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

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|  | Item No | Recommendation |
| **Title and abstract** | 1 | (*a*) Indicate the study’s design with a commonly used term in the title or the abstract – Title and abstract |
| (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found – Abstract (methods and findings)  |
| Introduction |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported – Introduction section (paragraphs 1, 2, 3)  |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses – Introduction section (las paragraph) |
| Methods |
| Study design | 4 | Present key elements of study design early in the paper – Methods section (first paragraph) |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection – Methods section (first paragraph) |
| Participants | 6 | (*a*) Give the eligibility criteria, and the sources and methods of selection of participants – Methods section (first paragraph) |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable – Methods section (Paragraphs 2, 3, 4) |
| 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 (Paragraphs 2, 3, 4) |
| Bias | 9 | Describe any efforts to address potential sources of bias – Methods section (Paragraphs 2, 3, 4) |
| Study size | 10 | Explain how the study size was arrived at – Methods section (first paragraph) |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why – Methods section (statistical analyses subsection)  |
| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding – Methods section (statistical analyses subsection) |
| (*b*) Describe any methods used to examine subgroups and interactions – Methods section (statistical analyses subsection, last 3 lines) |
| (*c*) Explain how missing data were addressed – Methods section (statistical analyses subsection) |
| (*d*) If applicable, describe analytical methods taking account of sampling strategy – Methods section (statistical analyses subsection) |
| (*e*) Describe any sensitivity analyses NA |
| 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 – S Fig 1 |
| (b) Give reasons for non-participation at each stage – S Fig 1 |
| (c) Consider use of a flow diagram – S Fig 1 |
| Descriptive data | 14\* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders – Table 1 |
| (b) Indicate number of participants with missing data for each variable of interest – Table 1 |
| Outcome data | 15\* | Report numbers of outcome events or summary measures – Table 1 |
| 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 – Table 2, 3 |
| (*b*) Report category boundaries when continuous variables were categorized – Table 1, 2, 3 |
| (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period – Results section, last paragaph |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses – S2 Table, S3 Table, S4 Table, S5 Table |
| Discussion |
| Key results | 18 | Summarise key results with reference to study objectives – Discussion section (first paragraph) |
| 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 (strengths and limitations sub-section) |
| 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 (Implications sub-section) |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results – Discussion section (strengths and limitations sub-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 – Funding section on meta-data |

\*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.