TB can hit you too

Together we fight TB

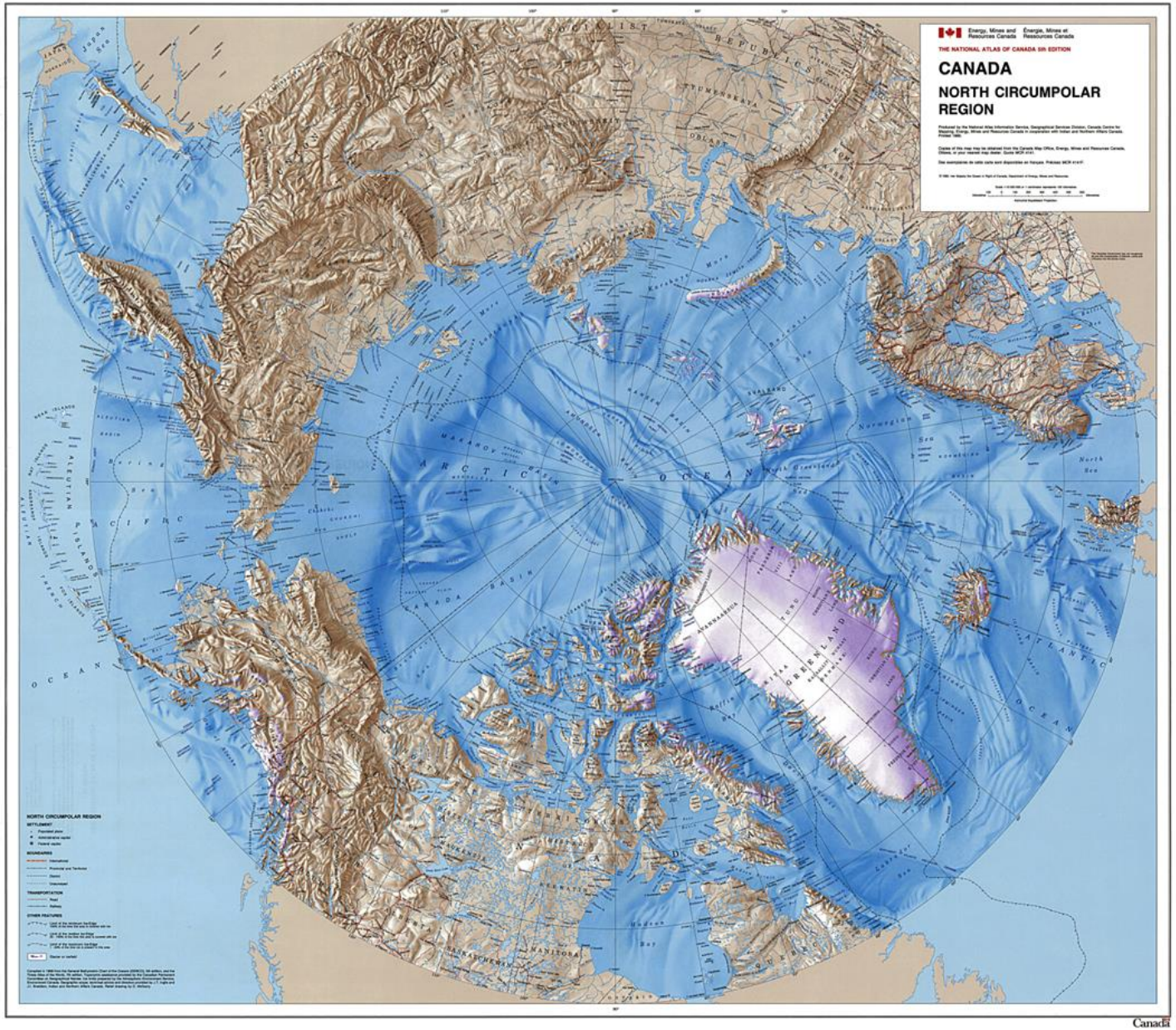
The Arctic Health Workshop Århus, April 17-18, 2013

Chief Medical Officer Flemming Kleist Stenz

The National Board of Health and the increasing co-operation with other regions in the Arctic

The History of Greenland – The short version

- 1721 - 1953 Danish Colony
- 1742 The first doctor in Greenland
- 1838 2 doctors
- 1853 First hospital in Nuuk
- 1950'ies Hospital in all the distrikts, SANA in Nuuk
- 1953 - 1979 Danish County
- 1979 - 2009 Home Rule (Took over the responsibility for a number of public affairs)
- 1992 - The Government of Greenland took over the responsibility for the Healths Care System from the Danish Government
- 2009 – Self Government – but still part of the Danish Kingdom

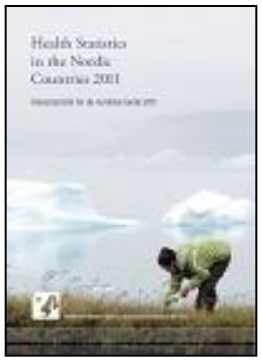

Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada
THE NATIONAL ATLAS OF CANADA 5th EDITION
CANADA
NORTH CIRCUMPOLAR REGION
ARCTIC OCEAN
GREENLAND
NORTH CIRCUMPOLAR REGION
SETTLEMENT
BOUNDARIES
TRANSPORTATION
OTHER FEATURES

WHO-Europe region

low	260,42
Albania	13
Andorra	5,9
Austria	3,7
Belgium	8,1
Croatia	17
Cyprus	4
Czech Republic	6
Denmark	6,5
Finland	7,5
France	4,3
Germany	4,5
Greece	3,8
Hungary	18
Iceland	4,8
Ireland	7,5
Israel	5,8
Italy	2,8
Luxembourg	0,52
Malta	9,1
Monaco	3,2
Montenegro	17
Netherlands	6,8
Norway	6,1
San Marino	1,4
Serbia	16
Slovakia	7,2
Slovenia	9,3
Spain	15
Sweden	6,8
Switzerland	4,8
The Former Yugoslav Republic of Macedonia	20
United Kingdom of Great Britain and Northern Ireland	14

middle	222
Bosnia and Herzegovina	49
Bulgaria	35
Estonia	25
Latvia	42
Poland	23
Portugal	24
Turkey	24

high	1673
Armenia	55
Azerbaijan	113
Belarus	70
Georgia	125
Greenland	178
Kazakhstan	129
Kyrgyzstan	128
Lithuania	59
Republic of Moldova	161
Romania	101
Russian Federation	97
Tajikistan	193
Turkmenistan	74
Ukraine	89
Uzbekistan	101

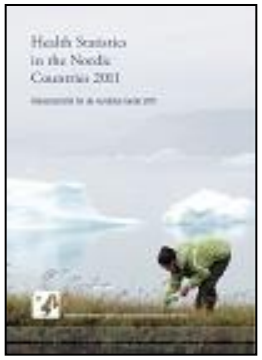


Since 1980, NOMESCO has annually published basic health statistical indicators in Health Statistics in the Nordic Countries, which is edited by an editorial board.

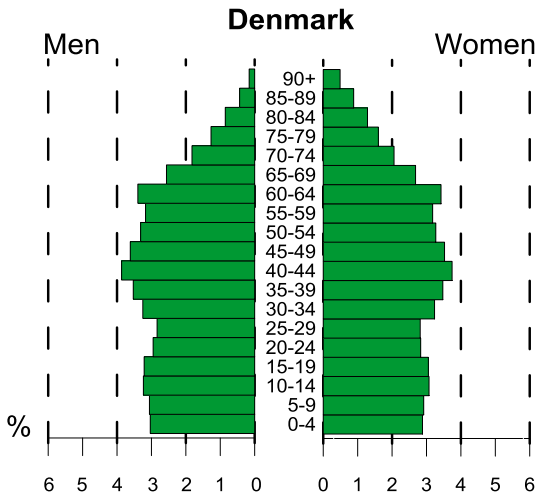
In connection with the publication, efforts are continually made to improve the statistical comparability between the countries.

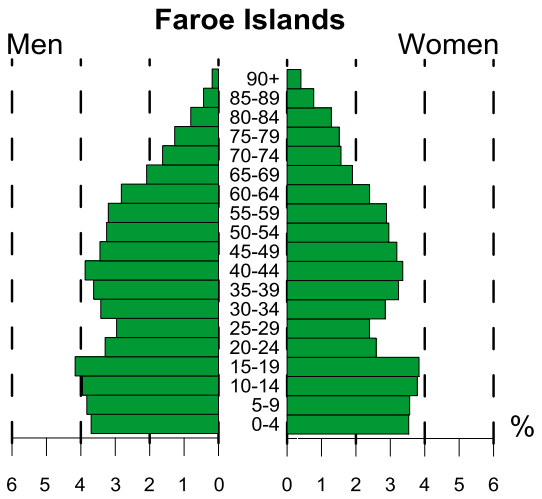
Since 1996, the publication has had a special feature section. The 2001 edition pays special attention to the use of and expenditure on medicine.

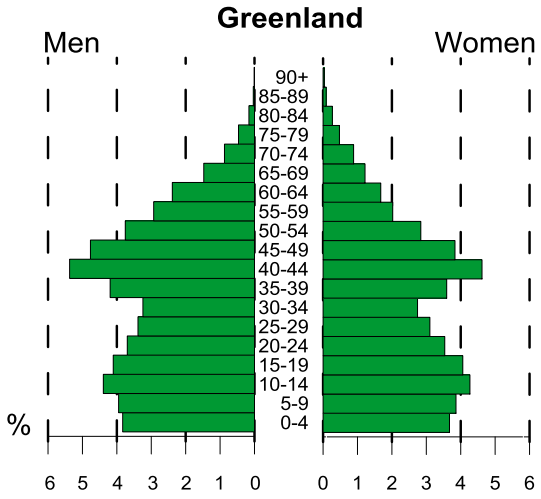
The publication has included statistics for both Greenland, the Faroe Islands and Åland since 1992.

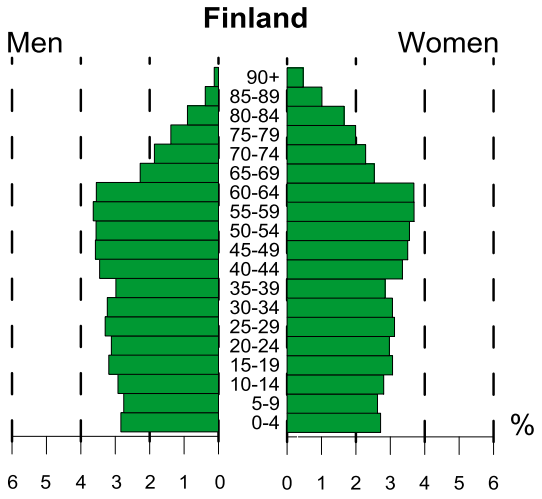


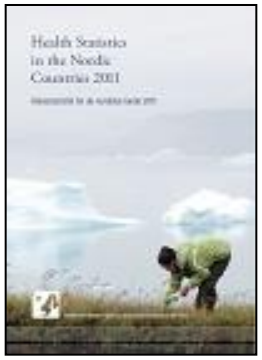
Mean population by sex and age





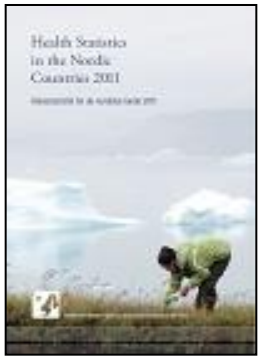




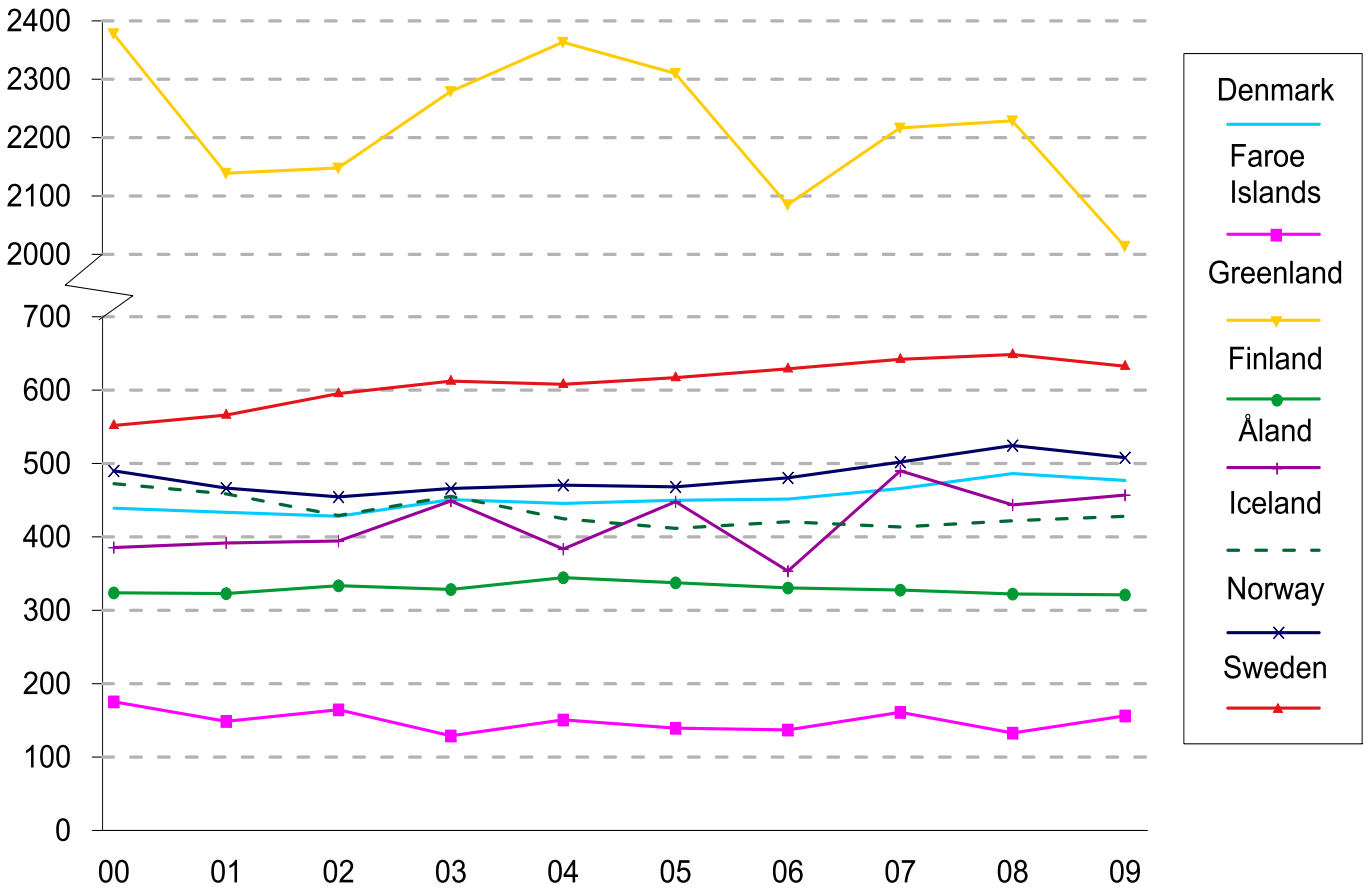


Average life expectancy

	Men					Women				
Alder	0	15	45	65	80	0	15	45	65	80
Danmark										
2000-04	74,7	60,3	31,7	15,3	6,8	79,4	64,9	35,6	18,3	8,5
2009	76,5	61,9	33,2	16,6	7,2	80,8	66,2	36,9	19,3	8,8
2010	77,1	62,4	33,5	16,9	7,4	81,2	66,6	37,2	19,6	9,0
Færøerne										
2001-05	76,9	62,4	33,7	16,9	7,7	81,4	66,6	37,5	19,5	8,7
2006-10										
Grønland										
2001-05	65,7	52,4	27,5	11,6	5,1	71,0	57,2	29,3	13,5	6,2
2006-10	67,8	54,6	28,6	12,4	5,2	72,8	59,0	31,1	14,9	6,6
Finland										
2000-04	74,8	60,2	32,1	15,9	6,9	81,6	67,0	37,8	19,8	8,5
2009	76,5	61,8	33,5	17,2	7,6	83,1	68,5	39,2	21,2	9,4
2010	76,7	62,0	33,7	17,3	7,6	83,2	68,5	39,2	21,2	9,4
Åland										
2001-05	77,6	63,4	34,7	17,1	7,3	83,6	69,1	39,8	21,4	9,6
2006-10										
Island										
2000-04	78,5	63,9	35,1	17,6	7,7	82,3	67,6	38,3	20,3	9,0
2009	79,7	65,0	36,1	18,3	8,1	83,3	68,5	39,0	20,6	9,3
2010	79,5	64,8	36,0	18,2	7,7	83,5	68,8	39,3	20,8	9,4
Norge										
2000-04	76,6	62,1	33,7	16,5	7,0	81,7	67,2	37,9	20,0	8,8
2009	78,6	64,0	35,3	17,8	7,7	83,1	68,4	39,0	20,9	9,4
2010	78,9	64,2	35,4	17,9	7,8	83,2	68,5	39,1	21,0	9,6
Sverige										
2000-04	77,8	63,2	34,3	17,0	7,3	82,3	67,6	38,3	20,2	9,0
2009	79,4	64,7	35,8	18,2	7,8	83,4	68,7	39,2	21,0	9,6
2010										



Total abortion rate



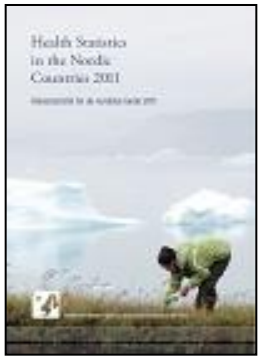


Table 3.1.5 Diagnosed cases of tuberculosis per 100 000 inhabitants 2000–2009
Diagnosticerede tilfælde af tuberkulose pr. 100 000 indbyggere 2000–2009

	Denmark	Faroe Islands	Greenland	Finland	Åland	Iceland	Norway[1)]	Sweden[1)]
Men Mænd					M+W			
2000	12.1	21.7	50.0	12.4	3.9	2.8	5.8	5.2
2005	9.5	–	178.1	8.0	3.8	5.4	6.2	6.8
2008	8.2	4.0	120.8	8.1	3.7	2.5	6.6	6.0
2009	7.1	4.0	137.5	9.4	–	3.1	8.8	7.3
Women Kvinder								
2000	8.5	4.5	111.0	8.5	.	6.4	6.2	5.2
2005	6.2	–	165.1	5.8	.	2.0	6.1	6.0
2008	5.3	4.3	87.2	4.9	.	1.3	6.7	6.1
2009	4.9	–	83.4	6.1	–	1.9	6.1	6.5

1 Including relapses

1 Inklusive tilbagefald

Sources: D: Statens Serum Institut; FI: Chief Medical Officer; G: Chief Medical Officer; F & Å: THL; I: Directorate
Kilder: of Health; N: Norwegian Institute of Public Health; S: Swedish Institute for Infectious Disease Control

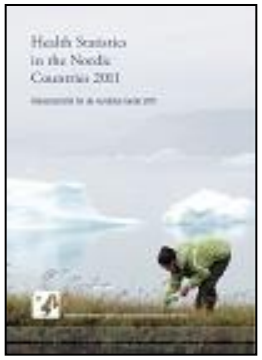


Table 3.1.7 Notified cases of gonorrhoea and syphilis per 100 000 inhabitants aged 15 years and over 2009

Anmeldte tilfælde af gonorré og syfilis pr. 100 000 indbyggere 15 år og derover 2009

	Denmark	Faroe Islands	Greenland	Finland	Åland	Iceland	Norway	Sweden
Gonorrhoea								
Gonorré								
Men	21	–	2 150.6	7.3	7.2	18.8	15.8	10.2
Women	6	4	3 032.3	2.4	–	18.4	1.9	3.0
Total	13	2	2 558.6	4.8	3.6	18.6	8.8	6.6
Syphilis								
Syfilis								
Men	12	–	–	5.1	–	1.6	3.7	3.0
Women	1	–	10	2.8	–	–	0.2	0.9
Total	6	–	4.6	3.9	–	0.8	2.0	1.9

Sources: *See Table 3.1.5*
Kilder: Se table 3.1.5

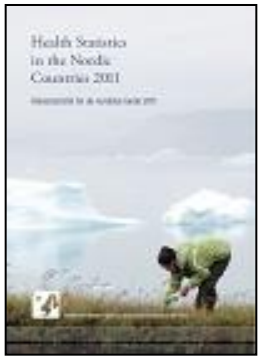


Table 3.1.8 Diagnosed cases of Chlamydia per 100 000 inhabitants 2000–2009
Diagnosticerede tilfælde af chlamydia pr. 100 000 indbyggere 2000–2009

	Denmark	Faroe Islands	Greenland	Finland	Åland	Iceland[1)]	Norway	Sweden[2,3)]
Men Mænd								
2000	165	.	2 789	180	.	479	.	187
2005	324	.	3 852	197	.	412	330	317
2008	396	256	3 579	218	.	431	380	398
2009	414	333	3 955	210	.	553	356	353
Women Kvinder								
2000	384	.	4 802	272	.	781	.	246
2005	554	.	5 797	287	.	643	524	411
2008	664	544	5 480	304	.	691	600	502
2009	665	583	6 310	289	.	865	583	459
Men and women Mænd og kvinder								
2000	276	79	3 727	226	152	647	326	217
2005	440	231	4 762	242	362	548	434	366
2008	..	408	4 472	262	203	558	493	457
2009	541	455	5 061	249	226	707	471	405

1 Notified cases. Since 1997 cases verified by laboratories. The total includes those with missing data about gender
2 A mutant chlamydia gene, which is not detected in Abbot's test system, has been identified in the county of Halland, and has become distributed over a wide area. Cases in 2006 (and probably in 2005) are underreported in most of the counties because of problems associated with diagnosis of chlamydia. Source: Swedish Institute for Infectious Disease Control
3 For 2008, gender is not known for 8 people

1 Anmeldte tilfælde. Fra 1997 er det tilfælde der er verificeret via laboratorier. Totalen inkluderer dem med uoplyst køn
2 Et muteret klamydiagen, som ikke bliver opdaget i Abbots testsystem, er opdaget i landstinget i Halland og har formentligt større geografisk spredning. Det rapporterede antal i 2006 (og sandsynligvis også 2005) er underrapporteret i størstedelen af landstingene på grund af problemer med klamydiadiagnostikken. Kilde: Smittskyddsinstitutet
3 For 2008 er kønnet ukendt for 8 personer

Sources: *See Table 3.1.5*
Kilder: Se tabel 3.1.5

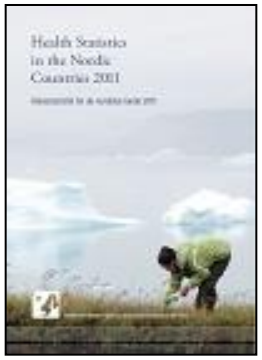
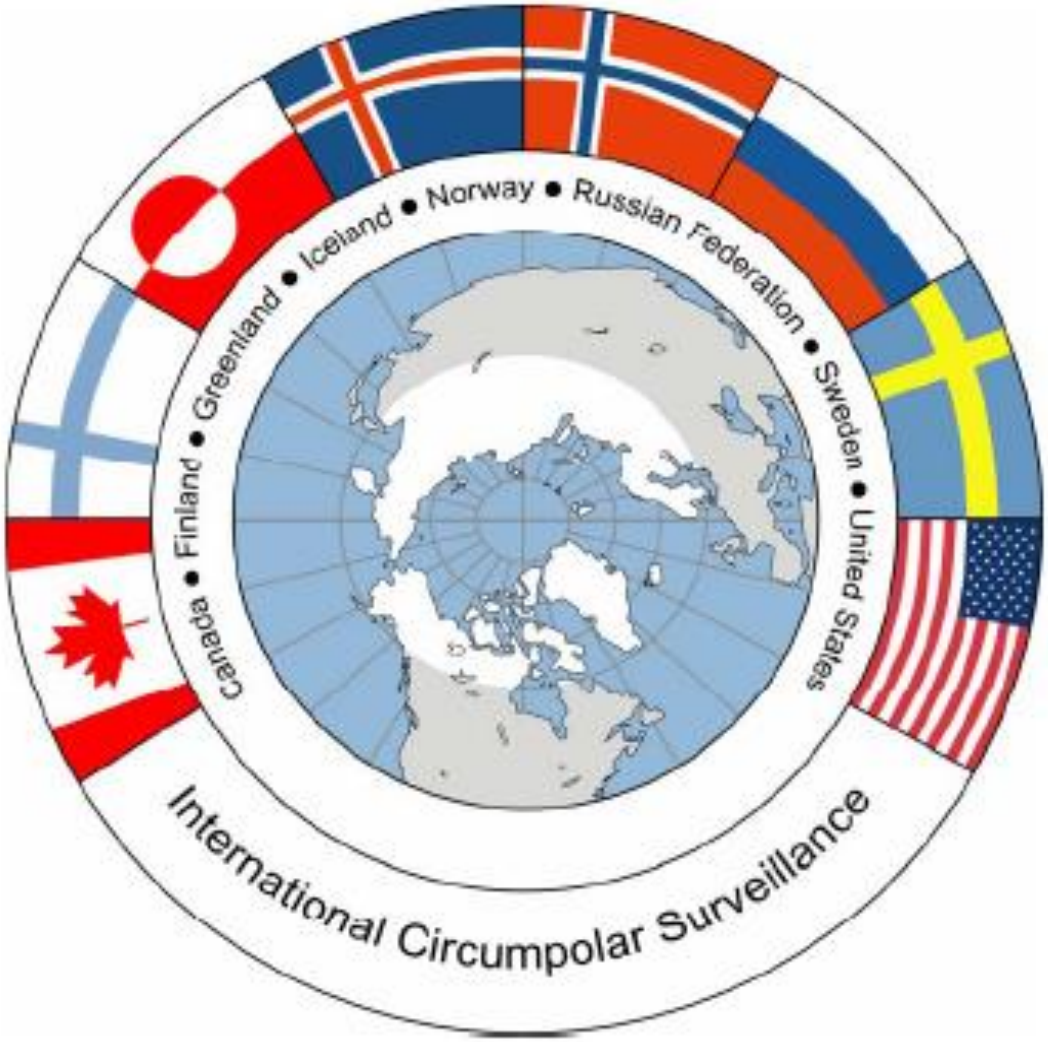


Table 4.1.6 Deaths from suicide per 100 000 inhabitants by sex and age 2000–2009
Selvmord pr. 100 000 indbyggere efter køn og alder 2000–2009

	Men					Mænd				
	Total I alt	10–19	20–24	25–64	65+	*Total* I alt	10–19	20–24	25–64	65+
Denmark										
2000	23.3	4.4	16.0	23.8	41.8	8.3	2.5	1.2	8.2	15.0
2005	16.9	3.3	8.8	18.9	41.8	6.3	0.6	3.5	6.8	14.2
2008	15.3	2.8	13.4	17.9	31.2	6.6	1.5	3.3	7.9	11.3
2009	17.4	2.8	9.8	21.6	32.9	5.2	1.2	0.6	6.0	10.5
Faroe Islands										
2000-04	6.6	–	12.3	9.8	7.2	2.7	–	–	5.6	–
2005-09	8.8	5.1	–	15.5	–	0.9	–	–	1.8	–
Greenland										
2000-04	145	179	464	105	102	58	71	104	53	13
2005-09	109.9	124.7	344.0	112.9	35.1	39.8	84.8	79.9	36.1	–
Finland										
2000	34.6	10.5	41.8	46.6	36.8	11.0	4.1	9.4	15.5	17.5
2005	28.1	4.8	30.5	36.5	39.0	10.0	4.7	12.3	13.5	8.6
2008	30.7	7.3	35.3	41.0	33.9	8.6	5.4	6.9	11.5	7.6
2009	29.0	8.3	37.3	37.1	35.4	10.0	3.2	12.0	14.2	7.5
Åland										
2000-04	26.5	12.0	55.7	33.8	22.2	9.1	–	–	8.5	24.0
2005-09	11.9	–	–	8.1	48.6	13.2	–	33.0	13.5	23.2
Iceland										
2000	29.8	22.9	73.4	38.1	13.6	5.7	–	9.4	8.6	5.6
2005	16.2	8.7	9.2	27.2	–	6.1	–	–	12.0	–
2008	16.5	4.2	25.0	23.7	11.9	7.0	–	–	11.1	10.0
2009	18.0	4.3	8.5	27.8	17.5	4.4	–	–	8.6	–
Norway										
2000	18.4	11.3	29.9	22.5	22.6	5.8	3.0	4.4	7.9	6.3
2005	15.8	6.9	24.7	18.6	16.9	7.3	4.3	7.2	9.8	5.4
2008	14.6	5.5	21.0	19.1	16.6	6.6	3.9	6.3	8.9	6.0
2009	17.3	7.7	17.6	22.3	23.0	6.5	4.5	4.8	9.3	4.7
Sweden										
2000	18.3	4.0	15.9	21.2	36.0	7.3	3.2	3.9	9.2	10.1
2005	18.6	3.8	18.2	22.3	32.3	8.4	3.1	8.5	10.4	11.2
2008	18.7	6.3	19.9	22.0	30.4	6.8	4.2	7.2	8.2	8.2
2009	19.2	5.8	19.8	23.9	27.7	7.6	3.8	8.6	9.4	8.7

Sources: *The national registers for causes of death* ICD-10: X60-X84
Kilder: De nationale dødsårsagsregistre
G: Chief Medical Officer


Canada • Finland • Greenland • Iceland • Norway • Russian Federation • Sweden • United States
International Circumpolar Surveillance

- Through the nineties there was an increasing interest, both nationally and internationally, about the health advantages / disadvantages of living in the Arctic environment

- ICS was primarily a United States (Alaska) / Canada cooperation in CDC (Arctic Investigations Program (AIP), The National Center for Infectious Diseases, Centers for Disease Control and Prevention (CDC), Anchorage, Alaska) (1998-99):

- The purpose was to:
  - Look across borders in the Arctic
  - Investigate disease incidence among Arctic populations (geography, environment, socio-cultural)
  - Increase the understanding of the epidemiology of infectious diseases among indigenous populations in the Arctic
  - Build a circumpolart network of all the Arctic nations

- In November 2000, the initiative was approved as a project of the Arctic Council, under "The Sustainable Development Working Group“
- ICS is also a project of the "The International Union for Circumpolar Health Infectious Disease Working Group“
- The Mission of the cooperation:
  - The systematic collection, interpretation and dissemination of information on diseases of importance for human health, for use in epidemiological research and national health policy (programs, monitoring, evaluation)

- Main activities:
  - The occurrence of selected infectious diseases
  - Trends in the development of resistance
  - Attention to disease incidence and risk factors that require further monitoring or investigation
  - Collect isolates
  - Evaluate the effectiveness of current preventive measures concerning. infectious diseases and new methods for monitoring / measurement
  - Feedback to participants
  - Broaden the spectrum (politics, culture, the environment and their health and social effects)

- Population-based surveillance of invasive infections:
  - 1998-99: Streptococcus pneumoniae
  - 2000: Streptococcus pneumoniae, Haemophilus influenzae, Neisseria meningitidis, Streptococcus Group A, B

- Greenland:
  - 1998-99: The National Board of Health began negotiations with ICS regarding the realistic possibilities of the participation of Greenland
  - 2000: Streptococcus pneumoniae
  - 2001: Streptococcus pneumoniae, Haemophilus influenzae, Neisseria meningitidis, Group A, B Streptococcus

- ICS Steering Committee:
  - Control activities and identify, prioritize and initiate new monitoring and research activities that will lead to better prevention and control of infectious diseases in the Arctic region

- Other ICS activities:
  - Invasive Infections Working Group
  - Tuberculosis Working Group
  - Research / Interest groups:
    - Hepatitis B
    - HPV (Human Papilloma Virus)
    - Hp (Helicobacter pylori)
    - EBV (Epstein Barr Virus)

Membership

The principal members may include, but are not limited to representative(s) of:

•Government departments, Ministries and laboratories in:

- Canada - Labrador (Newfoundland), Northwest Territories, Nunavut, Nunavik (Quebec), Yukon,
- Finland
- Greenland
- Norway
- Russian Federation
- Sweden
- United States - Alaska

•Arctic Investigations Program of the U.S. Centres for Disease Control and Prevention (CDC)

•International Union for Circumpolar Health (IUCH) and Canadian Society for Circumpolar Health (CSCH)

•First Nations Inuit Health Branch, Health Canada

•Quebec National Institute of Public Health

•National Reference Centre for Mycobacteriology, Public Health Agency of Canada (PHAC)

•Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada (PHAC)

ICS-TB Working Group

On February 1, 2006, representatives from several countries with territory in the circumpolar region met in Yellowknife, Northwest Territories, Canada, to establish a TB surveillance subgroup of the International Circumpolar Surveillance (ICS) network. As a result, a proposal was submitted to the ICS Steering Committee and on March 19, 2006 the Steering Committee unanimously approved the creation of a TB Working Group of the ICS (ICS-TB).

Mission

The mission of ICS-TB is the collaborative, systematic collection, interpretation and dissemination of information pertaining to tuberculosis in circumpolar populations for use in epidemiologic study, policy generation, program design and evaluation.

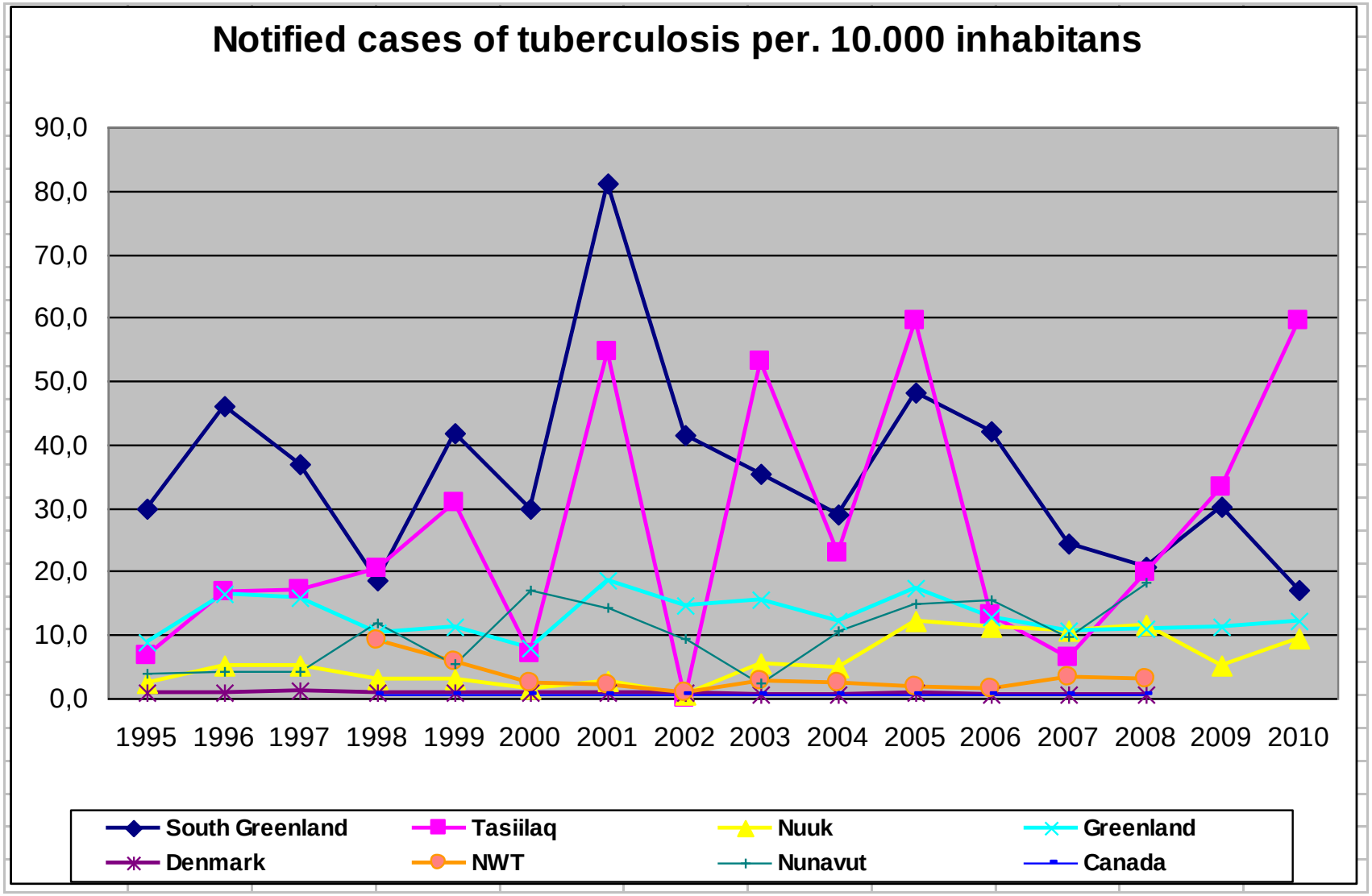
Mandate

To conduct surveillance for targeted public health action and to monitor trends in the demographic, clinical and laboratory characteristics of tuberculosis disease in northern circumpolar populations.

Activities

- Specific activities include, but are not limited to:
  - Maintaining a non-nominal database of cases of disease to use as a basis for further study
  - Identifying patterns of disease occurrence that require further investigation
  - Monitoring TB drug resistance trends
  - Providing feedback about the molecular epidemiology of TB in northern circumpolar regions through the use of DNA fingerprinting
  - Evaluating known risk factors for TB disease

- Further or future activities may include:
  - Evaluating and comparing the effectiveness of existing control measures (including use of BCG) in different jurisdictions
  - Demonstrating the feasibility and effectiveness of new targeted or universal control measures
  - Expanding the collaboration to include agencies which monitor political, cultural, and environmental factors in northern circumpolar regions and to expand the surveillance to include health and social effects related to these factors.
  - Evaluating the effectiveness of current tuberculosis prevention and control measures


Notified cases of tuberculosis per. 10.000 inhabitans
90,0
80,0
70,0
60,0
50,0
40,0
30,0
20,0
10,0
0,0
1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010
South Greenland
Tasiilaq
Nuuk
Greenland
Denmark
NWT
Nunavut
Canada

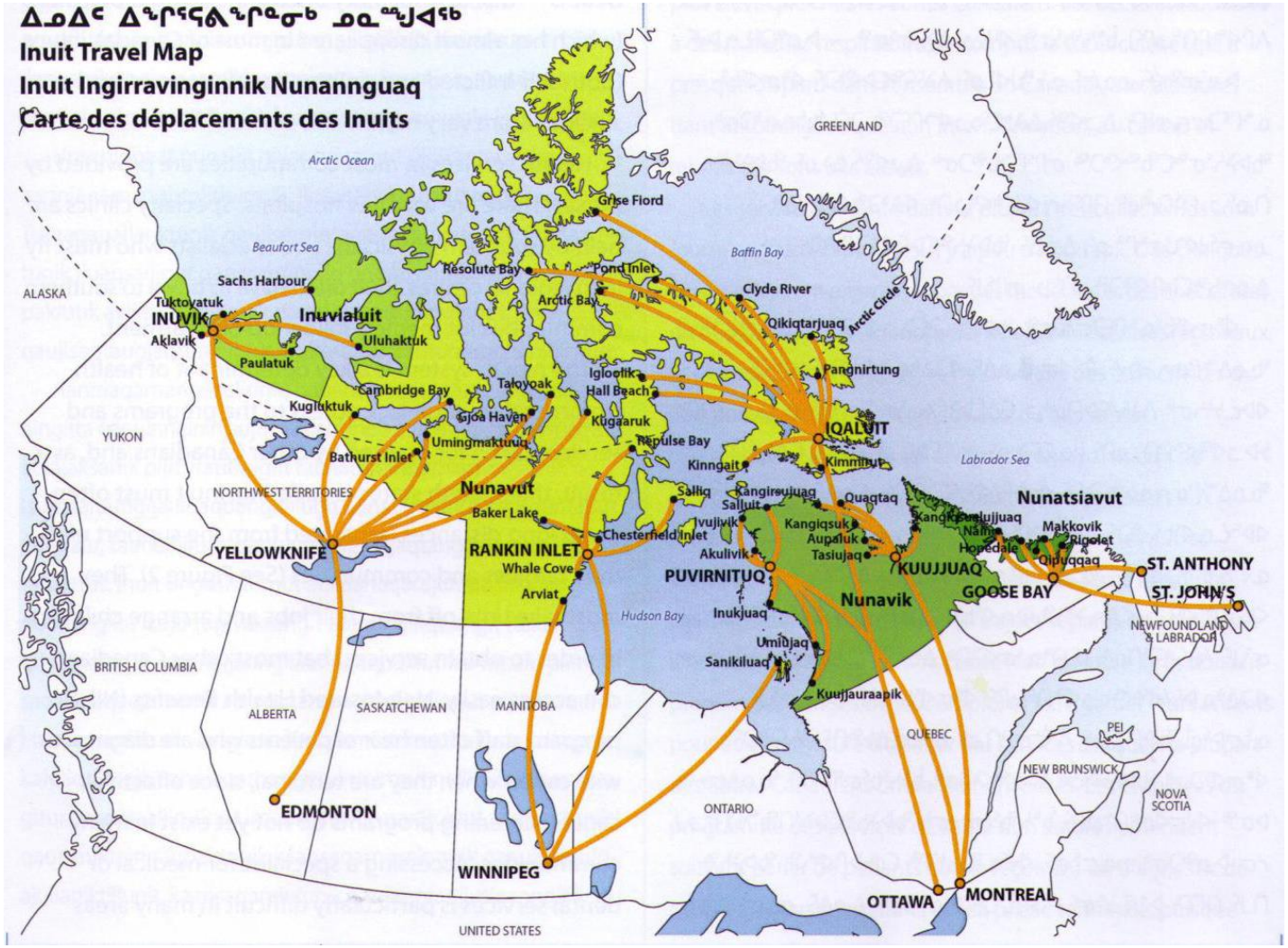
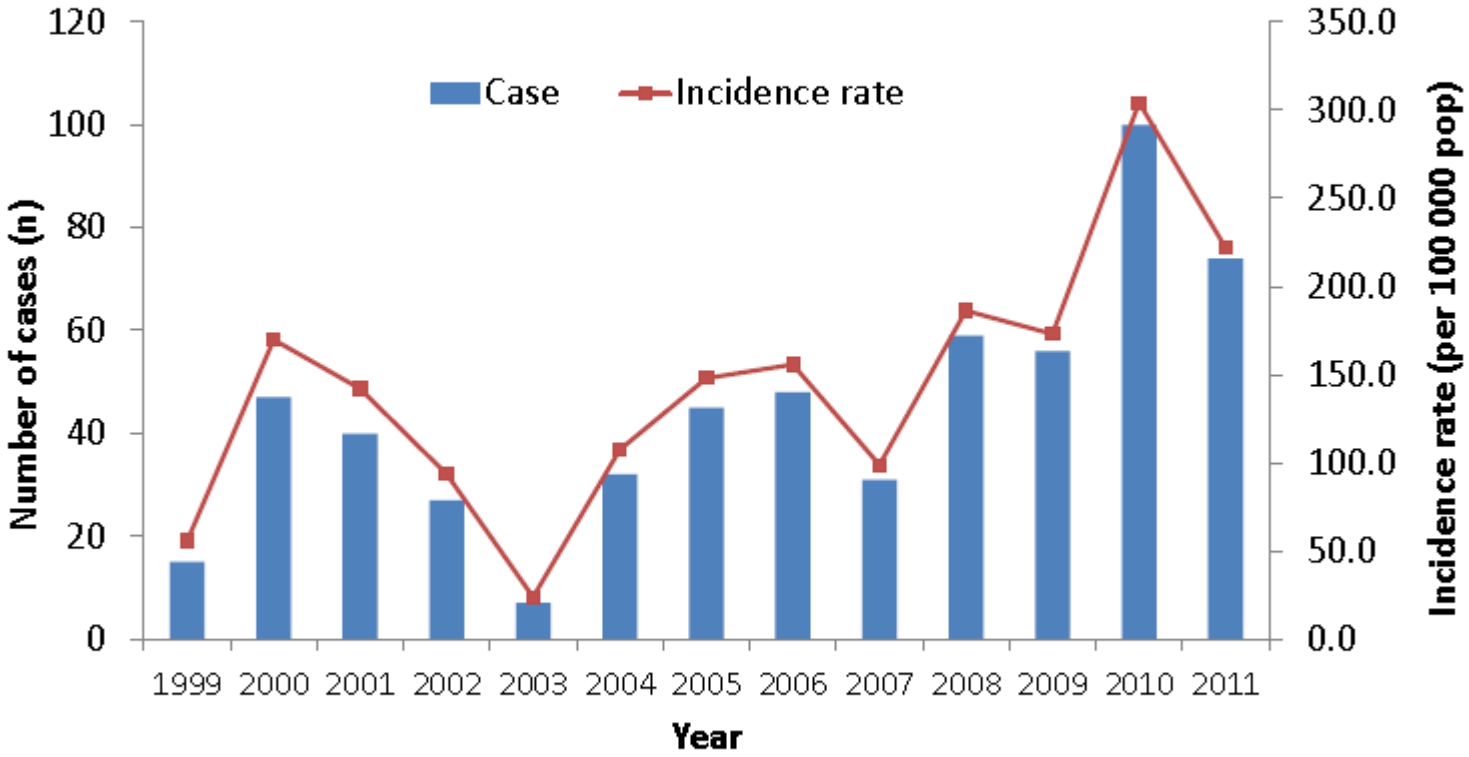
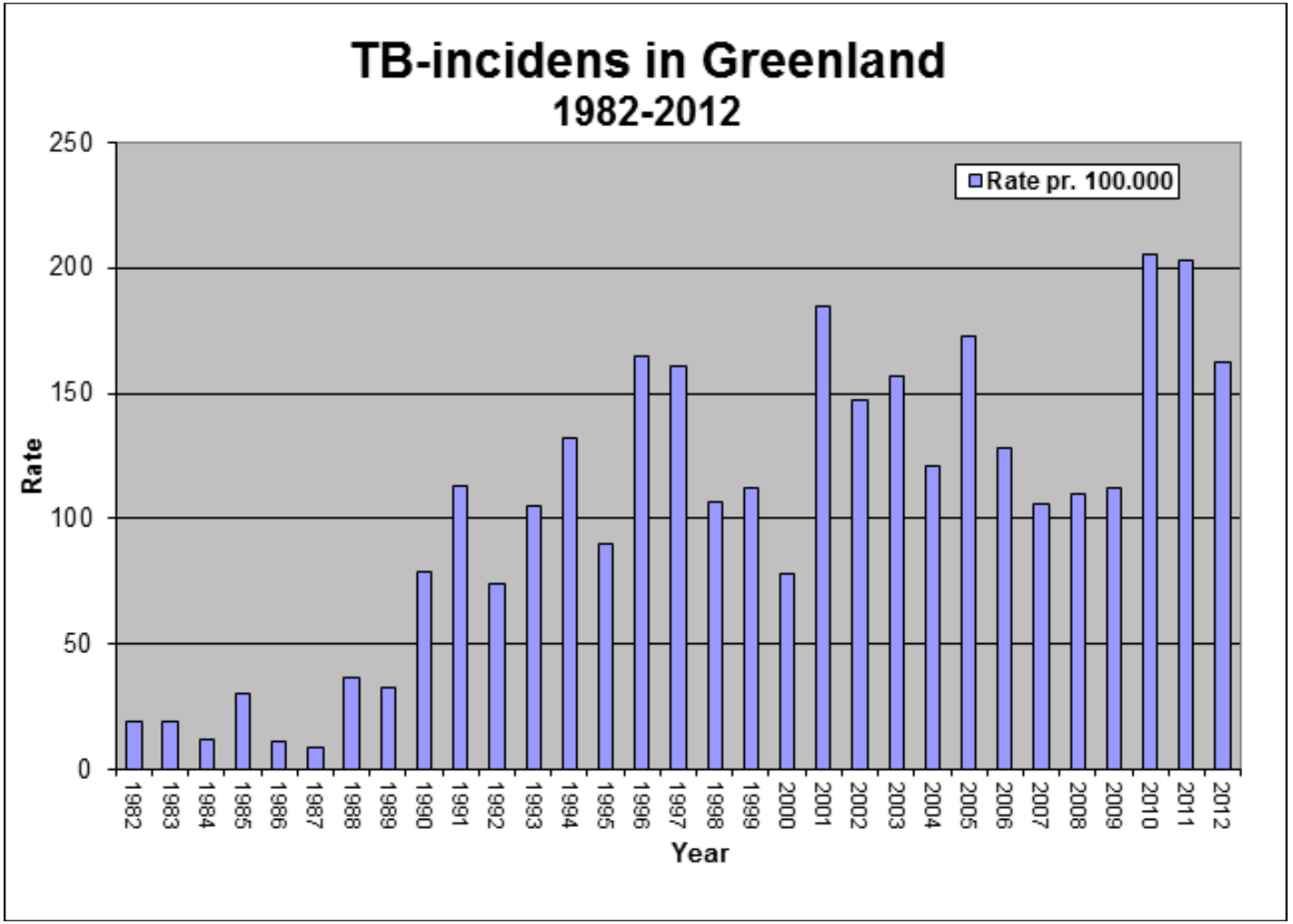

Inuit Travel Map
Inuit Ingirravinginnik Nunannguaq
Carte des déplacements des Inuits
GREENLAND
Arctic Ocean
Beaufort Sea
Baffin Bay
Labrador Sea
ALASKA
YUKON
NORTHWEST TERRITORIES
Nunavut
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEWFOUNDLAND & LABRADOR
PEI
NEW BRUNSWICK
NOVA SCOTIA
UNITED STATES
Hudson Bay
Arctic Circle
Grise Fiord
Resolute Bay
Pond Inlet
Arctic Bay
Clyde River
Sachs Harbour
Tuktoyatuk
INUVIK
Aklavik
Inuvialuit
Uluhaktuk
Paulatuk
Cambridge Bay
Kugluktuk
Gjoa Haven
Umingmaktuuq
Bathurst Inlet
Taloyoak
Igloolik
Hall Beach
Kugaaruk
Repulse Bay
Qikiqtarjuaq
Pangnirtung
IQALUIT
Kimmirut
Kinngait
Salliq
Kangirsujuaq
Salluit
Quaqtaq
Baker Lake
Ivujivik
Chesterfield Inlet
Akulivik
RANKIN INLET
Whale Cove
Arviat
PUVIRNITUQ
Inukjuaq
Umiujaq
Sanikiluaq
Kangiqsuk
Aupaluk
Tasiujaq
Kangiqsujuaq
Nain
Hopedale
Makkovik
Rigolet
Qikiqtaaq
KUUJJUAQ
Nunatsiavut
GOOSE BAY
ST. ANTHONY
ST. JOHN'S
Nunavik
Kuujjuaraapik
YELLOWKNIFE
EDMONTON
WINNIPEG
OTTAWA
MONTREAL

Figure 1: Epicurve of active TB cases and crude incidence rate, Nunavut, 1999-2011



Total number of cases: 581
Average crude incidence rate: 147.6 cases per 100,000


TB-incidens in Greenland
1982-2012
Rate pr. 100.000
Rate
250
200
150
100
50
0
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year

A disproportionate burden …

Figure 4: Aboriginal representation in the general Canadian population

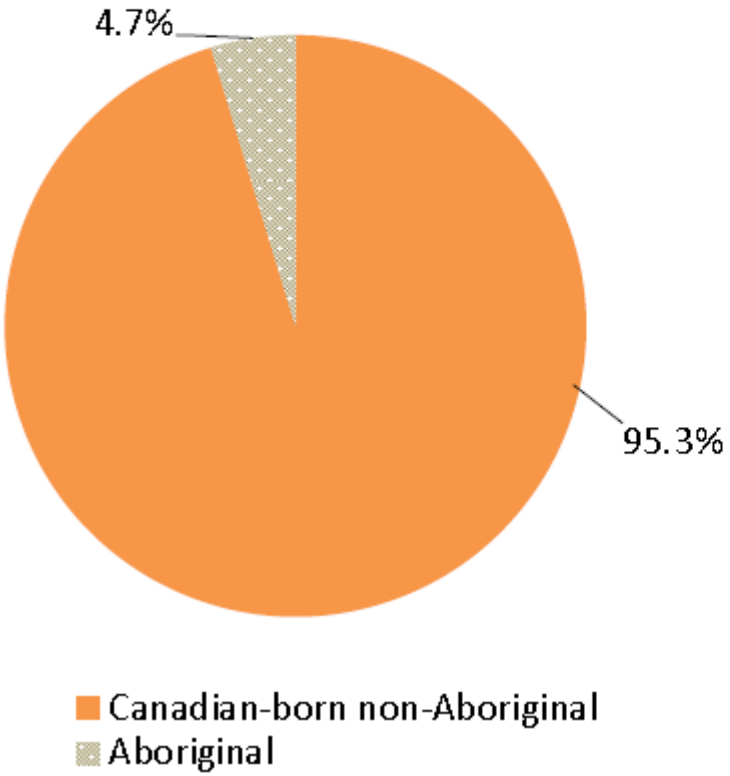


Figure 5: Distribution of active TB cases in Canada, by Aboriginal ethnicity

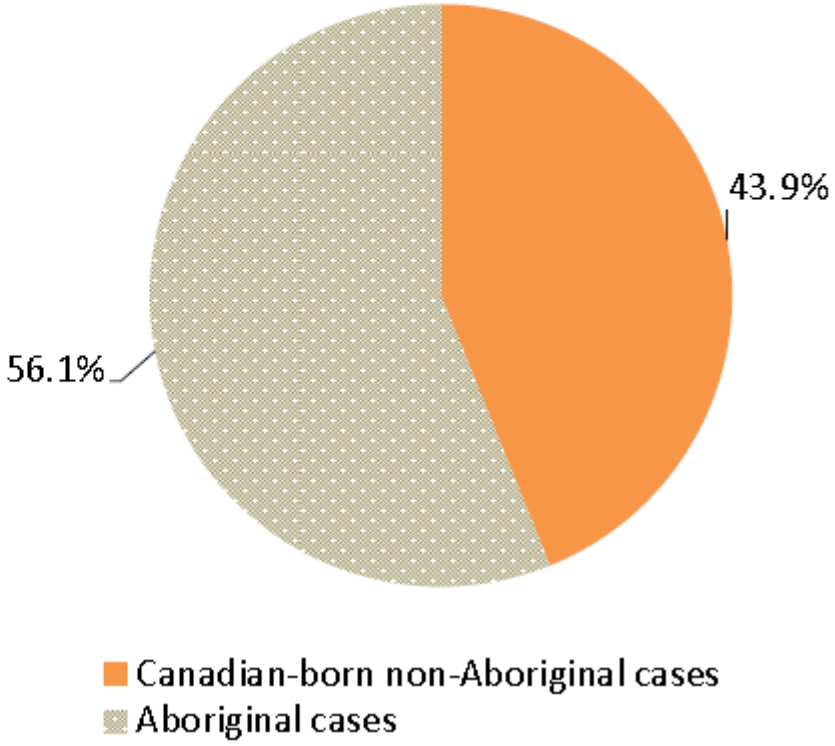


Figure 6: Distribution of Inuit people within the Canadian Aboriginal population

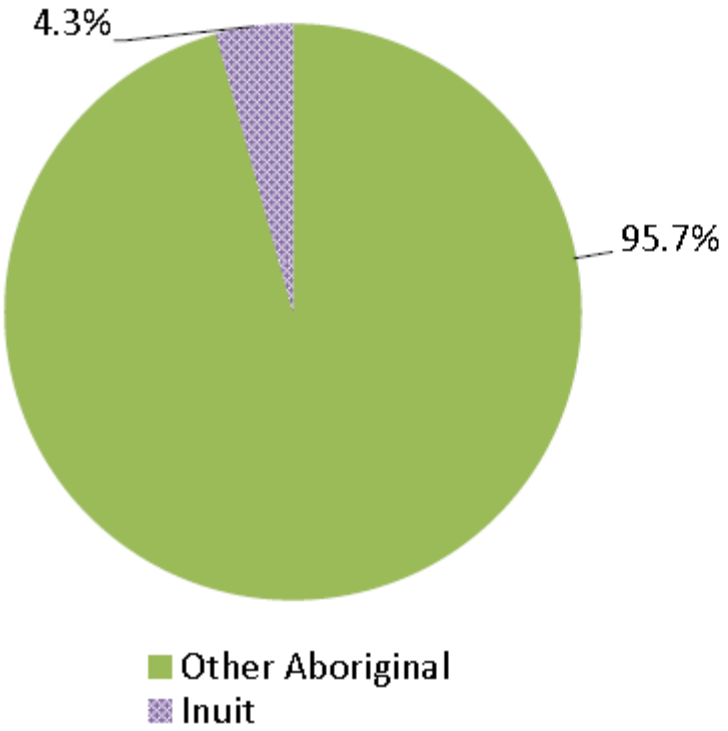


Figure 7: Distribution of active TB cases, by Aboriginal community

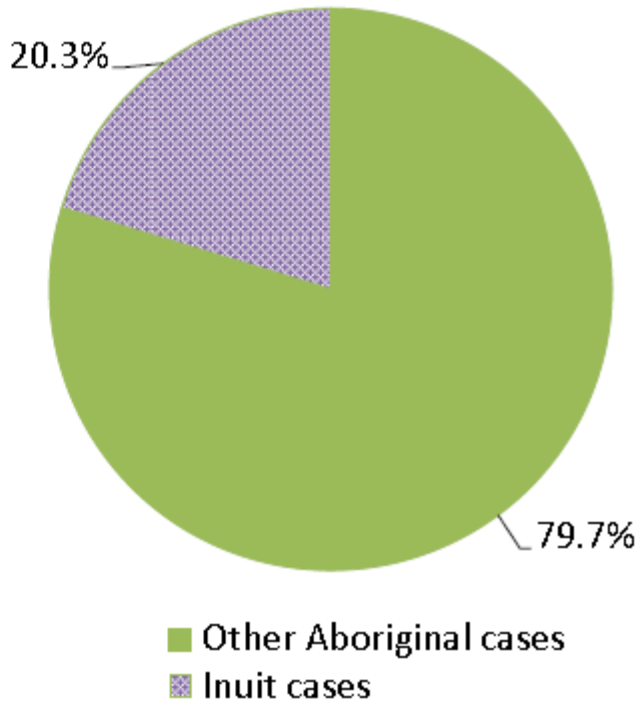


Figure 8: Distribution (%) of the Inuit population in Canada

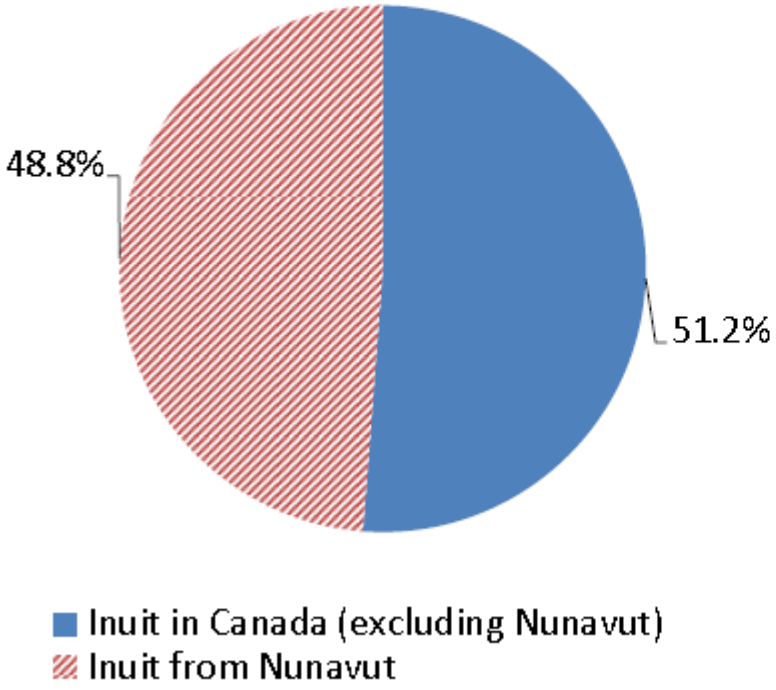
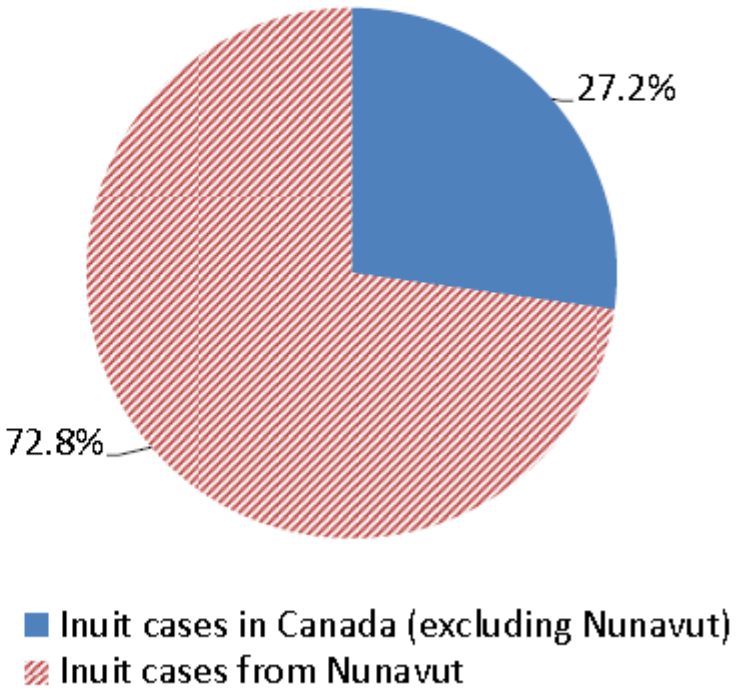


Figure 9: Distribution (%) of active TB cases among the Inuit population



Conclusion:

- In years to come, Greenland in many ways will continue to be linked up to Denmark and Danish relations.
- In health care, especially specialist treatment, to the extent that it necessarily takes place outside Greenland, will take place in Denmark (Maybe some of it in Iceland).
- For the National Board of Health it is already clear that the relations with Denmark is decreasing, and that the relations with Canada / Nunavut and Alaska are developing.
- Especially for TB The National Board of Health look forward to working closely with Nunavut and ICS/Health Canada, supported by other international contacts.

Pisuinnaat aqqutaannut qiseqinak

Don't spit on the sidewalk