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

	Item No	Recommendation	Page
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or	1,2
		the abstract	
		(b) Provide in the abstract an informative and balanced summary of what	1,2
		was done and what was found	
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation	2
		being reported	
Objectives	3	State specific objectives, including any prespecified hypotheses	2
Methods			
Study design	4	Present key elements of study design early in the paper	2,3
Setting	5	Describe the setting, locations, and relevant dates, including periods of	2, 3,
		recruitment, exposure, follow-up, and data collection	MA3,
			MA4
Participants	6	(a) Give the eligibility criteria, and the sources and methods of selection	MA3,
		of participants	MA4
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders,	2, 3,
		and effect modifiers. Give diagnostic criteria, if applicable	MA2
Data sources/	8*	For each variable of interest, give sources of data and details of methods	MA2,
measurement		of assessment (measurement). Describe comparability of assessment	MA5
		methods if there is more than one group	
Bias	9	Describe any efforts to address potential sources of bias	7,8
Study size	10	Explain how the study size was arrived at	MA3,
			MA4
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If	2, 3,
		applicable, describe which groupings were chosen and why	MA2
Statistical methods	12	(a) Describe all statistical methods, including those used to control for	2,3
		confounding	
		(b) Describe any methods used to examine subgroups and interactions	3
		(c) Explain how missing data were addressed	-
		(d) If applicable, describe analytical methods taking account of sampling	MA3
		strategy	
		(e) Describe any sensitivity analyses	-
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers	MA4
		potentially eligible, examined for eligibility, confirmed eligible, included	
		in the study, completing follow-up, and analysed	
		(b) Give reasons for non-participation at each stage	MA4
		(c) Consider use of a flow diagram	MA4
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical,	MA4
		social) and information on exposures and potential confounders	
		(b) Indicate number of participants with missing data for each variable of	-
		interest	
Outcome data	15*	Report numbers of outcome events or summary measures	MA2
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted	MA2

		estimates and their precision (eg, 95% confidence interval). Make clear	
		which confounders were adjusted for and why they were included	
		(b) Report category boundaries when continuous variables were categorized	-
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	-
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	-
Discussion			
Key results	18	Summarise key results with reference to study objectives	7
Limitations	19	Discuss limitations of the study, taking into account sources of potential	8
		bias or imprecision. Discuss both direction and magnitude of any	
		potential bias	
Interpretation	20	Give a cautious overall interpretation of results considering objectives,	7,8
		limitations, multiplicity of analyses, results from similar studies, and	
		other relevant evidence	
Generalisability	21	Discuss the generalisability (external validity) of the study results	7,8
Other information	•		•
Funding	22	Give the source of funding and the role of the funders for the present	9
		study and, if applicable, for the original study on which the present article	
		is based	

<sup>\*</sup>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.