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Healthy Heart Healthy Mind Dementia Risk Reduction Awareness Campaign: Final Report and Evaluation

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Abstract

Dementia is an umbrella term which describes a number of different diseases that cause progressive decline of brain functions such as language, memory and cognitive ability (Australian Institute of Health and Welfare, 2004). In 2009, 245,000 Australians were living with dementia, and it is projected that this will increase to around 1.13 million by 2050 (Access Economics, 2009). There is currently no cure for dementia. The uptake of early intervention and prevention strategies is therefore paramount to curb the current dementia epidemic, yet there is a lack of awareness of dementia prevention strategies among Australians (Farrow, 2008). Current research suggests that treating hypertension is the most important means of reducing dementia risk (Valenzuela and Sachdev, 2006; Woodward, 2007) and yet awareness of this, in comparison to other dementia risk reduction strategies such as mental stimulation, is extremely low (Low and Anstey, 2007).

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Healthy Heart Healthy Mind Dementia Risk Reduction Awareness Campaign

Final Report and Evaluation
28 October 2011



Health
Illawarra Shoalhaven
Local Health District

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Illawarra and Shoalhaven Local Health District.

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Executive Summary

Dementia is an umbrella term which describes a number of different diseases that cause progressive decline of brain functions such as language, memory and cognitive ability (Australian Institute of Health and Welfare, 2004). In 2009, 245,000 Australians were living with dementia, and it is projected that this will increase to around 1.13 million by 2050 (Access Economics, 2009).

There is currently no cure for dementia. The uptake of early intervention and prevention strategies is therefore paramount to curb the current dementia epidemic, yet there is a lack of awareness of dementia prevention strategies among Australians (Farrow, 2008). Current research suggests that treating hypertension is the most important means of reducing dementia risk (Valenzuela and Sachdev, 2006; Woodward, 2007) and yet awareness of this, in comparison to other dementia risk reduction strategies such as mental stimulation, is extremely low (Low and Anstey, 2007).

In 2011, NSW Health funded *Healthy Heart Healthy Mind (HHHM) Dementia Risk Reduction Awareness Campaign*, a community based social marketing campaign which was piloted the Illawarra and Shoalhaven. Through a partnership between Illawarra Shoalhaven Local Health District and the Centre for Health Initiatives at the University of Wollongong (UOW), HHHM's key objectives were:

1. To raise awareness in the 45+ age group in the community of the link between hypertension and dementia.
2. To provide a clear message to 45+ age group concerning action for them to take to prevent, monitor and manage hypertension.
3. To promote greater compliance with medications prescribed for hypertension within the target group.
4. To increase appreciation for the need to modify diet and lifestyle habits to reduce the risks of dementia in later life, in the 45+ age group.
5. To provide the target group with the tools and understanding to make healthy life choices
6. To raise awareness of preventative strategies for hypertension among community workers and health care providers to further reduce the risk dementia in the community

In order to meet these objectives, a series of community based interventions were carried out and evaluated. These included Free Blood Pressure Checking Stations, Community and Workplace Educational Presentations, Health Professional Education Seminars and overarching Media and Marketing activities.

In order to measure any change in population awareness, random pre and post intervention surveys were also conducted at the population level. Whilst results from these are positive, they are not statistically significant at the 95% confidence level. In short, these population results tell us that:

- Awareness of hypertension as a risk factor for dementia increased from 4.3% to 7%
- Recall of media messages linking hypertension and dementia increased from 2.8% to 6.1%

Free blood pressure checks and community and workplace presentations were very effective at:

- Raising awareness of hypertension as a risk factor for dementia (51.6% of respondents for blood pressure checks and 69.3% of respondents for presentations recalled the correct purpose/message of the interventions 4 weeks later)
- Raising awareness of hypertension risk reduction strategies (improved diet and increased physical activity were the two most recalled ways of hypertension reduction and management for both interventions 4 weeks later)
- As a cue to action for personal health behavior change (64% of people who attended a presentation talked to their friends and family about the impact of high blood pressure. 30.1% of people who attended a free blood pressure check said that they had made an appointment with the GP as a direct result of that intervention)

The Illawarra and Shoalhaven communities have a significant proportion of people who speak a language other than English in their homes (16.8%). The HHHM campaign worked closely with ISLHD Multicultural Health Team to deliver campaign messages and activities in seven different communities and the HHHM brochure was translated into the Macedonian and Arabic languages.

A noteworthy backdrop to the implementation of the HHHM campaign was the concurrent Dementia Risk Reduction Project which targeted GPs and PNs. This project, also funded by the NSW Ministry of Health and implemented by the Illawarra Division of General Practice (IDGP) complimented the community based campaign by increasing the awareness of GPs of hypertension as a risk factor for dementia and focused on GP skills in patient information systems relating to recording patient blood pressures, the use of patient registers and recall/screening processes.

The collaboration of IDGP enhanced the reach and credibility of the HHHM campaign. It further provided anecdotal testimony of the effectiveness of the HHHM campaign by way of reporting the many presentations of GP referral cards from patients who had encountered free blood checking stations during the HHHM campaign.

The HHHM campaign presents a telling story of the worth of partnerships. As with IDGP and UOW, the social marketing framework of the campaign provided many opportunities for partnership and collaboration which ultimately helped effect a successful pilot project. Whilst the specific organizations involved in the HHHM project are mostly Illawarra and Shoalhaven based, the partnership approach to a population wide health issue is not unique and can be implemented in any community.

To our knowledge, HHHM was the first project of its kind in Australia which focused on the issue of hypertension as a means to reduce dementia risk. The methods and results of this pilot project provide a sound basis to judge the merit of future social marketing campaigns and provides direction for further research and analysis.

Introduction

In September 2010, after a successful collaborative tender application with the Centre for Health Initiatives, University of Wollongong, the Illawarra Shoalhaven Local Health District began planning the Healthy Hearts Healthy Mind Dementia Risk Reduction Community Awareness Campaign.

Funding for the project (\$250,129 inc. GST) was provided by NSW Health who initiated this pilot project under the auspices of the Primary Health and Community Partnerships Branch (see Appendix B).

This is the final report detailing the implementation, results and evaluation of the Healthy Heart Healthy Mind campaign and can be referenced with the Healthy Heart Healthy Mind Project Plan (April 2011) and the Healthy Heart Healthy Mind Evaluation Plan (April 2011).

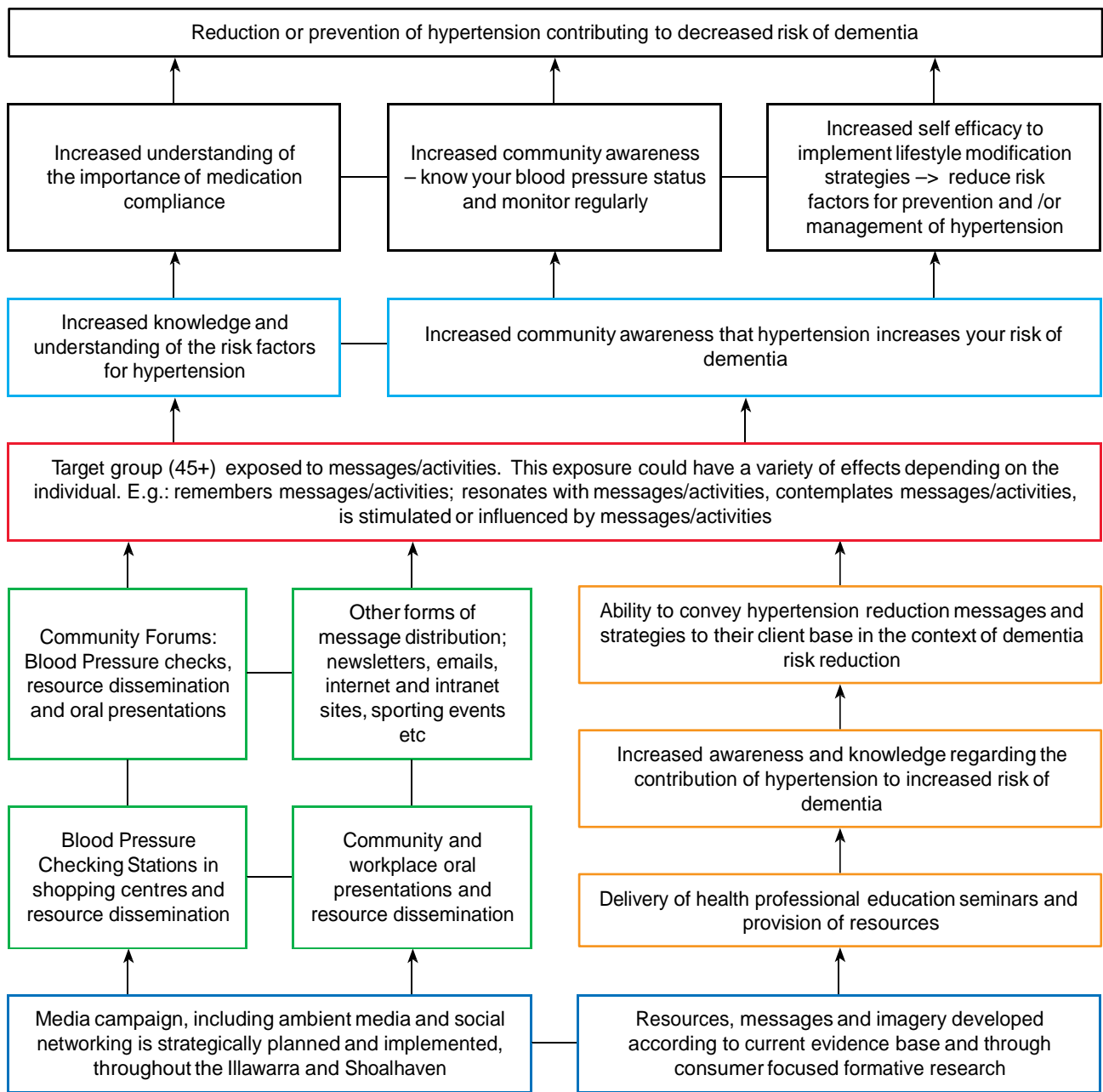
Ethics Approval

The methodologies and evaluation tools employed by this research were approved by the Joint Human Research Ethics Committee of the University of Wollongong and Illawarra Shoalhaven Local Health Network on 12th April 2011. In addition, authorization to conduct this research was granted by the Research Directorate of Illawarra Shoalhaven Local Health District on 19th April 2011.

Glossary of Terms

Terms/Abbreviations/Acronyms	Meaning
HHHM	Healthy Heart Healthy Mind (Dementia Risk Reduction Public Awareness Campaign)
ISLHD	Illawarra Shoalhaven Local Health District
CHI	Centre for Health Initiatives
UOW	University of Wollongong
HREC	Human Research Ethics Committee
HPES	Health Professional Education Seminar
IRIS	IRIS Research (Illawarra Regional Information Service)
AIHW	Australian Institute of Health and Welfare
IBC	Illawarra Business Chamber
SBC	Shoalhaven Business Chamber
PPT	Microsoft PowerPoint Presentation
CALD	Culturally and Linguistically Diverse Populations
CSA	Community Service Announcement
GP	General Practice/Practitioner
PN	Practice Nurse

Project Logic Model



Effecting Population Awareness Change – High Blood Pressure is a Risk Factor for Dementia

Background

In 2009, 245,000 Australians were living with dementia, and it is projected that this will increase to around 1.13 million by 2050 (Access Economics, 2009). Alzheimer's disease is the most common form of dementia, accounting for 70% of all dementia cases (Australian Institute of Health and Welfare, 2004; Low, Gomes and Brodaty, 2008).

This four-fold increase in the prevalence of dementia in New South Wales is set to place unprecedented and considerable impact on the community with health spending on dementia set to outstrip any other health condition (Access Economics, 2009). The wellbeing of patients is a critical issue; so too is the impact of their diagnosis on families and carers who have been found to suffer poorer physical and psychological health, as well as issues such as social isolation and stigma (Brodaty and Green, 2002).

In 2011, NSW Health funded *Healthy Heart Healthy Mind (HHHM)*, a community based social marketing campaign which was piloted the Illawarra and Shoalhaven. Through a partnership between Illawarra Shoalhaven Local Health District and the Centre for Health Initiatives at the University of Wollongong, *HHHM's* key objectives were to increase community awareness that hypertension is a risk factor for dementia and to encourage people to have their blood pressure checked.

Social marketing is a consumer oriented program planning framework (Grier and Bryant, 2005; Kotler and Lee, 2008) which utilises research to build an understanding of the knowledge, attitudes and behaviours of a target audience and to direct relevant activities to support behaviour change in that target audience. Social marketing is designed to positively alter behaviours and includes a number of core, interconnected concepts including: customer orientation, the use of market research, audience segmentation and the aim of a mutually beneficial exchange (French and Blair-Stevens 2010). Social marketing has been used as a framework for the translation of evidence to support the change of health behaviours related to tobacco and alcohol use, nutrition, road safety and skin cancer prevention (e.g. Donovan & Henley 2010). It is therefore a framework which may assist dementia prevention activities where changes in the health knowledge, attitudes and behaviours of the public are required.

Message Development

In order to gain greater understanding of the knowledge, attitudes and behaviours of the target audience, eight focus groups were conducted with 42 adults aged between 45 and 64 years. Discussion guides, and the analysis of results, utilised the Health Belief Model (Janz, Champion, & Strecher, 2002) which is useful in predicting the likelihood of changing health related behaviours. The Health Belief Model posits that if an individual has 1) the desire to avoid a condition (value) and 2) the belief that a specific health action would prevent that condition (expectation), they are more likely to result in personal action. In this way it is said to be based on a value-expectancy framework. Beliefs of personal susceptibility and severity of an illness or condition are taken into account, as are beliefs of efficacy in performing the behaviour and cues to action:

- Perceived susceptibility: perception of their risk of contracting a health problem
- Perceived severity: perception of the seriousness of the health problem, including the negative consequences that may occur as a result of the health problem
- Perceived benefits: perception of how effectively a new behaviour will reduce the susceptibility and severity
- Perceived barriers: perception of the difficulties and costs involved in adopting the new behaviour
- Perceived efficacy: belief that they have the capacity to engage in the desired behaviour
- Cues to action: Influences or strategies that remind or prompt them to adopt the desired behaviour (Janz, et al., 2002).

Transcripts were thematically analysed utilising the model to gain an understanding of the target audience awareness and behaviours in relation to hypertension management and dementia. The focus groups conducted for the formative research were also utilised to pre-test six different messages and creative concepts for the proposed promotional materials.

Formative Research Outcomes

Hypertension

Participants in the focus groups perceived hypertension to be a condition associated with age, lifestyle factors and other health conditions (susceptibility). They were aware of a range of lifestyle factors to reduce hypertension including a healthy diet, exercise, limiting alcohol consumption, stopping smoking and limiting salt intake, however some participants perceived that these factors were not always effective in preventing or managing hypertension. For example:

"My husband's really fit but he still has to take medication for high blood pressure" (Focus Group 6).

Most participants were aware of the lack of symptoms of hypertension.

"It's a very silent thing, blood pressure, you could have it and you don't know; silent killer; you may have it and you don't know"

(Focus Group 6).

Whilst participants identified several health conditions associated with hypertension they did not tend to perceive the condition as particularly severe:

“High blood pressure seems to have effects on your health in many ways” (Focus Group 2).

Participants were also aware of hypertension screening, and while they perceived the associated procedure as simple and painless, several perceived barriers including lack of time, or importance of screening to warrant a visit to their GP:

“I mean I’m healthy so I only go to the doctor when I’m sick. I never go just to check my blood pressure; how many people, unless you’re ill ... go to the doctor?” (Focus Group 6).

Perceived susceptibility was also influenced by a lack of awareness about personal risk, when, and how often, they should be getting their blood pressure checked, and difficulties understanding blood pressure guidelines. For example:

“How often should I be getting my blood pressure checked?; ...what numbers mean high blood pressure?... I’m not sure if I’m that group or not because I’m not really sure whether I know what high blood pressure numbers are” (Focus Group 1).

Dementia

Respondents identified age as one of the main factors linked to susceptibility of developing dementia, however there was a lack of awareness regarding other risk factors. For example:

“The root cause of dementia to me is an unknown; I don’t know what causes dementia; what driving forces are behind it I’ve got no idea; it’s just a big can of worms” (Focus Group 4).

In contrast to hypertension, a high level of fear was displayed by participants in relation to developing or being diagnosed with dementia (severity) and they were able to identify some of the major impacts that developing dementia can have including the impact on quality of life, and the impact on an individuals' social functionality as well as burden on the family. For example:

“...hope...that you pass before your brain gets to that point because it’s also about quality of life; no quality of life; towards the end and the person can’t even remember, doesn’t even know how to breathe or feed” (Focus Group 4).

Participants identified a range of lifestyle changes and strategies for prevention of dementia, however few participants identified hypertension management. The most commonly identified protective factors were keeping the brain active and social engagement. For example:

“Just keeping your mind as alert as possible; the brain being a muscle, yet if you stretch it and exercise it and look after it that it will look after itself” (Focus Group 8).

However there was some fatalism regarding developing dementia, and a lack of perceived efficacy of strategies such as mental stimulation in preventing dementia. For example:

“When you see people who’ve developed Alzheimer’s or dementia, they’ve been really high powered people... they’re academics or whatever else, their whole life’s focused on remaining mentally active and yet they’ve developed dementia; Just to make it harder, it’s random; there are people that no matter what they do... it’ll happen” (Focus Group 5).

Hypertension dementia link

For participants, perceived susceptibility for both hypertension and dementia appeared low, and while perceived severity was high for dementia, it was less so for hypertension. Indeed barriers identified around hypertension screening were in part attributed to its lack of importance (or lack of severity). Whilst participants were aware that leading a healthy lifestyle may decrease susceptibility to both hypertension and dementia, several participants perceived that these strategies were not efficacious. Based on these results, the health belief model would predict that the likelihood of participants engaging in preventative behaviours such as hypertension screening and lifestyle measures would be low. However, the link between hypertension and dementia provides an important opportunity to heighten the perceived severity of hypertension, increase the importance of screening, and increase the likelihood of preventative behaviours for people in this age group. Participants in the focus groups were generally surprised when advised of the link between hypertension and dementia, and believed this was important information for the general community to motivate them towards hypertension screening and management. For example:

“If people are educated and get enough information they mightn’t be fearful if they know there’s some form or some way of preventing it (dementia) and whether medication is the panacea or lifestyle, or exercise, like so many other things that can make a difference to our health, mental and physical; if you can reduce your blood pressure it might be better for you when you get older...I think that’s information people should have” (Focus Group 6).

Materials Development

Results from pretesting campaign creative concepts with the focus groups found that participants preferred images that they could identify with and that were directed to the younger age spectrum of the target audience. For example:

“the man makes it more personal...you can identify with a person, but the person needs to be younger...”(Focus Group 6).

Participants felt the creative concept should focus on the most important action (getting blood pressure measured) and

demonstrate the ease of performing that action. For example:

“need to show that action is achievable...that they aren’t in this alone and that it doesn’t take too much effort to make a change” (Focus Group 1).

Participants tended to agree that the message needed to shock and engage to encourage immediate action, but also provide explicit information on how to take action. For example:

“need to scare, engage, and provide way to alleviate fear and tell how to take action” (Focus Group 1).

As a result of this formative research and pre-testing of concepts and messages, the ‘Healthy Heart, Healthy Mind’ campaign was conceived. Final creative executions had a positive but sombre tone and pictured a man or a woman at the younger end of the target age group having their blood pressure checked by a doctor or nurse in a non-clinical setting. The key campaign message addressed the knowledge gap by informing of the connection between heart health, brain health and dementia: *‘High blood pressure is a risk factor for dementia’*. The secondary message, *‘Keep your blood pressure in check’* emphasised the need for the target audience to check their blood pressure, and to manage it through a range of strategies:

- Visit your doctor, have your blood pressure checked regularly and follow treatment advice
- Be smoke free (for information on quitting, call the Quitline 13 QUIT)
- Reduce your salt intake (to less than 1 tsp per day)
- Keep a healthy body weight
- Be physically active (30 mins per day of moderate activity like walking or cycling)
- Limit your alcohol (< 2 standard drinks per day).

As part of the campaign, a range of branded promotional materials were produced including road banners, posters, postcards, information brochures and a website. These were developed to support secondary messages with cues to action on how to help control hypertension. All materials included the logos of the sponsor of the campaign and partner organisations to improve source credibility, which is important for threat appeals (Kotler & Lee, 2008). Another barrier identified by participants was not knowing when, and how often, they should be getting their blood pressure checked, and difficulty in understanding blood pressure guidelines. Clear and digestible information was made available to the general public to redress these knowledge barriers via campaign material including brochures and the website, educational seminars held at community venues, and via staff providing blood pressure checks and referrals. Examples of all project materials can be found in Appendix E.

Summary of Campaign Intervention Strategies

Planning and Partnerships

The target group for the Healthy Heart Healthy Mind campaign were adults aged 45 years+ in the Illawarra and Shoalhaven communities of the south coast of New South Wales. Settings included Westfield and Stocklands shopping centres, public libraries, Bunnings Warehouses, GP waiting rooms, community pharmacies, primary schools and TAFE campuses, local workplaces and community groups. Various community interventions encouraged participation as well as a local media campaign. A secondary audience for the campaign was health professionals in the region, particularly employees of Illawarra Shoalhaven Local Health District.

There were four interdependent components in the HHHM campaign:

1. Free Public Blood Pressure Checking Stations
2. Community and Workplace Presentations
3. Health Professional Education Seminars
4. Media and Marketing Strategy

Each of the components worked together in a comprehensive social marketing strategy and were informed by the aforementioned formative research. Kotler and Lee (2008) describe four 'P's of social marketing, product, price, place and promotion, as important considerations that should combine to provide maximum value to the target audience in order to convince them to engage in the desired behavior (to have their blood pressure checked).

A comprehensive planning phase which included detailed timelines, budgets and performance indicators for each component was carried out alongside a period of wide consultation. A fifth 'p' that is considered critical to the success of developing and implementing social marketing campaigns is partnerships (French, 2010). In order to ensure broad community reach and support, a consultation process was carried out with other health and community based organisations. Partnerships were established with other health events (e.g., Heart Week activities run by or for the National Heart Foundation). Alliances were also made, where opportunities existed, to collaborate in disseminating project messages, (e.g., The Stroke Foundation's *Know Your Numbers Program* also uses blood pressure checking as a means to raise awareness about stroke). The 'Healthy Heart Healthy Mind' messages and activities complimented many employee wellness programs implemented by large workplaces such as local councils. The campaign messages were of particular relevance and interest to service clubs such as Rotary and Lions whose members were not only in the target group, but were often influential members of their community. In these ways, the project quickly established message credibility, and support for the project's own scheduled activities were enhanced by referrals and third party promotion.

1. Community Blood Pressure Checks

To make blood pressure checking more easily accessible to the target markets (consideration of 'place'), 21 free blood pressure checking services were made available in local libraries, a Westfield Shopping Centre and Bunnings stores. These services were promoted on the campaign's website, the venues' websites, and in local newspapers. High pedestrian traffic areas with good visual impact were selected for the blood pressure checking stations which comprised tables displaying campaign materials, chairs for participants and large banners promoting the free service. Stations were available for three to four hours in each location and were staffed by health and medical students who had passed standard competencies in measuring blood pressures and who had attended a brief training session with the project manager and key member of the HHHM Steering Committee.

Participants at the Blood Pressure Checking Stations were actively invited to have their blood pressure checked by staff and were informed of two levels of voluntary involvement:

1. Simply having their blood pressure checked and recorded, or
2. Providing signed consent to complete a two page paper questionnaire, have their blood pressure checked and agreeing to a brief follow-up telephone interview in four weeks time.

Automatic blood pressure machines (Omron) were used and two measurements were taken for participants who had agreed to have their blood pressure checked. The second (most accurate) measurement was recorded on a GP referral card and issued to the participant. Staff used the Hypertension Guidelines (National Heart Foundation of Australia, 2008) to explain what the measurement meant and to advise participants of when to have their blood pressure re-checked. This advice, as well as the measurement, was recorded on the card and on the questionnaire. Participants were also provided with written information such as Fact Sheets on how to reduce/control blood pressure, and how to reduce their risk of dementia (see Appendix E).

At the end of the intervention period, approximately 2,000 community members had their blood pressure checked and data had been collected from 432 community members for the purposes of evaluation (see page 23 for further results).

2. Community and Workplace Presentations

The availability of guest speakers for community and workplace meetings was promoted on the campaign's website as well as via online newsletters and email distribution lists disseminated by key community and business networks (e.g. IBC, SBC). In addition to this, the campaign manager proactively targeted service clubs and large employers to offer educational presentations to their members and employees. Educational presentations (see Appendix F) were developed by CHI and delivered by ISLHD using MS PowerPoint in approximately 25 community centres, educational institutions, community group meeting places and workplaces with over 400 attendees in total.

In the same manner as the free blood pressure checking stations, attendees were asked to participate by providing signed consent to complete a short paper based survey before the presentation and participate in follow up phone interviews four weeks later. This extra voluntary involvement was taken up by 125 community members for the purposes of evaluation (see 28 for further results).

3. Health Professional Education Seminars (HPES)

Brief educational interventions have been shown to be effective in improving knowledge, attitudes and self efficacy of health professionals in relation to hypertension and cardiovascular disease (Lewis et al 2008), and other issues such as domestic violence (Warburton et al 2006). All health professionals (clinical and non clinical) directly employed by the local health district as well as from external agencies were targeted and encouraged to attend a HPES (see Appendix F).

HPES were promoted on the HHHM website and within ISLHD's intranet as a free service for health professionals. In addition, the HHHM project manager directly emailed or called senior managers of groups of health professionals (e.g: community nurses, health promotion staff etc) whose core business involved the delivery of healthy lifestyle messages. Participation was intended to be undemanding for busy health professionals and presentations were scheduled (time and venue) at their convenience, usually coinciding with regular staff meetings to engage the biggest audience. The short duration of the presentations (15min) and ability of the project manager to supply a lap top and projector were intended to facilitate a high level of interest.

MS PowerPoint was used to present information about dementia (what it is, risk factors and its current impact), an overview of the evidence supporting the treatment of hypertension to reduce dementia risk, and an overview of the HHHM campaign. Supporting resources such as Fact Sheets on dementia and hypertension, promotional items such as pens and bookmarks and referral to the HHHM website were provided to staff in hard copy and on a USB drive.

At the end of the intervention period, 13 presentations had been conducted reaching a total of 187 health professionals, exceeding the target by 37. In order to evaluate the effect of the HPES, brief paper based pre (6 items) and post (10 items) questionnaires were developed; a total of 88 valid pre presentation surveys and 76 valid post presentation surveys were returned by participants (see page 31 for further results).

4. Media and Marketing Strategy

A media and marketing strategy comprising radio (CSAs and paid ads) and print media (paid advertising and unpaid editorial) was carried out. Coverage was steady across the region's newspapers (seven articles and over twenty ads or advertorial) as well as appearing in *The Age* and *The Sydney Morning Herald*.

Public relations activities included promotion of the launch of the project and an active presence at relevant community events including Seniors Week, International Women's Day, Men's Health Week, NAIDOC Week and various lifestyle expos.

An important component of marketing the HHHM message was the use of posters and road banners (see Appendices D and E). Campaign messages were delivered in high volume traffic areas via large roadside banners which were rotated often. Small advertising billboards were utilised in three major shopping centres and over 400 posters were distributed throughout the region's GP surgeries, pharmacies, community health centres, schools and workplaces.

Give-away promotional items, including 7000 bookmarks, 1000 pens, 1000 fridge magnets and 5000 postcards, were made available at project events and at frequented community buildings such as public libraries. Many well respected project collaborators such as local divisions of general practice, The Pharmacy Guild of Australia (NSW) and local government services also contributed to resource distribution, providing further reach and enhanced credibility of the campaign messages.

Finally, one of the strongest factors of the marketing strategy which afforded great community support was the use of community newsletters. Support from the education sector (Public and Catholic schools) culminated in a bulletin to all primary school staff in the region, a newsletter insert in school newsletters (reaching many parents in the target group), and ensured placement of posters in school offices and staff rooms. All TAFE campuses in the region also placed posters in reception areas and common rooms. Notably, HHHM was supported by the high profile St George-Illawarra Dragons Rugby League Football Club via their website and member newsletters. E newsletters and hard copy inserts were also supported by organizations with large member lists such as IRIS Research, Illawarra Business Chamber, Shoalhaven Business Chamber and the Illawarra Division of General Practice' Consumer Consultative Committee.

Summary of Output

In terms of engaging with the target group, and distributing materials, it is estimated that:

- Approximately 2,000 individuals had their blood pressure checked
- Over 30 free blood pressure checking services have been provided (scheduled public services as well as invited services to private workplaces and other venues)
- Over 400 individuals have attended an educational presentation
- Over 20,000 educational or promotional resources have been distributed
- Over 35 appearances in print media
- 321 announcements on radio
- 15 casual staff were employed
- A campaign presence was achieved at over 20 other community events.
- Newsletters distributed to in excess of 50,000 community members

Evaluation Measures

We report on various process and outcome measures of each of the intervention strategies. These focus on the effectiveness of the interventions to:

- Raise awareness that hypertension is a risk factor for dementia
- Encourage hypertension risk reduction behaviours
- Promote key campaign messages

The key measure of population awareness change however was measured by a local Omnibus survey pre (March) and post (September) the Healthy Heart Healthy Mind campaign. An Omnibus Survey is a quantitative market research methodology where random telephone surveys are carried out and further assisted by a computer program which aids question format, data collection and reporting all in one program.

Results – Population Awareness Change

Data Collection

Pre and post data collection was subcontracted to IRIS Research for the purposes of this evaluation. Interviews of approximately five minutes duration were conducted by qualified market researchers under IQCA quality guidelines. The pre campaign survey was conducted Mar 29-Apr 1 to 489 randomly selected residents in the Illawarra and Shoalhaven. 70% of this sample was aged 45 years+. The post campaign survey was conducted Sep 27 - Oct 3 to 449 randomly selected residents (different to the March sample). 76.2% of this sample was aged 45 years+.

Sample Frame

The population was defined as being all households in the local government areas of Wollongong, Shoalhaven, Shellharbour and Kiama. To qualify for an interview the respondent had to be a household decision-maker 18 years or older.

The final sample was weighted to give an exact match of the whole region in terms of age and distribution.

Demographic Profile

The demographic profile of residents who participated in the March and September quarter surveys was as follows:

March 2011	Male	Female	Total
18-44 yrs	14.1%	15.8%	29.9%
45+ yrs	31.8%	38.3%	70.1%
Total	45.9%	54.1%	100.0%

Sept 2011	Male	Female	Total
18-44 yrs	10.2%	13.6%	23.8%
45+ yrs	33.9%	42.3%	76.2%
Total	44.1%	55.9%	100%

Overview of key results

- An increase in awareness of high blood pressure as a risk factor for dementia was measured from 4.3% in March 2011 to 7% in September 2011, however this result was not statistically significant at the 95% confidence level.
- An increase in awareness of local media campaigns about dementia from 28.5% in March 2011 to 36.9% in September 2011 was evident however this result was not statistically significant.
- There was an increase in recall amongst respondents that the main message of local campaigns related to the link between blood pressure and dementia from 2.8% in March 2011 to 6.1% in September 2011. This result was not statistically significant.
- In the September quarter only, respondents were asked if they had seen a campaign running in the Illawarra and Shoalhaven over the last 6 months about high blood pressure and dementia with 28.2% overall mentioning that they had seen this campaign.
- Respondents who had seen this campaign in the past 6 months were most likely to have gained exposure via newspaper articles (12.6%), TV interviews (12.4%) and Newspaper ads (7.2%).

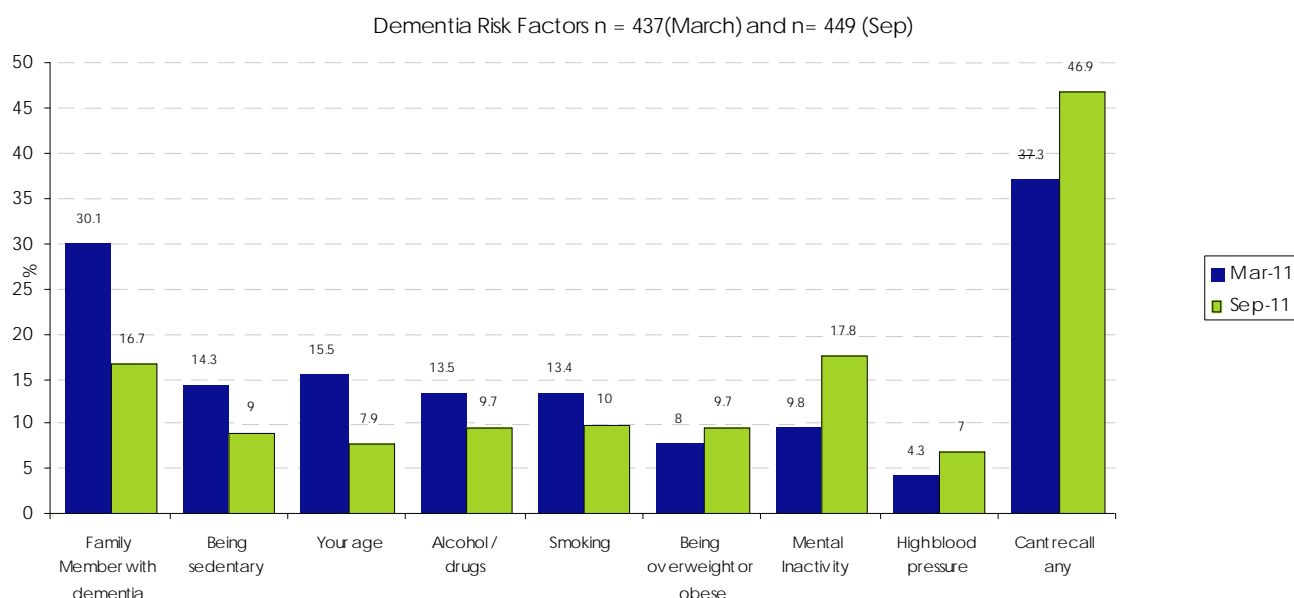
Knowledge of Risk Factors for Dementia

An increase in awareness of high blood pressure as a risk factor for dementia was measured from 4.3% in March 2011 to 7% in September 2011. This result was not statistically significant at the 95% confidence level.

Table 1.1 Risk Factors for Dementia

Can you list any risk factors that increase your chances of getting dementia?	% of all respondents March 2011 n =437	% of all respondents September 2011 n=449
Family member with dementia	30.1%	16.7%
Being sedentary	14.3%	9.0%
Your age	15.5%	7.9%
Alcohol / drugs	13.5%	7.9%
Smoking	13.4%	10.0%
Being overweight or obese	8.0%	9.7%
Mental Inactivity	9.8%	17.8%
High blood pressure	4.3%	7.0%
Stress	4.2%	2.5%
Aluminium	2.1%	1.8%
Diet	3.4%	0.8%
High cholesterol	1.8%	0.0%
Having cardiovascular disease	2.0 %	0.5%
Having diabetes	1.2%	1.8%
Head injury	1.1%	0.0%
Medication	0.9%	0.2%
Being lonely	0.9%	0.2%
Your gender	0.7%	0.3%
Other	4.5%	2.9%
Cant recall any	37.3%	46.9%

Chart 1.1 Risk Factors for Dementia



Knowledge of risk factors for hypertension

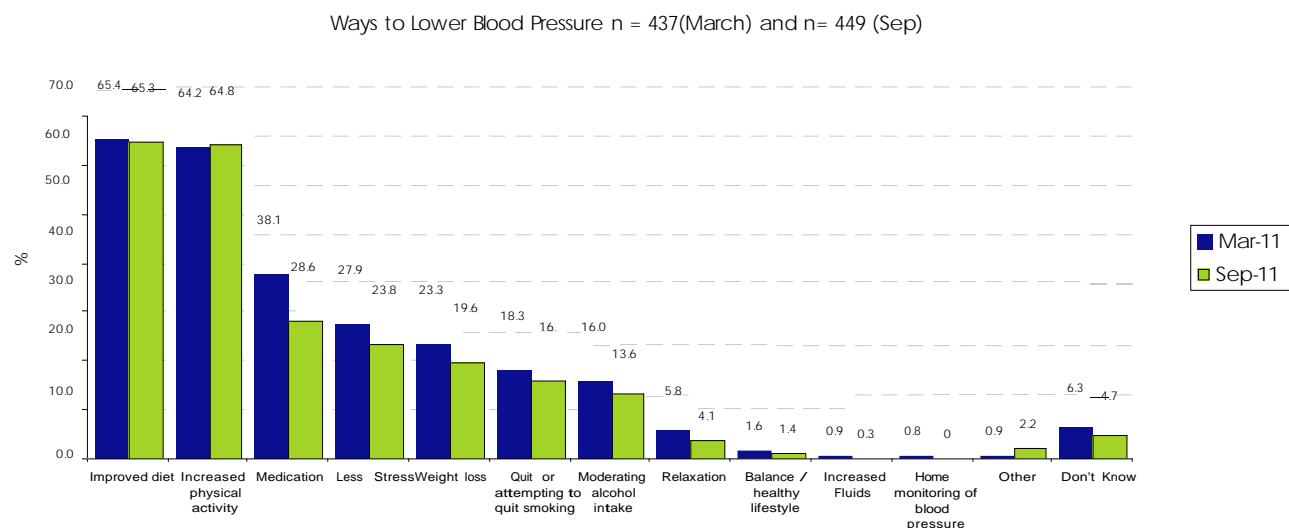
The top four mentions for ways to lower blood pressure in both the March and September surveys were improved diet,

increased physical activity, medication and less stress. Mentions for Improved diet and increased physical activity remained constant across both survey but small decreases in mentions regarding medication and less stress were measured.

Table 1.2 Main Ways to Lower Blood Pressure

Can you tell me what some of the main ways to lower blood pressure are?	% of all respondents March 2011 n=437	% of all respondents September 2011 n=449
Improved diet	65.4%	65.3%
Increased physical activity	64.2%	64.8%
Medication	38.1%	28.6%
Less Stress	27.9%	23.8%
Weight loss	23.3%	19.6%
Quit or attempting to quit smoking	18.3%	16.0%
Moderating alcohol intake	16.0%	13.6%
Relaxation	5.8%	4.1%
Balance / healthy lifestyle	1.6%	1.4%
Increased Fluids	0.9%	0.3%
Home monitoring of blood pressure	0.8%	0.0%
Other	0.9%	2.2%
Don't Know	6.3%	4.7%

Chart 1.2 Main Ways to Lower Blood Pressure



Campaign Awareness and Message Recall

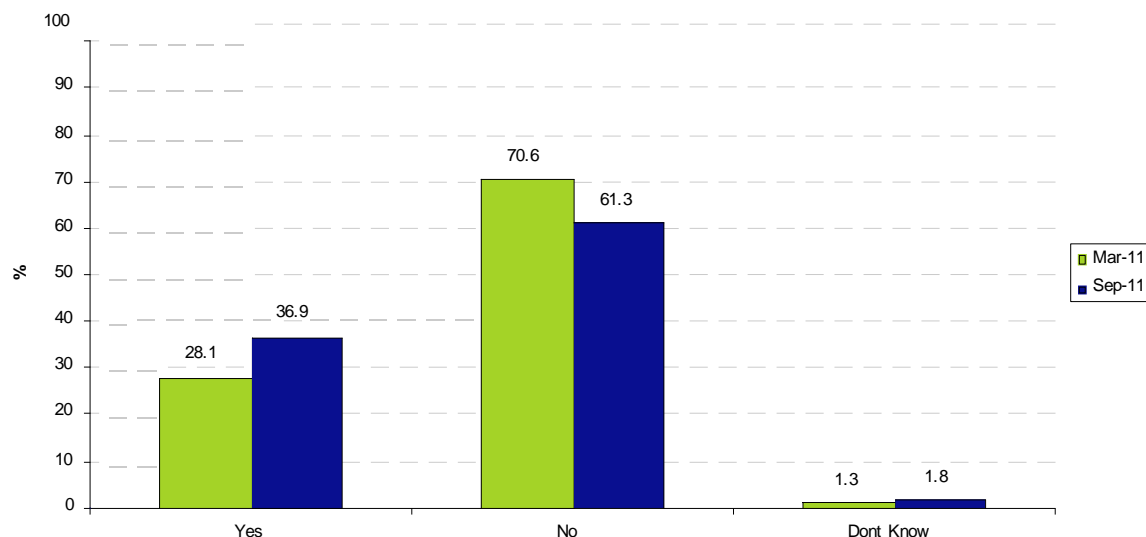
An increase in awareness of local media campaigns about dementia was measured from 28.1% in March 2011 to 36.9% in September 2011, however this result was not statistically significant.

Table 1.3 Local media recall about dementia

Have you seen anything in your local media about dementia recently?	% of all respondents March 2011 n=437	% of all respondents September 2011 n=449
Yes	28.1%	36.9%
No	70.6%	61.3%
Don't Know	1.3%	1.8%
Total	100%	100%

Chart 1.3 Local media recall about dementia

Seen anything in the local media n= 437(March) and n=449 (Sep)

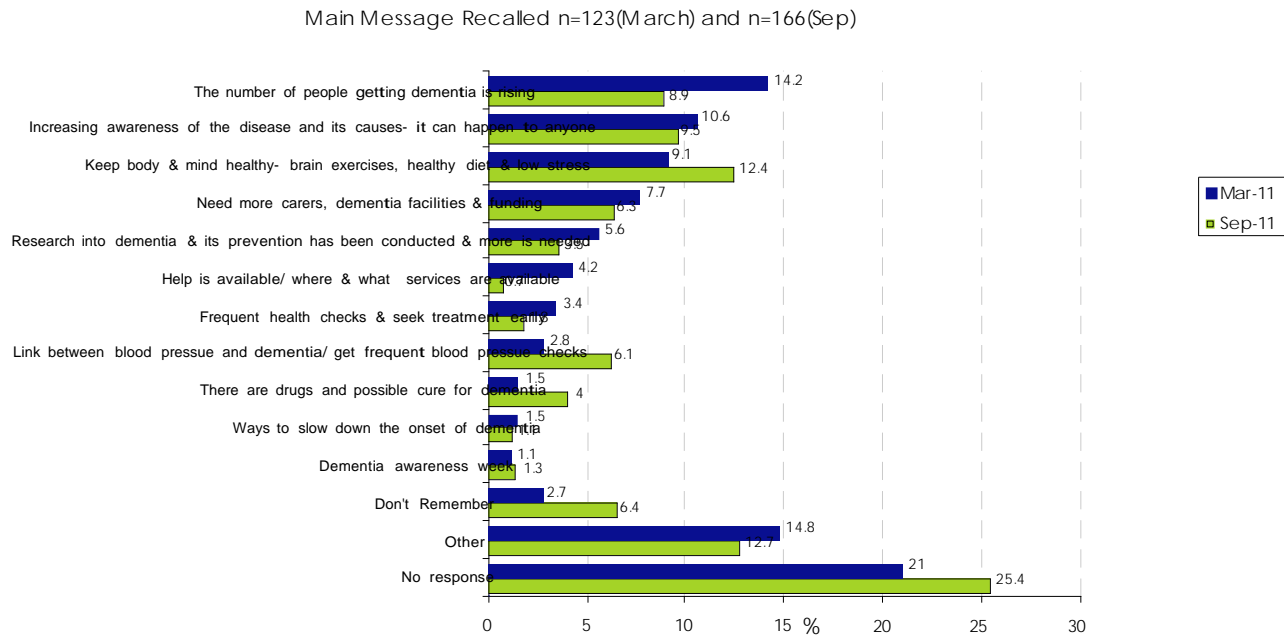


There was an increase in recall that the main message of local main campaigns related to the link between blood pressure and dementia from 2.8% in March 2011 to 6.1% in September 2011, however this result was not statistically significant.

Table 1.4 Main Message Recalled

What was the main message that you remember?	% of those who saw media messages March 2011 n=123	% of those who saw media messages September 2011 n=166
The number of people getting dementia is rising	14.2%	8.9%
Help is available/ where & what services are available	4.2%	0.7%
Increasing awareness of the disease and its causes- it can happen to anyone	10.6%	9.5%
Ways to slow down the onset of dementia	1.5%	1.1%
Link between blood pressure and dementia/ get frequent blood pressure checks	2.8%	6.1%
Frequent health checks & seek treatment early	3.4%	1.8%
Research into dementia & its prevention has been conducted & more is needed	5.6%	3.5%
Need more carers, dementia facilities and funding	7.7%	6.3%
Keep body and mind healthy- brain exercises, healthy diet and low stress	9.1%	12.4%
Dementia awareness week	1.1%	1.3%
There are drugs and possible cures for dementia	1.5%	4.0%
Don't Remember	2.7%	6.4%
Other	14.8%	12.7%
No response	21.0%	25.4%
Total	100%	100%

Chart 1.4 Main Message Recalled

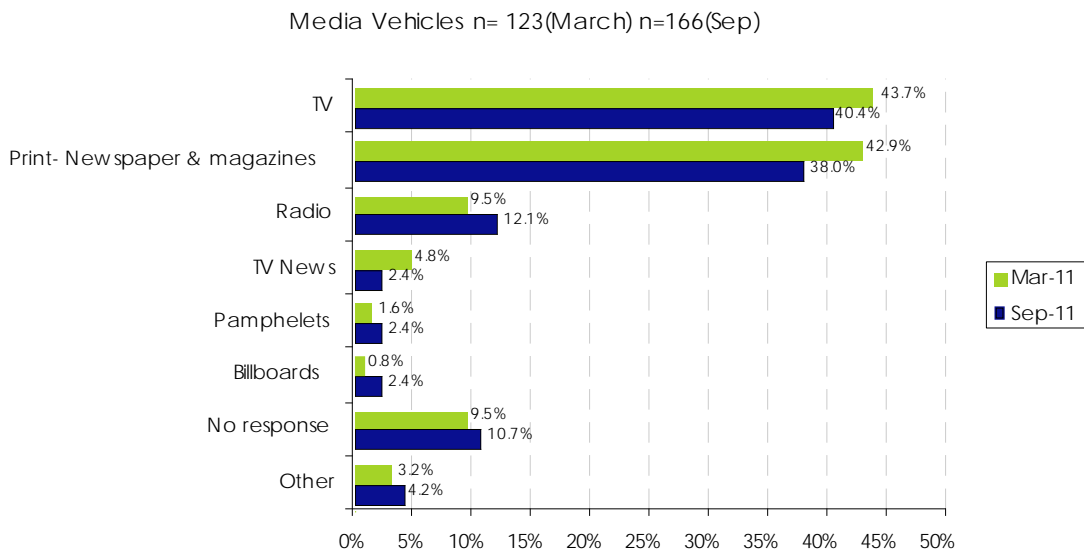


Small increases were measured in the incidence of those who heard/saw the campaign on the radio, billboards, pamphlets or other sources, however these increases were not statistically significant.

Table 1.5 Where saw/heard media message

Where did you see it ?	% of those who saw campaign March 2011 n=123	% of those who saw campaign September 2011 n=166
TV	43.7%	40.4%
Print- Newspaper & magazines	42.9%	38.0%
Radio	9.5%	12.1%
TV News	4.8%	2.4%
Pamphlets	1.6%	2.4%
Billboards	0.8%	2.4%
Other	3.2%	4.2%
No response	9.5%	10.7%

Chart 1.5 Where saw/heard media message

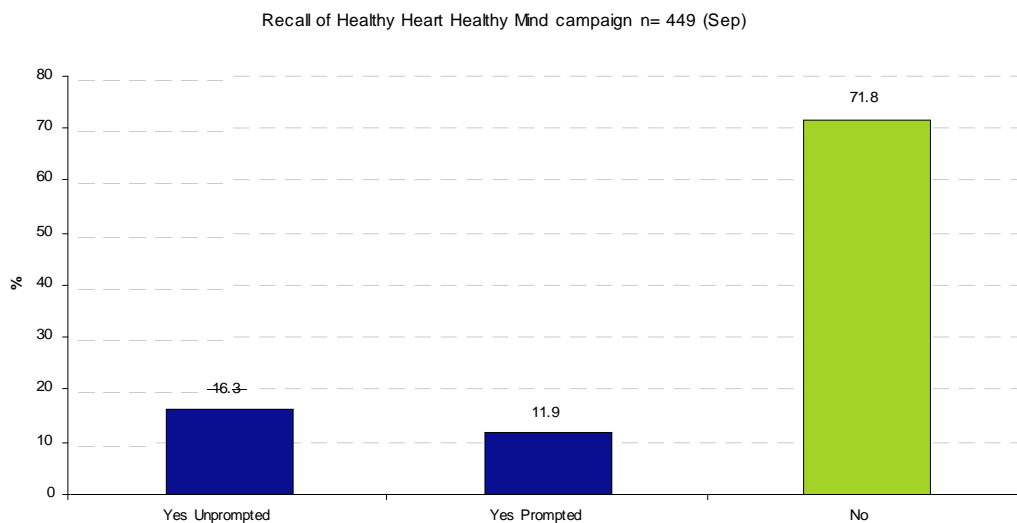


In the September quarter only, respondents were asked if they had seen a campaign running in the Illawarra and Shoalhaven over the last 6 months about high blood pressure and dementia. Overall, 28.2% of respondents mentioned that they had seen this campaign. Of these 16.3% recalled the campaign spontaneously while 11.9% recalled the campaign when prompted with the campaign name and tagline.

Table 1.6 Recall of Healthy Heart Health Mind Campaign

There has been a campaign running in the Illawarra and Shoalhaven over the last 6 months about high blood pressure and dementia? Have you seen this?	% of all respondents September 2011 n=449
Yes Unprompted	16.3%
Yes Prompted	11.9%
No	71.8%
Total	100%

Chart 1.6 Recall of Healthy Heart Health Mind Campaign



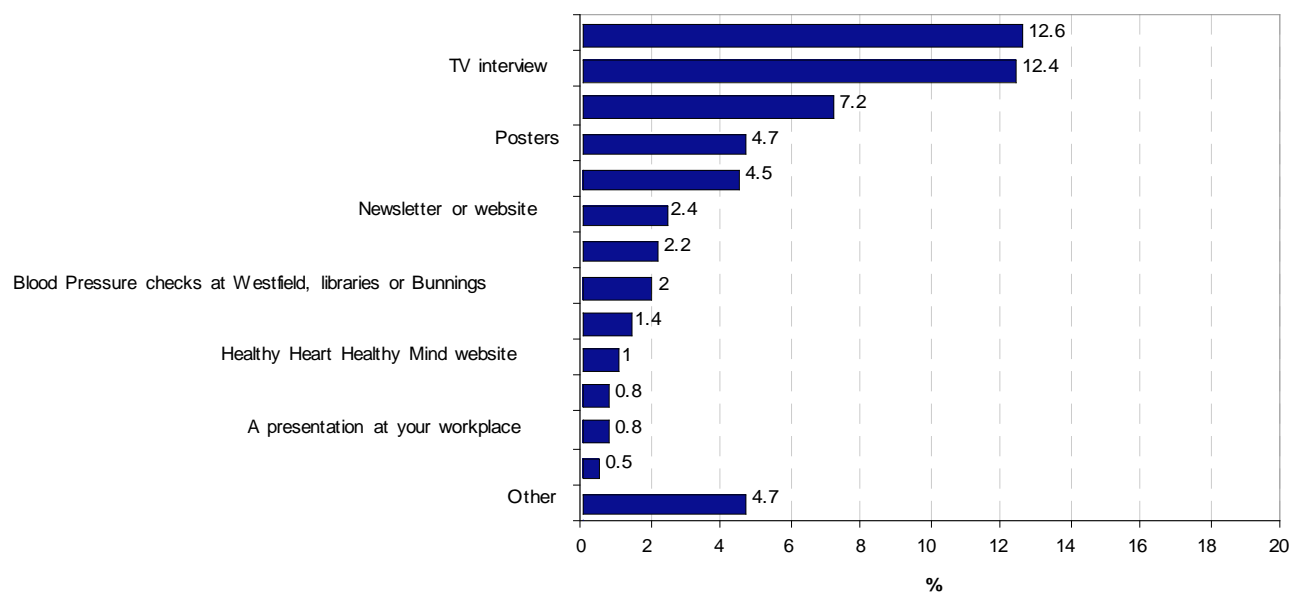
Respondents who had seen the Healthy Heart Healthy Mind campaign in the past 6 months were most likely to have gained exposure via newspaper articles (12.6%), TV interviews (12.4%) and Newspaper ads (7.2%).

Table 1.7 Where saw/heard Healthy Heart Healthy Mind Campaign

Where did you see it ?	% of those who saw campaign September 2011 n=126
Newspaper article	12.6%
TV interview	12.4%
Newspaper ad	7.2%
Posters	4.7%
Radio ad	4.5%
Newsletter or website	2.4%
Radio interview	2.2%
Blood Pressure checks at Westfield, libraries or Bunnings	2.0%
Roadside Banner	1.4%
Healthy Heart Healthy Mind website	1.0 %
Community Event	0.8%
A presentation at your workplace	0.8%
A presentation at a community setting/.meeting	0.5%
Other	4.7%

Chart 1.7 Where saw/heard Healthy Heart Healthy Mind Campaign

Where saw/heard Healthy Heart Healthy Mind Campaign n=126 (Sep)



Summary

Whilst the data collected and analysed in the Omnibus surveys shows positive improvements in awareness, the increases were insufficient to conclude these changes at the 95% confidence level which is the commonly accepted measure for research of this nature. The 95% confidence level indicates that the same results would be found in a different sample from the same population 95% of the time.

It is important to note the localised nature of the HHHM campaign and the importance of the specific intervention evaluation measures reported for the blood pressure checking stations, community and workplace presentations and health professional education seminars. Whilst the over arching media and marketing strategies supported these local interventions, the media and marketing activity in themselves was not sufficient to effect population awareness change in the same way a well funded mass media campaign would do. That is, HHHM was a community based education intervention supported by media - not a mass media campaign supported by community events/information.

Despite this, a 28.2% message recall for the Healthy Heart Healthy Mind campaign is a pleasing and most encouraging result when compared to the print element (only) of some other large Australian campaigns. For example, recognition of the print campaign increased from 33%-40% (magazine ads) and 33% to 38% (posters) for the 2000-01 BreastScreen Australia Campaign featuring Sara Henderson (Dept Health and Ageing, 2004). Prompted recall of the print campaign of 'Go for 2 and 5' increased from 8% to 25% in 2005 (Dept Health and Ageing, 2007).

Results – Community Blood Pressure Checking Stations

Purpose

Free blood pressure checking stations (BPCS) were tangible and visible demonstrations of the key message of the HHHM campaign. They were an activity which aimed to meet project objectives by increasing accessibility of hypertension screening; increasing the perceived importance of hypertension screening and by providing an opportunity to personally engage with the target audience.

Service Infrastructure

21 free blood pressure checking stations were conducted across the Illawarra and Shoalhaven in all public libraries, one Westfield Shopping Centre and two Bunnings stores. The following resources were funded to implement this component:

- A casual workforce of fifteen staff.
- In kind participation from key members of Steering Committee.
- Four Omron automatic blood pressure monitors.
- Project banners and written resources (including the GP Referral Card shown below).

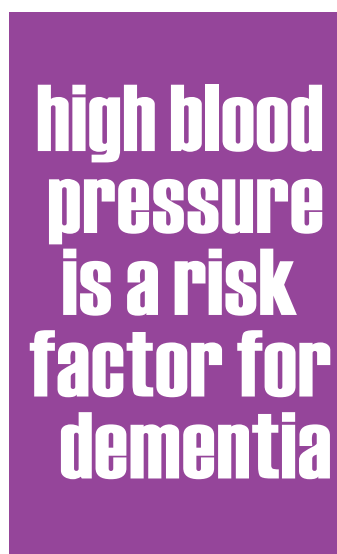
Implementation




The free blood pressure checking services were promoted on the campaign's website, the venues' websites, and in local newspapers. High pedestrian traffic areas with good visual impact were selected for the blood pressure checking stations which comprised tables displaying campaign materials, chairs for participants and large banners promoting the service. Stations were available for three to four hours in each location.

Participants at the BPCS were actively invited to have their blood pressure checked by staff and were informed of two levels of voluntary involvement:

1. Simply having their blood pressure checked and recorded, or
2. Providing signed consent to complete a two page paper questionnaire, have their blood pressure checked and agree to a brief follow-up telephone interview four weeks later.

The second (most accurate) of two blood pressure measurements was recorded on a GP referral card and issued to the participant. Staff used the Hypertension Guidelines (National Heart Foundation of Australia, 2008) to explain what the measurement meant and to advise participants of when to have their blood pressure re-checked. This advice, as well as the measurement, was recorded on the card and on the questionnaire for follow up purposes. Participants were provided with written information such as Fact Sheets on how to reduce/control blood pressure, and how to reduce their risk of dementia.



		
Date _____		
Blood Pressure _____		
Visit your GP _____		
Keep your blood pressure in check		
For more information visit: www.healthyhearthealthymind.com.au		

Results

1,259 people had their blood pressure checked during the implementation period. 607 people agreed to participate in the survey research and provided signed consent. 175 of these were unable to complete the follow up telephone interview. The results, therefore relate to 432 participants (71.2% of original sample).

Analysis of the survey results was carried out by IRIS using SPSS statistical analysis software. A full account of the raw data can be found as Appendix I.

The majority of the sample was female aged between 55-64 years (see Table 2.1 below for full demographic breakdown)

Table 2.1

Characteristic	% of respondents n= 432
Gender	
Male	38.6%
Female	61.4%
Age Group	
45-64 yrs	22.5%
55-64 yrs	39.8%
65-74 yrs	27.0%
75+ yrs	10.7%
Aboriginal or Torres Strait Islander	
Yes	2.3%
No	97.7%
Country of Birth	
Australia	71.2%
UK	12.8%
Italy	3.0%
Macedonia	0.2%
Other	12.8%

Blood pressures were recorded on 399 surveys (omissions for 33 surveys is a human limitation of this data collection). Most people who attended BPCS were in a High-Normal classification as per the Hypertension guidelines (National Heart Foundation, 2008).

Table 2.2

	% of respondents n=399
Normal (<120/<80)	19.0%
Normal to High (120-139/80-89)	45.6%
Mild Hypertension (140-159/90-99)	29.1%
Moderate Hypertension (160-179/100-109)	5.5%
High (>180->110)	0.8%
Total	100%

Knowledge of high blood pressure as a risk factor for dementia

42.9% of participants indicated that they were aware that high blood pressure is a risk factor for dementia *prior* to arriving at the BP checking station. This figure is considerably higher than the HHHM March Omnibus Survey of 4.3% and also what is known about Australians' knowledge of vascular risk factors associated with dementia risk. Three Australian surveys report 1% or less of respondents link cardiovascular risk factors (including hypertension) to the increased risk of dementia (Low and Anstey, 2006; Colmar Brunton Social Research, 2006; Newpoll, 2008).

This high figure could potentially be influenced by the participants wanting to give a 'favourable' response to the survey. It could also, however, potentially be explained by the broader campaign occurring in the community at the same time (i.e: the sample was exposed to HHHM and other dementia related messages).

When asked if they had noticed anything in their local media in the last 4 weeks about high blood pressure and dementia, 42.1% of participants indicated that they had. Table 2.3 demonstrates the proportion of participants who had noticed media promotions about high blood pressure and dementia by the month that the initial survey was completed. Table 2.4 further

details the type of media recalled (highlighting newspapers, tv and posters as the most effective).

Table 2.3

Noticed anything in the local media in the previous 4 weeks about high blood pressure and dementia.	% of respondents by month of survey					Total % of all respondents n= 430
	March n=18*	April n=159	May n=156	June n=45	July n=52	
Yes	11.1%	52.2%	39.1%	37.8%	34.6%	42.1%
No	88.9%	47.8%	60.9%	62.2%	65.4%	57.9%
Total	100%	100%	100%	100%	100%	100%

* Low sample base and not statistically significant

Table 2.4

Form of Media Message Noticed	% of respondents who had noticed something in local media n=181
Newspaper article	52.5%
TV interview	32.4%
Doctor's Surgery (poster)	17.0%
Radio interview	11.4%
Blood Pressure Checking Station	10.8%
Newspaper advertisement	9.1%
Other	5.7%
Roadside Banner	5.1%
Pharmacy (poster)	2.8%
Website	2.3%
Community Event	2.3%

Hypertension Status

38.4% of participants had been diagnosed with hypertension. Statistically significant differences were evident by the age of respondents. The oldest age group, 75+ years were far more likely to have been diagnosed with hypertension (61.4%) compared to 45-54 yrs (19.1%).

Of those participants who indicated that they had been diagnosed with hypertension, the most common strategy employed to reduce blood pressure was the use of medication (85.6%) followed by being careful about their diet; cholesterol, fat and salt intake (63.8%).

The sample also reported healthy behaviours in relation to regular blood pressure monitoring. See Table 2.5 below for more detail.

Table 2.5

Last Blood Pressure Check	% of respondents by age group				% of total respondents n=420
	45-54 Yrs n =95	55-64 Yrs n=167	65-74 Yrs n=114	75+ Yrs n=44	
Less than 2 weeks ago	5.3%	15.0%	21.1%	31.8%	16.1%
Between 2-4 weeks ago	12.6%	16.2%	19.3%	25.0%	16.8%
1-3 months ago	28.4%	25.7%	28.9%	27.3%	27.0%
3-6 months ago	21.1%	19.2%	17.5%	9.1%	17.7%
More than 6 months ago	32.6%	24.0%	13.2%	6.8%	22.4%
Total	100%	100%	100%	100%	100%

Follow Up Surveys

Follow up telephone interviews were undertaken with participants 4 weeks after they completed the initial survey at BPCS. The follow up surveys were designed to:

1. Evaluate effectiveness of BPCS in raising awareness of hypertension as a risk factor for dementia
2. Evaluate effectiveness of BPCS in encouraging hypertension risk reduction behaviours

1. Raising Awareness:

The follow up survey revealed that 78.2% of participants who had visited a BPCS said that they remembered the main message of the BPCS four weeks prior. Those participants were then asked to describe the message. More than half (51.6%) specifically recalled the link between high blood pressure and dementia with a further 19.8% recalling the importance of regular blood pressure screening. Table 2.6 outlines the breakdown of the message recalled by participants.

Table 2.6

Recalled Message Detail	% of respondents n=339
High blood pressure is linked to/causes dementia	51.6%
About checking blood pressure regularly/keeping blood pressure down	19.8%
About dementia (general comment)	8.8%
About being healthy/ health lifestyles for seniors	8.8%
High blood pressure is linked to diabetes	3.5%
High blood pressure is linked to heart disease	2.7%
High blood pressure is linked to strokes	1.8%
Other	0.9%
No response	2.1%

2. Encouraging hypertension risk reduction behaviours:

Knowledge of hypertension reduction strategies

The table below indicates that increasing physical activity and improving diet were the most recalled methods of ways to reduce hypertension. It is interesting to note the high proportion of participants who responded that lowering stress was a method to reduce hypertension. Whilst there is some evidence to support stress reduction in lowering cardiovascular risk (ref), stress reduction was not a part of the HHHM campaign in any form (verbal or written information).

Table 2.7

Ways to lower blood pressure	% of respondents n=?
Increase physical activity	78.7%
Improved diet (fat, salt etc)	77.1%
De-Stress/Relax	21.7%
Medication	15.0%
Moderate alcohol intake	11.1%
Quit Smoking	10.0%
Other	14.9%

Participants were asked if they took any direct action after their interaction with staff at the BPCS. While some action could be attributable to other factors, the action highlighted in red in the table below suggests that the interaction could have acted as a 'cue to action' for some participants.

Table 2.8

	% of respondents n=432
I am regularly taking my hypertension medication	31.5%
I made an appointment with the GP	30.1%
I filled a prescription for hypertension medication	28.2%
I have read more information relating to high blood pressure	24.3%
I have been thinking about going to the GP	23.6%
I have been thinking about making other lifestyle changes	21.3%
Nothing, it had no impact	14.8%
I have talked to friends and family about high blood pressure	10.6%
I kept an appointment with the GP	3.5%
I got a prescription for hypertension medication	3.2%

Conclusion

Free BPCS increased the accessibility of hypertension screening and management and promoted the issue of hypertension as a risk factor for dementia. They were:

- Free
- Located in highly accessible public places
- Regularly (weekly and sometimes bi-weekly)
- An opportunity for personal engagement with target group
- An opportunity for the target group to access information about hypertension and dementia
- A 'cue to action' for hypertension screening
- A 'cue to action' for hypertension re-screening (using GP Referral Cards)
- A 'cue to action' for lifestyle modification

Free BPCS helped to raise awareness of hypertension as a risk factor for dementia as well as the importance of regular hypertension screening. From a social marketing perspective, 'having your blood pressure checked' (actual product) was the desired behavior the HHHM was encouraging while the promoted benefit that the target group could accrue was reducing their risk of dementia (core product).

Results – Community & Workplace Presentations

Purpose

Brief community and workplace presentations (see Appendix G) supported HHHM messages at a grass roots level and were a tangible and engaging method of community education. They were an activity that aimed to meet project objectives by actively engaging the target group in discussion regarding hypertension reduction and management (screening, lifestyle modification and medication adherence). Presentations were made highly accessible to community groups; they were free of charge and the project manager was able to travel to community venues and provide presentation equipment.

Service infrastructure

The following resources were funded to implement this component:

- Campaign/Project Manager to deliver the presentations
- Laptop computers and projectors
- Project resources

Implementation

Presentations were promoted on the HHHM website as well as via online newsletters and email distribution lists disseminated by key community and business networks (e.g., business chambers). In addition to this, the campaign manager proactively targeted service clubs and large employers to offer educational presentations to their members and employees.

Participants at the Presentations were informed of two levels of voluntary involvement:

1. Simply listening to the presentation, OR
2. Providing signed consent to complete a two page paper questionnaire, listen to the presentation and agree to a brief follow-up telephone interview four weeks later.

Data was collected from consenting participants prior to the presentation. Follow up telephone interviews were undertaken with participants 4 weeks after they completed the initial survey at community or workplace presentations. The follow up surveys were designed to:

1. Evaluate effectiveness of community or workplace presentations in raising awareness of hypertension as a risk factor for dementia
2. Evaluate effectiveness of community or workplace presentations in encouraging hypertension risk reduction behaviours

Analysis of the survey results was carried out by IRIS Research using SPSS statistical analysis software.

Results

39 presentations were conducted with 641 attendees between April – August 2011. Of these, 174 completed a survey prior to the presentation and 125 completed a follow up telephone survey (71.8% of total sample).

Presentations were conducted with the following groups:

1. Pt Kembla Cardiac Rehabilitations Groups x4
2. Nowra Cardiac Rehabilitations Group
3. Aunty Jean's Cardiac Rehabilitation Group, Nowra
4. Staff Meeting, Faculty of Commerce, University of Wollongong
5. Manager's Meeting, Department of Buildings and Grounds, University of Wollongong
6. Lions Club of Wollongong
7. Staff Lunchtime Sessions, Wollongong City Council x2
8. Illawarra Community Care Forum
9. Shoalhaven Dementia Services Network
10. Macedonian Community Presentations x4
11. Greek Community Presentations x2
12. Arabic Community Presentations
13. Wollongong City Library

14. Thirroul Community Library
15. Corrimal Community Library x2
16. Shoalhaven Library
17. Shoalhaven City Council Department Staff Meetings x6
18. Auzinc Metals and Alloys
19. Illawarra Sunrise Rotary Club
20. Fairy Meadow Rotary Club
21. Bulli Rotary Club
22. Junior School Staff Meeting, The Illawarra Grammar School
23. Staff Meeting, Para Meadows Special School
24. Staff Meeting, McKeons Swim School
25. Warilla Women's Health Forum

Most individuals who attended the presentations were male (61.6% v 38.4% female) and most were in the target age group of 45-54yrs (42.2%). The table below provides a breakdown of the demographic data collected.

Table 3.1

Characteristic	% of respondents n=125
Gender	
Male	61.6%
Female	38.4%
Age Group	
45-64 yrs	42.3%
55-64 yrs	35.6%
65-74 yrs	14.4%
75+ yrs	7.7%
Aboriginal or Torres Strait Islander	
Yes	3.2%
No	96.8%
Country of Birth	
Australia	82.4%
UK	9.6%
Italy	.8%
Other	7.2%

Prior to the presentation, 25.4% of respondents were aware that hypertension was a risk factor for dementia and 74.6% were not. The sample generally reported healthy behaviours with regard to blood pressure monitoring with more than 78% having had their blood pressure checked within the last six months. An explanation for this could be the large proportion of individuals who belonged to cardiac rehabilitation groups and council workers who undergo regular health check-ups. Of those who could recall what range it was, the majority (78.8%) reported that it was 'Normal'.

Follow Up Surveys

Follow up phone telephone interviews were undertaken with the sample 4 weeks after they completed the initial survey at Presentation events.

1. Raising Awareness:

The follow up survey revealed that 80.8% of participants said that they recalled the main message that had been delivered in the presentation. When asked what that was, the majority (69.3%) recalled that the take home message was the link between hypertension and dementia with a further 14.9% recalling the importance of regular hypertension screening. See Table 3.2 for a breakdown of the messages recalled by participants.

Table 3.2

Recalled Message Detail	% of respondents who recalled message n=101
High blood pressure is linked to/causes dementia	69.3%
About checking blood pressure regularly/keeping blood pressure down	14.9%
About being healthy/ health lifestyles for seniors	6.9%
About dementia (general comment)	2.0%
High blood pressure is linked to strokes	1.0%
High blood pressure is linked to heart disease	1.0%
Other	4.0%
No response	1.0%
Total	100%

1. Encouraging hypertension risk reduction behaviours:

Knowledge of hypertension reduction strategies

When asked about ways to lower blood pressure, the most recalled method (88%) was by improving diet (including reducing salt and fat) followed by increasing physical activity (84%), and moderating alcohol consumption (20%). Quitting smoking (14%) and using medication (10%) were also recalled by respondents, with a high proportion (28%) of respondents also citing ‘stress reduction or relaxation’ as a means to lower high blood pressure.

Hypertension screening intentions

When asked if individuals intended to have regular blood pressure checks (annually for Normal blood pressure) 86.4% of respondents said YES.

Impact on Behaviour

When asked specifically if individuals had taken any action after hearing the presentation, more than half of respondents said that they had talked to others about high blood pressure (64%) and that they have been thinking about making lifestyle changes (52.8%). A significant proportion (23.2%) also reported that they had been thinking about going to their GP and a further 16.8% reported that they had read more information about high blood pressure since attending the presentation.

Conclusion

The data collected from those who attended Community and Workplace Presentations suggest that they were an effective intervention in relation to the project objectives, particularly relating to the ability to provide tools. Audio-visual presentations, fact Sheets and reminder items as well as referral to the HHHM website were provided. A benefit to the target group afforded by this particular intervention was an opportunity to engage in discussion to facilitate an understanding of National Hypertension Guidelines as well as the impact of lifestyle choices on dementia risk reduction.

- Awareness was raised from 25.4% to 69.3% in the sample. It is interesting to note that the message recall in this intervention is higher than the message recall of the sample who attended free blood pressure checking stations (51.6%).
- Knowledge about how to reduce and maintain hypertension was sustained (short term of 4 weeks) by the sample and 86.4% reported their intention for regular blood pressure checks.
- Medication compliance was promoted in the presentation and on HHHM materials and recalled by 10% of the sample.
- More than half of the sample reported that they had been thinking about lifestyle modification since attending the presentation.

They were:

- Free
- Able to be delivered at a time and venue of the group/workplace choosing
- An opportunity for personal engagement with target group
- An opportunity for the target group to access information about hypertension and dementia
- A ‘cue to action’ for hypertension screening
- A ‘cue to action’ for lifestyle modification

Results – Evaluating Health Professional Education Sessions (HPES)

Rationale

This component of the project was designed to enhance health professionals' knowledge of hypertension management as a means to reduce dementia risk and to encourage them to engage with and educate their clients. This was considered important to support and underpin the capacity building (Hawe et al, 2000) of ISLHD to deliver the campaign's messages beyond the conclusion of the pilot project; and to act as a secondary prevention strategy to those already at risk of hypertension.

Development & Promotion

The major feature of the HPES was a 15minute PPT developed by CHI (see Appendix G). Information was presented about dementia (what it is, risk factors and its current impact), an overview of the evidence supporting the treatment of hypertension to reduce dementia risk, and an overview of the HHHM campaign.

HPES were promoted as a free service for health professionals within ISLHD's intranet and emailed staff newsletters. It was also promoted on the HHHM website which was further publicised to ISLHD staff via a printed message on pay slips. In addition, senior managers of groups of health professionals (e.g: community nurses, health promotion staff etc) whose core business involved the delivery of healthy lifestyle messages were contacted directly and informed about the HPES; this included individuals and organizations external to the ISLHD. Participation was intended to be undemanding for busy health professionals and presentations were scheduled (time and venue) at their convenience, usually coinciding with regular staff meetings to engage the biggest audience. The short duration of the presentations and ability of the project manager to supply a lap top and projector were intended to facilitate a high level of interest. As per the HHHM Evaluation Plan, a target of 150 health professionals was selected.

Implementation

Enquiries about the HPES from health professionals were emailed to the project manager and a date and time was booked for the presentation. Thirteen presentations were conducted over a three month period (Apr-Jun), reaching a total of 187 health professionals, exceeding the target by 37 participants. Attendees included multicultural health staff, health promotion staff, community nurses, mental health nurses, pharmacists and coronary care nurses from the local health district. Other health professionals included staff from the National Heart Foundation, Diabetes Council of Australia and Medibank Health Solutions (who provide telephone counsellors for the NSW Get Healthy Information & Coaching Service).

In addition to the audio visual PPT, supporting resources such as Fact Sheets on dementia and hypertension, promotional items such as pens and bookmarks and referral to the HHHM website were provided to staff in hard copy and on a USB drive. Relevant peer reviewed academic articles on the topic of hypertension and dementia (eg: Woodward et al) were also left for staff to read.

In order to help evaluate the effectiveness of the HPES, short, paper based pre presentation surveys were issued and collected before the presentation. Post presentation surveys were issued and collected at the conclusion of the presentation.

Results

Brief paper based pre (6 items) and post (10 items) questionnaires were developed. The first two items common to both questionnaires were knowledge based check box items about risk factors applicable to dementia and hypertension. The following four items common to both questionnaires were psychometric questions (using a 5 point Likert scale) to ascertain confidence in answering questions about dementia and dementia risk; hypertension and hypertension management. The final four items on the post presentation questionnaire were psychometric questions (using a 5 point Likert scale) relating to the usefulness of the presentation and supporting resources and intentions to use them and actively promote regular blood pressure checks. The surveys were distributed and collected in person immediately before and after the presentations.

A total of 88 valid pre presentation surveys and 76 valid post presentation surveys were returned by participants.

Knowledge of Risk Factors

Health professionals generally reported a high level of awareness of the risk factors for dementia with 88.6% identifying hypertension (increasing to 98.7% after the presentation) and 80.7% identifying age (increasing to 97.4%). Family history was identified as a risk factor for dementia by 50% of respondents and increased to 72.4%, which is interesting since family history as a risk factor for dementia was not explored in the presentation.

Similarly, awareness of hypertension risk factors was also high with 96.6% identifying obesity (which increased to 97.4%), 94.3% identifying smoking (increasing to 100%) and 96.6% identifying family history (remaining steady but a slight decline at 94.7%). Although it was not explored in the presentations at all, gender as a risk factor for hypertension increased from 47.7% to 71.1%.

Confidence

Whilst improvements in knowledge were small, the key impact of the presentations is evident in the increased confidence levels of health professionals to engage in discussion about hypertension and dementia with their clients (which was the primary aim of the intervention). The Tables below illustrate the significant improvement in responses to the four efficacy items of the questionnaire, which measured confidence in their ability to discuss hypertension and dementia with clients.

1. I am confident in my knowledge and ability to answer questions from my clients about what dementia is

Q3	Pre survey %	Post survey %
Strongly disagree	6.8	2.6
Disagree	15.9	1.3
Neither agree nor disagree	38.6	14.5
Agree	33	67.1
Strongly agree	5.7	14.5

2. I am confident in my knowledge and ability to answer questions from my clients about how to decrease the risk of getting dementia

Q4	Pre survey %	Post survey %
Strongly disagree	5.7	1.3
Disagree	22.7	0
Neither agree nor disagree	36.4	10.5
Agree	31.8	69.7
Strongly agree	3.4	18.4

3. I am confident in my knowledge and ability to answer questions from my clients about what the hypertension is

Q5	Pre survey %	Post survey %
Strongly disagree	2.3	3.9
Disagree	3.4	0
Neither agree nor disagree	18.2	1.3
Agree	62.5	68.4
Strongly agree	13.6	26.3

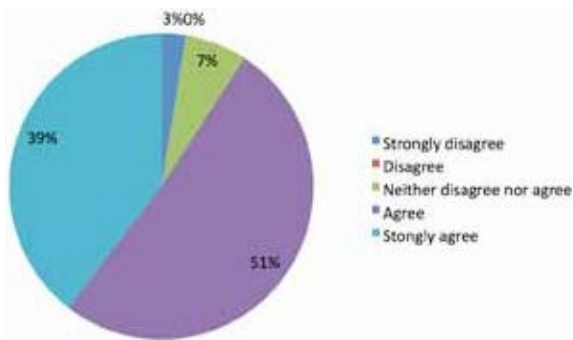
4. I am confident in my knowledge and ability to answer questions from my clients about how to lower or manager hypertension

Q6	Pre survey %	Post survey %
Strongly disagree	1.1	2.6
Disagree	4.5	0
Neither agree nor disagree	17	0
Agree	63.6	64.5
Strongly agree	13.6	32.9

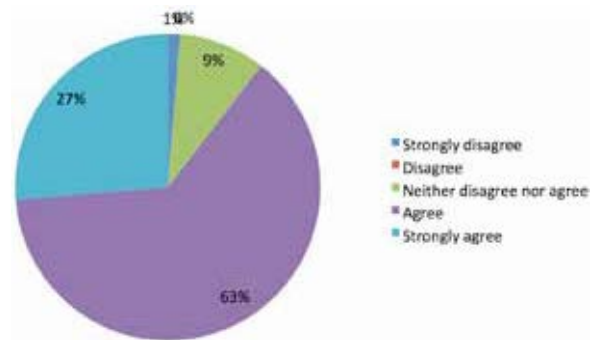
Usefulness and Intent

Four questions were asked in the post presentation survey only and measured on a Likert scale. More than half of respondents strongly agreed that the presentation was 'useful and relevant' (51%) and the resources provided were easy to use and understand (63%); and strongly agreed with the statements "I intend to actively recommend that my clients check their blood pressure on a regular basis" (55%) and "I intend to actively distribute the materials provided to me in my day to day work" (72%).

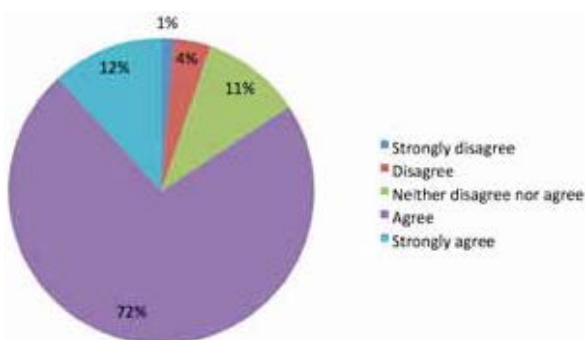
Post survey – Today's Education Session was useful and relevant



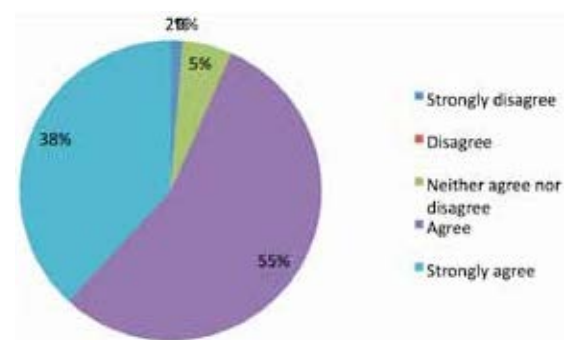
Post survey – The material and resources provided today are easy to use and easy to understand



Post survey – I intend to actively distribute the materials provided to me in my day to day work



Post survey – I intend to actively recommend that my client check their blood pressure on a regular basis



Outcomes and Follow Up

Whilst the increases in knowledge were modest, this is largely due to ceiling effects from the high level of knowledge at baseline. It is worth noting that this may, in part, be due to the health professionals being exposed to HHHM campaign messages and resources in the community as well as being briefed by managers about the nature of the presentation i.e: they were aware that they were attending a presentation about high blood pressure and its link to dementia.

It is interesting to note the considerable increase in confidence to engage clients in discussions about dementia and hypertension risk that came about from this brief educational presentation.

The reported intention of health professionals to actively distribute the materials provided and to recommend regular blood pressure checks was promising and, combined with the previous results, the potential for 'brief intervention strategies' in relation to hypertension reduction and dementia risk reduction for health professionals is feasible.

Results and Feedback Forum

Towards the conclusion of the HHHM project, all health professionals who had attended a HPES were invited to the HHHM Results and Feedback Forum. The Forum was advertised to all other ISLHD employees via an 'All-Staff' email from the office of the Chief Executive. The Forum was held at the University of Wollongong on 24th August 2011 and attended by approximately 30 health professionals. The purpose of the Forum was:

1. To present the interim results of the HHHM campaign to interested health professionals
2. To provide an opportunity for reflection and valuable insight on the processes used in the campaign, including aspects of design, implementation and evaluation
3. To assist in identifying 'Project Champions' for HHHM

Interim results of the HHHM campaign were presented by the project manager as well as initial results of the concurrent Hypertension and Dementia project run by Illawarra Division of General Practice. An expert panel was assembled for the forum which consisted of Professor Wilfred Yeo (Clinical Director – Medicine, Cardiac, Respiratory and Critical Care ISLHD), Professor Jan Potter (Clinical Director – Division of Aged Care and Rehabilitation ISLHD) and Lyn Phillipson (Research Fellow – Centre for Health Initiatives), all of who were members of the HHHM Steering Committee.

Project Champions

The favorable intentions of health professionals to use HHHM resources and encourage regular blood pressure checks with their clients demonstrates the ability for these individuals to act as Project Champions; that is, continue to deliver campaign messages and educate the community about maintaining healthy blood pressure to reduce the risk of dementia.

All of the key stakeholders in the HHHM campaign are recognized as Project Champions (see list below), providing a sustainable and ongoing means of disseminating project materials and resources.

Project Champions include:

1. ACT/NSW Dementia Training Centre
2. Illawarra Shoalhaven Local Health District
3. Centre for Health Initiatives, University of Wollongong
4. Illawarra Division of General Practice
5. Alzheimer's Australia (NSW)
6. National Heart Foundation (NSW)
7. Pharmacy Guild (NSW)
8. National Stroke Foundation

Conclusion

HPES were a small component of the HHHM project. Their merit appears to be in reinforcing the knowledge base of health professionals and enhancing their confidence to engage in a dialogue about dementia risk and hypertension management. It is an avenue for further research and understanding.

Results – Media and Marketing

Print Media

Unpaid editorial: Seven newspaper articles were published during the HHHM pilot campaign in the Illawarra Mercury, the South Coast Register, The Wollongong Advertiser the Lake Times, the Sydney Morning Herald and The Age.

Paid ads: Paid advertisements (see Appendix D: Ad No 4. and No 5.) were placed in local newspapers to advertise the Illawarra and Shoalhaven Community Forums.

Three other print advertisements (see Appendix D: Ads No 1, No. 2 and No. 3) were developed and formulated a small campaign beginning with highlighting that high blood pressure is a risk factor for dementia (Ad No.1). This ad was placed 32 times (in black and white) as outlined in the table below.

Advertisement No. 1: "Do you know what your blood pressure is?"				
Media	Date			
Illawarra Mercury	30th April 2011	16th July 2011	30th July 2011	13th August 2011
Wollongong Advertiser	20th April 2011	6th July 2011	13th July 2011	20th July 2011
Shellharbour Lake Times	8th June 2011	22nd June 2011	6th July 2011	20th July 2011
Corrimal Northern Leader	9th June 2011	23rd June 2011	7th June 2011	21st July 2011
South Coast Register	8th June 2011	22nd June 2011	6th July 2011	20th July 2011
Nowra Shoalhaven News	9th June 2011	23rd June 2011	7th July 2011	21st July 2011
Milton Times	8th June 2011	22nd June 2011	6th July 2011	20th July 2011
Kiama Independent	8th June 2011	22nd June 2011	6th July 2011	20th July 2011

Ad No 2. (lifestyle changes) and Ad No 3. (medication compliance) were devised to build upon the knowledge promoted by Ad No 1. by highlighting the ways in which high blood pressure could be redressed. These ads were placed twice each (see table below) and designed to create maximum impact by being larger (quarter page), bolder (full colour) and in the biggest circulation editions (Saturday - Illawarra Mercury and Wednesday - South Coast Register) as well as in The Nowra CBD (a free magazine with 14,000 readership which is also inserted into the Wed edition of the South Coast Register and placed in other key businesses and places of interest).

	Ad No 2: Lifestyle		Ad No 3. Medication	
Illawarra Mercury	Sat 30th July	Sat 6th Aug	Sat 13th Aug	Sat 20th Aug
South Coast Register	Wed 3rd Aug	Wed 10th Aug	Wed 17th Aug	Wed 24th Aug
Nowra CBD	Wed 31st August		Wed 31st August	

Radio

Interviews: Two radio interviews were given by the project manager (ABC Illawarra and i98fm) as part of the media coverage of the HHHM campaign launch on March 30th.

Advertising: A radio advertisement using the following script was recorded:

"Did you know that controlling your blood pressure from age 45 on is the best thing you can do prevent dementia? Healthy blood pressure is like an insurance policy against dementia. Check out www.healthyhearthealthymind.com.au and keep your blood pressure in check".

The ad was aired on two different radio stations, WAVE fm and Nowra 2ST over a four week period (21st August – 18th September. On a weekly basis, WAVE fm reaches 76, 200 people and 2ST reaches 33, 600 people.

The recording was 15seconds long and used a female voice. The message clearly targets 45 year olds and clearly states that high blood pressure is a risk factor for dementia. It provides referral to the website for more information and ends in the campaign tag line, consistent with all other campaign advertising and materials.

The radio ad was designed to have maximum cost effectiveness by using radio stations which targeted the same demographic as the HHHM target group (45 years + in WAVE FM in the Illawarra and 2ST in the Shoalhaven). It further targets the target audience by the program choice of DRIVE, where, between 4-6pm, commuters are often travelling home from work.

The ad was aired four times per DRIVE program. Over two programs (two stations) and four weeks, a total of 160 ads were aired.

Free CSAs: In a gesture of community service and in support of an important public health message, WAVE FM placed the same recording as a CSA 80 times. This began on Thursday 28th July and continued until Sunday 18th September. CSAs were placed throughout the day, including during the popular Breakfast Radio program.

Posters & Banners

Poster distribution: Over 400 A2 campaign posters were distributed to the following places. It is important to note a potential limitation of this strategy in that after receiving posters, the campaign relied on third party individuals to physically put the posters up (and this has not been verified):

- All GP surgeries in the Illawarra (IDGP)
- All GP surgeries in the Shoalhaven (SDGP)
- All pharmacies in the Illawarra and Shoalhaven (Pharmacy Guild NSW)
- All libraries in the region
- All TAFE campuses
- All Catholic Schools
- All public primary schools
- All ISLHD Community Health Centres
- All waiting rooms in all ISLHD hospitals
- Various other workplaces and fitness centres

Shopping Centre 'Billboard' Advertising

A larger version of the poster was used as shopping centre advertising over a five week period (6 June-4 July) in the following Shopping Centres:

Stocklands Corrimal	1 poster/location	249,238 visitors for the month of June 2011
Stocklands Shellharbour	2 posters/locations	416,000 visitors for the month of June 2011
Stocklands Nowra	2 posters/locations	215,241 visitors for the month of June 2011

Free Standing Banner Signage

When not in use at free blood pressure checking stations, the free standing banners were left at locations frequented by a high turn-over of pedestrian traffic for several weeks at any one time. Furthermore, the health related locations (main entrances of Wollongong Hospital, Shoalhaven Hospital and the University Recreation and Aquatic Centre) aimed to stimulate the right message in the right environment to encourage the target group to consider their blood pressure and consider have it checked.

Roadside banner

Outdoor advertising has been used as a cost effective and successful health promotion strategy for community based media campaigns for a range of health behavior change interventions including dietary change (eg. 'Go for 2 and 5'), smoking cessation (eg. 'Every cigarette is doing you damage') and road safety (eg. 'Speed kills'). Billboard advertising is cost effective due to the very high exposure frequency (Donthu, 1993). The roadside banners used by the HHHM campaign are a less expensive alternative to billboards, and provide an opportunity to continue to frequently expose the Illawarra and Shoalhaven population to the campaign's taglines.

The roadside banners were designed, constructed and suspended using the policy guidelines issued by the NSW Roads and Traffic Authority (RTA). Permission was sought and granted by the owners of all locations used to place the banners. Banners were left in locations for between 1 and 3 weeks at any one time.

The table below illustrates the estimated, combined activity of the two HHHM roadside banners from April-September.

Location	Total days on display	Estimated traffic exposure in 'vehicles per day' from RTA data ranging from 2003-06.
Springhill Rd, Cringilla	40	35,996 (2006)
Harvey St, Dapto	27	37,644 (2003)
Elliots Rd, Fairy Meadow	34	27,909 (2006)
Lake Entrance Rd, Blackbutt	11	21,585 (2005)
Princes Highway, Kembla Grange	4	12,835 (2005)
Jayne St, Nowra	21	52,287 (2006)
Marley Place, Unanderra	20	19,894 (2005)
Throsby Drive, Wollongong	33	11,831 (2003)
Wollongong Hospital Car Park/Main Entrance	14	unknown
Coledale Hospital Main Entrance	27	4,729 (2006)
Princes Highway, Bombo (Kiama)	28	unknown

Community Newsletters

The table below outlines the third parties who published information about the HHHM campaign and the reach of their distribution.

Organisation	Size of distribution/member list
St George Illawarra Dragons Rugby League Football Club	20,000 (x2)
IRIS	5,000
IBC	5,000 (x2)
SBC	300 (x2)
IDGP Community Consultative Committee	300 (x2)
Catholic Schools	Exact number unknown – 25 primary and secondary schools in the region
Public Schools	Exact number unknown – 187 primary schools in the region
Wollongong City Council Staff	1,000
Shoalhaven City Council Staff	1,000 (x2)
CHI Newsletter	50
IHMRI Newsletter	700
UOW Innovation Campus Newsletter	600

Website

The availability of online information to support the key messages of HHHM was a key marketing and information dissemination strategy. The HHHM website was designed to:

1. Provide simple, factual information about dementia
2. Provide simple, factual information about hypertension
3. Promote community campaign activities (BP checking stations, community forums and community and workplace presentations)
4. Promote the Health Professional Education Seminars
5. Provide links to partnership organizations (ISLHD, CHI, IDGP)
6. Provide links where more detailed information on dementia (Alzheimer's Australia) and hypertension (National Heart Foundation) could be found

The website was a central referral point for more information about the HHHM campaign and as such, was printed on all of the campaign materials and advertisements.

The development of www.healthyhearthealthymind.com.au was overseen by the Centre for Health Initiatives. Content was provided by Illawarra Shoalhaven Local Health Network and was updated once throughout the campaign. The website went live on Wed 30th March 2011.

The following data regarding the usage of the website relates to the 6 month campaign period of Wed 30th March – Wed 28th September. Data was retrieved through Google Analytics.

Site Usage

- 1,366 Visits
- 881 Absolute Unique Visitors
- 3,322 Pageviews
- 2.43 Pages/Visit
- 64.06% Bounce Rate
- 00:01:48 Average Time on Site
- 63.76% New Visits

Traffic Sources Overview	
Search Engines	708.00 (51.83%)
Direct Traffic	390.00 (28.55%)
Referring Sites	268.00 (19.62%)

Top Traffic Sources					
Sources	Visits	% visits	Keywords	Visits	% visits
google (organic)	675	49.41%	healthy heart healthy mind	390	55.08%
(direct) ((none))	390	28.55%	healthy heart	22	3.11%
media.uow.edu.au (referral)	59	4.32%	what is dementia	22	3.11%
smh.com.au (referral)	54	3.95%	healthyhearthealthymind	11	1.55%
theage.com.au (referral)	35	2.56%	www.healthyhearthealthymind.	11	1.55%

Top Content		
Pages	Pageviews	% pageviews
/reduceyourrisk/	1,057	31.82%
/about/	608	18.30%
/whatishighbloodpressure/	387	11.65%
/activities/	307	9.24%
whatisdementia/	285	8.58%

Other Community Engagement

1. Illawarra Community Forum

Healthy Heart Healthy Mind chose the 2011 Retirement and Lifestyle Expo as the venue for its Illawarra Community Forum. The Retirement and Lifestyle Expo is an annual event sponsored by the Illawarra Mercury (local Fairfax Ltd newspaper 25,000-90,000 circulation) and attracts over 1000 visitors aged 45 years+ who are planning for retirement.

This “piggyback marketing strategy” provided an opportunity for HHHM to use the reputation and market reach of the existing event to access the project’s target group (45 year olds+) and quickly create awareness of the project and it’s messages through media exposure prior to the event. Piggyback marketing is effective where two organizations or brands – in this case The Illawarra Mercury and ISLHD - help to promote each other’s products or services (a newspaper and a health message) where each complimented, not competed with each other’s objectives.

The 2011 Retirement and Lifestyle Expo was held on April 30th from 9am-3pm at Kembla Grange Racecourse. It was staffed by five casual personnel plus the project manager.

Key Outcomes

Media Exposure: Participation in the Retirement and Lifestyle Expo provided a significant level of paid and unpaid media coverage in the Illawarra Mercury in the four weeks preceding the event. A half page colour advertisement and additional editorial complimented the regular promotion of the event (and its exhibitors) by the Illawarra Mercury. The HHHM roadside banner was also placed outside Kembla Grange Racecourse on the Princes Highway for four days during this period.

Seminar Presentation: The HHHM project was selected by event coordinators as a topic of interest for patrons of the Retirement and Lifestyle Expo and as such, a Seminar (the HHHM community presentation) was scheduled in the day’s proceedings. Approximately 30 people attended the Seminar.

Blood Pressure Checks: Of the 1200 visitors to the Retirement and Lifestyle Expo, over 300 visited the HHHM stall and had their blood pressure checked. Of these, 179 people also consented to participate in further data collection (as reported page 23).

Conclusion

Participation at the 2011 Retirement and Lifestyle Expo in April coincided with the beginning of HHHM campaign activities and as such, the media exposure of HHHM messages and the launch of community blood pressure checking stations in a large community event provided a credible and prominent basis for further activities. In addition, participation brought about leads to other organizations, namely local councils and retirement trusts who engaged with HHHM messages.

2. Shoalhaven Community Forum

The enthusiasm of community health professionals and dementia service providers in the Shoalhaven combined with the HHHM team to plan a Community Forum for the Shoalhaven region. Piggyback marketing opportunities were not possible in this instance as all of the major community events (e.g: The Nowra Show) in the Shoalhaven were scheduled outside of the HHHM time period.

The HHHM project manager collaborated with the Community Educator from Alzheimer’s Australia and the Shoalhaven Neurological Nurse Educator to formulate the content and format of the Shoalhaven Community Forum. Local health and community workers, including the Shoalhaven Dementia Services Network were consulted as to an accessible venue, and appropriate time and date.

These health and community networks promoted the event by email and flyer distribution. The Shoalhaven Business Chamber promoted the event on its website and by directly emailing its members. The event was also promoted in the local newspaper (the South Coast Register) via unpaid editorial in the week before the Forum and a paid advertisement on the day of the Forum.

The Shoalhaven Community Forum was held at the Bomaderry Bowling Club on Wednesday 22nd June from 1.30 – 3.30pm. Afternoon tea was provided and 10 people attended.

Key Outcomes

- Excellent collaboration between major stakeholders in dementia prevention
- Free blood pressure checks (28 in total) and associated data collection and information provision to patrons and staff of the Bowling Club as well as those attending the Forum
- Discussion at the Forum resulted in local carers learning of support services available to them and connecting with local service providers

Conclusion

Despite low attendance, media activity was generated by the Forum in the local newspaper. This combined with other

marketing activities occurring at the same time, namely the placement of the HHHM roadside banner and billboard advertising in Stocklands Nowra, providing a range of exposure to HHHM messages over a concentrated time period.

3. Aboriginal and CALD Engagement

Healthy Heart Healthy Mind (HHHM) project activities were conducted in Aboriginal and CALD communities in collaboration with events facilitated by Aboriginal and Multicultural Health workers. The HHHM brochure "High blood pressure is a risk factor for dementia" was also translated into Macedonian and Arabic as these are the biggest language groups in the Illawarra. These brochures are freely accessible on the Multicultural Health Communications website: http://www.mhcs.health.nsw.gov.au/topics/Diseases_and_Conditions.html#8805.

The following table outlines the population groups, the nature of the activity and the number of people who participated. Information in these language groups on "How to Keep a Healthy Blood Pressure" was sourced from the Multicultural Health Communications website and provided to attendees.

Population Group	Outline of Activities	Number of people	Comment on age group
Aboriginal	HHHM community presentation conducted with Aboriginal Cardiac Rehabilitation Group in Nowra.	30	Most were aged 55+ and were encouraged to take the materials home to their families
	Blood pressures conducted as part of NAIDOC Week activities in Nowra.	15	
Greek	Two HHHM community presentations were conducted with the assistance of an interpreter	90	Most were aged 64+ and were encouraged to take the materials home to their families
Macedonian	Three HHHM community presentations were conducted with the assistance of an interpreter	80	Most were aged 55+ and were encouraged to take the materials home to their families
Arabic, Turkish and Farci (Iranian)	One HHHM community presentation was presented with the assistance of three interpreters	20	Most were aged 55+ and were encouraged to take the materials home to their families
Serbian	One community presentation was conducted with the assistance of an interpreter. Blood pressures were also conducted.	12	Most were aged 55+ and were encouraged to take the materials home to their families
Filipino	Blood pressures were conducted and information provided as part of Multicultural Health Week activities.	52	Most were aged 55+
Maltese	Blood pressures were conducted and information provided as part of Multicultural Health Week activities.	60	Most were aged 55+
Various	International Women's Week Luncheon organized by ISLHD Multicultural Health Team. Blood pressures were conducted and information about how to keep a healthy blood pressure disseminated in the following languages: Macedonian, Italian, Turkish, Chinese, Arabic, Croatian and English.	300 women attended the luncheon. 95 had their BP checked.	Most were aged 55+ and were encouraged to take the materials home to their families
Various	International Men's Health Day stalls at Wollongong Bunnings organized by ISLHD Multicultural Health Team. BPs were conducted and information and advice provided.	Approx 100 people attended the event. 46 people (mostly men) had their BP checked.	Most were aged 45+ and were encouraged to take the materials home to their families.

ARABIC

**عقرا ضغط مدلا وه
لدحا لم اواع رطفا بلا بيمت
هتعللا (ايش نمدا)**



للكتاب هتسوي يو ام جاني كنعلمك خاتج ترو يحيي
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بروتال احساب برلا بلج 1300 806 258 وا برلا
www.gethealthynsw.com.au



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طفاخ بطن بلج كحد
نمض بلنما حبصلا
عوم نترامل هين ارصادا بلج
www.healthyhearthealthy mind.com.au

**healthy heart
healthy mind**

CH Centre for Health Initiatives

Health Illawarra Shoalhaven Local Health Network

ام وه ضغط مدلا اعترلا
نموت لا دعاقا لك دبح ام روع (ع) بطن مد اعترلا
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www.healthyhearthealthy mind.com.au
www.heartfoundation.org.au

Што е висок крвен притисок?
Не постои сигурно правило што е висок крвен притисок. Меѓутоа, Фондацијата¹¹ го предлага следното како корисно објаснување:

Нормален крвен притисок: обично помалко од 120/80 мм живини столб (1 е систолиот крвен притисок е помалко од 120 в дијастолниот крвен притисок е помалко од 80 мм живин столб).

Нормален до висок крвен притисок: меѓу 120/90 и 140/90 мм живин столб.

Висок крвен притисок: 140/90 мм живин столб или повисок. Ако вашиот крвен притисок е 180/110 мм живин столб или повисок, ако имате многу висок крвен притисок.

За повеќе информации како да го контролирате крвниот притисок, отидете на www.healthyhearthealthy mind.com.au ИЛИ www.heartfoundation.org.au

Леката на кои им е потребна помош да постигнат и одржат здрав телесна тежина може да добат лична поддршка во доверливост преку Службата за информации и упатства Бодете здрави (Get Healthy Information and Coaching Service), ако телефонирате на 1300 806 258 или ги посетите Интернет страниците www.gethealthynsw.com.au



Reference: 1. Acosta Economics (2005). Keeping dementia front of mind incidence and prevalence 2000-2025. Acosta Economics Pty Ltd. 2. JAHM (2005). Dementia in Australia: National data analysis and development. Canberra, Australian Institute of Health and Welfare, Commonwealth of Australia. 3. Alzheimer's Australia (2005). What is dementia? Alzheimer's Australia, Canberra. 4. Yarnaruk, M. (2008). It's never too late to change your mind. The latest medical thinking on what you can do to avoid dementia. ABC Books. 5. Woodward, M. (2002). Dementia risk reduction: The evidence. Alzheimer's Australia, Paper 13. 6. Pavesi, F., Snow, M., Swann, J. et al. The prevention of dementia with antihypertensive treatment: New Evidence from the Systolic Hypertension in Europe (Systolic) trial. Arch Intern Med 2002; 162:2046-2052. 7. Park, S., White, L.S., Black, R. et al. Reducing the risk of dementia: Efficacy of long-term treatment of hypertension. Stroke 2006; 37: 1165-1170. 8. National Heart Foundation (2010). Quality Use of Medicines. The Adherence Project. Available at http://www.heartfoundation.org.au/Professional_Information/Quality_Use_of_Medicines. 9. Heart Foundation (2008). Your Blood Pressure. Patient Information Sheet. IPF-042-C. Available at www.heartfoundation.org.au. 10. Heart Foundation (2007). Salt and Hypertension. Professional Paper. IPF55. 11. Wang, M., Dunstan, G. and Herman, J. (2008). Lifestyle Management of Hypertension. Australian Prescriber. 31: 150-3.

NSW Health Illawarra Shoalhaven Local Health Network

CH Centre for Health Initiatives

MACEDONIAN

Високот крвен притисок е фактор на ризик за заболување од деменција



**healthy heart
healthy mind**

Одржувајте го вашиот крвен притисок под контрола.
За повеќе информации, отидете на www.healthyhearthealthy mind.com.au

4. Other Community Events

In addition to the two Community Forums and 13 Multicultural health events, HHHM participated in the following community events providing speakers services, blood pressure checks and information dissemination:

1. Healthy Ageing Expo (organized by Illawarra Health and Medical Research Institute)
2. Guest Social Marketing Lectures (organized by the Centre for Health Initiatives)
3. Women's Health Issues Forum (organized by Illawarra Women's Health Centre)
4. Illawarra Memory Walk (organised by Alzheimer's Australia and Wollongong City Council)

The invitation by these organizations demonstrates the importance and high regard of the HHHM messages held by key organizations and the capacity to increase the reach and credibility of key messages through partnerships.

Evaluative Summary

Evaluation Question	Data Collection	Outcomes
To what extent have the Healthy Heart Healthy Mind campaign messages and activities raised awareness that hypertension increases the risk of dementia?	Omnibus survey	The data collected suggests that an increase from 4.3% to 7% is indicative of Healthy Heart Healthy Mind campaign messages and activities having raised awareness that hypertension increases the risk of dementia. Responses for all other risk factors decreased with the exception of having diabetes (negligible increase) and mental inactivity. This could be because HHHM made hypertension more 'top of mind'. Mental inactivity and dementia received a lot of media attention in September, providing a possible explanation for the increase in responses for that item. Note that Omnibus data is not statistically significant at the 95% confidence level.
To what extent have the Healthy Heart Healthy Mind campaign messages and activities raised awareness of hypertension risk reduction strategies?	Omnibus survey	The data collected suggests marginal decreases in the recall of hypertension risk reduction strategies. The top four responses both pre and post campaign were improved diet, increased physical activity, medication and less stress, with the latter two items seeing decreases in recall. Note that Omnibus data is not statistically significant at the 95% confidence level.
How successful are short professional health education sessions in increasing the knowledge and awareness of health professionals about hypertension and dementia?	Pre and post Intervention Surveys	Sessions were effective at raising awareness about the link between hypertension and dementia, but more effective at increasing confidence levels of health professionals to engage in conversation with patients and clients.
How effective are community blood pressure stations in raising awareness of hypertension and dementia and encouraging hypertension prevention or management behaviour.	Pre Intervention Surveys and Post Intervention Telephone Interviews	More than 50% of the people who attended a BPCS correctly remembered the main message of the intervention 4 weeks later. Over 30% of people made an appointment to see their GP as a direct result of the intervention.
How effective are community and workplace based information sessions in raising awareness of hypertension and dementia and encouraging hypertension prevention or management behaviour.	Pre Intervention Surveys and Post Intervention Telephone Interviews	More than 80% of the people who attended a presentation correctly remembered the main message of the intervention 4 weeks later. Over 60% of people talked to friends and family about the impact of hypertension after attending a presentation.

It is the opinion of this research team that the community interventions offer the most promising data and direction from this pilot project. The Blood Pressure Checking Stations in particular have provided the most interesting impact on those individuals who encountered them, in relation to raised awareness and cues to action - to reduce the risk of dementia. Population-wide awareness change is difficult to achieve using the localised implementation strategies of HHHM. As noted earlier, for statistical significance relating to awareness change, a comprehensive mass media campaign and supporting strategies is required.

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Appendices

8: Project Financial Statement

**NSW Dementia Risk Reduction Awareness Campaign
Healthy Hearts Health Minds
Financial Report
September 2010 to October 2011**

Funding from: Primary Health & Community Partnerships (PHCP) Branch,
NSW Department of Health

Funding to: South Eastern Sydney & Illawarra Area Health Service
(SESIAHS)

Income (excluding GST)		\$
Funds Received		181,913
Funds not yet Received		45,477
Total Income (excluding GST)		227,390
Expenditure (excluding GST)		
Salary Costs		71,714
Salary On-costs		7,268
Consulting Services		107,162
Marketing Costs		29,339
Equipment Purchases		4,936
Administrative Costs		7,185
Total Expenditure (excluding GST)		227,604
Surplus/(Deficit)		(214)



Barry Mitrevski
ISLHD Manager Finance & Budget
14th October 2011

C: Healthy Heart Healthy Mind Logos



A horizontal banner with three sections. The left section is a light green box containing the 'healthy heart healthy mind' logo in purple text, with a small green heart above the 'i' in 'mind'. The middle section is a purple box with white text: 'Keep your blood pressure in check' and 'For more information visit www.healthyhearthealthymind.com.au'. The right section is white and contains the NSW Government logo, 'Health Illawarra Shoalhaven Local Health Network', and the 'chi Centre for Health Initiatives' logo.

Footer 1



A horizontal banner with two sections. The left section is a light green box containing the 'healthy heart healthy mind' logo in purple text, with a small green heart above the 'i' in 'mind'. The right section is a purple box with white text: 'Keep your blood pressure in check' and 'For more information visit www.healthyhearthealthymind.com.au'.

Footer 2



The 'healthy heart healthy mind' logo in purple text with a small green heart above the 'i' in 'mind', enclosed in a light green rectangular border. Below the logo is the website address: www.healthyhearthealthymind.com.au

HHHM logo with website

D: Healthy Heart Healthy Mind Advertisements

Do you know what your blood pressure is?

High blood pressure usually doesn't have symptoms. High blood pressure increases your risk of dementia. Keep your blood pressure in check. For more information visit www.healthyhearthealthymind.com.au

Ad 1

High blood pressure increases your risk of dementia

Keep your blood pressure in check:

- Eat less fat
- Eat less salt
- Be active
- Quit Smoking 13 78 48
- Have your blood pressure checked regularly

For more information visit www.healthyhearthealthymind.com.au

Ad 2

Do you have high blood pressure?

More than 2 out of 3 people have poorly controlled blood pressure because they don't stick to their medication. High blood pressure increases your risk of dementia. Keep your blood pressure in check.

For more information visit www.healthyhearthealthymind.com.au

Ad 3

High blood pressure is a risk factor for dementia

The Healthy Heart Healthy Mind Team invite you to visit their stall and participate in a new health campaign to educate 45+ year olds about the link between high blood pressure and dementia. Have a free blood pressure check and chat to our staff about reducing your risk of dementia.

For more information visit www.healthyhearthealthymind.com.au

Ad 4

Community Invitation: Healthy Heart Healthy Mind Forum Today! Reduce your Risk of Dementia

Did you know that high blood pressure is a risk factor for dementia? Healthy blood pressure in mid life (45yrs+) significantly reduces your chances of dementia in later life - so keeping your blood pressure in check is the most important thing you can do to reduce your risk. The Healthy Heart Healthy Mind team invite you to a Community Forum as part of a series of addresses in the Shoalhaven. Learn about the link between high blood pressure and dementia and have a free blood pressure check! Attendance will be provided.

Speakers:
 Kelly Andrews, Healthy Heart Healthy Mind Project Manager
 Maria Pereira, Shoalhaven Neurological Nurse Educator
 Mary Orr, Alzheimer's Australia

Date:
 TODAY Wednesday 22nd June 2011

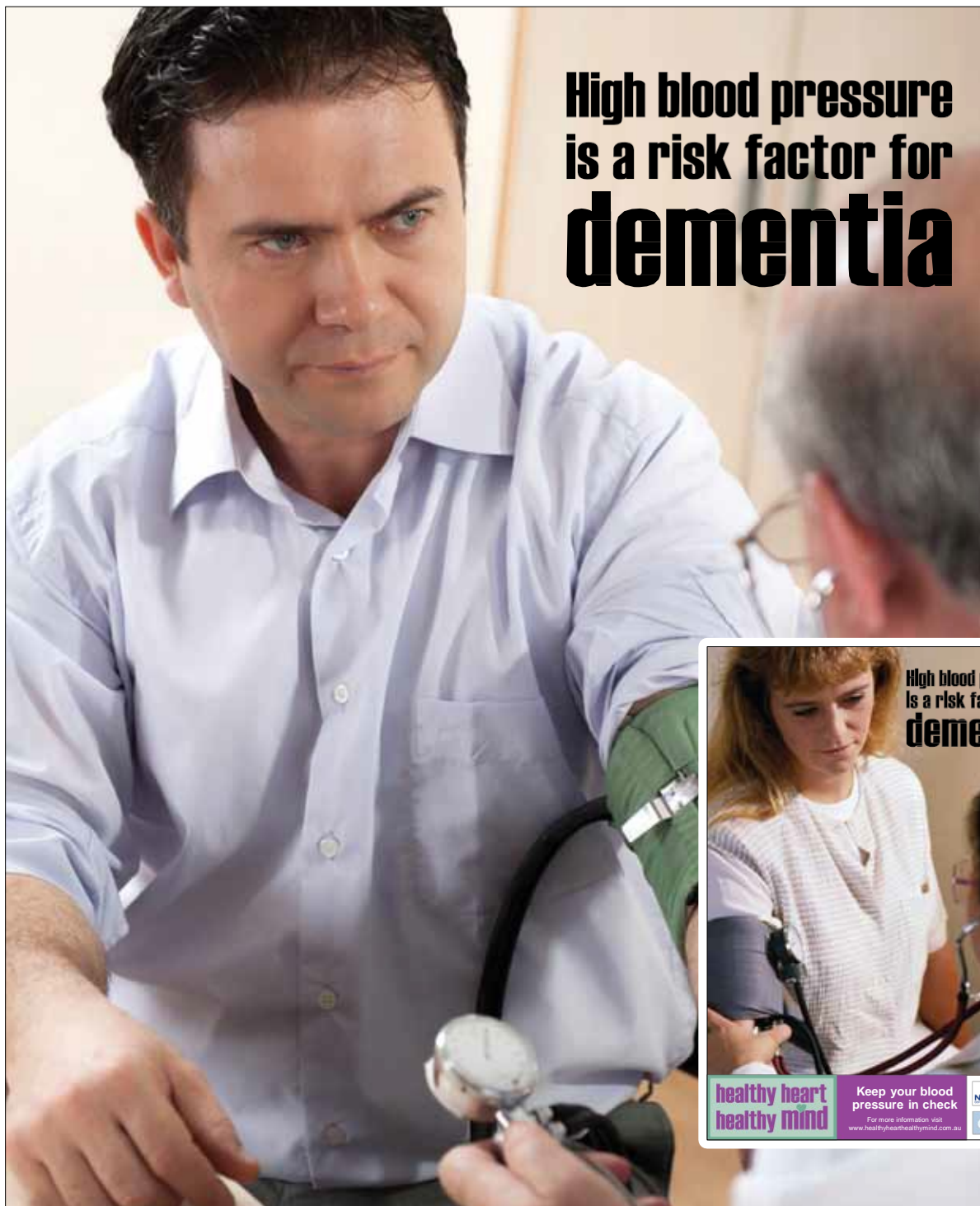
Time:
 1:30pm - 3:30pm (Speakers will start at approximately 2:00 - 2:45pm and staff will be available to conduct free blood pressure until 3:30pm)

Venue:
 Sunnat Room, Somersley Bowling Club

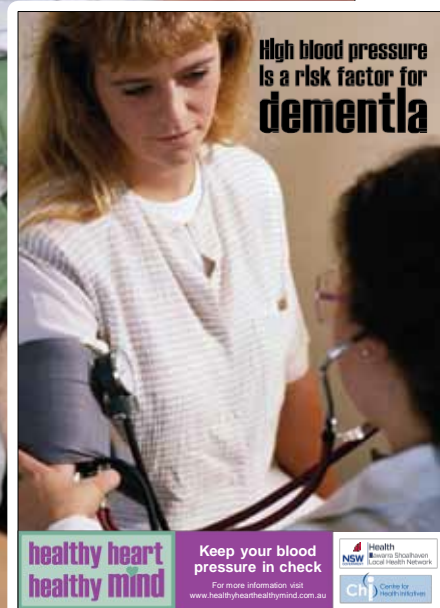
healthyhearthealthymind.com.au

Ad 5

E: Healthy Heart Healthy Mind Educational Materials



**High blood pressure
is a risk factor for
dementia**



**High blood pressure
is a risk factor for
dementia**

**healthy heart
healthy mind**

**Keep your blood
pressure in check**

For more information visit
www.healthyhearthealthymind.com.au



A3 Posters

What is Dementia? How do I reduce my risk?

What is dementia¹⁻³?

Dementia is a collection of symptoms that are caused by diseases affecting the brain.

In everyday life, dementia affects:

- Thinking
- Behaviour
- The ability to perform every day tasks

Initially dementia may interfere with a person's social or working life. However, as it progresses, people experience difficulty with the tasks of personal care (like dressing or toileting) as well as memory problems, communication difficulties and confusion. Some people may also have difficulty controlling their emotions, and experience personality changes, agitation, delusions or hallucinations. The exact symptoms experienced by a person with dementia will depend on the areas of the brain that have been damaged. However, dementia is usually progressive, so the person's symptoms get worse over time.



How many people are affected by dementia?

Without a significant medical breakthrough, the number of Australians affected by dementia is expected to increase over four-fold from 245,000 in 2009 to 1,130,000 by 2050⁴.

What are the causes of dementia¹⁻³?

There are over 100 illnesses and conditions that can result in dementia. However, the most common types of dementia in Australia are:

- Dementia in Alzheimer's disease
- Vascular dementia (resulting from brain damage caused by cerebrovascular disease)

Keep your blood pressure in check

For more information visit
www.healthyhearthealthymind.com.au

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 **Centre for Health Initiatives**

A4 Fact File 1, front

How can I reduce my risk of developing dementia?

Whilst the biggest risk factor for dementia is increasing age, it is not a normal part of ageing. Based on current research evidence^{5,6}:

'One of the most important means of reducing the risk of dementia is the treatment of high blood pressure (hypertension).'

Other strategies to reduce the risk of developing dementia include:

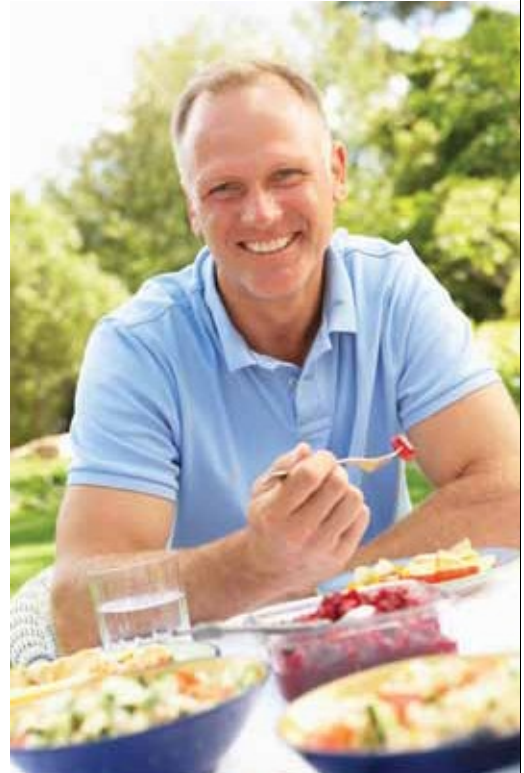
- combining mental stimulation, social engagement and exercise
- healthy eating and drinking
- prevention or treatment of cardiovascular problems

For more information on dementia risk reduction visit:
www.healthyhearthealthymind.com.au OR www.mindyourmind.org.au

How do I reduce my blood pressure if it is high?

According to the National Heart Foundation⁷, to keep your blood pressure in check:

- Talk to your doctor
- Be smoke free
- Reduce your salt intake
- Keep a healthy body weight
- Be physically active
- Limit your alcohol



For more information on keeping your blood pressure in check, visit www.healthyhearthealthymind.com.au
OR www.heartfoundation.org.au

References: 1. Access Economics (2009). Keeping dementia front of mind: incidence and prevalence 2009-2050, Access Economics Pty Ltd. 2. AIHW (2006). Dementia in Australia: National data analysis and development. Canberra, Australian Institute of Health and Welfare, Commonwealth of Australia. 3. Alzheimer's Australia (2005). What is dementia? Alzheimer's Australia, Canberra. 4. World Health Organisation (1992a). International statistical classification of diseases and related health problems (ICD), 10th Revision. 5. Valenzuela, M. (2009). It's never too late to change your mind - the latest medical thinking on what you can do to avoid dementia, ABC Books. 6. Woodward, M. (2007). Dementia risk reduction: The evidence, Alzheimer's Australia, Paper 13. 7. Heart Foundation (2008). Your Blood Pressure. Patient Information Sheet. INF-042-C. Available at www.heartfoundation.org.au

**Keep your blood
pressure in check**

For more information visit
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A4 Fact File 1, back

What is high blood pressure? How do I keep my blood pressure in check?

High Blood Pressure: a risk for serious health problems, including dementia

High blood pressure (hypertension) is a major risk factor for stroke and coronary heart disease. High blood pressure also contributes to chronic heart failure and chronic kidney failure¹. What is less well known is that having high blood pressure is also a risk factor for dementia. Based on current research evidence^{2,3}:

‘One of the most important means of reducing the risk of dementia is the treatment of high blood pressure (hypertension).’

For more information on dementia risk reduction visit: www.healthyhearthealthymind.com.au OR www.mindyourmind.org.au

What is blood pressure and how is it measured?

Blood pressure is the pressure of the blood in the arteries as the heart pumps it around the body. It is usually measured with an inflatable arm cuff and digital measuring device (‘sphygmomanometer’) and recorded as two numbers:

- A higher number, which indicates the pressure in the arteries as the heart squeezes blood out during each beat (systolic blood pressure)
- A lower number, which indicates the pressure as the heart relaxes before the next beat (diastolic blood pressure)

What is high blood pressure?

There is no firm rule about what defines high blood pressure. However, the National Health Foundation¹ suggests the following as a useful guide:

Normal blood pressure: generally less than 120/80 mmHg (i.e. systolic blood pressure less than 120 and diastolic blood pressure less than 80 mmHg).

Normal to high blood pressure: between 120/80 and 140/90 mmHg.

High blood pressure: 140/90 mmHg or higher. If your blood pressure is 180/110 mmHg or higher, you have very high blood pressure.



Keep your blood pressure in check

For more information visit
www.healthyhearthealthymind.com.au

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 **CHI** Centre for
Health Initiatives

A4 Fact File 2, front

Does blood pressure really matter?

If blood pressure stays high, it can contribute to serious problems such as a heart attack, a stroke, heart failure or kidney disease, as well as dementia. High blood pressure usually does not give warning signs. You can have high blood pressure and feel perfectly well. The only way to find out if your blood pressure is high is by having it checked regularly by your doctor.

How do I keep my blood pressure in check?

The National Heart Foundation^{1,5,6} recommend that to keep your blood pressure in check you should:

- Visit your doctor, have your blood pressure checked regularly and follow treatment advice
- Be smoke free (for information on quitting, call the Quitline 13 QUIT)
- Reduce your salt intake (to less than 1 tsp per day)
- Keep a healthy body weight (to find out if your weight is a health risk check with your doctor)
- Be physically active (30 minutes per day of moderate activity like walking or cycling)
- Limit your alcohol (≤ 2 standard drinks per day)

For more information on keeping your blood pressure in check, you can contact the National Health Foundation Health Information Service by calling 1300 36 27 87 (for the cost of a local call) or visit www.heartfoundation.org.au

People who need help achieving and maintaining a healthy weight can access personal and confidential support through the *Get Healthy Information and Coaching Service*, by calling 1300 806 258 or www.gethealthynsw.com.au



References: 1. Heart Foundation (2008). Your Blood Pressure. Patient Information Sheet. INF-042-C. Available at www.heartfoundation.org.au 2. Valenzuela, M. 2009. It's Never Too Late to Change Your Mind - the Latest Medical Thinking on What You Can Do to Avoid Dementia. ABC Books; 3. Woodward, M. 2007. Dementia Risk Reduction: The Evidence. Alzheimer's Australia, Paper 13. 4. Alzheimer's Australia (2008). Reducing Your Risk of Dementia with 'Mind Your Mind'. www.mindyourmind.org.au 5. Heart Foundation (2007). Salt and Hypertension. Professional Paper. PP555. 6. Huang, N., Duggan, K. and Harman, J. (2008). Lifestyle Management of Hypertension. Australian Prescriber, 31:150-3.

**Keep your blood
pressure in check**

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 **Health**
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A4 Fact File 2, back

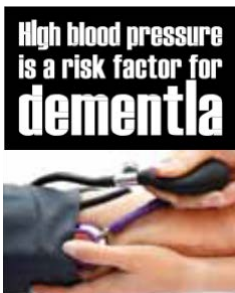
F: Healthy Heart Healthy Mind Marketing Materials



Postcard, front



Postcard, back



How do I keep my blood pressure in check?

The National Heart Foundation recommend that to keep your blood pressure in check you should:

- Visit your doctor, have your blood pressure checked regularly and follow treatment advice
- Be smoke free (for information on quitting, call the Quitline 13 QUIT)
- Reduce your salt intake (to less than 1 tsp per day)
- Keep a healthy body weight (to find out if your weight is a health risk check with your doctor)
- Be physically active (30 minutes per day of moderate activity like walking or cycling)
- Limit your alcohol (≤ 2 standard drinks per day)

For more information visit:
www.healthyhearthealthymind.org.au
www.heartfoundation.org.au



Bookmark



Fridge Magnet



Roadside Banner

G: Powerpoint Presentations

Healthy Hearts, Healthy Minds

Reducing Dementia Risk in the Illawarra and Shoalhaven



**healthy heart
healthy mind**

Keep your blood pressure in check

For more information visit:
www.healthyhearthealthymind.com.au

NSW Health Illawarra Shoalhaven Local Health Network
CHS Centre for Health & Wellbeing

A dementia epidemic?

- In 2009, 245,000 Australians were living with dementia
- By 2050, it is estimated that this will increase to around 1.13 million
- 341,000 of these will be living in NSW¹

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NSW Health Illawarra Shoalhaven Local Health Network
CHS Centre for Health & Wellbeing

Dementia

- Leading single cause of disability in older Australians (65 yrs +)²
- By 2060, spending on dementia will outstrip any other health condition¹
- Massive impact on health care system and quality of life
 - Shortages of dementia care staff, family carers, residential aged care beds, major health service stresses

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Dementia – A National Health Priority

- Compelling need for :
 - Improvements to access and deliver of quality health and social services
 - **Prevention**, research and early intervention
 - Awareness of risk reduction approaches needs improvement^{1,3}
 - Prevention and early intervention strategies require greater targeted effort^{1,3}

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What is dementia?

- Not one condition, but a range of conditions characterised by impairment of brain functions
 - Language, Memory, Perception, Personality, Cognitive skills²
- Many types – most common
 - Alzheimer's Disease (AD) (50%)
 - Vascular Dementia (VaD) (20% of cases)
- Type & severity of symptoms vary according to type & stage of dementia

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Can dementia be prevented?

- Currently not possible to prevent or cure dementia
- However, research suggests⁴:
 - Ways to reduce risk
 - Reducing risk may either delay or prevent onset

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Risk Factors^{4, 5}

- Age
- Family history
- Down Syndrome
- Homocysteine
- Environmental toxins
- Depression
- Head Trauma
- Diabetes Mellitus
- Obesity
- Gender
- Smoking
- Stroke
- Hypertension

Hypertension

Those with midlife hypertension have been found to be at significantly greater risk of developing dementia, including AD and VaD

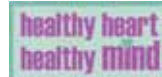


www.healthyhearthealthybrain.com.au



Protective Factors^{4,5}

- Probable
 - Education & Intelligence
 - Occupation
 - Physical Activity
 - Social integration, cognitive activity, leisure
 - Alcohol Consumption
- Inconclusive
 - Caffeine
 - Cholesterol lowering medications
 - NSAIDs
 - Omega-3 Fatty Acids
 - Race & regional variation



www.healthyhearthealthybrain.com.au



Modifiable risk factors

National Heart Foundation Guidelines(2008)

Hypertension (HT)
Treatment of HT in old age can reduce risk of cognitive decline and dementia⁴

Normal blood pressure: generally less than 120/80 mmHg (i.e. systolic blood pressure less than 120 and diastolic blood pressure less than 80 mmHg)

Normal to high blood pressure: between 120/80 and 140/90 mmHg

High blood pressure: 140/90 mmHg or higher. If your blood pressure is 160/100 mmHg or higher, you have very high blood pressure



www.healthyhearthealthybrain.com.au



Hypertension and Dementia⁴

Hypertensive treatment reduced the risk of dementia by 55% in a 4 year study in Europe⁶

Following stroke or transient ischaemic attack (TIA), the use of blood pressure lowering medication (irrespective of blood pressure) was associated with a reduced risk of cognitive impairment or dementia in those who sustained new strokes⁷

Men treated for hypertension for more than 12 years had⁸:

- 60% reduction in risk for all types of dementia
- 65% reduction in Alzheimer's Disease compared to those who were never treated for hypertension



www.healthyhearthealthybrain.com.au



Physical Activity

Observational studies have quantified a link between physical activity and dementia in the 65 yrs + age group

52% reduction in risk of all dementia was observed in those 65 yrs+ who participate in leisure time physical activity at least twice per week⁹

38% reduction in dementia with physical exercise at least 3 times/week¹⁰

Participation in a number of physical, intellectual, leisure and social activities were all associated with a 38% lower risk of developing dementia¹¹



www.healthyhearthealthybrain.com.au



Healthy Heart, Healthy Mind Campaign

Dementia risk can be addressed in a number of ways



One of the most important ways is to keep your blood pressure in check during mid-life



www.healthyhearthealthybrain.com.au



Aims of the Project

- To raise awareness in the Illawarra that it is possible to reduce the risk of dementia
- Raise awareness of the link between high blood pressure and dementia
- To encourage adults aged 45-64 to 'Keep their Blood Pressure in Check'



Campaign Activities



- Media exposure
- Community Forums
- Blood Pressure Checking Stations
- Websites
- Health Professional Education
- GP Program



Hypertension and Health

It is well known that **HYPERTENSION** is a major risk factor for **HEART DISEASE**



BUT DID YOU KNOW THAT: HYPERTENSION is a risk factor for DEMENTIA



Keeping Your Blood Pressure In Check



Have your blood pressure checked regularly



Be smoke free



Keep a healthy body weight



Reduce your salt intake



Be physically active



Limit your alcohol

Source: Heart Foundation (2008)



References

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3. Low and Anstey. Knowledge of dementia risk reduction.
4. Woodward, 2007. Dementia Risk Reduction: The Evidence. Alzheimer's Australia. Paper 13. Available at
5. DOHA, 2006. dementia. A National Health Priority. Dementia Research Mapping Project, Department of Health and Ageing, Canberra.
6. Forette F, Seux M-L, Staessen JA et al. The prevention of dementia with antihypertensive treatment. New Evidence from the Systolic Hypertension in Europe (Syst-Eur) study. Arch Intern Med 2002;162:2046-2052.
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8. Pella R, White LR, Masaki K et al. Reducing the risk of dementia. Efficacy of long-term treatment of hypertension. Stroke 2006;37:1165-1170.



Healthy Hearts, Healthy Minds

Reducing the Risk of Dementia in the Illawarra and Shoalhaven



healthy heart healthy mind

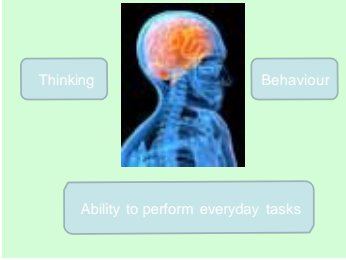
Keep your blood pressure in check

For more information visit: www.healthyhearthealthymind.com.au

NSW Health Illawarra Shoalhaven Local Health Network
CHS Centres for Health & Wellbeing

What is Dementia?

In everyday life, Dementia affects:




A collection of symptoms that are caused by disorders affecting the brain.

healthy heart healthy mind

NSW Health Illawarra Shoalhaven Local Health Network
CHS Centres for Health & Wellbeing

Types of Dementia



The most common types of dementia are:

- Alzheimer's disease
- Vascular dementia
- Dementia with Lewy bodies
- Frontotemporal dementia
- Mixed dementia

healthy heart healthy mind

NSW Health Illawarra Shoalhaven Local Health Network
CHS Centres for Health & Wellbeing

Types of Dementia

- **Alzheimer's disease**
 - The most common form of dementia
 - Accounts for around two-thirds of dementia cases
 - Causes a gradual decline in cognitive abilities
 - usually beginning with memory loss
- **Vascular dementia**
 - Cognitive impairment
 - caused by damage to the blood vessels in the brain
 - Can be caused by a single stroke
 - or by several mini-strokes occurring over time

healthy heart healthy mind

NSW Health Illawarra Shoalhaven Local Health Network
CHS Centres for Health & Wellbeing

Risk Factors for Dementia


- Age: We can't stop ageing or change our family genes
- Genes: We can help prevent Dementia by targeting our health and lifestyle choices
- Health
- Lifestyle

healthy heart healthy mind


NSW Health Illawarra Shoalhaven Local Health Network
CHS Centres for Health & Wellbeing

Dementia Statistics


Currently 245,000 people in Australia with Dementia



Leading single cause of disability in older Australians



By 2050 there will be over 1.13 million Australians with Dementia



By 2050, 341,000 of these will be living in NSW

healthy heart healthy mind

NSW Health Illawarra Shoalhaven Local Health Network
CHS Centres for Health & Wellbeing

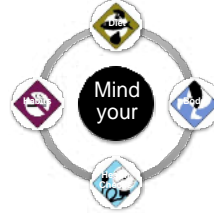
Reducing Dementia Risk

- 'Mind your Mind'
(Alzheimer's Australia)
- 7 ways to point the way to a healthy brain and reduce your risk of dementia



Reducing Dementia Risk

The Campaign will focus on these four signposts



- Keeping your blood pressure in check**
 - Having check-ups, treating problems as soon as they arise (Blood pressure, cholesterol)
- Diet**
 - A healthy balanced diet promotes brain health
- Body**
 - People who exercise regularly are less likely to develop heart disease, stroke and diabetes.
 - These conditions are associated with an increased risk of developing dementia.
- Habits**
 - Avoid 'bad habits'. Don't smoke.
 - Drinking too much alcohol is a serious health risk. If you drink alcohol, drink in moderation

Healthy Heart, Healthy Mind Campaign



Aims of the Project

- To raise awareness in the Illawarra that it is possible to reduce the risk of dementia
- Raise awareness of the link between high blood pressure and dementia
- To encourage adults aged 45-64 to 'Keep their Blood Pressure in Check'



Aims of the Project

Campaign Activities



- Media exposure
- Community Forums
- Blood Pressure Checking Stations
- Websites
- Health Professional Education
- GP Program



Blood Pressure and Hypertension

Blood Pressure

Normal: <120/80mmHg

Normal to High: 120/80 to 140/90 mmHg

High: 140/90 mmHg or higher
HYPERTENSION

Very High: > 180/110 mmHg or higher

Systolic:

- The upper number:
 - pressure in arteries as the heart squeezes *out* blood during each beat


Diastolic:

- Lower number:
 - pressure as the heart *relaxes* between beats





Hypertension and Health

It is well known that **HYPERTENSION** is a major risk factor for **HEART DISEASE**



BUT DID YOU KNOW THAT:
HYPERTENSION is a risk factor for **DEMENZA**

www.healthysmarts.com.au



Hypertension and Health

Hypertension usually doesn't show any symptoms

You may feel perfectly well

Regular check-ups are important

A healthy lifestyle is one of the best ways to treat and prevent hypertension

www.healthysmarts.com.au

Keeping Your Blood Pressure In Check



Have your blood pressure checked regularly



Be smoke free



Keep a healthy body weight



Reduce your salt intake



Be physically active



Limit your alcohol

Source: Heart Foundation (2008)




www.healthysmarts.com.au

Visit your Doctor

- Have your blood pressure checked regularly
- Follow treatment advice
- GP Campaign










www.healthysmarts.com.au

Be Smoke Free

- Smoking is a risk factor for Dementia
 - Smokers have nearly an 80% higher dementia risk
 - Former smokers do not have an increased risk of dementia compared to those who have never smoked

- Ask your GP for advice on how to quit
- Call Quit help lines

www.healthysmarts.com.au

Keep a Healthy Body Weight

- Obesity increases the risk of cardiovascular disease and this increases the risk of dementia
- To find out if your weight is a health risk check with your doctor
- Maintain a healthy body weight by:
 - Eating a healthy balanced diet
 - Be physically active






www.healthysmarts.com.au

Reduce Salt Intake

Reduce your salt intake to:

- Less than 1 tsp per day



healthy heart
healthy mind

www.healthyhearthealthy mind.com.au



Be Physically Active

- Regular physical exercise provides a range of other health benefits and some of these may contribute to reducing dementia risk
 - Keeps your heart and blood vessels healthy
 - Reduces the risk of type 2 diabetes, high blood pressure, high cholesterol and obesity
- Try to exercise for at least 30 minutes a day
- Moderate activity
 - Walking or cycling



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Limit Alcohol Intake

- Low to moderate amounts of alcohol may lower the risk of dementia
- No more than 2 standard drinks per day



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www.healthyhearthealthy mind.com.au



FURTHER INFORMATION

- Websites and Support Services:
 - Mind Your Mind
 - Healthy Heart Healthy Mind
 - The Heart Foundation
 - NSW Health Coaching Helpline
- Website page – www.healthyhearthealthy mind.com.au
- Factsheets

healthy heart
healthy mind

www.healthyhearthealthy mind.com.au



H: Examples of Media Clippings

mercury **news**

Pilot study throws light on dementia



Vital clues sought in shootings

Researcher Katherine English is waiting for results from a pilot study she is conducting into dementia.

By Peter Dyer

A PILOT study into dementia aimed at the University of Wollongong is set to begin in the next few weeks, with a focus on the role of the brain in dementia.

Researcher Katherine English said she was looking to see how dementia was related to the brain.

"We want to explore some changes in dementia," she said. "What are people doing to prevent dementia, and if we have dementia, how can we prevent it?"

The aim of the pilot study was to see how dementia was related to the brain, and to see if there were any changes in the brain that could be used to predict dementia.

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Research Focus **Project Profile**

First national trial underway

Healthy heart healthy mind **Keep your blood pressure in check**

Healthy Hearts, Healthy Minds

Healthy Heart Healthy Mind (HHHM) is a national trial of lifestyle changes to reduce the risk of dementia. The trial is led by the University of Wollongong and is supported by the National Health and Medical Research Council (NH&MRC).

The trial is a pilot study with 100 participants. It is designed to see if lifestyle changes can reduce the risk of dementia. The trial is led by the University of Wollongong and is supported by the National Health and Medical Research Council (NH&MRC).

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WOLLONGONG CITY COUNCIL | COMMUNITY UPDATE

COUNCIL MEETINGS

WHAT'S ON

HAVE YOUR SAY

WHAT'S ON

PUBLIC NOTICES

WOLLONGONG CITY COUNCIL | COMMUNITY UPDATE

Women urged to take bean

How a healthy lifestyle can save your life



Women are urged to take bean as part of a healthy lifestyle. The article discusses the benefits of beans for heart health and overall well-being.

Beans are a great source of protein and fiber, and can help reduce the risk of heart disease. They are also a good source of iron and calcium.

The article also discusses the importance of a healthy lifestyle, including regular exercise, a balanced diet, and not smoking.

Beans are a great source of protein and fiber, and can help reduce the risk of heart disease. They are also a good source of iron and calcium.

Smokers risking dementia

Illawarra health authorities acknowledged World No Tobacco Day by highlighting the increased risk smokers have of developing dementia.

Statistics showed people who smoked were 80 to 100 per cent more likely to develop dementia compared with non-smokers.

Evidence suggested that this increased risk was largely due to the impact of smoking

on the cardiovascular system. The link between heart health and the risk of dementia is being highlighted in a community awareness campaign, Healthy Heart Healthy Mind.

On World No Tobacco Day (May 31) the Illawarra Shoalhaven Local Health Network highlighted the importance of middle-aged and older people maintaining heart health and reducing blood pressure to

reduce the risk of developing dementia in later life. Healthy Heart Healthy Mind project manager Kelly Andrews said studies have shown that high blood pressure and high cholesterol in mid-life are associated with an increased risk of dementia, yet most people are unaware of the link.

Information: www.healthyheartthehealthymind.com.au

Reduce pressure and you'll ease Alzheimer's risk

BY GLENN HILLARD
05 Jun, 2011 09:05 AM

THE link between high blood pressure and a range of health problems has long been established.

However, researchers have recently discovered high blood pressure is also a major risk factor for dementia.

To help raise awareness about the issue, the Illawarra and Shoalhaven Local Health Network is running a pilot project over six months, highlighting the link between high blood pressure and dementia.

Believed to be an Australian first, the Healthy Heart Healthy Mind campaign is a dementia awareness initiative which aims to educate middle-aged and older people on how well-controlled blood pressure reduces the risk of developing dementia in later life.

Healthy Heart Healthy Mind project manager, Kelly Andrews, said studies showed that high blood pressure and high cholesterol in middle life were associated with an increased risk of dementia, yet most people were unaware of the link.

"Treating high blood pressure at any age is the most important means of reducing the risk of dementia, yet studies show us that more than half of the population is oblivious to the fact," Ms Andrews said.

"Many middle-aged people don't even know they have high blood pressure as it often has no symptoms and they think it's not an issue at their age, so this education campaign is important on a number of levels."

Traditional dementia awareness campaigns are aimed at older people; however the pilot project targets those aged 45 and over in community education messages including advertising, free blood pressure testing in shopping centres and local libraries, workplaces and community presentations.

"Studies have shown that if not treated for hypertension for more than 12 years had a 60 per cent reduction in risk of all types of dementia as well as a 65 per cent reduction in risk of Alzheimer's disease, compared to those who were never treated for hypertension, so blood pressure control is certainly a key element of dementia risk reduction," Ms Andrews said.

"With the projected number of people living with dementia set to quadruple over the next 40 years education and awareness messages are more important than ever."

As part of the project the Healthy Heart Healthy Mind team is hosting a community forum at the Bowdery Bowling Club on Wednesday, June 22.

The forum will run from 1.30 to 3.30pm offering free blood pressure checks and talks from a range of people including Ms Andrews, Shoalhaven Nomenclological Nurse Educator Madilla Pereira, and Mary Bills from Alzheimers Australia.

People wanting to attend the Healthy Heart Healthy Mind forum are asked to RSVP to kelly.andrews@sejalhs.health.nsw.gov.au or 4221 6700.



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MEDIA MONITORS



Sydney Morning Herald
Saturday 28/5/2011
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Brief: HARP COL
Page 1 of 2



Paula Goodyer

Let your heart rule your head

Avoiding high blood pressure may be the best way to stave off dementia.

Not all the news about dementia is gloomy. The flipside of scary statistics like a predicted doubling of dementia cases by 2030 is that we're one century helped with it comes in keeping our minds as young as we just don't realise it.

We might have guessed that keeping the brain active can help prevent its decline but there's another important message that hasn't got through - that healthy blood pressure from middle onwards is one of our best anti-dementia defences. That's why a new NSW health campaign to boost awareness of the blood pressure-dementia link is aiming at forty-some things, not just the over-60s.

"Only around 20 per cent of us understand that we can reduce the risk of dementia by keeping blood pressure levels healthy," says senior research fellow at the school of psychiatry at the University of NSW, neuroscientist Dr Michael Valenzuela, "but many risk factors for dementia that we do have influence over, like blood pressure and cholesterol levels and being overweight, can start to have an impact in our 40s and 50s, often decades before people start worrying about dementia."

There are a range of treatments of high blood pressure, but the only medical treatment found so far to reduce the incidence of dementia.

So what's it about high blood pressure that can ultimately mess with our minds? The same damage it inflicts on arteries that leads to heart disease can also affect the brain - hence the Healthy Heart Healthy Mind name given to the dementia prevention campaign under way in the Illawarra and Shoalhaven

regions south of Sydney.

High blood pressure contributes to the second most common type of dementia after Alzheimer's disease - vascular dementia - that's caused by having a stroke. But there's also some evidence that keeping blood pressure levels healthy can help prevent Alzheimer's as well. Valenzuela says.

One theory is that when the mortgages from tiny blood vessels feeding our brain tissue could cause the damage that kicks off Alzheimer's. "These micro-bloods are strongly linked to high blood pressure and the thinking is that they affect the blood supply to the brain," he says. "This not only means the brain gets less nutrients but also there's less clearance of toxins from the brain. Another explanation is that the leaking blood may also have a toxic effect on brain tissue."

Valenzuela is the author of *Miniature Your Brain*, a new guide to preventing dementia, to be published by ABC books later this year, which has already had news about the protective role of exercise.

"The assumption was that physical activity helps prevent dementia because it helps lower blood pressure and improves the blood flow to the brain," he says. "But there's evidence that exercise can also have more direct effects on the brain, stimulating new brain cells to grow as well as increasing connections between the cells in the hippocampus - the brain's memory centre. Some of these effects could be due to the positive role of growth factors and molecules called cytokines stimulated after exercise."

Are some kinds of exercise better? Most studies suggest aerobic exercise is important but Valenzuela recommends at least three brisk 30-minute walks and at least one session of resistance strength training a

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What has high blood pressure got to do with dementia?

"The biggest risk factor for dementia is old age. We can't do anything about that. But the next biggest risk factor is high blood pressure, and we absolutely can do something about that. Blood pressure is easy to measure and easy to treat," said Healthy Heart Healthy Mind project manager Kelly Andrews.

high blood pressure is widely known to be associated with heart disease, but did you know that it also increases your chances of developing dementia?

A new community campaign raising awareness about the link between high blood pressure and dementia is currently being run by the Illawarra and Shoalhaven Local Health Network (SLHN) and the Centre for Health Initiatives at the University of Wollongong. Believed to be an Australian first, the Healthy Heart Healthy Mind campaign is a dementia awareness initiative which looks to educate middle-aged and older people on how well-controlled blood pressure reduces the risk of developing dementia in later life.

"The biggest risk factor for dementia is old age. We can't do anything about that. But the next biggest risk factor is high blood pressure, and we absolutely can do something about that. Blood pressure is easy to measure and easy to treat," said Healthy Heart Healthy Mind project manager Kelly Andrews.

Many people know that high blood pressure increases your chances of heart disease. Over the years, the community has learnt a lot about heart health such as increasing physical activity, quitting smoking, drinking alcohol in moderation and decreasing the fat and salt in their diet. Healthy Heart Healthy Mind aims to get people to make the connection that what is good for your heart is good for your brain as well.

"Treating high blood pressure at any age is the most important means of reducing the risk of dementia, yet older men treated for hypertension had a 60 per cent reduction in risk of all types of dementia compared to those who were never treated for hypertension, so blood pressure control is a big part of dementia risk reduction," she said.

"Currently, there is no cure for dementia. The prevalence of dementia is set to rise in epidemic proportions so we need to act now. Prevention is always better than cure, so our key message is to know what your blood pressure is – and keep it in check. By managing your blood pressure you reduce your risk of dementia."

For more information visit www.healthyhearthealthy.com.au



Free Blood Pressure Checks

Left to Right Kelly Andrews (Healthy Heart Healthy Mind project manager), Julie Hill (RHS Research) and Megan Kovacs (Healthy Heart Healthy Mind Project assistant).

news



Retiring happily ever after




Professional advice at Expo seminars

Professional advice at Expo seminars





Professional advice at Expo seminars



Professional advice at Expo seminars



mercury **news**

Expo offers free health check for all



I: Raw Research Data – Intervention Surveys

In total Illawarra Shoalhaven Local Health Network collected 781 self completion surveys with residents of the Illawarra Shoalhaven area. Survey data was collected from two distinct locations,

1. Blood pressure checking stations
2. Presentation events with community and workplace groups across the Illawarra Shoalhaven region.

Data Collection

All follow up surveys were conducted 4 weeks after participants completed the initial survey and were conducted using a computer-aided telephone interviewing system (CATI). CATI is a structured system of telephone interviewing in which the interviewer follows a script provided by a software application and all responses are collected directly in an electronic format. CATI systems feature built in logic enhancing accuracy of data collection.

The IRIS CATI facility is IQCA accredited and is operated by skilled interviewers who undertake extensive and ongoing in- house training.

<http://www.nss.gov.au/nss/home.NSF/f9e877e28d874408ca257124001311c2/187f57ac214ca4e8ca2571ab0024602a?OpenDocument>

Where interviewers found that the selected person for interview was not at home, call-backs were scheduled for a later time or day. Unanswered numbers were retried at least five times throughout the period of the survey. Interviews were primarily conducted on weekday evenings between 4.30 p.m. and 8.30 p.m and took approximately 4 minutes to complete.

Response

At the end of the survey period, 432 follow up surveys were completed with participants from the Blood Pressure Checking stations and 125 follow up surveys were completed with participants who had attended Presentation events.

Table 0-1 demonstrates that a completion rate of 71.2% was achieved for Blood Pressure Checking Station survey participants i.e 71.2% of all residents who participated in the initial survey at Blood Pressure Checking stations also completed the follow up telephone survey. Therefore this report details the results from the 432 participants who visited Blood Pressure Checking Stations and completed both the initial and follow up surveys; and 125 participants who attended Presentation events and completed both initial and follow up surveys.

Table 0-1 Survey Response Outcomes Blood Pressure Checking Surveys

Response sequence	Outcome
Completed follow up survey	432
Refusals, terminated interviews and inability to contact	175
Initial number of participants (completed initial survey)	607
Completion rate	71.2%

Table 0-2 Survey Response Outcomes Presentation Surveys

Response sequence	Outcome
Completed follow up survey	125
Refusals, terminated interviews and inability to contact	50
Initial number of participants (completed initial survey)	174
Completion rate	71.8%

Analysis

Analysis of the survey results was carried out by IRIS using SPSS statistical analysis software. Frequency counts, cross tabulations and charts have been used to present basic descriptive results in most sections of the report. Where proportions have been reported for groups of respondents (e.g. males 65% vs. females 75%). Pearson's Chi-Square was the test statistic used to determine whether group results were indeed significantly different.

Community Blood Pressure Checking Stations

Demographic Profile

Characteristic	% of respondents n= 432
Gender	
Male	38.6%
Female	61.4%
Age Group	
45-64 yrs	22.5%
55-64 yrs	39.8%
65-74 yrs	27.0%
75+ yrs	10.7%
Aboriginal or Torres Strait Islander	
Yes	2.3%
No	97.7%
Country of Birth	
Australia	71.2%
UK	12.8%
Italy	3.0%
Macedonia	0.2%
Other	12.8%

Have you noticed anything in your local media in the last 4 weeks about high blood pressure and dementia? (Q7)

Noticed anything in the local media in the previous 4 weeks about high blood pressure and dementia.	% of respondents by month of survey ¹					Total % of all respondents n=430
	March n=18	April n =159	May n=156	June n=45	July n=52	
Yes	11.1%	52.2%	39.1%	37.8%	34.6	42.1%

¹ Results were statistically significant however the small sample size for March means that results for March are not statistically reliable

					%	
No	88.9%	47.8%	60.9%	62.2%	65.4%	57.9%
Total	100%	100%	100%	100%	100%	100%

What form did this take? (Q8)

Form of Media Message Noticed	% of respondents who had noticed something in local media n=181
Newspaper article	51.4%
TV interview	31.5%
Doctor's Surgery	16.6%
Radio interview	11.0%
Blood Pressure Checking Station	10.5%
Newspaper advertisement	8.8%
Roadside Banner	5.0%
Pharmacy	2.8%
Website	2.2%
Community Event	2.2%
Other	5.5%

When was the last time you had your blood pressure checked? (Q9)

Last Blood Pressure Check	% of respondents by age group ²				% of total respondents n=420
	45-54 yrs n=95	55-64 Yrs n=167	65-74 Yrs n=114	75+ Yrs n=44	
Less than 2 weeks ago	5.3%	15.0%	21.1%	31.8%	16.2%
Between 2-4 weeks ago	12.6%	16.2%	19.3%	25.0%	17.1%
1-3 months ago	28.4%	25.7%	28.9%	27.3%	27.4%
3-6 months ago	21.1%	19.2%	17.5%	9.1%	18.1%
More than 6 months ago	32.6%	24.0%	13.2%	6.8%	21.2%
Total	100%	100%	100%	100%	100%

² Results were statistically significant with a Chi square result of .000

Do you remember what your blood pressure was last time it was checked (Q10)

Recent Blood Pressure Reading	% of respondents n= 397
Very low	1.5%
Moderately low	7.8%
Normal	64.2%
Moderately high	24.4%
Very high	2.0%
Total	100%

Recall exact number if you remember it?

A total of 43 participants were able to recall what their exact blood pressure was last time it was measured.

Have you ever been diagnosed with hypertension by a GP? (Q11)

Ever been diagnosed with hypertension	% of respondents by age group ³				% of total respondents n=427
	45-54 yrs n =94	55-64 yrs n= 167	65-74 yrs n= 112	75+ yrs n= 44	
Yes	19.1%	37.1%	47.3%	61.4%	38.4%
No	80.9%	62.9%	52.7%	38.6%	61.6%
Total	100%	100%	100%	100%	100%

³ Results were statistically significant with a chi-square result of .000

If so, what strategies have you/do you try and employ to reduce your blood pressure? (Q12).

Strategies employed	% of respondents who have been diagnosed with hypertension n=160
I use medication	85.6%
I am careful about my diet (cholesterol, fat, salt)	63.8%
I do not smoke	61.2%
I am physically active	51.2%

Did you know (prior to today) that high blood pressure is a risk factor for dementia? (Q13).

Did you know that high blood pressure is a risk for dementia?	% of respondents by month of survey ⁴					Total % of all respondents n=422
	March n=17*	April n=155	May n=155	June n=45	July n=50	
Yes	17.6%	49.0%	37.4%	44.4%	48.0%	42.9%
No	82.4%	51.0%	62.6%	55.6%	52.0%	57.1%
Total	100%	100%	100%	100%	100%	100%

Today's Blood Pressure Reading is ...? (Q14).

	% of respondents n=399
Normal	19.0%
Normal to High	45.6%
High	35.3%
Total	100%

⁴ Results were statistically significant however sub-sample base for March was too small for results for this month to be reliable

How likely is it that you will re check your blood pressure within the recommended timeframe? (Q16).

	% of respondents n=398
Very likely	85.7%
Somewhat likely	11.8%
Not likely at all	2.5%
Total	100%

Community Blood Pressure Checking Stations Follow Up Surveys

Follow up phone surveys were undertaken with residents 4 weeks after they completed the initial survey at blood checking stations.

First, do you recall the main message we were promoting on that day? (Q1)

Recall Main Message	% of respondents n=432
Yes	78.2%
No	21.8%

If yes, can you provide some details?

Recalled Message Detail	% of respondents who could recall message n=339
High blood pressure is linked to/causes dementia	51.6%
About checking blood pressure regularly/keeping blood pressure down	19.8%
About dementia (general comment)	8.8%
About being healthy/ health lifestyles for seniors	8.8%
High blood pressure is linked to diabetes	3.5%
High blood pressure is linked to heart disease	2.7%
High blood pressure is linked to strokes	1.8%
Other	0.9%
No response	2.1%

Did you have your blood pressure checked as recommended? (Q3a) and do you intend to have your blood pressure checked on a regular basis? (Q3b)

Recall Main Message	Checked blood pressure n=26*	Intend to check regularly n=26*
Yes	65.4%	92.3%
No	34.6%	7.7%

How likely is it that you will recheck your blood pressure within this recommended timeframe? (q4)

	% of respondents n= 315
Very likely	95.6%
Somewhat likely	2.2%
Not likely at all	2.2%
Total	100%

Did you take any of the following action after we saw you? (Q5)

	% of respondents n= 432
I am regularly taking my hypertension medication	31.5%
I made an appointment with the GP	30.1%
I filled a prescription for hypertension medication	28.2%
I have read more information relating to high blood pressure	24.3%
I have been thinking about going to the GP	23.6%
I have been thinking about making other lifestyle changes	21.3%
Nothing, it had no impact	14.8%
I have talked to friends and family about high blood pressure	10.6%
I kept an appointment with the GP	3.5%
I got a prescription for hypertension medication	3.2%

Can you tell me some of the things you can do to lower blood pressure? (Q6)

Ways to lower blood pressure	% of respondents n=432
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Increase physical activity	78.7%
Improved diet (fat, salt etc)	77.1%
Decrease Stress	23.2%
Medication	15.0%
Moderate alcohol intake	11.1%
Quit Smoking	10.0%
Other	13.4%

There has been a wide campaign running in the Illawarra and Shoalhaven recently. In the last 4 weeks have you seen anything in your local media about high blood pressure and dementia? (Q7)

Have you seen anything in your local media in the last 4 weeks about high blood pressure and dementia?	% of respondents by month of interview ⁵					Total % of respondents n = 426
	April n=17*	May n =150	June n=163	July n=44	August n=52	
Yes	88.2%	40.7%	43.6%	45.5%	38.5%	43.9%
No	11.8%	59.3%	56.4%	54.5%	61.5%	56.1%
Total	100%	100%	100%	100%	100%	100%

⁵ Results were statistically significant with a chi-square result of .005. However the sub-sample for April is too small for April results to be reliable.

If yes, where did you see/hear this? (Q8)

Where saw/heard media campaign	% of respondents who recalled media promotions n= 188
Newspaper article	35.1%
TV Interview	34.0%
Newspaper advertisement	23.9%
Blood pressure checking station	11.7%
Roadside banner	6.9%
Radio interview	5.3%
Doctor's Surgery	3.7%
Website	1.6%
Community event	1.6%
Pharmacy	0.5%
Other	10.6%

Community & Workplace Presentations

Demographic Profile

Characteristic	% of respondents n=125
Gender	
Male	61.6%
Female	38.4%
Age Group	
45-64 yrs	42.3%
55-64 yrs	35.6%
65-74 yrs	14.4%
75+ yrs	7.7%
Aboriginal or Torres Strait Islander	
Yes	3.2%
No	96.8%
Country of Birth	
Australia	82.4%
UK	9.6%
Italy	.8%
Other	7.2%

Have you noticed anything in your local media in the last 4 weeks about high blood pressure and dementia? (Q7)

Noticed anything in local media about dementia	% of respondents who had noticed something in local media n= 125
Yes	42.4%
No	57.6%

What form did this take? (Q8)

Form of Media Message Noticed	% of respondents who had noticed something in local media n= 53
Newspaper article	37.7%
TV Interview	20.8%
Radio interview	17.0%
Doctor's Surgery	11.3%
Newspaper advertisement	7.5%
Community event	7.5%
Pharmacy	7.5%
Blood pressure checking station	5.7%
Roadside banner	3.8%
Website	7.5%
Other	9.4%

When was the last time you had your blood pressure checked? (Q9)

Last Blood Pressure	% of total
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Check	respondents n=125
Less than 2 weeks ago	31.2%
Between 2-4 weeks ago	11.2%
1-3 months ago	19.2%
3-6 months ago	16.8%
More than 6 months ago	21.6%
Total	100%

Do you remember what your blood pressure was last time it was checked (Q10)

Recent Blood Pressure Reading	% of respondents n= 118
Very low	0.8%
Moderately low	5.9%
Normal	78.8%
Moderately high	14.4%
Very high	-
Total	100%

Exact number of blood pressure if recalled.

44 respondents were able to provide the exact number of their last blood pressure reading.

Have you ever been diagnosed with hypertension by a GP? (Q11)

Been diagnosed with High Blood Pressure	% of respondents n= 125
Yes	36.1%
No	63.9%

If so, what strategies have you/do you try and employ to reduce your blood pressure? (Q12).

Strategies employed	% of respondents who have been diagnosed with
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	hypertension n= 43
I use medication	79.1%
I am careful about my diet (cholesterol, fat, salt)	65.1%
I do not smoke	65.1%
I am physically active	53.5%

Did you know (prior to today) that high blood pressure is a risk factor for dementia? (Q13).

Knowledge of link between high blood pressure and dementia	% of respondents n= 118
Yes	25.4%
No	74.6%

How likely is it that you will re check your blood pressure within the recommended timeframe? (Q14).

Likely to recheck blood pressure	% of respondents n=119
Very likely	43.7%
Somewhat likely	17.6%
Not likely at all	38.7%
Total	100%

Community and Workplace Presentations Follow Up Surveys

Follow up phone surveys were undertaken with residents 4 weeks after they completed the initial survey at Presentation events. The following data presents the results from this survey.

First, do you recall the main message we were promoting on that day? (Q1)

Recall main message promoted	% of total respondents n= 125
Yes	80.8%
No	19.2%

If yes, can you provide some details?

Recalled Message Detail	% of respondents who recalled message n= 101
High blood pressure is linked to/causes dementia	69.3%
About checking blood pressure regularly/keeping blood pressure down	14.9%
About being healthy/ health lifestyles for seniors	6.9%
About dementia (general comment)	2.0%
High blood pressure is linked to strokes	1.0%
High blood pressure is linked to heart disease	1.0%
Other	4.0%
No response	1.0%
Total	100%

Have you had your blood pressure checked in the past 4 weeks? (Q2a)

Had blood pressure checked in past 4 weeks	% of total respondents n= 125
Yes	48.0%
No	52.0%
Total	100%

