



# If You Can Remember the 60s You Weren't There.....Older People and Substance Misuse

Never Stand Still

Medicine

Psychiatry

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# What is old for substance misuse?



# No single age cut-off captures older populations with substance misuse disorders

Aged Care Services	75+	mainly prescription drugs
Mental Health Services	65+	mainly alcohol & prescription drugs
Drug & Alcohol Services	50+	alcohol, illicit & prescription drugs
General Public	??	alcohol, illicit & prescription drugs



# Why do we need to be planning for older people and substance misuse?

- Older people have lowest rates of alcohol misuse
- Older people have lowest rates of illicit drug use
- Older people have lowest rates of tobacco consumption

Though

- Older people have highest rates of prescription drug misuse



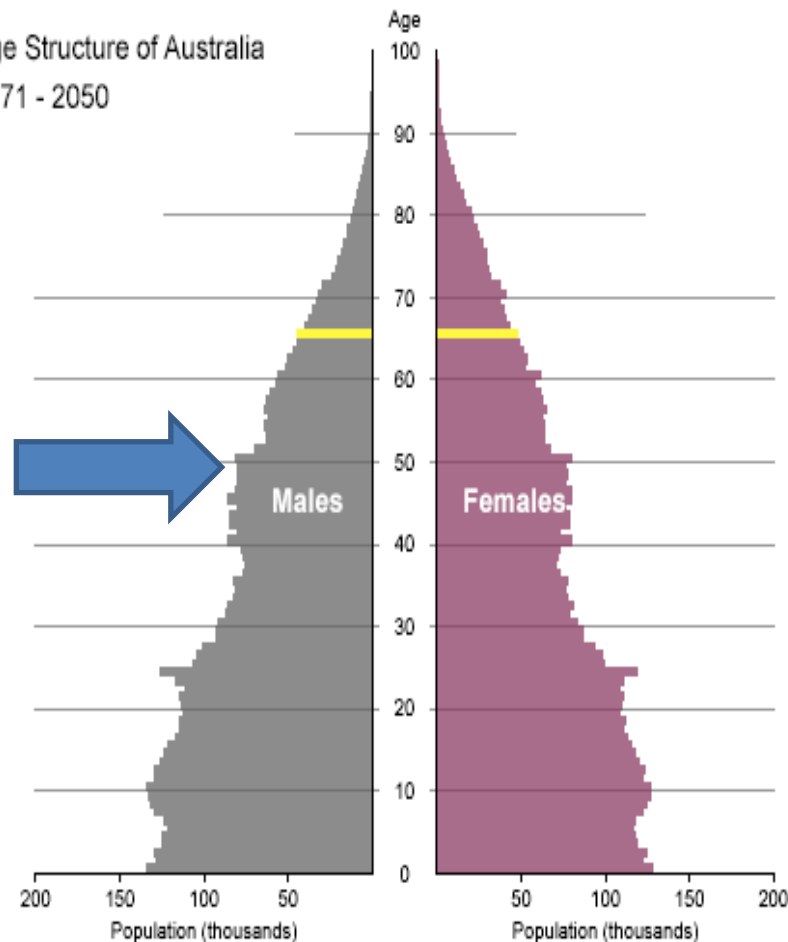


# Australian Bureau of Statistics

An agency of the Australian Government

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Age Structure of Australia  
1971 - 2050



1971  
Total (mil.): 13.1

**Aged 65**  
Born 1905-1906  
Males: 44187  
Females: 47704  
Sex Ratio: 92.6  
(males per 100 females)

Highlight surplus of males or females

### Animate

speed



Start: 1971  End: 2050

1980 2000 2020 2040

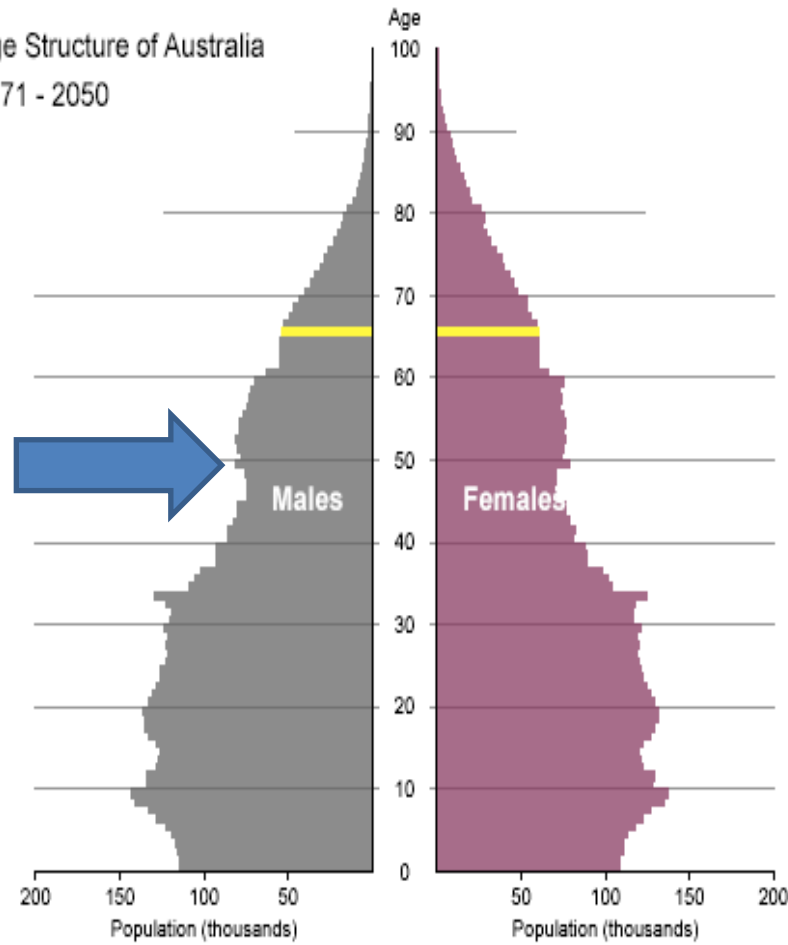


# Australian Bureau of Statistics

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Age Structure of Australia  
1971 - 2050



1980  
Total (mil.): 14.7

**Aged 65**  
Born 1914-1915

Males: 54014  
Females: 59940

Sex Ratio: 90.1  
(males per 100 females)

Highlight surplus of males or females

**Animate**

play

pause

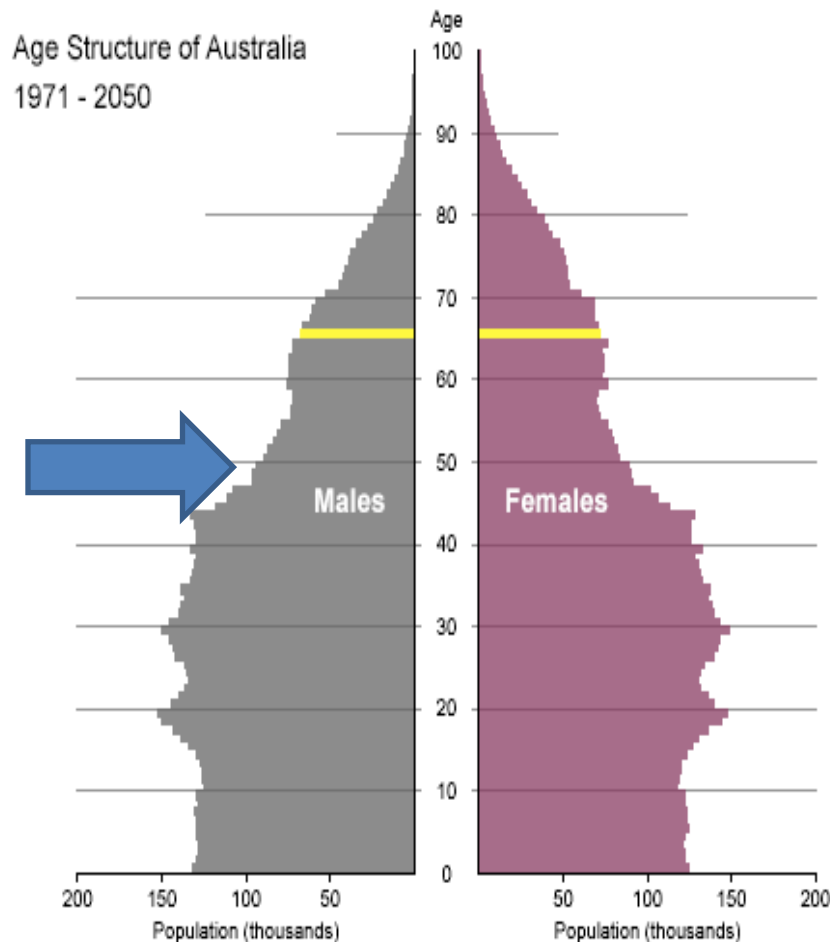
speed

Start: 1971  End: 2050



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1990  
Total (mil.): 17.1

**Aged 65**  
Born 1924-1925

Males: 66937  
Females: 71442

Sex Ratio: 93.7  
(males per 100 females)

Highlight surplus of males or females

#### Animate



play



pause

speed





# Australian Bureau of Statistics

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Age Structure of Australia  
1971 - 2050



2000  
Total (mil.): 19.2

**Aged 65**  
Born 1934-1935  
Males: 68162  
Females: 70380  
Sex Ratio: 96.8  
(males per 100 females)

Highlight surplus of males or females

**Animate**

speed



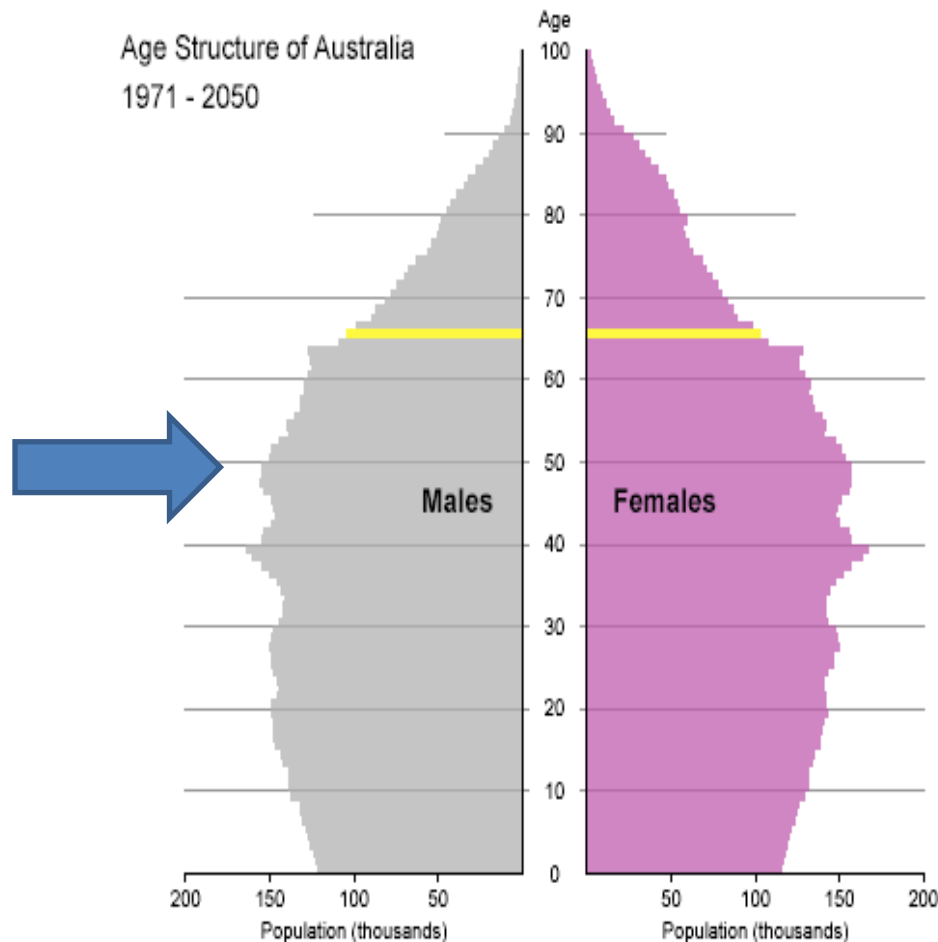




# Australian Bureau of Statistics

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Age Structure of Australia  
1971 - 2050



2010

Total (mil.): 21.3

\* Projected Data

**Aged 65**

Born 1944-1945

Males: 103626

Females: 103321

Sex Ratio: 100.3  
(males per 100 females)

Highlight surplus of males or females

**Animate**

speed



Start: 1971  End: 2050

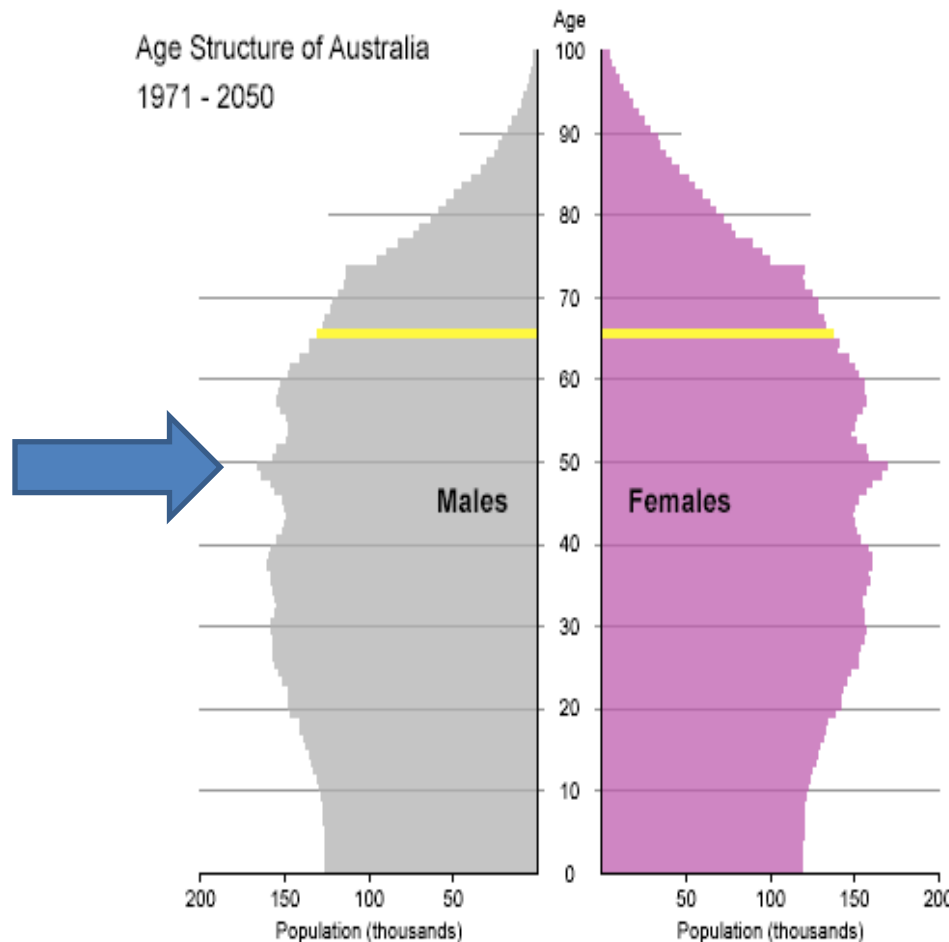
1980 2000 2020 2040



# Australian Bureau of Statistics

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Age Structure of Australia  
1971 - 2050



2020

Total (mil.): 23.2

\* Projected Data

**Aged 65**

Born 1954-1955

Males: 130627

Females: 137011

Sex Ratio: 95.3  
(males per 100 females)

Highlight surplus of males or females

**Animate**

speed



Start: 1971  End: 2050

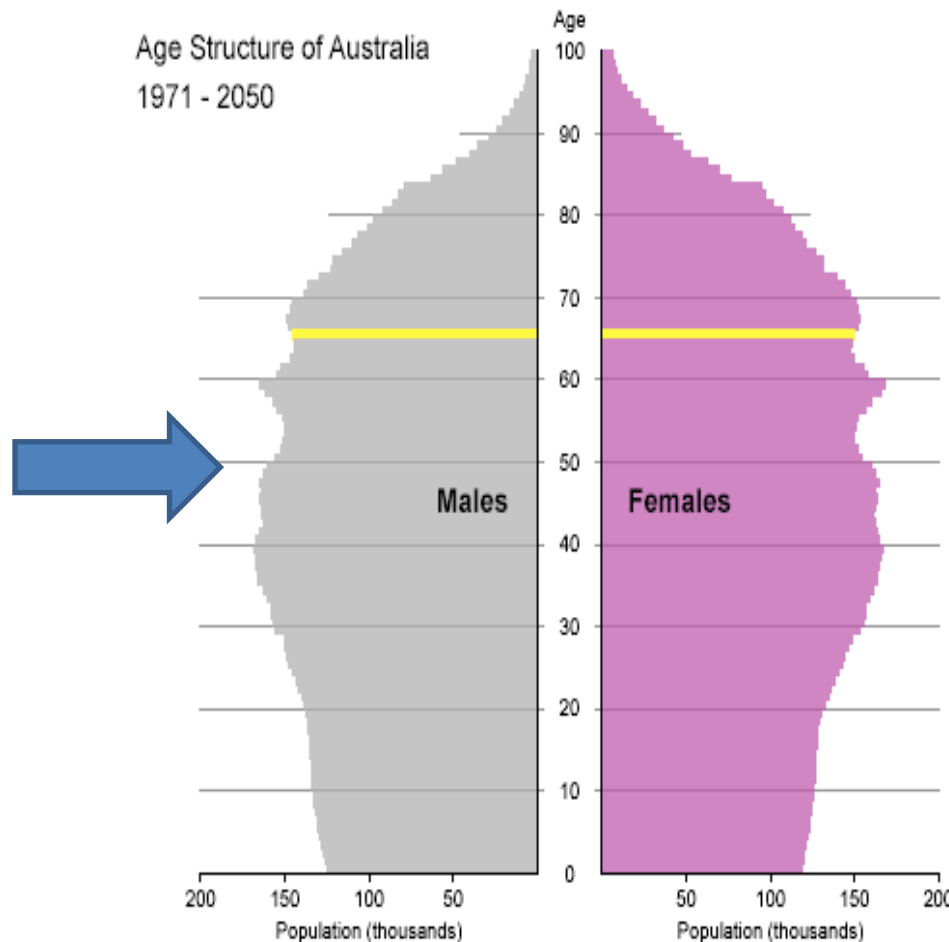
1980 2000 2020 2040



# Australian Bureau of Statistics

An agency of the Australian Government

Age Structure of Australia  
1971 - 2050



2030

Total (mil.): 24.8

\* Projected Data

**Aged 65**

Born 1964-1965

Males: 144827

Females: 149668

Sex Ratio: 96.8  
(males per 100 females)

Highlight surplus of males or females

**Animate**

speed



Start: 1971  End: 2050

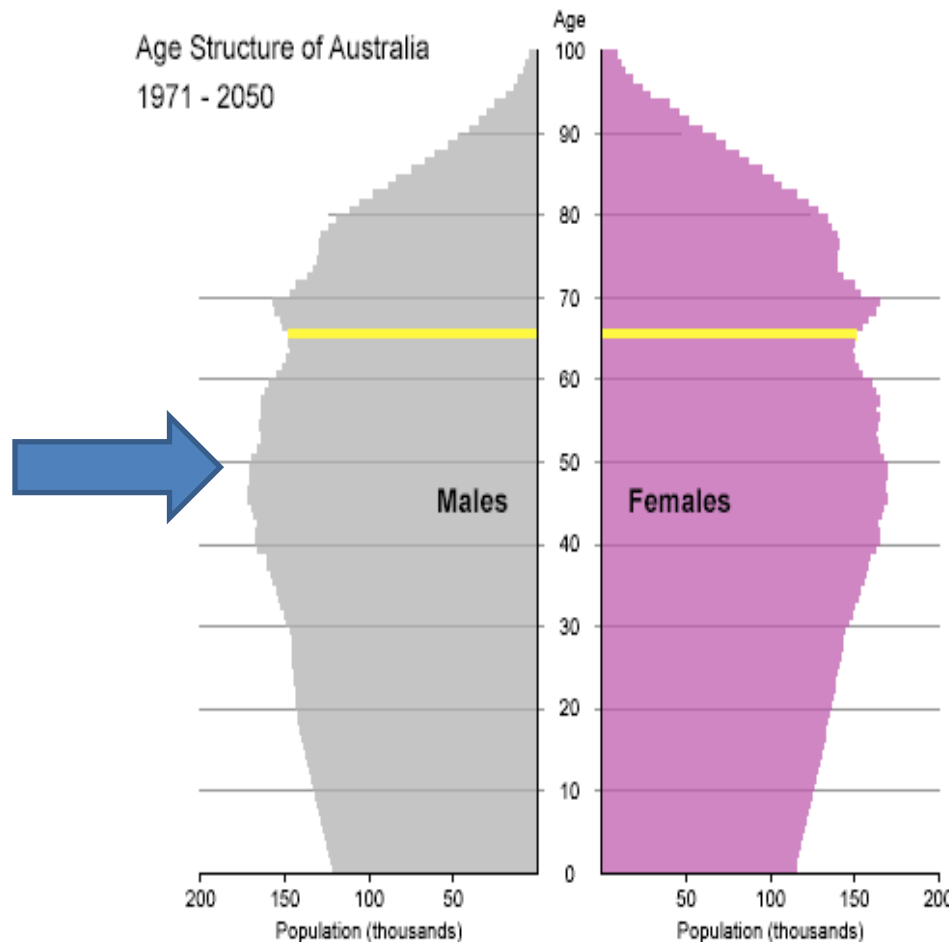
1980 2000 2020 2040



# Australian Bureau of Statistics

An agency of the Australian Government

Age Structure of Australia  
1971 - 2050



2040

Total (mil.): 25.8

\* Projected Data

**Aged 65**

Born 1974-1975

Males: 147773

Females: 151127

Sex Ratio: 97.8  
(males per 100 females)

Highlight surplus of males or females

**Animate**

speed



Start: 1971  End: 2050

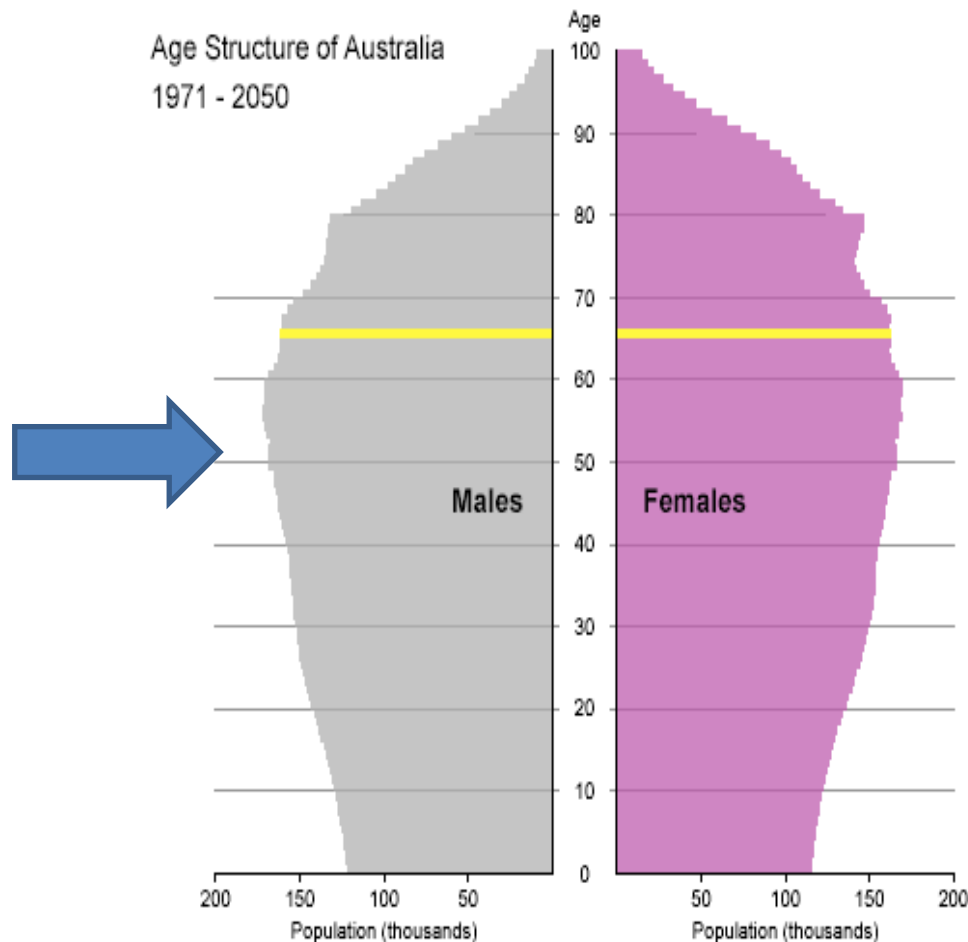
1980 2000 2020 2040



# Australian Bureau of Statistics

An agency of the Australian Government

Age Structure of Australia  
1971 - 2050



2050

Total (mil.): 26.3

\* Projected Data

**Aged 65**

Born 1984-1985

Males: 161261

Females: 163001

Sex Ratio: 98.9  
(males per 100 females)

Highlight surplus of males or females

**Animate**

speed



Start: 1971  End: 2050

1980 2000 2020 2040

# The Baby Boomers have arrived!

- Substance use disorders in over 50s predicted to double by 2020 (Han et al, 2009)
- Four classes:
  - Alcohol
  - Illicit Substances
  - Medication misuse
  - Tobacco



# 2010 National Drug Strategy

## Household Survey



High risk drinking for alcohol-related harm from disease or injury over a lifetime (>2 standard drinks per/day)

- 15.3% of those aged 65-74 years
- 9.4% of those aged over 75 years

Survey excluded hospital and RACF, so we looked at rates in aged care services – 16.2% aged 60+ (mean age 82) (Draper et al in prep)

High risk of alcohol-related injury on a single occasion of drinking (>4 standard drinks) most days or every day

- 4.3% of those aged 65-74 years and
- 2.4% of those aged over 75 drink

(AIHW, 2011)



# Alcohol consumption in older age



## Physiological changes impact tolerance

- Less does more - older adults have a higher sensitivity to alcohol and a decreased ability to metabolize it effectively
- Thus the amount of alcohol that might cause short term risk is much less in older people but exact reduction is unclear and may depend on comorbidities

Approximately one third of cases late life alcohol abuse commences in late life (Pierucci-Lagha, 2003)



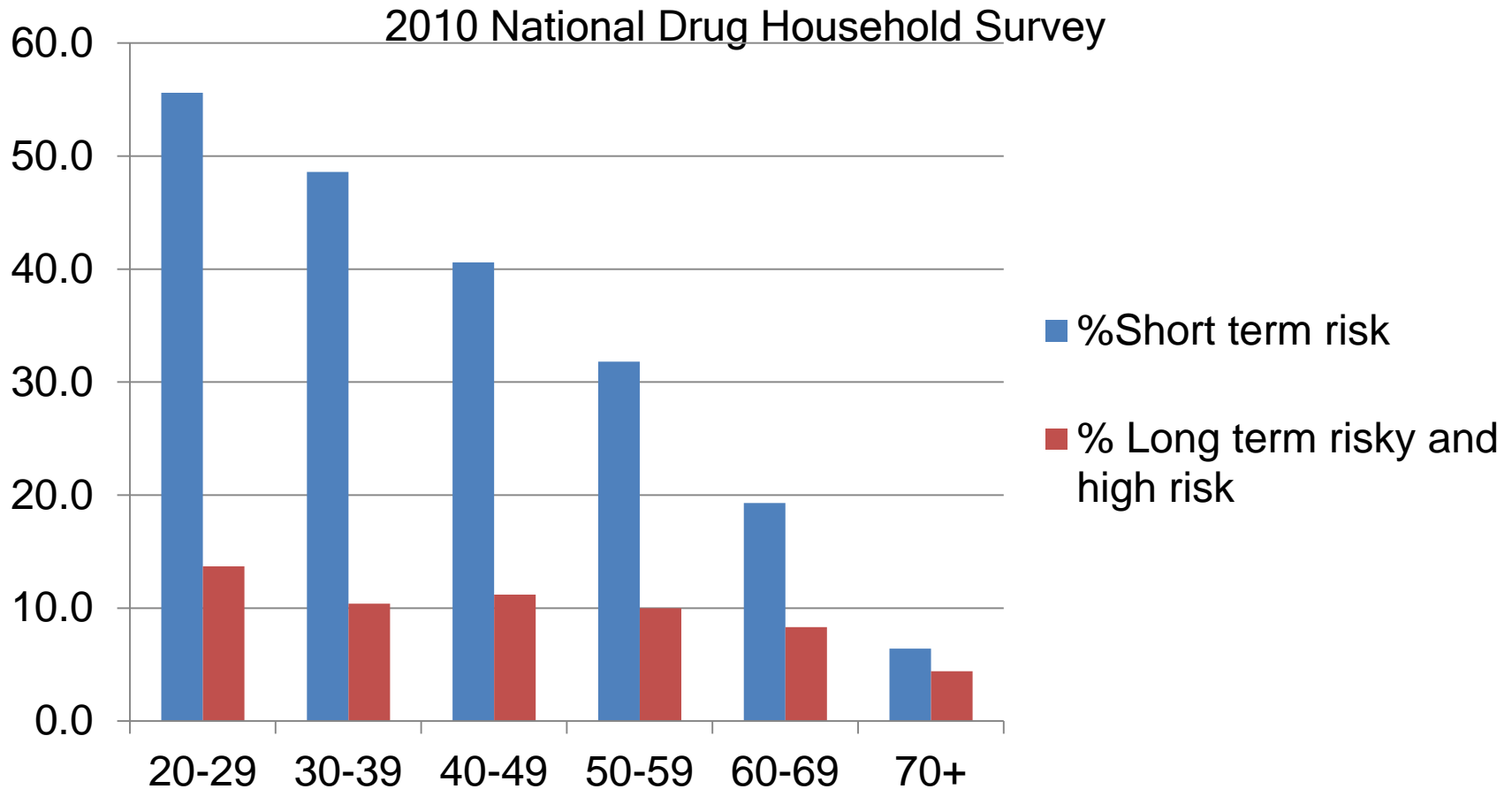
# Australian Guidelines to reduce health risks from alcohol (NHMRC, 2009) - not specific for late life

U.K. Guidelines for Alcohol Use in Older People (Royal College of Psychiatrists, 2011)

Upper 'safe limit' for older people is 1.5 units per day or 11 units per week – this equates to around 8.5 units in Australian standard drinks

In older people, binge drinking should be defined as >4.5 units in a single session for men and >3 units for women

# Short and Long Term Risky Alcohol Consumption Men & Women



# Health Benefits of Low-to-Moderate Alcohol Use

J or U shaped relationship between alcohol use and health outcomes

Evidence from epidemiological studies that low to moderate use (up to 2-3 standard drinks per day) may be beneficial

- increased longevity perhaps mediated by circulatory benefits
- reduced risk of dementia – perhaps additional benefit of flavonoid antioxidants – but recent research questioning this in women

# Unclear Messages About Alcohol Use in Late Life

Balance between amount where potential benefits and potential harms occur in late life is delicate

Current Australian data on what is safe/unsafe drinking in older people may underestimate short term risk

Long term risk only declines in a noticeable way over age 70, long term risk in 50-70 year olds is similar to 30-50 year olds

# Health Consequences of Alcohol Misuse - most accumulate with age

Increased risk of:

- Hypertension, Stroke
- Cardiopulmonary disease
- Gastrointestinal disorders
- Dementia, Wernicke-Korsakoff syndrome, ARBD
- Delirium
- Falls → sense of balance, peripheral neuropathy
- Depression, psychosis and suicide
- Sleep disorders
- Malnutrition
- Cancer – mouth, stomach and liver
- Liver cirrhosis and liver failure



# Alcohol and Cognitive Disorders

Alcohol related dementia (ARD) (a term most frequently used in dementia care) often used interchangeably with alcohol related brain damage (ARBD) (a term most often used in D&A)

ARBD and to a lesser extent ARD generally taken to include Wernicke-Korsakoff's syndrome (WKS), Amnestic & Frontal Lobe syndromes

ARD & WKS – likely to overlap & both should be regarded as types of dementia (Ridley et al 2013)

Mainly occur ages 50- 70 (Draper et al 2011)

# Recent trends

Prevalence of ARBD rising - e.g. Netherlands, Scotland

Likely due to ↑ per capita consumption of alcohol, ↓ prescribing of prophylactic parenteral vitamins to alcohol-dependent individuals undergoing detoxification in general med and psych settings

The HDS Study estimated there were 1200 cases of ARD in NSW in 2006/7; approx 3500 in Australia

Kok, 1991; Ramayya & Jauhar, 1997; Smith and Hillman, 1999; Jacques & Stevenson, 2000 MacRae & Cox, 2003; Cox *et al.*, 2004; Draper et al, 2011

# Issues to Consider

- Alcohol abuse may cause potentially reversible cognitive disorders especially from age 45
- How to best manage cognitively impaired alcohol dependent patients is unknown
- Service delivery & education models must take this into account





# Prescription Medication Abuse

Prescription + over-the counter = interaction risk

Range: sharing medications, higher doses, or longer durations than prescribed, to persistent abuse and dependency issues.

Main: benzodiazepine sedative-hypnotics and the opioid analgesics



# Prevalence



Australian 2010 National Drug Strategy Household Survey  
Used pharmaceuticals for non-medical use over the past  
12 months:

- 3.6% aged 65-74 years
  - 6.1% aged over 75 years
- (AIHW, 2011)

In Aged care services, 4.4% were misusing BZ or Opioids,  
**HOWEVER**

Another 27.5% taking BZ & 17% taking opioids AS  
**PRESCRIBED!** (Draper et al, in prep)



# Benzodiazepines (BZ)



Recommendation is that BZ with a longer half-life are avoided in older adults because of residual sedative effects and an association with falls, MVAs, Overdoses, and worsened memory (Hanlon et al., 1998; Sheahan et al., 1995; Simoni-Wastila & Yang, 2006).

## Risks:

- Short-term vs long-term cognitive impairment

## Withdrawal risks:

- Seizures, Tremors, Hallucinations, Delirium, Falls

# Why Do Older Adults Use BZ?

## 1. Sleep problems

- Bz appear to be a simple (and initially seemingly effective) remedy for sleep disorders in late life.

## 2. Anxiety and Stress

- Many older patients have been prescribed low dose Bz for chronic anxiety for many years.
- New prescriptions for acute anxiety (often in the context of an evolving depression or dementia) occur when doctors lack skills/time for non-drug treatments & fail to refer to Mental Health



# Opioids



Increase in older people adults receiving pharmacotherapy for opiate dependence in Australia (ABS, 2010).

- 5.5% increase in the number of people aged 50-59 receiving the treatment between 2006 and 2010,
- Increase from 0.3% in 2006 to 1% in 2010 aged over 60 years

Older people (mainly late mid life) misusing painkilling medication have driven the first rise in deaths from heroin and other opioid drugs in more than 10 years

Increased use of opioids in chronic pain management including nursing home residents with dementia and disturbed behaviour

Preliminary figures indicate that deaths from the drugs increased from 500 in 2008 to more than 700 in 2010, only 30% due to heroin (NDARC, UNSW 2012)

# Prescription Drug Issues to Consider

Currently most substance misuse in late life is due to prescription drugs

With opioid misuse current challenges relate to increased prescription in a chronic late-middle aged pain population where risks & benefits remain to be adequately elucidated

In old age a new population of increased opioid use is in the management of behavioural disturbance in severe dementia where pain is seen to be a possible cause

Benzodiazepine over prescription remains a concern

What is the role of the Addiction Medicine specialist in this area?



# Older Adults and Illicit Drugs

## 2010 National Drug Strategy Household Survey

- 0.7% aged 65-74 and 0.4% of those aged over 75 had used an illicit drug over the past 12 months



## .....and then the baby boomers turned 60

- 7.4% of Australians aged 65-74 having used an illicit drug in their lifetime, but only 2.5% of those aged over 75 years having ever used an illicit drug (AIHW, 2011).
- increasing mean age of the people using Australia's Needle and Syringe program, with over 9% of program users now aged over 50

# Health Needs & Services of Older Drug & Alcohol Clients – Preliminary Data (Lintzeris et al MHDAO grant)

40 subjects (35 male) from Langton centre aged 50+  
(range 50-66)

60% live alone, only 5% with partner

0% employed, 85% permanently unemployed

## Primary Substance Problem

Opiate dependence 28 (70%) – 24 on methadone

Alcohol dependence 12 (30%) – 4 needed hospital detox

HOWEVER

Most are polysubstance misuse – add in BZ & Cannabis for  
> 50%



# Health Comorbidities

CONDITIONS	
Epilepsy	7 (17.5%)
History of Head Injury with LOC	20 (50%)
Heart-related problems	7 (17.5%)
Deficient leg circulation	14 (35%)
Asthma, chronic bronchitis, emphysema (many tobacco-related)	11 (27.5%)
Liver Disease – hepatitis/cirrhosis	28 (70%)
Falls resulting in injuries	19 (47.5%)

SF-12	NUMBER (%) WHO SCORED >40 (CUT-OFF)	MEAN	SD	RANGE
PHYSICAL HEALTH	15 (37.5%)	41.8	12	18-61
MENTAL HEALTH	19 (47.5%)	37.5	13.1	9-61

# Cognition

Two screening instruments used

MMSE – mean score 27.5 (range 22-30)

3 (7.5%) scored  $\leq 23$  the accepted cut-off

ACE-R – mean score 82.8 (range 60-97)

16 (40%) scored  $\leq 83$  the accepted cut-off

Increased detection with ACE-R as it measures frontal lobe function which is often affected by alcohol & substances, MMSE does not

# The Baby Boomer Survivors – What Happens Next?

Late middle-aged survivors of chronic substance abuse have limited social function and high rates of cognitive impairment

Long term cognitive effects of illicit substance use such as opioids & cannabis largely unknown

Polysubstance misuse is the rule and other physical comorbidities complicate the picture e.g. head injuries, cerebrovascular disease



# Management Issues in the Older Patient

High risk of comorbid physical health issues – some related to substance abuse, some coincidental

Older patients more likely to be taking medications and thus high risk of alcohol/drug interactions accentuated by age-related changes in absorption & metabolism

High risk of cognitive disorders – some related to substance abuse, others coincidental – impacts on care plans e.g.

- needs to have a reliable carer to bring to appointments & oversight care plan
- medication blister packs
- aged care services to provide support for meals, supervision of personal care, home care etc



# Services For Older Adults

Few Australian D&A services cater for the needs of older people

- “Services need to be based upon modified strategies and approaches that include a culture of respect, age-specific settings, flexibility and a holistic approach that embrace the psychological, physical and social needs of older people” (Crome & Crome, 2005).

Less likely to attend specialist referral services for substance abuse and mental health treatment

- In the US, more likely to engage when the treatment service is integrated into a primary care setting (Bartels, et al., 2004).

# Considerations for Service Planning

Service Delivery Models for older people with substance misuse will need to change from models currently in use for younger adults

Collaborative models with specialist aged care services (geriatric and old age psychiatry) are likely to be required

Consideration of D&A outreach to the homes of older people with D&A problems

Further research needed – especially in addressing the needs of older cognitively impaired people with substance misuse

# Future Concerns

- Significant investment required in education and training about substance misuse in late life
- Needs to focus on general public AND service providers
- Issues to cover include (and not limited to)
  - Alcohol, tobacco, prescription & illicit drugs
  - Prevention
  - Stigma
  - Attitudes
  - Identification
  - Assessment & Diagnosis
  - Management & Long term Care



Thank you.....

Any questions?

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