Evidence based healthy lifestyle brief intervention on alcohol, tobacco, nutrition and physical activity

A Final Report

March 2008

Muru Marri
Indigenous Health Unit

Acknowledgements

We acknowledge this land as belonging to the Aboriginal and Torres Strait Islander peoples of this country. There is no place in Australia where this is not true.

Many people have contributed to this report. All have provided a wealth of information regarding the challenges associated with the issues surrounding implementing evidence-based screening and brief intervention in Aboriginal Community Controlled Health Services (ACCHSs).

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Thank you all for affording us the chance of working on this project.

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Summary

Primary aim of the healthy lifestyle project

The primary aim of the Healthy Lifestyle project was to develop and pilot a lifestyle intervention targeting smoking, poor nutrition, alcohol misuse and physical inactivity (SNAP risk factors) in Aboriginal Community Controlled Health Services. Development and implementation of the Healthy Lifestyle intervention consisted of three key stages: a review of brief intervention kits specifically targeting reductions in SNAP risk factors among Indigenous Australians, to identify evidence-based kits for inclusion into the healthy lifestyle intervention; training health professionals in how to optimally integrate the healthy lifestyle intervention into routine clinical care; and qualitative feedback from key representatives of the steering committee and health professionals to elicit their views and experiences of implementing the healthy lifestyle intervention.

The work embodied in the healthy lifestyle project also formed an integral component of Mr Clifford's PhD thesis. The healthy lifestyle intervention and associated training comprised two of five intervention components that were implemented in two ACCHS to facilitate the uptake of evidence-based screening and brief intervention. Assessing the feasibility of implementing these components, and the level of tailoring required to optimise the integration of evidence-based screening and brief intervention into routine clinical care in ACCHS, was the primary objective of Mr Clifford's thesis.

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Section one

This section summarises the purpose and scope of the project, and lists the project objectives.

Muru Marri Indigenous Health Unit, UNSW, in collaboration with the NDARC, undertook the project with the following objectives:

- Develop and pilot a lifestyle intervention for Indigenous people in primary care, which can be adapted for use in primary care settings anywhere in Australia, including rural and remote areas.

- Establish a steering committee which includes representatives from Indigenous health organisations, target communities and recognised researchers to ensure that Indigenous people are adequately consulted and involved in the development and evaluation of the intervention.

- Deliver a pilot of the healthy lifestyle intervention that will not only elicit information about behaviours such as alcohol consumption, diet and exercise but also reduce the incidence of substance abuse.

- Develop a research plan for a major study and or research trial of the lifestyle intervention, including an evaluation of its effectiveness at changing behaviours and overall cost effectiveness.

Section Two

This section comprises the evaluation of the project undertaken.

Components of the evidence-based healthy lifestyle intervention

The evidence-based healthy lifestyle intervention comprised three main components: provision of evidence based brief intervention resources; training; and outreach support.

1. Provision of evidence based brief intervention resources

Brief intervention resources for alcohol and smoking were distributed to participating ACCHSs. For alcohol, resources distributed included, *The Alcohol Treatment Guidelines for Indigenous Australian*; Drink-Less brief intervention material; and *The Australian Alcohol Guidelines*. For smoking, the Indigenous Smoke Check package, inclusive of patient education materials, clinical decision making tool and training video was distributed to ACCHSs following their participation in the Smoke Check Training Program. For nutrition and physical activity, evidence-based screening tools were tailored for integration into screening templates in the regional ACCHS. Indigenous specific health promotion resources to support the provision of written information for physical activity and nutrition were obtained from the Aboriginal Vascular Health Program, NSW Health.

2. Training

Training in brief intervention for alcohol was delivered by clinical specialists in addiction medicine, one of whom has seven years' experience working with urban and remote Indigenous communities to address drug and alcohol problems. Training in brief intervention for smoking was delivered by the Senior Project Coordinator and Indigenous Project Officer of the NSW Indigenous Smoke Check Program. Training in brief intervention for nutrition was delivered by a nutritionist with experience implementing evidence-based lifestyle prevention in community health settings. A Project Officer from the National Heart Foundation delivered training sessions in brief intervention for physical activity.

A total of eight training sessions were delivered. Each ACCHS received two training sessions for alcohol and one for smoking. In addition, the regional ACCHS received

one training session for physical activity and one for nutrition. The average duration of a training session was three hours and 15 minutes. Health professionals who were unable to attend training sessions were followed up and provided with the learning materials, and arrangements made for them to discuss these with an influential colleague who attended the training session. Established social processes for the transmission and acquisition of knowledge within each ACCHS appeared to facilitate this process.

Alcohol

Two training sessions for alcohol were delivered to each ACCHS, the first session, a two-hour Drink-less training session developed for GPs, and the second session, delivered six months later, a modified and extended version of the first training session. Both training sessions were delivered by clinical specialists in addiction medicine from the Drink-Less training program, University of Sydney.

The content of training sessions for alcohol consisted of an introductory one-hour didactic session, 'Alcohol use disorders: update on assessment and management,' which included an overview on detection and diagnosis of alcohol use disorders, from hazardous use through to dependence, management of alcohol withdrawal, and pharmacotherapies for relapse prevention. In the second hour, health professionals were trained in scoring the AUDIT, using the Drink-less handycard to advise patients on drinking, arranging referral and ongoing treatment for dependent drinkers, and organising follow-up. The second training session was extended to five hours and included a problem based learning component comprising case studies and group activities. The learning expectations described by participants of both training sessions covered four broad areas: information, the identification and assessment of alcohol problems, intervention for alcohol problems, and strategies to address alcohol problems in the community.

Table 2.2: Examples of learning expectations identified by participants attending alcohol training

Information	Identification and assessment	Intervention	Community
"The effects of alcohol on the liver" "A better knowledge of alcohol guidelines"	" The difference between an alcoholic and binger" " How to identify more underlying, not so obvious alcohol problems"	"How to talk to a person with alcohol problems without offending them" "How to cope with alcoholics…" "The latest relapse medication"	"Learn how to link in with the community better" "Help the community stop alcohol wrecking lives"

A total of 27 ACCHS staff (regional ACCHS n=17; rural ACCHS n=10) participated in the first training session for alcohol, of whom 100% (n=27) completed the evaluation survey. The professional role of participants completing evaluation surveys included: AHW (n=13), Indigenous AOD worker (n=3), reception staff (n=2), GP (n=3), RN (n=4), EN (n=1) and manager (n=1).

At pre-test, 45% (n=12) of participants felt not at all confident at identifying problem drinkers, 33% (n=9) were not at all confident in talking with at-risk drinkers to help them change their behaviour, 33% (n=9) were not at all confident carrying out a brief intervention and 19% (n=5) were not all confident helping people in the community to think about how to address alcohol in the community.

The 22% of participants who reported to be confident or very confident in giving a brief intervention for alcohol problems at baseline, increased to 48% post training. Increase in confidence was also reported by participants for their ability to talk with at-risk drinkers about their drinking, which increased from 33% at baseline to 48% post training. The percentage of participants reporting to be unsure about talking with at risk clients about their drinking increased from 33% to 45%.

Figure 2.1 Health professionals' confidence in brief intervention for alcohol at alcohol training session 1

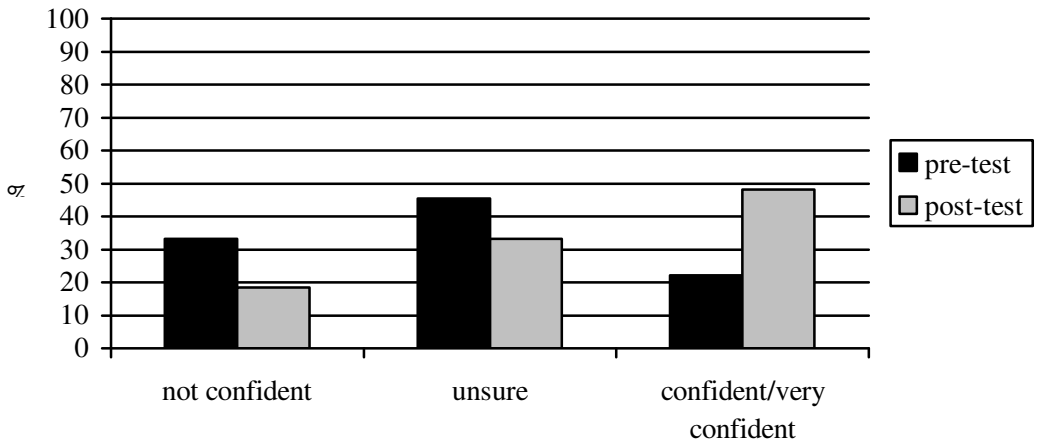
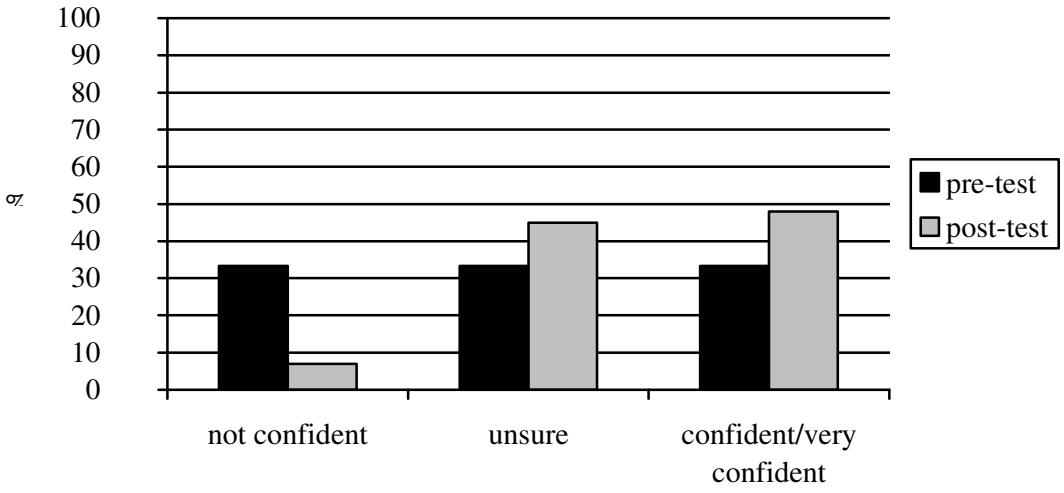


Figure 2.2 Health professionals' confidence in talking with at-risk drinkers at alcohol training session 1



A total of 32 ACCHS staff (regional ACCHS n=17; rural ACCHS n=15) participated in the second training session for alcohol, of whom 97% (n=31) completed the evaluation survey. The professional role of participants completing evaluation surveys included: AHW (n=14), Indigenous AOD worker (n=4), reception staff (n=4), GP (n=3), RN (n=3), EN (n=1) and manager (n=1).

At pre-test, 3% (n=1) of participants felt not at all confident at identifying problem drinkers, 7% were not at all confident in talking with at-risk drinkers to help them change their behaviour, 19% were not at all confident carrying out a brief intervention and 13% were not all confident helping people in the community to think about how to address alcohol in the community.

While 32% of participants were confident or very confident in giving a brief intervention for alcohol problems at baseline, this percentage increased to 81% post training. Participants also reported increased confidence in other areas, including their ability to help key people in the community think about how to address alcohol problems, which increased from 39% at baseline to 67% post training and their ability to talk with at-risk drinkers about their drinking, which increased from 55% at baseline to 81% post training.

Figure 2.3 Health professionals' confidence in brief intervention for alcohol at alcohol training session 2

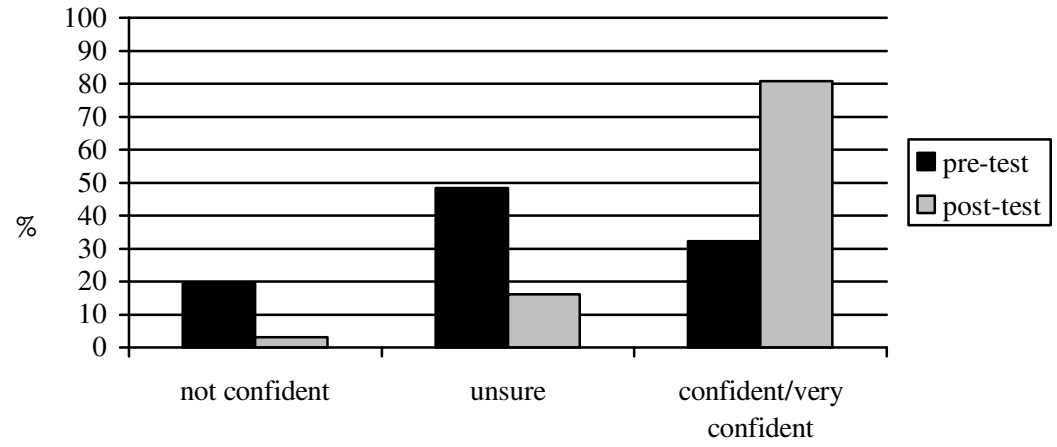
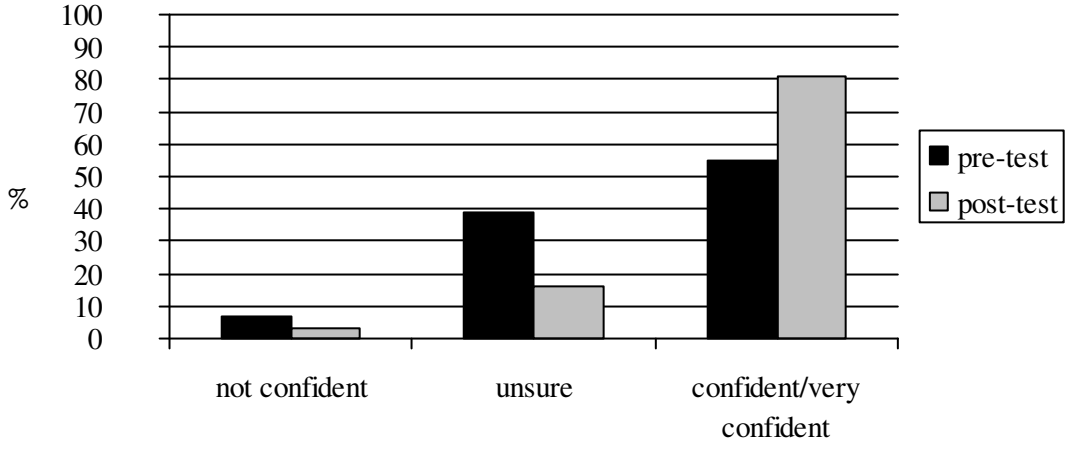


Figure 2.4 Health professionals' confidence in talking with at-risk drinkers at alcohol training session 2



Smoking

Data on the evaluation of the smoke check program is the property of NSW Health and was not publicly available at the time of submitting this thesis.

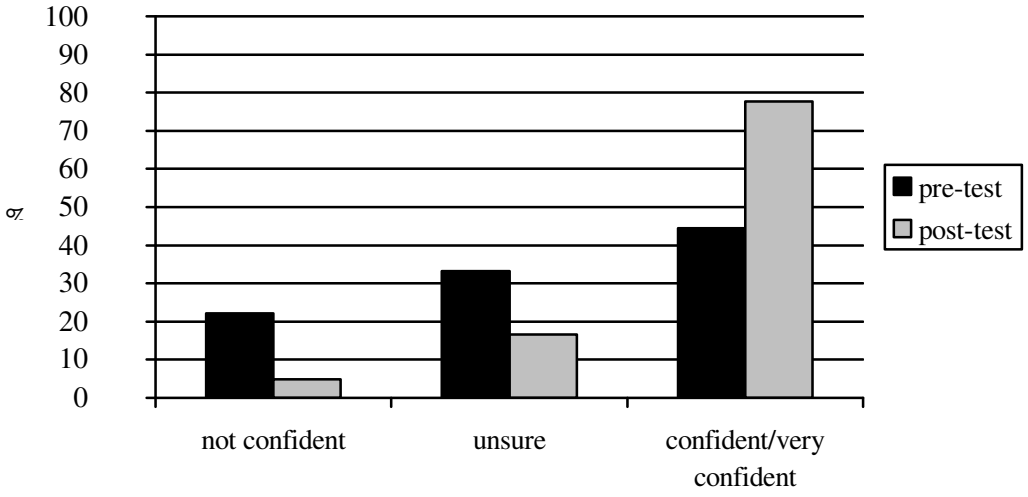
Nutrition and physical activity

One training session for nutrition and one training session for physical activity were delivered to the regional ACCHS. Training sessions were delivered concurrently and were each of two hours duration. The nutrition training session was delivered by a dietician with experience in implementing evidence-based SBI for SNAP risk factors in community health settings in NSW. The physical activity training session was delivered by a health promotion expert from the National Heart Foundation. Both training sessions consisted of a one-hour didactic session covering current evidence-based guidelines, clinical tools for risk factor assessment and management in primary care and health promotion resources. The second hour of each training session comprised practical activities, such as administering screening tools to assess risk levels and strategies to help clients improve their eating habits and increase their physical activity levels.

Nineteen staff from the regional ACCHS attended the nutrition training session and 18 attended the physical activity training session. Evaluation surveys were completed by 95% (n= 18) of participants attending nutrition training and 88% (n=17) of participants attending physical activity training, respectively. The health professional role of participants completing nutrition and physical activity evaluation surveys included: AHWs (n=7) Indigenous AOD workers (n=2), RNs (n=3), ENs (n=2), GPs (n=2), psychologist (n=1). One administration officer completed the nutrition evaluation survey only.

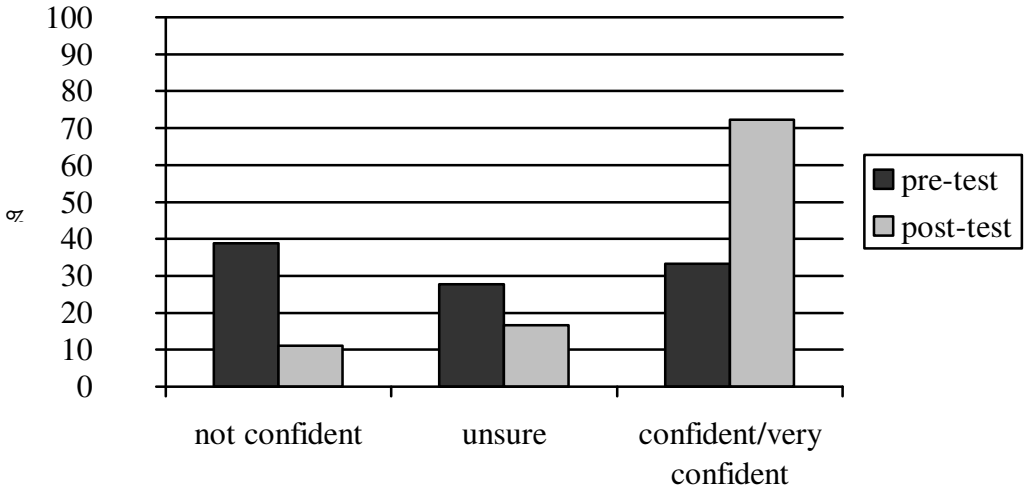
Before training, 11% (n=2) of participants felt not at all confident assessing clients' nutrition and 33% (n=6) felt not all confident assessing clients' physical activity levels. While 39% of participants were confident or very confident in giving a brief intervention for nutrition problems before training, this percentage increased to 78% post training.

Figure 2.5 Health professionals' confidence in brief intervention for nutrition



For physical activity, participants reporting to be confident or very confident giving a brief intervention increased from 33% at baseline to 72% post training.

Figure 2.6 Health professionals' confidence in brief intervention for physical activity



Learning that participants commonly reported they found particularly useful included:

- Reading food labels
- Health benefits of physical activity
- Physical activity guidelines
- Heart Moves (A physical activity program delivered by NHF)

Overall attendance at training sessions

Table 2.3 reports the percentages of the total number of eligible health professionals from each ACCHS attending training sessions. Percentages are based on the total number of full-time equivalent health professional staff reported by management at the time of each training session.

Table 2.3: Percentages of health professionals attending training sessions

Training session	% of FTE health professionals in attendance	
	Regional	**Rural**
Alcohol 1	80%	75%
Alcohol 2	75%	90%
Smoking	30%	87.5%
Nutrition	90%	NA
Physical Activity	85%	NA

High staff turnover resulted in considerable variation in the numbers of health professionals attending training sessions. Additionally, high staff turnover combined with the extended period of time between some training sessions contributed to reductions in the percentages of health professionals attending all training sessions. For example, for alcohol, only 64% (n=16) of participants attending the first training session were available to attend the second training session delivered six months later.

Unexpected benefits of training

Two main unexpected benefits of training sessions were also observed. These included: high levels of participation in some training sessions by reception staff, and health professionals' increased awareness of their risk of harm from their lifestyle behaviour/s.

3. Outreach Support

Following the delivery of training, a member of the research team visited each ACCHS to provide individually tailored support for the ongoing process of integrating

the healthy lifestyle intervention in routine clinical care. In addition to these visits, phone and email contact with each ACCHS was maintained on an as required basis. A major component of outreach visits was the provision of tailored educational outreach to support health professionals' delivery of the healthy lifestyle intervention in routine clinical care. The views and experiences of a group of clinical health professionals receiving educational outreach was elicited by a series of group interviews.

A total of eight group interviews over a six month period were conducted with a group of clinical health professionals (n=6) from the regional ACCHS. The focus of these interviews was the prevention and treatment of alcohol misuse using the *Alcohol Treatment Guidelines for Indigenous* Australians. Group interview questions (Box 3.1) were semi-structured around specific questions relating to health professionals' experiences delivering alcohol prevention in routine care. Sessions were reflective, relatively informal and preceded more structured educational outreach. Interviews were audio-taped and transcribed verbatim, with all participants given a copy of their interview transcript for checking prior to coding and analysis of data. Participants in group interviews included four AHWs, one RN and one GP. Another full-time doctor in the clinical team did not participate in group interviews as she was involved in the initial development of this project and it was felt that her familiarity with the project would negatively impact upon the group dynamic. A phenomenological approach was used to analyse group interview data, with an emphasis on capturing health professionals' experiences of delivering evidence-based SBI for alcohol. As such, the analysis was descriptive rather than explanatory.

Box 2.1 Group interview questions for alcohol

What are your most recent experiences in screening and brief intervention for alcohol?

Focused questions:

1. How did patients respond to you asking them questions about alcohol?
2. What things made it difficult to ask patients about alcohol using AUDIT-C and giving advice to at-risk patients using motivational interviewing?
3. What did you do for patients who drank too much alcohol?
4. What did you do for patients who were likely to be alcohol dependent drinkers?
5. What do you think about your role in delivering advice for alcohol?

Key themes emerging from group interviews are reported below.

Theme 1: Binge drinking

A large proportion of clients screened for alcohol misuse were binge drinkers and health professionals felt that existing patient education materials did not appropriately target this type of drinker. Binge drinkers generally declined offers of referral to the AOD team for specialist assistance to reduce their alcohol consumption, but health professionals persisted in offering referral to problem drinkers because it was standard organisational protocol to do so. However, whereas in focus group interviews conducted before training and educational outreach, AHWs reported doing little more than offering at-risk drinkers referral, they now were advising at-risk drinkers of low-risk drinking guidelines and the likely harms associated with binge drinking, assessing their readiness to reduce their alcohol consumption and providing them with strategies to assist them to do this. Health professionals commented that the majority of problem drinkers expressed genuine surprise and concern that infrequent excessive drinking was putting them at risk of harm and responded positively by agreeing to try and cut back on their level of drinking. Achieving reductions in alcohol consumption among youth and young adults was seen as more difficult and some health professionals expressed the view that binge drinking was a phase of life most young people grow out of.

Theme 2: Difficulties referring dependent drinkers

Even clients with an AUDIT-C score suggestive of alcohol dependence generally declined referral. Health professionals commented that these clients were generally aware of the serious health implications of their alcohol dependence and were willing to discuss the causes and potential consequences of this with them, but were resistant to accessing the AOD team to help them stop drinking. To achieve some consistency and clarity regarding the preferred action to be taken for clients with a specific AUDIT-C score, health professionals worked with me to develop a flowchart to guide their decision-making. Some health professionals believed this resistance was clear evidence that the client was not ready to stop drinking, while others felt there were barriers contributing to this resistance. One important issue that was identified included the location of AOD workers in a different building, which health professionals said some clients told them added to the stigma of seeking help for AOD problems. There was some disagreement regarding the degree to which this was a real issue, with some health professionals of the opinion that clients who declined referral simply weren't ready to stop drinking. However, AHWs and the RN did report that alcohol-dependent patients were often willing to discuss their drinking

with a GP, suggesting that the stigma of receiving specialist AOD assistance might have been a legitimate barrier for at least some clients.

Theme 3: Use of guidelines

Health professionals reported increased confidence in delivering evidence-based SBI for alcohol during the intervention period. *The Alcohol Treatment Guidelines for Indigenous Australians* was presented to, and discussed with, health professionals during training sessions and outreach visits, providing them with the opportunity to reflect upon its practical utility. Health professionals felt the guidelines were a valuable reference document, but that the tools and resources included in the package were impractical for use in clinical care. Text on the laminated AUDIT card and patient flip chart was considered too small to use with patients, but photographs of body organs damaged by alcohol that were displayed on the patient flipchart were considered helpful for engaging patient interest. Health professionals wanted the text and images enlarged and the content modified to include information on binge drinking. Without these improvements to the patient education flipchart, health professionals' preferences were to develop their own patient education resource or use those that were a component of the Drink-less package, which they had been introduced to in alcohol training sessions.

Theme 4: Follow-up

Health professionals did not actively follow-up problem drinkers, but some reported following up alcohol-dependent drinkers who declined referral, to check on their progress and encourage them to seek specialist help from the AOD team to stop drinking. Referred patients were followed up by the AOD team, but health professionals remained unaware of their progress until they presented again to primary care. To facilitate follow-up, patients identified with at-risk alcohol consumption had their file tagged in Medical Director, in an effort to prompt doctors to ask these patients about their progress in reducing or stopping drinking at subsequent visits. However, as other types of health professionals did not routinely use Medical Director, they were sometimes unaware if a presenting patient had previously been identified with a drinking problem.

Theme 5: Patients' reactions to alcohol screening

AHWs and nurses said that most patients receiving an Adult health check responded positively to alcohol screening and showed genuine interest in the meaning of their risk scores. Some patients were curious to know the reasons why health professionals were now asking them specific questions about their alcohol consumption, but no health professionals reported patients displaying discomfort or resistance to

answering these questions. As such, they had no reasons to believe that patients were not answering truthfully. Health professionals also described how some patients made inquiries about safe drinking levels on behalf of their family and friends and requested additional written information when they learned of the risks related to excessive alcohol consumption.

Theme 6: Practical constraints

Two important and somewhat related barriers to AHWs applying knowledge and skills learned in training were staff shortages and their high turnover relative to other types of health professionals. Some AHWs did not get the opportunity to deliver brief intervention for alcohol until several months after training as they were still learning how to deliver an Adult health check and/or were required to fill other roles, such as work at reception to cover administrative staff shortages. In addition, the fact that AHWs primarily delivered SBI for alcohol when delivering the Adult health check, meant that they did not get the same level of opportunity to apply their skills in brief intervention for alcohol as GPs who, potentially, had the opportunity to screen every presenting patient for alcohol misuse. However, the standard process of offering the Adult health check to every eligible patient presenting at the regional ACCHS meant that AHWs were involved in screening a greater proportion of patients for SNAP risk factors than they would have been otherwise. A preliminary analysis of a random sample of Adult health checks delivered pre (n=50) and post- (n=50) intervention showed an increase from 12% to 50% in the percentage of adult health checks delivered by an AHW.

Section Three

This section comprises the feedback from the steering committee, including discussion on the enduring benefits of the project such as the transferability of the intervention to the two primary care settings

Feedback from the steering committee was obtained using the following methods: formal and informal interviews during organisational visits and documentary review of practice protocols. Four key issues relating to the enduring benefits of the healthy lifestyle project and the transferability of the healthy lifestyle intervention emerged.

Change and sustainability

Changes to systems and processes necessary to support delivery of the healthy lifestyle intervention were slow to be implemented by those with the authority and experience to do so. This delay in modifying systems and processes was more of an issue at the rural ACCHS than it was at the regional ACCHS, primarily due to differences in the authority and experience of management teams; logistical barriers; and tacit rules governing decision making.

Two main barriers to the sustainability of the intervention emerged from discussions with key representatives from each ACCHSs. First, perceptions were that some managers and health professionals lacked necessary skills to bring about significant and lasting change. Thus, while routine preventive health care delivery was seen as an important attribute of an ACCHS, there was a general perception among key representatives that few within the service had the knowledge and skills to make it an ongoing reality. Secondly, the social and political environment within which ACCHSs operate was not considered conducive to rapid change. Some key representatives spoke about their attempts to create an organisation more conducive to change *"I'm always trying to change the way things get done around here so we can do more and do it better"* (Middle management, regional ACCHS), but none felt they were successful in managing or changing culture sufficient to guarantee long term viability of the healthy lifestyle intervention.

Influential colleagues

Identifying influential colleagues within the organisation was one strategy implemented to increase the likelihood of the sustainability of the healthy lifestyle intervention. Influential colleagues were identified on the basis of their potential to

role model and reinforce best practice. In some instances, however, changing old habits and practices of influential colleagues proved more difficult than anticipated, even among those who were actively involved in the project and agreeable to routinely using the evidence-based intervention. The lack of AHWs with the authority, experience and social influence to act as influential colleagues was identified by the steering committee as problematic, as this appeared to reinforce their lower professional and educational status relative to other health professionals within the organisation. In many cases, additional and intensive contact with influential colleagues was required to assist them with problem-solving and to mobilise resources necessary to implement intervention components. Influential colleagues adopting a facilitative approach appeared to be more highly valued over those adopting a more directive approach.

The role of AHWs

The limited involvement of community-based AHWs in delivering secondary prevention emerged as a barrier to the routine delivery of the healthy lifestyle intervention by AHWs. Typically, community-based AHWs were involved in delivering primary prevention (e.g. group education and community health promotion) and facilitating client access to tertiary prevention (e.g. transportation of clients to rehab or residential treatment). The practical and routine application of secondary prevention in these circumstances was difficult, and largely perceived to be inappropriate. As such, community-based AHWs either remained unconvinced of their role in secondary prevention or felt inadequately supported to fulfil such a role. In contrast, clinically-based AHWs were typically supervised by nurses with key roles in secondary prevention. This regularly exposed them to and involved them in clinical activities in which secondary prevention was mandatory or important (e.g. MBS preventive health assessment items, chronic care and new client registrations). Although there was general agreement among key representatives from ACCHSs that the greater involvement of community-based AHWs in delivering the healthy lifestyle intervention was important, there appeared to be a misunderstanding regarding the type of support structures required to increase AHWs' opportunities for organisational learning in secondary prevention. This continued to prove a critical issue given AHWs lower levels of education, qualifications, training and experience relative to other types of health professionals.

Adapting strategies

Key representatives from each ACCHS and the research team spent a considerable amount of time implementing and adapting strategies to facilitate uptake of the

healthy lifestyle intervention by health professionals. At times, this required dramatic changes to organisational systems or processes. The process of implementing strategies to support implementation of the healthy lifestyle intervention was a labour intensive process requiring both knowledge of the practice environment and specialised technical expertise (e.g. software developers). For example, integrating evidence-based screening items into electronic templates required a range of IT-related activities, including meetings with a computer programmer to discuss programming capabilities and functions, to discussions with management and medical hierarchies to determine the extent to which organisational protocols could be modified. The steering committee was also sometimes required to adapt intervention strategies to accommodate unanticipated practice needs. This unplanned adaptation resulted in increases to timelines for implementation of intervention strategies. Examples of some of the adaptations required included additional training sessions for health professionals and further customisation of brief intervention kits to improve their acceptability and practicality. Finally, adapting a strategy could promote use of the healthy lifestyle intervention without it being routinised, and visa versa.

Unforeseen benefits of the AERF funding

As a result of the experience in research gained through his involvement in this AERF funded project, and other funded projects, Mr Anton Clifford has been awarded an NHMRC Post doctoral training fellowship in Aboriginal and Torres Strait Islander health.

Section Four

This section comprises a synopsis of significant research findings made during the course of the project including an outline of the research methodologies and assumption made.

The healthy lifestyle project represents an attempt to examine the process of implementing evidence-based screening and brief intervention for lifestyle risk factors in ACCHSs. Integrating evidence into routine clinical practice has proven to be problematic in a range of health care settings. Nevertheless, the cost-effectiveness of brief intervention in reducing lifestyle risk factors in the non-Indigenous population offers great potential for it to contribute to reductions in harm related to lifestyle risk factors in the Indigenous population, particularly if its successful integration into Indigenous health care settings using established resources can be achieved. Despite this potential, a review of intervention and dissemination research undertaken during the course of this project highlighted the lack of studies published in the peer review literature evaluating the dissemination or the effectiveness of brief intervention for lifestyle risk factors in Indigenous health care settings.

The outcomes and processes of the healthy lifestyle project have increased the potential for health professionals in participating ACCHSs to contribute to improvements in Indigenous health outcomes in a variety of ways. For example, the delivery of the healthy lifestyle intervention, inclusive of evidence-based screening and brief intervention, as a component of the Adult Health Check in one ACCHS, now means that three activities with the potential to facilitate the evaluation of brief intervention in this setting are being undertaken. First, reliable measures of clients' lifestyle risk factors are now being obtained. Secondly, brief intervention activity for at-risk clients is now being adequately documented. Thirdly, clinical AHWs are more involved in evidence-based SBI for lifestyle risk factors, offering greater potential to increase the rates of delivery. Undoubtedly, there is much more work to be done in this area; rates of delivering the Adult health check could be improved and suitable methods for accurately and routinely measuring rates of SBI for lifestyle risk factors delivered outside of the Adult health check are yet to be established. Nevertheless, there are a number of reasons why ACCHSs need not wait for the results of dissemination trials before implementing evidence-based SBI for lifestyle risk factors. First, the period from the onset of dissemination trials to the widespread dissemination

of results of these trials is likely to take several years (Oldenburg, B., et al.). Secondly, the lifestyle component of MBS preventive health assessment items, demand that, at the very least, ACCHSs provide evidence-based SBI for lifestyle risk factors when delivering these items. Not to do so would be to deny Indigenous Australians receiving these items access to best-evidence preventive health care. Thirdly, ACCHSs' experiences implementing evidence-based SBI for lifestyle risk factors can make a valuable contribution to the evidence-base, particularly if these experiences are captured through the judicious application of qualitative methods and the collection of accurate descriptive data. Although there are some risks associated with implementing interventions before the evidence is clear, with regard to brief intervention for lifestyle risk factors in ACCHSs, the risks would appear to be outweighed by the likely benefits. Perhaps the strongest indication that the risks of implementing brief intervention in ACCHS, before the evidence of their effectiveness is established, is outweighed by the benefits, is to be found in Indigenous health strategies and guidelines, that, explicitly recommend more widespread implementation of brief intervention for lifestyle risk factors in ACCHSs (Gray, D., et al., 2008, Ministerial Council on Drugs Strategy (MCDS)).

That the healthy lifestyle project did not evaluate the effectiveness of brief intervention in ACCHSs was primarily related to the high level of uncertainty regarding the feasibility of implementing evidence-based SBI for lifestyle risk factors in these settings: the extent to which SBI is cost-effective specifically for Indigenous people is an important question to answer, but in practice is likely to be of limited relevance to ACCHSs, if SBI cannot be feasibly integrated into routine clinical care. Evidence from the healthy lifestyle project suggests that 1) evidence-based SBI for lifestyle risk factors can be implemented in clinical settings in ACCHS with adaptation of strategies and the organisation, and 2) sustained use of evidence-based SBI by all health professional groups in ACCHSs is dependent on favourable organisational policies, procedures, and leadership.

Despite the importance of integrating evidence-based SBI for lifestyle risk factors in ACCHSs, it is unlikely that all treatment decisions should be (or can be) based on best evidence. Indeed, one accepted definition of evidence-based practice is that it attempts to integrate current best evidence into the decision making process in providing treatment for individuals (Sackett, D. L., et al., 1996). On the one hand, it would seem difficult to object to the principle of utilising best evidence to augment clinical experience to maximise the potential effectiveness of interventions, particularly since the findings of trials from which this evidence is typically derived are

not always relevant and applicable to the needs of all population groups (Aldrich, R., et al., 2003). For example, in Indigenous health care settings, treatment decisions are often influenced by patient characteristics much less common in the non-Indigenous population, such as co-morbidity, and social and economic disadvantage (Thomas, D., et al., 1998). On the other hand, there appears to be a high level of practice variation among health professionals in Indigenous health care settings, possibly due to a high level of uncertainty regarding the types of interventions that are most effective. This raises the possibility of health professionals inadvertently contributing to Indigenous health disadvantage, by not routinely providing evidence-based health care to those Indigenous people who have the most potential for health gain from its provision.

The increased uptake of evidence-based brief intervention training packages, as was one objective of the health lifestyle project, proved to be a useful method for reducing the level of uncertainty in participating ACCHSs regarding the types of interventions that are most likely to be effective, as well as helping to reduce variations in their method of delivery by health professionals. However, the findings of an audit and review of brief intervention kits found that brief interventions packages developed specifically for Indigenous Australians to date, typically lack evidence-based components shown to be important at facilitating their uptake by health professionals. Furthermore, the information in some of these kits is inconsistent with evidence-based guidelines. One negative implication of this finding is that health professionals working in ACCHSs have limited access to evidence-based brief intervention resources, which presents an additional barrier for them to overcome to deliver evidence-based brief intervention in routine clinical care. For those kits that were judged to be evidence-based, their acceptability to a range of Indigenous patients and the feasibility of their implementation in Indigenous health care settings are still yet to be comprehensively examined.

The Grog Kit offers an opportunity to assess the feasibility and acceptability of touch screen computers as a method to collect alcohol data specific to Indigenous Australians and improve the delivery of screening and brief intervention for alcohol in Aboriginal health care settings. The Grog Kit has been implemented in Aboriginal health care settings in north Queensland as an interactive free-standing kiosk (Travers, H. and Leftwich, D. ISBRA 2006), although a formal evaluation of its effectiveness as a method for administering alcohol screening is yet to be undertaken. One main benefit of this technology is that it provides personalised feedback tailored to the specific responses of individual clients. Clients are able to keep this feedback as a

personal resource, and health professionals can use this feedback to initiate discussions with the client about their risk behaviour. Hand held computers are also likely to be a more effective form of the interactive touch screen computer than the free-standing kiosk, primarily due to the fact that: they allow multiple patients to be screened at the same time, more easily permit access to only those client groups eligible for alcohol screening, offer greater privacy to patients using them, and they can be easily used by health professionals in non-clinical settings. With regards to the suitability of hand held computers for data collection, studies have demonstrated that they are a useful mechanism for collecting relevant data in a useable form within a usable time frame (Shakeshaft, A. et al., 2006).

The healthy lifestyle intervention provided a structured framework for health professionals to deliver evidence-based preventive health care. This proved to be particularly important for AHWs whose lower educational levels, professional status and level of clinical skills in comparison to that of other types of health professionals, posed pedagogical and professional barriers to their greater involvement in clinical care (Rose, M. and Jackson Pulver, L. R., 2004). As such, increasing AHWs' access to and utilisation of well-designed and practical evidence-based preventive health care kits offered potential to facilitate their greater involvement in evidence-based prevention, thereby increasing their ability to optimally integrate their clinical skills with evidence-based practice. For example, a small group of AHWs in this project reported that FLAGS (an evidence-based alcohol framework) (Proude, E. M. et al., 2006) made it easier for them to initiate discussion with patients about alcohol and give advice to those identified at risk of alcohol-related harm. One current program with the potential to support AHWs to deliver evidence-based brief intervention for smoking, through the provision of training and a structured evidence-based package, is NSW Smoke Check. To date, the NSW Smoke Check program has trained more than 100 AHWs across NSW in how to use the evidence-based smoke check package to deliver brief intervention for smoking in primary health care. Anecdotal reports indicate AHWs participating in this training program have found having a structured framework for delivering brief intervention for smoking extremely beneficial (Rose. M., January 26, 2008), with some reporting to have delivered brief intervention for smoking for the first time as a result of their participation in the Smoke Check program. These anecdotal reports support the findings of studies that show introducing health professionals to well designed evidence-based brief intervention packages can increase their rates of brief intervention delivery (Proude, E. M. et al., 2006).

Addressing clients' range risk of factors, efficiently, depends essentially on the health services ability to collect, summarise and collate relevant data into a useable form, within a viable timeframe. The healthy lifestyle project identified two barriers to achieving this within ACCHSs: ineffective IT systems and inappropriate measures. The effective implementation and maintenance of IT systems in ACCHSs is dependent upon a number of critical factors. Health professionals' awareness of the negative impact of these factors on the quality of preventive health care data increased as a result of their participation in the healthy lifestyle project, as did their interest and involvement in developing strategies to optimise the utilisation of IT systems to improve the collection and management of preventive health care data.

With regards to measures, ACCHSs should ideally use validated measures which are most appropriate and acceptable to Indigenous Australians. For example, studies show that there are disproportionately higher rates of poly drug use among Indigenous Australians compared with non-Indigenous Australians (Gray, D. et al., 1997). As such, AOD services are likely to have an increased population of Indigenous clients with poly-drug use. The Indigenous Risk Impact Screen (IRIS) is one recently validated instrument designed to screen for alcohol and drug and mental health issues in Indigenous Australians (Schlesinger, C. M. et al., 2007). If implementation of the IRIS in Indigenous AOD services proves to be feasible, it could result in better detection of alcohol and drug misuse and mental health risks in Indigenous clients, enabling AOD workers to better address the needs of clients.

Alternatively, in Indigenous primary care settings, it would appear reasonable to recommend AUDIT-C or AUDIT. Both have demonstrated reliability and validity for use with a range of populations (Bush, K. et al., 1998, Shand, F. and Gates, J., 2004) and are recommended in the Alcohol Treatment Guidelines for Indigenous Australians (Australian Government Department of Health and Ageing, 2007). Health professionals' experiences using these screening tools (AUDIT or AUDIT-C) in this project revealed some of the factors likely to influence the feasibility of their implementation in Indigenous primary health care settings. For example, that health professionals expressed a preference for AUDIT-C was primarily related to: 1) its shorter item length, which was easier to integrate into screening templates for the Adult health check than the AUDIT, and 2) its questions, which did not cover dependence and alcohol problems, two topics that some health professionals felt uncomfortable talking to clients about without evidence of alcohol problems or dependence, and that clients felt were only appropriate for health professionals in general primary health care to raise if they were specifically seeking treatment for alcohol problems.

MBS preventive health assessment items emerged as a useful strategy for introducing health professionals to evidence-based prevention and involving them in the development of strategies to improve its delivery. There were three principal reasons for this. First, screening for lifestyle risk factors is a mandatory component of MBS preventive health assessment items. As such, health professionals perceived it to be a legitimate activity in this context. Secondly, AHWs were typically more confident delivering SBI for lifestyle risk factors as part of an Adult health check than as part of a standard consultation; they had a defined clinical role within a structured framework and the requirement that the Adult health check is signed off by a doctor provided them with a safety net should they encounter difficulties. Thirdly, ACCHS are remunerated for MBS preventive health care items, increasing their motivation to implement strategies that might improve their capacity to deliver these items routinely. Although SBI for lifestyle risk factors is only a small component of mandatory items in the Adult Health Check, improving its delivery in this context inevitably required the development of intervention strategies to improve the delivery of the Adult health check more generally. Fourthly, getting evidence into primary health care is an incremental and developmental process (Oxman, A. and Flottorp, S., 1998). Introducing health professionals to evidence-based brief intervention in a way that was practically relevant, non-threatening and inclusive was an important first step in this process. For example, aligning the lifestyle component of the Adult health check with the evidence-based healthy lifestyle intervention provided health professionals with a workable 'evidence-based model' which could be adapted for use in standard primary care consultations, although it did not directly address their rates of delivery of the healthy lifestyle intervention in standard consultations. This latter point is important, particularly given evidence that only a small proportion of clients attending an ACCHS are likely to receive an Adult health check in a standard primary care consultation (Kelaher, M. et al., 2005). Therefore, although it can be reasonably argued that improving uptake of the evidence-based healthy lifestyle intervention in MBS preventive health assessment items is one potential strategy for getting evidence-based SBI for lifestyle risk factors in ACCHSs, it is unlikely to result in significant improvements in the rates of SBI delivery to all patients, which is crucial for maximising the potential effectiveness of brief intervention to reduce harm from lifestyle risk factors at the population level and for obtaining adequate data to inform decisions regarding the widespread adoption of brief intervention in ACCHSs more generally. Achieving both outcomes will require improved rates of evidence-based SBI by all types of health professionals across a range of clinical services in a large number of ACCHSs.

Finally, factors influencing the uptake of evidence-based SBI for lifestyle risk factors, as identified by health professionals during the course of this project, were similar to those reported by other groups of health professionals in primary health care. This suggests that strategies proving effective at improving evidence-based preventive health care delivery in primary health care are likely to be acceptable and feasible for implementation in Aboriginal health services. However, factors unique to ACCHS, including those inexorably linked to the complex political and social context in which ACCHS typically operate, such as staff turnover, staff shortages, unskilled AHWs and the high burden of acute care, are potential threats to the long term viability of intervention strategies. Nevertheless, long term success in improving the delivery of evidence-based prevention in Indigenous health care settings has been reported in some studies, (Bailie, R. S. et al., 2004) suggesting that it is achievable.

Section Five

This section contains the abstract of a journal article that is currently (under review in 2009) being drafted and will be submitted to AERF upon its publication.

Background: While the disproportionately high burden of harm related to Smoking, poor Nutrition, Alcohol misuse and Physical inactivity (SNAP risk factors) borne by Indigenous Australian communities has been documented over many years, attempts to redress this imbalance appear to have been inadequate to date. Therefore, there is a clear need for well controlled intervention and dissemination efforts in this area. Given the evidence that brief interventions are effective at modifying health risk behaviours in the non-Indigenous Australian community, it is likely that these interventions will also be effective in Indigenous Australian communities. As such, implementing brief intervention into Aboriginal Community Controlled Health Services (ACCHS), as an evidence-based strategy using established resources, would appear a logical and critical step before evaluating the effectiveness of brief intervention in reducing SNAP related-harm in the Indigenous Australian community.

Aims: Examine the process of implementing and adapting an intervention to enhance the delivery of evidence-based screening and brief intervention for SNAP risk factors in ACCHSs.

Methods: An organisational action research design, using a variety of qualitative methods in an emergent and developmental manner in collaboration with health professionals and management from one regional and one rural ACCHS.

Results: Qualitative findings and an examination of the literature informed the development of a multi-component intervention comprising training, provision of brief intervention materials, influential colleagues, educational outreach and audit and feedback. Of the five intervention strategies, training and the provision of brief intervention materials were effectively implemented in each ACCHS. The effective implementation of educational outreach in one ACCHS facilitated the involvement of health professionals in tailoring preventive health care screening items, checklists and prompts, and increased the involvement of Aboriginal health workers (AHWs) in delivering the Adult health check. Less than optimal Information Technology (IT) systems in both ACCHSs presented a major barrier to auditing preventive health care

processes and providing timely and accurate feedback of preventive health care performance to health professionals.

Conclusion: ACCHSs can implement significant changes in their practice environments to facilitate evidence-based screening and brief intervention. Crucial components for creating change in ACCHSs participating in this study were systems tailoring, educational outreach and influential colleagues. This study produced subjective benefits to participating ACCHSs as well as a worked-up multi-component intervention that can now be more widely tested.

Section Six

This section contains a copy of the research plan developed for a major study of the alcohol component of the healthy lifestyle intervention. Mr Anton Clifford has been awarded an NHMRC Aboriginal and Torres Strait Islander post-doctoral training fellowship to undertake this research.

TITLE

Reducing alcohol-related harm in rural Aboriginal communities: integrating clinical care and community development.

AIM

Quantify the health and economic impact of a best-evidence intervention for acute and chronic clinical care for alcohol problems in Aboriginal Community Controlled Health Services (ACCHSs) and an empowerment program, compared to an empowerment program alone.

BACKGROUND

This project will value-add to an existing large-scale RCT in rural communities in NSW, the Alcohol Action in Rural Communities (AARC) project. AARC aims to reduce alcohol-related harm across whole communities, by engaging them in a community-wide approach to reducing harms. A component of the community-wide approach is to actively engage local Aboriginal communities.

This engagement of Aboriginal communities will occur via the implementation of an Empowerment program, which aims to assist individuals to increase their level of control over their own lives and the functioning of their community, to reduce their risk levels for harm from a range of risk factors, including alcohol misuse. This program was developed in response to calls for more innovative attempts to reduce harms in Indigenous communities, by developing ideas that flow directly from Indigenous Australians themselves[1].

[1] Tsey, K., et al. Australian Journal of Rural Health, 2003. 11(6): 285-6.

While community development programs are crucial, it is also important to ensure that simultaneously provided health care for problems related to alcohol misuse, is evidence-based and able to be routinely delivered in health care settings typically accessed by Indigenous Australians. Indigenous Australians primarily access ACCHSs, particularly in rural areas where cultural, financial and geographical barriers limit their access to mainstream health services.

There is strong evidence to support the effectiveness of brief intervention for reducing alcohol consumption[2]. Despite this, there are no formal evaluations of the effectiveness of brief intervention for reducing alcohol consumption among Indigenous Australians[3], and only one published study of the feasibility of brief intervention for alcohol in ACCHSs[4]. PhD work by the applicant explored the feasibility of implementing brief intervention for alcohol in two ACCHSs. Barriers and enablers to the provision of evidence-based brief intervention for alcohol in each ACCHS were identified, with a model to overcome barriers and reinforce enablers developed, and then piloted in each ACCHS. More recently, key elements of the new Alcohol Treatment Guidelines for Indigenous Australians were incorporated into this implementation process, through workshops in rural NSW.

Although these two streams of work (empowerment and clinical care) are critical in their own right, it is likely that improved outcomes would be achieved by simultaneously implementing both, with the clinical care work feeding back into the empowerment program.

The synergistic effect of integrating these programs is likely to result in cost-effective outcomes in excess of what either of these programs could achieve individually. As such, an opportunity exists to use the RCT framework offered by the AARC project to evaluate the likely health and economic impact of implementing the empowerment and clinical care programs simultaneously, in addition to the empowerment program alone, measuring the impact both in terms of specific Aboriginal- relevant outcomes, as well as the community more broadly.

[2] Moyer A, et al. Addiction, 2002. 97: 279-292.
[3] Gray, D, et al. Addiction, 2000. 95(1): 11-22.
[4] Brady M, et al. Drug & Alcohol Review, 2002. 21:375-380.

METHOD

Study design

Nested RCT, involving six no treatment control communities, three communities who receive the empowerment program alone and three communities who receive both the empowerment program and the best-evidence clinical intervention program. All six communities who receive an Aboriginal specific intervention will also receive the broader AARC community intervention, ensuring that there are no differences between the two additional intervention arms (empowerment alone vs. empowerment and clinical care).

Setting/sample

Of the Aboriginal communities in nine of the ten experimental towns in the AARC RCT (one is excluded because it does not have a substantive Aboriginal community), five will be offered the empowerment program (Kempsey, Grafton, Inverell, Gunnedah, Parkes and Forbes). Of these six, three will also be offered the best-evidence clinical intervention program, with a clear pathway from clinical care back to the empowerment program.

Measures

Outcomes

(i) Aboriginal communities

The impact of the Empowerment program on the communities will be measured using the recently developed empowerment tool kit, based on a six part pathway of development that emerged from analysis of interviews with 50 Indigenous participants in the Empowerment Program and was modified through consultation with key Indigenous groups, psychometric specialists and health economists. Pilot work suggests that the tool can detect differences between Indigenous respondents who have participated in the Empowerment Program and those who have not, in the areas of identifying goals and specific aspects of their lives of which they are proud, involvement in decision making in the community, ability to speak out and feeling confident and admired by others.

(ii) Individual risky drinkers and clinics

The effect of the clinical care program will be measured using outcomes developed during the candidates PhD. These include validated alcohol consumption and experience of harm measures as applied to individual patients (AUDIT questionnaire); and process measures as applied to the clinics, aimed at identifying how to best integrate best-evidence into routine clinical care.

(iii) The broader community

Impacts on the broader community will be assessed by a pre/post comparison of rates of alcohol-related harm currently measured in the AARC project: ED and Inpatient hospital presentations; criminal incidents; and traffic accidents.

(iv) *Feasibility*

Numbers of Aboriginal Australians engaged in the empowerment and clinical care programs will be assessed, including how long they stay engaged. Interviews with randomly selected individuals to elicit their experience of the programs will be undertaken, including whether their own alcohol use/problems have reduced. Economic aspects of the interventions will be assessed by a range of techniques developed for the AARC and Empowerment projects, including the TTOLS instrument, developed for the latter.

Interventions

Empowerment

The overall aim of the Empowerment program is to help people to gain greater understanding of themselves and their situation, greater control and stability in their lives, identify and achieve goals, gain skills to work more effectively in groups and enhance their influence on structural factors affecting their community.

This project aims to evaluate multifaceted interventions that integrate empowerment as a core component of health improvement, with specific health promotion initiatives. It is based on the premise that efforts to improve the health of Indigenous communities, should build on the strengths, resilience and creativity of the communities themselves, rather than rely on the expertise of non-Indigenous Australians.

Clinical care program

The best-evidence clinical care program comprises two main components:

1. Education and training dissemination

Health workers employed at each ACCHS will receive education and training in evidence-based clinical care for alcohol problems, as recommended by the Alcohol Treatment Guidelines for Indigenous Australians. Education and training workshops will be delivered by clinical specialists in addiction medicine with experience in the Indigenous drug and alcohol field. The content and format of workshops will be tailored to meet the needs of each organisation. Two such workshops have already been piloted with two ACCHSs in NSW.

2. Outreach support

Based on procedures refined in his PhD project work, the candidate will visit ACCHSs regularly during the intervention period to provide tailored support for organisational changes and systems needed to implement evidence-based clinical care for alcohol. The candidate will also maintain weekly contact with a key stakeholder from each ACCHS to monitor progress and resolve barriers that arise during the intervention period.

Procedure

In the six communities to receive either the Empowerment program alone, or the Empowerment and best-evidence clinical care program the procedure will be: collect and analyse pre-test outcome data; implement the Empowerment project; implement best-evidence clinical care with a clear pathway from the end of clinical care back into the Empowerment program; allow the program to run, collect and analyse feasibility data and refine the intervention as required; and collect and analyse post-test outcome data.

SIGNIFICANCE

Mortality and morbidity related to alcohol misuse is disproportionately higher among Indigenous Australians than non-Indigenous Australians. Harm from alcohol misuse is widespread and severe in some Indigenous Australian communities, resulting in high health and social costs. At the individual level, alcohol misuse contributes to injury and self harm, and is implicated in much assault, which accounts for a significant

proportion of alcohol-related presentations to primary care. At the community level, alcohol misuse is implicated in violence, crime and sexual abuse. Despite the disproportionate burden of alcohol-related harm among Indigenous Australians, there have been few formal evaluations of alcohol interventions to reduce these harms. For those evaluations that have been conducted, results have generally been inconclusive, suggesting that more rigorous evaluations are needed and interventions need to be better resourced and supported.

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3. Gray, D, et al. Addiction, 2000. 95(1): 11-22.

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Section Seven

This section contains the Financial Acquittal as sent in the first quarter of 2007.

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