The CAP intervention: An integrated approach to prevention in schools

Medicine | National Drug and Alcohol Research Centre

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Acknowledgements

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CAP study research team

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Schools

Students and teachers at participating NSW and VIC schools.

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Why prevent?





Adolescent substance use:

- 18% teenagers drinking weekly
- 33% risk alcohol-related injury monthly
- 25% tried an illicit drug

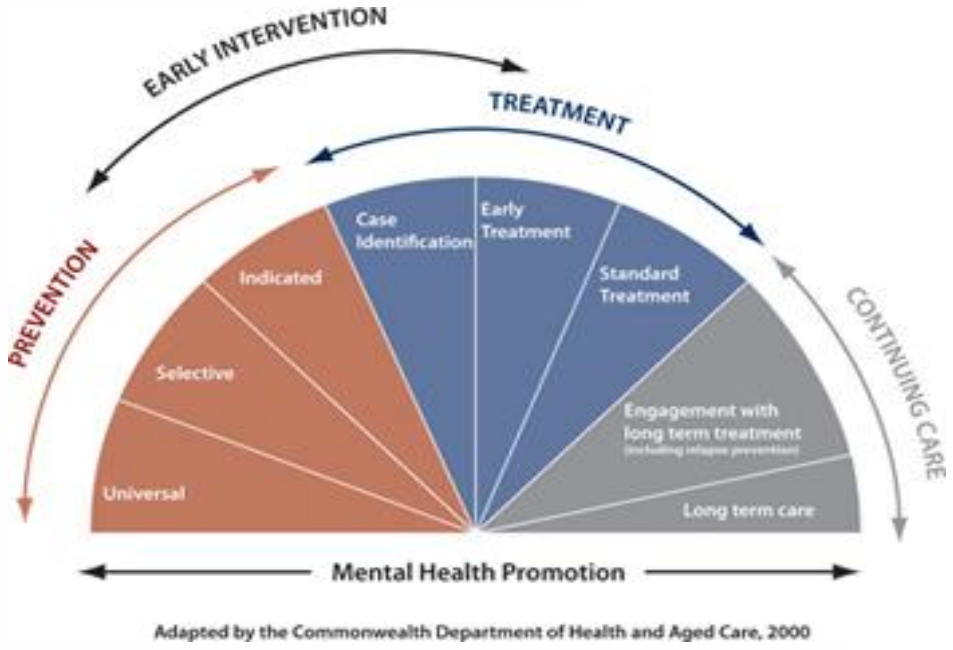
(Australian National Drug Strategy 2010)

Early initiation:

- substance use disorders (Behrendt et al. 2009)
- co-morbid mental health problems (Rohde, 1996)
- Poor academic performance/drop out (Zeigler et al. 2005)
- Neuropsychological deficits (Tappert et al, 2001; Squeglia et al. 2009)

Types of prevention

1. Universal: entire population regardless of level of risk
2. Selective: target groups at greatest risk of developing problems
3. Indicated: experiencing early symptoms of a disorder (early intervention)



Adapted by the Commonwealth Department of Health and Aged Care, 2000

Universal '*Climate Schools*' programs

Newton, Teesson, Vogl & Andrews

Aim: prevent alcohol and cannabis use in adolescents & overcome barriers to implementation

- Social influence approach
- harm-minimisation goal
- Internet-based
- Easy to implement
- Embedded in curriculum
- Interactive – cartoons & activities



Climate Schools modules

Two modules for Year 8 students (13-14yrs)

- *Alcohol module* *(Vogl et al, 2006)*
- *Alcohol and Cannabis module* *(Newton et al, 2007)*

Module = 6 lessons of…

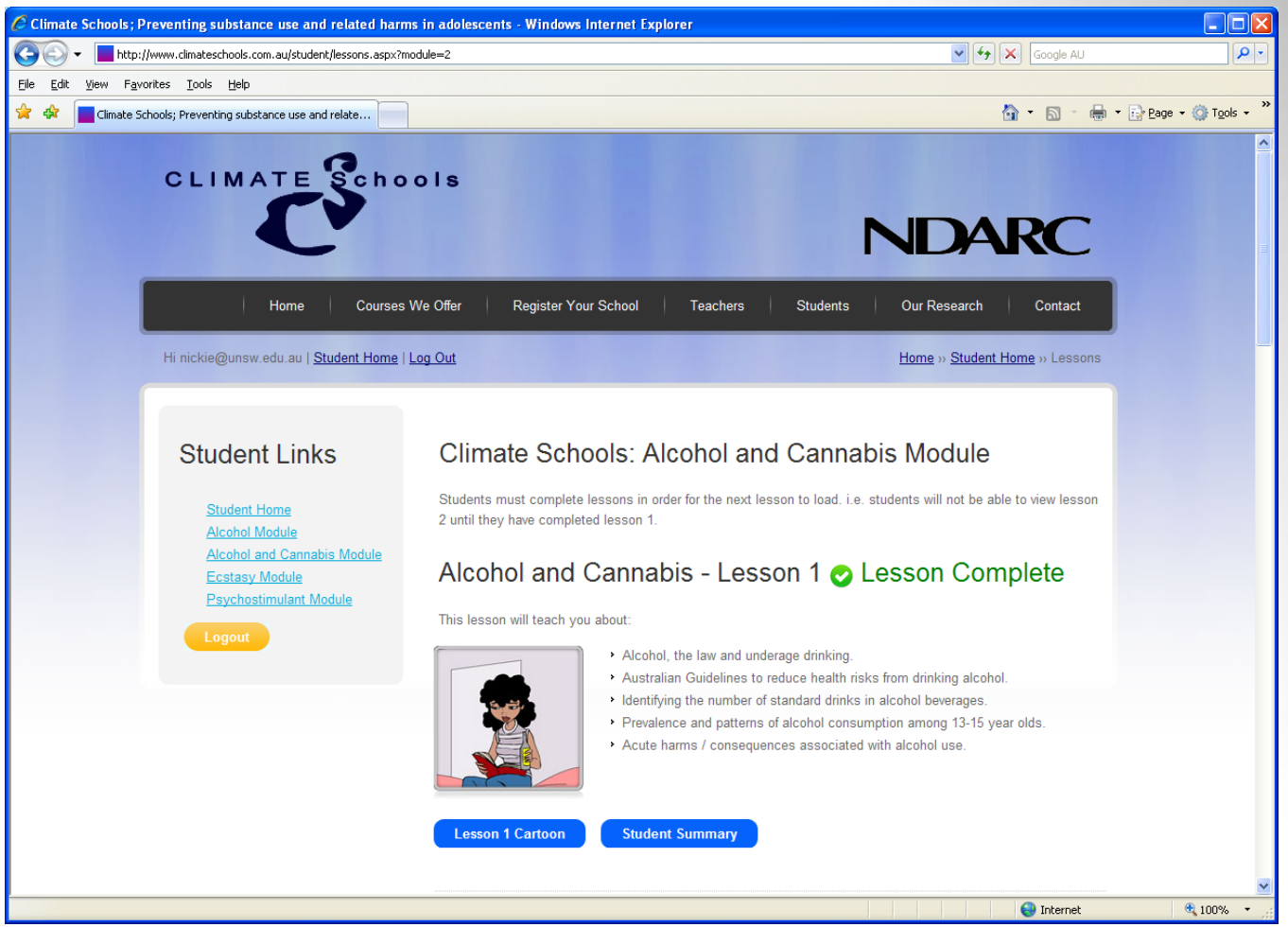
- 15 min online
- 25 min class activities

Covering…

- Alcohol guidelines and laws
- Normative use
- Short & long term risks
- Influences of media / peers
- Drug refusal and minimization skills
- Staying safe & first aid

Part 1: Student online component

www.climateschools.com.au



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Every time she drinks it ends in tears. I'm getting sick of this.


I just want
to die.

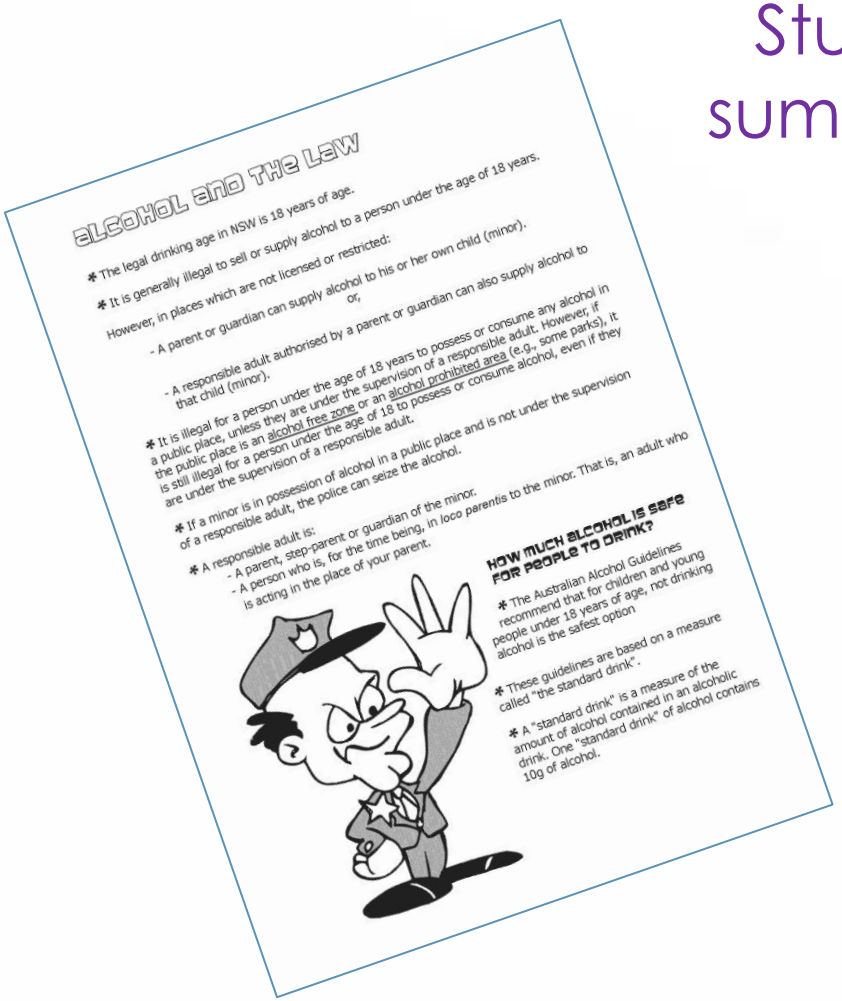

Do you want to go home ?


No, I feel too sick.


Aaaah FOUL !

Part 1: Student online component

Student summaries



ALCOHOL AND THE LAW

* The legal drinking age in NSW is 18 years of age.
* It is generally illegal to sell or supply alcohol to a person under the age of 18 years.

However, in places which are not licensed or restricted:

- A parent or guardian can supply alcohol to his or her own child (minor).

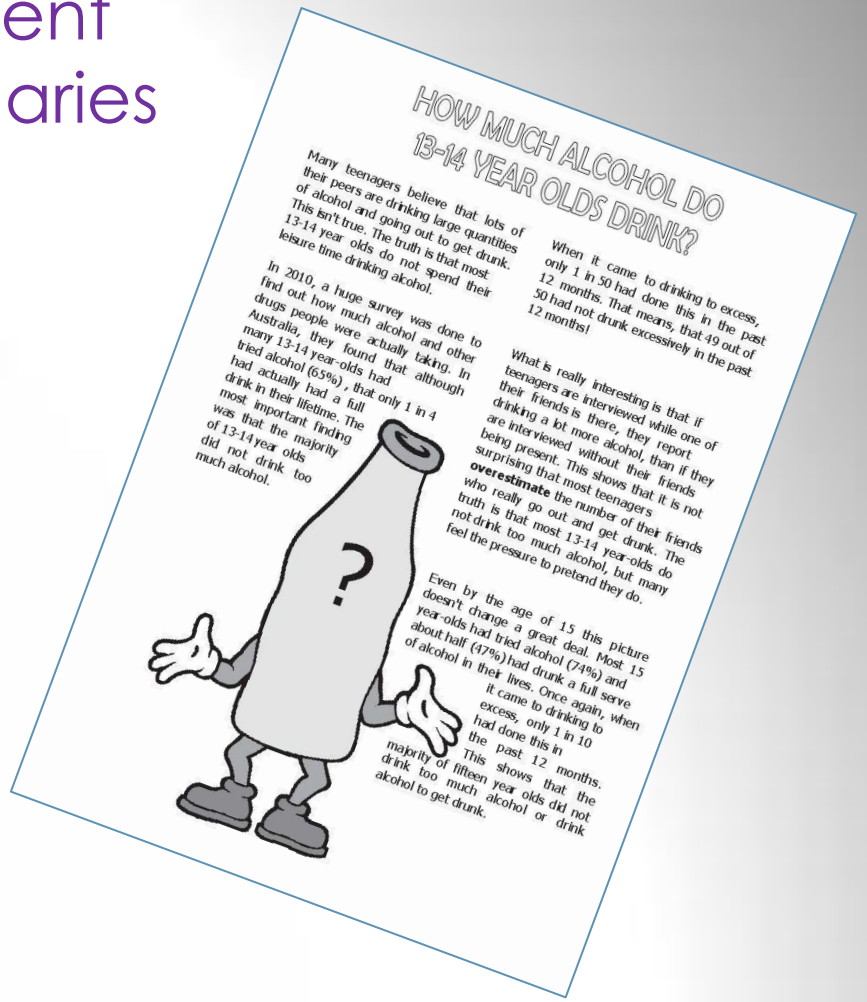
or,

- A responsible adult authorised by a parent or guardian can also supply alcohol to that child (minor).

* It is illegal for a person under the age of 18 years to possess or consume any alcohol in a public place, unless they are under the supervision of a responsible adult. However, if the public place is an alcohol free zone or an alcohol prohibited area (e.g., some parks), it is still illegal for a person under the age of 18 to possess or consume alcohol, even if they are under the supervision of a responsible adult.
* If a minor is in possession of alcohol in a public place and is not under the supervision of a responsible adult, the police can seize the alcohol.
* A responsible adult is:
  - A parent, step-parent or guardian of the minor.
  - A person who is, for the time being, *in loco parentis* to the minor. That is, an adult who is acting in the place of your parent.

HOW MUCH ALCOHOL IS SAFE FOR PEOPLE TO DRINK?

* The Australian Alcohol Guidelines recommend that for children and young people under 18 years of age, not drinking alcohol is the safest option
* These guidelines are based on a measure called "the standard drink".
* A "standard drink" is a measure of the amount of alcohol contained in an alcoholic drink. One "standard drink" of alcohol contains 10g of alcohol.



HOW MUCH ALCOHOL DO 13-14 YEAR OLDS DRINK?

Many teenagers believe that lots of their peers are drinking large quantities of alcohol and going out to get drunk. This isn't true. The truth is that most 13-14 year olds do not spend their leisure time drinking alcohol.

In 2010, a huge survey was done to find out how much alcohol and other drugs people were actually taking. In Australia, they found that although many 13-14 year-olds had tried alcohol (65%), that only 1 in 4 had actually had a full drink in their lifetime. The most important finding was that the majority of 13-14 year olds did not drink too much alcohol.

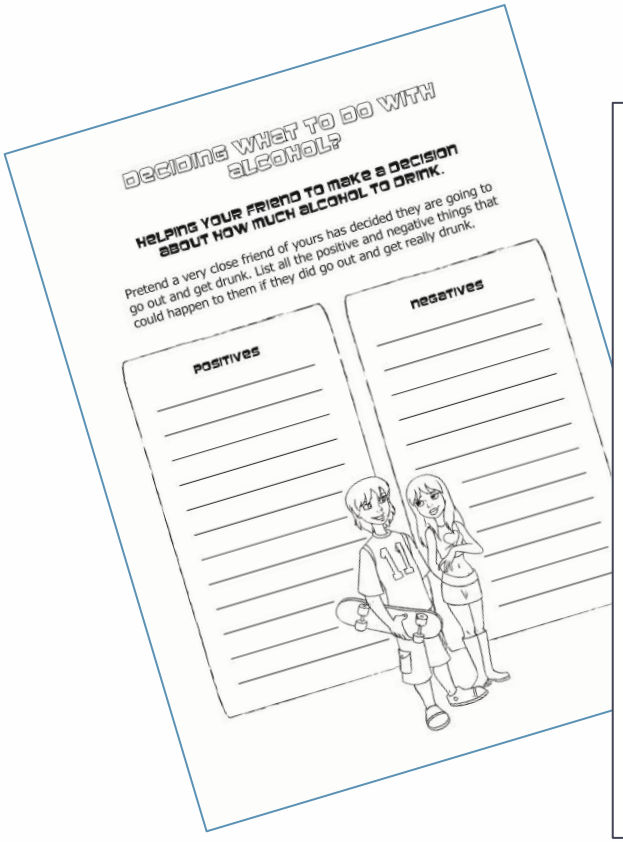
When it came to drinking to excess, only 1 in 50 had done this in the past 12 months. That means, that 49 out of 50 had not drunk excessively in the past 12 months!

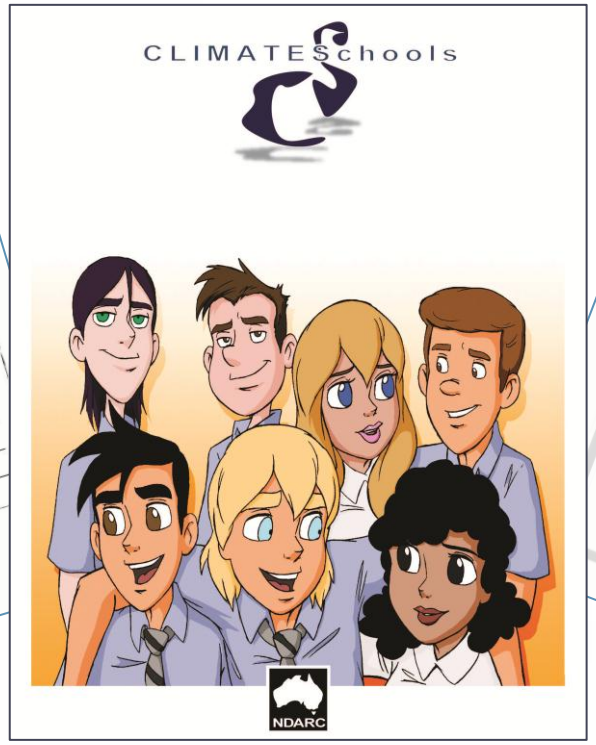
What is really interesting is that if teenagers are interviewed while one of their friends is there, they report drinking a lot more alcohol, than if they are interviewed without their friends being present. This shows that it is not surprising that most teenagers **overestimate** the number of their friends who really go out and get drunk. The truth is that most 13-14 year-olds do not drink too much alcohol, but many feel the pressure to pretend they do.

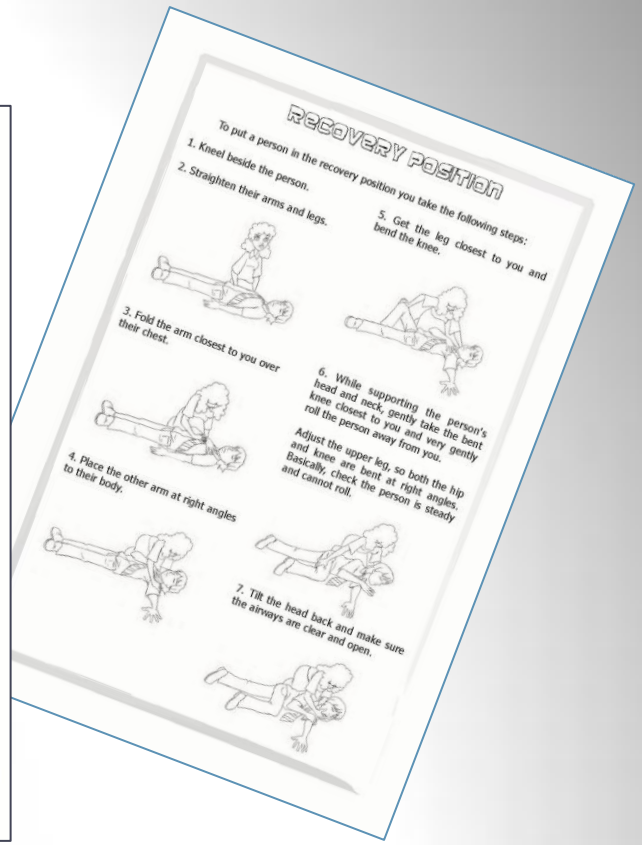
Even by the age of 15 this picture doesn't change a great deal. Most 15 year-olds had tried alcohol (74%) and about half (47%) had drunk a full serve of alcohol in their lives. Once again, when it came to drinking to excess, only 1 in 10 had done this in the past 12 months. This shows that the majority of fifteen year olds did not drink too much alcohol or drink alcohol to get drunk.

Part 2: Teacher activities

Teacher manual







Efficacy of *Climate Schools*

Two RCTs in Australia & a pilot trial in the United Kingdom

(> 3000 students from 30 schools)

- ⇩ binge drinking & av. consumption of alcohol
- ⇩ frequency of cannabis use
- ⇩ alcohol related harms and positive expectancies
- ⇧ alcohol & cannabis knowledge

Newton, N., Teesson, M., Vogl, L., & Andrews, G. (2010). Addiction, 105, 749-59.
Newton, N., Andrews, G., Teesson, M. & Vogl, L. (2009). Preventive Medicine, 48,579-584.
Newton, N., Vogl, L., Teesson, M. & Andrews, G. (2009). ANZJP, 43, 204-207
Vogl, L. Teesson, M. et al. (2009). Addiction, 104, 564-575.

Can we do more?



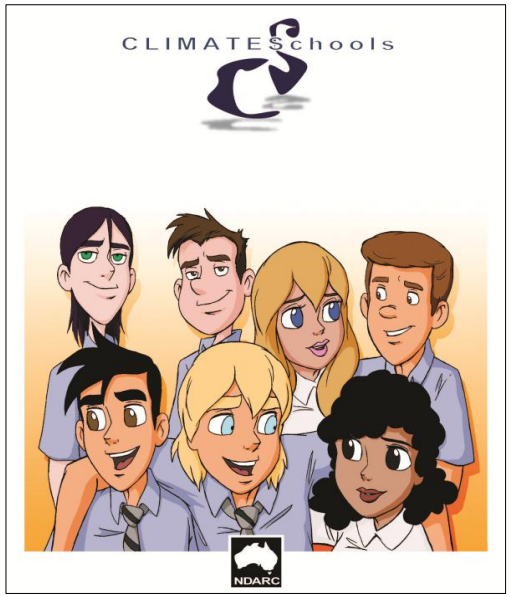
- Although significant, Effect Sizes (ES) for substance use outcomes (< 0.38) were modest
  - comparable to universal programs (AOD & MH)

- High-risk kids do better with targeted approaches
  - greater ES for substance use outcomes
  - risk for substance use is multifaceted (not just social influence)

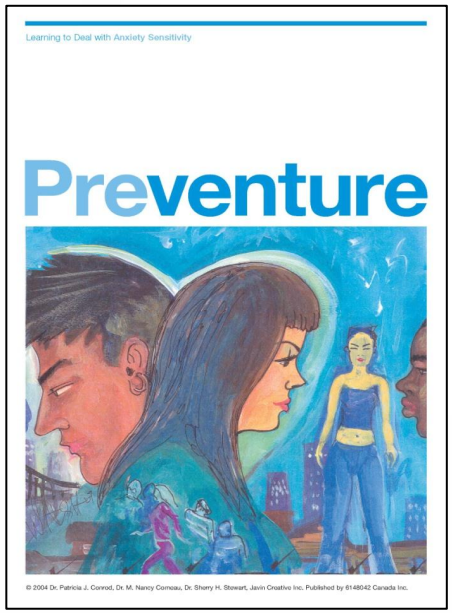
Can we improve effects by adding a '*selective*' component for high-risk students?

Climate And Preventure (CAP)

Aim: maximize prevention outcomes for low- and high-risk profiles



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CAP

PREVENTING SUBSTANCE USE AND RELATED HARMS IN ADOLESCENTS

'universal'
Climate Schools

'selective'
Preventure

Selective '*Preventure*' program

Conrod, Castellanous-Ryan, Mackie, O-Leary-Barrett et al.

- Selective (personality-targeted) school-based prevention program

Aim: to increase coping skills to prevent alcohol use and risky behaviour in 'high-risk' adolescents

- Targets 4 personality profiles that are linked to adolescent substance misuse/specific patterns of psychopathology *(Woicik et al., 2009)*

Personality profile	Substance misuse	Psychopathology vulnerability
Negative Thinking (NT)	Early onset AOD use	Depression
Anxiety Sensitivity (AS)	Later onset of alcohol misuse (young adulthood)	Panic-related anxiety disorders
Impulsivity (IMP)	Engage in high risk, externalising behaviours e.g. AOD use	
Sensation Seeking (SS)	Predisposition to binge drinking	

Preventure program

Step 1: Screen using Substance Use Risk Profile Scale (SURPS)

- Assesses variation in personality risk for substance abuse/ dependence along 4 dimensions: NT, AS, IMP, SS

Step 2: Invite 'high-risk' students to take part in interventions:

- 2 x 90 min coping skills workshops (NT, AS, IMP, SS), delivered by a facilitator and a co-facilitator
- Based on: Motivational Interviewing (MI) and CBT components
  - MI: goal setting & pros and cons
  - CBT: identify personality-specific cognitive distortions & challenge unhelpful thoughts

Efficacy of *Preventure*

- RCTs in Canada and the UK with high-risk youth
  (by clinical psychologists and educational professionals)

⇩ uptake of alcohol use, binge drinking & illicit drug use
⇩ av. consumption of alcohol use
⇩ motivations to drink alcohol
⇩ alcohol related harms
⇩ depression in NT and anxiety in AS

❖Effective selective prevention program

Conrod PJ, et al. (2011) . JCCP, 79, 296-306.
Conrod PJ, et al. (2010) . Arch Gen Psychiatry, 67, 85-93.
O'Leary-Barrett, M., et al. (2010). J. Acad. of Child and Adol. Psychiatry, 49, 954-963
Conrod PJ, et al. (2008) J. Child Psychol Psychiatry. 9, 181-190.



Stage 1

Modify *Preventure* for Australian adolescents

Stage 1 Method

- Nine schools approached, 3 agreed to participate (1m, 2f)

- Students
  - N = 69; Mean age 13.5yrs (SD = 0.76); 32% male
  - Informed consent (student and parent)
  - Screened with the SURPS & 'high risk' students invited to participate
  - 10 focus groups (5-8 students), approx 90mins
    - Questionnaire & manuals (specific to their personality type), encouraged to provide feedback verbally/on post-it notes

- Teachers (n = 6) and health professionals (n = 5)
  - N = 11; mean age 28.6yrs (SD = 2.30); 27% male
  - Teachers sent a questionnaire and copies of the 4 manuals
  - Health professionals participated in a focus group

Stage 1 Results

Students (N=69)

- 100% recommend changes to content/language/scenarios
- 96% recommend changes to graphics/layout
- Provided good suggestions:
  - Scenarios – why would/wouldn't drink, Personality specific scenarios – more male, and more multicultural scenarios
  - Graphics/Vocab – general appearance, characters, names (Kayleigh > Lucy), places, activities, technology*

Teachers/health professionals (N=11)

- Indicated the program was already appropriate in terms of learning, educational content, student acceptability, and efficacy
- Manuals to be updated and made more relevant for Australian adolescents (scenarios, graphics, vocab)

Modified *Preventure* manuals





Stage 2

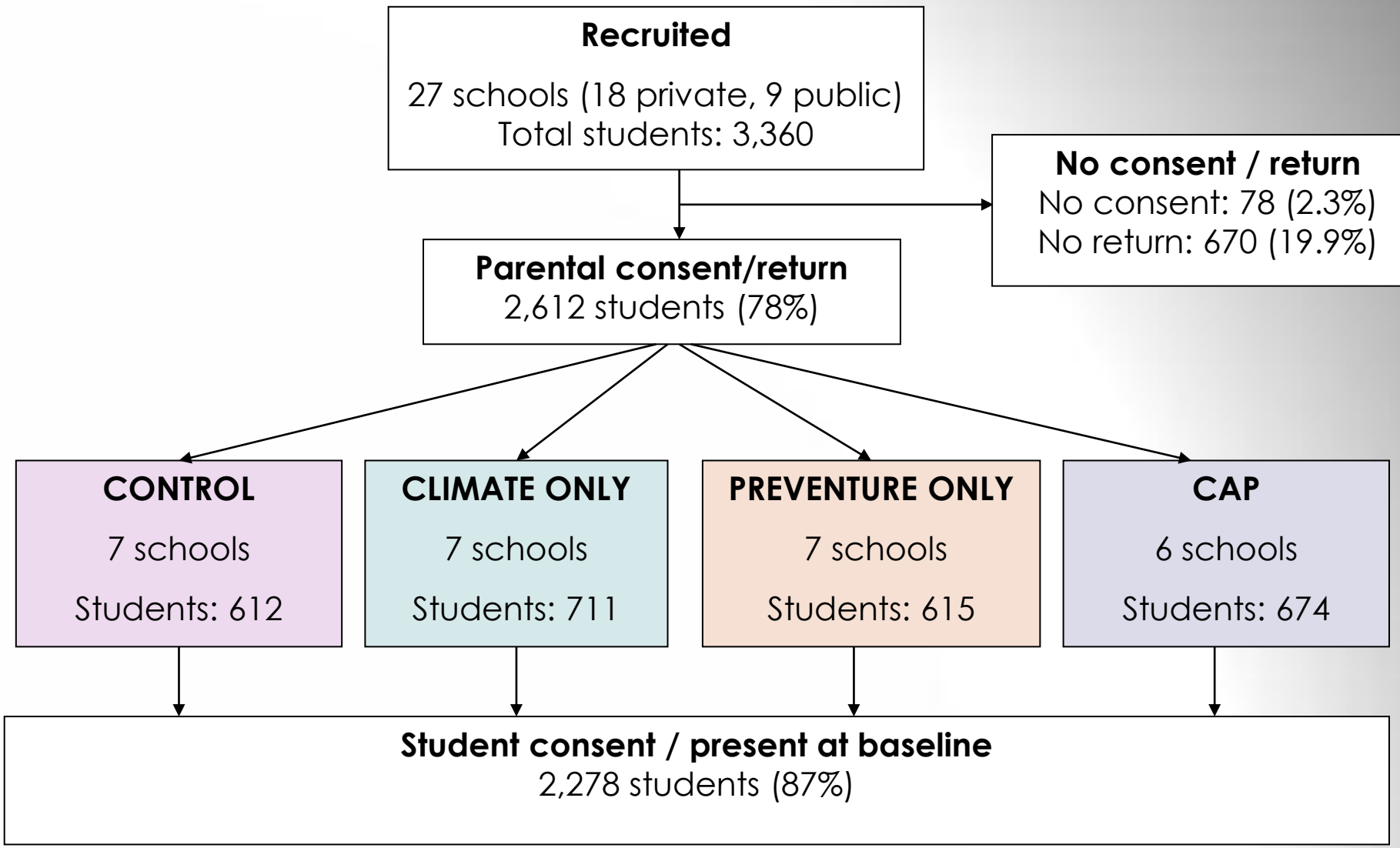
Establish the efficacy of the CAP intervention

Stage 2 Method

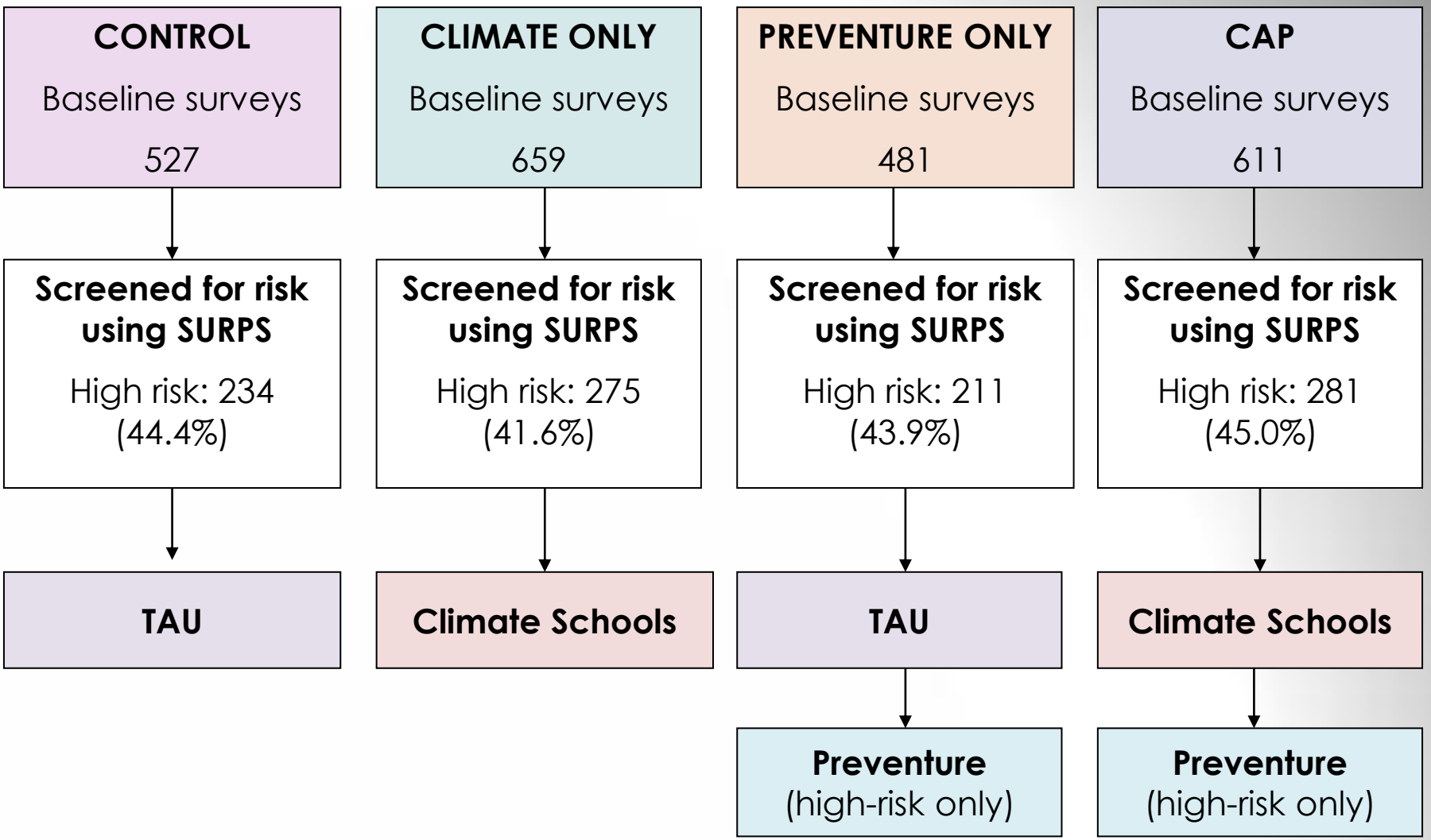
- 4 arm cluster RCT with Year 8 students (high school)
  1. 'Climate Schools' only
  2. 'Preventure' only
  3. CAP (Climate and Preventure)
  4. Control (TAU)

- Ethics approval / trial registry:
  - UNSW ethics committee
  - Catholic Education Office (CEO) ethics committee
  - State Education Research Approval process (SERAP)
  - Australian and New Zealand Clinical Trials Registry (ANZCTR)

Recruitment/consent



Baseline/screening/intervention



Primary aims

1. Examine if the *CAP intervention* is more effective than; (1) TAU and (2) stand-alone 'universal' prevention, in reducing:
   - uptake and harmful use of alcohol
   - alcohol related harms
   - mental health symptomatology

2. For high-risk students, to examine if the 'selective' *Preventure* program is more effective than; (1) TAU and (2) stand-alone 'universal' prevention in reducing:
   - uptake and harmful use of alcohol
   - alcohol related harms
   - mental health symptomatology

Sample size: Powered to detect differences in overall sample and high-risk students only (40%).

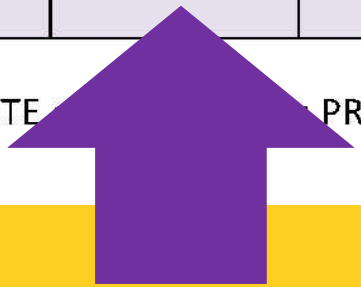
Measures

- Screening for high-risk students: SURPS - assesses personality risk for substance misuse along 4 dimensions (NT, AS, IMP, SS)
- Alcohol use: Binge drinking (5+ standard drinks) and av. consumption of alcohol use (QxF)
- Alcohol related harms: abbreviated version of the Rutgers Alcohol Problem Index (RAPI)
- Mental health symptoms: Depression and Anxiety subscales from Brief Symptom Inventory (BSI)
- Other secondary outcomes: other drug use, intentions to use drugs, drug related knowledge & attitudes, internalising & externalising problems, bullying, truancy, aggression, self-efficacy to resist peer pressure.

Assessment times

	Baseline Survey	*Climate Schools* program	*Preventure* program (high-risk students only)	6 month F/U	12 month F/U	24 month F/U	36 month F/U
Time	Term 1-2 Feb-April 2012	Terms 1 & 3 Feb-Sept 2012	Terms 1 - 3 Feb-Sept 2012	Term 3-4 July-Nov 2012	Term 1 Feb-April 2013	Term 1 Feb-April 2014	Term 1 Feb-April 2015
Grade	Year 8	Year 8	Year 8	Year 8	Year 9	Year 10	Year 11
CO	✓			✓	✓	✓	✓
CL	✓	✓		✓	✓	✓	✓
PR	✓		✓	✓	✓	✓	✓
CAP	✓	✓	✓	✓	✓	✓	✓

*CO: Control group, CL: CLIMATE [illegible] PREVENTURE only group, and CAP: CLIMATE plus PREVENTURE group.



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Baseline sample characteristics

Participants: 2,278 students from 27 high schools (9 public, 18 private)

Gender: 57.2% male

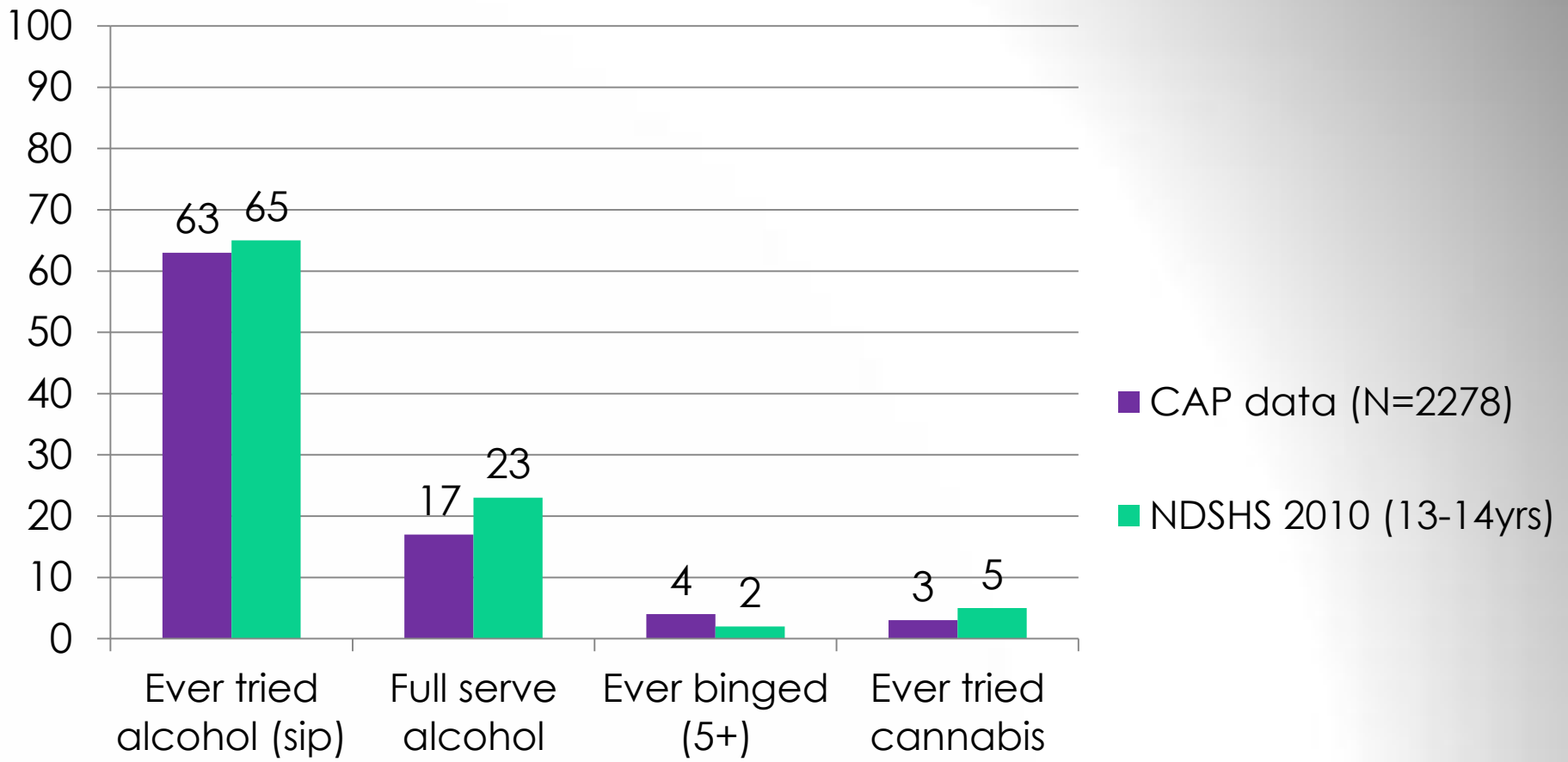
Age: median -13yrs

Background:

Country of birth	%
Australia	86.3
Other (mainly England, China, New Zealand, Korea, Philippines, South Africa, USA)	13.7

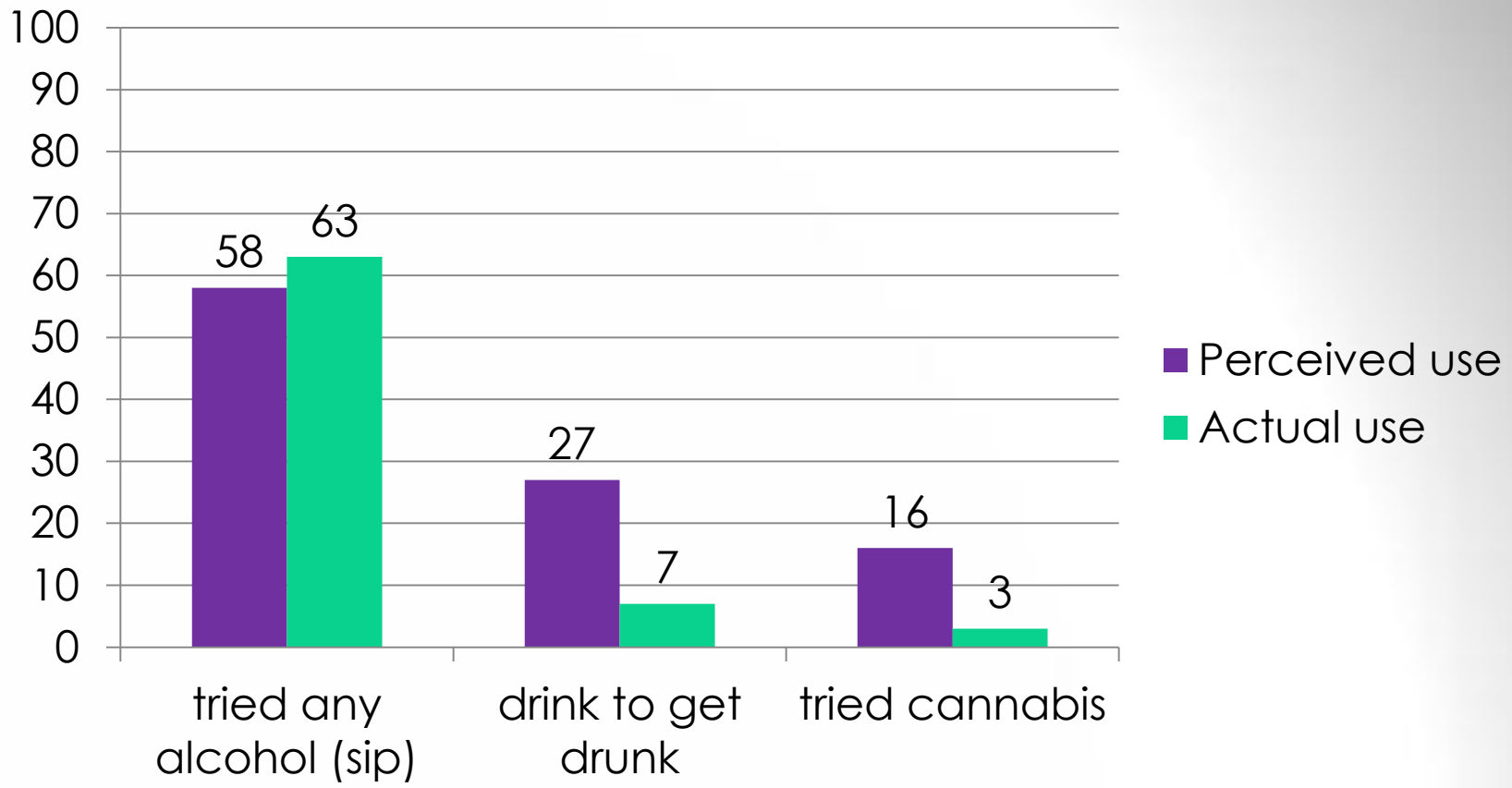
Baseline characteristics

Substance use % (N=2278)



Baseline characteristics

Perceived use % (N=2278)



What do the CAP students think?

- What did you like about the sessions?
  - *'It helped us reflect on who we are and what we aim for'*
  - *'We found out real stories of children in Australia and that it is not just us'*
  - *'It helped me identify and challenge my bad thoughts and feelings'*
- What didn't you like about the sessions?
  - *'More lollies!'*
  - *'Homework'*
  - *'It takes up lesson time – perhaps lunch?'*



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