## Supplementary Figure titles and legends

Supplementary Figure S1. Multivariable analysis of the prevalence of geographical regions.

For abbreviations see footnote of Figure 2.

Supplementary Figure S2. Multivariable analysis of the prevalence of elderly and young (A), male and female (B).

For abbreviations see footnote of Figure 2.

Supplementary Figure S3. The percentage of total population population-attributable risk stratify by graphical regions.

Supplement Figure S4. The percentage of total population population-attributable risk stratify by elderly (A) and young (B), male (C) and female (D)

## STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No	Recommendation		
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the	1	
		abstract		
		(b) Provide in the abstract an informative and balanced summary of what was	1-2	
		done and what was found		
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being	3	
		reported		
Objectives	3	State specific objectives, including any prespecified hypotheses	3	
Methods				
Study design	4	Present key elements of study design early in the paper	3	
Setting	5	Describe the setting, locations, and relevant dates, including periods of	3-4	
C		recruitment, exposure, follow-up, and data collection		
Participants	6	(a) Cohort study—Give the eligibility criteria, and the sources and methods	3-4	
•		of selection of participants. Describe methods of follow-up		
		Case-control study—Give the eligibility criteria, and the sources and methods		
		of case ascertainment and control selection. Give the rationale for the choice		
		of cases and controls		
		Cross-sectional study—Give the eligibility criteria, and the sources and		
		methods of selection of participants		
		(b) Cohort study—For matched studies, give matching criteria and number of	NA	
		exposed and unexposed		
		Case-control study—For matched studies, give matching criteria and the		
		number of controls per case		
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and	3-4	
		effect modifiers. Give diagnostic criteria, if applicable		
Data sources/	8*	For each variable of interest, give sources of data and details of methods of	5-7	
measurement		assessment (measurement). Describe comparability of assessment methods if		
		there is more than one group		
Bias	9	Describe any efforts to address potential sources of bias	8	
Study size	10	Explain how the study size was arrived at	3	
Quantitative	11	Explain how quantitative variables were handled in the analyses. If	4-5	
variables		applicable, describe which groupings were chosen and why		
Statistical methods	12	(a) Describe all statistical methods, including those used to control for	4-5	
		confounding		
		(b) Describe any methods used to examine subgroups and interactions	6, 8	
		(c) Explain how missing data were addressed	5	
		(d) Cohort study—If applicable, explain how loss to follow-up was addressed	3	
		Case-control study—If applicable, explain how matching of cases and		
		controls was addressed		
		Cross-sectional study—If applicable, describe analytical methods taking		
		account of sampling strategy		

Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study,	5
		completing follow-up, and analysed	
		(b) Give reasons for non-participation at each stage	NA
		(c) Consider use of a flow diagram	NA
Descriptive	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and	5, Figure1,
data		information on exposures and potential confounders	Table 1
		(b) Indicate number of participants with missing data for each variable of interest	NA
		(c) Cohort study—Summarise follow-up time (eg, average and total amount)	NA
Outcome data	15*	Cohort study—Report numbers of outcome events or summary measures over time	NA
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	NA
		Cross-sectional study—Report numbers of outcome events or summary measures	5, Figure1,
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates	5-6
With results	10	and their precision (eg, 95% confidence interval). Make clear which confounders	3 0
		were adjusted for and why they were included	
		(b) Report category boundaries when continuous variables were categorized	5-6
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a	NA
		meaningful time period	
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Supplementary Figure S1-S3
Discussion		benefit vity analy see	11gare 51 55
Key results	18	Summarise key results with reference to study objectives	6
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or	8
		imprecision. Discuss both direction and magnitude of any potential bias	
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations,	6-8
•		multiplicity of analyses, results from similar studies, and other relevant evidence	
Generalisability	21	Discuss the generalisability (external validity) of the study results	7-8
Other informati	on		
Funding	22	Give the source of funding and the role of the funders for the present study and, if	9
-		applicable, for the original study on which the present article is based	

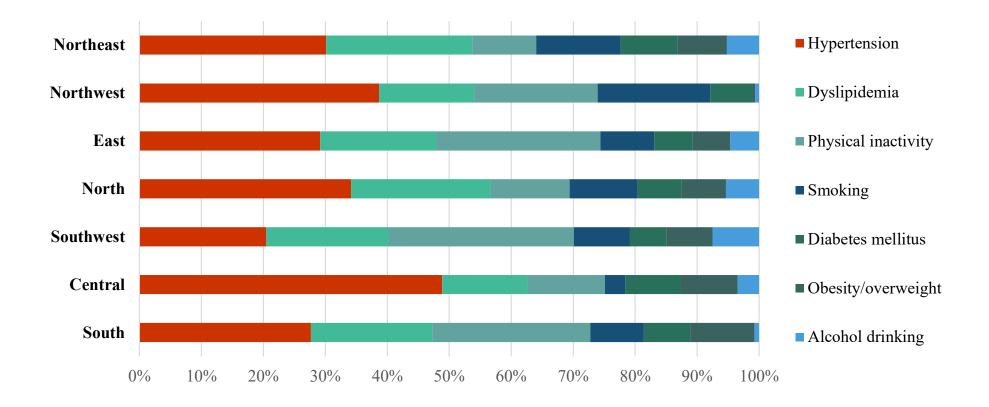
<sup>\*</sup>Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

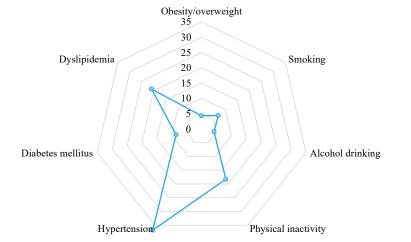
**Note:** An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

	Risk factors	Prevalence in controls	Adjusted Odds Ratio (95 %CI)		AF	PAR (95 %CI)
Northeast	Obesity/overweight Smoking Alcohol drinking Physical inactivity Hypertension Diabetes mellitus Dyslipidemia Composite PAR*	27.4 16.9 2.8 24.1 16.1 5.4 10.9 60.5	1.26(1.19-1.35) 1.76(1.64-1.90) 2.62(2.33-2.95) 1.39(1.30-1.48) 3.08(2.88-3.29) 2.52(2.31-2.74) 3.24(3.03-3.47) 3.36(3.09-3.67)	<0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001	0 0.5 1 1.5 2 2.5 3 3.5 4	6.7(4.9-8.8) 11.4(9.8-13.2) 4.3(3.6-5.2) 8.6(6.7-10.4) 25.1(23.2-26.9) 7.6(6.6-8.6) 19.6(18.1-21.2) 58.8(55.8-61.8)
Northwest	Obesity/overweight Smoking Alcohol drinking Physical inactivity Hypertension Diabetes mellitus Dyslipidemia Composite PAR*	32.5 15.6 2.3 11.7 21.0 6.5 15.4 62.2	1.01(0.92-1.19) 2.00(1.81-2.23) 1.21(0.91-1.62) 2.48(2.24-2.74) 2.92(2.66-3.20) 1.82(1.60-2.08) 1.84(1.66-2.03) 2.75(2.45-3.09)	0.845 <0.001 0.186 <0.001 <0.001 <0.001 <0.001	0 0.5 1 1.5 2 2.5 3 3.5 4	0.3(-2.7-5.8) 13.5(11.2-16.1) 0.5(-0.2-1.4) 14.8(12.7-16.9) 28.7(25.8-31.6) 5.1(3.8-6.6) 11.5(9.2-13.7) 52.1(47.4-56.5)
East	Obesity/overweight Smoking Alcohol drinking Physical inactivity Hypertension Diabetes mellitus Dyslipidemia Composite PAR*	33.0 14.8 3.8 19.1 22.2 5.8 11.1 61.8	1.19(1.12-1.27) 1.62(1.48-1.76) 2.25(2.01-2.52) 2.82(2.66-3.00) 2.78(2.61-2.96) 2.10(1.93-2.28) 3.00(2.81-3.20) 4.79(4.34-5.29)	<0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001		5.9(3.8-8.2) 8.4(6.6-10.1) 4.5(3.7-5.5) 25.8(24.1-27.6) 28.3(26.3-30.3) 6.0(5.1-6.9) 18.2(16.7-19.6) 70.1(67.4-72.6)
North	Obesity/overweight Smoking Alcohol drinking Physical inactivity Hypertension Diabetes mellitus Dyslipidemia Composite PAR*	36.2 14.8 3.4 17.7 22.9 6.4 15.4 65.4	1.21(1.12-1.41) 1.81(1.64-1.99) 2.62(2.31-2.99) 1.80(1.66-1.94) 3.18(3.02-3.65) 2.14(1.94-2.34) 2.83(2.63-3.06) 3.87(3.44-4.36)	<0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001	0 0.5 1 1.5 2 2.5 3 3.5 4	7.1(4.2-12.9) 10.7(8.7-12.8) 5.2(4.3-6.3) 12.4(10.5-14.3) 33.3(31.6-37.8) 6.8(5.7-7.9) 22.0(20.1-24.1) 65.2(61.5-68.7)
Southwest	Obesity/overweight Smoking Alcohol drinking Physical inactivity Hypertension Diabetes mellitus Dyslipidemia Composite PAR*	26.8 17.7 3.5 20.4 20.5 6.7 10.7 62.8	1.23(1.10-1.36) 1.43(1.24-1.67) 2.79(2.32-3.34) 2.49(2.25-2.75) 1.93(1.75-2.14) 1.72(1.49-1.99) 2.71(2.41-3.06) 3.05(2.66-3.51)	< 0.001	0 0.5 1 1.5 2 2.5 3 3.5 4	5.8(2.6-8.8) 7.1(4.1-10.6) 5.9(4.4-7.6) 23.3(20.3-26.3) 16.0(13.3-18.9) 4.6(3.2-6.2) 15.5(13.1-18.1) 56.3(51.0-61.2)
Central	Obesity/overweight Smoking Alcohol drinking Physical inactivity Hypertension Diabetes mellitus Dyslipidemia Composite PAR*	30.4 18.2 3.6 12.4 23.4 6.2 15.8 64.7	1.21(1.08-1.36) 1.12(0.95-1.32) 1.63(1.30-2.04) 1.71(1.50-1.95) 2.98(2.65-3.35) 1.99(1.71-2.32) 1.62(1.43-1.84) 2.48(2.13-2.89)		0 0.5 1 1.5 2 2.5 3 3.5 4	6.0(2.4-9.9) 2.1(-0.9-5.5) 2.2(1.1-3.6) 8.1(5.8-10.5) 31.7(27.9-35.5) 5.8(4.2-7.6) 8.9(6.4-11.7) 48.9(42.2-55.0)
South	Obesity/overweight Smoking Alcohol drinking Physical inactivity Hypertension Diabetes mellitus Dyslipidemia Composite PAR*	20.0 12.5 2.1 19.1 18.0 6.3 15.8 59.9	1.31(1.04-1.64) 1.41(1.02-1.93) 1.20(0.69-2.11) 1.88(1.52-2.34) 2.03(1.69-2.47) 1.71(1.30-2.23) 1.79(1.43-2.25) 2.24(1.84-2.75)		0 0.5 1 1.5 2 2.5 3 3.5 4  OR 95%CI	5.8(0.8-11.3) 4.9(0.2-10.4) 0.4(-0.7-2.3) 14.4(9.0-20.4) 15.6(11.0-20.9) 4.3(1.9-7.2) 11.1(6.4-16.5) 42.6(33.5-51.2)

	Risk factors	Prevalence in controls	Adjusted Odds p-valu Ratio (95 %CI)	e AF	PAR (95 %CI)
Elderly	Obesity/overweight	32.4	1.12(1.08-1.17) < 0.001	<b> </b>	3.7(2.5-5.2)
	Smoking	15.9	1.41(1.33-1.48) < 0.001	•	6.1(5.0-7.1)
	Alcohol drinking	3.8	2.01(1.87-2.17) < 0.001	H <b>◆</b> H	3.7(3.2-4.3)
	Physical inactivity	20.1	1.95(1.88-2.04) < 0.001	•	16.0(15.0-17.3)
	Hypertension	33.0	2.44(2.35-2.54) < 0.001	•	32.2(30.8-33.7)
	Diabetes mellitus	9.6	1.84(1.75-1.94) < 0.001	••	7.5(6.7-8.3)
	Dyslipidemia	17.1	2.31(2.22-2.41) < 0.001	•	18.3(17.3-19.4)
	Composite PAR*	69.9	3.29(3.10-3.50) < 0.001	H <b>♦</b> ⊣	61.5(59.5-63.6)
				0 05 1 15 2 25 2 25	
				0 0.5 1 1.5 2 2.5 3 3.5	4
Young	Obesity/overweight	30.6	1.19(1.14-1.25) <0.001	0 0.5 1 1.5 2 2.5 3 3.5	5.5(4.1-7.1)
Young	Obesity/overweight Smoking	30.6 15.8		0 0.5 1 1.5 2 2.5 3 3.5	5.5(4.1-7.1)
Young				0 0.5 1 1.5 2 2.5 3 3.5	5.5(4.1-7.1)
Young	Smoking	15.8	1.83(1.71-1.96) < 0.001	<b>♦</b>   <b>♦</b>	5.5(4.1-7.1) 11.6(10.1-13.2) 3.8(3.2-4.4)
Young	Smoking Alcohol drinking	15.8 3.0	1.83(1.71-1.96) <0.001 2.30(2.09-2.52) <0.001	♦     + +	5.5(4.1-7.1) 11.6(10.1-13.2) 3.8(3.2-4.4) 17.5(16.3-18.9)
Young	Smoking Alcohol drinking Physical inactivity	15.8 3.0 16.6	1.83(1.71-1.96) <0.001 2.30(2.09-2.52) <0.001 2.28(2.17-2.40) <0.001	♦     + +	5.5(4.1-7.1) 11.6(10.1-13.2) 3.8(3.2-4.4) 17.5(16.3-18.9)
Young	Smoking Alcohol drinking Physical inactivity Hypertension	15.8 3.0 16.6 13.6	1.83(1.71-1.96) <0.001 2.30(2.09-2.52) <0.001 2.28(2.17-2.40) <0.001 3.14(2.98-3.30) <0.001		5.5(4.1-7.1) 11.6(10.1-13.2) 3.8(3.2-4.4) 17.5(16.3-18.9) 22.5(21.2-23.8)

	Risk factors	Prevalence in controls	Adjusted Odds Ratio (95 %CI)	•	AF	PAR (95 %CI)
Female	Obesity/overweight	31.9	1.12(1.07-1.16)	<0.001	<b>*</b>	3.7(2.2-4.9)
	Smoking	2.4	2.41(2.23-2.60)	< 0.001	H <b>◆</b> H	3.3(2.9-3.7)
	Alcohol drinking	0.5	2.35(2.04-2.72)	< 0.001	⊢•	0.7(0.5-0.9)
	Physical inactivity	19.0	2.12(2.04-2.21)	< 0.001	•	17.5(16.5-18.7)
	Hypertension	22.1	2.59(2.48-2.70)	< 0.001	ı∳ı	26.0(24.6-27.3)
	Diabetes mellitus	6.6	2.02(1.92-2.13)	< 0.001	I∳I	6.3(5.7-6.9)
	Dyslipidemia	14.5	2.41(2.31-2.51)	< 0.001	ı∳ı	17.0(16.0-18.0)
	Composite PAR*	58.8	3.41(3.23-3.61)		H <b>◆</b> H	58.6(56.7-60.5)
					0 0.5 1 1.5 2 2.5 3 3.5 4	
Male	Obesity/overweight	30.6	1.22(1.16-1.28)	< 0.001	1.	6.3(4.7-7.9)
	Smoking	31.0	1.36(1.30-1.43)	< 0.001	•	10.0(8.5-11.8)
	Alcohol drinking	6.5	2.22(2.08-2.37)	< 0.001	H <b>♦</b> H	7.3(6.6-8.2)
	Physical inactivity	16.9	2.00(1.90-2.11)	< 0.001	I∳I	14.5(13.2-15.8)
	Hypertension	20.1	2.91(2.77-3.07)	< 0.001	I♣I	27.7(26.2-29.4)
	Diabetes mellitus	5.6	2.25(2.10-2.41)	< 0.001	H <b>♦</b> H	6.5(5.8-7.3)
	Dyslipidemia	11.7	2.73(2.59-2.88)	< 0.001	I♠I	16.8(15.7-18.0)
	Composite PAR*	67.4	3.23(2.99-3.49)	< 0.001	<b>⊢→</b>	60.0(57.3-62.7)
	1		,	₹0.001	0 0.5 1 1.5 2 2.5 3 3.5 4	00.0(37.3-02.7)
					OR 95%CI	





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