Reviewer’s report

Title: All-cause and Cardiovascular mortality among ethnic German immigrants from the Former Soviet Union: a cohort study

Version: 1 Date: 23 September 2005

Reviewer: Per Wändell

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General
This is a very interesting and important study, analysing the mortality among ethnic Germans (Aussiedler) migrating from the former Soviet Union (FSU) to Germany. The authors have described the background, methods and results very well.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)


Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)


Discretionary Revisions (which the author can choose to ignore)

The authors expected to find a higher mortality among the Aussiedler, but found the opposite, why it is important to search for possible sources of error in the study, e.g., selection bias, drop-outs etc, and confounding factors. However, the authors discuss possible factors, and it seems very unlikely that these factors could have other than a marginal influence on the results.

Well then, are the findings realistic? The authors state as regards the Aussiedler, that “their overall mortality in the FSU would need to be only 40% and their CVD mortality only a third of the average in these countries, which seems improbable”. Well is it really improbable, when considering this magnitude of difference? In most countries women show a mortality rate of 50% of men in most ages, corresponding to a higher mean life expectancy of 4-5 years. We also know that there are large differences between different countries, as well as between different groups in the same country. The INTERHEART study found a strong association between psychosocial factors and acute myocardial infarction, one of the most important diseases attributing to both CVD and total mortality (Rosengren A, et al. Association of psychosocial risk factors with risk of acute myocardial infarction in 11 119 cases and 13 648 controls from 52 countries (the INTERHEART study): case-control study. Lancet 2004; 364: 953-62). The psychosocial factors don’t only conclude socio-economic status, but also other factors, which could be hard to measure in register-data. Taking some examples, when looking at neighbourhood areas in Chicago, life expectancy for men ranged from 54 to 77 years (ref Wilson M, Daly M. Life expectancy, economic inequality, homicide, and reproductive timing in Chicago neighbourhoods. BMJ 1997: 314:1271-4). Another example is that the CHD mortality among in 50-year-old Lithuanian men is four times higher than among 50-year-old Swedish men, despite similar presence of standard risk factors, probably due to psychosocial risk factors, as concluded by the authors (ref Kristenson M, Kucinskiene Z, Bergdahl B, Calkauskas H, Urmonas V, Orth-Gomer K. Increased psychosocial strain in Lithuanian versus Swedish men: the Li Vicordia study. Psychosom Med 1998; 60: 277-82).

As regards ethnic groups and differences in mortality: research from Finland has shown, that the mortality among members of the Swedish-speaking minority is lower compared to the
Finnish-speaking majority (Hyyppä MT, Maki J. Social participation and health in a community rich in stock of social capital. Health Educ Res 2003; 18: 770-9). It was concluded, that a great deal of health inequality seems to derive from uneven distribution of social capital. Perhaps this could also be the case as regards the ethnic Germans in the FSU. At least it is a hypothesis that could be considered and analysed. Some findings in the study, i.e. a lower mortality among the older immigrants and those belonging to a larger family group, could support this hypothesis. I think the Discussion in the article could be more informative and interesting when considering these factors that are mentioned.

**What next?:** Accept after discretionary revisions

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests