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

Section/item	Item No	Recommendation	Reported on Page Number/Line Number	Reported on Section/Paragraph
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	Page3/line8-15	Abstract/Para 2
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	Page3/line16-22 Page4/line1-9	Abstract/Para3-5
Introduction				
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	Page4/line15-22 Page5/line1-4	Introduction/Para1
Objectives	3	State specific objectives, including any prespecified hypotheses	Page5/line7-9	Introduction/Para1
Methods			•	
Study design	4	Present key elements of study design early in the paper	Page7/line1-7	Methods/Para6
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Page5/line12-21	Methods/Para1
Participants	6	(a) Cohort study —Give the eligibility criteria, and the sources and methods 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	Page6/line6-20	Methods/Para3-5
		(b) Cohort study —For matched studies, give matching criteria and number of exposed and unexposed Case-control study —For matched studies, give matching criteria and the number of controls per case	N/A	N/A
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Page6/line6-20	Methods/Para3-5
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	Page5/line12-21	Methods/Para1
Bias	9	Describe any efforts to address potential sources of bias	Page5/line18-21	Methods/Para1
Study size	10	Explain how the study size was arrived at	Page6/line6-20	Methods/Para3-5
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Page7/line10-13	Methods/Para8

12	(a) Describe all statistical methods, including those used to control for confounding	Page8/line18-22 Page9/line1-2	Methods/Para11
	(b) Describe any methods used to examine subgroups and interactions	Page8/line18-22 Page9/line1-2	Methods/Para11
	(c) Explain how missing data were addressed	Page8/line18-22 Page9/line1-2	Methods/Para11
	(d) <i>Cohort study</i> —If applicable, explain how loss to follow-up was addressed	Page8/line18-22 Page9/line1-2	Methods/Para11
	Cross-sectional study—If applicable, describe analytical methods taking account of sampling strategy		
	(e) Describe any sensitivity analyses	Page8/line18-22 Page9/line1-2	Methods/Para11
13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	Page10/line20-21	Results/Para7
	(b) Give reasons for non-participation at each stage	Page10/line20-21	Results/Para7
	(c) Consider use of a flow diagram	Page10/line20-21	Results/Para7
14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Page9/line6-7	Results/Para1
	(b) Indicate number of participants with missing data for each variable of interest	Page7/line6-7	Results/Para1
	(c) Cohort study—Summarise follow-up time (eg, average and total amount)	N/A	N/A
15*	Cohort study—Report numbers of outcome events or summary measures over time	N/A	N/A
	Case-control study—Report numbers in each exposure category, or summary measures of exposure	N/A	N/A
	Cross-sectional study—Report numbers of outcome events or summary measures	Page10/line20-21	Results/Para7
16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	Page9/line20-22 Page10/line1-21	Results/Para2-7
	(b) Report category boundaries when continuous variables were categorized	Page9/line20-22 Page10/line1-21	Results/Para2-7
	(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	Page9/line20-22 Page10/line1-21	Results/Para2-7
17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Page10/line20-21	Results/Para7
18	Summarise key results with reference to study objectives	Page11/line21-22 Page12/line1-14	Discussion/Para2
19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	Page12/line15-22 Page13/line1-4	Discussion/Para3
	13* 14* 15* 16	(b) Describe any methods used to examine subgroups and interactions (c) Explain how missing data were addressed (d) Cohort study—If applicable, explain how loss to follow-up was addressed 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 (e) Describe any sensitivity analyses 13* (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed (b) Give reasons for non-participation at each stage (c) Consider use of a flow diagram 14* (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders (b) Indicate number of participants with missing data for each variable of interest (c) Cohort study—Summarise follow-up time (eg, average and total amount) 15* Cohort study—Report numbers of outcome events or summary measures over time Case-control study—Report numbers of outcome events or summary measures 16 (a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included (b) Report category boundaries when continuous variables were categorized (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period 17 Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	(b) Describe any methods used to examine subgroups and interactions Page8/line1-2 (c) Explain how missing data were addressed Page8/line1-2 (d) Cohort study—If applicable, explain how loss to follow-up was addressed Case-control study—If applicable, explain how loss to follow-up was addressed Page8/line1-2 Case-control study—If applicable, explain how matching of cases and controls was addressed Case-control study—If applicable, explain how matching of cases and controls was addressed (e) Describe any sensitivity analyses (e) Describe any sensitivity analyses Page8/line1-2 13* (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed (b) Give reasons for non-participation at each stage (c) Consider use of a flow diagram Page10/line20-21 (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders (b) Indicate number of participants with missing data for each variable of interest (c) Cohort study—Summarise follow-up time (eg, average and total amount) N/A Case-control study—Report numbers of outcome events or summary measures over time Cross-sectional study—Report numbers of outcome events or summary measures of exposure (a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 1986/line20-22) Page9/line20-22 Page9/l

Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Page13/line5-11	Discussion/Para4				
Generalisability	21	Discuss the generalisability (external validity) of the study results	Page12/line15-22 Page13/line1-4	Discussion/Para3				
Other information								
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	Page14/line15-18	Funding Support				

^{*}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 Websites 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.

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*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.