

# Income redistribution is not enough: income inequality, social welfare programs, and achieving equity in health

Barbara Starfield, Anne-Emanuelle Birn

*J Epidemiol Community Health* 2007;61:1038–1041. doi: 10.1136/jech.2006.054627

Income inequality is widely assumed to be a major contributor to poorer health at national and subnational levels. According to this assumption, the most appropriate policy strategy to improve equity in health is income redistribution. This paper considers reasons why tackling income inequality alone could be an inadequate approach to reducing differences in health across social classes and other population subgroups, and makes the case that universal social programs are critical to reducing inequities in health. A health system oriented around a strong primary care base is an example of such a strategy.

plausible that better income distribution might be associated with better distribution of health, such a relationship has not been demonstrated. Even with increased income, working class and socially excluded populations might not experience improved health because they lack access to and control over non-income related determinants of health.<sup>3 4</sup> We briefly review research on income inequality and health, and explore income redistribution in terms of other forms of redistributive transfers and social welfare. We then consider the role of non-income-based social programs, using primary health care as an example.

## INCOME INEQUALITY AND EQUITY IN HEALTH

The literature on the relationship between income inequality and health is far from consistent in its findings and conclusions. Subramanian and Kawachi<sup>5</sup> reviewed 21 studies that used multi-level (ie, both individual-level and area-level) characteristics. Most of the studies came from the United States, which has higher levels of income inequality than other industrialised countries. Of the 15 US studies, only nine found a relationship between income inequality and health. Only one of the three studies using mortality as the health measure found a relationship with income inequality. Only one of the six studies in other countries found a relationship. The authors noted that these divergent results might be explained by the stronger safety-net and more universal policies in some countries as compared to the US.

Lynch and colleagues<sup>6</sup> found 98 studies addressing the relationship between income inequality and health. These studies varied widely in their measure of income inequality, health outcome measure, and control variables. There was no evidence of a robust association of income inequality with health. Wagstaff and van Doorslaer<sup>7</sup> contend that links between income inequality and health in the United States could be capturing the effects of state-level social welfare policies. Despite agreement by other scholars that “income inequality is tightly linked to other aspects of social policy”,<sup>6</sup> only about 1 in 10 studies<sup>6</sup> included any societal measure (eg, any policy or services characteristics). Where such variables were included, they generally were limited to certain structural aspects of health systems, such as physicians per capita. Moreover, despite the large

Debate continues to rage concerning the relative impact of material, psychological, and power factors on the relationship between income inequality and health. Lost in this debate is the issue of whether income redistribution would reduce or eliminate inequities in health. The purpose of this paper is to consider why income redistribution is unlikely to contribute to sustained reductions in health inequities in the absence of other societal policies and programs, such as primary health care, public education, and social security.

Income redistribution—generally understood to involve a mix of progressive taxation, minimum wage policies, tax credits, and cash transfers to lower income groups in order to diminish earned income inequalities between social strata—is a desirable and justifiable societal goal on the grounds of fairness alone. Whether and how income redistribution would improve equity in health, however, remains an open question. Greater income inequality is believed to be associated with poorer health (as reflected in measures such as average mortality rates, infant mortality rates, and poorer self-rated health), at least in countries with the greatest income inequality (such as the United States).<sup>1</sup> However, the nature of the relationship between income inequality and equity in health across different population groups has not been explored.

Equity in health reflects the absence of systematic differences in one or more aspects of health across population groups defined geographically, socioeconomically, or demographically.<sup>2</sup> It therefore concerns the distribution of health within populations rather than average health levels. Within countries, characterisations of equity require that health of different population subgroups be measured and compared to examine the extent of differences across them. Although it is

See end of article for authors' affiliations

Correspondence to: Barbara Starfield, Johns Hopkins University, 624 North Broadway, Room 452, Baltimore, Maryland, USA; bstarfie@jhsph.edu

Accepted 9 April 2007

number of studies of income inequality, they focus on aggregate measures of health rather than on the distribution of health by social class or other factors within countries or at regional levels.

To improve *equity* in health, income redistribution would have to alter the mechanisms that produce greater ill health among working class and socially excluded groups, according to one or more of three posited pathways. First, income redistribution would have to improve access to health-inducing material goods (better nutrition, housing, education, medical care services) and decrease exposure and susceptibility to ill health.<sup>8</sup> Second, it would have to ameliorate psychological stress stemming from perceived social exclusion and the resulting neuro-endocrine-immune mechanisms that predispose to illness.<sup>9</sup> Third, it would have to reflect or enable increased political power (and control of resources) on the part of working class and socially excluded populations; this greater political power would bring about collectivist, universal public policies beneficial to reducing health inequities.<sup>10–12</sup> These pathways are not mutually exclusive; material and psycho-immunological pathways can best be understood as subsets of larger class-based struggles over power.

A further complication stems from the use of income inequality as a proxy for wealth inequality. Inequalities in wealth associated with property ownership, stock ownership, interest on investments, and other non-income assets are far larger than inequalities in income. Although increasing income in the lowest income groups might have important consequences for health equity by lifting people out of absolute poverty, and might be more politically viable than wealth redistribution, the maldistribution of political influence and power would likely persist.<sup>13</sup> The recent addition of wealth to the Luxembourg Income Study offers the possibility of examining wealth inequality as an explanatory variable for health inequities in the countries (Canada, Finland, Italy, Sweden and the US) for which data are available.<sup>14</sup>

Given the uncertainty of evidence linking income inequality to *equity in health*, the possible utility of income redistribution needs consideration in light of other social transfers and policies.

### INCOME REDISTRIBUTION VIEWED IN THE CONTEXT OF OTHER SOCIAL TRANSFERS

Social transfers are generally categorised as universal versus targeted. Universal social transfers are directed at the population in the form of an entitlement that is intended to achieve some specific purpose (eg, improved health, education, or social security). Targeted transfers are directed at particular segments of the population or can provide monetary transfers to population subgroups to enable them to purchase services in the private marketplace.

Targeted income or social transfers under one political administration can be easily abolished under the next. Universal programs generally have a greater and more stable effect upon life-course security than targeted programs because they have a larger political base of support. Moreover, in their very universality, these programs are aimed at ensuring access to and solidarity in social services across a society in order to minimise differences in receipt of services due to social class, geographic location, income level, and other characteristics. Where these entitlements exist, they are associated with less income inequality, even in the absence of specific governmental policies to redistribute income.<sup>15</sup>

Social transfers are provided either as cash or services. Income redistribution is an unconditional cash transfer because it does not require people to act in certain ways. Unconditional transfers work best for people who have the resources (eg, time,

access to services, education, ability to take childcare leave, control over the workday) to use these programs and benefits effectively. They do not work well when resources (eg, services) are inadequate,<sup>16</sup> and they do not, in and of themselves, encourage the provision of needed services. For example, Canada's recent decision to convert its national childcare program of funded daycare slots into cash transfers,<sup>17</sup> providing purported "choice" to parents, has resulted in a decrease in available, accessible, subsidised childcare slots, jeopardising working class families who have fewer services available to them.

In summary, experience with social transfers provides ample reason to question the assumption that income redistribution would, by itself, improve equity in health, particularly in the most common situation, in which resources are inadequate in providing services that are most conducive to improving health and equity in health. Furthermore, the uncertainty of evidence linking income inequality to *equity in health* argues for paying greater attention to other societal approaches.

### THE ROLE OF OTHER SOCIAL POLICIES THAT IMPROVE EQUITY IN HEALTH

Some clues as to the possible importance of other social policies are emerging, even from the literature on income inequality. Wilkinson and Pickett<sup>1</sup> plotted income distribution against life expectancy and math/literacy scores for 21 Organisation for Economic Co-operation and Development (OECD) countries, finding a clear inverse relationship between the degree of income inequality and math/literacy scores. Although no country has both high income inequality and high life expectancy, there is no clear pattern of relationship. Japan and Sweden have low income inequality and high life expectancy. Germany, Ireland, USA and Portugal have high income inequality and relatively low life expectancy. Norway, Belgium, Finland and Denmark have low income inequality and relatively low life expectancy. Spain, Canada, Australia, Switzerland, France, Italy, Austria, Netherlands, New Zealand, Greece and the United Kingdom occupy the middle ground: moderate income inequality and relatively moderate life expectancy. What mechanisms might explain why poorer educational outcomes (and a small number of health outcomes, such as suicide and homicide rates) are associated with higher income inequality in industrialised countries, but the same is not the case for most health outcomes? Perhaps some countries are able to overcome income inequality's adverse effects on health through pathways involving other health and social policies.

Certainly, more research is needed to better understand the role of various means of improving equity in health, including social policies. An example is the recent study by Muntaner *et al*, which showed that health inequalities continue to exist, at least in middle-aged men, even in countries with relatively low income inequality.<sup>18</sup> Inequities in access to basic material goods are not likely to account for this finding because of relatively high standards of living overall. The complex array of other potential influences has recently been considered elsewhere.<sup>19</sup>

Programs specifically designed to improve equity in health are likely to be needed either instead of, or, preferably, with income redistribution measures. Kenworthy and Pontusson's<sup>20</sup> analysis indicates that, as income inequality rose during the 1980s and 1990s in Europe, countries with high voter turnout developed social programs to counter the adverse effects of widening gaps in earned income. These greater demands of the population for compensatory programs support Coburn's argument that it is necessary to go well beyond income inequality—just one link in a causal chain of the effects of policies that weaken welfare states and working-class

### What this paper adds

This paper presents a critical analysis of income inequality as a “determinant” of equity in health and questions the implicit assumption that redistribution of income will improve equity in health in the absence of other social policies and better distribution of power and resources. It also points out the limitations of income inequality research, which focuses almost exclusively on average health levels rather than on distributions of health within areas and generally neglects other societal characteristics that might be confounded or interact with income inequality. The literature on one social entitlement—the primary care orientation of health systems—is cited as an example of how a more comprehensive approach to improving health equity is vital for informing policy.

power—to search for a broad set of health-inducing political strategies.<sup>21</sup> The research of Navarro and colleagues<sup>22</sup> and Chung and Muntaner<sup>23</sup> points to the role of welfare state regimes, political ideologies, and class power relationships in influencing health, with more egalitarian political trajectories having a salutary effect at the aggregate level. The next step is to widen these inquiries to examine the role of these factors in achieving equity in health.

Among the various suggested societal policies with potential influences on health, only one (the nature of the health services system) has been examined systematically and with specific reference to reducing inequities in health. Although specialty health services are used more by social elites in almost all countries, primary health care services are equitably distributed in all industrialised countries except for the United States.<sup>24</sup> In the United States, the influence of income inequality on health (for example, infant mortality, life expectancy, overall death rates, and rates of death associated with cardiovascular conditions) is reduced or eliminated when primary care availability is considered, suggesting that areas with low income inequality are also areas with better access to and coverage by primary care services.<sup>25–27</sup>

The beneficial influence of a system focus on primary care as the organising force of health systems extends to equity in health as well.<sup>28</sup> Health policy characteristics that have been documented to be related to high levels of performance of primary care functions (first-contact care, person-focused care over time, comprehensiveness of care and coordination of care)<sup>29</sup> include national attempts to distribute health resources according to need (rather than to demand by those with the power to make demands), financing provided or regulated by national governments, low or no copayments, and a relatively high percentage of health service expenditure provided by the government.<sup>30 31</sup>

Canada’s National Health Insurance is one example of a universal societal program providing access to a primary care-oriented health system. In just 25 years, social class disparities in causes of death amenable to health services interventions were reduced much more than were social disparities in other causes of death.<sup>32</sup>

Where political conditions enable income redistribution policies, they are also likely to enable universal social programs (including provision of primary health care) and attention to the quality of education, working conditions, gender equity, and the environment. But what if income redistribution were to be pursued in the absence of broader distribution of political power that engenders universal social programs? Those with extreme wealth—whose power would likely not be diminished by income redistribution—would continue to influence policies

### Policy implications

Public policies to reduce and eliminate inequity in health should be made on the basis of evidence that they improve the distribution of health in and across societies. The literature on the benefits of universal primary care as the infrastructure of health systems, and as part of larger social welfare and political efforts, provides lessons about how evidence might be obtained and used to develop policy and programs that lead to more equitable health.

in ways that are unlikely to improve equity in health. Such policies often lead to a myriad of narrowly and technically conceived services, none of which address the underlying determinants of ill health.<sup>33 34</sup> Redistribution of income that changes the distribution across most of the income spectrum but leaves a small group with large wealth and political power might NOT be associated with improvement in equity because the continued concentration of power and influence among the extremely wealthy is unlikely to lead to policies that improve equity in health by the non-income related influences that maintain inequity.

Moreover, it is possible that redistribution of income alone will exacerbate the consumerist aspect of some societies to the benefit of the private market rather than addressing inequalities in education, employment, neighbourhood conditions, and, most fundamentally, political power as determinants of health. Failure to guarantee universal and collectively enjoyed benefits and democratised power would thus be to the detriment of numerous aspects of health, for example, deaths and disability from workplace-related injuries, from unsafe neighbourhoods and environments, from heavily advertised unhealthy foods, and from employment insecurity.

Increased consumption of material goods is not a useful societal goal, *per se*,<sup>35</sup> particularly if consumption has little bearing on employment security or working and living conditions. Increased consumption that disregards physical and social environments could conceivably even worsen inequities in health, as those in higher social strata will have resources other than income to decrease their exposure and increase their resilience to societal problems. Studies of the adverse effects of economic expansion demonstrate that health can worsen rather than improve during periods of expansion,<sup>36–39</sup> and economic growth is not necessarily required for improvements in health, even in developing countries.<sup>40</sup>

Income redistribution is a conceptually simple but inadequate response to health inequities. In the absence of concerted efforts to change policies that induce and maintain health inequities, a focus on income inequality alone can divert attention from what is really needed: increased social and political participation in decision-making concerning the availability of universal service programs that make a difference to the lives of all people. Without this, the wellbeing of the vast majority of the population might be lost in solutions to address symptoms rather than societal factors that underlie the genesis and maintenance of inequity in the health of populations.

The more immediate danger in focusing policy solely on income redistribution is that it risks missing other, potentially more politically viable, strategies with immediate and demonstrated influence in reducing inequities in health. Universal approaches involving certain direct services have been proven to reduce the impact of social inequalities and are available right now.<sup>41</sup> Primary health care is a prime example. Resources now used to provide uncoordinated disease-by-disease interventions could be used to re-shape delivery systems to address the

underlying determinants of health and provide care for a broad array of ailments. Similarly, social policies that improve public transport and public education across the board or regulations that reduce industrial toxins and waste generation are likely to improve health inequities AND offer momentum to political movements aiming to redistribute power.

Income redistribution, far beyond poverty alleviation and fair wages for work performed, is in the interests of a fairer and more just society and ought to be a priority. As part of this long-term political agenda, policymakers, advocates, and political movements should begin to build on proven strategies to improve absolute and relative health across the social spectrum.

## ACKNOWLEDGEMENTS

The authors are grateful to Klaudia Dmitrienko, René Guerra Salazar and the anonymous reviewers for their helpful suggestions, and to Normalie Barton for preparation of references.

## Authors' affiliations

**Barbara Starfield**, Johns Hopkins University, Baltimore, Maryland, USA  
**Anne-Emanuelle Birn**, Department of Public Health Sciences, Faculty of Medicine, University of Toronto, Ontario, Canada

Competing interests: None declared.

## REFERENCES

- 1 **Wilkinson RG**, Pickett KE. Income inequality and population health: a review and explanation of the evidence. *Soc Sci Med* 2006;**62**:1768–84.
- 2 **International Society for Equity in Health**. <http://www.iseqh.org> (accessed June 2006).
- 3 **Victora CG**, Vaughan JP, Barros FC, *et al*. Explaining trends in inequities: evidence from Brazilian child health studies. *Lancet* 2000;**356**:1093–8.
- 4 **McKee M**. What can health services contribute to the reduction of inequalities in health? *Scand J Public Health* 2002;**30**:54–8.
- 5 **Subramanian SV**, Kawachi I. Income inequality and health: what have we learned so far? *Epidemiol Rev* 2004;**26**:78–91.
- 6 **Lynch J**, Davey Smith G, Harper S, *et al*. Is income inequality a determinant of population health? Part 1. A systematic review. *Milbank Q* 2004;**82**:5–99.
- 7 **Wagstaff A**, van Doorslaer E. Income inequality and health: what does the literature tell us? *Annu Rev Public Health* 2000;**21**:543–67.
- 8 **Black D**. *Inequalities in health: report of a research working group*. London, UK: Department of Health and Social Security, 1980.
- 9 **McEwen B**, Seeman T. Protective and damaging effects of mediators of stress; elaborating and testing the concepts of allostasis and allostatic load. In: Adler N, Marmot M, McEwen B, *et al*, eds. *Socioeconomic status and health in industrialized nations: social, psychological, and biological pathways*. New York, NY: New York Academy of Sciences, 1999.
- 10 **Lynch J**, Davey Smith G, Hillemeier M, *et al*. Income inequality, the psychosocial environment, and health: comparisons of wealthy nations. *Lancet* 2001;**358**:194–200.
- 11 **Navarro V**, Shi L. The political context of social inequalities and health. *Soc Sci Med* 2001;**52**:481–91.
- 12 **Muntaner C**, Lynch JW. Income inequality, social cohesion, and class relations: a critique of Wilkinson's neo-Durkheimian research program. *Int J Health Serv* 1999;**29**:59–81.
- 13 **Oliver M**, Shapiro M. *Black wealth, white wealth*. New York, NY: Routledge, 1997.
- 14 **Luxembourg Wealth Study**. <http://www.lisproject.org/lws.htm> (accessed 26 July 2006).
- 15 **Jones C**, Burstrom B, Marttila A, *et al*. Studying social policy and resilience to adversity in different welfare states: Britain and Sweden. *Int J Health Serv* 2006;**36**:425–42.
- 16 **Chapman K**. *Using social transfers to scale up equitable access to education and health services*. Background paper. London, UK: DFID Policy Division, 2006. <http://www.dfid.gov.uk/pubs/files/socialtransfers-back.pdf> (accessed 5 April 2006).
- 17 **Child Care Advocacy Association of Canada**. *The financial reality behind the federal child care spaces initiative: a mismatch of mythic proportions*. Ottawa, Ontario: Child Care Advocacy Association of Canada, 2006. [http://www.childcareadvocacy.ca/resources/pdf/Financial\\_reality\\_behind\\_spaces\\_initiative\\_Oct06.pdf](http://www.childcareadvocacy.ca/resources/pdf/Financial_reality_behind_spaces_initiative_Oct06.pdf) (accessed 13 December 2006).
- 18 **Muntaner C**, Borrell C, Kunst A, *et al*. Social class inequalities in health: does welfare state regime matter? In: Raphael D, Bryant T, Rioux MH, eds. *Staying alive: critical perspectives on health, illness, and health care*. Toronto, Canada: Canadian Scholars Press, 2006.
- 19 **Starfield B**. Pathways of influence on equity in health. *Soc Sci Med* 2007;**64**:1371–2.
- 20 **Kenworthy L**, Pontusson J. Rising inequality and the politics of redistribution in affluent countries. *Perspect Politics* 2005;**3**:449–71.
- 21 **Coburn D**. Beyond the income inequality hypothesis: class, neo-liberalism, and health inequalities. *Soc Sci Med* 2004;**58**:41–56.
- 22 **Navarro V**, Muntaner C, Borrell C, *et al*. Politics and health outcomes. *Lancet* 2006;**368**:1033–7.
- 23 **Chung H**, Muntaner C. Welfare state matters: a typological multilevel analysis of wealthy countries. *Health Policy* 2007;**80**:328–39.
- 24 **van Doorslaer E**, Masseria C, Koolman X. Inequalities in access to medical care by income in developed countries. *CMAJ* 2006;**174**:177–83.
- 25 **Shi L**, Starfield B, Kennedy BP, *et al*. Income inequality, primary care, and health indicators. *J Fam Pract* 1999;**48**:275–84.
- 26 **Shi L**, Starfield B. The effect of primary care physician supply and income inequality on mortality among blacks and whites in US metropolitan areas. *Am J Public Health* 2001;**91**:1246–50.
- 27 **Shi L**, Starfield B. Primary care, income inequality, and self-rated health in the United States: a mixed-level analysis. *Int J Health Serv* 2000;**30**:541–55.
- 28 **Starfield B**, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q* 2005;**83**:457–502.
- 29 **Starfield B**. *Primary care: balancing health needs, services, and technology*. New York, NY: Oxford University Press, 1998.
- 30 **Starfield B**, Shi L. Policy relevant determinants of health: an international perspective. *Health Policy* 2002;**60**:201–18.
- 31 **Or Z**. *Exploring the effects of health care on mortality across OECD countries*. Labour Market and Social Policy Occasional Paper No.46. Paris, France: Organization for Economic Cooperation and Development, 2001.
- 32 **James P**, Wilkins R, Detsky A, *et al*. Avoidable mortality by neighborhood income in Canada: 25 years after the establishment of universal health insurance. *J Epidemiol Comm Health* 2007;**61**:287–96.
- 33 **Birn AE**. Gates's grandest challenge: transcending technology as public health ideology. *Lancet* 2005;**366**:514–19.
- 34 **Cohen J**. Global health. The new world of global health. *Science* 2006;**311**:162–7.
- 35 **Palomo L**, Ortun V, Benavides FG, *et al*. La salud publica frente a los efectos secundarios del progreso. [Public health facing the side effects of progress]. *Gac Sanit* 2006;**20**:209–21.
- 36 **Tapia Granados JA**. Increasing mortality during the expansions of the US economy, 1900–1996. *Int J Epidemiol* 2005;**34**:1194–202.
- 37 **Tapia Granados JA**. Response: on economic growth, business fluctuations, and health progress. *Int J Epidemiol* 2005;**34**:1226–33.
- 38 **Ruhm CJ**. Commentary: mortality increases during economic upturns. *Int J Epidemiol* 2005;**34**:1206–11.
- 39 **Catalano R**, Bellows B. Commentary: if economic expansion threatens public health, should epidemiologists recommend recession? *Int J Epidemiol* 2005;**34**:1212–13.
- 40 **Croghan TW**, Beatty A, Ron A. Routes to better health for children in four developing countries. *Milbank Q* 2006;**84**:333–58.
- 41 **Starfield B**. State of the art in research on equity in health. *J Health Polit Policy Law* 2006;**31**:11–32.

## Take advantage of BMJ Journals' remarkable catalogue of titles with Related Collections

No busy professional has time to browse through all pertinent journals to find relevant articles, but with Related Collections you no longer have to. Follow the "Related Collections" link from any article and use the "Show Collections from other Journals" to expand your search across all BMJ Journals. Or simply follow the "Browse by topic" link on the home page. By setting up your own collections and receiving email alerts every time an article is added to your chosen area, you can build up your own significant body of knowledge.