

Reduce Risk Increase Student Knowledge



*RRISK*

# Evaluation Report 2002 - 2005

Reducing Harmful Outcomes of Adolescent Risk Taking

This work may be reproduced in whole or part for study training purposes subject to the inclusion of an acknowledgement of the source and no commercial usage or sale.

The 'RRISK' evaluation project was funded by the New South Wales Motor Accident Authority (Grant number 02/437).

Principal researcher:  
Dr Eric van Beurden

Co-researcher:  
Avigdor Zask

This report was written by:  
Avigdor Zask, Eric van Beurden, and Reyna Dight  
Health Promotion, North Coast Area Health Service

Expert consultant contribution:  
Dr Jane Elkington (Jane Elkington & Associates)  
Dr Lyndon Brooks (Graduate Research College, Southern Cross University)

For further information please contact:  
Health Promotion  
Population Health, Planning & Performance Directorate  
North Coast Area Health Service  
PO Box 498  
Lismore NSW 2480

Phone: 0266 207500  
Fax: 0266 222151  
June 2005

Layout and design: L McPhee



Front cover: "Bad Ending" Carissa Hill (age17) The Channon.  
*Entry in the Northern Rivers Regional Youth Express Drugs & Alcohol Art Exhibition 2003.*



*Reduce Risk Increase Student Knowledge*

# Evaluation Report 2002 – 2005



Reducing Harmful Outcomes of Adolescent Risk Taking

# ACKNOWLEDGEMENTS

We wish to thank Sue Hetherington, Lyn Gardon, Jodie Eyre, Phil Meehan, Wendy Johnson, Ray Clark, Marguerite Hondow, Sandy Leask, Denise Hughes, Sharon Lumley, Shiane Ford, Dr Jane Elkington, Uta Dietrich, Lyndy McPhee, Jan Mills, Pam Johnson, Julia Thorncraft, Janie Peterson, Tina Benoit, Fran Rowley, Eileen Moore, Faith Maddalena, Lismore and Murwillumbah Offices of the NSW Department of Education and Training, the Catholic Education Office, Lismore, as well as students and staff in participating schools. We also thank all members of the RRISK partnership. The 'RRISK' evaluation project was funded by New South Wales Motor Accident Authority (02/437). Ethics approvals were NSW Department of Education & Training No.02.150 and North Coast Area Health Service 02/181.

# CONTENT

<b>SUMMARY .....</b>	<b>1</b>
Background & Introduction .....	1
Results .....	2
Issues Arising From the Results.....	4
RRISK Findings in Context.....	5
Recommendations for Future Improvement of RRISK.....	6
Recommendations for Implementation in Other Areas .....	6
Outputs & Products .....	7
<b>INTRODUCTION &amp; BACKGROUND.....</b>	<b>8</b>
Adolescents and Injury .....	8
Adolescents, Risk Taking and Injury .....	8
Evidence Regarding Harm Reduction Educational Approaches .....	8
The RRISK Program .....	9
RRISK Evaluation.....	12
<b>METHODOLOGY .....</b>	<b>14</b>
Evaluation Strategies .....	14
Process Evaluation.....	14
Student Evaluation .....	14
Partnership Evaluation .....	18
Teacher/school Evaluation .....	19
Drivers Outcome Evaluation.....	21
<b>RESULTS.....</b>	<b>22</b>
Student Evaluation .....	22
Partnership Evaluation .....	29
Teacher/School Evaluation .....	34
<b>DISCUSSION .....</b>	<b>40</b>
Student evaluation.....	40
Partnership Evaluation .....	44
Teacher/School Evaluation .....	45
Limitations of the Study .....	45
RRISK Findings in Context.....	47
Recommendations for Future Improvement of RRISK.....	48
Recommendations for Implementation in Other Areas .....	48
Outputs & Products .....	49

<b>REFERENCES.....</b>	<b>51</b>
Appendix 1: 2004 RRISK Seminar Program .....	54
Appendix 2: Student Survey – School Information Package.....	55
Appendix 3: Student Survey – Parent/guardian consent form .....	57
Appendix 4: Student Knowledge Attitudes & Behaviour Survey Form .....	58
Appendix 5: Teachers’ Survey Form.....	69
Appendix 6: Strength of Partnership - Stakeholder phone interview protocol/guideline.....	74
Appendix 7: Process Evaluation - Students’ survey forms 2002 & 2004 .....	76
Appendix 8: Process Evaluation - Teachers’ survey forms 2002 & 2004.....	78
Appendix 9: Abstract of Published Paper Based on Baseline Data. ....	81
Appendix 10: Abstract of Published Paper.....	82
Appendix 11: Process Evaluation Report Summary .....	83
Appendix 12: A Checklist of Strategies for High Schools.....	86
Appendix 13: Resources Included in the Attached CD .....	91

## TABLES

Table 1: Summary and timeline of evaluation strategies.....	14
Table 2: Sample characteristics .....	22
Table 3: Frequency distribution by risk category, gender and age at baseline .....	23
Table 4: Summary of significant knowledge attitudes and behaviour changes (↑ = improvement, ↓ = deterioration) between seminar attendees (in intervention area) and comparison.....	27
Table 5: Summary of significant knowledge attitudes and behaviour changes between seminar attendees and non attendees (both in intervention area).....	28
Table 6: Percentage of intervention and comparison schools undertaking safety initiatives in 2003.....	35
Table 7: Average ‘coverage’ scores <sup>1</sup> for intervention and comparison schools for various topics about risk taking and safety in years 10 and 11.....	36

## FIGURES

Figure 1: Reported percentages of parties in which protective and risky behaviours occurred .....	24
Figure 2: Relative % changes in knowledge, attitudes and behaviour between Seminar/Comparison and Seminar/No-Seminar respondents .....	26
Figure 3: Aggregated results for the 6 key RRISK partners (expressed as percentage of maximum possible scores) for the three Capacity Checklists .....	33
Figure 4: Relationship between HED, SS and risk taking behaviours.....	41

# GLOSSARY

BAC	Blood Alcohol Concentration
CEOL	Catholic Education Office, Lismore
CPR	Cardiopulmonary Resuscitation
DET	Department of Education & Training
D&A	Drug & Alcohol
HP-NCAHS	Health Promotion North Coast Area Health Service
HED	Heavy Episodic Drinking
KAB	Knowledge Attitude & Behaviour
MAA	Motor Accidents Authority
PDHPE	Personal Development Health & Physical Education
RRISK	Reduce Risk Increase Student Knowledge
RTA	Road Traffic Authority
RASPECT	Road and Alcohol Safety: Peer Education in Colleges Tour
SCU	Southern Cross University
SES	State Emergency Services
SS	Sensation Seeking
YDS	Young Driver Study



# SUMMARY

## Background & Introduction

Adolescents and young people are over-represented in injury and trauma figures including motor vehicle accidents.<sup>1</sup> A major contributor to adolescent injury is risk-taking behaviour.<sup>2, 3</sup> Consequently, risk-taking has become a key concept in injury prevention research.<sup>4</sup> It has long been recognized that adolescents are statistically over-represented in almost every category of risk-taking behaviour.<sup>5</sup>

There is evidence that skill based harm minimisation using interactive education strategies in schools has a significant effect on reducing adolescent alcohol use and/or harm associated with it.<sup>6</sup> However, evidence for long-term sustainability of such changes is scarce.<sup>3, 7</sup>

The RRISK program aims to reduce adolescent risk taking associated with alcohol and drugs, driving and celebrating in a sustainable way. It is managed by an intersectoral committee in the Northern Rivers area of NSW with representatives from Health Promotion, North Coast Area Health Service, Department of Education & Training (DET), Catholic Education Office Lismore (CEOL) and Road Safety Officers from Tweed, Ballina and Lismore Councils. The program has received strong support from the local Police, Ambulance and State Emergency Services (SES), the Road Traffic Authority, Southern Cross University (SCU) and ABC Radio. The program has been running since 1999 and is currently implemented in years 10 & 11 in 26 high schools. The program is a combination of a well-designed, and multi-strategic seminar day to be preceded and followed up by in-school activities. The dynamic seminar program incorporates a range of learning strategies including factual presentations, drama, peer education and real life experiences relevant to the social life, developmental stage and interests of adolescents.

## Evaluation of RRISK

In late 2002 the NSW Motor Accidents Authority (MAA) funded Health Promotion, North Coast Area Health Service to conduct a comprehensive evaluation of the RRISK program. The main goal of the evaluation was to evaluate the efficacy of the RRISK intervention with the main focus on the effect that participation in RRISK had on students' knowledge, attitudes and behaviours related to risk taking associated with alcohol and drugs, driving and celebrating. Secondary evaluation strategies assessed the strength of the intersectoral partnership and explored how schools and teachers address adolescent risk taking. While planning the evaluation, the researchers learned that a state-wide Young Driver Study (YDS) was planned for 2004 to monitor driver infringement, accident and injury outcomes of 20,000 newly licensed adolescents in NSW. An additional question, identifying students who attended RRISK, was inserted in the state-wide survey in order to evaluate outcomes for participants.

### *Evaluation objectives and strategies*

The following evaluation objectives were outlined in the grant submission and subsequent communication with the MAA:

- **Student Knowledge Attitude & Behaviour (KAB) evaluation:** To gain a detailed view of students' knowledge, attitudes, intentions & self-reported risk/protective behaviours and factors that influence them. To assess the effects of RRISK participation on students' KAB and determine which are amenable to change. Surveys were conducted during 2003 (baseline) and 2004 (follow-up).
- **Partnership evaluation:** To evaluate the processes, strengths and weaknesses of the RRISK partnership and gain an understanding of how various sectors can best collaborate to achieve youth safety.
- **Teacher/school evaluation:** To explore how schools and teachers address youth risk taking issues by evaluating school and curricular processes.
- **Drivers outcome evaluation:** To assess the effect of the RRISK program on transport related behaviours and overall youth road trauma.

### **Summary and timeline of evaluation strategies**

<b>Evaluation Strategy</b>	<b>Instrument/Time</b>	<b>Instrument/Time</b>
<b>Student evaluation</b>	Baseline KAB cross-sectional survey March 03	Follow-up KAB cross-sectional survey March 04
<b>Partnership evaluation</b>	Written capacity building questionnaires July 03	Stakeholders interviews August 03
<b>Teacher/school evaluation</b>	School involvement written survey: - Comparison Oct 03 - Intervention Nov 03	Teacher phone interviews: - Comparison 10-11/03 - Intervention 11-12/03
<b>Outcome evaluation (YDS)</b>	State wide survey: - 2004-2005	Analysis of RRISK sub-sample in state survey 2006

## **Results**

### **Student evaluation**

There were 2705 baseline and 1996 follow-up respondents. All but two of the 23 significant differences between pre to post changes of the 'seminar' group and other groups ('comparison' and 'no seminar'), represent improvements of knowledge, attitudes or behaviours in line with the RRISK program objectives.

### *Knowledge*

In both younger and older cohorts, the 'seminar' group had significantly higher levels of knowledge than both 'comparison' and 'no-seminar' groups regarding what they 'would check

in a second-hand car to make sure it was safe to drive'. In the older cohort, the 'seminar' group also had significantly higher levels of knowledge than the 'comparison' group regarding 'assessing whether someone has been drinking too much to drive safely'.

### **Attitudes**

In the younger age cohort the 'seminar' group showed significant improvement in agreement rate relative to the 'comparison' group regarding the statement that 'everyone who goes to parties should know Cardiopulmonary Resuscitation (CPR)'. There was also a significant positive improvement in attitude between the 'seminar' and 'no seminar' group's agreement with the statement 'good parties don't need alcohol or drugs'.

### **Behaviour**

In both age cohorts, the 'seminar' group reported significant improvement in some behaviours compared to those who did not attend:

- 'Planning a safe return from parties'
- 'Looking out for friends so that they don't get too drunk or stoned'.

In the older cohort, those who attended the seminar reported significant improvement compared to those who did not attend, regarding:

- 'Agreeing to always inform friends where I am'
- 'Being contactable by parents/guardian'
- 'Checking that the driver isn't drunk before I get into a car'.

In the older cohort the 'seminar' group did significantly better than the 'comparison' group regarding 'I usually plan a safe way home before I go to a party'. However, in the younger cohort, the 'comparison' group did significantly better than the 'seminar' group on two items related to the protective behaviour of 'looking after friends when partying'.

### **Partnership evaluation**

Overall, the partnership was rated very highly on all scales and indicators. Key elements of the RRISK partnership that may explain its longevity and the continued commitment from key partners were identified as:

1. A single focus
2. Shared goals with the wider community
3. Genuine commitment by key stakeholders
4. Respect by partners for all partners and their contribution
5. Open communication encouraging innovation and critical questioning
6. Joint ownership
7. Clear role definition and agreed process of delegation of tasks
8. Representation by sectors that need to be "on board"
9. Regular meetings with agendas covering all agencies' interests
10. Input by grass-roots workers familiar with the realities of program implementation.

## Teacher/school evaluation

There was a wide range of risk-minimisation strategies reported by schools. Intervention and comparison schools were closely aligned regarding the amount of risk and road safety related activities to which their students were exposed within the school context. There was no significant difference between intervention and comparison schools when the overall school involvement scores were compared.

## Issues Arising From the Results

### Student evaluation

#### *Extent of risk taking behaviour (baseline survey)*

The baseline results highlighted the harmful effect of binge/heavy episodic drinking (HED) on risk taking behaviours among the majority of adolescents who consider themselves relatively cautious or average sensation seekers/risk takers.

#### *The effect of the RRISK program on students' KAB*

The most encouraging results of the study were the significant improvements between seminar attendees and non-attendees in knowledge, protective attitudes and behaviours. These results isolate the positive effect of the one-day event as seminar attendees and non-attendees have presumably been exposed to the same level of in-school curriculum and other activities related to risk taking. While some of the significant changes may be modest when considering individual variables, a number of such modest changes within individuals and peer groups may significantly contribute to an overall reduction in risk taking and harm.

The consistent differences between seminar attendees and non-attendees indicate that increasing the seminar attendance rate of students within schools would maximise the impact of the RRISK program in future. Clearly, schools will have to implement more in-school activities in support of the curriculum to supplement the RRISK seminars in order to further improve students' knowledge, attitudinal and behavioural outcomes.

"Decisions we make today will affect the rest of our lives"

*Student Quote*

### Partnership evaluation

There is a high level of commitment to the program from all internal and external partners and a fairly high level of confidence in the future of the program and its capacity for sustainability. This confidence appears to stem from high regard for the networks and structure that partners bring to the partnership, the support that key stakeholder organisations have offered the program in terms of staff time and resources, and the fit between the program's goal and the demand within schools and the community. These key elements are consistent with those identified in other studies.<sup>8,9</sup>

## Teacher/school evaluation

Teachers generally reported that currently adequate educational resources are available to address road safety and risk taking among years 10 & 11. Any changes recommended were limited to updating resources.

The proportion of schools that included safety as a topic in school newsletters, school assemblies, teacher in-service training, school policies and handbooks (at least 10 schools), indicates that schools are committed to ensuring students' wellbeing and are prepared to embrace a safety culture, beyond the required curriculum components.

There is little room within the curriculum to do any more on these issues than schools are currently doing. Thus, if this topic is to be addressed more fully in school, it has to be additional to the curriculum. Future directions suggested by teachers include greater involvement of parents and the wider community, and more support from government departments (like Health, Education and NSW Road Traffic Authority). The RRISK committee has developed a checklist of strategies for high schools to assist schools in selecting school activities to support the RRISK seminars.

## RRISK Findings in Context

Influencing adolescent risk taking and reducing consequent harmful outcomes requires a complex, multidimensional and intersectoral approach. While there has been considerable focus on extending learner-driver training programs, upgrading roads and improving safety of motor vehicles, less attention has been given to the vital psychosocial dimensions of the overall problem. Risk taking is considered normal behaviour for adolescents.

Experimentation with alcohol and other substances, the desire to explore relationships and be free from parental supervision is clearly part of the mix that places young people at greater risk than other age groups. A program such as RRISK, which addresses these issues and enhances school-based curricula at a crucial time in adolescent development should therefore be viewed as one important component of an effective multidimensional approach.

Most interventions, whether behavioural or skills based, have had little impact in reducing adolescent injury because the problem is so complex and the interventions so piecemeal. RRISK is one of the few programs of its kind to have improved knowledge, attitudinal and behavioural precursors to risk-associated harm. The focus should now be on how to further enhance this achievement. One enhancement that is currently being promoted is the RRISK Checklist of Strategies for High Schools, developed during the evaluation process, and now being well received by participating schools. (See appendix 12 p. 87-90)

However, there is a wide range of broader social, political and legislative initiatives that should be developed further. Some of these are already in place such as graduated licensing and other recent novice driver policies. Others need to be established via interdepartmental

working groups including agencies such as MAA, RTA, NRMA, NSW Health, Local Government and education sectors. The RRISK program is well positioned to support and be supported by other initiatives. It has resulted in some positive changes in knowledge, attitudes and behaviour despite the absence of more extensive in-school supports at the time the evaluation was conducted. It requires minimal resources and brings together a number of key organisations in the community that are committed to the safety and well being of young people. It has overwhelming support from schools in the catchment area and provides a catalyst for further school and broader intersectoral initiatives.

Although the evaluation had limitations typical of other evaluations of complex behavioural interventions, RRISK emerged as a model of a well-integrated intervention that achieved its stated aim and objectives to positively influence adolescents' knowledge attitudes and behaviours associated with risk taking

## Recommendations for Future Improvement of RRISK

- Participating schools to increase the proportion of students attending the RRISK seminars.
- The RRISK committee to facilitate increased students' attendance at the RRISK seminars by adjusting timing of seminars or the year group, which attends them.
- Schools to implement more in-school activities to increase the impact of the RRISK seminars, both preceding and following the seminars.
- Schools to use the Checklist of Strategies for High Schools developed by the RRISK committee to achieve the above recommendation.
- Future planning to extend the reach of the program to parents and the wider community.
- The growing interest by teachers and schools in advanced driver training programs should be investigated and evidence of their effectiveness should be considered.
- Key organisations which are represented on the RRISK committee, should continue supporting RRISK and advocate for its sustainability, eg write it into relevant officers' job description/duties list and allocate a budget.

## Recommendations for Implementation in Other Areas

Research for the efficacy of school-based approaches to risk-taking is scarce, and its results have generated little evidence for effective models. In this context, the positive findings of this comprehensive evaluation of RRISK, although modest, justify the following recommendations:

- Similar programs should be implemented in other areas. These programs should adopt the key principles of the RRISK project, ie:
  - Establish and maintain a strong intersectoral partnership to oversee the project
  - Conduct seminars that are up to date, interactive, and multi-strategic

- Complement the seminars with other in-school activities using the Checklist of Strategies for High Schools to guide planning.
- The RRISK committee should provide appropriate support and advice to other organisations interested in implementing similar programs.
- Feedback from the teachers' evaluation, concerning the need for current road safety/risk taking education resources to be updated, should be passed on to the relevant authorities.

## Outputs & Products

The following were produced during the evaluation grant implementation:

- **A checklist of Strategies for High Schools**  
A document to assist schools to plan activities that address risk taking among students. See appendix 12.
- **Publications in peer reviewed journals**  
See appendices 9 & 10.
- **Presentations in conferences and other forums**  
Information about either the RRISK program implementation or evaluation results were presented in the NSW Safe Celebration Forum, NSW Alcohol Summit Parliamentary Committee, National Injury Prevention Conference, National Road Safety Conference, and the Australian Professional Society on Alcohol and other Drugs Conference. See p. 49 and the CD for details.
- **Interest from other areas and adoption of RRISK like programs elsewhere**  
RRISK has generated considerable interest from other areas. Programs in the ACT and Victoria have borrowed heavily from the RRISK format to address risk taking issues for adolescents. See p. 50.



*RRISK Seminar Crash Scenario*

# INTRODUCTION & BACKGROUND

## Adolescents and Injury

Adolescents and young people are over-represented in injury and trauma figures from all causes including motor vehicle accidents.<sup>1</sup> Thirty one percent of all motor vehicle accident related trauma admissions to NSW hospitals in 2003 were aged 15-24.<sup>1</sup> Young male road trauma admission numbers are almost twice as high as young females.

## Adolescents, Risk Taking and Injury

A major contributor to adolescent injury is risk-taking behaviour.<sup>2,3</sup> Consequently, risk-taking has become a key concept in injury prevention research.<sup>4</sup> It has long been recognized that adolescents are statistically over-represented in almost every category of risk-taking behaviour.<sup>5</sup> It is also clear that risk-taking behaviour is highly correlated with injury in a wide range of contexts including driving, sexually-transmitted diseases, drug use and crime.<sup>10-13</sup>

Antecedents of risk-taking behaviour and resultant trauma are multiple. They include developmental factors such as inexperience, poor judgement about negative consequences, an unrealistic sense of competence, control and optimism, a sense of invulnerability, and sensation seeking tendencies.<sup>10, 12, 14, 15</sup> They also include socio-environmental factors such as poverty, inadequate transport infrastructure, availability of necessary hardware (eg vehicles, weapons), and high incidence and visibility of these behaviours.<sup>16-19</sup> Such data provided a basis for health promoters working in injury prevention to design health promotion messages and interventions that are specific to particular contexts and target groups.

## Evidence Regarding Harm Reduction Educational Approaches

There is evidence that skill based harm minimisation prevention using interactive education strategies in schools have a significant effect on adolescent alcohol use and harm associated with it.<sup>6</sup> The evidence pertaining to school based road safety is less conclusive.<sup>3</sup> One-off well-designed health promotion and education programs can result in some changes in risk taking behaviour.<sup>20</sup> However, evidence for long term sustainability of such changes is scarce.<sup>3, 7</sup>

"We're not invincible,  
consequences happen to  
people like us all the time"

*Student Quote*

## The RRISK Program

The following description of the RRISK program was provided by the RRISK committee. The concept of RRISK originated in 1999 when the local council Road Safety Officer made contact with a Health Promotion Officer from the Health Promotion Unit, Northern Rivers Area Health Service to jointly target adolescent risk taking behaviour in schools. An intersectoral steering committee was subsequently established and this group is still responsible for planning, reviewing and refining the RRISK program. Currently the program is implemented in 26 schools. Committee partners represent the following organisations: Health Promotion, North Coast Area Health Service (HP-NCAHS), NSW Department of Education and Training, Catholic Education Office Lismore, Lismore City, Ballina and Tweed Shire Councils. Representatives from other stakeholder agencies linked with RRISK but not part of the Steering Committee are Southern Cross University, which hosts most RRISK seminars and the NSW Roads and Traffic Authority. The program is also supported by local Police, Ambulance, and State Emergency Services, the Lismore Crown Prosecutor and ABC North Coast.

The program's aim, objectives and strategies are:

### Aim

To reduce injury and harm resulting from risk taking behaviours associated with alcohol and drug use, driving and celebrating among adolescents in northern New South Wales.

### Objectives and strategies

- Improve the knowledge, attitudes and behaviours of participating students towards alcohol and drug use, driving and celebrating.
- Improve young driver awareness and realistic perception of risks associated with being a driver / passenger of a motor vehicle.
- Encourage young people to plan ahead and look after their friends when socialising, to minimise 'risky' choices.
- Create an educational environment that encourages discussion of adolescent risk taking, and development of strategies to increase protective behaviours.
- Provide students, schools and parents with the latest information and research about drug and alcohol use and risk taking amongst young people.
- Provide timely information for learner and provisional drivers on the issues of speed, drink/drug-driving, fatigue and safe vehicles.
- Support high school teachers by providing information to increase their confidence in addressing these issues with students. Information should include:
  - latest research into drug and alcohol use and risk taking
  - curriculum based drug and road safety support materials
- Continually review and improve the RRISK Program through process evaluation, to ensure that best practice is developed and maintained.

- Conduct a comprehensive evaluation of the RRISK program to determine the impact of the program's effects on participants' knowledge, attitudes, and self-reported behaviour, a teacher evaluation to gauge school involvement in risk reduction strategies, a partnership evaluation to assess the strength of the intersectoral partnership, and an outcome evaluation that compares the driving records of RRISK participants with other provisional drivers in NSW.
- Provide professional development opportunities for key professionals working with young people, eg. teachers, health care and youth workers.
- Engage and inform parents, and the wider community about alcohol, drug and road safety challenges for young people.

### RRISK seminars

Each year the RRISK Seminar is a key focus of the RRISK program. The Seminar is a full day of interactive and stimulating activities for year 10 and/or 11 students attending North Coast secondary schools. It is held each year in November. The seminar is repeated for 3 days at Southern Cross University's Lismore Campus, and a 4th day at Tweed Heads Civic Centre. The first year the RRISK Seminar was held, 8 high schools attended. By 2004, 26 high schools were participating. This represents over 90% of all high schools in the region.

Southern Cross University, as one of the key sponsors of the RRISK Seminars, provides facilities including lecture theatre, 10 classrooms, student union and catering facilities at the Lismore campus, and audio visual and technical support at both Lismore and Tweed Heads. Both venues enabled schools involved in RRISK to come together and benefit from a dynamic and varied program that could not be offered on site at individual schools due to its large scale, associated costs, availability of a number of prominent speakers (eg Paul Dillon from NDARC, local Crown Prosecutor) and the number of organizations who participate in the seminar activities (eg Police, SES, Ambulance Service).

"We should make more informed decisions before actions"

*Student Quote*

### Topics covered by the RRISK seminars

- **The latest research** on adolescent risk taking and drug and alcohol use is provided by Paul Dillon, Information and Media Manager from the National Drug and Alcohol Research Centre. Paul opens the RRISK seminar each day by presenting relevant information on risks associated with alcohol and other drugs, including cannabis, ecstasy and amphetamines. The presentation explores some common myths and assumptions about substances and risk taking. Students are encouraged to think about how they could plan ahead to avoid risky consequences, make informed decisions after assessing risks and look after friends when out socializing.

- **Risk taking** – Trained student peer facilitators work with 25-30 students in small ‘Break Out’ groups to further explore some of the risky activities discussed in the first session. Students are asked to consider and rank a number of high-risk social situations involving alcohol and drug use, driving and partying. The aim of the session is to generate discussion and arrive at solutions that would reduce or eliminate the risks associated with each situation.
- **How to be a safe driver** –This session provides research on why young people are at greater risk of injury as drivers, passengers and pedestrians and is presented by a local government Road Safety Officer together with a personal story from a young driver. The potentially fatal combination of speed, risk taking and inexperience, which contributes to high motor vehicle injury rates in the 17-25 age group, is highlighted in this session.
- **How to buy and maintain a safe vehicle** - This session is presented by an RTA Officer and gives practical advice on how to assess a second hand car and which vehicle modifications are legal. Students are invited on stage to assess a range of tyres and seatbelts to determine whether or not they are roadworthy.
- **Simulated crash scenario** - is a role-play involving students. Police, SES, Ambulance Officers and the Crown Prosecutor. The main themes examined in this session are:
  - How easy it is to have a high Blood Alcohol Concentration (BAC) the morning after a heavy drinking session
  - How easy is it to be involved in a crash
  - How this situation could have been avoided
  - How the crisis could have been handled to enable a better outcome for those injured in the crash
  - Potential consequences for the driver, both personal and legal.
- **‘My story’** - is a presentation by a young man who has been permanently injured as a result of a motor vehicle crash involving alcohol and drugs. The presenter reflects on how his decision to take risks resulted in the tragic death of two young women and his own permanent disability and limited options for a fulfilling life. Each year this session receives the highest rating in feedback from students and leaves a lasting impression on all present. The presenter is passionate about telling his story and ends with the poignant comment: “If these words stop just one of you from experiencing what I have been through or helps you keep a friend alive, then this will have been worth it!”.

Students and teachers who attend the RRISK Seminars were asked to evaluate the day’s program for most of the years that the RRISK Seminars have been held. The seminars have been continually modified and improved as a result of this evaluation process.

Overall there was high degree of satisfaction with all aspects of the RRISK Seminar amongst participating students and teachers. A summary of the process evaluation is attached as Appendix 11. A progress report from 2002, that includes a comprehensive process evaluation for that year, is included in the CD Rom.

## RRISK Evaluation

In late 2002, the NSW Motor Accident Authority funded the then Northern Rivers Health Promotion Unit. The unit's name has since changed to Health Promotion, North Coast Area Health Service. It will be referred to as HP-NCAHS in this report. Funds were allocated to conduct the following evaluation strategies:

- Student Knowledge, Attitudes and Behaviour (KAB) survey (n=4701).
- Evaluation of the strength of the intersectoral partnership (n=10)
- Teachers/school involvement survey (n=40)
- Longer term evaluation of road trauma and traffic infringement outcomes comparing students participating in RRISK (n=543) to other participants of the Young Drivers Study (YDS) (n=20,881).

While research and evaluation staff of the HP-NCAHS were involved in all stages of all evaluation strategies, an independent evaluator, Dr Jane Elkington, conducted the field research and most data analysis for both teacher and partnership evaluations. The main data gathering and cleaning component of the 'Young Driver Study' is being conducted by the George Institute for International Health in the University of Sydney. Comparative analysis of the RRISK cohort with the overall NSW sample will be conducted jointly by Research & Evaluation staff of the HP-NCAHS and the George Institute.

In addition, process evaluation of the RRISK seminars is conducted on an annual basis. As process evaluation is outside the scope of the MAA grant, it is not included in this report's body, but a summary report is attached as Appendix 11. A full 2002 process evaluation report and a power point presentation comparing the 2002 and 2004 results are included in the CD. The 2004 student and teacher process evaluation forms are attached as Appendices 7 & 8.

While the seminar component is applied consistently across schools, the in-school activities in RRISK are not prescribed, and each school decides if and how to implement these activities (eg inviting guest speakers into the school, establishing peer education and support systems, engaging parents and community members in projects targeting adolescent risk taking, holding art or cultural events which address risk-taking). Initially, the RRISK committee planned to add lesson plans in different curriculum areas, which address risk taking, to the growing pool of possible in-school activities. This has not eventuated by the time the evaluation was conducted so the study effectively evaluated the changes following attendance at the one day seminars and exposure to activities related to them (eg inserts in school newsletters, local media coverage and the local ABC radio station web-site regarding RRISK).

## Evaluation objectives and strategies

The following evaluation objectives were outlined in the grant submission and/or subsequent communication with the Motor Accident Authority.

- **Process evaluation of RRISK seminars:** To monitor teacher and student satisfaction with annual RRISK seminars and perceived quality of seminar components. (While this was not detailed as an objective of the funded evaluation, the regular process evaluations contribute a valuable perspective to the overall evaluation).
- **Student KAB evaluation:** To gain a detailed view of students' knowledge, attitudes, intentions and self-reported risk/protective behaviour and factors that influence them. To assess the effects of RRISK participation on students' KAB and determine which are amenable to change.
- **Partnership evaluation:** To gain an understanding of how various sectors can best collaborate to achieve youth safety by evaluating the processes, strengths and weaknesses of the RRISK partnership.
- **Teacher/school evaluation:** To explore how schools and teachers address youth safety issues by evaluating school and curricular processes.
- **Drivers outcome evaluation:** To assess the long-term effect of the RRISK program on transport related behaviours and overall youth road trauma.

The strength of the RRISK evaluation design is in the fact that it 'triangulates' on answers to the research questions. By examining the five component aspects we have gained a clear picture not only of whether RRISK works but also how and in what way it works.



*RRISK Committee 2004 with Michael Buttenshaw, Paul Dillon & Ebony Allen*

# METHODOLOGY

## Evaluation Strategies

### Study design and timeline

Table 1: Summary and timeline of evaluation strategies

Evaluation Strategy	Instrument/Time	Instrument/Time
Process evaluation	Quality/satisfaction survey at seminar 02	Quality/satisfaction survey at seminar 04
Student evaluation	Baseline KAB survey March 03	Follow-up KAB survey March 04
Partnership evaluation	Written capacity building questionnaires July 03	Stakeholders interviews August 03
Teacher/school evaluation	School involvement written survey: Comparison Oct 03 Intervention Nov 03	Teacher phone interviews: Comparison 10-11/03 Intervention 11-12/03
Outcome evaluation (YDS)	State wide survey: 2004-2005	Analysis of RRISK sub-sample in state survey: 2006

## Process Evaluation

See Appendix 11 for details of the process evaluation methods.

## Student Evaluation

### Evaluation objectives

The student evaluation was undertaken to determine whether RRISK influences student knowledge, attitudes, intentions, or self-reported risk behaviours.

The main research question was:

- Can a well designed, seminar- based intervention of this nature produce significant improvements in knowledge, attitudes and behaviours related to risk taking? If yes, in what areas have improvements been achieved and what is the magnitude of these improvements?

Another research question was:

- What is the association between students' propensity for heavy episodic drinking and potential harmful behaviours (associated with drug and alcohol use, driving and celebrating), independent of their tendency to be sensation seekers?

## Design, settings and subjects

Pre/post intervention cross-sectional surveys were conducted in March 2003 and 2004 (see Appendix 4). The study population was students in years 10-12 (years 10 & 11 in 2003 and 11 & 12 in 2004) in the 21 intervention and 19 comparison high schools. These schools comprise around 90% of Government and Catholic schools in the area. Comparison schools were from the southern part of the area where the RRISK program had not been implemented, but where other similar activities and programs were routinely conducted.

The survey was completed by students who:

1. Were present on the day of the survey
2. Were not required for compulsory school events
3. Were in the same classes in 2003 and 2004
4. Had provided their teacher with written parental consent.

Contact teachers were asked to arrange venues that allowed adequate spacing between students. Once students arrived at the venue, all interaction with students was carried out by trained survey administrators, following a standardised protocol.

### *Survey instrument*

The 20-minute questionnaire items were drawn, where possible, from validated or recognised instruments including the 19 point Zuckerman Sensation Seeking Scale.<sup>15</sup> Demographic variables included school year, age, gender, weekly available spending money and driver licence status.

Knowledge was tested by asking the following open questions: 1. "How can you assess if someone has been drinking too much to drive safely?", 2. "What can you do before a party to ensure you get home safely?" and 3. "What aspects would you check in a second hand car to make sure it was a safe vehicle to buy?" For each of these questions respondents were asked to list as many different answers as they thought would apply. A sample of completed surveys were analysed inductively to create a list of valid answers and valid answer categories for these questions (eg 'air pressure' and 'tread' are both valid answers under the answer category of 'tyres'). The decision regarding the validity of answers and categories was made by experts in the relevant field (eg Road and Traffic Authority Officers regarding safety features of a used car). This inductive process was conducted until data saturation was reached and no new categories were emerging.<sup>21</sup> This was reached after analysing 200 survey forms selected from 5 intervention and 5 comparison schools. For subsequent analysis each answer was scored correct/incorrect. Final analyses were based on the number of correct answers identified by each respondent, and the number of correct categories that were referred to by one or more of these answers.

Students' perceived understanding of risk taking issues, their attitudes and agreement levels concerning risk-taking behaviours were measured by Likert scales. After collecting baseline data, the reliability of these scales was measured by calculating Cronbach Alpha correlation coefficients.

Two other groups of behavioural outcomes were explored:

1. Self-reported frequencies, during January and February preceding the survey, of:
  - Heavy episodic drinking sessions (6+ standard drinks on one occasion)
  - Being a passenger of an alcohol-impaired family member
  - Being a passenger of an alcohol-impaired acquaintance
  - Driving while alcohol-impaired
  - Being a car occupant travelling without using a seatbelt
  - Being a passenger of a drug-impaired driver (drugs other than alcohol).
2. Protective and harmful celebrating behaviours measured via 2 sets of 7 'protective' items and 6 'harmful' items as listed below. These items established the proportion of parties attended during January and February 2003 and 2004 for which respondents reported a particular behaviour.

### Protective and harmful celebrating behaviour items

Protective	Harmful
<ul style="list-style-type: none"><li>• Agreed with a friend to look after each other.</li><li>• Told a parent or guardian where I was going.</li><li>• Had a way my parents or guardian could contact me.</li><li>• Planned a safe way home, prior to the party.</li><li>• Called a parent, friend, carer or relative to collect me.</li><li>• Took a taxi home.</li><li>• Caught a bus home.</li></ul>	<ul style="list-style-type: none"><li>• Ended up with no safe way home from the party.</li><li>• Got so drunk I felt ill.</li><li>• Drove under the influence of either alcohol or drugs.</li><li>• Was a car or bike passenger with a driver I suspected was influenced by alcohol or drugs.</li><li>• Smoked marijuana.</li><li>• Felt ill from using drugs.</li></ul>

The sets of protective and harmful party behaviours matched the RRISK Program objectives and were consistent with risk-taking topics covered by the NSW Board of Studies Personal Development, Health & Physical Education curriculum. They were also consistent with Students' feedback from previous years' process evaluation, regarding partying behaviours in which they engaged. Factor analysis (principal axis, oblique rotation) regarding the partying behaviour questions was conducted after baseline data were collected. Cronbach Alpha correlation testing was then conducted on the factors.

### Analysis

Multi-level regression modelling (schools and students in school) was performed using the following models in MlwiN: normal models (identity link) for common protective behaviours, logistic models (logit link function for categorical responses) for alcohol impaired driving, riding with alcohol and drug impaired drivers, all harmful party behaviours and uncommon protective party behaviours, and a negative binomial model (log link function) for heavy episodic drinking (HED) and non use of seatbelts.<sup>22-25</sup>

### ***Baseline/pre analysis regarding association and relationship between HED, Sensation Seeking and harmful and protective behaviours***

All final models included only significant predictor variables. Outputs of normal and negative-binomial models included predicted means and scores for given categories of HED, Sensation Seeking and other significant demographic variables (gender, licence status, age and income). Outputs of logistic models included odds and probability (in percentage) of engagement in the harmful outcome behaviour.

### ***Follow-up/post analysis regarding the effect of participation in RRISK on students' KAB***

At baseline/pre there were two groups:

- Intervention area
- Comparison area.

At follow-up/post there were three groups:

- Intervention area who had attended the RRISK seminar
- Intervention area who had not attended
- Comparison area.

In order to separate the effects of the two area contexts from the added effect of attendance at a RRISK seminar, treatment dummy variables were created to reflect each of these five groups.

#### **Groups used in analysis:**

- GROUP 1: Respondents from comparison schools at pre
- GROUP 2: Respondents from comparison schools at post
- GROUP 3: Respondents from intervention schools at pre
- GROUP 4: Respondents from intervention schools at post who had not attended a seminar
- GROUP 5: Respondents from intervention schools at post who had attended a seminar

These variables were then used as the key predictors in a separate model for each outcome variable (knowledge, attitude and behaviour questions). Model estimates were used to determine the pre/post effect of being:

- Schooled in the comparison area (group 2 – group 1, 'comparison')
- Schooled in the intervention area without attending a seminar (group 4 – group 3, 'no-seminar')
- Schooled in the intervention area and attending a RRISK seminar (group 5 – group 3, 'seminar').

Wald tests used to compare the differences between pairs of these effects were then calculated (eg net improvement of 'seminar' group over the 'comparison' group = (group 5- group 3) – (group 2- group 1)).

The above analyses were conducted for 2 age cohorts ie 'Younger': those aged 15 at baseline and 16 at follow-up, and 'Older': those aged 16 at baseline and 17 at follow-up. This was done by including age and the interaction of age and group in all models. There were no significant differences between groups in terms of other measured covariates ie gender, income and sensation seeking. These covariates were consequently excluded from the models. All comparisons were made both as single and adjusted multiple comparison tests.

The above analyses were conducted by the Research and Evaluation Team, Health Promotion, North Coast Area Health Service with support from the Southern Cross University's statistician.

## Partnership Evaluation

### Detailed objectives

The partnership evaluation was undertaken to:

- Assess the strength of the intersectoral partnership and identify whether this has changed over time.
- Examine partnership characteristics associated with the project's sustainability.
- Identify important principles that may be applied in similar projects.

"Drinking and using drugs while driving is seriously risky business"

*Student Quote*

### Sample and selection

Members of all partner organisations of the RRISK Steering Committee (n=6) participated in face-to-face interviews and completed the three validated checklists analysing elements of the partnership.<sup>26</sup> Four other stakeholders were interviewed (a mix of face-to-face and telephone interviews) about their understanding of the functioning of the partnership, their involvement in it and their assessment of its strengths and limitations.

### Interviews and instruments

A mixture of qualitative and quantitative data were collected to enable numeric assessment of different aspects of the partnership, as well as deeper understanding and insight into key stakeholders' perceptions about the partnership. Data were collected from each representative by:

- A recorded half hour face-to-face interview covering: history of involvement; views of the partnership, its function, strengths and limitations; input into processes such as goals, meetings, communication processes and any suggestions for change; views of the program's future, including the representatives' concept of their organisation's involvement and what makes a successful partnership.

- A set of three validated checklists <sup>26</sup> were mailed out to core partners to identify the capacity of the partnership to achieve RRISK's aims. The three checklists assessed strength of the partnership; potential for sustainability; and group function including opportunity for innovation.

## Analysis

Numerical instruments were summarised manually and scores reported. Qualitative interview data were analysed thematically, presented as draft for comment and verification to the RRISK committee and returned to the HP-NCAHS Research and Evaluation for further comment. Analysis was conducted by the independent evaluator.

## Teacher/school Evaluation

### Detailed objectives

The teachers survey was undertaken to:

- Assess the extent to which schools in the RRISK area address risk-taking and road safety as part of Personal Development Health & Physical Education (PDHPE) curriculum and beyond curriculum requirements.
- Identify whether RRISK schools differed from non-RRISK schools with respect to these aspects of a harm minimisation culture.
- Raise awareness and skills among teachers and parents regarding a whole of school commitment to harm minimisation.

### Sample and selection

Contact teachers (primarily PDHPE teachers or year coordinators) in all intervention and comparison schools (21 and 19 respectively) were asked to collate responses to a one-page checklist from relevant teachers. The Checklist covered school based activities addressing alcohol, drugs, driving and celebrating issues, and any resources used.

All contact teachers were also asked to participate in a phone interview.

### Interviews and instruments

Because of the amount of information required from the contact teachers, the approach taken was to split the information requested into:

- **A detailed written survey** covering the types of drug & alcohol, celebrating and road safety initiatives undertaken within the school during the past year, the titles of specific resources that have been used within classes for years 10 and 11 students, and an assessment of their strengths and limitations.

A numerical overall school involvement index was developed from the written survey form to assess the degree to which a school was involved in programs,

activities and a culture of addressing road safety and risk taking for its pre-driver and novice driver age group. The index had only face and content validity and only served to check for general trends.

The index was developed by engaging four education consultants with content knowledge to independently assign scores to each activity in the written questionnaire form, according to the impact they were likely to have on students' knowledge and risk taking behaviour (1=little or no effect, 2=some effect, 3=strong effect). For example, establishment of peer education systems was deemed to have a greater effect on students' knowledge and risk taking behaviour than a one-off inclusion of risk taking as a topic in a P&C meeting.

- **A telephone interview** covering teachers' perceptions about the impact of the resources and programs used on activities within the school in the past year, the strengths and limitations of the programs/workshops attended, the adequacy of the coverage of specific topics by the programs/workshops attended, the impact on school culture and other initiatives, the perceived level of commitment of parents and the local community in addressing road safety and risk for the 15 -18 year age group, and what future actions within the school were planned for this age group.

When developing the telephone interview, it was recognised that teachers are unlikely to be able to spend a long time on the phone responding to a survey, especially at the end of the year. To keep the telephone interview to 10-15 minutes, it was structured so that core questions were asked of every respondent and additional questions were given to only half of them. Respondents were randomly allocated into Group A or Group B. While this approach resulted in only half the sample responding to these additional questions, the qualitative nature of the telephone interview meant that the focus was more on the breadth and depth of the responses than on their numerical value.

HP-NCAHS workers contacted the schools, scheduled interview times and sent out the written surveys.

Those teachers who did not participate in the telephone interviews were teachers for whom an interview was scheduled, but were then unavailable at the scheduled time and could not be contacted following at least three further attempts. Instructions to teachers were provided with the written survey, requesting that they be completed and returned via fax prior to their scheduled interviews. If a completed survey was not returned by the time of the interview, the interviewer reminded the teachers at that time. After at least one week, if faxes were still not received, a further reminder call was made. No further attempts were made after the second reminder since it was, by that time, the end of the academic year.

## Analysis

The mean score for each item was used to calculate an overall involvement score from schools' responses. The schools' aggregated scores were analysed using the 'SAS' software to perform the Mann-Whitney U non-parametric test to check for any significant difference between the rankings of RRISK and non-RRISK schools in terms of their involvement in road safety and other harm-minimisation activities.

The independent evaluator conducted a descriptive numerical analysis of the teachers' interviews and written response as well as a thematic analysis of interview responses.

## Drivers Outcome Evaluation

### Detailed objectives

The outcome evaluation Young Driver Study will use comparison between RRISK attendees and the rest of the state's sample to assess whether attendance in RRISK seminar had any effect on the following outcomes:

- Road related trauma and injury
- Rates of traffic incidents
- Rates of traffic infringements.

### Sample and selection

The YDS estimates a recruitment of 20,000 into their cohort during the year of sampling. Over sampling of RRISK seminar attendees was encouraged by promoting the YDS survey at the 2003 RRISK seminars and the follow-up student surveys in March 2004.

### Survey instrument

The 20 page instrument included a consent form, a demographic section, a driving history section, a health & lifestyle section (including alcohol and other drugs use), and a number of validated scales (eg the Zuckerman sensation seeking scale). An extra identifier question regarding RRISK seminar attendance was inserted.

## Analysis

Analysis would be conducted by the HP-NCAHS Research & Evaluation team in conjunction with the George Institute of International Health 'Young Driver Study' team. Multi-level regression analysis of outcome variables, comparing RRISK attendees to the rest of NSW, will be conducted using appropriate link functions and adjusting for demographic and other covariates including sleepiness, depression and sensation seeking scales.

"The 'Crash Scenario' and 'My Story' really got the message across"

*Student Quote*

# RESULTS

## Student Evaluation

There were 2,705 pre and 1,996 post respondents. See Table 2 for full description of the sample characteristics.

Table 2: Sample characteristics

	Pre – 2003 (n=2705)	Post – 2004 (n=1996)
Females	1515 (56%)	1113 (56%)
Males	1185 (44%)	861 (44%)
Comparison students	1461 (63% <sup>a</sup> )	950 (55% <sup>a</sup> )
- Younger cohort	871	555
- Older cohort	590	390
Intervention students	1245 (65% <sup>a</sup> )	1046 (70% <sup>a</sup> )
- Younger cohort	640	265 (seminar) 196 (no seminar)
- Older cohort	553	465 (seminar) 94 (no seminar)

<sup>a</sup> Response rate (adjusted for a reported 25% of students who attended school on the survey day, but were unavailable due to curricula and other demands).

At baseline, 23.8% had some form of driver licence, of which 94.5% were learner drivers. At follow-up 70.4% of respondents had a licence, of which 67% were learner drivers and 33% had a provisional licence. Around 47% and 30% of pre and post respondents respectively had \$20 or less to spend per week, and 24% and 38% had more than \$60.

### Instrument reliability

Standardised Chronbach Alpha for perceived understanding (8 questions) was 0.68 and for the set of 10 questions, gauging agreement levels concerning risk-taking behaviours, was 0.78. Two constructs of protective and harmful partying behaviour were confirmed as significant factors (2 factors, 39.8% of variance explained, loading range 0.41-0.73). Standardised Cronbach Alpha for protective and harmful partying behaviours were 0.62 and 0.67 respectively.

### Extent of risk taking behaviour (baseline survey)

#### *Heavy episodic drinking and driving/passenger related behaviours*

At baseline more than 60% of respondents engaged in some Heavy Episodic (Binge) Drinking (consuming 6 or more standard drinks on one occasion). Over a third (36%) of respondents failed to wear a seatbelt at least once, 23% rode with an alcohol-impaired driver, 23% rode with a drug-impaired driver, and 9% had been alcohol impaired while driving. Two thirds (65%) had engaged in some harmful behaviours while celebrating and 99% had engaged in some protective behaviours while celebrating.

Table 3 provides a frequency breakdown of the baseline survey sample for risk-taking behaviours by gender and age of respondent. Distributions for all variables except sensation seeking were highly skewed with most respondents reporting 0-1 occasions of potentially risky behaviour and fewer respondents reporting higher levels.

Table 3: Frequency distribution by risk category, gender and age at baseline

Risk Category		Gender/Age				All (n=2698) %
		Females		Males		
		14-15 (n=886 <sup>1</sup> ) %	16-17 (n=628 <sup>1</sup> ) %	14-15 (n=627 <sup>1</sup> ) %	16-17 (n=557 <sup>1</sup> ) %	
Heavy episodic drinking (Occasions 6+ drinks Jan 2003)	0	49	36	44	26	40
	1-2	25	28	26	24	26
	3+	27	36	30	50	34
Sensation seeking score (tercile) <sup>2</sup>	Low	34	37	31	28	33
	Mid	34	34	37	36	35
	High	32	29	31	36	32
Passenger of family member driver under alcohol influence (Times Jan 2003)	0	76	79	76	76	77
	1-2	17	14	15	14	15
	3+	8	6	9	10	8
Passenger of acquaintance driver under alcohol influence (Times Jan 2003)	0	79	76	78	72	77
	1-2	14	16	14	16	15
	3+	7	8	8	12	8
Drove under the influence of alcohol (Times Jan 2003)	0	96	94	87	82	91
	1-2	3	5	7	11	6
	3+	1	1	6	7	3
Not worn a seat belt when travelling in a car (Times Jan 2003)	0	62	68	62	64	64
	1-2	20	17	14	15	17
	3+	18	15	24	21	19
Passenger of driver under drug influence (Times Jan 2003)	0	78	74	80	74	77
	1-2	10	13	11	12	11
	3+	12	13	8	14	12

<sup>1</sup> Totals vary due to missing values.

<sup>2</sup> Low = 0 – 9.5, Med = 9.6 – 12.9, High = 13 - 19.

### ***Protective and risky partying behaviours***

Respondents reported that protective behaviours such as friends looking out for each other, informing parents where they are going, being contactable, and planning a safe return before the party, occurred in most parties they attended (52%, 77 %, 69% and 68% of parties respectively).

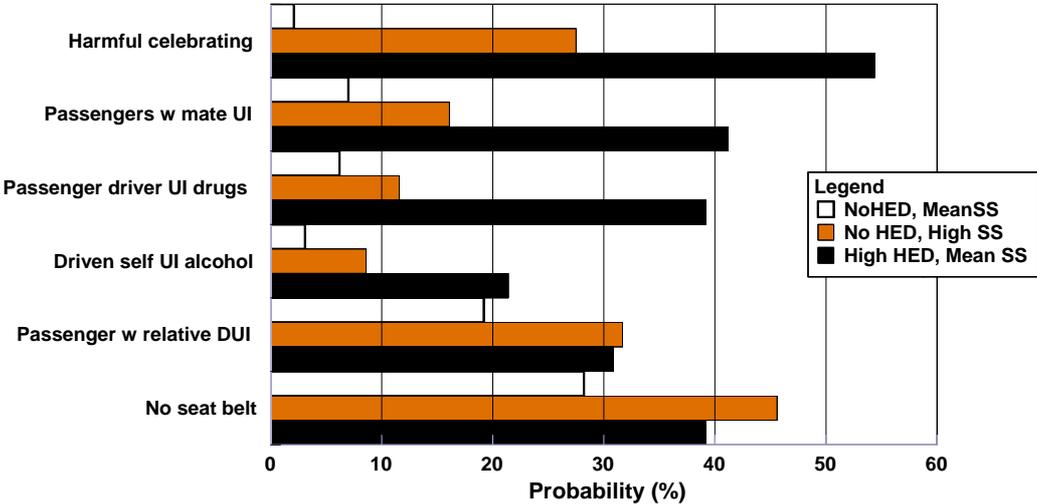
While rates of informing parents where they were going were the same for males and females, there were significant gender differences between percentages of parties where the other protective behaviours were reported to have occurred. Males reported that friends looked out for each other in 39% of parties while females reported that the same behaviour occurred in 62% of the parties. There were smaller but significant differences between males

and females regarding being contactable (63% and 74% of parties respectively) and planning a safe way to return home prior to the party (61.5% and 72%).

There were no significant differences between males and females reported rates of getting so drunk they felt ill (29% and 25% of parties respectively), being a passenger with a driver under the influence of alcohol and/or drugs (10% of parties) and having felt ill from using drugs (5%).

There were significant differences between males and females for some risk taking behaviours even when the occurrence of a behaviour was less common: ended up with no safe way home (14% of parties for males and 9% for females), drove under influence of alcohol or drugs (3.5% and 1.6%), and smoked Marijuana (19% and 13%).

Figure 1: Reported percentages of parties in which protective and risky behaviours occurred



**Intervention effect on knowledge, attitudes and behaviours (baseline and follow-up surveys)**

There were significant differences in 23 KAB outcomes out of 164 comparisons made between ‘seminar’, ‘no-seminar’ and ‘comparison’ groups in the 2 age cohorts.

Out of the 23 differences, 21 represented a positive intervention effect between the ‘seminar’ group and either or both other groups. Two differences indicated better results among the comparison group.

Significant differences are summarised in two formats:

1. Raw scores of knowledge, attitude and behaviour variables at pre and post (Tables 4&5)

2. Relative change, ie comparing the pre/post differences of seminar attendees to the differences of either the comparison group or the non-attendees group (Fig 2 and Tables 4&5, see detailed explanation of groups in methodology section).

Seminar attendees did better than comparison school students regarding knowledge levels in both age cohorts and regarding attitudes and behaviour in one age cohort while comparison students did better than seminar attendees regarding two behaviours in one age cohort. The graphs in Figure 2 represent relative change between groups (eg if 'seminar' increased performance re one variable by 16% and 'comparison' by 1%, the relative change between them would be 15%). All bars with a positive value represent improvement for the 'seminar' group.

### *Knowledge*

In both younger and older cohorts, the 'seminar' group had significantly higher levels of knowledge than both 'comparison' and 'no-seminar' groups regarding what they would check in a second-hand car to make sure it was safe to drive. In the older cohort, the 'seminar' group also had significantly higher levels of knowledge than the 'comparison' group regarding assessing whether someone has been drinking too much to drive safely.

### *Attitudes*

In the younger age cohort the 'seminar' group showed significant improvement in agreement rate relative to the 'comparison' group regarding the statement that 'everyone who goes to parties should know Cardiopulmonary Resuscitation (CPR)'. There was also a significant positive improvement in attitude between the 'seminar' and 'no seminar' groups agreement with the statement 'good parties don't need alcohol or drugs'.

### *Behaviour*

In both age cohorts, the 'seminar' group reported significant improvement in some behaviours compared to those who did not attend.

- Planning a safe return from parties
- Looking out for friends so that they don't get too drunk or stoned.

In the older cohort, those who attended the seminar reported significant improvement compared to those who did not attend, regarding:

- Agreeing to always inform friends where I am
- Being contactable by parents/guardian
- Checking that the driver isn't drunk before I get into a car.

In the older cohort the 'seminar' group did significantly better than the 'comparison' group regarding 'I usually plan a safe way home before I go to a party'. However, in the younger cohort, the 'comparison' group did significantly better than the 'seminar' group on two items related to the protective behaviour of 'looking after friends when partying'.

"That you are not always in control (even) if you think you are – it could happen to you or me"

*Student Quote*

Figure 2: Relative % changes in knowledge, attitudes and behaviour between Seminar/Comparison and Seminar/No-Seminar respondents

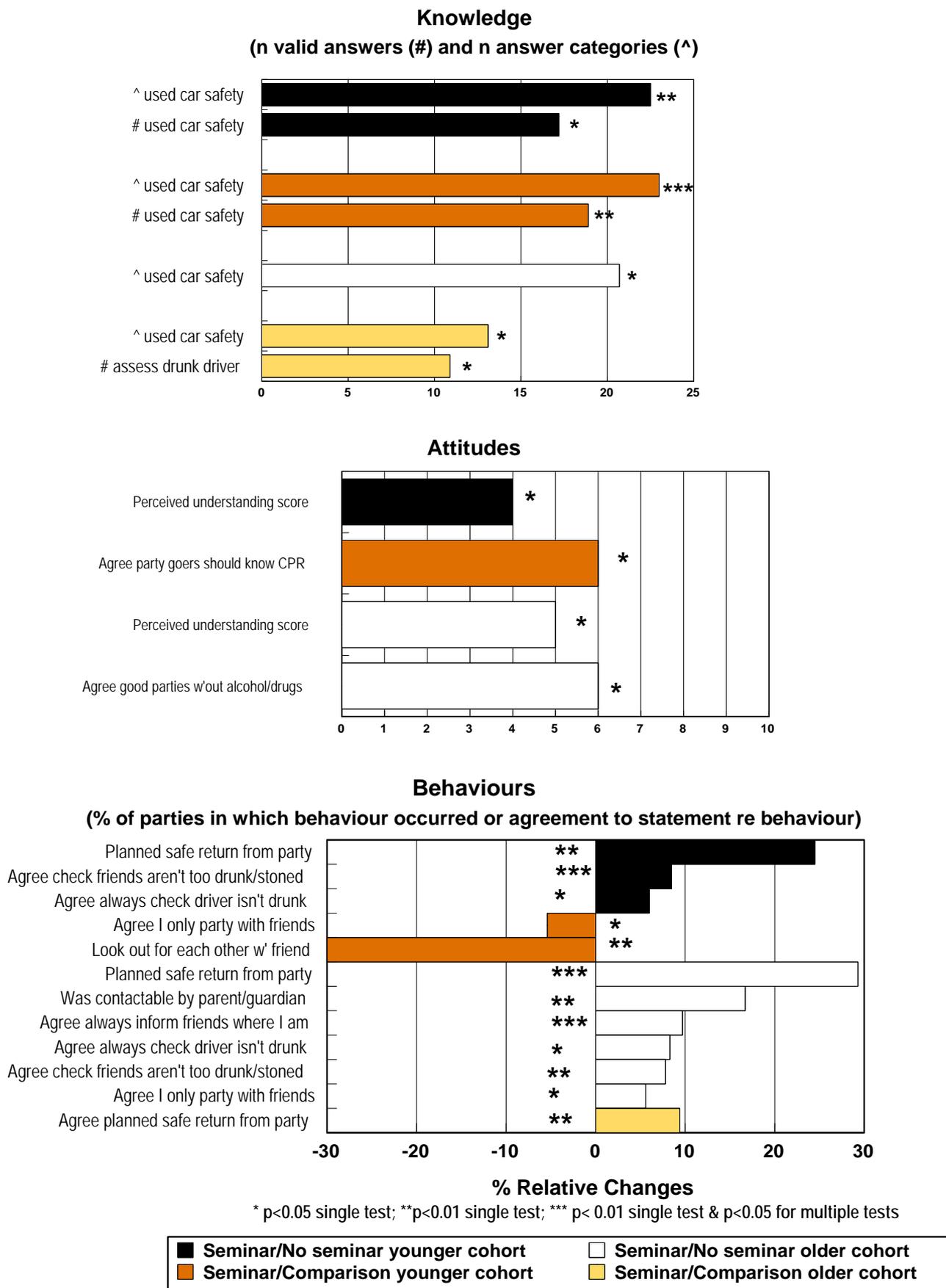


Table 4: Summary of significant knowledge attitudes and behaviour changes (↑ = improvement, ↓ = deterioration) between seminar attendees (in intervention area) and comparison

KNOWLEDGE					
Variable	Comparison @ Baseline	Comparison @ Follow-up	Intervention @ Baseline	Seminar @ Follow-up	Relative change <sup>^</sup>
<b>Younger Cohort:</b>			15YO@Pre-16YO@Post		
Used car safety (n valid answers)	2.64	3.14	2.73	3.77	↑19% **
Used car safety (n answer categories)	2.43	2.82	2.45	3.42	↑24%***
<b>Older Cohort:</b>			16@Pre-17YO@Post		
Assessing driver's drunkenness (n valid answers)	3.35	3.27	3.21	3.49	↑11% *
Used car safety (n answer categories)	2.88	2.95	2.98	3.46	↑14% *
ATTITUDES					
Everyone who parties should know CPR first Aid (1-4)	2.72	2.79	2.67	2.9	↑6% *
SELF REPORTED BEHAVIOURS					
<b>Younger Cohort</b>					
Agree I only go to a party if a friend goes too (1-4)	3.28	3.39	3.37	3.31	↓-5% *
% parties in which agreed with a friend to look after each other	44.4%	58.3%	57.8%	58%	↓-31% **
<b>Older Cohort</b>					
Agree I don't usually plan a way home before I go to a party (1-4)	1.89	1.98	2.02	1.93	↑-9%**

\* p<0.05 single test; \*\* p<0.01 single test; \*\*\* p<0.01 single test and p<0.05 for adjusted multiple tests

<sup>^</sup> relative changes between seminar and comparison results were calculated by using the formula:  $\frac{((\text{postS}-\text{preS})/\text{preS}) - ((\text{postC}-\text{preC})/\text{preC})}{((\text{postC}-\text{preC})/\text{preC})} \times 100$

Table 5: Summary of significant knowledge attitudes and behaviour changes between seminar attendees and non attendees (both in intervention area)

<b>KNOWLEDGE</b>				
<b>Variable</b>	<b>Intervention @ Baseline</b>	<b>No Seminar @ Followup</b>	<b>Seminar @ Followup</b>	<b>Relative change ^^</b>
<b>Younger Cohort</b>		15YO@Pre-16YO@Post		
Used car safety (n valid answers)	2.73	3.3	3.77	↑17% *
Used car safety (n answer categories)	2.45	2.86	3.42	↑23%**
<b>Older Cohort</b>		16@Pre-17YO@Post		
Used car safety (n answer categories)	2.98	2.84	3.46	↑21% *
<b>ATTITUDES</b>				
<b>Older Cohort</b>				
Composite score re perceived understanding of risk related issues (1-32)	24.08	23.80	24.97	↑5% *
Agree good parties don't need alcohol or drugs (1-4)	2.69	2.39	2.6	↑8% **
<b>SELF REPORTED BEHAVIOURS</b>				
<b>Younger Cohort</b>				
I always check the driver isn't drunk before I get in a car (1-4)	3.27	3.19	3.38	↑6% *
I look out for my friends at parties so they don't get too drunk or stoned (1-4)	3.14	3.03	3.28	↑8%***
% parties, for which planned a safe way home, prior to the party	66.35%	65.97%	82.23%	↑25%**
<b>Older Cohort</b>				
Agree I only go to a party if a friend goes too (1-4)	3.27	3.11	3.29	↑6% *
Agree I looks out for my friends so they don't get too drunk or stoned (1-4)	3.15	2.95	3.2	↑8% **
Agree I always check the driver isn't drunk before I get in a car (1-4)	3.29	3.1	3.37	↑8%**
Agree at a party, if I leave my friends for a while, I always tell them where I am going (1-4)	2.95	2.75	3.04	↑10%***
% parties where had a way my parents or guardian could contact me	66.66%	79.08%	90.25%	↑17%**
% parties, for which planned a safe way home, prior to the party	63.11%	49.65%	68.14%	↑29%***

\* p<0.05 single test; \*\* p<0.01 single test; \*\*\* p<0.01 single test and p<0.05 for adjusted multiple tests

^^ relative changes between seminar and no-seminar results were calculated by using the formula:  $\frac{((\text{postS}-\text{preS})/\text{preS}) - ((\text{postN}-\text{preN})/\text{preN})}{((\text{postN}-\text{preN})/\text{preN})} \times 100$

## Partnership Evaluation

Questionnaires were completed by 6 representatives from the following organisations: North Coast Health Promotion, Department of Education & Training (2), Catholic Education Office Lismore (CEOL), Road Safety Officers in Tweed Shire and Lismore City Councils (funded jointly by councils and NSW Road Traffic Authority). Interviews were conducted with these partners plus 4 other stakeholders from CEOL, Southern Cross University and the RTA.

### Partnership history and composition

The RRISK program was reported to have grown out of several original partners' frustration with their efforts to reach school students with communications about road safety, drug and alcohol use and risk taking. Gaining acceptance by schools was reportedly difficult and it was felt that a coordinated approach involving the education sector was needed. All officers indicated that while their role had been constant, it had expanded with the program. Several indicated that their involvement had grown as they became more familiar with the program. All (6) respondents reported that the RRISK partnership represented an adequate mix of required skills/knowledge.

### Satisfaction with the partnership's aims and process

Both the aims and the strategies of RRISK were found to have strong support from all partners. The aims were reportedly clear to all and aligned well with the core aims of both their organisations and their own jobs. All respondents reported that they had been fully briefed on the goals and Terms of Reference and were clear about the standards expected of them.

Though committed to RRISK, several partners felt meetings were too long and too frequent and some hoped it would be possible to meet less as the program becomes streamlined. One partner suggested that meetings could be more frequent but shorter, however travel time presented a barrier for some. Most partners were satisfied with both the level of communication and the manner in which activities of the partnership are 'actioned' although two indicated that a designated project officer would assist in making it more manageable.

Most partners indicated that direction setting was working well and was largely influenced by the ongoing process evaluations. Some felt there was insufficient emphasis on gaining upper level support of key organisations or on ensuring the integration of the program within school curricula and activities.

There was a mixture of the level and type of reporting on RRISK to senior management within each of the organisations represented on the partnership. Progress on RRISK was reported at monthly team meetings and in some cases in annual reports or on the websites of some major stakeholders. Most partners indicated that their employers support RRISK in terms of the time they devoted to RRISK activities and, in some cases provided secretarial or

other administrative support. One representative from the education sector has duties relating to RRISK written into her job responsibilities. Another indicated that her contribution is more a reflection of personal commitment and she has difficulty justifying the amount of time spent on RRISK given the large number of other responsibilities.

Partners reported good levels of networking achieving outreach into the community via: strong and varied contacts and networks of the partners; involvement/interest of the media; and involvement in the seminars of other key agencies such as police and ambulance services.

### **Assessment of the strength of the partnership**

The partnership was viewed overwhelmingly by its committee members and external stakeholders as being uniquely strong.

Of 25 items on the 'strength of partnership' checklist all but one were considered to be 'fully met' by the majority of the six partners. No items were considered 'not addressed'. All partners felt there was the right mix of adequate skills, knowledge and access to resources and that their involvement was worthwhile. It appears there is broad satisfaction with the processes of direction setting through shared values and goals and consideration of different partners' needs. In all, the management of processes and procedures is agreeable to most partners particularly regarding decision-making, task allocation and communication – and there is a high level of confidence in the partnership's capacity to deliver on its goals.

The aggregated score of the six partners regarding the partnership's strength was 287/312 or 92%. This indicates that there is clearly a strong level of confidence in the strength of the partnership and its capacity to deliver on its goals by the partners completing the checklist (Fig 3).

External partners (not attending regular meetings) felt the RRISK committee was uniquely strong and particularly commented that the partnership has: "representation from grass-roots workers who know how things work 'on the ground', a common purpose and commitment to a worthwhile program".

### **Group function and opportunity for innovation**

There were 20 items on the checklist that explored partners' views on 'group function and opportunity for innovation'. These concerned goals, feedback on performance, the level of guidance given, the scope for critical questioning, and available structures and networks to support the partnership/program. Out of a possible total score of 236, the partners scored this element at 221 or 94%. While all items scored highly, the highest scores (70/72) were given to the 'scope for critical questioning within the partnership', including 'being encouraged to suggest new things'; and the 'availability of structures and networks to support the program' (Fig. 3).

## **Sustainability of the partnership**

The overall sustainability score was 122/136 or 90%, and no item on the checklist relating to the program's potential for sustainability was considered not met (Fig 3).

It was generally reported by partners that the longevity of the partnership was a good indicator of its sustainability, with most organisations within the partnership having been represented since the program's inception five years ago. The partnership's sustainability was considered to be linked with the future of the program and all partners expressed a commitment to continuing the partnership whilst program funds are available.

While most interviewees indicated that the partnership and program were largely driven by the Lismore Council Road Safety Officer and the Area Health Service, Drug & Alcohol Health Promotion Coordinator, it was suggested that this was appropriate and ensured the continuing functioning of the partnership. Several partners felt that the partnership would not dissolve if any one individual left, but if two or three left it may.

Results from the checklist also indicate that RRISK partners felt there was good potential for sustainability of the partnership and program. There was strong confidence in the support offered to the program by organisations likely to run RRISK in the future. However, there was somewhat less certainty about advocacy for the program at high levels within partner organisations and less certainty about future funding. Of the 13 items on the checklist regarding the potential for sustainability, 10 were considered to be fully met by the majority of the partnership. The three items, which only two of the six partners reported as fully met were: 'the program's prospects to acquire or generate additional funds or resources for the future are good', 'the program retains people who have built skills through the program', and 'the program is not under threat and there are few organisations who could benefit from the its closure'.

There were clear indications of belief in the effectiveness of the program. However, there were uncertainties about the awaited evaluation results and whether they would clarify the program's effect on student behaviour. Another concern was linked to the uncertainty of future funding. Support for the program from the wider community was deemed to be quite high, due to the perception of shared goals between the program and the community. However there was some uncertainty about the level of community advocacy for the program.

## **Identified strengths and limitations of the partnership**

Overall, those interviewed reported that the current core partnership represented an appropriate mix of organisations. Most partners believed that the common focus and objective of delivering the RRISK program as effectively as possible, was a key to the partnership's strength. Other factors were: "goodwill and respect for each other", "being a small relatively static group in terms of organisations", "different and complementary

backgrounds”, “representation of key stakeholders in the area”, and “high levels of motivation and commitment to an important issue”.

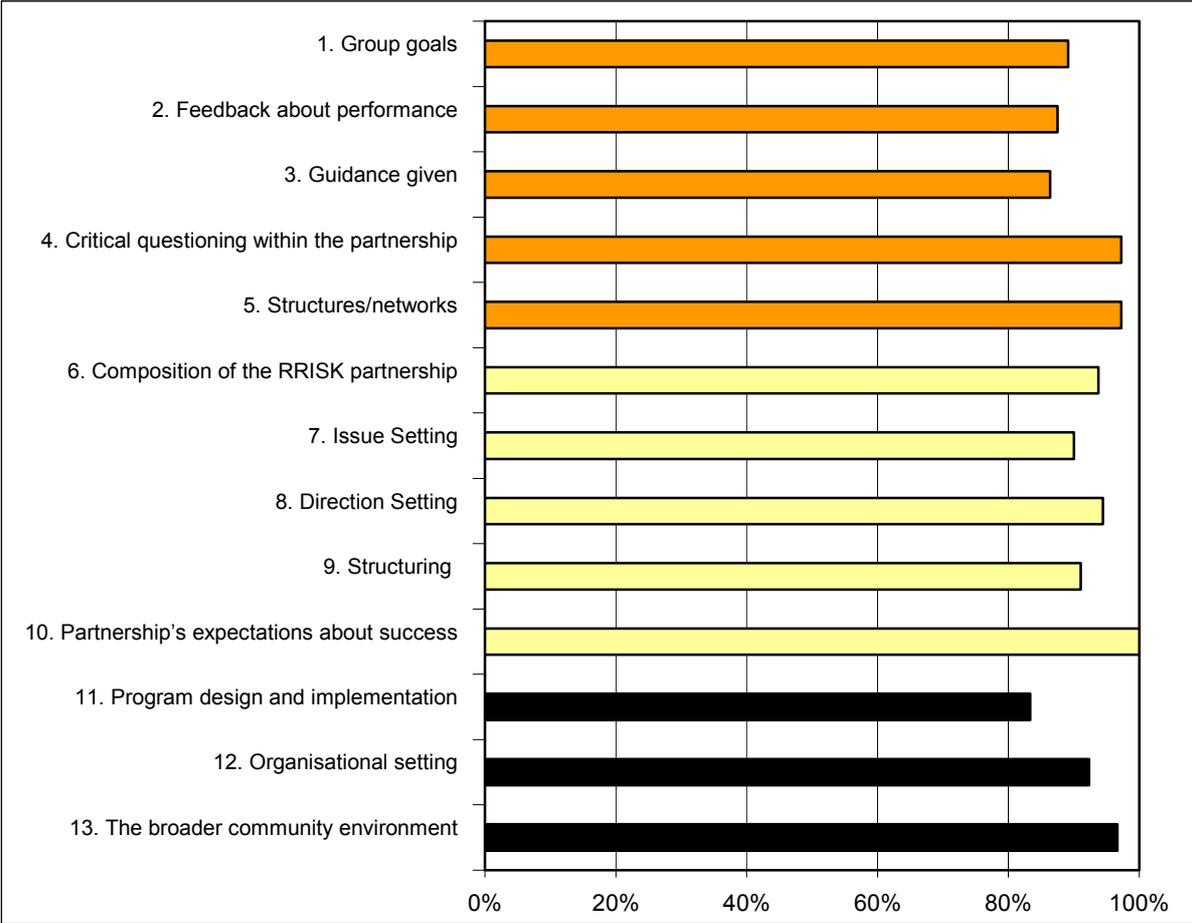
On almost all levels, the RRISK partnership was considered uniquely strong for an intersectoral committee. Some interviewees indicated that it was the intersectoral nature of the committee that was its strength, while others indicated other attributes that helped overcome common difficulties.

Most commonly identified strengths of the partnership were:

- Having a set structure – of regular meetings, set processes, defined timelines, and starting planning early each year
- Shared responsibilities and a sense of common purpose
- Diverse responsibilities and skills of the different sectors
- Enthusiastic, non-possessive ownership of the program that encourages participation by all
- Shared values and goals, trust and goodwill between partners
- Partners’ willingness to meet the needs of participating organisations
- Self-evaluation and consequent ongoing program refinement
- A strong and expansive network by partners into the community – as well as commitment from both State and Catholic Education
- Membership at the grassroots level – so input into program planning is by individuals familiar with how things operate (in schools) and what needs to be done to put things in place.

Few limitations were noted regarding partnership functioning. The most common barrier was having limited time to devote to getting as much done for the project as they would like. Two partners indicated that the time commitment of a few one-day seminars was, in view of their other responsibilities, not in line with the outcome, and one partner described it as “a huge time commitment”. Part of this concern was linked with the frequency of meetings, the distances needed to travel to meetings, the length of the meetings and the amount of time required for communication (busy people often needed to be contacted 2-3 times before getting a response). As a counter view, some partners indicated that it had become evident that the program would not be effective with less time commitment and not all agencies’ views would be considered if less time were spent at meetings. Other limitations were: the program’s dependence on uncertain funding and dependence on individual commitment, sometimes without total support from their organisations.

Figure 3: Aggregated results for the 6 key RRISK partners (expressed as percentage of maximum possible scores) for the three Capacity Checklists



Group Function and Opportunity for Innovation (1-5); Strength of Partnership (6-10) and Potential for Sustainability (11-13).



## Teacher/School Evaluation

Twenty one intervention schools participated in a phone interview (10 x A set of questions & 11 x B set of questions), 14 returned the written survey. Nineteen comparison schools participated in a phone interview (9 x A set of questions & 10 x B set of questions), 15 returned the written survey.

Responses to phone interview questions were primarily summarised in qualitative form. Written survey responses were mainly numeric and were summarised in Table 7.

### School level approaches to risk taking

#### *Overview of resources and activities*

- **Programs/lessons/workshops**

From the returned written surveys it appeared that comparison and intervention schools were closely aligned in the amount of risk and road safety related activities to which their students were exposed within the school context. There was no significant difference between intervention and comparison schools when the overall school involvement scores were compared (Mann Whitney U= 88, z=1.24, P>0.05).

Table 6 shows that while intervention schools indicated that they undertook RRISK (the full day out of school seminar program plus other activities), fewer intervention schools than comparison schools reported that they brought outside presenters into the school (43% versus 73%), took students to a special workshop (other than RRISK - 14% versus 53%), and did follow-up activities to a special seminar or workshop (7% versus 33%).

- **Adjunct activities**

While numbers are small, there were some topic areas for which fewer intervention schools indicated engaging in adjunct activities (not part of the curriculum). These were topics addressed in assembly (21% vs 60%), displays within the school (21% vs 47%), a special insert in a newsletter to parents (64% vs 80%), and topic of staff meeting (21% vs 33%). However, on some other adjunct activities, more intervention schools than comparison schools included risk taking and road safety as a part of the school policy (53% vs 42%) or part of the school handbook (40% vs 21%).

In all, it cannot be said that RRISK schools displayed greater integration of the risk taking and road safety messages beyond the curriculum components.

Table 6: Percentage of intervention and comparison schools undertaking safety initiatives in 2003

	Intervention n=14	Comparison n=15
RRISK seminars in SCU or Tweed Heads	93% <sup>a</sup>	0%
Within PDHPE	100%	100%
As project outside PDHPE eg IT, drama, science	29%	20%
Use of outside presenters brought into the school	43%	73%
Students taken to a special seminar workshop (other than RRISK)	14%	53%
Follow-up lessons/activities to special seminar workshop	7%	33%
Topic addressed in assembly	21%	60%
Display set up within school	21%	47%
Student committees formed to work on safety issues	14%	13%
Peer education systems established	21%	20%
Special insert into newsletter to parents	64%	80%
Topic of P&C meeting	0%	7%
Topic of in-service training	43%	33%
Topic of staff meeting/coordinators' meeting	21%	33%
School policy developed/ reviewed including code of conduct or guidelines about social events	57%	67%

<sup>a</sup> One of the regular RRISK intervention schools did not send students in 2003

### *Changes in approach to risk taking by the school*

It seems that more intervention schools were confident about positive change within the school in 2003 (or in previous years) in terms of addressing risk taking. Among the comparison schools there were two teachers who reported feeling a certain inevitability about risk taking among young people (thus defining the limits of the school's influence).

Six intervention school teachers felt the school was now addressing risk taking differently – adding comments about introducing the Crossroads Program or the Holden Driving Course, or addressing it in newsletters or fliers – particularly the issue of cannabis. One teacher indicated the school was seeking more opportunities as they presented themselves to discuss choices and consequences. Three said “not this year” – but also reported they had always been pretty strong on it – one adding: “we had been strong on it since we joined RRISK a few years ago”. One teacher said: “it was difficult to evaluate – because we only know about what happens in school”.

There was a mixed response in comparison schools, with three teachers saying “yes” or “probably yes” – reporting a general greater awareness of the issues and probably being more pro-active in addressing some of the issues, or addressing media coverage of risk taking and exploring the possible consequences. Two said “no” or “probably not” adding comments such as: “it is always the same kids taking the same risks”. Two indicated they felt

their response should be “yes and no” or they weren’t sure since the real risk taking happens outside of school and the school just continues to address it as much as it can.

### **Coverage of topics for years 10 & 11**

Teachers were asked the extent to which they felt various subjects were covered or planned to be covered in regular classes at school during 2003 (i.e. not part of a special seminar or workshop).

Table 7 presents the average score for those who responded (some did not because of difficulty separating out years 10 and 11 – where topics may be handled quite differently).

Table 7: Average ‘coverage’ scores<sup>1</sup> for intervention and comparison schools for various topics about risk taking and safety in years 10 and 11

	<b>Intervention</b>	<b>Comparison</b>
a) What makes a safe car	2.1	1.5
b) Risk related to speeding	3.4	3.3
c) Risk related to fatigue	3.0	3.3
d) Importance of seatbelts	2.9	3.0
c) Emergency recovery position	3.6	3.5
d) Planning a safe way home	2.9	2.2
e) Effects of alcohol on driving	3.9	3.5
f) Effects of cannabis on driving	3.3	2.9
g) General effects of other drugs (eg amphetamines & ecstasy)	2.7	2.9

<sup>1</sup> On a 1-4 scale: 1= not mentioned, 2 = a little, 3 = moderately, 4 = extensively.

Scores on the various items were fairly comparable between the intervention and comparison groups – i.e. what was scored well among one group scored well by the other.

Items with a difference between the two groups of 0.5 or more were: ‘what makes a safe car’ and ‘planning a safe way home’ – both of which were reported to be covered to a greater extent in intervention schools.

### **Teachers’ perceptions and viewpoints**

Perceptions about things they do differently as teachers as a result of risk related programs and activities.

About 50% of teachers in the intervention group nominated activities/actions beyond the curriculum including workshops with parents, increasing attention to risk taking in newsletters, driving courses for students and addressing it every chance they get and in

connection with community events. In the comparison group, a minority reported having additional activities for years 10 & 11. Their focus seemed to be on the younger years.

The things intervention schools teachers reported that they did differently were:

- Every chance we get - RRISK has changed our approach, we've introduced a Safe Partying course
- Implemented a 'Senior Driving to School' code, and had students attend the Holden Driving Course
- Address things as they come up
- Putting more on the topic in the newsletter
- Kids are becoming more responsible in their behaviour
- Earlier in year, held a drug information night with parents
- Being integrated more with other classes – use articles from local paper.

Comparison school teachers reported they

- Started a course on the responsible serving of alcohol
- Address things as they come up
- Started raising awareness with other classes.

### ***Level of local community involvement***

On the whole, comments indicated that communities generally responded to RTA campaigns and to tragic incidents in the community – but there was not a lot of coordinated action outside of those things. Some added that without community commitment the messages in school would be ineffective – particularly around alcohol - which was seen as a major community problem.

Teachers were asked to rate on a scale of 1-10 how involved they considered the local community is in addressing road safety and risk taking issues for young people. The range of answers was from 1 to 10 with an average of 6.6 and 6.4 for intervention and comparison schools respectively.

### ***Teachers' perceptions regarding change in students' approach to risk taking in 2003***

While numbers were small, it appears that comparison school teachers quite readily and clearly indicated no change in 2003 in the students' approach to risk taking – while intervention schools were more mixed in their responses – two saying: “yes, there had been positive change” (though one hinted it may be short-lived) and several saying that they were not sure, in part because they only see what happens at school.

### **Future directions**

The teachers from both groups were able to identify a number of preferred future directions regarding how their school could address risk taking and road safety.

Intervention school responses (these are single responses unless otherwise indicated):

- “I’d like to find a way to extend driving course so more students can attend – but it is very expensive” (2 teachers)
- “In terms of PDHPE, I don’t think we can do any more – but the RTA and Health can do more”
- “We need to keep talking about it”
- “Continue to do what we are doing with greater parental involvement” (2 teachers)
- “The most likely next step is to do more in the community”
- “I’d like to see continued involvement with the RRISK seminar” (2)
- “Start it earlier” (2 year 9/7).
- “I wish there was more room in the curriculum to do more (2) like to do the Cross Roads program”.

Comparison school responses:

- “Focus more on consequences and building skills to make safe choices – more things to be ongoing and woven into other areas”
- “More outside presenters and led by people more their age”
- “More professional development (2) and help in delivering things we don’t have time to prepare”
- “More education of parents (2) – we can’t achieve anything if they are not on side. There is a lot of under-age serving of alcohol at parties”
- “Need a broader school approach and school policy” (2)
- “Like to be allowed to do the RRISK program”
- “Like to find a way to continue the messages with years 11 & 12 – get a lot in PDHPE before that”.

## **Programs and resources**

### ***Education resources***

In both intervention and comparison groups all but one teacher indicated that they felt their school had adequate education resources or activity guides to assist them in delivering classes on risk taking. One teacher in the intervention group indicated that some videos could be updated, or be more readily available, and one teacher in the comparison group reported that adding more ‘contemporary stuff’ would be good.

### ***Comments on programs and resources used***

There were no detectable differences between the two groups of schools on the reported strengths and weaknesses of the resources or programs they use.

Both groups of schools tended to be supportive of programs that were teacher lead (57% intervention and 60% comparison). Overall, teachers reported being satisfied with the usefulness of the programs and resources available, with some teachers noting the need for video and print resources to be updated.

Strong or valued features of the resources used were:

- Topics of interest/relevance to students
- Student input/interaction during the session
- Messages delivered in a variety of ways
- Involvement of parents or whole of school.

Commonly cited program or resource weaknesses were:

- Student attitudes about their indestructibility, (and the seeming impossibility of countering that)
- Lack of time to devote to the topic/program, (which is more likely to be an issue in year 11 where it is not part of a required subject)
- Information presented too factually
- Uncertainty of the attention paid or the numbers reached (particularly regarding parents) (i.e. lack of confidence in the numbers of the target group that actually receive the information).

“Realistic accounts of risky alcohol, drug use and driving had a strong impact on students”

*Teacher Quote*

There were a few areas where opinions seemed somewhat divided (but not along the lines of intervention and comparison schools). These were whether discussions with students are best led by teachers or outsiders – with comments that outsiders provided greater anonymity to students and links to services in the community versus teachers providing greater rapport/level of comfort. Both approaches were believed to possibly be linked with more openness in the discussion. Another area of diverse views was whether after end of year exams was an appropriate time to hold the programs – with some teachers indicating that at that time the topic is not competing with curriculum pressures (as it does at other times) versus there being much greater absences at that time of year – so many students (and often those at greatest risk) are absent.

## **Driver outcome evaluation**

### ***Sample characteristics***

There have been 20,881 young drivers people recruited into the study state-wide. Of these, 543 reported that they had done the RRISK seminar while 1,568 did not answer the question. The rate of those who identified themselves as RRISK attendees was 2.8%.

No other results are currently available.

# DISCUSSION

## Student evaluation

### Discussion of findings about risk taking

The student survey provided new data on protective and risky partying behaviours, which have been collected in very few other studies.

It was encouraging that most respondents reported that they engaged in protective behaviours in most parties they had attended. The findings that males engaged in significantly less protective behaviours, may reflect gender identity roles as well as different familial attitudes regarding boys' and girls' safety.

It was interesting to see that there was no significant gender difference regarding the most common risky partying behaviour, ie getting so drunk as to feel ill. It was worrying that, on average, respondents reported that this occurred every fourth party they attended. This is of particular concern in relation to young women, who in addition to health and transport related risks, would also be more vulnerable to sexual risks.

In terms of road and transport related risks, it was very concerning that for 1 in every 10 parties, respondents reported being passengers with an alcohol impaired driver or ending up with no safe way home.

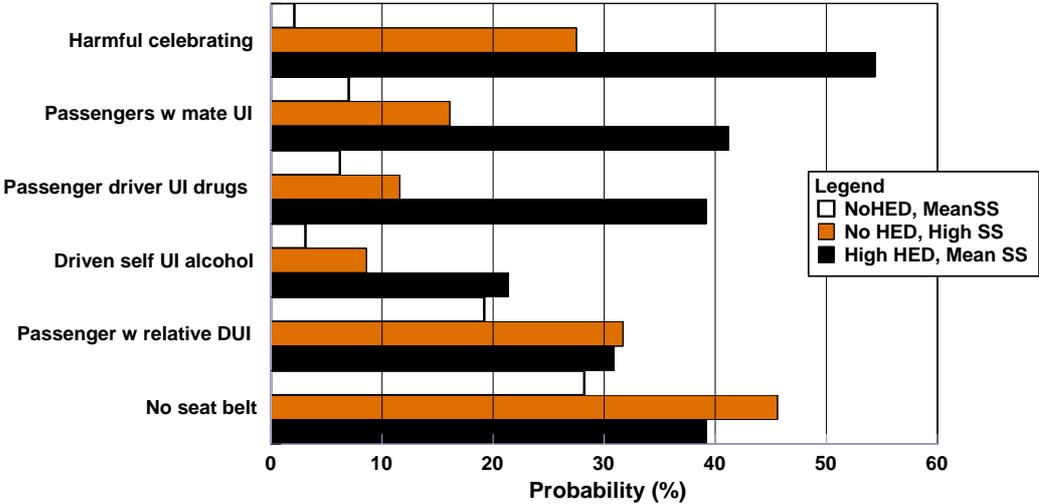
Another analysis unique to this study was the baseline analysis of Heavy Episodic Drinking (HED) and Sensation Seeking (SS), and their independent and combined effects on reported risk taking.

HED and SS both proved statistically significant, independent and strong predictors of every potentially harmful or protective behaviour examined (adjusted for gender, age, weekly income and driver licence status).

Figure 4 describes the effect of:

1. Adolescents having a high sensation seeking score, and
2. Adolescents being frequent heavy episodic drinkers, on the probability of engaging in potentially harmful behaviours.

Figure 4: Relationship between HED, SS and risk taking behaviours



These results highlight the harmful effect of HED on risk taking behaviours among the majority of adolescents. The chances of engaging in unintended high risk behaviours and finding oneself in potentially harmful situations, are significantly increased when one engages in HED, even for people who consider themselves relatively cautious or average sensation seekers/risk takers.

**Interpretation of results and choice of comparison group**

The most encouraging results of the study were the significant improvements between seminar attendees and non-attendees in knowledge, protective attitudes and behaviours.

As in most intervention studies, this study relied on a comparison/control group of schools to isolate the effect of intervention from other effects respondents may have been exposed to. It should be noted that data collected in the Teachers Survey component, and anecdotal data from health and education personnel, indicate that schools in the comparison area, while not having a centrally organised event, do engage in a range of activities addressing risk taking behaviours. Furthermore, while the RRISK Committee originally planned that, by the time the evaluation was conducted, extra in-school activities would be available throughout the year to prepare for and build on the seminars, this did not occur. Consequently there was less potential for differences between intervention and comparison schools than originally thought.

Of the 23 significant differences between pre to post changes of the ‘seminar’ group and other groups (‘comparison’ and ‘no seminar’), 21 represent improvements of knowledge attitudes or behaviours in line with the RRISK program objectives. Seminar attendees did better than comparison school students regarding knowledge levels in both age cohorts and regarding attitudes and behaviour in one age cohort. Comparison students did better than seminar attendees regarding two behaviours in one age cohort. These two behaviours concern increasing safety at parties by looking after friends. This relative improvement

among students in the comparison group may have been due to this message, which is also a main message of the RRISK seminars, being reinforced by various speakers and other initiatives conducted in 'comparison' schools.

The improved knowledge levels displayed by seminar attendees in the intervention area when compared to both 'comparison' and 'no-seminar' respondents regarding safety features of a used car, are likely a result of a RRISK seminar session run by a NSW Road Traffic Authority officer regarding car safety. While the differences were larger and more significant within the younger cohort, it is encouraging to see that they were still significant within the older cohort of students who have generally been exposed to new information when acquiring Learner and Provisional licences and when starting to drive.

The results isolate the positive effect of the one-day event as seminar attendees and non-attendees have presumably been exposed to the same level of in-school curriculum and other activities related to risk taking. The authors feel that the efficacy of the RRISK seminar needs to be considered in terms of its cumulative harm minimisation impact for attendees, rather than as isolated changes to individual knowledge items, attitudes or behaviours. Thus, while some measured changes may be modest when considering individual variables, a number of such modest changes within individuals and/or peer groups may accumulate and contribute to an overall trend/profile of reduction in risk taking and harm.

#### *Possible effect of seminar participation on other school based activities*

There were substantially more significant differences between seminar attendees and non-attendees than between attendees and comparison schools students. These differences were all in the same positive direction while differences between seminar and comparison students went in both expected and unexpected directions. These findings may indicate that some intervention schools may have engaged in fewer extra curricula risk related educational activities (other than the RRISK seminars) than comparison schools. One explanation may be that teachers thought the seminars would adequately cover these issues reducing the need to offer extra coverage in school. Conversely, comparison schools did not have the benefit of a large-scale annual event such as the RRISK seminar and this could account for a range of other in-school activities that were implemented.

The overall results indicate that increasing attendance would maximise the impact of the RRISK Program in future. Clearly, more in-school activities in support of the curriculum are required to strengthen and supplement the RRISK seminars in order to further improve students' attitudinal and behavioural outcomes.

"I need to think more about  
transport to and from  
parties"

*Student Quote*

## What worked?

While other studies indicate that one-off education interventions have little positive effect on attitudes and behaviour beyond the short term of up to 2 months<sup>3, 7</sup>, our study found significant effects five months after the event. However, the RRISK seminar, although a one-day event, should not be viewed as a 'one-off', but as an enhancement to existing and intensive school based education on risk taking behaviour. Furthermore, the seminar was multi-strategic and dynamic, incorporating many of the factors that have been identified by recent reviews of effective drug education strategies<sup>27-29</sup>.

The seminars were made more memorable by being held in a university where students interacted with students from other schools. The setting also made it possible to increase the scale and variety of activities offered, which could not have been conducted in individual schools. Extensive coverage from the local media during the seminar week may have reinforced seminar messages among attendees and their families.

## Limitations

Some caution is required in interpreting our findings, as they are subject to limitations typical of all self-report studies, particularly in that respondents' retrospective accounts may not faithfully reflect events at the time.<sup>4, 30</sup> School staff made it clear that in spite of their best efforts, the newly-required active consent process resulted in a reduced response rate simply because it depended upon students taking the form home and returning it to school on time.

At follow-up there were smaller samples at the student level due to the general reduction in numbers of enrolled students between year 10 and year 11 (in NSW the end of year 10 is an exit point for some students following completion of the year 10 School Certificate) and also due to organisational factors regarding year 12 timetable (some have free study time and were not present in school on the survey's day). This occurred despite the researchers' efforts to communicate to schools the importance of the follow-up survey. However, since the study had a multi level design, at the school level the same cohort of schools was surveyed (ie all intervention and comparison schools were surveyed at baseline and follow-up).

Within the above limitations, the use of appropriate design, methodology, validated measures and sophisticated analytical techniques (including adjustment for both age differences and maturation effect), has maximised the validity of the findings. Consistency of responses across a range of outcome measures demonstrated a high level of reliability and the large sample size, the number of schools, and similarity in responses across the various survey sites, lend credibility to the findings. Some bias may have been introduced through differential response rates (eg gender, intervention/comparison) and it was not possible to ascertain whether non-responders were different in terms of the outcomes of interest. However, potential bias was minimised by checking that there was no difference between the prevalence of potential confounding covariates like gender, income and sensation seeking among groups.<sup>31</sup>

# Partnership Evaluation

## Interpretation of results

The findings that the RRISK partnership is viewed internally and externally as very strong indicate that formation and maintenance of the partnership has contributed to increased capacity within the area to address adolescent risk taking. The strength of the partnership is reported to have increased over time in part because of the growing history of the group, the support of the organisations represented within the partnership and the relationship that has developed between partners. It is further reinforced by the number, commitment and enthusiasm of participating schools. There was some indication that the partnership was viewed most strongly by those most involved in terms of time commitment and those attending regular meetings, with those not attending regular meetings having a slightly more critical eye. These key partnership elements, which were valued by respondents, were similar to elements identified in other studies.<sup>8,9</sup>

There is a high level of commitment to the program from all internal and external partners and a fairly high level of confidence in the future of the program and its sustainability. This confidence appears to stem from high regard for the networks and structure that partners bring to the partnership, the support that key stakeholder organisations have offered the program in terms of staff time and resources, and the fit between the program's goal and the demand within the community.

While some interviewees thought the partnership's capacity to function effectively would be compromised if either of the two key 'drivers', or the organisations they represent, were to leave, others considered having two 'drivers' to be a key ingredient of the partnership's success. This issue raises the apparent importance of the impact of personalities and personal commitment on the one hand and the formal structures and processes on the other. While individual commitment may be a key ingredient to establishing an effective intersectoral partnership, it is essential that organisational commitment is also maintained.

Such commitment provides the formal structures and processes for participation, ensuring a sustainable and effective partnership. Perhaps one of the goals of committed individuals who want to see the partnership continue (even in the face of them leaving their position) is to ensure that all key organisations embrace the project or partnership, write it into the relevant officers' job description and/or list of duties, provide their organisation with regular updates, and advocate for the project or issue within their organisation and their own networks.

## Limitations

While the number of respondents/interviewees is small, it should be noted that they do represent all primary partners involved in the partnership, and most key stakeholders. A number of factors strengthened the validity of the findings: The usage of both qualitative and quantitative approaches, and of a number of validated checklists within the quantitative

approach, increased the validity of the study through triangulation. The quantitative checklists have been designed and used by a number of Health Promotion practitioners in NSW and have been tested for internal consistency using statistical methods.<sup>26</sup> While the authors have used well researched indicators/checklists, it should be recognised that the field of measuring capacity building for Health Promotion is still developing and that internal consistency measures do not necessarily translate to other types of validity.

## Teacher/School Evaluation

### Interpretation of the findings

The finding that comparison schools are more likely to organise outside presenters makes sense as they do not have a centrally organised activity like RRISK. The difference between reported prevalence of adjunct activities may reflect commitment within comparison schools to address the topics of risk and road safety throughout the year and a tendency among intervention schools to see attendance at the annual RRISK seminar as their main contribution in this area of activity.

Most of the firm conclusions that can be drawn from the findings of the 'school' component of the evaluation study concern lessons learnt about schools' and teachers' perspectives on road safety and risk taking education generally. These include:

- There are clear indications that schools are prepared to embrace a safety culture, beyond the required curriculum components. This is evidenced by the proportion of schools that include road safety and risk taking as a topic in school newsletters, school assemblies, teacher in-service training, school policies and handbook (with at least one third of all schools undertaking these initiatives).
- It must also be acknowledged that there is little room within the curriculum to do any more on these issues than schools are currently doing. Thus if this topic is to be addressed more fully in school it has to be external to the curriculum.

### Limitations of the Study

While the interview and written survey approach yielded a large amount of rich information, there were some difficulties in interpreting it based on the following study limitations: Although the overall RRISK evaluation concerns a large number of students (4,701), the 'unit of analysis', in this current component, is the school. Because of this there were only around 20 'units of analysis' in each of the intervention and comparison groups. Such small numbers in each group made conclusions about differences between the two groups problematic.

The respondent for each school was a key contact teacher who had to respond on behalf of the school, and on some questions present views about the involvement of parents and wider community in road safety and risk taking among Year 10 & 11 students. We have to acknowledge that some of the views expressed are those of only one teacher and thus may

not capture everything that happened in the school during the year, making objective comparison between schools difficult. Perhaps slightly different responses within the 'school component' would have been obtained if other teachers had been the respondents, or if a different data collection method had been used.

The interviews were planned for the end of the year, in early November for the comparison schools and late November/early December for the intervention schools (after the RRISK seminar was held in mid November). This was to ensure that they included the RRISK seminar in their year's experience of risk taking and road safety activities within the school. However, it meant that it was a very busy time of year for teachers (even more so for the intervention schools) which may explain why some teachers did not return their written survey.

Interpreting the findings based on whether the schools were in the intervention or comparison group was complicated by several factors 'blurring' the distinction between the groups. These included:

- The student population of interest covered year 10 & 11, with each having different levels of coverage of these topics as required and also of elective courses. Several teachers reported that they had difficulty responding to questions across both year groups because of these differences.
- Because of curriculum requirements, schools find different ways and programs to meet them - RRISK being just one of them. Thus, not surprisingly, comparison schools reported doing more (non-RRISK) activities such as bringing people into the school. Each intervention school did different activities in addition to participating in RRISK.

The validity of the findings in this report is strengthened by the usage of a number of evaluation strategies and triangulation between them. The student evaluation demonstrated that participation in a one day RRISK seminar resulted in significant medium term improvements in a number of aspects of students' knowledge, attitudes and self reported behaviours. The partnership evaluation revealed that on almost all levels, the RRISK partnership was considered uniquely strong for an intersectoral committee and a number of specific supportive elements were identified. The teacher evaluation revealed there may have been less in-school activities in RRISK schools, possibly due to teachers perceiving the RRISK seminars as fulfilling the need for extra curricular input. The teacher evaluation also resulted in the production of a useful checklist/planning tool to assist schools to determine how to address adolescent risk taking through in-school activities. The process evaluation showed that the current format of the RRISK seminars is highly satisfactory for students and teachers.

## RRISK Findings in Context

Influencing adolescent risk taking and reducing consequent harmful outcomes requires a complex, multidimensional and intersectoral approach. While there has been considerable focus on extending learner-driver training programs, upgrading roads and improving safety of motor vehicles, less attention has been given to the vital psychosocial dimensions of the overall problem. Risk taking is considered normal behaviour for adolescents.

Experimentation with alcohol and other substances, the desire to explore relationships and be free from parental supervision is clearly part of the mix that places young people at greater risk than other age groups. A program such as RRISK, which addresses these issues and enhances school-based curricula at a crucial time in adolescent development should therefore be viewed as one important component of an effective multidimensional approach.

Most interventions, whether behavioural or skills based, have had little impact in reducing adolescent injury because the problem is so complex and the interventions so piecemeal. RRISK is one of the few programs of its kind to have improved knowledge, attitudinal and behavioural precursors to risk-associated harm. The focus should now be on how to further enhance this achievement. One enhancement that is currently being promoted is the RRISK Checklist of Strategies for High Schools, developed during the evaluation process, and now being well received by participating schools.

However, there is a wide range of broader social, political and legislative initiatives that should be developed to further. Some of these are already in place such as graduated licensing and other recent novice driver policies. Others need to be established via interdepartmental working groups including agencies such as MAA, RTA, NRMA, NSW Health, Local Government and Education sectors. The RRISK program is well positioned to support and be supported by other initiatives. It has resulted in some positive changes in knowledge, attitudes and behaviour despite the absence of more extensive in-school supports at the time the evaluation was conducted. It requires minimal resources and brings together a number of key organisations in the community that are committed to the safety and well being of young people. It has overwhelming support from schools in the catchment area and provides a catalyst for further school and broader intersectoral initiatives.

Although the evaluation had limitations typical of other evaluations of complex behavioural interventions, RRISK emerged as a model of a well-integrated intervention that achieved its stated aim and objectives to positively influence adolescents' knowledge attitudes and behaviours associated with risk taking.

## Recommendations for Future Improvement of RRISK

- Participating schools to increase the proportion of students attending the RRISK seminars.
- The RRISK committee to facilitate increased students' attendance at the RRISK seminars by adjusting timing of seminars or the year group, which attends them.
- Schools to implement more in-school activities to increase the impact of the RRISK seminars, both preceding and following the seminars.
- Schools to use the Checklist of Strategies for High Schools developed by the RRISK committee, and incorporate it into their planning process to develop a strategic approach to addressing risk taking issues.
- Future planning to extend the reach of the program to parents and the wider community.
- The growing interest by teachers and schools in advanced driver training programs should be investigated and evidence of their effectiveness should be considered.
- Key organisations that are represented on the RRISK committee, should continue supporting RRISK and ensure its sustainability as a matter of urgency, eg write it into relevant officers' job description/duties and allocate a budget.

## Recommendations for Implementation in Other Areas

Research for the efficacy of school-based approaches to risk-taking is scarce, and its results have generated little evidence for effective models. In this context, the positive findings of this comprehensive evaluation of RRISK, although modest, justify the following recommendations:

- Similar programs should be implemented in other areas. These programs should adopt the key principles of the RRISK project, ie:
  - Establish and maintain a strong intersectoral partnership to oversee the project
  - Conduct seminars that are up to date, interactive, and multi-strategic
  - Complement the seminars with other in-school activities using the Checklist of Strategies for High Schools to guide planning.
- The RRISK committee should provide appropriate support and advice to other organisations interested in implementing similar programs.
- Feedback from the teachers' evaluation, concerning the need for current road safety/risk taking education resources to be updated, should be passed on to the relevant authorities.

## Outputs & Products

The following were produced during the evaluation:

### A checklist of school strategies addressing risk-taking among students

One of the important outcomes of the school/teacher evaluation was the creation of a checklist of strategies that schools can use to reflect on and review current in-school activities beyond the PDHPE curriculum that address risk taking issues. This resource can be used to review both the choice of strategies a school is currently engaged in, and whether the type of activities currently conducted within these strategies are compatible with 'principles of quality practice' (based on research evidence and expert opinion in the field).

The HP-NCAHS Research and Evaluation team is currently refining and disseminating the checklist through high school principals' and assistant principals' meetings. It is intended that schools will use the list as part of their planning process and that it will encourage more schools to address risk taking issues by choosing strategies that are likely to have more impact on student KAB and be more sustainable than the current mix of strategies and activities. See Checklist of Strategies for High Schools. See appendix 12.

### Publications in peer reviewed journals

The following papers have been submitted for publication:

- Van Beurden E., Zask A., Brooks L., & Dight R. *Heavy episodic drinking and sensation seeking in adolescents as predictors of harmful driving and celebrating behaviours-implications for prevention.* Journal of Adolescent Health, 2005:37:37-43
- Zask A., van Beurden E., Brooks L., & Dight R. *Is it worth the RRISK? Evaluation of the RRISK (Reduce Risk Increase Student Knowledge) program for adolescents in rural Australia.* Submitted for review Journal of Adolescent Health.
- Elkington J., Van Beurden E., Zask A., Dight R., & Johnson W. *Ingredients of a sustainable intersectoral partnership - the RRISK (Reduce Risk Increase Student Knowledge) experience in Northern Rivers NSW.* In preparation.
- See abstracts in Appendices 9 & 10.

### Presentations in conferences and other forums

Information about either the RRISK program implementation or evaluation results were presented in the following conferences and forums:

- NSW Safe Celebration Forum (convened by NSW Youthsafe). 2004, Sydney NSW.
- NSW Alcohol Summit: Presentation to visiting parliamentary committee, 2003 Lismore NSW.
- Fifth National Injury Prevention and 2<sup>nd</sup> Pacific Rim Safe Communities Conference, 2004, Mackay QLD.
- National 2004 Road Safety, Research, Policing and Education Conference, Perth WA.
- 'Beyond the Drug': Australian Professional Society on Alcohol and other Drugs Conference 2004, Fremantle WA.

See CD for details.

## **Interest in and adoption of programs based on RRISK in other areas**

There has been considerable interest in the RRISK program from other parts of Australia, ranging from enquiries and requests for reports and resources to the replication of the RRISK seminar program with minor changes to suit local conditions.

### ***NSW***

RRISK was first staged as the Young Driver Expo in 1999 and was initially based on a program run in Tamworth. The present format for RRISK was developed the following year and elements of RRISK were incorporated into the Young Driver Expo which continued to run in Tamworth.

The mid north coast of NSW has been associated with the RRISK program in a number of ways. Nineteen high schools participated in the RRISK student evaluation by agreeing to be surveyed as a comparison group to schools in the far north coast in which the RRISK program is implemented. These schools indicated that they are very keen to participate in RRISK. The RRISK Committee and North Coast Area Health Service are investigating the potential for RRISK to be expanded to these schools in the near future.

The evaluation team were invited by Catholic Education Office to conduct a presentation on RRISK at a PDHPE Seminar held in 2004 that was attended by teachers from the north and mid north coast areas. During 2005 the outcomes of the RRISK Evaluation were presented to Catholic schools at the regional Assistant Principals' conference and at the Department of Education and Training High Schools Principals' conference.

### ***Australian Capital Territory***

Visitors from the ACT Dept of Education attended the RRISK seminars in 2002-2004. Continued liaison and support led to the development of Road and Alcohol Safety: Peer Education in Colleges Tour (RASPECT), which was held on 19 May 2005. RASPECT is based on RRISK, has most of the sessions and the same keynote speaker. It involved 350+ year 11 students from 5 high schools in the ACT. The Chairperson of the RRISK Committee was invited to attend and was gratified to see that the RRISK program is very adaptable. We are now convinced that RRISK is easily transferable to other areas.

### ***Victoria***

The Victorian Department of Human Services made a formal request in Jan 2005 to utilise resources and strategies from the RRISK program in their secondary school nurse health promotion programs, which are run in high schools in the Western Region of Melbourne. A consultancy with the RRISK Committee followed in March and a number of initiatives are being planned. Strategies from RRISK, including the peer education session and the crash scenario, will be part of a program currently being developed. It will be piloted with year 10 students in one school with a view to further expansion. Feedback from the project officer organising these activities has been very positive. The mix of RRISK strategies is just what they want. Their aim is to have one or two 'model RRISK schools' by the end of 2005.

## REFERENCES

1. NSW Department of Health. NSW Trauma Minimum Data Set. 2003 Annual Report. Gladesville: NSW Department of Health; 2004.
2. Norton R, Lam L. Young Males Risk Taking Project: Report to the Injury Prevention Policy Unit, NSW Health; 1999 unpublished.
3. Elkington J, Hunter K, McKay L. A Systematic Review of the Evidence on Preventing Injuries to Young People (15-24 years). Report to Spinesafe April, 2000. Gordon, NSW: Jane Elkington & Associates; 2000.
4. Moore S, Parsons J. A research agenda for adolescent risk-taking: where do we go from here? *Journal of Adolescence*. 2000;23:371-376.
5. Arnett J. Review: Reckless behaviour in adolescence: a developmental perspective. *Developmental Review*. 1992;12:339-373.
6. McBride N, Farrington F, Midford R, Meuleners L, Phillips M. Harm minimization in school drug education: final results of the School Health and Alcohol Harm Reduction Project (SHAHRP). *Addiction*. 2004;99(3):278-291.
7. D'Amico EJ, Fromme K. Brief prevention for adolescent risk-taking behavior. *Addiction*. 2001;97(5):563-574.
8. Laraque D, Barlow B, M D, Heagarty M. Injury prevention in an urban setting: Challenges and successes. *Bulletin of the New York Academy of Medicine*. 1995;72(1):16-30.
9. Butterfoss FD, Goodman RM, Wandersman A. Community coalitions for prevention and health promotion: Factors predicting satisfaction, participation, and planning. *Health Education Quarterly*. 1996;23(1):65-79.
10. Arnett J. Sensation seeking, aggressiveness, and adolescent reckless behavior. *Personality & Individual Differences*. 1996;20:693-702.
11. Jonah BA. Accident risk and risk-taking behavior among young drivers. *Accident Analysis & Prevention*. 1986;18(4):255-271.
12. Irwin CE, Millstein SG. Biopsychosocial correlates of risk-taking behaviors during adolescence. *Journal of Adolescent Health Care*. 1986;7:82S-96S.
13. Flannery DJ, Vazsonyi AT, Rowe DC. Caucasians and Hispanic early adolescent substance use: Parenting, personality and school adjustment. *Journal of Early Adolescence*. 1996;16:71-89.
14. Redeker NS, Smeltzer SC, Kirkpatrick J, Parchment S. Risk factors of adolescent and young adult trauma victims. *American Journal of Critical Care*. 1995;4(5):370-378.
15. Zuckerman M. *Behavioral Expressions and Biosocial Bases of Sensations Seeking*. New York: Cambridge University Press; 1994.
16. Chang E, Dixon K, Hancock K. Factors associated with risk-taking behaviour in Western Sydney's young people. *Youth Studies Australia*. 2001;20(4):20-25.
17. Cubbin C, LeClere FB, Smith GS. Socioeconomic status and injury mortality: individual and neighbourhood determinants. *Journal of Epidemiology & Community Health*. 2000;54:517-524.
18. Farrington DP. Early predictors of adolescent aggression and adult violence. *Violence & Victims*. 1989;4(2):79-100.
19. Hammond WR, Yung B. Psychology's role in the public health response to assaultive violence among young African-American men. *American Psychologist*. 1993;48(2):142-154.
20. O'Leary TA, Brown SA, Colby SM, et al. Treating adolescents together or individually? Issues in adolescent substance abuse interventions. *Alcoholism: Clinical & Experimental Research*. 2002;26(6):890-899.

21. Pope C, Ziebland S, Mays N. Qualitative research in health care: Analysing qualitative data. *British Medical Journal*. 2000;320:114-116.
22. Centre for Multilevel Modeling - Institute of Education - University College London. MLwin. London: Centre for Multilevel Modeling - Institute of Education - University College London,; 2001.
23. Goldstein H. *Multilevel Statistical Models*. New York: Wiley; 1995.
24. Snijders TAB, Bosker R. *Multilevel Analysis: An Introduction to Basic & Advanced Multilevel Modelling*. London: Sage Publications,; 1999.
25. Goldstein H, Rasbash J. Improved approximations for multilevel models with binary responses. *Journal of the Royal Statistical Society*. 1996;159(3):505-513.
26. Hawe P, King L, Noort M, Jordens C, Lloyd B. Indicators to Help With Capacity Building in Health Promotion. North Sydney: NSW Health Department, Australian Centre for Health Promotion,; 2000.
27. Sancu L, Toumbourou JW, San V, Rowland B, Hemphill S, Munro G. Drug education approaches in secondary schools. Melbourne: DrugInfo Clearinghouse; 2002.
28. Eddy JM, Reid JB, Fetrow RA. An Elementary school-based prevention program targeting modifiable antecedents of youth delinquency and violence: Linking the interests of families and teachers (LIFT). *Journal of Emotional & Behavioural Disorders*. 2000;8(3):165-176.
29. Toumbourou J, Patton G, Sawyer S, et al. Evidence-based interventions for promoting adolescent health. Melbourne: Centre for Adolescent Health; 2000.
30. Newell SA, Girgis A, Sanson-Fisher RW, Savolainen NJ. The accuracy of self-reported health behaviors and risk factors relating to cancer and cardiovascular disease in the general population: A critical review. *American Journal of Preventive Medicine*. 1999;17(3):211-229.
31. van Beurden E, Zask A, Brooks L, Dight R. Heavy episodic drinking and sensation seeking in adolescents as predictors of harmful driving and celebrating behaviours - implications for prevention. *Journal of Adolescent Health*. 2005;37(1):37-43.

# APPENDICES

Appendix 1: 2004 RRISK Seminar Program	54
Appendix 2: Student Survey – School Information Package	55
Appendix 3: Student Survey – Parent/guardian consent form	57
Appendix 4: Student Knowledge Attitudes & Behaviour Survey Form	58
Appendix 5: Teachers’ Survey Form	69
Appendix 6: Strength of Partnership – Stakeholder phone interview protocol/guideline	74
Appendix 7: Process Evaluation – Students’ survey forms 2002 & 2004	76
Appendix 8: Process Evaluation – Teachers’ survey forms 2002 & 2004	78
Appendix 9: Abstracts of Published Papers Based on Baseline Data	81
Appendix 10: Abstract of Published Paper	82
Appendix 11: Process Evaluation Report Summary	83
Appendix 12: A Checklist of Strategies for High Schools	86
Appendix 13: Resources Included in the Attached CD	91

## Appendix 1: 2004 RRISK Seminar Program

### SEMINAR TIMETABLE

23.24.25 November 2004



WHEN	WHAT	WHO	WHERE
9.15	All students seated for formal welcome to University	SCU representative	
9.20- 9.30 (10min)	Housekeeping Arrangements for the day, Introduce Paul Dillon	Ebony Allen	Y Block Theatre
9.30 - 10.15 (45min) <b>Session 1:</b> Keynote Address	Drug and Alcohol facts and risks The myths and the research. Strategies for planning ahead to reduce harm	Paul Dillon, National Drug and Alcohol Research Centre	Y Block Theatre Centre
10.15 – 11.00 (45min) <b>Session 2:</b> Group (A)	Breakout groups - 250 students	RRISK Team Facilitator, accompanying teacher, 25 students	Breakout classrooms
<b>Session 2 :</b> Group (B)	Safe Drivers - 250 students Y Block Theatre	Ebony Allen and Ray Clarke Road Safety Officer	Y Block Theatre
11.00 – 11.30	<b>Morning tea</b>		<b>SCU PLAZA</b>
11.30 – 12 noon (30min) <b>Session 3:</b>	Safe Vehicles, buying and maintaining your first car	Ross Edmunds – RTA	Y Block Theatre
12.00 –12.45pm (45min) <b>Session 4:</b> Group (B)	Safe Drivers - 250 students	Ebony Allen and Ray Clarke Road Safety Officer	Y Block Theatre
<b>Session 4:</b> Group (A)	Breakout groups - 250 students	RRISK Team Facilitator, accompanying teacher, 25 students	Breakout classrooms
12.45 - 1.30 (45 min)	<b>Lunch</b>	<b>Band</b>	<b>SCU PLAZA</b>
1.30 – 2.10 (40min) <b>Session 5:</b>	Simulated crash scenario	Police, SES, Ambulance, Crown Prosecutor, drama students	Y Block Theatre
2.10 - 2.25 (15min) <b>Session 6:</b>	MVA Injured presenter – personal story	Reyna Dight to introduce Michael Buttenshaw	Y Block Theatre
2.25 - 2.30 (5min) <b>Session 7:</b>	Wrap Up	Paul Dillon	Y Block Theatre

## Appendix 2: Student Survey – School Information Package

### Evaluation of RRISK: Reducing Harmful Outcomes of Adolescent Risk-taking

#### School Information Sheet

##### ANSWERS TO COMMON QUESTIONS ABOUT THIS PROJECT

##### ***What is the RRISK program?***

The RRISK (Reduce Risk Increase Student Knowledge) program aims to reduce harm related to adolescent risk taking behaviour by assisting students to develop skills, attitudes, and knowledge to make informed and independent decisions that will reduce risk taking associated with driving, drug/alcohol use and celebrating/partying. It has been running in high schools in the Northern Rivers area for 4 years.

##### ***Who is involved in the program?***

Students in years 10 and 11 in local high schools are the program's target. The program involves student group leaders, teachers and outside experts. The program is jointly managed by the Lismore district of the Department of Education & Training, Catholic Education Office Lismore, Lismore and Ballina Councils, the Northern Rivers Area Health Service, Southern Cross University, RTA, NSW Police and NSW Ambulance Service.

##### ***Why are we surveying students?***

We would like to survey students who participate in this program to assess the effects the program may or may not have on their knowledge, attitudes and self reported behaviour. Conducting this survey will ensure the program achieves its stated aims and that it remains relevant and useful to students.

##### ***What will the survey include?***

The survey will include questions on students' knowledge about drinking, driving, and partying issues. Students' attitudes to partying and risk taking will be surveyed as well and there will also be questions on students' recall of recent risk taking behaviours by self and others.

##### ***Will the survey be anonymous?***

Yes, the survey will be totally anonymous. There will be no identifying data on the survey forms and data will be aggregated for the whole survey population, not by class or school. The survey will also be voluntary which means that students would only participate if they choose to.

***When and how will the surveys be conducted and how long will it take?***

The survey will be administered to students in March 2003 and again in March 2004 ie before and after their involvement in the RRISK program. Students will be asked to fill in the survey in class. Filling in the survey takes approximately 20 minutes. Trained research assistants from the Health Promotion Unit of the Northern Rivers Area Health Service will administer the survey. All research assistants have been screened for criminal records prior to their engagement as research assistants.

***Will results of the surveys be confidential and will they compare schools?***

The results will be published in aggregated form, from which the results of any class or school will not be identifiable. All data will be kept in locked filing systems and electronic data stored in secure and password protected databases. Survey results may be published in professional journals pending your Department's approval.

***What advice or information can my child get in the school regarding risk taking behaviours***

Your child and/or you can use the school counselling service / year coordinator at any time to discuss any issues related to risk taking behaviours such as alcohol/drug use and driving, safe partying and how to cope with peer pressure. To make an appointment, ring the school on \_\_\_\_\_ .

**If you have any questions regarding the project and its evaluation methods please call any of the following contact people:**

**Northern Rivers Institute of Health and Research contact:**

Eric van Beurden

Ph: (02) 6620 7532

Avigdor Zask

Ph: (02) 6620 7512

**Department of Education and Training Drug Education Consultant (relieving):**

**Kelly McDermott**

**Ph: (02) 66235928**

## Appendix 3: Student Survey – Parent/guardian consent form

# Win a Double Movie Ticket

We are inviting you to participate in a survey on alcohol, drug use, driving and celebrating. Please ask your parent/carer to complete this consent form and you will have a one in fifty chance of winning a double movie ticket



### Dear Parent/Carer

Our school has nominated to participate in a survey of knowledge, attitudes and reported behaviour in relation to risk taking associated with driving, alcohol & drug use and celebrating/partying.

No individual details will be recorded. Participation in the survey will be voluntary and anonymous and decision not to participate will in no way prejudice your child's academic standing or relationship with the school. Your child will also be free to withdraw their participation at any time. Students will be instructed how to fill the surveys by trained research assistants. All data will be kept in locked filing systems and electronic data stored in secure and password protected databases. All information will be collated for all schools together, not by class or individual school.

This evaluation is an important initiative in helping to improve the health and well-being of secondary school students across NSW. I encourage you to support your child's involvement.

Please tick the appropriate box on the tear off section below to either give or refuse consent for your child to participate.

..... Principal



### Reducing Harmful Outcomes of Adolescent Risk-taking Student Survey

### Please complete all student details



Student's Name: .....

Male

Female

Year 10

Year 11

### Please tick one response:

I give my permission for my child's involvement in the survey

I object to my child's involvement in the survey

My concerns/comments regarding the proposed project: .....

Signature of Parent/Carer ..... Date .....

Students will only be entered in the draw to win movie tickets if this form is returned completed and signed (regardless of whether or not consent is given).

## Appendix 4: Student Knowledge Attitudes & Behaviour Survey Form

# STUDENT SURVEY

- Please **don't** put your name on this paper.
- Your answers are anonymous and confidential.
- Your participation is voluntary.
- If you wish to change your answer, cross out the mistake and tick the new response or write the new answer as close as you can to the required space.

**Office use**

INTERVIEWER \_\_\_\_\_

DAY \_\_/\_\_/\_\_

SCHOOL \_\_\_\_\_

## FIRST A FEW DETAILS

1. What year are you in at school? (*tick one box*)

<sup>10</sup>  Year 10

<sup>11</sup>  Year 11

2. How old are you now? (*tick one box*)

<sup>15</sup>  15

<sup>16</sup>  16

<sup>17</sup>  17

<sup>18</sup>  18

3. What is your gender?

<sup>1</sup>  Male

<sup>2</sup>  Female

4. During a normal week, how much money do you get for spending on yourself? (eg from pocket money, part-time job). (*tick one box*)

<sup>1</sup>  None

<sup>2</sup>  \$10 or less

<sup>3</sup>  \$11 - \$20

<sup>4</sup>  \$21 - \$40

<sup>5</sup>  \$41 - \$60

<sup>6</sup>  \$61 - \$80

<sup>7</sup>  Over \$80

5. What is your current driver license status? (*tick one box*)

<sup>1</sup>  Neither L nor P

<sup>2</sup>  L (Learner )

<sup>3</sup>  P1

<sup>4</sup>  P2

<sup>5</sup>  Other: \_\_\_\_\_

**THE NEXT QUESTIONS ARE ABOUT DRINKING ALCOHOL AND DRIVING DURING THE LAST 8 WEEKS**

Alcohol includes: beer, wine, coolers, alcoholic sodas, spirits, liqueurs, alcoholic apple juice, apple cider, sherry or port).



6. How many times during **January and February this year** have you had six or more standard drinks on any one occasion?

January (holidays) \_\_\_ times                      February (first 4 weeks of school term) \_\_\_ times

7. How many times **during January and February this year** have you been a passenger of a car or motorbike driven by a **family member** (parent, grandparent, guardian, sister, brother, aunt, uncle) who you suspected to be under the influence of alcohol while driving?

January (holidays) \_\_\_ times                      February (first 4 weeks of school term) \_\_\_ times

8. How many times **during January and February this year** have you been a passenger of a car or motorbike driven by a **friend or acquaintance** who you suspected to be under the influence of alcohol while driving?

January (holidays) \_\_\_ times                      February (first 4 weeks of school term) \_\_\_ times

9. How many times **during January and February this year** have you had one or more drinks containing alcohol and then driven a car or ridden a motorcycle within the next 2 hours – on or off a public road?

January (holidays) \_\_\_ times                      February (first 4 weeks of school term) \_\_\_ times

10. How many times **during January and February this year** have you driven or been a passenger in a car without wearing a seatbelt – on or off a public road?

January (holidays) \_\_\_ times                      February (first 4 weeks of school term) \_\_\_ times

THE NEXT QUESTION IS ABOUT **DRUGS (other than alcohol)** AND DRIVING DURING THE LAST 8 WEEKS ie:

CANNABIS	(Marijuana, grass, hash, dope, weed, mull, pot, a joint)
AMPHETAMINES	(speed, uppers, MDA, Ritalin, Dex, ice, crystal, GHB)
COCAINE	(powder, crack, freebase)
HALLUCINOGENS	(LSD, acid, trips, Magic Mushrooms)
ECSTASY	(XTC, E, MDMA, ecci, X)
INHALANTS	(spray cans, glue, paint, petrol or thinners, chroming)
OPIATES	(heroin, smack)
TRANQUILISERS	(sedatives, sleeping tablets, Valium, Serepax, Rohypnol, Barbs)

11. How many times **during January and February this year** have you been a passenger of a car or motorcycle driven by someone who you suspected to be under the influence of any of the drugs listed above while driving?

January (holidays) \_\_\_ times

February (first 4 weeks of school term) \_\_\_ times

## KNOWLEDGE AND LEARNING

12. What is the emergency telephone number (for police, ambulance etc)?

Phone: \_\_\_\_\_

13. How many standard drinks can an 'L' or 'P' plate driver consume and be sure that they are under the legal limit?

\_\_\_\_\_ drinks

14. Can people be charged by the police for driving under the influence of marijuana?

Yes

No

Don't Know

15. To what extent were the following topics covered in **regular classes at school** last year? (tick **one** response to each statement)

Topic	Not mentioned	Covered a little	Moderately covered	Extensively covered
a) What makes a safe car	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) Risk related to speeding	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) Emergency recovery position	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) Planning a safe way home	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e) Effects of alcohol on driving	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f) Use of cannabis	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
g) Effects of cannabis on driving	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
h) General effects of other drugs (eg amphetamines & ecstasy)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

16. How would you rate your **current understanding** of the following topics?

(tick one box for each statement)

Topic	Poor	Basic	Good	Excellent
a) What makes a safe car	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) Risk related to speeding	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) Emergency recovery position	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) Planning a safe way home	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e) Effects of alcohol on driving	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f) Use of cannabis	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
g) Effects of cannabis on driving	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
h) General effects of other drugs (eg amphetamines & ecstasy)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

17. How can you assess if someone has been drinking too much to drive safely? (*List as many different answers as you think apply*)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_
- f) \_\_\_\_\_
- g) \_\_\_\_\_
- h) \_\_\_\_\_

18. What can you do **before** a party to ensure you get home safely? (*List as many different answers as you think apply*)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_
- f) \_\_\_\_\_
- g) \_\_\_\_\_
- h) \_\_\_\_\_

19. What aspects would you check in a second hand car, to make sure it was a safe vehicle to buy? (*List as many different answers as you think apply*)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_
- f) \_\_\_\_\_
- g) \_\_\_\_\_
- h) \_\_\_\_\_

**THE NEXT QUESTIONS ARE ABOUT PARTIES**  
 (that at least 10 people in your age group attended. It includes Dance Parties, Doofs and Raves)

20. **During January and February this year**, approximately how many parties have you been to?

January (holidays) \_\_\_ parties                      February (first 4 weeks of school term) \_\_\_ parties

21. For how many of those parties you went to **during January and February this year** did you do each of the following?  
*(Beside each activity write the number of parties where it happened)*

Activity	Number of parties
↓	
a) Agreed with a friend to look out for each other	
b) Told a parent or guardian where I was going	
c) Had a way my parents or guardian could contact me	
d) Planned a safe way home, prior to the party	
e) Ended up with no safe way home from the party	
f) Got so drunk I felt ill	
g) Drove under the influence of either alcohol or drugs	
h) Was a car or bike passenger with a driver I suspected was influenced by alcohol or drugs	
i) Took a taxi home	
j) Called a parent, friend, carer or relative to collect me	
k) Caught a bus home	
l) Smoked marijuana	
m) Felt ill from using drugs	

22. How strongly do you agree or disagree with the following statements about **yourself and parties you go to**: (tick one box for each statement)

	Strongly disagree	Disagree	Agree	Strongly Agree
a) I only go to a party if a friend goes too	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) I avoid going to parties if I know there are no parents at home	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) At a party, if I leave my friends for a while I always tell them where I'm going	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) Good parties don't need alcohol or drugs	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e) Everyone who parties should know CPR first aid.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f) I don't usually plan a way home before I go to a party.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
g) I look out for my friends so they don't get too drunk or stoned	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
h) I don't need to know whose place the party is at	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
i) I always check the driver isn't drunk before I get in a car	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
j) I tell my parents exactly where I am going at night	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
k) My parents don't allow me to go to certain parties	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
l) My parents insist on knowing how I am getting home from a party	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

## The NEXT QUESTIONS ask about how you think and act

23. Please read each statement carefully and decide whether the statement generally **DESCRIBES YOU** (ie True) or generally **DOES NOT** describe you (ie False) (*Tick one box for each statement*).

	TRUE	FALSE
a) I tend to begin a new task without much advance planning on how I will do it.	1 <input type="checkbox"/>	2 <input type="checkbox"/>
b) I usually think about what I am going to do before doing it	1 <input type="checkbox"/>	2 <input type="checkbox"/>
c) I often do things on impulse	1 <input type="checkbox"/>	2 <input type="checkbox"/>
d) I rarely spend much time on the details of planning ahead	1 <input type="checkbox"/>	2 <input type="checkbox"/>
e) I like to have new and exciting experiences and sensations even if they are a little frightening	1 <input type="checkbox"/>	2 <input type="checkbox"/>
f) Before I begin a complicated task, I make careful plans	1 <input type="checkbox"/>	2 <input type="checkbox"/>
g) I would like to go on a trip with no pre-planned or definite routes or timetables	1 <input type="checkbox"/>	2 <input type="checkbox"/>
h) I enjoy getting into new situations where you can't predict how things will turn out	1 <input type="checkbox"/>	2 <input type="checkbox"/>
i) I like doing things just for the thrill of it	1 <input type="checkbox"/>	2 <input type="checkbox"/>
j) I tend to change interests frequently	1 <input type="checkbox"/>	2 <input type="checkbox"/>
k) I sometimes like to do things which are a little frightening	1 <input type="checkbox"/>	2 <input type="checkbox"/>
l) I'll try anything once	1 <input type="checkbox"/>	2 <input type="checkbox"/>
m) I would like the kind of life where I am on the move and travelling a lot, with lots of change and excitement	1 <input type="checkbox"/>	2 <input type="checkbox"/>
n) I sometimes do "crazy" things just for fun	1 <input type="checkbox"/>	2 <input type="checkbox"/>
o) I like to explore a strange city or section of town by myself, even if it means getting lost	1 <input type="checkbox"/>	2 <input type="checkbox"/>
p) I prefer friends who are excitingly unpredictable	1 <input type="checkbox"/>	2 <input type="checkbox"/>
q) I often get so carried away by new and exciting things and ideas that I never think of possible complications	1 <input type="checkbox"/>	2 <input type="checkbox"/>
r) I am an impulsive person	1 <input type="checkbox"/>	2 <input type="checkbox"/>
s) I like "wild" out of control parties	1 <input type="checkbox"/>	2 <input type="checkbox"/>

**THESE QUESTIONS ARE about a seminar you may have attended at SOUTHERN CROSS UNIVERSITY or TWEED HEADS**

24. Have you ever attended a full-day seminar at Southern Cross University in Lismore or in the Tweed Heads Civic Centre, which covered risk-taking associated with drinking, drugs, driving and partying. *(tick appropriate box(es))*

<sub>1</sub> Yes in 2003

<sub>2</sub> Yes in 2002

<sub>3</sub> No

***If 'No', you have completed the survey and there is no need to answer questions 25-28. Otherwise, please continue.***

25. Which of the following subjects do you recall being addressed **in the seminar**? *(tick one response to each statement)*

	Yes addressed	No not addressed	Don't know – not sure
a) What makes a safe car	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
b) Risk related to speeding	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
c) Emergency recovery position	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
d) Planning a safe way home	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
e) Effects of alcohol on driving	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
f) Use of cannabis	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
g) Effects of cannabis on driving	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
h) General effects of other drugs (eg amphetamines & ecstasy)	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

26. Has the seminar changed the way you **think** about drinking, drugs, driving or partying? If yes, in what way(s)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

27. Has the seminar changed the way you **behave** in terms of drinking, drugs, driving or partying? If yes, in what way(s)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_

28. Do you have any other comments or suggestions that may help us work in with your school to reduce injuries related to drinking, drugs, driving or partying in your age group?

- a) \_\_\_\_\_
- b) \_\_\_\_\_

## Appendix 5: Teachers' Survey Form

**(Q 1-2 were filled in and faxed to the interviewer prior to the phone interview)**

**Teacher:**

**School:**

Could you provide an overview of lessons and activities that your school has been or will be involved in **during 2003** concerning **Years 10 and 11** students' risk taking behaviour in relation to driving, drinking, drugs and partying.

Risk related activities/lessons	Occurred ✓ (yes)	How long did it go for?	What faculty/ departments were involved	Main areas of risk taking focus eg alcohol, driving, drugs, celebrating/partying (please tick or specify)			
				Drugs/ alcohol ✓	Driving ✓	Celebrating/ partying ✓	Other, please specify
Within PDHPE							
As a project outside PDHPE eg IT, drama, science							
Use of outside presenters brought into the school							
Students taken to a special seminar workshop							
Follow-up lessons/activities to special seminar workshop							
Topic addressed in assembly							
Display set up within school							
Student committees formed to work on safety issues							
Peer education systems established							
Special insert into newsletter to parents							
Topic of P&C meeting							
Topic of in-service training							
Topic of staff meeting/coordinators' meeting							
School policy developed/ reviewed including code of conduct or guidelines about social events							
Part of the school handbook or other guidelines							
Students involved in community activities about safety							
RRISK seminars in SCU or Tweed Heads				✓	✓	✓	
Specify other activities, programs or initiatives:							
Other 2:							

For each activity that occurred (see column 1 above), please provide details as requested

Activity (transferred from Q 1)	How was the activity delivered?, e.g. Teacher led, Guest led, Out of school workshop, Peer based, Whole of school	Did it provide new and useful information?	As a learning activity, what were its Strengths? It's Weaknesses?		Administratively, what were its Strengths? It's Weaknesses?	
			Strengths	Weaknesses	Strengths	Weaknesses
RRISK Seminars	Out of school workshop. Guest led & peer based activities.					

***Please photocopy this page as needed***

**Below are some educational resources concerning risk taking, health and safety. Could you identify if you have used or will use any of these resources with years 10 or 11 students during terms 3 or 4 in 2003?**

	Used ✓ (yes)
<i>Driving with Attitude - Years 9-10</i> (PDHPE)	
<i>Driving with Attitude - Years 11-12</i> (PDHPE)	
<i>Driving with Attitude - Years 11-12</i> (General Studies)	
<i>Physics of car crashes</i> (video resource for year 11/12 physics students)	
<i>Driving with Mind not Muscle</i> (informational resource)	
<i>Go Back you are Going the Wrong Way</i> (video teaching resource)	
<i>Handle with Care</i> (Brain injury video resource)	
<i>The Driving Experience</i> (Teaching kit)	
<i>RoadWhys program</i> (4 teaching kits: speeding, drink driving, occupant restraint, driver fatigue)	
<i>Candidly Cannabis</i> – The Drug Offensive ACT	
<i>Rethinking Drinking</i> – A kit providing practical materials to support secondary drug education based on harm minimisation	
<i>Making Sense of Drugs</i> – Macarthur Drug and Alcohol Youth Project	
<i>End of year Safe Celebrations Kit</i> (DET schools)	
<i>Towards Wholeness</i> (Catholic Schools)	
<i>Other:</i>	
<i>Other:</i>	

3. As a **teacher, do you do anything differently** (within or outside classes) in terms of teaching as a result of these activities? (if so, in what way?)
4. Do you think the **school, as a whole, addresses these topics differently** as a result of these activities?
5. On a scale of 1 to 10, with 1 being extremely unconfident and 10 being extremely confident, as a teacher, **how confident do you feel** in covering risk-taking topics with your year 10 and or 11 classes?
6. Do you feel you **have adequate informational resources or activity guides** to assist you in delivering classes on risk taking? Yes/no (Yes what do you use? If no – what would you like to have that is currently not available?)
7. To what extent do you recall each of the following subjects being covered **in regular classes at school** last year? *(I will run through a list and ask you to choose one of four responses to each item: ie not mentioned.....)*

	Not mentioned	Covered a little	Moderately covered	Extensively covered
a) What makes a safe car	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) Risk related to speeding	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) Emergency recovery position	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) Planning a safe way home	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e) Effects of alcohol on driving	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f) Effects of cannabis on driving	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
g) General effects of other drugs (eg amphetamines & ecstasy)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

11. What do you think are the major safety or risk taking concerns of your year 10/11 students. i.e. what do **they think** are key issues to be concerned about?
12. What do **you think** are the greatest risks to the safety of this group?
13. Do you think there has been **any change** in the students' approach to risk taking in the last six months? (If so, in what way?)
14. Has the **emphasis of safety and risk taking changed within the school** in the last six months? (If so, in what way?)
15. On a scale of 1 to 10 with 1 being non-existent and 10 being immensely, **how involved would you say the parents** of this group are in addressing road safety and risk taking? (In what way?)
16. On a scale of 1 to 10 with 1 being non-existent and 10 being immensely. How involved would you say **the local community** is in addressing road safety and risk taking for young people? (In what way?)
17. What **future directions** would you like to see your school take regarding risk taking & road safety?

18. Do you have **any other comments** about how risk taking and road safety is or should be addressed for this age group?
19. What subjects do you teach year 10 & 11?
20. Do you have any special designated positions eg year adviser, welfare head teacher, pastoral care, special program coordinator?
21. Have you ever attended a full-day seminar at Southern Cross University in Lismore which covered risk-taking associated with drinking, drugs, driving and partying?

Thank you very much for taking the time to do this interview – your response will be most helpful in planning and refining programs on risk taking and road safety for years 10 and 11.

## Appendix 6: Strength of Partnership - Stakeholder phone interview protocol/guideline

The 3 checklists which were mailed to stakeholders were checklists 2.1, 2.4, & 2.5 from Hawe, King & Noort (2000). The full document is on the attached CD.

1) **History of your involvement** - when did you join the team? At what stage was the team up to at that point? What was your role on the team when you joined and has that changed in any way?

2) What do you see as the key **strengths/attributes** of the team? What contributes to that?

3) What are the current **limitations** of the team or the way it functions?

4) Have there been any limitations/obstacles in the past that have since been **resolved**? What were they and how were they resolved?

Questions from Harris et al's checklist (1995) for undertaking effective intersectoral action relating to "relationship":

5) Has the nature of the **relationship** between the sectors/organisations involved been **negotiated**?

6) Has time been spent on **building and maintaining** the relationship?

7) How would you rate the **level of trust and respect** is there between organisations?

8) Has the relationship been **reviewed** at all?

9) To what extent is the relationship built on **individuals and/or organisational** relationships?

Questions to meet the other aims of this aspect of the evaluation as stated in the MAA proposal

- 10) What kind of **networking** about the program exists beyond the project team?
- 11) Do you **report back** to your organisation about the project, team meetings or developments? How often? About what sort of things?
- 12) Does the planning/work of the team extend to/**involve organisations beyond those on the team**? What organisations? How does this affect/benefit the program?
- 13) Are there **other networks** that this team/project **links with**? What are they? How does this affect/benefit the program?

Questions from Harris et al's checklist for undertaking effective intersectoral action relating to "planned action"

- 14) Do you think the other members of the team believe there is a **need to work together**?
- 15) How important do you feel it is to work collaboratively on this project? Do you feel you **contribute to the functioning** of the team? In what way? Do you feel all others contribute to the functioning of the team?
- 16) Do you feel the **goals** of the project/team are **clearly established and agreed** to by other members?
- 17) Have ways of **dealing with disagreement and conflict** been established?
- 18) Is there an agreed **way of working** as a team? Does it work satisfactorily? How could it be improved?
- 19) Who do you feel **owns the project**? Is that satisfactory to you?
- 20) Do you feel the project is **adequately resourced**? Do you feel the balance of what organisations contribute to the project is appropriate?

# Appendix 7: Process Evaluation - Students' survey forms 2002 & 2004

## STUDENT EVALUATION FORM

Complete this form and hand in at the end of today's seminar for your chance to win a set of tyres to the value of \$400, sponsored by Singh's Tyre and Mechanical

Name \_\_\_\_\_

Which school do you attend? \_\_\_\_\_

What year are you in at school?  10  11

Do you have a driver's licence?  No  Learner's  Provisional

Please rate the presentations:

	<div style="display: flex; justify-content: space-between; align-items: center;"> <span><b>Very Informative</b></span> <span>←————→</span> <span><b>Not Informative</b></span> </div>				
Alcohol and Other Drugs, Paul Dillon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RRISK Workshop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe Driving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe Vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Simulated Car Crash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
'My Story' by Michael Buttenshaw	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What are three (3) things that you learned today?

---



---



---

How could the issues covered today be talked about more in your school?

---



---



---

*Your feedback is important!  
Thank you for your comments*

## RRISK TEAM EVALUATION

1. What year are you in at school?  10  11
2. Do you have a driver's licence?  No  Learner's  Provisional
3. Please rate today's presentations:

*Excellent*

*Inadequate*



1. Alcohol and other drugs (Paul Dillon).	<input type="checkbox"/>				
2. RRISK Workshop (breakout groups).	<input type="checkbox"/>				
3. Safe Driving (Ray & Ebony).	<input type="checkbox"/>				
4. Safe Vehicles (RTA)	<input type="checkbox"/>				
5. Car Crash Scenario	<input type="checkbox"/>				
6. 'My Story' by Michael	<input type="checkbox"/>				

4. Please rate how the following activities went in your breakout group:

*Fantastic*

*Disaster*



1. Movement from big hall to breakout groups	<input type="checkbox"/>				
2. Introducing yourself and explaining the activity	<input type="checkbox"/>				
3. Activity in pairs	<input type="checkbox"/>				
4. Small group discussion	<input type="checkbox"/>				
5. Whole group discussion	<input type="checkbox"/>				
6. Your handling of disruptive students	<input type="checkbox"/>				
7. Your overall impression regarding your facilitation of the breakout group	<input type="checkbox"/>				

*Your feedback is important!  
Thank you for your comments*

# Appendix 8: Process Evaluation - Teachers' survey forms 2002 & 2004

## TEACHER EVALUATION FORM

Teacher's name: \_\_\_\_\_

Teacher's school: \_\_\_\_\_

Subjects taught: \_\_\_\_\_

Have you previously attended a RRISK seminar? Yes / No

Did you attend the Professional Development Session with Paul Dillon on Monday Yes / No

If **YES** to above, in what way(s) did this in-service prepare you for the seminar?

Please comment: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Please rate the following:

	Very Good	Good	Satisfactory	Needs Improvement	Inadequate
Organisation on the day	<input type="checkbox"/>				
Timetable	<input type="checkbox"/>				
Student attentiveness / interest / behaviour	<input type="checkbox"/>				
SCU site	<input type="checkbox"/>				
Catering and amenities	<input type="checkbox"/>				

General comments:

\_\_\_\_\_  
 \_\_\_\_\_

Please rate the presentations:

	Very Informative  Not Informative				
Alcohol and Other Drugs, Paul Dillon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RRISK Workshop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe Driving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe Vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Simulated Car Crash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
'My Story' by Michael Buttenshaw	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In which ways could the content of the RRISK seminars be improved and/or enhanced?

---

---

In which way do you feel students may have benefited from today's presentations?

---

---

---

What road safety teaching resources, available to schools, do you use?

	<input type="checkbox"/> or <input type="checkbox"/>
Driving Experience	<input type="checkbox"/>
Driving With Attitude yrs 10-11	<input type="checkbox"/>
Driving With Attitude yrs 11-12	<input type="checkbox"/>
Driving With Attitude General Studies	<input type="checkbox"/>
Driving with Mind not Muscle	<input type="checkbox"/>
Go Back, You're Going the Wrong Way	<input type="checkbox"/>
Handle With Care	<input type="checkbox"/>
Physics of Car Crashes	<input type="checkbox"/>
Road whys	<input type="checkbox"/>
Other _____	<input type="checkbox"/>

What drug and alcohol teaching resources available to schools do you use?

	<input type="checkbox"/> or <input type="checkbox"/>
Are You in Control	<input type="checkbox"/>
Candidly Cannabis	<input type="checkbox"/>
Rethinking Drinking	<input type="checkbox"/>
Others -	<input type="checkbox"/>

Did your school use the newsletter inserts provided the RRISK committee? Yes / No

If **YES** , please explain how the inserts were used.

---

*Further Comments*

---

---

---

*Your feedback is important!  
Thank you for your comments*

If you forget to hand in this evaluation sheet before you leave today, please fax to  
**Wendy Johnson, Road Safety Officer, Lismore City Council, Fax: 66 250 597**

# TEACHER EVALUATION FORM

1. Teacher's name: \_\_\_\_\_ 2. School: \_\_\_\_\_

3. Subjects taught: \_\_\_\_\_

4. Regarding today's seminar, please rate the following:

	Excellent	Good	Satisfactory	Needs Improvement	Inadequate
1. Organisation on the day	<input type="checkbox"/>				
2. Timetable	<input type="checkbox"/>				
3. Student interest / behaviour	<input type="checkbox"/>				
4. Venue	<input type="checkbox"/>				
5. Catering and amenities	<input type="checkbox"/>				

5. Please rate the presentations:

	<div style="display: flex; justify-content: space-between; align-items: center;"> <span><i>Excellent</i></span> <span>←—————→</span> <span><i>Inadequate</i></span> </div>				
1. Alcohol and other drugs (Paul Dillon).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. RRISK Workshop (breakout groups).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Safe Driving (Ray & Ebony).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Safe Vehicles (RTA).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Car Crash Scenario.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. 'My Story' by Michael.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please indicate your agreement/disagreement with the following statement:

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I believe students will be able to apply the knowledge and skills acquired today to reduce harmful outcomes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Did your school use the newsletter inserts provided by the RRISK committee?

Yes  No  Don't Know  If known, how many times? \_\_\_\_\_

8. How many times have you previously attended a RRISK seminar? 0  1  2  3  4  5

9. Further comments regarding the seminar and/or the professional development session:

---



---

**Thank you for your comments.**

If you do not have time or forget to hand in this evaluation sheet before you leave today, please fax to:

**A. Zask, Research & Evaluation Officer, Health Promotion Unit. Fax: 66 222 151**

## Appendix 9: Abstract of Published Paper Based on Baseline Data.

Van Beurden E., Zask A., Brooks L., & Dight R. 2005. *Heavy episodic drinking and sensation seeking in adolescents as predictors of harmful driving and celebrating behaviours - implications for prevention.* Journal of Adolescent Health, 2005; 37 (1): 37-43.

**Objectives:** Effectiveness of strategies to counter injurious risk-taking in adolescents depends on the degree to which behaviours are modifiable or intrinsic to a sensation seeking personality. Alcohol consumption is often targeted because it is seen as a modifiable determinant. This study sought to clarify the relative importance of engagement in heavy episodic drinking (HED) independently of sensation seeking tendency (SS), as a predictor of potentially harmful (and protective) behaviours.

**Methods:** A written survey was administered to students aged 15-17 years in 40 high schools in NSW, Australia to measure HED, SS and harmful and protective behaviours associated with drug and alcohol use, driving and celebrating.

**Results:** Of 2705 respondents 60% reported HED, 36% failed to wear a seatbelt, 23% rode with an alcohol impaired driver, 23% rode with a drug impaired driver and 9% had been alcohol impaired whilst driving. Two thirds (65%) had engaged in harmful behaviours and 99% had engaged in protective behaviours whilst celebrating. SS, gender, income and age were significant predictors of HED. HED and SS were significant, independent predictors of every harmful or protective behaviour. HED had the greatest effect on harmful celebrating behaviours, riding with an alcohol-impaired acquaintance, and riding with a drug-impaired driver. HED had a stronger effect than SS, for alcohol-impaired driving, riding with an alcohol-impaired acquaintance, riding with a drug-impaired driver and harmful celebrating behaviours.

**Conclusions:** The vast majority of adolescents who are low to average sensation seekers may benefit from population based prevention strategies emphasising that decisions leading to harmful outcomes, are more likely if they engage in HED.

## Appendix 10: Abstract of Published Paper

Re the effect of the RRISK intervention on students' Knowledge Attitude & Behaviour.

Zask A., van Beurden E., Brooks L., & Dight R. 2005. *Is it worth the RRISK? Evaluation of the RRISK (Reduce Risk Increase Student Knowledge) program for adolescents in rural Australia.* Journal of Adolescent Health.

**Purpose:** This study evaluates the effectiveness of an intervention targeting adolescent risk taking associated with drug and alcohol use, driving and celebrating.

**Methods:** Pre and post written surveys were administered in 21 intervention and 19 comparison schools in Northern NSW during March 2003 and 2004. The instrument covered knowledge and attitudes associated with self reported potentially harmful and protective behaviours. Analysis was by multi-level regression.

**Results:** There were 2705 baseline and 1996 follow-up respondents. Adolescents in the intervention area who attended the RRISK seminar demonstrated some significant improvements in knowledge, attitudes and behaviour compared with those who did not attend, and some significant improvements in knowledge compared to students in comparison schools.

**Conclusions:** A well- designed one-day seminar that builds on existing curricula, can achieve some significant medium term benefits in knowledge attitudes and behaviours.

# Appendix 11: Process Evaluation Report Summary

## RRISK Process Evaluation

Students and teachers who attended the RRISK Seminar were asked to evaluate the day's program for most of the years that the RRISK Seminars have been held. The seminars have been continually modified and improved as a result of this evaluation process.

### Methodology

Students and teachers were given a one page questionnaire at the beginning of the seminar and asked to complete sections of it throughout the day. The forms were collected at the close of the seminar and entered into databases for analysis. Some items of the process evaluation questionnaire stayed the same to allow comparison across years, while some were modified to capture new information.

Students were asked to rate each of the presentations and to identify 3 things that they learnt from attending the RRISK Seminars. They were also asked how the issues covered in the RRISK seminars could be talked about more in their school.

Teachers were asked to rate various aspects of the day such as organization, timetable, student interest and behaviour, venue etc. They were also asked to rate the various presentations, how could the content of the seminars be improved and their views of how the students benefited.

Project partners and facilitators were also asked to comment on the organization and content of the seminars, school support for the RRISK program, supervision of students, training of peer facilitators and the value of other activities that supported the seminars.

### Results

Although there was slight variation in the results year by year, the process evaluation yielded consistent trends. Results from the 2004 seminars are reported here together with examples of comments received from students and teachers over a number of years. A comprehensive 2002 process evaluation report and a PowerPoint presentation comparing 2002 and 2004 results can be found in the CD section of this report.

### Student Process Evaluation

#### Rating of the presentation

Students were asked to rate the various presentations on a 5 point Likert Scale from Excellent to Inadequate. 'My story', a personal account by a young man who has been permanently injured as a result of a motor vehicle crash involving alcohol and drugs received the highest rating with 98% of students rating it as excellent or good. This was followed by

the session on alcohol, drugs and risk taking which was ranked as excellent or good by 95% of students. The Crash Scenario was rated as excellent or good by 85% of students. 79% of students ranked the Safe Vehicle presentation as excellent or good. 58% ranked the safe driving session as excellent or good. The peer led workshop received the lowest rating: 53% of students found this session excellent or good. This was to be expected as it was more typical of a classroom based learning strategy and did not have the same entertainment value of some of the other presentations.

### **Comments from students about what they learnt from attending the RRISK Seminars**

The following is a selection of some of the 'take home' messages identified by students

- Decisions we make today will affect the rest of our lives.
- We're not invincible, consequences happen to people like us all the time.
- Today made me think about everything I've done in the past and how much I put myself at risk.
- That you are not always in control (even) if you think you are – it could happen to you or me.
- We should make informed decisions before actions.
- Think more about transport to and from parties.
- The Crash Scenario and 'My Story' really got the message across.

#### **Examples of Student Comments – Drugs and alcohol**

- I learnt lots about the risks of drugs and alcohol that I didn't know or assumed would never happen.
- Drugs affect each person differently each time they take them.
- Alcohol is the only drug that is poisonous to the whole body.

#### **Examples of Student comments - Vehicles and Driving**

- How to buy a good car that is safe and how to check for defects
- Drinking or using drugs while driving is seriously risky business.
- To take care with what choices I take on the road.
- Drive to conditions not just the speed limit.
- It's easier than I thought to crash.

#### **What students learnt – Parties**

80% of respondents identified planning ahead and looking after friends as the most important ways to stay safe at parties.

## **What students said they learned - emergencies and first aid**

Twenty six percent learnt the importance of giving correct information and directions to ambulance officers, 24% learnt what actions to take in emergencies, 23% learnt about the recovery position, 13% learnt never to leave anyone who is vomiting alone.

### **How to incorporate RRISK into schools**

Students were asked, "How could the issues covered today be talked about more in your school?" The most popular suggestions included having some of the RRISK presenters and other guest speakers, especially those recounting their own experiences, come to schools. There was also strong support for increased coverage of RRISK topics in the formal curriculum, school assemblies and peer led class discussions.

## **Teacher Process Evaluation**

### **Rating of the presentations**

Teachers ratings of the presentations were similar to those of the students. The main difference was that teachers gave the highest rating to the alcohol, drugs and risk taking session. 90% describing it as excellent, 10% good. This was followed by 'My Story' which was given a ranking of excellent 83% and good 17%. The Crash Scenario was rated as excellent by 48% and good by 46%. The presentation on safe vehicles was rated as excellent or good by 68% and the peer led workshop was rated as excellent or good by 65% of teachers.

**Organisation of the seminars.** Comments on organisation of the seminars were received from 44 teachers who accompanied students. Organisation, timetable, venue and student behaviour were all rated as excellent or good by over 90% of attending teachers.

52% strongly agreed and 45% agreed that students would be able to apply the knowledge and skills that they learnt from attending the RRISK Seminars. 1% disagreed.

### **Comments made by teachers on how students benefited.**

- Up to date accurate information, relevant to their age and stage enables students to make informed decisions about risk taking
- Realistic accounts of consequences of risky alcohol, drug use and driving had a strong impact on students
- Having real people enact their roles e.g. ambulance, SES, police, Crown Prosecutor, Drug and Alcohol and Road Safety experts gave credibility to the day
- Up front, hard hitting reality therapy will make them stop and think
- A thoroughly excellent and brilliantly organised day – very informative as well as entertaining

## Appendix 12: A Checklist of Strategies for High Schools

### Student Risk Taking– What Can Your School Do?

#### RRISK PROGRAM

Over the past six years the RRISK (Reduce Risk – Increase Student Knowledge) program has been conducted in north coast schools. The program provides Year 10 and 11 students with skills, attitudes and knowledge needed to make informed decisions around risk taking regarding driving, drug and alcohol use, and celebration activities.

#### RRISK EVALUATION

A comprehensive evaluation of the program has been conducted over the past year, funded by the Motor Accident Authority, NSW. Components of this evaluation include a survey of teachers regarding school involvement, surveys of student knowledge, attitudes and behaviour; a partnership evaluation, and a follow up study of Provisional (P) drivers.

#### THE CHECKLIST

A **checklist of strategies** and **activities** has been collated from information gathered in the school/teacher evaluation. Many schools have used these strategies to support the existing PDHPE curriculum in years 10, 11 and 12 in relation to student social and celebratory activities.

The RRISK committee has distributed the CHECKLIST to all schools participating in the RRISK program. It is hoped that your school will consider how the checklist can be used, in conjunction with the PDHPE curriculum, to address risk taking issues for students in your school.

#### How To Use This Check List

**The checklist can be used to review the current situation in your school and possibly inform school planning by:**

- assessing the range and number of activities which address risk taking behaviour;
- deciding whether to introduce additional activities, or
- changing your choice of activities for maximum effectiveness;
- considering whether current activities are consistent with the principles of quality practice in the table;
- deciding whether any activities could be improved.

#### Please Note

The strategies on the top of the list have a stronger positive effect on students' knowledge attitudes and behaviours. This effect also increases as the number of strategies conducted in a school, increases. Corresponding to most strategies are 'Quality Practice Principles', which are based on research evidence and expert opinion in the field. Some examples of implementation in local schools are provided for your information.

Strategies/ Activities addressing risk taking	Quality Practice Principles	Examples from local schools
Lead in and follow-up lessons/activities to support special seminar workshops, such as the RRISK Seminar	<ul style="list-style-type: none"> <li>• Activities provide up to date research-based information in youth-appropriate language.</li> <li>• Activities respond to developmental, gender, cultural, socio-economic and lifestyle differences relevant to students risk taking behaviour</li> <li>• Education objectives linked to the goal of harm minimisation.</li> <li>• The emphasis is on the drugs most likely to cause harm to students and society ie alcohol and tobacco, but should also be sensitive to students identified needs eg cannabis, party drugs.</li> <li>• Community and students' values, attitudes and behaviour in relation to risk taking are explored and/or challenged by providing opportunities to reflect and problem solve.</li> <li>• Teaching and presentation strategies are varied to cater for different learning styles</li> <li>• Behaviours are influenced through interactive skill based activities.</li> <li>• Students are consulted and involved in the planning, delivery and evaluation of lessons and activities.</li> <li>• The achievement of educational objectives and educational processes of the lessons or the overall program are evaluated.</li> <li>• * Principles for this activity were adapted from Ballard et al (1994).</li> </ul>	<ul style="list-style-type: none"> <li>• School counsellor or teachers run smaller group activities following seminars.</li> <li>• PDHPE, Cross Roads / Pastoral Care programs have content links with seminars/workshops.</li> <li>• Year 11 students have timetabled lessons for Crossroads course implementation.</li> </ul>
Peer education systems established	<ul style="list-style-type: none"> <li>• Peer education complements school based education on drug use and risk taking.</li> <li>• Peer educators can influence attitudes, skills and behaviour because they are seen as credible sources of information.</li> <li>• They share similar experiences with other young people.</li> </ul>	<ul style="list-style-type: none"> <li>• Training of peer educators followed by production of a PowerPoint display or website on positive affirmations, drug free highs and basic harm minimization messages to be presented at school socials.</li> <li>• Support peer educators to facilitate small group activities and develop content for a</li> </ul>

Strategies/ Activities addressing risk taking	Quality Practice Principles	Examples from local schools
	<ul style="list-style-type: none"> <li>• They are able to develop trust and rapport and can convey information in social settings.</li> <li>• Training of peer educators are provided</li> <li>• A structure that supports peer educators and sustains their commitment needs to be established and maintained.</li> </ul>	<p>series of risk taking drama scenarios with alternative outcomes. These are used to trigger group discussions.</p> <ul style="list-style-type: none"> <li>• Peer educators are regularly invited to facilitate discussions with younger year groups within school and at outside seminars e.g. RRISK Seminars, SRC camps</li> <li>• School forums are facilitated by peer educators, youth workers and drug and alcohol staff in support of PDHPE</li> <li>• Peer educators organise activities at local youth festival</li> </ul>
As a project outside PDHPE. Eg. IT, drama, science	<ul style="list-style-type: none"> <li>• Project content is consistent with messages covered in PDHPE</li> <li>• Can culminate in any activity / event which coincides with special seminars or attendance of outside presenters.</li> </ul>	<ul style="list-style-type: none"> <li>• Year 11 students perform a skit about drinking and drug taking.</li> <li>• Art exhibition with a focus on risk taking issues – on display for students and parents in local shopping mall.</li> <li>• Local media coverage of events, which involve students.</li> </ul>
Student committees formed to work on safety issues	<ul style="list-style-type: none"> <li>• SRC or Committee can help determine what risk related activities occur</li> <li>• Committee gets mandate to promote safety in social events</li> </ul>	<ul style="list-style-type: none"> <li>• SRC selects and organises outside presenters.</li> <li>• Students apply for community based road safety grant</li> </ul>
Students attend a special seminar workshop	<ul style="list-style-type: none"> <li>• Workshops use multiple teaching strategies.</li> <li>• A harm-reduction approach should be employed.</li> <li>• Presenters should use youth appropriate language</li> </ul>	<ul style="list-style-type: none"> <li>• RRISK seminars at SCU campus/Tweed Heads Civic Centre</li> <li>• Crime prevention workshops by police in school</li> <li>• Guest facilitators on school retreats/camps</li> </ul>
Students involved in community activities about safety	<ul style="list-style-type: none"> <li>• Safe community and safe youth initiatives</li> <li>• Such community involvement can also be the subject of <i>Society</i> and <i>Culture</i> study projects</li> </ul>	<ul style="list-style-type: none"> <li>• Students are involved in youth services' 'Safe Street' initiatives (eg Street Cruise in Byron Bay).</li> <li>• After hours youth transport schemes.</li> </ul>

Strategies/ Activities addressing risk taking	Quality Practice Principles	Examples from local schools
		<ul style="list-style-type: none"> <li>● Students' involvement in organisation of safe community events such as New Year's Eve committee.</li> <li>● Youth Councils.</li> <li>● Driver- training and road safety programs.</li> <li>● Students are interviewed on radio about risk taking and their involvement in the RRISK Program</li> </ul>
Use of outside presenters brought into the school	<ul style="list-style-type: none"> <li>● Presenters need to reflect school philosophy.</li> <li>● Presentations need to match curriculum outcomes.</li> <li>● Presenters need to be credible and present up-to-date information.</li> <li>● Longer, skill-based workshops have best effect.</li> <li>● Works best when it complements the PDHPE program.</li> </ul>	<ul style="list-style-type: none"> <li>● Brain injured people relate personal stories of risk taking</li> <li>● Youth workers, Drug and Alcohol workers, police officers etc.</li> <li>● Expert speakers (eg Paul Dillon).</li> </ul>
Topic of in-service training	<ul style="list-style-type: none"> <li>● Information presented is relevant to teachers and students</li> <li>● Information presented is easily applicable by teachers</li> <li>● Presenter is of high quality, has relevant information and is familiar with school and teaching issues</li> </ul>	<ul style="list-style-type: none"> <li>● Paul Dillon's presentation to teachers about latest research on party drugs and Marijuana</li> <li>● Teacher training day as part of peer education training program</li> </ul>
School policy developed/ reviewed including code of conduct or guidelines about social events	<ul style="list-style-type: none"> <li>● Developed through consultation with students</li> <li>● Paralleled by supportive educative initiatives</li> </ul>	<ul style="list-style-type: none"> <li>● Behaviour codes are established for school socials, graduation parties. Information publicised in newsletters, school handbooks, correspondence with parents</li> </ul>
Special insert into newsletter to parents	<ul style="list-style-type: none"> <li>● Provide current and relevant information for parents</li> <li>● Reach whole school and parent population</li> <li>● Insert a number of shorter 'snippets'</li> </ul>	<ul style="list-style-type: none"> <li>● Most schools participating in RRISK program include regular inserts provided by RRISK Committee</li> </ul>
Part of the school handbook or other guidelines	<ul style="list-style-type: none"> <li>● Guidelines/handbook include review date and indicators of implementation.</li> </ul>	<ul style="list-style-type: none"> <li>● Policies on alcohol and drug use and risk taking in school handbooks</li> </ul>

Strategies/ Activities addressing risk taking	Quality Practice Principles	Examples from local schools
Topic addressed in assembly	<ul style="list-style-type: none"> <li>Behavioural expectations and school culture can be influenced by regular discussions in school assemblies</li> </ul>	<ul style="list-style-type: none"> <li>Specific risk behaviours are addressed in assemblies and by year coordinators</li> <li>Student RRISK facilitators are presented with certificates at special assemblies</li> <li>Outside guest speakers at school assemblies</li> </ul>
Display set up within school	<ul style="list-style-type: none"> <li>Appropriate language, credible information,</li> <li>Graphic design principles that appeal to young people are applied</li> <li>Display should be easily accessible yet discretely located</li> </ul>	<ul style="list-style-type: none"> <li>Drug and alcohol information pamphlets on permanent display in library or health room</li> </ul>
Topic for P&C meeting or School Board	<ul style="list-style-type: none"> <li>Partnerships are developed with parents and community through informing of aims and outcomes, content and potential sensitive issues.</li> <li>Topic should include clear information re addressing risk-taking through strategies that involve parents</li> </ul>	
Topic of staff meeting/ coordinators' meeting	<ul style="list-style-type: none"> <li>School staff are aware of programs which target risk and harm reduction and become aware of the role they and the broader school community can play in supporting them by:</li> <li>Reviewing current activities based on previous years' experience, departmental recommendations, research evidence or other schools' experience.</li> <li>Considering a range of strategies/activities that address risk taking</li> </ul>	
Engaging parents and community in discussion on minimising harm	<ul style="list-style-type: none"> <li>Provide information from recognised experts on building resilience and safe partying</li> </ul>	<ul style="list-style-type: none"> <li>Community meetings are held during the RRISK Seminars week.</li> <li>Extensive publicity and chairing of meeting by <i>ABC North Coast</i> presenter</li> </ul>

## Appendix 13: Resources Included in the Attached CD

- RRISK Evaluation Report 2002-2005
- RRISK Program Report 2002
- RRISK Program outline and main research findings (PowerPoint presentation)
- A comparison between 2002 and 2004 RRISK process evaluation results (PowerPoint presentation)
- RRISK Program, School based approach to road safety and adolescent risk taking. Paper presented at the National Road Safety Conference, Perth 2004
- Youthsafe Celebration Forum, Sydney, 2004. PowerPoint Presentation (including TV news footage)
- Peer education training program
- Peer education breakout groups activity instructions
- Newsletter inserts
- Newspaper clippings of media coverage 2004.