

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 | Page 1/Line 16-17 | Abstract/Paragraph 1 |
| | | (b) Provide in the abstract an informative and balanced summary of what was done and what was found | Page 1/Line 18-31 | Abstract/Paragraph 2-3 |
| Introduction | | | | |
| Background/ rationale | 2 | Explain the scientific background and rationale for the investigation being reported | Page 2/Line 45-56-Page 3 /Line 55-59 | Introduction/Paragraph 1-2 |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | Page 3/Line 60-63 | Introduction/Paragraph 3 |
| Methods | | | | |
| Study design | 4 | Present key elements of study design early in the paper | Page 6/Line 118-120 | Methods/Paragraph 7 |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | Page 3/Line 67 | Methods/Paragraph 1 |
| 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 | Page 3/Line 71-73--Page 4 /Line 74-78 | Methods/Paragraph 1 |
| | | (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 | Page 4/Line 79-82 | Methods/Paragraph 1 |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | Page 4/Line 86-87 | Methods/Paragraph 3 |
| 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 | Page 3/Line 69-73--Page 4 /Line 74-78 | Methods/Paragraph 1 |
| Bias | 9 | Describe any efforts to address potential sources of bias | Page 5/Line 92 | Methods/Paragraph 4 |
| Study size | 10 | Explain how the study size was arrived at | Page 4/Line 74-76 | Methods/Paragraph 1 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | Page 4/Line 79-82 | Methods/Paragraph 1 |

| | | | | |
|---------------------|-----|---|--|------------------------|
| Statistical methods | 12 | (a) Describe all statistical methods, including those used to control for confounding | Page 6/Line 121-126 | Methods/Paragraph 8 |
| | | (b) Describe any methods used to examine subgroups and interactions | Page 6/Line 122-126 | Methods/Paragraph 8 |
| | | (c) Explain how missing data were addressed | N/A | N/A |
| | | (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 | Page 6/Line 122-126 | Methods/Paragraph 8 |
| | | (e) Describe any sensitivity analyses | N/A | 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 | Page 6/Line 130-132 | Results/Paragraph 1 |
| | | (b) Give reasons for non-participation at each stage | Page 7/Line 141-149 | Results/Paragraph 2 |
| | | (c) Consider use of a flow diagram | Figure 1 | Figure 1 |
| Descriptive data | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | Page 6/Line 140--Page 7/Line 151-158 | Results/Paragraph 1,3 |
| | | (b) Indicate number of participants with missing data for each variable of interest | N/A | N/A |
| | | (c) Cohort study —Summarise follow-up time (eg, average and total amount) | N/A | N/A |
| Outcome data | 15* | Cohort study —Report numbers of outcome events or summary measures over time | Page 6/Line 130 | Results/Paragraph 1 |
| | | 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 | N/A | N/A |
| 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 | Page 6/Line 134-136--Page 7/Line 137-140 | Results/Paragraph 1 |
| | | (b) Report category boundaries when continuous variables were categorized | N/A | N/A |
| | | (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | N/A | N/A |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | Page 8/Line 161-163 | Results/Paragraph 4 |
| Discussion | | | | |
| Key results | 18 | Summarise key results with reference to study objectives | Page 10/Line 213-221 | Discussion/Paragraph 5 |
| 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 | Page 12/Line 251-255 | Discussion/Paragraph 9 |

| | | | | |
|--------------------------|----|--|----------------------|------------------------|
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | Page 11/Line 227-237 | Discussion/Paragraph 7 |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | Page 11/Line 243-246 | Discussion/Paragraph 8 |
| 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 | Page 13/Line 267-268 | Funding/Paragraph 1 |

*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.

Article information: <https://dx.doi.org/10.21037/apm-21-1906>

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