from the CIHI database for the total population of Canada, and is reported in Canadian dollars (one average data point is presented for each 5-year-period from 1980-2014) and corrected for inflation rates over time.[214]

Physician per population:
The data points are all reported proportion of physicians per 1000 population of Canada directly abstracted from the CIHI database for the period of 1980-2014 (one average data point is presented for each 5-year-period from 1980-2014).[114]

Average life expectancy from birth:
Reported data from the census for the total population of Canada from 1960-2014 were considered (one average data point is presented for each 5-year-period from 1980-2014).[241,242]

Infant mortality:
Reported data from the census for the time period of 1960-2014 was considered (one average data point is presented for each 5-year-period from 1980-2014).[243,244]

Diabetes:
Three different indicators were considered: (1) Self-report by individuals (aged 12+) of health care worker diagnosis (one data point is presented for each 5-year-period during 1990-2014);[226,245-247] (2) Self-report of diabetes by individuals (aged 15+) (only 2 data points for the 5-year-periods of 1985-9 and 1990-4);[245] and (3) Age standardized prevalence of diabetes for the population aged 20+ (at least one data point for each 5- year-period during 1995-2009).[248,249]

Obesity:
One average data point is presented for each 5-year-period from 1980-2014. Reported data is from the World Health Organization's Global Database (for the time period of 1980-1994).[250] From 1994 onward, data is from the CANSIM database (for adult population aged 18+).[226,246,251]

Suicide:
One average data point was presented for each 5-year-period from 1960-2014 for reported crude suicide rates for total population of Canada.[252,253]

Smoking:

One average data point is presented for each 5-year-period from 1980-2014 for current (defined as daily or occasional) smokers aged 12+ (for the total population of Canada).[226,246,254,255]

Alcohol :
We considered reported rates of heavy drinking for the total population of Canada aged 12+. The definition of heavy drinking has changed through the years. In 1990's heavy drinking was defined as having 5 or more drinks on one occasion, 12 or more times a year.[256] From 2000-2012 the indicator was defined as having 5 or more drinks on one occasion, at least once a month in the past year.[256] Since 2013, heavy drinking in men is defined as those who report having 5 or more drinks, and in women as those who report having 4 or more drinks, on one occasion, at least once a month in the past year.[226,257] One data point was presented for each 5-year-period from 1990-2014.

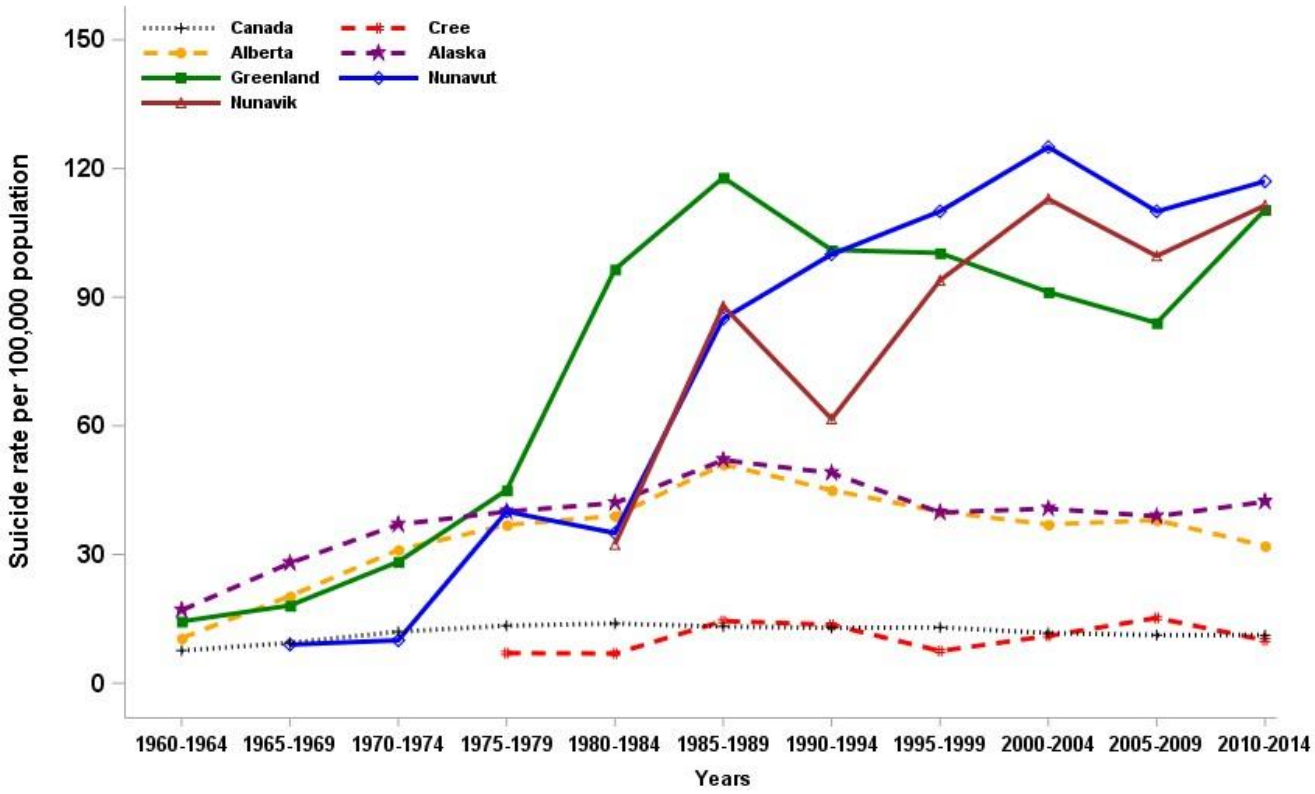
Unemployment rate:
Information from the census (CHASS) was used to calculate unemployment rate for the total population of Canada aged 15+ for 1981, 1986, 1991, 1996, 2001, 2006 and 2011.[89-91,258-262]

Education:
Information from the census (CHASS) was used to calculate the percentage of population of Canada aged 25+ with high school diploma or higher from 1980-2014 (one data point was presented for each 5-year-period).[89-91,95,262-264]

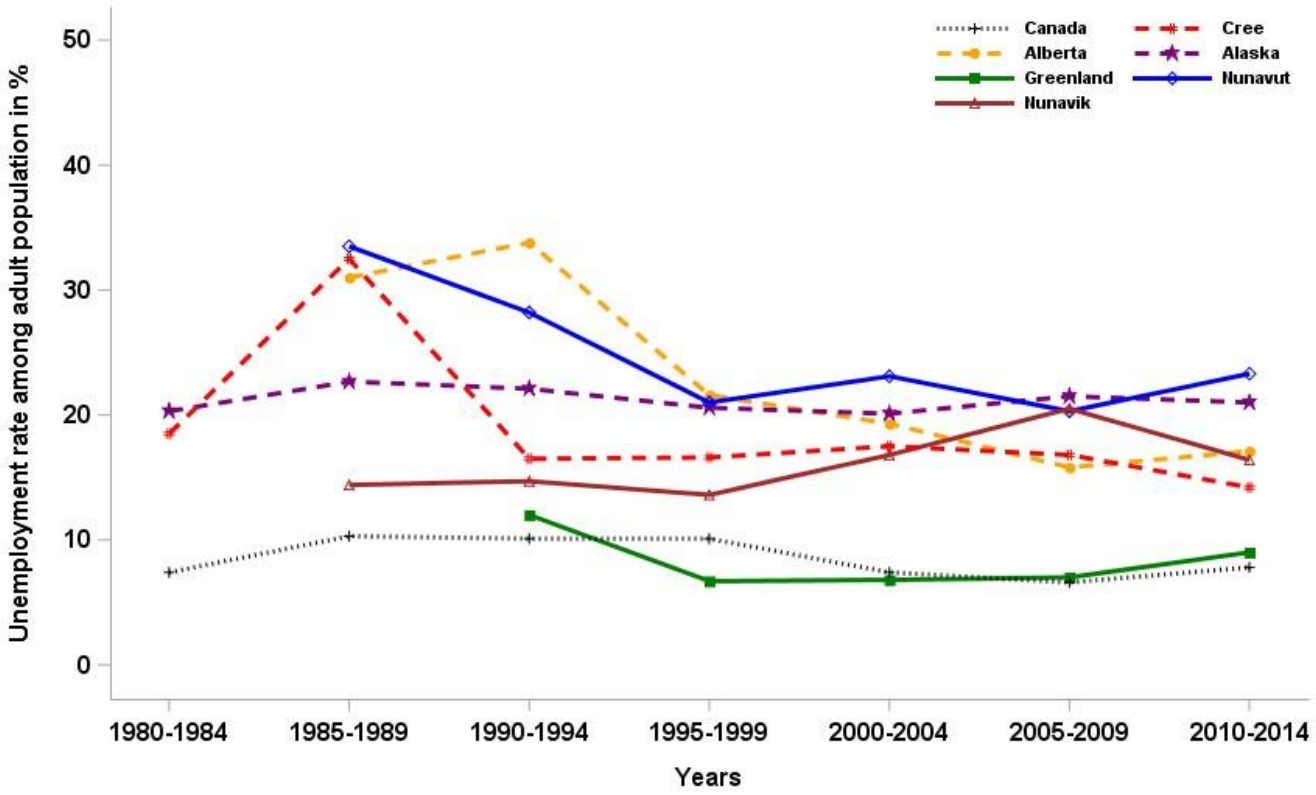
Over-crowded Housing:
We considered two different indicators: (1) Percentage of dwellings with>1 person per room (data is directly taken from the census); and (2) Average number of person per room. We calculated the data points for the 2nd indicator as: Average number of person per room = average number of persons per household / average number of rooms per dwellings). For both of these indicators, one data point was presented for each 5-year-period from 1980-2014.[255,258,265-267]

Population-based TB control interventions:
This information was not considered for the general population of Canada.

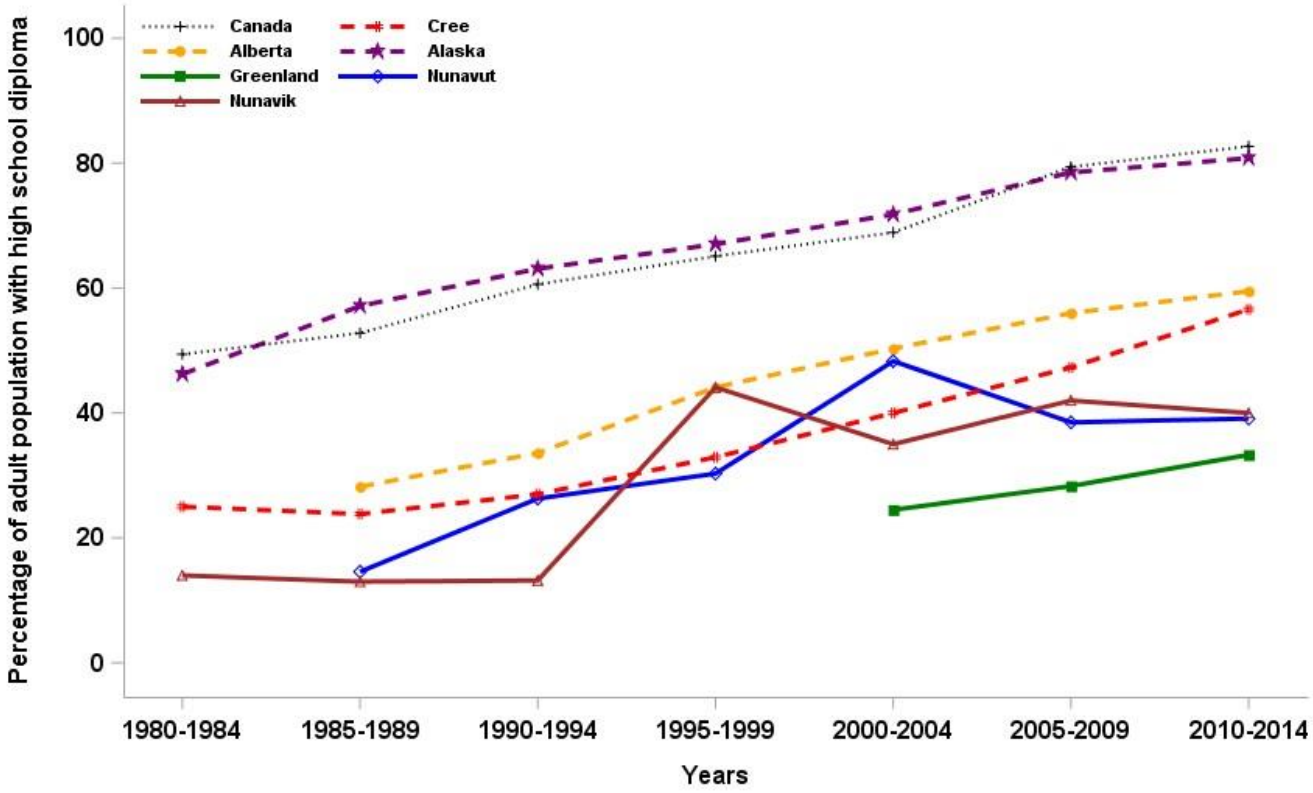
Supplemental Figure S1. Reported Suicide Rates (per 100,000 population) in 6 Indigenous Populations and the Canadian General Population from 1960-2014



Supplemental Figure S2: Unemployment rate (% adults seeking work) from 1980 to 2014 in 6 Indigenous populations and the general population of Canada



Supplemental Figure S3: Percent of the adult population with a high school diploma from 1980 to 2014 in 6 Indigenous populations and the general population of Canada



REFERENCE

1 State of Alaska, Department of Social Services, Division of Public Health. HIV infection in Alaska through 2000. 2001.
2 Harvill J, Boyette M. HIV in Alaska An Epidemiolgic Profile 1982-2015. 2016.
3 de Colombani P, Thomsen V, Wilcke JT. Tuberculosis control in Greenland: report on a country visit 30 April–6 May 2010. *WHO Regional Office for Europe, Copenhagen, Denmark* 2010.
4 Bjorn-Mortensen K, Ladefoged K, Obel N, Helleberg M. The HIV epidemic in Greenland--a slow spreading infection among adult heterosexual Greenlanders. *Int J Circumpolar Health* 2013; **72**: 19558.
5 Alberta Health SaA. Notifiable Sexually Transmitted Infections and HIV – 2013 Annual Report. Edmonton: Government of Alberta, 2014. 2014.
6 Government of Alberta. HIV and AIDS in Alberta 2011 Annual Report. 2012.
7 Institut national de santé publique du Québec. Programme de surveillance de l'infection par le virus de l'immunodéficience humaine (VIH) au Québec: rapport annuel 2015. 2016.
8 Carlin R, Lejeune P. Notifiable Disease (MADO) Report for 1990 to 2005 for the Cree Territory of James Bay (Eeyou Istchee) December 2006. 2006.
9 Public Health Agency of Canada. 2017. Reported cases from 1924 to 2014 in Canada - Notifiable diseases on-line. http://diseases.canada.ca/notifiable/charts?c=plt (accessed March 21, 2017).
10 Public Health Agency of Canada. Summary: Estimates of HIV incidence, prevalence and proportion undiagnosed in Canada, 2014. 2015.
11 Nunavut Department of Health and Social Services. Report on Comparable Health Indicators for Nunavut and Canada. 2002.
12 Government of Nunavut. Sexually Transmitted Infection Rates in Nunavut, 2007–2014. 2014.
13 Alaska Department of Health and Social Services. Tuberculosis in Alaska Annual Report. Alaska, 1988-2014.
14 Public Health Agency of Canada. Tuberculosis in Canada. Ottawa (Canada): Minister of Public Works and Government Services Canada. 1996-2014. https://www.canada.ca/en/public-health/services/publications/diseases-conditions/tuberculosis-canada-2014-pre-release.html (accessed Dec 10, 2017).
15 Statistics Canada. Tuberculosis statistics: Ottawa : Statistics Canada; Health Division, Vital Statistics and Disease Registries section.; 1959-1994.
16 Ministère de la Santé et des Services sociaux du Québec. Épidémiologie de la tuberculose au Québec. Québec (Canada), 2005, 2009, 2012.
17 Thomsen VO, Lillebaek T, Stenz F. Tuberculosis in Greenland--current situation and future challenges. *Int J Circumpolar Health* 2004; **63 Suppl 2**: 225-9.
18 Public Health Agency of Canada. Report on the epidemiology of tuberculosis in Nunavut, 1999 to 2011. Ottawa (Canada): Public Health Agency of Canada, 2013.
19 Gallant V, Cooke O, McGuire M. Tuberculosis in Canada: 1924-2012. http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/14vol40/dr-rm40-06/dr-rm40-06-surv-eng.php. *Canada Communicable Disease Report* 2014; **Volume 40-6**.
20 Alaska Area Native Health Service. Census Counts by Indian, Eskimo and Aleut. 2001.
21 Alaska Area Native Health Service. 2000 Census Counts for Alaska Natives. 2001.
22 Alaska Area Native Health Service. 2010 Census Counts for Alaska Natives/American Indians Alone or in Combination with One or More Other Races. 2011.
23 Gurunanjappa BS. Life tables for Alaska natives. *Public Health Rep* 1969; **84**: 65-9.
24 Simmet R. Alaska, frontier for health services. *Public Health Rep* 1960; **75**: 877-912.
25 Grzybowski S, Styblo K, Dorken E. Tuberculosis in Eskimos. *Tubercle* 1976; **57**: S1-58.
26 Fortuine R. "Must we all die?": Alaska's enduring struggle with tuberculosis: University of Alaska Press; 2005.
27 Johnson MW. Results of 20 years of tuberculosis control in Alaska. *Health Serv Rep* 1973; **88**: 247-54.
28 Bogoyavlenskiy D, Siggner A. Arctic demography. *Arctic Human Development Report* 2004: 27-41.
29 Alaska Native Epidemiology Center. Alaska Native Life Expectancy. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed April 22, 2016).
30 Alaska Native Epidemiology Center. Alaska Native Infant Mortality Rate. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed April 22, 2016).
31 Young TK, Bjerregaard P. Health transitions in Arctic populations: University of Toronto Press; 2008.
32 Alaska Bureau of Vital Statistics. Alaska Bureau of Vital Statistics Annual Report. 1998-2015.
33 Young TK, Schraer CD, Shubnikoff EV, Nikitin YP. Prevalence of diagnosed diabetes in circumpolar indigenous populations. *Int J Epidemiol* 1992; **21**: 730-6.
34 Alaska Native Epidemiology Center. Alaska Native Diabetes. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed April 23, 2016).
35 Johnson JS, Nobmann ED, Asay E. Factors related to fruit, vegetable and traditional food consumption which may affect health among Alaska Native People in Western Alaska. *Int J Circumpolar Health* 2012; **71**: 17345.
36 Alaska Native Epidemiology Center. Alaska Native Adult Obesity. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed April 23, 2016).

37 Alaska Native Epidemiology Center. Alaska Native Adult current smoking. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed April 23, 2016).
38 Alaska Native Epidemiology Center. Alaska Native Adult binge drinking. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed April 23, 2016).
39 Alaska Native Epidemiology Center. Alaska Native Alcohol Abuse Mortality http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed December 2, 2017).
40 State of Alaska Epidemiology Bulletin. 2015. Health Impacts of Heroin Use in Alaska. . http://epibulletins.dhss.alaska.gov/Document/Display?DocumentId=12 (accessed December 2, 2017).
41 Alaska Native Epidemiology Center. Alaska Native Adolescent Cocaine Use. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed December 2, 2017).
42 Alaska Native Epidemiology Center. Alaska Native Adolescent Prescription Drug Abuse. http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed December 2, 2017).
43 Alaska Native Epidemiology Center. Alaska Native Adolescent Marijuana Use http://anthctoday.org/epicenter/data/regions/statewide/index.html (accessed December 2, 2017).
44 U.S. Census Bureau. Age by language spoken at home by ability to speak English for the population 5 years and over (American Indian and Alaska Native alone). American Community Survey, Table B16005C, Table PCT062C. http://factfinder2.census.gov (accessed April 9, 2015).
45 US Bureau of the census. 1990 Census of Population, Social and Economic Characteristics - Alaska. 1993.
46 US Bureau of the census. 1980 Census of Population, General Social and Economic Characteristics - Alaska. 1983.
47 U.S. Census Bureau. Sex by employment status for the population 16 years and over (American Indian and Alaska Native alone). American Community Survey, Table C23002C, Table P150C. http://factfinder2.census.gov (accessed April 10, 2015).
48 U.S. Census Bureau. Sex by educational attainment for the population 25 years and over (American Indian and Alaska Native alone). American Community Survey, Table C15002C, Table P148C. http://factfinder2.census.gov (accessed April 10, 2015).
49 US Bureau of the census. 1980 Census of Housing, General Housing Characteristics - Alaska. 1982.
50 US Bureau of the census. 1990 Census of Housing, General Housing Characteristics - Alaska. 1992.
51 U.S. Census Bureau. Occupants per room (American Indian and Alaska Native alone householder). American Community Survey, Table B25014C, Table HCT029C. http://factfinder2.census.gov (accessed April 10, 2015).
52 American Medical Association. Physician characteristics and Distribution in the US, 2002 edition: American Medical Association Press; 2002.
53 American Medical Association. Physician characteristics and Distribution in the US, 1994: American Medical Association Press; 1994.
54 American Medical Association. Physician characteristics and Distribution in the US, 1986: American Medical Association Press; 1986.
55 Alaska Department of Health and Social Services. Securing an Adequate Number of Physicians for Alaska's Needs - Alaska Physician Supply Task Force Report, August 2006. 2006.
56 The Kaiser Family Foundation. Total Professionally Active Physicians. http://kff.org/other/state-indicator/total-active-physicians/ (accessed October 17, 2016).
57 Comstock GW, Philip RN. Decline of the tuberculosis epidemic in Alaska. *Public Health Rep* 1961; **76**: 19-24.
58 Comstock GW. Isoniazid prophylaxis in an undeveloped area. *Am Rev Respir Dis* 1962; **86**: 810-22.
59 Porter ME, Comstock GW. Ambulatory chemotherapy in Alaska. *Public Health Rep* 1962; **77**: 1021-32.
60 Comstock GW, Ferebee SH, Hammes LM. A controlled trial of community-wide isoniazid prophylaxis in Alaska. *Am Rev Respir Dis* 1967; **95**: 935-43.
61 Hanson ML, Comstock GW, Haley CE. Community isoniazid prophylaxis program in an underdeveloped area of Alaska. *Public Health Rep* 1967; **82**: 1045-56.
62 Comstock GW, Hammes LM, Pio A. Isoniazid prophylaxis in Alaskan Boarding schools: A comparison of two doses. *Am Rev Respir Dis* 1969; **100**: 773-9.
63 Comstock GW, Woolpert SF. Preventive treatment of untreated, nonactive tuberculosis in an Eskimo population. *Arch Environ Health* 1972; **25**: 333-7.
64 Comstock GW, Baum C, Snider Jr DE. Isoniazid prophylaxis among Alaskan Eskimos: a final report of the bethel isoniazid studies. *Am Rev Respir Dis* 1979; **119**: 827-30.
65 Alaska Department of Health and Social Services. Health Indicator Report of Drug Use - Inhalants - Adolescents (Grades 9-12). http://ibis.dhss.alaska.gov/indicator/view/InhaleAdo.AK_US.html (accessed December 11, 2017).
66 State of Alaska Epidemiology Bulletin. Update on Drug Overdose Deaths — Alaska, 2016. Alaska: Department of Health and Social Services, 2017.
67 Statistics Canada. 2013. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E (accessed June 6, 2015).
68 Statistics Canada. Statistics Canada catalogue: Population by ethnic origin and sex, for Canada, provinces and territories, 1961/1971/1981/1991 census.
69 Statistics Canada. 1996 Census: Aboriginal data. http://www.statcan.gc.ca/daily-quotidien/980113/dq980113-eng.htm. 1998.

70 Statistics Canada. 2007. Aboriginal Population Profile. 2006 Census. Statistics Canada Catalogue no. 92-594-XWE. Ottawa. Released January 15, 2008. http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-594/index.cfm?Lang=E (accessed June 6, 2015).
71 Statistics Canada. 2003. 2001 Census Aboriginal Population Profiles. http://www12.statcan.gc.ca/english/profil01/AP01/Index.cfm?Lang=E (accessed June 6, 2015).
72 Anne F. Tuberculosis Service 1995. 1995.
73 Alberta Department of Public Health. Annual Report of the Department of Public Health including Vital Statistics Division, Province of Alberta 1960-1975. 1960-1975.
74 Health Canada. First Nations Health Status Report – Alberta Region 2011–2012, Revised Edition. 2013.
75 Alberta Interactive Health Data Application. Life Expectancy at Birth by First Nations Status. http://www.ahw.gov.ab.ca/IHDA_Retrieval/selectCategory.do (accessed April 5, 2016).
76 Alberta Interactive Health Data Application. Infant Mortality Rate by First Nations Status. http://www.ahw.gov.ab.ca/IHDA_Retrieval/selectSubCategory.do (accessed April 5, 2016).
77 Health Canada. First Nations Health Status Report – Alberta Region 2010–2011. 2012.
78 Kirmayer LJ. Suicide among Canadian aboriginal peoples. *Transcultural Psychiatry* 1994; **31**: 3-58.
79 Kirmayer LJ, Brass GM, Holton T, Paul K, Simpson C, Tait C. Suicide among Aboriginal people in Canada. *Ottawa: Aboriginal Healing Foundation* 2007.
80 Alberta Interactive Health Data Application. Suicide Rate by First Nations Status. http://www.ahw.gov.ab.ca/IHDA_Retrieval/selectSubCategory.do (accessed April 5, 2016).
81 Alberta Interactive Health Data Application. Diabetes - Age-Standardized Prevalence Rates by First Nations Status. http://www.ahw.gov.ab.ca/IHDA_Retrieval/selectSubCategory.do (accessed April 5, 2016).
82 Alberta Interactive Health Data Application. Diabetes - Age-Sex Specific Prevalence Rates by First Nations Status. http://www.ahw.gov.ab.ca/IHDA_Retrieval/selectSubCategory.do (accessed April 5, 2016).
83 Oster RT, Johnson JA, Hemmelgarn BR, et al. Recent epidemiologic trends of diabetes mellitus among status Aboriginal adults. *Can Med Assoc J* 2011; **183**: E803-E8.
84 Statistics Canada. 2006. Aboriginal Peoples Survey, 2006 - Alberta. http://www12.statcan.ca/census-recensement/2006/dp-pd/89-635/P4.cfm?Lang=eng&age=3&ident_id=2&B1=0&geocode1=059&geocode2=000#Def3 (accessed June 12, 2015).
85 Odesi database. Aboriginal Peoples Survey, 1991. http://search1.odesi.ca/#/details?uri=%2Fodesi%2Faps-89M0013-E-1991.xml (accessed June 12, 2015).
86 Lachance N, Hossack N, Wijayasinghe C, Yacoub W, Toope T. Health determinants for First Nations in Alberta, 2010. 2010.
87 Rhonda KB. Alberta First Nations Regional Longitudinal Health Survey 2002/03. 2007.
88 Deborah P, Anita EK. First Nations Regional Health Survey 2008/10, Alberta Report 2012. 2012.
89 CHASS Data Centre, University of Toronto. Census of Canada, 1991: public use microdata on individuals. http://sda.chass.utoronto.ca/sdaweb/html/canpumf.htm (accessed October 22, 2015).
90 CHASS Data Centre, University of Toronto. Census of Canada, 1996: public use microdata on individuals. http://sda.chass.utoronto.ca/sdaweb/html/canpumf.htm (accessed October 22, 2015).
91 CHASS Data Centre, University of Toronto. Census of Canada, 1986: public use microdata on individuals. http://sda.chass.utoronto.ca/sdaweb/html/canpumf.htm (accessed October 22, 2015).
92 Statistics Canada. Statistics Canada, 2001 Census of Population, Statistics Canada Catalogue no. 97F0011XCB2001040. https://www12.statcan.gc.ca/datasets/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=73628&PRID=0&PTYPE=55496&S=0&SHOWALL=0&SUB=0&Temporal=2001&THEME=45&VID=0&VNAMEE=&VNAMEF= (accessed May 28, 2015).
93 Statistics Canada. Statistics Canada, 2006 Census of Population, Statistics Canada Catalogue no. 97-564-XCB2006002. https://www12.statcan.gc.ca/datasets/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=97446&PRID=0&PTYPE=97154&S=0&SHOWALL=0&SUB=0&Temporal=2006&THEME=73&VID=0&VNAMEE=&VNAMEF= (accessed May 28, 2015).
94 Statistics Canada. Statistics Canada, 2001 Census of Population, Statistics Canada Catalogue no. 97F0011XCB2001044. https://www12.statcan.gc.ca/datasets/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=73632&PRID=0&PTYPE=55496&S=0&SHOWALL=0&SUB=0&Temporal=2001&THEME=45&VID=0&VNAMEE=&VNAMEF= (accessed May 28, 2015).
95 CHASS Data Centre, University of Toronto. Census of Canada, 2001: public use microdata on individuals. http://sda.chass.utoronto.ca/sdaweb/html/canpumf.htm (accessed October 22, 2015).
96 Canada S. Statistics Canada, 2001 Census of Population, Statistics Canada Catalogue no. 97F0011XCB2001042. https://www12.statcan.gc.ca/datasets/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=73630&PRID=0&PTYPE=55496&S=0&SHOWALL=0&SUB=0&Temporal=2001&THEME=45&VID=0&VNAMEE=&VNAMEF= (accessed May 28, 2015).

97 Statistics Canada. Statistics Canada, 2006 Census of Population, Statistics Canada Catalogue no. 97-560-XCB2006036. http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/tbt/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=97686&PRID=0&PTYPE=88971,97154&S=1&SHOWALL=0&SUB=0&Temporal=2006&THEME=75&VID=0&VNAMEE=&VNAMEF= (accessed May 28, 2015).
98 Statistics Canada. Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-011-X2011037. http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/dt-td/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=107560&PRID=0&PTYPE=105277&S=0&SHOWALL=0&SUB=0&Temporal=2013&THEME=94&VID=0&VNAMEE=&VNAMEF (accessed May 28, 2015).
99 Archibald L, Grey R. Evaluation of models of health care delivery in Inuit regions: First Nations and Inuit Health Branch, Health Canada; 2000.
100 Lampard R. Alberta's Medical History: Young and Lusty, and Full of Life: Red Deer, Alberta; 2008.
101 Wilson DR, Parsons WB, Betke CF, Jamieson HC. Medicine in Alberta : historical reflections : 75th anniversary. Edmonton: Alberta Medical Foundation; 1993.
102 Enarson DA. Tuberculosis in Aboriginals in Canada. *Int J Tuberc Lung Dis* 1998; **2**: S16-S22.
103 Jacobs S, Warman A, Roehrig N, et al. Mycobacterium tuberculosis infection in First Nations preschool children in Alberta: implications for BCG (bacille Calmette-Guérin) vaccine withdrawal. *Can J Public Health* 2007; **98**: 116-20.
104 Health Canada. Tuberculosis in First Nations Communities, 1999. 2000.
105 Alberta Health. Opioids and Substances of Misuse among First Nations People in Alberta - Alberta Report, 2017. 2017.
106 Statistics Canada. 2013. Région des Terres-Cries-de-la-Baie-James, Quebec (Code 2418) (table). National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=HR&Code1=2418&Data=Count&SearchText=Region%20des%20Terres-Cries-de-la-Baie-James&SearchType=Begins&SearchPR=01&A1=All&B1=All&GeoLevel=PR&GeoCode=2418&TABID=1 (accessed March 15, 2015).
107 Statistics Canada. 2003. Région des Terres-Cries-de-la-Baie-James (HR). Aboriginal Population Profile. 2001 Census. http://www12.statcan.ca/english/profil01/AP01/Details/Page.cfm?Lang=E&Geo1=HR&Code1=2418&Geo2=PR&Code2=24&Data=Count&SearchText=Région du Nunavik&SearchType=Begins&SearchPR=01&B1=All (accessed March 15, 2015).
108 Statistics Canada. 2007. Région des Terres-Cries-de-la-Baie-James, Quebec (Code2418) (table). Aboriginal Population Profile. 2006 Census. http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-594/details/page.cfm?Lang=E&Geo1=HR&Code1=2418&Geo2=PR&Code2=24&Data=Count&SearchText=Region des Terres-Cries-de-la-Baie-James&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=PR&GeoCode=2418 (accessed March 15, 2015).
109 Torrie J, Bobet E, Kishchuk N, Webster A. The evolution of health status and health determinants in the Cree region (Eeyou Istchee): eastmain-1-A powerhouse and rupert diversion sectoral report. Volume 2: Detailed Analysis. *Cree Board of Health and Social Sciences of James Bay Montreal, Quebec, Canada* 2005.
110 Renaud L. L'état de la tuberculose chez les indiens cris de la Baie James. Montreal: Montreal General Hospital. *Community Health Department, Hôpital général de Montreal* 1984.
111 Smeja C. Rapport des maladies a declaration obligatoire, RÉGION 10B. *Community Health Department, Hôpital général de Montreal* 1992.
112 Institut national de santé publique du Québec. Pour guider l'action - Portrait de Sante du Québec et de ses région: les statistiques. 2011.
113 Ministère de la Santé et des Services sociaux du Québec. Contour financier - Dépenses par programme et par région. 2005-2014.
114 Canadian Institute for Health Information. Supply, Distribution and Migration of Canadian Physicians, 2014. 2015.
115 Université Laval. Groupe d'études Inuit et circumpolaires. Tendances nordiques: les changements sociaux 1970-1990 chez les Cris et les Inuit du Québec: Québec: GÉTIC; 1996.
116 Robinson E. Mortality among the James Bay Cree, Quebec, 1975-1982: Seattle: Washington Press; 1985.
117 Clarkson M, Foggin PM. Highlights of the Cree health survey (1983-1984): Ministère de la santé et des services sociaux du Quebec; 1990.
118 Kuzmina E, Lejeune P, Dannenbaum D, Torrie J. Cree Diabetes Information System (CDIS) 2009 Annual report. *Cree Board of Health and Social Services of James Bay Chisasibi, Québec* 2010.
119 Brassard P, Robinson E, Lavallée C. Prevalence of diabetes mellitus among the James Bay Cree of northern Quebec. *Can Med Assoc J* 1993; **149**: 303-7.
120 Bobet E, Lejeune P, Dannenbaum D, Torrie J. Report from the Cree Diabetes Information System (CDIS) 2014. *Cree Board of Health and Social Services of James Bay Chisasibi, Québec* 2016.
121 Torrie J, Bobet E, Kishchuk N, Webster A. The evolution of health status and health determinants in the Cree region (Eeyou Istchee): eastmain-1-A powerhouse and rupert diversion sectoral report. Volume 1: Context and Findings. *Cree Board of Health and Social Sciences of James Bay Montreal, Que, Canada* 2005.

122 Nieboer E, Dewailly E, Johnson-Down L, et al. Nituuchischaayihtitaau Aschii Multi-Community Environment-and-Health Study in Eyou Istchee, 2005-2009: Final Technical Report: Public Health Report Series 4 on the Health of the Population. Chisasibi QC: Cree Board of Health and Social Services of James Bay; 2013.
123 Cree Board of Health and Social Services of James Bay. Regional plan within the framework of northern development. 2013.
124 Riverin B, Dewailly E, Côté S, Johnson-Down L, Morin S, Dodin S. Prevalence of Vitamin D insufficiency and associated factors among Canadian Cree: A cross-sectional study. *Can J Public Health* 2013; **104**: e291-e7.
125 Del Gobbo LC, Song Y, Dannenbaum DA, Dewailly E, Egeland GM. Serum 25-hydroxyvitamin D is not associated with insulin resistance or beta cell function in Canadian Cree. *J Nutr* 2011; **141**: 290-5.
126 Santé Québec. A health profile of the Cree: report of the Santé Québec Health Survey of the James Bay Cree 1991. *Montréal: Ministere de la santé et des services sociaux, Government of Quebec* 1994.
127 Anctil M, Chevalier S. Cree Health Survey 2003, Lifestyles related to alcohol consumption, drugs and gambling. *Cree Board of Health and Social Services of James Bay & Institut national de santé publique du Québec* 2008.
128 Eco-Santé Québec. Répartition de la population selon la langue parlée le plus souvent à la maison. http://www.ecosante.fr/index2.php?base=QUEB&langh=FRA&langs=FRA (accessed June 22, 2015).
129 Statistics Canada. 2012. Région des Terres-Cries-de-la-Baie-James, Quebec (Code 2418) and Région du Nunavik, Quebec (Code 2417) (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=HR&Code1=2418&Geo2=HR&Code2=2417&Data=Count&SearchText=Region%20du%20Nunavik&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=PR&GeoCode=2417&TABID=1 (accessed March 15, 2016).
130 Smeja C, Brassard P. Tuberculosis infection in an Aboriginal (First Nations) population of Canada. *Int J Tuberc Lung Dis* 2000; **4**: 925-30.
131 Lavallée C, James CA, Robinson EJ. Evaluation of a community health representative program among the Cree of northern Quebec. *Can J Public Health* 1990; **82**: 181-4.
132 Renaud L. L'état de la tuberculose chez les indiens cris de la Baie James: Hôpital général de Montréal; 1984.
133 Health & Welfare Canada. Health & Welfare Canada, Medical Services, Quebec region. Annual report 1975. Comments on Appendix A, B, C, D and TB statistics. 1975.
134 Robinson E, Smeja C, Beloin C, Desrosiers M. Tuberculosis Control Program for the Cree Region 2002. Montréal: Cree Board of Health and Social Services of James Bay, 2002.
135 Carlin R. Review of Tuberculosis Control and BCG Vaccine use in the Cree Territory of James Bay. *Cree Board of Health and Social Sciences of James Bay* 2004.
136 Statistics Greenland. Statbank Greenland, Table. Population and population growth 1901-2015. http://bank.stat.gl/pxweb/en/Greenland/Greenland__BE__BE01/BEXSAT1.px/?rxid=8c1bd244-598c-4c90-9fa6-39da69abc298 (accessed June, 4, 2015).
137 Naalakkersuisut. Kapitel 6. Smitsomme sygdomme. 2001-2013. http://naalakkersuisut.gl/da/Naalakkersuisut/Departementer/Landslaegeembedet/Aarsberetninger (accessed October 28, 2016).
138 The National Board of Health in Greenland. National TB strategy 2012-2016. 2011.
139 Ladefoged K, Rendal T, Skifte T, Andersson M, Søborg B, Koch A. Risk factors for tuberculosis in Greenland: Case-control study. *Int J Tuberc Lung Dis* 2011; **15**: 44-9.
140 The National Board of Health. Chapter 7, Tuberculosis. 2014.
141 Statistics Greenland. 2015. Statbank Greenland, Table. Expenditure of general government sector by function by sector, function and time. http://bank.stat.gl/pxweb/en/Greenland/Greenland__OF__OF30/OFXFUNK.px/?rxid=38971f34-e34d-483b-ae3d-80dc089b199f (accessed June, 4, 2015).
142 Bank of Canada. 2014. Year average of exchange rates. http://www.bankofcanada.ca/rates/exchange/annual-average-exchange-rates/ (accessed April 2, 2016).
143 Statistics Greenland. 2015. Statbank Greenland, Table. Consumer price index series (1971H1-2016H1) [PREPRISF]. http://bank.stat.gl/pxweb/en/Greenland/Greenland__PR/PRXPRISF.px/?rxid=b25172f2-b5a8-4692-b22e-f4c5a7d926cf (accessed Accessed June, 4, 2015).
144 Misfeldt J. The health service in Greenland. *Arctic Med Res* 1991; **Suppl**: 106-8.
145 Nomesco/Nososco database. Table. Employed health personnel in healt and social serevices per 100 000 inhabitants by Personnel group, Area and Time. http://old.indicators.nom-nos.dk/pxweb/Dialog/varval.asp?ma=PERSONNEL02&ti=PERSONNEL02+Empolyed+health+personnel+in+health+and+social+services+per+100+000+inhabitants%2C+1995%2D2012&path=../Database/NomNos/NOMESCO%2007%20capacity/&lang=1 (accessed June 26, 2015).
146 Statistics Greenland. Statbank Greenland, Table. Mortality tables by base, time, age, gender and type. http://bank.stat.gl/pxweb/en/Greenland/Greenland__BE__BE10__BE20/BEXDT.px/?rxid=ac194fe9-f1be-42f5-b6d6-06bc1fbff197 (accessed June, 8, 2015).
147 Statistics Greenland. Greenland in Figures 2002-2015. 2002-2015.
148 Friborg J, Koch A, Stenz F, Wohlfahrt J, Melbye M. A population-based registry study of infant mortality in the Arctic: Greenland and Denmark, 1973-1997. *Am J Public Health* 2004; **94**: 452-7.

149 Jørgensen ME, Bjeregaard P, Borch-Johnsen K, et al. Diabetes and impaired glucose tolerance among the Inuit population of Greenland. *Diabetes Care* 2002; **25**: 1766-71.
150 Pedersen ML. Diabetes mellitus in Greenland. *Dan Med J* 2012; **59**: B4386.
151 Sagild U, Littauer J, Jespersen CS, Andersen S. Epidemiological studies in Greenland 1962-1964. I. Diabetes mellitus in Eskimos. *Acta Med Scand* 1966; **179**: 29-39.
152 Pedersen ML. Prevalence of diagnosed type 2 diabetes mellitus in Greenland 2008: the impact of electronic database implementation on the quality of diabetes care. *Int J Circumpolar Health* 2009; **68**: 34-41.
153 Byberg S, Soborg B, Andersson M, Bjerregaard P, Jorgensen ME. Diabetes is a risk factor for tuberculosis in the Inuit population of Greenland. *European Respiratory Journal* 2012; **40**: 1289-91.
154 Bjerregaard P, Mulvad G, Pedersen HS. Cardiovascular risk factors in Inuit of Greenland. *Int J Epidemiol* 1997; **26**: 1182-90.
155 Bjerregaard P, Curtis T, Borch-Johnsen K, et al. Inuit health in Greenland: a population survey of life style and disease in Greenland and among Inuit living in Denmark. *Int J Circumpolar Health* 2003; **62**: 3-79.
156 Bjerregaard P, Jørgensen ME. Prevalence of obesity among Inuit in Greenland and temporal trend by social position. *Am J Hum Biol* 2013; **25**: 335-40.
157 Andersen S, Mulvad G, Pedersen HS, Laurberg P. Body proportions in healthy adult Inuit in East Greenland in 1963. *Int J Circumpolar Health* 2004; **63**: 73-6.
158 Bjerregaard P, Larsen CVL. Time trend by region of suicides and suicidal thoughts among Greenland Inuit. *Int J Circumpolar Health* 2015; **74**: 26053.
159 Aage H. Alcohol in Greenland 1951–2010: consumption, mortality, prices. *Int J Circumpolar Health* 2012; **71**.
160 Statistics Greenland. Statbank Greenland, Table. Import of alcohol by unit, type, category and time. http://bank.stat.gl/pxweb/en/Greenland/Greenland__AL__AL10/ALXALK1.px/?rxid=08b7b35d-cb32-4197-9987-1c5a4b8633ba (accessed June, 9, 2015).
161 Leask L. Survey of Living Conditions in the Arctic: What Did We Learn. *Anchorage: Institute of Social and Economic Research, University of Alaska Anchorage* 2007.
162 Birger P, Jack K, Gérard D, Larissa A. Survey of Living Conditions in the Arctic: Results. *Anchorage: Institute of Social and Economic Research, University of Alaska Anchorage* 2007.
163 Statistics Greenland. Statbank Greenland, Table. Unemployment in percent of the labour force among permanent residents aged 18-64 years by time, quarter, district, place of residence, age and gender. http://bank.stat.gl/pxweb/en/Greenland/Greenland__AR__AR40/ARXLED4.px/?rxid=08b7b35d-cb32-4197-9987-1c5a4b8633ba (accessed June, 22, 2015).
164 Statistics Greenland. Statbank Greenland, Table. Educational profile by age and place of birth 2002-2014. http://bank.stat.gl/pxweb/en/Greenland/Greenland__UD__UD40/UDXISCPROC.PX/?rxid=08b7b35d-cb32-4197-9987-1c5a4b8633ba (accessed June, 22, 2015).
165 Statistics Greenland. Statbank Greenland, Table. Dwellings by time, district and size. http://bank.stat.gl/pxweb/en/Greenland/Greenland__BO__BO99/BOXBEST3.px/table/tableViewLayout1/?rxid=08b7b35d-cb32-4197-9987-1c5a4b8633ba (accessed June, 23, 2015).
166 Statistics Greenland. Statbank Greenland, Table. Number of persons per dwelling by district, per 1. january, place and timeand size. http://bank.stat.gl/pxweb/en/Greenland/Greenland__BO__BO99/BOXPERS.px/?rxid=af518e14-cae2-49bc-9926-ad5a3d7e3a72 (accessed June, 23, 2015).
167 Stein KP, Lange PK, Gad U, Wilbek E. Tuberculosis in Greenland. *Arch Environ Health* 1968; **17**: 501-6.
168 Horwitz O. Epidemiology of tuberculosis in Greenland. *Acta Sociomed Scand Suppl* 1972; **Suppl 6**: 233-9.
169 Horwitz O, Payne PG, Wilbek E. Epidemiological basis of tuberculosis eradication. 4. The isoniazid trial in Greenland. *Bull World Health Organ* 1966; **35**: 509-26.
170 Iversen E. Epidemiological basis of tuberculosis eradication. 11. Mortality among tuberculosis cases and the general population of Greenland. *Bull World Health Organ* 1971; **45**: 667-87.
171 Postl BD. Circumpolar Health 90: Proceedings of the 8th International Congress and Circumpolar Health, Whitehorse, Yukon, May 20-25, 1990: Winnipeg, Man.: Published by the University of Manitoba Press for the Canadian Society for Circumpolar Health; 1991.
172 Birch E, Andersson M, Koch A, Stenz F, Søborg B. Ten years of tuberculosis intervention in Greenland–has it prevented cases of childhood tuberculosis? *Int J Circumpolar Health* 2014; **73**: 24843.
173 The National Board of Health in Greenland. National TB strategy 2007-2012. 2007.
174 Soborg B, Andersen AB, Melbye M, et al. Risk factors for Mycobacterium tuberculosis infection among children in Greenland. *Bull World Health Organ* 2011; **89**: 741-8.
175 Bjorn-Mortensen K, Andersen AB, Koch A, et al. Tuberculosis outbreak in East Greenland: groups at risk in an isolated arctic setting. *European Respiratory Journal* 2015; **46**: 865-9.
176 Soborg B, Koch A, Thomsen VO, et al. Ongoing tuberculosis transmission to children in Greenland. *European Respiratory Journal* 2010; **36**: 878-84.
177 Michelsen SW, Soborg B, Koch A, et al. The effectiveness of BCG vaccination in preventing Mycobacterium tuberculosis infection and disease in Greenland. *Thorax* 2014; **69**: 851-6.

178 Larsen CV, Curtis T, Bjerregaard P. Harmful alcohol use and frequent use of marijuana among lifetime problem gamblers and the prevalence of cross-addictive behaviour among Greenland Inuit: evidence from the cross-sectional Inuit Health in Transition Greenland survey 2006-2010. *Int J Circumpolar Health* 2013; **72**: 19551.
179 Statistics Canada. 2013. Nunavik, Inuit region, Quebec (Code 640002) (table). National Household Survey (NHS) Aboriginal Population Profile. https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/details/page.cfm?Lang=E&Geo1=BAND&Code1=640002&Data=Count&SearchText=Nunavik&SearchType=Begins&SearchPR=01&A1=All&Custom=&TABID=1 (accessed March 11, 2016).
180 Nunavut Statistics. Nunavik, total population, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011 (Table 2012-02-29-01). http://www.nunivaat.org/Table.aspx/Indicator/Population/Year/Before_2000/2012-02-29-01/12961 (accessed March 9, 2016).
181 Demmer M. The state of tuberculosis in Inuit Nunangat. 2011.
182 Le Bureau d'audiences publiques sur l'environnement. Health of the Nunavik population, Northern development plan. 2013.
183 Wilkins R, Uppal S, Finès P, Senécal S, Guimond É, Dion R. Life expectancy in the Inuit-inhabited areas of Canada, 1989 to 2003. *Health Reports* 2008; **19**: 7-19.
184 Duhaime G. Socio-economic profile of Nunavik, 2008 edition. *Québec: Université Laval, Canada research chair in comparative aboriginal condition* 2008.
185 Ministère de la Santé et des Services sociaux, Gouvernement du Québec Highlights of the health survey conducted among the Inuit of Northern Quebec, 1983-1984. 1992.
186 Thouez JP, Ekoé JM, Foggin PM, et al. Obesity, hypertension, hyperuricemia and diabetes mellitus among the Cree and Inuit of northern Quebec. *Arctic Med Res* 1990; **49**: 180-8.
187 Choinière R, Robitaille N. Description et utilisation du registre de population des Inuit du Nouveau-Québec. *Cah Que Demogr* 1982; **11**: 69-99.
188 Institut National de Santé Publique du Québec. Status of Cardiovascular Disease and Diabetes in Nunavik - Nunavik Inuit Health Survey 2004 *Quebec: Institut national de santé publique du Québec (INSPQ) & Nunavik Regional Board of Health and Social Services (NRBHSS)* 2007.
189 Statistics Canada. Aboriginal Peoples Survey, 2006 - Nunavik Inuit. http://www12.statcan.ca/census-recensement/2006/dp-pd/89-635/P4.cfm?Lang=eng&age=3&ident_id=6&B1=0&geocode1=033&geocode2=000 (accessed May 2, 2015).
190 Anctil M. Nunavik Inuit Health Survey 2004: Survey Highlights. *Quebec: Institut national de santé publique du Québec (INSPQ) & Nunavik Regional Board of Health and Social Services (NRBHSS)* 2008.
191 Santé Québec. A health profile of the Inuit: report of the Santé Québec health survery among the Inuit of Nunavik, 1992 - Volume 2: Montréal, ministère de la Santé et des Services sociaux, gouvernement du Québec; 1994.
192 Wallace S. Inuit Health: Selected Findings from the 2012 Aboriginal Peoples Survey. *Statistics Canada* 2014.
193 Santé Québec. A health profile of the Inuit: report of the Santé Québec health survery among the Inuit of Nunavik, 1992 - Volume 1: Montréal: ministère de la Santé et des Services sociaux, gouvernement du Québec; 1994.
194 Statistics Canada. Aboriginal Peoples Survey: Inuit Health and Social Conditions, Supporting Data Tables. Table 5-4 Smoking status, Inuit adults aged 15 and over by sex and age group, Nunavik, 2006. http://www.statcan.gc.ca/pub/89-637-x/89-637-x2008002-eng.htm. 2010.
195 Institut national de santé publique du québec. Alcohol, Drug Use and Gambling Among the Inuit of Nunavik: Epidemiological Profile - Nunavik Inuit Health Survey 2004 *Quebec: Institut national de santé publique du Québec (INSPQ) & Nunavik Regional Board of Health and Social Services (NRBHSS)* 2007.
196 Statistics N. Table 2016-06-20-09. Mortality By Suicide, Nunavik, Nord-Du-Québec And All Of Quebec, 1990-1994 To 2005-2008. http://www.nunivaat.org/documents/20160620/2016-06-20-09.pdf (accessed May 2, 2016).
197 Statistics N. Table 2008-11-12-08. Suicide Mortality By Cause, Suicides, Average Annual Rate And Number According To Sex, Nunavik, 1985, 1990, 1995, 2000 and 2005-2008 http://www.nunivaat.org/documents/20140318/2008-11-12-08.pdf (accessed May 2, 2016).
198 Statistics Canada. Table 102-4313 - Mortality and potential years of life lost, by selected causes of death and sex, three-year average, Canada, provinces, territories, health regions and peer groups, occasional (number unless otherwise noted), CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1024313&pattern=Mortality+and+potential+years+of+life+lost&tabMode=dataTable&srchLan=-1&p1=1&p2=-1 (accessed May 3, 2016).
199 Gérard D, Sébastien L, Andrée C. Nunavik in Figures 2015 - Full Version. *Canada Research Chair in Comparative Aboriginal Condition, Centre interuniversitaire d'études et de recherches autochtones (CIÉRA) and the Faculté des sciences sociales at the Université Laval* 2015.
200 Statistics Canada. 2003. Région du Nunavik (HR). Aboriginal Population Profile. 2001 Census. http://www12.statcan.ca/english/profil01/AP01/Details/Page.cfm?Lang=E&Geo1=HR&Code1=2417&Geo2=PR&Code2=24&Data=Count&SearchText=Région du Nunavik&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=&GeoCode=2417 (accessed March 11, 2016).
201 Statistics Canada. 2007. Région du Nunavik, Quebec (Code2417) (table). Aboriginal Population Profile. 2006 Census. http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-

594/details/page.cfm?Lang=E&Geo1=HR&Code1=2417&Geo2=PR&Code2=24&Data=Count&SearchText=Region du Nunavik&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=PR&GeoCode=2417 (accessed March 11, 2016).
202 Eco-Santé Québec. Taux de chômage. http://www.ecosante.fr/index2.php?base=QUEB&langh=FRA&langs=FRA (accessed June 22, 2015).
203 Déry S, Zoungrana H. The Housing Situation in Nunavik: a public health priority. Régie régionale de la Santé et des Services Sociaux Nunavik; 2009.
204 Tourigny A. Evaluation Programme de Lutte Anti-Tuberculeuse Nouveau-Quebec (Région l0A). 1986.
205 Proulx JF, Turcotte F. Tuberculosis in Nunavik, 1980-1994. *Can J Public Health* 1996; **87**: 395-6.
206 Health & Welfare Canada. Health & Welfare Canada, Medical Services, Quebec region, Annual report 1976/77. 1977.
207 Proulx JF. Rapport sur la couverture vaccinale des enfants de 2 ans du Nunavik. 2001. *Direction de la sante publique du Nunavik* 2001.
208 Fortin M, Belanger RE, Boucher O, Muckle G. Temporal trends of alcohol and drug use among Inuit of Northern Quebec, Canada. *Int J Circumpolar Health* 2015; **74**: 29146.
209 Nunavut Tunngavik Incorporated. Nunavut's Health System: Annual Report on the State of Inuit Culture and Society. 2008.
210 Statistics Canada. 2013. Nunavut (Code 62) (table). National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/details/page.cfm?Lang=E&Geo1=PR&Code1=62&Data=Count&SearchText=Nunavut&SearchType=Begins&SearchPR=01&A1=All&Custom=&TABID=1 (accessed March 11, 2016).
211 Statistics Canada. 2003. Nunavut. Aboriginal Population Profile. 2001 Census. http://www12.statcan.ca/english/profil01/AP01/Details/Page.cfm?Lang=E&Geo1=PR&Code1=62&Geo2=PR&Code2=01&Data=Count&SearchText=Nunavut&SearchType=Begins&SearchPR=01&B1=All&Custom= (accessed March 11, 2016).
212 Statistics Canada. 2007. Nunavut (Code62) (table). Aboriginal Population Profile. 2006 Census. http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-594/details/page.cfm?Lang=E&Geo1=PR&Code1=62&Geo2=PR&Code2=01&Data=Count&SearchText=nunavut&SearchType=Begins&SearchPR=01&B1=All&Custom= (accessed March 11, 2016).
213 Nunavut Bureau of Statistics. 2011. Nunavut Census Population by Region, Community and Inuit and Non-Inuit Identity, 1996 to 2011. http://www.stats.gov.nu.ca/en/Census%202011.aspx (accessed March 14, 2016).
214 Canadian Institute for Health Information. National Health Expenditure Trends, 1975 to 2015. 2015.
215 Statistics Canada. Table 102-0706 - Life expectancy, at birth and at age 65, by sex, five-year average, Canada and Inuit regions, every 5 years (years), CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1020706&pattern=Inuit&tabMode=dataTable&srchLan=-1&p1=1&p2=-1 (accessed March 5, 2015).
216 The Conference Board of Canada. How Canada Performs - Life Expectancy. http://www.conferenceboard.ca/hcp/provincial/health/life.aspx (accessed March 15, 2015).
217 Spady DW. Between two worlds: the report of the Northwest Territories perinatal and infant mortality and morbidity study: University of Alberta Press; 1982.
218 Muir BL. Health status of Canadian indians and Inuit: Community Health Services, Indian and Northern Health Services; 1988.
219 Macaulay A, Orr P, Macdonald S, et al. Mortality in the Kivalliq region of Nunavut, 1987-1996. *Int J Circumpolar Health* 2004; **63**: 80-5.
220 Hobart CW. Socioeconomic correlates of mortality and morbidity among Inuit infants. *Arctic anthropology* 1975; 12: 37-48.
221 Luo ZC, Senécal S, Simonet F, Guimond É, Penney C, Wilkins R. Birth outcomes in the Inuit-inhabited areas of Canada. Can Med Assoc J 2010; 182: 235-42.
222 Nunavut Bureau of Statistics. Nunavut Infant Mortality, 1999 to 2012. http://www.stats.gov.nu.ca/en/Population%20deaths.aspx (accessed February 17, 2016).
223 Healey SM, Qayyum A. Diabetes in Nunavut, 1997-2002: Nunavut Department of Health and Social Services; 2003.
224 Statistics Canada. Table 105-0512 - Health indicator profile, by Aboriginal identity, age group and sex, four year estimates, Canada, provinces and territories, occasional (rate), CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1050512&tabMode=dataTable&srchLan=-1&p1=-1&p2=9 (accessed March 14, 2016).
225 Statistics Canada. Table 105-0112 - Canadian Community Health Survey (CCHS 1.1 and 2.1) off-reserve Aboriginal profile, by sex, Canada, provinces and territories, occasional, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1050112&tabMode=dataTable&srchLan=-1&p1=-1&p2=9 (accessed March 14, 2016).
226 Statistics Canada. Table 105-0501 - Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2013 boundaries) and peer groups, occasional, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1050501 (accessed March 10, 2016).
227 Gagnon AG. Minority Nations in the Age of Uncertainty: New Paths to National Emancipation and Empowerment: University of Toronto Press; 2014.

228 Nunavut Bureau of Statistics. Nunavut Labour Force Characteristics (15 and Over), March 2008 to December 2015. http://www.stats.gov.nu.ca/Publications/Labour/LFS/Nunavut%20Labour%20Force%20Characteristics,%20March%202008%20to%20December%202015.xls (accessed February 10, 2017).
229 Hicks J. Statistical data on death by suicide by Nunavut Inuit, 1920 to 2014. Nunavut Tunngavik Inc 2015.
230 Nunavut Bureau of Statistics. Nunavut Suicides by Region, Sex, Age Group and Ethnicity, 1999 to 2015. http://www.stats.gov.nu.ca/Publications/Historical/Deaths/Nunavut%20Suicides%20by%20Region,%20Sex,%20Age%20Group%20and%20Ethnicity,%201999%20to%202015.xlsx (accessed April 20, 2016).
231 Schonell M. Frobisher Eskimos and tuberculosis. Med J Aust 1972; 1: 1090.
232 Grzybowski S, Galbraith JD, Dorken E. Chemoprophylaxis trial in Canadian eskimos. Tubercle 1976; 57: 263-9.
233 Dorken E, Grzybowski S, Enarson DA. Ten year evaluation of a trial of cremoprophylaxis against tuberculosis in Frobisher Bay, Canada. Tubercle 1984; 65: 93-9.
234 Cowall EES. PUVALUQATATILUTA, When We had Tuberculosis: St. Luke's Mission Hospital and the Inuit of Cumberland Sound Region 1930-1972; 2011.
235 Public Health Agency of Canada. 2012. BCG Vaccine Usage in Canada - Current and Historical. http://www.phac-aspc.gc.ca/tbpc-latb/bcgvac_1206-eng.php (accessed.
236 Alvarez GG, Van Dyk DD, Davies N, et al. The feasibility of the interferon gamma release assay and predictors of discordance with the tuberculin skin test for the diagnosis of latent tuberculosis infection in a remote Aboriginal community. PLoS One 2014; 9: e111986.
237 Galloway T, Saudny H. Inuit Health Survey 2007-2008 – Nunavut Community and Personal Wellness. 2012.
238 Government of Canada. 2017. National report: Apparent opioid-related deaths in Canada (January 2016 to March 2017). https://www.canada.ca/en/public-health/services/publications/healthy-living/apparent-opioid-related-deaths-report-2016.html (accessed.
239 Statistics Canada. Population, urban and rural, by province and territory (Canada). http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo62a-eng.htm. 2011.
240 Statistics Canada. Population and Dwelling Count Highlight Tables, 2011 Census. http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/hlt-fst/pd-pl/index-eng.cfm. 2016.
241 The World Bank. World Development Indicators - Life expectancy at birth, total. http://www.google.ca/publicdata/explore?ds=d5bncppjof8f9_&met_y=sp_dyn_le00_in&idim=country:CAN:USA:IND&hl=en&dl=en#!ctype=l&strail=false&bcs=d&nselm=h&met_y=sp_dyn_le00_in&scale_y=lin&ind_y=false&rdim=region&idim=country:CAN&ifdim=region&hl=en_US&dl=en&ind=false (accessed May 17, 2016).
242 Statistics Canada. Table 102-0512 - Life expectancy, at birth and at age 65, by sex, Canada, provinces and territories, annual (years), CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1020512&&pattern=&stByVal=1&p1=1&p2=37&tabMode=dataTable&csid= (accessed October 28, 2016).
243 Statistics Canada. Table 102-0030 - Infant mortality, by sex and birth weight, Canada, provinces and territories, annual, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1020030 (accessed May 19, 2015).
244 Statistics Canada. Canada at a Glance 2009 - Chart 5 Infant mortality. 2009. http://www45.statcan.gc.ca/2009/cgco_2009_002b-eng.htm.
245 Health Canada. Diabetes in Canada: National Statistics and Opportunities for Improved Surveillance, Prevention, and Control: Min ister of Health; 1999.
246 Statistics Canada. Table 105-0111 - Canadian Community Health Survey (CCHS 1.1 and 2.1) linguistic minority profile (mother tongue and first official language spoken), by sex, Canada, provinces and territories, occasional, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1050111 (accessed May 23, 2015).
247 Statistics Canada. Table 104-0011 - Diabetes, by age group and sex, household population aged 12 and over, Canada and provinces, every 2 years, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1040011 (accessed May 23, 2015).
248 Public Health Agency of Canada. Diabetes in Canada: Facts and figures from a public health perspective: Ottawa; 2011.
249 Public Health Agency of Canada. Report from the National Diabetes Surveillance System: Diabetes in Canada, 2009. 2009.
250 World Health Organization. WHO Global Database on Body Mass Index. http://apps.who.int/bmi/ (accessed May 25, 2015).
251 Statistics Canada. Table 105-4009 - Body mass index (BMI), by sex, household population aged 18 and over excluding pregnant females, Canada, provinces and territories, occasional, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1054009&pattern=body+mass+index&tabMode=dataTable&srchLan=-1&p1=1&p2=-1 (accessed May 25, 2015).
252 Navaneelan T. Health at a Glance. Suicide rates: An overview: Statistics Canada Ottawa; 2012.
253 Statistics Canada. Table 102-0551 - Deaths and mortality rate, by selected grouped causes, age group and sex, Canada, annual, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1020551&&pattern=&stByVal=1&p1=1&p2=37&tabMode=dataTable&csid= (accessed May 30, 2015).
254 Statistics Canada. Table 104-0027 - Smoking status, by age group and sex, household population aged 12 and over, Canada and provinces, every 2 years, CANSIM (database).

http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1040027&pattern=smoking&tabMode=dataTable&srchLan=-1&p1=1&p2=-1 (accessed May 23, 2015).
255 Roberts LW, Clifton RA, Ferguson B. Recent social trends in Canada, 1960-2000: McGill-Queen's Press; 2005.
256 Statistics Canada. Table 104-0031 - Frequency of drinking in the past 12 months, by age group and sex, household population aged 12 and over who are current drinkers, Canada and provinces, every 2 years, CANSIM (database). http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1040031&pattern=drinking&tabMode=dataTable&srchLan=-1&p1=1&p2=-1 (accessed May 24, 2015).
257 Statistics Canada. Heavy drinking, 2014. http://www.statcan.gc.ca/pub/82-625-x/2015001/article/14183-eng.htm. 2015.
258 Statistics Canada. Canada (Code 01) (table). National Household Survey (NHS) Profile. 2011 National Household Survey. http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E (accessed March 10, 2016).
259 Statistics Canada. 1996 Census of Population, Statistics Canada Catalogue no. 95F0181XDB96001. http://www12.statcan.ca/english/census96/data/profiles/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=35782&PRID=0&PTYPE=3&S=0&SHOWALL=0&SUB=0&Temporal=1996&THEME=34&VID=0&VNAMEE=&VNAMEF= (accessed May 24, 2015).
260 Statistics Canada. 2001 Census of Population, Statistics Canada Catalogue no. 95F0495XCB2001002. http://www12.statcan.ca/english/census01/products/standard/profiles/Rp-eng.cfm?LANG=E&APATH=1&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=72849&PRID=0&PTYPE=56079&S=0&SHOWALL=0&SUB=0&Temporal=2001&THEME=57&VID=0&VNAMEE=&VNAMEF= (accessed May 24, 2015).
261 Statistics Canada. Canada (Code01) (table). 2006 Community Profiles. 2006 Census. http://www.recensement.ca/census-recensement/2006/dp-pd/prof/92-591/details/page.cfm?Lang=E&Geo1=PR&Code1=01&Geo2=PR&Code2=01&Data=Count&SearchText=canada&SearchType=Begins&SearchPR=01&B1=All&Custom= (accessed March 10, 2016).
262 CHASS Data Centre, University of Toronto. Census of Canada, 1981: public use microdata on individuals. http://sda.chass.utoronto.ca/sdaweb/html/canpumf.htm (accessed October 22, 2015).
263 CHASS Data Centre, University of Toronto. Census of Canada, 2006: individual public use microdata file. http://sda.chass.utoronto.ca/sdaweb/html/canpumf.htm (accessed October 22, 2015).
264 CHASS Data Centre, University of Toronto. National Household Survey (NHS) PUMF, 2011: individuals file. http://sda.chass.utoronto.ca/sdaweb/html/nhspumf.htm (accessed October 22, 2015).
265 Indian and Northern Affairs Canada. Comparison of Social Conditions, 1991 and 1996. Minister of Indian Affairs and Northern Development, Ottawa; 2000.
266 Statistics Canada. 2007. Census trends for Canada, provinces and territories (table). 2006 Census. . https://www12.statcan.gc.ca/census-recensement/2006/dp-pd/92-596/P2-2.cfm?Lang=eng&T=CSD&LINE_ID=507&TOPIC_ID=500 (accessed.
267 Statistics Canada. 1981, 1986, 1991 Census book: Ottawa: Statistics Canada.