

Socio-Economic Differences in Health in Maori

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Acknowledgements: Prof. Neil Pearce, Prof. Peter Davis, Dr Tony Blakely
and the HRC

Background

- Persistent health inequalities between Maori and non-Maori highlighted by recent “Progress Towards Closing the Social And Economic Gaps” and “Social Inequalities in Health” publications
- Claim that inequalities reflect socio-economic inequality and that this is decreasing (Chapple; Prebble et al ...)
- Similar health status reported for Maori and European children from elite backgrounds (Dell and Elliot 1975)
- Previous studies of male Social Class Mortality Patterns for the periods 1975-77 and 1985-87 (Pearce et al) required updating

Definitions: chronology

Census data	Mortality data
1981: 'biological', multiple groups allowed	
1986: self-identified ethnic origin	Prior to September 1995: <ul style="list-style-type: none">• biological race• only 3 categories: Maori, Pacific, Other
1991: self-identified ethnicity	<ul style="list-style-type: none">• sole categories only permitted
1996: self-identified ethnicity, more encouragement of multiple self-identity	After September 1995, identical questions to 1996 census (? implementation)
2001: revert back to 1991 question	

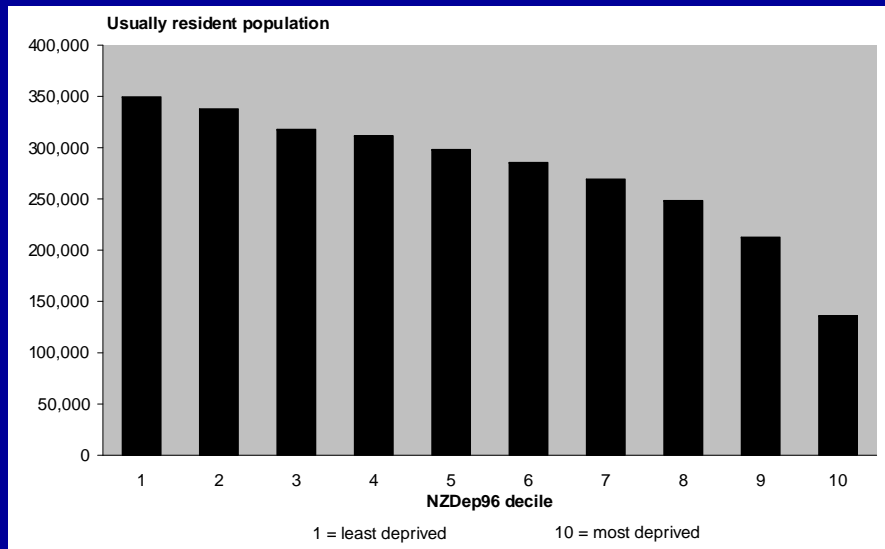
'Social Class' Definitions

- Elley-Irving (1970s)
 - 6 groupings of occupations
 - based upon education and income
- NZSEI (1990s)
 - linear scale of ranked occupation
 - based upon algorithm involving age, income and education
 - aggregated to 6 discreet groupings to enable comparison with E-I
- NZDep (1990s)
 - index of geographic deprivation
 - based upon 9 variables (telephone, benefit, unemployment, household income, car access, single parent family, no qualifications, home ownership, overcrowding).

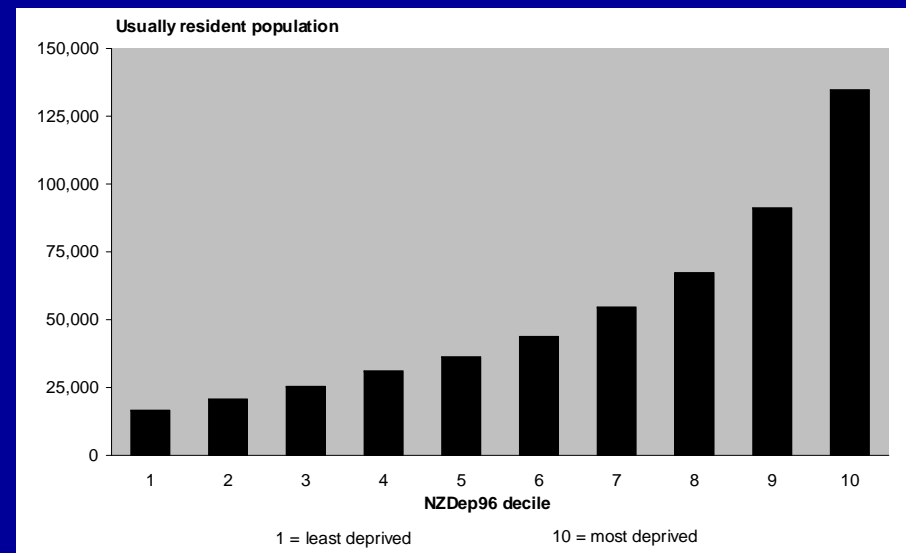
Deprivation and Health Differences

- Socio-economic status is unequally distributed by ethnicity

Socio-economic status is unequally distributed by ethnicity



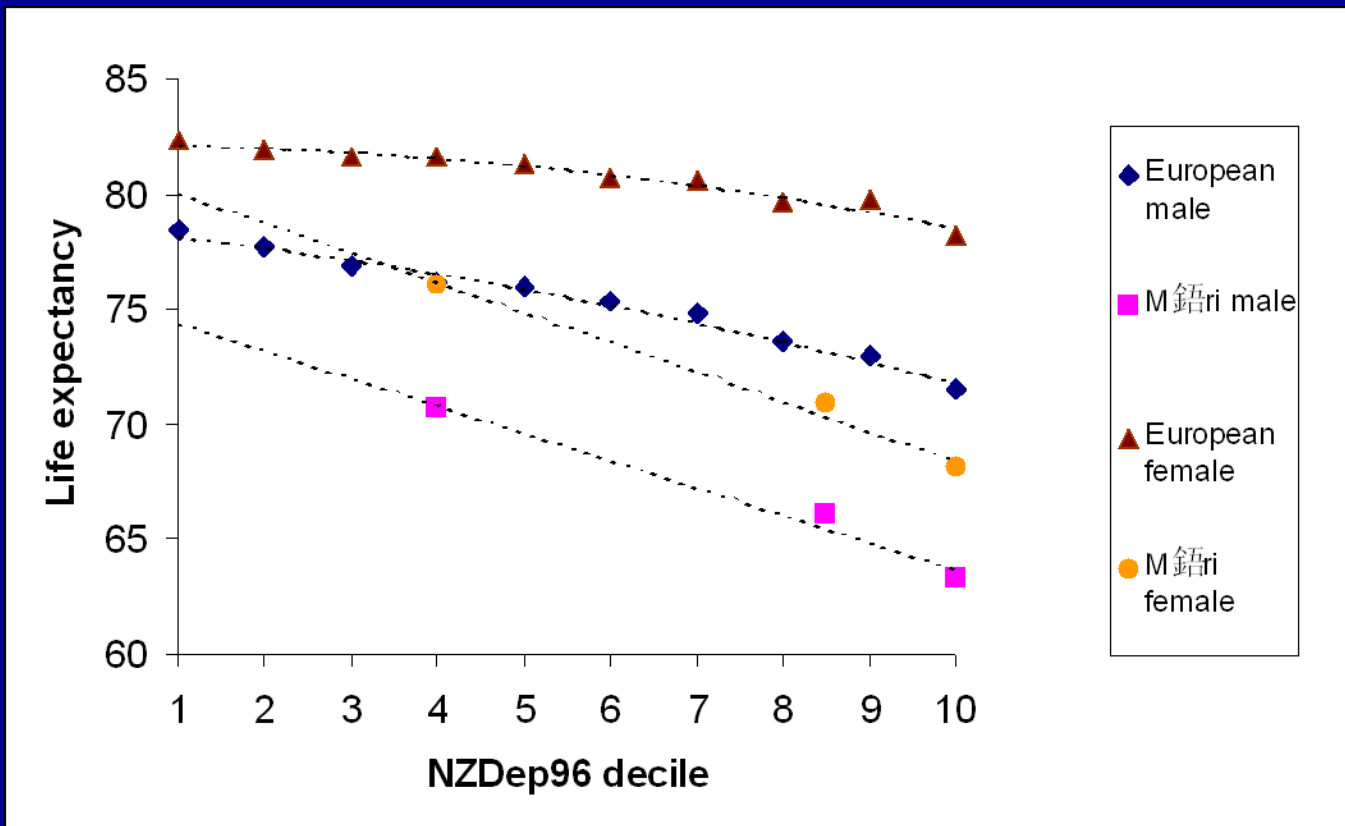
Non-Maori non-Pacific



Deprivation and Health Differences

- Socio-economic status is unequally distributed by ethnicity
- Maori life expectancy is lower than that of non-Maori for all deprivation scores

Overlap of ethnic and socio-economic inequalities: Life expectancy by NZDep96 by ethnic group



Salmond C, Crampton P. Deprivation and Health. In: Howden-Chapman P, Tobias M, editors. Social Inequalities in Health in New Zealand: New Zealand 1999. Wellington, NZ: Ministry of Health, 2000.

Deprivation and Health Differences

- Socio-economic status is unequally distributed by ethnicity
- Maori life expectancy is lower than that of non-Maori for all deprivation scores
- Maori mortality rates are higher than non-Maori even when controlled for social class
 - The gap increases as the level of deprivation increases
- Maori hospitalisation rates lower for under 25 years and for men over 65 years
- Maori smoking rates are higher than non-Maori for each age group.
 - For women this gap increase with deprivation

Elley-Irving SES and Male Mortality 75-77 and 85-87

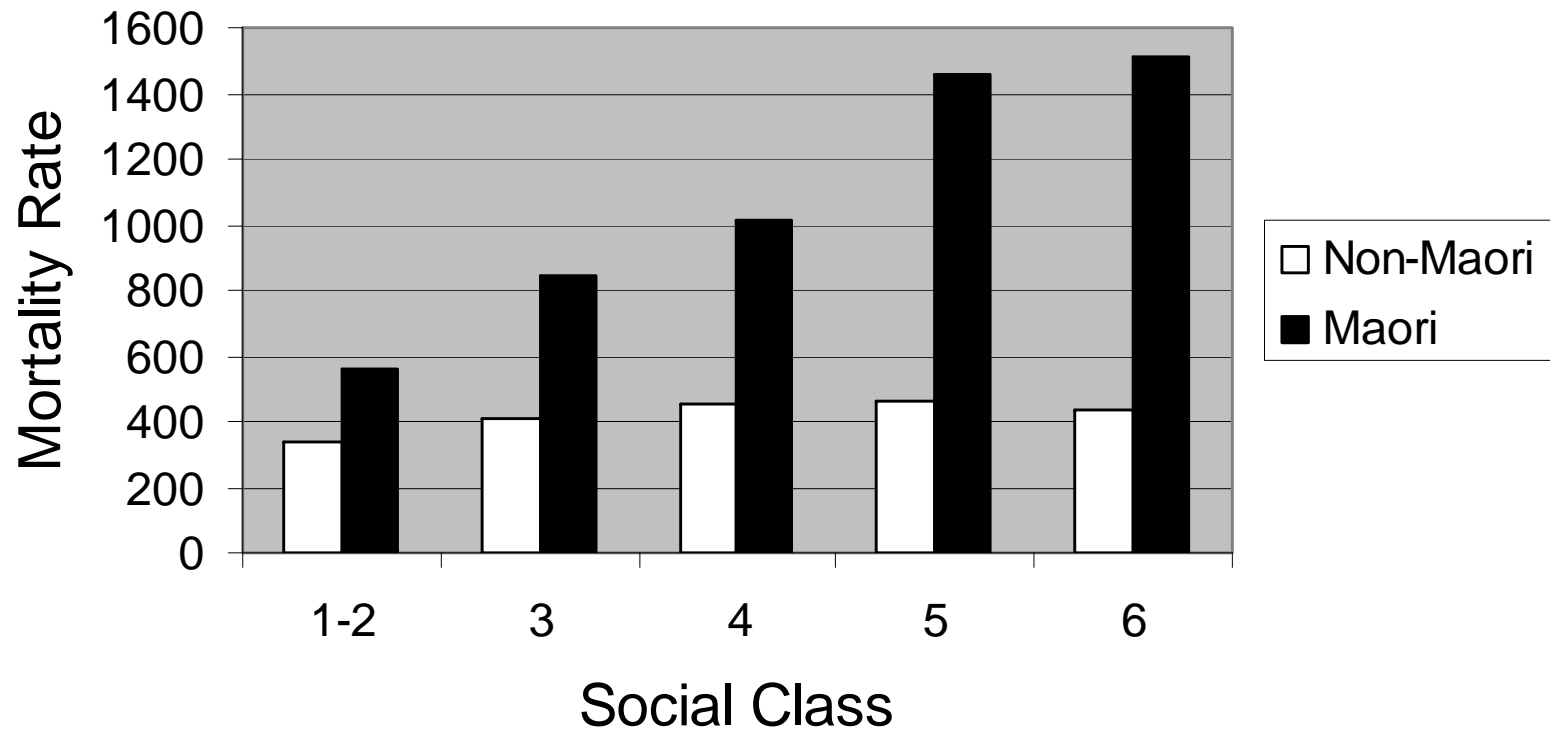
Examined

- All cause mortality
- Amenable mortality (as per previous definition)
- Non - amenable mortality
- Decreasing mortality for both Maori and non-Maori
- Maori mortality higher but decreasing faster than non-Maori
- Strong social class mortality gradients in each group
- Maori had particularly high mortality from causes amenable to intervention

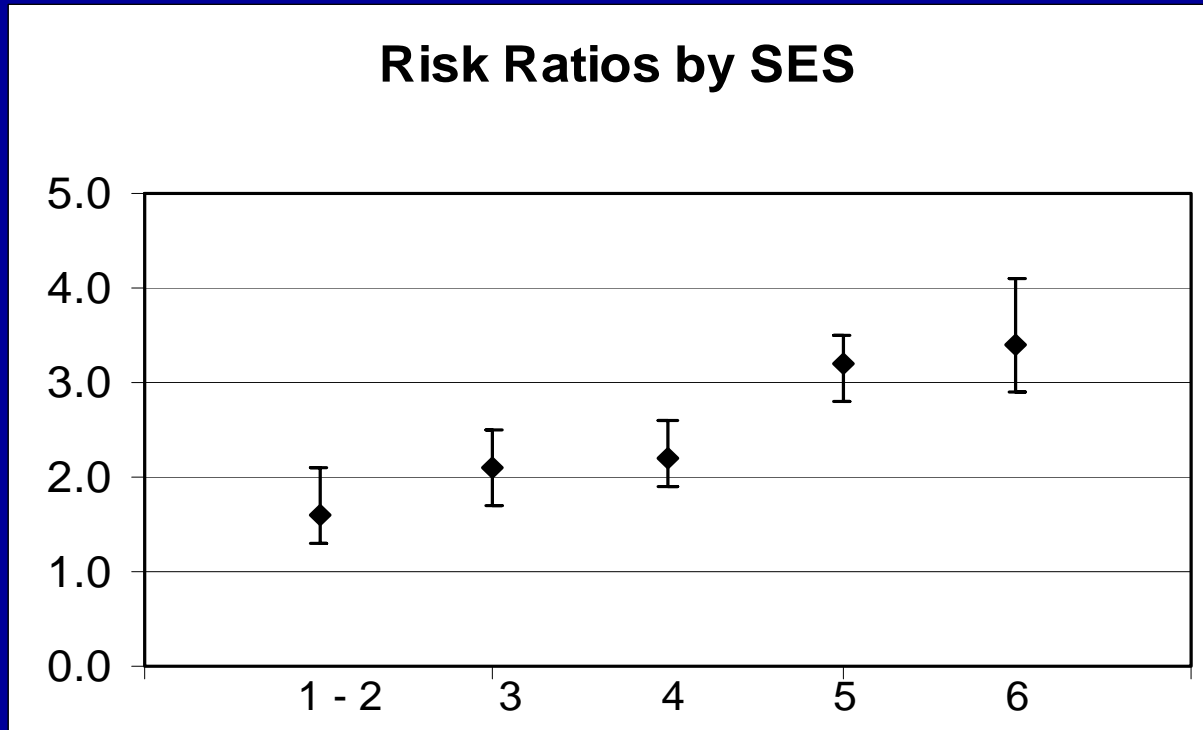
NZSEI and Male Mortality 95-96

- So what's changed since 1987?
 - Macro-economic reform, health sector restructuring, Maori service development and mainstream focus on Maori responsiveness
 - Changes in ethnicity, occupation and social class definitions since 1987

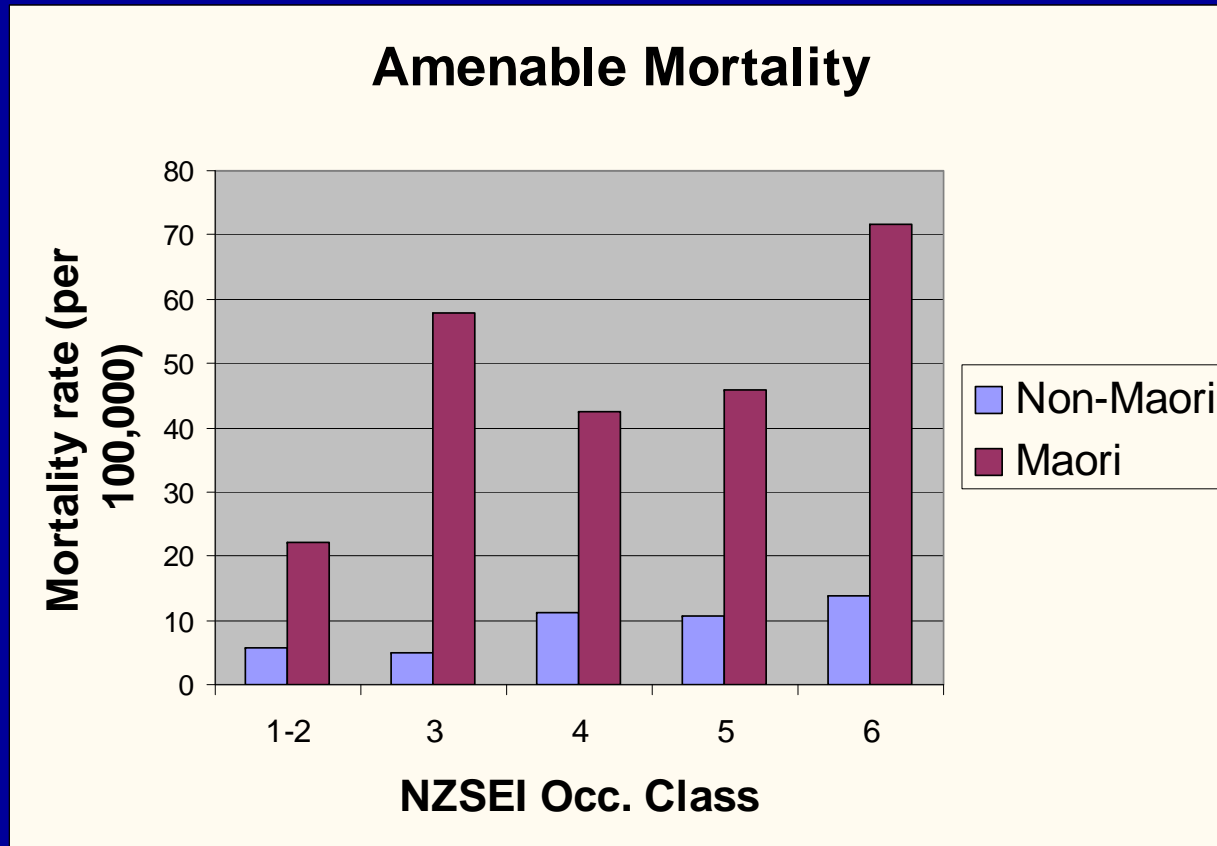
NZSEI and Total Male Mortality 95-96



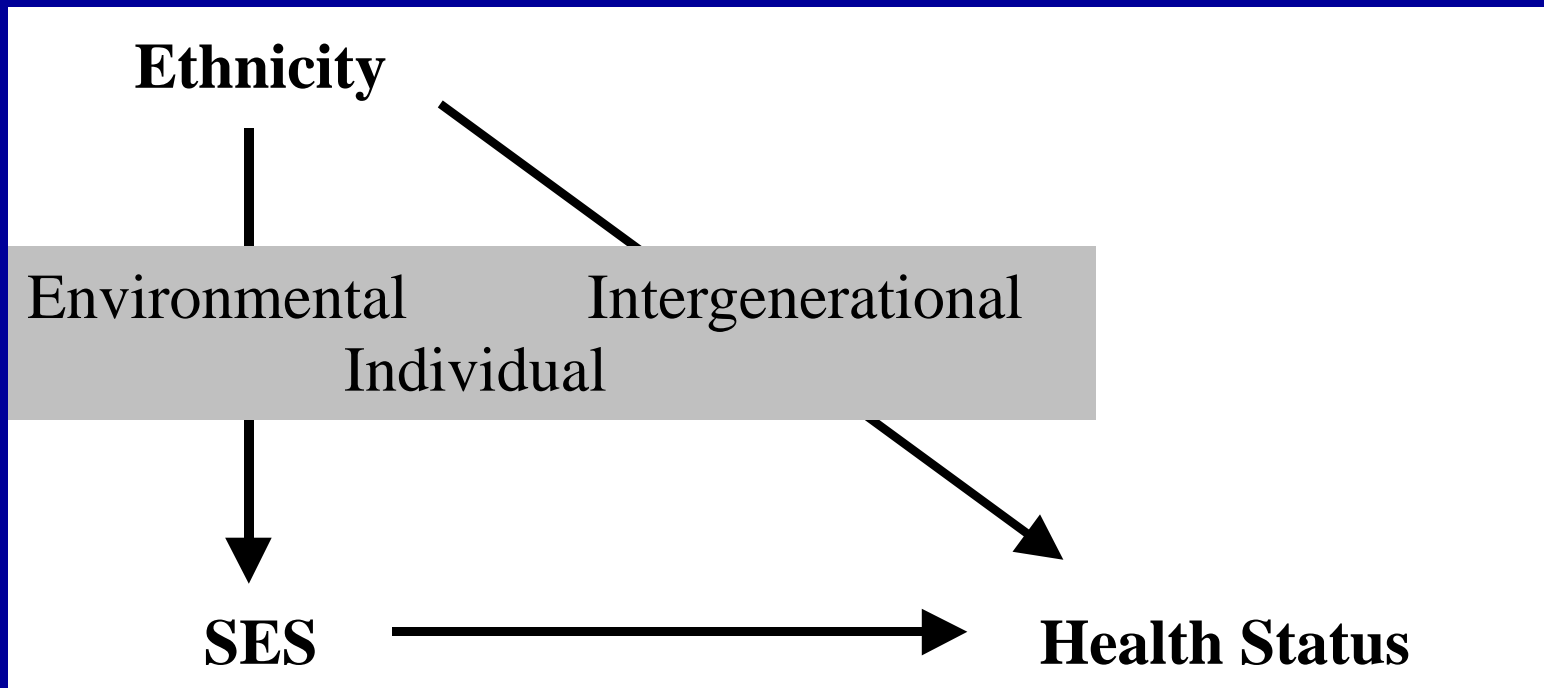
NZSEI and Total Male Mortality



NZSEI and Male Amenable Mortality



Socio-economic status: pathway variable (not confounder) that explains ethnic inequalities



What proportion of Maori:non-Maori differences in mortality are attributable to SES?

- About 20% (1974-78) to a third (1985-87) among 15-64 year old males attributable to occupational class
(Pearce et al, 1993, NZCMJ)
- About a third (1991-94) among both males and females aged 0-74 years attributable to small area deprivation
(Blakely et al, 2001, submitted)

?

Male Mortality Study: Implications

- the poor state of Maori health cannot be explained solely by relative socioeconomic disadvantage.
- the health sector is still not meeting the serious health needs of many Maori.
- the need to address persistent disparities within Maori.
- improved occupational and ethnicity data required for future monitoring/research
- the need to broaden our indicators of well-being used in such studies
- The urgent need for intervention /programmes studies at the individual and environmental level