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

	Item No	Recommendation
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract (Tittle and abstract paragraph 2)
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found (Abstract; paragraphs 1 – 4)
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported (paragraph 1 – 3)
Objectives	3	State specific objectives, including any prespecified hypotheses (paragraph 3)
Methods		
Study design	4	Present key elements of study design early in the paper (Paragraph 1)
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection (paragraphs 1 and 5)
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants (Methods, paragraphs 1, 3 – 11)
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable - diagnostic criteria, subtitle materials and methods, paragraphs (4 – 11)
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 (subtitle materials and methods, paragraphs 4 – 11)
Bias	9	Describe any efforts to address potential sources of bias (subtitle materials and methods paragraphs 9 – 10)
Study size	10	Explain how the study size was arrived at (subtitle materials and methods subtitle, paragraph 1)
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why (subtitle materials and methods, paragraphs 3 – 11)
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding (not applicable)
		(*b*) Describe any methods used to examine subgroups and interactions (not applicable)
		(*c*) Explain how missing data were addressed (not applicable)
		(*d*) If applicable, describe analytical methods taking account of sampling strategy (not applicable)
		(*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 (subtitle results, paragraph 1 and)
		(b) Give reasons for non-participation at each stage (subtitle results, paragraphs, 4 – 7)
		(c) Consider use of a flow diagram (subtitle result, paragraphs, 4 – 7)
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders (subtitle results, paragraph 1)
		(b) Indicate number of participants with missing data for each variable of interest (not

		applicable)
Outcome data	15*	Report numbers of outcome events or summary measures (subtitle results, paragraphs 1 – 7)
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 (not applicable)
		(*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 applicaqble)
Discussion		
Key results	18	Summarise key results with reference to study objectives (subtitle results, paragraphs 1 - 9)
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 (subtitle results, paragraph 9)
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence (subtitle results, paragraphs 1 – 10)
Generalisability	21	Discuss the generalisability (external validity) of the study results (subtitle results, paragraphs 8 – 10)
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 (this information was entered in the financial section of editorial manager – "This study was financed by Bill and Melinda Gates Foundation (BMGF) through Grant number OPP1148763 received by Delivering Oral Vaccine Effectively (DOVE) project. DOVE Project administered by administered through the Johns Hopkins Bloomberg School of Public Health. BMGF had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript".)

*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.