

REDUCING SOCIOECONOMIC HEALTH INEQUALITIES: ISSUES OF RELEVANCE FOR POLICY

Gavin Turrell

School of Public Health

Queensland University of Technology

BACKGROUND

During the twentieth century, the health of the Australian population improved markedly: life expectancy increased; the toll of communicable disease was reduced; and, in more recent times, death rates for cardiovascular disease and a number of major cancers have begun to decline.^{1,2} However, against this backdrop of improving overall health, large health inequalities continue to exist between socioeconomic groups;^{3,4} and, for some conditions, these inequalities are increasing over time.⁵ Table 1 illustrates that, despite substantial reductions in age-standardised death rates between 1985–87 and 1995–97, the size of the mortality gap between the most and least disadvantaged areas (indicated by the rate ratio) widened for many conditions. Further, the excess mortality figures show that the burden of death in Australia attributable to socioeconomic inequality is large, and that substantial improvement in this country's national health profile would occur if mortality rates for all areas were equivalent to those of the least disadvantaged areas. This article presents a general discussion of the issues that need to be considered as part of the development and

implementation of policies and interventions that are aimed at narrowing the health gap between socioeconomic groups, and halting the widening of mortality differentials.

A reference point for the discussion is evidence from studies that have investigated the main causes of health inequalities.³ This evidence is summarised in Table 2, where each cause is positioned according to whether it represents an upstream (macro), midstream (intermediate), or downstream (micro) determinant of disease. As the ordering and flow of the evidence suggests, illness and disease are ultimately a consequence of adverse biological reactions (for example: hypertension, fibrin production, and suppressed immune function) that occur as a result of changes or disruptions to the functioning of various physiological systems (for example: the endocrine and immune systems). Thus, the poorer health of disadvantaged social groups is due to more sustained and/or longer term adverse changes to physiological and biological functioning.⁶ Importantly, however, we must not lose sight of the fact that these changes are brought about by psychosocial processes and health behaviours (acting independently and inter-dependently), and that these in turn are a consequence of differential exposure to adverse social, physical, economic, and environmental

TABLE 1

AGE STANDARDISED MORTALITY RATES (PER 100,000), RATE RATIOS, AND EXCESS MORTALITY, BY AREA SOCIOECONOMIC STATUS (SES): MALES, 25–64 YEARS, 1985–87, 1995–97^A

	1985–1987 Age standardised rate ^b				1995–1997 Age standardised rate			
	High SES	Low SES	Rate Ratio ^c	Excess mortality ^d	High SES	Low SES	Rate Ratio	Excess mortality
All causes	338.4	568.5	1.68	24	250.4	410.8	1.64	26
Circulatory system	125.7	207.8	1.65	24	63.2	118.2	1.87 ^e	32
Coronary heart disease	96.0	149.0	1.55	21	43.0	80.7	1.88 ^e	33
Stroke	13.1	27.5	2.10	34	7.7	16.0	2.07	36
Diabetes mellitus	4.2	7.3	1.73	24	4.3	9.0	2.07 ^e	32
Cancer	117.9	150.6	1.28	12	90.3	125.4	1.39 ^e	19
Lung cancer	29.7	47.3	1.60	23	17.6	34.8	1.98 ^e	35
Injury and Poisoning	50.6	99.2	1.96	30	43.7	76.9	1.76	30
Suicide	19.5	33.7	1.73	24	22.2	33.8	1.52	23
Motor vehicle accidents	16.8	28.9	1.73	27	8.4	19.6	2.33 ^e	41
Respiratory system	13.7	31.7	2.31	37	8.0	20.0	2.49 ^e	43
Chronic lung disease	5.1	9.7	1.90	33	4.4	13.3	3.02 ^e	53
Digestive system	10.3	31.4	3.06	48	8.8	19.3	2.20	37

a. Source: Adapted from Turrell and Mathers.⁵

b. High and low correspond to the least and most disadvantaged quintiles of the Index of Socioeconomic Disadvantage respectively.

c. Ratio between the standardised mortality rate for the most and least disadvantaged quintile.

d. Per cent of deaths that would be avoided if all quintiles had the same mortality rate as the least disadvantaged quintile.

e. Statistically significant increases in mortality inequality between 1985–87 and 1995–97.

circumstances: this latter group of upstream factors is where the ‘problem’ of socioeconomic health inequalities originates.

An important first issue for policy is at what stage in the disease process do we intervene. It is implied in Table 2 that policy and intervention efforts can be directed at upstream, midstream, or downstream influences. However, where we focus and concentrate our efforts has implications in terms of making a measurable impact on health inequalities. Attempts to tackle health inequalities by focusing on upstream factors are likely to result in the greatest impact on population-wide differentials. However, societal-level changes are the most difficult to bring about, and the most politically sensitive. By contrast, policies and interventions that focus on midstream factors might benefit the groups or areas that are targeted, but they are unlikely to reduce inequalities at the national level. In other words, midstream efforts might improve psychosocial health, or result in behaviour change, but they are not likely to alter the social and economic conditions that gave rise to the problems in the first place. We could also focus our efforts at the micro level via, for example, health promotion information provided at visits to general practitioners. This approach, however, while important, probably only serves to improve individual health, and it is not likely to impact in any discernible way on national-level health inequalities.

Second, while approaches will differ in their impact depending on where they are directed (upstream, midstream, or downstream), attempts to tackle health inequalities should focus simultaneously on all three levels of influence. Policies and interventions need to be implemented on a broad front.⁷

Third, evidence about the causes of socioeconomic health inequalities points to the need for a ‘whole of society’ approach to the problem. Health inequalities originate from societal-level conditions associated with housing, employment, education, income, transport, etc; and reducing inequalities will not be achieved exclusively (or even primarily) by actions taken within the health sector. An effective response to the poorer health of disadvantaged groups will therefore require actions from all public sectors, and thus inter-sectoral collaboration and joined-up efforts are essential. In this respect, workers in the health sector can play an important advocacy role by ensuring that public policy makers are informed about the possible consequences of their decisions and actions for the health of disadvantaged groups.

Fourth, sociologists have long argued that social, economic, physical, and environmental contexts exert an independent influence on health, separate from the characteristics of individuals within these contexts. Recent studies using multi-level research designs and statistical methods have provided empirical support for these claims.⁸ In terms of policies and interventions, this

TABLE 2

SOCIOECONOMIC DETERMINANTS OF HEALTH ^{A,B}

Upstream (macro)	Midstream (intermediate)	Downstream (micro)
<p>Social, physical, economic, and environmental factors</p> <ul style="list-style-type: none"> • Education • Employment • Occupation • Working conditions • Income • Housing • Area of residence 	<p>Psychosocial factors</p> <ul style="list-style-type: none"> • Control • Stress • Depression • Self esteem • Social support & networks • Hopelessness • Demand–strain • Isolation and marginalisation <p>Health Behaviours</p> <ul style="list-style-type: none"> • Food and Nutrition • Smoking • Physical activity • Alcohol • Self harm • Preventive health care use 	<p>Physiological systems</p> <ul style="list-style-type: none"> • Endocrine • Immune <p>Biological reactions</p> <ul style="list-style-type: none"> • Hypertension • Fibrin production • Adrenalin • Blood lipid levels • Body mass index
<p>Main direction of influence</p> 		

a. Adapted from Turrell and Mathers. ⁴

b. The table is not exhaustive in terms of its identification of the socioeconomic determinants of health.

evidence suggests that efforts to tackle health inequalities should focus on both contexts and individuals by taking a social–ecological approach to the problem.⁹ To date, policy and intervention efforts have largely been non-contextual, and targeted at individuals, which has had limited success in terms of reducing socioeconomic health inequalities. Indeed, an individualised approach may have actually widened health differences between social groups.¹⁰ For example, health promotion programs that attempt to change individual behaviour have been more effective among the socioeconomically advantaged.¹¹ This is because disadvantaged groups are often constrained by their social and economic circumstances in ways that make behavioural change difficult.

Fifth, while national public (health) policy and interventions have apparently been effective in terms of improving average health, population-wide approaches do not necessarily alter underlying health inequalities. This is clearly evident in Table 1, which shows that socioeconomic health inequalities remained unchanged (or increased) between 1985 and 1997 even though everyone's overall health improved. This suggests that national efforts to improve health need to be complemented by policies and interventions that are designed with, and for, socioeconomically disadvantaged groups.

Sixth, attempts to understand the genesis of socioeconomic health inequalities have increasingly focused on the influence of factors that occur at early or critical stages of development (in utero, infancy, childhood),¹² and across the lifecourse.¹³ Studies examining these issues have shown that propensity for poorer health in adulthood is greatest among those from disadvantaged backgrounds in childhood (irrespective of what happens in the intervening years between childhood and adulthood). Moreover, it is now clear that disease risk accumulates longitudinally over the lifecourse, such that the worst health is experienced by those who have the greatest cumulative exposure to social and economic adversity. Taken together, this evidence suggests that early life, and mothers and young children in particular, should form an important focus of our policy and intervention efforts to reduce socioeconomic health inequalities. Focusing on this lifecourse stage and social group is likely to result in health benefits for current and future generations.

Finally, the Australian health care system plays a crucial role in terms of moderating and hence minimising health inequalities. Integral to this is the maintenance of a universal, non-targeted system that is economically, geographically, and culturally accessible. Importantly, the health care system is more than simply a biomedical curative entity: it also encompasses primary and community care, including home care, community health centres, disease prevention and health promotion, and the public health sector. Those who preside over the distribution of health care funds might want to consider

evidence from overseas studies which suggest that the greatest potential impact of the health care system in terms of minimising health inequalities is via a more equal distribution of funding and resources between these non-clinical preventive components and the more clinically oriented curative component.^{14,15}

In summary, reducing socioeconomic health inequalities represents a major policy challenge. Health inequalities need to gain greater public visibility, for public opinion and support are likely to be important 'push' factors in any government's decision to address the problem. Public policy and health policy need to work in concert, to inform one another, and be directed at countering the life circumstances that generate poor health, and promoting those that give rise to good health.

REFERENCES

1. Mathers C, Vos T, Stevenson C. *The Burden of Disease and Injury in Australia*. Canberra: Australian Institute of Health and Welfare, 1999. Catalogue no. PHE 17.
2. Australian Institute of Health and Welfare. *Australia's Health 2000: The Seventh Biennial Report of the Australian Institute of Health and Welfare*. Canberra: Australian Institute of Health and Welfare, 2000.
3. Turrell G, Oldenburg B, McGuffog ID, Dent R. *Socioeconomic determinants of health: towards a national research program and a policy and intervention agenda*. Canberra, Ausinfo and Queensland University of Technology, 1999.
4. Turrell G, Mathers C. Socioeconomic status and health in Australia. *MJA* 2000; 172: 434–438.
5. Turrell G, Mathers C. Socioeconomic inequalities in all-cause and specific cause mortality in Australia: 1985–1987 and 1995–1997. *Int J Epidemiol* 2001; 30: 231–239.
6. Brunner E. Stress and the biology of inequality. *BMJ* 314: 1472–1476.
7. Acheson D. *Independent Inquiry into Inequalities in Health*. London: Her Majesty's Stationery Office, 1998.
8. Diez-Roux A. Multilevel analysis in public health research. *Annu Rev Public Health*. 2000; 21: 171–192.
9. Sorensen G, Emmons K, Hunt MK, Johnston D. Implications of the results of community intervention trials. *Annu Rev Public Health* 1998; 19: 379–416.
10. Kawachi I, Marmot M. What can we learn from studies of occupational class and cardiovascular disease? *Am J Epidemiol* 1998; 148: 160–163.
11. Whitehead M. Tackling inequalities: a review of policy initiatives. Benzeval M, Judge K, Whitehead M (editors). *Tackling inequalities in health: an agenda for action*. London: Kings Fund, 1995.
12. Power C, Hertzman C. Social and biological pathways linking early life and adult disease. *British Medical Bulletin* 1997; 53: 210–221.
13. Kuh D, Ben-Shlomo Y. *A life course approach to chronic disease epidemiology*. Oxford: Oxford University Press, 1997.
14. Poland B, Coburn D, Robertson A, Eakin J. Wealth, equity and health care: a critique of a 'population health' perspective on the determinants of health. *So Sci Med* 1998; 46: 785–798.
15. Saltmann RB. Equity and distributive justice in European health care reform. *Int J Health Serv* 1997; 27(3): 443–453. ❏