

Socioeconomic inequalities in health: how big is the problem and what can be done?

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Abstract

Socioeconomic factors shape the working day for many doctors in New Zealand. The occurrence and severity of most common conditions confronting doctors in day-to-day practice are linked to the socioeconomic conditions in which patients live and work. Poorer people are likely to have worse health than wealthier people, but it is also becoming clearer that it is not just the absolute level of poverty that affects people's health, but also the distribution of material resources in society. This article highlights important aspects of our current knowledge concerning the effects of socioeconomic factors on health, and makes practical suggestions for day-to-day practice. An essential first step is to identify and characterise the socioeconomic characteristics of patients. Information routinely collected by many general practitioners can be used to characterise the socioeconomic circumstances of individual patients and the practice population as a whole. Doctors can then take action at three levels to mitigate the risks associated with these socioeconomic factors: at a broad social level; at a community and practice level; and at an individual level.

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Introduction

Socioeconomic factors shape the working day for many doctors in New Zealand. The occurrence and severity of most common conditions confronting doctors in day-to-day practice are linked to the socioeconomic conditions in which patients live and work. In most developed countries, death rates amongst the poorest are two to four times those amongst the richest¹.

About 80% of the most important 80 causes of death are more common in low socioeconomic groups, the two major exceptions being skin cancer and breast cancer, which show the opposite social gradient.¹ This article highlights important aspects of our current knowledge concerning the effects of socioeconomic factors on health, and makes practical suggestions for day-to-day practice.

Poorer people are likely to have worse health than wealthier people; but it is also becoming clearer that it is not just the absolute level of poverty that affects people's health, but also the distribution of material resources in society. In other words, no matter how prosperous a population or country, a social gradient of health will be evident – those lower down in the socioeconomic hierarchy are likely to have worse health than those above them. This social gradient seems to apply in terms of geographical locations and workplaces. The factors that account for this are similar in both cases: the level of disposable income and consequent ease of access to healthy food, appropriate clothing, secure shelter, affordable, available health services and an overall sense of control over life's circumstances.²

How big is the problem?

A range of factors can be used to gauge socioeconomic conditions, including income, unemployment and relative socioeconomic deprivation, all of which are strongly associated with health status.

Low income

How many New Zealanders live in low-income households? In 1996, about 15% of individuals lived in households with less than 60% of the median household disposable income (adjusted for the size and composition of the household).³ In general, the following groups are over-represented at the bottom of the income range:

Table 1. The nine variables used to determine levels of socioeconomic deprivation in the NZDep96 index

Variable	Description
Communication	People with no access to a telephone
Income	People aged 18-59 years receiving a means tested benefit
Employment	People aged 18-59 years unemployed
Income	People living in households with equivalised* income below an income threshold
Transport	People with no access to a car
Support	People aged <60 years living in a single parent family
Qualifications	People aged 18-59 years without any qualifications
Owned home	People not living in own home
Living space	People living in households below equivalised* bedroom occupancy threshold

**Equivalisation: methods used to control for family composition*

- People aged 65 years and over who live alone
- Sole parents
- Those on government benefits
- The unemployed
- Couples with no children where the woman is 65 years or older
- Maori, and
- Pacific Islands people.

Key points

- Socioeconomic factors are important determinants of health at both population and individual levels.
- There is abundant research evidence of strong social gradients in health in New Zealand.
- If the health status of low-income families, the unemployed and socioeconomically deprived people is to be improved, doctors and primary-care workers need to focus specifically on their needs.
- Doctors and the primary-care team can take action at three levels to mitigate the risks associated with socioeconomic factors: at a broad social level; at a community level; and at an individual patient level.
- In assessing individual patients, socioeconomic factors are often every bit as important as the patient's genetic predisposition or previous medical history.

Unemployment

About one in every 16 adults in the potential labour force is unemployed (6.3 percent of both men and women) according to the Household Labour Force Survey for the 1999 December quarter (<http://www.stats.govt.nz/>). This 'unemployed' label only applies to those who had been actively seeking work in the four weeks prior to the survey. Unemployment varies considerably with the age, ethnicity and qualifications of people, and the regions in which they live. Not only does

the health of the unemployed suffer; so also does the health of those who feel insecure in their work.

Socioeconomic deprivation

People lacking basic social and economic resources, such as access to a telephone or formal qualifications, may be considered relatively socioeconomically deprived. Indexes of socioeconomic deprivation have been used extensively for research and funding allocation in the United Kingdom and in New Zealand. The NZDep96 index is an area-based measure of socioeconomic deprivation that combines nine variables measured in the 1996 census (see Table 1).

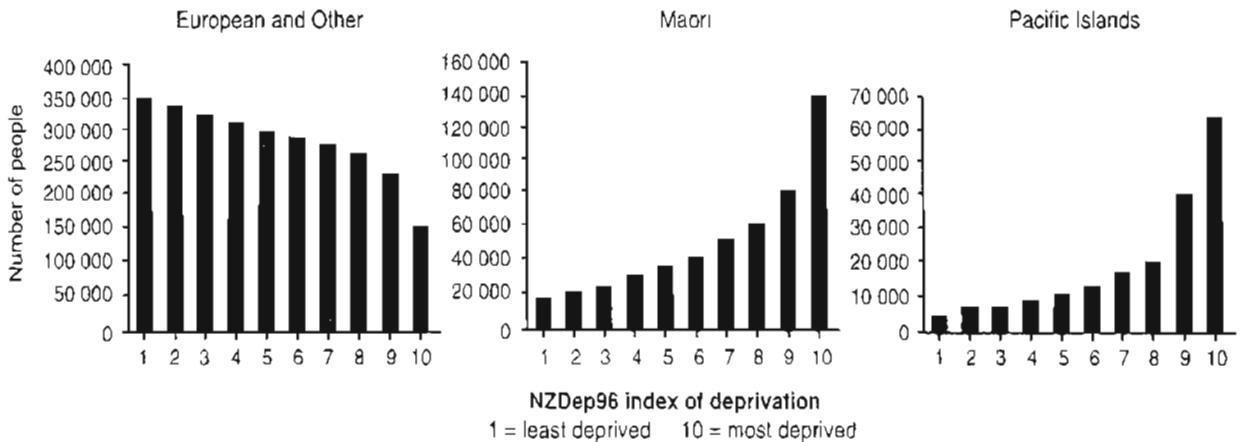
NZDep96 provides a deprivation score for each meshblock in New Zealand. Meshblocks are geographical units defined by Statistics New Zealand, containing a median of 90 people. The NZDep96 scale of deprivation from 1 to 10 divides areas in New Zealand into tenths. For example, a value of 10 indicates that the meshblock is in the most deprived 10 percent of areas in New Zealand.

Figure 1 illustrates the considerable disparity in the distribution of socioeconomic deprivation across three ethnic groups in New Zealand. Given the relationship between social and economic factors and health, the differences in the distribution of deprivation between ethnic groups is of profound social significance. Much of the poor health experienced by Maori is consequent upon the way in which society structures itself for respect to access to material and social resources.

Implications for health

As stated in the introduction, socioeconomic factors are key determinants of poor health. For example, the conse-

Figure 1. Deprivation profile of ethnic groups in New Zealand showing the usually resident population within each socioeconomic score of the NZDep96 index of deprivation.



quences for health of relative deprivation are illustrated by discharge rates from public hospitals (Figure 2). The relationship between NZDep96 and mortality shows a similar pattern.⁴

What can be done?

We do not have evidence from randomised controlled trials on how to reduce socioeconomic inequalities in health. A recent article in the *Journal of Epidemiology and Community Health* pointed out that the introduction of new income support policies could, and should, be randomised more often to assess their impact on health.⁵ Thus, we must look to descriptive and observational studies and theory to design interventions that reduce inequalities.

In clinical medicine and epidemiology, we tend to think of changing personal risk factors to improve health. For example, we decide what level of blood pressure is abnormally elevated, make a cut-off, ascribe the diagnosis ‘hyperten-

sion’ to those above the cut-off, and treat those individuals. Such a ‘high-risk approach’ to clinical medicine and public health has been central to our approach since World War II.

Whilst frequently successful, the targeted approach is often limited – we may end up chasing our own tails. Consider blood pressure. It is distributed as a bell curve (normal distribution) in the general population, and those we label as hypertensives are the upper tail of the bell curve. Given the bell curve distribution, the tail (in part at least) is determined by the average blood pressure in a population. Thus simply using a high-risk approach fails to address the underlying distribution which gives rise to the tail.

The association of socioeconomic status with health provides us with a useful dichotomy of approaches to tackle inequalities: a high-risk approach, and a population-based approach. An example of a population-based approach would be policies that reduce the overall consumption of fat, and hence lower the risk of coronary heart disease. Further-

Figure 2. Total hospitalization rate by NZDep96 by ethnic group, males aged 45-64 years (course: Ministry of Health⁽⁴⁾)

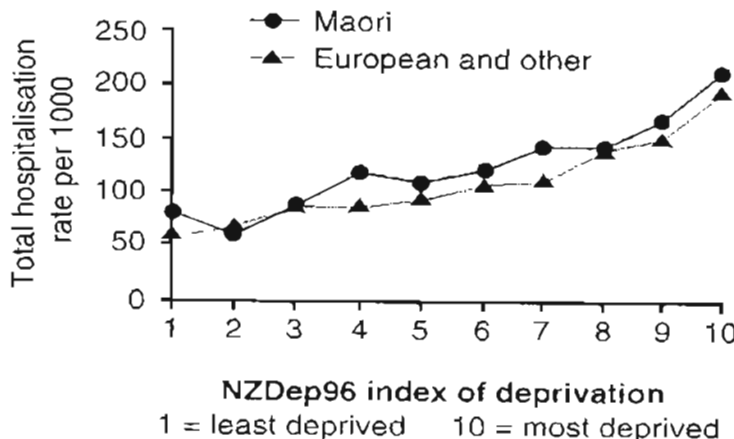
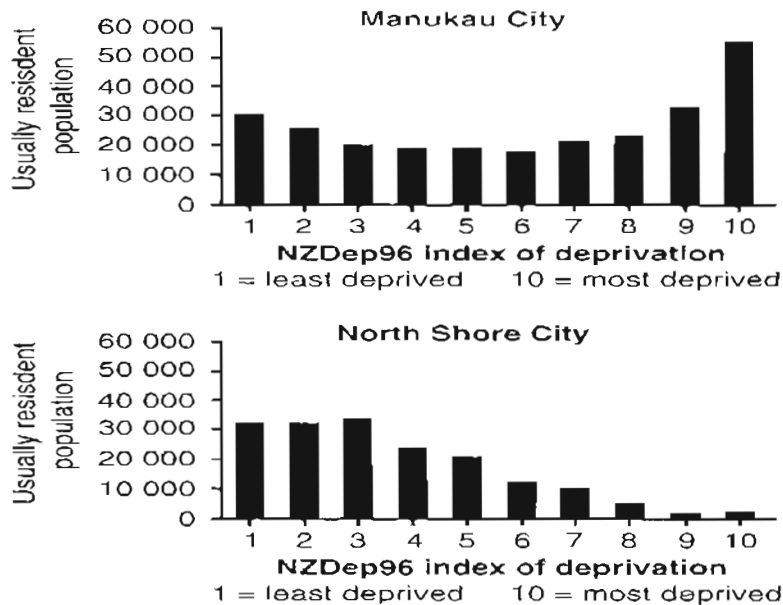


Figure 3. Deprivation profiles of selected areas.

more, we can think of levels of aetiology and, hence, levels of intervention: society at large; local community or practice population; and the individual patient. Not surprisingly, and as shown in Table 2, population-based approaches are more important at society and community levels, and high-risk approaches at the community and patient levels. We now consider what the general practitioner can do to reduce health inequalities using this framework.

Society at large

Many general practitioners would consider themselves well removed from a position of general influence on society, although their high respectability among the general public means they can be effective advocates. Some general practitioners are involved in various policy-making roles from time to time (e.g. working parties for the Ministry of Health or RNZCGP). Examples of policy interventions that may be considered include policies that reduce overcrowding, and hence reduce the incidence of infectious disease and possibly mental illness, and policies that improve the uptake of immunisation among children with lower socioeconomic status.

Community/Practice Population

Both population-based and high-risk approaches are appropriate at the community level, and the distinction may be blurred.

Many health promotion activities are now implemented at the community level. Examples of those with which general practitioners may be involved include early childhood intervention projects that aim to coordinate the provision of serv-

ices to children deemed 'at-risk', and educational outreach programmes to schools and youth regarding safe sex and harm-minimisation of the impact of alcohol and drugs.

Screening is an interesting example of how general practitioners may use the individual clinical consultation to have diffuse impacts on the community. For example, screening programmes for hepatitis B and opportunistic screening for diabetes involve contact between doctors and patients. A patient diagnosed as a hepatitis B carrier or diabetic may then become an important agent of change in his or her family and group of friends with respect to health behaviours. Both hepatitis B and diabetes have a much greater impact on lower socioeconomic status groups.

There is no good reason why we should not consider low socioeconomic status as a risk factor for poor health.

Patient

We use risk factors all the time to 'target' the delivery of healthcare services, screening and health interventions. It is remiss that low socioeconomic status—a strong risk factor for poor health—is not usually included in our explicit and implicit checklists when reviewing patients. Rather, we tend to focus on behaviours (e.g. smoking, diet, exercise), demographics (age, sex) and genes (family history). Yet there is no good reason why we should not also consider low socioeconomic status a risk factor. For example, rates of coronary heart disease are disproportionately high among groups with low socioeconomic status (an elevation which is not fully explained by traditional risk factors), yet people in these groups also tend to receive less secondary prevention (e.g. lipid-lowering drugs) and tertiary prevention (e.g.

Table 2. Approaches to tackling socioeconomic inequalities in health

Level of Intervention	Approach to tackling health inequalities	
	Population-based	High-risk
Society at large	++	
Community/practice population	+	+
Patient		++

angioplasty). The reasons for this inequitable allocation of health services are not purely due to the clinical decisions of individual doctors. However, knowledge of a patient's low socioeconomic status (and hence increased risk of disease), and allocation of time, effort and resources commensurate with this increased risk, would help reduce the inequitable distribution of healthcare.

Know your patients' socioeconomic vital statistics

It is important to accurately characterise both individual patients and the patient population as a whole. By characterizing socioeconomic risk factors in individuals, we become aware of a patient's vulnerability to physical and mental health problems, their need for support, and the financial barriers they are likely to encounter in seeking healthcare. Essential basic demographic and socioeconomic information that should be explicitly sought about each individual includes:

- Age (date of birth) and gender
- Ethnicity (patients are asked to identify their own ethnicity using a standard list such as that used in the Census; basic categories include European, Maori, Pacific Islands, Other)
- Address (as an indicator of socioeconomic deprivation – see below)
- Phone number (does the patient/family have easy access to a phone?)
- Community services card status (a proxy measure of income)

By characterising the whole patient population, valuable insights are gained that can be used for designing appropriate services and seeking appropriate levels of funding for the practice; poor populations have greater need for health services and are eligible for higher levels of financial support.

The practice age-sex register provides a powerful tool for recording and analysing socioeconomic information. For example, a socioeconomic deprivation score can be assigned to each patient on the register. NZDep96 scores are applied to patient registers by geocoding (assigning a meshblock code to each person's street address). Each meshblock code has an associated deprivation score. Fig-

ure 3 shows, as an example, the deprivation profiles of Manukau City and North Shore City. This figure emphasizes the degree of socioeconomic contrast that exists between areas.

Conclusion

Socioeconomic risk factors are important determinants of health at a population and individual level; in fact, these factors are often every bit as important as genetic predisposition or previous medical history. If the health status of low-income families, the unemployed and socioeconomically deprived people is to be improved, doctors and primary-care workers need to focus specifically on their needs. An essential first step is to identify and characterise the socioeconomic characteristics of patients. Information routinely collected by many general practitioners can be used to characterise the socioeconomic circumstances of individual patients and the practice population as a whole. Doctors can then take action at three levels to mitigate the risks associated with these socioeconomic factors: at a broad social level; at a community and practice level; and at an individual level.

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