

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 abstract [Method section of the abstract page 2] (b) Provide in the abstract an informative and balanced summary of what was done and what was found [Result section of the abstract page 2]
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported [Introduction section of the page 5]
Objectives	3	State specific objectives, including any prespecified hypotheses [Introduction section of the page 6]
Methods		
Study design	4	Present key elements of study design early in the paper [Methods section of the page 7]
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection [Methods section of the page 7-8]
Participants	6	(a) <i>Cohort study</i> —Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up [Methods section of the page 7] <i>Case-control study</i> —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 <i>Cross-sectional study</i> —Give the eligibility criteria, and the sources and methods of selection of participants (b) <i>Cohort study</i> —For matched studies, give matching criteria and number of exposed and unexposed <i>Case-control study</i> —For matched studies, give matching criteria and the number of controls per case
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable [Methods section of the page 8]
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 [Methods section of the page 7-8]
Bias	9	Describe any efforts to address potential sources of bias [Methods section of the page 8-9]
Study size	10	Explain how the study size was arrived at [Methods section of the page 7]
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why [Methods section of the page 8]
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding [Methods section of the page 8-9] (b) Describe any methods used to examine subgroups and interactions [Methods section of the page 9]

(c) Explain how missing data were addressed [Methods section of the page 9]

(d) *Cohort study*—If applicable, explain how loss to follow-up was addressed [Methods section of the page 10]

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 [N/A]

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, completing follow-up, and analysed [Result section of the page 10; Table 1] (b) Give reasons for non-participation at each stage [N/A] (c) Consider use of a flow diagram [N/A information in Table 1]
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders [Result section of the page 10; Table 1] (b) Indicate number of participants with missing data for each variable of interest [Table 1] (c) <i>Cohort study</i> —Summarise follow-up time (eg, average and total amount) [Result section of the page 10; Table 1]
Outcome data	15*	<i>Cohort study</i> —Report numbers of outcome events or summary measures over time [Result section of the page 10-11; Table 2] <i>Case-control study</i> —Report numbers in each exposure category, or summary measures of exposure <i>Cross-sectional study</i> —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 [Result section of the page 11-12; Table 3] (b) Report category boundaries when continuous variables were categorized [Result section of the page 10] (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period [N/A]
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses [Result section of the page 10-11; Figure 1-3]
Discussion		
Key results	18	Summarise key results with reference to study objectives [Discussion section of the page 13]
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 [Discussion section of the page 15]
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence [Discussion section of the page 14-15]
Generalisability	21	Discuss the generalisability (external validity) of the study results [Discussion section

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 [**Title page Financial support section**]

*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.