

## Appendix 1. CHERRIES checklist for MILES-2 online survey

Item category	Checklist item	Description
Design		Online survey comprising two elements: 1) longitudinal follow-up of the original 2011 MILES study participants, and 2) cross-sectional assessment of a new cohort of participants. All participants were Australian adults with type 1 or type 2 diabetes aged 18-75. The longitudinal cohort were contacted directly by researchers (with their prior consent) to be invited to take part. Participants for the new cohort element were randomly sampled (with stratification by diabetes type and treatment, and state of residence) from the National Diabetes Services Scheme (NDSS). The study was also advertised nationally to supplement the NDSS sampling for the new cohort. The longitudinal and new cohort survey versions were near identical. Hard copy surveys were made available, via post, to those who requested it. Participants completing hardcopy surveys were included in the new cohort sample.
Ethics	Ethics approval	The study was approved by the Deakin University Human research Ethics Committee (2011-046).
	Informed consent	The first survey screen was a detailed plain language description of the study that outlined the study aims, procedure, how long the survey would take, how data would be stored, and what would be done with their information. Participants indicated informed consent by ticking a box. Only after providing informed consent did the participant have access to the survey proper.
	Data protection	Secure survey software and secure, password-protected Deakin University servers were used to ensure data were protected. The dataset has been de-identified, with all possible identifying information stored separately to the data file.
Development and pre-testing		The survey content was informed by the original 2011 MILES survey. Where modifications were made, these decisions were based on thorough review of the literature and discussion with the research team until consensus was reached. The technical functionality and flow of the survey was extensively tested by the research team prior to finalisation.
Recruitment process	Open vs closed survey	The longitudinal element of the study was closed. The new cohort element of the study was open.
	Contact mode	Participants from the original 2011 MILES survey who had consented to be contacted were mailed/emailed a study invitation by the researchers with a unique log-in code to the online survey that was used to match their data with the previous survey data. Participants in the new cohort who

		were sampled through the NDSS received a letter of invitation in the mail directly from the NDSS. Participants in the new cohort who saw the study advertised elsewhere were provided with the study URL so they could enter the survey directly.
	Advertising the survey	The survey was advertised in various diabetes-related print, electronic and social media. Participants who responded to the study from these advertisements entered the new cohort.
Survey administration	Web/email	This was a web-based survey, hosted by Qualtrics™. Participants accessed the survey by first visiting the Diabetes MILES Study website, and then clicking a button to open up the Qualtrics™-hosted survey.
	Context	To access the survey, participants were first directed to a website dedicated to providing information about the Diabetes MILES Study ( <a href="http://www.diabetesMILES.org">www.diabetesMILES.org</a> ). From this website, they would click a button to open up the Qualtrics™-hosted survey.
	Mandatory/voluntary	Participation was voluntary, and this was outlined to participants during the informed consent process.
	Incentives	Participants were entered into a prize draw to win one of three iPad minis™.
	Time/date	Data were collected between March – May 2015.
	Item randomisation	Not used.
	Adaptive questioning	Branching was used to tailored the survey to diabetes type and treatment, and also to follow up with further questioning conditional to prior responses. For example, participants were first asked if they had ever experienced a hypoglycaemic episode. If they answered yes, a series of additional questions were presented about their experiences of a hypoglycaemic episode(s).
	Number of items	The number of items per page varied between 1 – 48 (with multiple items presented in one table with response required on the same Likert scale).
	Number of screens	Varied widely according to eligibility, survey version and branching.
	Completeness check	Items requiring input for the purposes of tailoring the survey to diabetes type and treatment were mandatory. All other items were optional, but if a participant skipped a question, it was highlighted to them before they moved to the next screen. They could then choose to leave the response blank, or return to the skipped question to provide a response.
	Review step	Participants could not review or change their responses once they moved on to the next screen.

Response rates	Unique site visitor	Unique visitors were determined by IP address, and double-checking identified duplicates were true duplicates on the basis of their demographic information.
	View rate	Necessary detail for calculation was not recorded.
	Participation rate	The response rate to invitations for the new cohort was 8%. The response rate for the longitudinal cohort was 26%. However, the necessary detail to calculate participation rate (those who started the survey versus those who opted out prior to opening the Qualtrics™ site and/or providing informed consent was not recorded.
	Completion rate	0.88 (88%)
Preventing multiple entries from same individual	Cookies used	No.
	IP check	Yes.
	Log file analysis	Not used.
	Registration	Only for the longitudinal cohort participants. They entered a unique code that was used to match their survey responses with their prior data.
Analysis	Handling of incomplete questionnaires	Participant data was used regardless of whether they completed the full survey. For validated scales, small amounts of missing data were tolerated (based on a priori decisions which varied by scale), with expectation-maximisation imputation being used to facilitate calculation of total scores. Participants who had more missing data on a scale than was tolerated were not given a total score for that scale.
	Questionnaires with atypical timestamp	No atypical timestamps were detected.
	Statistical correction	None required.