Changes in dietary fat and declining coronary heart disease in Poland: population based study

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We previously described a rapid decline in mortality due to coronary heart disease in Poland between 1991 and 1994, corresponding with increases in the ratio of polyunsaturated fat to saturated fat in people’s diet and fruit consumption.1 The changes in food consumption followed changes in economic policy, including reductions in subsidies for dairy and other animal fats. We describe subsequent trends and use data from cohort studies to estimate the contributions from smoking and diet to these changes.

Methods and results

Mortality due to coronary heart disease has continued to fall in Poland in both sexes and across educational levels. Compared with 1990, by 2002 for the age band 45-64 years it had fallen by 38% in men (340 per 100 000 to 212/100 000) and by 42% in women (232 to 135/100 000). By 1999 (the latest year with comparable data), consumption of saturated fat had fallen by 7% (44.8 g/day to 41.5 g/day), consumption of polyunsaturated fat had risen by 57% (14.8 g/day to 23.3 g/day), and the ratio of the two had increased by 70%. Per head, consumption of imported

Anomalies such as those reported for Estonia and Portugal may be of special significance, as they point towards gaps in our understanding and warn against too simplistic a view of health inequalities. Correctly understanding the development of health and mortality in the formerly communist led countries of central and eastern Europe is likely to challenge (and has already challenged) many cherished epidemiological “truths.”

We thank Ilona Koupil for important comments to a previous version of this commentary.

Contributors: DV wrote the first version, ML commented and suggested changes. Both authors have read and accepted the final version.

Funding: DV is financed through the Swedish Council for Working Life and Social Research, ML is financed through the Swedish Foundation for Baltic and East European Studies.

Competing interests: None declared.


Commentary: Will Europe’s agricultural policy damage progress on cardiovascular disease?

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Trends in cardiovascular disease in Europe have shown an east-west divide for over 30 years. Rapid declines in the European Union contrast with stagnant or rising trends in Russia and central and eastern Europe, with some notable exceptions, such as Poland and the Czech Republic, where rates have fallen since the 1990s. These improvements are attributed primarily to improved nutrition, which can be traced to the economic transition that followed political change in 1989.

In Poland many food subsidies, in particular for animal fats, were abolished. Lower prices for unsaturated fats and fruits caused rapid dietary changes. Zatonski and Willett explore the impact of these changes, suggesting that the reduction of over a third of coronary heart disease in Poland between 1990 and 2002 can be attributed mainly to increased consumption of polyunsaturated fats, with sustained reduction in saturated fats. They estimate that the small reduction in smoking and the increase in the intake of imported fruit have made little impact on cardiovascular disease.

The paper clearly shows that dietary change had a major impact on cardiovascular mortality, but the...