



Demographics and health status of Arctic populations

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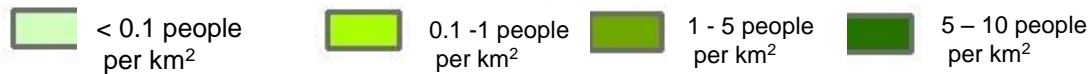
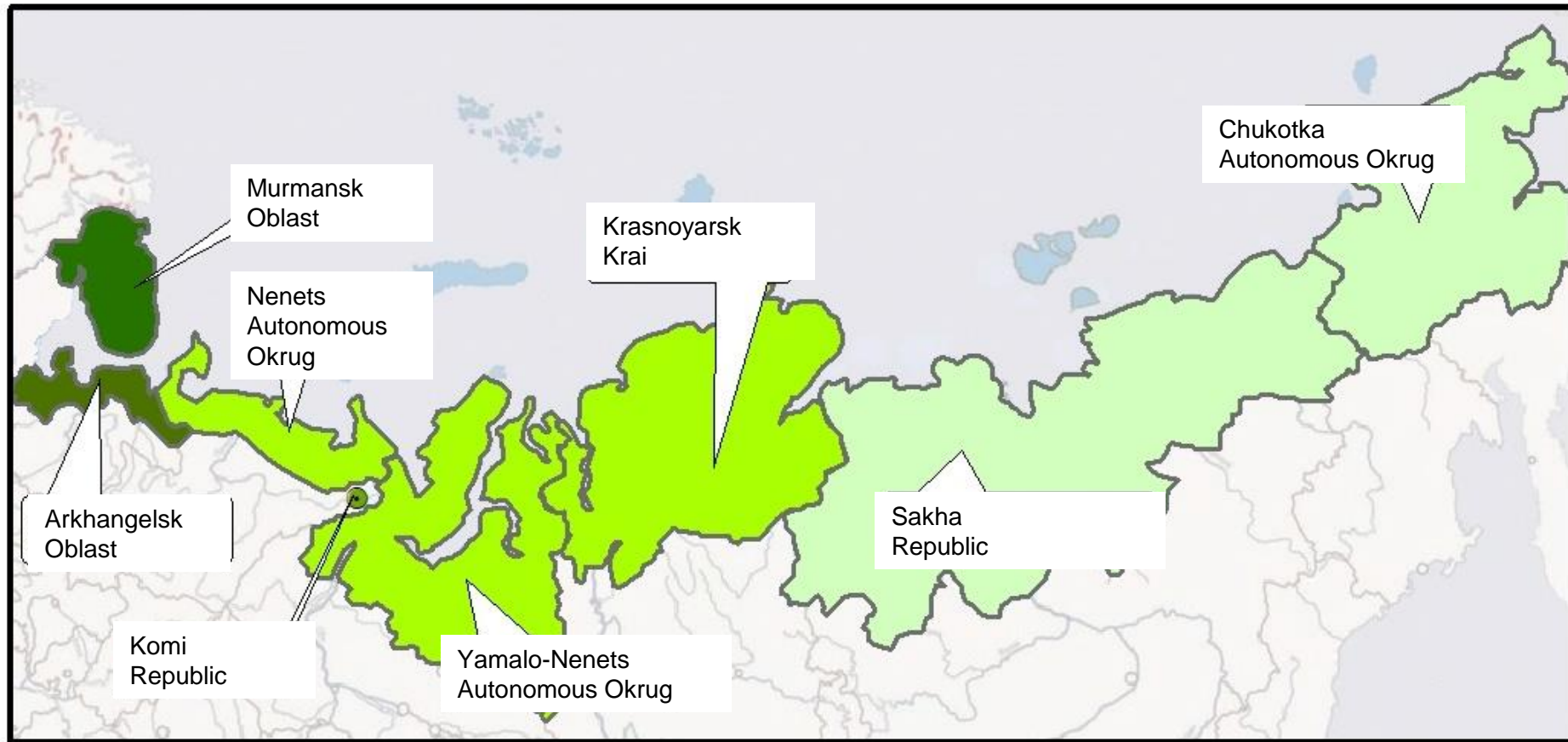
The Arctic region

- *United States:* Alaska
- *Canada:* Yukon, Nunavut, Northwest Territories
- *Denmark:* Greenland, Faroe Islands
- *Iceland*
- *Norway:* Finnmark, Troms, Nordland
- *Sweden:* Norrbotten, Västerbotten
- *Finland:* Lapland, Oulu, Kainuu
- *The Russian Federation:* Nenets Autonomous Okrug, Chukotka Autonomous Okrug, Yamalo-Nenets Autonomous Okrug, Komi Republic, Sakha Republic, Krasnoyarsk Krai, Arkhangelsk Oblast, Murmansk Oblast



Map of the Circumpolar Arctic region and Arctic administrative areas (Compiled by Winfried K. Dallmann, Norwegian Polar Institute)

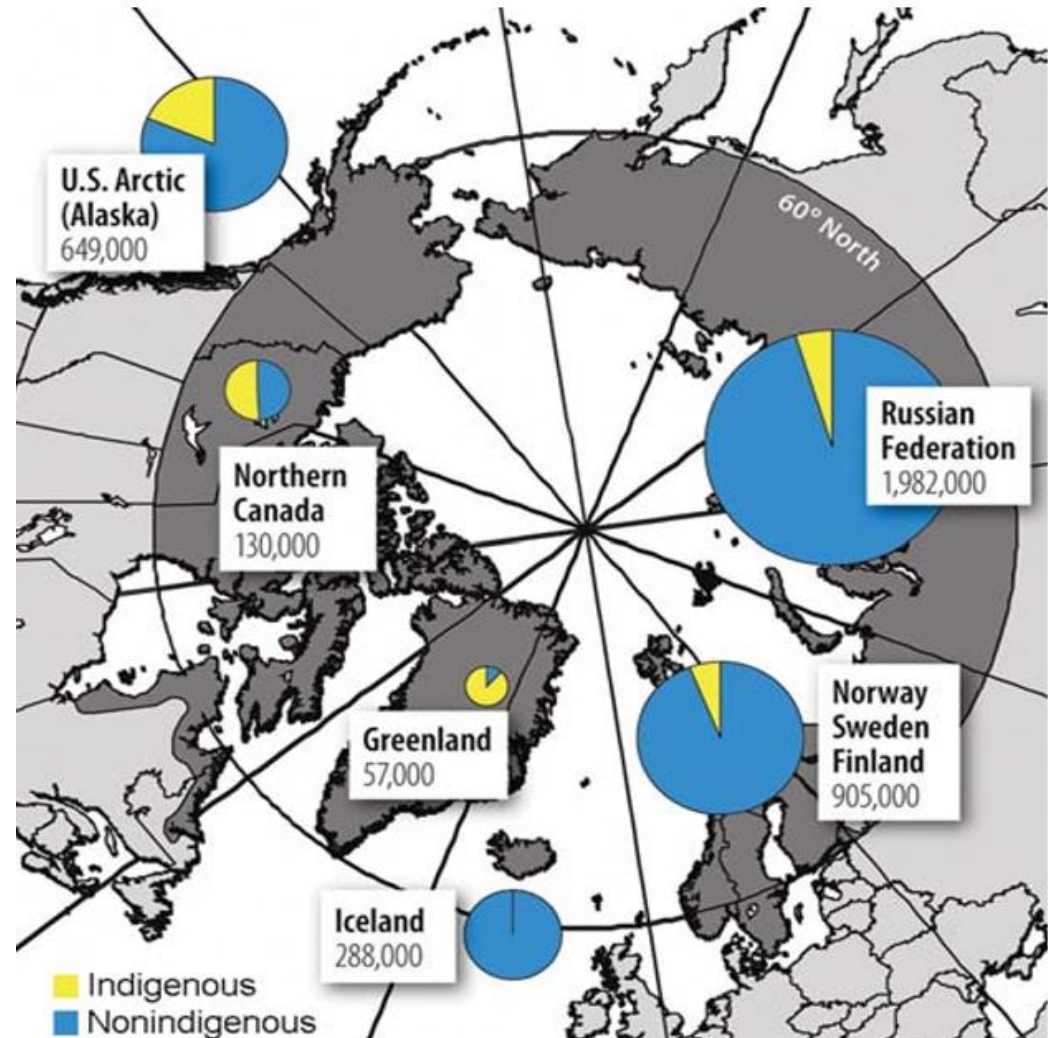
Russian Arctic



- Area of the RA is 3630296,82 km² (21% of area of the Russian Federation)
- Population density is 0.65 people per km² (in the Russian Federation is 8.57 people per km²)
- 653 settlements: population of 106 settlements is more than 1000, 35 of them have more 10 000 people

The circumpolar region and nonindigenous and indigenous populations of the Arctic

- the Eskimo
- the Inuit (Greenland, northern Canada, and Alaska)
- the Yupik (western Alaska)
- North American Indian, the Athabaskan, Eyak, Tlingit, Gwich'in, Metis (northern Canada and Alaska)
- Alaska Native (Alaska)
- the Saami people (Norway, Finland, and Sweden)
- the Saami, Nenets, Khanty, Sel'kup, Enets, Nganasan, Dolgan, Even, Chukchi, Chuvan, Eskimo/ Inuit-Yupik (the Russian Federation)

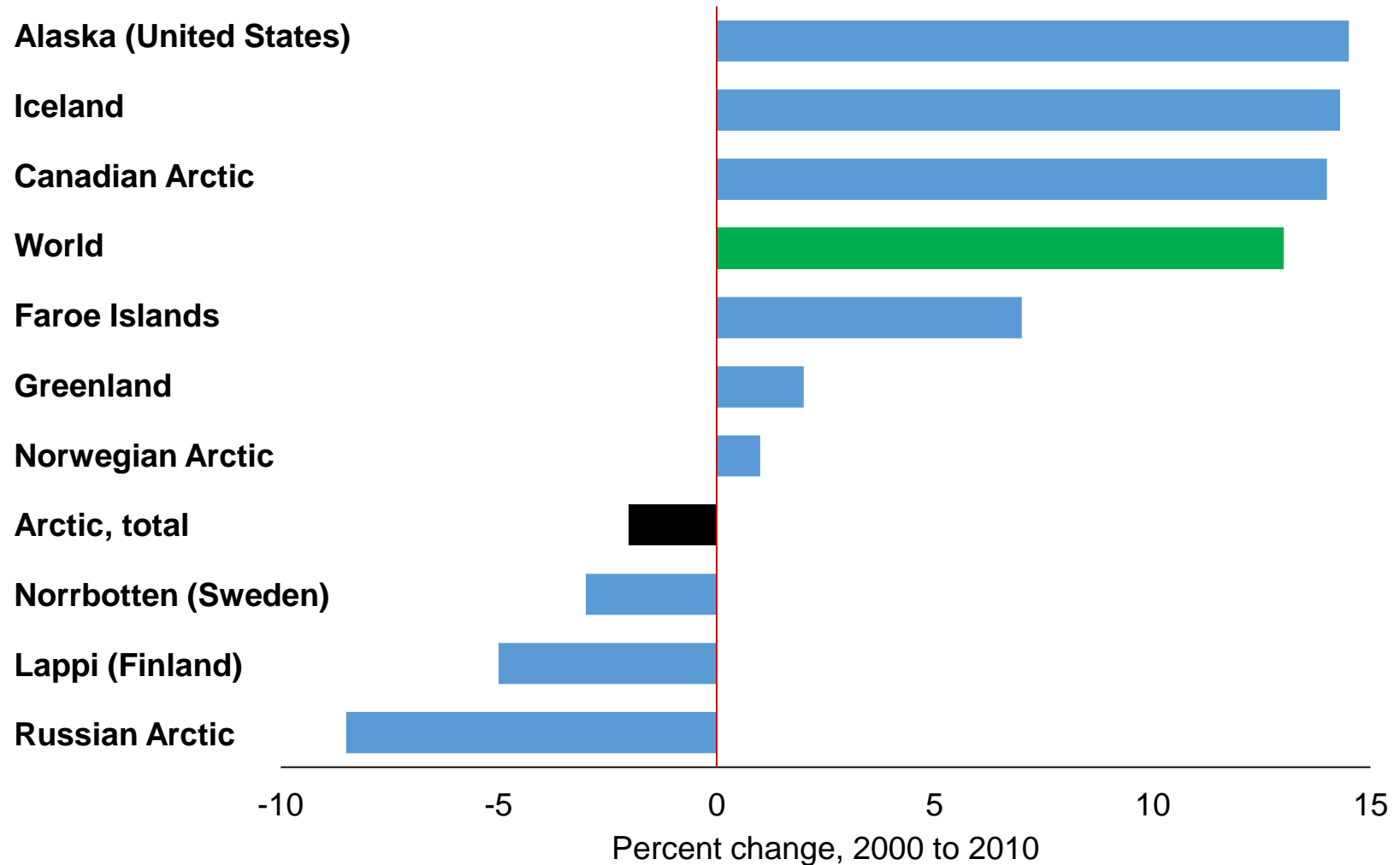


Alan J. Parkinson, Michael G. Bruce, Tammy Zулz, 2008

Population density of the Arctic territories

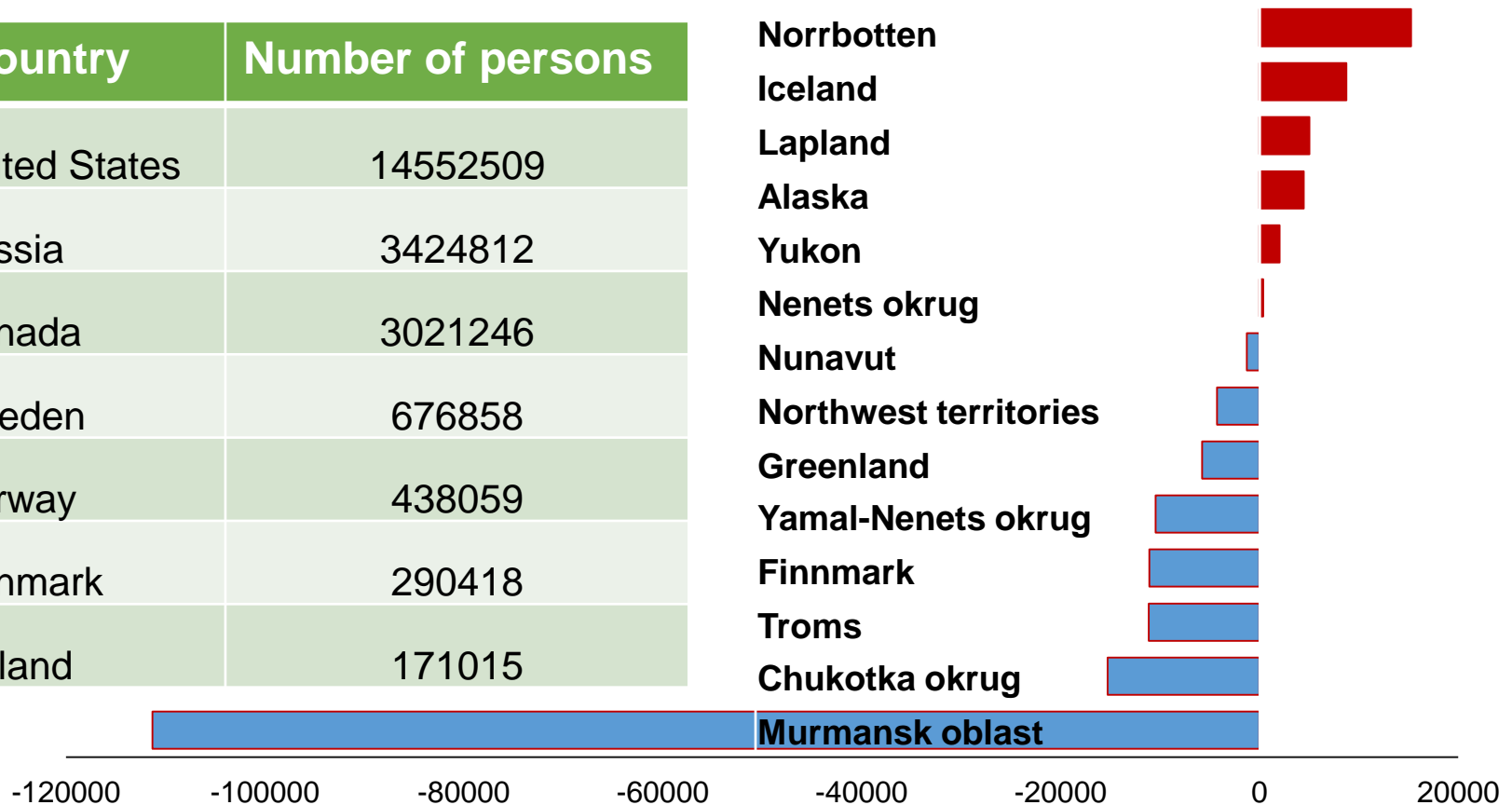
Regional level		National level	
Regions	People per km ²	Country	People per km ²
Alaska	0.47	United States	33,5
Yukon	0.07	Canada	3,7
Northwest territories	0.04		
Nunavut	0.02		
Greenland	0.03	Denmark	128,1
Faroe Islands	34.7		
Iceland	3.1	Iceland	3,1
Nordland	6.5	Norway	15,9
Troms	6.3		
Finnmark	1.6		
Vasterbotten	4.7	Sweden	21,1
Norrbotten	2.5		
Oulu	8.3	Finland	17,6
Lappi	2.0		
Murmansk oblast	5.8		
Arkhangelsk oblast	2.1		
Nenets autonomous okrug	0.2		
Komi Republic	2.3		
Yamal-Nenets autonomus okrug	0.7		
Sakha Republic	0.3		
Chukotka autonomous okrug	0.1		

Population change in the Arctic, 2000 – 2010 (percent)

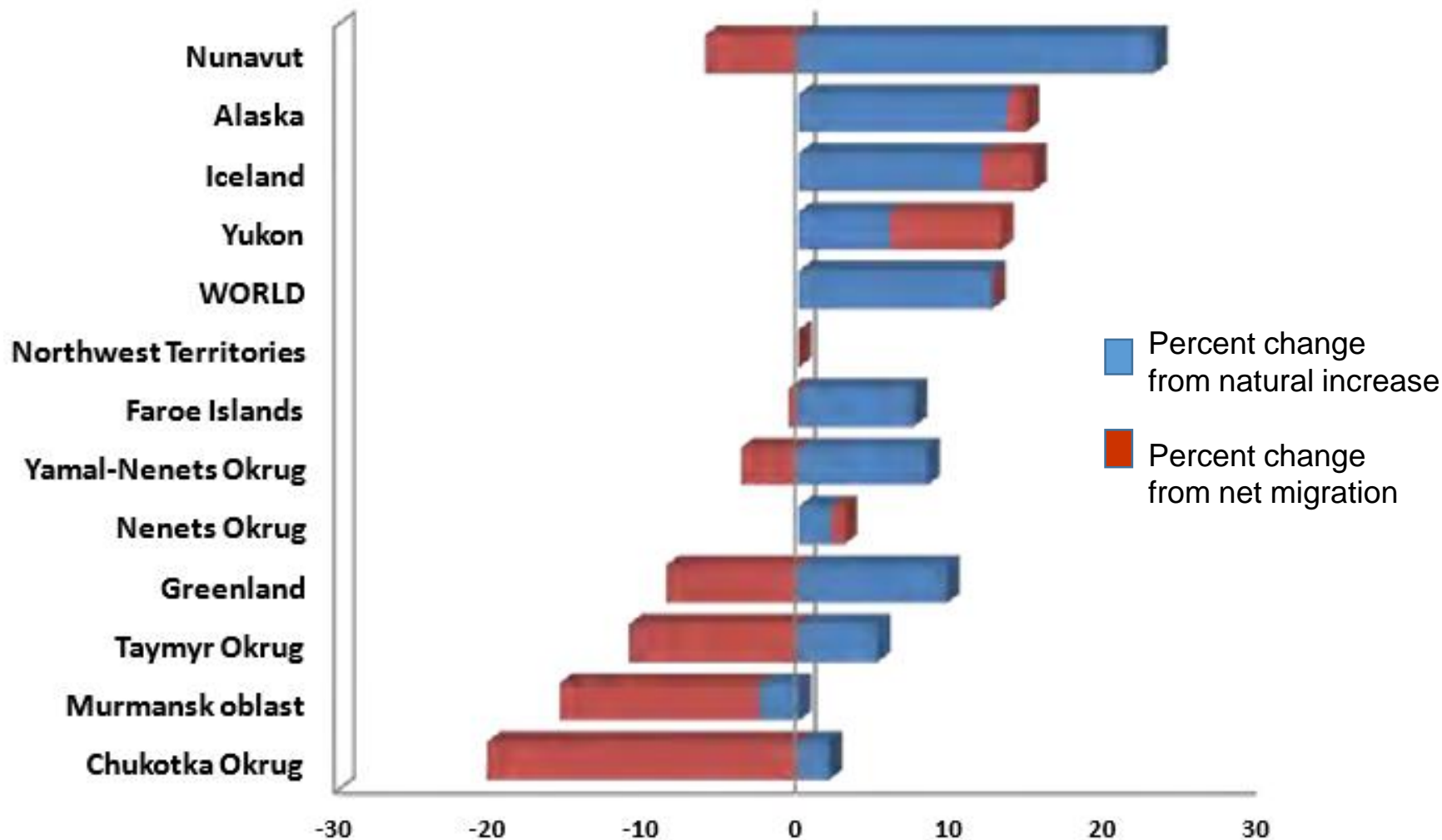


Net migration in the Arctic regions and countries in 2000 – 2014, number of persons

Country	Number of persons
United States	14552509
Russia	3424812
Canada	3021246
Sweden	676858
Norway	438059
Denmark	290418
Finland	171015



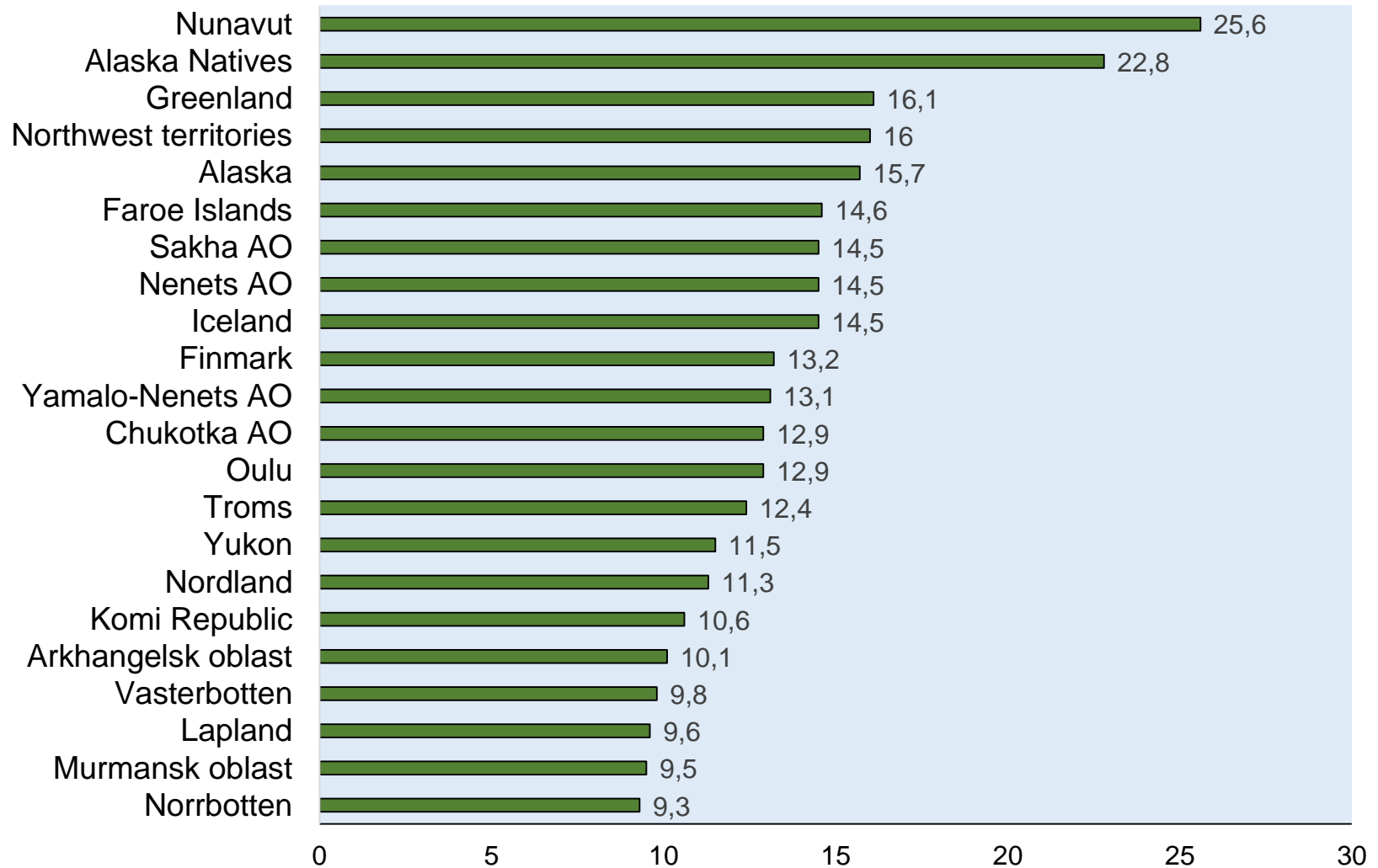
Population change from natural increase and net migration in selected Arctic regions, 2000 to 2014



Key indicators of health (Last, 2001)

- **Birth Rate** is a summary rate based on the number of live births in a population over a given period, usually one year. The denominator is the average of midyear population in the area in that year.
- **Life Expectancy** at birth is the average number of years a newborn baby can be expected to live if current mortality trends continue.
- **Death Rate** is an estimate of the portion of the population that dies during a specified period. The numerator is the number of persons dying during the period; the denominator is the number in the population, usually estimated as the mid-year population.
- **Infant Mortality** is a measure of the yearly rate of death in children less than one year old. The denominator is the number of live births in the same year.

Crude birth rates in 2000–2004, per 1000 population



Circumpolar life expectancy at birth 2000 – 2004

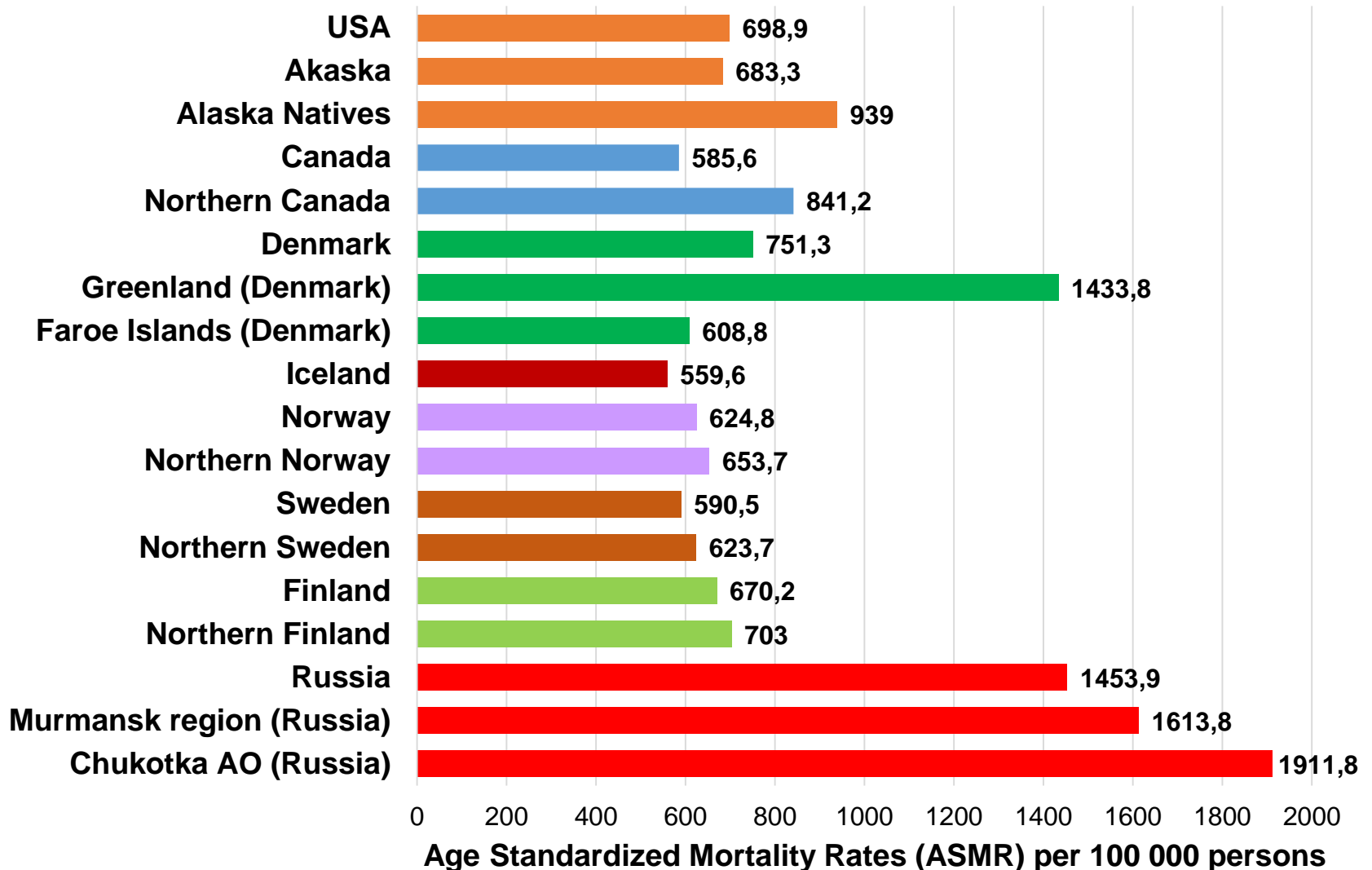
Country	Males	Females
Alaska (USA)	74.5	80.1
Yukon (Canada)	74.9	80.1
Nunavut (Canada)	66.6	70.9
Greenland	64.6	70.4
Iceland	79.0	82.6
Faroe Islands	77.0	81.3
Troms (Norway)	76.5	81.5
Nordland (Norway)	76.7	82.0
Finmark (Norway)	74.6	80.6
Norbotten (Sweden)	76.6	81.6
Vasterbotten (Sweden)	77.6	82.1
Oulu (Finland)	74.3	81.6
Lupland (Finland)	73.7	81.1

Life expectancy at birth in the Russian Arctic (Rosstat)

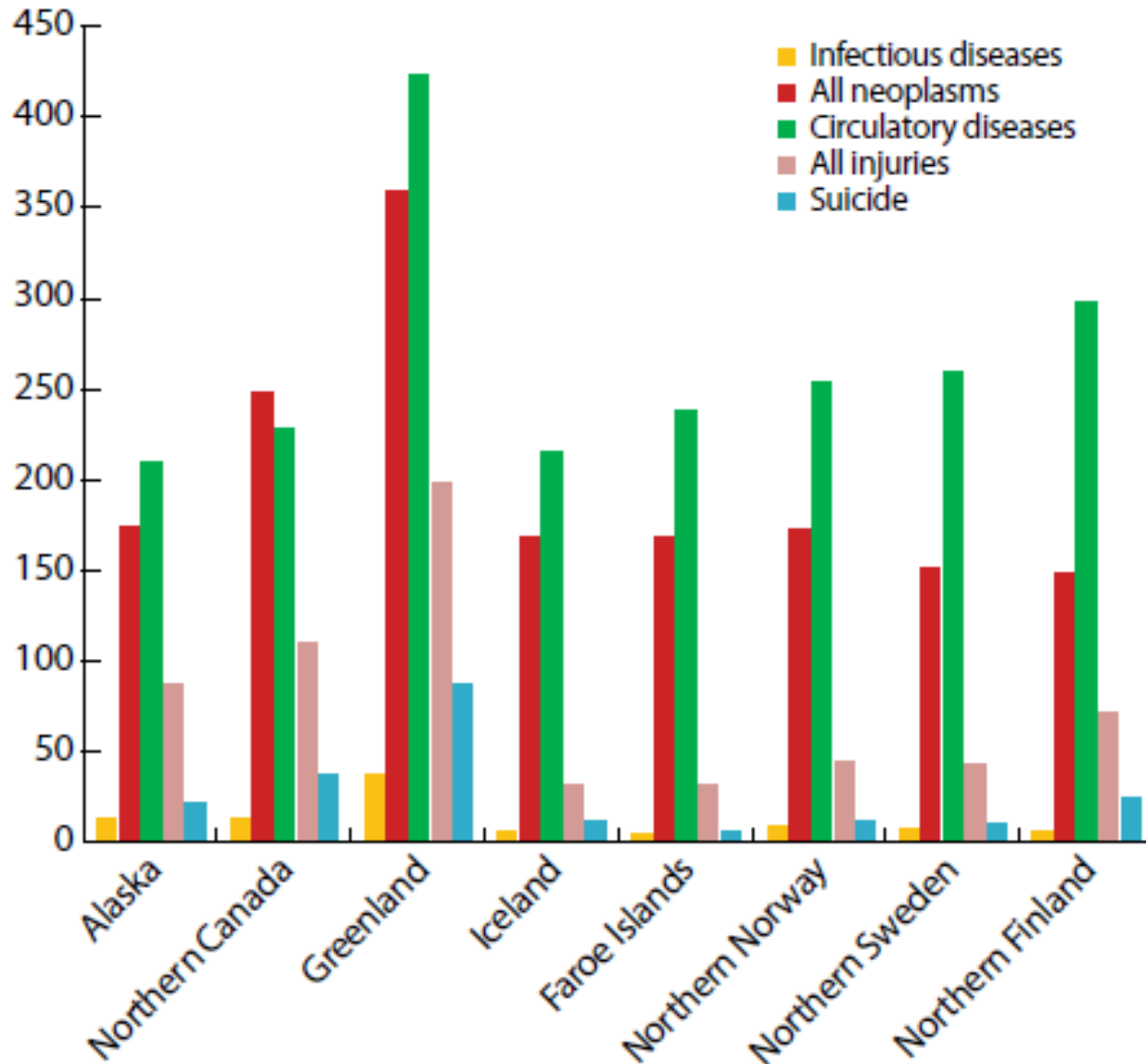
Areas	2000 year		2016 year	
	Males	Females	Males	Females
Russian Federation	59.0	72.3	66.5	77.0
Nenets AO	54.0	68.3	63.9	78.4
Chukotka AO	54.9	67.1	59.7	69.6
Kareliya Republic	56.4	70.2	63.7	75.7
Krasnoyarsk Krai	56.1	69.8	64.3	75.7
Arkhangelsk Oblast	56.3	70.6	64.9	76.7
Komi Republic	57.8	70.1	63.6	75.3
Sakha Republic	57.9	70.3	65.8	75.9
Murmansk Oblast	58.5	71.0	65.7	75.6
Yamalo-Nenets AO	61.6	72.3	67.2	77.0

In rural area of the Chukotka AO life expectancy at birth is 53 years
(men is 47.5 years, women is 58,5 years)

Circumpolar age-standardized mortality rates (all causes) per 100 000



Common causes of death in some Arctic populations, 2000 – 2004



Age Standardized Mortality Rates (ASMR) per 100 000 persons

Young, 2008

Mortality rates (selected causes) per 100 000 in 2016 (Rosstat)

Causes of death	Russia	Chukotka AO	Arkhangelsk region	Murmansk region
Heart diseases	616.4	406.1	785.2	613.5
Cancer	204.3	156.0	239.4	202.5
External causes	114.2	216.0	146.4	122.3
Respiratory diseases	48.0	40.0	49.0	22.9
Infectious diseases	24.1	32.0	11.0	14.5
Suicide	15.8	62.0	30.6	5.0
Unintentional alcohol poisoning	9.6	8.0	23.5	2.8
Homicide	7.2	22.0	12.0	4.1
All causes	1 289.3	996.2	1 370.9	1 150.0

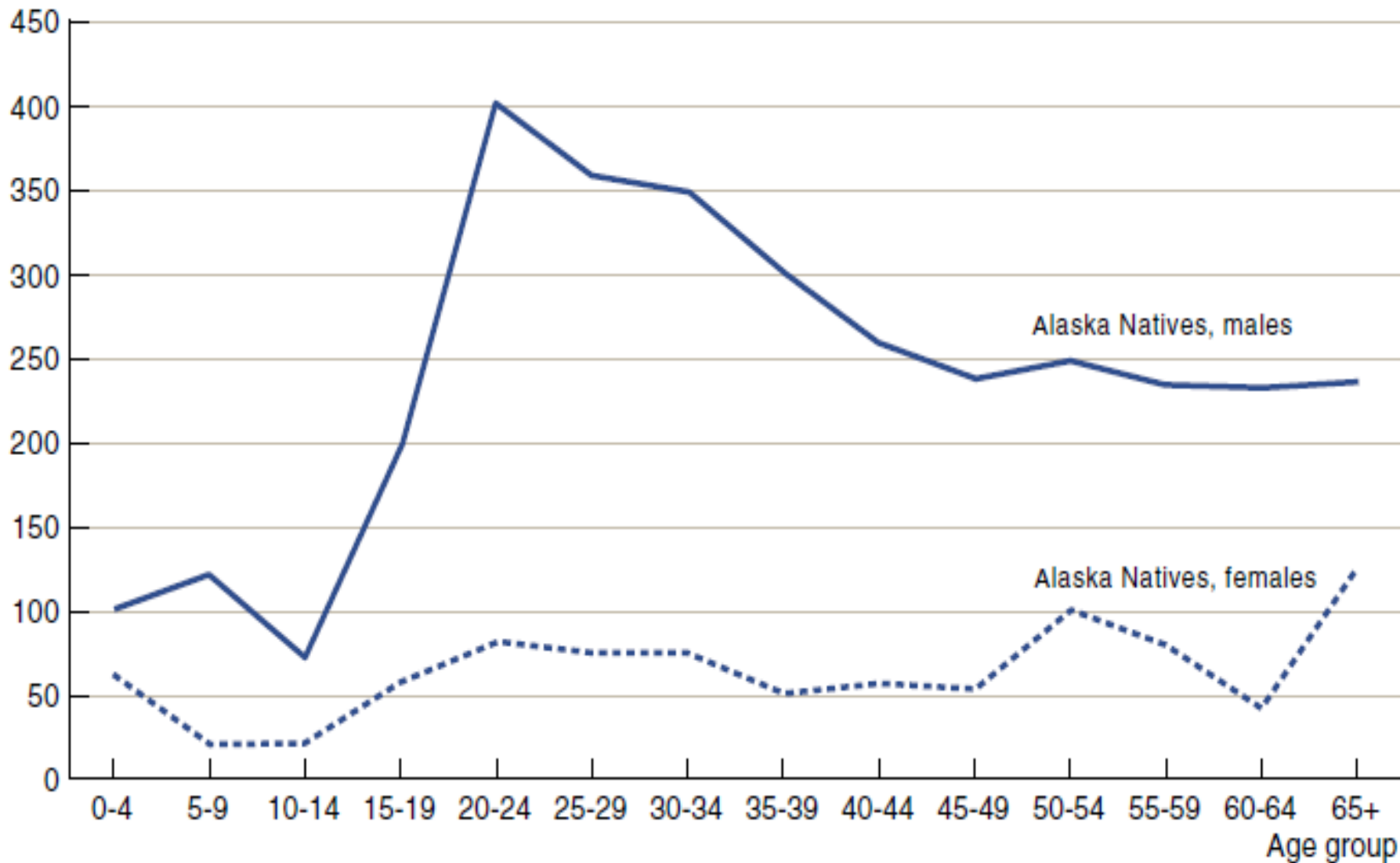
Age-standardized cancer mortality rates per 100,000 in Chukotska AO, 1961 - 1990

Site	Male		Female	
	Chukotska AO	Russia	Chukotska AO	Russia
Pharynx	3,0	6,9	8,1	0,3
Oesophagus	110,9	8,4	82,7	2,4
Stomach	58,3	51,3	64,5	22,8
Lung	106,2	64,4	68,6	6,9
Breast	–	–	11,2	11,6
All sites	416,7	207,3	358,6	98,4

Age-standardized mortality rates for select causes: Alaska Native and Alaska

Causes of death	Alaska Native	Alaska
Cancer	247.4	186.0
Diabetes-related	20.0	25.1
Heart diseases	199.8	175.2
Stroke	76.7	56.1
Influenza and pneumonia	38.2	17.3
Chronic lower respiratory tract diseases	54.0	43.1
Chronic liver disease and cirrhosis	22.7	9.3
Unintentional injuries	84.6	55.1
Suicide	42.8	22.1
Homicide	12.3	6.6
All causes	1079.6	790.7

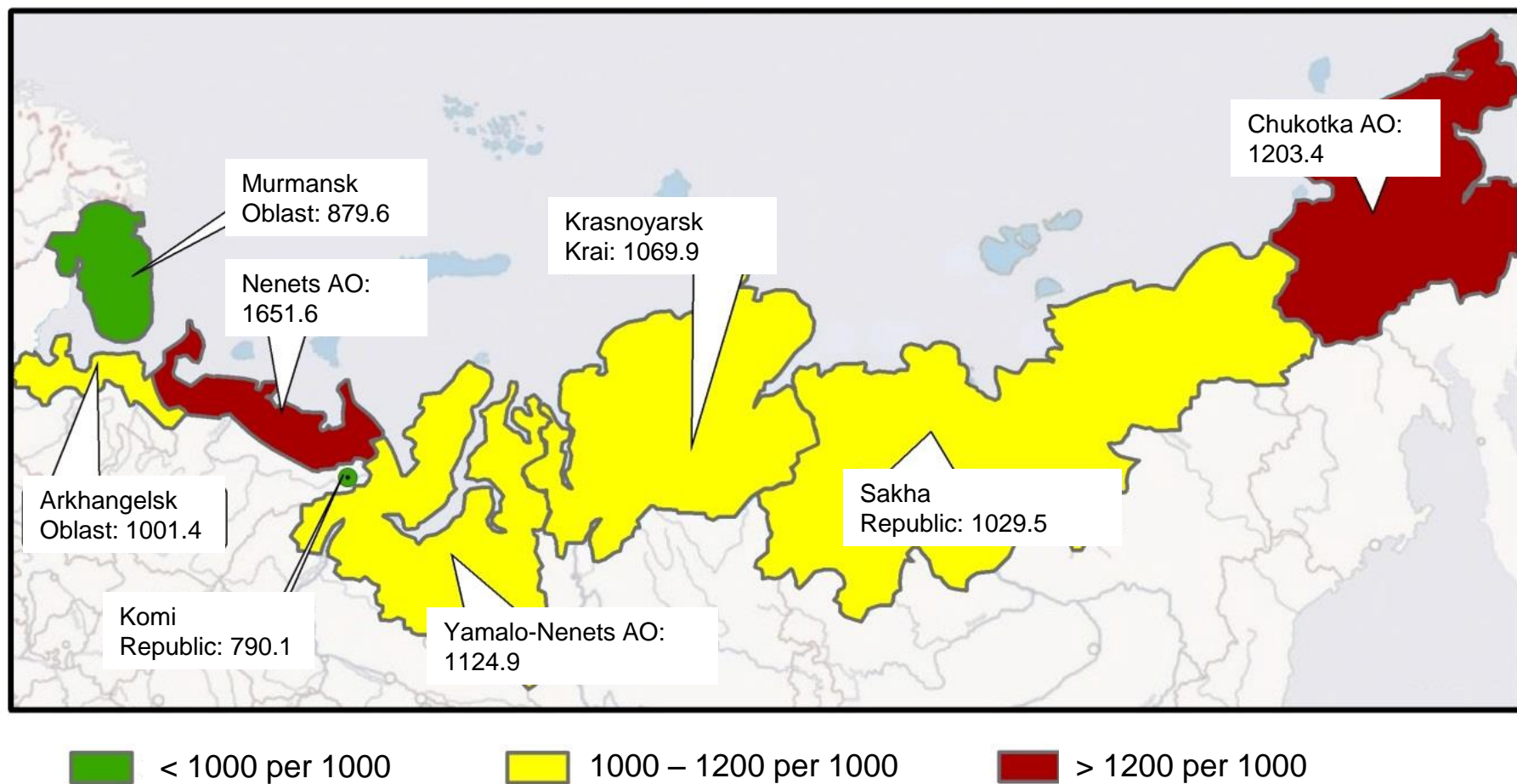
Injury mortality rates by age group and gender for Alaska Natives, per 100 000



Infant mortality rate in 2000 – 2014 per 1000 live births

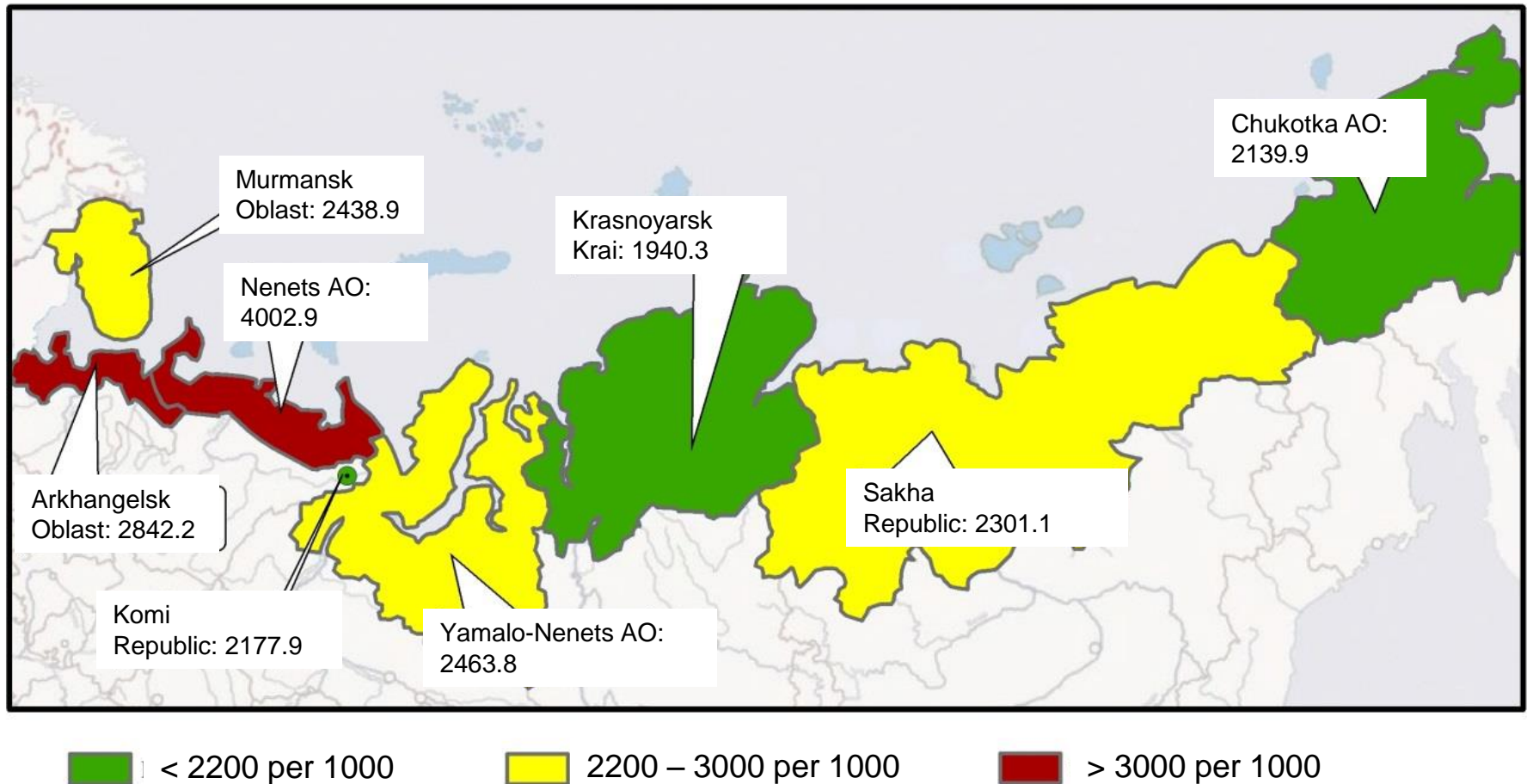
Arctic region	Regional rate	National rate
Troms (Norway)	3.0	3.8
Lapland (Finland)	3.2	2.7
Norrbottn (Sweden)	3.5	2.7
Finnmark (Norway)	3.6	3.8
Alaska (United States)	4.7	5.6
Yukon (Canada)	5.7	5.1
Northwest Territories (Canada)	6.7	5.1
Murmansk region (Russia)	9.3	10.2
Yamalo-Nenets autonomous okrug (Russia)	12.1	10.2
Greenland (Denmark)	13.0	4.1
Nenets autonomous okrug (Russia)	13.0	10.2
Nunavut (Canada)	16.1	5.1
Chukotka autonomous okrug (Russia)	22.0	10.2

Morbidity in the Russian Arctic in 2016, per 1000 (all ages, both sex)



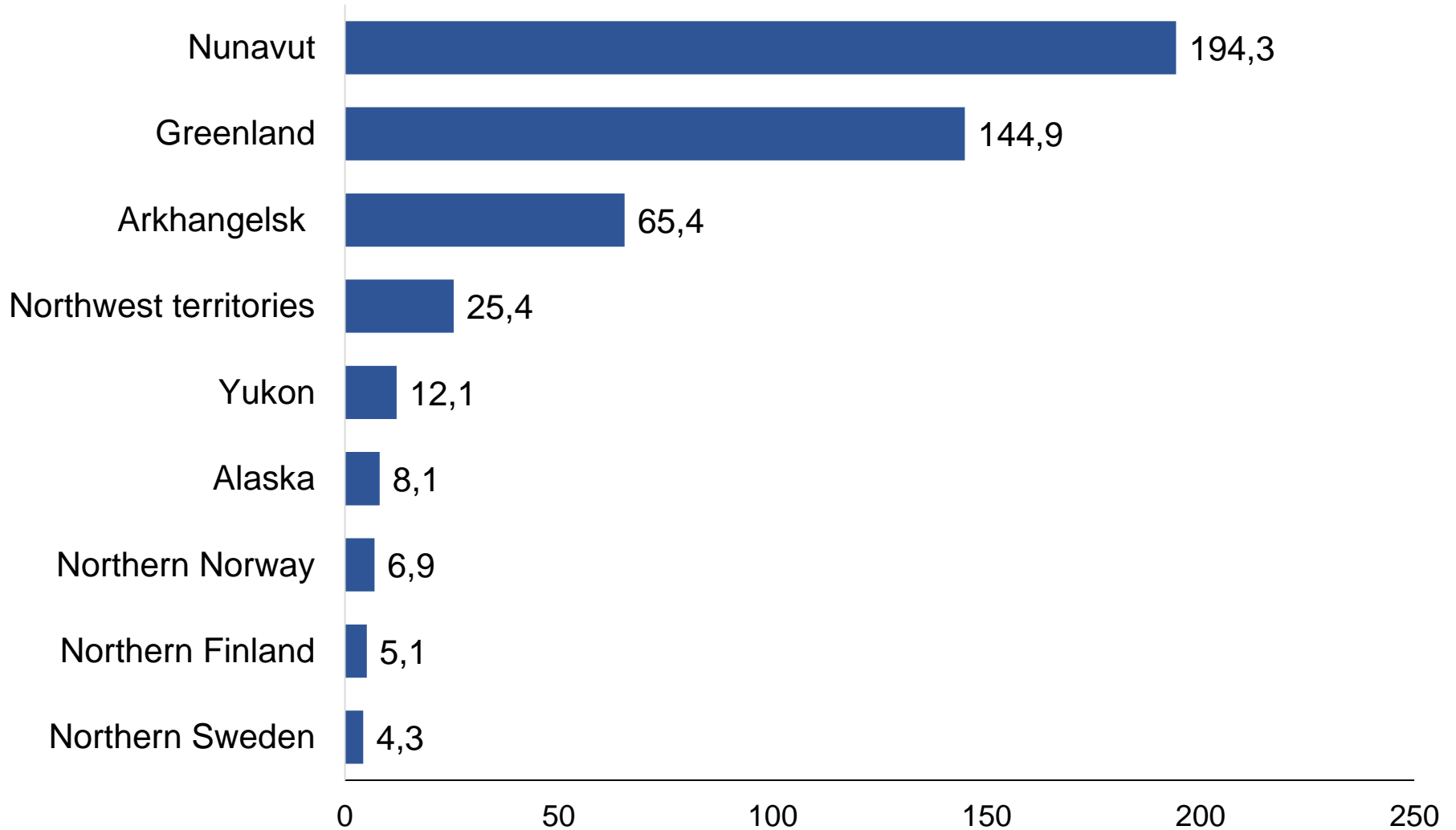
Level of morbidity: in the Russian Arctic is 1044.3 per 1000
in the Russian Federation is 778.2 per 1000

Morbidity in the Russian Arctic in 2016, per 1000 (children 0 - 17, both sex)

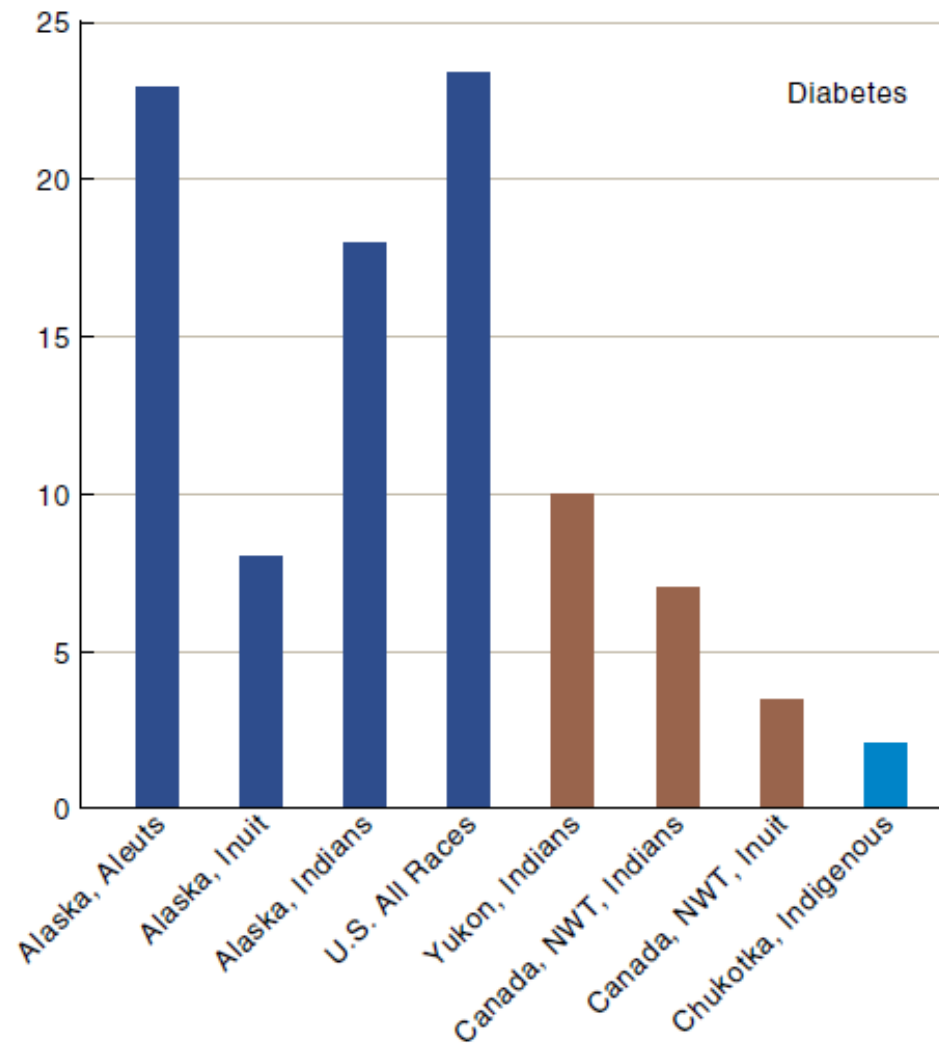


Level of morbidity: in the Russian Arctic is 2387.6 per 1000
in the Russian Federation is 1775.8 per 1000

Crude incidence rate of tuberculosis in 2006 – 2012, per 100 000



Age-standardized prevalence of diabetes mellitus in indigenous populations of some Arctic regions





Thank you for your attention!