economic resources may achieve greater social justice, but it probably does not always achieve a reduction in health inequalities, despite the improved socioeconomic and health status of those who are in a more disadvantaged situation.

References

- Benzeval M, Judge K, Whitehead M. Tackling inequalities in health. An agenda for action. London: King's Fund; 1995.
- Ben-Shlomo Y, Marmot M. Policy options for managing health inequalities in industrial and post-industrial countries. En: Strickland SS, Shetty PS, editors. Human biology and social inequality. Cambridge: Cambridge University Press; 1998. p. 308-30.
- Acheson D, Barker D, Chambers J, Graham H, Marmot M, Whitehead M. Independent inquiry into inequalities in health. London: The Stationery Office; 1998.
- Diderichsen F, Evans T, Whitehead M. The social basis of disparities in health. En: Evans T, Whitehead M, Diderichsen F, Bhuiya A, Wirth M, editors. Challenging inequities in health. From ethics to action. Oxford: Oxford University Press; 2001. p. 13-23.
- Mackenbach JP, Bakker MJ, Sihto M, Diderichsen F. Strategies to reduce socioeconomic inequalities in health. En: Mackenbach J, Bakker M. Reducing inequalities in health. A European perspective. London: Routledge; 2002. p. 25.

- Godlee F. The Cochrane Collaboration. BMJ. 1994;309: 969-70.
- Macintyre S, Chalmers I, Horton R, Smith R. Using evidence to inform health policy: case study. BMJ. 2001;322: 222-5.
- Mackenbach JP, Gunning-Schepers LJ. How should interventions to reduce inequalities in health be valuated? J Epidemiol Community Health. 1997;51:359-64.
- Davey Smith, Ebrahim S, Frankel S. How policy informs the evidence. «Evidence based» thinking can lead to debased policy making. BMJ. 2001;322:184-5.
- Dalstra JAA, Kunst AE, Geurts JJM, Frenken FJM, Mackenbach JP. Trends in socioeconomic health inequalities in the Netherlands, 1981-1999. J Epidemiol Community Health. 2002; 56:927-34.
- Kunst AE, Bos V, Lahelma E, Bartley M, Lissau I, Regidor E, et al. Trends in socio-economic inequalities in self assessed health in ten European countries. Int J Epidemiol. 2005;34:295-305
- Mackenbach JP, Bos V, Andersen O, Cardano M, Costa G, Harding S, et al. Widening socioeconomic inequalities in mortality in six European countries. Int J Epidemiol. 2003;32: 830-7.
- 13. Drever F, Whitehead M, editors. Health inequalities. Decennial supplement. London: Stationery Office; 1997.
- 14. Ross CE, Wu C. Education, age, and the cumulative advantage in health. J Health Soc Behav. 1996;37:104-20.
- Fundación BBVA. Renta Nacional de España y su distribución provincial. Año 1995 y avances 1996-1999. Bilbao: Fundación BBVA; 2000.

Comment. Redistribution of socioeconomic resources without a reduction of health inequalities? Some surprises on the road to Utopia

(Comentario. ¿Redistribución de los recursos socioeconómicos sin reducción de las desigualdades en salud? Algunas sorpresas en el viaje a Utopía)

Johan P. Mackenbach

Department of Public Health, University Medical Center Rotterdam, Rotterdam, The Netherlands.

Socioeconomic inequalities in health have been found in all countries with available data¹, and logically find their origins in the unequal distribution of socioeconomic resources, such as education, occupation and income. If a totally egalitarian society would be feasible, in which everybody would have the same level of income, there would of course be no health inequalities by income level. Similarly, if everybody would have the same level of education, there would be no health inequalities by level of education.

While this is logically incontrovertible, the actual road to Utopia is paved with surprises. Smaller inequalities in socioeconomic resources are not always accompanied by smaller health inequalities. In England and Wales between 1920 and 1970, decreasing income inequalities between occupational classes were accompanied by larger mortality inequalities².

In Western Europe, societies with smaller income inequalities, like the Nordic countries, do not have smaller health inequalities than societies with larger income inequalities, such as Spain and Italy³.

At first sight, Regidor et al's paper⁴ seems to be another addition to this paradoxical literature. The authors succinctly phrase their provocative, but potentially important, conclusion as follows: «The redistribution of socioeconomic resources achieves greater social justice, but probably does not lead to reduced health inequalities in all cases».

This conclusion is based on an analysis in which they looked at inequalities in self-perceived health in Spain at two points in time, 1987 and 2001. They measured health inequalities by calculating relative and absolute differences in self-perceived health by level of education, and by level of income (estimated on the basis of the average per capita income of the province of residence).

Despite the short time-period, there apparently has been an enormous upward shift in the distribution of education in the Spanish population, and a notable reduction in the inequality of per capita provincial income. While the latter has been accompanied by a reduction in inequalities in self-perceived health between higher and lower incomes (only after controlling for education, and not statistically significantly so, table 2), there was no such reduction in inequalities of self-perceived health by level of education. On the contrary, health inequalities by level of education clearly increased over time (table 1).

Do these findings indeed support the authors' conclusion? Actually, the situation is not as dramatic as they suggest. Health inequalities by level of (provincial) income have decreased as one would expect, although not statistically significantly so. The main "problem" is the increase of health inequalities by level of education. While it is true that relative and absolute differences in self-perceived health between those with a higher and a lower level of education have increased, it is also true that because of the "redistribution of socioeconomic resources" the number of people with a lower level of education has greatly diminished. The authors have not calculated a measure of health inequalities which takes this into account, such as the Relative Index of Inequality or the Population-Attributable Fraction⁵. If they had, the results would certainly not have shown such a strong increase in health inequalities by level of education.

Equally importantly, while income can be thought of as a socioeconomic resource which can be «redistributed», in the sense that as a result of this redistribution some people «receive» more than they did before, education can not. More than income, education is something one «achieves», not only «receives». As the authors themselves note, those who had a low level of education in 2001 may be another section of the population than those who had a low level of education in 1987. It is guite likely that they are relatively more disadvantaged, not only cognitively but in many other respects as well. It is therefore not surprising that health inequalities between the higher and lower educational groups have increased, as has been noted in other European countries as well⁶. Shouldn't we actually expect that, using the measures Regidor et al used, health inequalities between educational groups are largest in the year before we realize our Utopia of equal educational achievement for everybody?

These data show that although the road to Utopia is paved with surprises, we should not let ourselves be distracted by thinking that «redistribution of socioeconomic resources (...) does not (....) lead to reduced health inequalities». To the extent that socioeconomic resources are really redistributed, the opposite will ultimately be the case.

References

- Mackenbach JP. Health inequalities: Europe in profile. Londres: Department of Health; 2006. Available at: http://europa.eu.int/comm/health/ph_determinants/socio_economics/ documents/ev_060302_rd06_en.pdf [accessed 11 Apr 2006]
- Wilkinson RG. Class mortality differentials, income distribution and trends in poverty, 1921-1981. J Soc Pol. 1989;18:307-35.
- Mackenbach, Kunst AE, Cavelaars AEJM, Groenhof F, Geurts JJM and the EU Working Group on Socioeconomic Inequalities in Health. Socioeconomic inequalities in morbidity and mortality in Western Europe. Lancet. 1997;349:1655-9.
- Regidor E, Martinez D, Astasio P, Ortega P, Calle ME, Dominguez V. Trends of socioeconomic inequalities and socioeconomic inequalities in self-perceived health in Spain. Gac Sanit. 2006;20:178-82.
- Mackenbach JP, Kunst AE. Measuring the magnitude of socio-economic inequalities in health: an overview of available measures illustrated with two examples from Europe. Soc Sci Med. 1997;44:757-71.
- Mackenbach Bos V, Andersen O, Cardano M, Costa G, Harding S, Reid A, Hemström Ö, et al. Widening socioeconomic inequalities in mortality in six Western European countries. Int J Epidemiol. 2003;32:830-7.