

Table 1. Checklist for Reporting Results of Internet E-Surveys (CHERRIES)

Checklist for Reporting Results of Internet E-Surveys (CHERRIES)		
Item Category	Checklist Item	Explanation
Design		
line 53-59 line 45-48	Describe survey design	Describe target population, sample frame. Is the sample a convenience sample? (In “open” surveys this is most likely.)
IRB (Institutional Review Board) approval and informed consent process		
line 103-110 line 121-2	IRB approval	Mention whether the study has been approved by an IRB.
line 103-110 line 95-96	Informed consent	Describe the informed consent process. Where were the participants told the length of time of the survey, which data were stored and where and for how long, who the investigator was, and the purpose of the study?
line 103-110 line 97-99	Data protection	If any personal information was collected or stored, describe what mechanisms were used to protect unauthorized access.
Development and pre-testing		
line 70-72 line 78-80	Development and testing	State how the survey was developed, including whether the usability and technical functionality of the electronic questionnaire had been tested before fielding the questionnaire.
Recruitment process and description of the sample having access to the questionnaire		
line 81-83 line 88-89	Open survey versus closed survey	An “open survey” is a survey open for each visitor of a site, while a closed survey is only open to a sample which the investigator knows (password-protected survey).
line 79-77 line 82-83,88	Contact mode	Indicate whether or not the initial contact with the potential participants was made on the Internet. (Investigators may also send out questionnaires by mail and allow for Web-based data entry.)
line 79-77 line 82-83,88	Advertising the survey	How/where was the survey announced or advertised? Some examples are offline media (newspapers), or online (mailing lists – If yes, which ones?) or banner ads (Where were these banner ads posted and what did they look like?). It is important to know the wording of the announcement as it will heavily influence who chooses to participate. Ideally the survey announcement should be published as an appendix.
Survey administration		
line 83-82 line 82-83,88	Web/E-mail	State the type of e-survey (eg, one posted on a Web site, or one sent out through e-mail). If it is an e-mail survey, were the responses entered manually into a database, or was there an automatic method for capturing responses?
line 83-82 line 82-83,88-9	Context	Describe the Web site (for mailing list/newsgroup) in which the survey was posted. What is the Web site about, who is visiting it, what are visitors normally looking for? Discuss to what degree the content of the Web site could pre-select the sample or influence the results. For example, a survey about vaccination on a anti-immunization Web site will have different results from a Web survey conducted on a government Web site
line 103-111 line 94-97	Mandatory/voluntary	Was it a mandatory survey to be filled in by every visitor who wanted to enter the Web site, or was it a voluntary survey?



Checklist for Reporting Results of Internet E-Surveys (CHERRIES)

<i>Item Category</i>	<i>Checklist Item</i>	<i>Explanation</i>
line 77-78 line 82-86	Incentives	Were any incentives offered (eg, monetary, prizes, or non-monetary incentives such as an offer to provide the survey results)?
line 18-19 line 45-46	Time/Date	In what timeframe were the data collected?
line 88-91 line 92-94	Randomization of items or questionnaires	To prevent biases items can be randomized or alternated.
line 88-91 line 92-94	Adaptive questioning	Use adaptive questioning (certain items, or only conditionally displayed based on responses to other items) to reduce number and complexity of the questions.
line 88-91 line 92-94	Number of Items	What was the number of questionnaire items per page? The number of items is an important factor for the completion rate.
line 88-91 line 92-94	Number of screens (pages)	Over how many pages was the questionnaire distributed? The number of items is an important factor for the completion rate.
line 88-91 line 94	Completeness check	It is technically possible to do consistency or completeness checks before the questionnaire is submitted. Was this done, and if “yes”, how (usually JavaScript)? An alternative is to check for completeness after the questionnaire has been submitted (and highlight mandatory items). If this has been done, it should be reported. All items should provide a non-response option such as “not applicable” or “rather not say”, and selection of one response option should be enforced.
line 88-91 line 94-95	Review step	State whether respondents were able to review and change their answers (eg, through a Back button or a Review step which displays a summary of the responses and asks the respondents if they are correct).
Response rates		
not calculated given <40% participation online	Unique site visitor	If you provide view rates or participation rates, you need to define how you determined a unique visitor. There are different techniques available, based on IP addresses or cookies or both.
not calculated given <40% participation online	View rate (Ratio of unique survey visitors/unique site visitors)	Requires counting unique visitors to the first page of the survey, divided by the number of unique site visitors (not page views!). It is not unusual to have view rates of less than 0.1 % if the survey is voluntary.
line 88-90 line 127-30	Participation rate (Ratio of unique visitors who agreed to participate/unique first survey page visitors)	Count the unique number of people who filled in the first survey page (or agreed to participate, for example by checking a checkbox), divided by visitors who visit the first page of the survey (or the informed consents page, if present). This can also be called “recruitment” rate.
not calculated as described given <40% participation online	Completion rate (Ratio of users who finished the survey/users who agreed to participate)	The number of people submitting the last questionnaire page, divided by the number of people who agreed to participate (or submitted the first survey page). This is only relevant if there is a separate “informed consent” page or if the survey goes over several pages. This is a measure for attrition. Note that “completion” can involve leaving questionnaire items blank. This is not a measure for how completely questionnaires were filled in. (If you need a measure for this, use the word “completeness rate”.)
not calculated given <40% participation online		
Preventing multiple entries from the same individual		
line 88-90 line 89-90	Cookies used	Indicate whether cookies were used to assign a unique user identifier to each client computer. If so, mention the page on which the cookie was set and read, and how long the cookie was valid. Were duplicate entries avoided by preventing users access to the survey twice; or were duplicate database entries having the same user ID eliminated before analysis? In the latter case, which entries were kept for analysis (eg, the first entry or the most recent)?



Checklist for Reporting Results of Internet E-Surveys (CHERRIES)

<i>Item Category</i>	<i>Checklist Item</i>	<i>Explanation</i>
line 82-88 line 89-92	IP check	Indicate whether the IP address of the client computer was used to identify potential duplicate entries from the same user. If so, mention the period of time for which no two entries from the same IP address were allowed (eg, 24 hours). Were duplicate entries avoided by preventing users with the same IP address access to the survey twice; or were duplicate database entries having the same IP address within a given period of time eliminated before analysis? If the latter, which entries were kept for analysis (eg, the first entry or the most recent)?
not applicable	Log file analysis	Indicate whether other techniques to analyze the log file for identification of multiple entries were used. If so, please describe.
not applicable	Registration	In “closed” (non-open) surveys, users need to login first and it is easier to prevent duplicate entries from the same user. Describe how this was done. For example, was the survey never displayed a second time once the user had filled it in, or was the username stored together with the survey results and later eliminated? If the latter, which entries were kept for analysis (eg, the first entry or the most recent)?
Analysis		
line 84-88 line 65-66,90-92	Handling of incomplete questionnaires	Were only completed questionnaires analyzed? Were questionnaires which terminated early (where, for example, users did not go through all questionnaire pages) also analyzed?
not applicable	Questionnaires submitted with an atypical timestamp	Some investigators may measure the time people needed to fill in a questionnaire and exclude questionnaires that were submitted too soon. Specify the timeframe that was used as a cut-off point, and describe how this point was determined.
not applicable	Statistical correction	Indicate whether any methods such as weighting of items or propensity scores have been used to adjust for the non-representative sample; if so, please describe the methods.

References

- Ritter P, Lorig K, Laurent D, Matthews K. Internet versus mailed questionnaires: a randomized comparison. J Med Internet Res 2004 Sep 15;6(3):e29 [FREE Full text] [Medline: 15471755] [doi: 10.2196/jmir.6.3.e29]
- Leece P, Bhandari M, Sprague S, Swiontkowski MF, Schemitsch EH, Tornetta P, et al. Internet versus mailed questionnaires: a randomized comparison (2). J Med Internet Res 2004 Sep 24;6(3):e30 [FREE Full text] [Medline: 15471756] [doi: 10.2196/jmir.6.3.e30]
- Potts HWW, Wyatt JC. Survey of doctors' experience of patients using the Internet. J Med Internet Res 2002 Mar 31;4(1):e5 [FREE Full text] [Medline: 21953333] [doi: 10.2196/jmir.4.1.e5]
- Schonlau M. Will web surveys ever become part of mainstream research? J Med Internet Res 2004 Sep 23;6(3):e31 [FREE Full text] [Medline: 15471757] [doi: 10.2196/jmir.6.3.e31]
- Eysenbach G, Wyatt J. Using the Internet for surveys and health research. J Med Internet Res 2002 Nov 22;4(2):e13 [FREE Full text] [Medline: 22442445] [doi: 10.2196/jmir.4.2.e13]