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

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| --- | --- | --- | --- |
|  | Item No | Recommendation | Inclusion in the relevant section (yes if included in the manuscript/not applicable/explanations if necessary) |
| **Title and abstract** | 1 | (*a*) Indicate the study’s design with a commonly used term in the title or the abstract | Yes |
| (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found | Yes |
| Introduction | | |  |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | Yes (introduction) |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | Yes (introduction) |
| Methods | | |  |
| Study design | 4 | Present key elements of study design early in the paper | Yes |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | Yes |
| Participants | 6 | (*a*) Give the eligibility criteria, and the sources and methods of selection of participants | Yes |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | Yes (mapping of indicators and general health/chronic diseases/any disease in the past year) were included in an agnostic approach for proof-of-concept analysis. |
| 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 | Questionnaires and water sample analysis were conducted details can be found in the methods section. |
| Bias | 9 | Describe any efforts to address potential sources of bias | Addressed in the methods section. |
| Study size | 10 | Explain how the study size was arrived at | Addressed in the methods section. |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | Addressed in the methods section. |
| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding | Addressed in the methods section. |
| (*b*) Describe any methods used to examine subgroups and interactions | Not applicable |
| (*c*) Explain how missing data were addressed | Addressed in the methods section. |
| (*d*) If applicable, describe analytical methods taking account of sampling strategy |  |
| (*e*) Describe any sensitivity analyses | Not applicable |
| 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 | Yes |
| (b) Give reasons for non-participation at each stage | Not applicable |
| (c) Consider use of a flow diagram | Not applicable |
| Descriptive data | 14\* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | Yes |
| (b) Indicate number of participants with missing data for each variable of interest | Yes |
| Outcome data | 15\* | Report numbers of outcome events or summary measures | Included in the results |
| 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 | Provided in the environment-wide associations part of the analysis |
| (*b*) Report category boundaries when continuous variables were categorized | Not applicable |
| (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | Not applicable |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | Not applicable |
| Discussion | | |  |
| Key results | 18 | Summarise key results with reference to study objectives | Yes |
| 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 | Yes |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | Yes |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | The study is for proof-of-concept. |
| 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 | Not applicable |

\*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.