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	P1, line 16-19	Abstract
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	P1, line 13-37	Abstract
Introduction				
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	P2, line 41-72	Introduction, paragraph 1-3
Objectives	3	State specific objectives, including any prespecified hypotheses	P2, line 73-74	Introduction, paragraph 4
Methods				
Study design	4	Present key elements of study design early in the paper	P4-5, line 80-93	Methods, paragraph 2
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	P4-5, line 80-93	Methods, paragraph 2
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	P4-5, line 80-93，113-121	Methods, paragraph 2，6
		(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	Not applicable （Cross-sectional study）	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	P7-8，line 123-150	Methods, paragraph 2
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	P7-8，line 123-150	Methods, paragraph 2-6
Bias	9	Describe any efforts to address potential sources of bias	P7-8，line 123-125，139-140	Methods, paragraph 6,9
Study size	10	Explain how the study size was arrived at	P4-5, line 80-93	Methods, paragraph 2
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	P6-8, line 114-150	Methods, paragraph 5-9

Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	P8, line 152-164	Methods, paragraph 7
		(b) Describe any methods used to examine subgroups and interactions	P8, line 152-164	Methods, paragraph 7
		(c) Explain how missing data were addressed	P4-5, line 80-93	Methods, paragraph 2
		(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	Not applicable （Not mentioned in the text. We use a crude estimation method with sample sizes of about 10-20 times the variables, expanded by 10%）	
		(e) Describe any sensitivity analyses	Not applicable （Sensitivity is not calculated in the text）	
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	P9, line 167-177	Results, paragraph 1
		(b) Give reasons for non-participation at each stage	P5, line 82-87	Methods, paragraph 2
		(c) Consider use of a flow diagram	P5, line 93	Fig 1
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	P9, line 167-177	Results, paragraph 1
		(b) Indicate number of participants with missing data for each variable of interest	P5, line 85-89	Methods, paragraph 2
		(c) ***Cohort study***—Summarise follow-up time (eg, average and total amount)	Not applicable（Cross-sectional study）	
Outcome data	15*	***Cohort study***—Report numbers of outcome events or summary measures over time	Not applicable（Cross-	
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	Not applicable（Cross-sectional study）	
		Cross-sectional study—Report numbers of outcome events or summary measures	P9, line 167-177	Results, paragraph 1,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	P9-11, line 178-224	Results, paragraph 2-6, table 2-3
		(b) Report category boundaries when continuous variables were categorized	P9-11, line 178-224	Results, paragraph 2-6, table 2-3

		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	Not relevant	
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	P10, line 192-200; P11, line 219-224	Results, paragraph 3, 6
Discussion				
Key results	18	Summarise key results with reference to study objectives	P11-12, line 231-40	Discussion, paragraph 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	P15-16, line 318-330	Discussion, pargragh 7
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	-	-
Generalisability	21	Discuss the generalisability (external validity) of the study results	-	-
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	Footnote	

*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/qims-24-1097

*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.