



Health statistics

Atlas on mortality in the European Union

Chapter 1 Introduction

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Foreword

This European atlas on mortality is the result of the first major public health statistics project launched by Eurostat in 1993. As part of this project, the Task Force on Causes of Death (TFCOD) has carried out a great deal of remarkable work to improve the quality of data and their comparability between Member States. The TFCOD was set up by the Working Group on Public Health Statistics in 1996 and headed by Eurostat and INSERM-CepiDc (*Centre d'épidémiologie sur les causes médicales de décès*) under the aegis of the Leadership Group (LEG) 'Health'.

The mortality data in this publication come from the national statistical institutes and the competent government agencies in the 15 Member States of the European Union. These data are disseminated at NUTS 2 level for all the Member States. They are also available in Eurostat's NewCronos database under Theme 3: Population and social conditions → health: health and safety → public: public health → Cdeath: causes of death, or through Eurostat's Data Shops in the various countries (see list at the end).

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1. Introduction

This atlas describes the situation regarding mortality in the Member States of the European Union and the figures are subjected to a two-tier analysis: general mortality broken down by age group and sex, and the medical causes of death.

The factors which determine the pattern of mortality are intrinsic (age, sex), extrinsic (biological or social collective factors, living or working conditions) and individual (lifestyle, smoking, alcoholism, driving behaviour, sexual behaviour) and are to some extent cultural or economic. These factors lead to specific causes of death, and this publication looks at their frequency and distribution in the various Member States of the European Union.

Mortality in the European Union: a favourable overall trend...

Taken together, the countries that now make up the EU saw a massive reduction in mortality in the last century according to what Omran has defined as 'epidemiological transition'. This theory explains the decrease in the general level of mortality, as a function of changes in the pattern of causes of death.

The first phase of epidemiological transition is the reduction in infectious diseases. This development began in the second half of the 19th century, first in northern Europe in the Scandinavian countries, then in France and the United Kingdom, and lastly in southern Europe. During the second half of the 19th century, there were very wide differences in mortality between the various countries.

The second phase describes the period between the end of the 19th century and the second half of the 20th century, when degenerative diseases became more prevalent than infectious diseases, and the differences between European countries became less marked. In all the countries, the main causes of death were diseases of the circulatory system and malignant neoplasms, although each country retained its own specific pattern of mortality.

A third phase, which began in the 1960s, involved a slowdown in the rate of increase of life expectancy despite a very marked reduction in infant mortality. This period also saw a widening of the difference in mortality between men and women.

A fourth phase is currently under way in which the difference in life expectancy between the sexes is narrowing, and this phenomenon is already

marked in Sweden and Denmark, mainly as a result of the increased risk behaviours of women (e.g. smoking).

... but there are still marked differences between the Member States

These developments have been accompanied by a reduction in the mortality gap between Member States, but there are still major differences. For example, Portugal's mortality level is still a third higher than that of Sweden. One of the reasons for the difference between these two countries is the different level of their economic and social development. Be that as it may, the economic factor cannot be used to explain the fact that Greece is on a par with Luxembourg and is more favourably placed than the United Kingdom or Germany. The differences between Member States that are highlighted below are actually the result of a whole range of factors.

Major differences between men and women

One characteristic of mortality in Europe is the very marked difference between the sexes. Although there is a tendency at present for this gap to narrow in certain Member States, the difference nevertheless warrants the separate treatment of female and male mortality. The differences in mortality between the sexes can also be seen for most of the causes of death and the patterns of mortality according to sex and age vary from one Member State to another.

This atlas therefore deals with these various categories separately in order to highlight specific differences and a large number of maps, in particular, show the differences between States based on the male/female mortality ratio.

Highlighting premature mortality

In the European Union, the mortality rate for the population aged between 0 and 64 years is relatively favourable. In view of the numbers concerned, it is the death rates among the older population that largely determine the overall level of mortality. Although premature mortality affects a smaller number of people, its level varies widely across Europe and its link to health and prevention practices make it of particular interest.

Regional analysis

Mortality in the EU Member States is rarely uniform. There can be extreme differences between the regions of a particular country while the regions of other countries may all have very similar mortality rates. Therefore, it was decided to base this study on regional units.

It remains to be seen whether the similarity between regions is due to geographical proximity (economic, social or cultural proximity). This question is a working hypothesis that underlies the analyses. A thorough study of the causes of death in the various European regions will demonstrate, in particular, whether there are cross-border areas with similar mortality profiles.

Reference:

Omran, A. R. (1991), 'The epidemiologic transition: a theory of the epidemiologic of population change', *The Milbank Memorial Fund Quarterly*, 49 (4), pp. 509–538.