

CORRESPONDENCE



Socioeconomic Inequalities in Health in 22 European Countries

TO THE EDITOR: Mackenbach et al. (June 5 issue)¹ present interesting findings on the magnitude of socioeconomic inequalities in health in Europe, but they provide potentially misleading messages to policy leaders. The authors show that inequalities in health are smaller in Italy and Spain than they are in more egalitarian northern European countries, and they conclude that there is little evidence that the magnitude of inequalities in health is related to political factors. However, their conclusions are based on data that can hardly be considered to be comparable. Data from cities such as Turin (Italy), Madrid, and Barcelona do not include health variations across regions, which can be particularly large in countries such as Italy.² Furthermore, there is substantial heterogeneity across countries (especially southern vs. northern Europe) in terms of the validity and reliability of health and socioeconomic data.³ Generalizations on the relationship between egalitarian policies and inequalities in health should be based on comparable evidence and a solid theoretical framework; this can prevent misleading interpretations of the importance of societal determinants of in-

equalities in health and can promote adequate policy responses to reduce them.

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THE AUTHORS REPLY: Studies using a variety of data sources, including harmonized surveys,¹⁻³ have shown that variations within western Europe in the magnitude of socioeconomic inequalities in health are mostly uncorrelated with variations in welfare policies. Our study shows that inequalities in mortality are smaller in some Spanish and Italian populations than those in other western European countries. Although we acknowledge that the situation in these urban regions may be different from the national average, national data on Spain and Italy from the 1980s also suggest that inequalities in mortality in these two countries are smaller.⁴ This is unlikely to be due to the policies or underlying political choices in these countries. The smaller inequalities in smoking, diet, and other immediate determinants of inequalities in health in these countries more likely reflect their

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cultural and social histories. Although it is impossible for other countries to copy these histories, Spain and Italy provide important policy lessons on how to reduce inequalities in health: tackling immediate determinants of such inequalities may be an effective way to reduce health inequalities in countries with a reasonable level of welfare provision.

Since the publication of our article, we have discovered an error in the mortality data from England, related to an ambiguity in the label of one educational category as used in this data set. The corrected data are available with a revised version of our article and the full text of this letter at www.nejm.org. These data show that we underestimated inequalities in mortality in England and Wales, but none of the conclusions of our article are substantially affected.

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Contaminated Heparin

TO THE EDITOR: Kishimoto et al. (June 5 issue)¹ report that contamination of heparin with oversulfated chondroitin sulfate (OSCS) can induce anaphylactoid reactions through activation of the contact system. OSCS can also induce a clinical syndrome that is indistinguishable from immune heparin-induced thrombocytopenia,² since the antigens are not heparin-specific but can be generated by other polysaccharides depending on the chain length and degree of sulfation.³ Hyper-sulfated polysaccharides behave as “super-heparins” in the induction of immune thrombocytopenia.^{2,3}

Heparin-induced thrombocytopenia is relatively

common and often consequential.⁴ At least 10 to 20% of affected patients die or have permanent sequelae such as stroke or limb amputation; this distinguishes heparin-induced thrombocytopenia from most other adverse drug reactions.⁵ From November 1, 2007, to February 28, 2008 (the period during which anaphylactoid reactions to OSCS-contaminated heparin were observed¹), our two laboratories in Canada and Germany confirmed the diagnosis of heparin-induced thrombocytopenia in 115 patients. During this period, a substantial increase in laboratory-confirmed heparin-induced thrombocytopenia was observed in Germany, but not in Canada, possibly reflect-

Table 1. Patients with Positive Tests for Heparin-Induced Thrombocytopenia.*

Country	OSCS-Contaminated Heparin Distributed	Period before Contamination	Period of Contamination	Increase in
		(November 1, 2006, to February 28, 2007)	(November 1, 2007, to February 28, 2008)	No. of Patients with Positive Tests
		<i>no. of patients with positive tests/total no. tested</i>		<i>%</i>
Canada	No†	45/373	51/409	13.3
Germany	Yes	32/459	64/405	100.0

* Patients were considered to have positive tests for antibodies against heparin-induced thrombocytopenia if both a washed-platelet activation assay and a platelet factor 4–dependent IgG enzyme immunoassay were positive. Patients who underwent repeated tests were counted only once. OSCS denotes oversulfated chondroitin sulfate.

† A recall of minimal amounts of OSCS-contaminated products occurred in Canada, without any reports of anaphylactic reactions.