Submission made to Health and Education Committee by Fiona Farringdon, Assistant Dean Health Sciences, University of Notre Dame Australia

Date: 17th September, 2010

This submission will address the following:

Terms of Reference

To inquire into the adequacy and appropriateness of prevention and treatment services for alcohol and illicit drug problems in Western Australia, with particular reference to:

 The evidence base, content, implementation and resourcing (including professional training) for health education and other interventions on alcohol and illicit drugs for school-aged students;

My submission is based on my 12 years experience as a Health and Physical Education teacher, 8 years experience working at the National Drug Research Institute (NDRI) researching the effectiveness of school based drug education and 6 years as Assistant Dean, Health Sciences and Senior lecturer in Health and Physical Education at University of Notre Dame Australia. This submission focuses on issues for the delivery of effective alcohol and other drug education in Western Australian secondary schools.

1. Status of health education in secondary schools

Health education sits within the Health and Physical Education learning area therefore schools can apportion all of the time allocation for this learning area to Physical Education. The reality is that some schools do not allocate any time to Health Education and other schools allocate a small amount with the majority going to Physical Education. Many students may not even receive one hour per week over the four semesters.

Even if schools do allocate time to Health Education, it is up to individual schools to decide what is taught. So while most schools, who teach Health Education, will include drug education, it is not mandatory. Often what is taught is driven by what is popularly promoted, not what the evidence suggests has the greatest need. Coupled with the limited time allocated to health education this creates a crowded curriculum.

Furthermore, there is no guarantee that the Drug Education will be taught by teachers trained in Health Education pedagogy. Due to the low status of Health Education, often it is timetabled last and allocated to teachers in order to fill up their

load regardless of their expertise. Even if it is allocated to trained Health and Physical Education teachers there is no guarantee that it will be effectively taught. A proportion of Health and Physical Education teachers perceive themselves primarily as Physical Education teachers who have to teach health. This means the content, delivery and qualifications of the deliverer of health education and therefore drug education is not mandated, therefore, the quality of what is taught and how it is taught can vary greatly.

Qualitative focus group interviews conducted by the National Drug Research Institute with 24 Western Australian Health Education Teachers support these claims.

Firstly someone needs to inform schools, like the Minister, that time has to be set aside for Health education. It should be mandatory and part of health education must include drug education, and that it is not the responsibility of health and physical education learning area to find this time or to take it from other important health issues like sexual health or nutrition (Focus Group 3)

Phys ed gets priority in our learning area – health is the poor cousin – don't they get it, physical education is an aspect of health not the other way around. (Focus Group 2)

Within health education, drug education has a high priority but in the context of the whole school it probably is not a high priority at all – the focus is on academic subjects. Because we have pushed it through our area we now do drug education from year 8 –12. So within our area it is important but in the whole scheme of the school it is not important. (Focus Group 1)

I have been in a school where they have timetabled year 9 health against upper school recreation time so all the phys edders (trained in health education) have been timetabled to rec., so who ever the unlucky teachers (not health trained) who are free with a low load get to teach the health. That's the priority of that school. (Focus Group 4)

At the moment we've got such limited time and so many things impinging on us like you've got to look at cannabis, you've got to look at driving. There are all these things and then you look at your program and you think, well where am I going to fit all these things in? (Focus Group 4)

But we are only telling you what we do and obviously we are committed to drug education or else we wouldn't be here – I can't say what other health teachers do let alone the non health teachers who score health on their timetable. (Focus Group 1)

See that's the attitude, its health ed, it's not important and I am not going to give any more of my energy. I can't be bothered doing this; I'd prefer to give them a couple of worksheets. (Focus Group 2)

You see teachers want to be shown the strategies – without PD it doesn't happen because teachers don't want to have to wade through a big file to find the strategies, they want them shown to them and then oh great off we go. Like the SDEP stuff is great but you have to read it and find the strategies and that takes time so it's easier to go back to what you always do. Unless you take all teachers through the package and show them it then it may get used otherwise they will just take out what suits their teaching style and that will be it. The problem is you can't force them to do it. (Focus Group 2)

Clearly the teachers in this study consider the low status of Health Education in WA schools to be the major barrier to effective Drug Education. Schools appear to continue to highly value traditional academic subjects and consequently give more time and resources to these subjects at the expense of traditional non academic subjects. The fact that drug use may impact on student's ability to remain at school and cope emotionally and academically (Fergusson & Horwood, 1997; Hall, Johnston & Donnelly, 1999; Lynskey & Hall, 2000) appears to have little influence on schools administrators when time and teaching resources (including the expertise of those who teach Health Education) are allocated (Farringdon & Lenton, 2005).

2. The effectiveness of drug education in secondary schools

Health Education, including Drug Education is unique in schools – it targets behaviour. There has been much debate concerning whether Drug Education should target behaviour or just knowledge and attitudes. This seems to be a pointless argument because behaviour may be influenced whatever the goal is, therefore, when teaching about health risk behaviours (especially Drug Education) all effort must be made to at least do no harm. The programs must enhance the potential to impact positively on drug related behaviours and minimise any negative impact that may result.

Unfortunately there are numerous examples of Drug Education programs that have impacted negatively on drug related behaviours. In America a program called Drug Abuse Resistance Education (DARE) increased drug use among some students who undertook the program (Ennett, Tobler, Ringwalt & Flewelling, 1994). Despite this DARE continued to attract political and financial support for a number of years. Similarly in Australia early versions of the Life Education Program also resulted in increased alcohol use among Victorian male students (Hawthorne, 1996). Again this program continued to attract several million dollars each year from community and

government sources. Clearly there are lessons to be learnt from this so similar mistakes are not repeated. However, more recently the 2004 evaluation of the current School Drug Education Project (SDEP) component of SDERA conducted by Edith Cowan University showed primarily no impact with some measures indicating negative effects:

"The majority of analyses conducted on SDEP participation, level of training and dose indicated the Project had **no impact** on students' drug use outcomes or attitudes after accounting for school and demographic effects. Approximately 13% (30 of 231) of the analyses conducted indicated positive effects of the Project (e.g. lower drug use, attitudes less accepting of drug use) among students in SDEP schools compared with non-SDEP schools or schools that had received or implemented less of the recommended activities. This can be contrasted with **negative results which imply the School Drug Education Project may have increased drug use or contributed to higher levels of acceptance of drug use.** Three percent (8 of 231) of analyses indicated negative effects, although some of these analyses were unable to ascertain if the negative effect was due to involvement in the School Drug Education Project or to school effects (p 12)".

The report on the next evaluation (2008 - 2010) is not due until 2011 and by that stage at least \$10 million dollars will have been spent on a program that to date, at best may have had no impact and at worst a negative impact for some students. Although this program claims that it is evidence based it is actually based more on best practice principles (what teachers and administrators thinks works) rather than what the research evidence from evaluated studies indicates what actually works in Drug Education (Challenges and Choices, 2007).

SDERA is well funded and popularly marketed as the primary drug education strategy in Western Australia yet they do not have the outcome measures to support their claims. Rather they rely on process indicators of reach, numbers attending professional development and if teachers like the resources. This in no way indicates if a program has impacted on attitudes or behaviours at the student level. There are however, well researched Western Australian school based drug education programs with proven efficacy that have been largely ignored by SDERA and the Drug and Alcohol Office (DAO). Over the past year I have contacted 2 senior people from DAO about my concerns and these were ignored.

The following outlines three Western Australian drug education programs that have a proven positive impact on drug related behaviours of secondary students (See appendix 1 for a list of publications). These programs target the drugs that cause most harm and are the most commonly used by secondary aged students.

1. The School Health and Alcohol Harm Reduction Project (SHAHRP)

Dr Nyanda McBride, Fiona Farringdon, Associate Professor Richard Midford

The following synopsis is taken from a recent funding submission to health way prepared by Nyanda McBride (2010).

During 1996-1999 the School Health and Alcohol Harm Reduction Project (SHAHRP) (longitudinal study) was funded by Healthway. This study resulted in an evidenced based alcohol program for Western Australian secondary school students that had a significant positive behavioural impact on alcohol use and alcohol related behaviours.

In detail this research project involved:

Formative development of the SHAHRP program. Critical to the development of the SHAHRP teaching resource and research was the formative phase of development to ensure that the program was based on young people's needs and activities. Focus groups were conducted with young people, the program was piloted with students and teachers, modifications were made according to student and teacher feedback, and the program incorporated the most recent evidence based research to ensure it had the greatest potential for success (see appendix 2). This formative research resulted in the SHAHRP program, a two phase program conducted over consecutive years with secondary school students.

Longitudinal assessment of the SHAHRP program. The SHAHRP study was initially developed to assess the impact of an alcohol harm reduction education program for young people in secondary school (13-16 years of age). This assessment was conducted over a 32 month period with 2300 young people in 14 secondary schools. Control schools taught their normal alcohol program, including the SDEP pilot lessons. The results were very promising with SHAHRP students having:

10% greater alcohol related knowledge

20% lower alcohol consumption (total)

19.5% less harmful or hazardous alcohol consumption

33% less harm associated with their own consumption of alcohol

10% less harm associated with other people's consumption of alcohol

The SHAHRP program was particularly successful with early risky drinkers. Early unsupervised drinkers from the intervention group were significantly less likely to experience harm associated with their own use of alcohol compared to the corresponding control group. Unsupervised drinkers experienced 18.4% less alcohol related harm after participating in both phases of the program and this difference was maintained (19.4% difference) 17 months after the completion of the program.

The SHAHRP research was world first in assessing the impact of alcohol harm reduction rather than an abstinence approach to alcohol education. In comparison to international school drug education research, the harm minimisation approach

adopted in the SHAHRP study produced stronger behavioural results than those reported in abstinence programs on total and risky consumption, and delayed use of alcohol (McBride et a.l, 2004). In addition, the program had a significant sustained effect on reducing the harm experienced by young drinkers (McBride & Farringdon, 2003). These outcomes show that the SHAHRP program can impact on early non-drinkers and experimental use while also having an impact on early risky drinkers, a group which is not catered for in abstinence program. The study results are important given that school based drug education is often criticised in the scientific arena for having little impact on young people's behaviour (McBride et al., 2004), and potential for behavioural impact is often undocumented in Australian drug education planning, policy and guidelines (SDERA; 2010; Department of Education Science and Training, 2004).

When the successful results of SHAHRP emerged, NDRI approached the manager of SDEP to discuss the potential of SDEP and NDRI forming a partnership to disseminate the SHAHRP materials. At this time the manager of SDEP indicated he was not interested in forming a partnership. Other states took up the offer and were part of the national dissemination of SHAHRP. I have attached a list of organisations (Appendix 3) that use the SHAHRP materials.

The SHARHP team won the Prime Minister's award for excellence in Drug research in 2004. The SHAHRP study has recently been replicated in Ireland with preliminary results similar to the original SHAHRP results, again being particularly influential on early risky drinkers. Healthway have recently agreed to fund the updating of the SHAHRP materials.

For more information about the SHAHRP project see: http://ndri.curtin.edu.au/research/shahrp/index.cfm

2. The Smoking Cessation for Youth Project (SCYP)

Professor Donna Cross, Dr Greg Hamilton, Professor Ken Resnicow, Dr Margaret Hall.

The following synopsis is taken from the Child Health Promotion Research Centre, ECU, website.

"The Smoking Cessation for Youth Project (SCYP) was a two year cluster randomised intervention trial conducted in 1999 and 2000, which designed, implemented and evaluated an innovative school-based smoking education program based on harm minimisation principles. The SCYP study found regular smoking (those that smoke five or more days per week) among students who had received the intervention was significantly lower than among students from a comparison group. Onset of smoking may also have been lower among those receiving the intervention." (http://www.chprc.ecu.edu.au/research/drug-use-control/smoking-cessation-youth-booster.php)

3. The Marijuana Education Project (MEP) (2002-2004)

Professor Donna Cross, Dr Greg Hamilton, Professor Ken Resnicow, Dr Shelley Beatty

The following synopsis is taken from the Child Health Promotion Research Centre, ECU, website.

"The Marijuana Education Project aimed to reduce the social and associated effects of marijuana use among 12 to 14 year-old students. Skill-based activities were designed to assist young people who are experimenters or regular users to quit or reduce while encouraging those who have never used to remain that way. Implementation of this project was conducted during the 2002 and 2003 school years with a follow-up evaluation in 2004.

While the Marijuana Education Project demonstrated that the harm minimisation intervention had a more positive impact than currently used abstinence-based approaches, the effect sizes were relatively small. However, the combined evidence from this project and the successful SCYP Project provides a clearer understanding of the effectiveness of a harm minimisation education approach to a range of drugrelated contexts." (http://www.chprc.ecu.edu.au/research/drug-use-control/marijuana-education.php)

Conclusion

Those with the power to influence what is taught in our schools should consider providing adequate time and resources to allow for effective, evidence-based Drug Education to occur and not at the expense of other health related issues. It matters little if resources with proven efficacy are developed, if professional development and administration support at the school level is not provided, and direction and support from government is not provided. For effective education around drugs to occur, the status of Health Education in schools must be elevated and programs with proven efficacy must be supported at all levels. This can only occur through the combination of government intervention, support at the school administration level and the continued commitment of school Drug Education teachers.

Over the past 10 years, SDERA has unquestionably positioned itself as the primary Drug Education strategy in WA, yet has not been made to account for its position or the substantial financial investment in tangible behavioural outcomes. The 2004 evaluation report indicates that SDEP has had no impact on student attitudes or behaviours and may in fact have had a negative impact for some students. Yet programs that have had tangible positive behavioural outcomes have not been supported. This has resulted in many students being denied the potential positive behavioural impact that SHAHRP, SCYP and MEP have proven they can produce. Programs that rely on finite research funding cannot compete with an ongoing well funded organisation that market themselves as the premier Drug Education provider. The danger of allowing one organisation to position themselves as the 'expert' is that

they may find other programs with proven efficacy to be a threat and therefore do little to promote these programs. This certainly appears to be the case in Western Australia over the past 10 years.

Lessons should have been learnt from the American experience where a great deal of money was spent on marketing programs that were either not evaluated or have been shown to be ineffective (Dusenbury et al., 1997). It appears that these mistakes are currently being replicated in Western Australia. Nine years ago Midford & McBride (2001) warned that the danger of continuing to support programs, despite their lack of apparent success, is that they become institutionalised, therefore can waste resources and take the place of other more beneficial Drug Education programs. I hope this warning will not fall on deaf ears as it appears to have done in the past.

Schools and teachers must be supported in their efforts and reassured through tangible research evidence that what they are teaching will, at the very least, do no harm and most likely maximise the potential for a positive behavioural impact for their students.

"This may not satisfy the Utopian desire to 'drug proof' young people but is necessary to keep young people safer in a world where drug use is a fact of life." (Midford, Lenton & Hancock, 2000, p.7)

Recommendations for secondary schools:

- 1. A minimum time is mandated to health education in secondary schools across all sectors.
- 2. Specific topics or themes are made mandatory to teach including drugs and health. This might also include Sexual health, social and emotional health and physical health.
- 3. Only teachers trained in health education methodology are allocated to teaching health education.
- 4. The state government and DAO reconsider the position of SDERA as the primary drug education strategy especially in secondary schools.
- 5. An independent reference group is formed (with practitioners, researchers, drug experts, young people) to provide direction and advice for drug education in secondary schools based on research evidence and proven programs. Direction to include:
 - Drug education focuses on the drugs most commonly used by young people and those that cause the most harm ie. Alcohol, tobacco and cannabis.

- The years in which these programs are to be taught (guided by prevalence data), to take advantage of the evidence based features of inoculation and boosters
- The length and sequence of these programs to take advantage of the evidence based features of behaviour change, inoculation, relevancy and boosters
- Promotion and dissemination of the following programs that have been evaluated with results showing positive behavioural results in students.
 - Alcohol School Health and Alcohol Harm Reduction Project (SHAHRP) in year 8 and year 9
 - Smoking Smoking cessation and Youth Project (SCYP)
 - Marijuana Education Project (MEP)
- Pre-service health and physical education teachers to be trained in how to teach these programs
- Current teachers trained in how to conduct these programs.
- The existing SDERA organisation could be trained in the delivery of these programs with explicit instructions that they are the programs to be delivered in secondary schools.
- The SDEP component of the SDERA resources should only be used for primary and other illicit drugs (year 10).
- 6. This independent group is given the opportunity to inform and advise relevant government ministers on the direction and outcomes of drug education in secondary schools.

Thank you for the opportunity to make this submission.

I will be happy to respond to any queries you might have regarding my submission.

Contact Details:

Fiona Farringdon

Email: ffarringdon@nd.edu.au

Phone: 94330251

References

- Department of Education Science and Training. (2004). *Principles of school drug education*. DEST: Canberra. ISBN 1 877032 913.
- Child Health Promotion Research Unit (2005). Outcome Evaluation of the School Drug Education Project: Final Report Presented to The School Drug Education and Road Aware Project. Edith Cowan University, Churchlands, WA.
- Child Health Promotion Research Centre, Edith Cowan University (2010). *The Marijuana Education Project (2002-2004).*http://www.chprc.ecu.edu.au/research/drug-use-control/marijuana-education.php
- Child Health Promotion Research Centre, Edith Cowan University (2010). *The Smoking Cessation in Youth Project*.

 http://www.chprc.ecu.edu.au/research/drug-use-control/smoking-cessation-youth-booster.php
- Dusenbury, L., Falco, M. & Lake, A. (1997). A review of the evaluation of 47 drug abuse preventyion curricula available nationally. *Journal of School Health*. 67. 127-133.
- Farringdon, F. & Lenton, S. (2005). Effects of changes to cannabis law in WA on attitudes and drug use behaviour of school children. Baseline, Year 1. Perth: National Drug Research Institute, Curtin University of Technology.
- Fergusson, D. & Horwood, L. (1997). Early onset cannabis use and psychological adjutment in young adults. *Addiction*, *92*, 279 96.
- Hall, W., Johnston, L. & Donnelly, N. (1999). Epidemiology of cannabis use and its consequences. In: Kalant, H., Corrigall, W., Hall, W. & Smart, R., (eds). The health effects of cannabis. Toronto: Centre for Addiction and Mental Health.
- Ennett, S., Tobler, N., Ringwalt, C. & Flewelling, R. (1994). How effective is Drug Abuse Resisitance Education? A meta-ananlysis of Project DARE outcome evaluations. *American Journal of Public Health.* 84 (9), 1394-1401.
- Hawthorne, G. (1996). The social impact of Life Education: estimating drug use prevalence among Victorian primary school students and the state level effects of Life Education program. *Addiction.* 91 (8), 1151-1159.
- Lynskey, M. & Hall, W. (2000). The effects of adolescent cannabis use on educational attainment: a review. *Addiction.95*, 1621 30.

- McBride, N., Farringdon, F., Midford, R., Meuleners, L. & Philip, M. (2004). Harm Minimisation in School Drug Education. Final Results of the School Health and Alcohol Harm Reduction Project (SHAHRP). *Addiction*, *99*, 278-291.
- McBride, N. (2010) Healthway Health Promotion Project Grant. SHAHRP Refresh: up-dating the School Health and Alcohol Harm Reduction Project
- Midford, R., Lenton, S. & Hancock K. (2000). *A Critical Review and Analysis:* Cannabis Education in Schools, NSW Department of Education and Training.
- Midford, R. & McBride, N. (2001). Alcohol education in schools. In Heather, N., Peters, T. and Stockwell, T.R. (eds.) *International Handbook of Alcohol Dependence and Problems*. John Wiley and Sons Ltd, West Sussex, England.
- School Drug education and Road Aware. (2007), Challenges and Choices: An early adolescent resource for resilience, drug and road safety education.

 Government of Western Australia. Perth
- School Drug Education and Road Aware. (2010). Summary of good practice in school drug education. http://www.det.wa.edu.au/sdera/detcms/navigation/for-schools/about-sdera/best-practice/?page=1&tab=Main#toc1

SHAHRP

School Health and Alcohol Harm Reduction Project

SHAHRP and SHAHRP 2000 PUBLICATIONS

The following SHAHRP and SHAHRP 2000 publications are available from the National Drug Research Institute (phone: 08 9266 1600; email: ndri@curtin.edu.au). The abstracts for each publication can be accessed by clicking on the word 'Abstract'. Some abstracts are not available from this website but can be accessed directly from the Journal in which they are published.

- McBride, N., Farringdon, F. and Kennedy, C. (2007). Research to Practice Formal Dissemination of the School Health Harm Reduction Project (SHAHRP) in Australia. *Drug and Alcohol Review*, 26, (6), pp. 665-672. [RJ548] <u>Abstract</u>
- McBride, N., Farringdon, F., Meuleners, L. and Midford, R. (2006). The School Health and Alcohol Harm Reduction Project. Details of Intervention Development and Research Procedures. *National Drug* Research Institute, Monograph., Perth, Western Australia. [M59] Abstract
- McBride, N. (2004). School drug education: A developing field and one element in a community approach to drugs and young people. *Addiction*, 99, pp. 292-298. [RJ439]
- McBride, N., Farringdon, F., Midford, R., Meuleners, L. and Philip, M. (2004). Harm Minimisation in School Drug Education. Final Results of the School Health and Alcohol Harm Reduction Project (SHAHRP). Addiction, 99, pp. 278-291. [RJ393] Abstract
- 5. McBride, N. (2003). A systematic review of school drug education. *Health Education Research Theory* and *Practice*, *18*, (6), pp. 729-742. [RJ375]
- McBride, N., Farringdon, F., Midford, R., Meuleners, L. and Phillips, M. (2003). Early unsupervised drinking - reducing the risks. The School Health and Alcohol Harm Reduction Project. *Drug and Alcohol Review*, 22, (3), pp. 263-276. [RJ394] <u>Abstract</u>
- McBride, N. (2002). Systematic literature review of school drug education. *National Drug Research Institute*. *NDRI Monograph No. 5*. Curtin University of Technology, Perth, Western Australia. ISBN: 1 74067 188 0 [M40] <u>Abstract</u>
- McBride, N., Farringdon, F. and Midford, R. (2002). Implementing a school drug education program: Reflections on fidelity. *International Journal of Health Promotion and Education*, 40, (2), pp. 40-50.
 [RJ344]

- Farringdon, F., McBride, N. and Midford, R. (2000). The fine line: Students perceptions of drinking, having fun and losing control. *Youth Studies Australia*, 19, (3), pp. 33-38. [RJ345]
- McBride, N., Farringdon, F. and Midford, R. (2000). What harms do young Australians experience in alcohol use situations. *Australian and New Zealand Journal of Public Health*, 21, (1), pp. 54-59. [RJ321]
 Abstract
- 11. McBride, N., Midford, R. and Farringdon, F. (2000). Alcohol harm reduction education in schools:

 Planning an efficacy study in Australia. *Drug and Alcohol Review, 19,* (1), pp. 83-93. [RJ284] Abstract
- 12. McBride, N., Midford, R., Farringdon, F. and Phillips, M. (2000). Early results from a school alcohol harm minimisation study. *Addiction*, *95*, (7), pp. 1021-1042. [RJ300] <u>Abstract</u>
- 13. Farringdon, F., McBride, N. and Midford, R. (1999). School Health and Alcohol Harm Reduction Project: Formative development of intervention materials and processes. *Journal of the Institute of Health Education*, *37*, (4), pp. 137-143. [RJ301]

SYCP publications:

Hamilton, G., Cross, D., Resnicow, K., Hall, M. (2005) A school-based harm minimization smoking intervention trial: Outcome results. *Addiction* 100: 689-700

Hamilton, G., Cross, D., Resnicow, K., & Shaw, T. (2007). Does harm minimization lead to greater experimentation? Results from a school smoking intervention trial. *Drug and Alcohol Review, 26*(6), 605-613.

Hamilton, G., Cross, D., Lower, T., Resnicow, K. Williams, P. (2002). School policy: What helps to reduce teenager smoking? *Nicotine and Tobacco Research* 5 (4): 507-513.

Resnicow, K., Cross, D., & Hamilton, G. (2008). Comparison of Two School-Based Smoking Prevention Programs among South African High School Students: Results of a Ramdomized Trial. *Annals of Behavioural Medicine*, *36*, 231-243.

SHAHRP

School Health and Alcohol Harm Reduction Project

Research Evidence Basis of SHAHRP and SHAHRP 2000

The SHAHRP and SHAHRP 2000 studies aim to change young people's health behaviour through a classroom education approach. To do this effectively, the researchers have incorporated research evidence and best practice approaches from the health and education fields. The following summary of the research basis of SHAHRP and SHAHRP 2000 will assist you in understanding the critical elements of the SHAHRP and SHAHRP 2000 intervention and can also be used as a guide to assess the quality of other drug education resources.

Timing and Programming

Inoculation: requires that initial lessons be taught immediately prior to students initiating the behaviour of interest, in this case drinking alcohol. Lessons that provide knowledge and skills immediately prior to the behaviour can give students a solid basis as they enter into, for example, alcohol use situations. Prevalence of alcohol use data were used to define the placement of each phase of the SHAHRP intervention. The use of local prevalence data can also assist in defining the appropriate timing of the initial phase of other health related interventions.

Relevancy: requires that an additional phase of lessons be taught at a time when the students are initiating the behaviour of interest. The immediate relevancy of knowledge and skills during this phase in the students development makes it more likely that students will apply this new information and skills to their new behaviour. As with the above evidence based component, prevalence of alcohol use data were used to define the placement of phase two of SHAHRP intervention.

Transition period between primary and secondary school: practical considerations play an important part in this component (particularly so for research studies in schools). Students are likely to remain in the same school for a number of years, teachers are more specialised in the delivery of alcohol education, programs can be easily administrated and in research terms an intervention in one setting helps to assist with follow-up for survey purposes. Entry into secondary school also represents a milestone in the maturity of students, however, the prevalence of the behaviour of interest should be a stronger guide to the placement of an intervention.

In the context of developmentally appropriate school health curriculum: drug education should be taught in the context of a developmentally appropriate curriculum, have a sound curriculum basis, be placed alongside other related health issues and have the flexibility to target drug issues as they become pertinent to students. Programs conducted in isolation, or ad hoc programs, have limited scope to create change and can potentially have a negative effect on student drug use behaviour.

Booster sessions over time: in the past the research literature suggested that 30 to 40 hours of classroom lessons were required to impact on students health behaviours. More recent research suggests that booster sessions over a number of years, that develop and reinforce knowledge and skills, can also lead to behaviour change. This means that less classroom time is required to have an impact on behaviour, however, the lessons need to incorporate the following content and teaching methodology components to be effective.

Content and Teaching Methodology

Based on the experiences of young people / young people involved in the development of the intervention: it is very important that the content, scenarios and style of an intervention be based on the experiences and interest of the young people that it is trying to influence. The SHAHRP and SHAHRP 2000 study conducted focus groups with young people and piloted the draft intervention with young people to ensure that their experiences were reflected in the classroom lessons. The involvement of young people in the development of an intervention helps to increase its relevancy as well as students interest and involvement in the program.

Provides accurate normative information: research suggests that presenting age related usage norms helps students to attain realistic understanding of usage rates among peers. Findings suggest that young people often

have exaggerated notions of usage rates and presenting accurate normative information can assist in modifying behaviour if these norms are relatively low. In the first phase of SHAHRP the use of normative information was particularly useful.

Adopts a harm minimisation approach rather than being based solely on non-use goals: this issue is particularly relevant for alcohol where initiation of use occurs at a young age, where large amounts of alcohol are consumed during drinking occasions and where social rewards are gained from drinking. Risks and harms associated with the use of alcohol can be linked to the students own use or other peoples use of alcohol. A goal of harm minimisation provides both drinkers and non drinkers with strategies for reducing the chances of harm occurring, and the potential impact of harm after the event, as well as incorporating important non-use and delayed use strategies.

Programs should be skills and activity based: skills based teaching that involves students in practical activities increases students interest and learning. Teaching methods that allow students to practice behaviours that are relevant to their experience, in a low risk situation, using realistic scenarios, provide young people with important practice that they can take with them to real life situations. Programs that are interactive and provide a high level of activity in proportion to other aspects, such as lecture-style teaching, are more effective in gaining students interest and promoting student learning.

Programs should incorporate utility knowledge: past studies provide strong evidence that knowledge and attitude based programs have little effect on behaviour change. Nevertheless, the delivery of knowledge as part of a skills-training approach is an important aspect of a program. The type of knowledge provided, however, needs to be relevant to the students, needs to be applicable to their life experiences and needs to be of immediate practical use to them.

Teacher training

Teachers should be training to teach drug education: research suggests that teachers of health and drug education often lack adequate training and confidence when teaching drug education and other controversial health issues. However, teachers are best placed to know their students needs and developmental level and are best placed to incorporate drug education at an appropriate time and level for the students.

Teacher training should involve interactive modelling of activities: research suggests that teacher training that involves the interactive modelling of an intervention's activities increases teachers confidence and ability to teach the program. This type of training allows teachers to experience and identify classroom management and practical issues associated with the program as well as providing them with a model of good practice particularly in relation to debriefing and discussion around key issues.

Research Issues

Although less important in the context of classroom teaching, the following research considerations were adopted as part of the SHAHRP and SHAHRP 2000 research studies: fidelity of implementation (how well and how much of the program was taught) was measured and incorporated into analysis and understanding of change; measures of program success were based on realistic student experiences; the research was conducted over a long time period to allow for delays in behaviour change; and analysis incorporated stratification for previous use.

References for evidence based approach

Australian Drug Foundation. The risk reduction approach to alcohol education. In: Reducing the Risk. An alcohol action program for schools, 1994. Australian Drug Foundation, Melbourne, Australia

Australian Institute of Health and Welfare. Releases 1999, Drugs: Where are the biggest problems (Online). Available: http://www.aihw.gov.au/mediacentre/1999/mr19990331c.cfm. 1999

Ballard R, Gillespie A, Irwin R. Principles for drug education in schools. An initiative of the School Development in Health Education Project. Canberra: University of Canberra, Faculty of Education, 1994

Basch C, Sliepcevich E, Gold R, Duncan D, Kolbe L. Avoiding type III errors in health education program evaluation: A case study. Health Education Quarterly 1985; 12, 4: 315-331

Berberian R, Gross C, Lovejoy J, Paperella S. The effectiveness of drug education programs. A critical review. Health Education Monographs 1976; 4: 377-398

Blaze-Temple D, Sing K, Binns W. Drug use behaviour and attitudes from a household survey of Perth teenagers. Perth, Western Australia: National Centre for Research into the Prevention of Drug Abuse, Curtin University, 1990

Botvin G, Baker E, Renick N, Filazzola A, Botvin E. A cognitive-behaviour approach to substance abuse prevention. Addictive Behaviour 1984; 9:137-147

Botvin G, Schinke s, Epstein J, Diaz T. Effectiveness of culturally focused and generic skills training approaches to alcohol and drug abuse prevention among minority adolescents: two year follow-up results. Psychology of Addictive Behaviours 1995; 9, 183-194

Botvin G. Substance abuse prevention research: Recent developments and future directions. Journal of School Health 1986; 56: 369-374

Bremburg S. Does school health education effect the health of students? A literature review. In: Nutbeam D, Haglund B, Farley P. et al. Youth health promotion: From theory to practice in school and community. London: Forbes Publications, 1991:89-107

Commonwealth Department of Health and Family Services. National Drug Strategy, Household survey. Survey Report 1995. Australian Government Publishing Service, Canberra, 1996, ISBN 0 644 36880 1

Cross D. School drug education - What works? Paper presented at the launch of the School Drug Education Project. Perth, Western Australia: 4 April 1997

Dielman T, Shope J, Leech S, Butchart A. Differential effectiveness of an elementary school-based alcohol misuse prevention program. Journal of School Health 1989; 59, 6: 255-263

Dielman T. School-based research on the Prevention of Adolescent Alcohol Use and Misuse: Methodological issues and advances. Journal of Research in Adolescence 1994; 4, 2:271-293

Dunsebury L, Falco M. Eleven components of effective drug abuse prevention curricula. Journal of School Health 1995; 65, 10: 420-424

Dusenbury L, Falco M, Lake A. A review of the evaluation of 47 drug abuse prevention curricula available nationally. Journal of School Health 1997; 67(4), 127-131

Evans R. Smoking in children. Developing a social psychological strategy of deterrence. Preventive Medicine 1976; 5:122-127

Foxcroft D, Lister-Sharp D, Lowe G. Alcohol misuse prevention for young people: A systematic review reveals methodological concerns and lack of reliable evidence of effectiveness. Addiction 1997; 92(5), 531-537

Goodstadt M. School-based drug education in North America: What is wrong? What can be done? Journal of School Health 1986: 56:278-281

Green LW, Kreuter M. Health promotion planning: An educational and environmental approach. Mountain View, USA: Mayfield Publishing Company, 1991

Hansen W, Graham J. Preventing alcohol, marihuana, and cigarette use among adolescents: Peer pressure resistance training versus establishing conservative norms. Preventive Medicine 1991; 20, 414-430

Hansen W, Johnson C, Flay B. et al. Affective and social influence approaches to the prevention of multiple substance abuse among seventh grade students: Results for Project SMART. Preventive Medicine 1988; 17: 135-154

Hawthorne G. The social impact of Life Education: estimating drug use prevalence among Victorian primary school students and the state level effects of the Life Education program. Addiction, 1996; 91, 8:1151-1159

Holder H, Howard J. Community prevention trials for alcohol problems. Methodological issues. Westport United States of America: Praeger Publishers, 1992

Holman D. The value of intervention research in health promotion. Presented at the Western Australian Health Promotion Foundation 'Enriching and improving health promotion research' seminar. Perth, Western Australia: 16th October 1996

Jacobson M, Vermont City Drops DARE program. UPDATE[Online]. Available E-mail: update@adca.org.au [1999, May 26]

James R, Fisher J. A review of school-based drug education in Australia 1978-1990. Perth, Western Australia: National Centre for Research into the Prevention of Drug Abuse, Curtin University of Technology; 1991

Jessor R. Keynote address. In: Papers from the State of the Art in Adolescent Drug Abuse Prevention. Sydney: Sydney Health Education Unit, Sydney Institute of Education, 1987: 9-17

Johnson C, Pentz M, Weber M, et al. Relative effectiveness of comprehensive community programming for drug abuse prevention with high-risk and low-risk adolescents. Journal of Consulting and clinical Psychology 1990; 58, 447-457

Johnston L, O'Malley P, Bachman J. Drug use among American high school seniors, college students and young adults, 1997-1990. Washington DC: DHHS Publication No. ADM 91-1813, United States Government Printing Office, 1991

Kelder S, Perry C, Klepp K, Lytle L. Longitudinal tracking of adolescent smoking, physical activity and food choice behaviour. American Journal of Public Health 1994; 84, 7:1121-1126

Kinder B, Pape N, Walfish S. Drug and alcohol education. A review of outcome studies. International Journal of Addictions 1980; 15:1035-1054

McBride N, Midford R. The National Initiatives in Drug Education Project: Western Australia evaluation report. Perth, Western Australia: National Centre for Research into the Prevention of Drug Abuse, Curtin University of Technology, 1996

McGraw S, Stone E, Osganian S, et al. Design of process evaluation within the child and adolescent trial for cardiovascular health (CATCH). Health Education Quarterly (supplement 2) 1994; S5-S26

McLeod J. Rethinking Drinking: You're in Control. An alcohol education program for secondary students. Reflections on the development, implementation and strengths of the program. Melbourne, Victoria: Youth Research Centre, Faculty of Education, University of Melbourne, 1997

Midford R, McBride N. National Initiatives in Drug Education evaluation report. Perth, Western Australia: National Centre for Research into the Prevention of Drug Abuse, Curtin University of Technology, 1997

Milburn K.. A critical review of peer education with young people with special reference to sexual health. Health Education Research; 1995, 10:407-420

Murray D, Perry C. The prevention of adolescent drug abuse. Implications of etiological, developmental, behavioural and environmental models. Rockville, Maryland: National Institute on Drug Abuse, Monograph Series 56, 1985

Perry C, Williams C, Veblen-Mortenson S, et al. Project Northland: Outcomes of a community wide alcohol use prevention program during early adolescence. American Journal of Public Health 1996; 86, 7: 956-965

Saunders B, Baily S. Alcohol and young people: minimising the harm. Drug and Alcohol Review 1993; 12: 81-90

Shope J, Copeland L, Marcoux B, Kamp M. effectiveness of a school-based substance abuse prevention program. Journal of Drug Education 1996; 26, 323-337

Staulcup H, Kenward K, Frigo D. A review of federal primary alcoholism prevention projects. Journal of Studies on Alcohol 1979; 40:943-968

Stevens M, Freeman d, Mott L, Youells F. Three-year results of prevention programs on marijuana use: the New Hampshire study. Journal of Drug Education 1996; 26, 257-273

Ward J, Hunter G, and Power R. Peer education as a means of drug prevention and education among young people: An evaluation. Health Education Journal; 1997, 56,3:251-263

White D, Pitts M. Educating young people about drugs: a systematic review. Addiction 1998; 93(10), 1475-1487

Wilks J. Adolescent attitudes towards alcohol. Drug Education Journal of Australia 1991;5, 3: 239-244

Young M. Review of research and studies related to health education practice (1961-1966). School health education. Health Education Monograph 1968: 28:1-97

Youth Research Centre. Rethinking Drinking You're in Control. Resource materials, 1995

Appendix 3

Schools, Research and Health Organisations Requests for use of SHAHRP Program or Research Materials (Jan. 2008 to Jan. 2010).

Research

University of Liverpool, United Kingdom, Northern Ireland Education Department, **Northern Ireland**. YMCA Lisburn has been piloting a culturally competent version of the School Health and Alcohol Harm Reduction Project (SHAHRP). This work has received funding from the Government's *New Strategic Direction for Alcohol and Drugs 2004-2011*. The initial pilot of nine schools involving 1350 students to assess teacher and student response to the program resulted in the replication of the full SHAHRP longitudinal study. The Irish SHAHRP study involves 3385 young people from 32 schools in Belfast and Lisburn. (2004-onwards).

RAND Corporation, **United States of America**. Use of SHAHRP research and program materials to inform research projects related to adolescents and interventions. (2009).

Queensland University of Technology, School of Justice. **Queensland**, Australia. Request to use SHAHRP harm reduction scale in new study designed for Australian college and university students. (2010).

University of Newcastle, School of Medicine and Public Health. **New South Wales**, Australia. Request to use SHAHRP survey instrument to examine sources of supply for underage binge drinking. (2009).

Leeds Metropolitan University, Carnegie Faculty of Sport and Education. **United Kingdom**. Use of SHAHRP research to assist in research project examining the effectiveness of prevention interventions in combating several problem behaviours, such as bullying and the use of tobacco, alcohol and social drugs. (2008).

Mitchell Community Health Services. **Victoria**. Use of SHAHRP research instrument in to assess local Alcohol and Other Drug Local Action Plan. (2008).

Program

Policy Level

UK Government Drug, Alcohol & Tobacco Education Policy Group, UK Government Drug Education Research Committee, Life Education UK and Europe, Drug Education Forum, **United Kingdom**. Interested in use of SHAHRP program in UK. (2009).

Office of Juvenile Justice and Delinquency Prevention, Deinstitutionalisation of Status Offenders, **Australia**. Independent inclusion of the SHAHRP program in best practices database designed to assist practitioners and communities in implementing prevention and intervention programs that target the needs of status offenders, provides alternative to detention, and prevent recidivism for this population. The database showcases programs that have yielded promising outcomes for diverting status offenders from formal court proceedings and juvenile detention and/or preventing behaviours associated with truancy, running away, underage drinking, curfew violations, and incorrigible behaviour. (2009).

Ministry of Health. **New Zealand**. Possible inclusion of SHAHRP program in Ministry's strategy for teachers of young people. (2008).

International Harm Reduction Association. United Kingdom. Identification of SHAHRP research and program in the associations '50 Best Document Collection on Alcohol Harm Reduction'. To be disseminated via their Global Alcohol Harm Reduction Network. (2008).

La Trobe University. **Victoria**. Request for information about extent of use in Australia to be used to lobby for pilot of program in schools in Victoria. (2008).

Education/Health System Level

Department of Education and Children's Services, **South Australia**. Use of SHAHRP program as a basis for South Australian schools indicatives around age appropriate alcohol education. (2004 – onwards).

Education Queensland. **Queensland**, Australia. SHARHP program materials used in planning alcohol education using best practice materials, delivered at the appropriate developmental stages. (2010).

Greater Western Area Health Service, **New South Wales**, Australia. SHAHRP program materials used in planning evidence based secondary school Drug and Alcohol Programs. (2009)

Health and Social Services, Government of Yukon, **Canada**. Use of SHAHRP program to assist in planning and working with adolescents with substance use issues. Particularly use of student workbooks in developing individual goals and youth focused activity. (2009).

Youth and Family Services, St Christopher House, Toronto, **Canada**. Use of SHAHARP program and research to support prevention work. (2009).

Alcohol Concern, DrugScope, National Addiction Centre. **United Kingdom**. Re-analysis of SHAHRP research in Findings website. The Findings website is a combined site aiming to identify UK relevant research on effectiveness of responses to drug and alcohol problems and the practitioners who provide those interventions. Findings aims to encapsulate the study findings, set them in context and to explore the implications for practice in the UK. See attached review (2002- onwards).

Massachusetts General Hospital, **United States of America**. Use of SHAHRP in Addiction Recovery Management Service Program. (2008).

Department of Education and Early Childhood Development, Hume Region. **Victoria**. Use of SHAHRP program to support schools in the region who are teaching drug education. (2009).

Shire of Katanning, The Katanning Alcohol Prevention Project (funded by Department of Health and Aging). **Western Australia**. Use of SHAHRP program to assist project aimed at reducing the proportion of 12-24 year olds, in the local area that are affected by binge drinking. (2009).

Victorian Department of Education and Early Childhood Development. **Victoria**. Use of SHARHP program in Secondary School Nursing Program. (2009).

Department of Education and Science Substance Misuse Prevention Program. **Ireland**. Requested advice about the use of the SHARHP within their Misuse Prevention Program. (2008).

Palmerston. Albany, **Western Australia**. Use of SHAHRP program in delivering harm reduction sessions to teenagers. (2008).

Queensland Health, ATODS Population Health Unit. **Queensland**. Use of SHAHRP program for work with schools in Southern Area. (2008).

School District #23, Kelowna, British Colombia, **Canada**. Use of SHARHP Program with directed suspensions for students. (2008).

Adolescent Health Programme. Portsmouth, **United Kingdom**. Use of SHARHP materials in secondary and junior school drug, alcohol and tobacco education programs. (2008).

Anglicare, Youth Substance Misuse Service. Cairns, **Queensland**. Use of SHARHP program in school based and youth justice initiatives. (2008).

Doncaster Alcohol Service. **United Kingdom**. Use of SHAHRP program with clients and as a teaching aid for workers in the field. (2008).

North Yorkshire County Council, Quality and Improvement Children and Young People's Services, **United Kingdom**. The SHAHRP program will be considered for the alcohol education program in North Yorkshire County. (2008).

Foroige. **Republic of Ireland**. Youth organisation interested in piloting the SHAHRP program in the Republic of Ireland.(2008).

National Youth Council of Ireland. **Ireland**. National representative body for national youth work organisations – 50 organisations. Copyright request to pilot SHAHRP materials in the youth sector in Ireland (non school setting). (2008).

Teacher Training Level

Mount Beauty Secondary College, Victoria. Schools use of SHAHRP program. (2009).

The Alcohol and Drug Service, **United Kingdom**. Use of SHARHP program in developing materials to teach and train in alcohol harm reduction. (2009).

University of Tasmania. **Tasmania**, Australia. Recommendation to trainee teachers as program to teach for alcohol education in schools. (2009).

Edith Cowan University, **Western Australia**. Use of SHAHRP program for lecturing Health Education students. (2009).

Avondale College, **New South Wales**. Use of SHAHRP program in Health and Adolescence teacher training course. (2008).

East Kent Education Office, **United Kingdom**. Use of SHAHRP materials in teacher training on alcohol in County of Kent. (2008).

University of Notre Dame Australia, Western Australia, Use of SHAHRP program for lecturing Health and Physical Education students. 2003-2010

School Level

Tranby College, Rockingham, Western Australia. School use of SHAHRP program. (2009).

MacKillop Catholic College, Busselton, **Western Australia**. Use of SHAHRP program in planning a preventing abuse in intimate relationships program for 15-16 year old girls. (2009).

Forest Lake Senior High School, **Queensland**. Use of SHAHRP program with year 12 students. (2009).

Hosanna International College, Rostrevor, **South Australia**. Use of SHARHP program. (2009).

Hale School, **Western Australia**. Continued use of SHAHRP resource over several years. (2004- onwards).

Hedland Senior High School. **Western Australia**. Use of SHARHP program in schools Health Program. (2008).

East Loddon P-12 College, Dingee, **Victoria**. Use of SHAHRP program in health classes. (2009).

Hillbrook Anglican School, Brisbane, **Queensland**. Use of SHAHRP program in year 8-10 health education. (2009).

Park Ridge and Browns Plains State High Schools. **Queensland**. Use of SHAHRP program with students. (2008).

Local Health Services n 5 in the Veneto Region-Northern Italy. **Italy**. Use of SHAHRP program with junior high school students. (2008).

Northam Senior High School. **Western Australia**. Incorporation of SHARHP program in Society and Environment program for students. (2008).

Girton Grammar School. Victoria. Request for SHAHRP teacher training. (2008).

Applecross SHS, Applecross, Western Australia. School use of SHAHRP program.(1997 – 2010)