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

	Item No	Recommendation	Check
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the	1
		abstract	V
		(b) Provide in the abstract an informative and balanced summary of what was	1
		done and what was found	V
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being	-1
		reported	٧
Objectives	3	State specific objectives, including any prespecified hypotheses	$\sqrt{}$
Methods			
Study design	4	Present key elements of study design early in the paper	√
	5	Describe the setting, locations, and relevant dates, including periods of	1
C		recruitment, exposure, follow-up, and data collection	V
Setting Participants Variables	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	$\sqrt{}$
		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	
		exposed and unexposed	,
		Case-control study—For matched studies, give matching criteria and the	V
		number of controls per case	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and	1
		effect modifiers. Give diagnostic criteria, if applicable	V
Data sources/	8*	For each variable of interest, give sources of data and details of methods of	
measurement		assessment (measurement). Describe comparability of assessment methods if	$\sqrt{}$
		there is more than one group	
Bias	9	Describe any efforts to address potential sources of bias	
Study size	10	Explain how the study size was arrived at	NA
Quantitative	11	Explain how quantitative variables were handled in the analyses. If	1
variables		applicable, describe which groupings were chosen and why	V
Statistical methods	12	(a) Describe all statistical methods, including those used to control for	1
		confounding	V
		(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	$\sqrt{}$
		Cross-sectional study—If applicable, describe analytical methods taking	•
		account of sampling strategy	
		(e) Describe any sensitivity analyses	√
		(v) 2 2001100 and bombin ing analyses	,

Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in	$\sqrt{}$
		the study, completing follow-up, and analysed	
		(b) Give reasons for non-participation at each stage	NA
		(c) Consider use of a flow diagram	NA
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social)	$\sqrt{}$
		and information on exposures and potential confounders	
		(b) Indicate number of participants with missing data for each variable of interest	$\sqrt{}$
		(c) Cohort study—Summarise follow-up time (eg, average and total amount)	V
Outcome data	15*	Cohort study—Report numbers of outcome events or summary measures over time	√
		Case-control study—Report numbers in each exposure category, or summary	
		measures of exposure	
		Cross-sectional study—Report numbers of outcome events or summary	
		measures	
Main results	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	NA
		(c) If relevant, consider translating estimates of relative risk into absolute risk	,
		for a meaningful time period	V
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and	1
		sensitivity analyses	V
Discussion			
Key results	18	Summarise key results with reference to study objectives	V
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias	
		or imprecision. Discuss both direction and magnitude of any potential bias	V
Interpretation	20	Give a cautious overall interpretation of results considering objectives,	
		limitations, multiplicity of analyses, results from similar studies, and other	
		relevant evidence	
Generalisability	21	Discuss the generalisability (external validity) of the study results	√
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	
		and, if approache, for the original study on which the present affice is based	

^{*}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.