Australian Perceptions of Prevention Survey – Technical Report

July 2016

Social Research Centre

An ANU Enterprise business

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Contents

List of figures

List of tables

List of abbreviations and terms

AUSPOPS – Australian Perceptions of Prevention Survey

APPC – Australian Prevention Partnership Centre

1. Introduction

1.1. Purpose of the document

This report provides a summary of the data collection and methodological aspects of the Australian perceptions of prevention survey (AUSPOPS), conducted by the Social Research Centre on behalf of the Australian Prevention Partnership Centre (APPC) and the University of Sydney.

This technical report seeks to:

- document survey procedures so they can be replicated for subsequent surveys
- consolidate project information and field reports generated throughout the survey period
- provide analysis relating to sample characteristics and utilisation
- consolidate issues for consideration relating to the improvement of the questionnaire and refinement of the methodology for future surveys, if applicable.

1.2. Research objectives

The main research objectives for AUSPOPS were to explore, measure and track current:

- community awareness and understanding of government chronic disease prevention policies and programs
- exposure to and participation in such programs
- high level attitudes to prevention policies and programs, as well as attitudes to specific policies and programs
- perceptions about priorities for prevention
- perceptions of the value of chronic disease prevention policies and programs for oneself and for others
- perceptions and beliefs about the role of government in prevention and the balance of responsibility between the individual, government and other parties.

1.3. Survey overview

The in-scope population for the AUSPOPS was adults (18 years of age or over) who are residents of private households in Australia. The total achieved sample size was 2,052.

The sample design for the landline strata involved geographic stratification in proportion to the population as estimated by the 2011 Census. Geographic quotas were not put in place for the mobile strata.

A dual frame RDD sample design was employed to undertake AUSPOPS, with the split 40:60 between the landline RDD sample frame and mobile phone RDD sample frame. With the landline sample, the “next birthday” method was used to randomly select respondents from households where two or more in-scope persons were present. The phone answerer was the selected respondent with the mobile sample.

Key project statistics are summarised at Table 1 (overleaf).

Table 1 Key project statistics

Field	Outcome
Interviews achieved	2,052
Average interview duration (mins)	17.6
Cooperation rate (sample yield)	76.9%
Response rate (AAPOR RR3)[1]	20.4%
Pilot fieldwork start date	25-May-16
Pilot fieldwork finish date	26-May-16
Main fieldwork start date	6-Jun-16
Main fieldwork finish date	10-Jul-16

1.4. Sample design and size

Table 2 below sets out the sample design adopted for the AUSPOPS. The design accounts for the following considerations:

- stratifying the landline sample in proportion to population based on state and capital city / rest of state divisions. No geographic quotas were put in place for the mobile stratum as in our experience they typically fall in line with population
- 60:40 split between the mobile and landline sampling frames.

Table 2 Sample design and completed interviews by geographic location

State	Strata	Sample design	Sample achieved
NSW	Greater Sydney	168	168
	Rest of NSW	96	96
VIC	Greater Melbourne	155	156
	Rest of Victoria	51	51
QLD	Greater Brisbane	78	78
	Rest of Queensland	85	85
SA	Greater Adelaide	48	48
	Rest of South Australia	14	14
WA	Greater Perth	66	66
	Rest of Western Australia	19	19
TAS	Greater Hobart	8	8
	Rest of Tasmania	11	11
NT	Greater Darwin	4	4
	Rest of Northern Territory	3	3
ACT	Australian Capital Territory	14	14
Mobile		1,230	1,231
Total		2,050	2,052

[1] Refer to Section 3.4.4 for further information

1.5. Minimising error

The Social Research Centre's approach to survey research is based on the Total Survey Error (TSE) perspective (Groves et al, 2009[2]). TSE refers to the 'accumulation of all errors that may arise in the design, collection, processing and analysis of survey data' (Biemer, 2010[3]). The TSE paradigm relates to making survey design decisions, and sometimes trade-offs, so that resources are allocated in such a way as to reduce TSE for key estimates. As such, TSE is about optimising any given survey design within existing resource constraints. This is sometimes referred to as 'fit for purpose' design.

The TSE paradigm is part of a much broader concept of Total Survey Quality. Whereas TSE is primarily focussed on the deviation of a survey response from its underlying true population value, the total survey quality framework introduces other dimensions of importance to data users such as credibility, comparability, timeliness, and the like. If these other dimensions are ignored, and the sole focus of the researcher is on minimising TSE, the result could be data that are difficult and costly to access and inadequately documented.

Today, many national statistical agencies, including the Australian Bureau of Statistics (Australian Bureau of Statistics, 2009[4]), have a total survey quality framework which guides their overall approach to survey research. Minimising TSE is just one part of this framework. Most Total Survey Quality frameworks have dimensions similar to those outlined in Table 3.

Table 3 Common dimensions of a Survey Quality Framework

Dimension	Description
Accuracy	Total survey error is minimised
Credibility	Data are considered trustworthy by the survey community
Comparability	Demographic, spatial and temporal comparison are valid
Usability / Interpretability	Documentation is clear and metadata is well organised
Relevance	Data satisfy user needs
Accessibility	Access to the data is user friendly
Timeliness / Punctuality	Data deliverables adhere to schedules
Completeness	Data are rich enough to satisfy the analysis objectives without undue burden on respondents
Coherence	Estimates from different sources can be reliably combined

Source: (Biemer, 2010)

In keeping with the best practice approach to survey design adopted by leading survey research organisations around the world, the Social Research Centre also works within a survey quality framework with our design decisions informed by a TSE perspective. The TSE framework the Social Research Centre subscribes to (see Figure 1) both a theoretical and practical framework for all aspects of survey design and evaluation. It enables potential sources of error (bias and variance) to be explicitly assessed at every stage of the survey design cycle and supports improved survey design.

[2] Groves, Robert M., Floyd J. Fowler Jr., Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau. 2009. Survey Methodology (2nd Edition). Hoboken, NJ: John Wiley and Sons.

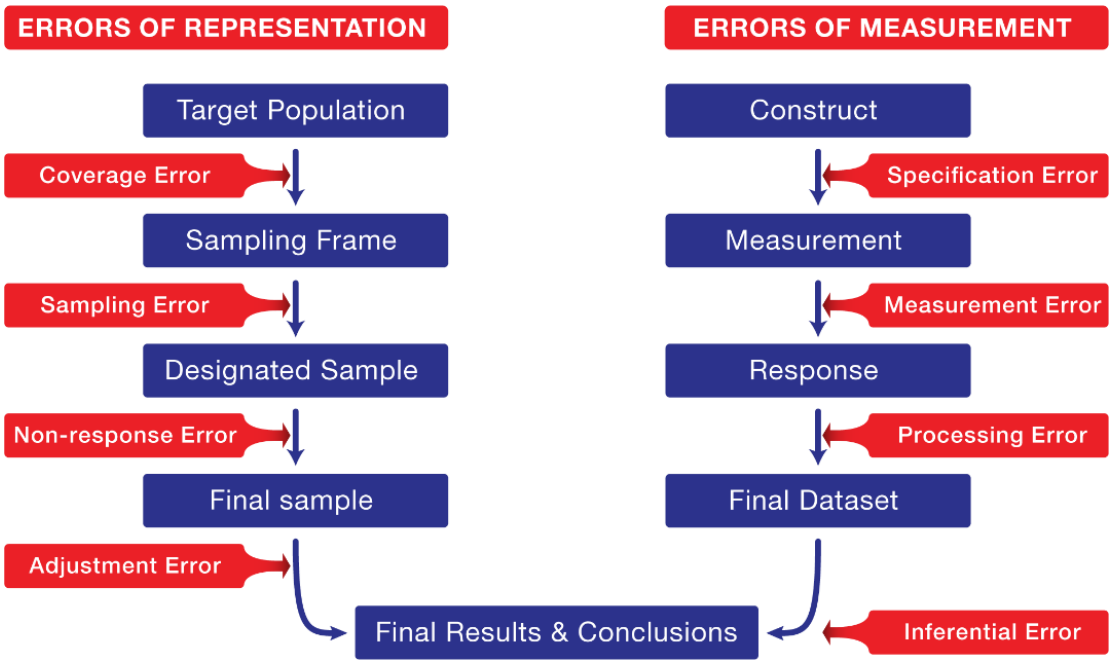
[3] Biemer, P. J., 2010. Total Survey Error: Design, Implementation, and Evaluation. Public Opin Q, 74(5), pp. 817-848.

[4] Australian Bureau of Statistics, May 2009. ABS Data Quality Framework, s.l.: s.n.

The representation side of the model is where errors of non-observation occur. These types of errors include:

- Coverage error – relating to 'gaps' in the sampling frame (e.g. the exclusion of mobile-only persons from landline sample frames).
- Sampling error – arising from inefficient or inappropriate sample designs (e.g. ensuring appropriate geographical coverage is obtained).
- Non-response errors – at both the unit-level (a function of non-contacts, refusals and being unable to participate [e.g. language barrier] and at the item-level (when a respondent may be unwilling or unable to answer a particular question).
- Adjustment errors – it is often the case that the final sample needs to be adjusted to account for the design effects introduced by the sample design and non-response. This is accomplished by weighting which adds error in the form of variance (imprecision) to the study's findings. A well designed weighting solution balances variance and bias with a view to reducing TSE overall.

Figure 1 The survey lifecycle from a TSE perspective



Adapted by (Lavrakas & Pennay, 2014) from (Groves, M, Couper, Lepkowski, Singer, & Torangeau, 2009).

The measurement side of the model is where errors of observation occur. These types of errors include:

- **Validity** (sometime called errors of specification): This arises when the specific survey questions or scales do not adequately capture the construct or domain they are intended to measure. For example, asking a respondent their main labour force activity is not a valid measure of whether or not someone is employed.
- **Measurement error**: These arise from many sources including poor questionnaire design, mode effects, interviewer errors and respondent errors.

- **Processing error**: This can arise from how the raw data is transformed and can be attributable to issues such as the coding of free text or verbatim responses, the treatment of outliers, imputation of missing data, data derivations, etc.
- **Inferential error**: The types of errors that can be introduced to the survey process at the stage of interpreting the survey findings.

It is noteworthy that when adopting a TSE perspective, 'sampling error' and 'non-response' are not given elevated importance, but are just two of many important error considerations. The Social Research Centre's role was mainly focussed on reducing errors in representation and measurement.

Adopting a TSE perspective for reporting on the conduct of the AUSPOPS ensures that all potential sources of error are acknowledged and explored and the attempts taken to minimise these errors evaluated.

1.6. Ethics and quality assurance

This research was undertaken in accordance with the Privacy Act (1988) and the Australian Privacy Principles contained therein, the Privacy (Market and Social Research) Code 2014, the Australian Market and Social Research Society's Code of Professional Practice, and ISO 20252 standards.

2. Timelines

The Australian Prevention Partnership Centre and the Social Research Centre agreed to overall timelines prior to project commencement. Timelines were adhered to at all stages of the project life-cycle. Overall project timelines are outlined in Table 4 below.

Table 4 Project timelines

Milestone/Deliverable	Date
Procurement	
Appointment of successful company	26 February 2016
Project set-up teleconference	4 March
Contract executed	11 March
Questionnaire	
Development	25 April - 6 May
Commence recruitment for cognitive testing	3 May
Questionnaire sign-off for cognitive testing	6 May
Development of cognitive testing instruments	9 May
Conduct cognitive testing interviews	10-11 May
Reporting and questionnaire recommendations	12-13 May
Final sign-off of questionnaire for programming	16 May
Data collection	
Scripting and testing	17-24 May
Pilot test	25-26 May
Review and sign-off of updates	27-30 May
Post pilot updates made and tested	31 May -3 June
Fieldwork	6 June – 10 July
Deliverables	
Interim data file provided	10 June
Data, coding and weighting finalised	15 July
Draft technical report, including response rates	22 July
Feedback on draft technical report	29 July
Final technical report	5 Aug

3. Minimising errors of representation

3.1. Sample frame and sampling

A custom RDD sample frame sourced from the commercial sample provider SamplePages was used for the AUSPOPS. The essence of the custom approach is that landline and mobile phone numbers are randomly generated from exchange prefixes published by the Australian Communications and Media Authority (ACMA) and tested at the time of each request, rather than being drawn from a pre-existing (and potentially ageing) pool of numbers.

For landline sample, a 'best estimate' of postcode is assigned to each record at the number generation and testing stage, based on information available about the geographic area serviced by each individual telephone exchange.

For the mobile phone sample, phone numbers were generated and tested based on the known mobile phone number prefixes. No geographic information is currently available to researchers for mobile phone numbers generated in this way.

Landline and mobile telephone numbers were generated in the same fashion.

3.2. Sample generation

A total of 20,503 sample records were generated for the main phase, of which 18,960 were initiated during the fieldwork period. The number of records generated for each region was based on the quota for that region along with estimates of per cent yield based on similar surveys conducted in these regions. As Table 5 (overleaf) shows, 92.5% of the total sample was used.

The average number of sample records called to achieve an interview was 9.2, with landline strata ranging from 6.0 in SA to 18.3 in NT. The average sample records per interview can be used to guide sample generation for future surveys.

Table 5 Sample generation and usage

Region	Sample generated	Sample used	% Sample used	Interviews achieved	Avg. records per interview
Landline strata					
Sydney	1,799	1,560	86.7	168	9.3
Rest of NSW	801	621	77.5	96	6.5
Melbourne	1,619	1,435	88.6	156	9.2
Rest of VIC	410	340	82.9	51	6.7
Brisbane	690	660	95.7	78	8.5
Rest of QLD	690	547	79.3	85	6.4
Adelaide	402	317	78.9	48	6.6
Rest of SA	138	84	60.9	14	6.0
Perth	563	563	100.0	66	8.5
Rest of WA	218	190	87.2	19	10.0
Hobart	63	53	84.1	8	6.6
Rest of TAS	108	70	64.8	11	6.4
Darwin	103	63	61.2	4	15.8
Rest of NT	126	55	43.7	3	18.3
ACT	195	119	61.0	14	8.5
Total Landline	7,925	6,677	84.3	821	8.1
Mobile strata					
National	12,578	12,283	97.7	1,231	10.0
TOTAL	20,503	18,960	92.5	2,052	9.2

3.3. Respondent selection

The in-scope population for the AUSPOPS was defined as persons aged 18 years and over residing in Australia.

For the landline sample, the ‘next birthday’ method for respondent selection was used in households were two or more in-scope persons were present. This ensures a representative sample is obtained. Selected respondents were then screened according to the in-scope criteria.

For the mobile sample, the phone answerer was the survey respondent if they met the in-scope criteria following screening.

3.4. Response maximisation

Procedures to maximise response for the AUSPOPS included:

- operation of a 1800 number throughout the survey period by the Social Research Centre, to help establish survey bona fides, address sample members’ queries, and encourage response
- batched release of sample as described in 3.4.1 below
- managing appointments so that appointments with identified in-scope households are prioritised

- controlling the spread of call attempts as described in 3.4.2 below
- focus on project specific interviewer training and respondent liaison techniques
- performance monitoring and quality control as described in 4.2.2 below
- refusal aversion and call tailoring techniques to overcome any initial reluctance by sample members to participate in the survey
- soft refusal conversion attempts which was implemented with 3,273 records and achieved 106 interviews (3.2% of all attempts) as a result.

3.4.1. Sample release

In order to further maximise response rates and sample representativeness and minimise the risk of biases in response dynamics, sample was released to interviewers in batches so that:

- calls to each batch could be exhausted, as far as was possible within the project schedule, prior to initiating calls to a fresh batch of sample
- the interview rate by location and sample type could be assessed, with a view to estimating the minimum number of records to release in ensuing batches to enable the timely completion of the project and minimise the proportion of residual non-contacts at the end of the fieldwork period.

3.4.2. Call procedures

The call procedures included:

- a six call regime, with call attempts spread over different times of day and days of the week, with a view to maximising the sample yield
- in order to yield maximum response from the agreed number of call attempts, it was necessary to control the “spread of call attempts” such that, subject to other outcomes being achieved, contact attempts are spread over: weekday evenings 6.30 pm to 8.30 pm; weekday late afternoon / early evening 4.30 pm to 6.30 pm; Saturdays 10 am to 5 pm; Sundays 11 am to 4 pm, and weekdays before 4.30 pm (weekdays between 9 am to 4:30 pm are typically reserved for appointment management)
- appointments set for any time that the call centre is operational (weekdays 9 am to 8.30 pm; weekends 11 am to 5 pm)
- mobile phones, capping the maximum number of unanswered call attempts to no more than three so as to avoid appearing overzealous in our attempts to achieve interviews
- not making initial calls to the mobile phone sample any earlier than 9 am Western Australian Time, as there is no way of knowing the location (and hence time zone) of the respondent
- mobile sample records asking if it is safe to take the call (given mobile phone answerers may be driving, for example)
- offering to call back on a landline.

There was no interviewing in languages other than English and no messages were left on answering machines.

3.4.3. 1800 number operation

An 1800 number was operational throughout the survey period to encourage response, address sample member queries, help establish survey bona fides, and support the response maximisation effort.

In addition to this the Social Research Centre has an Inbound Call Solution (ICS) for dealing with incoming calls generated as a result of sample members using 'call back' functions to respond to a missed call. These calls are routed to our permanently staffed 1800 lines where trained interviewers deal with each call appropriately. This provides a unique opportunity to convert otherwise wasted incoming calls (and presumably interested community members) to appointments and interviews.

3.4.4. Call results and response analysis

All call attempts

A total of 52,665 calls were placed to a sample pool of 18,960 sample records to achieve 2,052 interviews (see Table 6). This equates to an interview every 25.7 calls (27.9 calls per interview for landline numbers and 24.2 calls per interview for mobile numbers).

The average number of calls made to each sample record was 2.8 (3.4 calls per sample record for the landline frame and 2.4 calls per record for the mobile frame). An average of 9.2 sample records were used to generate each interview (8.1 sample records per interview for the landline frame and 10.0 records per interview for the mobile frame).

Table 6 Sample utilisation

	Total	Landline	Mobile
Sample selected	20,503	7,925	12,578
Sample initiated in CATI	18,960	6,677	12,283
All call attempts	52,665	22,906	29,759
Interviews completed	2,052	821	1,231
Average calls per interview	25.7	27.9	24.2
Average calls per sample record	2.8	3.4	2.4
Average sample records per interview	9.2	8.1	10.0

Final call disposition

Table 7 presents the final call results by sample frame (landline vs. mobile) for all numbers initiated.

In terms of final outcomes, the major differences between the sample frames were:

- a higher proportion of 'no answer' outcomes among the landline frame (24.6%) compared to the mobile frame (18.3%)
- a higher proportion of 'answering machine' outcomes among the mobile frame (34.3%) compared to the landline frame (18.9%)
- a higher proportion of 'out of scope' (i.e. under 18 years or no-one 18 plus) among the mobile frame (3.7%) compared to the landline frame (0.1%).

Table 7 Summary of result at last call attempt

Final outcome	Total		Landline		Mobile	
	n	%	n	%	n	%
Interview	2,052	10.8	821	12.3	1,231	10.0
Complete	2,052	10.8	821	12.3	1,231	10.0
Eligible, non-interview	1,714	9.0	967	14.5	747	6.1
Midway termination	39	0.2	19	0.3	20	0.2
Appointment	297	1.6	121	1.8	176	1.4
LOTE - no follow up	513	2.7	200	3.0	313	2.5
Respondent refusal	578	3.0	444	6.6	134	1.1
Too old / frail / ill-health	264	1.4	177	2.7	87	0.7
Unreliable respondent / drunk	15	0.1	4	0.1	11	0.1
Claims to have done survey	8	<0.1	2	<0.1	6	<0.1
Unknown eligibility, non-interview	11,873	62.6	3,757	56.3	8,116	66.1
No Answer	3,887	20.5	1,642	24.6	2,245	18.3
Answering machine	5473	28.9	1,259	18.9	4214	34.3
Engaged	273	1.4	180	2.7	93	0.8
Incoming call restriction	365	1.9	17	0.3	348	2.8
Away for duration	132	0.7	41	0.6	91	0.7
Household refusal	588	3.1	588	8.8	-	-
No screener completed	1,072	5.7	-	-	1,072	8.7
Named person not known	9	<0.1	5	0.1	4	<0.1
Remove number from list	40	0.2	18	0.3	22	0.2
1800 number (ICS) refusal	32	0.2	7	0.1	25	0.2
Refused all future research for this client	2	<0.1	0	<0.1	2	<0.1
Not eligible	3,321	17.5	1,132	17.0	2,189	17.8
Quota full	2	<0.1	2	<0.1	-	-
Fax	291	1.5	278	4.2	13	0.1
Telstra message / disconnected	1,867	9.8	403	6.0	1,464	11.9
Not a residential number	702	3.7	441	6.6	261	2.1
Under 18 years (mobile)	390	2.1	-	-	390	3.2
No-one 18 plus	69	0.4	8	0.1	61	0.5

Response rate calculations

The response rate used for this report is AAPOR Response Rate 3 (RR3). This relies on estimating the proportion of cases of unknown eligibility that may have been eligible for the survey and including this estimate in the denominator for the calculation of the survey response rate.

The formula for Response Rate 3 is:

$$RR3 = \frac{I}{(I+P)+(R+NC+O) + e(UH+UO)}$$

Where:

I=Interviews

P=Partial interviews

R=Refusals

NC=Non-contacts

O= Other

e= Estimate of the proportion of unknown outcomes likely to have been in-scope

UH=Unknown, if household / occupied

UO=Unknown, other.

The e value is the default value calculated by the AAPOR on-line Response Rate Calculator. This was calculated as follows …

$$e = \frac{\text{(Interviews + Partial completes) + (Eligible non-interviews)}}{\text{(Interviews + Partial completes) + (Eligible non-interviews) + (Not eligible)}}$$

As shown in Table 8 (overleaf) the overall **response rate** for the survey was 20.4% which comprises of 20.1% for the landline frame and 21.1% for the mobile phone frame.

Advice provided by Paul Lavrakas[5] suggests that these response rates would be judged as ‘good’ by US standards where typical response rates for dual-frame media polls are between 10-15% for the landline frame and 6-10% for the mobile phone frame.

Table 8 Calculation of AAPOR response rate

Total phone numbers used:	Total sample 18,960	Landline 6,677	Mobile 12,283
I=Complete Interviews (1.1)	2,052	821	1,231
R=Refusal and break off (2.1)	617	463	154
NC=Non-Contact (2.2)	297	121	176
O=Other (2.0, 2.3)	800	383	417
E	0.531	0.612	0.475
UH=Unknown household (3.1)	9,998	3,098	6,900
UO=Unknown other (3.2-3.9)	1,875	659	1,216
Response Rate 3 I/((I+P) + (R+NC+O) + e(UH+UO))	20.4%	20.1%	21.1%
Cooperation Rate 3 I/((I+P)+R))	76.9%	63.9%	88.9%
Refusal Rate 3 R/((I+P)+(R+NC+O))	16.4%	25.9%	7.8%
Contact Rate 3 (I+P)+R+O / (I+P)+R+O+NC	92.1%	93.2%	91.1%

The **cooperation rates** for the survey (interviews / interviews + refusals) are more typically reported as the 'response rate' for Australian surveys. The overall cooperation rate was 76.9%, with large variation between the landline frame (63.9%) and the mobile phone frame (88.9%).

The **refusal rate** is the proportion of all cases in which a household or respondent refuses to do an interview. The overall refusal rate was 16.4%, again with a large variation between the landline frame (25.9%) and the mobile frame (7.8%)

The **contact rate** is the proportion of all cases in which some member of the housing unit was reached by the survey. The overall contact rate was 92.1%, with slight variation between the landline frame (93.2%) and the mobile frame (91.1%)

Refusals

A reason for refusal was collected for 2,141 records, or 91% of refused interviews.

As can be seen at Table 9 (overleaf), the most common reason for refusal appears to be related to a perceived lack of salience (43.9% 'not interested'). The second most common reason was a respondent hanging up without making comment (32.1%), followed by respondents being too busy (10.5%). This pattern of reasons for refusal is similar to most other surveys conducted by the Social Research Centre.

Table 9 Summary of reason for refusal

Reason for refusal	n=	%
Base	2,141	100.0
Not interested	940	43.9
No comment / just hung up	687	32.1
Too busy	224	10.5
Never do surveys	63	2.9
Don't trust surveys	38	1.8
Get too many calls for surveys	31	1.4
Don't like subject matter	21	1.0
Objected to being called on mobile phone	19	0.9
Don't believe surveys are confidential / privacy concerns	16	0.7
Too personal / intrusive	15	0.7
Other	87	4.1

3.5. Weighting

To ensure that estimates made from the survey dataset are as representative as possible of the target population, weights were calculated for each respondent. A two-step process was followed:

1. Design weights were calculated as the inverse of the probability of a respondent being selected to participate in the survey. This probability accounts for the dual-frame collection methodology in which persons may have two chances of selection – one through a landline telephone and another through a mobile telephone.
2. The design weights were adjusted (calibrated) so that they matched known external benchmarks for key demographic characteristics.

Design weight

The design weight accounts for the difference in probability for each respondent participating in the survey. Each respondent's weight is the inverse of their probability of selection where the chance of selection is calculated via the following formula:

$$p = \frac{S_{LL}(LL)}{U_{LL}AD_{LL}} + \frac{S_{MP}MP}{U_{MP}}$$

Where:

- S_{LL} is the number of survey respondents contacted by landline
- U_{LL} is the population of the universe of landline numbers
- LL indicates the number of landlines in the respondent's household
- AD_{LL} is the number of in-scope adults in the respondent's household
- S_{MP} is the number of survey respondents contacted by mobile
- U_{MP} is the population of the universe of mobile numbers
- MP indicates the number of mobile phones the respondent owns.

LL, AD_{LL}, MP and PP_{MP} come from the respondents' answers to survey questions. U_{LL} (6,561,463) and U_{MP} (20,226,175) are derived from figures published by the Australian Bureau of Statistics and by the Australian Communication and Media Authority.

Calibration

To account for the different rates of response that may have occurred across sub-groups of persons, the design weights were then adjusted so that they added to Australian Bureau of Statistics benchmarks for the following characteristics:

- Age group by gender (Table 10)
- State by part of state (Table 11)
- Age group by highest level of educational attainment (Table 12)
- Country of birth (Table 13)
- Telephony status[6] (Table 14).

These characteristics are commonly used for weighting by the Social Research Centre since they tend to be correlated with the sorts of questionnaire items asked in the AUSPOPS.

Weighting was carried out using raking[7] (also known as *rim weighting* or *iterative proportional fitting*), as implemented in the *survey* package (Lumley, 2004 and 2014) for the R statistical environment (R Core Team, 2016).

Table 10 Benchmark targets used for weighting (age group by gender)

Age group	Gender	Benchmark
18-24	Female	1,104,163
25-34		1,747,862
35-44		1,625,468
45-54		1,577,952
55-64		1,389,837
65-74		1,021,465
75-100+		884,205
18-24	Male	1,166,726
25-34		1,760,334
35-44		1,603,980
45-54		1,542,863
55-64		1,346,737
65-74		989,496
75-100+		673,604
Total adults		18,434,692

[6] Estimated from Australian Communications and Media Authority (2015).
[7] This method adjusts the weights in an iterative manner, one benchmark at a time, until they no longer change and all the benchmark targets are satisfied.

Table 11 Benchmark targets used for weighting (state by part of state)

State	Part of state	Benchmark
Australian Capital Territory	Capital City	303,804
New South Wales		3,773,356
Northern Territory		107,730
Queensland		1,750,665
South Australia		1,033,138
Tasmania		172,751
Victoria		3,491,049
Western Australia		1,556,955
Australian Capital Territory	Rest of state	-
New South Wales		2,142,429
Northern Territory		73,057
Queensland		1,900,911
South Australia		305,341
Tasmania		229,756
Victoria		1,152,795
Western Australia		440,955
Total adults		18,434,692

Table 12 Benchmark targets used for weighting (age group by education)

Age group	Highest educational attainment	Benchmark
18-24	Bachelor and above	258,425
25-34		1,204,808
35-44		922,161
45-54		699,123
55-64		523,639
65-74		254,848
75-100+		116,040
18-24	Below Bachelor	2,012,464
25-34		2,303,388
35-44		2,307,287
45-54		2,421,692
55-64		2,212,935
65-74		1,756,113
75-100+		1,441,769
Total adults		18434,692

Table 13 Benchmark targets used for weighting (country of birth)

Country of birth	Benchmark
Australia	1,2638,696
Non-English speaking countries	3,728,298
Other English speaking countries	2,067,698
Total adults	18,434,692

Table 14 Benchmark targets used for weighting (telephony status)

Telephony status	Benchmark
Dual user	11,650,725
Landline only	1,437,906
Mobile only	5,346,061
Total adults	18,434,692

Weighting variables

The following dataset variables were used for each of the characteristics included in the weighting:

- Age group (*agegroup*)
- Gender (*dem4*)
- State (*state*)
- Part of state (*metro*)
- Education (*dem10*)[8]
- Country of birth (*dem5*)[9]
- Telephony status (*sampletype*, *w1*, *w3*).

There was a small number of respondents who did not answer some of the above items. To enable weighting to be carried out for these respondents, missing values were statistically imputed using nearest-neighbour imputation[10] as implemented in R by Templ *et al.* (2016). Given the low[11] prevalence of missing data it is not expected that the imputation process will have any observable impact on weighted estimates obtained from the dataset.

Notes for Stata

When analysing the survey dataset in Stata, it will be necessary to use the *svyset* command and to specify the weight and strata variables:

svyset [pweight=weight], strata(market)

[8] Responses of "Bachelor degree" and "Post-graduate degree" were assigned to the benchmark category "Bachelor and above" and all other responses were assigned to "Below Bachelor".
[9] Responses of "Australia" were assigned to the benchmark category "Australia", responses of "Canada", "Ireland", "New Zealand", "South Africa", "United Kingdom" and "USA" were assigned to "Other English speaking countries", and all other responses were assigned to "Non-English speaking countries.
[10] For cases with missing data, the missing values were filled in from the most similar other case in terms of the weighting characteristics. Where there were multiple similar cases, the modal category among these was used.
[11] There were only 91 cases (fewer than 5% of respondents) with missing data, almost all of whom omitted just a single response.

4. Minimising errors of measurement

4.1. Instrument development and testing

Initially, exploratory qualitative research was undertaken with the aim of identifying key themes for further exploration in the national community survey and to help inform the development of questionnaire items. This qualitative element included focus group discussions and cognitive testing of the questionnaire.

Following completion of the focus groups, the APPC provided the Social Research Centre with some initial questionnaire items for review. The Social Research Centre in close consultation with the APPC then developed a questionnaire aimed to track community awareness, understanding and attitudes towards government chronic disease prevention policies and programs. Cognitive testing of the questionnaire was conducted prior to a final review of changes by the APPC. This was followed by a pilot testing phase prior to main fieldwork commencing.

4.1.1. Focus groups

The Social Research Centre conducted six focus groups with a range of men and women in Sydney, Melbourne, Glenorchy (Tasmania) and Traralgon (Victoria). Each focus group was facilitated by a specialist qualitative researcher from the Social Research Centre. A discussion guide (see Appendix 2), which was based on the research objectives, was developed in consultation with the research team at the APPC. As is the nature of qualitative research, open-ended questions were asked to respondents and responses were followed up with further questions or prompts. In addition to the discussion guide, two vignettes were included to aid the discussion around chronic disease prevention (see Appendix 3).

The aims of the focus groups were to:

- define and understand the prevention of chronic disease
- explore views of the relative priority of prevention at an individual, family, community and societal level – how important is prevention and why
- understand views and attitudes around responsibilities, preventative activities and actions (at an individual, family, community and societal level, including the role of government)
- explore views and beliefs about the role of legislation and regulation in terms of encouraging and promoting prevention.

Specialist recruitment agencies were engaged to recruit research respondents to match the required specifications stipulated by the client. Screening of respondents' demographics ensured the inclusion of a range of different socio-economic backgrounds, age ranges and experiences of suffering from a chronic illness. Male and female groups were held separately to encourage open dialogue. **Error! Reference source not found.**Table 15 outlines respondent demographics. A total of 49 respondents participated in the six focus groups.

Table 15 Focus group demographics, by group

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Total
Region	Metro	Metro	Regional	Metro	Regional	Regional	-
Gender	Male	Female	Male	Female	Male	Female	-
Age Range							
18-24	2	2	0	1	2	1	8
25-44	2	2	3	2	3	2	14
45-64	3	3	3	3	3	3	18
65+	2	2	1	2	1	1	9
SES							
Low	1	2	3	1	2	4	13
Mid	3	4	1	6	2	2	18
High	5	3	3	1	5	1	18
Disclosure of chronic illness	2	4	3	5	3	3	20

Fieldwork was conducted between 30 March and 5 April 2016. Respondents received $75 cash as an acknowledgement of thanks for their time.

4.1.2. Cognitive testing

The purpose of undertaking cognitive testing was to gain an understanding of how respondents understand, mentally process and respond to questionnaire items, with a special emphasis on potential breakdowns in this process. The ultimate aim of this process is to ensure the questionnaire yields data that are valid and reliable.

Specifically, the objectives of the cognitive testing were to:

- identify understanding and comprehension of item wording and suitability of response scale options
- identify any sensitivities in subject matter / questionnaire wording
- identify potential alternative question wording and phrasing
- inform the development of suitable response options
- help to avoid the use of jargon
- help to re-phrase questions such that the language used is readily understood; relevant and appropriate for respondents
- provide recommended improvements.

A guiding principle for the conduct of the interviews, and for the interpretation of response to the cognitive testing process was to reduce measurement error. That is, to identify areas of questioning that were unclear to respondents who then may potentially give a misleading, inaccurate or biased response.

Respondents were recruited by a professional recruitment agency, Matter of Opinion, to recruitment criteria specified by the Social Research Centre. Throughout the recruitment process, the composition of the respondent sample was assessed to ensure an even balance (as much was possible) between

male and female respondents, a broad spread of respondent age and education attainment, and representation of respondents from non-Anglo backgrounds.

Ten interviews were conducted from Tuesday 10th May to Wednesday 11th May, all conducted face to face at the Social Research Centre's offices in Melbourne CBD. Respondents were paid a $75 incentive for their participation. Interviews were digitally recorded, and detailed written notes were also taken during the interview.

Table 16 below outlines the demographics of the recruited sample of respondents.

Table 16 Respondent characteristics

Demographic	Number of respondents
Gender	
Male	4
Female	6
Age Group	
18-29	5
30-49	3
50+	2

The educational attainment of the respondents ranged from Year 12 completion and TAFE Certificates to Postgraduate Diplomas. Further, four respondents indicated non-Anglo or non-Australian heritage, which included Lebanese, Greek, Vietnamese and South African heritage.

The cognitive testing resulted in a small number of changes being made to response frames and question wording to ensure greater comprehension. Further, some text to define key terms, such as 'regulation' was added to aid respondents in providing a response.

The cognitive testing also identified some questions that had caused confusion and which were deleted from the final version of the questionnaire following pilot testing to reduce the overall questionnaire length.

The cognitive testing process provided the first opportunity to test interviewer responses to the questionnaire and to identify operational issues that may arise during interviewing. Consequently, interviewer prompts were reviewed and additional instructions added in places. Considerations were also made to operationalising the questionnaire for field (such as determining when items needed to be bracketed to indicate to interviewers that these items are not read out).

Following cognitive testing, a revised version of the questionnaire was provided to the APPC for review prior to pilot fieldwork.

4.1.3. Piloting

Prior to pilot test interviewing, standard operational testing procedures were applied to ensure that the CATI script truly reflected the agreed "hard copy" questionnaire. These included:

- reading the questionnaire directly into the CATI program
- programming the skips and sequence instructions as per the hard copy questionnaire
- rigorous checking of the questionnaire in "practice mode" by the Social Research Centre project coordinator and the project quality supervisor, including checks of the on-screen "presentation" of questions and response frames

- randomly allocating dummy data to each field in the questionnaire and examining the resultant frequency counts to check the structural integrity of the CATI script.

A pilot test of 31 interviews was conducted from 25th May to 26th May 2016.

There were few changes to the questionnaire after the pilot. Changes consisted of minor re-wording of questions and response options to questions D1, E1, E2, and H3 with the main aim being to mitigate respondent confusion based on interviewer feedback. Further, D3 was removed to try and reduce overall interview length. Approval was granted for these changes before the commencement of the main fieldwork period and no further changes were made to the questionnaire.

The final questionnaire is provided in the Appendix.

4.1.4. Interview length

From a TSE perspective, the concern is that the possibility of introducing nonresponse error (both at the unit and at the item level) and measurement error increases as a function of survey length. Survey researchers are rightly concerned about the relationship between survey length, respondent burden, non-response and data quality.

In summarising the research into the relationship between survey length and non-response to survey invitations, Fricker et al. (2012[12]) conclude that the results from these studies are mixed and that there is at best a weak correlation between interview length and non-response. This is because, *"respondent motivation to participate is affected not only by length, but also by a variety of other factors such as topic interest or the survey sponsor."* (Fricker et al., 2012).

To reduce the potential for non-response due to interview length, the Social Research Centre applied a range of response maximisation techniques to increase the opportunity for and likelihood that respondents would engage with and complete the survey (refer to Section 3.4 for details).

In terms of the relationship between interview length and measurement error, researchers are concerned that an individual's motivation to provide thoughtful responses and to make the cognitive effort required to answer questions as accurately as possible may decline over the course of a long survey. Fricker et al. (2012) refer to several studies which showed that respondents in longer surveys have a greater likelihood of straight-line responding, increased rates of item-nonresponse, more "don't know" responses, greater response order effects, and less time spent on each question the longer the duration of the interview.

Interviewers at the Social Research Centre are trained in identifying potentially fatigued respondents and actioning a range of engagement techniques aimed at addressing these potential sources of error (refer to Section 4.2 for further information on interviewer briefing and quality control).

Taken together, these findings show that interview length should be kept to a minimum both to avoid non-response and to reduce measurement error.

While this starting point is widely accepted, research as to what constitutes the optimal survey length, is fairly sparse. When considering this issue with respect to landline and mobile (cell) phone interviews, the AAPOR 2010 Cell Phone Surveying Taskforce reported that, "*with topics that are interesting (e.g., health) and when conducted for the public good, cell phone surveys with interviews as long as 30 to 35 minutes have been found to not suffer in their response rate (cf. Brick et al., 2007).*

[12] Fricker, S., Creech, J., Davis, J., Gonzalez, J., Tan, L. and To, N. (2012). Does Length Really Matter? Exploring the Effects of a Shorter Interview on Data Quality, Nonresponse, and Respondent Burden. Bureau of Labour Statistics, March, 2012. https://fcsm.sites.usa.gov/files/2014/05/Fricker_2012FCSM_IX-B.pdf

The maximum length for a non-incentivised landline telephone survey as recommended by the Australian Market and Social Research Society is 20 minutes (AMSRS, 2014[13]).

Based on our experience and the available evidence, the length of the AUSPOPS is therefore within a reasonable range, though it is possible that efforts to reduce average survey length could be useful for increasing response and minimising measurement error in future surveys.

Final interview length by sample frame is provided in Table 17 below and as can be seen was fairly consistent between sample frames.

Table 17 Interview length by sample frame

	Total	Landline	Mobile
Interview length (minutes)	17.6	17.8	17.4

4.2. Data collection

4.2.1. Interviewer briefing

All interviewers and supervisors selected to work on the AUSPOPS attended a two-hour briefing session, which focused on all aspects of survey administration, including:

- survey context and background
- survey procedures and sample management protocols
- privacy and confidentiality
- respondent selection procedures
- strategies to gain and maintain co-operation
- refusal aversion techniques
- strategies to minimise mid-survey terminations
- detailed examination of the survey questionnaire, with a focus on uniform interpretation of questions and response frames, the use of pre-coded response lists and item-specific data quality issues.

After the initial briefing session, interviewers engaged in comprehensive practice interviewing. Additional briefings were held as required during the fieldwork period.

A total of 44 interviewers were briefed on the survey, with a core team of 22 interviewers conducting 80% of the interviews.

4.2.2. Fieldwork quality control procedures

The in-field quality monitoring techniques applied to this project included:

- monitoring of each interviewer by a supervisor at least once during their first three shifts on the project, whereby at least 75% of the interview is listened to, and providing comprehensive feedback on data quality issues and respondent liaison techniques

[13] Australian Market and Social Research Society (2014), AMSRS Guideline for market and social research interviews. http://www.amsrs.com.au/documents/item/197

- validation of 114 interviews (or approximately 5.6% of each interviewer's work) via remote monitoring covering the interviewers' approach and commitment-gaining skills, as well as the conduct of the interviews (in accordance with ISO 20252 procedures)
- field team de-briefing after the first shift, and thereafter, whenever there was important information to impart to the field team in relation to data quality, consistency of interview administration, techniques to avoid refusals, appointment-making conventions, or project performance
- regular examination of verbatim responses to open-ended / other specify questions by a member of the coding team
- providing an FAQ sheet for interviewers' reference
- monitoring of the interview-to-refusal ratio by interviewer
- holding re-briefings as required, to address any issues of data quality or consistency of questionnaire administration.

4.3. Data processing

4.3.1. Coding

All open-ended responses were reviewed and cleaned by the coding team and back coding of questions with an 'other specify' was undertaken. Towards the end of fieldwork responses to open-ended questions were previewed and a draft code frame developed by coders from the Social Research Centre. Final code frames were then developed in consultation with the APPC.

All coding was undertaken by experienced, fully briefed coders. Outputs were validated in accordance with ISO 20252 procedures, using an independent validation approach.

4.3.2. Output editing

Unweighted single level frequency counts of the responses to each question were produced, initially in draft format, at the completion of fieldwork. These were used to check data structure and logic prior to data file preparation.

4.3.3. Electronic data provision

A final version of the data file (with weights) was provided to the APPC in Stata format. Supporting documentation, including a data dictionary, was provided to the APPC.

Appendix 1 Questionnaire

Australian Perceptions of Prevention Survey (AUSPOPS)
Questionnaire for Pilot
6 June 2016

CALL OUTCOMES AND RR1

**USE STANDARD BUT SHOW NO-ONE 18 PLUS IN HOUSEHOLD

**USE STANDARD RR1 AND RR2 BUT ADD OBJECTED TO BEING CALLED ON A MOBILE PHONE TO RR1

PARTICIPANT INFORMATION FIELDS

**USE STANDARD

INTRODUCTION, SCREENING AND SELECTION

*(TIMESTAMP1)

*(ALL)
INTRODUCTION

Good morning/afternoon/evening. My name is (....) and I'm calling from the Social Research Centre on behalf of the University of Sydney. The University is doing a study on how we value health as a community and as individuals.

IF NECESSARY: The survey is mainly about your views on how the government spends public money and makes policy relating to the community's health. The results from this survey will be used to support and guide policies and programs that aim to improve the lives of all Australians.

IF NECESSARY: This survey is not being undertaken as part of the upcoming national election or associated with a political party.

*(LANDLINE SAMPLE) (SAMTYP=1)
S1 To help with this important study we'd like to arrange a short interview with the person aged 18 or over who is going to have the next birthday. May I speak to that person please?

IF NECESSARY: Good morning/afternoon/evening. My name is (....) and I'm calling from the Social Research Centre on behalf of the University of Sydney. The University is doing a study on how we value health as a community and as individuals.

1. Continue
2. Household refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
3. Respondent refusal (GO TO RR1)
4. Queried about how telephone number was obtained (GO TO ATELQ)
5. Needs more information (GO TO AINFO)

*(MOBILE PHONE SAMPLE) (SAMTYP=2)
S5 For this survey we are interested in talking to people aged 18 or over. Can I check, are you aged 18 years or over?

1. Yes
2. No (GO TO TERM1)
3. Refusal (GO TO RR1)

*(MOBILE PHONE SAMPLE) (SAMTYP=2)
S3 Could I also just check whether it is safe for you to take this call at the moment … If not, we'd be happy to call you back when it is more convenient for you.

1. Safe to take call
2. Not safe to take call
3. Refusal (GO TO RR1)

*(NOT SAFE TO TAKE CALL) (S3=2)

S4 Do you want me to call you back on this number or would you prefer I call back on your home phone?

1. This number (MAKE APPOINTMENT)
2. Home phone (MAKE APPOINTMENT, RECORD HOME PHONE NUMBER)
3. Respondent refusal (GO TO RR1)

*(MOBILE PHONE SAMPLE AGED 18 OR OVER) (SAMTYP=2 AND S5 = 1)

S6 Can you please tell me which state or territory you're in?

1. NSW
2. VIC
3. QLD
4. SA
5. WA
6. TAS
7. NT
8. ACT
9. (Refused) (GO TO TERM2)

*(ALL)

S7 This study is mainly about your opinions. There are no right or wrong answers. If I come to any question you prefer not to answer, just let me know and I'll skip over it. You can withdraw from the study at any point and the information collected will not be retained, or you may complete the rest of the interview at another time. All interviews are voluntary, and we will treat all information you give in strict confidence.

This interview should take around 15-20 minutes. I'll try and make it as quick as I can.

Are you happy to continue?

1. Continue
2. Respondent refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
3. Queried about how telephone number was obtained (GO TO ATELQ)
4. Needs more information (GO TO AINFO)

*(ALL)

MONREC This call may be monitored or recorded for quality assurance purposes. Is that ok?

1. Yes
2. No

*(QUERIED HOW TELEPHONE NUMBER WAS OBTAINED)

ATELQ Your phone number has been randomly generated by computer. We find that this is the best way to obtain a representative sample and to make sure we get opinions from a wide range of people.

1. Snap back to previous question (Intro / S1 / S7)

*(WANTS MORE INFORMATION)

AINFO IF NECESSARY: The survey is mainly about your views on how the government spends public money and makes policy relating to the community's health. The results from this survey will be used to support and guide policies and programs that aim to improve the lives of all Australians.

IF NECESSARY: This survey is not being undertaken as part of the upcoming national election or associated with a political party.

1. Snap back to previous question (Intro / S1 / S7)

*(TIMESTAMP2)

SECTION A: GOVERNMENT SPENDING AND PRIORITIES

*(ALL)
A3 I'm going to start with a few questions about government spending priorities on health.

What areas of health do you think the government should be spending more money on? (DO NOT PROMPT OR PROBE)

INTERVIEWER NOTE: ONLY CODE TO PREVENTION COLUMN IF EXPLICITLY MENTIONED

(MULTIPLE RESPONSE)

	Prevention mention	Treatment or any other mention
1. Alcohol		
2. Back pain		
3. Cancer		
4. Diabetes		
5. Dental / Oral		
6. Elder care / dementia		
7. Heart/Cardiovascular		
8. HIV/AIDS		
9. Hospitals		
10. Illicit drugs		
11. Immunisation		
12. Mental health		
13. Obesity		
14. Physical activity		
15. Diet		
16. Smoking		
17. Chronic diseases		
18. Children's health		
19. Underprivileged (Low SES, multicultural)		
20. Aboriginal health		
21. Other health area (SPECIFY)		

18. None / nothing
19. (Don't know)
20. (Refused)

*(ALL)
A4 Do you approve or disapprove of public money being spent on activities and programs in the following areas…

(ROTATE)
(STATEMENTS)

a. Reducing smoking
b. Reducing alcohol-related harm
c. Reducing obesity
d. Immunisation
e. Screening for cancers
f. Reducing access to unhealthy foods
g. Increasing physical activity

PROBE: Is that approve / disapprove or strongly approve / disapprove?
(RESPONSE FRAME)

1. Strongly disapprove
2. Disapprove
3. (Neither approve nor disapprove)
4. Approve
5. Strongly approve
6. (Don't know)
7. (Refused)

*(TIMESTAMP3)

SECTION C: VALUE OF PREVENTION

(ROTATE C3a, Q3b, Q3c, Q3d & Q3e) (SHOWN ONLY FOUR)
*(ALL)
C3a **PROGRAMMER NOTE: Show following text for first question

Which one of the following two health initiatives do you think would make the most difference to improving the community's health?

1. Subsidising drugs that lower blood pressure, **OR**
2. Setting limits of salt in processed food to lower blood pressure
3. (Don't know)
4. (Refused)

*(ALL)
C3b *PROGRAMMER NOTE: Only show following text after first question has been asked

And how about…

IF NECESSARY: Which one of the following two health initiatives do you think would make the most difference to improving the community's health?

1. Providing low cost gym membership, **OR**
2. Building a network of walking and cycle paths
3. (Don't know)
4. (Refused)

*(ALL)
C3c PROGRAMMER NOTE: Only show following text after first question has been asked

And how about…

IF NECESSARY: Which one of the following two health initiatives do you think would make the most difference to improving the community's health?

1. Taxing processed food with high sugar or fat content, **OR**
2. Subsidising operations for people who are obese
3. (Don't know)
4. (Refused)

*(ALL)
C3d PROGRAMMER NOTE: Only show following text after first question has been asked

And how about…

IF NECESSARY: Which one of the following two health initiatives do you think would make the most difference to improving the community's health?

1. Funding alcohol treatment centres, **OR**
2. Placing restrictions on alcohol advertising
3. (Don't know)
4. (Refused)

*(ALL)
C3e PROGRAMMER NOTE: Only show following text after first question has been asked

And how about…

IF NECESSARY: Which one of the following two health initiatives do you think would make the most difference to improving the community's health?

1. Increase access to fruit and vegetables, **OR**
2. Subsidise medications to lower cholesterol
3. (Don't know)
4. (Refused)

*(TIMESTAMP4)

SECTION D: BARRIERS TO PREVENTION

*(ALL)
D1 As far as you are aware, how much of an effect do the following things have on people's health? Please use a scale from 1 to 5, where 1 means 'no effect at all' and 5 is 'a very large effect'.

(ROTATE)
(STATEMENTS)

a. The type of food a person eats
b. The amount of physical activity a person does
c. A person's genetic make-up
d. A person's financial circumstances
e. Whether or not a person smokes cigarettes
f. Whether or not a person drinks alcohol
g. Where in Australia someone lives
h. Access to health and hospital services
i. Access to bike paths
j. Having activities to promote health in the workplace
k. Being able to afford to go to a gym to exercise

(RESPONSE FRAME)

1. No effect at all
2. A small effect
3. A moderate effect
4. A large effect
5. A very large effect
6. (Don't know)
7. (Refused)

*(TIMESTAMP5)

SECTION E: RESPONSIBILITY FOR PREVENTION

*(ALL)

E1 To what extent do you think each of the following have a role in maintaining people's health? Please use a scale from 1 to 5, where 1 means 'no role at all' and 5 is 'a very large role'.

(ROTATE)
(STATEMENTS)

a. Community groups or organisations
b. Government
c. Parents
d. People themselves
e. GPs, nurses, pharmacists
f. Employers
g. Food manufacturers
h. Schools
i. Private health insurers

Would you say…?

(RESPONSE FRAME)

1. No role at all
2. A small role
3. A moderate role
4. A large role
5. A very large role
6. (Don't know)
7. (Refused)

*(ALL)

E2 For each of the following government initiatives, please tell me whether you think it shows the government going too far, not far enough or having about the right amount of involvement in helping people be health?

IF NECESSARY: Some of these initiatives **have** been introduced by the government, whilst others **could** be introduced to help people be healthy and prevent disease.

(ROTATE)
(STATEMENTS)

a. Plain packaging for tobacco products
b. Bans on smoking in cars with children
c. Lower speed limits (30km/hr) in high pedestrian areas
d. Restrictions on advertising unhealthy foods to children
e. Restrictions on alcohol advertising
f. Taxing soft drink
g. Health ratings on packaged food
h. Setting salt limits on processed food
i. Restrictions on sale of unhealthy foods in school canteens
j. Compulsory immunisation at school entry
k. Laws setting limits on working hours
l. Creation of bike lanes separated from cars

(RESPONSE FRAME)

1. Too far
2. About the right amount
3. Not far enough
4. (Don't know)
5. (Refused)

*(TIMESTAMP6)

*(ALL)
E3 In general, do you think Australia has too much, too little or about the right amount of government regulation and policies in place to help people be healthy?

IF NECESSARY: By regulation we mean things like bans, taxes and restrictions

1. Too much
2. About the right amount
3. Not enough
4. (Don't know)
5. (Refused)

*(ALL)
E5 People in our society often disagree about how far to let individuals go in making decisions for themselves. Do you agree or disagree with the following statements?

(ROTATE)
(STATEMENTS)

a. Sometimes government needs to make laws that keep people from harming themselves
b. The government interferes far too much in our everyday lives
c. It's not the government's business to try to protect people from themselves
d. Government should put limits on the choices individuals can make so they don't get in the way of what's good for society

PROBE: Is that agree / disagree or strongly agree / disagree?

(RESPONSE FRAME)

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree
6. (Don't know)
7. (Refused)

*(ALL)
E6 Sometimes the government puts a tax on certain products that can negatively affect people's health to regulate their use. In general, do you support or oppose the idea of the government putting a tax on a product that can negatively affect people's health?

PROBE: Is that support / oppose or strongly support / oppose?

1. Strongly oppose
2. Oppose
3. (Neither support nor oppose)
4. Support
5. Strongly support
6. (Don't know)
7. (Refused)

*(ALL)
E7 Would you support or oppose a tax being applied to a product than can negatively affect people's health if the revenue raised was...

INTERVIEWER NOTE: Repeat “If the revenue raised was…’ as necessary

(ROTATE)
(STATEMENTS)

a. Used to fund services and initiatives that address problems caused by the product
b. Used to fund general health services and initiatives
c. Used to fund non-health services and initiatives
d. Directed to general government spending

PROBE: Is that support / oppose or strongly support / oppose?

(RESPONSE FRAME)

1. Strongly oppose
2. Oppose
3. Neither support nor oppose
4. Support
5. Strongly support
6. (Don’t know)
7. (Refused)

*(TIMESTAMP7)

SECTION H: PERSONAL HEALTH

*(ALL)
H1 The next questions are about your own health.

Would you say your health is… (READ OUT)

1. Excellent
2. Very good
3. Good
4. Fair
5. Poor
6. (Don’t know)
7. (Refused)

*(ALL)
H3 In the past week, on how many days have you done a total of 30 minutes or more of physical activity which was enough to raise your breathing rate?

This includes sport, exercise, brisk walking, cycling for recreation or transport, BUT NOT including housework or physical activity as part of your job.

INTERVIEWER NOTE: Repeat “How many days in the past week…’ as necessary

1. Days given (SPECIFY) (RANGE 0 to 7)
2. (Don’t know)
3. (Refused)

*(ALL)
H4 Do you currently smoke cigarettes on a daily or weekly basis?

IF NECESSARY: By cigarettes we mean factory-made or roll-your-own cigarettes

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
H6 How often did you have a drink containing alcohol in the past year? (READ OUT)

1. Every day
2. 3-6 days a week
3. 1-2 days a week
4. 2-3 days a month
5. Once a month
6. Less than once a month
7. Never
8. (Don't know)
9. (Refused)

*(ALL)
H10 Have you been told by a doctor or nurse that you currently have any of the following long-term health conditions…..(READ OUT)

(MULTIPLE RESPONSE)

(ROTATE)

1. Arthritis
2. Asthma
3. Heart disease
4. Stroke, or at risk of a stroke
5. Chronic kidney disease
6. Cancer of any kind
7. Depression
8. Type 2 Diabetes
9. Oral Disease (e.g. Gum disease)
10. Osteoporosis
11. (None) ^s
12. (Don't know) ^s
13. (Refused) ^s

*(TIMESTAMP8)

DEMOGRAPHICS AND WEIGHTING

*(ALL)
DEM1 We're nearly finished now. Just a final few questions to make sure we've spoken to a good range of people...

Including yourself, how many people aged 18 years and over live in your household?

1. Number given (SPECIFY) (RANGE 1 to 20) *(DISPLAY "UNLIKELY RESPONSE" IF > 10)
2. (Don't know)
3. (Refused)

*(ALL)
DEM2 Would you mind telling me how old you are?

1. Age given (SPECIFY) (Allowable range: 18 TO 120)
2. (Refused)

*(REFUSED AGE)
DEM3 No problem, would you mind telling me which of the following age groups you are in? (READ OUT)

1. 18 - 24 years
2. 25 - 34 years
3. 35 - 44 years
4. 45 - 54 years
5. 55 - 64 years
6. 65 - 74 years
7. 75+ years
8. (Refused)

*(ALL)
DEM4 RECORD GENDER

1. Male
2. Female

*(ALL)
DEM5 In which country were you born?

1. Australia
2. Canada
3. China (excluding Taiwan)
4. Croatia
5. Egypt
6. Fiji
7. Germany
8. Greece
9. Hong Kong
10. Hungary
11. India
12. Indonesia
13. Ireland
14. Italy
15. Lebanon
16. Macedonia
17. Malaysia
18. Malta
19. Netherlands (Holland)
20. New Zealand
21. Philippines
22. Poland
23. Serbia / Montenegro
24. Singapore
25. South Africa
26. Sri Lanka
27. Sudan
28. United Kingdom (England, Scotland, Wales, Nth Ireland)
29. USA
30. Vietnam
31. Other (SPECIFY)
32. (Refused)

*(ALL)
DEM6 Do you usually speak a language other than English at home?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
DEM7 Are you from an Aboriginal and/or Torres Strait Islander background?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
DEM8 Which one of the following BEST describes your employment situation? (READ OUT)

1. Employed (FT, PT, Self-employed, casual)
2. Unemployed
3. Retired/pension
4. Student
5. Home duties
6. Other (SPECIFY)
7. (Don't know)
8. (Refused)

*(EMPLOYED, DEM8=1)
DEM9 And, what is your current occupation?

PROBE: Main duties and job title

1. Managers
2. Professionals
3. Technicians and trades workers
4. Community and personal service workers
5. Clerical and administrative workers
6. Sales workers
7. Machinery operators and drivers
8. Labourers
9. Other (SPECIFY)
10. (Don't know)
11. (Refused)

*(ALL)
DEM10 What is the highest level of education you have completed? PROMPT IF REQUIRED

INTERVIEWER NOTE: If Year 12 or less, probe for trade qualifications / TAFE certificates

1. Primary school
2. Year 7-9
3. Year 10
4. Year 11
5. Year 12
6. Trade/apprenticeship
7. Other TAFE/ Technical certificate
8. Diploma
9. Bachelor degree
10. Post-graduate degree
11. Other (SPECIFY)
12. (Don't know)
13. (Refused)

*(ALL)
DEM11 Are you currently receiving income support or a pension from the government (e.g. aged, disability, income support)?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
DEM12 Do you have private health insurance?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(MOBILE SAMPLE) (SAMTYP=2)
W1 Now just a question or two about your use of telephone services.

Is there at least one working fixed line telephone inside your home that is used for making and receiving calls?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(LANDLINE SAMPLE, MOBILE SAMPLE WITH LANDLINE) (SAMTYP=1 OR ((SAMTYP=2 AND W1 = 1))
W2 How many residential phone numbers do you have in your household, not including lines dedicated to faxes, modems or business phone numbers? Do not include mobile phones.

INTERVIEWER NOTE: If needed explain as how many individual landline numbers are there at your house that you can use to make and receive calls?

1. Number of lines given (SPECIFY) RECORD WHOLE NUMBER (ALLOWABLE RANGE 1 TO 15) *(DISPLAY "UNLIKELY RESPONSE" IF >3)
2. (Don't know)
3. (Refused)

*(LANDLINE SAMPLE) (SAMTYP=1)
W3 Do you also have a working mobile phone?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
DEM13 And finally, can I also have your postcode please?

IF NECESSARY: It is important that we collect this information so we can analyse results at a local level

(DISPLAY SAMPLE POSTCODE)

1. Sample postcode correct *SAMTYPE=1 ONLY
2. Correct sample postcode (SPECIFY) (Allowable range: 800 TO 9729) *SAMTYPE=1 ONLY
3. Enter postcode (SPECIFY) (Allowable range: 800 TO 9729) *SAMTYPE=2 ONLY
4. (Don't know)
5. (Refused)

*(TIMESTAMP9)

CLOSE

*(ALL)

END1 That's the end of the survey. Thanks for your time. This survey is carried out in compliance with the Privacy Act, and the information you have provided will only be used for research purposes. Our Privacy Policy is available via our website (www.srcentre.com.au).

Just in case you missed it, my name is (…) and this survey was conducted by the Social Research Centre.

CLOSE SUITABLY

TERMINATION SCRIPTS

TERM1 Thanks anyway, but for this study we need to speak to people aged 18 or over. Thanks for being prepared to help out.

TERM2 That's okay, but to take part in this study I need to confirm which state / territory you are in.

ALLTERM

	Detailed outcome	**Summary outcome**
S1=2	Household refusal	Refusal
S1=3	Respondent refusal	Refusal
S5=2	Mobile – not over 18	Out of scope
S5=2	Mobile – refused age screener	Refusal
S3=3	Mobile – refused safety question	Refusal
S4=3	Respondent refusal	Refusal
S6=9	Refused state	Refusal
S7=2	Respondent refusal	Refusal

*(TIMESTAMP10)

Appendix 2 Focus group discussion guide

Australian Perceptions of Prevention Survey (AUSPOPS)

Focus group discussion guide (V1.3)

Researcher note (this is not read out to participants)

The aim of this research is to explore the general community's understanding of health, chronic illness and prevention. The discussions will cover:

- definitions and understanding of the prevention of chronic disease
- views of the relative priority of prevention at an individual, family, community and societal level – how important is prevention and why
- views and attitudes around responsibilities preventative activities and actions (at an individual, family, community and societal level, including the role of government)
- views and beliefs about the role of legislation and regulation in terms of encouraging and promoting prevention.

Moderator to explore inconsistencies, contradictions and disconnects, eg commentary relates to environment, situations or other aspects that are not in the control of the individual which could lead to someone developing a chronic disease or risk factor, vis-à-vis other discussions saying it's all down to individual responsibility. Get group to define who is 'we'.

Moderator to explore if emphasis is on prevention, how does that translate to the reality of allocating finite budgets/resources when competing against, e.g. hospital beds.

- *Introduce researcher and The Social Research Centre. Explain research on behalf of Australian Prevention Partnership Centre and the University of Sydney.*
- *Explain the research will be discussing health, in particular prevention and health, what it means to you, and what you think is important. This research will contribute to developing a survey about people's attitudes to chronic disease prevention.*
- *Explain recording and confidentiality of participant information and of what is discussed within the group, seek informed consent from all parties to:*
  - *a) be audio-recorded*
  - *b) for anonymised transcripts (and possibly audio) provided to University of Sydney*
  - *c) (if applicable) be observed by clients from Australian Prevention Partnership Centre and University of Sydney*
- *Explain how data will be used and stored*
- *Explain the importance of honest opinions, no right or wrong answers, respect different opinions*
- *Housekeeping matters (facilities, phones on silent, finishing time etc.)*
- *Any questions before starting*?

Areas for discussion led by facilitator

1. Introduction (5 mins)

We will start by going around the table to briefly introduce ourselves – if you could please tell me your first name, who you live with, and perhaps what you do with yourself day-to-day.

2. General views on health and health prevention (15 mins)

Signposting - I'd like to start talking a little bit about your general views on health, and being 'healthy'

2.1. I'd like to start by asking you to jot down on your notepad - what does "being healthy" mean to you? [Ask group to share comments/thoughts and put onto flipchart]

Probe: what types of "health" are you considering in your answer? (Physical, mental/emotional, social, spiritual, intellectual health).

Signpost – let's now turn to what is sometimes referred to as 'prevention' in relation to trying to prevent poor health, what your thoughts are on that and what is sometimes called 'preventative health' – we've started to touch on some of these issues already, but now want to unpack them a bit more

2.2. What are your initial thoughts in relation to 'prevention' - in terms of health mean to you? What comes to mind? *Prompt: Is it something that you think about or not – why/why not? Explore any mentions of chronic disease*

2.3. What do you think are the benefits of prevention? *Probe: for benefits related to individual, family, workplace, health system, society, economy and productivity.*

3. Chronic disease and prevention (15 mins)

So prevention can be important because it can help to prevent what are sometimes called lifestyle chronic diseases. These are diseases which are not passed from one person to another, such as heart disease, and Type 2 diabetes.

INTRODUCE VIGNETTES(S) HERE I'd like to share this example with you, which is of someone who has one of these chronic diseases. Let's spend a few minutes reading through it.

3.1. How do you think this could have been prevented, if at all?

3.2. What services or programs might have been helpful for x? *Prompt: health service programs, local services, education, workplace etc.* START TO BUILD LIST ON FLIPCHART

3.3. Who do you think is responsible for helping prevent diseases such as this? *Prompts: justification around answers – why is x responsible? Draw out discrepancies in views if these arise (e.g. talking about services etc. and then going back to individual)*

4. Services and programs to support being healthy (10 mins)

Let's think a bit more about the different supports, programs or services that can could help people like X to be healthy.

4.1. What other sorts of services, facilities or other things do you think are aimed at prevention of lifestyle-related chronic disease? *Prompt – you've already mentioned these (on the flipchart)*

Probe: health focussed programs and services, but also indirectly, through taxes on tobacco and alcohol, bans on smoking in public places, workplace initiatives (e.g. installing showers, social sport teams), increasing local services/facilities (cycle ways, exercise equipment in parks), social marketing campaigns, helplines (such as Quit).

4.2. Any others that might be particularly focused on preventing chronic diseases?

Explore if there are other "facilities" they believe are important for health that may not be necessarily directly health–related?

5. Prioritising Services (10)

So we've talked quite a bit about the different services and programs that could assist in terms of staying healthy and preventing the types of chronic diseases we have mentioned (refer to flipchart). I'd like now to think a little about whether there are some services that are more important than others. As you know, services, especially those funded by government, are often competing for finite resources and decisions have to be made about where funding goes, and how services are prioritised.

5.1. Just thinking about our lists, what are your thoughts on the relative importance of these? Why do you say that? *Probe – any thoughts on services that are more effective in prevention than others?*

5.2. What about balancing these kinds of preventative health initiatives against treatment of chronic disease? Where do you think the emphasis should be and why? *Probe: if you had to decide about allocating money and resources for health prevention and treatment, what would you do and why? Prompt if needed: is it about the severity of the disease? The prevalence? The population affected? Prevention vs cure? Etc.*

5.3. *If emphasis is on prevention* - What if you were a Minister with responsibility for health budgets, and had to justify expenditure on prevention over and above, say, hospital beds? What would you say and why, to justify this?

6. Views on responsibility of health prevention (30 mins)

Thinking about services that may be more or less important than others, I'd also now like you to think about responsibility – whose responsibility is it to ensure that we prevent the risk of chronic disease and remain healthy?

6.1. Who do you think is responsible for helping prevent these sorts of disease and why?

Probe: role of individuals, health promotion agencies (e.g. Cancer Council, Heart Foundations, VicHealth), schools, workplaces, councils, government.

6.2. What role do you think government should play? Why do you think that? *Explore attitudes towards intervention/rules/directives/guidelines vs choice – at what point to people 'push back'?*

6.3. What role do you think they are actually playing now – is the balance right or not? Should they be more directive or not? Why/why not? *Probe for any awareness of party positions on health prevention, and examples where they think the balance is right or wrong.*

6.4. If not brought up beforehand, can at the very end bring in the term "nanny state" contextualised in what they have said previously. Something along the lines – "you have talked previously about government intervention such X, Y Z [use the examples they have brought up] some people say that these kinds of government actions create a "nanny state", what do you think about that perspective?

7. Comments and close (5 mins)

7.1. Do you have any other comments?

7.2. Anyone had other thoughts, changed their opinion etc. on anything we've discussed?

7.3. Any questions

Thank and close

Appendix 3 Focus group vignettes

John

John is 65 years old and has a large family with his wife Judy, and has 5 children and 9 grandchildren. He recently sold his very successful real estate business, which he owned and ran six days a week for 30 years. He lives in the outer suburbs of Sydney and feels he is fairly active for his age. However, John has recently been diagnosed with cardiovascular disease caused by atherosclerosis – a build-up of substances blocking the arteries of the heart.

Kate

Kate is a 28 year old, single female living in the inner suburbs of Melbourne. She is currently doing her Masters of Engineering at university and walks to work two days a week at a café three blocks away from her home. She feels her life is very stressful and that she never has any time to herself. Kate is a regular smoker and also drinks approximately a few glasses of wine a night. Kate has a history of high cholesterol (meaning there is a build-up of bad fats in the arteries, making it harder for blood to flow around the body) and was recently told she has Type II diabetes.

Simon

Simon is a 44 year old man living alone in small regional town in NSW. Simon has worked in the local food processing industry since he was 17 years old and he enjoys going down to the pub with his mates after work every evening. Simon has a long history of being overweight. In the past, Simon has decided not to attend the annual health check arranged through work, but when recently he found himself short of breath sought advice from a medical professional. Simon was diagnosed with very high blood pressure (where the heart is pumping blood around the body with more force than normal) which has caused damage to his heart.