STROBE Statement—checklist of items that should be included in reports of observational studies

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|  | Item No. | Recommendation | Page  No. | Relevant text from manuscript |
| **Title and abstract** | 1 | (*a*) Indicate the study’s design with a commonly used term in the title or the abstract | 1 |  |
| (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found | 1 |  |
| Introduction | | | |  |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | 2 |  |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | 3 |  |
| Methods | | | |  |
| Study design | 4 | Present key elements of study design early in the paper | 4 |  |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | 4 |  |
| Participants | 6 | *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants 4 |  |  |
|  |  |  |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | NA |  |
| 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 |  |  |
| Bias | 9 | Describe any efforts to address potential sources of bias | NA |  |
| Study size | 10 | Explain how the study size was arrived at:  *The adult population (>18years) in the two parishes was estimated at 6000 persons with 60% engaged in any form of livestock farming, and 40% (1440 persons) in the pig value chain. A total of 227 respondents was targeted representing about 16% of population actively engaged in the pig value chain.* | 4 |  |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Quantitative variables | | 11 | | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why:  *Respondents’ knowledge about Ebola Virus Disease was categorised as Agree, Disagree or I don’t know.*  *Respondents’ perception of pigs as the source of Ebola virus disease were categorised as Yes or No.*  *Perceived risk factors and practices that may lead to the occurrence of Ebola were categorized as Yes or No.*  *Lower pig sales and lower price indices during Ebola outbreak period was determined using repeated measures of ANOVA (p<0.005).* | 5 | |  |
| Statistical methods | | 12 | | (*a*) Describe all statistical methods, including those used to control for confounding |  | |  |
| (*b*) Describe any methods used to examine subgroups and interactions |  | |  |
| (*c*) Explain how missing data were addressed |  | |  |
| (*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: *Quantitative data was entered in Microsoft Excel and exported to SPSS version 22 for statistical analysis. Descriptive analysis was used to summarize demographic characteristics of respondents.*  *Respondents’ knowledge about Ebola Virus Disease was categorised as agree, disagree or I don’t know.*  *Univariate analysis of categorical data was used in identification of potential risk factors to Ebola. The Chi-square test and Fischer’s exact tests were used for cross tabulations. Co-efficient regression was used to investigate associations between the variables and the outcomes. Variables were considered significant at p-value < 0.05. Graph Pad Prism version 6 software was used to carry out repeated measures of analysis of variance (ANOVA) to test the effect on the pig sales at various levels in the pig value chain. Variables were considered significant at p-value < 0.05.* | 5 | |  |
| (*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:  *227 participants for questionnaire survey targeted* |  | |  |
| (b) Give reasons for non-participation at each stage | NA | |  |
| (c) Consider use of a flow diagram | NA | |  |
| Descriptive data | | 14\* | | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders   |  |  | | --- | --- | | Variable | Attribute | | Sex | Male | |  | Female | | Household Head | Husband | |  | Wife | |  | Child | | Level of Education | None | |  | Primary | |  | Secondary | |  | Tertiary | | Occupation | Farmer | |  | Employed | |  | Non-employed | |  | Business  (trader) | | Role in the pig value chain | Pig farmers | | Pig traders | | Pork consumers | | 6 | |  |
| (b) Indicate number of participants with missing data for each variable of interest 0 |  | |  |
| (c) *Cohort study*—Summarise follow-up time (eg, average and total amount) |  | |  |
| Outcome data | | 15\* | | *Cohort study*—Report numbers of outcome events or summary measures over time |  | |  |
| *Case-control study—*Report numbers in each exposure category, or summary measures of exposure |  | |  |
| *Cross-sectional study—*Report numbers of outcome events or summary measures 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 | NA | |  |
| (*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 | NA | |  |
| Continued on next  Other analyses | 17 | | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | | NA |  | |
| Discussion | | | | | | | |
| Key results | 18 | | Summarise key results with reference to study objectives: *The proportion of respondents that associated touching pigs or eating pork with acquisition of Ebola virus was 24.5%. Ebola was perceived as a spiritual manifestation of witchcraft activities. Traditional healers were among the first line of health care providers to Ebola patients in the outbreak. There was no significant association between the perceived human practices such as bush meat consumption, contact with wild animals and acquiring of Ebola virus. The number of pigs sold during the outbreak was significantly reduced (p= 0.001) and this normalized 2 months after the area was declared Ebola free. There was a significant reduction (p= 0.03) in consumption of pork, as well as the unit cost per kilogram of pork during the Ebola outbreak due to fear of acquiring the disease from pork* | | 2 |  | |
| 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:  *The study was conducted four years after Ebola outbreak. Within this time some people may have forgotten what happened, others moved away from the area while new persons may have settled in the area*. | |  |  | |
| Interpretation | 20 | | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence: *Although the study has shown that the pig value chain is sensitive to Ebola outbreak and can be affected negatively during the outbreak, another study covering another region or same region in future outbreaks.* | |  |  | |
| Generalisability | 21 | | Discuss the generalisability (external validity) of the study results:  *Besides hunting game meat for authentic values, most communities depend on wild game as source food and income security. Efforts to provide alternative livelihoods and food security could protect vulnerable communities from Ebola A plausible explanation for the reduced sales of pigs/pork was due to the misconception that pigs were the source of Ebola, creating fear of contracting the disease and avoiding eating of pork by the consumers.* | |  |  | |
| 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 study was funded by the* *Capacity Building in Integrated Management of Trans boundary Animal Diseases and Zoonoses (CIMTRADZ) –HED project. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript. Data and any relevant material required will be available.* | |  |  | |

\*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.