**S3 Appendix STROBE checklist**

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|  | Item No | Recommendation | Page No |
| **Title and abstract** | 1 | (*a*) Indicate the study’s design with a commonly used term in the title or the abstract | (*a*) Title &Abstract - Methods |
| (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found | (b) Abstract |
| Introduction |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | Introduction – para 2 |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | Introduction – para 3 |
| Methods |
| Study design | 4 | Present key elements of study design early in the paper | Methods – study population |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | Methods – study populationMethods – assessment of adiposity & assessment of cardiometabolic traits |
| Participants | 6 | (*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up | Methods – study populationMethods – assessment of adiposity & assessment of cardiometabolic traitsMethods – study populationMethods – participants eligible for analysis |
|  |  |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | Methods – assessment of adiposity & assessment of cardiometabolic traits & assessment of confounders  |
| 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 – assessment of adiposity & assessment of cardiometabolic traits & assessment of confounders |
| Bias | 9 | Describe any efforts to address potential sources of bias | Statistical analysis – sensitivity and additional analyses |
| Study size | 10 | Explain how the study size was arrived at | Methods – participants eligible for analysis & Figure 1 Flow diagram |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | Statistical analysis – primary analysis |
| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding | (*a*) Statistical analysis – primary analysis – para 2 |
| (*b*) Describe any methods used to examine subgroups and interactions | (*b*) Statistical analysis – primary analysis – para 2 |
| (*c*) Explain how missing data were addressed | (*c*) (*d*) (*e*) Statistical analysis – sensitivity and additional analyses |
| (*d*) If applicable, explain how loss to follow-up was addressed |  |
| (*e*) Describe any sensitivity analyses |  |
| 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 | (a-c) Figure 1 – Flow diagram and Methods – participants eligible for analysisS2 & S3 Table |
| (b) Give reasons for non-participation at each stage |  |
| (c) Consider use of a flow diagram |  |
| Descriptive data | 14\* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | (a) Table 1 and Results – para 1 & 2 |
| (b) Indicate number of participants with missing data for each variable of interest | (b) S2 & S3 Table |
| (c) Summarise follow-up time (eg, average and total amount) | (c) Methods – study populationMethods – assessment of adiposity & assessment of cardiometabolic traits |
| Outcome data | 15\* | Report numbers of outcome events or summary measures over time | Methods – participants eligible for analysisFigure 1, Table 1  |

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| 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 | (*a*) Results – para 5 onwards & S1-S12 Tables |
| (*b*) Report category boundaries when continuous variables were categorized | (*b*) Not applicable |
| (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | *(c*) Not applicable |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | Results – sensitivity analyses |
| Discussion |
| Key results | 18 | Summarise key results with reference to study objectives | Discussion – para 1 |
| 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 – strengths and limitations |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | Discussion – para 2-3 |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | Discussion – Strengths and limitations – para 2 |
| 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 sources on title page |

\*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 http://www.strobe-statement.org.