



Appendix 1

**This appendix was part of the submitted manuscript and has been peer reviewed.
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Appendix to: Reddel HK, Sawyer SM, Everett PW, et al. Asthma control in Australia: results of a cross-sectional web-based survey in a large nationally representative population. *Med J Aust* 2015; 202: 492-497. doi: 10.5694/mja14.01564.

Appendix 1. CHERRIES checklist for web-based studies¹²

Item category	Checklist item	Description
Design		The target population was people aged over 15 years with current asthma, selected randomly from amongst members of a large (224,898) Australian web-based panel held by Survey Sampling International.
Ethics	Ethics approval	Ethics approval was obtained from the Human Research Ethics Committee at Repatriation General Hospital Concord, Sydney, Australia (approval CH62/6/2012-121; LNR/12/CRGH/153)
	Informed consent	All participants, as members of a web-based panel, had already provided informed consent to participate in online surveys. Informed consent for the present survey was obtained from all those agreeing to complete a survey, with participants informed on the welcome page that the survey concerned health issues, that it would take approximately 25 minutes to complete, that all responses were confidential and anonymous and that reporting would be on an aggregate level only. Consent was indicated when respondents clicking the 'Go to Survey' button from this page.
	Data protection	Proprietary survey software and local servers were used to ensure data protection. No personal information was linked to survey results in any way. The fully de-identified dataset is kept on password protected computers.
Development and pre-testing		The survey instrument was designed using input from studies, the outcomes from earlier qualitative research and healthcare professional review. A draft survey instrument was cognitively tested with five people with asthma, and modified following cognitive debriefing and evaluation of comprehension, interpretation, memory retrieval, summarising of information and availability of appropriate responses. The survey was then pilot tested with approximately 600 respondents.
Recruitment process	Open vs closed survey	This was an open survey. An online panel provider, Survey Sampling International (SSI), was engaged to use proportionate stratification sampling to recruit a cohort of people with asthma, representative of Australian populations with asthma based on age, gender and state of residence, from their panel of potential survey participants. Recruitment to SSI's online panel is achieved in multiple ways, predominately through banner advertisements, invitations and messaging via relationships with other websites, online communities and social media groups. SSI undertakes active strategies with communities of interest of all types to incorporate rare populations into the online sample blend. Potential participants go through rigorous quality screening before being accepted onto a panel.
	Contact mode	To minimise bias, participants underwent a three-stage randomisation process. Firstly, potential

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		participants were selected at random from SSI's panel to be invited to 'take a survey'; no information about the survey topic was provided at this stage. A set of profiling questions was randomly selected for respondents to answer, one of which was the question ' <i>Have you ever experienced any of the following conditions?</i> ' of which 'asthma' was one possible option. Those choosing 'asthma' were directed to the screener page of the present survey.
Recruitment process (cont'd)	Advertising the survey	The survey was not advertised; as above, randomly-selected members of the online panel were invited to participate.
Survey administration	Web/email	This was a web-based survey, with respondents channelled through SSI's participant interface to UltraFeedback's online survey site. Responses were collected through the online survey platform and stored on secure local servers. Responses were multiple choice, numeric, and open text.
	Context	The panel provider, SSI, is a research services company who maintain a pool of potential respondents for research projects.
	Mandatory/voluntary	Voluntary. Prospective respondents were screened to ensure that they had current asthma and were the appropriate age. Proportionate sampling was used in order to match the population of people in Australia with current asthma.
	Incentives	Respondents were incentivised for their participation by the panel provider, SSI, with points which can be redeemed for money. The points obtained for participation in the present survey were estimated to have a value of \$1.50
	Time/date	Responses were collected between November 1 to 27, 2012.
	Item randomisation	No randomisation of items was used.
	Adaptive questioning	Adaptive questioning (branched) was used. Relevant survey items were displayed based on previous responses (e.g. only those who had seen a GP in the previous 12 months were shown the follow-up questions about the visit(s)). Certain items were also populated based on previous responses.
	Number of items	A maximum of three items were displayed on any one survey page. The full survey comprised a total of 117 items, although because of the adaptive nature of the questionnaire, not all respondents answered all items.
	Number of screens	The full survey was distributed over approximately 70 pages
Completeness check	All survey items were deemed to be mandatory, and respondents prompted to complete outstanding items before leaving the survey page on which the item was contained. Drop-off was low at 11.00%. Most items, except screener items and those items required for adaptive questioning included a 'Don't know/ not sure' option.	

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	Review step	Respondents were unable to change their responses once submitted. The ‘save answers and continue’ button on each page of the survey was preceded by the sentence “ <i>Please note that when you click the [Save answers and continue] button below, your responses will be saved to the database and you will no longer be able to change them</i> ”.
Response rates	Unique site visitor	Determination of unique visitors was handled by the panel provider SSI. SSI utilise digital fingerprinting and traps for geo-IP violations to ensure that respondents only complete the survey once.
	View rate	Not applicable; respondents were invited through an external panel.
	Participation rate	80,518 panel members were randomly invited to complete a survey; 27,606 responded giving a panel participation rate of 34.29%. Of the 3,033 potential respondents with current asthma who were invited to participate in the survey, 15 did not proceed to the survey, giving a participation rate from the current asthma population of 99.51%
	Completion rate	Of the 3,018 respondents who commenced the survey, 2,686 completed it, giving a completion rate of 89.00%.
Preventing multiple entries from same individual	Cookies used	No
	IP check	SSI utilise digital fingerprinting and traps for geo-IP violations to ensure only unique respondents completed the survey.
	Log file analysis	Not used
	Registration	Entry to the survey was via a unique login provided to each invitee to the survey.
Analysis	Handling of incomplete questionnaires	Only completed questionnaires were included in the final dataset.
	Questionnaires with atypical timestamp	No respondents were removed from the survey for completing the items too quickly. The minimum completed survey was timed at approximately 13 minutes. No ‘straight-liners’ were identified in post-hoc tests.
	Statistical correction	Satisfactory numbers were achieved for all demographic sub-groups, although some quotas were applied mid-way through the data collection process in order to more accurately match the sample frame of people with asthma in Australia (see Appendix 2).