

Pre and Post Testing of Multiple Media versus Television-only Diabetes
Awareness Advertising Campaigns in Geraldton and Bunbury

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1 Background

As part of its ongoing efforts to increase the knowledge and salience of diabetes within the community, the Diabetes Association of Western Australia Incorporated (DAWA), assisted by funding from HealthWay, instigated the project *Making Diabetes a Front Page Health Issue: Increasing Diabetes Brand Knowledge*. 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 six focus groups in Perth, Bunbury and Geraldton in November 2002 with 48 males and females aged 45 years and older. The aim of this project was to inform the development of media concepts about diabetes that would be acceptable, credible and personally relevant to Western Australians. The focus groups suggested that many members of the public thought diabetes was a 'serious' disease but had difficulty articulating the nature of this seriousness, and that few were personally worried about contracting the disease. On the other hand, most group members were very surprised to learn about both the widespread *prevalence* and severe *consequences* of diabetes. *Prevalence* and *consequence* information were both found to be novel and equally effective at gaining participants' attention. However only information about the *consequences* of diabetes appeared to increase the personal relevance of the disease to participants. The recommendations stemming from this research were that in order to gain the attention of the target audience, opening statements for media advertisements could be about the *prevalence* of diabetes, but the major emphasis should be on the *consequences* of diabetes (Carter, Donovan and Jalleh, 2002).

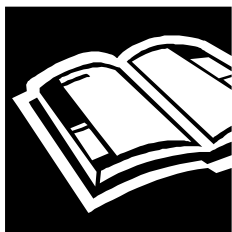
1.2 Testing of Concept Advertisements

Three concept advertisements were developed by Gatecrasher Advertising based upon the CBRCC recommendations. The concept advertisements were thirty seconds each and followed an animatic format (i.e. storyboards with still images, limited sound effects and voice-overs). In April 2003 the CBRCC tested the three concept advertisements by recruiting 225 respondents between the ages of 45 and 70 years in shopping malls in the Perth city centre. Respondents were shown one of the three concept advertisements twice before completing a series of questions regarding their reactions to the advertisement. This allowed assessments of the advertisements in terms of: viewers' reactions and emotions evoked by the advertisements; their subsequent perceptions of the seriousness of diabetes; their comprehension of the messages contained within the advertisements; the perceived relevance and credibility of the messages to the viewers; and their subsequent intentions to be tested for diabetes. Viewer reactions were compared for all three advertisements resulting in a recommendation that "Storybook" (see description hereafter) should be further developed for the campaign (Donovan, Carter and Jalleh, 2003).

2 The Campaign

Over a six week period starting from the beginning of June 2003, a comprehensive diabetes awareness campaign was implemented in Bunbury. This included broadcasts of the *Storybook* television advertisement, three radio advertisements, three newspaper advertisements, and a poster promotion, all executed in a similar fashion, as well as community activities and public lectures. Residents in Geraldton were exposed to the *Storybook* advertisement for the same period, but to no other campaign activities. The television, radio, print and poster advertisements are described below.

2.1.1 Television Advertisement



Storybook

The television advertisement featured as its opening scene a large book with a pleasant looking cover entitled "Diabetes". A voice-over stated "Most people think that diabetes is fairly innocent – but it's not". A hand then turned the pages. Each page illustrated (graphic) photographs of eye surgery, open heart surgery, lower limb amputation and

an arm hooked up to a renal dialysis machine. Concurrently the voice-over described the potential consequences of diabetes including blindness, heart disease and stroke, limb amputation, kidney failure and impotency. The advertisement finished by saying that anyone over 45, overweight and has a lack of exercise is at risk of contracting diabetes. The voice-over stated that anyone interested in learning more could contact the DAWA telephone number, which was displayed on the screen.

2.1.2 Radio Advertisements



Big and Little

This radio advertisement was of thirty seconds duration and had an adult and child's voices alternating whilst saying "If you thought diabetes was a little problem...think again. Diabetes affects over one million Australians. It's the fastest growing non-infectious disease in the world, affecting one in four adults over 25. People think it's a little problem because only half of the people who have diabetes know they have the disease. So, diabetes is a much bigger problem than people realise. And it's too serious to ignore."

A second variant of the advertisement had the adult's and child's voices stating "Because only half of the people who have diabetes know they have the disease, everyone thinks that it's a much smaller problem than it really is. The fact is diabetes is the fastest growing non-infectious disease in the world. It can lead to blindness, impotence, stroke, amputation and heart attack. So, diabetes is a much bigger problem than people realise. And it's too serious to ignore."



Washing Machine

This radio advertisement was fifty seconds long and began with the sound of a noisy washing machine droning away. A voice-over then stated "Washing is a drudge...but imagine what it's like having to get your blood washed clean for three to five hours at a time...three times a week. That's what some people with diabetes have to go through when their kidneys fail. Diabetes is serious...too serious to ignore".



Impotence

This radio advertisement was of fifty seconds duration beginning with the sounds of a man groaning with delight, gradually turning into groans of pain and finally into tears. A voice over then stated “For some people with diabetes, the hardest part is impotence. Diabetes is serious...too serious to ignore”.

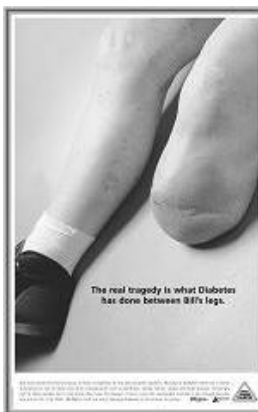
2.1.3 Newspaper Advertisements



Blindness

The same grisly looking picture of an eye undergoing surgery that appeared in *Storybook* was accompanied by a statement saying “Have a good look, this could be you in ten years time”. At the bottom of the advertisement was a statement that read as follows: “It should concern you to learn that if you are over 45, overweight and don’t get enough exercise you are at risk of diabetes. This can lead to major health consequences such as

blindness, kidney failure, impotence, amputation, stroke and heart disease. Amazingly, there are half a million Australians who have been diagnosed with diabetes, and the same number again who don’t even know they have the disease. If you think you need to know more, call 1300 136 588 today, because diabetes is too serious to ignore.”



Amputation

The same image of a an amputated left leg that appeared in *Storybook* was accompanied by a caption that read “The real tragedy is what diabetes has done between Bill’s legs”. At the bottom of the advertisement it stated “Not only has Bill lost his left leg as a result of diabetes, he has also become impotent. Because of diabetes, there are a million Australians at risk of these and other consequences such as blindness, kidney failure,

stroke and heart disease. Amazingly, half of these people don't even know they have the disease. If you're over 45, overweight and don't get enough exercise you are at risk. Call 1300 136 588 to find out more, because diabetes is too serious to ignore."



Dialysis

An image of a person's arm connected to renal dialysis tubes was accompanied by a caption that read "Three times a week, Ted's blood goes through a washing machine". At the bottom of the advertisement it went on to say "Apart from blindness, impotence, amputation and heart disease, diabetes can also lead to kidney failure. This often means having your blood filtered through a dialysis machine three times per week for three to five

hours at a time. Amazingly, there are half a million Australians who have been diagnosed with diabetes and the same number again who don't even know they have the disease. If you're over 45, overweight and don't get enough exercise, you are at risk. Call 1300 136 588 to find out more, because diabetes is too serious to ignore."

2.1.4 Posters



Hazard Sign

The poster came in A2 and A3 sizes and depicted three hazard signs with each containing the *Blindness*, *Amputation* and *Dialysis* images from the newspaper advertisements. Below the images a large caption read "Diabetes is too serious to ignore." Then under it in smaller writing were the words "If you're over 45, overweight and don't get enough exercise, you are at risk. Call 1300 136 588 to find out more."

2.2 Media Schedules

2.2.1 Television

The *Storybook* advertisement was aired by Western Australian regional television broadcaster GWN to audiences in both Bunbury and Geraldton. The media schedule

in each town was budgeted for 250 Target Audience Rating Points (TARPs) per week for six weeks. In general this would suggest that *Storybook* was seen by 80% of Bunbury and Geraldton residents, aged 45 years and over, at least three times per week.

2.2.2 Radio

The *Big and Little* and *Washing machine* advertisements were aired on local radio station 6TZ Bunbury a total of 162 times during the six weeks, averaging just under four times per day. The *Impotence* advertisement was only aired for the first week of June before being cancelled by DAWA.

2.2.3 Newspaper

The *Eye*, *Amputation* and *Dialysis* advertisements were printed in monochrome on one-page spreads (40 X 26 cm) between pages six and 33 of the *Bunbury Mail*, *Bunbury Herald*, *Bunbury South West Times* and the Southwest print run of the *Sunday Times*. The advertisements appeared in these newspapers on a total of twenty occasions over the six week period.

2.2.4 Poster

The poster was displayed in various positions of prominence around Bunbury for six weeks starting at the beginning of June 2003. A total of forty A3 sized posters and 26 A2 sized posters were displayed at the Bunbury Forum Shopping Centre, the Bunbury and Eaton Bowls clubs, and the Trafalgar and Burlington hotels. Posters were displayed on walls, exit doors, and in public wash rooms above wash basins, urinals and in cubicles.

3 Methodology

In order to gather baseline measures of public awareness and attitudes towards diabetes, pre-campaign surveys were administered to residents of the towns of Bunbury and Geraldton in May 2003. At the end of the six week period in July 2003, post-campaign surveys were again administered to Bunbury and Geraldton residents in order to measure relative changes in public awareness and attitudes towards diabetes.

3.1 Pre-campaign Questionnaire

The pre-campaign questionnaire consisted of four screening questions regarding residential status, age, occupation and sex. This was followed by four open-ended and five close-ended questions regarding the salience of diabetes, the perceived seriousness and personal threat of the disease, knowledge about the risk factors and potential consequences associated with the disease and finally four questions regarding personal associations with the disease, such as whether participants, their family or friends have diabetes.

3.2 Post-campaign Questionnaire

The post-campaign questionnaire replicated all of the items contained within the pre-campaign questionnaire to allow for a direct comparison of pre and post-campaign responses. The post-campaign questionnaire also contained an additional 26 items measuring unprompted and prompted recall of the campaign advertisements, comprehension of and reactions to the advertisements, and consequent behaviours associated with the advertisements.

3.3 Procedure

For both the pre and post-campaign phases, a random sample of telephone numbers was generated by the research agency's Computer Assisted Telephone Interviewing (CATI) system. Unanswered numbers were automatically redialled after a set interval. Three attempts to obtain contact were made before substitution. Only persons in the primary target audience for the campaign were selected for interview, that is, persons aged 45 to 70 years. Participants were also screened to ensure they were residents of Geraldton or Bunbury 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 one for the survey interview. If unavailable a further two attempts were made to contact the specified individual before another number was substituted. The sampling was stratified to ensure that equal proportions of males and females were recruited, and equal numbers from the 45 to 55 and 56 to 70 year old age groups.

Professional interviewers conducted the survey interviews by reading from a set script and recorded 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 computer database was analysed using the Statistical Package for the Social Sciences (SPSS) version 11.0.

3.4 Participants

In total, 505 respondents were recruited from Geraldton and Bunbury for the pre-campaign phase in May 2003 and a further 505 respondents for the post-campaign phase in July 2003. The age and sex distributions of participants were equally proportioned in each town. Overall, Bunbury respondents were slightly more educated than Geraldton respondents, with a statistically higher proportion likely to have completed a university degree.¹ On this basis it could be expected that Bunbury respondents would be more cognisant of diabetes than Geraldton respondents, in both the pre-campaign and post-campaign surveys.

¹ $\chi^2(1)=6.970; p<.01$.

Table 1: Age, Sex and Education of Participants in Geraldton and Bunbury

		Geraldton		Bunbury		TOTAL	
		<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>
		(n=253)	(n=252)	(n=253)	(n=252)	(n=505)	(n=505)
Age	45 to 55 years	50.0%	49.8%	50.2%	50.0%	50.1%	49.9%
	56 to 70 years	50.0%	50.2%	49.8%	50.0%	49.9%	50.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Sex	Male	50.0%	49.8%	49.8%	50.0%	49.9%	49.9%
	Female	50.0%	50.2%	50.2%	50.0%	50.1%	50.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Education	=< Year 10	51%	50%	45%	44%	48%	47%
	=< Year 12	11%	15%	16%	16%	14%	15%
	Trade / Diploma	26%	22%	22%	20%	24%	21%
	University degree	12%	12%	17%	19%	14%	16%
	Total	100%	100%	100%	100%	100%	100%

Respondents were also asked whether they had diabetes, and whether they had any family members or friends who had diabetes. These items were asked at the end of each survey in order to avoid prompting effects. Participants' responses are displayed in Table 2 below.

Table 2: Participants' Dealings With Diabetes

	Geraldton		Bunbury		TOTAL	
	<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>
	(n=253)	(n=252)	(n=253)	(n=252)	(n=505)	(n=505)
Respondents with diabetes	6%	12%	7%	7%	7%	10%
Family member with diabetes	33%	41%	34%	39%	33%	40%
Friend with diabetes	64%	59%	58%	61%	61%	60%
Tested for diabetes	73%	75%	71%	72%	72%	74%

A total of 34 respondents in the pre-campaign survey and 50 respondents in the post-campaign survey reported having diabetes. There were equivalent numbers of males

and females who reported having diabetes but three-quarters were from the 56 to 70 year old age group. There were slightly more respondents who reported having diabetes in the post-campaign evaluation but this difference was not statistically significant.² Respondents with diabetes were excluded from further analysis thereby reducing the final sample to 926. All results reported hereafter include only the responses of those participants without diabetes.

² Test: $\chi^2(1) = 3.324$; $p = .068$

3 Results

3.1 Salience Of Diabetes

3.1.1 Unprompted Reference To Diabetes As A ‘Serious’ Disease

Before participants had been asked any specific questions regarding diabetes, they were asked what came to mind when they thought of ‘serious’ diseases amongst Australians. The results for ‘diabetes’ are shown in Table 3.

Table 3: Diabetes as a Serious Disease

		Geraldton		Bunbury		TOTAL	
		<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>
		(n=236)	(n=222)	(n=235)	(n=233)	(n=471)	(n=455)
<u>Diabetes</u>	First mentioned	3%	7%	5%	11%	4%	9%
	Second mentioned	8%	16%	7%	13%	8%	15%
	Total Mentioned	19%	35%	26%	41%	23%	38%

The number of participants for whom ‘diabetes’ was first to mind more than doubled and this increase was statistically significant.³ However there was no statistical difference between the responses of Geraldton and Bunbury residents,⁴ nor an interaction between the time of the survey and town,⁵ suggesting the greater intensity of advertising activity in Bunbury had no appreciable effect on this measure.

The proportion of participants, whose first thought was diabetes was very low before the pilot campaign (4%) - far lower than other diseases such as cancer (54%) and heart disease (20%) and more akin to diseases such as AIDS (6%) and SARS (6%). The pilot campaign succeeded in raising the profile of diabetes as a *first to mind* ‘serious’ disease far above its pre-campaign level (up to 9%), largely at the expense of other diseases such as AIDS, SARS, obesity, mental health and asthma, which all dropped.

The total number of times that participants mentioned diabetes as a ‘serious’ disease increased from 23% to 38% between the pre and post-campaign phases and was

³ Test: $F(1)=9.374; p<.01$

⁴ Town: $F(1)=2.231; p=.136$

⁵ $F(1)=.479; p=.489$

statistically significant.⁶ Bunbury residents were statistically more likely to mention diabetes at all than Geraldton residents,⁷ but again, the greater advertising activity in Bunbury could not account for this difference as there was no interaction between time of survey and each town.⁸ Bunbury residents were more likely than Geraldton residents to mention diabetes as a ‘serious’ disease both *before* and *after* the campaign. Prior to the campaign, diabetes was third most commonly mentioned overall as a ‘serious’ disease, behind cancer (85%) and heart disease (57%). It remained third most frequently mentioned after the pilot campaign, but its salience increased from a distant third to a ‘contender’ for second most salient disease in Australia.

3.1.2 Personal Concern About Developing Diabetes

Participants were then asked what illnesses or diseases were of greatest concern for their own personal health. Results are displayed in Table 4 below.

Table 4: Personal Concern about Developing Diabetes

		Geraldton		Bunbury		TOTAL	
		<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>	<i>Pre</i>	<i>Post</i>
		(n=236)	(n=222)	(n=235)	(n=233)	(n=471)	(n=455)
<u>Diabetes</u>	First mentioned	3%	7%	3%	9%	3%	8%
	Second mentioned	2%	4%	2%	8%	2%	6%
	Total Mentioned	17%	19%	16%	28%	16%	24%

The number of participants who first nominated diabetes as the disease of greatest personal health concern increased in Geraldton from 3% to 7% and from 3% to 9% in Bunbury. This overall increase was statistically significant,⁹ but was still far below cancer (48%) and heart disease (22%). There was no main effect to distinguish between towns,¹⁰ nor a significant interaction between the towns and pre and post-campaign surveys.¹¹

⁶ Test: $F(1)=26.084$; $p<.001$

⁷ Town: $F(1)=4.720$; $p<.05$

⁸ Test*Town: $F(1)=.019$; $p=.890$

⁹ Test: $F(1)=15.215$; $p<.001$

¹⁰ Town: $F(1)=1.376$; $p=.241$

¹¹ Test*Town: $F(1)=1.323$; $p=.250$

The total number of times that diabetes was mentioned between pre and post-campaign surveys also saw a statistically significant increase.¹² The main effect of town approached significance ($p<.10$), suggesting that Bunbury residents were more likely than Geraldton residents to report a personal concern about developing diabetes.¹³ The interaction between pre and post-campaign surveys and town also approached statistical significance ($p<.08$) suggesting that the additional advertising activities in Bunbury may have had some additional effect over and above that of the *Storybook* advertisement alone.¹⁴ In the wake of the pilot campaign, diabetes remained the third most common disease of personal concern in both towns (24%), behind cancer (59%) and heart disease (42%).

3.2 Attitude Towards Diabetes

3.2.1 Perceived Seriousness Of Diabetes

Participants were specifically asked how serious the health consequences are for someone who develops diabetes, with responses being recorded along a five-point scale as outlined in Table 5 below.

Table 5: Perceived Seriousness of Diabetes

	Geraldton		Bunbury		TOTAL	
	Pre (n=236)	Post (n=222)	Pre (n=235)	Post (n=233)	Pre (n=471)	Post (n=455)
Extremely serious	25%	36%	30%	39%	27%	37%
Very serious	54%	52%	51%	47%	53%	50%
Somewhat, not very or not at all serious	21%	12%	19%	14%	20%	13%

Prior to the pilot campaign, four-fifths of respondents already rated diabetes as either ‘very serious’ or ‘extremely serious’. Despite these high pre-existing levels, the campaign had a clear additional effect with participants in both towns rating the consequences of diabetes as significantly more serious after the pilot campaign.¹⁵ Table 5 shows a substantial lift in the proportion of respondents considering diabetes to be ‘extremely serious’. There were no significant differences observed between the

¹² Test: $F(1)=8.197$; $p<.01$

¹³ Town: $F(1)=2.695$; $p=.101$

¹⁴ Test*Town: $F(1)=3.159$; $p=.076$

¹⁵ Test: $F(1)=15.443$; $p<.001$

two towns,¹⁶ nor an interaction between towns and participant ratings before and after the pilot campaigns.¹⁷ This would suggest that the campaigns in both towns had an effect on people's perceptions about the seriousness of diabetes, but the extra advertising activities in Bunbury had little additional effect, possibly because of the pre-existing high levels anyway.

3.2.2 Perceived Personal Risk Of Developing Diabetes

Participants were then asked how personally at risk they felt of developing diabetes, with responses being recorded along a five-point scale as outlined in Table 6 below.

Table 6: Perceived Personal Risk of Developing Diabetes

	Geraldton		Bunbury		TOTAL	
	Pre (n=236)	Post (n=222)	Pre (n=235)	Post (n=233)	Pre (n=471)	Post (n=455)
Extremely or very high risk	10%	8%	10%	13%	10%	11%
Somewhat at risk	35%	41%	37%	43%	36%	42%
Probably or definitely not at risk	55%	51%	53%	44%	54%	47%

The overall effect of the campaign was in the direction of increased perceived personal risk for the respondents and this difference approached statistical significance ($p=.06$).¹⁸ There was no significant difference between Geraldton and Bunbury respondents,¹⁹ nor was there a significant interaction between the towns and pre and post-campaign surveys.²⁰ Nevertheless, residents from Bunbury showed a greater increase than those from Geraldton; a finding consistent with greater advertising activity in the former town.

3.3 Knowledge Of Diabetes

3.3.1 Recall Of The Consequences Of Diabetes

Participants were asked what the health consequences of diabetes were. Unprompted responses are illustrated in Table 7 overleaf.

¹⁶ Town: $F(1)=.109$; $p=.741$

¹⁷ Test*Town: $F(1)=.302$; $p=.582$

¹⁸ Test: $F(1)=3.556$; $p=.060$.

¹⁹ Town: $F(1)=2.263$; $p=.133$.

²⁰ Test*Town: $F(1)=2.163$; $p=.142$.

Table 7: Recall of the Various Consequences of Diabetes

CONSEQUENCE	Geraldton		Bunbury		TOTAL	
	Pre (n=236)	Post (n=222)	Pre (n=235)	Post (n=233)	Pre (n=471)	Post (n=455)
Blindness *** #	50%	63%	45%	72%	47%	68%
Limb Amputation *** +	32%	39%	59%	67%	35%	63%
Heart Disease*	17%	26%	24%	27%	21%	27%
Kidney Disease	16%	16%	20%	21%	18%	19%
Stroke	3%	4%	7%	5%	5%	5%
Impotence***	<1%	4%	1%	6%	1%	5%
Don't Know *** +	24%	15%	22%	6%	23%	10%

Pre and Post values significantly different at: * $p < .05$, ** $p < .01$ or *** $p < .001$

+ Bunbury and Geraldton values significantly different at $p < .05$.

significant interaction between town and pre and post values at $p < .05$

Unprompted awareness of the various consequences of diabetes revealed statistically significant improvements in both towns for blindness, limb amputation, heart disease and impotence.²¹ The main increases were for blindness (47% to 68%) and limb amputation (45% to 63%). Correspondingly the proportion of respondents claiming not to know any of the consequences of diabetes more than halved and was also statistically significant.²² There were also differences observed between Geraldton and Bunbury respondents with significantly more Bunbury residents identifying limb amputation²³ as a consequence of diabetes in both the pre and post-campaign surveys. Also significantly fewer Bunbury residents reported that they did not know any consequences of diabetes in the post-campaign survey.²⁴

The one significant interaction observed between town and pre and post-campaign surveys was for the risk factor of blindness - the knowledge of Bunbury residents improved to a significantly greater extent than for Geraldton residents.²⁵ This could reasonably be attributed to the additional advertising activities in Bunbury, and most likely the *Blindness* newspaper advertisement in particular.

²¹ Blindness: $F(1)=9.682$; $p < .001$. Limb amputation: $F(1)=77.314$; $p < .001$. Heart disease: $F(1)=4.939$; $p < .05$. Impotency: $F(1)=16.576$; $p < .001$.

²² Don't know: $F(1)=26.436$; $p < .001$.

²³ Limb amputation: $F(1)=4.932$; $p < .05$.

²⁴ Don't know: $F(1)=4.629$; $p < .05$.

²⁵ Blindness Town*Test: $F(1)=4.812$; $p < .05$.

3.3.2 Recognition Of The Consequences Of Diabetes

Respondents were read a series of health conditions and asked whether or not each was a potential consequence of diabetes. Responses were recorded as either “yes”, “no” or “unsure”. Results are outlined in Table 8 below.

Table 8: Recognition of the Consequences of Diabetes

CONSEQUENCE		Geraldton		Bunbury		TOTAL	
		Pre (n=236)	Post (n=222)	Pre (n=235)	Post (n=233)	Pre (n=471)	Post (n=455)
Heart disease	Yes	63%	64%	68%	70%	65%	67%
	No	18%	11%	16%	13%	17%	12%
	Unsure	19%	25%	16%	17%	18%	21%
		100%	100%	100%	100%	100%	100%
Blindness	Yes	91%	95%	92%	96%	91%	96%
	No	4%	1%	3%	1%	3%	1%
	Unsure	5%	4%	5%	3%	5%	3%
		100%	100%	100%	100%	100%	100%
Stroke	Yes	73%	73%	68%	71%	70%	72%
	No	9%	9%	15%	14%	12%	11%
	Unsure	18%	18%	17%	15%	18%	17%
		100%	100%	100%	100%	100%	100%
Limb amputation	Yes	87%	94%	88%	97%	88%	96%
	No	6%	2%	7%	<1%	7%	1%
	Unsure	7%	4%	5%	2%	5%	3%
		100%	100%	100%	100%	100%	100%
Kidney failure	Yes	89%	91%	88%	89%	89%	90%
	No	3%	2%	5%	3%	4%	2%
	Unsure	8%	7%	7%	8%	7%	8%
		100%	100%	100%	100%	100%	100%
Impotence	Yes	60%	68%	53%	72%	56%	70%
	No	11%	5%	10%	5%	11%	5%
	Unsure	29%	27%	37%	23%	33%	25%
		100%	100%	100%	100%	100%	100%

The pre-existing levels of prompted knowledge about the various consequences of diabetes in both Geraldton and Bunbury were reasonably high. The least well known consequences were *impotence* (56%) followed by *heart disease* (65%) and *stroke* (70%). There was general improvement in participants’ knowledge of all of the above consequences but no significant differences were observed between Bunbury and

Geraldton residents. The largest gains were observed for *blindness, limb amputation* and *impotency*, with these improvements being statistically significant across both towns.²⁶ Gains in regards to *heart disease* and *stroke* were relatively low, perhaps reflecting the absence of memorable visual imagery for these conditions.

3.3.3 Recall Of Risk Factors Associated With Diabetes

Participants were asked to recall what sort of people are most at risk of developing diabetes. Responses are displayed in Table 9 below.

Table 9: Recall of Risk Factors Associated with Diabetes

	Geraldton		Bunbury		TOTAL	
	Pre (n=236)	Post (n=222)	Pre (n=235)	Post (n=233)	Pre (n=471)	Post (n=455)
<u>First Mentioned</u>						
Overweight	37%	46%	33%	49%	35%	48%
Over 45 years old	8%	14%	10%	11%	9%	13%
Indigenous population	21%	13%	6%	4%	14%	8%
Genetic predisposition	13%	7%	15%	7%	14%	7%
High fat diet	4%	2%	5%	5%	4%	4%
Inactive / Lack of exercise	4%	4%	3%	5%	3%	3%
Don't Know	8%	7%	8%	4%	8%	6%
<u>Mentioned In Any Order</u>						
Overweight	51%	62%	52%	72%	52%	67%
Inactive / Lack of exercise	19%	37%	24%	43%	21%	40%
Genetic predisposition	23%	18%	35%	24%	29%	21%
High fat diet	21%	16%	19%	26%	20%	21%
Over 45 years old	14%	19%	15%	22%	14%	21%
Indigenous population	20%	12%	6%	4%	13%	8%
Don't Know	8%	7%	8%	4%	8%	6%

In both Geraldton and Bunbury, statistically significant increases in the total number of unprompted mentions for the risk factors for developing diabetes were observed for *age* (14% to 21%), *weight* (52% to 67%) and *exercise* (21% to 40%).²⁷ This was in

²⁶ Blindness: Mann-Whitney U=121751.5; $p<.01$. Limb amputation: Mann-Whitney U=116820.0; $p<.001$. Impotency: Mann-Whitney U=111355.5; $p<.001$.

²⁷ Age: $F(1)=4.380$; $p<.05$; Overweight: $F(1)=21.774$; $p<.001$; Exercise: $F(1)=38.756$; $p<.001$.

accordance with the statement consistently used in the advertising: “if you are over 45, overweight and don’t get enough exercise you are at risk of diabetes”.

Factors that were not mentioned in the advertising such as *high fat diet* remained static before and after the pilot campaign but the factors of *genetic predisposition* and *susceptibility of the indigenous population* fell by significant levels.²⁸ The susceptibility of indigenous people was also mentioned significantly more frequently by Geraldton residents both before and after the pilot campaign,²⁹ reflecting the higher number of indigenous people living in Geraldton. It is noteworthy that the number of participants attending to fixed factors (i.e. being an indigenous person or having a family history of diabetes) fell sharply in the aftermath of the pilot campaigns while those factors of more universal concern (i.e. age, exercise and weight) increased. There was some indication of a greater effect in Bunbury than in Geraldton with respect to *obesity*. Likewise *high fat diet* increased in Bunbury where it declined in Geraldton. This may have been due to some additional lectures and media interviews given by in Bunbury that mentioned fat in the diet.

3.3.4 Knowledge Of Age-Group At Risk Of Diabetes

Those participants who did not mention being over 45 years of age as a risk factor were asked at what age they thought people were at increased risk of developing diabetes. Responses are outlined in Table 10 below.

Table 10: Estimated Age of Increased Risk of Diabetes

TOWN	N	TEST	Mean (years)	Std. Deviation
Geraldton	175	pre	35.4	17.5
	143	post	40.4	12.4
Bunbury	174	pre	35.3	19.4
	167	post	42.4	9.6
Total	349	pre	35.4	18.5
	310	post	41.5	11.0

²⁸ Indigenous Population: $F(1)=7.759$; $p<.01$:

²⁹ Town: $F(1)=36.797$; $p<.001$

The suggested age of increased risk of diabetes became more realistic (closer to 45 years of age and with much smaller standard deviations) in the wake of the pilot campaigns in both Geraldton and Bunbury. This trend was statistically significant.³⁰ Bunbury respondents were slightly more accurate than Geraldton respondents after the campaign, but there were no statistically significant differences between towns, nor significant interactions.³¹

3.3.5 Recognition Of Risk Factors For Diabetes

Participants were read several statements about risk factors associated with diabetes and asked to state after each whether it was “true” or “false”. Accurate and plausible but misleading risk factors were interspersed. Responses for accurate statements are displayed in Table 11 below.

Table 11: Recognition of Risk Factors Associated with Diabetes

Risk Factor		Geraldton		Bunbury		TOTAL	
		Pre (n=236)	Post (n=222)	Pre (n=235)	Post (n=233)	Pre (n=471)	Post (n=455)
Physical inactivity	<i>True</i>	92%	93%	90%	97%	91%	95%
	<i>False</i>	6%	4%	6%	2%	6%	3%
	<i>Unsure</i>	2%	4%	4%	1%	3%	2%
		100%	100%	100%	100%	100%	100%
High fat diet	<i>True</i>	87%	84%	85%	88%	86%	86%
	<i>False</i>	10%	6%	10%	5%	10%	6%
	<i>Unsure</i>	3%	10%	6%	7%	4%	8%
		100%	100%	100%	100%	100%	100%
Family history	<i>True</i>	95%	92%	94%	96%	95%	94%
	<i>False</i>	2%	2%	3%	2%	3%	2%
	<i>Unsure</i>	3%	6%	3%	2%	3%	4%
		100%	100%	100%	100%	100%	100%
Overweight	<i>True</i>	96%	98%	94%	95%	95%	96%
	<i>False</i>	3%	<1%	3%	1%	3%	1%
	<i>Unsure</i>	2%	2%	3%	3%	3%	3%
		100%	100%	100%	100%	100%	100%

³⁰ Test: $F(1)=6.607$; $p<.01$

³¹ Town: $F(1)=.655$; $p=.419$; Test*Town: $F(1)=.732$; $p=.393$

When prompted, respondents from each town were easily able to recognise the risk factors associated with diabetes, both before and after the pilot campaign. Recognition of risk factors for developing diabetes was extremely high and remained fairly stable in regards to eating a *high fat diet*, having a *family history* and being *overweight*. The only statistical difference observed was in the significantly greater number of Bunbury respondents who recognised *physical inactivity* as a risk factor in the wake of the pilot campaign.³²

A comparison of recognition rates between accurate and misleading risk factors suggested that respondents were not merely ‘yea saying’ - the rate of pre and post-campaign false-positives were much lower for *genetically modified foods* (24%), *pollution* (26%), *salty diet* (40%), *stress* (55%) and *smoking* (66%). Only *excessive alcohol* (77%) and *high sugar diet* (82%) approximated the levels of any of the risk factors featured in the campaign. Moreover, the level of false-positives significantly decreased in both towns between pre and post-campaign surveys for *high sugar diet*,³³ *smoking*,³⁴ *salty diet*,³⁵ and *excessive alcohol*.³⁶

The rate of recognition for risk factors associated with diabetes does not seem to have been a sensitive measure for campaign effects because of the ceiling effect encountered. However the rate of recognition for the majority of misleading risk factors dropped substantially, indicating that the campaign did have a positive educational effect in both towns.

3.4 Actions Taken In Response To The Advertisements

Both Geraldton and Bunbury participants were asked whether or not they had taken any action in relation to the diabetes awareness campaign. Participants were read a series of behaviours associated with diabetes and asked whether or not they had undertaken each. Results are displayed in Table 12 overleaf.

³² Bunbury: $\chi^2(2)=8.474$; $p<.05$

³³ $\chi^2(2)=16.749$; $p<.001$

³⁴ $\chi^2(2)=9.909$; $p<.01$

³⁵ $\chi^2(2)=10.421$; $p<.01$

³⁶ $\chi^2(2)=7.905$; $p<.05$

Table 12: Actions taken as a result of the Campaign

	Geraldton (n=221)	Bunbury (n=241)	Total (n=462)
Talked with my family about diabetes	24%	27%	26%
Talked with friends about diabetes	22%	18%	20%
Got tested for diabetes	16%	14%	15%
Was encouraged to find out more about diabetes	14%	15%	14%
Talked to my doctor about diabetes	14%	11%	13%
Attended a public lecture about diabetes	2%	3%	2%
Called the diabetes helpline	2%	1%	1%
Searched the Internet about diabetes	1%	1%	1%
Searched the local library about diabetes	1%	<1%	1%

There were no statistical differences observed between Geraldton and Bunbury residents for any of the items. The campaign appears to have generated discussion about diabetes between some respondents and their families, friends and doctors. The number of respondents who actively sought out further information about diabetes appears to be minimal. This would either suggest that the campaign had minimal impact on the respondents, or that they felt that they already knew enough about diabetes, either from the information contained within the advertisements, or from prior knowledge. The 15% of participants who stated they got tested for diabetes as a result of the campaign does not seem to be reflected in the 2% increase in the total number of participants who reported to have ever been tested for diabetes before and after the pilot campaign (see Table 2). It may well be that respondents who had already been tested for diabetes prior to the campaign falsely reported that they were tested as a result of the campaign, or that they simply got re-tested during the campaign. As such these particular results should be viewed with caution.

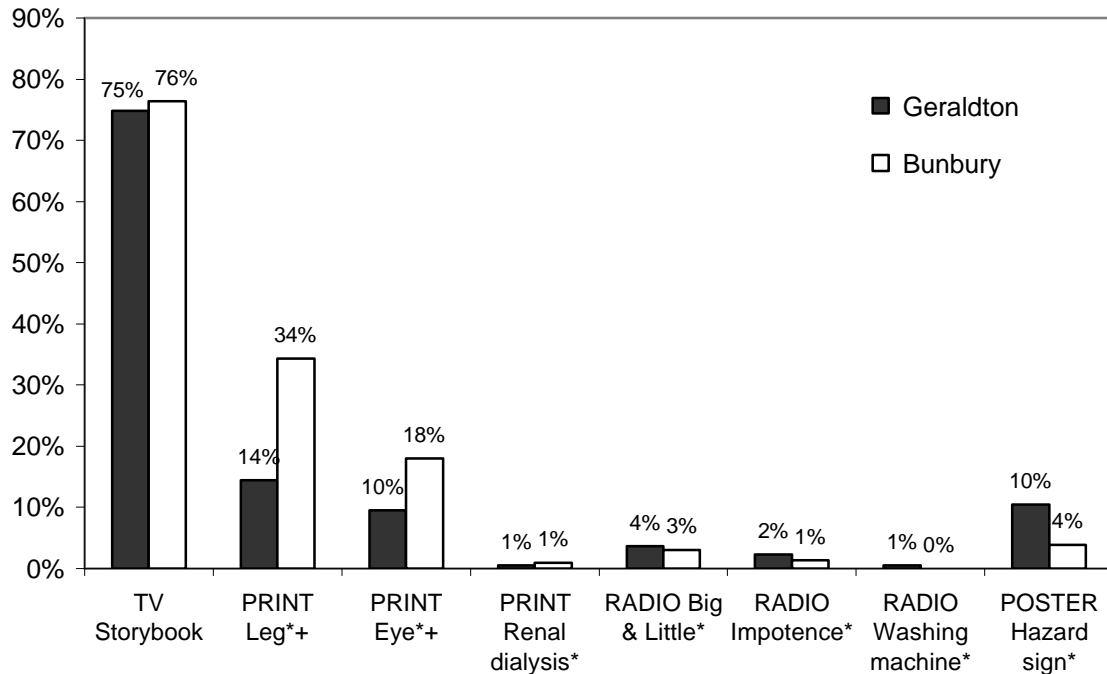
3.5 Recall Of Diabetes Advertising and Publicity

Respondents from Geraldton and Bunbury were asked whether or not they had seen or heard any advertising about diabetes in the past two months. Slightly more Bunbury respondents (82%) than Geraldton respondents (77%) stated in the affirmative but the difference was not statistically significant.³⁷ Those who stated that they had seen or

³⁷ Town: $\chi^2(1)=2.021; p=.155$

heard any advertising about diabetes were asked to specify what it was. Results are illustrated in Figure 1 below.

Figure 1: Recalled Diabetes Advertising within the past two months



* Advertisements appearing in Bunbury only

+ Geraldton and Bunbury recall rates significantly different at $p < .05$

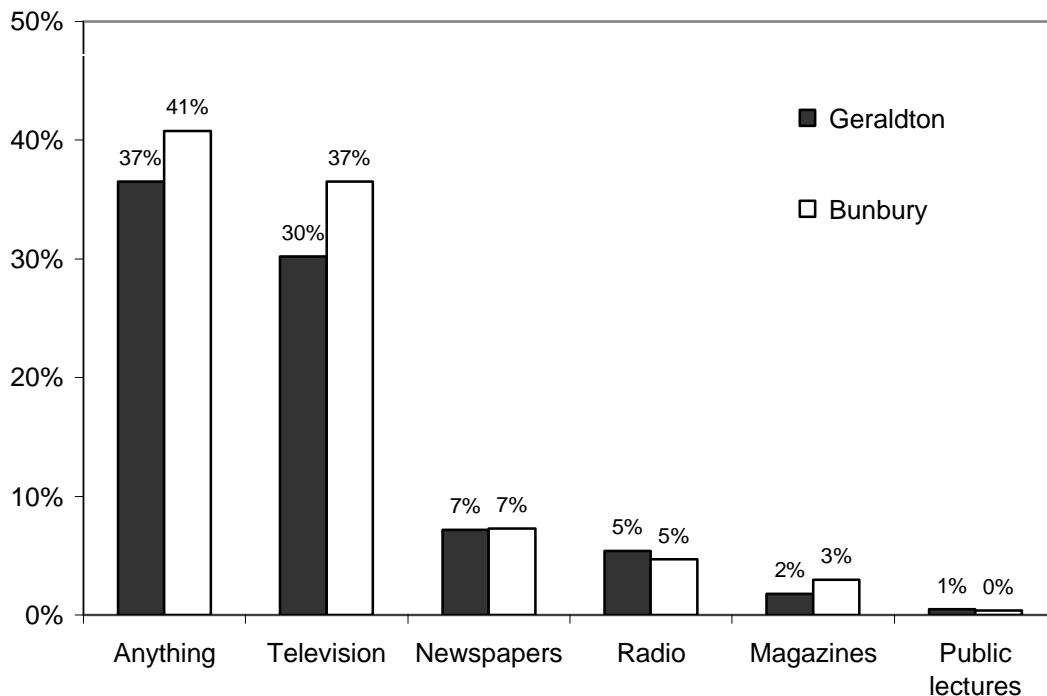
Advertising recall, or “cut-through”, is a measure of the advertisement’s ability to be readily recalled from memory, and hence a measure of the advertisement’s noticeability or attention-getting power and the extent to which the advertisement’s content has been linked to the category cue. Figure 1 suggests that the *Storybook* television advertisement had very high cut-through in both Geraldton and Bunbury. Of the additional advertising campaign materials used in Bunbury, only the newspaper advertisements *Leg* and *Eye* appeared to be recalled with any reliability, as these were the only materials recalled at a statistically higher rate in Bunbury, where they actually appeared, in comparison to the spurious recall rate in Geraldton, where they did not appear at all.³⁸ The *Dialysis* newspaper advertisement and all three radio advertisements had very low cut-through rates. However, this is not unexpected given the dominance of the television advertising. The use of the same photographs within the newspaper advertisements, the *Hazard Sign* poster and the *Storybook* television advertisement may have caused some confusion amongst respondents and served to

³⁸ Leg: $\chi^2=24.311$; $p < .001$. Eye: $\chi^2=6.993$; $p < .01$.

bolster the false-positive recall rate in Geraldton. This may go some way to explaining how the recall rate in Bunbury was in fact lower than the spurious recall rate in Geraldton. There were no sex differences observed for any of the advertisements.

Respondents were also asked to recall whether during the past two months they had seen or heard anything in the news or on a programme about diabetes. Open-ended responses are illustrated in Figure 2.

Figure 2: Proportion of Respondents Reporting To Have Seen Or Heard Any News Items or Programmes In the Media Regarding Diabetes In The Past Two Months



A slightly higher proportion of Bunbury residents than Geraldton residents reported having seen or heard *anything* in the news or on a programme about diabetes during the previous two months. However the difference was not statistically significant.³⁹ No significant differences were found between the two towns in regards to the types of recalled media news items or programs about diabetes. One-third of respondents from each town recalled seeing a news item or program about diabetes on television (33%), while far smaller proportions recalled items about diabetes in newspapers (7%), on radio (5%), in magazines (1%) or at public lectures (<1%).

³⁹ $\chi^2=0.880$; $p=0.348$

During the six week trial period, media monitoring by the Rehome Newslines service suggested that residents in Bunbury and Geraldton would have had the opportunity to view seven items about diabetes broadcast on regional Western Australian GWN State Television news, and listen to one item on ABC Radio Western Australia Statewide. In addition, Bunbury residents would have had the opportunity to listen to one item about diabetes on Bunbury 6TZ Radio News, and three items on ABC South West Radio news and one news item each in the Bunbury Herald and South Western Times. In comparison Geraldton residents had the opportunity to see one news item about diabetes in the Midwest Times in the same period. This would suggest that Bunbury and Geraldton residents were exposed to equal numbers of television news items about diabetes, and Bunbury residents were exposed to more radio and print news items.

3.6 Prompted Recognition of Diabetes Advertising

3.6.1 Recognition Of *Storybook*

Participants were read a description of the *Storybook* television advertisement and asked whether or not they had seen the advertisement in the previous two months. A total of 55% of Geraldton residents and 50% of Bunbury residents recognised the advertisement from the description read out to them. This result is lower, and therefore inconsistent with, the unprompted recall rates for *Storybook*. Thirty-seven percent of participants who recalled *Storybook* failed to recognise it after being read the standard description used in the survey. The most likely explanation for the lower result is that the description of the advertisement used in the survey over-emphasised the storybook concept and under-emphasised the actual photographic images contained therein. The proportion of participants who either recalled *or* recognised *Storybook* amounted to 81% of the entire sample and provides a more realistic recognition figure.

3.6.2 Number Of Times *Storybook* Was Seen

Those who recognised the description of the *Storybook* advertisement were asked to estimate how many times they had seen it on television. On average, Geraldton residents estimated they had seen it 14.0 times (95% CI 11.2 to 16.9) and Bunbury

residents 13.1 times (95% CI 10.3 to 16.0). This difference was not statistically significant.⁴⁰

3.6.3 Perceived Main Message Of *Storybook*

Participants who reported having seen *Storybook* were asked what they thought the main message contained within the advertisement was. Multiple responses were recorded and are outlined in Table 13 below.

Table 13: Perceived Main Message of *Storybook*

MAIN MESSAGE	Geraldton (n=146)	Bunbury (n=133)	Total (n=279)
Get a check-up for diabetes	44%	45%	45%
Be more aware of diabetes	31%	57%	44%
The inactive are at risk of diabetes	31%	24%	27%
The overweight are at risk of diabetes	28%	22%	25%
Those over 45 years are at risk of diabetes	4%	3%	3%
Diabetes is too serious to ignore	3%	2%	3%
Diabetes is a serious disease	4%	-	2%

The slogan of the campaign “diabetes is too serious to ignore” was infrequently stated as the main message of the advertisement. The most common response overall was “get a check-up for diabetes”. Bunbury respondents were significantly more likely than Geraldton respondents to state that the main message of *Storybook* was “be more aware of diabetes”.⁴¹ It is possible that being exposed to a greater variety of campaign advertising activities in Bunbury influenced this result.

3.6.3 Believability Of *Storybook*

Participants were asked how believable they considered the messages contained within *Storybook*. Responses were recorded along a four-point scale from “very believable”, to “somewhat believable”, “not very believable” and “not believable at all”. Results are displayed in Table 14 overleaf.

⁴⁰ $t(217)=.443; p=.658$

⁴¹ $\chi^2(1)=16.944; p<.001$

Table 14: Believability of Storybook

	Geraldton (n=146)	Bunbury (n=133)	Total (n=279)
Very believable	75%	82%	78%
Somewhat believable	24%	17%	21%
Not very believable	1%	1%	1%
Total	100.0%	100.0%	100.0%

A large majority of participants from both towns rated *Storybook* as “very believable” suggesting that the advertisement was considered highly credible by the target audience. Slightly more Bunbury residents rated *Storybook* as “very believable” than Geraldton residents, but the difference was not statistically significant.⁴²

3.6.4 Personal Relevance Of *Storybook*

Participants were also asked how personally relevant they thought *Storybook* was to them. Responses were recorded along a four-point scale from “very relevant”, to “somewhat relevant”, “not very relevant” and “not relevant at all”. Results are displayed in Table 15 below.

Table 15: Personal Relevance of Storybook

	Geraldton (n=146)	Bunbury (n=133)	Total (n=279)
Very relevant	40%	29%	35%
Somewhat relevant	32%	49%	40%
Not very relevant	17%	17%	17%
Not relevant at all	11%	5%	8%
Total	100.0%	100.0%	100.0%

Just under three-quarters of Geraldton participants and just over three-quarters of Bunbury residents rated *Storybook* as either ‘very’ or ‘somewhat’ personally relevant. There was no statistical difference observed between towns for this item.⁴³

Respondents were then asked why they thought *Storybook* was either personally relevant or not relevant. Responses are outlined in Table 16 overleaf.

⁴² $t(238)=1.277; p=.203$

⁴³ $t(238)=.007; p=.994$

Table 16: Reasons why *Storybook* is or is not Personally Relevant

	Geraldton	Bunbury	Total
<u>Very or Somewhat Relevant</u>	(n=89)	(n=91)	(n=180)
I have a family member or close friend with diabetes	37%	42%	39%
I want to avoid the consequences of diabetes	31%	21%	26%
I am over 45 years old	12%	22%	17%
I am overweight	10%	9%	9%
Diabetes is more serious than I imagined	9%	10%	9%
I don't get enough exercise	7%	5%	6%
<u>Not at All or Not Very Relevant</u>	(n=34)	(n=26)	(n=60)
I am fit and healthy	53%	65%	58%
It won't happen to me	35%	15%	27%
I don't have diabetes	26%	8%	18%
There is only a small chance of these things happening	21%	12%	17%

Having a family member or close friend with diabetes was the most powerful stimulus for making *Storybook* more personally relevant to participants, followed by participants wishing to avoid the consequences of diabetes. The major differences between residents in Geraldton and Bunbury were that Geraldton respondents appeared to be more disturbed about the consequences of diabetes and Bunbury residents more concerned about the risk factor of age. These differences approached, but did not achieve, statistical significance.⁴⁴

Of the small numbers who stated that *Storybook* was 'not very relevant' or 'not relevant at all', it was most commonly stated by respondents that they led active and healthy lives and were therefore not at risk of developing diabetes. There was a trend for a greater number of Geraldton respondents to make uninformed or sceptical statements in regards to their risk of developing diabetes in comparison to Bunbury residents. The differences for statements such as "I don't have diabetes" and "it won't happen to me" approached, but again failed to achieve, statistical significance.⁴⁵

⁴⁴ Avoiding consequences: $\chi^2(1)=2.611$; $p=.106$. Over 45 years: $\chi^2(1)=2.920$; $p=.87$

⁴⁵ It won't happen to me: $\chi^2(1)=2.986$; $p=.084$. I don't have diabetes: $\chi^2(1)=3.470$; $p=.062$

However, it should be noted that the statistical comparisons for these items suffered from low numbers thereby lacking power to detect statistically significant results.

3.6 Radio Advertisements

Participants in Bunbury were read descriptions of the *Big and Little*, *Washing Machine* and *Impotence* radio advertisements and asked whether or not they had heard any of them within the past two months. Those who reported that they had heard any of the radio advertisements were then asked how many of the three they had heard. Responses are detailed in Table 17.

Table 17: Reported Exposure to the Radio Advertisements

<i>Have you heard any radio advertisements?</i> (n=233)	
Yes	21%
No	79%
Total	100%
<i>How many of the radio advertisements have you heard?</i>	
One	13%
Two	5%
Three	3%
Total	21%

These results show that only a low proportion of respondents (one-fifth) were exposed to the radio advertisements and attended to them sufficiently well to recognise them. The majority of those who claimed to have heard one of the radio advertisements stated that they had only heard one of these. The indications are therefore that the radio advertisements had poor penetration of the target audience.

3.7 Newspaper Advertisements

Bunbury participants were read descriptions of *Eye*, *Amputation* and *Dialysis* and asked whether or not they had seen any of these in newspapers within the last two months. Those who reported that they had seen any of the newspaper advertisements

were then asked how many of the three they had seen. Responses are detailed in Table 18 below.

Table 18: Reported Exposure to the Newspaper Advertisements

<i>Have you seen any newspaper advertisements?</i> (n=233)	
Yes	67%
No	33%
Total	100%
<i>How many of the newspaper advertisements have you seen?</i>	
One	18%
Two	26%
Three	21%
Don't know	2%
Total	67%

These results show that a reasonably high proportion of respondents (two-thirds) were exposed to the newspaper advertisements and attended to them sufficiently well to recognise them. In addition the majority of those who claimed to have seen the newspaper advertisements stated that they had seen at least two of the three. These results suggest that newspaper advertising is far more effective at reaching the target audience than radio advertising.

3.8 Hazard Poster

Bunbury participants were read a description of the hazard poster and asked whether or not they had seen it within the last two months. Twenty-percent of Bunbury residents recalled seeing the poster.

3.9 Public Lectures

Bunbury participants were asked whether or not they had heard about the recent free public lectures about diabetes. Thirty-one-percent of Bunbury residents stated that they were aware of the public lectures and 3% stated that they had attended one.

4 Discussion

There are clear indications of an increase in awareness of diabetes in both Bunbury and Geraldton as a result of the campaign. The salience of diabetes as a serious disease affecting Australia increased significantly, as did the salience of diabetes as a disease of personal concern. Knowledge of the risk factors and consequences associated with diabetes also increased significantly. In addition there was an increase in participants' self-reported risk perceptions of developing diabetes that approached significance ($p=.06$).

Several differences were observed between the responses of Bunbury and Geraldton residents that could reasonably be attributed to the additional advertising activities undertaken in Bunbury. These included a significantly greater recall of: blindness as a consequence of diabetes; and physical inactivity as a risk factor for developing the disease. There was also a nonsignificant interaction ($p=.08$) that suggested the additional advertising campaign activities in Bunbury increased respondents' personal concern about developing diabetes.

The *Storybook* television advertisement performed very well in both Geraldton and Bunbury. Its cut-through rate was above average for health and social campaign advertising and a large majority of participants thought that it was both credible and personally relevant. Likewise the cut-through and recognition rates of the *Eye* and *Amputation* newspaper advertisements in Bunbury were also high. In contrast all the radio advertisements performed particularly poorly, as did the *Dialysis* newspaper advertisement and the poster, suggesting that these were ineffective at reaching the target audience. Awareness of the public lecture was reasonable. The target audience of 45 to 70 year olds therefore appears most likely to be reached via television and newspaper media, and not through commercial radio and posters.

The poor recall of the *Dialysis* advertisement is an interesting result given that the other two newspaper advertisements performed so much better. A possible explanation is that the imagery used in *Dialysis* was much less shocking than either *Eye* or *Amputation* and therefore was less effective at gaining the attention of its target audience. If this is the case then it strongly advocates the value of audience testing *all*

advertisements before being released for public consumption. The limited reach of the radio advertisements may be a simple function of the target age group not listening to commercial radio stations, but it may also reflect a lower impact of audio media over either visual or audio-visual media.

The question of whether or not the newspaper advertisements were of additional value over and above the screening of *Storybook* is also an interesting question. Although the cut-through rate of the *Eye* and *Amputation* newspaper advertisements was reasonable, as can be seen from Table 19 below, the number of Bunbury residents who recalled at least one of the newspaper advertisements but did not recall *Storybook* was very low (3.6%).

Table 19: Cross-tabulation of television and newspaper advertisement recall by Bunbury residents

Recall of Television Advertisement	Recall of Any Print Advertisements		
	<i>Yes</i>	<i>No</i>	<i>Total</i>
<i>Yes</i>	13.9%	64.2%	78.1%
<i>No</i>	3.6%	18.3%	21.9%
<i>Total</i>	17.5%	82.5%	100.0%

This suggests that the additional campaign reach resulting from the newspaper advertisements over and above that of *Storybook* was low. However, this may not be a true reflection of the contribution of the newspaper advertisements. The graphic image of *Eye* was well recalled and can fairly confidently be accredited with the significant increase in knowledge of blindness as a consequence of diabetes that was observed in Bunbury respondents.

The results of the present evaluation would therefore suggest that the pilot campaign succeeded in its goal of increasing awareness of diabetes within the community. The results also indicate that any future diabetes awareness campaign aimed at the same target audience could justifiably use a well researched television advertisement exclusively to meet its aims, but newspaper advertisements, that have also been

audience tested, might also be used to achieve a higher rate of cut-through and increase in awareness. The use of posters, public talks and radio advertisements would not be justified by the present results.

5 References

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