

# ALCOHOL CONSUMPTION AND ASSOCIATED RISK FACTORS IN AUCKLAND PACIFIC ISLAND ADOLESCENTS

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# Background

- ◆ Youth alcohol drinking is a public health issue because of
  - ◆ their increased harm from alcohol
  - ◆ establishment of lifelong alcohol consumption patterns
- ◆ ALAC priority groups: Maori, Pacific & young people
- ◆ However, very little NZ alcohol research of Pacific youth

# Pacific Experience of Alcohol

- ◆ Alcohol introduced to Pacific communities by 19<sup>th</sup> century European seafarers
- ◆ Influence of English Christian evangelical churches resulted in the widespread prohibition of alcohol among most Pacific Island communities (1800s)
- ◆ Prohibition encouraged home brewing & secrete alcohol consumption mainly by men
- ◆ These early gender-related patterns shape current alcohol drinking behaviours by Pacific people in New Zealand

# Previous NZ Research - Adults

- ◆ Alcohol consumption by Pacific people increased with:
  - ◆ *Migration* (Tokelau Island Migrant Study, 1970s)
  - ◆ *Urbanisation* (Tonga, 1970s)
- ◆ Pacific people less likely to drink alcohol than Palangi
  - ◆ 1978 national survey (ALAC, 1980)
  - ◆ 1988-90 workforce survey
  - ◆ 1990-91 Plunket national child health survey
  - ◆ 1992-93 (Statistics NZ & Min. of Health, 1993)
- ◆ Alcohol exposure more common among Cook Island than Samoan women (Auckland, 1980s)

# Previous NZ Research – Pacific Youth

1. *1987 FADE survey* of >24,000 NZ high school students found alcohol consumed by 6% of Pacific students, compared with 48% of Maori and 54% of Palangi
2. *2003 ALAC Youth Drinking Monitor*
  - ◆ 124 Pacific participants out of 441 aged 14-17 years
  - ◆ Pacific youth more likely to:
    - ◆ be non-drinkers (Pacific 64%, Maori 23%, Other 33%)
    - ◆ start drinking alcohol later
    - ◆ drink heavily (>10 glasses on last occasion)
  - ◆ Limitation: small sample size, only 52 Pacific drinkers

# Other NZ Youth Surveys

## Dunedin & Christchurch Youth cohorts

- ◆ About 1000 participants each
- ◆ Started in 1970s & followed since birth
- ◆ Identified risk factors of increased alcohol consumption:
  - ◆ Male gender
  - ◆ Early age of 1<sup>st</sup> alcohol use
  - ◆ Parental alcohol behaviour and attitudes to alcohol
  - ◆ Peer influences
  - ◆ Increased income, SES status & education
- ◆ Limitation: very few Pacific participants

# Objectives

- 1) Identify and describe alcohol drinking patterns in *Pacific* adolescent high school students and compare them to adolescents of *Maori, Asian and European* ethnicity
- 2) Identify, describe and compare alcohol drinking patterns by *Samoan, Tongan, Cook Islands, and Niuean* ethnicities
- 3) Identify and describe the relationship alcohol has with *factors associated with alcohol* drinking patterns in Pacific students
- 4) Quantify the *alcohol burden* associated with lifestyle risk factors and harmful outcomes, specifically:
  - a) contribution lifestyle factors make to alcohol intake
  - b) contribution alcohol makes to adverse health outcomes

# Methods – study sample

- ◆ Cross-sectional study sampling from Auckland high schools with >15% of Pacific Islands on school roll
- ◆ 10 schools with SES decile from 1 to 4
- ◆ All Year 11-13 students invited to participate
- ◆ 2549 students interviewed from May 1997 to September 1998 (66% response, school roll)
- ◆ Students interviewed in groups of 10, in the morning, after fasting overnight

# Methods – Alcohol Questions

*Have you ever drunk alcohol, excluding sips? Yes / No*

**If YES:**

*How old were you when you had your first drink of alcohol (years)?*

*During the past 4 weeks, how often on average did you drink alcohol?*

*During the past 4 weeks, how many times did you have 5 or more alcohol drinks in one session (ie. within a couple of hours)?*

# Risk Factors for Alcohol Drinking

## *Demographic*

- ◆ Age
- ◆ Sex
- ◆ Ethnicity
- ◆ NZ birth
- ◆ School SES

## *Lifestyle*

- ◆ Age started drinking alcohol
- ◆ Tobacco smoking
- ◆ Leisure physical activity
- ◆ TV watching
- ◆ Sun exposure

## *Attitudes*

- ◆ Opinion of risk behaviour
- ◆ Observing adult risk behaviour

## *Feelings (including)*

- ◆ Energy
- ◆ Nervous

# Health Outcomes from Alcohol Drinking

## *Physiological*

- ◆ Obesity
- ◆ Fitness
- ◆ Blood pressure
- ◆ Blood lipids
- ◆ Blood glucose

## *Health status (including)*

- ◆ Opinion of current health
- ◆ Expectations of future health
- ◆ Emotional problems affecting school or other activities

# Total Number of Participants

<b>Ethnicity</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Pacific	525	500	1025
Maori	167	165	332
Asian	324	209	533
European	372	225	597

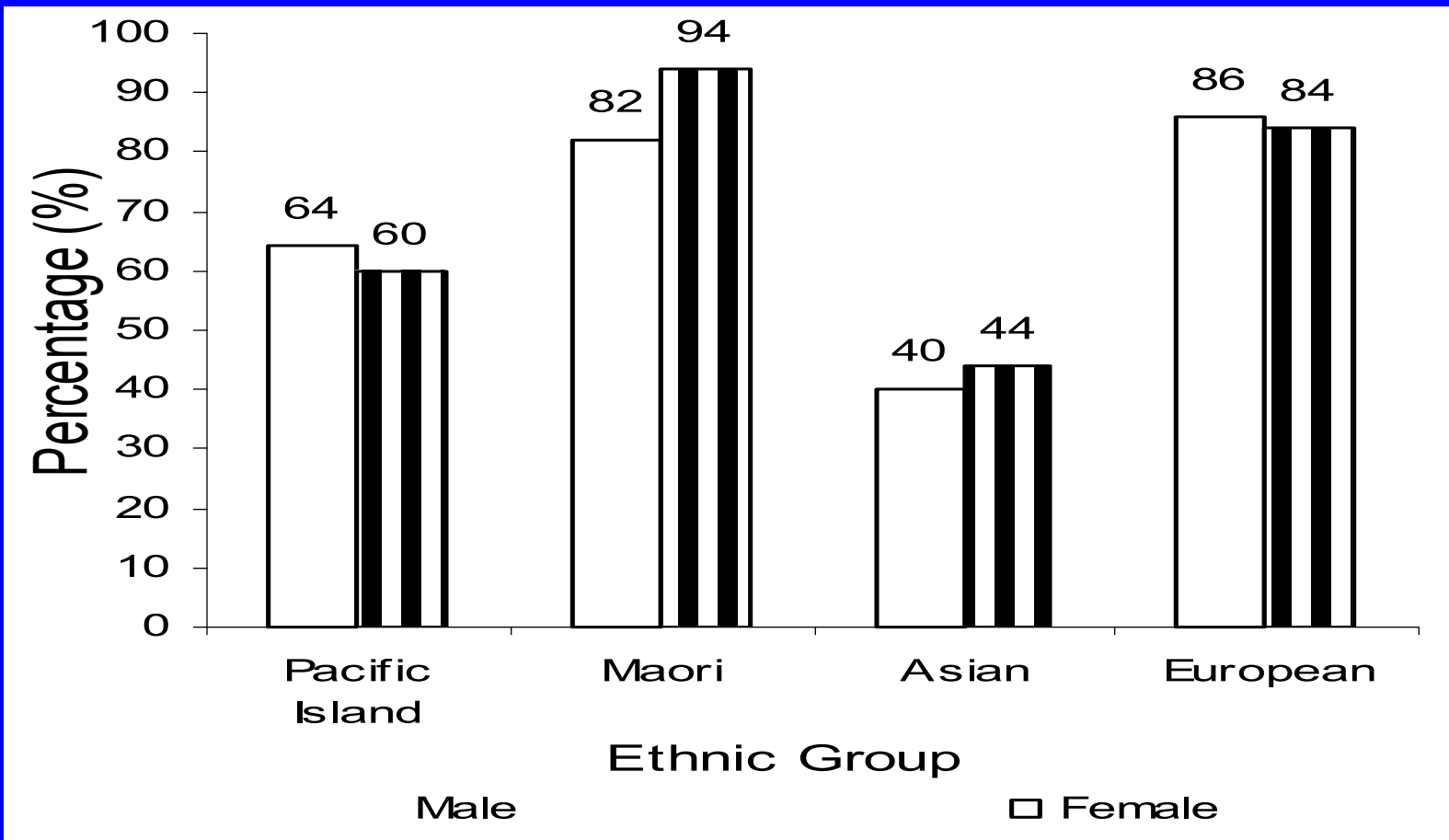
## Number of Pacific Participants

<b>Ethnicity</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Samoan	224	232	456
Tongan	119	104	223
Cook Islands	66	81	147
Niuean	59	50	109
Other Pacific	57	33	90

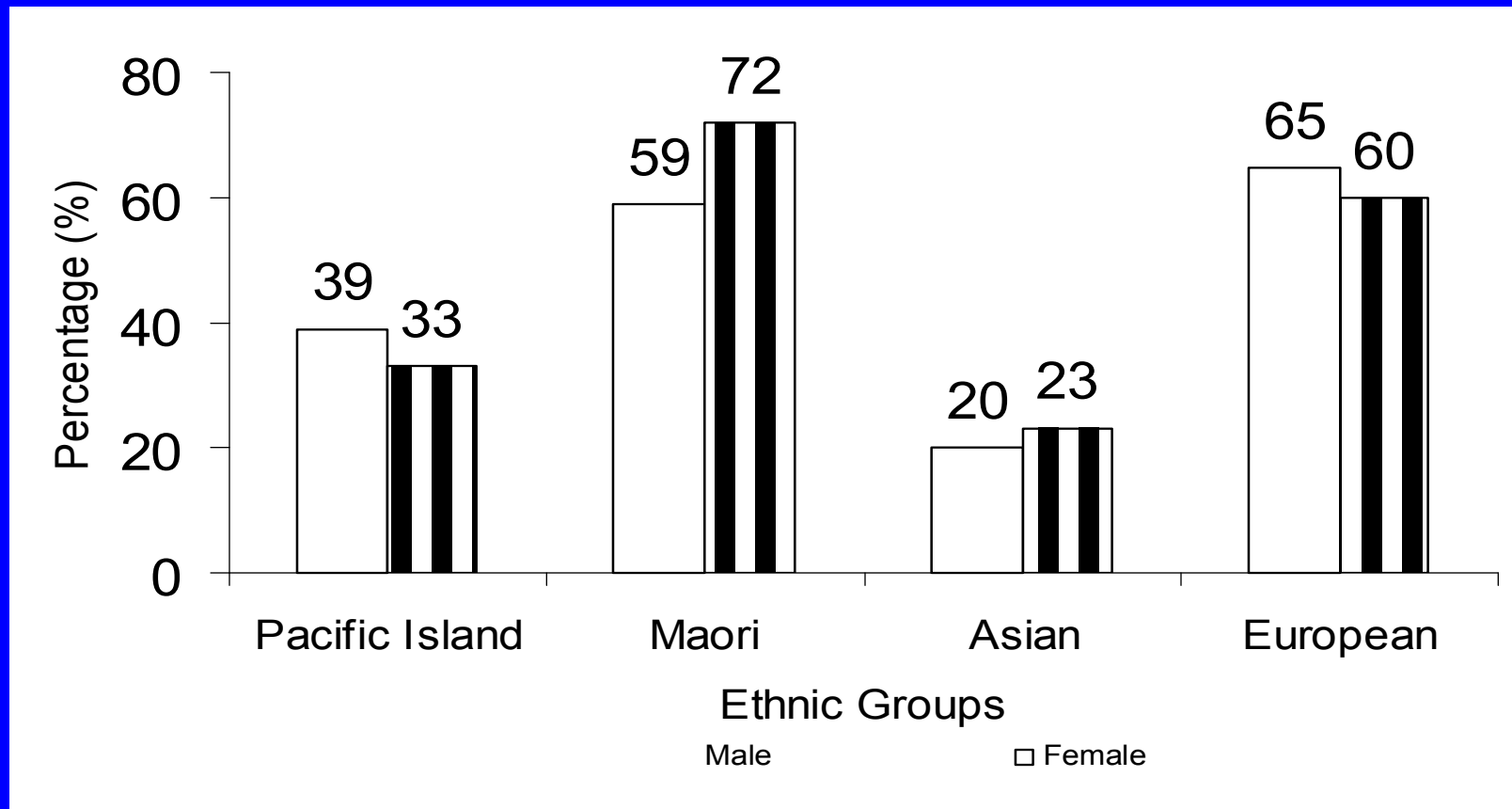
# Objective 1

Alcohol Consumption of Pacific  
Youth compared with Other  
Ethnicities

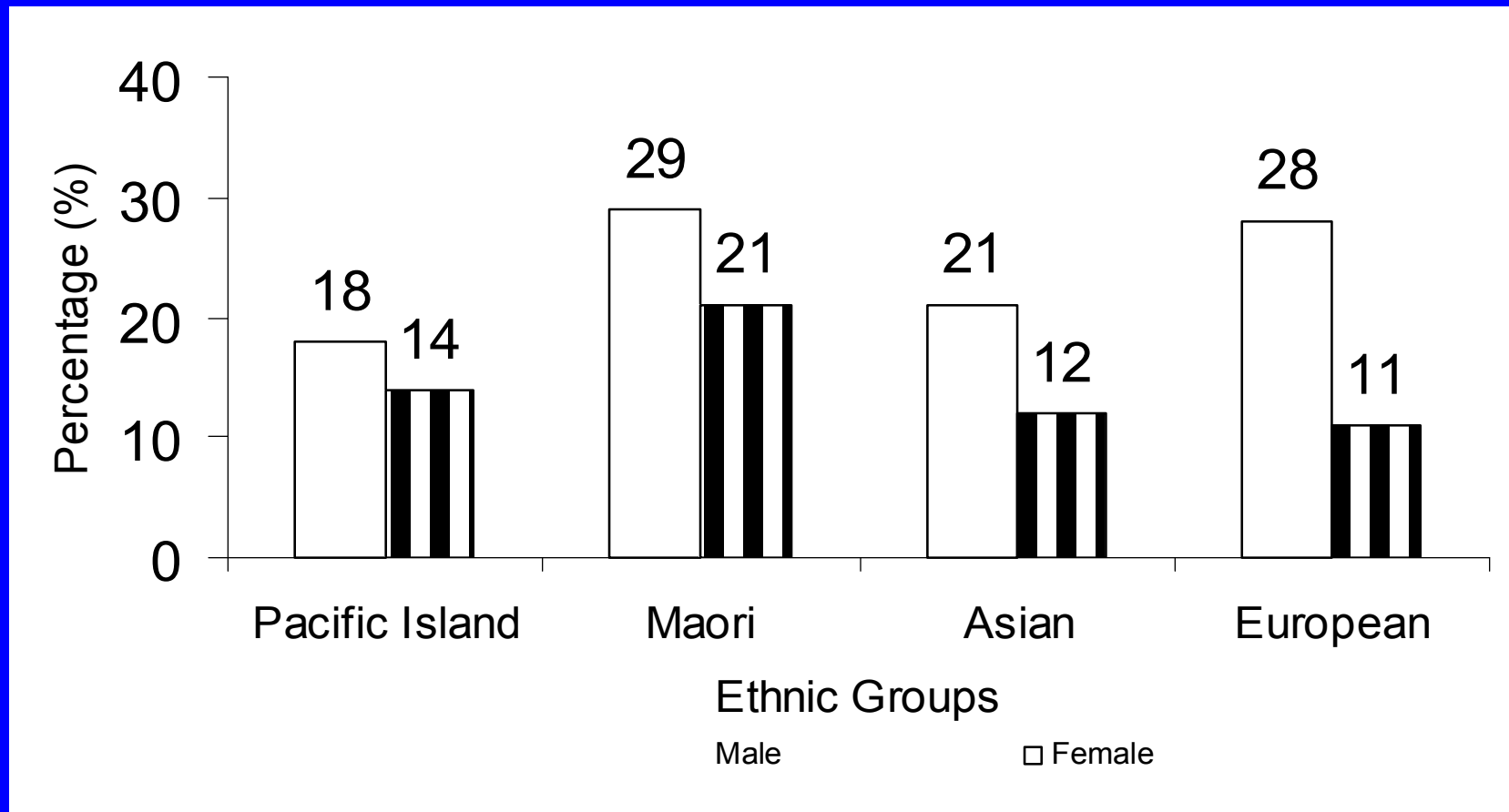
# Proportion of students who have *ever tried* alcohol, by ethnic group and sex



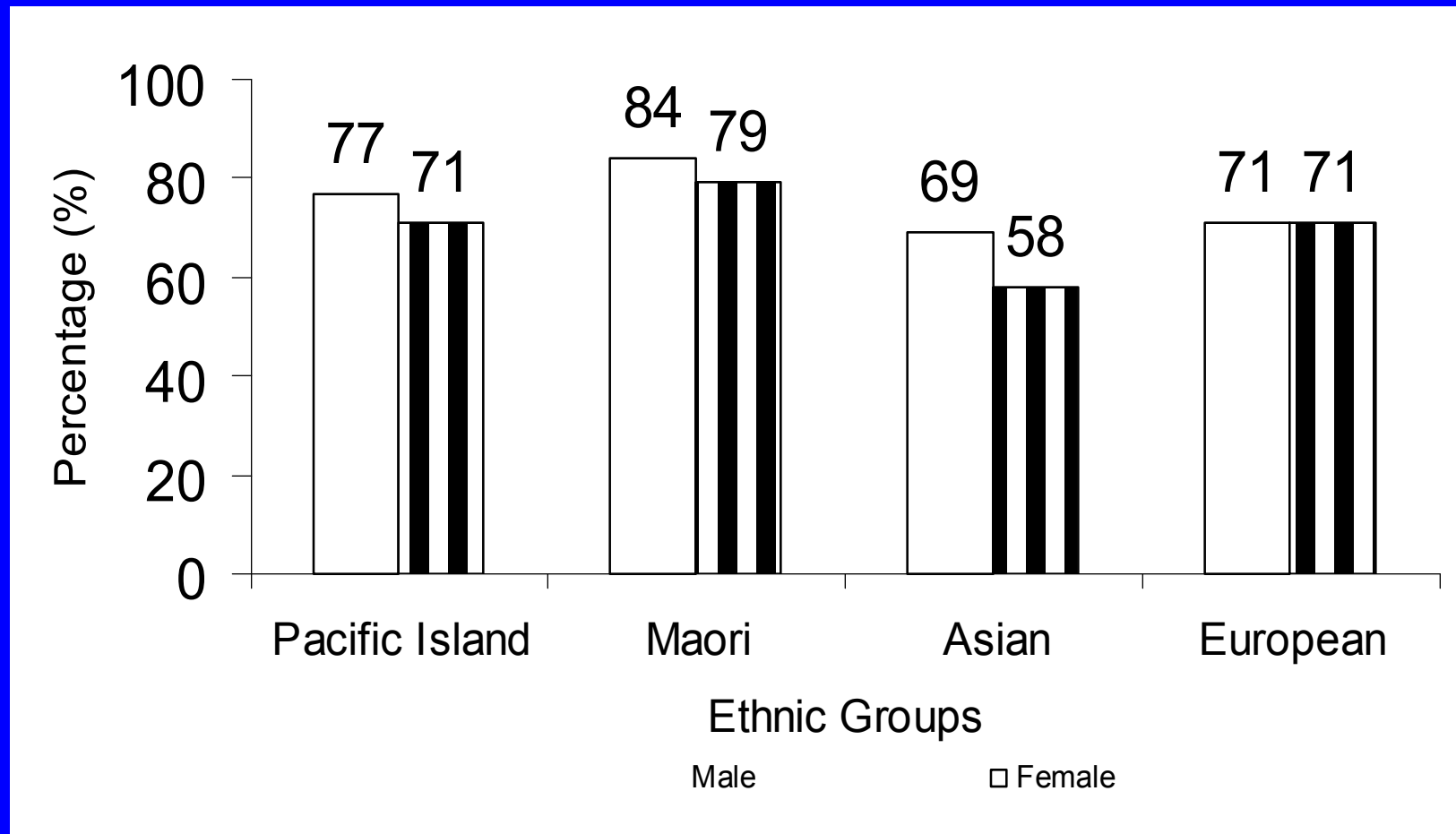
# Proportion of students who consumed alcohol in the *last 4 weeks*, by ethnicity & sex



# Proportion of alcohol drinkers who had their *first drink* of alcohol before age 12 years



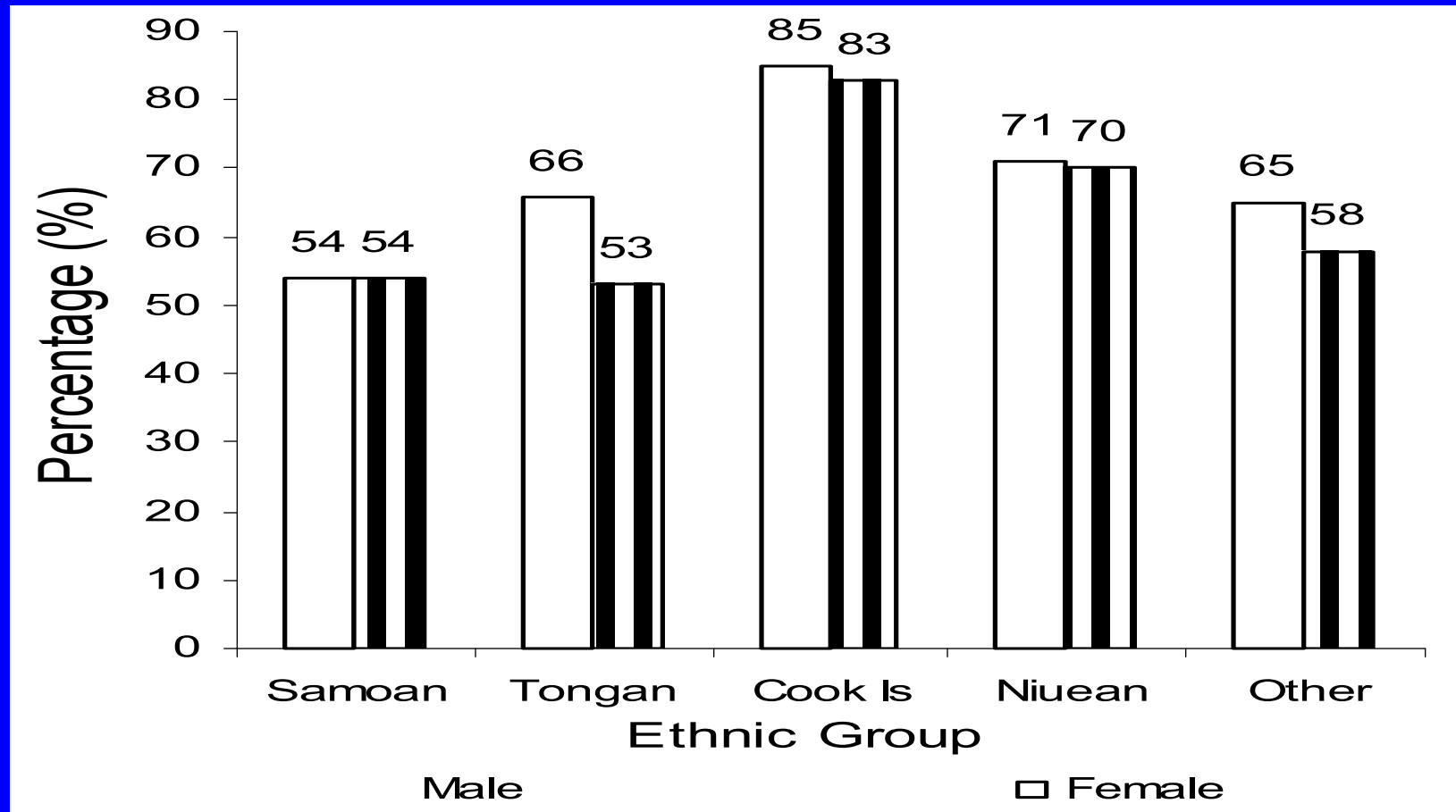
# Proportion of current alcohol drinkers who *binge drink*, by ethnic group and sex



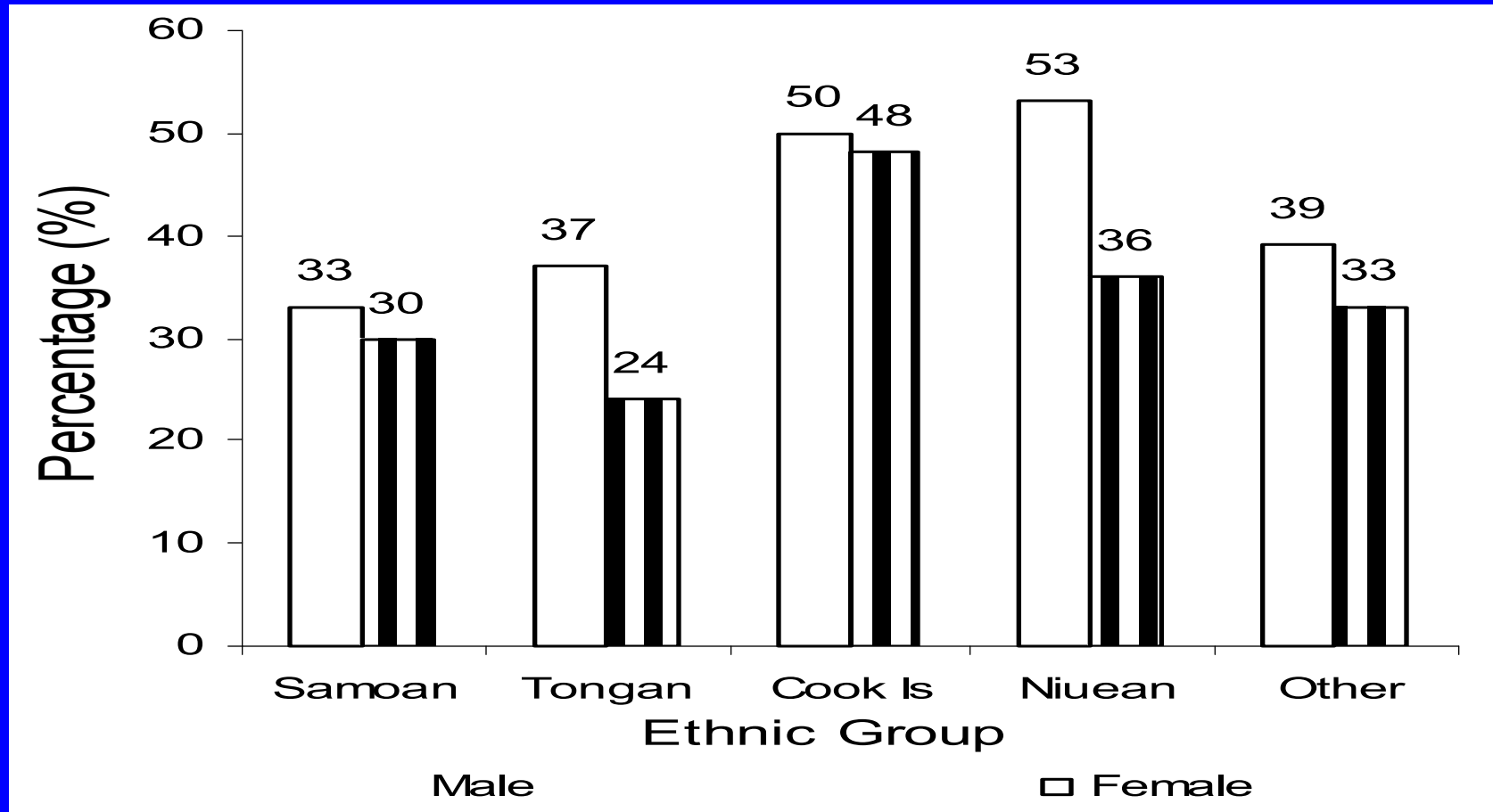
## **Objective 2**

**Comparisons of Alcohol Drinking  
between Pacific Youth**

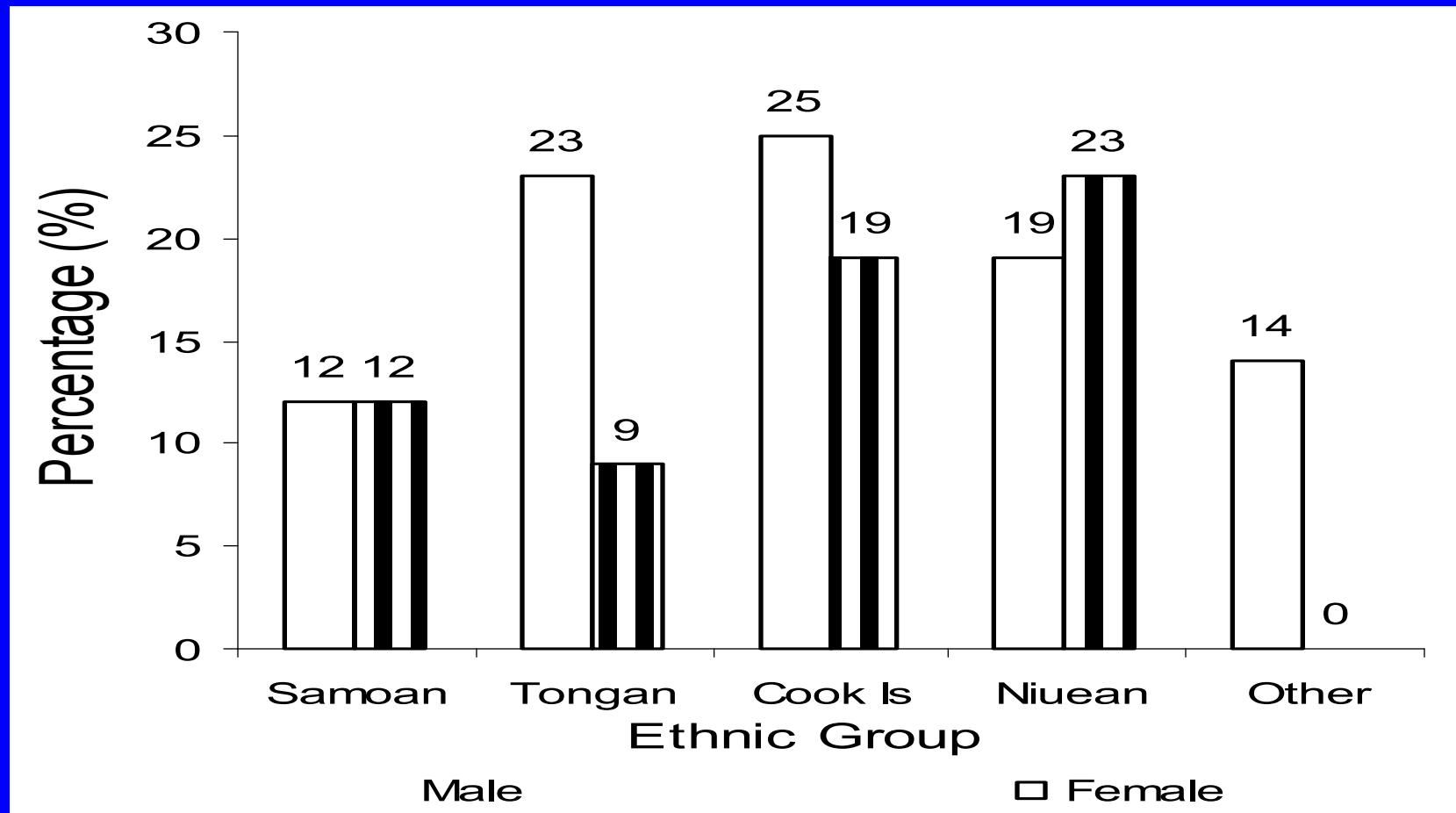
# Proportion of Pacific Island students who have *ever tried* alcohol, by ethnic group and sex



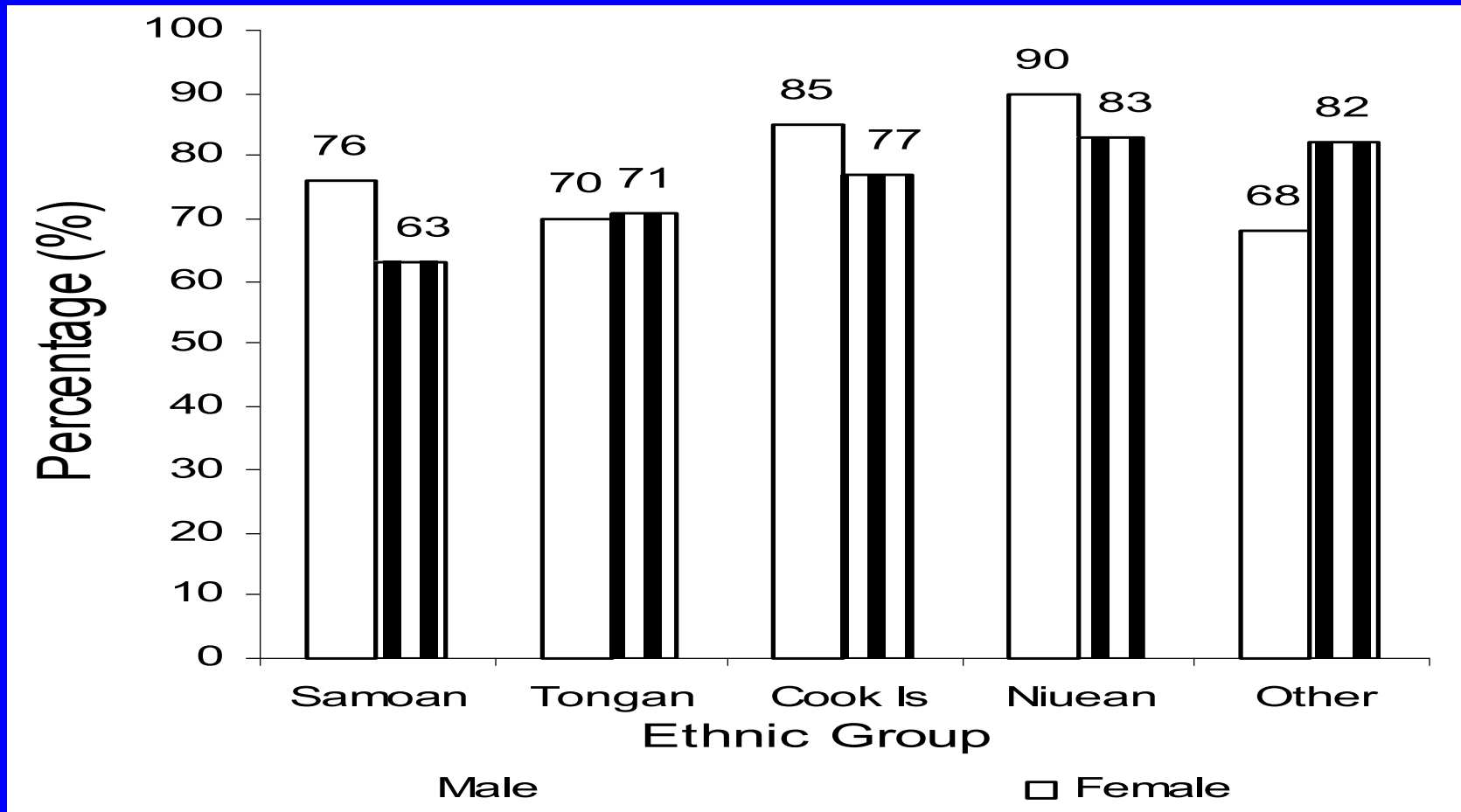
# Proportion of Pacific Island students who have drunk alcohol in the *last 4 weeks*



# Proportion of Pacific Island students who had their *first drink* of alcohol before age 12 years



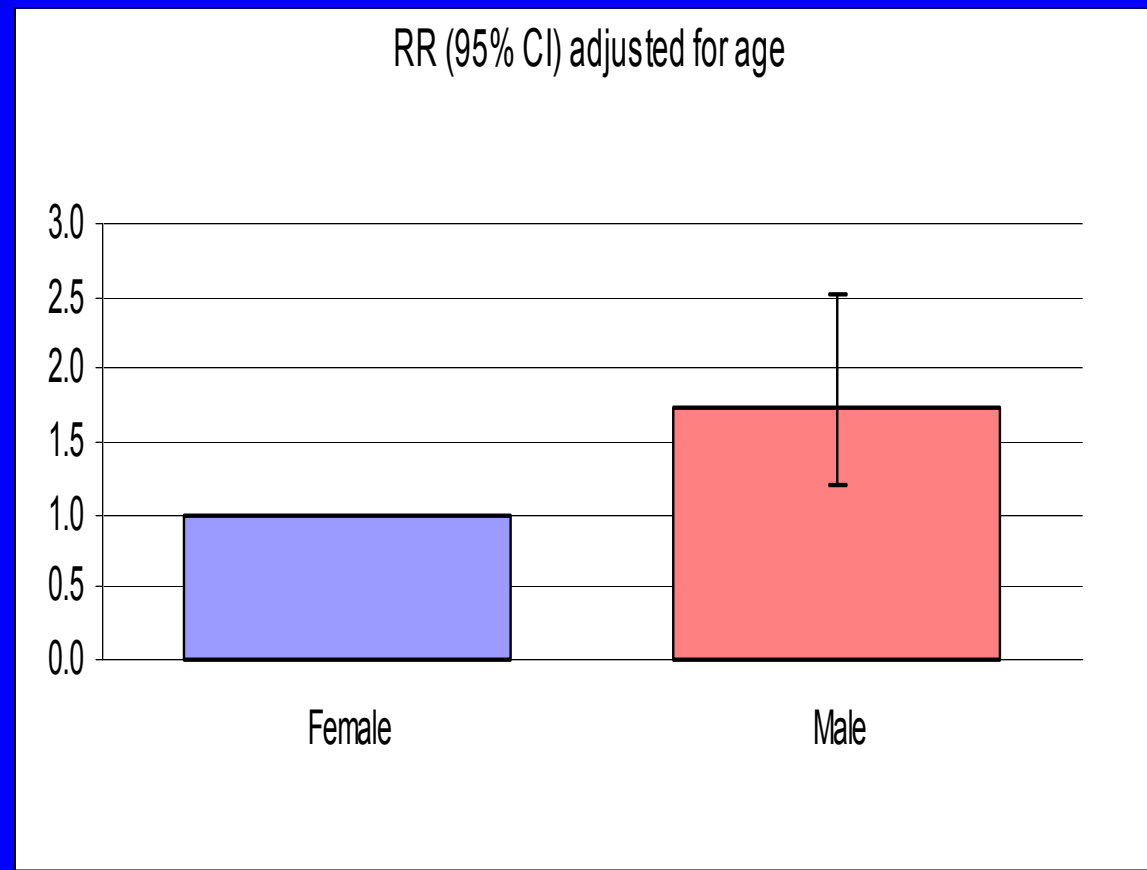
# Proportion of Pacific Island current alcohol drinkers who *binge drink*



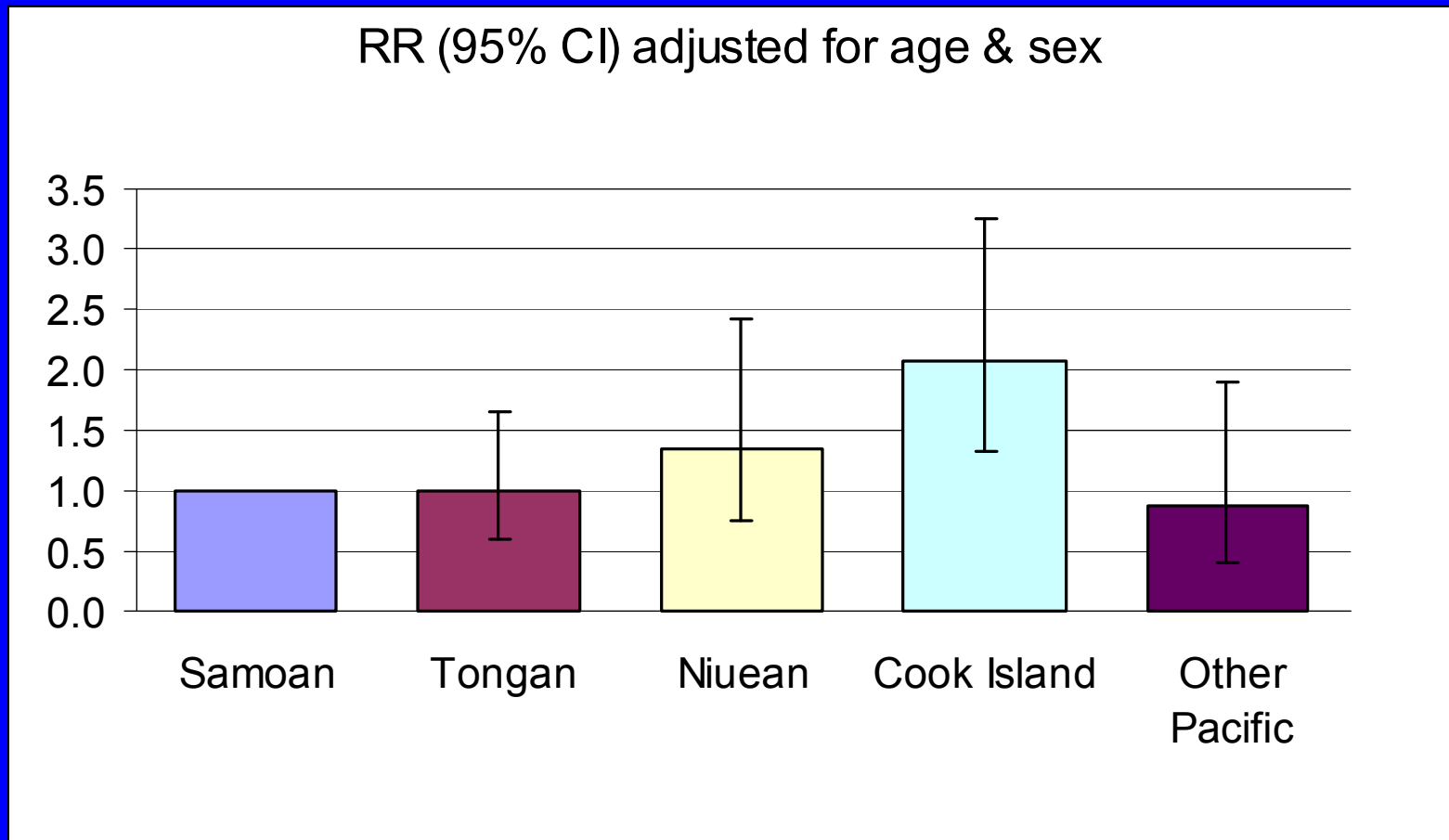
# Objective 3

Risk Factors for Alcohol Drinking  
by Pacific Youth

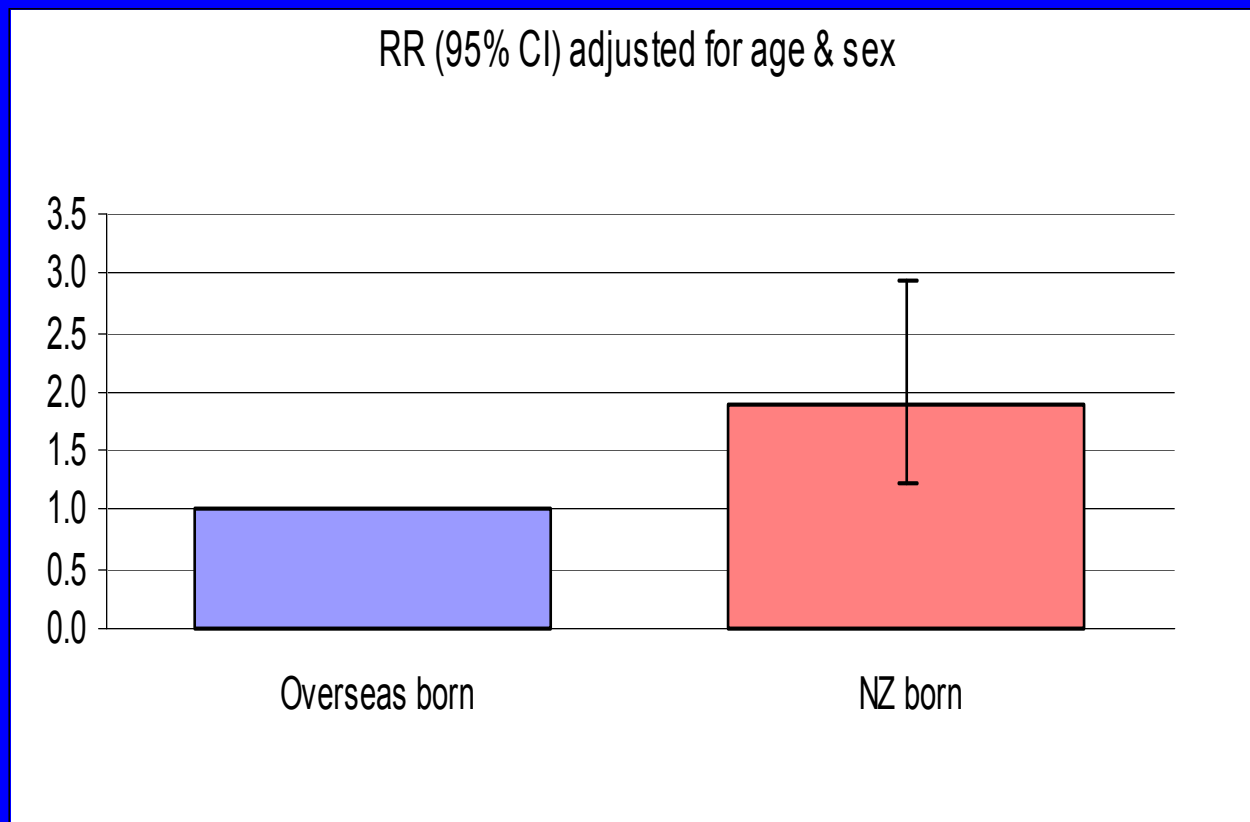
# Relative Risk of *weekly alcohol drinking* associated with **Gender**



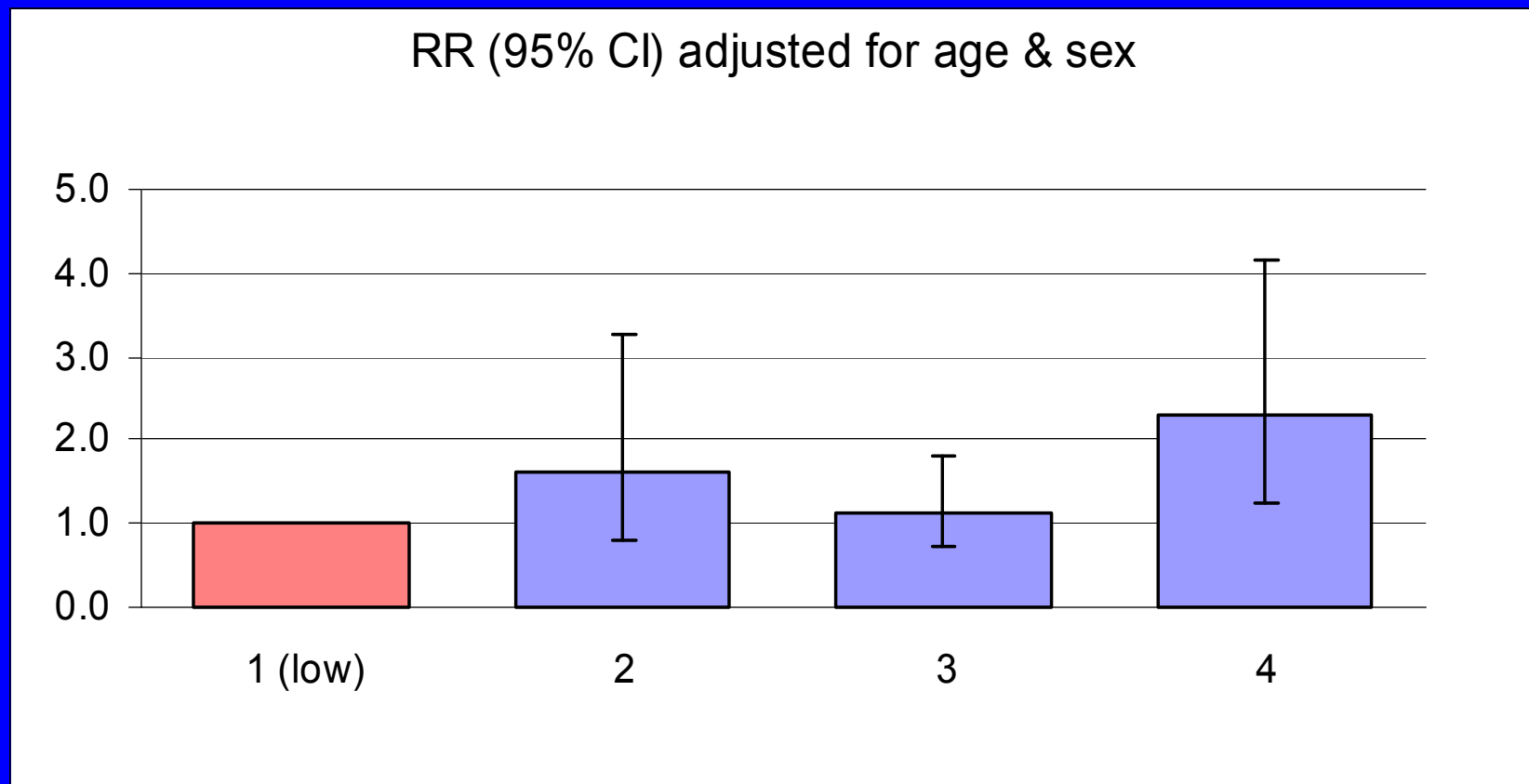
# Relative risk of *weekly alcohol drinking* associated with **ethnicity**



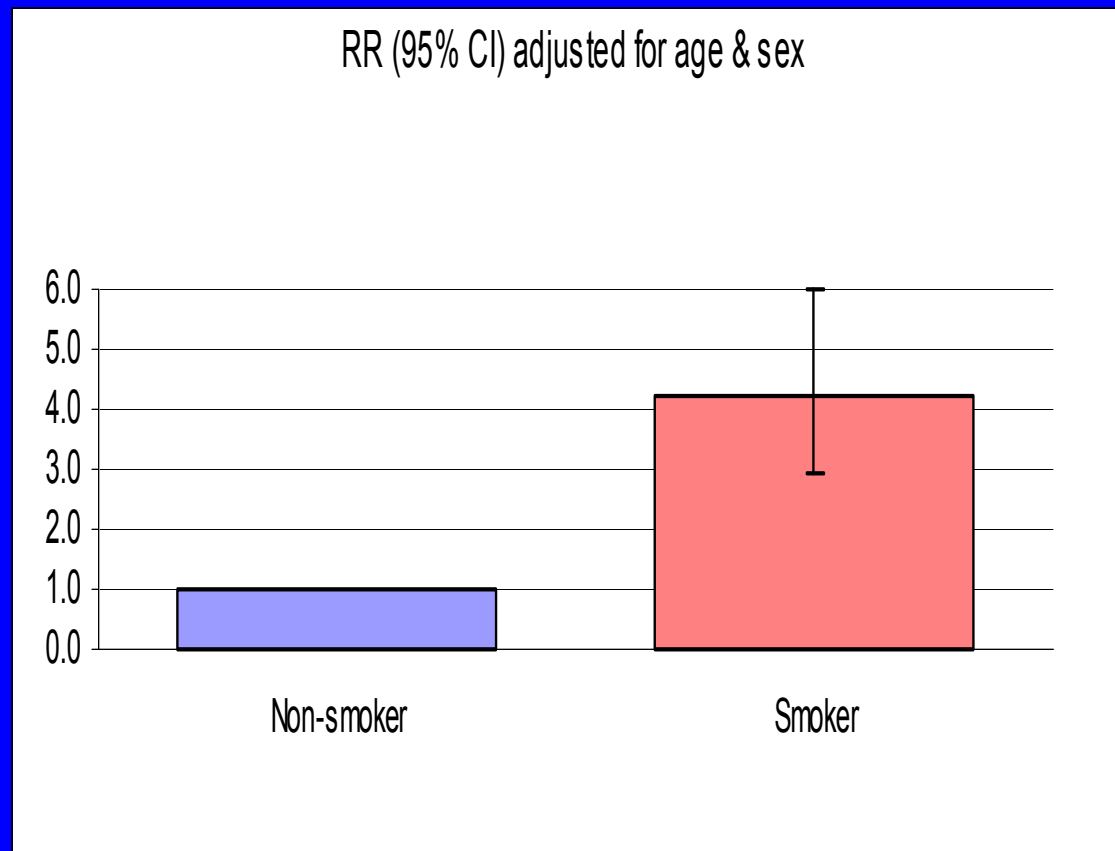
# Relative risk of *weekly alcohol drinking* associated with **NZ birth**



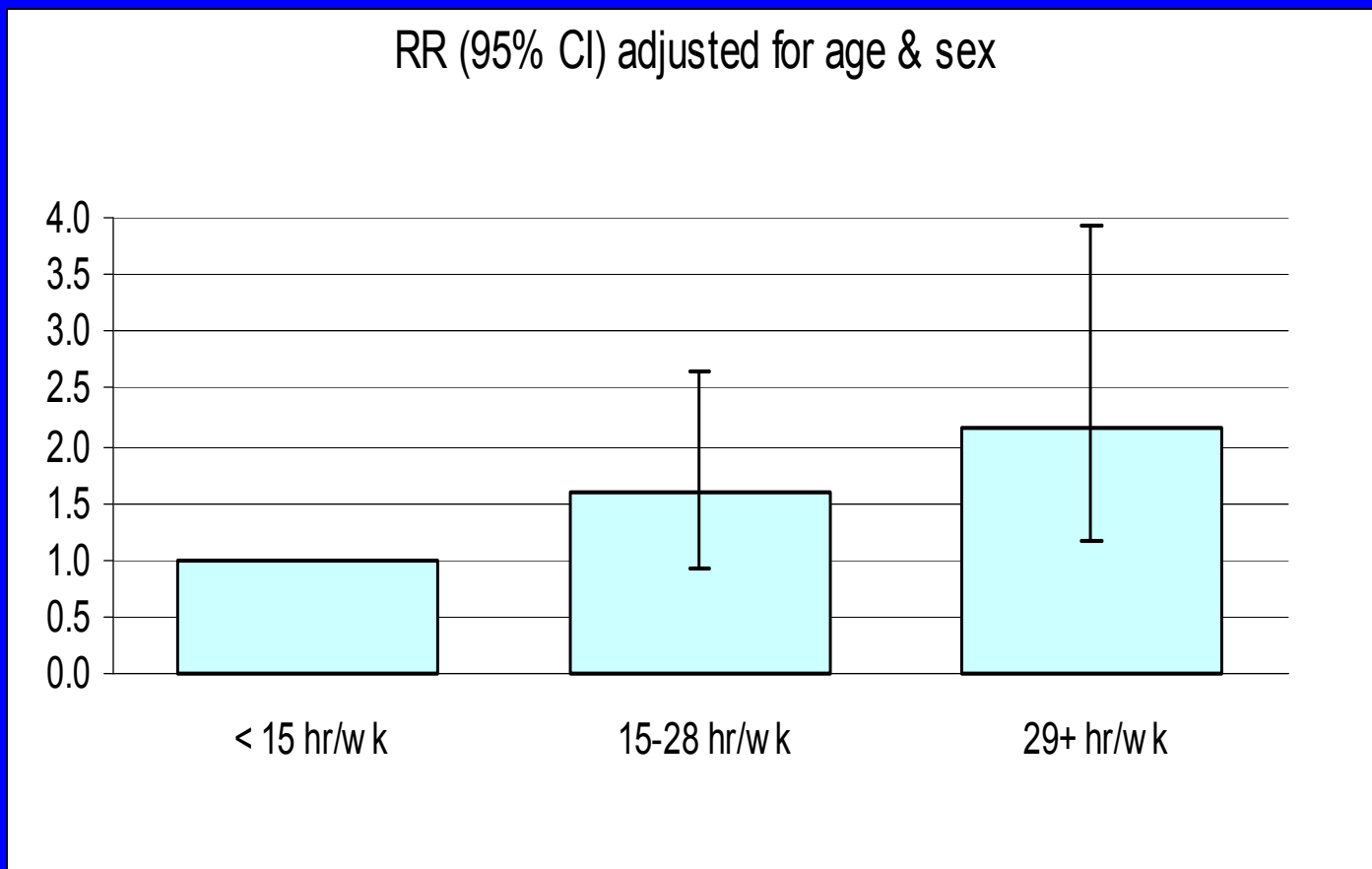
# Relative risk of *weekly alcohol drinking* associated with **school SES decile**



# Relative Risk of *Weekly Alcohol Drinking* associated with **cigarette smoking**



# Relative risk of *weekly alcohol drinking* associated with **sun exposure**



# Weekly alcohol drinking & opinion about harm

\* p<0.05 v. yes

<i>Do young people risk harming themselves if they:</i>	N	Weekly drinkers (%)
Smoke cigarettes?		
◆ Yes	917	9.5
◆ Don't know	62	19.4*
◆ No	46	26.1*
Drink alcohol?		
◆ Yes	852	8.8
◆ Don't know	94	16.0*
◆ No	79	26.6*
Get in car with drinking driver?		
◆ Yes	923	11.2
◆ Don't know	45	6.7
◆ No	57	8.8

# Weekly alcohol drinking & adult behaviour

\*  $p < 0.05$  v. no

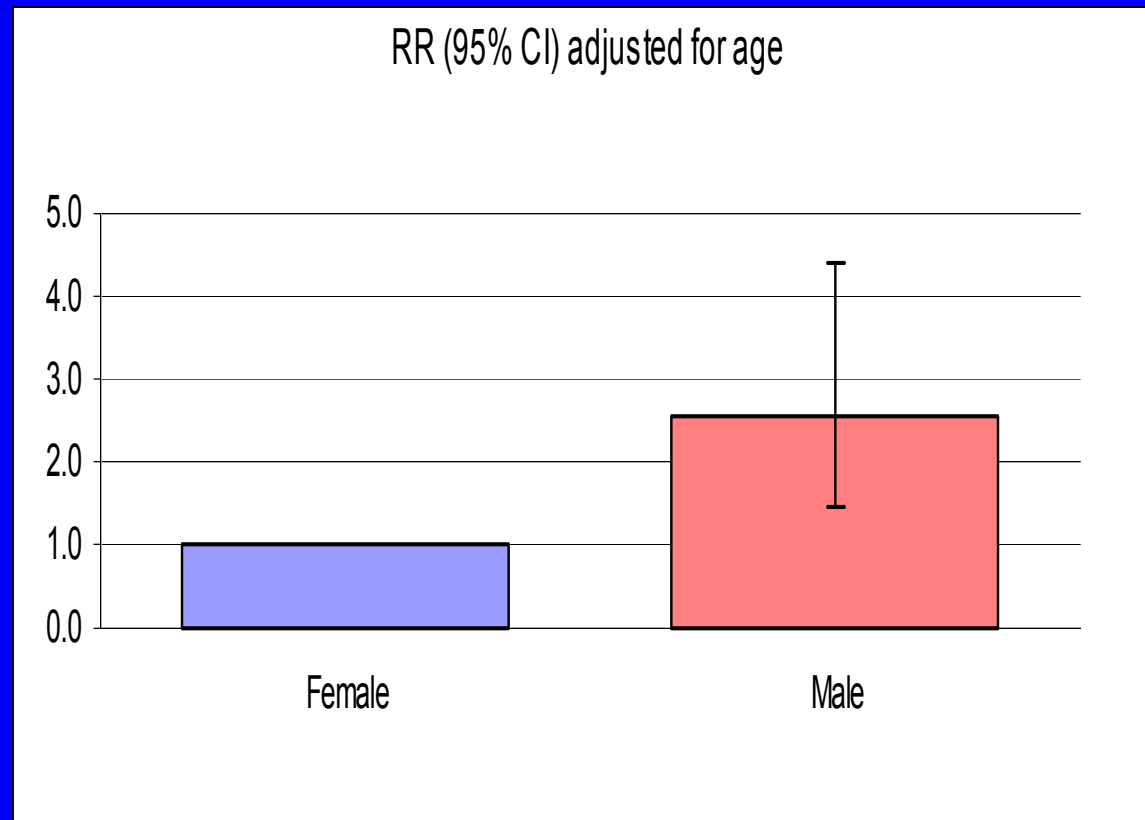
<b><i>Do you observe adults:</i></b>	<b>N</b>	<b>Weekly drinkers (%)</b>
<b>Drink too much alcohol?</b>		
◆ Yes	756	11.1
◆ No	269	10.0
<b>Take illegal drugs?</b>		
◆ Yes	535	13.1*
◆ No	490	8.4
<b>Drink alcohol &amp; drive?</b>		
◆ Yes	663	12.1*
◆ No	362	8.6

# Weekly alcohol drinking & student feelings

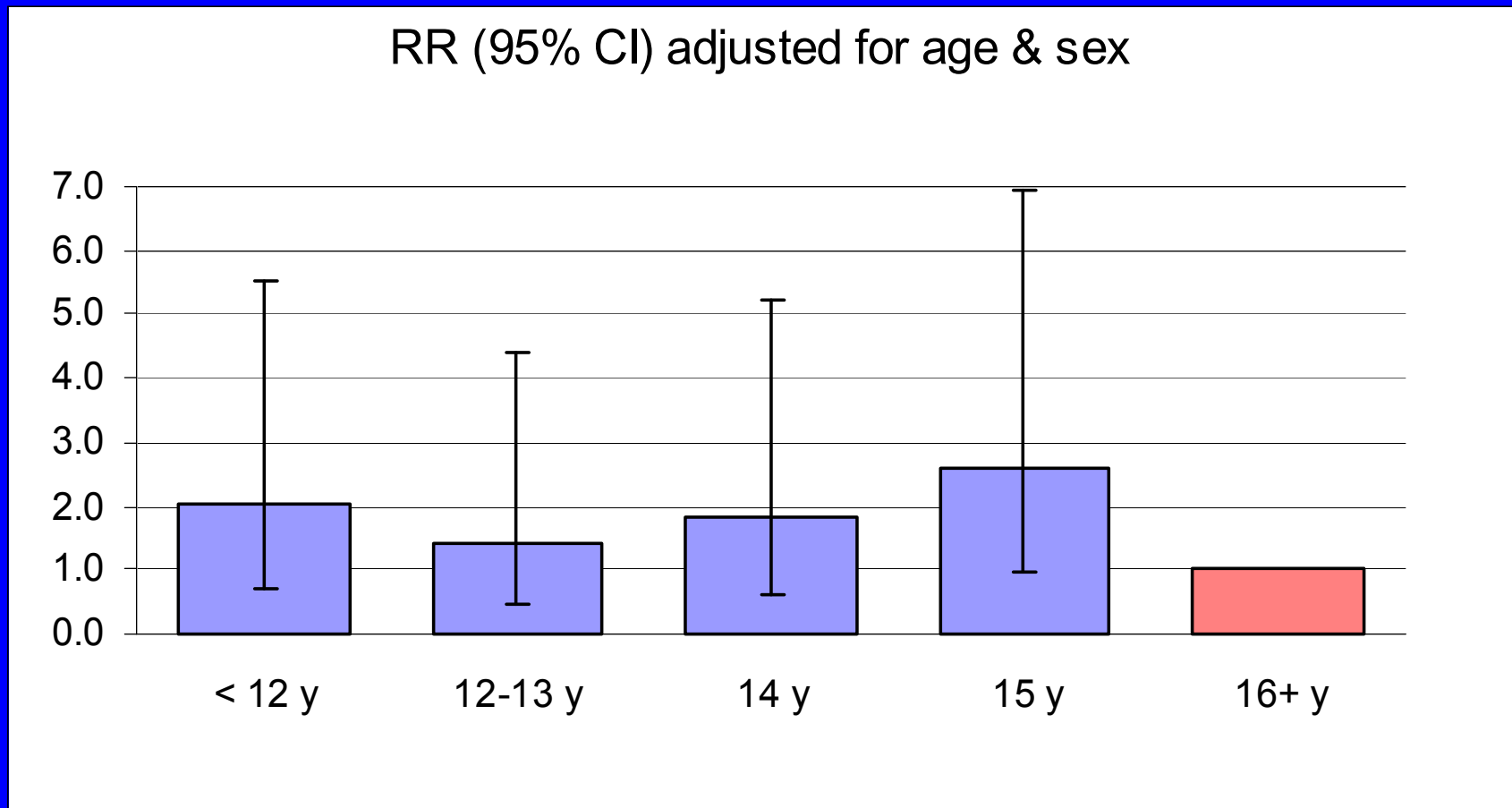
\*  $p < 0.05$  v. little or none

<i>How much of the time have you:</i>	N	Weekly drinkers (%)
Felt down? <ul style="list-style-type: none"><li>◆ All or most</li><li>◆ Some</li><li>◆ Little or none</li></ul>	87 299 639	14.9* 11.4 10.0
Felt calm & peaceful? <ul style="list-style-type: none"><li>◆ All or most</li><li>◆ Some</li><li>◆ Little or none</li></ul>	544 367 114	8.6* 12.0 17.5
Been happy? <ul style="list-style-type: none"><li>◆ All or most</li><li>◆ Some</li><li>◆ Little or none</li></ul>	733 245 47	9.4* 13.5 19.2

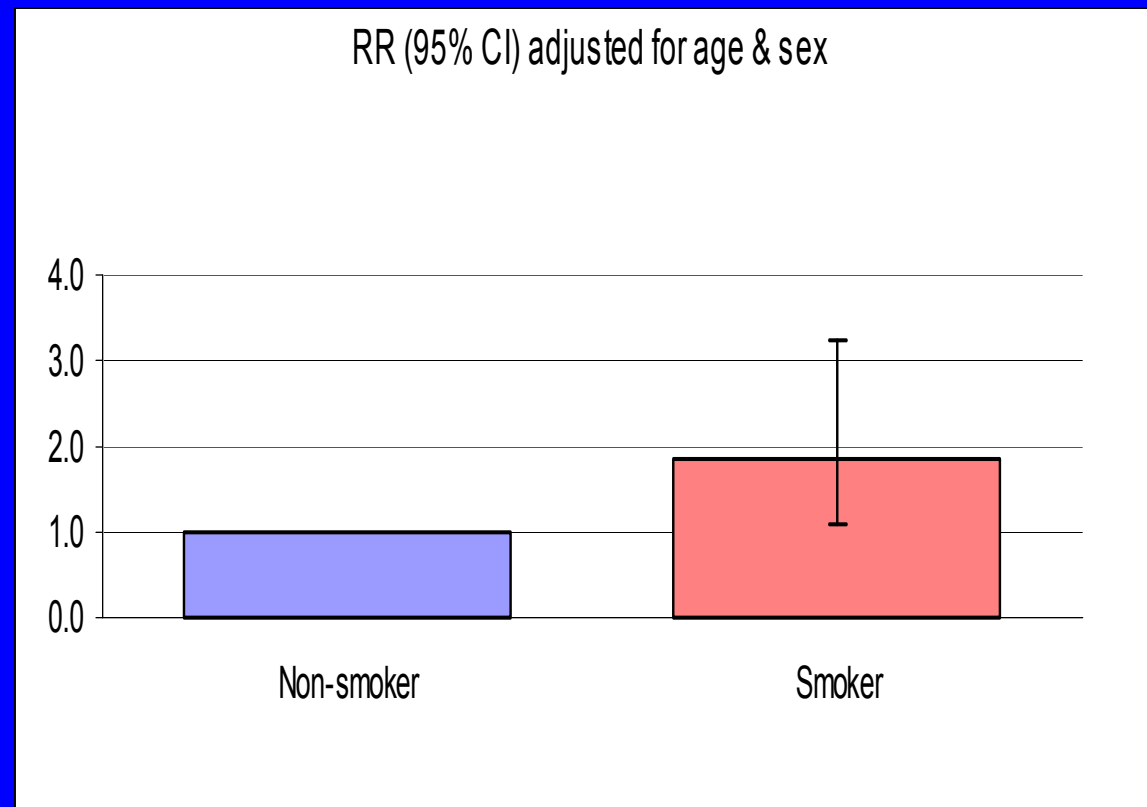
Relative Risk of *regular binge drinking*  
(4 times in last 4 weeks) associated with **gender**



Relative Risk of *regular binge drinking*  
(4 times in last 4 weeks) associated with **age of 1<sup>st</sup> drink**



Relative Risk of *regular binge drinking*  
(4 times in last 4 weeks) associated with **cigarette smoking**





# Objective 4

## Alcohol Burden

- a) contribution lifestyle makes to alcohol intake
- b) contribution alcohol makes to health outcomes



## Burden – contribution to *regular binge drinking*

Lifestyle Risk Factor	Exposure	Attributable Risk
◆ Usual alcohol intake	Weekly or more often	83%
◆ Age started drinking alcohol	< 16 years	38%
◆ Cigarette smoking	Smoker	27%









## Conclusions – *Objective 3 (ii)*

Risk factors for *binge drinking*:

- Demographic – male gender
- Lifestyle –
  - Frequency of usual alcohol intake,
  - early age of starting alcohol drinking
  - cigarette smoking

## Conclusions – objective 4 (i)

Modifiable factors that explained *usual alcohol intake*, in order of importance, were:

- ◆ cigarette smoking and sun exposure
- ◆ observing adults engage in risk taking behaviour with illegal drugs and drink driving
- ◆ incorrect opinions about harm from smoking cigarettes and drinking alcohol

## Conclusions – objective 4 (ii)

Modifiable factors that explained *binge drinking*, in order of importance, were the lifestyle behaviours:

- ◆ usual alcohol intake
- ◆ early age of starting alcohol drinking
- ◆ cigarette smoking.

Alcohol had only a limited effect on the *health outcomes* measured in this study.

# Recommendations for Policy

- ◆ Regulations and laws surrounding young people's access to alcohol are enforced and monitored carefully Objective 2: Comparison of alcohol drinking patterns in Pacific youth (i.e. *Samoan, Tongan, Cook Islands, and Niuean* ethnicities)
- ◆ Surveillance and monitoring of youth drinking in public places is recommended, laws and regulations concerning this practice should be enforced

# Recommendations for Health Education and Promotion

- ◆ Monitoring of youth drinking in public places, and laws and regulations enforced
- ◆ Interventions be targeted specifically at the Pacific male population
- ◆ Ethnic-specific interventions & health promotion targeted at Pacific populations most at risk i.e. Cook Islands and Niuean population
- ◆ Educating youth who are drinking, to drink safely and responsibly

# Recommendations for Health Education and Promotion *cont*

- ◆ Health education programmes and effective interventions should be holistic and should consider the 'whole' person, and include risk-taking behaviour and emotional well-being
- ◆ Health promotion and education campaigns should target caregivers and parents (permissiveness)
- ◆ The link between discretionary income and higher alcohol consumption is communicated back to parents and caregivers via health promotion programmes focusing on the safe use of alcohol

# Recommendations for Further Research

- ◆ Exploring reasons why adolescent drinking varies between Pacific cultures
- ◆ Further research on *protective* risk factors of Pacific populations
- ◆ Understand the role of sun-exposure, including association with aerobic capacity
- ◆ Relationship between sports culture and alcohol consumption in the Pacific youth population
- ◆ Link between sun-exposure, Pacific family/home environment policies and practice surrounding alcohol consumption and outdoor drinking
- ◆ Understanding acculturation factors causing increased drinking