

Reconstruction of cause-of-death data lacking for Poland (1996-2002)

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Abstract

Mortality data is supposed to be one of the most complete in the demography as information derived from death certificates is obligatory gathered in the framework of public statistics. Lack of data on mortality, whether concerning demographic features of the deceased or medical causes of death, constitutes rather exceptions resulting from unusual events, such as wars or collapse of states. The strike of Polish medical doctors (1996-2002) which entailed serious disturbances in public statistics provided a good example of difficulties encountered when dealing with time series and of the way to face it, here to reconstruct mortality trends by causes of deaths.

One of the form of strike was neglecting the duty of reporting causes of deaths, which applied in the two most affected years, 1997-1998, to over 20% death certificates (80.5 and 75 thous., respectively). The scale of protest ranged profoundly across the regions (see Fig.1a,b), and since regions differ with regard to age structure of local population, the structure of unreported deaths by cause must have been different from that of total reported deaths at national level. Therefore, the reconstruction of cause-of-death data had to be reduced to the level of small demographic groups, divided by age, sex and place of residence (rural/urban and region). At this low level, the lacking cause-of-death records have been distributed proportionally to reported death certificates, first across the ICD main chapters, and then inside each chapter across single causes of deaths. Unfortunately, the implementation of the 10th revision of the International Classification of Diseases occurred in the same period (in 1997) and the strike makes uneasy the analysis of changes in cause-of-death statistics due to ICD update. The paper will present results obtained after reconstruction (see two examples at Fig. 2a,b) and it will discuss some difficulties encountered in this estimation.

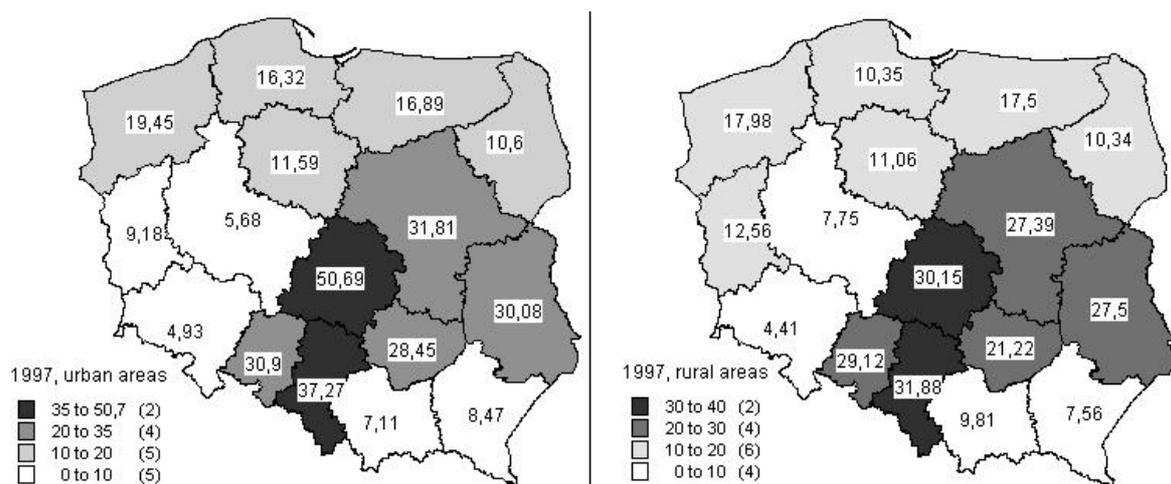


Fig.1a,b. The percentage of non-reported causes of deaths during the strike of medical doctors by regions, Poland 1997

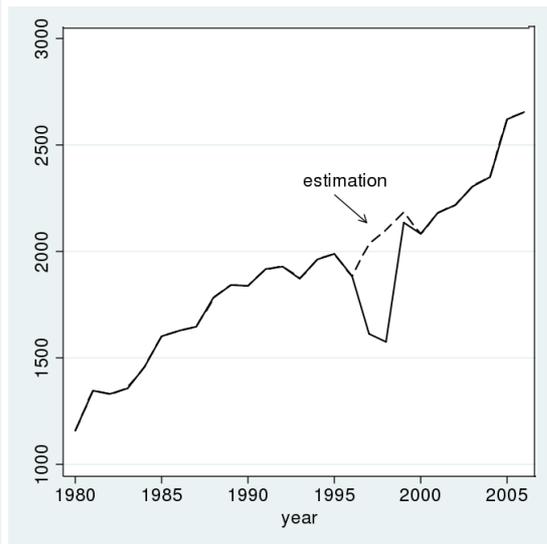
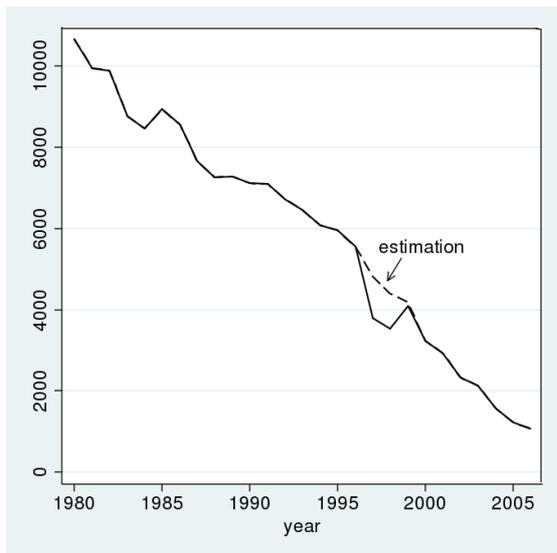


Fig.2a,b. Reconstruction of data lacking due to the strike of medical doctors in Poland, mortality due to pulmonary heart diseases (I27), left, and due to chronic renal failure (N18), right