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Research Report:

EVALUATION REPORT FOR THE 2000/2001 PHASE OF THE
BREASTSCREEN AUSTRALIA CAMPAIGN

APRIL 2003

Evaluation Report for the 2000/2001 Phase of the BreastScreen Australia Campaign

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1.0 EXECUTIVE SUMMARY

The BreastScreen Australia Campaign featuring Sara Henderson was first launched in February 1995 and was last on-air nationally in June 1997. A pre-campaign survey was conducted prior to the launch of the 2000/2001 phase of the Campaign on 24 October 2000, following Australia's Breast Cancer Day. The Campaign involved television advertising from late October 2000 through to the end of November, and late February to early April 2001. Print advertising in women's magazines was placed in October and November 2000 editions and from March through to May 2001. Radio advertising targeting women from non-English speaking backgrounds was placed on SBS and community radio stations during November 2000 and March 2001. In addition, a public relations strategy, with an NESB component, supplemented the campaign and included library promotion kits where posters, fact sheets and bookmarks were made available to 1800 libraries across Australia. A post-campaign survey was conducted in April/May of 2001 following the end of campaign activity. The studies described in this report were designed and managed by the Commonwealth Department of Health and Ageing's Research and Marketing Group. Fieldwork for both studies was conducted by Woolcott Research.

Sample sizes were similar for the pre and post-campaign surveys and consisted of a core random sample of 1000 national telephone interviews amongst women 40-69 years. Samples were boosted among the primary target audience aged 50-69 years for groups identified as 'harder to reach' including those women who have never been screened, ie. never screeners (boosted to n=204), women who have had a mammogram but not in the past two years, ie. under screeners (boosted to n=105); and women from non-English speaking backgrounds (boosted to n=157).

This report provides a summary of the results of the pre-campaign (E₀) and post-campaign (E₁) surveys for the primary target audience, women 50-69 years, and the secondary target audience, women 40-49 years. The objective of this evaluation is to provide a post-campaign measure of recall of advertising and campaign messages, awareness of the program, impact on knowledge of breast cancer and breast cancer screening, as well as attitudes, behaviour and intention with regard to screening for breast cancer.

Awareness and recall of the BreastScreen Australia Campaign

Among women 50-69 years more than half of all respondents reported having seen, read or heard advertising relating to screening mammograms in the recent past (E₀: 53%; E₁: 54%).

Television commercials were the most frequently cited source of information on screening mammograms with unprompted recall of television advertising significantly increasing following the campaign (E₀: 30%; E₁: 43%). The next most frequently cited media was the brochure / leaflet from doctors' surgery (E₀: 33%; E₁: 31%). When prompted about where they saw, read or heard advertising relating to screening mammograms, television advertising and the GP brochure continued to rate as the most frequently cited sources of information. The total recall of television advertising significantly increased between the surveys from 66 per cent to 74 per cent, closely followed by the brochure/leaflet from doctors' surgery (E₀: 69%; E₁: 70%). The proportion of women who cited advice from their doctor as a source of information about screening mammograms also increased following the campaign. (E₀: 41%; E₁: 48%).

The proportion of respondents who could provide accurate descriptions of the advertising they had seen on television and could report campaign communication messages increased from 57 per cent to 76 per cent between surveys. Many of the descriptions of the advertisements related to Sara Henderson and her role as a woman from the outback, and reporting of these items increased significantly following campaign activity.

After being provided with a description following the campaign, almost nine in ten women (87%) stated that they could recall the television commercials (TVC's) being set in the Australian outback and featuring Sara Henderson. There was a significant increase in recognition of the 'Jeep' TVC following the campaign period (E_0 : 68% to E_1 : 73%). Recognition of the 'Calf' TVC has remained relatively constant over time, with just over half of respondents reporting that they recognised the TVC across the two surveys (E_0 : 57%; E_1 : 54%). Approximately two out of five women recognised the 'Family history' TVC (E_0 : 21%; E_1 : 22%). Recognition of the magazine (E_0 : 33%; E_1 : 40%) and poster advertisements (E_0 : 33%; E_1 : 38%) increased significantly following the phase of campaign activity.

Over two in three respondents were able to report having heard of 'BreastScreen Australia', which increased significantly across surveys (E_0 : 62%; E_1 : 68%). When prompted with a description of BreastScreen Australia, approximately nine in ten women reported an awareness of the Program (E_0 : 90%; E_1 : 92%). When asked what they thought the purpose of the program was, the majority of respondents were able to give accurate descriptions of BreastScreen Australia. There was an increase in the proportion of women reporting that 'it screens women for breast cancer/gives women mammograms/x-rays' following the campaign (E_0 : 38%; E_1 : 47%).

Almost all respondents believed that screening for breast cancer through BreastScreen Australia was either a 'very good' or 'fairly good' idea (98% in both surveys). Women's own screening behaviour was associated with how likely they were to state that screening was a good idea, with 96 per cent of women who screen in the post-campaign survey stating screening was a very good idea compared to 70 per cent of women who had never screened.

Knowledge and opinions on breast cancer and screening

The salience of the issue of breast cancer in relation to other women's health issues has remained high, although unchanged, across both surveys (E_0 : 28%; E_1 : 29%). Other cancers (24%) and heart disease/attack (20%) were the next two health problems to receive the greatest mention in the post-campaign survey.

Agreement with true statements about breast cancer has remained high since 1995, with a significant increase in women who believe the risk of breast cancer increases with age from 55 per cent in 1995 to 70 per cent in the 2001 post-campaign survey. Conversely, the level of agreement with the incorrect statement 'most women who develop breast cancer have a strong family history' is also high, however it has fluctuated over the 1995, 1997 and recent campaign surveys (1995: 74%, 1997: 60%, E_0 : 72%; E_1 : 69%), reflecting some confusion about the role of family history in the risk of breast cancer.

The most common age group to be perceived at risk of developing breast cancer in the post-campaign survey was women over 40 (29%) closely followed by women over 50 and all women equally (both at 27%). No change was observed across the two surveys. When

women were asked to rate their personal chances of developing breast cancer in the future, the majority rated their chances as slight (E_0 : 41%; E_1 : 46%) followed by very slight (E_0 : 22%; E_1 : 19%). Family history was the most common rationale behind rating a high (63%) and fairly high (36%) perceived chance of getting breast cancer in the post-campaign survey. Similarly, women who rated their chance of developing breast cancer as nil (63%), very slight chance (61%) and slight chance (49%) based their belief on not having a family history of breast cancer.

The proportion of women who think that mammographic screening should commence at 50-69 years is quite low in comparison to other age periods, but has remained stable across studies (E_0 : 12%; E_1 : 11%). The most frequently suggested age to commence screening, in the post-campaign survey, is 40-49 years (34%), followed by 30-39 years (26%). The majority of respondents showed support for the two-yearly screening intervals, with approximately two in three women recommending this time interval (E_0 : 61%; E_1 : 64%).

Perceptions of the efficacy of a mammogram indicates a high acceptance of the benefits of the procedure, with more than nine in ten women reporting that it was very or quite effective (E_0 : 94%; E_1 : 94%).

Behaviours relating to preventing breast cancer

When women were asked whether they currently do anything to check that they have breast cancer, nine out of ten women stated that they do something (E_0 : 91%; E_1 : 93%). Approximately three in four women reported (unprompted) that they had mammograms to check for breast cancer (E_0 : 72%; E_1 : 76%). Women also reported (unprompted) conducting breast self-examinations (E_0 : 62%; E_1 : 64%) and having GP examinations (E_0 : 28%; E_1 : 28%). Following prompting, more than nine in ten women reported having ever had a mammogram (E_0 : 91%; E_1 : 92%). Among all women 50-69 years interviewed, over four in five stated that they had had a mammogram within the last two years (E_0 : 83%; E_1 : 84%), as recommended by the program.

The proportion of women reporting that they were 'very' or 'quite' likely to have a mammogram in the next 6 months remained stable across studies (E_0 : 33%; E_1 : 34%). In the post-campaign survey the group of women most likely to state they were 'very likely' to screen in the next six months were those women who screened 1-2 years ago (59%). As expected, close to half of the never screeners (46%) stated that they were very unlikely to screen in the next six months, however, interestingly, one in five never screeners (19%) stated that they were very likely to screen in the next six months.

2.0 BACKGROUND TO BREASTSCREEN AUSTRALIA

Following a national evaluation of breast cancer screening, the Australian Ministers' Advisory Council accepted the recommendations of the report *Breast Cancer Screening in Australia: Future Directions*, and implemented the National Program for the Early Detection of Breast Cancer in 1991. Since 1996 the Program has been called BreastScreen Australia.

BreastScreen Australia is a national mammographic screening program that provides free screening mammograms at two-year intervals. Recruitment strategies target women aged 50-69 years for whom there is a demonstrated benefit from screening mammography, however women 40 to 49 years and older than 69 years are also eligible to participate.

The Commonwealth, State and Territory Governments jointly fund the Program. The State and Territory Governments have primary responsibility for the implementation of the Program within the States and Territories, including the location of services, recruitment, accreditation, data management and program monitoring. Key features of the Program include its focus on multi-disciplinary teamwork, quality and management, and consumer needs.

BreastScreen Australia services are provided through a network of 35 dedicated Screening and Assessment Services at over 500 locations throughout Australia, many of these serviced by mobile units. The Program includes recruitment and screening and, when required, assessment services up to and including cytological or histological diagnosis of breast cancer, which are all independent of Medicare fee-for-service arrangements. Recruitment and reminder systems ensure that women in the target group are screened and re-screened in accordance with Program policy.

The Population Screening Section within the Department of Health and Ageing has national responsibility for overall coordination of communication and accreditation for the Program and national data collection, monitoring and evaluation.

The long-term goal of the program is to achieve significant reductions in mortality and morbidity from breast cancer in the target population. In the intermediate term, the objective is to maximise early detection of the disease through achieving a 70 per cent participation rate among women aged 50 to 69 in breast cancer screening provided by the Program. It is estimated that this level of participation is required in order to achieve reductions in mortality (AIHW, 1998).

3.0 AIMS

3.1 Aims of the Program

The aims of the BreastScreen Australia Program are:

1. To ensure that the Program is implemented in such a way that significant reductions can be achieved in morbidity and mortality attributable to breast cancer.
2. To maximise the early detection of breast cancer in the target population.
3. To ensure that screening for breast cancer in Australia is provided in dedicated and accredited screening and assessment services as part of the BreastScreen Australia Program.
4. To ensure equitable access for women aged 50-69 years to the Program.
5. To ensure that services are acceptable and appropriate to the needs of the eligible population.
6. To achieve high standards of program management, service delivery, monitoring and evaluation and accountability.

3.2 Objective of the Evaluation

The objective of this evaluation is to provide post-campaign measures of the most recent 2000/2001 campaign on recall of advertising and campaign messages, awareness of the program, impact on knowledge of breast cancer and breast cancer screening, as well as attitudes, behaviour and intention with regard to screening for breast cancer. Detailed results from the primary target audience of women 50-69 years are summarised initially. Comparisons are then made, where relevant, with younger women (40-49 years), and amongst women with different screening behaviours, women from English and non-English speaking backgrounds, and women with varying socioeconomic status.

4.0 CAMPAIGN HISTORY

In 1995, Sara Henderson became the presenter for the BreastScreen Australia advertising campaign. The BreastScreen Australia campaign was developed to include television and radio commercials, magazine and press adverts, and supporting promotional material. Five television commercials were produced.

The BreastScreen Australia Campaign was first launched nationally in February 1995. Subsequent phases of the campaign were aired from January to March 1996, October to November 1996 and March to June 1997. A booster campaign was launched in September 2000 and ran until April 2001. The mass media communication activity consisted of mainstream television and print media, and SBS and community radio targeting women from non-English speaking backgrounds. General Practitioners were also targeted through information dissemination strategies.

5.0 COMMUNICATION STRATEGY

5.1 Target Audience

5.1.1 Primary targets

- Women aged 50-69 years with a focus on under, never and lapsed screeners and women from culturally and linguistically diverse backgrounds.

5.1.2 Secondary targets

- Women aged 40-49 years.

5.2 Marketing Objective

To increase the number of asymptomatic women aged 50-69 years attending a BreastScreen Australia service for screening mammography every two years. Emphasis is to be placed on the specific groups of those who have never screened, those unlikely to screen and lapsed screeners.

5.3 Communication Objectives

5.3.1 Primary target audience

The communication objectives for the primary target audience of women aged 50-69 years are:

Awareness

To increase awareness that:

- it is important for women over 50 to be screened regularly every two years;
- the risk of breast cancer increases with age, particularly from the age of 50, and that age is the biggest risk factor;
- for the majority of women (9 out of 10) who develop breast cancer, there is no significant family history of the disease;
- population-based screening mammography every two years has been shown to reduce deaths from breast cancer among women aged 50 years and over;
- screening mammography does not prevent breast cancer but is currently the best method of detecting cancer at an early stage when treatment is most effective;
- BreastScreen Australia is a coordinated network of accredited breast cancer screening services throughout Australia providing free mammographic screening which does not require a doctor's referral;
- there is a difference between services provided by the BreastScreen Australia Program and those services provided outside the Program; and
- while BreastScreen Australia targets all women aged 50-69 years, it encourages women with symptoms to see their GP or specialist.

Attitudes

- To increase and reinforce favourable attitudes towards regular screening mammography being an important, positive health check for women over the age of 50.

Intentions

- To generate and reinforce intentions to attend an accredited BreastScreen Australia service for screening mammography every two years.

Key Messages

- The risk of breast cancer increases with age;
- For the majority of women who develop breast cancer, there is no significant family history of the disease; and
- Women aged 50-69 years should visit an accredited breast cancer screening service for mammography every two years.

5.3.2 Secondary target audience

The communication objectives for the secondary target audience of women aged 40-49 years are:

Awareness

- To increase awareness that there is insufficient evidence of benefit in population screening mammography for women aged 40-49 years.

Attitude

- To increase and reinforce favourable attitudes toward regular screening mammography being an important, positive health check for women over the age of 50.

Intention

- To generate and reinforce intentions to examine their breasts regularly and to consult their general practitioner if they detect any changes.

Key messages

- The risk of breast cancer increases with age;
- It is important for women to be aware of their breasts and consult their general practitioner if any changes are detected;
- It is important for women 50 years and over to visit an accredited BreastScreen Australia service for a screening mammography every two years.

6.0 2000/2001 MASS MEDIA CAMPAIGN

The 2000/2001 phase of the BreastScreen Australia Campaign was launched following Australia's Breast Cancer Day on October 24 2000 and included television advertising, print advertisements in national women's magazines, radio advertisements in ethnic media and a public relations strategy. There were two waves of TV advertising, from 24 October to 2 December 2000 and 25 February through to 7 April 2001.

The campaign materials included the following:

- 2 x 30-second TVCs for the first week followed by a combination of 30 second and 15 second TVCs in subsequent weeks for the first and second wave of the television activity;
- Print advertisements placed in six key national women's magazines; and
- Radio commercials run on ethnic radio in a variety of languages.

The two 30-second television advertisements titled 'Jeep' and 'Calf' focus on key messages of the campaign, such as the two yearly screening interval for women over 50 years, and age being one of the biggest risk factors. The 15-second 'tag' commercial titled 'Family history' discusses the issue of family history not being the biggest risk factor for breast cancer. This commercial was created in both a visual form, featuring Sara Henderson, and a 'graphic' form, with the words shown on the screen as they are spoken. Recent changes to the Government authorisation tag line were required, and the graphic version of the commercial was re-edited and used in this current round of advertising.

The television buy targeted all five metropolitan markets and regional television with 40 per cent of the advertising placed in peak time, 20 per cent in fringe time and 40 per cent off peak. The TARPs¹ achieved during the first wave of advertising averaged across all metropolitan and regional markets over 4 weeks were 647 (525 TARPs were planned). The TARPs achieved for the four weeks of the second wave of advertising were 732 (550 TARPs were planned for that period).

The print advertising consisted of a one-page full colour magazine advertisement that features a picture of Sara Henderson with the copy "The biggest risk factor for breast cancer? Being a woman and being over 50." This advertisement was placed in the following magazines: Australian Women's Weekly; Women's Day; New Idea; Better Homes and Gardens; That's Life and Reader's Digest during November 2000 and from March through to May 2001.

Sixty-second radio commercials were placed in ethnic community radio stations in the following languages: Arabic, Chinese, Croatian, Greek, Italian, Macedonian, Maltese, Mandarin, Polish, Portuguese, Serbian, Spanish, Turkish and Vietnamese. A total of 1000 spots of radio advertising were placed across the two waves of activity.

¹ A TARP measure provides an indication of the proportion of a specific demographic group who is potentially exposed to a television advertisement. It is a measure of the proportion of the designated target demographic group who are watching a particular program, and how many times they are potentially exposed to an advertisement placed during the program (ie. the reach by the frequency).

A copy of the campaign materials included in the 2000/2001 Campaign is attached at Appendix 1.

A public relations strategy was designed to supplement this wave of media activity. BreastScreen Australia information kits were sent to approximately 1800 libraries around Australia, and included fact sheets, posters and a supply of BreastScreen Australia bookmarks made available free of charge to library patrons. BreastScreen Australia representatives from most States and Territories participated in radio interviews promoting the importance and availability of free screening mammograms. The public relations strategy also targeted the NESB community through radio 'community service' announcements designed to supplement paid media, and NESB press releases, which generated thirty-four articles covering every target language group.

Campaign support materials were updated and distributed to States and Territories to be strategically placed around various sites such as health centres, GP clinics and BreastScreen Australia Screening and Assessment Services.

The timing of the campaign intervention and research program is shown in Figure 1.

Figure 1: The timing of the 2000/2001 campaign and research

Intervention	Year	2000						2001						
		Month	J	A	S	O	N	D	J	F	M	A	M	J
Evaluation Research					■								■	
TV advertising					■	■			■	■	■			
Magazine advertising						■			■	■	■	■	■	
NESB radio advertising					■				■	■	■			

7.0 RESEARCH METHODOLOGY

7.1 Survey Design

Two national phone surveys were conducted with women aged 40-69 years pre and post the 2000/2001 wave of BreastScreen Australia media activity. The pre-campaign research surveyed 1210 women from 12 October to 24 October 2000 immediately prior to the launch of the campaign on 24 October 2001. The post-campaign research surveyed 1234 women from 27 April to 14 May 2001 following this phase of campaign activity. Both surveys were conducted by Woolcott Research. Each survey was administered in house by female interviewers via a computer-assisted telephone interviewing (CATI) system with telephone numbers randomly selected from the electronic white pages. The average time per interview was 20 minutes in the pre-campaign survey and 22 minutes in the post-campaign survey. A copy of the questionnaire is attached at Appendix 2.

A number of behavioural and attitudinal questions have been asked consistently since 1995 and, where appropriate, the findings from these questions in the 1995 benchmark and 1997 post-campaign survey have been included in the results and discussion section of this report. The 1995 results are regarded as the benchmark for the campaign as no campaign activity had occurred before this time.

7.2 Sampling Design

Both surveys included a random sample of at least 1000 interviews with women aged 40-69 years, guided by an age quota so that approximately 75 per cent of the sample were aged 50-69 years, and 25 per cent of the sample were aged 40-49 years. Quotas were also set for capital cities and country areas in all states and territories excluding the ACT. Furthermore, quotas were set for groups of women of special interest amongst the primary target audience of 50-69 years, which included:

- women who had never been screened ('never screeners');
- women who have had a mammogram but not in the previous two years ('under screeners'); and
- women from non-English speaking backgrounds (NESB).

Following the completion of interviewing, the data was weighted by age and location to reflect ABS population estimates.

Table 1 provides a description of the characteristics of the core random sample in the pre and post-campaign surveys. Just over 1000 women were interviewed as part of the core random sample, with exactly 25 per cent of women aged 40-49 years and 75 per cent of women 50-69 years participating in the survey. Over one in three women (E_0 : 36%; E_1 : 36%) were sampled from NSW, followed by 25 per cent from Victoria, 18 per cent from Queensland, and the remaining 21 per cent across South Australia, the Northern Territory, Western Australia and Tasmania. Nearly two out of three women interviewed were from city areas across both surveys (E_0 : 63%; E_1 : 64%).

Approximately three in four women reported that they had had a mammogram within the last two years (ie screeners, E_0 : 74%; E_1 : 76%). Less than one in ten women reported having had a mammogram but not within the past two years (ie under screeners, E_0 : 9%; E_1 : 9%), and approximately one in six women stated that they had never had a mammogram (ie. never screeners, E_0 : 16%; E_1 : 15%).

When asked about their level of education, women most frequently stated that they had completed secondary school (E_0 : 31%; E_1 : 31%), followed by approximately one in four women having undertaken some secondary schooling (E_0 : 25%; E_1 : 23%). Approximately one in five women had completed TAFE or college (E_0 : 20%; E_1 : 21%), followed by a similar proportion who had completed University (E_0 : 18%; E_1 : 20%).

Women were asked to provide their current or most recent occupation, and state the position they held and the industry that they were in. Based on this information, women were grouped into the following socioeconomic (SES) groupings: upper-white collar; lower-white collar; blue-collar or listed as having never worked. The greatest proportion of women were classified as lower white-collar workers (E_0 : 37%; E_1 : 39%), closely followed by upper white-collar workers (E_0 : 32%; E_1 : 37%). Approximately one in four women interviewed were classified as blue-collar workers (E_0 : 27%; E_1 : 22%). Women were also

asked about their current work status. Nearly half of the women interviewed stated that they were currently not working (E₀: 44%; E₁: 44%); approximately one in four were working full time (E₀: 25%; E₁: 24%); and just under one in three were working part-time (E₀: 30%; E₁: 32%).

Table 1: Sample characteristics for the core random sample in the pre-campaign and post-campaign surveys

		Pre-campaign		Post-campaign	
		n	%	n	%
Total female respondents		1010	100	1006	100
Age	40-49 years	250	25	250	25
	50-69 years	760	75	756	75
State	NSW & ACT	359	36	358	36
	VIC	254	25	250	25
	QLD	184	18	185	18
	SA & NT	92	9	92	9
	WA	95	9	95	9
	TAS	26	3	26	3
Location	City	641	63	644	64
	Country	369	37	362	36
Screening	Screeners ²	747	74	762	76
Behaviour	Under screeners ³	95	9	90	9
	Never screeners ⁴	164	16	151	15
Education	Primary	51	4	46	5
	Some secondary	252	25	233	23
	Secondary	314	31	309	31
	TAFE/College	207	20	214	21
	University	186	18	204	20
Occupation	Upper white	322	32	369	37
	Lower white	374	37	388	39
	Blue collar	276	27	219	22
	Never worked	38	4	30	3
Work status	Full-time	256	25	241	24
	Part-time	306	30	322	32
	Not working	448	44	443	44
Country of birth	Australia	726	72	724	72
	Other ESB	162	16	176	17
	NESB	122	12	106	11

² Screeners are women who have presented for a screening mammogram within the past two years.

³ Under screeners are women who have had a screening mammogram, but have not had one within the past two years.

⁴ Never screeners are women who have never presented for a screening mammogram.

Three out of four of the respondents were English speakers born in Australia (E_0 : 72%; E_1 : 72%), while approximately one in ten women were from a non-English speaking background (E_0 : 12%; E_1 : 11%).

Table 2 shows the characteristics of the total boosted sample of women who reported that they have never had a screening mammogram (ie. never screeners). As seen in the core random sample, the majority of respondents were residents of NSW and the ACT combined, followed by Victoria, and then Queensland. In the pre-campaign survey, there were a greater number of women sampled from South Australia and the Northern Territory than in the post-campaign survey (E_0 : 18%; E_1 : 8%). In the pre-campaign survey an approximately equal proportion of women were sampled from city and country areas (E_0 : city 52%, country 48%), whereas nearly two in three women sampled in the post-campaign survey were from city areas (E_1 : city 65%, country 35%).

Table 2: Sample characteristics amongst the boosted samples of never screeners, 50-69 years.

		Pre-Campaign		Post-Campaign	
		n	%	n	%
Never Screeners – total boosted sample		203	100	204	100
State	NSW & ACT	58	29	73	36
	VIC	50	25	44	22
	QLD	34	17	29	14
	SA & NT	36	18	17	8
	WA	15	7	15	7
	TAS	10	5	26	13
Location	City	105	52	132	65
	Country	98	48	72	35
Education	Primary	19	9	22	11
	Some secondary	59	29	40	20
	Secondary	64	32	62	30
	TAFE/College	32	16	41	20
	University	29	14	39	19
Occupation	Upper white	62	31	69	34
	Lower white	54	27	66	32
	Blue collar	66	33	54	26
	Never worked	21	10	15	7
Work status	Full-time	37	18	41	20
	Part-time	43	21	52	25
	Not working	122	60	110	54
Country of birth	Australia	136	67	145	71
	Other ESB	26	13	22	11
	NESB	41	20	37	18

Women who had never screened were most likely to have had a secondary education (E_0 : 32%; E_1 : 30%), followed by some secondary schooling (E_0 : 29%; E_1 : 20%). Across both studies, never screeners were significantly more likely to have completed primary schooling only (E_0 : 9%; E_1 : 11%) than the core random sample (E_0 : 4%; E_1 : 5%). In the pre-campaign survey never screeners were significantly less likely to have a university education (14%), when compared with the core sample of women (18%).

In the pre and post-campaign survey there was a similar proportion of never screeners who had worked in upper white-collar occupations (E_0 : 31%; E_1 : 34%), lower-white occupations (E_0 : 27%; E_1 : 32%) and blue-collar occupations (E_0 : 33%; E_1 : 26%). Never screeners were significantly more likely to have never worked (E_0 : 10%; E_1 : 7%) than were respondents in the core random sample (E_0 : 4%; E_1 : 3%). Over half of the never screeners were currently not working (E_0 : 60%; E_1 : 54%), which was a significantly larger proportion than women in the core sample (E_0 : 44%; E_1 : 44%).

A greater proportion of never screeners were from a non-English speaking background (E_0 : 20%; E_1 : 18%) than were women in the core random sample (E_0 : 12%; E_1 : 11%).

Table 3 describes the characteristics of women who have presented for a screening mammogram, but not within the last two years (ie. under screeners). It can be seen that nearly half of the under screeners interviewed lived in either NSW or the ACT (E_0 : 45%; E_1 : 46%), and approximately two out of three lived in city areas (E_0 : 65%; E_1 : 69%). Under screeners were found to have similar levels of education as those women who had never screened. Under screeners were significantly more likely to have a primary education only (E_0 : 12%; E_1 : 15%) than the core random sample (E_0 : 4%; E_1 : 5%), and were less likely to have studied at university (E_0 : 10%; E_1 : 16%) than the core sample (E_0 : 18%; E_1 : 20%).

There were no differences found regarding occupational status amongst under screeners and the core random sample. However under screeners were more likely to currently not be working (E_0 : 59%; E_1 : 60%) than were women in the core sample (E_0 : 44%; E_1 : 44%).

Similar to never screeners, the under screeners sampled were also found to have a higher proportion of NESB women than those in the core sample. The proportion of NESB women amongst the under screeners (E_0 : 22%; E_1 : 26%) sampled was double that of the core sample (E_0 : 12%; E_1 : 11%).

Table 3: Sample characteristics amongst the boosted samples of under screeners, 50-69 years.

		Pre-Campaign		Post-Campaign	
		n	%	n	%
Under Screeners – total boosted sample		105	100	105	100
State	NSW & ACT	47	45	48	46
	VIC	27	26	21	20
	QLD	9	9	10	10
	SA & NT	12	11	10	10
	WA	7	7	8	8
	TAS	3	3	8	8
Location	City	68	65	72	69
	Country	37	35	33	31
Education	Primary	13	12	16	15
	Some secondary	23	22	20	19
	Secondary	31	30	31	30
	TAFE/College	27	26	20	19
	University	11	10	17	16
Occupation	Upper white	35	33	37	35
	Lower white	35	33	37	35
	Blue collar	30	29	27	26
	Never worked	5	5	4	4
Work status	Full-time	25	24	25	24
	Part-time	18	17	16	15
	Not working	62	59	63	60
Country of birth	Australia	58	55	63	60
	Other ESB	24	23	15	14
	NESB	23	22	27	26

Table 4 shows the sample characteristics of women from non-English speaking backgrounds. The largest proportion of women were sampled from NSW and the ACT (E_0 : 37%; E_1 : 46%), followed by Victoria (E_0 : 35%; E_1 : 25%). There was a significantly greater proportion of NESB women sampled from city areas (E_0 : 84%; E_1 : 78%) compared with those found in the core sample (E_0 : 63%; E_1 : 64%).

The screening behaviour of NESB women differed significantly from women in the core random sample. Just over half of NESB women stated they were 'screeners' (E_0 : 59%; E_1 : 59%) compared with three out of four women in the core sample (E_0 : 74%; E_1 : 76%). Similarly, one in four NESB women stated that they had never screened (E_0 : 26%, E_1 : 24%) compared to women in the core sample (E_0 : 16%; E_1 : 15%).

Table 4: Sample characteristics amongst the boosted samples of women from non-English speaking backgrounds (NESB), 50-69 years.

		Pre-Campaign		Post-Campaign	
		n	%	n	%
NESB women – total boosted sample		161	100	157	100
State	NSW & ACT	60	37	73	46
	VIC	57	35	40	25
	QLD	14	9	13	8
	SA & NT	19	12	9	6
	WA	11	7	17	11
	TAS	0	0	5	3
Location	City	136	84	123	78
	Country	25	16	34	22
Screening Behaviour	Screeners	95	59	93	59
	Under screeners	24	15	27	17
	Never screeners	42	26	37	24
Education	Primary	32	19	45	29
	Some secondary	30	19	23	15
	Secondary	54	34	34	21
	TAFE/College	22	14	31	20
	University	23	14	24	15
Occupation	Upper white	35	22	45	29
	Lower white	47	29	44	28
	Blue collar	61	38	57	36
	Never worked	18	11	11	7
Work status	Full-time	24	15	23	15
	Part-time	24	15	25	16
	Not working	112	70	109	69
Country of birth	Southern Europe	50	31	49	31
	Northern Europe	35	22	47	30
	Asia	15	9	23	15
	Middle East	5	3	11	7
	Central Asia	4	2	16	10
	Africa	4	2	3	2
	South/Central America	2	1	4	2
	Other/	31	19	4	2
	Not answered	15	9	0	0

The educational status of the NESB women sampled was significantly lower than that found amongst the respondents in the core sample. NESB women were more likely to have completed primary school education only (E_0 : 19%; E_1 : 29%) when compared to the core sample (E_0 : 4%; E_1 : 5%). NESB women were more likely to be in blue-collar occupations (E_0 : 38%; E_1 : 36%) than were the core sample (E_0 : 27%; E_1 : 22%). NESB women were also less likely to be in an upper white-collar occupation (E_0 : 22%; E_1 : 29%) than were the respondents in the core sample (E_0 : 32%; E_1 : 37%).

Over half of the NESB women sampled were born in either southern (E₀: 31%; E₁: 31%) or northern Europe (E₀: 22%; E₁: 30%). Asia and Central Asia were the continents where the next largest proportion of women had been born.

7.3 Data Analysis and presentation of results

Statistical tests were conducted in order to establish whether changes in responses within surveys and across the pre-campaign and post-campaign studies were statistically significant. In this report, where significant increases and decreases between sub-groups are reported in the text, a significant difference at a 95 per cent confidence level has been established.

The data will be presented thematically, according to the following four areas:

- Recall of advertising and awareness of the Program;
- Knowledge and opinions about BreastScreen Australia;
- Behaviours related to detecting breast cancer; and
- Rationale behind breast cancer screening behaviour.

Each thematic area in the results section begins with an explanation of the survey question, followed by the responses of the primary target audience of women aged 50-69 years. Any significant differences noted amongst women 50-69 years have been explored according to:

- screening behaviour (screeners, under screeners, never screeners);
- socio-economic status (upper white collar, lower white collar, blue collar, never worked);
- education level (primary school, some secondary, secondary school, TAFE/college, university); and
- English speaking status [non-English speaking background (NESB), Australian-born English speaking background (AESB); or other English-speaking background (OESB)].

The views of women 40-49 years have also been explored, and any significant differences found between 40-49 year old women and 50-69 year old women have been included in the results.

8.0 RESULTS

8.1 Recall of Advertising and Awareness of the Program

8.1.1 Awareness of communication about screening mammograms

To measure unprompted awareness of screening mammograms, women were asked whether they had read, seen or heard any information about screening mammograms in the recent past. Just over half of all women 50-69 years recalled having recently read, seen or heard information about screening mammograms in the pre-campaign and post-campaign surveys (E₀: 53%; E₁: 54%).

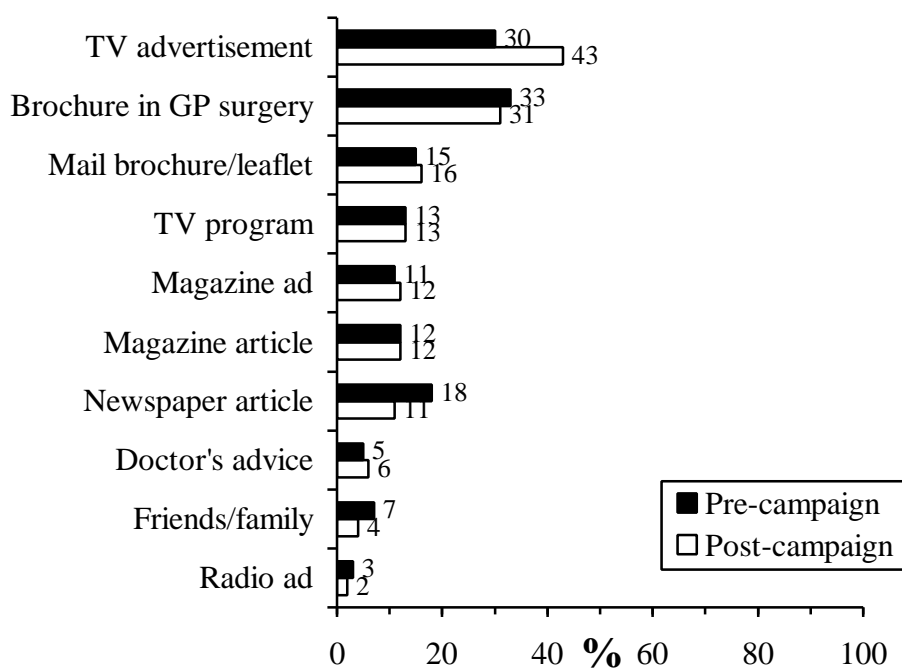
There was no significant difference found in the awareness of information about screening mammograms between women aged 40-49 and 50-69 years, nor was there a difference found between the pre-campaign and post-campaign surveys for these age groups.

In the pre-campaign survey, women aged 50-69 years who had never screened were significantly more likely to report an awareness of communication about screening mammograms (65%) when compared with women who screen (51%). In the post-campaign survey no differences were apparent amongst these sub-groups (E_1 : screeners 56%, under screeners 49%, and never screeners 57%).

8.1.2 Sources of information on screening mammograms

Those respondents who were aware of any information about screening mammograms were asked where they had read, seen or heard this information. In the post-campaign survey, the most common sources of information amongst women 50-69 years, were television commercials (43%), seeing a brochure at a GP surgery, hospital or clinic (31%), or mail brochure/leaflet (16%). There was a significant increase following the campaign in the proportion of women reporting television as the source of information (E_0 : 30%; E_1 : 43%). Following the campaign, there was a decline in the proportion of women stating newspaper articles as a source of information (E_0 : 18%; E_1 : 11%). Figure 2 illustrates women's unprompted recall of sources of information about screening mammograms. All of the information sources cited by women related to mass media, apart from 'doctor's advice' (E_0 : 5%; E_1 : 6%) and 'family/friends' (E_0 : 7%; E_1 : 4%).

Figure 2: Unprompted recall of sources of recent information on screening mammograms, 50-69 years.



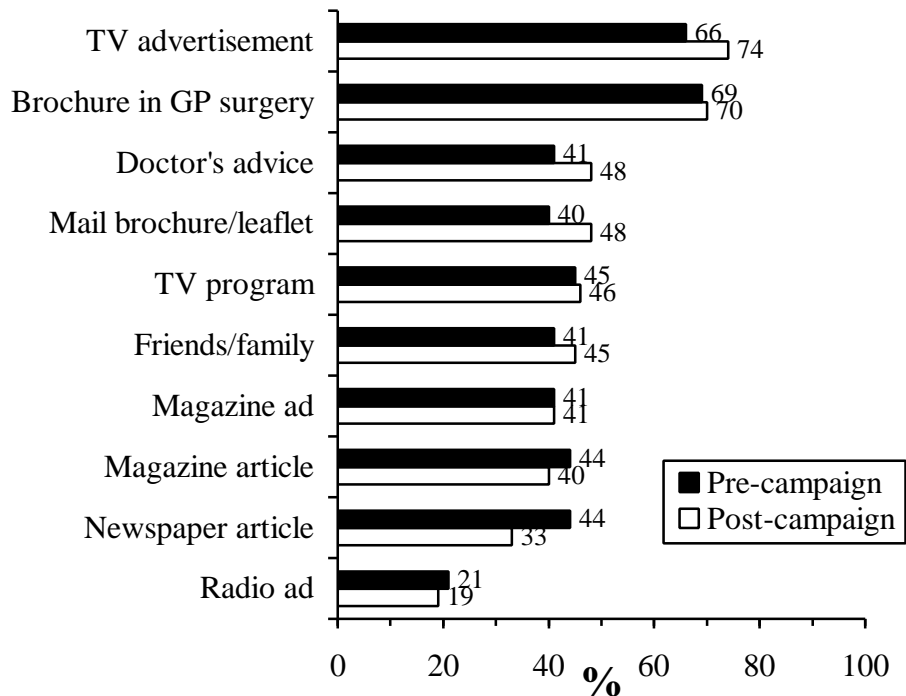
Base: Those who recalled information about screening mammograms

Figure 3 shows the most frequently cited sources of information about screening mammograms following prompting. When respondents aged 50-69 years were prompted with the various sources of information regarding screening mammograms, the highest level of recall in the post-campaign survey were television commercials (74%), brochures in GP surgeries (70%), doctor's advice (48%) and mail brochures/leaflets (48%). Significant increases in prompted recall following the campaign related to television commercials (E_0 : 66%; E_1 : 74%) doctor's advice (E_0 : 41%; E_1 : 48%) and mail

brochures/leaflets (E₀: 40%; E₁: 48%). A significant decline in recall of communication about screening mammograms following the campaign was found with newspaper advertisements (E₀: 38%; E₁: 31%) and newspaper articles (E₀: 44%; E₁: 33%). As with the previous figure, all of the information sources cited by women related to mass media, apart from 'doctor's advice' (E₀: 41%; E₁: 48%) and 'family/friends' (E₀: 41%; E₁: 45%).

There were some differences found in prompted sources of information between women aged 40-49 and 50-69 years in the post-campaign survey. The 50-69 year old women were significantly more likely to have: seen a brochure in a GP surgery, hospital or clinic (E₁: 50-69 yrs 70%; 40-49 yrs 58%); seen a mail brochure/leaflet (E₁: 50-69 yrs 48%; 40-49 yrs 16%); and been given advice from their doctor to have a screening mammogram (E₁: 50-69 yrs 48%; 40-49 yrs 35%).

Figure 3: Prompted recall of sources of recent information on screening mammograms, women 50-69 years



Base: Those who recalled information about screening mammograms

8.1.3 Proven recall of television advertising

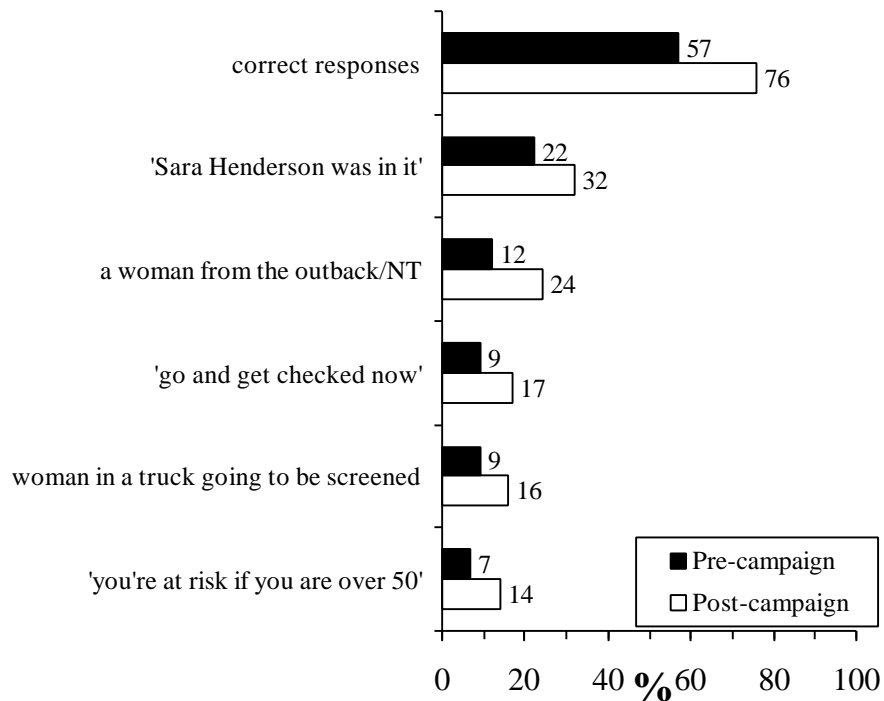
Proven recall of television advertising was measured by asking those respondents who recalled seeing television advertising to say everything that they could remember about the advertising they had seen on mammographic screening recently. These responses are used to validate whether or not the advertising recalled was related to campaign activity.

Amongst respondents 50-69 years who had seen television advertising, 76 per cent were able to correctly recall the campaign advertising, a significant increase from the pre-campaign survey (57%). The statements most commonly cited to describe the content of the advertising are shown in Figure 4. Proven recall of messages increased significantly across studies for all of the items shown.

Three of the five most common descriptions of the advertising related to Sara Henderson as the focus of the advertisements. For example, following the campaign, awareness of ‘Sara Henderson being in it’ increased (E_0 : 22%; E_1 : 32%); ‘it related to a woman from the outback’ (E_0 : 12%; E_1 : 24%), and ‘a woman in a truck going to be screened’ (E_0 : 9%; E_1 : 16%). Similarly, statements about the message ‘go and get checked now’ (E_0 : 9%; E_1 : 17%) and ‘you’re at risk if you are over 50’ (E_0 : 7%; E_1 : 14%) doubled in the post-campaign survey.

In the pre-campaign survey there was no difference in the proportion of correct responses amongst screeners and never screeners (both 57%). However following campaign activity, screeners (77%) were significantly more likely to correctly describe the advertising than women who had never screened (65%). Similarly, women who screened were significantly more likely in both studies (E_0 : 24%; E_1 : 31%) to spontaneously recall Sara Henderson being in the advertisement than women who had never screened (E_0 : 7%; E_1 : 19%).

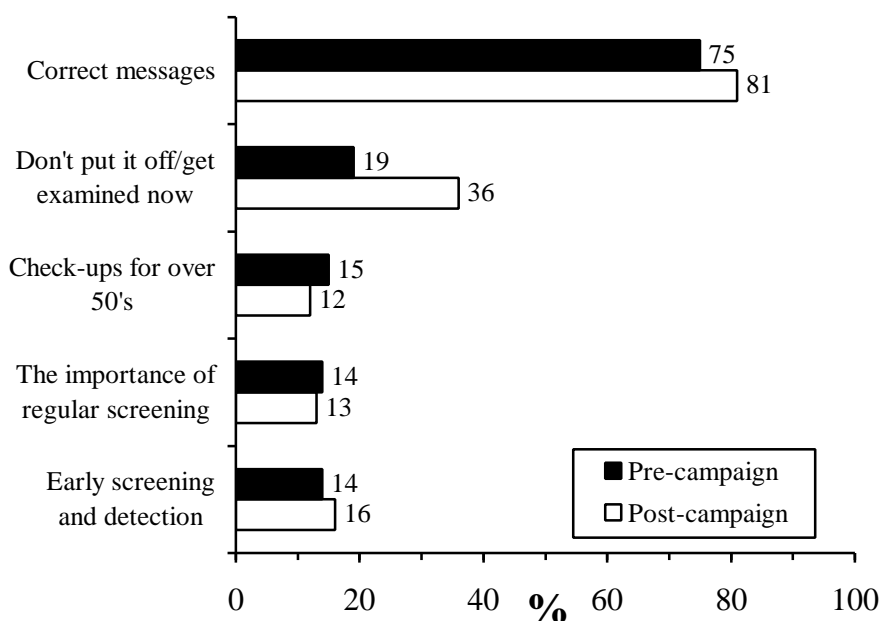
Figure 4: Proven recall of television advertisements, women aged 50-69 years.



Base: Those women who recalled television advertising about screening mammograms

8.1.4 Main message of television advertising

Women who could recall television advertising were asked what they thought was the main message of the advertising. Approximately three in four women aged 50-69 years reported a correct message from the advertising in the pre-campaign (75%) and post-campaign (81%) surveys. There was a significant increase in the proportion of women who stated the message ‘don’t put it off/get examined now’ following the campaign (E_0 : 19%; E_1 : 36%). The reporting of other main messages by these women, shown in Figure 5, did not differ significantly following the campaign.

Figure 5: Main message of television advertising, women aged 50-69 years

Base: Those women who recalled television advertising about screening mammograms

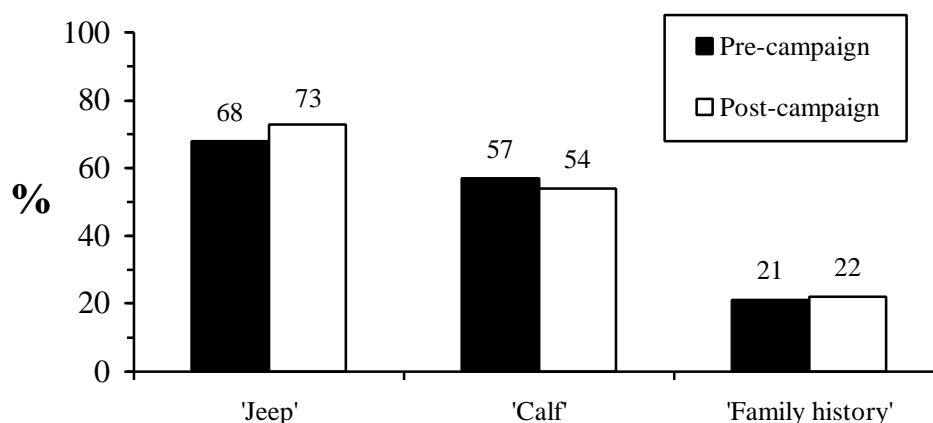
There were no differences found in message recall between women 40-49, women 50-69 years, women with different screening behaviour patterns nor women from English and non-English speaking backgrounds.

8.1.5 Recognition of the television campaign

Women were then specifically asked if they recalled some advertising set in the outback featuring Sara Henderson talking about breast cancer and screening mammograms. Following the campaign almost nine in ten women 50-69 years (87%) recalled seeing, reading or hearing this advertising.

Recognition of the television advertising campaign was determined by asking respondents to identify the commercials from the description read out to them. Respondents were asked if they recognised the commercials in both the pre and post-campaign surveys. Figure 6 shows the proportion of women 50-69 years who recognised the three commercials.

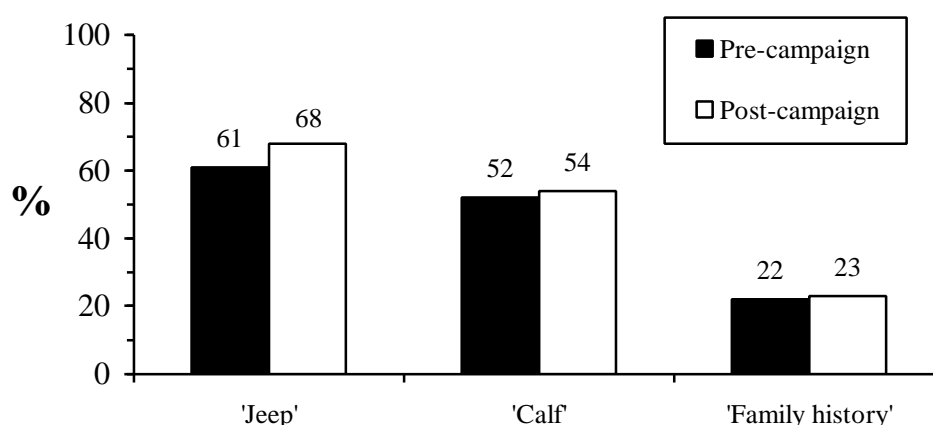
The 'Jeep' TVC was most commonly recognised, with more than two in three women recognising the description provided, reflecting a significant increase in women recognising this TVC following this booster phase of campaign advertising (E_0 : 68%; E_1 : 73%). Over half of the respondents 50-69 years recognised the 'Calf' TVC (E_0 : 57%; E_1 : 54%), whilst two in ten women recognised the 'Family history' TVC (E_0 : 21%; E_1 : 22%). There was no increase in recognition for these two commercials following campaign advertising.

Figure 6: Recognition of television campaign components, women 50-69 years

Base: Total core sample of women aged 50-69 years

In the post-campaign survey, women 50-69 years who never screen (58%) or under screen (64%) were less likely to recognise the 'Jeep' TVC than women who screen (75%). Women from non-English speaking backgrounds were less likely, in the post-campaign survey, to have recognised the 'Jeep' (51%) and the 'Calf' (35%) commercials when compared with women from an English speaking background ('Jeep': 73%; 'Calf': 57%). Similarly, women from an upper white occupational group were less likely to recognise the 'Jeep' (66%) and 'Calf' (50%) commercials in the post campaign survey compared with women from blue-collar occupational groupings (E₁ 'Jeep': 77%; 'Calf': 61%).

Trends in awareness of the television campaign components amongst women 40-49 years were similar to women 50-69 years. Following the campaign more than four out of five women 40-49 years (84%) recalled seeing, reading or hearing this advertising. Recognition of the three TVCs before and after the wave of advertising among women 40-49 years is shown in Figure 7.

Figure 7: Recognition of television campaign components, women 40-49 years

Base: Total sample of women 40-49 years

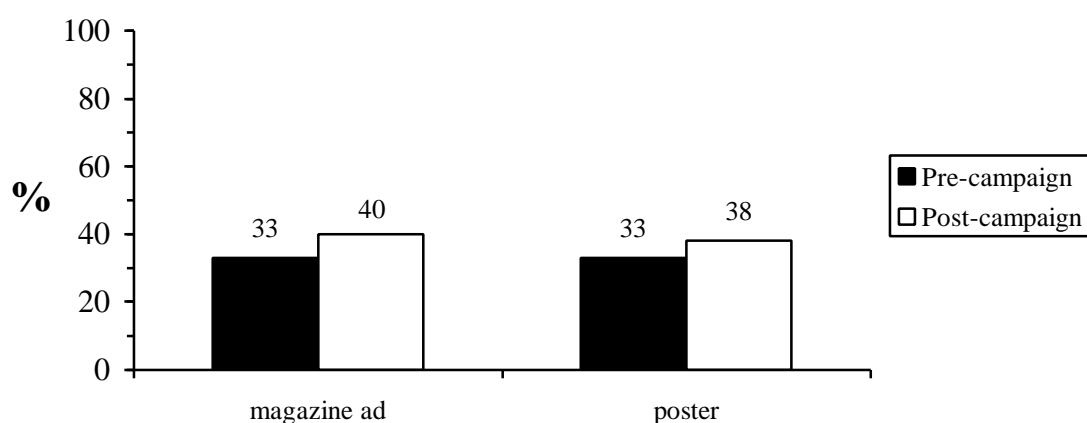
Women 40-49 years had a similar level of awareness of the three TVCs as women 50-69 years. The 'Jeep' advertisement was most commonly recognised by this younger cohort (E₀: 61%; E₁: 68%), followed by the 'Calf' TVC (E₀: 52%; E₁: 54%) and the 'Family

history' TVC (E_0 : 22%; E_1 : 23%). There was no increase in recognition for the three TVCs following this phase of advertising.

8.1.6 Recognition of the print campaign

Women were asked if they had seen either magazine advertising or posters in doctors' surgeries and health centres featuring Sara Henderson which provide information about breast cancer screening and breast cancer. Figure 8 shows the proportion of women 50-69 years who recognised the magazine and poster advertisements after prompting. Women in this age group were significantly more likely to report having seen both magazine advertising (E_0 : 33%; E_1 : 40%) and posters (E_0 : 33%; E_1 : 38%) following the campaign.

Figure 8: Recognition of print campaign components, women 50-69 years



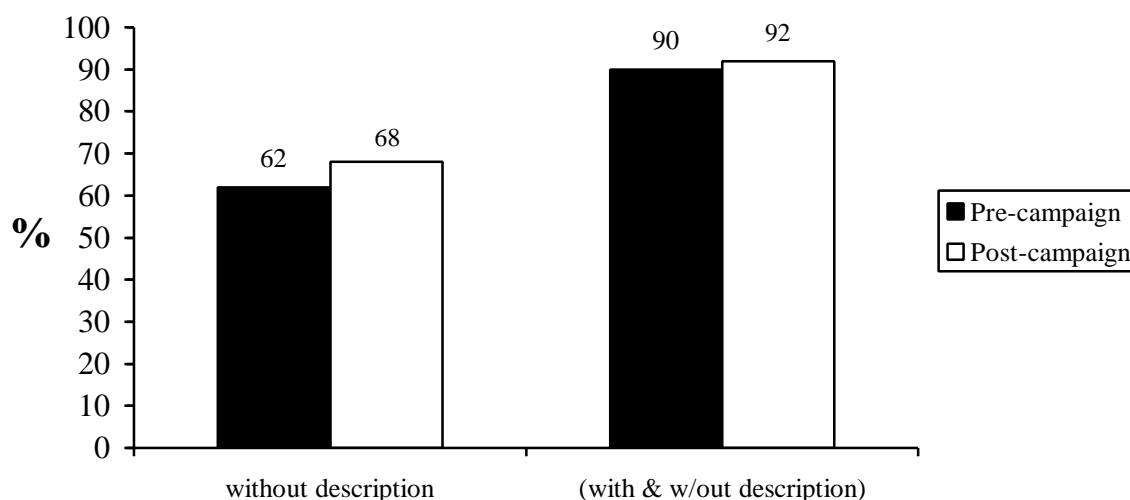
Base: Total core sample of women aged 50-69 years

In the pre and post-campaign studies, women who were screeners (E_0 : 35%; E_1 : 40%) were more likely to report having seen the poster advertisement than women who had never screened (E_0 : 25%; E_1 : 26%). In the pre-campaign survey, women from non-English speaking backgrounds (NESB) were significantly less likely to recognise the magazine or poster advertisements (both 24%) than Australian-born women from an English-speaking background (AESB) (magazine 36%, poster 34%). In the post-campaign survey recognition of the magazine advertisement was lower amongst NESB women (29%) when compared to AESB women (39%).

Women 40-49 years recalled the magazine and poster advertisements to a similar extent as did women 50-69 years. Approximately one in three women recalled the magazine ad when provided with a description (E_0 : 32%; E_1 : 35%). Slightly more women recognised the poster advertisement (E_0 : 35%; E_1 : 40%), however there was no increase in recognition of the magazine or poster advertisements following the campaign amongst this younger age group.

8.1.7 Awareness of BreastScreen Australia

Respondents were asked if they had ever heard of BreastScreen Australia. Figure 9 shows the proportion of women 50-69 years who reported an awareness of BreastScreen Australia. Amongst women 50-69 years, more than three in five women (62%) stated that they were aware of BreastScreen Australia in the pre-campaign survey. This level of reported awareness increased significantly to 68 per cent following the campaign.

Figure 9: Awareness of BreastScreen Australia, women 50-69 years

Base: Total core sample of women aged 50-69 years

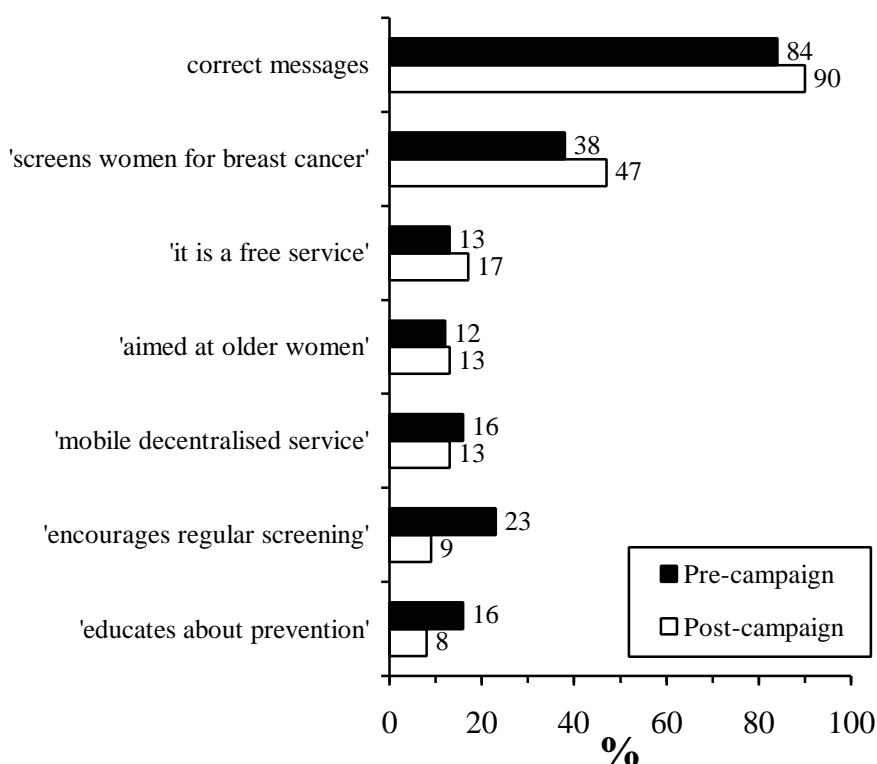
Those women who stated that they were not aware of the program were provided with a description of BreastScreen Australia. This description outlined the objectives and role of BreastScreen Australia: to provide free mammograms to women aged 50 to 69 years and to detect any signs of breast cancer so that effective treatment can be provided. Following the description, women were asked if they were aware of the program. Adding these results to the proportion of women 50-69 years who had previously reported an awareness of the program provided a cumulative total of nine out of ten women stating an awareness of the program (E_0 : 90%; E_1 : 92%).

No difference in awareness of the program amongst women 40-49 years and 50-69 years was found. However in both the pre and post-campaign survey, women 50-69 years who were screeners were significantly more likely to be aware of the program (E_0 : 65%; E_1 : 70%) than under screeners (E_0 : 53%; E_1 : 58%) and never screeners (E_0 : 49%; E_1 : 50%).

Women were also asked if they were aware that BreastScreen Australia services were located throughout Australia. Following the campaign, there was a significant increase in the proportion of the core sample 50-69 years who were aware that services were located throughout Australia (E_0 : 77%; E_1 : 84%). Women aged 50-69 years were significantly more likely to be aware of this fact (E_0 : 77%; E_1 : 84%) than women aged 40-49 years (E_0 : 70%; E_1 : 72%) across both studies.

8.1.8 Understanding of BreastScreen Australia

Women who had stated an awareness of BreastScreen Australia (without being provided with a description) were asked to report what they thought the program was about. Amongst women aged 50-69 years there was a significant improvement in the proportion of women across studies who could correctly identify what BreastScreen Australia did (E_0 : 84%; E_1 : 90%). Figure 10 shows the proportion of women who correctly reported an aspect of the program, and the most common explanations of its role.

Figure 10: Understanding of BreastScreen Australia, women 50-69 years

Base: Women with an unprompted awareness of BreastScreen Australia

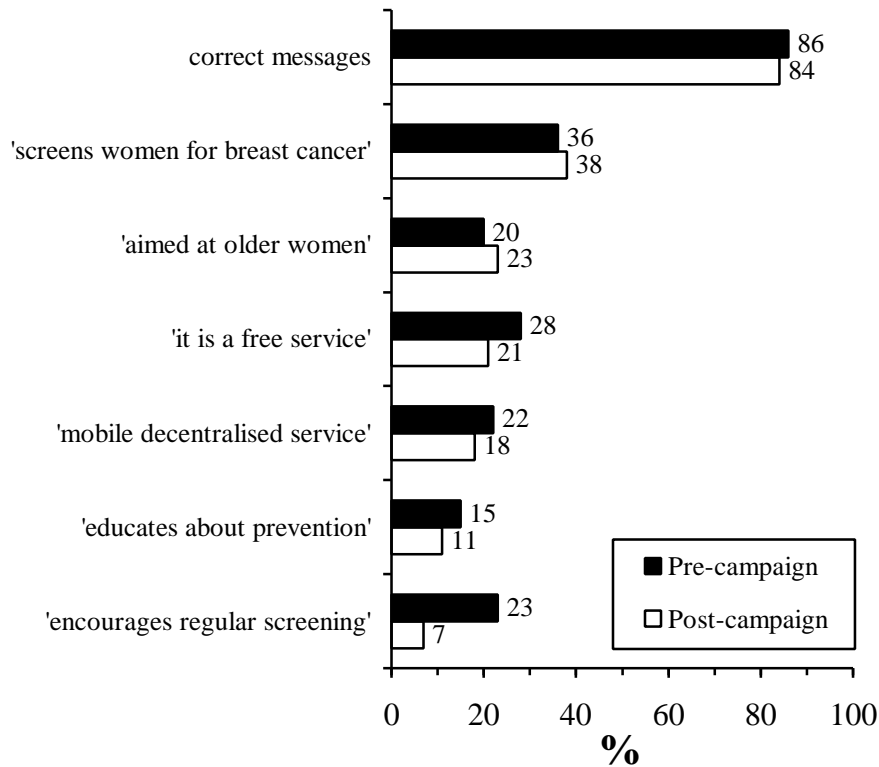
The unprompted responses about the role of BreastScreen Australia were consistent across the pre and post-campaign surveys, with an increase in women stating 'it screens women for breast cancer' following the campaign (E₀: 38%; E₁: 47%). There was a significant decline in respondents stating 'it encourages regular screening' (E₀: 23%; E₁: 9%) and that 'it educates about prevention' (E₀: 16%; E₁: 8%).

Amongst women 50-59 years who are screeners, there was an increase in the proportion who stated 'it screens women for breast cancer' following the campaign (E₀: 37%; E₁: 44%), and 'it is a free service' (E₀: 12%; E₁: 18%). However following this wave of advertising, there was a decline in the proportion of screeners who stated that BreastScreen Australia 'encourages regular screening' (E₀: 24%; E₁: 10%) and 'educates about prevention' (E₀: 17%; E₁: 8%). In the pre-campaign survey, screeners were more likely to state that BreastScreen Australia 'educates about prevention' (17%), than were never screeners (9%). Similarly, in the post-campaign survey, screeners were more likely to express their belief that BreastScreen Australia 'encourages regular screening' (10%) than were under screeners (2%).

The descriptions provided by women 40-49 years regarding their understanding of BreastScreen Australia are shown in Figure 11. Similar to women 50-69 years, four out of five women in this younger cohort could correctly identify what BreastScreen Australia did (E₀: 86%; E₁: 84%). The most commonly cited response was 'it screens women for breast cancer' (E₀: 38%; E₁: 36%), followed by 'it is a free service' (E₀: 28%; E₁: 21%), and 'it is a mobile decentralised service' (E₀: 22%; E₁: 18%). The proportion of women providing the response 'it encourages regular screening' was quite high in the pre-campaign survey

(E₀: 23%) but significantly lower in the post-campaign survey (E₁: 7%). Approximately one in five 40-49 year old women stated that 'it was a program aimed at older women' (E₀: 20%; E₁: 23%), which was significantly greater than that reported by the 50-69 year old cohort (E₀: 12%; E₁: 13%).

Figure 11: Understanding of BreastScreen Australia, women 40-49 years



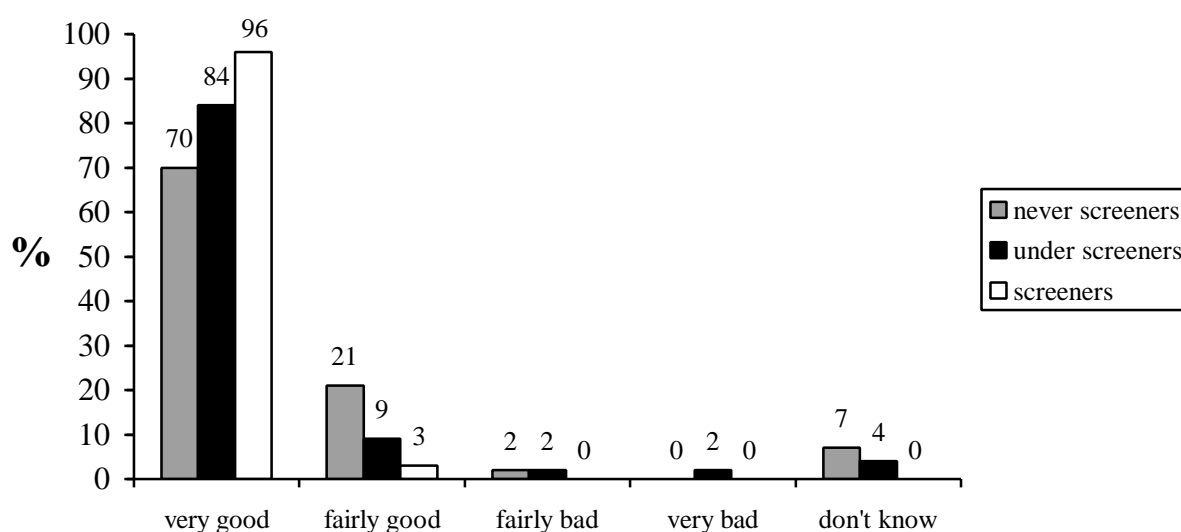
Base: Women with an unprompted awareness of BreastScreen Australia

8.1.9 Attitude towards screening women through BreastScreen Australia

All respondents were asked whether they thought screening women for breast cancer through BreastScreen Australia was a good or bad idea. Results for women 50-69 years were consistent between surveys, with a total of 98 per cent of women stating that screening was either a very good idea (E₀: 92%; E₁: 93%) or fairly good idea (E₀: 6%; E₁: 5%).

Women's own screening behaviour was associated with how likely they were to state that screening was a very good idea. Significant differences were found in responses between screeners (E₀: 95%; E₁: 96%) and never screeners (E₀: 78%; E₁: 70%) across both surveys. Figure 12 shows women's attitudes to screening according to their screening behaviour.

Figure 12: Attitudes to mammographic screening by women's own screening behaviour, 50-69 years, post-campaign study.



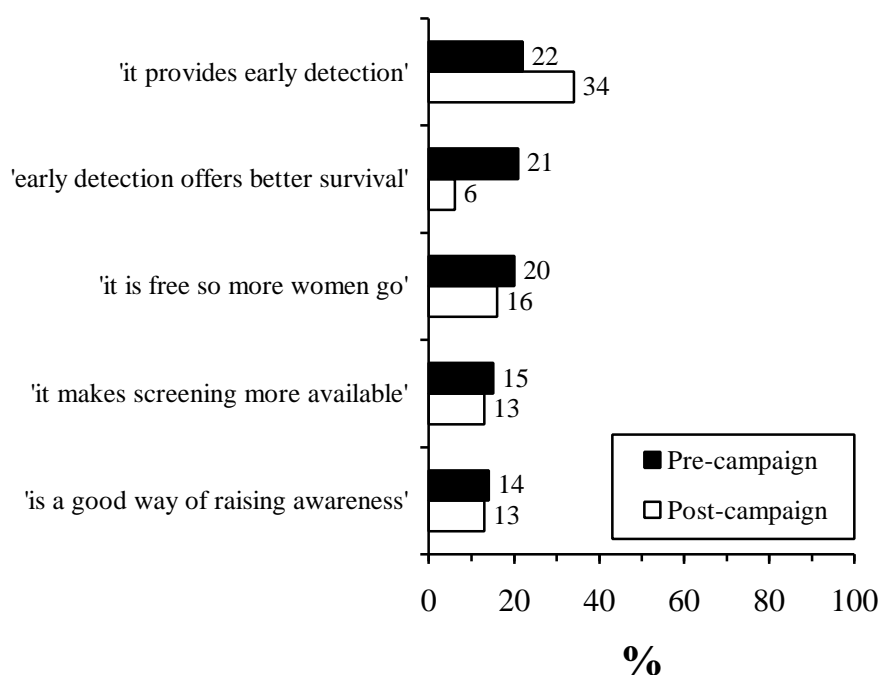
Base: Total core sample and boosted samples of women 50-69 years

Screening behaviour was also associated how likely women were to agree with the statement that screening was a fairly good idea. Significant differences were found amongst screeners (E_0 : 4%; E_1 : 3%) and never screeners (E_0 : 15%; E_1 : 21%) across both surveys. Differences were also found in the proportion of women who stated screening was a fairly good idea amongst under screeners (E_0 : 7%; E_1 : 9%) and never screeners (E_0 : 15%; E_1 : 21%).

In the pre-campaign survey women with some secondary education were significantly more likely to state screening was a very good idea (E_0 : 95%) compared with university educated women (E_0 : 86%). These differences were not noted in the post-campaign survey.

Women from English speaking and non-English speaking backgrounds (NESB) differed in their attitude towards mammographic screening. In the post-campaign survey, Australian-born (AESB) women and women from other English speaking backgrounds (OESB) were significantly more likely to rate breast cancer screening as a very good idea (E_1 : both 93%) than were NESB women (E_1 : 85%).

Women were asked to provide a reason for their attitude towards BreastScreen Australia. Figure 13 shows these results for women 50-69 years. Following the campaign, there was a significant jump in the proportion of women 50-69 years who stated that their positive attitude towards BreastScreen Australia was based on the fact that 'it provided early detection' (E_0 : 22%; E_1 : 34%). The percentage of women who stated that 'early detection offers a better chance of survival' (E_0 : 21%; E_1 : 6%) and 'it is free so more women go' (E_0 : 20%; E_1 : 16%) decreased significantly in the post-campaign study.

Figure 13: Reason for attitude to BreastScreen Australia, women 50-69 years

Base: Total core sample of women aged 50-69 years

The rationale for a positive attitude amongst women 40-49 years was comparable to women 50-69 years. For instance, following the campaign there was also a significant increase in the proportion of women 40-49 years who stated that their positive attitude towards BreastScreen Australia was based on the fact that 'it provided early detection' (E₀: 23%; E₁: 32%). Similarly, following the campaign there was a significant decline in the proportion of 40-49 year old women providing certain statements in support of their rationale for having a positive attitude to BreastScreen Australia. Examples include 'early detection offers a better chance of survival' (E₀: 27%; E₁: 12%), and 'it makes screening more available' (E₀: 21%; E₁: 10%).

There was a very small proportion of women 50-69 years who had a negative attitude towards breast cancer screening and who provided a rationale for this attitude (18 women out of 760 in the pre-campaign survey and 36 women out of 756 in the post-campaign survey). Amongst those women who provided a rationale for their negative attitude in the post-campaign survey, the basis for their opinion included: the belief that 'screening should target all women' (n=29); that 'exposure to x-rays can pose a problem' (n=12), and that 'the results can be misleading/unreliable' (n=7). Multiple responses were recorded.

8.2 Knowledge and Opinions about BreastScreen Australia

8.2.1 The salience of breast cancer compared with other diseases

Prior to any questions about breast cancer or mammography in the survey, women were asked to consider what health problems were of most concern to them at the moment (multiple responses recorded). Table 5 shows the proportion of all respondents over four surveys from 1995 to 2001 who spontaneously reported the health problems of concern to them. Breast cancer has remained the most frequently cited health problem across this time series (E_1 : 29%), and its salience has remained relatively stable over that period. Other cancers are also very prominent amongst women, and have been the second most frequently cited health problem over the four surveys, with over one in five women reporting it as a concern in 1995 (22%) and the 2000/2001 surveys (E_0 : 22%; E_1 : 24%), and slightly less in the 1997 (17%) post-campaign research.

There has been a steady and gradual increase in the salience of menopause amongst women 50-69 years, from one in ten women in 1995 (10%) to nearly one in five in the 2001 survey (18%). The significance of arthritis and rheumatism remained steady at one in seven women across the first two surveys and rose to approximately one in five women in the recent pre and post-campaign surveys. The salience of heart disease and heart attack was consistently reported by one in seven women as an issue (14%), but rose to one in five women in the most recent 2001 survey (20%). Interestingly, concern regarding cancer of the cervix has gradually declined over the four surveys from 12 per cent in 1995 to 8 per cent in 2001.

Table 5: The salience of health problems for women 50-69 years: 1995 to 2001

Issues	Benchmark 1995 (%)	Post-campaign 1997 (%)	Pre-campaign 2000 (%)	Post-campaign 2001 (%)
Breast Cancer	31	33	28	29
Other cancer	22	17	22	24
Menopause	10	13	16	18
Arthritis/rheumatism	14	14	22	18
Heart disease/heart attack	14	12	14	20
Cancer of the cervix	12	9	7	8

Base: Total core sample of women aged 50-69 years

Table 6 compares the salience of health issues across the 2000/2001 pre and post-campaign surveys spontaneously reported by women aged 40-49 and 50-69 years.

Table 6: The salience of health problems for women 40-49 and 50-69 years

Issues	Pre-campaign 2000 (%)		Post-campaign 2001 (%)	
	40-49 years	50-69 years	40-49 years	50-69 years
Breast Cancer	44	28	42	29
Other cancer	22	22	18	24
Menopause	22	16	35	18
Arthritis/rheumatism	7	22	15	18
Heart disease/heart attack	11	14	10	20
Cancer of the cervix	16	7	15	8

Base: Total core sample of women

It can be seen that breast cancer is the most salient health problem across both studies, with younger women (E_0 : 44%; E_1 : 42%) showing a significantly greater likelihood to report it as a concern compared with the older age group (E_0 : 28%; E_1 : 29%). In the post-campaign survey it can also be seen that menopause (35%) and cancer of the cervix (15%) rated higher as a health concern amongst 40-49 year olds than the 50-69 year age group (18% and 8% respectively).

Differences in the salience of breast cancer as a health problem were found in the pre-campaign survey between women from English and non-English speaking (NESB) backgrounds. AESB women (29%) and OESB women (33%) were significantly more likely to cite breast cancer as a health problem than were NESB women (16%). No significant differences were found in the post-campaign survey.

8.2.2 Knowledge about breast cancer

Women's knowledge about breast cancer was assessed by asking them to rate how strongly they agreed or disagreed with a series of statements relating to breast cancer. Table 7 shows these statements, the first four statements being correct and the last two statements incorrect. In general, it can be seen that there was a high level of agreement amongst women 50-69 years with the first three correct statements, and these responses have remained relatively consistent over time. Women's perceptions regarding the importance of age as a risk factor for breast cancer (the fourth correct statement) did change over time. In 1995, 55 per cent of 50-69 year olds agreed with the statement that 'the risk of breast cancer increases with age'. This proportion significantly increased to 67 per cent in 1997, and has remained relatively constant since then, reaching a high of 70 per cent in the 2001 post-campaign survey.

Table 7: The proportion of women aged 50-69 years who agreed with key statements about breast cancer

Statements	Proportion who strongly or partly agreed (%)			
	Benchmark 1995	Post-campaign 1997	Pre-campaign 2000	Post-campaign 2001
It is important to detect breast cancer early	99	99	98	100
Breast cancer can be successfully treated	89	91	94	93
The causes of breast cancer are unknown	70	71	72	67
The risk of breast cancer increases with age	55	67	65	70
Most women who develop breast cancer have a strong family history	74	60	72	69
Breast cancer is not the most common cause of death from cancer among Australian women	30	35	35	34

Base: Total core sample of women aged 50-69 years

The proportion of women who believe that a strong family history is a main cause for breast cancer significantly decreased from 74 per cent in 1995 to 60 per cent in 1997, then increased significantly between the 1995-1997 and 2000-2001 campaign phases (E_0 : 72%). This level of agreement remained relatively constant following the campaign at 69 per cent.

Table 8 shows the proportion of women aged 40-49 years who agreed with the statements about breast cancer. Similar to the 50-69 year old age group, women 40-49 years showed a high level of agreement with the first three correct statements, and their responses remained consistent over time. Agreement with the statement 'the risk of breast cancer increases with age' increased from 78 per cent in 1995 to 84 per cent in 1997, but declined significantly between the 1995-1997 and 2000-2001 campaign phases (E_0 : 77%). The proportion of women who agreed with the incorrect statement concerning the role of family history significantly decreased from 76 percent in 1995 to 63 per cent in 1997. No differences were noted in the 2000-2001 campaign surveys.

Table 8: The proportion of women aged 40-49 years who agreed with key statements about breast cancer

Statements	Proportion who strongly or partly agreed (%)			
	Benchmark 1995	Post-Campaign 1997	Pre-Campaign 2000	Post-Campaign 2001
It is important to detect breast cancer early	100	99	98	100
Breast cancer can be successfully treated	90	90	92	91
The causes of breast cancer are unknown	65	67	67	68
The risk of breast cancer increases with age	78	84	77	79
Most women who develop breast cancer have a strong family history	76	63	69	66
Breast cancer is not the most common cause of death from cancer among Australian women	27	32	36	33

Base: Total core sample of women aged 40-49 years

There was little difference amongst women 40-49 years and 50-69 years in their agreement with the first three correct statements. However, in both surveys, women 40-49 years were significantly more likely (E_0 : 77%; E_1 : 79%) than 50-69 year olds (E_0 : 65%; E_1 : 70%) to recognise the role of age in increasing the risk of developing breast cancer. Women 40-49 years were quite similar (66%) to the 50-69 year old group (69%) with respect to their inflated perceptions of the role of family history in predicting the risk of breast cancer in the post-campaign survey.

8.2.3 Perceived age to commence breast cancer screening

Respondents were asked at what age they believed women should commence having a screening mammogram. The results are shown in Table 9 from 1995 to 2001.

Table 9: The perceived age women should commence screening, 50-69 years

Age	Perceived age to commence screening (%)			
	Benchmark 1995	Post-campaign 1997	Pre-campaign 2000	Post-campaign 2001
18-29 years	29	18	24	22
30-39 years	26	23	26	26
40-49 years	25	33	31	34
50-69 years	5	15	12	11
None/don't know	15	11	6	7

Base: Total core sample of women aged 50-69 years

It can be seen that most respondents in each survey believed that screening should begin at a much earlier age than the recommended screening age. Only 5 per cent of women in 1995 recommended the 50-69 year age group as the time to begin screening. This proportion trebled to 15 per cent in 1997, but had significantly declined between 1997 and 2000 (E_0 : 12%) and remained constant in the post-campaign survey (E_1 : 11%). The proportion of women who stated 40-49 years as the recommended age to commence screening also increased significantly from 1995 to 1997, (25% to 33%) and remained relatively constant through the recent pre (31%) and post-campaign (34%) surveys.

The proportion of women who suggested 18-29 years did decrease between 1995 and 1997 (29% to 18%), however little improvement has since been achieved, with more than one in five women recommending this age group in the recent post-campaign survey (E_1 : 22%). Across all of the surveys, women with a secondary education level and lower occupational status were significantly more likely to recommend 18-29 years as the age group to commence screening when compared to women with a higher socioeconomic status and a university education. For example, in the pre-campaign survey, 31 per cent of women from blue-collar occupations recommended a screening age of 18-29 years compared with 19 per cent of women from 'upper white-collar' occupations. Similarly, in the post-campaign survey 27 per cent of women with a secondary education, compared with 15 per cent of women with university qualifications, recommended a screening age of 18-29 years.

Table 10 shows the views of women aged 40-49 and 50-69 years regarding the appropriate age to commence screening mammography. The most popular age group to commence screening amongst 40-49 year olds is the 40-49 year age period (E_0 : 40%; E_1 : 37%), followed by the 30-39 year age period (E_0 : 19%; E_1 : 25%) and the 18-29 year age period (E_0 : 23%; E_1 : 19%). The 50-69 year age period was the least likely to be recommended as the age to commence screening by women aged 40-49 (E_0 : 11%; E_1 : 11%) and 50-69 years (E_0 : 12%; E_1 : 11%) in both the pre and post-campaign surveys.

Table 10: The perceived age women should commence screening according to women 40-49 years and 50-69 years

Age	Perceived age to commence screening (%)			
	Pre-campaign 2000		Post-campaign 2001	
	40-49 years	50-69 years	40-49 years	50-69 years
18-29 years	23	24	19	22
30-39 years	19	26	25	26
40-49 years	40	31	37	34
50-69 years	11	12	11	11
none/don't know	6	6	7	7

Base: Total core sample of women

It can be seen that in the pre-campaign survey the older cohort (26%) were significantly more likely than their younger counterparts (19%) to nominate the 30-39 year age period as the appropriate time to commence screening. However the younger cohort (40%) were more likely to perceive the 40-49 year age period as the appropriate age to commence screening when compared to women aged 50-69 years (31%). In the post-campaign survey no significant differences were found across age groups, with 40-49 year age period remaining the most frequently reported age to commence screening for both age cohorts.

8.2.4 Rationale behind the perceived age to commence screening

Women's responses regarding what age they perceived as appropriate to commence screening were cross-tabulated against the rationale they gave for their perceptions. Table 11 shows the most common reasons women 50-69 years provided for their selection regarding the most appropriate age period to commence screening.

Table 11: The rationale behind the perceived age to commence screening, women aged 50-69 years

2001 Post-campaign survey Reason	The age period to commence screening %			
	18-29	30-39	40-49	50-69
'I think this is the age most at risk/when you have to start thinking of these things'	6	12	24	26
'Younger women are getting it'	26	19	10	0
'I've heard/know young people who have it'	17	25	13	2
'Detecting it early/better chances of cure'	17	7	8	1
'Your body changes at this age'	1	6	12	9
'If there's a family history, go as early as possible'	9	10	7	14
'This is when menopause starts'	1	2	14	16

Base: Total core sample of women aged 50-69 years

It can be seen that the majority of women aged 50-69 years in the post-campaign survey who suggested that the 18-29 age period was the appropriate age to commence screening based this opinion on the belief that 'younger women are getting it' (26%) and the fact that they have 'heard of young people who have it' (17%). These women also based their opinion on the belief that 'early detection increases the chances of cure' (17%).

The importance of early detection as a rationale for the commencement of screening diminished amongst those women who recommended the older age periods as the time to commence screening (E₁: 30-39 age period 7%; 40-49 age period 8%; 50-69 age period 1%).

Those women aged 50-69 years who chose the 40-49 (24%) and 50-69 (26%) age periods as the time to commence screening based their opinion on the belief that 'this is the age when you are most at risk'. The next most frequently cited reason for recommending the 40-49 age group (14%) and the 50-69 age group (16%) related to the onset of menopause.

8.2.5 Opinion on the most appropriate screening interval

Respondents were asked to comment on how frequently women should have a screening mammogram once they begin screening. The views of women aged 40-49 and 50-69 are compared below in Table 12.

Table 12: Preferred screening interval for women aged 40-49 years and 50-69 years.

Preferred screening interval	Pre-campaign 2000 (%)		Post-campaign 2001 (%)	
	40-49 yrs	50-69 yrs	40-49 yrs	50-69 yrs
Once every two years	47	61	45	64
Once a year	33	30	36	25
Less often than yearly	5	3	5	3
Twice a year or more	4	2	6	3
Don't know	11	4	9	4

Base: Total core sample of women

More than six out of ten women aged 50-69 years recommended biennial screening in both the pre and post-campaign surveys (E₀: 61%; E₁: 64%). Three in ten women 50-69 years recommended screening once a year in the pre-campaign survey (E₀: 30%), while this decreased to one in four in the post-campaign survey (E₁: 25%).

Less than half of the 40-49 year olds recommended screening once every two years (E₁: 45%), followed by about a third of women recommending once a year (E₁: 36%). Women aged 50-69 years were significantly more likely (E₁: 64%) than women 40-49 years (E₁: 45%) to suggest a screening interval of once every two years. Women aged 40-49 years (36%) were more likely than their older counterparts (25%) to nominate screening on a yearly basis in the post-campaign survey.

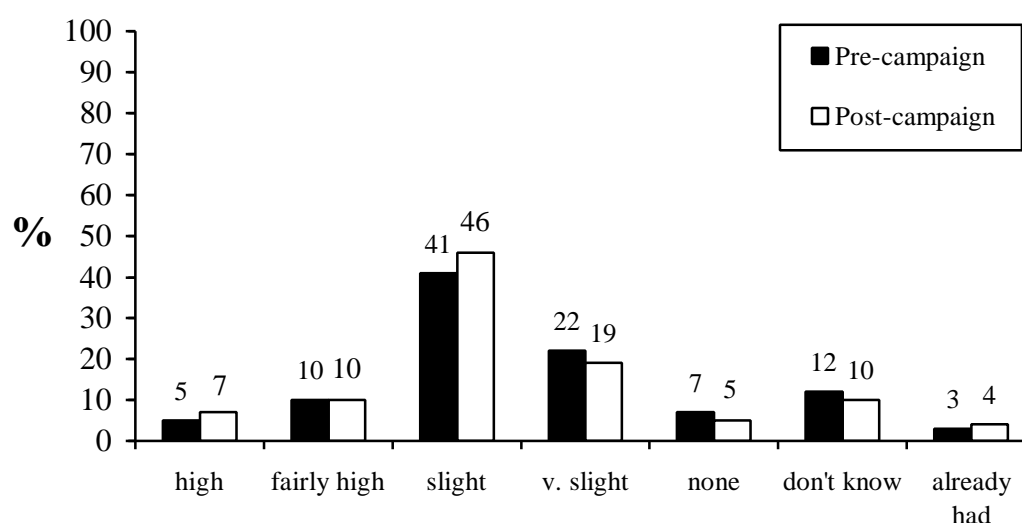
In the post-campaign survey amongst women 50-69 years, those women who were screeners (68%) were more likely to suggest a biennial-screening interval than women who under screened (50%) or never screened (32%). Amongst women who suggested screening on a yearly basis, there were no significant differences found according to screening behaviour.

Differences were found amongst women from English speaking and non-English speaking backgrounds. NESB women aged 50-69 years were less likely to suggest a biennial screening interval (E₀: 49%; E₁: 48%) than AESB women (E₀: 63%; E₁: 65%).

8.2.6 Perceived chance of developing breast cancer

Respondents were asked to consider what they thought were their chances that at some time in the future they might develop breast cancer. Figure 14 shows how women aged 50-69 years assessed their personal chances of developing breast cancer.

Figure 14: Perceived chance of developing breast cancer, women 50-69 years.



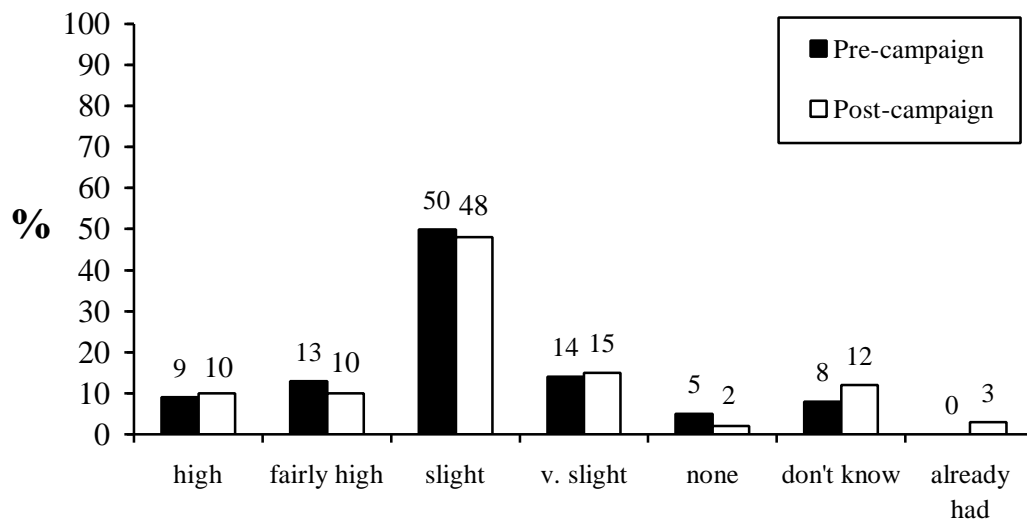
Base: The core sample of women 50-69 years

It can be seen that there was little difference across the pre and post-campaign surveys with respect to 50-69 year old women's perception of personally getting breast cancer at some time in the future. The greatest proportion of women in the post-campaign survey stated

that they perceived their chances of getting breast cancer to be slight (E_1 : 46%), followed by approximately one in five women believing that their chances were very slight (E_1 : 19%). One in ten women stated that their perceived chance of developing breast cancer was fairly high (E_1 : 10%), and one in fourteen women stated their chances were high (E_1 : 7%). A similarly small proportion of women believed that they had no chance of developing breast cancer (E_1 : 5%).

Figure 15 shows how women aged 40-49 years assessed their personal chances of developing breast cancer. In general, these women exhibited a similar pattern in their perceptions of their chances of getting breast cancer at some time in the future when compared to the 50-69 year cohort. Approximately half of all the women in the 40-49 year age group felt they had a slight chance of getting breast cancer (E_1 : 48%). One in ten women perceived their chances to be either high (E_1 : 10%) or fairly high (E_1 : 10%). A slightly greater proportion perceived their chances of developing breast cancer to be very slight (E_1 : 15%). A very small minority stated that they had no chance of developing breast cancer (E_1 : 2%).

Figure 15: Perceived chance of developing breast cancer, women 40-49 years

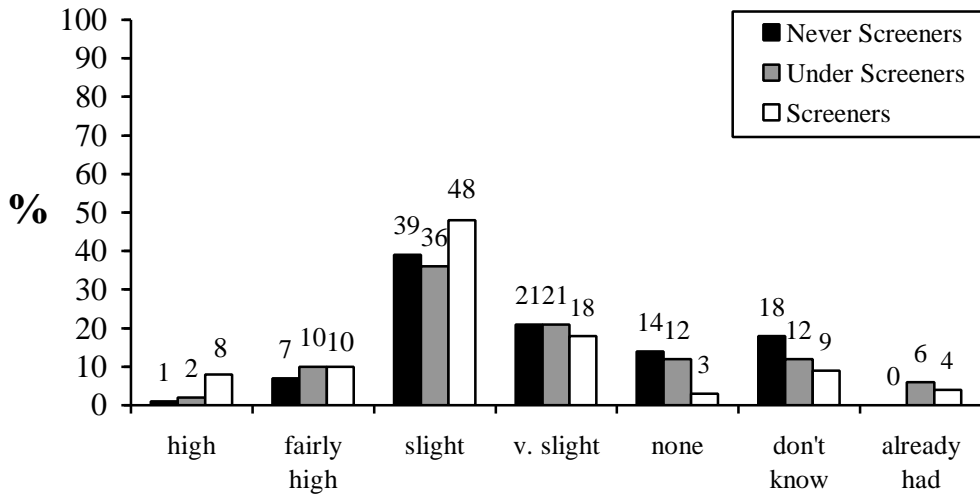


Base: The core sample of women 40-49 years

In the pre-campaign survey the younger cohort were significantly more likely to perceive their chances of developing breast cancer to be slight (50%) when compared to the older group (41%). However the younger cohort were less likely to perceive their chances as very slight (14%) when compared to women aged 50 to 69 years (22%).

Women's screening behaviour was also associated with women's perceived chance of developing breast cancer in the future. Figure 16 shows the perceived chance of developing breast cancer amongst women 50-69 years who are screeners, under screeners and never screeners.

Figure 16: Perceived chance of developing breast cancer by screening behaviour, post-campaign survey, women 50-69 years



Base: Core and boosted sample of women 50-69 years by screening status

Almost one in two women (48%) who have screening mammograms rated their chances of developing breast cancer in the future as slight and just under one in five (18%) rated their chances as very slight. In the post-campaign survey women who screen were significantly more likely to rate their chances of developing breast cancer as slight (48%) when compared to under screeners (36%) and never screeners (39%).

Compared to women who have either never screened (1%) or who under screen (2%), women who screen were significantly more likely to rate their chances of developing breast cancer as high (8%) in the post-campaign survey. Similarly, screeners were significantly less likely to believe that they had no chance of developing breast cancer (E₁: 3%) when compared with under screeners (12%) and never screeners (14%).

Women were asked to provide a rationale to explain their perceived chance of developing breast cancer. These views are shown in Table 13.

Table 13: Rationale behind women's perceived chance of developing breast cancer, post-campaign survey, women 50-69 years.

Post-campaign Survey	Perceived chance of developing breast cancer (%)				
	None at all n=38	Very slight n=146	Slight n=345	Fairly high n=72	High n=51
I have no family history of cancer	63	61	49	11	4
I look after myself / have healthy lifestyle	24	16	12	1	0
I think positively	25	7	4	5	0
I have regular check-ups	5	19	12	1	2
I have regular mammograms	3	12	16	5	0
I take/used to take hormones/the pill	8	1	4	5	8
I have a family history of cancer	3	7	16	36	63
All women have a chance of getting it	0	3	8	13	7
I have had problems with my breasts/lumps	3	3	5	15	15
It seems to be on the increase	0	0	1	12	9
I know people who have had it	0	1	1	8	9

Base: Total core sample of women aged 50-69 years who have not previously had breast cancer

From Table 13 it can be seen that the presence or absence of a family history of breast cancer was the strongest predictor influencing how women aged 50-69 years rated their perceived chance of developing breast cancer in the future. For instance, the majority of women who stated that they had a fairly high or high risk of developing breast cancer were most likely to base their opinion on a family history of breast cancer (36% and 63% respectively). Alternatively, those women who stated that their chances were slight, very slight or non-existent were most likely to base their reasoning on the fact that they did not have a family history of breast cancer (49%, 61% and 63% respectively). Other reasons women gave for believing that they had no chance of getting breast cancer in the future were based on 'thinking positively' (25%) and 'having a healthy lifestyle' (24%).

Women who believed that their chances were fairly high or high based their rationale, apart from family history, on having 'had problems with their breasts and/or lumps' (15% for fairly high and high), the fact that 'all women have a chance of getting it' (13% and 7%), and that 'it seems to be on the increase' (12% and 9%).

Apart from having no family history, women who perceived their chance of developing breast cancer to be slight or very slight based their opinion on having regular check-ups (12% and 19%), having a healthy lifestyle (12% and 16%), and having regular mammograms (16% and 12%).

8.2.7 Perceived relative likelihood of developing breast cancer

Women were asked to rank their relative likelihood of developing breast cancer in the future compared with the likelihood facing other women. Differences were noted in how women rated their relative likelihood according to their age. Table 14 shows these differences in perceived relative likelihood amongst women aged 40-49 years and 50-69 years.

Table 14: The perceived relative likelihood of developing breast cancer amongst women 40-49 and 50-69 years

Perceived relative likelihood	Pre-campaign 2000 (%)		Post-campaign 2001 (%)	
	40-49 years	50-69 years	40-49 years	50-69 years
The same	60	64	69	68
More likely	9	8	12	8
Less likely	31	28	19	24

Base: Total core sample of women who have not previously had breast cancer

It can be seen that amongst women aged 50-69 years, approximately two in three rated their relative likelihood as the same as other women (E_0 : 64%; E_1 : 68%). This was followed by one in four of these women stating that they were less likely than other women to develop breast cancer (E_0 : 28%; E_1 : 24%). Less than one in ten women aged 50-69 years stated they were relatively more likely to develop breast cancer (E_0 and E_1 : 8%).

Women in the 40-49 year old age group were similar in how they perceived their relative likelihood of developing breast cancer when compared to women aged 50-69 years. However two significant differences were found from the pre to post-campaign surveys amongst 40-49 year olds. There was an increase in the proportion of women who perceived their relative likelihood to be the same as other women (E_0 : 60%; E_1 : 69%) and a decline in the proportion of women who perceived their relative likelihood to be less than other women (E_0 : 31%; E_1 : 19%).

Amongst women 50-69 years in the post-campaign survey, screeners (22%) were significantly less likely to rate their relative likelihood of developing breast cancer as less than other women when compared to never screeners (34%). Interestingly, screeners (8%) were also significantly more likely than never screeners (2%) to believe that their relative likelihood to develop breast cancer was greater than other women.

8.2.8 Perceived effectiveness of methods to detect breast cancer

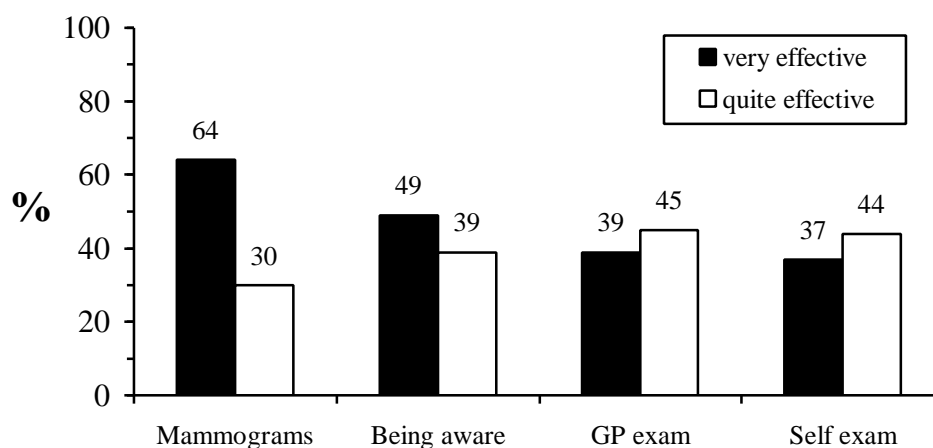
Women were asked to rate how strongly they believed in the efficacy of various detection methods for breast cancer. The detection methods included mammograms/breast x-rays, having a breast examination by a GP, self-examining your breasts and knowing or being aware of your own breasts.

In both the pre and post-campaign surveys women aged 50-69 years stated that mammograms were the most effective method of detecting breast cancer ('very' and 'quite effective' cumulative score of 94% in both surveys). The other detection methods were viewed quite highly in the order of: 'knowing or being aware of your breasts' (E_0 : 89%;

E_1 : 88%); followed by having a GP examination (E_0 : 86%; E_1 : 84%) and doing a breast self-examination (E_0 : 84%; E_1 : 81%). There was little difference in the perceived effectiveness of these detection methods amongst women aged 40-49 years and 50-69 years, nor was there a difference found between the pre and post-campaign surveys.

Figure 17 shows the proportion of women aged 50-69 years in the post-campaign survey who rated the four detection methods as very or quite effective.

Figure 17: Perceived effectiveness of four methods of detecting breast cancer, post-campaign survey, women 50-69 years



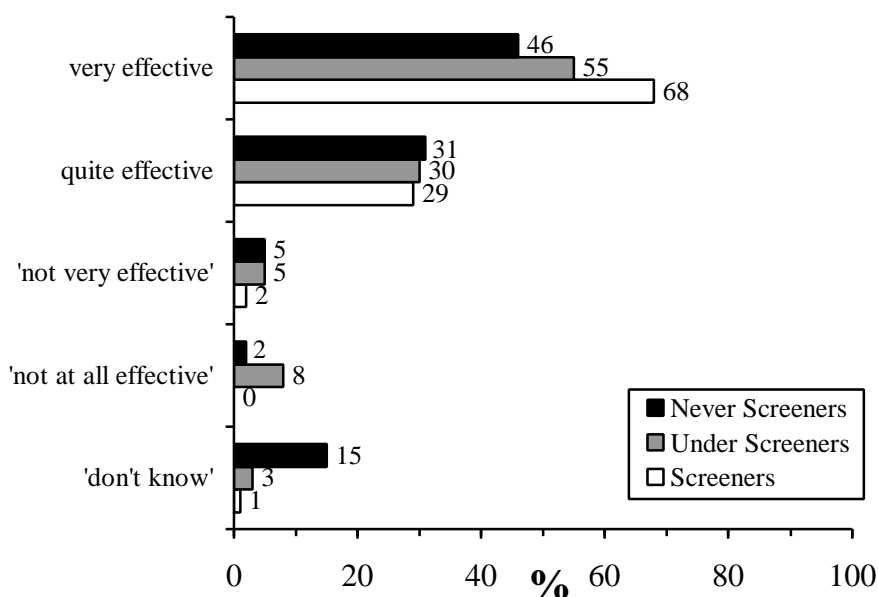
Base: Core sample of women 50-69 years

It can be seen that just under two out of three women rated mammograms as very effective in detecting breast cancer (64%). Approximately half of the women sampled rated 'knowing or being aware of their breasts' as a very effective method for the detection of breast cancer (49%), while just over one in three women rated GP examinations (39%) and self-examinations (37%) as an effective method for the detection of breast cancer.

Women from non-English speaking backgrounds were generally less likely to rate the various methods of detecting breast cancer as effective when compared to women from English speaking backgrounds. For example, in the pre-campaign survey, NESB women (84%) were significantly less likely to perceive screening mammograms as 'very' or 'quite effective' when compared to AESB women (95%) and OESB women (97%). Across both surveys, NESB women were less likely to rate 'knowing and being aware of your breasts' (E_0 : 78%; E_1 : 78%) as a 'very or quite effective' method of detecting breast cancer than AESB women (E_0 : 91%; E_1 : 89%). Similarly, NESB women did not rate GP examinations (76%) as 'effective' in detecting breast cancer in the pre-campaign survey as AESB women (84%).

The way women rated the effectiveness of screening mammograms varied according to their screening behaviour. Figure 18 illustrates these results. It can be seen that in the post-campaign survey, screeners (68%) were significantly more likely to rate mammograms as very effective when compared with under screeners (55%) and never screeners (46%).

Figure 18: Perceived effectiveness of mammograms across women 50-69 with different breast cancer screening behaviours, post-campaign study



Base: Core and boosted sample of women 50-69 years

Never screeners (2%) and under screeners (8%) were more likely to rate mammographic screening as 'not at all' effective in detecting breast cancer when compared to screeners (0%). Never screeners (15%) were also more likely than screeners (1%) and under screeners (3%) to state that they didn't know how effective mammographic screening was in detecting breast cancer.

8.3 Behaviours Related to Detecting Breast Cancer

8.3.1 Reported prevalence of checking for breast cancer

Early in the survey, respondents were asked whether they do anything to check that they have breast cancer. Amongst women aged 50-69 years and 40-49 years more than nine in ten women stated that they did do something (50-69 years E₀ and E₁: 93%; 40-49 years E₀: 90%; E₁: 92%). The actions that the respondents undertook to check for breast cancer are shown in Table 15 for women 40-49 and 50-69 years.

Table 15: The proportion of women who reported engaging in preventive actions to check for breast cancer (unprompted).

Unprompted actions to check for breast cancer (multiple responses allowed)	Pre-campaign 2000 (%)		Post-campaign 2001 (%)	
	40-49	50-69	40-49	50-69
Mammograms/breast x-rays	41	72	45	76
Self-examination	79	62	79	64
GP examination	42	28	38	28

Base: Women who reported taking preventive action without prompting

Approximately three in four women aged 50-69 years reported having a mammogram as a way for checking that they don't have breast cancer (E_0 : 72%; E_1 : 76%). More than three in five of these women reported self-examining their breasts as an action they undertook to check for breast cancer (E_0 : 62%; E_1 : 64%), followed by a smaller proportion reporting GP breast examinations (E_0 and E_1 : 28%).

It can be seen that there are large differences in the unprompted actions reported by women to prevent breast cancer across the two age cohorts. For instance, women aged 50-69 years are over one and half times more likely to report having a mammogram to assess whether they have breast cancer (E_0 : 72%; E_1 : 76%) than women aged 40-49 years (E_0 : 41%; E_1 : 45%). Conversely women 40-49 years (E_0 and E_1 : 79%) were significantly more likely than the older cohort (E_0 : 62%, E_1 : 64%) to rely on self-examination as a tool to check for breast cancer. GP examination rates reported by 40-49 year olds (E_0 : 42%; E_1 : 38%) were significantly higher than those rates reported by women 50-69 years (E_0 : 28%; E_1 : 28%).

Women were then specifically asked if they were doing any of these three actions to check that they don't currently have breast cancer. Table 16 shows the proportion of women who reported checking for breast cancer when prompted about these behaviours.

Table 16: Total reporting of behaviours to check for breast cancer (prompted and unprompted)

Total actions to check for breast cancer	Pre-campaign 2000 (%)		Post-campaign 2001 (%)	
	40-49	50-69	40-49	50-69
Mammograms/breast x-rays	56	86	59	89
Self-examination	84	81	86	80
GP examination	72	64	68	60

Base: Total core sample of women

Reports of having a mammogram to check for breast cancer increased amongst women in both age groups following prompting. Close to nine in ten women aged 50-69 years reported having had a mammogram to check for breast cancer (E_0 : 86%; E_1 : 89%), which was one and a half times greater than that reported by 40-49 year old women. Just over half of all women aged 40-49 years reported having a mammogram following prompting (E_0 : 56%; E_1 : 59%).

More than four out of five women in the 40-49 (E_0 : 84%; E_1 : 86%) and 50-69 (E_0 : 81%; E_1 : 80%) age groups reported undertaking breast self-examination when prompted. In both surveys, approximately seven out of ten women aged 40-49 years reported having a GP breast examination (E_0 : 72%; E_1 : 68%), which was greater than that reported by the 50-69 year olds (E_0 : 64%; E_1 : 60%).

8.3.2 Incidence of ever having a mammogram

A series of questions were used to ascertain the proportion of women reporting to have ever had a mammogram. Following the unprompted and prompted questions requesting women to state any actions they undertake to check for breast cancer (shown in Tables 15 and 16), women who did not report having ever had a mammogram were provided with an explanation of what a mammogram was and were asked if they had ever heard of the procedure. Of women 50-69 years who did not report having a mammogram to check for

breast cancer, more than nine in ten stated that they had heard of the mammography procedure before (E_0 : 95%; E_1 : 91%).

These women were then asked if they had personally ever had a mammogram. The results to this question were aggregated with the previous sub-total of prompted checks for breast cancer to create the total proportion of women to report having ever had a mammogram, shown in Table 17. Amongst women 50-69 years, it can be seen that a total of nine in ten women reported ever having had a mammogram (E_0 : 91%; E_1 : 92%).

Table 17: Total proportion of women who reported ever having had a mammogram

	Pre-campaign 2000 (%)		Post-campaign 2001 (%)	
	40-49	50-69	40-49	50-69
Ever had a mammogram/breast x-ray	61	91	64	92

Base: Total core sample of women

No significant differences were found amongst women from English and non-English speaking backgrounds, nor across women differing in socioeconomic status.

8.3.3 Recency of last mammogram

Those women who reported having ever had a mammogram were asked how long ago they had their mammogram. Table 18 presents this data as a proportion of the total sample for women aged 40-49 and 50-59 years. More than four in five women 50-69 years stated that they had had a mammogram within the last two years (E_0 : 83%; E_1 : 84%), as recommended by the program. Approximately three in five of these women reported having had their mammogram within the last year (E_0 : 59%; E_1 : 56%), with three in ten having their mammogram in the last six months (E_0 : 30%; E_1 : 26%) or in the last seven to twelve months (E_0 : 29%; E_1 : 30%). Less than one in three women 50-69 years stated that they had had their most recent mammogram within the last one to two years (E_0 : 24%; E_1 : 28%), and less than one in ten women stated that they had their last mammogram more than two years ago (E_0 : 7%; E_1 : 7%). There were no differences across the pre and post-campaign surveys regarding how recently these women had had their mammograms. Across both surveys approximately ten per cent of women 50-69 years had reported that they had never had a mammogram.

Table 18: Recency of last mammogram, women 40-49 and 50-69 years

	Pre-campaign 2000 (%)		Post-campaign 2001 (%)	
	40-49	50-69	40-49	50-69
	n=250	n=760	n=250	n=756
Less than 6 months ago	14	30	17	26
7 to 12 months ago	15	29	13	30
1 to 2 years ago	16	24	19	28
More than 2 years ago	16	7	13	7
Never had a mammogram	39	10	36	9

Base: Total core sample of women

With respect to differences according to English speaking status, AESB women were significantly more likely to have had their most recent mammogram within the last six months (E_0 : 31%; E_1 : 26%) or last seven to twelve months (E_0 : 31%; E_1 : 32%) when compared to NESB women (last six months: E_0 : 22%; E_1 : 17%, 7 to 12 months: E_0 : 17%;

E_1 : 16%,). Conversely, AESB women were significantly less likely to have had their last mammogram more than two years ago (E_0 : 6%; E_1 : 6%) than were NESB women (E_0 : 14%; E_1 : 17%). No differences were noted in recency of mammogram amongst women from varying socioeconomic levels, except in the pre-campaign survey where women with blue collar occupations were more likely to have had their last mammogram one to two years ago (30%) when compared to women with lower white collar occupations (17%).

Amongst all women aged 40-49 years approximately half of these women had a mammogram within the past two years (E_0 : 45%; E_1 : 49%). An approximate similar proportion of these younger women stated that their most recent mammogram was conducted either: within the last six months (E_0 : 14%; E_1 : 17%); the last seven to twelve months (E_0 : 15%; E_1 : 13%); one to two years ago (E_0 : 16%; E_1 : 19%), or more than two years ago (E_0 : 16%; E_1 : 13%). There were no differences across the pre and post-campaign surveys regarding how recently this younger cohort had had their mammograms. Across both surveys nearly four in ten women aged 40-49 years had reported that they had never had a mammogram (E_0 : 39%; E_1 : 36%).

8.3.4 Awareness of BreastScreen Australia conducting the mammogram

Women who had reported having had a mammogram and who were aware of BreastScreen Australia were asked if their mammogram was conducted at BreastScreen Australia. Amongst women 50-69 years, approximately two out of three of these women interviewed stated that it had been conducted at BreastScreen Australia (E_0 : 60%; E_1 : 68%). This proportion was significantly greater following the campaign. Approximately one in ten of these women aged 50-69 years were unsure as to whether their screening mammogram had been conducted at BreastScreen Australia (E_0 : 15%; E_1 : 10%). Over one in three women aged 40-49 years who had had a mammogram and who were aware of BreastScreen Australia stated it had been conducted at BreastScreen Australia (E_0 : 35%; E_1 : 37%).

To assist in clarifying whether the mammogram was conducted at BreastScreen Australia, women who had had a mammogram and were aware of BreastScreen Australia were asked if they had to pay any money for the mammogram. More than four in five of these women aged 50-69 years reported that the mammogram was free (E_0 : 84%; E_1 : 88%).

8.3.5 Intention to screen in the next six months

Women were asked how likely they would be to attend BreastScreen Australia for a screening mammogram within the next six months. Table 19 shows how likely women aged 50-69 years would be to screen within the next six months, cross-tabulated against how recently they had had a mammogram.

Table 19: Women's intention to have a screening mammogram by the recency of the last mammogram, post-campaign survey women 50-69 years

Likelihood of screening in next six months (%)	Recency of last mammogram (months/years ago)				
	0-6 mths (n=199)	7-12 mths (n=223)	1-2 yrs (n=215)	> 2 yrs (n=57)	Never had (n=61)
Very likely	15	32	59	33	19
Quite likely	9	12	15	29	14
Quite unlikely	15	13	6	2	12
Very unlikely	56	35	18	25	46
Neither / don't know	6	7	2	12	8

Base: Women who had ever had a mammogram

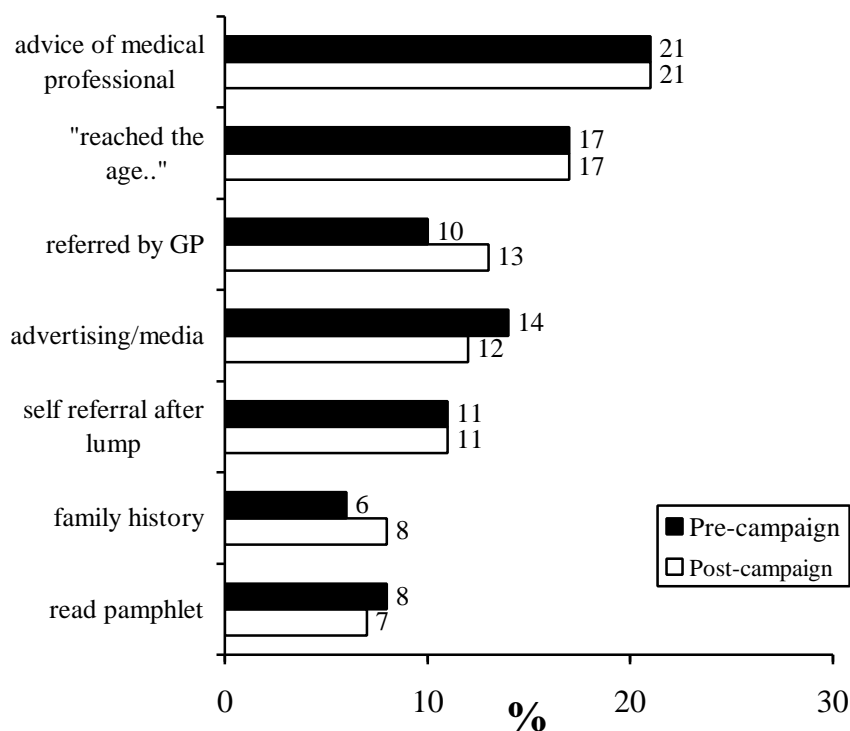
Amongst women who had had a mammogram in the last six months, the majority (56%) stated that they were very unlikely to screen within the next six months. Interestingly, 15 per cent of women who had screened in the previous six months, stated that they were very likely to screen in the next six months.

Of women who had screened in the previous 7-12 months, an approximately similar proportion stated that they were very likely (32%) and very unlikely (35%) to screen in the coming six months. Of those women who had had a mammogram during the past one to two years, 59 per cent stated that they were very likely and 15 per cent stated they were quite likely to screen within the next six months. Amongst women who are under screeners, a similar proportion stated that they were very likely (33%) or quite likely (29%) to screen in the next six months, with one in four women (25%) stating that they were very unlikely to screen. Amongst women who had never screened, just under half (46%) stated that they were very unlikely to screen within the next six months. Interestingly, one out of five women (19%) who had never screened stated that they were very likely to screen.

8.4 Rationale Behind Breast Cancer Screening Behaviour

8.4.1 Initial reason for having a mammogram

Women who had had a mammogram were asked what had prompted them initially to screen. The results from this question are shown in Figure 19 for women 50-69 years across the pre and post-campaign surveys.

Figure 19: Initial prompt to have a screening mammogram, women 50-69 years

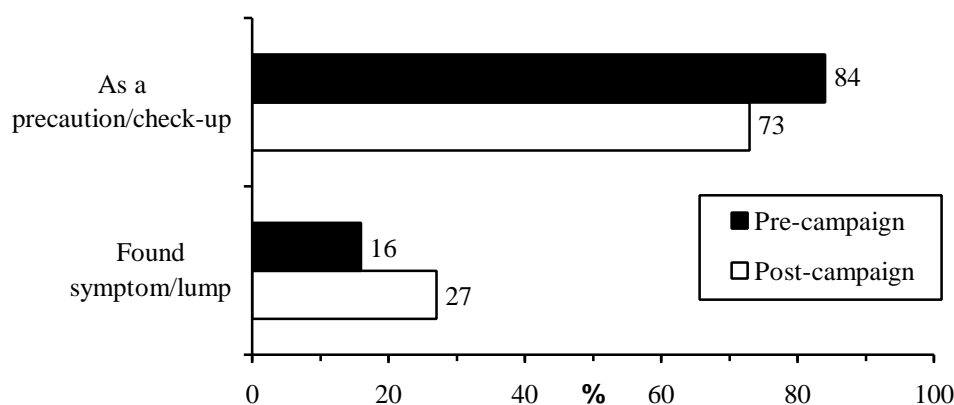
Base: Core sample of women 50-69 years who have ever had a mammogram

The most frequently cited reason for having a mammogram was following the recommendation of a medical professional (21%). Feeling that they had 'reached the age' also served as a motivating factor for the initial screen for approximately one in six women (17%). Advertising and the media also rated quite highly, with 12 per cent of women stating that it prompted them initially to screen in the post-campaign survey.

8.4.2 Rationale for having a mammogram amongst under screeners

Women aged 50-69 years who have had a screening mammogram but not in the past two years were asked to describe whether their mammogram was undertaken as a precautionary procedure or if it was as a result of finding a symptom or lump. Figure 20 shows that the majority of under screeners who had a mammogram did so for precautionary reasons (E_0 : 84%; E_1 : 73%, no significant difference). Approximately one in five under screeners reported that they had their mammogram as a result of finding a symptom or a lump in their breast (E_0 : 16%; E_1 : 27%, no significant difference).

In the pre-campaign survey, women with lower-white socioeconomic occupations (92%) who under screen were significantly more likely to have had their last mammogram as a precaution than were women with upper-white occupations (63%). No significant differences were noted amongst women from English speaking and non-English speaking backgrounds.

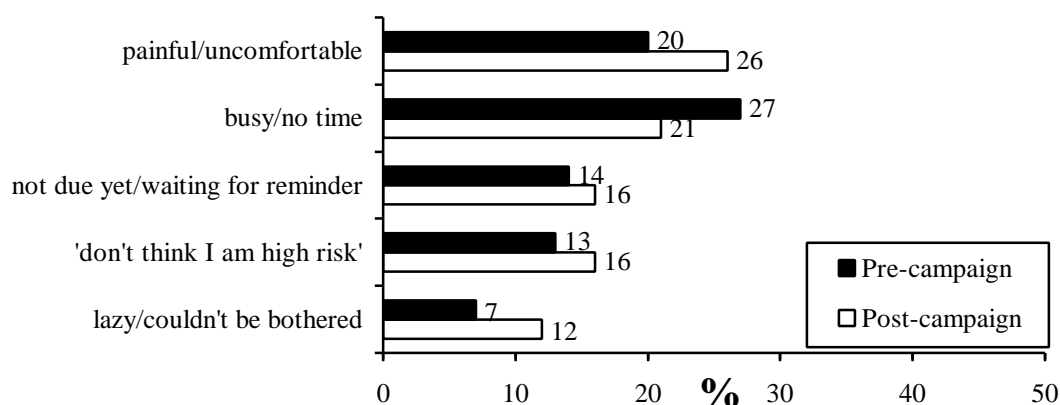
Figure 20: Reason for mammogram amongst under screeners

Base: Boosted sample of women who have not screened in two years or more

8.4.3 Barriers to screening amongst women who under screen

Women who have not screened within the past two years were asked about why they had not done so. Figure 21 shows the most commonly cited responses (multiple responses accepted) from women aged 50-69 years who under screen. It can be seen that in the post-campaign survey approximately one-quarter of these women most commonly cited mammograms being painful/uncomfortable (26%) and being busy (21%) as the reasons for not screening.

Other reasons provided for not screening regularly following the campaign were: 'not due yet' (16%); 'not thinking I am at risk' (16%) and 'being lazy' (12%). There were no differences found across the surveys, nor amongst women based on their cultural background or socioeconomic status.

Figure 21: Barriers to participating in screening by women who under screen.

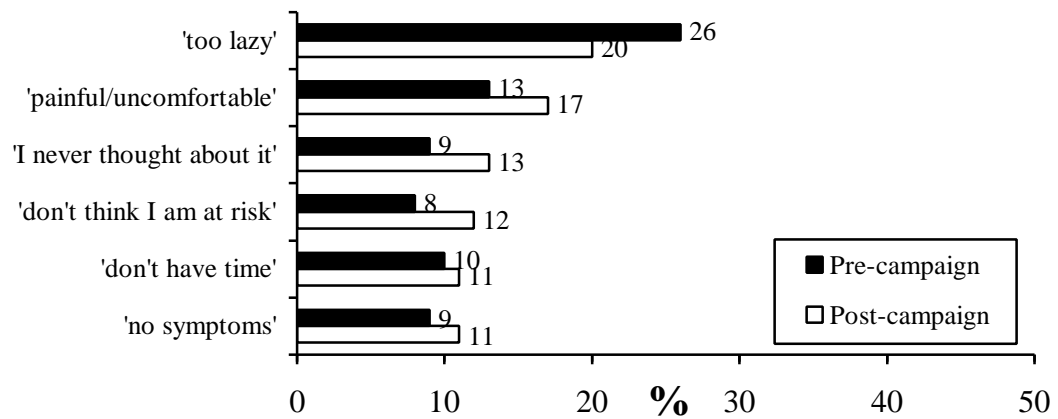
Base: Boosted sample of women who have not screened in two years or more

8.4.4 Barriers to screening amongst women who never screen

Women who have never had a mammogram were asked to explain why they had not done so. Figure 22 shows the most commonly cited responses (multiple responses accepted) from women aged 50-69 years who had never screened. 'Feeling too lazy / not having

gotten around to it' was the most commonly cited response explaining why women had never screened (E_0 : 26%; E_1 : 20%). Rating mammograms as too painful/uncomfortable was the second most commonly mentioned excuse for not screening (E_0 : 13%; E_1 : 17%). In the post-campaign survey women also commonly rated not having thought about it (13%), not believing that they are at risk (12%), and not having any symptoms (11%) as a rationale for not screening. No significant differences were found across surveys, nor amongst women based on their NESB or socioeconomic background.

Figure 22: Barriers to screening amongst women who have never screened



Base: Boosted sample of women who have never had a mammogram

9.0 DISCUSSION

Summary and Conclusions⁵

The 2000/2001 BreastScreen Australia Campaign was the fifth phase of national advertising activity following the campaign launch in 1995. Evaluation of this recent phase of advertising has shown very promising results with respect to awareness of the campaign and the BreastScreen Australia program; attitudes towards screening and commitment to screening behaviours. It has also provided insights into the barriers preventing women from screening regularly.

More than half of the target audience reported having recently seen, read or heard advertising about screening mammograms in the post-campaign survey recently (E_1 : 54%). There was little overall difference in this awareness level prior to this campaign phase (E_0 : 53%), which may reflect an increase in information about breast cancer and breast screening in the media in the lead up to Australia's Breast Cancer Day, which was held immediately prior to the launch of the campaign. Based on the limited nature of the media buy in this wave of advertising and a break in national advertising of approximately two and a half years, an awareness level of communication about screening mammograms of approximately 50 per cent amongst the target audience is reasonable. It reflects the reach of the most recent phase of the advertising coupled with the residual awareness of the campaign from previous waves of activity and other educational initiatives and media coverage of the topic.

In the post-campaign survey, positive results were found with respect to women's awareness of television advertising, their recall of the actual advertising, and their understanding of the main messages in this advertising. Television commercials were the most frequently cited sources of information, and the proportion of women 50-69 years who recalled television commercials increased significantly following the campaign, both in their unprompted (E_0 : 30%; E_1 : 43%) and prompted recall (E_0 : 66%; E_1 : 74%). When women were asked to describe the advertising, there was a significant jump in the proportion of women who were able to do so following the campaign (E_0 : 57%; E_1 : 76%). Respondents frequently mentioned Sara Henderson in their descriptions of these commercials. Following the campaign, close to nine in ten (87%) women indicated that they were specifically referring to the campaign commercials by reporting (unprompted) that they were set in the Australian outback and featured Sara Henderson. More than three out of four women were able to correctly report the main messages of the advertising (E_0 : 75%; E_1 : 81%).

Predictably, recognition of the magazine (E_0 : 33%; E_1 : 40%) and poster advertisements (E_0 : 33%; E_1 : 38%) were lower than the television components, however awareness of these advertisements did increase in the post-campaign survey.

Awareness levels of BreastScreen Australia have continued to rise since 1995 and increased further in the post-campaign survey (E_0 : 62%; E_1 : 68%). When women were prompted with a description of the program, awareness levels rose to more than nine in ten

⁵ Unless otherwise stated, the results in the discussion section relate to the primary target audience of women 50-69 years.

women (E_0 : 90%; E_1 : 92%). Women's understanding of what the program was about was also very high, with the vast majority of women accurately describing its purpose (E_0 : 84%; E_1 : 90%).

Attitudes towards BreastScreen Australia have been extremely positive, with nearly all women believing BreastScreen Australia to be a 'very' or 'fairly good' idea (E_0 : 98%; E_1 : 98%). Not surprisingly, women who had never screened (E_1 : 70%) were less likely to support BreastScreen Australia as a 'very good' idea when compared to women who screen (E_1 : 96%).

Breast cancer was rated as the most salient women's health issue amongst the target audience (E_0 : 28%; E_1 : 29%). It is interesting to note that a much larger proportion of women 40-49 years also rated it as the most salient concern (E_0 : 44%; E_1 : 42%).

When women's knowledge about breast cancer was investigated, the strengths and weaknesses of their understanding became clearer. Women are unanimous in agreeing that it is 'important to detect breast cancer early' (E_0 : 98%; E_1 : 100%), and there is a strong belief that 'it can be successfully treated' (E_0 : 94%; E_1 : 93%). Women's understanding of how 'the risk of breast cancer increases with age' has increased since 1995 (55%), to 65 per cent and 70 per cent respectively in the recent pre and post-campaign surveys. Interestingly, women 40-49 years displayed a greater understanding of the risks of breast cancer increasing with age (E_0 : 84%; E_1 : 79%).

When women were asked which age group they believed was at most risk of developing breast cancer, the most commonly cited response was women over 40 (29%), followed by women over 50 (27%) and all women equally (27%). Women's perception of the age at most risk of developing breast cancer, that is over 40 years, appears to be correlated with their views on the recommended screening age.

Women also displayed confusion regarding their knowledge of the role of family history in predicting a woman's risk of developing breast cancer. Approximately seven in ten women agreed with the statement that 'most women who develop breast cancer have a strong family history' (E_0 : 72%; E_1 : 69%). Moreover, the role of family history is perceived as an important predictor when assessing the personal chances of developing breast cancer at some time in the future. For example, amongst women who rated their chances of developing breast cancer as high, the most commonly stated reason related to a family history of breast cancer (E_1 : 63%). Similarly, the majority of women who perceived no chance of developing breast cancer based it on the absence of a family history of breast cancer (E_1 : 63%).

The majority of women surveyed supported the current program policy of screening for breast cancer biennially (E_0 : 61%; E_1 : 64%). However only a very small proportion of women agree with the BreastScreen Australia policy of commencing mammographic screening at the 50-69 age period (E_0 : 12%; E_1 : 11%). Instead, women most commonly believed screening should commence at the 40-49 age period (E_1 : 34%), followed by the 30-39 age period (E_1 : 26%). Over one in five women believed screening should commence at the 18-29 age period (E_0 : 24%; E_1 : 22%). When women were asked to describe their rationale for suggesting screening should commence with the 18-29 age period, the most commonly cited reasons included 'younger women are getting it' (26%) and 'detecting it early/better chances of cure' (17%). This second finding suggests that women are

confusing early detection of breast cancer with screening for breast cancer earlier in life, that is, at a younger age. Confusion regarding the perception of the most appropriate screening age may be associated with women's lack of understanding of age as the biggest risk factor for breast cancer. The research indicates that greater support regarding why the Program targets women 50 to 69 years could be expected if women's understanding of the rationale for commencing breast cancer screening at 50 years of age and the lower levels of efficacy of mammograms for younger women was increased.

The majority of women perceived mammographic screening to be a 'very' or 'quite effective' tool for the detection of breast cancer (E_0 : 94%; E_1 : 94%). Screening behaviour was strongly associated with the perceived effectiveness of mammograms: screeners were twice as likely (68%) to rate mammograms as 'very effective' when compared to under screeners (35%) and never screeners (30%) in the post-campaign survey.

Approximately three in four women reported having a mammogram (unprompted) as a way of checking for breast cancer (E_0 : 72%; E_1 : 76%). Following prompting, and a description of a mammogram, more than nine in ten women reported having ever had a mammogram (E_0 : 91%; E_1 : 92%). In total, based on the total core sample of women 50-69 years interviewed, over four in five women stated that they had had a mammogram within the last two years (E_0 : 83%; E_1 : 84%), as recommended by the program. While this reported behaviour is a positive indicator, it should be acknowledged that a social desirability bias to report positive health screening behaviours can influence results (Hancock, 1998). Recall bias can also occur, where, for example, not all women may recollect whether the mammogram was conducted in the public or private sector, or if it was conducted for screening or diagnostic purposes.

It should be noted that the proportion of women who reported having a mammogram within the last two years in the campaign evaluation survey was significantly greater than the participation rates from the BreastScreen Australia program. Data from BreastScreen Australia taken from 1997-1998 shows that 54 per cent of women 50-69 years reported having taken part in the BreastScreen Australia program within the last two years (AIHW, 2000). As noted in the AIHW report, the official participation rate is to some extent an underestimate, as it does not include other mammography for screening and diagnosis conducted outside of the program.

Amongst those women reporting having had a screening mammogram, approximately two in three women stated it was conducted at BreastScreen Australia (E_0 : 60%; E_1 : 68%). Some women were uncertain as to whether BreastScreen Australia had conducted the mammogram, however when asked, more than four in five stated that the mammogram was free (E_0 : 84%; E_1 : 88%), which is consistent with involvement with BreastScreen Australia.

The most common reasons provided by women for initially having a mammogram included: 'following the advice of a medical professional/GP' (21%); having 'reached the age' where screening is recommended (17%); being 'referred by a GP after an examination' (E_1 : 13%) and 'advertising/the media' (E_1 : 12 %).

When women's responses regarding their intention to screen in the next six months were compared to how recently they had screened, several interesting results were found. As expected, the majority of women who had screened in the previous six months stated that they were very unlikely to screen within the next 6 months (E_1 : 56%). However 15 per

cent stated that they were very likely to screen in the next six months, suggesting an interest in screening on an annual basis rather than the recommended biennial basis. The majority of women who had screened in the past 1-2 years stated that they were very likely to screen in the coming six months (E_1 : 59%), supporting their commitment to the program. However, nearly one in five (E_1 : 18%) women in this group stated that they were very unlikely to screen. The reasons these under screeners gave for not wanting to screen included being busy (E_1 : 21%), the mammogram being painful or uncomfortable (E_1 : 26%), and not thinking that they are personally at high risk (E_1 : 16%).

When women who had never screened were asked how likely it would be that they would screen in the next six months, the most frequently stated response was that it was very unlikely (E_1 : 46%). The reasons never screeners gave for not attending screening were similar to those of under screeners, and included being lazy (E_1 : 20%), mammograms being painful or uncomfortable (E_1 : 17%), never having thought about it (E_1 : 13%) and not believing that they are personally at risk (E_1 : 12%).

The reporting of physical discomfort associated with having a mammogram as a deterrent for under screeners and never screeners appears to be steadily increasing. For never screeners, the rationale that mammograms are too painful/uncomfortable would rely on the reports of other women who have screened rather than their own first hand experience.

Based on women's misunderstandings of the Program identified in this research, there are specific issues that could be further addressed. These areas include:

- the true role family history plays in determining breast cancer risk;
- the rationale behind why the Program screens women from 50 years of age, including:
 - the importance of age as the biggest risk factor;
 - an explanation of why mammographic screening is more suitable for older women;
 - clarification of the message regarding the benefits of finding breast cancer at an earlier stage rather than commencing mammographic screening at a younger ('earlier') age; and
- acknowledgment of the discomfort associated with having a mammogram.

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APPENDIX 1: THE 2000/2001 BREASTSCREEN AUSTRALIA CAMPAIGN MATERIALS

A. National Television Campaign Scripts

'Jeep' commercial



45 second script

"Sure I'm over 50 but I've never felt fitter. Still, I make sure I take damn good care of myself.

You see, when you're over 50, the risk of breast cancer increases.

So every two years since I've turned 50, I need to go to town for a mammogram. Town just happens to be a 10 hour drive away.

But for you, all you have to do is call 13 20 50 for a free mammogram near you.

Much smoother than the Bullo-Darwin road and a lot quicker.

If you're over 50 and you haven't had your free mammogram yet, well you bloody well should"!

30 second script

"Did you know that when you're over 50, the risk of breast cancer increases?"

So every two years since I've turned 50, I need to go to town for a mammogram. Town just happens to be a 10 hour drive away.

But for you, all you have to do is call 13 20 50 for a free mammogram near you. If you're over 50 and you haven't had your free mammogram yet, well you bloody well should"!

Graphics:

BreastScreen Australia logo

Call 13 20 50

Appendix 1

A: National Television Campaign Scripts (continued)

‘Calf’ – 30 second commercial



“They reckon I’m tough braving the outback, but you should have seen me trying to avoid a mammogram.

Then I found out that the biggest risk factor with breast cancer is age. When you’re over 50, a mammogram can pick up a cancer the size of a grain of rice, long before you’ll feel it.

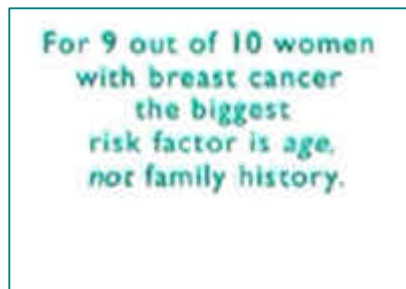
So I had a mammogram. Easy. So if you’re over 50, call 13 20 50 for your free mammogram. Don’t put it off any longer.”

Graphics:

BreastScreen Australia logo

Call 13 20 50

‘Family History’ – 15 second graphic commercial



“For 9 out of 10 women with breast cancer the biggest risk factor is age, not family history.

So if you’re over 50, call 13 20 50 now for your free mammogram.”

Spoken by Catherine Wilkin.

Graphics:

BreastScreen Australia logo

Call 13 20 50

Appendix 1

B. National Print Advertising Campaign

Poster

A poster for the BreastScreen Australia campaign. It features a woman wearing a black hat and a yellow shirt, holding a brown calf. The background is a soft-focus outdoor setting. The text is overlaid on the image.

The biggest risk factor for breast cancer?

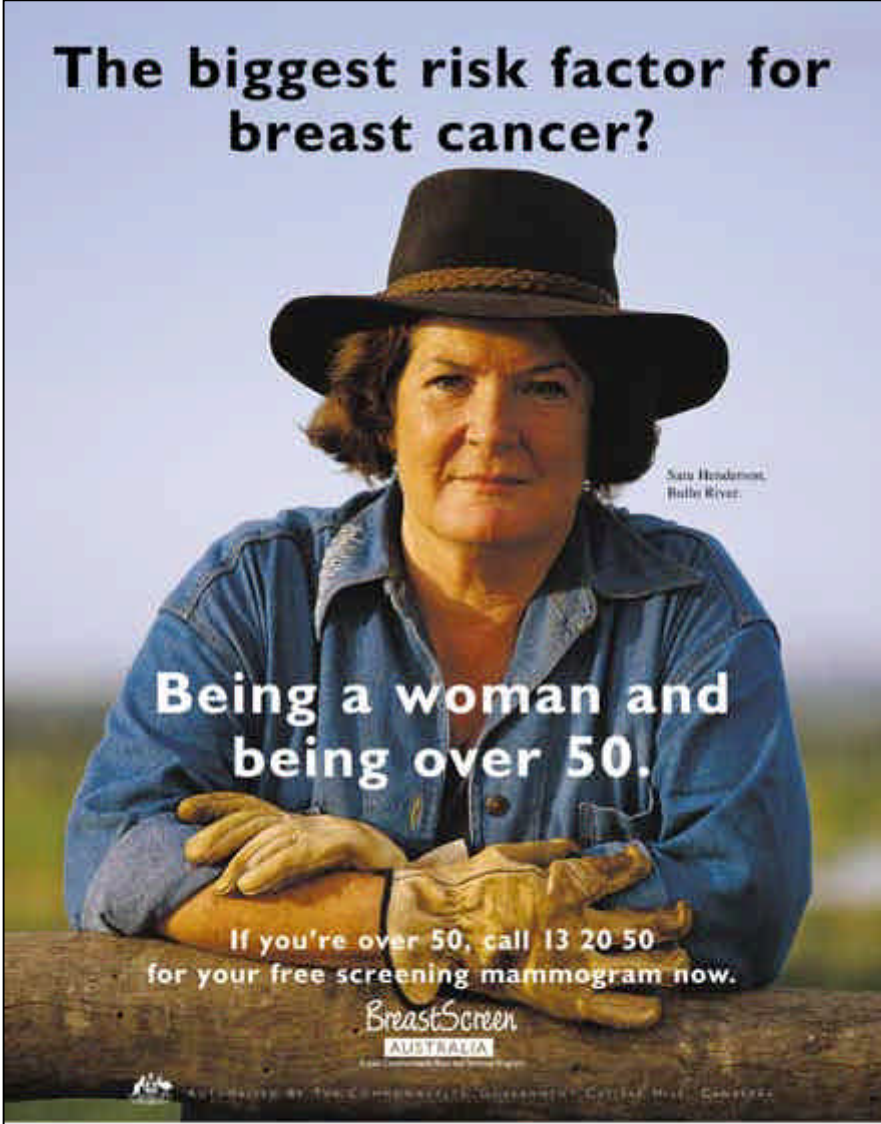
Sue Henderson, Bullo River

Being a woman and being over 50.

If you're over 50, call 13 20 50 for your free screening mammogram now.

BreastScreen AUSTRALIA
A Free Government-Funded Screening Program

Produced by The Commonwealth Government, Canberra

Appendix 1**B: National Print Advertising Campaign (continued)****Poster**

The biggest risk factor for breast cancer?

Sara Henderson, Bulbin River.

Being a woman and being over 50.

If you're over 50, call 13 20 50 for your free screening mammogram now.

BreastScreen AUSTRALIA

Authorised by the Commonwealth Government, Centrelink, Medicare

Details of the local BreastScreen Service

Appendix 1

B: National Print Advertising Campaign (continued)

Magazine advertisement



One woman in eleven develops breast cancer. Most of these women are over 50. The biggest risk factor is age, not family history. In fact, for 9 out of 10 women breast cancer is not hereditary.

Early detection is your best protection, giving you the very best opportunity for successful treatment and recovery. And when you're over 50, the best way to detect it early is with a screening mammogram. A mammogram can find a cancer as small as a grain of rice. That's long before you'll feel it.

Free screening mammograms are available through BreastScreen Australia and now there is a service near you. So don't put it off a minute longer. If you're over 50 call 13 20 50 to make an appointment now.

BreastScreen
AUSTRALIA

A joint Commonwealth/State and Territory Program

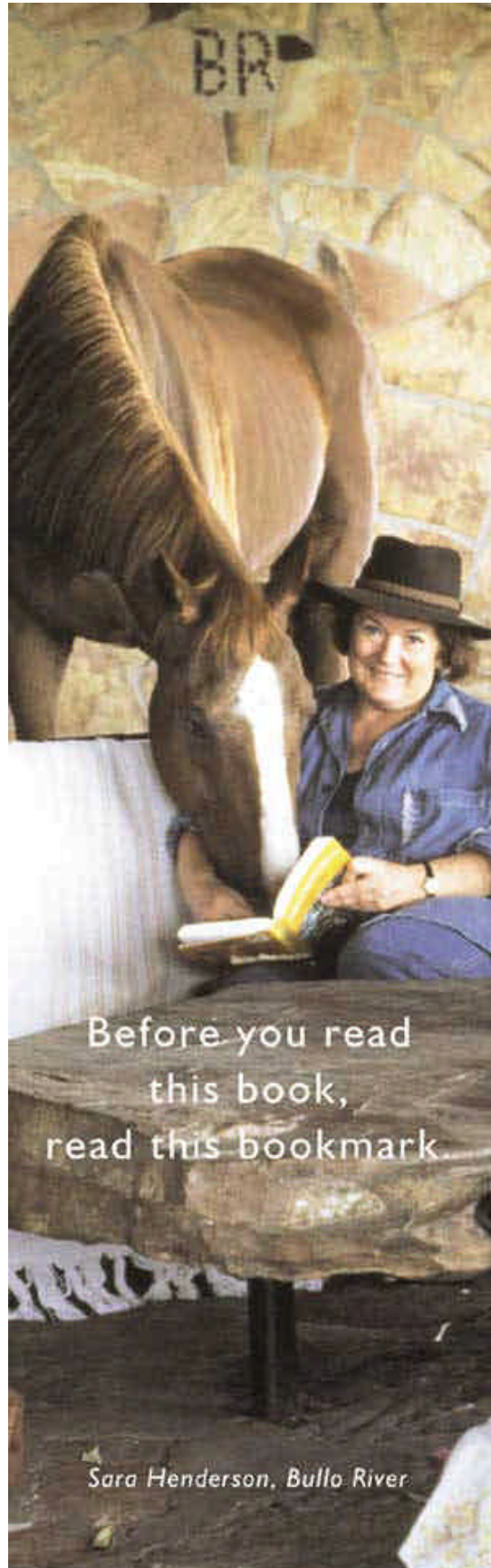


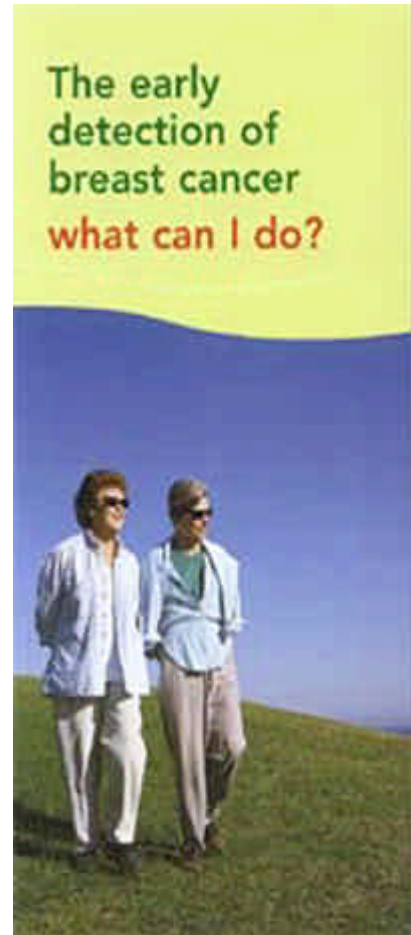
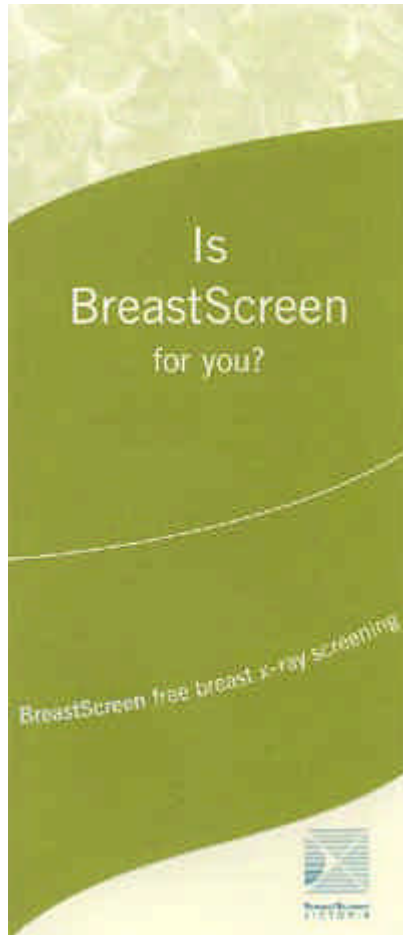
AUTHORISED BY THE COMMONWEALTH GOVERNMENT, CAPITAL HILL, CANBERRA

Appendix 1

B: National Print Advertising Campaign (continued)

Bookmark



Appendix 1**B: National Print Advertising Campaign (continued)****BreastScreen Pamphlet covers**

Appendix 1**C: The National Radio Campaign Script****45 – 60-second script used for both English and non-English speaking versions**

VO: “One in eleven women develop breast cancer. And most of these women are over 50. Age is the biggest risk factor, not family history. In fact, for 9 out of 10 women it is *not* hereditary.

Breast cancer cannot be prevented but, by detecting breast cancer early, you give yourself the best chance of successful treatment and recovery.

For women over 50, the best way to detect it early is with a screening mammogram. A mammogram can pick up a cancer the size of a grain of rice - long before you can feel it.

* *BreastScreen Australia* offers free mammograms to women over 50.

So call 13 20 50 for your free mammogram now. Don't put it off any longer, call 13 20 50.”

Authorised by the Commonwealth government, Canberra.

Spoken by _____.

APPENDIX 2: THE QUESTIONNAIRE FOR THE 2000/2001 BREASTSCREEN AUSTRALIA CAMPAIGN

Good, I'm from Research. Today, we are conducting a short study on women's health among females aged between 40 and 69 years on behalf of the Department of Health and Aged Care which will take 20 minutes or so. Could I please talk to the female aged between 40 and 69 years living in your household who last had a birthday? **IF NO SUCH AGED FEMALE IN HOUSE TERMINATE, THANKING RESPONDENT. IF LAST BIRTHDAY FEMALE NOT AVAILABLE, MAKE AN APPOINTMENT AND RECORD ON CALL SHEET. WHEN LAST BIRTHDAY FEMALE COMES TO PHONE, GO TO INTRODUCTION.**

- A. RECORD STATE: NSW 1 SA 5
 VIC 2 NT 6 **CHECK QUOTAS**
 QLD 3 WA 7
 ACT 4 TAS 8
- B. RECORD AREA: City 1 **CHECK QUOTAS**
 Country 2

INTRODUCTION

Today we are conducting a study on women's health among females aged between 40 and 69 years on behalf of the Department of Health and Aged Care which will take 20 minutes or so of your time.

Q1. Which of the following age groups do you belong to?

- | | | | |
|-------------|---|-------------|--------------------|
| 40-44 years | 1 | 60-64 years | 5 |
| 45-49 years | 2 | 65-69 years | 6 |
| 50-54 years | 3 | | CHECK QUOTA |
| 55-59 years | 4 | | |

Q2. One of the things we would like to know is women's opinions on the health issues affecting them. Thinking about you personally and other women of your age group, what are the major health problems that you are most concerned about at the moment? Any others? **DO NOT READ OUT.**

- | | | | |
|-------------------------|----|-----------------------------|----|
| Breast Cancer | 1 | Arthritis/rheumatism | 11 |
| Cancer of the Cervix | 2 | Stress | 12 |
| Other Cancer | 3 | Back problems | |
| 13 | | | |
| Heart disease/attack | 4 | Gynaecological problems | 14 |
| Mental illness/disorder | 5 | Hormone replacement therapy | 15 |
| Not being fit | 6 | Blood pressure | 16 |
| Overweight | 7 | Pregnancy/childbirth | 17 |
| Menopause | 8 | Other (specify): _____ | 18 |
| Osteoporosis | 9 | None | 19 |
| AIDS/STDS | 10 | Don't know | 20 |

Q3a. In terms of taking care of your health, what kinds of things would you say you are doing now to help minimise health problems in the future? Anything else? **DO NOT READ OUT. RECORD UNDER Q3a.**

Q3b. And which of these things are you doing to minimise health problems for yourself in the future? **READ OUT AND ROTATE THOSE NOT MENTIONED IN Q3a. RECORD UNDER 3b.**

	Q3a	Q3b
Adopting healthy lifestyle	1	1
Breast X-rays/mammograms	2	-
Cholesterol checks	3	3
Control/watching diet	4	4
Exercise/regular exercise	5	5
Regular GP check ups	6	6
Regular paps smears	7	7
Breast Self Examination	8	-
Positive attitude	9	-
Stopping or reducing drinking	10	10
Stopping or reducing smoking	11	11
Stress management	12	-
Take vitamin/mineral supplements	13	-
Use sunscreen/keep out of the sun	14	-
Take hormones/the pill	15	-
Other (specify) _____	16	-
Nothing	17	-
Don't know	18	18

Q4. Now, I'd like to talk about a specific women's health issue, that of breast cancer. I am going to read out some statements that other people have made about breast cancer. Please tell me how strongly you personally agree or disagree with each of the following statements? Firstly, do you agree or disagree that**READ OUT A-E AND ROTATE A-E IF AGREE** - is that strongly agree or partly agree?
IF DISAGREE - is that partly disagree or strongly disagree?

	Strongly agree	Partly Agree	Partly Disagree	Strongly Disagree	None/ don't know
A) Breast cancer is <u>not</u> the most common cause of death from cancer among women in Australia	1	2	3	4	5
B) Breast cancer can be successfully treated	1	2	3	4	5
C) The risk of breast cancer increases with age	1	2	3	4	5
D) Most women who develop breast cancer have a strong family history	1	2	3	4	5
E) It is important to detect breast cancer early	1	2	3	4	5
F) The causes of breast cancer are unknown	1	2	3	4	5

{Skip to Q 6}

{Continue}

{Skip to Q6}

ASK IF DISAGREE TO STATEMENT F. IF CODES 3-4 IN Q4(F).

Q5. What do you think are some of the causes of Breast Cancer? **DO NOT READ OUT.**

Aging	1
Bad diet/poor eating habits	2
Pressure to breast (knock/hit)	3
Oral contraception (the Pill)	4
Chemicals (any mention)	5
Hereditary factors	6
Genetics	7
Hormonal replacement therapy (HRT)	8
Large breasts	9
Having a child late in life/not bearing children	10
Menopause ("change of life")	11
Obesity	12
Family history	13
Radiation	14
Smoking	15
Stress	16
Not breast feeding	17
Other (specify)_____	18
None/Don't know	19

ASK ALL RESPONDENTS

Q6. And which of the following age groups of women do you believe are most at risk of developing breast cancer? **READ OUT AND ROTATE**

All women equally	1	Over 60 years	6
18-29 years	2	Over 70 years	7
Over 30 years	3	None	8 } DON'T READ
Over 40 years	4	Don't know	9 }
Over 50 years	5		

Q7a. One of the things we would like to know for the study is women's opinions on how likely they are to get Breast Cancer. I know this is something that people don't like to consider, but what do you think are your chances that at some time in the future you might get Breast Cancer? Would you say the chances are **READ OUT AND ROTATE.**

None at all	1}	
Very slight	2}	
Slight	3}	
Fairly high	4}	GO TO Q7b
High	5}	
Don't know	6}	
Already have/had	7	GO TO Q8a

ASK IF RESPONSE CODES 1-6 IN Q7a.

Q7b. Why do you say that? **PROBE FULLY.**

ASK ALL RESPONDENTS

Q8a. Do you do anything to check that you don't have breast cancer? **IF YES:** What?
RECORD BELOW UNDER Q8a. DO NOT PROMPT.

Q8b. And are you doing any of these things to check that you don't currently have Breast Cancer? **READ OUT AND ROTATE 1-3 NOT MENTIONED IN Q8A.**
RECORD UNDER Q8b.

	Q8a	Q8b
Having X-rays/mammograms	1	1
Having breast examinations by your GP	2	2
Self examining your breasts	3	3
Other (specify) _____	4	-
None	5	5
Don't know	6	6

Q8c. Based on what you know and think about these various detection methods, how effective do you believe they are. Firstly, how effective are **READ OUT AND ROTATE** in detecting breast cancer? **IF EFFECTIVE** - is that very effective or quite effective? **IF NOT EFFECTIVE** - is that not very effective or not at all effective?

	Very effective	Quite effective	Not very effective	Not at all effective	None/ don't know
Having breast examinations by your GP	1	2	3	4	5
Self examining your breasts	1	2	3	4	5
Having breast X-rays/mammograms	1	2	3	4	5

IF CODE 1 CIRCLED IN Q8a-Q8b GO TO Q11a

ASK IF BREAST X-RAY/MAMMOGRAM NOT MENTIONED IN Q8a/b, (CODE 1 IN Q8a/b)

Q9. A mammogram is a breast x-ray used for detecting breast cancer. It is used for two purposes, diagnosis and screening. Diagnostic Mammography is for women who have Breast symptoms such as a lump or a discharge from a nipple and is usually undertaken as one of a number of ways of diagnosing a breast problem. Screening Mammography is performed to find breast cancer at an early stage before there are any symptoms. Breast cancer detected at any early stage has the best chance for successful treatment. The procedure takes a few minutes and involves placing each breast between two plates on an x-ray machine. The breast is then pressed between two plates for a few seconds and x-rayed.

Now that I have told you more about it, before today had you heard of the mammography procedure?

Yes	1	GO TO Q10
No	2	GO TO Q12
Don't know	3	GO TO Q12

ASK IF AWARE OF MAMMOGRAM PROCEDURE (CODE 1 IN Q9)

Q10. Could you please tell me if you personally have ever had a mammogram?

Yes	1	GO TO Q11a	
No	2	GO TO Q12	- TALLY B (IF 50-69)
Don't know	3	GO TO Q12	

ASK ALL WHO HAD MAMMOGRAM (CODE 1 IN Q10, Q8A OR Q8B)

Q11a. How long ago did you have your last mammogram?

Within the last 6 months	1	
7-12 months ago	2	
1-2 years ago	3	
<i>More than 2 years ago</i>	4	TALLY C (IF 50-69)
Don't know	5	

Q11b. And what prompted you initially to have a mammogram or breast x-ray? **DO NOT PROMPT. (Please take care to differentiate between referred and recommendation).**

Suspected Symptoms

- | | |
|---|---|
| Self referred after finding lump/discharge | 1 |
| Referred by GP after examination | 2 |
| Referred by GP after complaining of tenderness/soreness | 3 |

As a precaution following:

- | | |
|---|---|
| Not feeling right/concerned/worried | 4 |
| Advertising/media | 5 |
| Knowing someone who has breast cancer | 6 |
| Breast cancer is in the family | 7 |
| Reached the age where feel prone to breast cancer | 8 |

Recommendation from:

- | | |
|---|----|
| A doctor/nurse/medical profession | 9 |
| Another person (specify) _____ | 10 |
| Reading pamphlet/literature | 11 |
| Part of a regular check-up/with pap smear | 12 |
| Local/mobile unit nearby | 13 |
| Other (specify) _____ | 14 |
| None/don't know | 15 |

Q11c **IF HAD A MAMMOGRAM, BUT NOT IN THE PAST TWO YEARS (Q11a, CODE 4), ASK:** You mentioned that you have had a mammogram, but not in the past two years. Could you please tell me whether your last mammogram was **READ OUT.**

As a result of finding a specific symptom such as lump 1 **GO TO Q12**
OR

As a precaution of due to recommendation, but not 2 CONTINUE
because you or your doctor found a specific problem
such as a lump

Q11d. And could you please tell me all of the reasons why you have not had another mammogram in the past two years? **PROBE FULLY.** (*Reassure: We really need to know everything you can think of so that we can address all of the problems or issues facing women having screening mammograms in the future*).

Q12. **ASK ALL WOMEN AGED 40 TO 69 WHO HAVE NOT HAD A MAMMOGRAM, (CODES 4-9, Q1 AND 2-3 IN Q9 OR Q10)** Why would you say that you have not had a mammogram to date? **PROBE BUT DO NOT PROMPT.**

Don't have symptoms	1
Don't have time	2
I never thought about it	3
Not aware before today	4
Not at risk	5
Never referred by doctor/GP	6
Too young	7
Too old	8
Self-examining your breasts	9
Having breast examinations by your GP	10
Too lazy/haven't got around to it	11
Don't have family history	12
Other (specify): _____	13
Don't know	14

Q13a. **ASK IF DON'T PRACTICE ANY DETECTION METHODS AND NEVER HAD A MAMMOGRAM (CODES 5-6 IN Q8a AND CODE 5 IN Q8b AND NOT CODE 1 IN Q10)** Why is that you are not currently using any methods to check for signs of breast cancer? **DO NOT PROMPT.**

Don't have any symptoms	1
Don't have time	2
I never thought about it	3
Not aware before today	4
Not at risk	5
No family history	6
Never referred by doctor/GP	7
Too young	8
Too old	9
Other (specify) _____	10
Don't know	11

ALL RESPONDENTS

Q14a. Have you ever heard of BreastScreen Australia?

- | | | |
|-----|---|-------------------|
| Yes | 1 | GO TO Q14b |
| No | 2 | GO TO Q14c |

Q14b. IF YES: What is BreastScreen Australia about? **PROBE FULLY**

ASK ONLY IF CODE 1 IN 8a OR 8b; OR CODE 1 IN 10 (I.E. HAVE HAD A MAMMOGRAM) ALL OTHERS GO TO 14f

Q14c. Was your mammogram at BreastScreen Australia?

Yes 1 No 2 Don't know 3

Q14d. Did you have to pay for this mammogram?

Yes 1 No 2 Don't know 3

ASK ONLY IF CODE 2 AT Q14a (I.E. NOT AWARE OF BreastScreen Australia)

Q14e. A national program for the early detection of Breast Cancer has been established, which is called BreastScreen Australia. It provides mammograms free of charge to women aged 50 to 69 years. The services in the program take a woman from screening and if necessary through to a diagnosis and referral to treatment. The program is a network of accredited services staffed by qualified professionals in 119 locations around the country including mobile services. The aim of the program is to detect any signs of cancer as early as possible, ie before your doctor would notice symptoms, so effective treatment can be given.

Now that I've explained it to you, are you aware of BreastScreen Australia?

Yes 1

No 2

ALL RESPONDENTS

Q14f. Do you think the idea of screening women for breast cancer in this way is a good or bad idea? **IF GOOD** - is that very good or fairly good? **IF BAD** - Is that fairly bad or very bad?

Very good idea 1 Very bad idea 4

Fairly good idea 2 Neither 5

Fairly bad idea 3 Don't know 6

Q14g. Why do you say that? **PROBE.**

Q14h. At what age do you think women should commence having a screening mammogram, that is breast x-ray? **DO NOT PROMPT.**

18-29 years 1 70 years or over 5

30-39 years 2 None 6

40-49 years 3 Don't know 7

50-69 years 4

Q14i. Why that age? **PROBE.**

Q14j. And once women begin having a screening mammogram, how often do you think they should be screened? **DO NOT PROMPT.**

Once	1	Less often	5
Twice a year or more often	2	Never	6
Once a year	3	Don't know	7
Once every two years	4		

ASK ALL AGED 40-69 YEARS (CODE 4-9, Q1)

Q15. Now that I have told you about Breast Screen Australia, in the next 6 months how likely would you be to attend the program for a screening mammogram?

Very likely	1	GO TO Q16b	Very unlikely	4
Quite likely	2		Neither	5
Quite unlikely	3		Don't know	6

ASK IF RESPONSE CODES 2-6, Q15.

ASK ALL RESPONDENTS

Q16. Are you aware the services are located throughout Australia?

Yes	1
No	2

Q17 - Deleted

Q18. Thinking about the recent past, have you read, seen or heard any information about screening mammograms?

Yes	1	GO TO Q19a
No	2	GO TO Q 21
Don't know	3	GO TO Q 21

ASK IF READ, SEEN OR HEARD ANY INFORMATION (CODE 1, Q18)

Q19a. Where did you read, see or hear information about screening mammograms? Anywhere else? **RECORD BELOW UNDER Q19a. DO NOT PROMPT.**

Q19b. Have you read, seen or heard about screening mammograms through? **READ OUT AND ROTATE, RECORD UNDER Q19b.**

	Q19a	Q19b
Brochure or leaflet from doctors surgery, hospital or clinic	1	1
Advice from your doctor	2	2
From your Health Fund	3	3
Mail brochure or leaflet or letter from your local service	4	4
Magazine ads	5	5
Newspaper ads	6	6
Magazine articles	7	7
Newspaper articles	8	8
Nurse or health workers advice	9	9
Television commercial	10	10
Television programs	11	11
Radio commercials	12	12
Radio programs	13	13
From friends/family/relatives	14	14
Other (specify) _____	15	-
None/don't know	16	16

Q20a. **IF RESPONDENT ANSWERS CODE 5, Q19a or Q19B, ASK:** You mentioned you had seen magazine advertising about breast screening recently. Could you please tell me everything you can remember about that particular ad. **PROBE FULLY.** What else?

Q20b. And what was the main message of that advertising?

Q20c. **IF RESPONDENT ANSWERS CODE 10, Q19a OR Q19b, ASK:** You mentioned you had seen television commercials about breast cancer screening recently. Could you please tell me everything you can remember about the television commercial. **PROBE FULLY.** What else? What else?

Q20d. And what was the main message of that television commercial?

ASK ALL RESPONDENTS

Q21a. Recently there have been four television commercials set in the Australian outback, featuring Sara Henderson talking about breast cancer and screening mammograms. Can you recall seeing or hearing either on TV, in magazines, or on posters any of this advertising?

Yes 1 No 2

Q21b. The first one featured Sara Henderson in a jeep driving along a bumpy, dusty road to town for a mammogram. Do you recall this ad?

Yes 1 No 2

Q21c. The second opens on Sara holding a baby calf and shows her in a variety of outback activities. Do you recall this ad?

Yes 1 No 2

Q21d. The other one is plain words on a screen with Sara's voice which talks about family history. Do you recall this ad?

Yes 1 No 2

Q22. There has also been magazine advertisements featuring Sara Henderson which provide information about breast cancer screening. Could you please tell me if you can recall seeing the magazine advertising?

Yes 1 No 2

CLASSIFICATION

i) To help us ensure that we have a representative cross section, could you please tell me which of these best describes the highest level of education you have completed? **READ OUT.**

Primary school	1	TAFE/tech or college	4
Some secondary school	2	University	5
Completed secondary school	3	Don't know/refused	6

ii) Which of the following best describes your present marital status? **READ OUT**

Never married	1	Married	3
De facto	2	Separated/divorced/widowed	4

iii) Which of these categories best describes you? **READ OUT. ONE ANSWER ONLY.**

Working full time	1	}	
Working part time	2	}	GO TO Q(v)
Not working	3		CONTINUE

iv) **IF NOT WORKING:** Would you be **READ OUT.**

A student	1
Unemployed	2
Engaged in home duties	3
Retired	4
Other	5

v) **IF WORKING (Qiii), CODES 1 or 2):** What is your occupation? **RECORD BELOW. IF NOT WORKING (Qiii), CODE 3):** Have you ever worked? **IF YES:** What was your most recent occupation?

Industry: _____

Position: _____

vi) Were you born in Australia or overseas? **IF BORN OVERSEAS ASK:** And would that have been an English speaking or non-English speaking country? **IF BORN OVERSEAS:** Which country were you born in?

Australia	1	GO TO Qvii)
English speaking	2 }	GO TO Qviii)
Non-English speaking	3 }	TALLY A (IF 50-69)

WHICH COUNTRY: _____

ASK IF BORN IN AUSTRALIA:

vii) Do you identify yourself as a person of Aboriginal or Torres Strait Islander descent?
Yes 1 No 2 Don't know 3

viii) What is the main language spoken by yourself at home?

English	1	Portuguese	8
Cantonese	2	Spanish	9
French	3	Vietnamese	10
German	4	Other Asian (specify) _____	11
Greek	5	Other European (specify) _____	12
Italian	6	Other (specify) _____	13
Mandarin	7	Don't know	14

Thank you very much for your time.

RESPONDENTS NAME: _____

PHONE NUMBER: _____

DATE: _____

INTERVIEWERS NAME: _____ NUMBER: _____

TIME FINISH: _____

I certify this is a true, accurate and complete interview taken in accordance with my instructions, and conducted according to the guidelines set out in the ICC/ESOMAR International Code of Marketing and Social Research Practice.

SIGNATURE: _____

