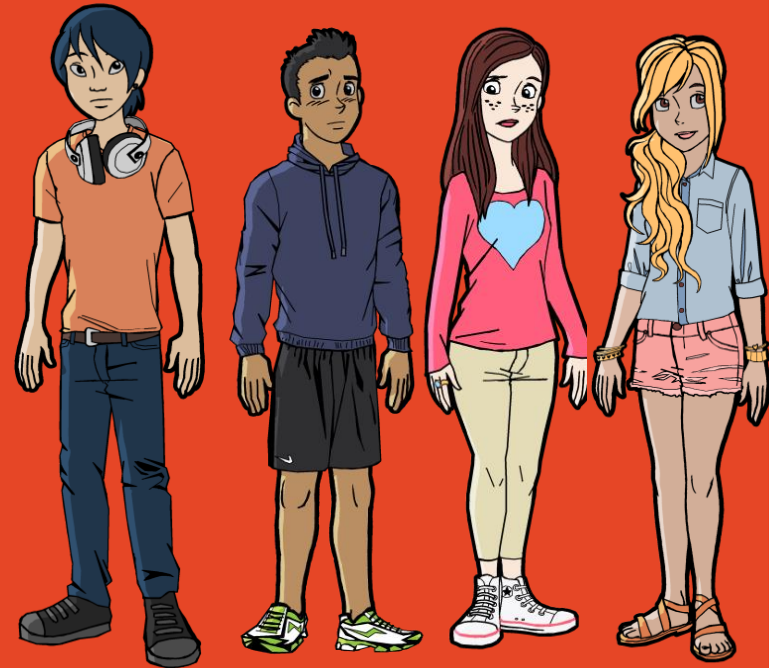


# Durability of anxiety, depression, and substance use prevention from the teenage years to young adulthood

6-year outcomes from a school-based cluster randomised controlled trial delivered in adolescence.

**Presenter: Zachary Bryant**

The Matilda Centre for Research in  
Mental Health and Substance Use



# The Matilda Centre for Research in Mental Health and Substance Use



# Outline



What does the latest research tell us?

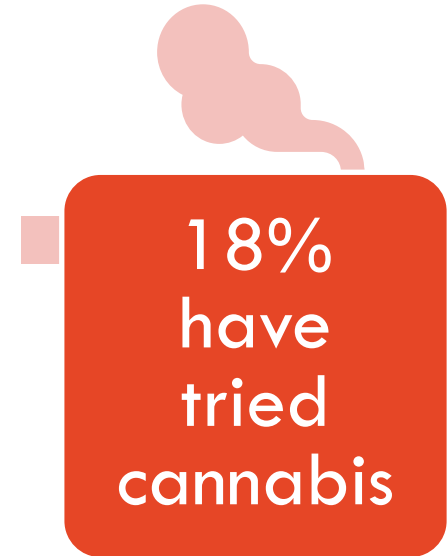
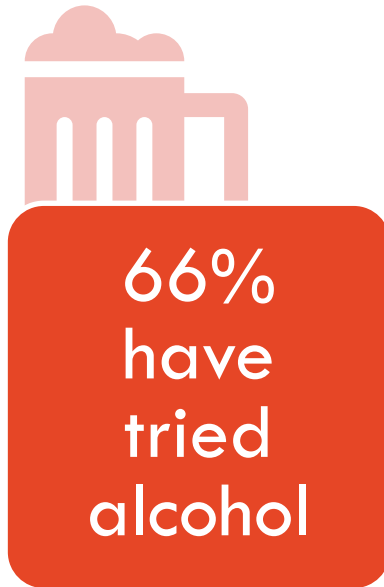


Can prevention work long-term?

# Substance use and mental health

- Prevalent, often co-occur, and share common risk factors
- Onset typically during adolescence
- Contribute to:
  - A substantial proportion of the burden of disease
  - Significant social and economic costs (>\$43B each year in Australia)
- Leading causes of disability among young people in high-income countries

# Substance use among young people aged 14-17 years



(National Drug Strategy Household Survey, 2019)

# Mental health among young people aged 12-17

7% have an anxiety disorder

6.3% have ADHD

5% have major depressive disorder

20% have high or very high levels of psychological distress

(Lawrence et al., 2015)

# Outline



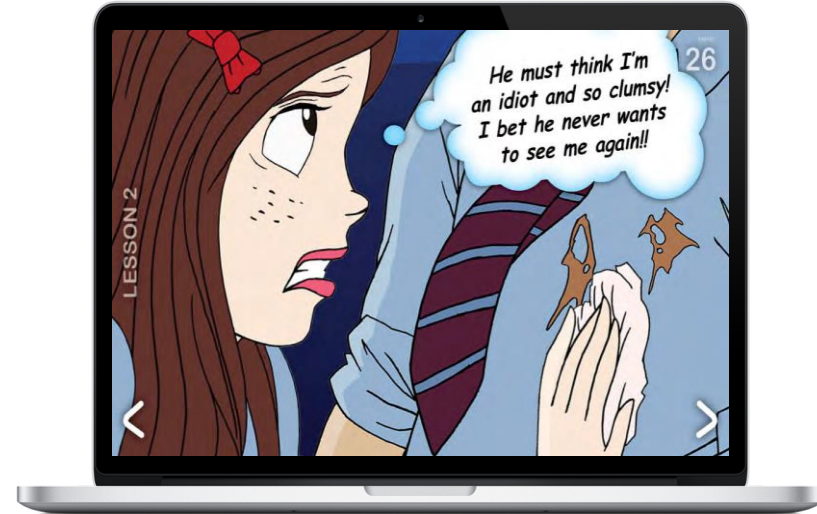
What does the latest research tell us?



Can prevention work long-term?

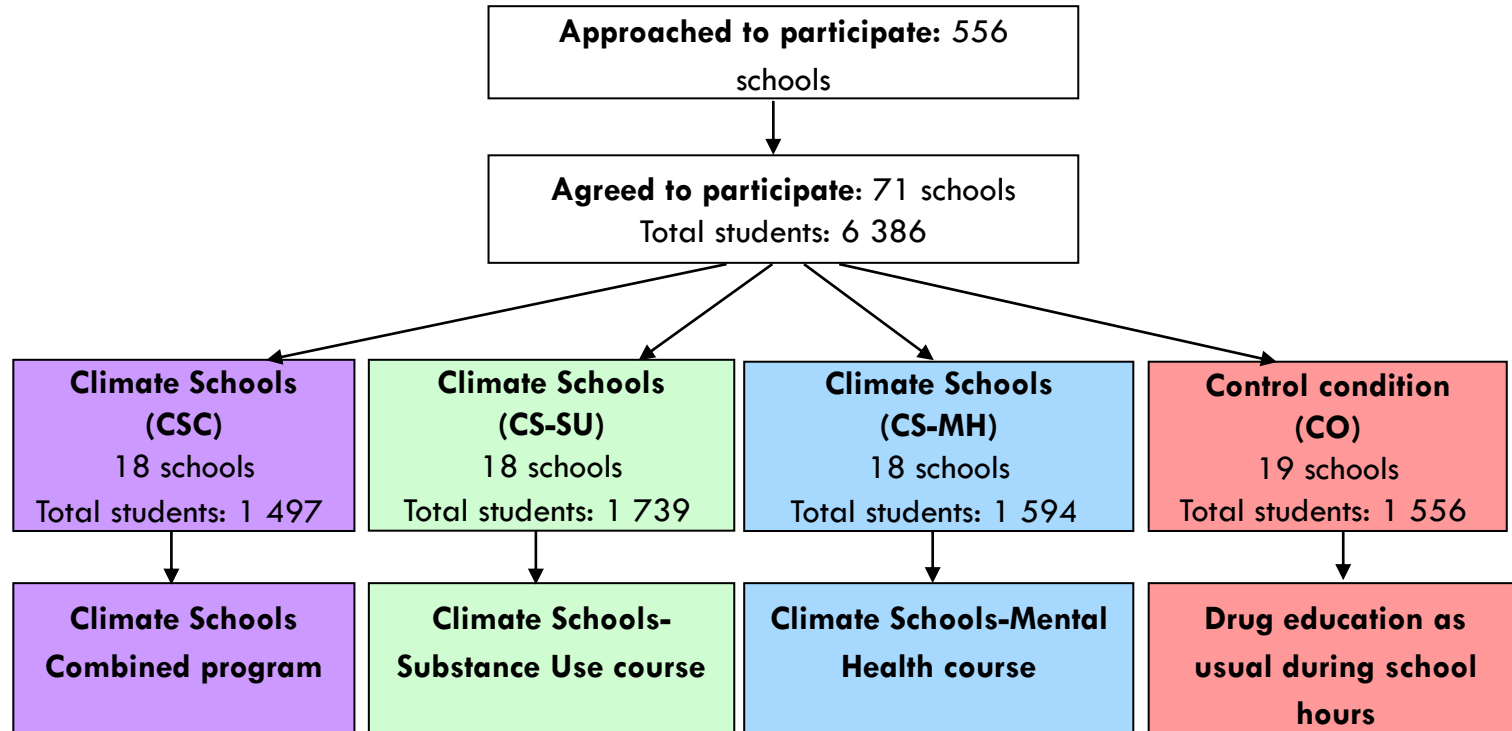
# OurFutures (Climate Schools) Prevention program

- ✓ Internet-based
- ✓ Embedded in curriculum
- ✓ Easily implemented
- ✓ Interactive cartoons and activities





# Study Design – Climate Schools Combined study



# Our futures (Climate) modules

## Climate Schools **Substance Use** module

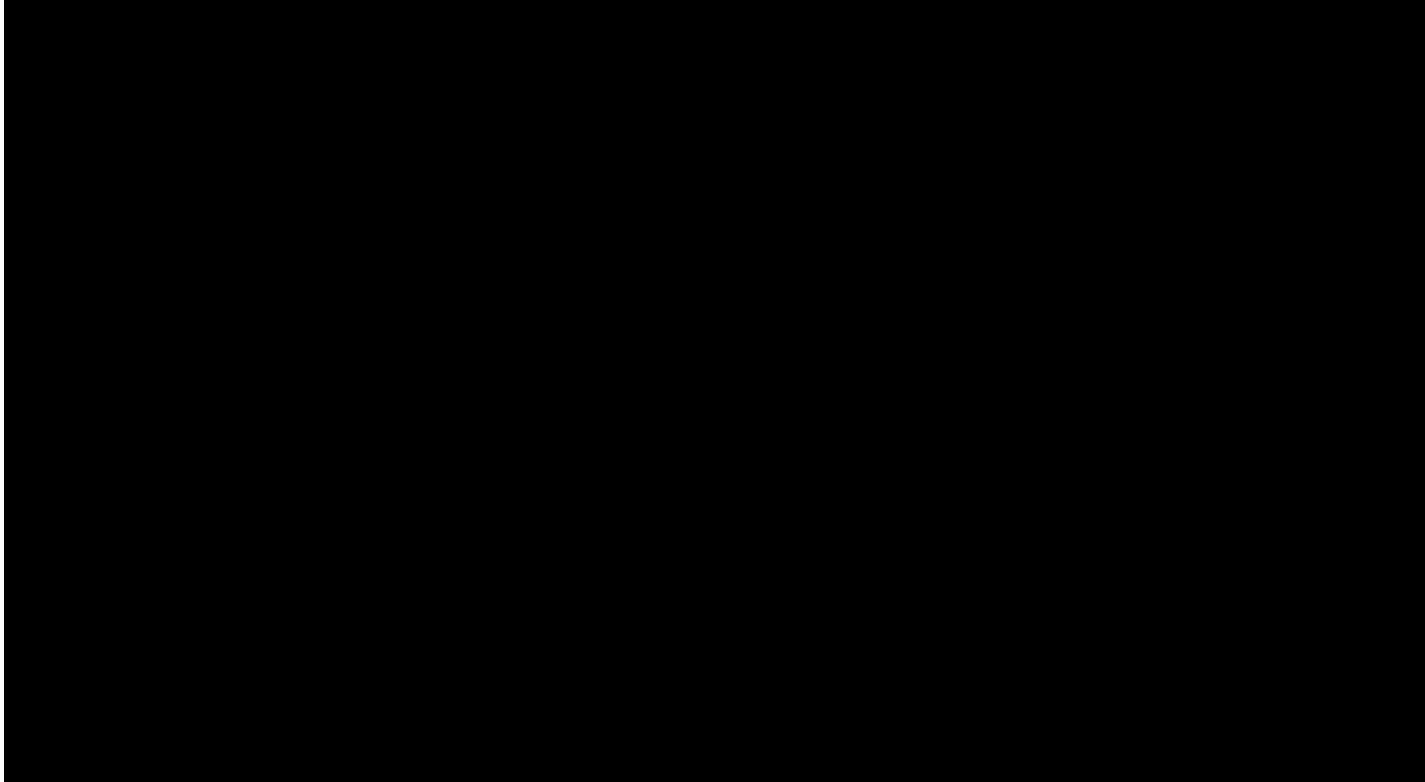
- 6 x 40-minute lessons focusing on **alcohol** +
- 6 x 40-minute lessons focusing on **alcohol and cannabis**

## Climate Schools **Mental Health** module

- 6 x 40-minute lessons aimed at reducing **anxiety and depression symptoms**



# Interactive cartoon storylines



# Study timeline – 30 month follow up

School follow-up								5-6 yr follow-up	
<b>Year</b>	2014	2014	2015	2015	2015	2016	2016	2018 / 19	2020/21
<b>Age</b>	13.5	14	14.5	15	15.3	15.5	16	18.5	20
<b>Grade</b>	8	8	9	9	9	10	10		
<b>Follow up (years)</b>	Baseline + intervention	.5	1	1.5	1.75	2	2.5	5	6
<b>n</b>	6,386	5,639	5,337	5,134	5,079	4,757	4,359	1877	



**Increasing knowledge**



**Reducing alcohol consumption and binge drinking**

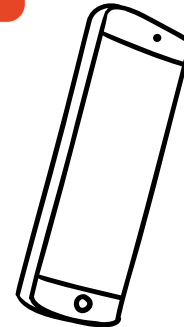
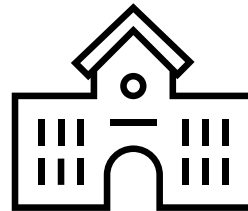
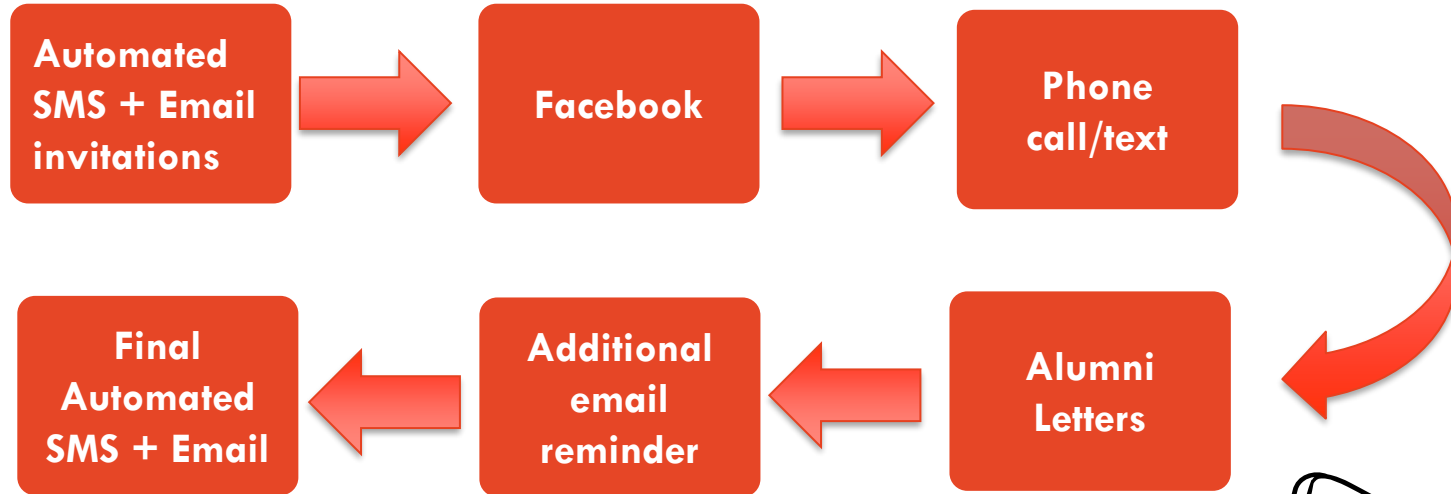


**Slowing the progression of anxiety symptoms**

# Study timeline – Long term follow-up

School follow-up								5-6 yr follow-up	
<b>Year</b>	2014	2014	2015	2015	2015	2016	2016	2018 / 19	2020/21
<b>Age</b>	13.5	14	14.5	15	15.3	15.5	16	18.5	20
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# Follow-up Procedure



# Main outcome - measures

## Alcohol Use

- Weekly drinking
- Binge drinking

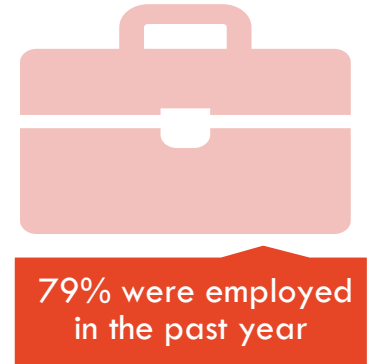
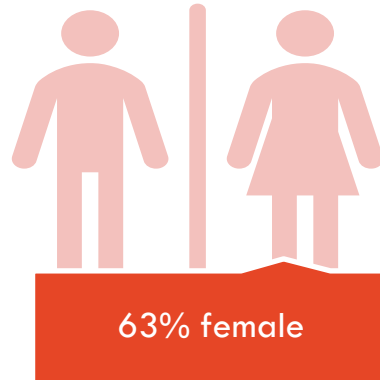
## Mental health

- Anxiety symptoms
- Depression symptoms

## Analysis

- Models: generalised multi-level mixed effects models
- Sensitivity analysis: Inverse Probability Weighting (IPW)

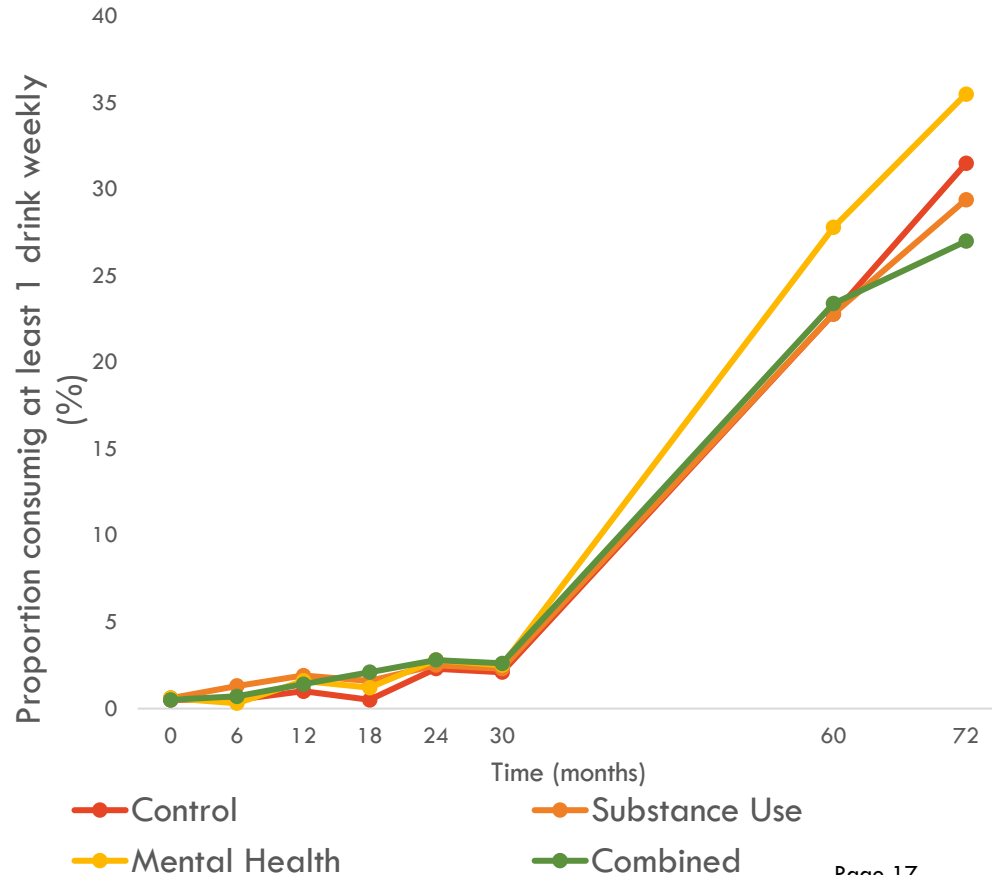
# Results (unpublished, under review)





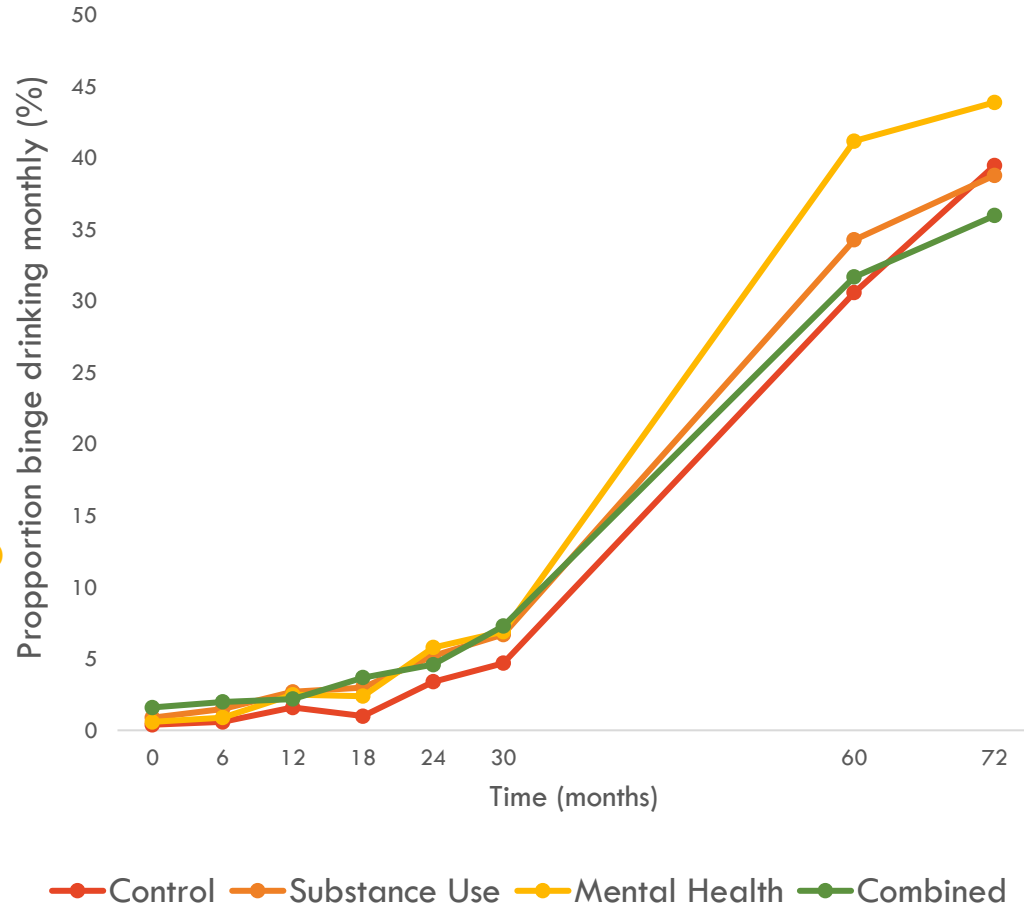
# Results: weekly drinking

Young people in the **CSC group** had significantly slower growth in weekly drinking, compared to young people in the **CO**, (OR 0.78 [95% CI 0.66 to 0.92]) and the **MH group** (OR 0.85 [95% CI 0.73 to 0.99])



# Results: binge

Young people in the **CSC group** had significantly slower growth in binge drinking at least monthly, in the past 6 months, compared to young people in the **CO**, (OR 0.71 [95% CI 0.60 to 0.83]) and the **MH group** (OR 0.79 [95% CI 0.67 to 0.92])



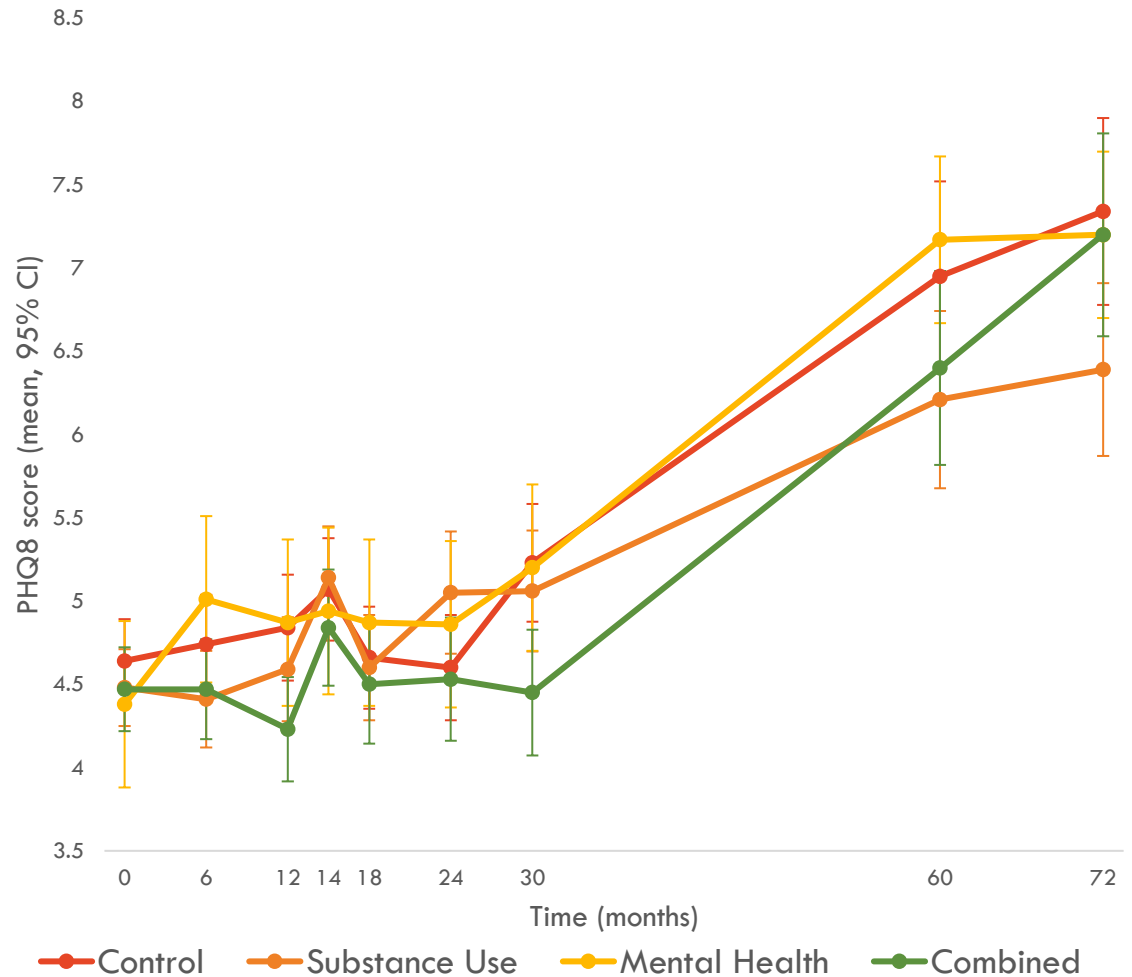
# Results: anxiety

No evidence of intervention effects at long-term follow-up timepoints



# Results: depression

No evidence of intervention effects at long-term follow-up timepoints



# Sensitivity analysis

1. Models were re-run including baseline covariates significantly related to each outcome and attrition

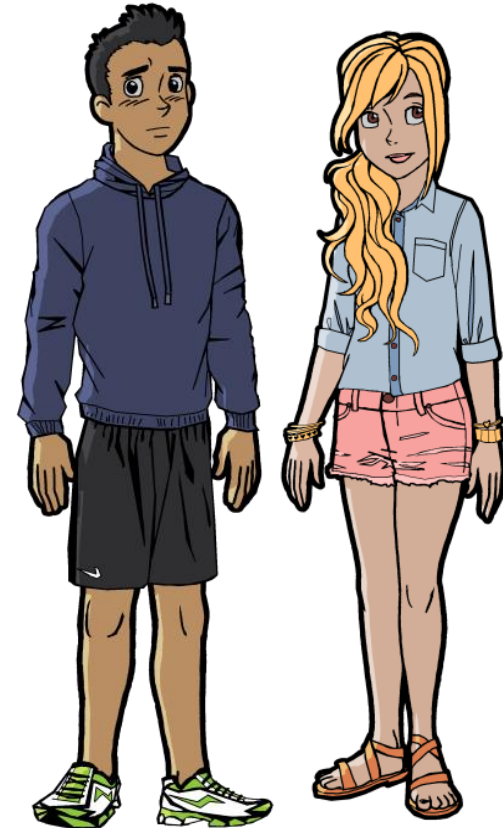
- Significant differences between groups in relation to alcohol use remained

2. Inverse Probability Weightings

- Results remained in the same direction, however no longer significant differences between groups in relation to alcohol use outcomes.

# Conclusions

1. **Long-term assessment** is vital to determine the **durability** of substance use and mental health prevention across adolescence to early adulthood.
2. We found **some evidence that school-based prevention has long-term lasting effects**
3. We **MUST** Embed long-term retention strategies into initial trial designs





To find out more visit:  
[ourfutures.education](https://ourfutures.education)

# Thank you!

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*Teesson, M., Newton, N.C., Slade, T., Chapman, C., Birrell, L., Mewton, L., Mather, M., Hides, L., McBride, N., Allsop, S., & Andrews, G. (2020). Combined prevention for substance use, depression, and anxiety in adolescence: a cluster-randomised controlled trial of a digital online intervention. The Lancet Digital Health 2 (2) e74-e84.*