

STROBE Statement—Checklist of items that should be included in reports of *cross-sectional studies*

| | 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 2 / Line 8 | Abstract/Methods |
| | | (b) Provide in the abstract an informative and balanced summary of what was done and what was found | Page 2-3 | Abstract |
| Introduction | | | | |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | Page 4-5 | Introduction |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | Page 5 / Line 11-13 | Introduction/last paragraph |
| Methods | | | | |
| Study design | 4 | Present key elements of study design early in the paper | Page 5 / Line 16-22 | Method/ Study design |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | Page 6 / Line 1-13 | Method/Participants |
| Participants | 6 | (a) Give the eligibility criteria, and the sources and methods of selection of participants | Page 6 / Line 4-13 | Method/ Participants |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | Page 6 / Line 15-23, Page 7 / Line 1-20 | Method/Procedure |
| 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 6 / Line 15-23, Page 7 / Line 1-20 | Method/Procedure |
| Bias | 9 | Describe any efforts to address potential sources of bias | Page 6 / Line 5 | Participants / Paragraph 2 |
| Study size | 10 | Explain how the study size was arrived at | Page 6 / Line 8-10 | Participants / Paragraph 2 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | Page 6 / Line 15-23, Page 7 / Line 1-20 | Method/Procedure |
| Statistical methodsot | 12 | (a) Describe all statistical methods, including those used to control for confounding | Page 7 / Line22-24 Page 8 / Line 1-5 | Method/Statistical analysis |

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|------------------|-----|--|---|---|
| | | (b) Describe any methods used to examine subgroups and interactions | N/A | Did not perform the subgroup analysis and confounding effect. |
| | | (c) Explain how missing data were addressed | N/A | There are no missing data. |
| | | (d) If applicable, describe analytical methods taking account of sampling strategy | Page 6 / Line 8-10 | Method /Paragraph 2 |
| | | (e) Describe any sensitivity analyses | Page 8 / Line 1 | Methods / Statistical analysis |
| 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 8 / Line 8-12 | Participants / Paragraph 1 |
| | | (b) Give reasons for non-participation at each stage | Page 8 / Line 8-12 | Participants / Paragraph 1 |
| | | (c) Consider use of a flow diagram | Figure 3 | |
| Descriptive data | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | Page 8 / Line 13-18 | Results / Paragraph 2 |
| | | (b) Indicate number of participants with missing data for each variable of interest | N/A | There are no missing data. |
| Outcome data | 15* | Report numbers of outcome events or summary measures | Page 8 / Line 21-23 Page 9 / Line 1-17 | Results/ Paragraph 3-5 |
| 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 8 / Line 21-23 Page 9 / Line 1-17 | Results/ Paragraph 3-5 |
| | | (b) Report category boundaries when continuous variables were categorized | N/A | Did not transform the continuous variables |
| | | (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | Page 8 / Line 21-23 Page 9 / Line 1-17 | Results/ Paragraph 3-5 |

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|--------------------------|----|--|--|--------------------------------|
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | N/A | Did not perform other analysis |
| Discussion | | | | |
| Key results | 18 | Summarise key results with reference to study objectives | Page 9 /Line 19-23 Page 10 / Line 1-18 | Discussion / Paragraph 1-3 |
| 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 13 / Line 5 Page 13 / Line 5-7 | Discussion |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | Page 9 / Line 19-23 Page 10-13 / Line 1-23 Page 14 /Line 1-2 | Discussion |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | Page 13 / Line 7 | Discussion |
| 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 14 / Line 11-13 | Acknowledgements |

*Give information separately for exposed and unexposed groups.

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: <http://dx.doi.org/10.21037/gs-20-466>.

*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.