Table S1: Age-adjusted predicted changes in means and prevalences of cardiovascular risk factors between the SAMINOR 1 (2003–2004) and SAMINOR 2 (2012–2014) in women (n=6624), stratified into three groups according to responses to ethnicity related questions.

Linear regression	Non-Sami (n=3262) β (95% Cl)	p-value	Sami in all items (n=1453) β (95% Cl)	p-value	Sami in 1–10 items (n=1909) β (95% Cl)	p-value	Interaction‡	p-value
Cholesterol, mmol/L	-0.55 (-0.61, -0.48)	<0.001	-0.44 (-0.55, -0.33)	<0.001	-0.46 (-0.55, -0.37)	<0.001	*	
SAMINOR 1, mean †	6.27 (6.21, 6.33)		6.23 (6.13, 6.34)		6.21 (6.12, 6.29)			
SAMINOR 2, mean †	5.72 (5.66, 5.79)		5.79 (5.70, 5.89)		5.75 (5.66, 5.83)			
HDL cholesterol, mmol/L	0.04 (0.02, 0.07)	<0.001	-0.03 (-0.06, -0.005)	0.02	0.03 (-0.002, 0.05)	0.07	Sami all items	<0.001
SAMINOR 1, mean †	1.53 (1.51 ,1.55)		1.47 (1.43, 1.50)		1.46 (1.43, 1.49)			
SAMINOR 2, mean †	1.58 (1.55, 1.60)		1.43 (1.40, 1.46)		1.48 (1.45, 1.51)			
Triglycerides, mmol/L§	-0.02 (-0.05, 0.004)	0.10	0.03 (-0.01, 0.07)	0.19	0.02 (-0.02, 0.05)	0.34	*	
SAMINOR 1, mean †#	2.21 (2.07, 2.34)		2.47 (2.23, 2.71)		2.59 (2.37, 2.80)			
SAMINOR 2, mean †#	2.09 (1.96, 2.23)		2.63 (2.39, 2.88)		2.69 (2.47, 2.92)			
Systolic blood pressure, mm Hg	-4.3 (-5.25, -3.13)	<0.001	-3.4 (-5.04, -1.83)	<0.001	-2.7 (-4.09, -1.23)	<0.001	*	
SAMINOR 1, mean †	134.6 (133.7, 135.6)		132.3 (130.7, 133.9)		133.7 (132.3, 135.1)			
SAMINOR 2, mean †	130.4 (129.4, 131.5)		128.8 (127.3, 130.4)		131.1 (129.7, 132.5)			
Diastolic blood pressure, mm Hg	-0.9 (-1.47, -0.28)	0.004	-1.4 (-2.26, -0.57)	0.001	-0.8 (-1.60, -0.02)	0.044	*	
SAMINOR 1, mean †	73.9 (73.34, 74.45)		73.2 (72.38, 74.06)		73.8 (73.00, 74.53)			
SAMINOR 2, mean †	73.0 (72.43, 73.62)		71.8 (71.00, 72.61)		73.0 (72.19, 73.71)			
Waist circumference, cm	7.1 (6.53,7.72)	<0.001	5.9 (4.97, 6.77)	<0.001	6.5 (5.75, 7.29)	<0.001	*	
SAMINOR 1, mean †	86.1 (85.48, 86.73)		88.6 (87.61, 89.59)		87.3 (86.43, 88.13)			
SAMINOR 2, mean †	93.2 (92.57, 93.90)		94.47 (93.52, 95.41)		93.8 (92.87, 94.63)			
10-year risk of AMI and CS, %§	-0.19 (-0.22, -0.16)	<0.001	-0.12 (-0.16,-0.07)	<0.001	-0.17 (-0.21,-0.12)	<0.001	Sami all items	0.02
SAMINOR 1, mean †#	4.09 (3.97, 4.21)		3.81 (3.63, 3.98)		4.22 (4.04, 4.40)			
SAMINOR 2, mean †#	3.37 (3.27, 3.48)		3.39 (3.24, 3.54)		3.58 (3.43, 3.73)			
Logistic regression	**Odds ratio (95% Cl)**	**p-value**	**Odds ratio (95% Cl)**	**p-value**	**Odds ratio (95% Cl)**	**p-value**		**p-value**
Antihypertensive drugs	0.96 (0.83, 1.11)	0.61	0.98 (0.77, 1.23)	0.84	0.95 (0.79, 1.14)	0.58	*	
SAMINOR 1, prevalences % †	22.9 (20.82, 24.94)		20.1 (16.96, 23.33)		27.2 (24.30, 30.15)			
SAMINOR 2, prevalences % †	22.2 (19.93, 24.50)		19.8 (16.60, 22.90)		26.2 (23.29, 29.16)			
Hypertension	0.78 (0.68, 0.90)	<0.001	0.76 (0.61, 0.94)	0.010	0.77 (0.65, 0.92)	0.004	*	
SAMINOR 1, prevalences % †	46.0 (43.45, 48.62)		42.9 (38.78, 47.05)		49.6 (46.06, 53.07)			
SAMINOR 2, prevalences % †	40.1 (37.29, 42.81)		36.3 (32.44, 40.20)		43.2 (39.76, 46.60)			
Current smoking	0.61 (0.53, 0.69)	<0.001	0.78 (0.64, 0.94)	0.011	0.63 (0.54, 0.74)	<0.001	*	
SAMINOR 1, prevalences % †	30.3 (28.15, 32.41)		26.3 (23.02, 29.61)		30.8 (27.94, 33.75)			
SAMINOR 2, prevalences % †	20.9 (18.91, 22.85)		21.7 (18.85, 24.61)		22.0 (19.50, 24.45)			

β –coefficients are estimated by linear generalised estimating equation regression models and adjusted for age and age^2. Odds ratios are estimated by logistic generalised estimating equation regression models and adjusted for age. †Predicted means/prevalences at age 57.5 years. §Outcome variables are log-transformed. #Predicted geometric means at age 57.5. ‡ Testing for interaction between survey and ethnicity using non-Sami as reference. If p-value for interaction <0.05, we have specified which group differed from non-Sami in SAMINOR 2. * If p-value for interaction between survey and ethnicity is >0.05, please refer to the overall estimation given in Table 3. Sami in all items (11 in total): reported use of Sami language in grandparents, parents and themselves; Sami ethnic background for parents and themselves; Sami as self-perceived ethnicity. Sami in 1–10 items: reported Sami for at least one item and maximum for 10 items. Non-Sami: all others. Total and HDL cholesterol and triglycerides were missing in 18 subjects; systolic and diastolic blood pressure were missing in four subjects; hypertension in three. NORRISK 2 score was missing for 193 subjects. Abbreviations: HDL, high density lipoprotein; CI, confidence intervals; AMS, acute myocardial infarction; CS, cerebral stroke.

Table S2: Age-adjusted change in means and prevalences of cardiovascular risk factors between the SAMINOR 1 (2003–2004) and SAMINOR 2 (2012–2014) in men (n=5749), stratified into three categories according to responses to ethnicity related questions.

Linear regression	Non-Sami (n=2678) β (95% Cl)	p-value	Sami in all items (n=1244) β (95% Cl)	p-value	Sami in 1–10 items (n=1827) β (95% Cl)	p-value	Interaction‡	p-value
Cholesterol, mmol/L	-0.6 (-0.69, -0.53)	<0.001	-0.4 (-0.50, -0.28)	<0.001	-0.5 (-0.61, -0.41)	<0.001	Sami all items	0.023
SAMINOR 1, mean †	5.99 (5.92, 6.05)		6.01 (5.90, 6.11)		6.03 (5.94, 6.12)			
SAMINOR 2, mean †	5.38 (5.30, 5.45)		5.61 (5.51, 5.72)		5.52 (5.43, 5.61)			
HDL cholesterol, mmol/L	-0.01 (-0.03, 0.011)	0.33	-0.09(-0.12, -0.06)	<0.001	-0.03 (-0.05, -0.003)	0.03	Sami all items	0.001
SAMINOR 1, mean †	1.29 (1.27, 1.31)		1.29 (1.26, 1.32)		1.29 (1.27, 1.32)			
SAMINOR 2, mean †	1.28 (1.26, 1.30)		1.20 (1.17, 1.23)		1.27 (1.24, 1.29)			
Triglycerides, mmol/L§	0.003 (-0.03, 0.04)	0.89	0.10 (0.05, 0.15)	<0.001	0.03 (-0.02, 0.07)	0.22	Sami all items	0.005
SAMINOR 1, mean †#	2.91 (2.71, 3.14)		2.82 (2.50, 3.14)		3.04 (2.77, 3.31)			
SAMINOR 2, mean †#	2.94 (2.70, 3.18)		3.56 (3.17, 3.96)		3.22 (2.93, 3.53)			
Systolic blood pressure, mm Hg	-2.6 (-3.78, -1.50)	<0.001	-3.3 (-5.15, -1.54)	<0.001	-3.7 (-5.17, -2.17)	<0.001	*	
SAMINOR 1, mean †	136.8 (135.7, 137.8)		135.7 (134.0, 137.5)		138.0 (136.7, 139.4)			
SAMINOR 2, mean †	134.1 (133.0, 135.2)		132.4 (130.7, 134.1)		134.4 (132.9, 135.8)			
Diastolic blood pressure, mm Hg	-0.3 (-0.99, 0.36)	0.36	-1.2 (-2.19, -0.28)	0.011	-1.0 (-1.88, -0.17)	0.019	*	
SAMINOR 1, mean †	79.7 (79.13, 80.34)		79.2 (78.25, 80.04)		80.3 (79.51, 81.05)			
SAMINOR 2, mean †	79.4 (78.75, 80.09)		77.9 (77.02, 78.80)		79.3 (78.45, 80.06)			
Waist circumference, cm	6.3 (5.62, 6.87)	<0.001	5.9 (5.15, 6.69)	<0.001	5.61 (4.85, 6.38)	<0.001	Sami 1–10	0.04
SAMINOR 1, mean †	94.9 (94.25, 95.46)		92.6 (91.78, 93.49)		93.1 (92.37, 93.89)			
SAMINOR 2, mean †	101.1 (100.43, 101.77)		98.6 (97.68, 99.42)		98.8 (97.96, 99.53)			
10-year risk of AMI and CS, %§	-0.18 (-0.21, -0.15)	<0.001	-0.15 (-0.20, -0.11)	<0.001	-0.19 (-0.23, -0.15)	<0.001	*	
SAMINOR 1, mean †#	8.65 (8.41, 8.89)		8.54 (8.16, 8.92)		9.05 (8.72, 9.39)			
SAMINOR 2, mean †#	7.21 (6.99, 7.43)		7.34 (7.02, 7.66)		7.48 (7.19, 7.76)			
Logistic regression	**Odds ratios (95% Cl)**	**p-value**	**Odds ratios (95% Cl)**	**p-value**	**Odds ratio (95% Cl)**	**p-value**		**p-value**
Anti-hypertensive drugs	1.20 (1.03, 1.40)	0.022	1.15 (0.91, 1.46)	0.24	1.11 (0.91, 1.35)	0.30	*	
SAMINOR 1, prevalences % †	21.40 (19.25, 23.55)		18.43 (15.37, 21.49)		22.71 (19.99, 25.44)			
SAMINOR 2, prevalences % †	24.58 (22.00, 27.16)		20.66 (17.29, 24.04)		24.59 (21.57, 27.61)			
Hypertension	0.96 (0.83, 1.10)	0.51	0.87 (0.71, 1.07)	0.19	0.85 (0.72, 1.02)	0.07	*	
SAMINOR 1, prevalences % †	50.37 (47.64, 53.09)		45.39 (41.26, 49.51)		55.21 (51.87, 58.56)			
SAMINOR 2, prevalences % †	49.20 (46.26, 52.14)		42.02 (37.90, 46.15)		51.23 (47.75, 54.71)			
Current smoking	0.54 (0.46, 0.63)	<0.001	0.58 (0.47, 0.71)	<0.001	0.53 (0.44, 0.63)	<0.001	*	
SAMINOR 1, prevalences % †	29.79 (27.44, 32.14)		31.65 (28.05, 35.25)		31.63 (28.70, 34.57)			
SAMINOR 2, prevalences % †	18.49 (16.38, 20.60)		21.02 (17.91, 24.12)		19.54 (16.98, 22.10)			

β–coefficients are estimated by linear generalised estimating equation regression models and adjusted for age and age². Odds ratios are estimated by logistic generalised estimating equation regression models and adjusted for age. †Predicted means/prevalences at age 58.2 years. §Outcome variables are log-transformed. #Predicted geometric means at age 58.2. ‡ Testing for interaction between survey and ethnicity using non-Sami in SAMIMNOR 1 as reference. If p-value for interaction <0.05, we have specified which group differs from non-Sami in SAMINOR 2. *p-value for interaction between survey and ethnicity >0.05, please refer to the overall estimation given in Table 4. Sami in all items (11 in total): reported use of Sami language in grandparents, parents and themselves; Sami ethnic background for parents and themselves; Sami as self-perceived ethnicity. Sami in 1–10 items: reported Sami for at least one item and maximum for 10 items. Non-Sami: all others. Total and HDL cholesterol were missing in 12 subjects; triglycerides were missing in 13 subjects, systolic and diastolic blood pressure and hypertension was missing in one subject. NORRISK 2 score was missing for 173 subjects. Abbreviations: HDL, high density lipoprotein; CI, confidence intervals; AMS, acute myocardial infarction; CS, cerebral stroke.

Table S3: Age- and region adjusted predicted changes in beta coefficients and odds ratios of cardiovascular risk factors between SAMINOR 1 (2002–2004) and the SAMINOR 2 (2012–2017) in women and men, after testing for interaction between survey and ethnicity.

	Women (n=6624)		**Men** (n=5749)	
Linear regression	**β (95% Cl)**	**p-value**	**β (95% Cl)**	**p-value**
Total cholesterol, mmol/L	-0.50 (-0.54, -0.45)	<0.001	*	
	-		Non-Sami: -0.59 (-0.65, -0.52)	<0.001
	-		Sami: -0.43 (-0.51, -0.34)	<0.001
HDL cholesterol, mmol/L	*		*	
	Non-Sami: 0.05 (0.03, 0.07)	<0.001	Non-Sami: -0.01 (-0.03, 0.01)	0.31
	Sami: -0.01 (-0.04, 0.01)	0.24	Sami: -0.06 (-0.08, -0.03)	<0.001
Triglycerides, mmol/L †	-0.001 (-0.02, 0.02)	0.96	*	
	-		Non-Sami: -0.0002 (-0.03, 0.003)	0.99
	-		Sami: 0.09 (0.05, 0.12)	<0.001
Systolic blood pressure, mm Hg	-3.5 (-4.25, -2.77)	<0.001	-3.0 (-3.81, -2.21)	<0.001
Diastolic blood pressure, mm Hg	-1.0 (-1.37, -0.55)	<0.001	-0.8 (-1.22, -0.30)	0.001
Waist circumference, cm	6.6 (6.20, 7.03)	<0.001	5.9 (5.52, 6.33)	<0.001
10-year risk of AMI and CS, % †	*		-0.18 (-0.20, -0.16)	<0.001
	Non-Sami:-0.19 (-0.22, -0.17)	<0.001	-	
	Sami: -0.12 (-0.16, -0.09)	<0.001	-	
Logistic regression	**Odds ratio (95% Cl)**	**p-value**	**Odds ratio (95% Cl)**	**p-value**
Use of anti-hypertensive drugs	0.98 (0.89, 1.08)	0.68	1.20 (1.08, 1.33)	0.001
Hypertensive	0.79 (0.72, 0.87)	<0.001	0.93 (0.84, 1.02)	0.13
Current smoking	0.64 (0.59, 0.70)	<0.001	0.53 (0.48, 0.59)	<0.001

β–coefficients are estimated by linear generalised estimating equation regression models and adjusted for age, age^2 and region. Odds ratios are estimates by logistic generalised estimating equation regression models and adjusted for age and regions. Adjusting for three regions including the following municipalities: 1) Kautokeino and Karasjok. 2) Nesseby, Tana and Porsanger. 3) Kåfjord, Lyngen, Storfjord, Skånland and Evenes. When p-value for interaction between survey and ethnicity is >0.05, overall β –coefficients and odds ratios adjusted for region are reported, otherwise (indicated by *), ethnic specific β–coefficients are reported. †Outcome variables are log transformed.