Editorial

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Trends in Cerebrovascular Mortality in Western and Eastern Europe

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During the current century, major declines in mortality from cerebrovascular disease have been registered in most developed countries [1-3]. These favourable trends have almost certainly a number of different determinants, but can be partly or largely explained in terms of better control of hypertension [4].

A general overview of data and statistics on mortality from cerebrovascular disease from the early 1950s onwards can be derived for most European countries from the World Health Organization (WHO) mortality datafile [5]. This includes official death certification numbers, and estimates of resident population, for all or part of the last 4 decades (1950-1989) for all major European countries. After exclusion of a few small countries, such as Albania, Andorra or Liechtenstein, 30 countries were considered in figure 1, which includes age-standardized rates at all ages and truncated from 35 to 64 years on the World Standard Population. Data from the former Soviet Union, recently made available to the WHO database, were added to previously published work [5].

Overall age-standardized mortality from cerebrovascular diseases in the late 1950s was between 80 and 130/ 100,000 males in most European countries. Values were somewhat lower for females, particularly at a younger age and hence in the truncated rates from 35 to 64 years. The lowest rates were observed in East Germany (about 40/ 100,000) and Poland (about 35/100,000).

Over the following 3 decades in all Western European countries, except Greece and Portugal, substantial declines in overall cerebrovascular disease mortality were observed and in the late 1980s rates ranged between 40 and 80/100,000 males and 30 and 60/100,000 females in most countries. Thus in most Western European countries cerebrovascular disease death rates were approximately halved between 1950 and 1990. This has been the major advancement on a public health scale for any important cause of death during the second part of this century. In several countries these falls became steeper over more recent calendar periods.

The downward trends were even larger in young and middle age; in 1985-1989, for instance, Switzerland had a truncated rate (35-64 years) of 17/100,000 males and 10/ 100,000 females, and several other Western European countries had truncated rates around 20-30/100,000 males and 15-25/100,000 females.

Only two Western European countries had less favourable trends. In Greece, overall mortality from cerebrovascular diseases remained stable at around 80/100,000 in both sexes, although appreciable declines were observed in the truncated rates, particularly in females. In Portugal, mortality markedly increased until the late 1970s, to approach 200/100,000 males and 145/100,000 females, and only later started to decline, still remaining at over 140/100,000 males and 100/100,000 females (i.e., the third highest on a worldwide scale) in the late 1980s.

In contrast, cerebrovascular disease mortality increased in the whole of Eastern Europe, including both countries with low rates in the past (i.e., Poland or former East Germany, where rates in the late 1980s were over 60/100,000 males and over 40/100,000 females), and

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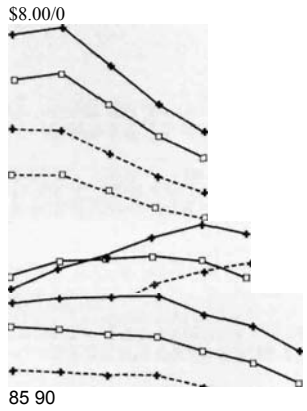

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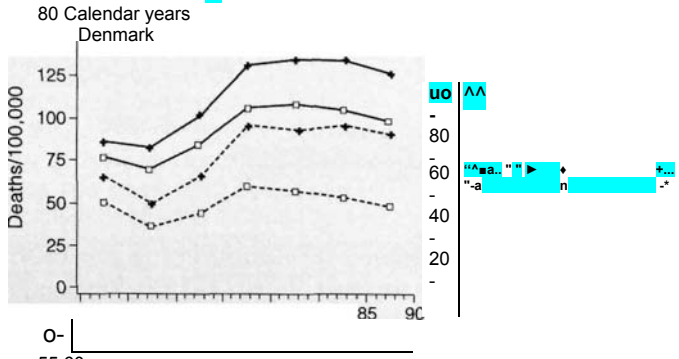

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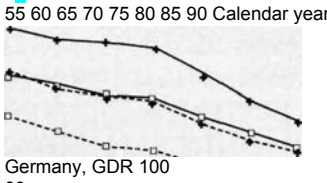

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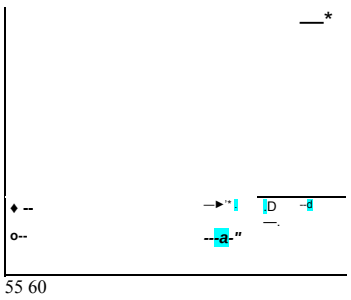

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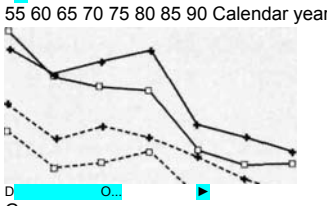

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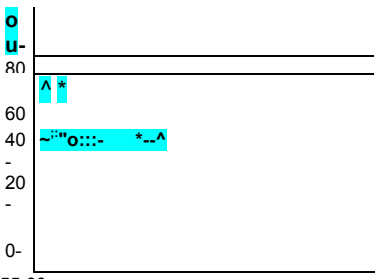

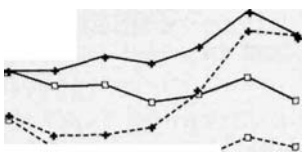

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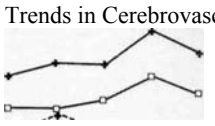

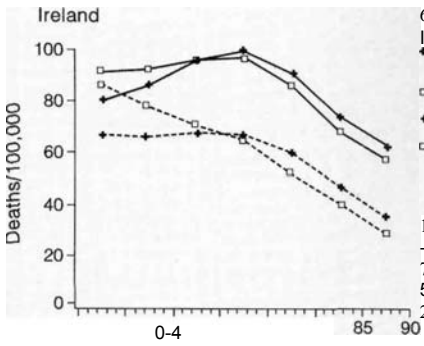

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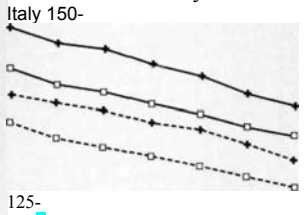

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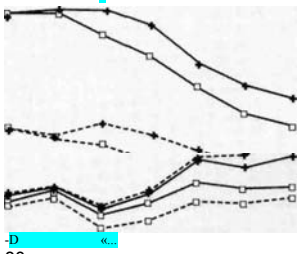

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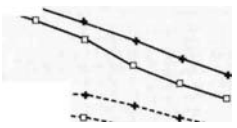

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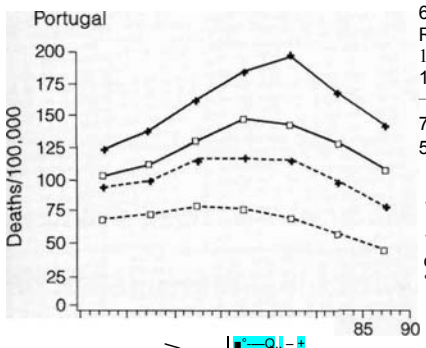

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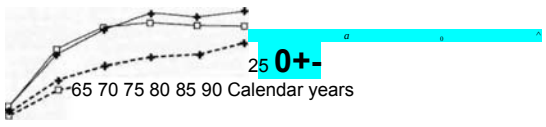

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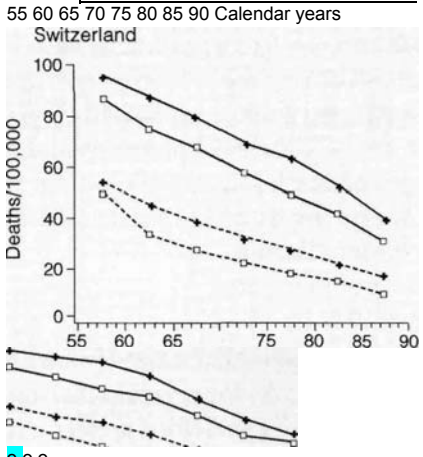

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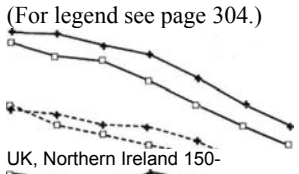

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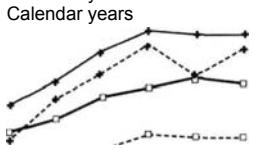

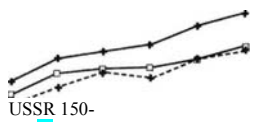

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Fig. 1. Trends in age-standardized (on the World Standard Population) death certification rates from cerebrovascular diseases in European countries providing data for the WHO databank (period 1955-1990).
—I= All ages; = 35-64 years; + = males;
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those whose rates were already high in the 1950s. Thus, rates for Bulgaria were in 1985-1989 over 160/100,000 males and over 125/100,000 females (i.e., the highest on a worldwide scale) and those of Czechoslovakia were 127 and 97/100,000, respectively. Upward trends were also observed in the former Soviet Union between 1965 and 1990 for both sexes (from 102 to 148/100,000 males, from 86 to 115/100,000 females). These levelled off during the last decade, although one of the highest rates was maintained in the Soviet Union on a European and worldwide scale. As for several other important causes of death [6], there is therefore a clear distinction between trends of cerebrovascular diseases in Western and Eastern Europe, which is also reflected in the overall variation of mortality rates over most recent calendar years (figure 2).

Part of the trends may be artefactual, and due to problems in diagnosis and death certification. However, even in the presence of changes in males, the definition of the overall group of cerebrovascular diseases in the International Classification of Diseases (ICD) has not changed over the period considered. Thus, these trends largely reflect real changes in mortality.

Since hypertension is the main determinant of cerebrovascular diseases [1-3], this suggests that inadequate control of hypertension in the general population is still widespread in Eastern Europe. Additional risk factors, such as smoking, alcohol consumption and diet (including salt for food processing and conservation), may also have had some effect on these unfavourable trends [1, 4, 7]. Urgent preventive intervention in the population at large is therefore required to control mortality from cerebrovascular disease in Eastern Europe.

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Fig. 2. Age-standardized (on the World Standard Population) death certification rates from cerebrovascular diseases in European countries providing data for the WHO databank (period 1985-1989, unless otherwise specified).

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