The cardiovascular disease epidemic in NZ – how can we ensure that Maori and Pasifika share the benefits of this decline in incidence?

Corina Grey

Compass Seminar

May 2018

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Overview

- Recent trends in cardiovascular disease by ethnicity
- Factors contributing to ethnic differences in trends
- How researchers, scientists and public health practitioners can support a change for the better

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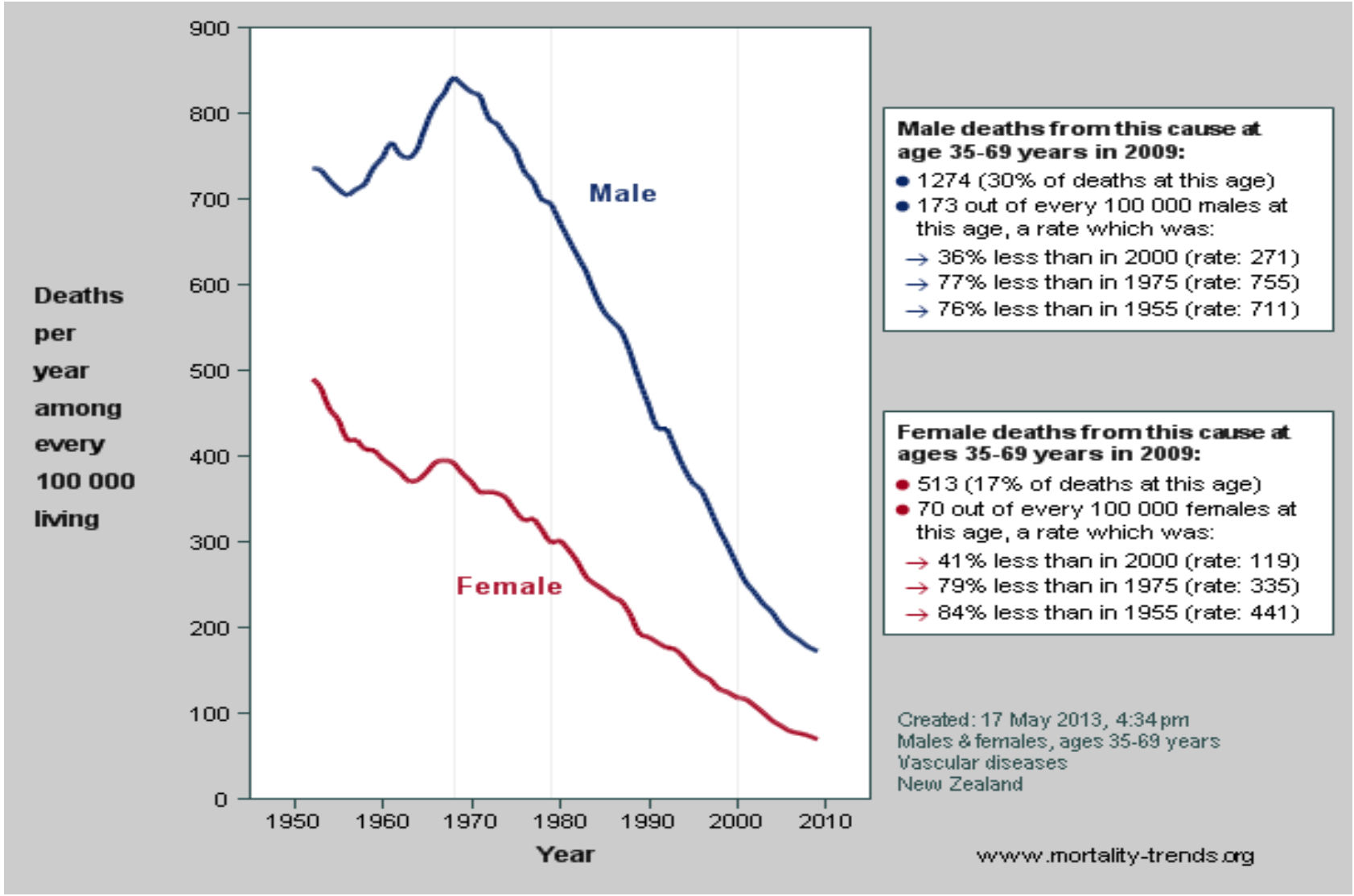
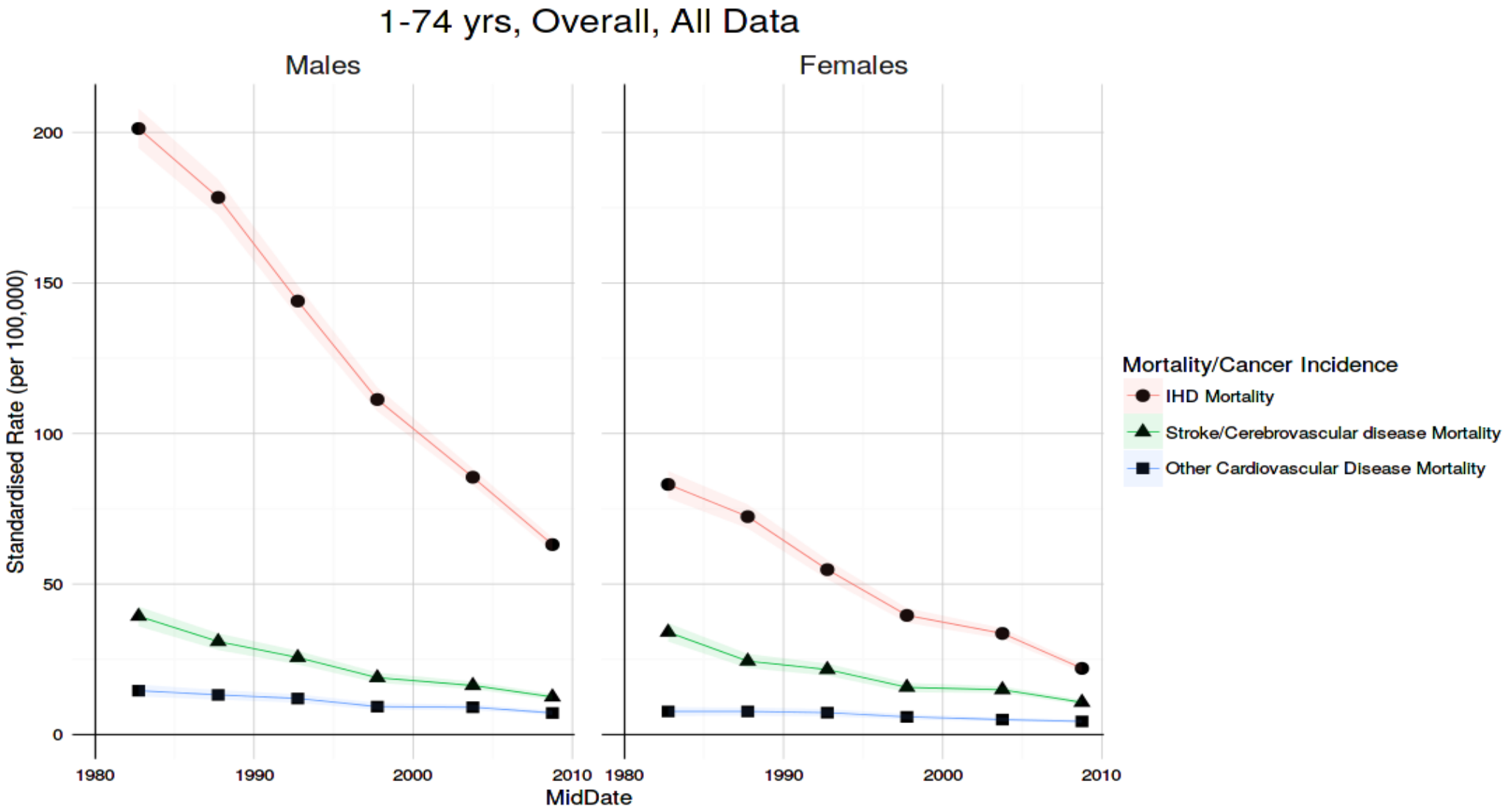
TRENDS IN CVD MORTALITY AND HOSPITALISATIONS

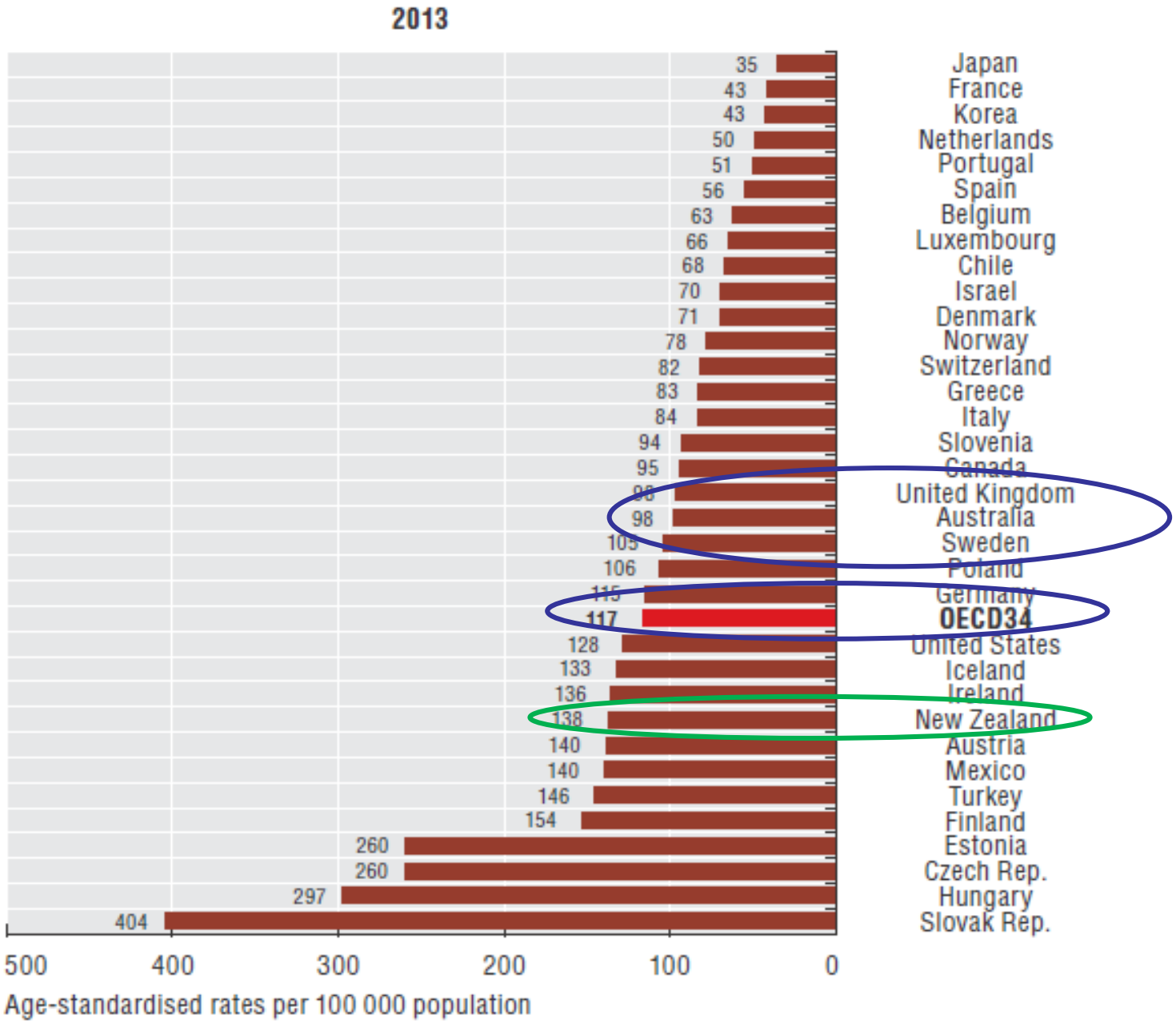
Mortality trends for all vascular diseases, 1950-2010



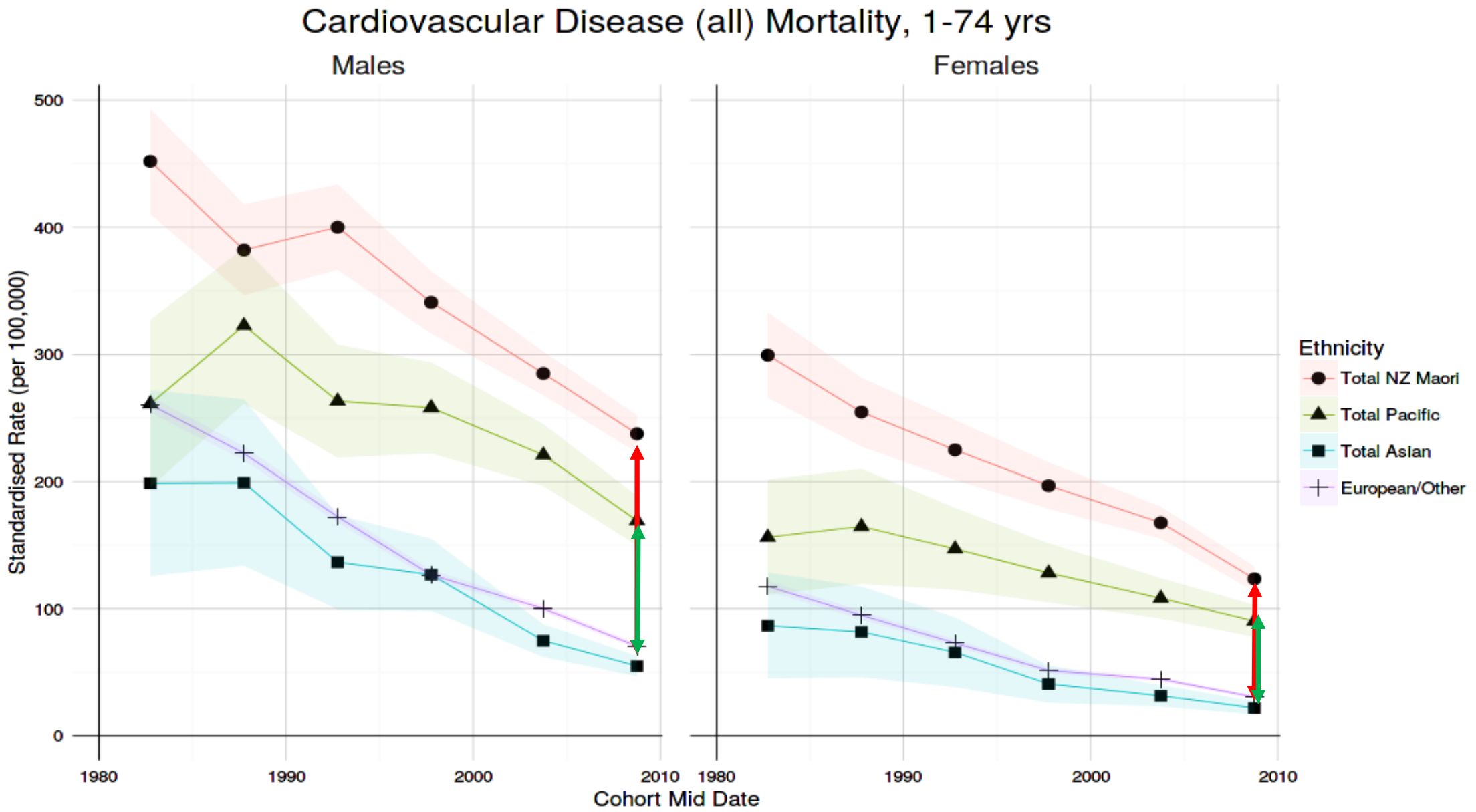
Mortality trends for CVD, 1980-2010



Disney, G., McDonald, A., Atkinson, J. and Blakely, T. (2016) *New Zealand Census Mortality and CancerTrends Study Data Explorer.* Available at: http://www.uow.otago.ac.nz/NZCMS-CT-dataexplorer



Ischaemic heart disease mortality, OECD



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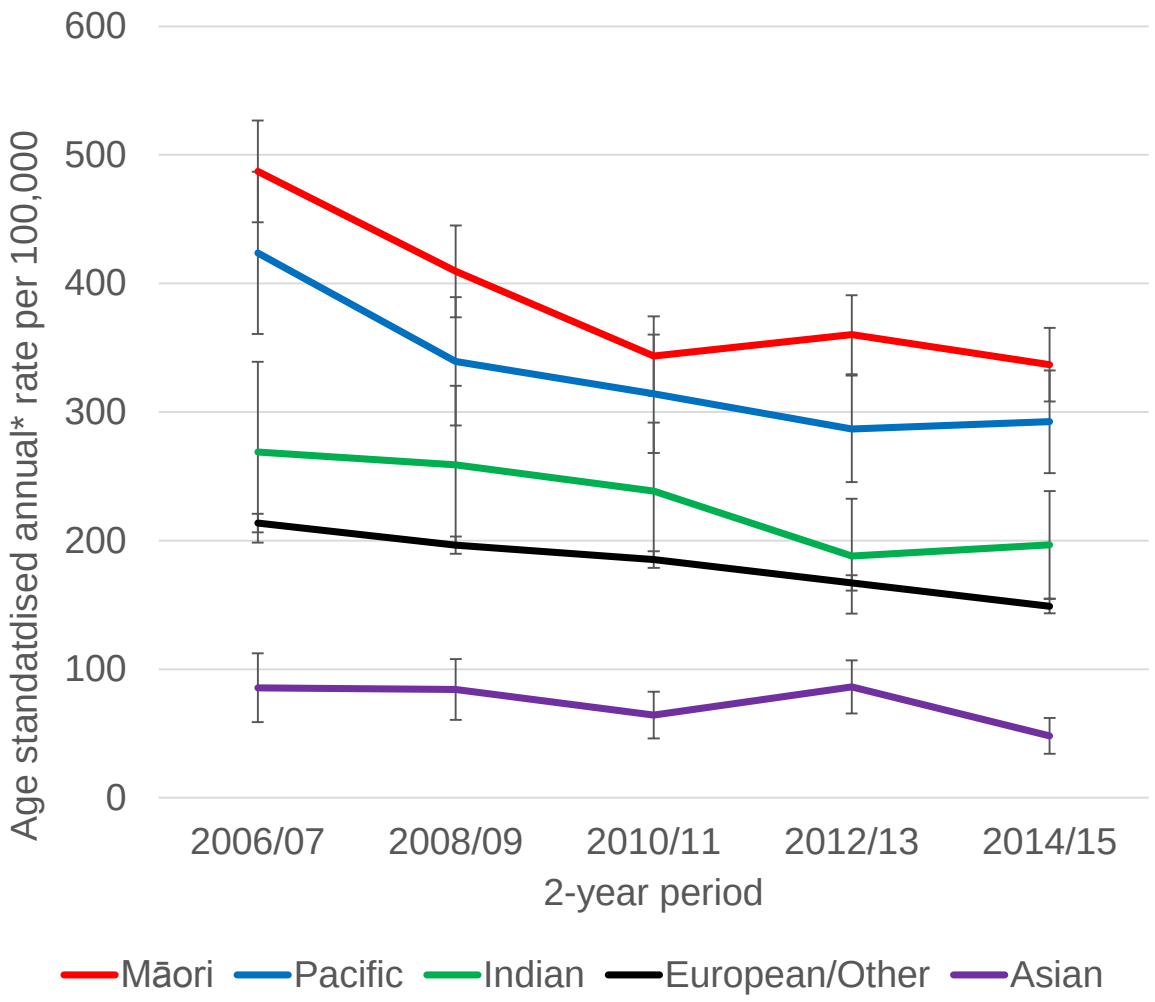
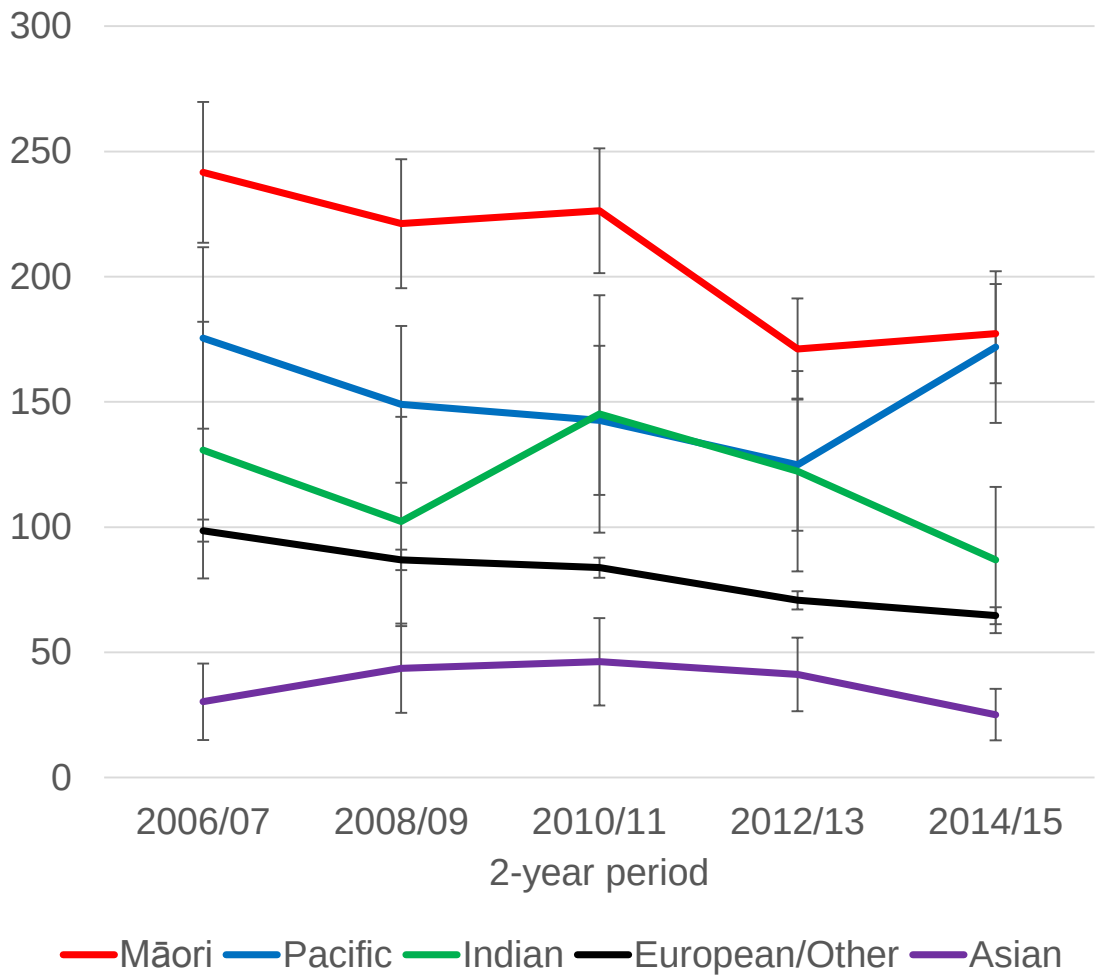
IHD mortality, 2006-2015

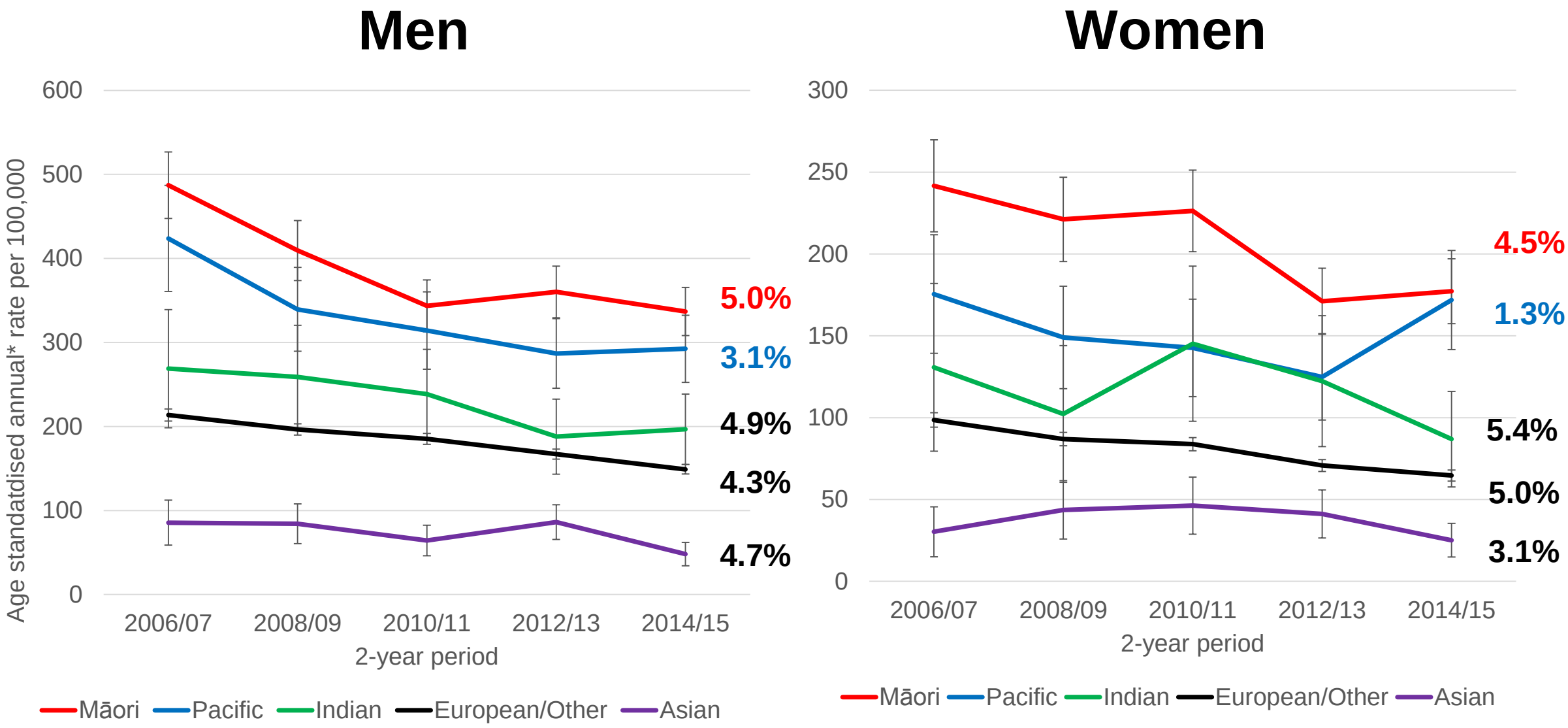
Men



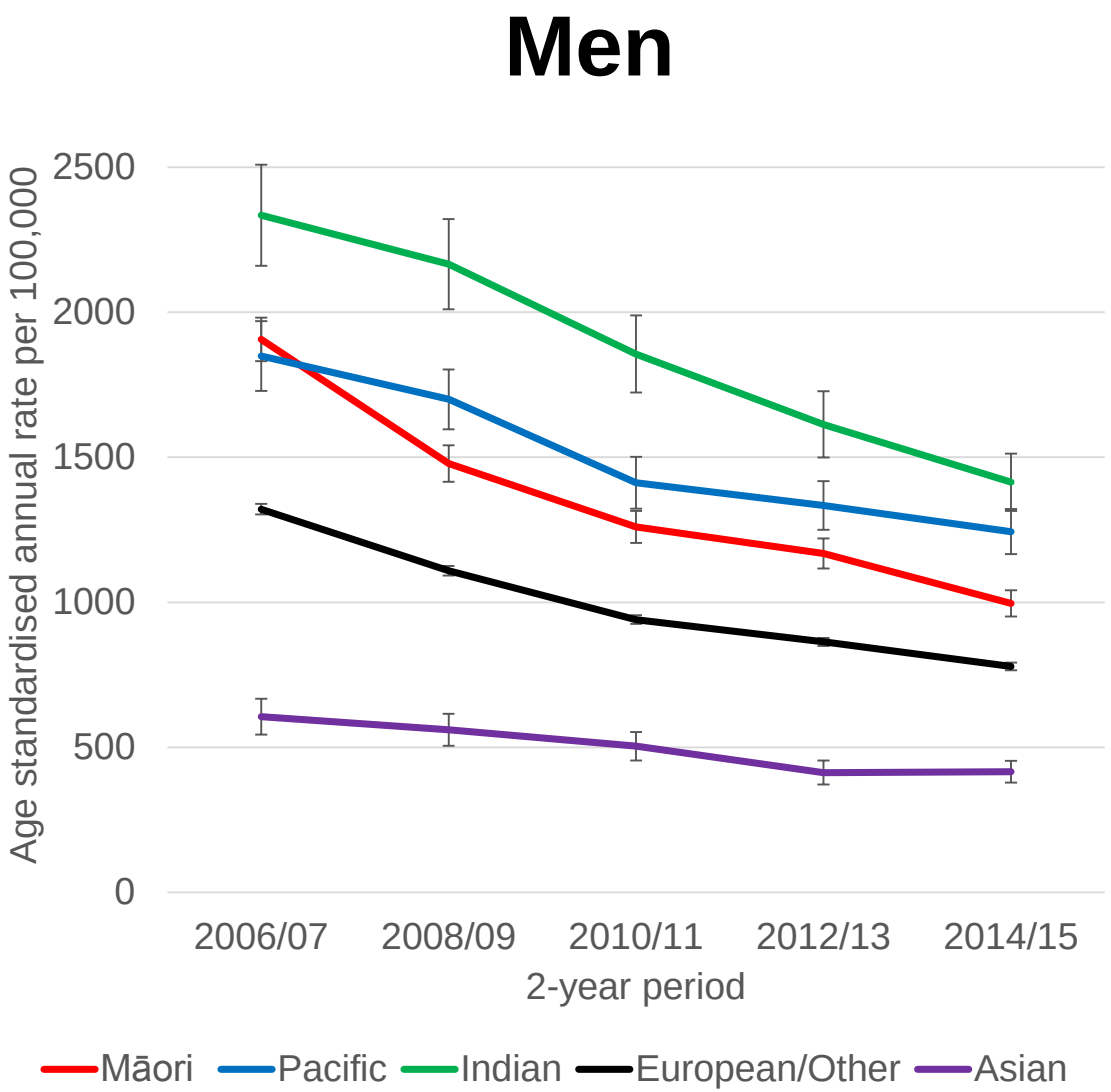
Women

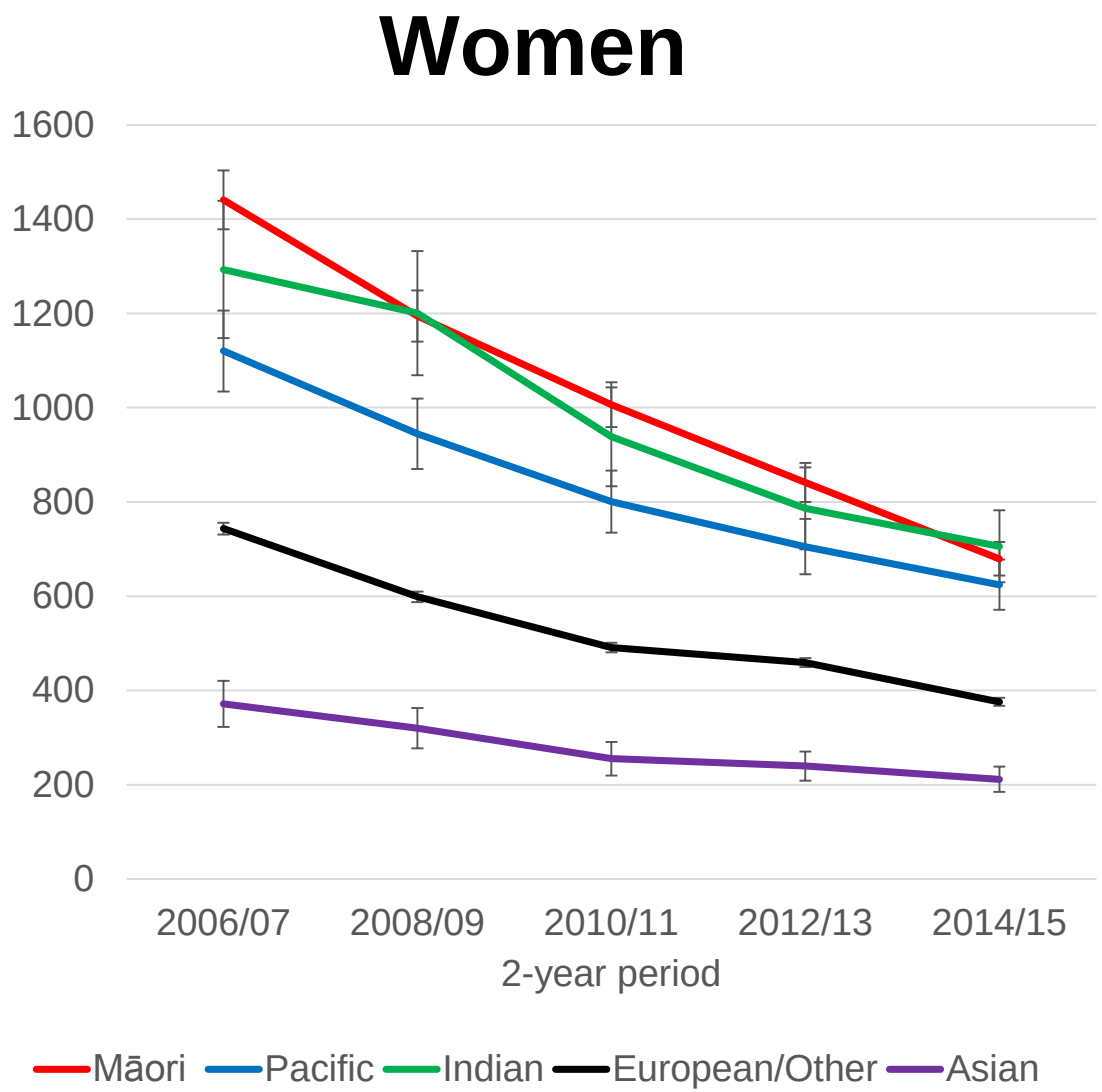


IHD mortality, 2006-2015



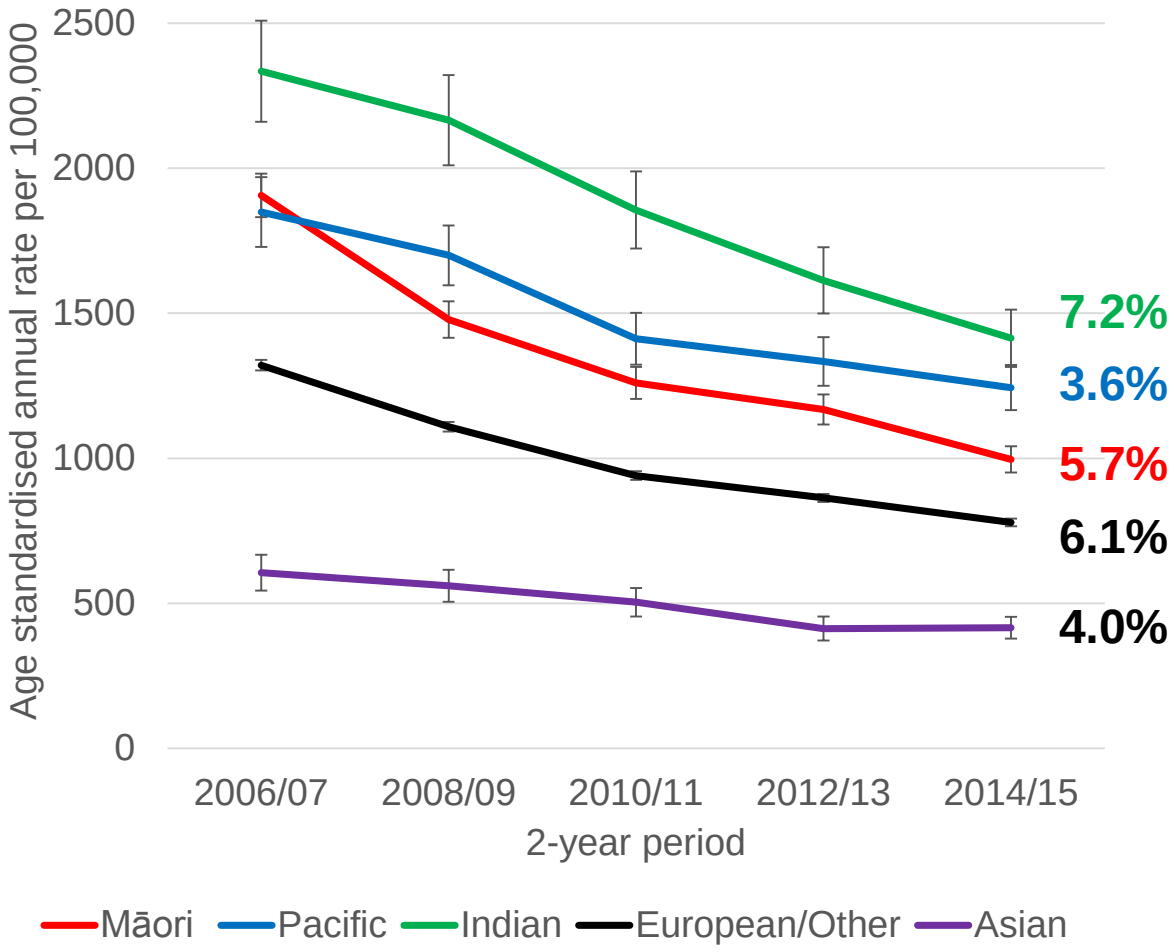
IHD hospitalisations, 2006-2015



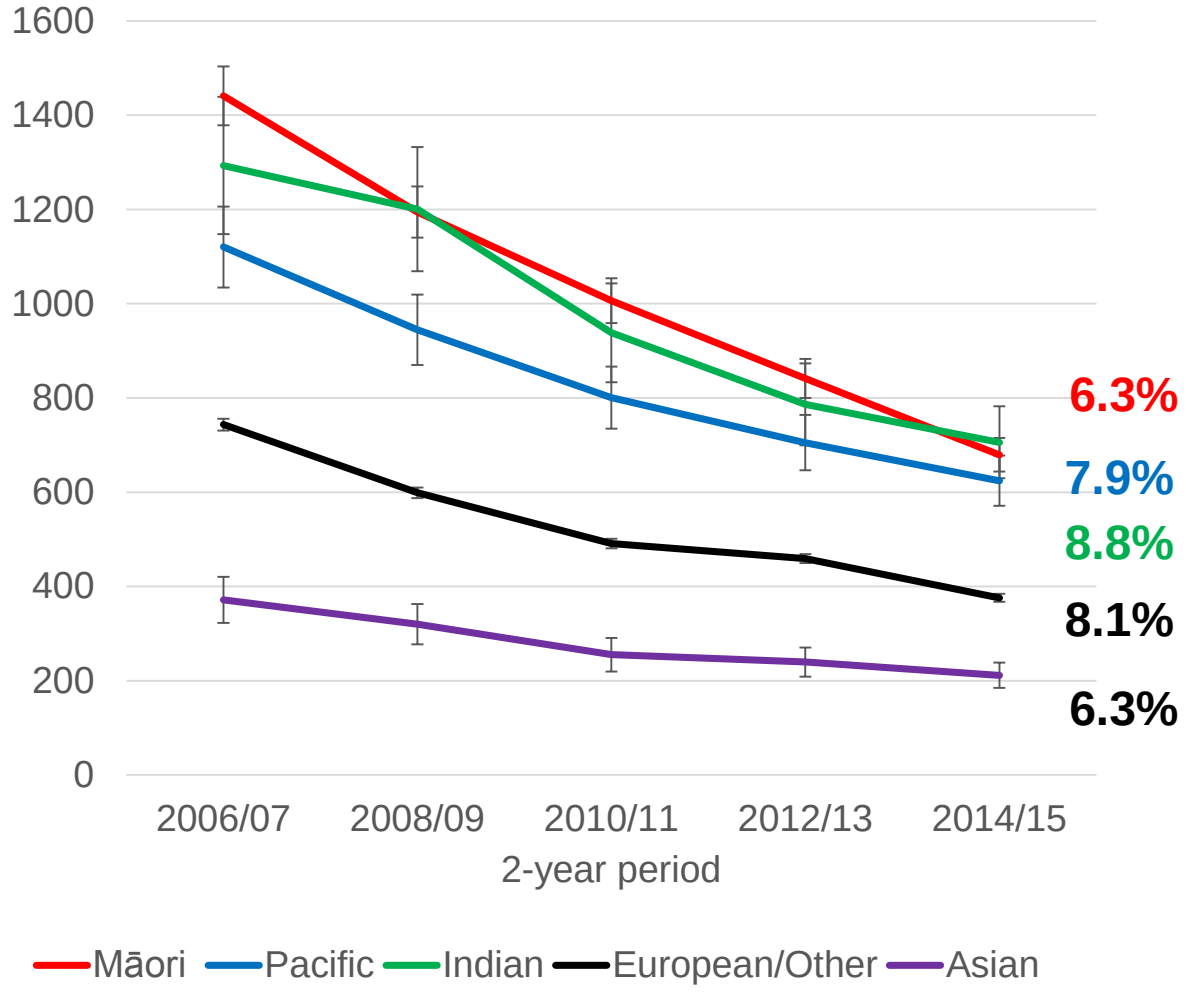


IHD hospitalisations, 2006-2015

Men

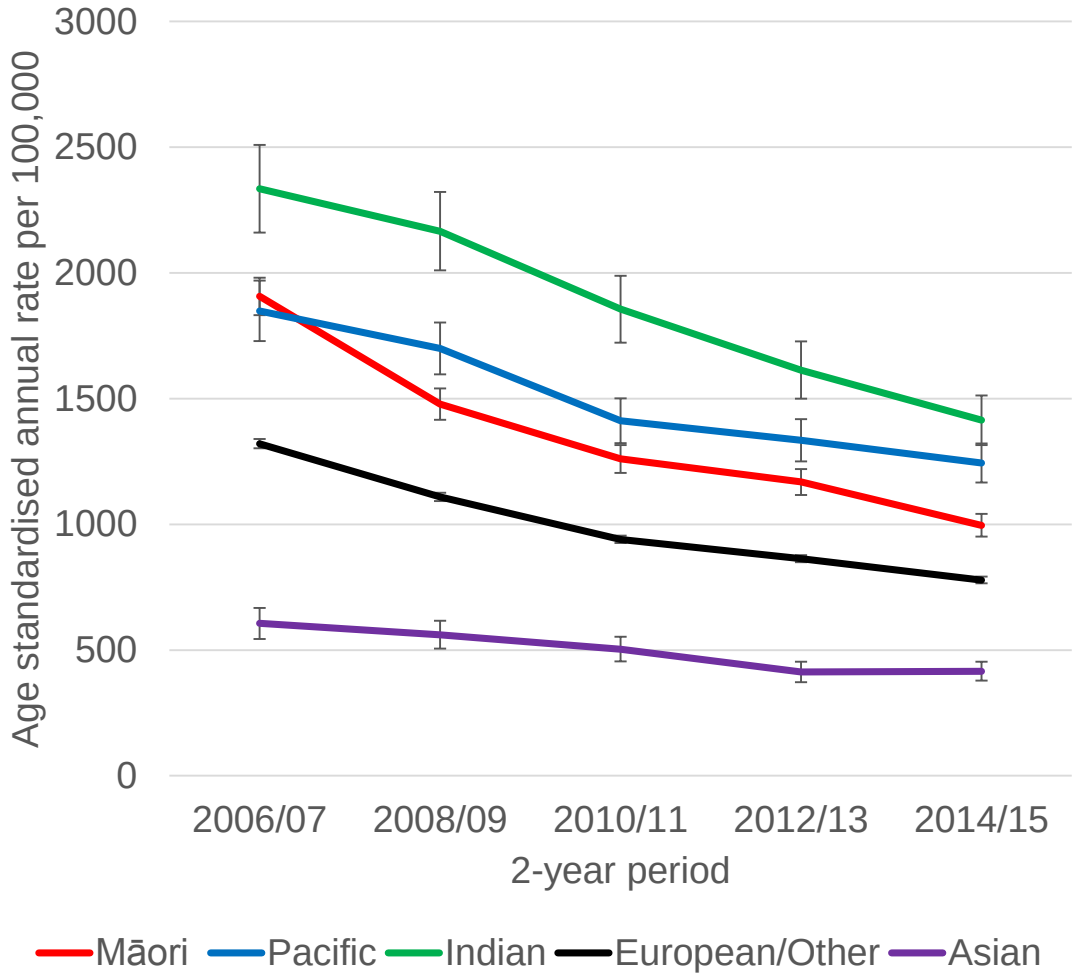


Women

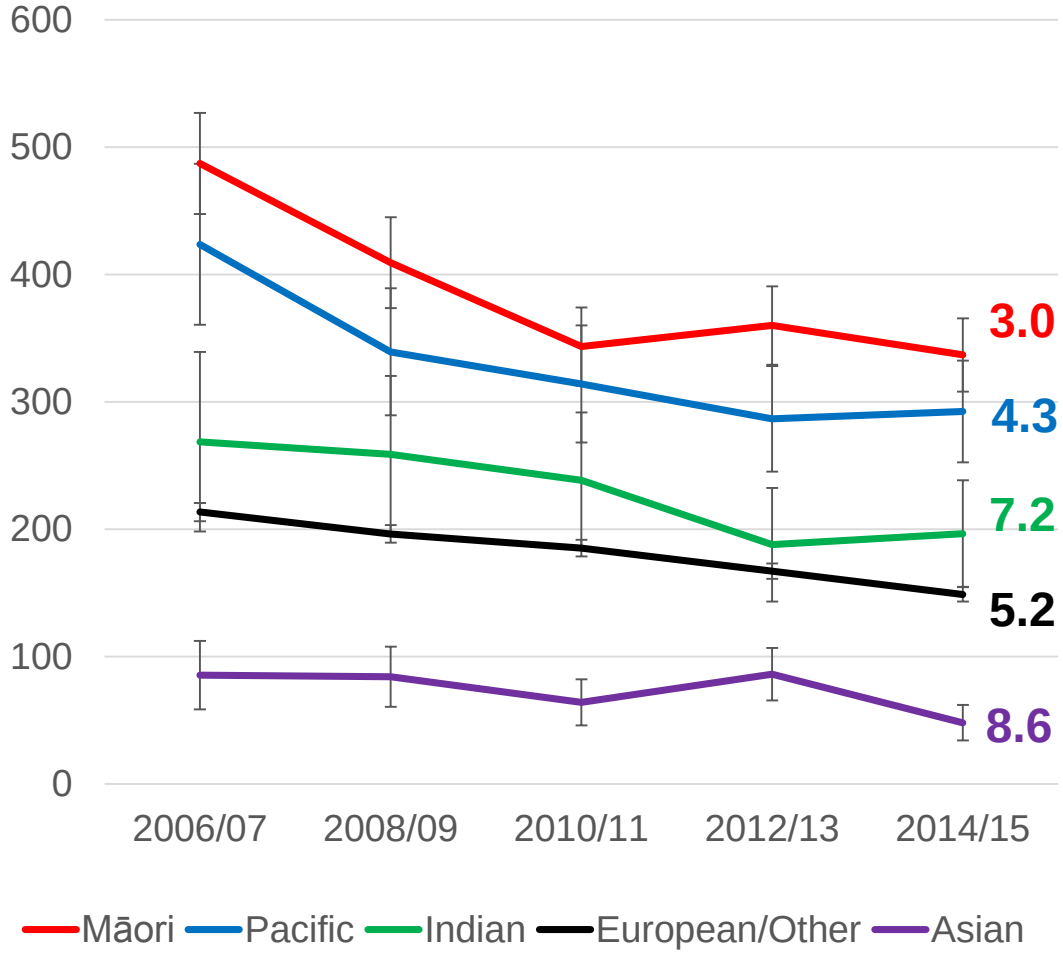


IHD Hospitalisations: IHD deaths, men

Hospitalisations

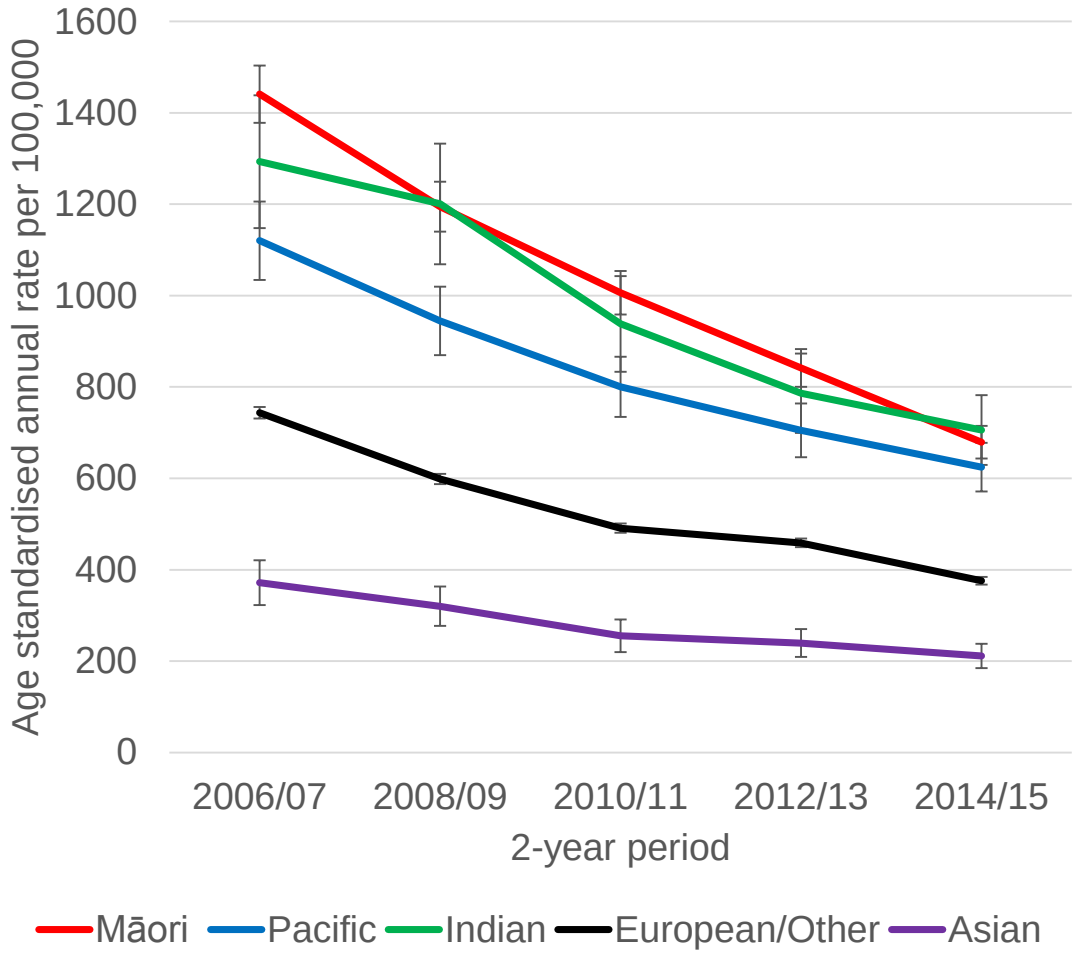


Mortality

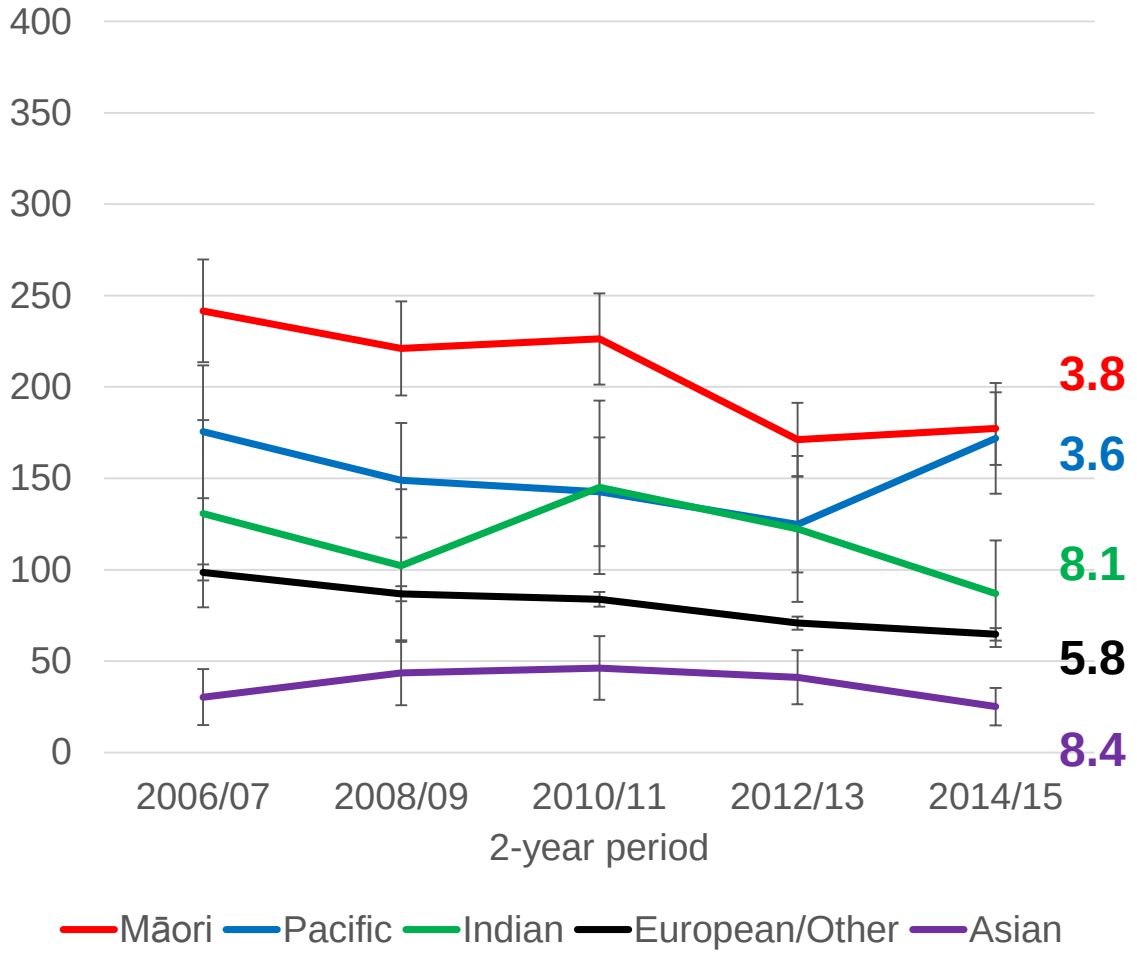


IHD mortality and hospitalisations, women

Hospitalisations



Mortality



Trends in IHD

- Māori and Pacific people continue to have markedly higher IHD mortality rates than other ethnic groups (~twice as high as NZ Euro)
- Mortality is declining more slowly for Pacific people, especially women (1% vs 5% per year for other ethnic groups).
- Hospitalisation rates are also declining, but there are marked differences in the ratio of hospitalisations to deaths by ethnic group.
- Indian and other Asians have the highest hospitalisation:death ratios, Māori and Pacific the lowest.

Why care about Maori & Pacific inequities?

- Indigenous population – the Crown has obligations to Maori under the Treaty of Waitangi
- Maori are 15%, Pacific 7.5%, of the NZ population
- Younger age structure (median age younger than other populations). As the NZ population ages, a greater proportion of people of working age will be Maori and Pacific – they will need to be healthy to contribute to society

WHY ARE THERE DIFFERENCES BY ETHNICITY?

Socioeconomic determinants of health

Risk Factors

Access to and quality of care

Comorbidities

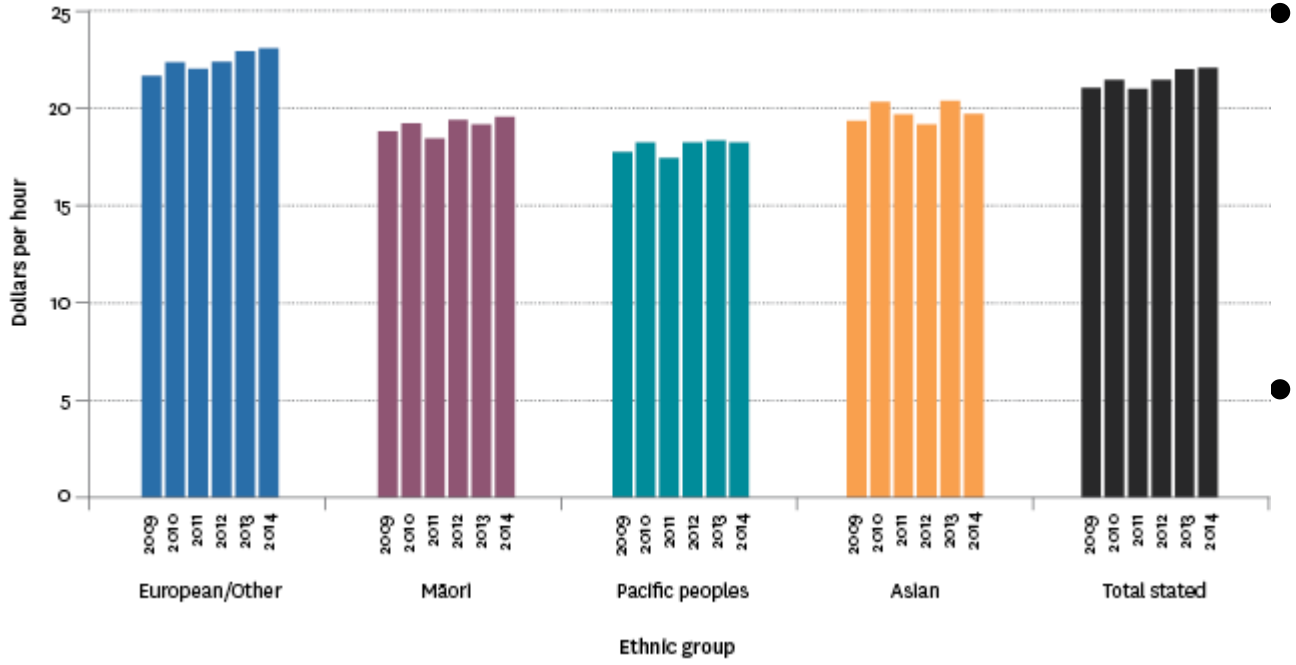
Socioeconomic determinants

- Income
- Education
- Housing
- Area-based deprivation

Increasing Income Disparities

Median personal incomes at the 2013 Census:

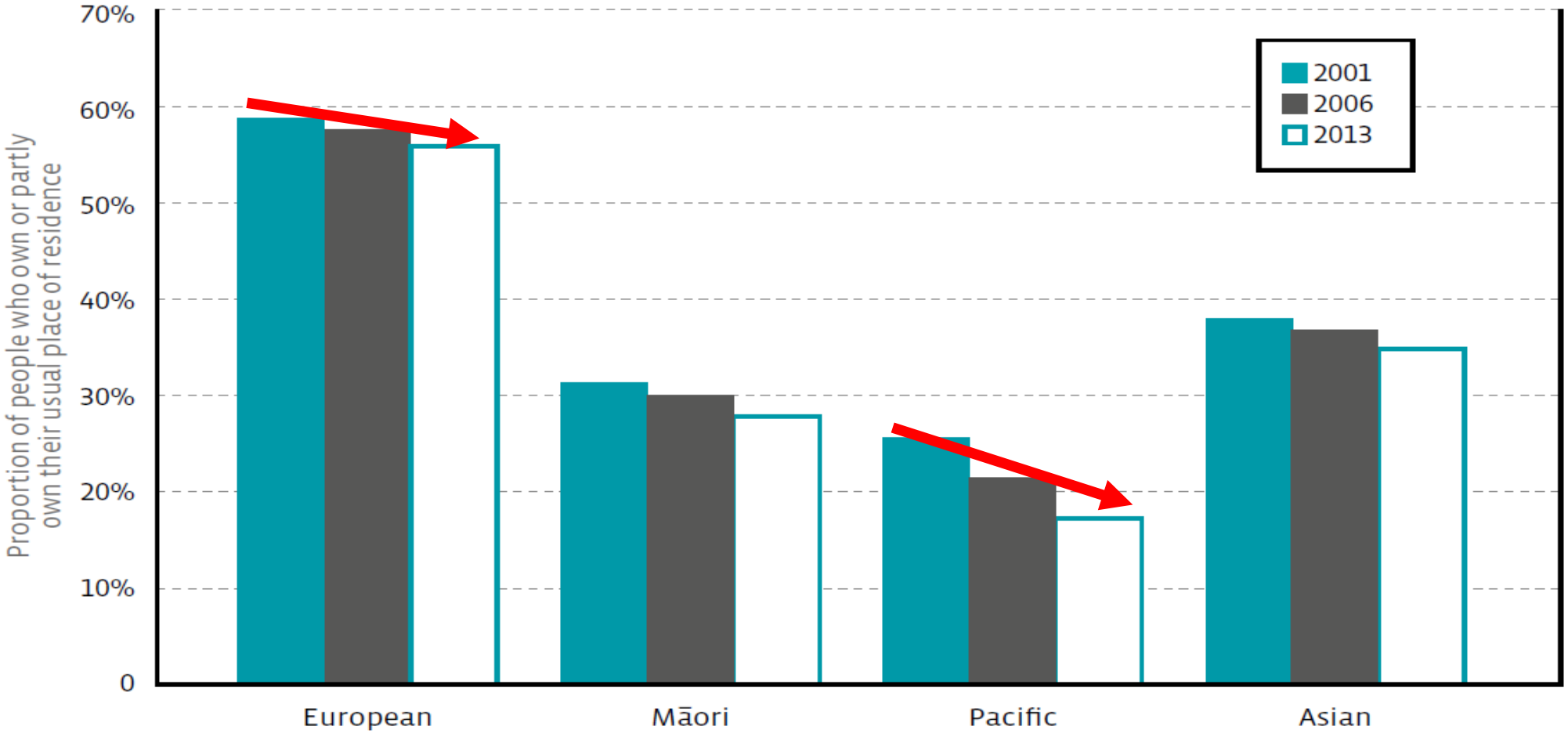
- $30,900 for Europeans
- $22,500 for Maori
- $19,700 for Pacific



- From 2006 and 2013 the median personal income of Maori and Pacific people fell as a percentage of the national median income.
- In 2006, $3500 lower for Maori and $3900 lower for Pacific than the median annual income of $24,000.
- By 2013, $6,000 lower for Maori and $8,800 lower for Pacific than median $28,500.

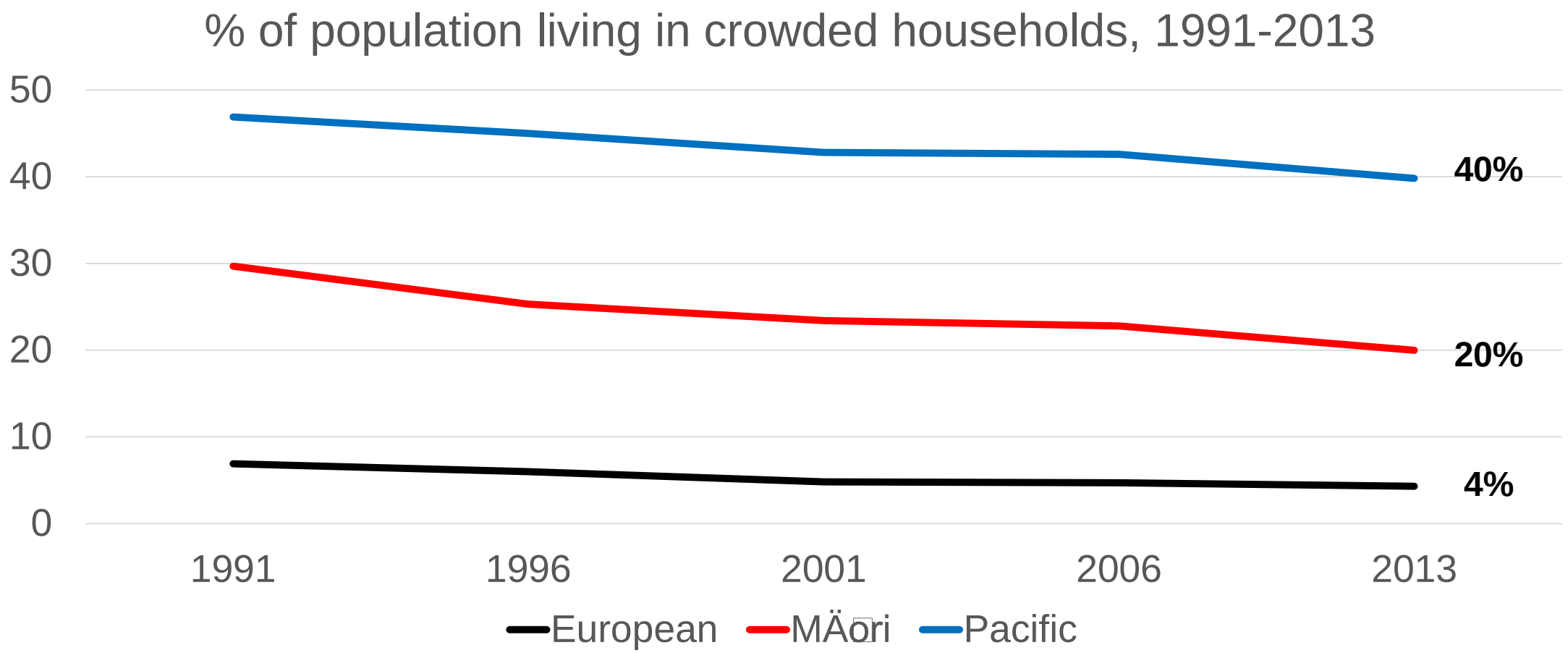
Housing

Home ownership is low and declining among Maori and Pacific people



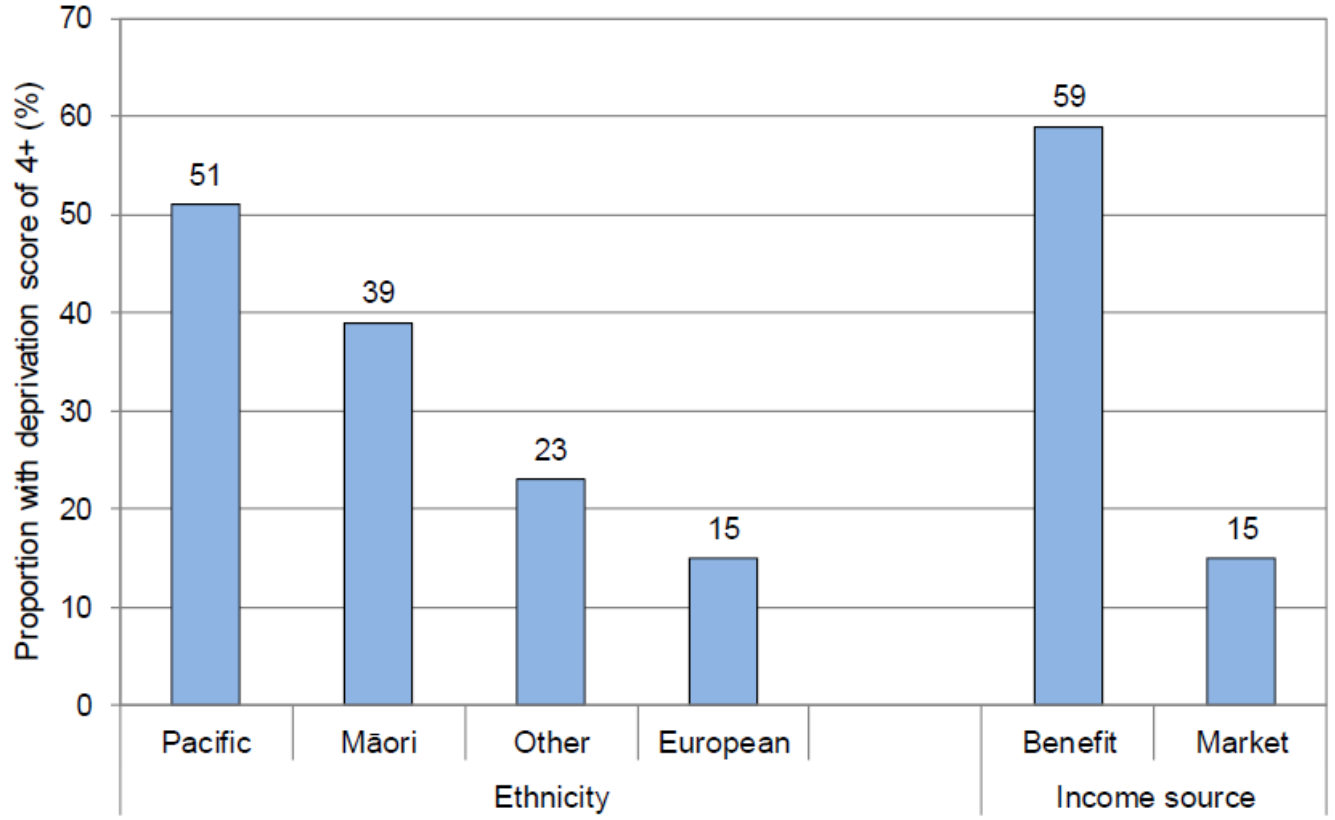
Source: Tanielu R & Johnson A (2014). This is Home. An update on the state of Pasifika people in New Zealand. Salvation Army Social Policy & Parliamentary Unit.

1 in 5 Maori and more than 1 in 3 Pacific people live in overcrowded conditions



Hardship

Figure 2. Percentage of children aged 0–17 years experiencing material hardship* by ethnicity and by family income source, NZ Living Standards Survey 2008



Source: NZ 2008 Living Standards Survey [9]; Notes: * Material Hardship defined as scoring four or more "enforced lacks" on the material deprivation index as outlined in the Methods box. Ethnicity is total response

2013/2014 Statistics New Zealand Household Economic Survey:

Proportion of people facing material hardship:

- Pacific 35%
- Māori 20%
- European 5%
- Other 4%

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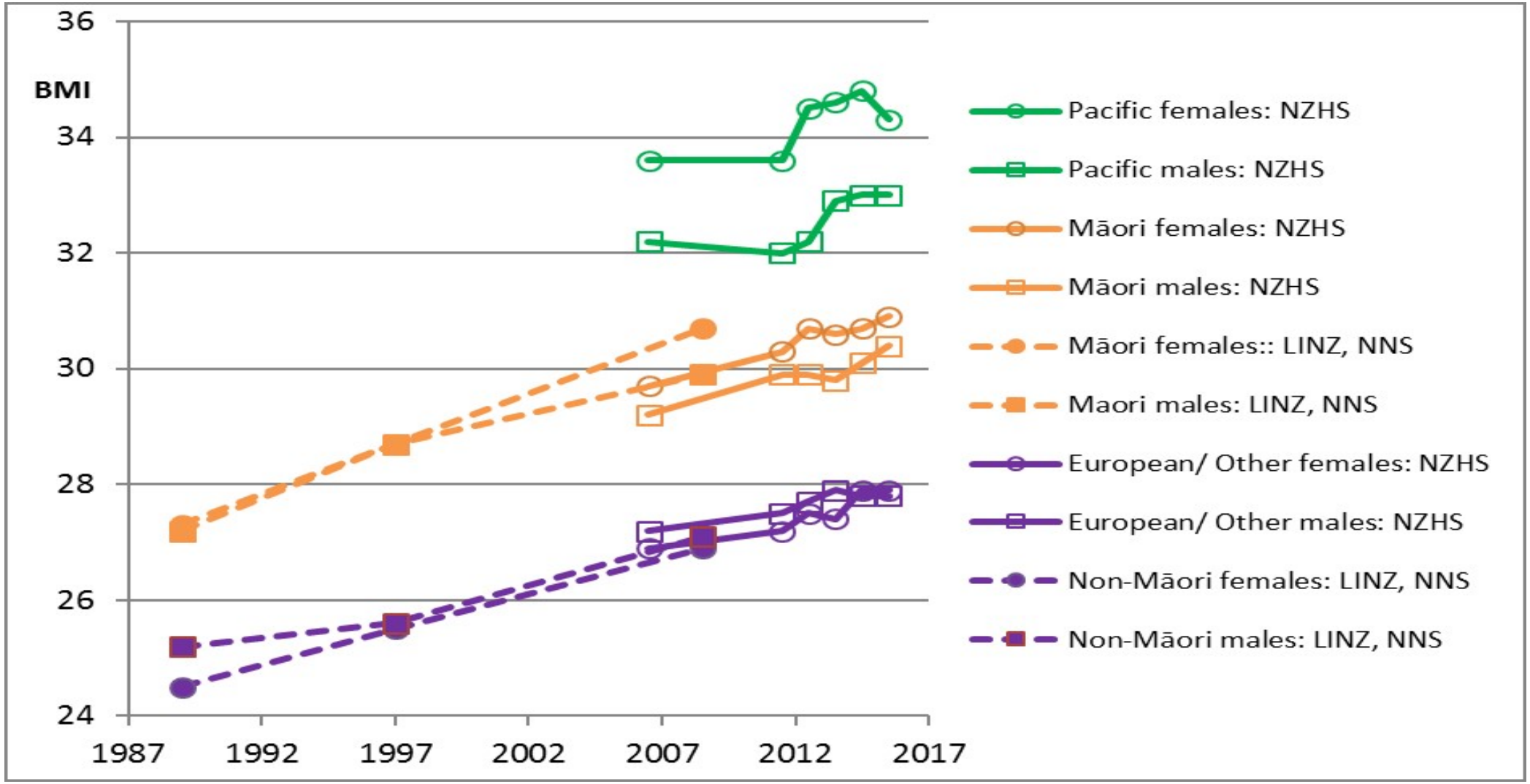
Risk Factors

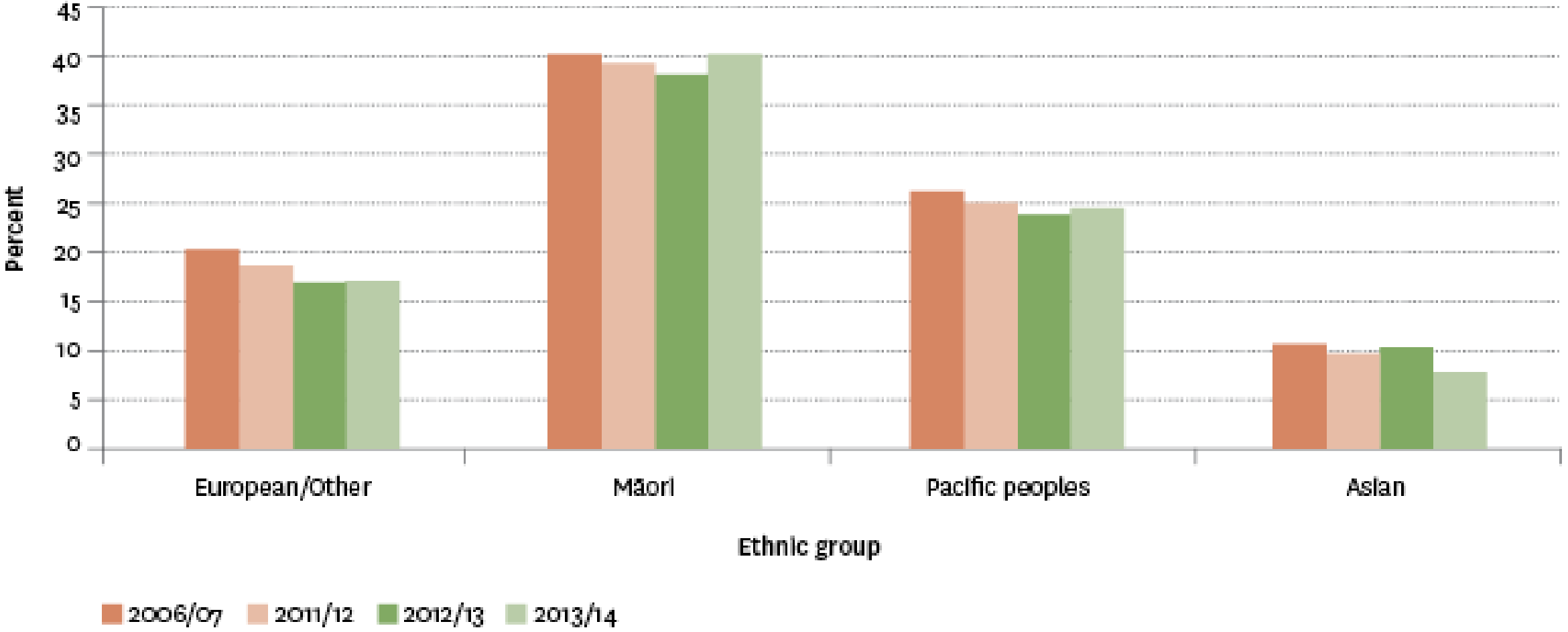
- BMI
- Diabetes
- Smoking

Trends in BMI



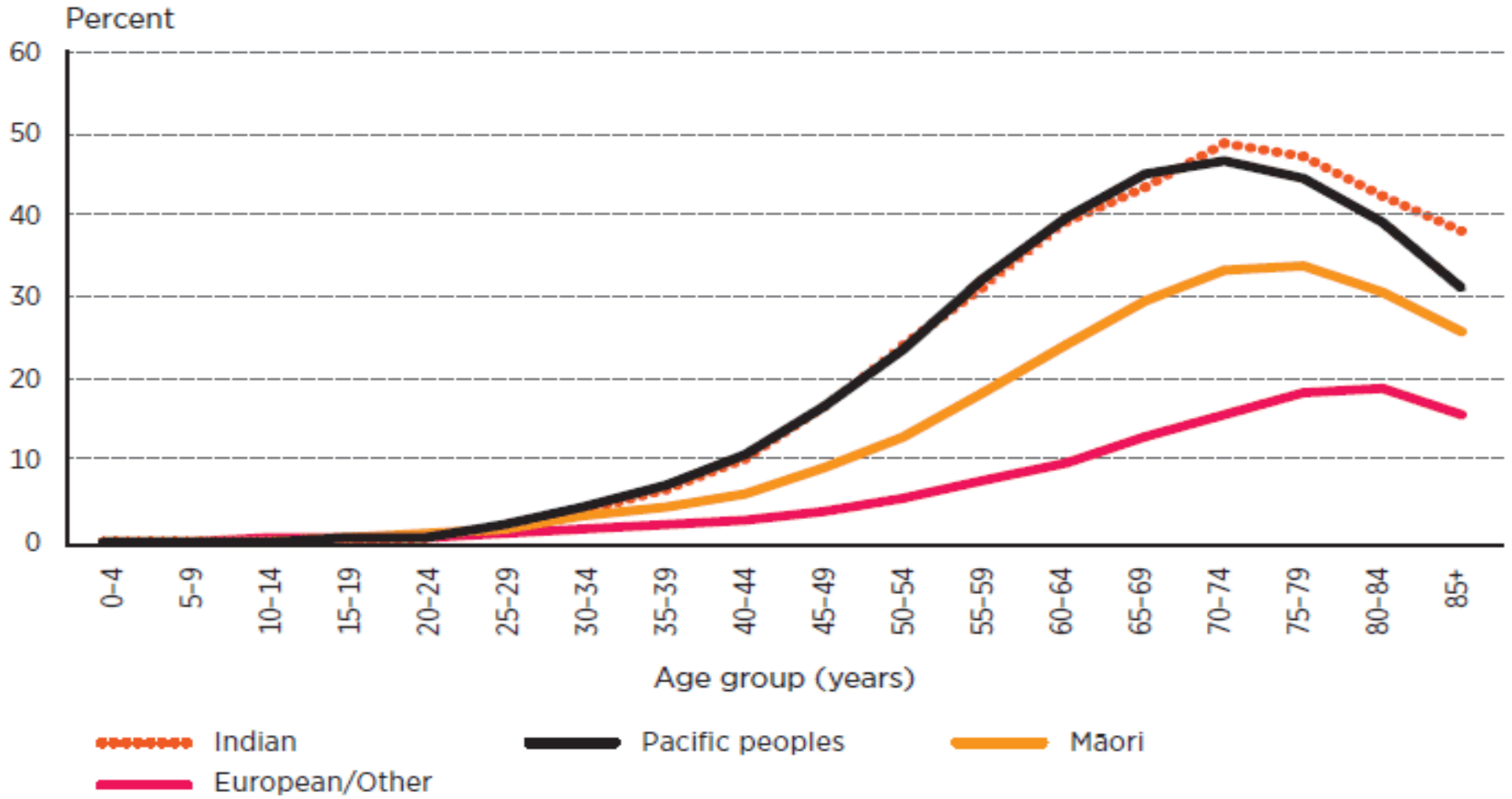
Blakely T, Coppell K, Cleghorn C, Teng A. https://blogs.otago.ac.nz/pubhealthexpert/2017/03/24/bmi-keeps-on-going-up-and-reflections-on-the-diabesity-symposium/

Smoking



Source: Ministry of Health, New Zealand Health Survey
From Social Report 2016 http://socialreport.msd.govt.nz/health/cigarette-smoking.html

Diabetes Prevalence



Source: Health and Independence Report 2015. From: http://www.health.govt.nz/new-zealand-health-system/new-zealand-health-strategy-future-direction/five-strategic-themes/closer-home

Access to care

Compared to Europeans, Pacific and Māori are:

- 50% more likely to die from IHD before reaching hospital
- 50% more likely to die within 28 days of an IHD hospitalisation
- Less likely to travel to hospital by ambulance when experiencing acute coronary syndrome (ACS)
- Less likely to receive coronary revascularisation (PCI or CABG)
- Less likely to be maintained on long-term statin therapy after ACS

These differences remain significant, even after adjustment for demographics and other factors, such as comorbidities, hospital of admission and prior disease

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Barriers to care

- Cost
- Language
- ‘Cultural fit’

Unmet need due to cost of GP

NZHS 2015/16 – 23% of Maori and 21% of Pacific adults had not visited a GP due to cost. (cf. 14% overall)

Adjusted rate ratio	
Men vs women	0.6 *
Māori vs non-Māori	1.6 *
Pacific vs non-Pacific	1.4 *
Asian vs non-Asian	0.5 *
Most vs least deprived	2.1 *

* There is a statistically significant difference between the two groups.

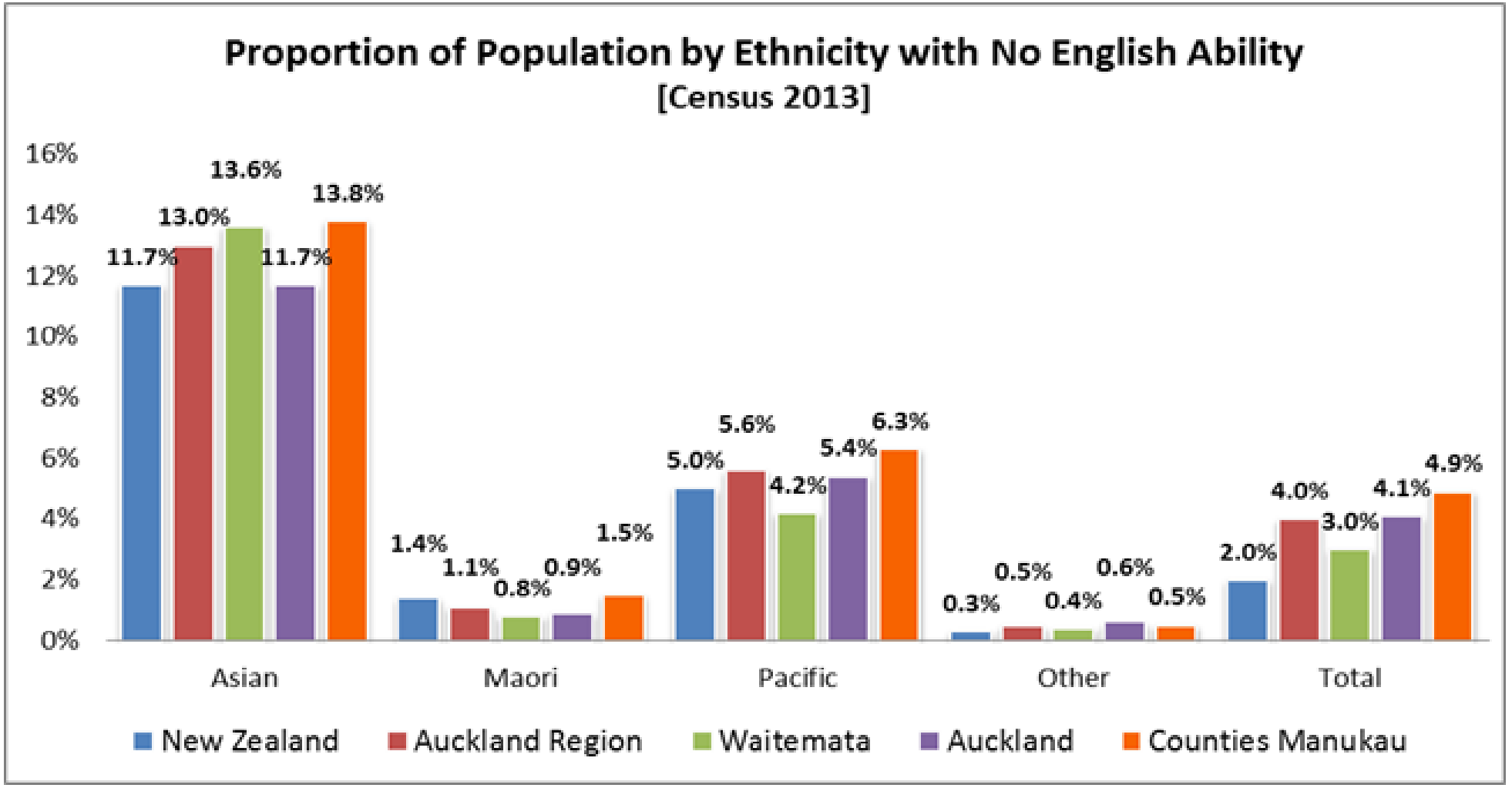
Prescription items not collected due to cost

19% of Pacific and 15% of Maori adults versus 3% of Asian adults and 6% overall.

Adjusted rate ratio	
Men vs women	0.5 *
Māori vs non-Māori	2.7 *
Pacific vs non-Pacific	3.2 *
Asian vs non-Asian	0.4 *
Most vs least deprived	4.5 *

* There is a statistically significant difference between the two groups.

Language barriers

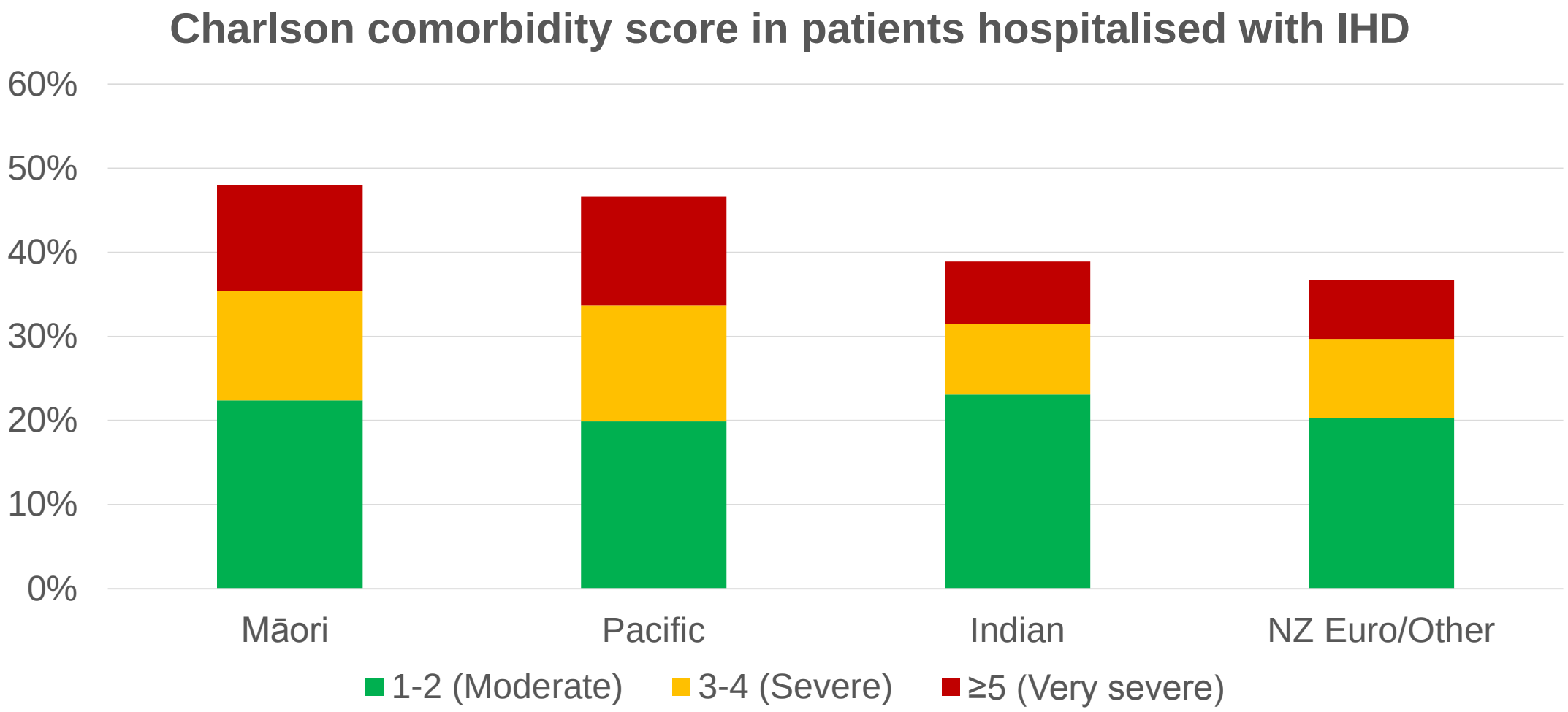


Source: Auckland Regional Public Health Service, 2014. Asian Health Profile.
http://www.asianhealthservices.co.nz/About-Us/Service-Drivers/Asian-Population-Profile

Quality of care

- Cultural mismatch/misunderstandings and unconscious bias can result in differences in quality of care for patients from different ethnic groups
- Different patients have different expectations of their providers; if not met, can lead to miscommunication and poor outcomes.
- Maori and Pacific patients generally expect to spend time building a rapport with their GP. If a patient feels rushed, they may develop a negative perception of their doctor, which in turn can affect their use of the health system.
- An important aspect of quality of care is providing information in a form that Maori and Pacific patients find understandable and acceptable, so that they can keep to treatment recommendations.

Comorbidities



Source: NMDS, 2008-2010

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WHAT CAN WE DO TO ACCELERATE DECLINES?

Strategies that:

1. Reduce socioeconomic inequities and mitigate the effects of poverty
2. Address CVD risk factors & the obesogenic environment
3. Improve access & quality of care along entire CVD pathway
4. Encourage regular monitoring of progress through up-to-date reporting of trends by ethnicity
5. Take advantage of the strengths of Pacific communities

1. Reduce socioeconomic inequities

Figure 1: Index of health and social problems

Source: Wilkinson and Pickett, 2010

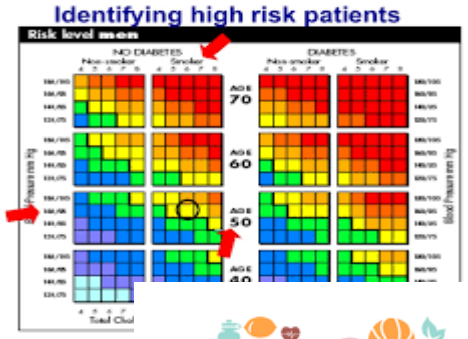
- Extend the benefits of working for families to all families with children (ie. to the unemployed and those on welfare benefits)
- Support introduction of the living wage
- Warrant of fitness on rental accommodation
- Social housing initiatives

2. Obesogenic environment

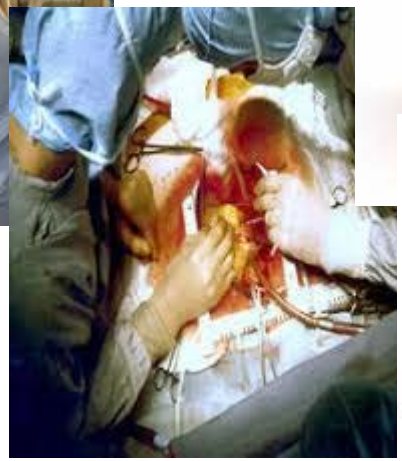
- Sugary drinks tax
- Restrictions on junk food marketing to children
- Healthy food policies in schools, ECEs, workplaces
- Audit of density and location of fast food outlets with a view to reducing the proximity of outlets to schools and leisure centres
- Work with local authorities to encourage active travel and protect or increase green space to make the healthy choice the easy option

3. CVD care pathway

Primary care



Secondary care



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4. Regular, up-to-date monitoring

- To track trends for different ethnic groups
- To assess whether interventions are making a difference
- To ensure that inequities are improving and not getting worse!

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5. Strengths-based approach

- Maori and Pacific people have a holistic view of health, where healthy and strong families are the basis of individual and community wellbeing.
- Pacific peoples demonstrate higher levels of social connectedness, with strong participation in church life and volunteering
- A strengths-based approach begins with the premise that wellbeing, peace and harmony are states that all Maori and Pacific people aspire to, and that core aspects of culture are significant in maintaining and restoring wellbeing to families.

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'I consider New Zealand a Pacific nation. We are of the Pacific – the vast ocean binds and connects us all.'

Luamanuvao Winnie Laban

'The ocean is our sea of islands. One thing we all have in common is the ocean, the same sea washes the shores of all islands and also the coastline of Australia and New Zealand.'

Epeli Hauofa

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Acknowledgements

- Rod Jackson, Andrew Kerr, Sue Wells
- Billy Wu, Katrina Poppe
- Matire Harwood, Gerhard Sundborn
- National Heart Foundation
- Health Research Council