CEE countries

Data availability and methodological issues

Martin Bobak

Summary: The societal transformation in Central and Eastern Europe (CEE) and former Soviet Union (FSU) was not carried out uniformly across the region. Some countries fared better, some were less successful. However, if there is one experience common to all former communist countries, it is the emergence, or increase, in income inequalities and, subsequently, in social inequalities in health after 1989. The public health importance of this phenomenon is enormous, but the investigation of social inequalities in health in CEE/FSU has been often slow and unsystematic. The reasons for the persisting incompleteness of our understanding of health inequalities in CEE/FSU are complex, as described in this article.

Keywords: Former Soviet Union, Central and Eastern Europe, health inequalities, data

The societal transformation in Central and Eastern Europe (CEE) and former Soviet Union (FSU) was not carried out uniformly across the region. Some countries fared better, some were less successful. However, if there is one experience common to all former communist countries, it is the emergence, or increase, in income inequalities and, subsequently, in social inequalities in health after 1989. The increase in educational differentials in mortality was first reported from Russia by Vladimir Shkolnikov, who used unlinked data from a mini-census and vital registration. As more data became available, a similar pattern emerged from all countries where such studies were conducted, and affected both fatal and non-fatal outcomes, and appeared in both individual-based and ecological data.

While the increase in social inequalities in health after 1989 is undisputed, there are uncertainties about the speed and magnitude of such changes. The public health importance of this phenomenon is enormous, but the investigation of social inequalities in health in CEE/FSU has been often slow and unsystematic. The reasons for the persisting incompleteness of our understanding of health inequalities in CEE/FSU are complex, with ten key factors described in more detail below.

Martin Bobak is Professor of Epidemiology, University College London. Email: m.bobak@ucl.ac.uk
1. Measurement of socioeconomic status
In western countries, socioeconomic status (SES) has been included in routinely collected data for a long time. SES was most commonly measured by social class (which largely reflects occupation, for example, England and Wales), income (for example, United States), and education (most of Western Europe and Northern America).

In CEE/FSU before 1989, there were no explicit intentions to use routinely collected data to study social distributions of health-related phenomena, because the official position was that social differences did not exist. Before 1989, many routinely collected data did contain education, but it was difficult or impossible to obtain meaningful classification by occupational status (the occupational classifications typically grouped occupations by the sector of economy, rather than by any hierarchical system). Data on income were typically not used or reported. After 1989, modern occupational classifications emerged, and data on income became available, but they have rarely been used in studies of health based on routinely collected data. Other factors important for health, such as ethnicity, have been measured inconsistently. I am not aware of systematic efforts in CEE/FSU to conceptualise different dimensions of socioeconomic status and to propose measurement suitable for population-based studies of social inequalities in health.

2. Lack of information on socioeconomic status in routinely collected data.
All countries in the region routinely collect vital registration data, such as deaths and births. In most countries, the forms to report and register these events contain several socio-demographic variables, the most common of which are education and marital status. However, data on other socioeconomic characteristics of these events are typically not collected.

To calculate rates of deaths (and of other outcomes), data on the denominators are needed. These are typically taken from census data. While census data often contain other social, economic and demographic variables, data on events do not contain these other socioeconomic characteristics – rates are typically available only about education (and marital status).

3. Lack of linked databases
Most studies of mortality use data from death registration for the numerator and, separately, data from a census for the denominator. There is a problem, however, with such data, because there can be a difference between self-reported information in the census and the proxy-reported information on death certificates. This can bias the results, although the extent of such bias is debatable and probably varies by country. A study in Lithuania, comparing results based on linked and unlinked data, found that unlinked data substantially overestimate mortality in the underprivileged groups and underestimate mortality in the privileged groups, therefore leading to overestimation of social inequalities in health. Moreover, the bias was found to vary by the cause of death.

4. Routine data on non-fatal outcomes
Health status is more than mortality. There are sources of data on non-fatal outcomes, depending on country, such as cancer registers (cancer incidence, case-fatality), birth registers (data on birth weight and gestational age), congenital malformations, diabetes etc. Most countries also collect and maintain large national data on health care utilisation (for example, health insurance databases) which often contain information that would be valuable for research. However, the usefulness of these data is limited by (a) varying amount of SES indicators in these data, (b) varying completeness of these data, and (c) limited access of researchers to these data.

5. Limited amount and/or scope of national health surveys
In many western countries, data on non-fatal outcomes and risk factors come from population-based and, if possible, nationally representative samples (e.g. the US National Health and Nutrition Examination Survey, Health Survey for England). However, such studies do not exist in many countries in CEE/FSU, and if they do exist, their usefulness if often limited by their small size, low response rates, questionable representativeness, and reliance on self-reported data and lack of biological measurements (for example, blood pressure, plasma lipids etc.). Importantly, many sufficiently large studies in CEE/FSU do not follow up the participants. This is unfortunate, because longitudinal follow up, where baseline data exist, costs only a fraction of the baseline survey costs, and it provides invaluable alternative to unlinked analyses of routinely collected data.

6. Potential problems with diagnosis and/or causes of death
As in other populations, many studies in CEE/FSU, particularly those using routinely collected data, rely on routine procedures to establish and code the diagnosis. This may result in problems, for example, with comparability of diagnoses over time and/or between countries. For example, applying standard diagnostic protocols to mental health problems is notoriously difficult. Depressive symptoms based on different questionnaires, and therefore often indicating general psychological distress, are often used as a measure of clinical depression. Apart from the fact that such studies do not measure the ‘real’ disease, they are hardly comparable over time, between populations and, most importantly, they may not be comparable across different socioeconomic groups. Another example relates to the diagnosis of myocardial infarction (MI). Most western countries currently include the increase in serum concentrations of troponin, a biomarker of myocardial ischaemia, as a sensitive criterion for MI. In many countries in CEE and particularly in the FSU, however, troponin measurement is simply too expensive. Since the rates of MI based on troponin are higher than rates based on older biomarkers, data on MI rates across countries are often not comparable. Similarly, if the availability of troponin differs by SES, comparing rates of MI by SES is biased.

7. Research infrastructure and expertise
Prior to 1990, there were very few studies of social differentials in health in CEE/FSU. This has changed after the fall of communism but this area of research remains on the periphery of both biomedical and sociological research. Studies of health inequalities are most often conducted by epidemiologists (or other disciplines related to public health). However, given the relatively small research base, there is a shortage of expertise. For example, there is now a great interest in life-course effects of socioeconomic factors on health; this type of research, however, often requires advanced statistical techniques to deal with repeated measurements (for example, generalised linear models). Similarly, research into health inequalities often explores the hierarchy of factors, for example, upstream variables (‘causes of causes’) and downstream variables (mediators), and many studies of social capital require multi-level modelling. There are, however, few medical statisticians trained in appropriate techniques.
8. Dependence on international collaborations and funding

For a number of reasons, much of the good quality research on health inequalities in CEE/FSU comes from international collaborations which are typically funded by western partners. This is not ideal as these projects usually have a limited duration and they are normally not primarily concerned with addressing public health issues of national importance.

In addition, while much of the research on health inequalities in CEE/FSU is conducted in the frame of international collaborations, there is sometimes distrust from national bodies towards western researchers and westerner-lead research. Results from such project are often not reported nationally and are often ignored by national and local policy makers.

9. Bureaucracy and data protection legislations

As mentioned above, data suitable for investigating health inequalities exist in all countries in CEE/FSU. In many countries, however, the use of data, where an individual can be identified, is virtually impossible, due partly to bureaucratic difficulties and partly to data protection legislation. In Poland, for example, according to my information, even established cohort studies sometimes cannot access mortality registers to link participants’ characteristics with the national mortality register. Similarly, according to my information, it has been impossible to obtain permissions to link participants’ characteristics with their morbidity and health care usage data in national health insurance schemes in the Czech Republic and Poland.

10. Lack of national funding

As with other areas of research in CEE/FSU, research into social inequalities in health is chronically and seriously underfunded. This not only limits the conduct of current research, but it also prevents establishment and development of stable research groups, build up of research infrastructure, and recruitment and training of young researchers.

Conclusions

Compared to the situation before 1989, there has been an enormous improvement in the knowledge of social differentials in health in CEE/FSU. There is now at least some information available for each country of the region, and in many countries there are active research programmes into social determinants of health. However, compared to most (but not all) western European countries, there are still large gaps in mapping the extent of the problem and particularly in understanding the mechanisms of how social inequalities in health develop and, therefore, what policy measures could be taken. This is partly due to technical issues related to data availability and data analysis. However, the last three issues listed above are also symptomatic of the fact that, in many countries of CEE/FSU, health inequalities are not currently seen as a priority or as an important public health issue, both by policy makers and by the biomedical research mainstream. Until the perception of the importance of the subject changes, the quantity and particularly the quality of research will improve only slowly.

Tackling health inequalities in the Netherlands

Mariël Droomers

Summary: This article summarises initiatives and policies to tackle health inequalities in the Netherlands since the late 1980s. Political concerns about health inequalities have again become visible following the change of government in 2007. The new plan envisions integrated actions focusing on prevention and decentralised implementation. This however is very much a work in progress and leaves room for improvement.

Key words: health inequalities, health policy, prevention, the Netherlands

Historical development

Policies on socioeconomic differences in health in the Netherlands developed from a broad concern about socially and economically marginalised groups in the 1980s to specific concern about socioeconomic differences in the 1990s. During the latter decade the Dutch government pursued a research-based approach to tackle socioeconomic inequalities in health. This resulted in the development of several effective interventions. Subsequently, the programme committee overseeing the research programme recom- mended a combination of the implementation of promising interventions with continued evaluation efforts.

A government advisory committee developed a comprehensive and integrated strategy intended to reduce socioeconomic health inequalities, including a number of quantitative targets. The recommendations spanned the entire range between ‘upstream’ measures targeting socioeconomic disadvantage and ‘downstream’ measures targeting accessibility and quality of health care services. In response the government claimed that it was time for policy and action. The cabinet adopted a policy goal to increase the healthy life expectancy of the lowest socioeconomic group by three years by 2020.

However, at the beginning of this millennium, government policy emphasised