'Don't Ignore Diabetes':
2006 Advertising campaign Evaluation

By Owen Carter, Rob Donovan & Geoffrey Jalleh

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DIABETES AUSTRALIA WESTERN AUSTRALIA

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1 Background

As part of its ongoing efforts to increase the knowledge and salience of diabetes within the community, Diabetes Australia Western Australia (DAWA), assisted by funding from Healthway, instigated the project *Making Diabetes a Front Page Health Issue: Increasing Diabetes Brand Knowledge* in 2002. The aim of the project was to develop and implement a campaign to increase the knowledge and salience of diabetes within the Western Australian community.

1.1 Development of Advertisement Concepts

On behalf of DAWA, the Centre for Behavioural Research in Cancer Control (CBRCC) conducted focus groups in Perth, Bunbury and Geraldton in November 2002 to inform the development of media concepts about diabetes that would be acceptable, credible and personally relevant to Western Australians. The recommendation stemming from this research was to place a major emphasis on the *consequences* of diabetes to heighten salience of the disease (Carter, Donovan & Jalleh, 2002).

Three concept advertisements were consequently developed by Gatecrasher Advertising and tested by CBRCC via intercept interviews in the Perth city centre. Viewer reactions were compared for all three advertisements resulting in a recommendation that "Storybook" should be further developed for the campaign (Donovan, Carter & Jalleh, 2003).

1.2 The 2003 DID pilot campaign

In June 2003 a six-week pilot of the *Don't Ignore Diabetes* (DID) campaign was launched in the towns of Geraldton and Bunbury, including the broadcasting of the *Storybook* television advertisement in both towns at 250 Target Audience Rating Points (TARPs) per week. In addition, Bunbury residents were exposed to the *Eye*, *Leg* and *Dialysis* newspaper advertisements and posters, the *Big and Little* and *Washing Machine* radio advertisements and a series of public lectures (for a description of these materials see Carter, Donovan & Jalleh, 2003).

Pre and post campaign telephone surveys were conducted in both towns by the *Survey Research Centre*. Results suggested that *Storybook* achieved excellent cut-through in both towns (75% recall) and was well understood, considered highly credible and personally relevant. The *Leg* and *Eye* newspaper advertisements also achieved reasonably good cut-through in Bunbury (34% and 18% respectively). However the *Dialysis* newspaper advertisement, all the radio advertisements, and the posters achieved spurious recall only. Pre and post campaign surveys of Bunbury and Geraldton residents suggested that the pilot DID campaign significantly increased the salience of diabetes as a serious disease and one of personal concern in both towns, as well as significantly increasing knowledge of the consequences and risk factors associated with diabetes. There was some evidence to suggest that the *Eye* and *Leg* newspaper advertisements in Bunbury had a modest additive effect over and above *Storybook*.

1.3 The 2005 State-wide DID campaign

The successes of the pilot DID campaign paved the way for a state-wide rollout. Based upon recommendations stemming from the evaluation of the pilot campaign, minor modifications were made to the advertising materials to extend their message to promote active risk reduction, rather than merely to increase awareness. CBRCC undertook concept testing of these alterations in April 2005 and the materials for the next campaign were finalised (see Jalleh, Donovan & Carter, 2005).

The state-wide rollout of the DID campaign was launched to coincide with 'National Diabetes Week' on 10 July 2005. It consisted of a media burst in two two-week periods with a gap of one week in between for audiences in Perth (833 TARPs) and regional Western Australia (860 TARPs), with some residual advertising to coincide with ongoing coverage of the Ashes Cricket series. The paid media were complemented by television and radio interviews and media releases to state-wide and community newspapers during *National Diabetes Week*. In addition posters and leaflets were distributed throughout the State as part of resource kits to various health services.

Pre and post campaign telephone surveys were conducted in both Perth and regional Western Australia. The results suggested the campaign achieved reasonably good penetration throughout Western Australia with three-quarters of respondents claiming to have seen some aspect of the campaign at least once. Respondents considered the

Storybook advertisement to be highly credible and personally relevant, and they appeared to process both its *heightened awareness* and *avoidance strategy* messages. Newspaper advertisements, posters, leaflets and television media interviews played modest but useful roles in increasing the reach of the campaign. A significant improvement was observed for the salience of diabetes as a *serious* disease and an improvement in the direction of personal concern about developing diabetes was also evident. There was a clear and sizable effect of educating people about some of the consequences arising from diabetes, with the proportion of people unsure of any consequences dropping significantly, and awareness of potential complications such as blindness and limb amputation rising significantly. Likewise there were significant improvements in the proportion of people nominating poor diets and physical inactivity as risk factors for developing diabetes, and some improvements in the proportion nominating being overweight and being over 30 years old. Overall, the 2005 DID campaign successfully met its objectives of increasing the salience of diabetes as a serious disease, increasing knowledge of complications and risk factors associated with the disease, and increasing understanding of the actions to take to avoid developing it (see Carter, Donovan & Jalleh, 2005).

2 The 2006 State-wide DID campaign

The second phase of the state-wide DID campaign was launched to coincide with *National Diabetes Week* from 9–15 July 2006. It consisted of radio and press advertisements but no television advertising.

2.1 Radio

Between the 5–18 July 2006, the *Big and Little* radio advertisements were broadcast in the metropolitan area a total of 54 times by 94.5FM (3.9 times per day), 45 times on 6PR and 6IX each (3.2 times per day each), and 70 times on Curtin 100.1 FM (5 times per day). In regional Western Australia the *Big and Little* advertisements were broadcast between the 5–22 July 2006 in Albany on 6VA Radio West, in Broome on WAFM, in Bunbury on 6TZ Radio West, in Esperance on 6SE Radio West, in Geraldton on WAFM, in Kalgoorlie on 6KG Radio West, and in Mandurah on 6MMM. Each of these regional radio stations broadcast the advertisements a total of 60 times (3.3 times per day).

2.2 Newspapers

The newspaper advertisements *Eye*, *Leg* and *Hazard Signs* appeared in state-wide distributions of *The West Australian* and *The Sunday Times* newspapers between 7–18 July 2006.

- *Eye* appeared in a 20 X 7cm size monochrome placement in *The Sunday Times* on 9 July 2006 and in half-page colour placement in the television guide magazine supplement of *The West Australian* in its Saturday edition on the 15 July 2006.
- *Leg* appeared in *The West Australian* on the 7th of July in a 20 X 7cm monochrome placement.
- *Hazard Signs* appeared in a 7 X 7cm monochrome placement in *The West Australian* on 12 July 2006 and *The Sunday Times* on 16 July 2006, and in a 7 X 7cm full colour placement on the front page of the *Mind and Body* supplement in *The West Australian* on 18 July 2006.

2.3 Posters and Leaflets

As part of *National Diabetes Week* promotional activities, *Leg* and *Eye* posters and *Tick Test* leaflets were distributed to various organisations throughout Western Australia via resource kits. Each kit contained two *Leg* and two *Eye* posters and 200 *Tick Test* leaflets. A total of 584 kits were distributed to organisations via orders through DAWA, with 42% going to metropolitan organisations and 58% to regional organisations. The distribution of resource kits to various types of organisations is outlined in Table 1 below.

Table 1: Organisations receiving *National Diabetes Week* resource kits in 2006

Organisations	N	%
Divisions of General Practice	197	33.7
Hospitals and other various health services	139	23.8
Pharmacies	64	11.0
Prisons	44	7.5
Aged Care facilities	32	5.5
Local Government organisations	29	5.0
Community Groups (incl. Indigenous & Multicultural)	25	4.3
Educational Institutions (High Schools and Universities)	24	4.1
Workplaces	22	3.8
Other	8	1.4
TOTAL	**584**	**100.0**

3 Methodology

The same sampling method and survey tool used to assess the 2005 DID campaign was adapted to assess the 2006 DID campaign. This included items assessing the salience of diabetes as a 'serious' disease and campaign advertising awareness. However items assessing behavioural changes to diet and exercise were omitted from the 2006 evaluation for the sake of economy. For this same reason, there was no pre-campaign survey for the 2006 DID campaign, but as the measures and methodology were the same as used in the previous year the results from the 2005 DID campaign evaluations were used for comparison.

3.1 Procedure

CBRCC conducted a survey with stratified sampling targets set for equal numbers of males and females aged between 31 and 70 years, and with a 75:25 metropolitan Perth to regional Western Australia split. Based on postcodes from the Perth metropolitan area, Albany, Broome, Bunbury, Esperance, Geraldton and Kalgoorlie a random sample of telephone numbers was generated from the electronic White Pages. Unanswered numbers were automatically redialled after a set interval. Three attempts to obtain contact were made before substitution. Participants were screened to ensure that they were residents of Western Australia and did not work within the medical or health professions. Where there was more than one eligible respondent in the household, the 'next birthday' technique was used to select a respondent. If unavailable, a further two attempts were made to contact the specified individual before another number was substituted.

Professional interviewers conducted the surveys by reading from a set script delivered by Computer Assisted Telephone Interviewing (CATI) software and recorded participants' responses immediately on to a computer database, using pre-arranged coding for both open-ended and close ended items. Open-ended responses that did not conform to the pre-arranged coding were recorded verbatim by the interviewers and coded at a later date by the researchers. The resultant database was analysed using the Statistical Package for the Social Sciences (SPSS) version 13.0.

3.2 Participants

The telephone survey hit rate is compared to the previous two DID evaluation surveys in Table 2 below.

Table 2: Diabetes Telephone Survey Participation Rate

	2005 Pre		*2005 Post*		*2006 Post*	
	N	%	N	%	N	%
Telephone Survey Hit Rate						
Refusals	563	**39.7**	766	**47.3**	570	**41.0**
Outside selection criteria/quota filled	517	**36.5**	508	**31.4**	517	**37.2**
Completed Surveys	338	**23.8**	344	**21.3**	303	**21.8**
TOTAL	*1,418*	***100.0***	*1,618*	***100.0***	*1,390*	***100.0***
Do you have diabetes?						
YES	20	**5.9**	26	**7.6**	21	**6.9**
NO	318	**94.1**	318	**92.4**	282	**93.1**
TOTAL	*338*	***100.0***	*344*	***100.0***	*682*	***100.0***

In total 303 completed interviews were achieved. The ratio of those willing to participate (n=820), versus those refusing (n=517) suggests an overall *consent rate* of 59.0%. The ratio of those meeting the selection criteria (n=303), versus absolute refusals (where it remained unestablished whether or not they met the selection criteria) (n=517), suggests a *participation rate* of 37.0%. These results are very similar to the previous two DID evaluation surveys.

As the aim of the DID campaign was to increase the salience of diabetes in populations at risk of developing the disease, respondents who already had the disease were excluded. However, in order to avoid prematurely prompting participants that the survey was about diabetes, respondents were only asked if they had diabetes after completing all questions assessing unprompted salience of the disease. As displayed in Table 2, similar proportions of respondents in the 2006 evaluation reporting living with diabetes as in previous evaluations. The responses of participants who reported having diabetes were excluded from analysis, reducing the final total to 282 respondents.

A comparison of the sample's demographic data with Western Australian population data from the 2001 census of the Australian Bureau of Statistics (ABS) is displayed in Table 3 overleaf. After removing those participants with diabetes, there were fewer male than female participants. As such the data in the results section have been

weighted to replicate equal sex proportions. The age-groups were more evenly distributed in this survey compared to previous surveys. This meant that the 40–55 year age-group was under-represented compared to the Western Australian population but allows for an improved ability to compare campaign

Table 3: Sample Demographics Compared to Australian Bureau of Statistics Data

	2005 Pre	2005 Post	2006 Post	Western Australia	Sample Bias
	%	%	%	%	%
Sex	(n=318)	(n=318)	(n=282)	(n=889,331)[1]	
Males	49.4	49.1	40.4	49.9	-9.5
Females	50.6	50.9	59.6	50.1	+9.5
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	
Age Group	(n=318)	(n=318)	(n=282)	(n=889,331)[1]	
31–39 years	24.2	23.9	32.3	28.1	+4.2
40–55 years	42.8	45.3	33.7	47.2	-13.5
56–70 years	33.0	30.8	34.0	24.7	+9.3
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	
Place of Residence	(n=318)	(n=318)	(n=282)	(n=1,553,156)[2]	
Perth	73.9	71.4	74.1	74.3	-0.2
Regional WA	26.1	28.6	25.9	25.7	+0.2
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	
Highest Educational Level	(n=318)	(n=318)	(n=279)	(n=1,282,104)[3]	
Year 10 or less	37.7	46.2	41.2	40.4	+0.8
Year 11	9.7	6.9	11.3	10.4	+0.9
Year 12	26.7	28.0	22.0	38.3	-16.3
Bachelor degree	20.4	15.4	16.3	9.4	+6.9
Postgraduate degree	5.1	3.5	8.2	1.5	+6.7
Refused	0.4	-	1.1	-	
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	
Occupation	(n=300)	(n=303)	(n=282)	(n=684,394)[4]	
White collar[5]	56.7	46.9	46.1	54.2	-8.1
Blue collar[6]	13.3	23.1	25.0	22.1	+2.9
Not in work force[7]	30.0	30.0	28.9	23.7	+5.2
TOTAL	*100.0*	*100.0*	*100.0*	*100.0*	

1 Based on 2001 Census data of Western Australians aged 31-70 years

2 Based on 2003 Australian Bureau of Statistics data for Western Australians aged 15+ years

3 Based on 2001 Census data of Western Australians aged 15+ years

4 Based on 2001 Census data of Western Australians aged 25+ years

5 Defined as Managers, Administrators, Professionals, Clerical, Sales, Service and related workers

6 Defined as Trade, Transport, Production, Labourer and related workers

7 Defined as Unemployed, Retirees, Pensioners, Home Duties, and Full-time students

effects between the three age-groups. Comparisons of place of residence and occupation suggest a close match to ABS data for Western Australian adults within the target age group. Similar to the two previous evaluations, the largest bias within the sample is the disproportionately high number of participants with a university degree. The ABS data on educational attainment includes all Western Australians aged 15 years and above, of whom 9.4% are aged between 15 to 19 years and are very unlikely to have completed a university degree. In addition, the ABS data is now five-years old and there has been a likely increase in the number of university graduates entering this age-group during that time. As such, the educational attainment of the present sample is likely to be less biased than appears. As with previous evaluations, preliminary analyses determined that that weighting the data by education, age or work status for the present survey was not necessary.

4 Results

4.1 2006 DID Campaign Penetration

4.1.1 Radio Advertisements

All participants were asked to nominate the radio station to which they normally listened. Results are displayed in Table 4 below.

Table 4: Radio Stations to which Participants Usually Listen

Metropolitan Perth	N	%
ABC Local†	37	17.8
94.5 FM*	32	15.4
92.9 FM‡	20	9.6
6PR*	20	9.6
ABC Radio National†	17	8.2
96 FM‡	12	5.8
6IX*	11	5.3
Curtin FM*†	10	4.8
Nova‡	10	4.8
ABC Triple J†	8	3.8
ABC Classic FM†	4	1.9
Sonshine FM‡	4	1.9
Other‡	3	1.4
Don't listen to the radio	*20*	*9.6*
TOTAL	**208**	**100.0**
*DID Radio Advertisers	73	35.1
‡Other commercial Radio	49	23.6
†Non-commercial Radio	66	31.7
Don't listen to Radio	20	9.6
TOTAL	**208**	**100.0**

Regional WA	N	%
Radio West*	16	21.6
ABC Local†	15	20.3
ABC Radio National†	10	13.5
ABC Triple J†	6	8.1
Hot FM‡	3	4.1
6MD‡	2	2.7
105.1 FM‡	2	2.7
Other‡	10	13.5
Don't listen to the radio	10	13.5
TOTAL	**74**	**100.0**
*DID Radio Advertisers	16	21.6
‡Other commercial Radio	17	23.0
†Non-commercial Radio	31	41.9
Don't listen to Radio	10	13.5
TOTAL	**74**	**100.0**

Just over one-third of the Perth sample and one-fifth of the regional sample nominated radio stations included in the 2006 DID media schedule for the *Big and Little* advertisements. It is interesting to note that just over half of Perth respondents (58.7%) and just under half of regional respondents (44.6%) claimed to listen to commercial radio stations, hampering the ability of any radio advertising to reach the desired target audience. The proportions claiming to listen to the radio stations that aired the *Big and Little* advertisements comprised just over a third of Perth respondents and a fifth of regional respondents, suggesting that penetration of the radio advertisements would achieve these proportions at best.

Participants were asked whether they had heard any radio advertisements about diabetes in the past month. Those that said they had were asked to describe the advertisement. This measure is known as 'category-cued recall' and is a measure of the salience of the advertising (i.e., whether or not it is 'first-to-mind' when participants try to recall an advertisement about diabetes). The recall measure suggests the 'attention-getting power' of an advertisement. The recall rate of the radio advertisements is displayed in Table 5 below. Later during the interview, participants were played a randomly selected recording of one of the two variants of the *Big and Little* advertisements and asked whether or not they had heard it. This measure is known as 'prompted recognition', and is a diagnostic check of the media schedule for the campaign. However, as not all people who are exposed to an advertisement actually pay attention to it, the recall and recognition measures also suggest whether or not the advertisement executions successfully grabbed and sustained the attention of the target audience. The recognition rate for the radio advertising is also displayed in Table 5 below. As there were no radio advertisements used in the 2005 DID campaign, there is no comparison data.

Table 5: Radio advertising about diabetes recalled and recognised by respondents in the past month

	N	%
Heard any radio advertisements about diabetes?		
Yes	69	**24.6**
No	213	**75.4**
TOTAL	282	**100.0**
What radio ads have you heard?		
Big and Little ads	17	**6.0**
Other	13	**4.7**
Can't remember	39	**13.9**
TOTAL	69	**24.6**
Recognition of *Big and Little* ads		
Yes	80	**28.3**
No	202	**71.7**
TOTAL	282	**100.0**

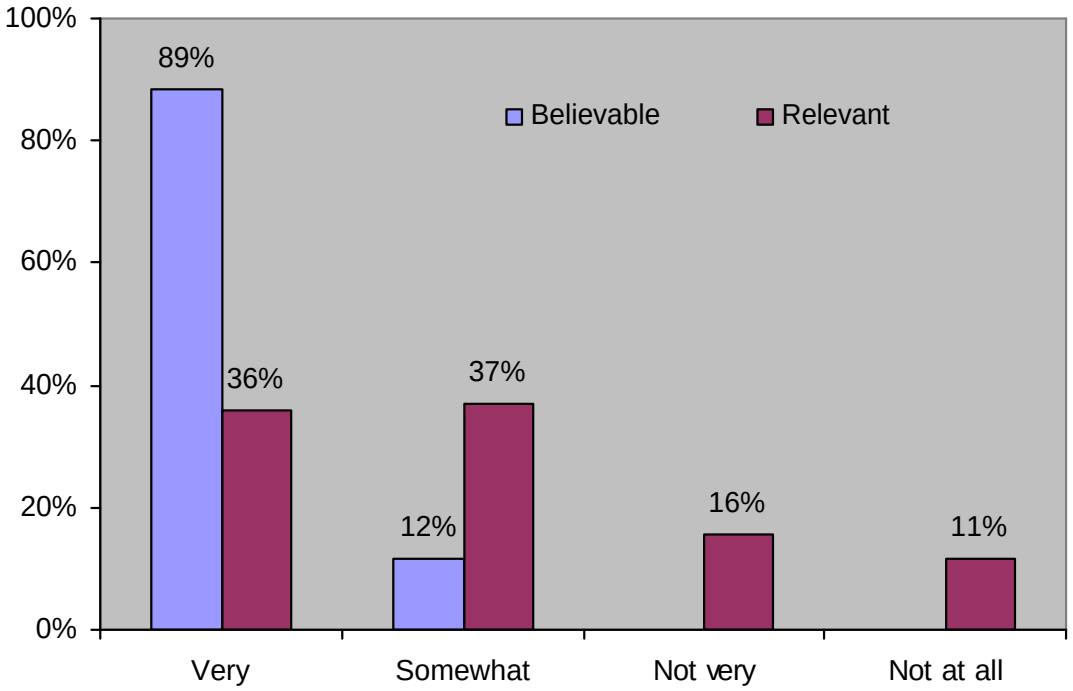
Although around one-quarter of participants claimed to have heard a radio advertisement about diabetes in the past month, only one-in-twenty were able to describe the *Big and Little* advertisements. The recall rate (6.0%) appears low, but without comparative data it is difficult to assess the relative performance of these

radio advertisements to other radio advertising about diabetes. A significantly greater proportion of Perth respondents (7.7%) recalled the advertisements compared to regional respondents (1.4%) ($\chi^2(1)=3.874$, $p<.05$). This is likely to be a reflection of the differing proportions of respondents from each area listening to radio stations that aired the advertisements. Of those who reported hearing a radio advertisement about diabetes in the past month but who could not describe what they had heard (n=39), just under half (n=16) would later recognise the radio advertisements when these were played to them.

The recognition rate (28.3%) suggests that just over one-quarter of participants had heard the advertisements on radio. Judging from participants' reported radio station listening behaviours, this would suggest that a large majority of participants who listen to the corresponding radio stations remembered hearing the advertisements. For this measure there were no significant differences observed by sex, age-group or regional split. The recognition rate compares favourably with the 21% achieved in Bunbury during the 2003 pilot campaign. However, it should be noted that in that evaluation participants were read a description of the advertisements as compared to the present evaluation where participants were played the radio advertisement over the telephone. It is likely that listening to the actual advertisements, rather than simply being read a description of them, facilitated recognition to some extent. For this reason it cannot be assumed that the radio advertisements achieved better recognition in 2006 than they had in Bunbury in 2003.

Those participants who recognised the *Big and Little* advertisements were then asked to rate how believable and personally relevant they found the advertisements along four-point scales. Results are illustrated in Figure 1 overleaf.

Figure 1: Rated believability and relevance of the *Big and Little* radio advertisements (n=69)



A large majority of participants who recognised the *Big and Little* advertisements considered them to be highly credible, and none considered them to be unbelievable, and two-thirds considered the advertisements to be 'very' or 'somewhat' relevant. These results closely mirror the proportions of respondents who considered the *Storybook* television advertisement to be personally relevant in both the pilot campaign in 2003 and the state-wide campaign in 2005. Those who said they did not find the advertisements to be personally relevant were then asked to elaborate in an open-ended manner. Of the 22 respondents, half said something along the lines of "I don't have diabetes" (n=11), almost half said something akin to "I am fit and healthy" (n=10), and one said "It won't happen to me".

4.1.2 Newspaper Advertisements

Participants were asked whether or not they had read a newspaper in the past month, and those that said they had were asked what newspapers they had read. Results are outlined in Table 6 below.

Table 6: Newspaper reading behaviours of participants in the past month

	N	%
Have you read a newspaper in the last month?		
Yes	233	**82.7**
No	48	**17.3**
TOTAL	282	**100.0**
Which newspapers?		
The West Australian	190	**67.4**
The Sunday Times	122	**43.3**
Community newspapers	58	**20.6**
The Australian	35	**12.4**
The Kalgoorlie Miner	18	**6.4**
The Esperance Express	10	**3.5**
The Financial Review	8	**2.8**
TOTAL	441	**156.4**

A large majority of respondents reported having read at least one newspaper in the past month, confirming that newspapers are an appropriate medium through which to reach the target audience. *The West Australian* and *The Sunday Times were* the two most commonly read newspapers, with 78.4% of the total sample reporting to have read one or both of these. However more Perth respondents reported reading these than respondents from regional Western Australia. There was a difference that *approached* significance in the proportion of respondents who reported reading *The West Australian* in Perth (70.2%) versus regional Western Australia (59.5%) ($\chi^2(1)=2.860$; $p=.091$) and a significant difference in the proportions reporting to read *The Sunday Times* in Perth (46.9%) versus regional Western Australia (32.4%) ($\chi^2(1)=4.658$; $p<.05$).

Newspaper readers were asked whether they had seen any newspaper advertisements about diabetes in the past month, with those saying 'yes' being asked to describe such. Participants were later read randomly ordered descriptions of each of the newspaper

advertisements (*Leg*, *Eye* and *Hazard Signs*) and asked whether or not they had seen each. Responses are outlined in Table 7.

Table 7: Newspaper advertising about diabetes recalled and recognised by respondents in the past month

NEWSPAPERS	2005 Pre (n=318)		2005 Post (n=318)		2006 Post (n=282)		Change from 2005 Pre	Change from 2005 Post
	N	%	N	%	N	%	%	%
Any Advertisement Recalled	23	**7.2**	85	**26.7**	64	**22.7**	+15.5	-4.0
Leg	-	**-**	21	**6.6**	5	**1.8**	-	-4.8
Eye	-	**-**	18	**5.7**	3	**1.1**	-	-4.6
Hazard Signs	-	**-**	-	**-**	1	**0.4**	-	-
Other	10	**3.1**	5	**1.5**	10	**3.5**	+0.4	+2.0
Can't remember	13	**4.1**	42	**13.2**	48	**16.0**	+11.9	+2.8
Recognised from description								
Leg	-	**-**	75	**23.6**	37	**13.1**	-	-10.5
Eye	-	**-**	61	**19.2**	82	**29.1**	-	+9.9
Hazard Signs	-	**-**	-	**-**	32	**11.3**	-	-

Recall of any newspaper advertisement about diabetes was far above baseline awareness suggested by the pre-campaign survey in 2005 and was similar to the 2005 post-campaign evaluation. However most respondents were unable to describe the advertisements they had seen in 2006, just as after the 2005 campaign. Just over one-third of respondents (38%) recognised at least any one of the three newspaper advertisements when read descriptions of each. Of those participants who claimed to have seen a newspaper advertisement about diabetes but could not recall what they had seen (n=48), three-quarters (n=35) subsequently recognised at least one of the DID advertisement descriptions.

In contrast to the similar recognition rates enjoyed by the *Leg* and *Eye* advertisements after the 2005 DID campaign, *Leg* was less than half as frequently recognised as *Eye* after the 2006 campaign. However, rather than reflecting the superior execution of *Eye*, the difference can best be explained by the corresponding media spend for each advertisement (*Eye* $10,040, *Leg* $3,808, and *Hazard Signs* $2,355) which seem to closely correlate with recognition rates.

4.1.3 Posters and Leaflets

Participants were asked whether or not they had seen any posters or pamphlets about diabetes in the past month. Those that said they had were asked to describe them. Participants were later read a description of the *Leg* and *Eye* posters and the *Tick Test* leaflet and asked whether or not they had seen each. Results for poster and leaflet advertising are displayed in Table 8 below.

Table 8: Posters and leaflets about diabetes recalled and recognised by respondents in the past months

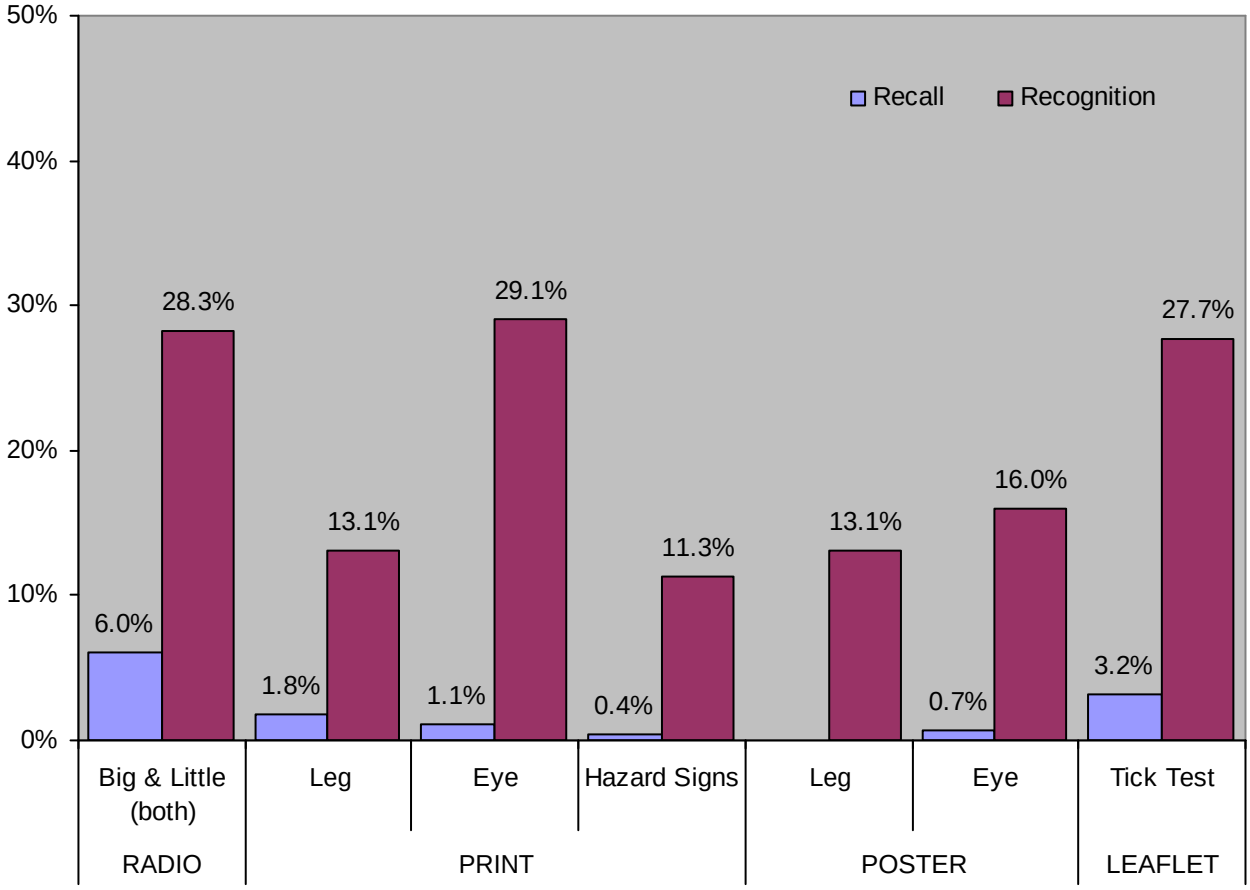
POSTERS AND LEAFLETS	2005 Pre (n=318)		2005 Post (n=318)		2006 Post (n=282)		Change	
	N	%	N	%	N	%	%	%
Any Materials Recalled	59	**18.6**	81	**25.5**	55	**19.5**	0.9	-6.0
Leg poster	1	**0.3**	4	**1.3**	-	**-**	-	-
Eye poster	-	**-**	-	**-**	2	**0.7**	-	-
Tick Test leaflet	12	**3.8**	5	**1.6**	9	**3.2**	-0.6	+1.6
Can't remember	26	**8.2**	45	**14.2**	28	**9.9**	+1.7	-4.3
Other	20	**6.3**	27	**8.5**	16	**5.7**	-0.6	-2.8
Recognised from description								
Leg poster	-	**-**	44	**13.8**	37	**13.1**	-	-0.7
Eye poster	-	**-**	-	**-**	45	**16.0**	-	-
Tick Test leaflet	-	**-**	51	**16.0**	78	**27.7**	-	+11.7
Where seen								
GP Offices	-	**-**	44	**13.8**	30	**10.6**	-	-3.2
Hospital/Health Services	-	**-**	8	**2.5**	11	**3.9**	-	+1.4
Pharmacies	-	**-**	5	**1.6**	4	**1.4**	-	-0.2
Workplace	-	**-**	3	**0.9**	8	**2.8**	-	+1.9
Don't know	-	**-**	8	**2.5**	1	**0.4**	-	-2.1
Other	-	**-**	17	**5.3**	14	**5.0**	-	-0.3

Unconfirmed recall of any posters or leaflets about diabetes was lower in 2006 (19.5%) than after the 2005 campaign (25.5%), and more akin to the 2005 baseline measure (18.6%). Recognition of the *Leg* poster appears to have remained stable but recognition of the *Tick Test* leaflet appears to have nearly doubled since 2005. There has been little change in the most common locations that respondents reported seeing both the posters and leaflets, with the waiting rooms of GP clinics remaining by far the most frequently cited. The locations also correspond fairly closely to the proportions of kits distributed to various types of organisations (see Table 1). Recognition of at least one of the posters or leaflet amounted to 42.9% of the sample.

4.1.4 Comparative Penetration of Various Advertisements

Figure 2 below illustrates the relative recall and recognition rates of each of the advertisements.

Figure 2: Comparison of recall and recognition rates for various DID campaign advertisements



There was minimal recall of any diabetes advertising directly associated with the 2006 DID campaign but modest recognition of the radio advertisements and *Eye* print advertisement. These results reflect the modest media schedule of the campaign. The *Tick Test* leaflet was not a specific component of the campaign materials, but it appears to have made an important contribution to raising awareness of diabetes in the present sample of respondents.

4.1.5 Contribution of Various Advertisement Media

One-hundred-and-seventy-three participants (61.3%) claimed to have heard or seen at least one of the DID advertisements in the past month. A majority of these participants (n=104; 36.9% of the entire sample) only recognised a single category of

DID advertising. This comprised of forty respondents (14.2%) only recognising newspaper advertisements, 24 (8.5%) only recognising the radio advertisements, 23 (8.3%) only recognising the *Tick Test* leaflet, and seventeen (6.0%) only recognising the posters.

The 109 participants (38.7%) who failed to recognise any DID advertising descriptions surpasses the proportion who reported such in the 2005 post-campaign evaluation (23.3%). This is likely to be a reflection of the modest media schedule in 2006 compared to 2005.

4.1.6 News Items

Participants were also asked whether they had seen or heard anything in the news about diabetes in the last month.

Table 9: News about diabetes seen or heard by respondents in the past two months

NEWS ITEMS	2005 Pre (n=318)		2005 Post (n=318)		2006 Post (n=282)		Change from 2005 pre	Change from 2005 post
	N	%	N	%	N	%	%	%
Any Features	117	**36.8**	136	**42.8**	138	**48.9**	+12.1	+6.1
TV feature	98	**30.8**	109	**34.3**	97	**34.4**	+3.6	+0.1
Radio feature	18	**5.7**	10	**3.1**	11	**3.9**	-1.8	+0.8
Newspaper article	30	**9.4**	28	**8.8**	15	**5.3**	-4.1	-3.5
Other/Can't remember	11	**3.5**	6	**1.9**	14	**5.0**	+1.5	+3.1

Table 9 suggests that the issue of diabetes has received increased media coverage with nearly half of all respondents in 2006 suggesting they had seen or heard something about diabetes within the past month, compared to just over one-third in the 2005 baseline. This may indicate excellent media publicity surrounding *National Diabetes Week* in 2006, but it may also reflect greater publicity outside of this time also. However, much of the gain from 2005 appears to have resulted from respondents who could not specifically recall what and where they had seen any such coverage.

4.2 Changes in Awareness of Diabetes

4.2.1 Changes in the Salience of Diabetes as a Serious Disease

Before participants had been prompted that the survey was about diabetes, they were asked what came to mind when they thought of serious diseases in Australia. Responses are displayed in Table 10 below.

Table 10: ***What comes to mind when you think of serious diseases in Australia?***

Serious Diseases in Australia	2005 Pre (n=318)		2005 Post (n=318)		2006 Post (n=282)		2006 change from:	
	N	%	N	%	N	%	Pre 2005	Post 2005
First-to-mind								
Cancer (all types)	187	**58.8**	177	**55.7**	159	**56.4**	-2.4	+0.7
CVD	96	**30.2**	81	**25.5**	47	**16.7**	-13.5	-8.8
HIV / AIDS	3	**0.9**	3	**0.9**	19	**6.7**	+5.8	+5.8
Diabetes	18	**5.7**	33	**10.4**	12	**4.3**	-1.4	-6.1
Obesity	5	**1.6**	9	**2.8**	5	**1.8**	+0.2	-1.0
Asthma	1	**0.3**	4	**1.3**	1	**0.4**	+0.1	-0.9
Mental illnesses	1	**0.3**	0	**0.0**	1	**0.4**	+0.1	+0.4
Arthritis	0	**0.0**	1	**0.3**	1	**0.4**	+0.4	+0.1
Dementia	1	**0.3**	1	**0.3**	-	**-**	-0.3	-0.3
Other	6	**1.9**	9	**2.8**	37	**13.1**	+11.2	+10.3
TOTAL	*318*	***100.0***	*318*	***100.0***	*282*	***100.0***		
Mentioned in any order								
Cancer (all types)	280	**88.1**	259	**81.4**	265	**94.0**	+5.9	+12.6
CVD	262	**82.4**	245	**77.0**	152	**53.9**	-28.5	-23.1
Diabetes	112	**35.2**	124	**39.0**	85	**30.1**	-5.1	-8.9
HIV / AIDS	9	**2.8**	5	**1.6**	39	**13.8**	11.0	+12.2
Dementia	8	**2.5**	14	**4.4**	24	**8.5**	+6.0	+4.1
Obesity	25	**7.9**	27	**8.5**	16	**5.7**	-2.2	-2.8
Arthritis	12	**3.8**	10	**3.1**	15	**5.3**	+1.5	+2.2
Asthma	6	**1.9**	12	**3.8**	10	**3.5**	+1.6	-0.3
Mental illnesses	12	**3.8**	8	**2.5**	6	**2.1**	-1.7	-0.4
Other	39	**12.3**	38	**11.9**	106	**37.6**	+25.3	+25.7

As with both previous surveys, cancer followed by cardiovascular diseases were the first and second diseases that came to mind when participants were asked to think of serious diseases in Australia. Somewhat worryingly, the first-to-mind salience of diabetes has not been maintained at the level reached immediately after the 2005 DID

campaign, and is actually slightly lower than 2005 baseline measure, being surpassed by HIV/AIDS. Overall mention of diabetes as a serious disease also evidenced a decline from the 2005 baseline measure, but it maintained its position as the third most frequently mentioned serious disease. The specific contribution of the various DID advertisements to diabetes salience can be elucidated from Table 11.

Table 11: Participants nominating diabetes as a serious disease by those who recognised various campaign advertising materials

DID Advertisement Recognised	Diabetes first-to-mind			Diabetes mentioned at all		
	N	%	*p*-value	N	%	*p*-value
Radio						
Yes (n=80)	3	3.8	**.950**	35	43.8	**.002***
No (n=202)	8	4.0		51	25.2	
TOTAL (n=282)	*11*	*3.9*		*86*	*30.5*	
Newspaper						
Yes (n=107)	5	4.7	**.786**	36	33.6	**.316**
No (n=175)	7	4.0		49	28.0	
TOTAL (n=282)	*12*	*4.3*		*85*	*30.1*	
Posters						
Yes (n=73)	2	2.7	**.456**	24	33.3	**.509**
No (n=209)	10	4.8		61	29.2	
TOTAL (n=281)	*12*	*4.3*		*85*	*30.2*	
Leaflet						
Yes (n=78)	7	9.0	**.017***	33	42.3	**.009***
No (n=200)	5	2.5		52	26.1	
TOTAL (n=278)	*12*	*4.3*		*85*	*30.7*	
Any DID Advertising						
Yes (n=173)	6	3.5	**.425**	60	34.7	**.049***
No (n=110)	6	5.5		26	23.6	
TOTAL (n=273)	*12*	*4.3*		*86*	*30.4*	

* denotes a statistically significant difference at p<.05

4.2.2 Changes in Personal Concern about Diabetes

Participants were asked what diseases were of greatest concern to their own personal health. Responses are displayed in Table 12 below.

Table 12: What illnesses or diseases are of greatest concern for your own personal health?

Serious Diseases in Australia	2005 Pre (n=318)		2005 Post (n=318)		2006 Post (n=282)		2006 change from:	
	N	%	N	%	N	%	Pre 2005	Post 2005
First to Mind								
Cancer (all types)	145	**45.6**	120	**37.7**	139	**49.3**	+3.7	+11.6
CVD	90	**28.3**	92	**28.9**	51	**18.1**	-10.2	-10.8
Diabetes	24	**7.5**	35	**11.0**	17	**6.0**	-1.5	-5.0
Arthritis	6	**1.9**	9	**2.8**	9	**3.2**	+1.3	+0.4
Dementia	3	**0.9**	6	**1.9**	9	**3.2**	+2.3	+1.3
Mental illnesses	3	**0.9**	1	**0.3**	3	**1.1**	+0.2	+0.8
Osteoporosis	2	**0.6**	2	**0.6**	2	**0.7**	+0.1	+0.1
Other	10	**3.5**	15	**5.0**	29	**10.3**	+6.8	+5.3
None	35	**11.0**	38	**11.9**	23	**8.2**	-2.8	-3.7
TOTAL	*318*	***100.0***	*318*	***100.0***	*282*	***100.0***		
Mentioned in any order								
Cancer (all types)	180	**56.6**	169	**53.1**	183	**64.9**	+8.3	+11.8
CVD	167	**52.5**	175	**55.0**	117	**41.5**	-11.0	-13.5
Diabetes	50	**15.7**	64	**20.1**	53	**18.8**	+3.1	-1.3
Mental deterioration	18	**5.7**	19	**6.0**	30	**10.6**	+4.9	+4.6
Arthritis	11	**3.5**	16	**5.0**	23	**8.2**	+4.7	+3.2
Osteoporosis	8	**2.5**	7	**2.2**	3	**1.1**	-1.4	-1.1
Loss of eyesight	5	**1.6**	2	**0.6**	2	**0.7**	-0.9	+0.1
None	25	**7.9**	11	**3.5**	23	**8.2**	+0.3	+4.7
Other	7	**2.2**	11	**3.5**	320	**113.5**	+111	+110
TOTAL	*471*	*148.2*	*474*	*149.0*	*754*	*267.4*		

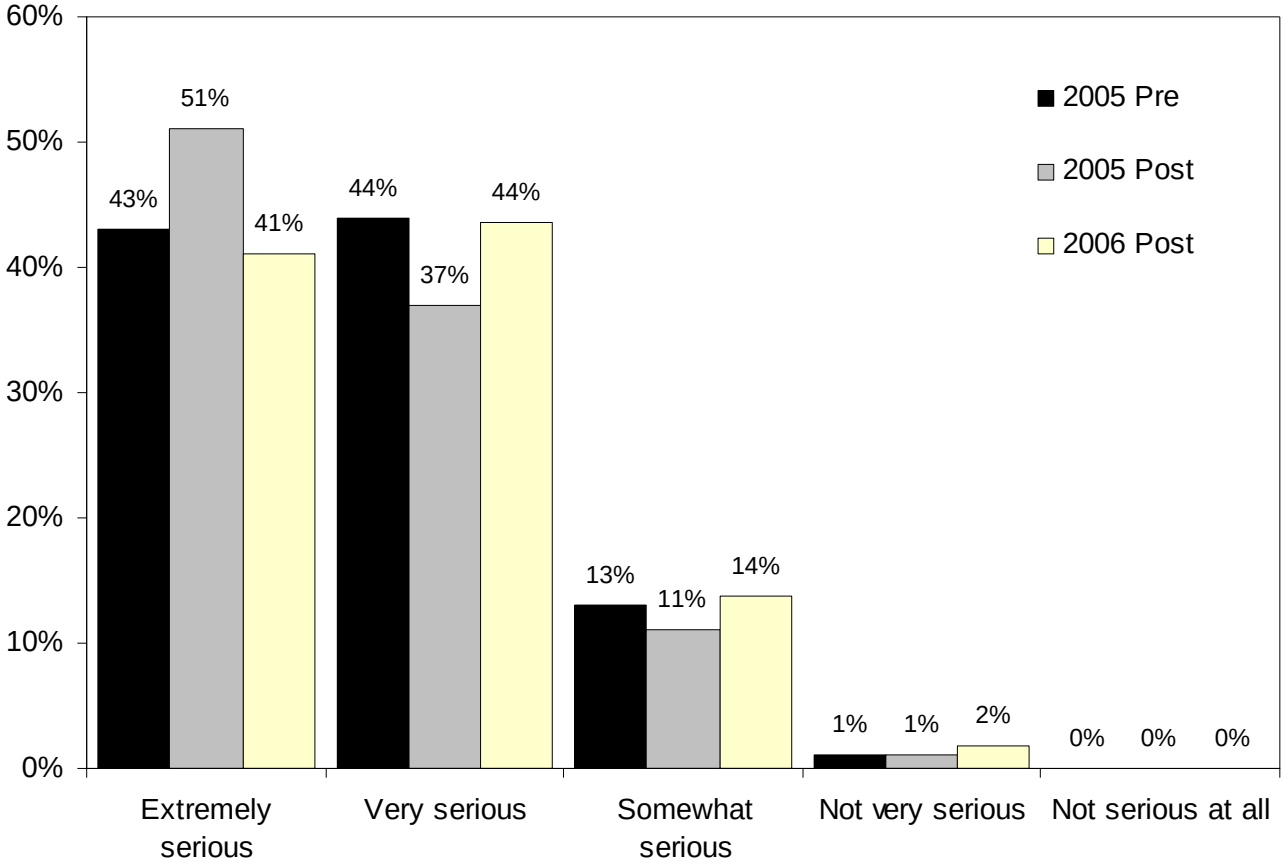
The salience of diabetes as a disease of personal concern only saw static changes from 2005. Furthermore, exposure to the 2006 DID campaign appeared to make little impact with no significant differences being observed between those who recognised any of the DID advertisements and those who did not.

4.2.3 Knowledge and Attitudes towards Diabetes

4.2.3.1 Perceived Seriousness of Diabetes

Having established the relative salience of diabetes to other diseases, all respondents were then prompted to think specifically about diabetes and rate along a five-point scale how serious they thought the health consequences are for someone who develops the disease. Results are illustrated in Figure 4 below.

Figure 4: ***How serious do you think the health consequences are for someone who develops diabetes?***

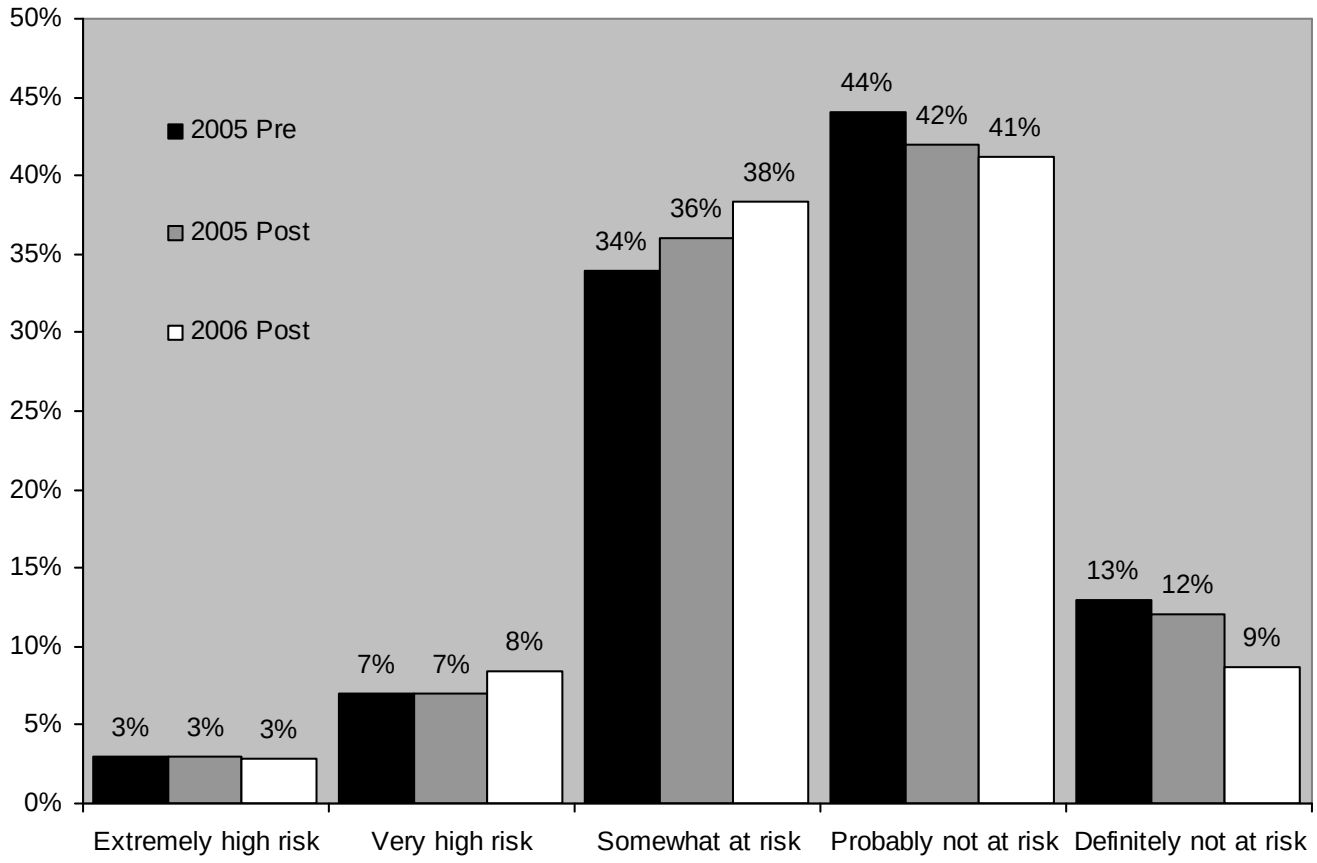


A large majority of respondents in the 2006 survey (85%) considered the health consequences of diabetes to be either 'very' or 'extremely' serious. This more closely mirrors the results of the 2005 baseline survey than the 2005 post-campaign survey, but there were no statistically significant differences observed between the 2005 and 2006 results.

4.2.3.2 Perceived Personal Risk of Developing Diabetes

Respondents were also asked to rate how personally at risk they thought they were of developing diabetes. Results are illustrated in Figure 5 below.

Figure 5: How at risk do you personally think you are of developing diabetes?



A majority of respondents in the 2006 survey considered themselves to be at low or no risk of developing diabetes. A slight trend was observed for respondents in the 2006 survey to consider themselves more at risk, but this increase was not significant.

Those who stated they were 'probably' or 'definitely' *not* at risk of developing diabetes were then asked why they thought this. Those who thought they *were* at risk were asked the same. Responses are outlined in Table 13 overleaf.

Table 13: Reasons why respondents believed they are or are not at risk of developing diabetes

	2005 Pre (n=318)		2005 Post (n=318)		2006 Post (n=282)		2006 Change from: 2005 Pre	2006 Change from: 2005 Post
	N	%	N	%	N	%	%	%
Why I am at risk								
I have a family history	70	**22.0**	63	**19.8**	54	**19.1**	-2.9	-0.7
I am overweight	23	**7.2**	26	**8.2**	38	**13.5**	+6.3	+5.3
I have a poor diet	30	**9.4**	36	**11.3**	20	**7.1**	-2.3	-4.2
I am getting older	13	**4.1**	24	**7.5**	23	**8.2**	+4.1	+0.7
I don't exercise	5	**1.6**	17	**5.3**	15	**5.3**	+3.7	0.0
Everyone's at risk	5	**1.6**	9	**2.8**	13	**4.6**	+3.0	+1.8
Other	1	**0.3**	31	**6.3**	28	**9.9**	+9.6	+3.6
Why I am NOT at risk								
I eat a balanced diet	103	**32.4**	95	**29.9**	94	**33.3**	+0.9	+3.4
I am fit and healthy	81	**25.5**	73	**23.0**	76	**27.0**	+1.5	+4.0
I have no family history of diabetes	78	**24.5**	69	**21.7**	50	**17.7**	-6.8	-4.0
I exercise regularly	56	**17.6**	61	**19.2**	46	**16.3**	-1.3	-2.9
I have regular health checks	25	**7.9**	25	**7.9**	23	**8.2**	+0.3	+0.3
I am not overweight	3	**0.9**	10	**3.1**	47	**16.7**	+15.8	+13.6
The risks of getting it are small	3	**0.9**	4	**1.3**	11	**3.9**	+3.0	+2.6
Other	34	**10.7**	29	**9.1**	0	**19.1**	-2.9	-0.7

The largest changes since 2005 appear to be respondents' increased association of being overweight with risk of developing diabetes, and decreased association of genetic predisposition being a risk factor. Awareness of getting older being another risk factor saw maintenance and even slight improvement over 2005. Overall, these are encouraging results that suggest public education surrounding the risk factors associated with diabetes is improving in line with the main messages of the DID campaign.

4.2.3.3 Knowledge of Diabetes Complications and Risk Factors

Participants were next asked to relate their knowledge of the major illnesses and health problems that diabetes can lead to. Results are displayed in Table 14.

Table 14: Recall of the major illnesses and health problems associated with diabetes and the sort of people who are most at risk of developing diabetes

	2005 Pre (n=318)		2005 Post (n=318)		2006 Post (n=282)		2006 Change from: 2005 Pre	2006 Change from: 2005 Post
	N	%	N	%	N	%	%	%
Consequence								
Limb Amputation	126	**39.6**	190	**59.7**	164	**58.2**	+18.6	-1.5
Blindness	145	**45.6**	202	**63.5**	153	**54.3**	+8.7	-9.2
Cardiovascular diseases	112	**35.2**	101	**31.8**	104	**36.9**	+1.7	+5.1
Kidney failure	49	**15.4**	46	**14.5**	43	**15.2**	-0.2	+0.7
Death	9	**2.8**	28	**8.8**	37	**13.1**	+10.3	+4.3
Impotency	1	**0.3**	3	**0.9**	4	**1.4**	+1.1	+0.5
Don't know	52	**16.4**	30	**9.4**	5	**1.8**	-14.6	-7.6
Other	8	**2.5**	6	**1.9**	59	**20.9**	+18.4	+19.0
Risk Factor								
Overweight	187	**58.8**	211	**66.4**	198	**70.2**	+11.4	+3.8
Poor diet	172	**54.1**	226	**71.1**	189	**67.0**	+12.9	-4.1
Family history	89	**28.0**	84	**26.4**	93	**33.0**	+5.0	+6.6
Sedentary lifestyle	76	**23.9**	118	**37.1**	93	**33.0**	+9.1	-4.1
Unhealthy people	51	**16.0**	62	**19.5**	18	**6.4**	-9.6	-13.1
Indigenous people	29	**9.1**	19	**6.0**	26	**9.2**	+0.1	+3.2
Over 30 years old	27	**8.5**	41	**12.9**	55	**19.5**	+11.0	+6.6
Smokers	18	**5.7**	17	**5.3**	20	**7.1**	+1.4	+1.8
Heavy drinkers	18	**5.7**	25	**7.9**	20	**7.1**	+1.4	-0.8
Don't know	15	**4.7**	17	**5.3**	2	**0.7**	-4.0	-4.6
Other	66	**20.8**	46	**14.5**	37	**13.1**	-7.7	-1.4

The increases observed in respondents' knowledge of blindness and limb amputations as complications associated with diabetes between the 2005 pre and post campaign surveys appear to have been largely sustained after the 2006 campaign, along with a substantial drop in the proportion of respondents who were unsure of any consequences of diabetes. So too, the proportions nominating risk factors associated with diabetes such as getting older, being overweight and having a poor diet and sedentary lifestyle were all largely sustained from the 2005 post-campaign evaluation.

5 Conclusion

In light of the limited media spend, the results of the present evaluation suggest that the 2006 DID campaign achieved reasonable penetration throughout Western Australia, with a majority of the target audience (61%) seeing or hearing at least one campaign advertisement. It is evident that the medium of radio advertising had limited ability to reach the target audience, but recognition of the *Big and Little* advertisements performed as well as could be expected from the radio listening behaviours reported by respondents. The radio advertisements were considered to be highly credible and personally relevant, and they clearly heightened the salience of diabetes as a serious disease amongst those who had heard them. The newspaper advertisements made the greatest discrete contribution to campaign awareness of any medium, with the *Eye* advertisement being the most widely recognised, as would be expected from its lion's share of the media schedule for newspapers. The posters made a very modest contribution only, but the *Tick Test* leaflet appears to played an important role, with those who saw it having the highest salience of diabetes as a serious disease of any group within the sample. Of course those who picked up a pamphlet about diabetes would already be predisposed to considering diabetes serious, but the leaflet still appears to have played a constructive role. The gains seen from the 2005 campaign in the proportion of participants considering diabetes to be an extremely serious disease was not sustained after the 2006 campaign with levels falling back to baseline (although these were already quite high). Nor was there any significant shift in the proportions thinking that they were at personal risk of developing diabetes (but the 2005 campaign made little impression upon this measure either). The 2005 DID campaign had a clear and sizable effect of educating people about some of the consequences arising from diabetes, with the proportion of people unsure of any consequences dropping significantly, and awareness of potential complications such as blindness and limb amputation rising significantly between baseline and post-campaign measures. These gains appear to have been largely sustained in the wake of the 2006 campaign but no further improvements were observed. However there does appear to have been further improvements in the proportion of people nominating age, overweight, poor diets and physical inactivity as risk factors for developing diabetes, suggesting the community at large is continuing to become better educated about the disease.

Overall, the data would suggest that the 2006 DID campaign helped maintain awareness and knowledge of diabetes within the target audience, with most of the gains from the 2005 DID campaign being sustained in the wake of the 2006 campaign.

6 References

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