

CREMS Webinar Series: Welcome!

UPCOMING WEBINARS



JULY 30, 2015: 2PM AEST
Co-occurring mental health and substance use disorders:
how do they affect young people?

DR CATH CHAPMAN



SEPTEMBER 9, 2015: 11AM AEST
Using eHealth to treat co-occurring mental health and
substance use disorders in youth

MR MARK DEADY



NOVEMBER 5, 2015: 2PM AEST
Locating free resources to support evidence-based
practice

DR ERICA CROME

AVAILABLE ON DEMAND



Drug and alcohol use among young people. What can
parents and schools do to prevent the harms?

DR NICOLA NEWTON AND DR LEXINE STAPINSKI

Produced by Nicola Newton, Lexine Stapinski and Michaela
Alcohol & Cannabis Module



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What is CREMS?

CREMS aims to significantly improve

- **understanding**
- **prevention**
- **treatment**



of comorbid mental health disorders and substance use

NHMRC Centre of Research Excellence in Mental Health and Substance Use (CREMS)



CREMS Team



NHMRC Centre of Research Excellence in Mental Health and Substance Use (CREMS)

Directed by Prof Maree Teesson



Comorbidity what is it and how does it affect young people?

Dr Cath Chapman



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



UNSW
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National Drug &
Alcohol Research Centre



Overview

❗ What is comorbidity?

1. What do we know about comorbidity among young people in Australia?
2. Recent trends
3. Implications and future directions



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What is comorbidity?

The co-occurrence of more than one disorder within an individual

- ❖ Substance use and mental disorders
- ❖ >1 mental disorder
- ❖ Mental and physical disorders
- ❖ At the same time or over lifetime



What is comorbidity?

- ❖ Mood Disorders
- ❖ Anxiety Disorders
- ❖ Substance Use Disorders



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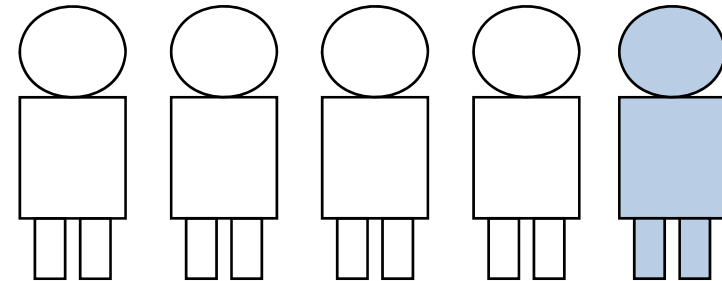
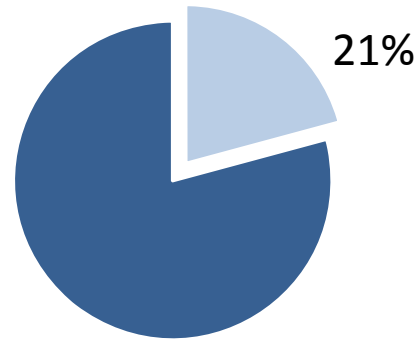
Data source

- ❖ The Australian National Survey of Mental Health and Wellbeing (NSMHWB, 2007)
- ❖ Nationally representative household survey of 8841 people aged 16-85
- ❖ Structured diagnostic interview of mental and substance use disorders

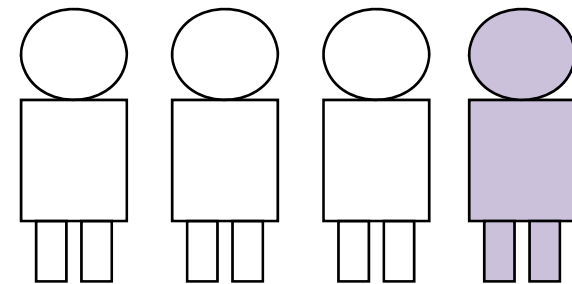
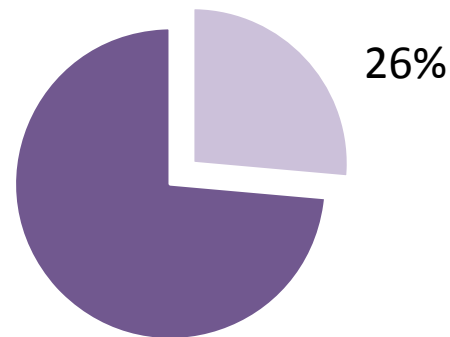


How many young people?

M



F



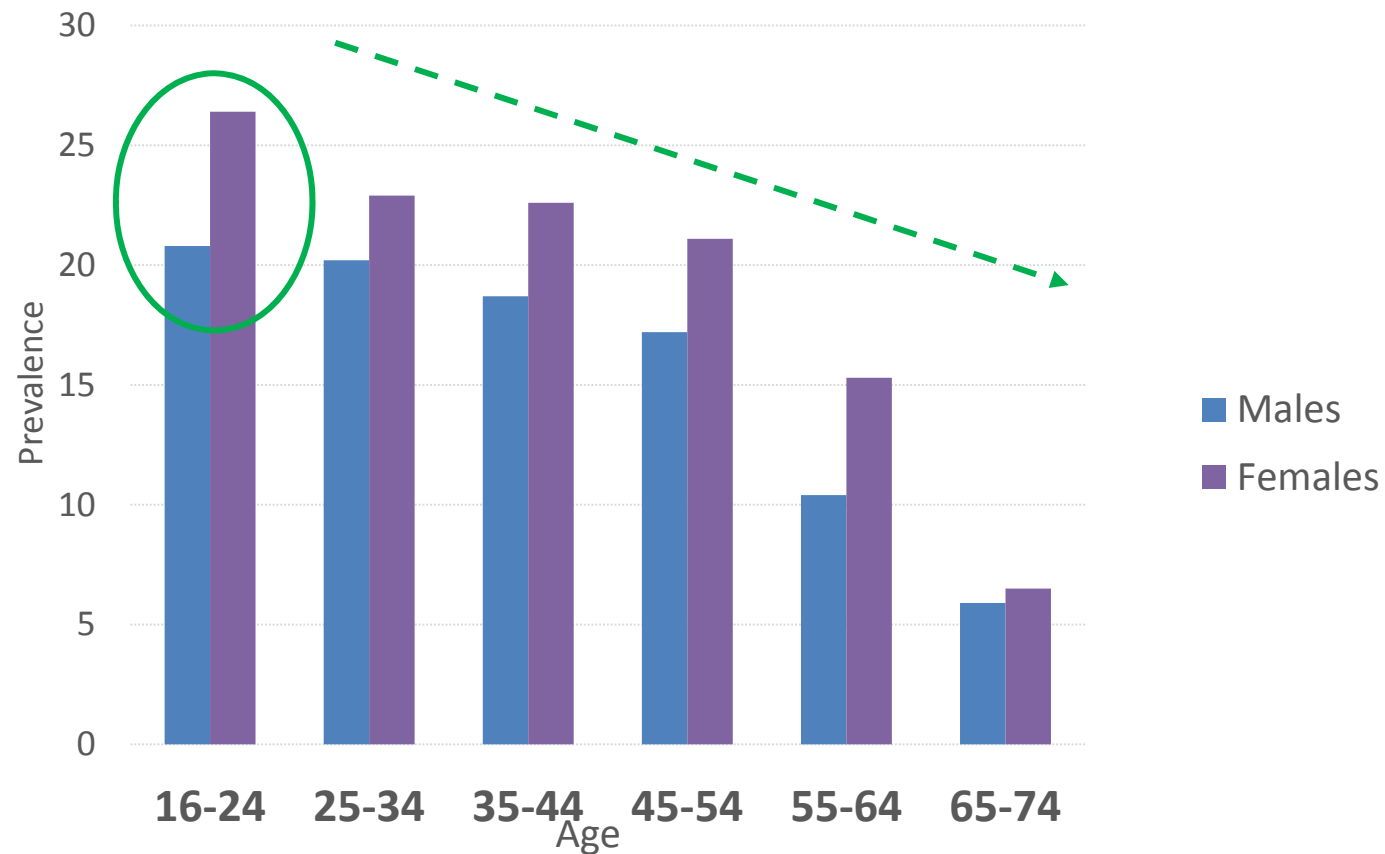
- ❖ In any year 1 in 4 young people will meet criteria for a mental or substance use disorder



>670,000 Australians



How do rates compare?



- ❖ Mental and substance use disorders are more common in young people

Source: 2007 National Survey of Mental Health and Wellbeing (NSMHWB)



What is the impact?

❖ Mental and substance use disorders are the leading cause of disability in young people (aged 10-24) around the globe

1. Depression
2. Road traffic accidents
3. Schizophrenia
4. Bipolar Disorder
5. Violence
6. Alcohol use
7. HIV/AIDS
8. Self-inflicted injuries
9. Tuberculosis
10. Lower Respiratory Infections



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5/10



What types of disorders?



M

Substance
Use
Disorders
15%

Anxiety
Disorders
7%

Mood
Disorders
4%



F

Anxiety
Disorders
18%

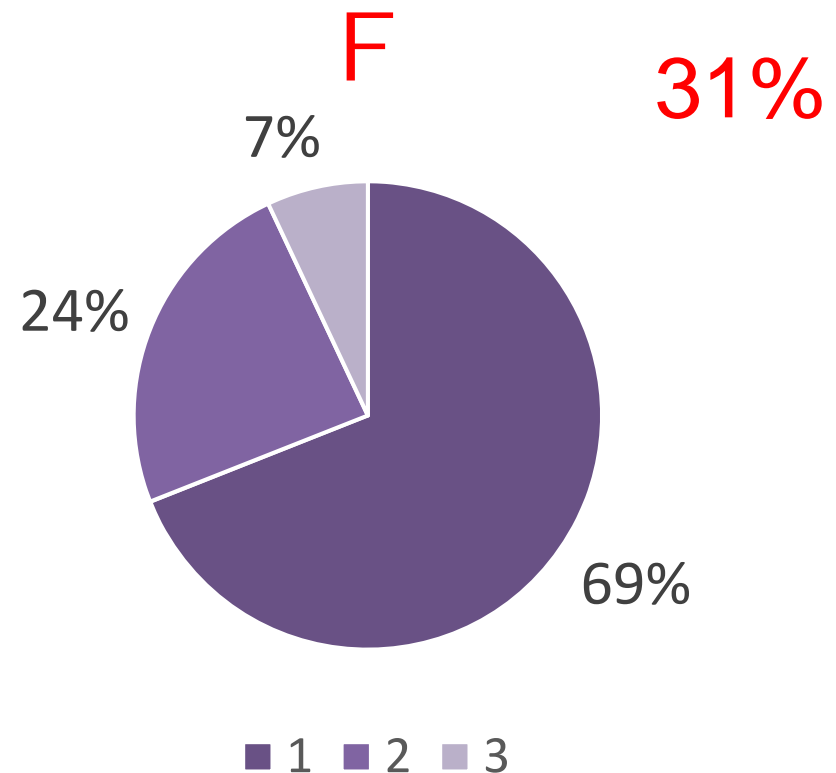
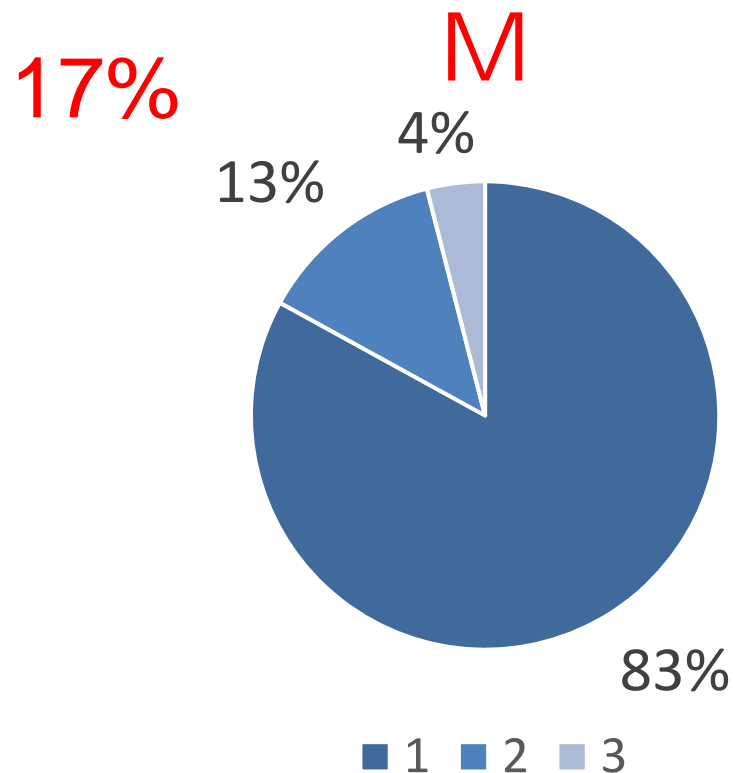
Substance
Use
Disorders
10%

Mood
Disorders
8%



How many disorders?

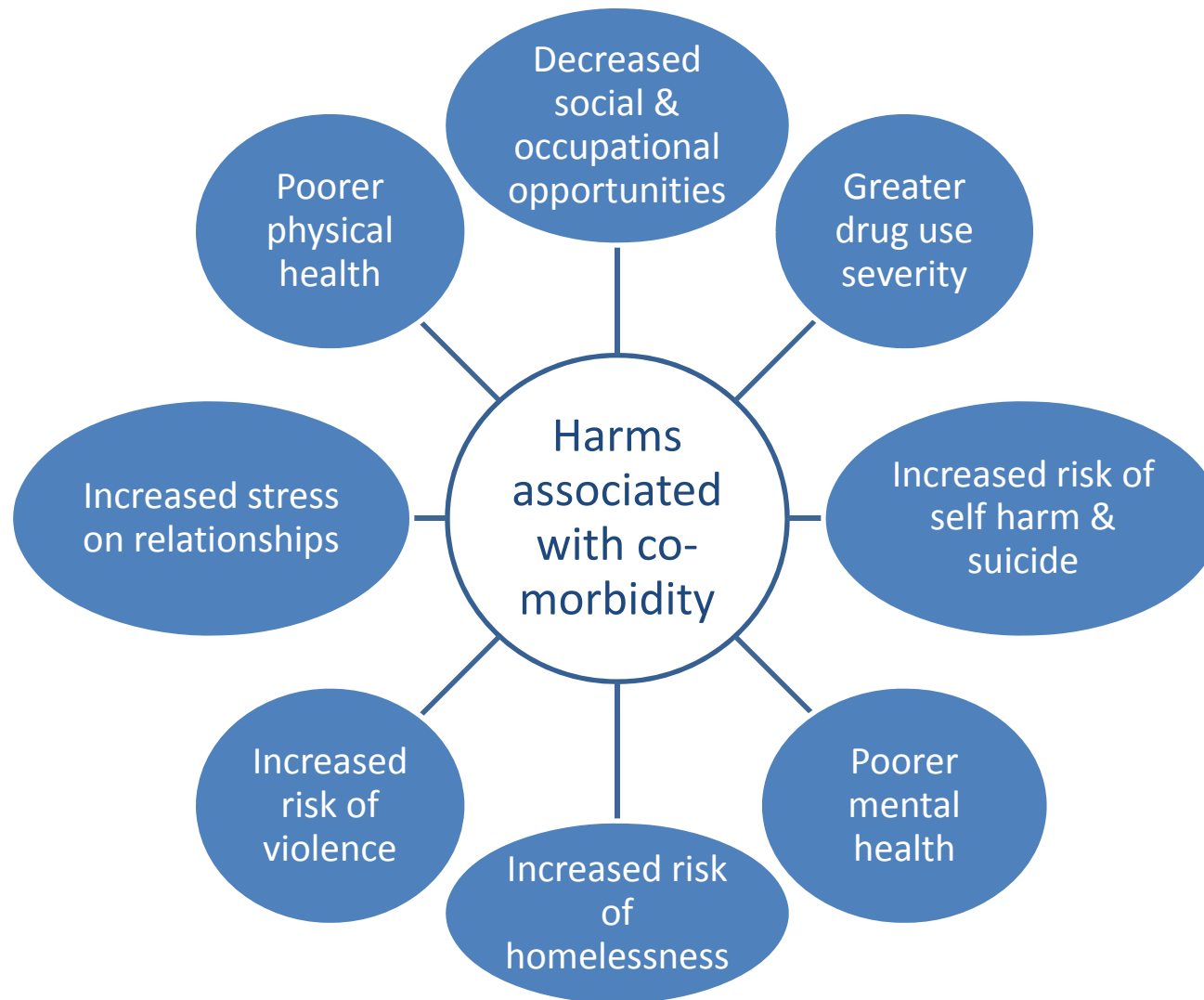
- 25% of young people with a mental or substance use disorder have more than one



- Comorbidity is more common in females



Why does comorbidity matter?



Source: Mills et al. (2008) Guidelines on the management of co-occurring and other drug and mental health conditions in alcohol and other drug treatment settings



Poll

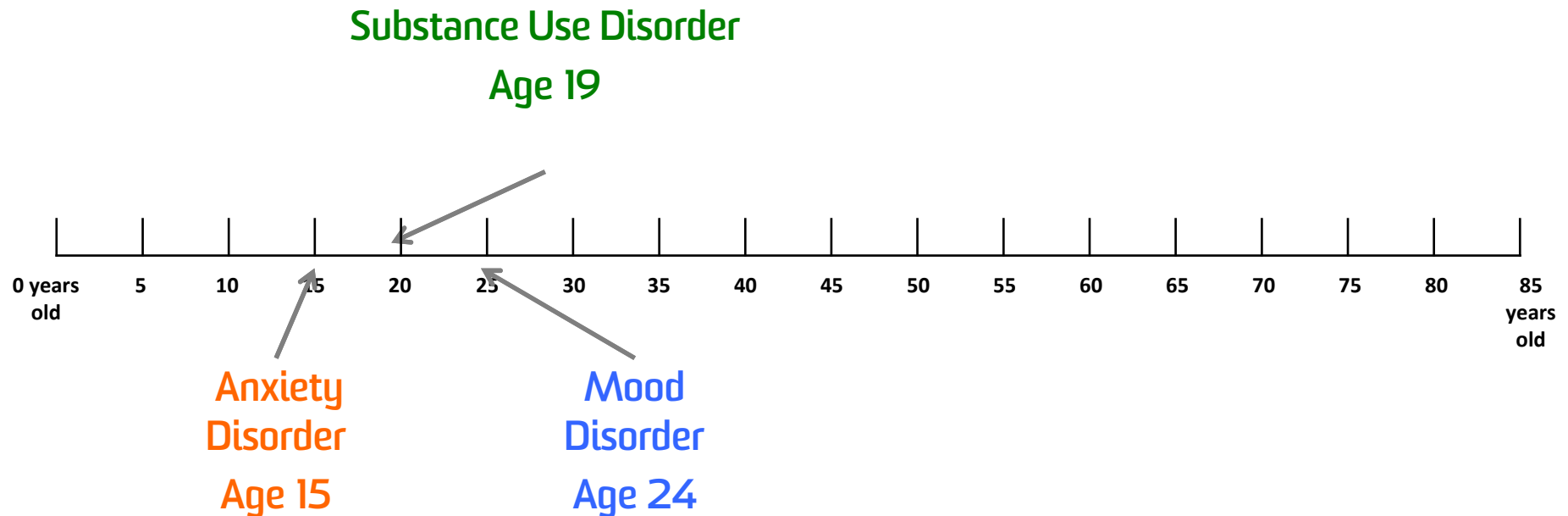
❗ Which disorders tend to develop first?

1. Mood disorders?
2. Substance use disorders?
3. Anxiety disorders?



When do disorders begin?

"When was the first time you had symptoms like..."



- ❖ Mental and substance use disorders begin in adolescence and early adulthood
- ❖ Any disorder increases the risk of developing any other disorder

Source: Slade et al (2015)




How important is onset?

- ❗ Adolescence is a time of profound brain development
- ❗ Brain maturation is not complete until age 24

INSIDE THE ADOLESCENT BRAIN

The brain undergoes two major developmental spurts, one in the womb and the second from childhood through the teen years, when the organ matures by fits and starts in a sequence that moves from the back of the brain to the front.

Nerve Proliferation ...



By age 25, the brain has 100 billion neurons, the majority in the front of the brain have formed. The number of new connections grows to 100 trillion, most of them 40% of the population.

Corpus Callosum

Thought is an electrical signal sent and received by the bundles of nerve fibers connecting the left and right hemispheres of the brain. It is the myelin sheath that covers these fibers that grows and matures around age 20 and more all the way.

Prefrontal Cortex

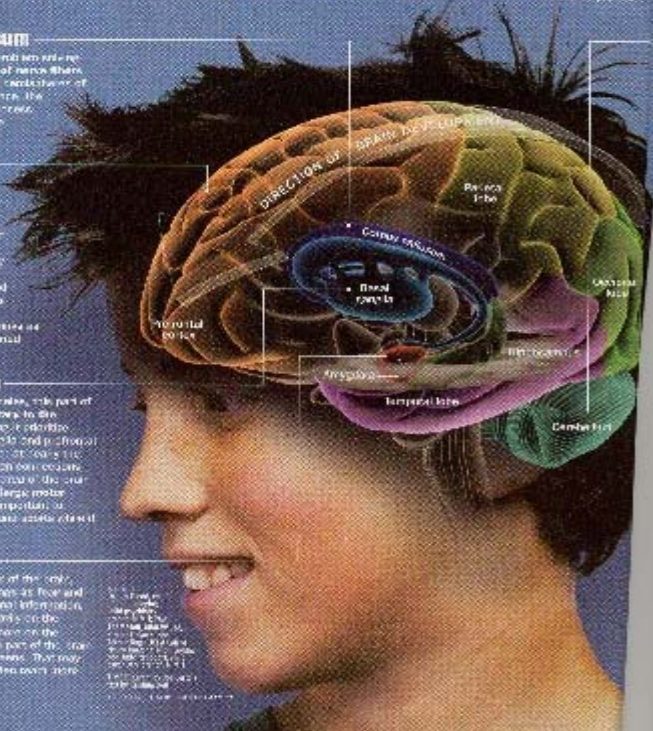
The part of the brain that is called the seat of higher thought, is the last part of the brain to mature. It is the part of the brain that is most involved in the ability to make the best choices. It is the part of the brain that is most involved in the ability to make the best choices. It is the part of the brain that is most involved in the ability to make the best choices.

Basal Ganglia

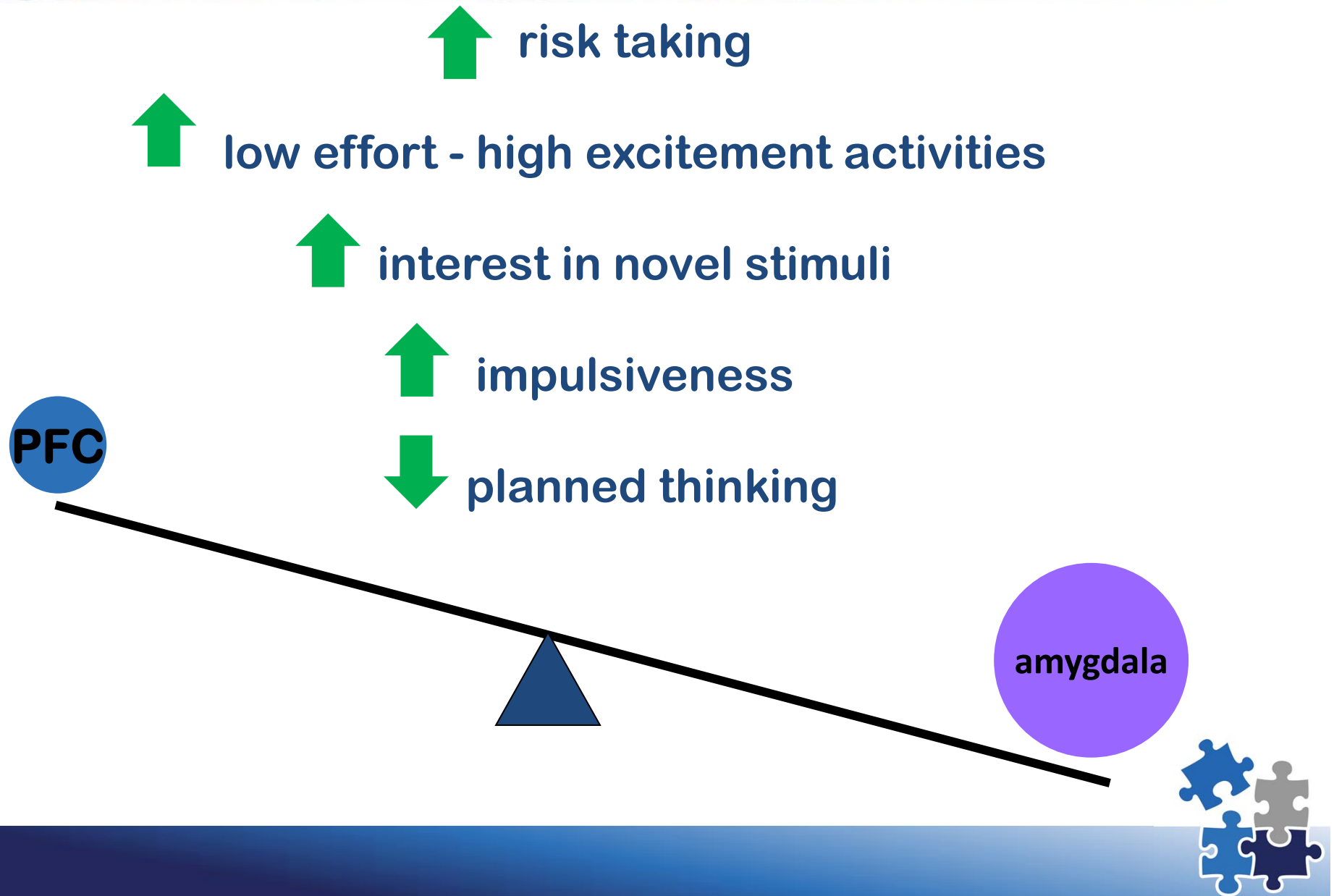
Large, dark, ball-like structures, the part of the brain that is most involved in the ability to make the best choices. It is the part of the brain that is most involved in the ability to make the best choices. It is the part of the brain that is most involved in the ability to make the best choices.

Amygdala

One of the most important parts of the brain, the amygdala is the part of the brain that is most involved in the ability to make the best choices. It is the part of the brain that is most involved in the ability to make the best choices. It is the part of the brain that is most involved in the ability to make the best choices.



How important is onset?



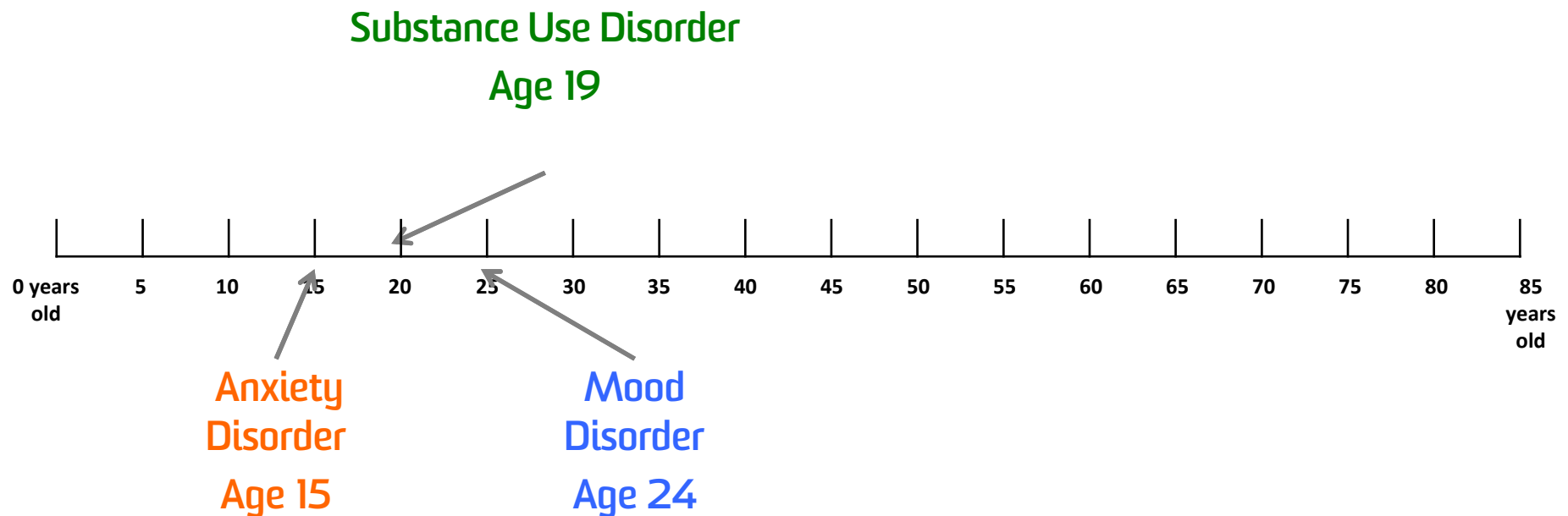
How important is onset?

- ❖ Early onset is associated with a number of negative outcomes
- ❖ 3-10 times less likely to complete year 10 of high school
- ❖ Less likely to get to treatment



What about onset of comorbidity?

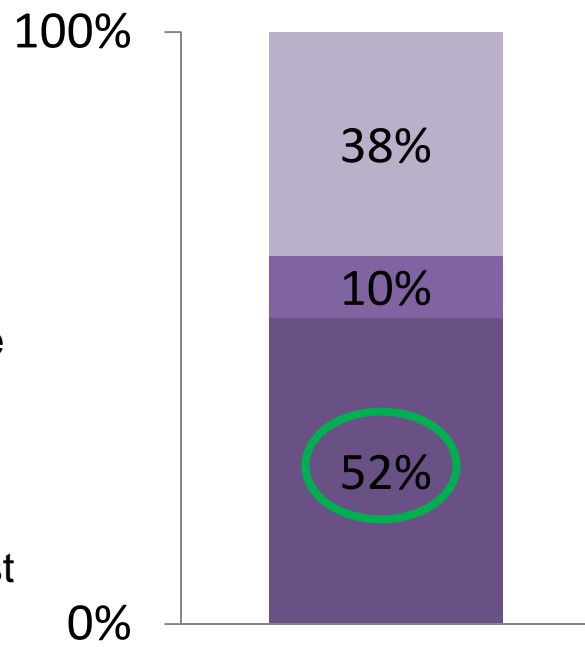
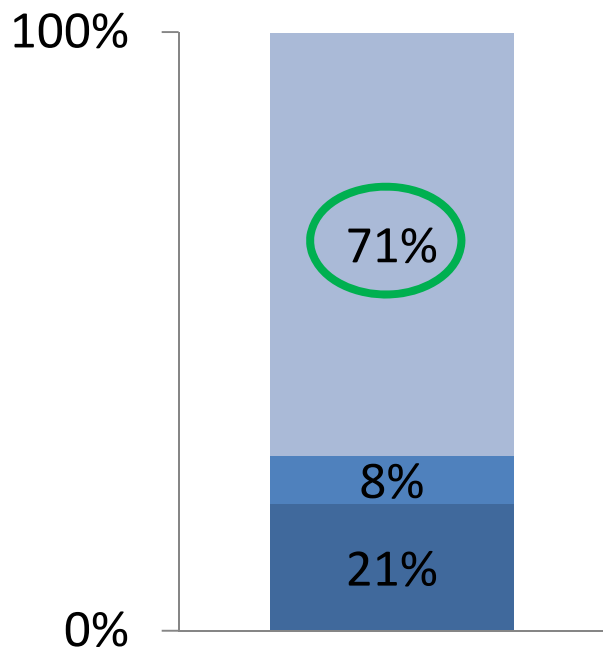
- When anxiety disorders co-occur with other disorders they usually develop first



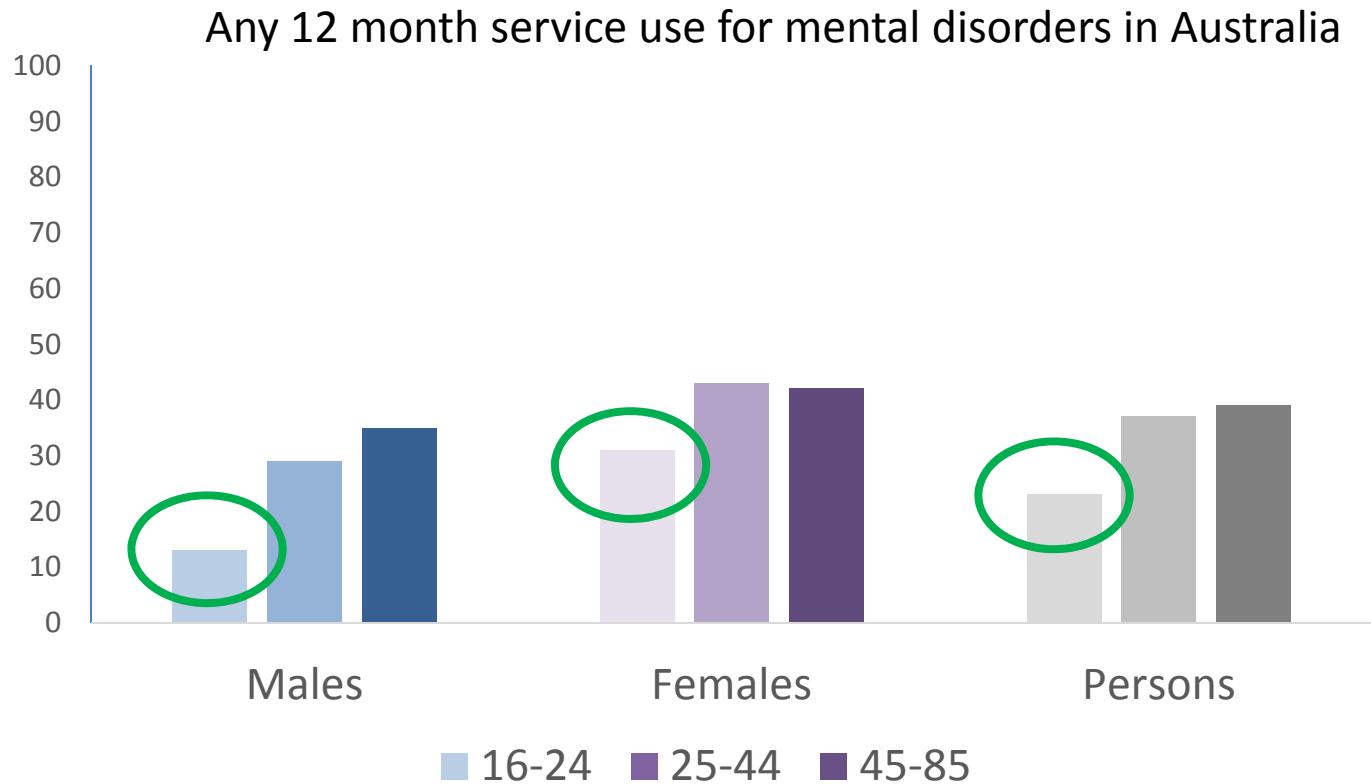
Mood and substance use disorders

M

F



Do young people seek help?



- ❖ Overall, less than 1 in 4 young people with a mental and substance use disorder seek help
- ❖ Rates of help-seeking are lower among young people



So far.....

- ❖ 1 in 4 young people will have a mental or substance use disorder
- ❖ ...of whom 25% will have more than one
- ❖ Comorbidity is more common in females
- ❖ Most disorders begin during adolescence or early adulthood
- ❖ The impact of comorbidity is substantial
- ❖ Most young people do not seek help



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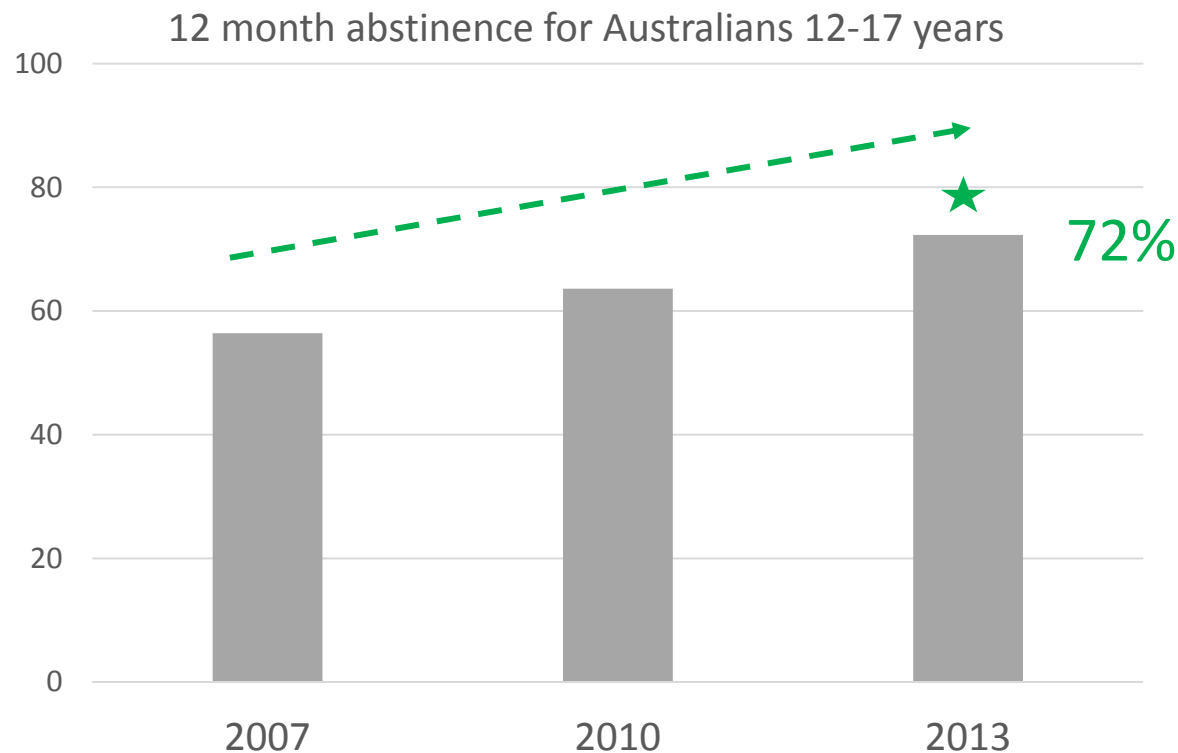
Data sources

- ❖ The National Drug Strategy Household Survey 2013 (NDSHS)
 - a nationally representative household survey that is repeated every 3 years (2013 n= 23,855)
- ❖ A systematic review of the published literature on changing patterns of alcohol and cannabis use around the world



Recent Trends: Alcohol

- More young people are choosing not to drink

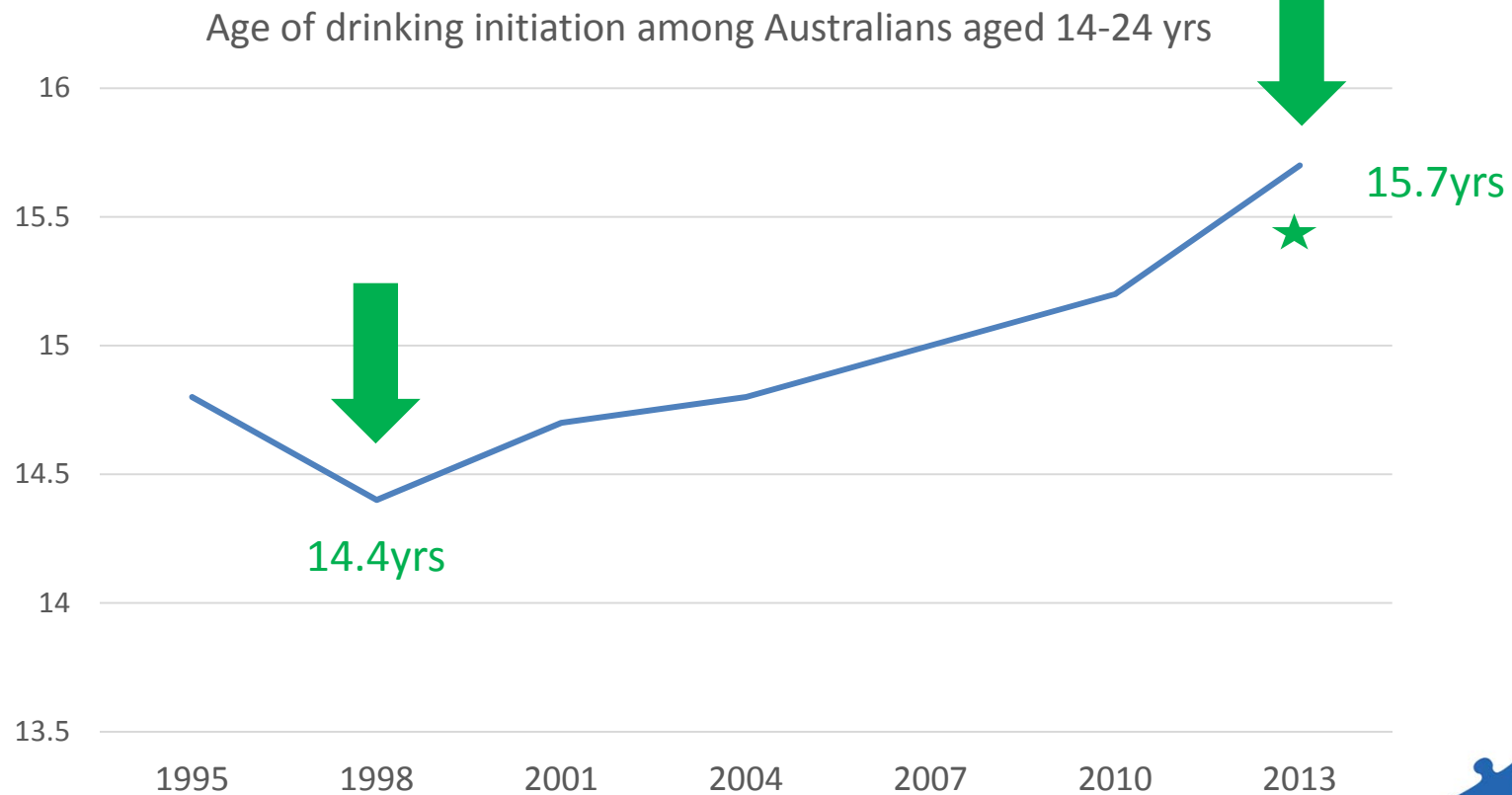


Source: National Drug Strategy Household Survey; Livingston (2014)



Recent Trends: Alcohol

- ❏ Young people are delaying onset of drinking



Source: National Drug Strategy Household Survey



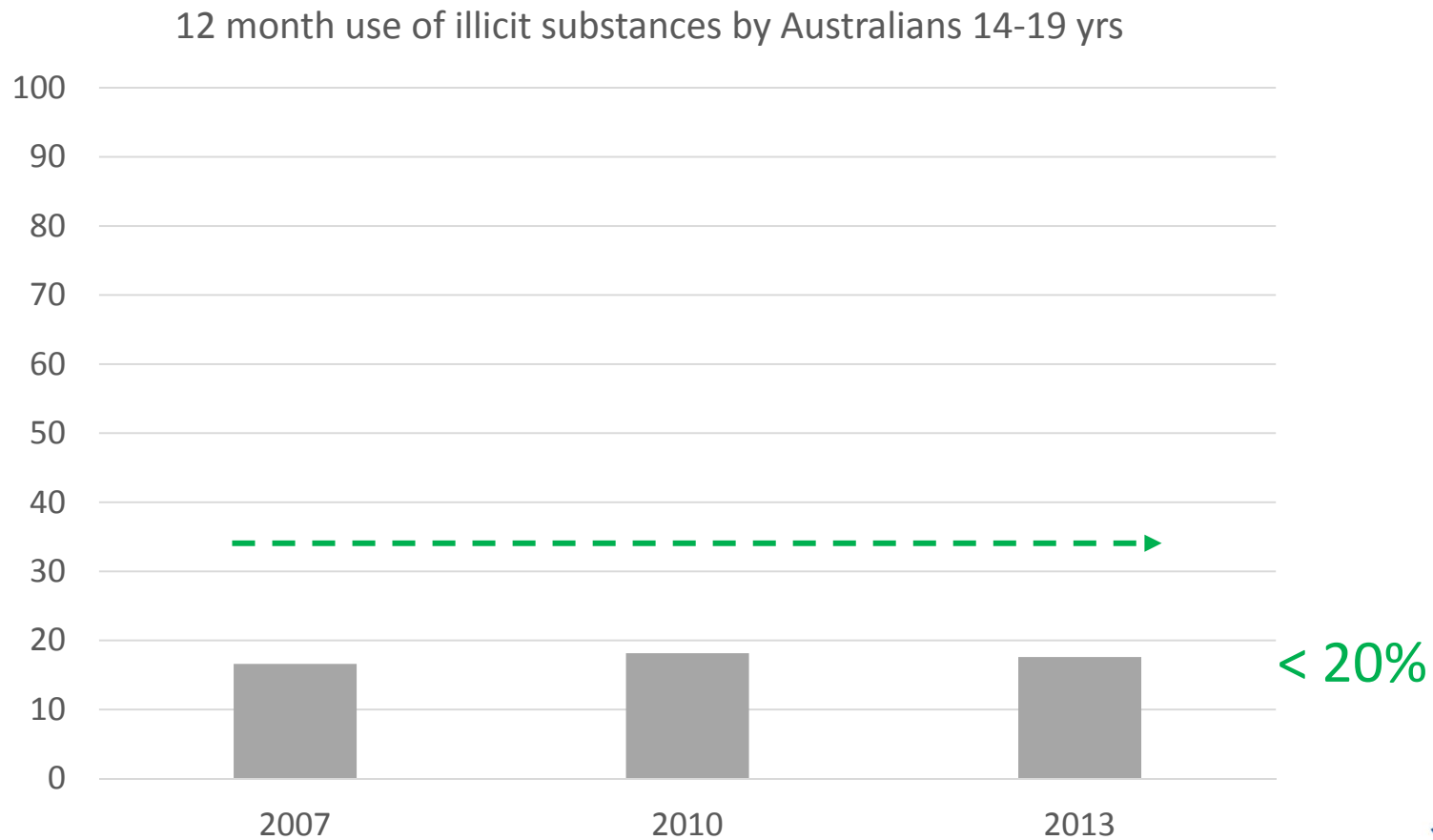
Recent Trends: Alcohol

- ❖ Rates of very high risk binge drinking (11+ drinks) among 12-17 year olds have not shifted from 2010 to 2013
- ❖ 5.5% at least yearly
- ❖ 3.7% at least monthly
- ❖ Harms associated with binge drinking are substantial



Recent Trends: Illicit Drugs

❗ Rates of illicit drug use are fairly stable



Source: National Drug Strategy Household Survey



Recent Trends: Gender

- ❖ Rates of substance use disorders and related harms are higher in males
- ❖ But are girls catching up?
- ❖ In a recent project we systematically summarised studies on sex differences in key indicators of alcohol and cannabis epidemiology
- ❖ Have these sex differences changed over time?



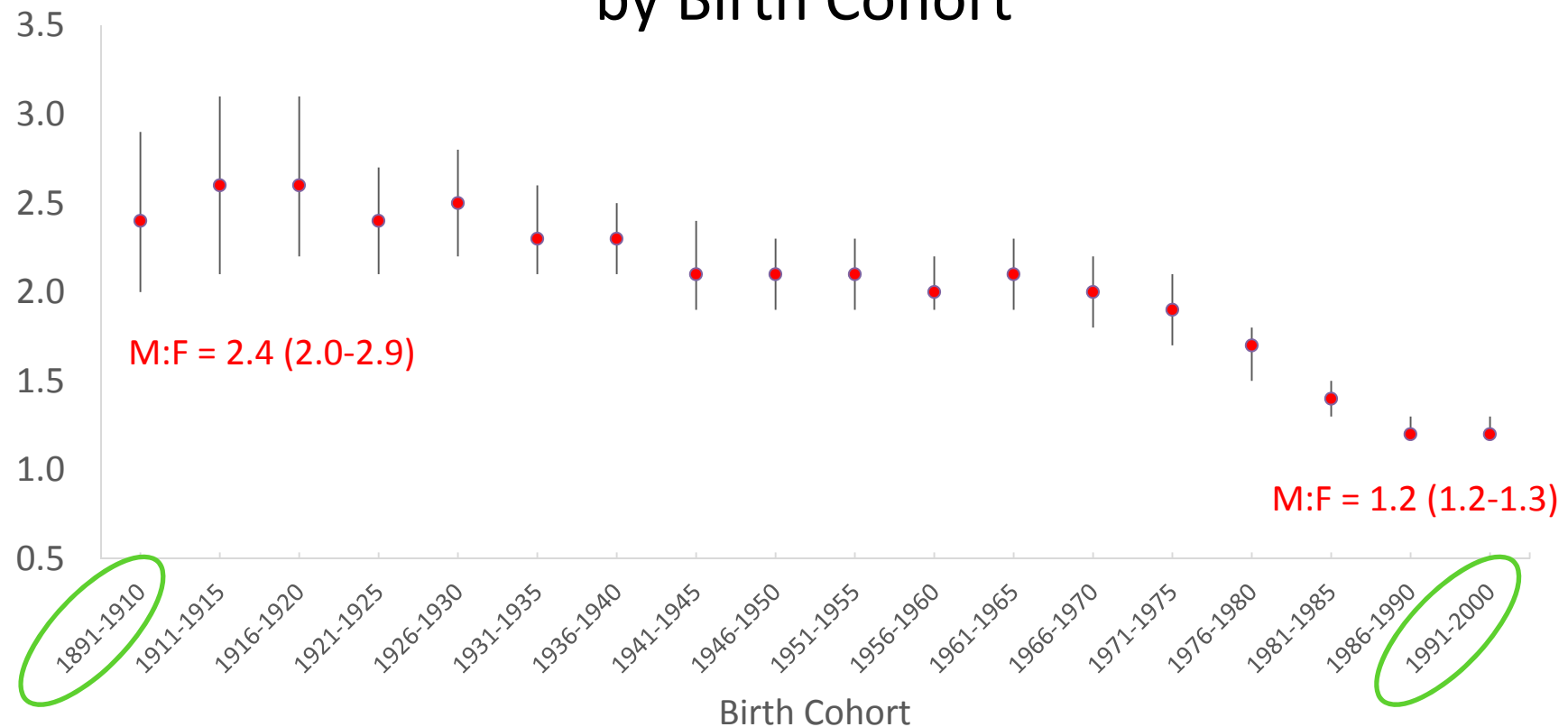
Recent Trends: Gender

- ❖ We included data from 82 studies from around the world
- ❖ We examined 11 indicators of alcohol use and related harms and prevalence of cannabis use
- ❖ Mapped estimates onto birth cohorts from 1895-1991



Recent Trends: Gender

Male to Female Ratio of Alcohol Use and Related Harms by Birth Cohort



68 studies in 36 countries among 4 426 673 people



Recent Trends: Gender

- ❖ Changing Gender Roles – as gender roles have converged so too have patterns of alcohol use
- ❖ Normalization of alcohol use – drinking is becoming more acceptable among women
- ❖ Increased Strain – females today are experiencing more stress and strain contributing to more problematic alcohol use



What are the key messages?

- ❖ Comorbidity among young people is common, high impact and untreated
- ❖ Comorbidity develops during adolescence and early adulthood
- ❖ Comorbidity is more common among young women
- ❖ There are some positive changes in terms of alcohol use among young people in Australia
- ❖ But....harms are still significant and the gender gap is closing



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Implications

- ❖ Prevention and early intervention are crucial
- ❖ Deliver accurate and evidence-based information www.climateschools.com.au
- ❖ Empower our young people to make positive choices www.postivechoices.org.au
- ❖ Make use of technology
www.dealproject.org.au
(Co-occurring depression and alcohol use)



Implications

- ❖ Reframe our thinking about young women and alcohol and drug use
- ❖ Pay attention to how young women (and young men) are responding to our prevention programs



<https://comorbidity.edu.au/news/pure-rush-online-drug-education-game>



Future Directions: Prevention

- ❖ Prevention of co-occurring mental health and substance use disorders

www.cscstudy.org.au

- ❖ Understanding peer influence and its relationship to drug and alcohol use and mental health problems among adolescents

- ❖ Development of an internet based prevention program for parents



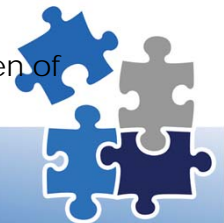
Future Directions: Epidemiology

- ❖ Lifecourse of alcohol use disorders: what role do comorbid mood and anxiety disorders play?
- ❖ Age period cohort analysis of binge-drinking among Australians: what changes are occurring and are they the same for men and women?



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THANK YOU!

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Any questions?



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Produced by the National Health and Medical Research Council
Alcohol & Cannabis Module

Join us in Canberra at CREMS Colloquium August 25, 2015
Innovative Treatments for Mental and Substance Use Disorders
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