

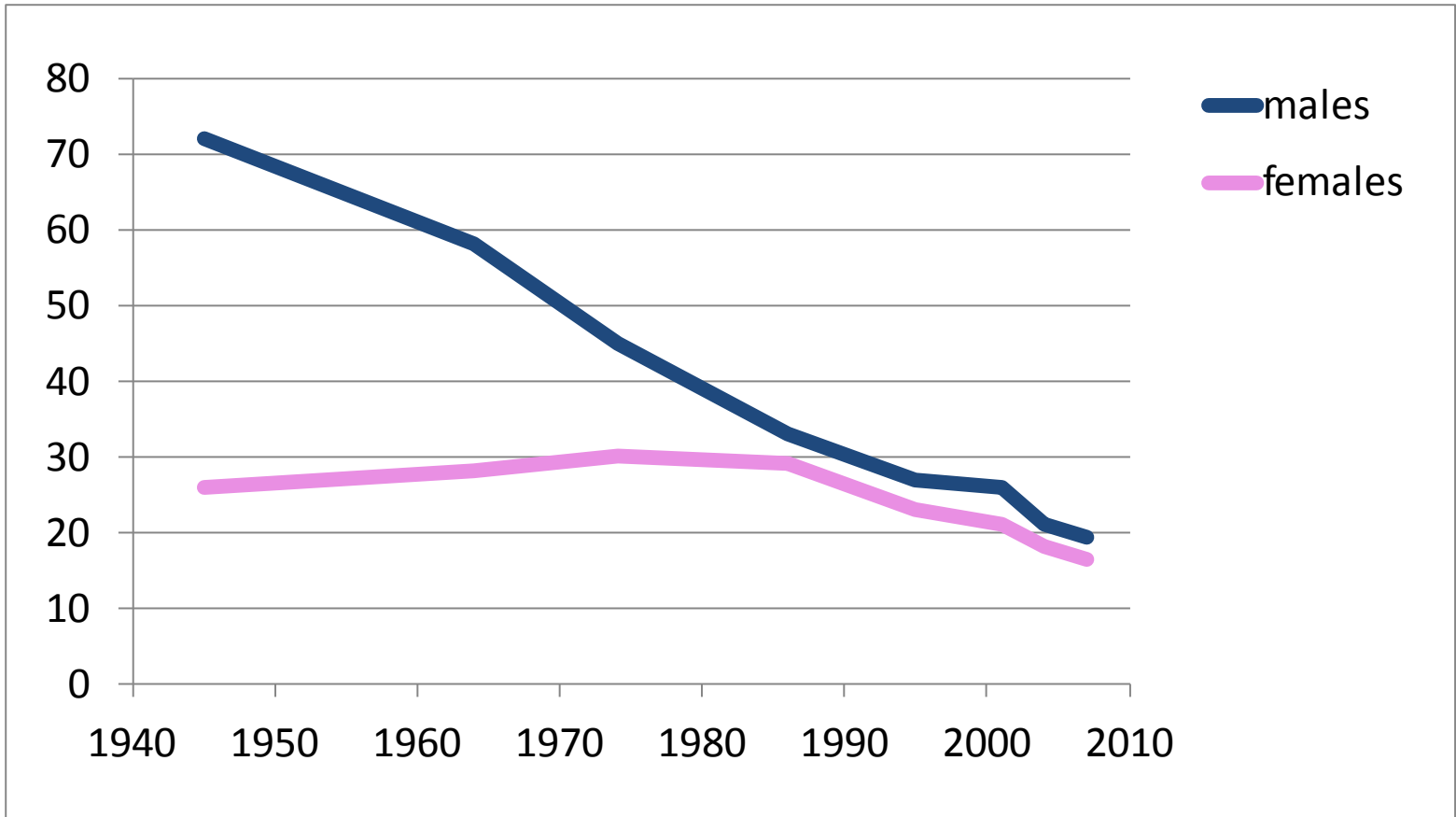
# Tobacco Smoking and Illicit Drug Use in Australia

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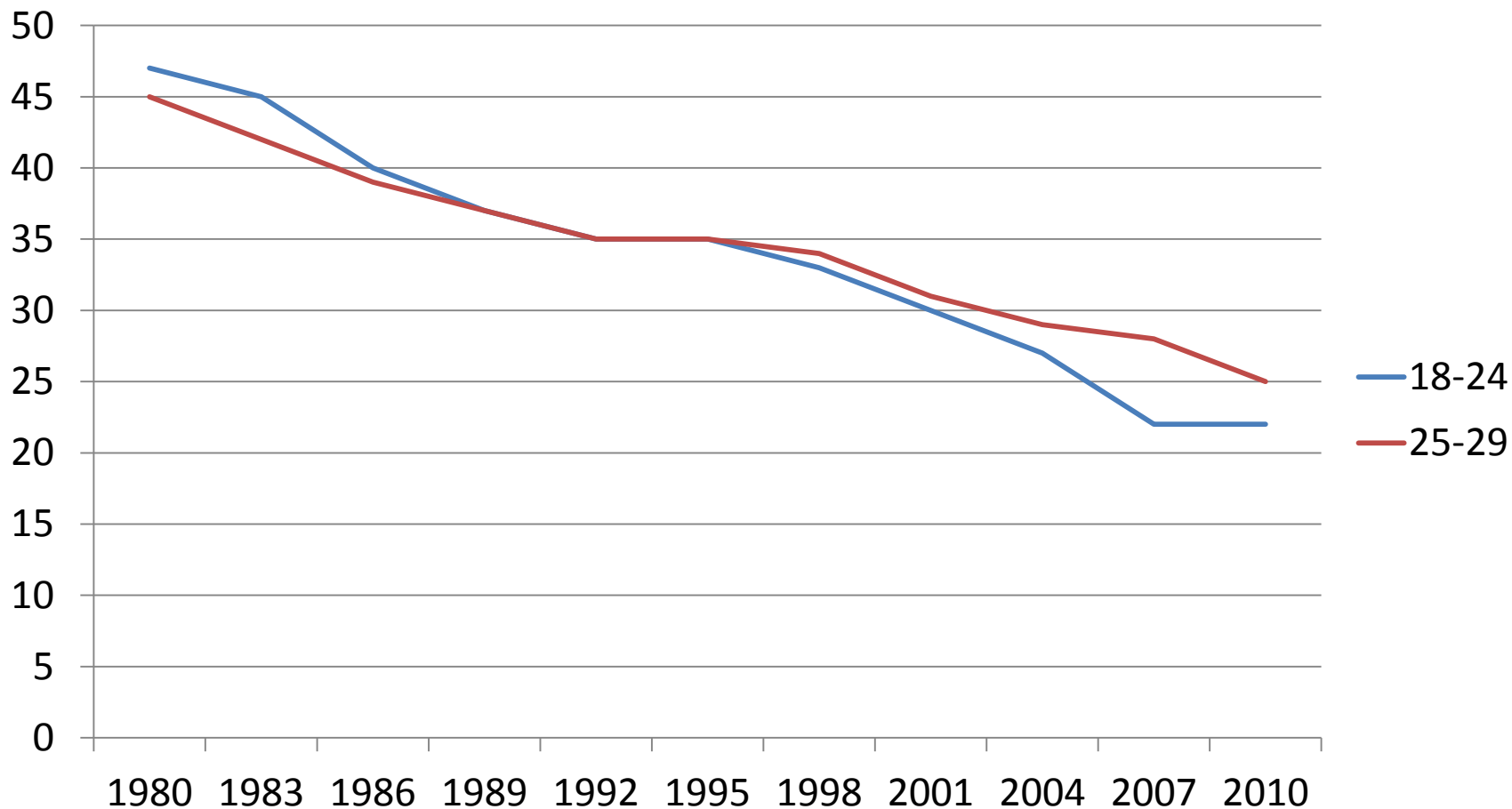
# Outline of Talk

- Long term smoking trends: 1945-2010
- Recent trends: 1980-2010
  - Convergence in prevalence men and women
  - Social class trends in prevalence
  - Mental health and smoking
- Tobacco use among illicit drug users
  - Party drug users and tobacco smoking 2001-2010
- Explaining these relationships
  - Patterns of illicit drug involvement
  - Are party drugs going downmarket?
  - Smoking as a marker of rebellion and risk taking
- What should be done?

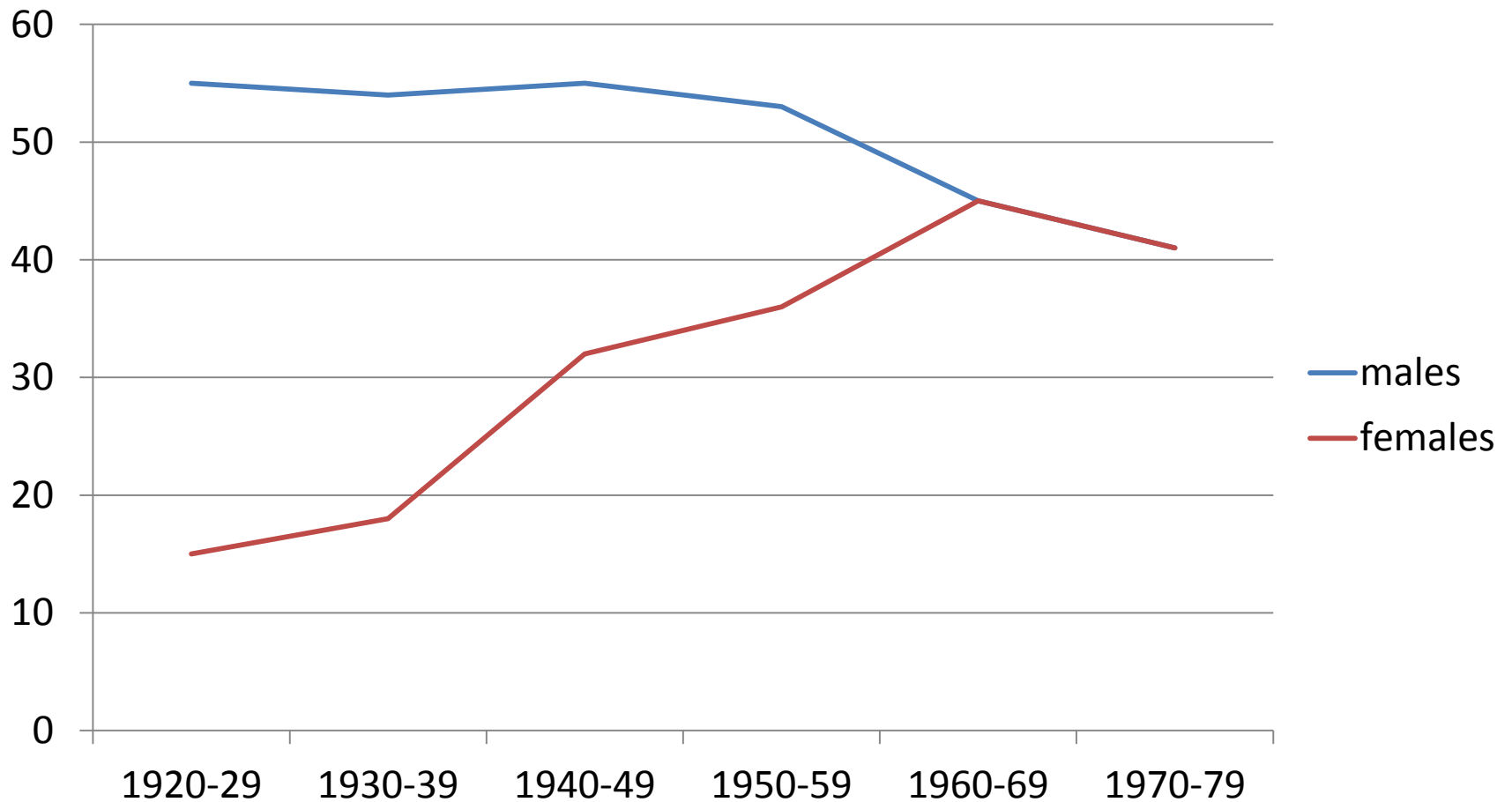
# Smoking prevalence in Australia 1945-2010



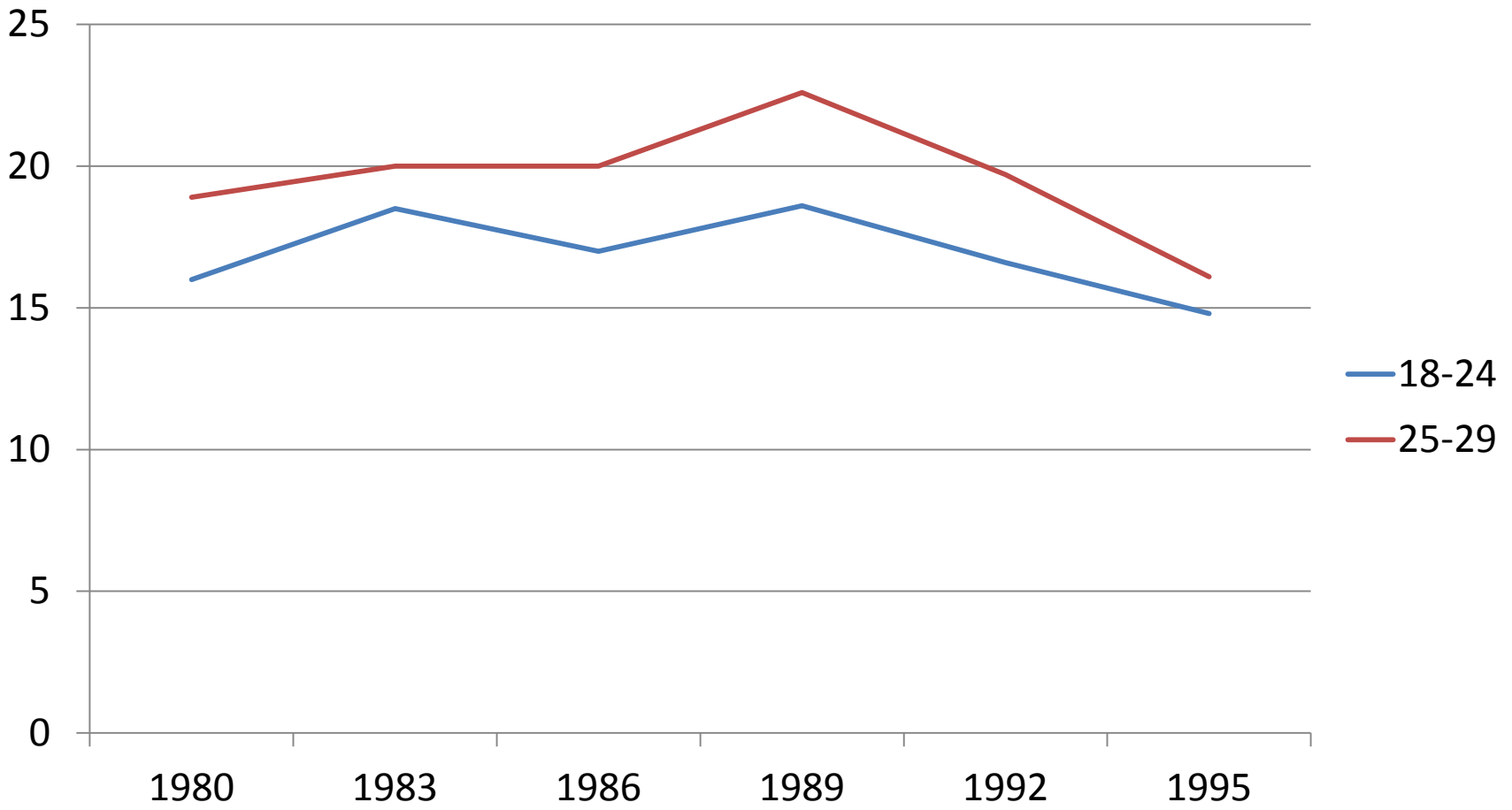
# Trends in young adult smoking prevalence 1980-2010



# Daily smoking rates by birth cohort



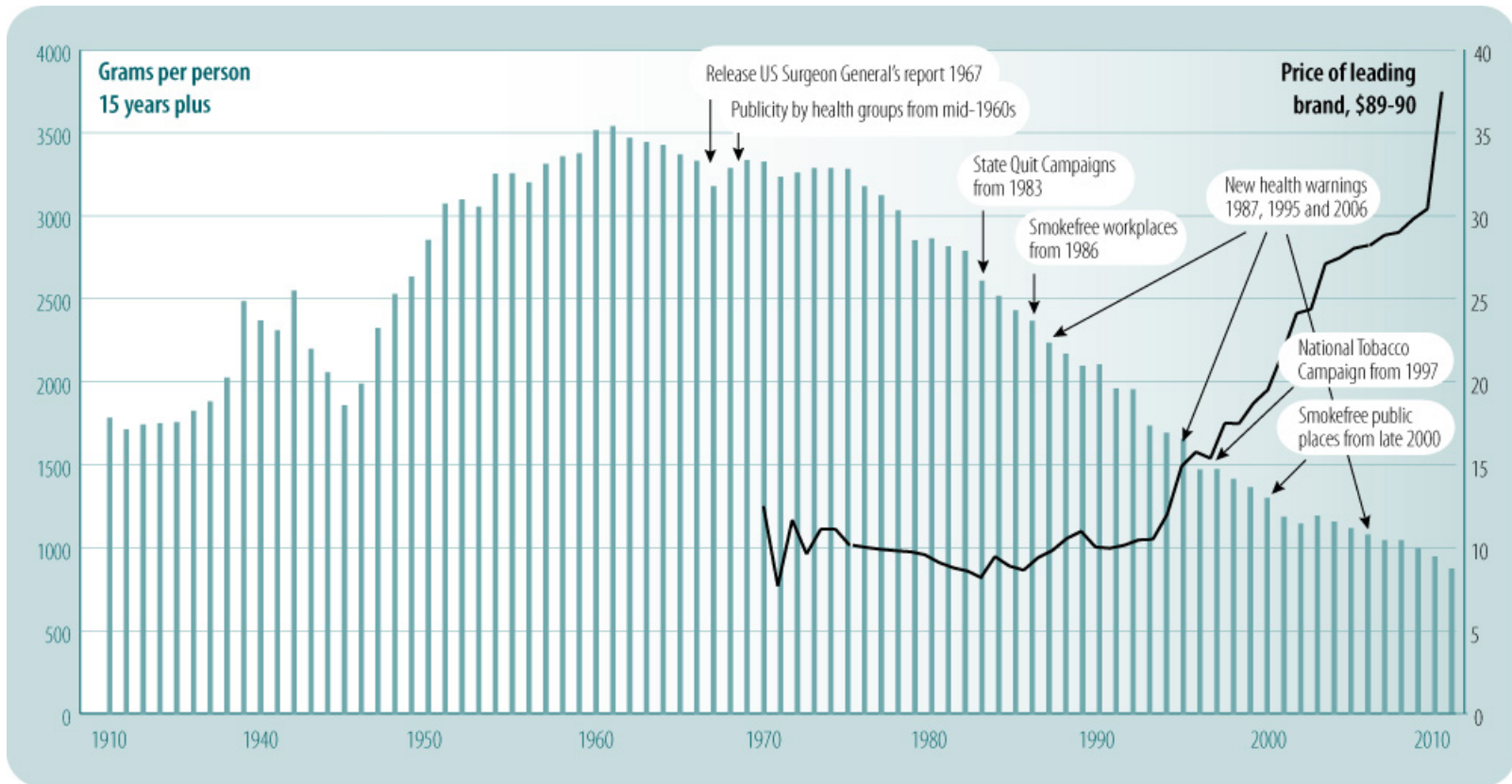
# Average number of cigs per day among smokers 18-29 years, 1980-2010



# What policies have reduced smoking?

- Taxation increases on tobacco:
  - per stick since 1992
- Restrictions on smoking
  - Workplaces late 1980s; public places, 1990s
- Bans on advertising and promotion
- Quit lines & media campaigns: Cancer councils
- Most cost effective policies:
  - Taxation
  - Advertising bans
  - Smoking bans in workplaces and public places

# Trends in tobacco consumption and public health policies





# Relationship between tobacco sales and prices. 1970-2005



# Smokers' characteristics 1997-2007

Mathews et al, 2010

- National Surveys of Mental Health and Well-Being
  - Household surveys in 1997 and 2007
- In both surveys smokers were more likely to:
  - Be socially disadvantaged
  - Less well educated
  - Report symptoms of psychological distress
  - Have anxiety and affective disorders
  - Have an alcohol or other drug use disorder

# Have smokers “hardened” 1997-2007?

- Have smokers become more:
  - nicotine dependent
  - social disadvantaged
  - mental distressed?
- Very little evidence of hardening:
  - Small increase in social disadvantage
  - But not for dependence or comorbid disorders
    - Average N cigs per day has decreased
    - No increase in psychological distress
    - No increase in prevalence of other mental disorders

# Smoking and illicit drug use 2001-2010

- How are smoking and illicit drug use related?
- Have these relationships changed 2001-2010?
- Used NDS surveys for 2001 and 2010 to examine:
  - Prevalence of smoking in young adults
  - Relationship to illicit drug use
  - Adjusting for sociodemographic differences

# Analyses

- National Drug Strategy Household Survey
  - 27 000 respondents across Australia
  - Weighted to Australian population
- Analysis of smoking rates in Surveys in:
  - 2001 and 2010
  - Among young adults (18 – 29 years old)
- 3 categories of illicit drug user
  1. Party drug users (excluding injectors)
  2. Other illicit drug users (including injectors)
  3. Non users

# Drug use categories

- 'Party' drug users: 10.5% of young adults
  - Any ecstasy, cocaine or GHB use in the last 12 months
  - never injected drugs
- 'Other' illicit drug users: 6.5% of young adults
  - Any use in last 12 months of:
    - meth/amphetamines, inhalants, heroin, pain killers, tranquilisers, methadone, hallucinogens, and opiates
  - not used party drugs in last 12 months
- Non users of illicit drugs: 83% of young adults
  - Not used any illicit drugs in the last 12 months
  - Never injected drugs

# Drug user characteristics

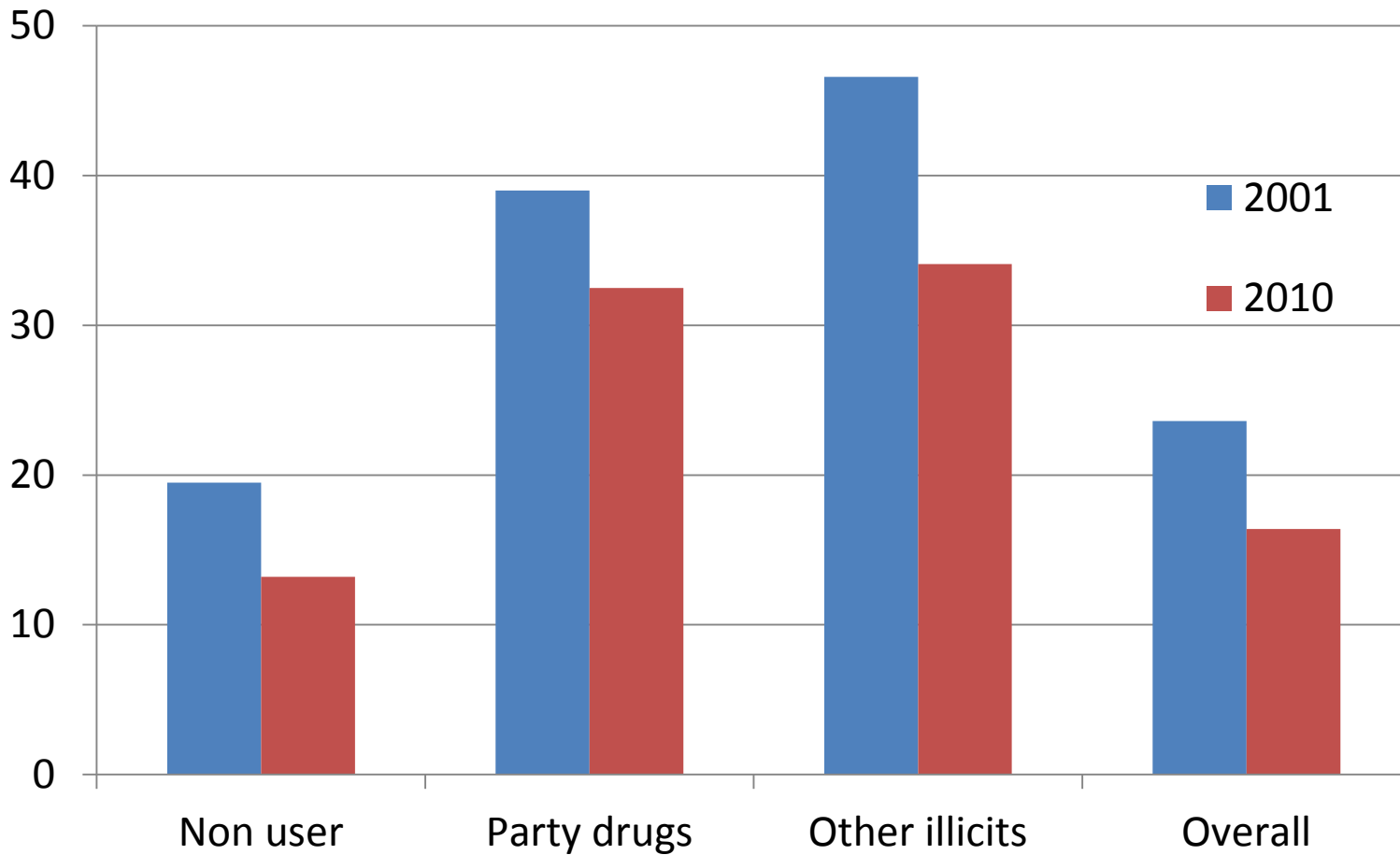
	2001			2010		
	Non users (%)	Party drugs (%)	Other illicits (%)	Non users (%)	Party drugs (%)	Other illicits (%)
<u>SES</u>						
Lowest	17	9	20	18	11	25
Second	27	19	29	19	16	17
Third	20	22	18	20	17	18
Fourth	14	16	17	23	23	20
Highest	23	34	16	21	34	21
<u>Sex</u>						
Female	51	42	47	51	42	45
Male	49	58	53	49	58	55
<u>Education</u>						
Bachelor+	21	24	13	26	24	18
Year 12	32	33	24	31	33	27
Cert/dip	33	31	38	31	33	36
< year 12	15	11	25	11	10	18

# Sociodemographic Trends

- Majority of party drug users male
- Party drug users higher SES and more education than:
  - Nonusers of illicit drugs and
  - Users of other illicit drugs
- Patterns consistent from 2001 to 2010



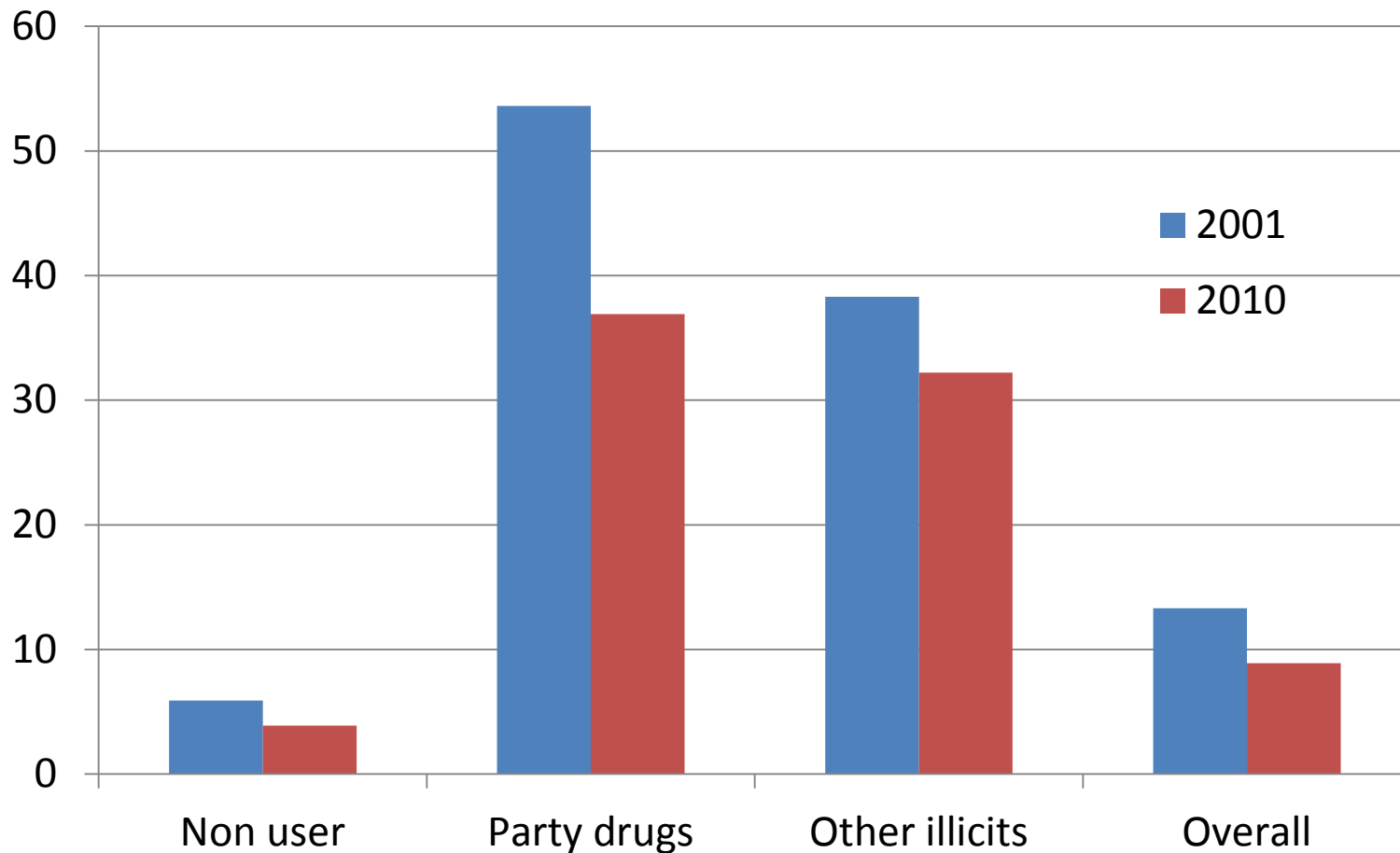
# Proportion of drug users who smoke daily



# Demographic correlates of daily smoking

Variable	Model 1	OR (95% CI)	p Value
SES		0.92 (0.87-0.97)	.001
<u>Year</u>			
2001		1.00	
2010		0.65 (0.56-0.75)	< .001
<u>Drug use category</u>			
Non user		1.00	
Party drugs		4.26 (3.45-5.26)	< .001
Other Illicits		3.57 (2.79-4.57)	< .001
<u>Sex</u>			
Female		1.00	
Male		1.14 (0.99-1.32)	.079
<u>Highest education</u>			
Bachelor or higher		1.00	
Year 12		1.99 (1.55-2.55)	< .001
Cert/Dip		3.41 (2.69-4.33)	< .001
< year 12		5.70 (4.36-7.44)	< .001

# Proportion of drug users who use cannabis at least monthly



# Predictors of daily smoking

Variable	Model 2 - including cannabis	
	OR (95% CI)	p Value
SES	0.93 (0.88-0.98)	.007
<u>Year</u>		
2001	1.00	
2010	0.68 (0.59-0.79)	< .001
<u>Drug use category</u>		
Non user	1.00	
Party drugs	2.42 (1.90-3.08)	< .001
Other Illicits	2.41 (1.85-3.14)	< .001
<u>Sex</u>		
Female	1.00	
Male	1.02 (0.88-1.18)	.823
<u>Highest education</u>		
Bachelor or higher	1.00	
Year 12	1.88 (1.46-2.42)	< .001
Cert/Dip	3.31 (2.60-4.22)	< .001
< year 12	5.26 (4.00-6.91)	< .001
<u>Cannabis use</u>		
Never/infrequent	1.00	
At least monthly	4.19 (3.35-5.25)	< .001

# Explanations

- Natural history of drug involvement
  - Cigarettes, alcohol, cannabis and other illicit drugs
- Shared social trajectory
  - Smoking and party drugs both going down market?
- Smoking as a social marker of rebellion
  - Back to the future

# Patterns of Drug Involvement

- “Gateway” sequence of involvement
  - Alcohol &/or tobacco precede cannabis
  - Cannabis use precedes pills and powders
  - Pills and powders precede heroin and IDU
- Predictors of progression
  - Early initiation of any drug
  - Heavier use of any drug predicts progression
- Earlier drug use patterns usually retained
  - Later drugs usually added to repertoire
  - Producing a Guttman scale of drug involvement

# Patterns of Drug Involvement

- Key role for cigarette smoking
- “Gateway” to cannabis use:
  - Route of administration effect
  - Reverse gateway now seen in Australia
- Cannabis use and other illicit drug use
  - Heavier users more likely to use party drugs
- This pattern predicts:
  - Higher rates of smoking among party drug users

# Are party drugs going down market?

- Cigarette smoking
  - Has been going down market for over 20 years
  - reduced uptake and higher cessation among higher SES
- What about party drugs?
  - First used by better educated, often during higher education
- Social trajectory of cannabis, LSD, & cocaine
  - *avant garde* → college students → middle class → blue collar
- Little evidence of this between 2001-2010:
  - SES and education remained stable for party drug users



# Cigarette smoking as a marker of rebellion

- In the 1890s and 1900s
  - Cigarettes, larrikinism & antisocial behaviour
  - Strongly disapproved of by male pipe smokers
- The World Wars and acceptance of smoking:
  - WW-I normalised RYO smoking
  - WW-II did the same for manufactured cigarettes
- As smoking prevalence has declined:
  - Renewal of smoking as mark of rebellion?
  - Drug used by risk takers and sensation seekers
  - Who are more likely to use illegal drugs

# What should be done?

- Should we pay more attention to cigarette and cannabis smoking among illicit drug users?
- If so, how?
  - Advice on the risks of smoking?
  - Promotion of smoking cessation aids?
  - Tobacco harm reduction advice?
  - Cannabis harm reduction advice?

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