

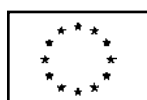


Health statistics

Atlas on mortality in the European Union

Chapter 7 Typologies of mortality by cause

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UNIVERSITÉ PARIS X NANTERRE



THEME 3
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7. Typologies of mortality by cause

The purpose of drawing up typologies of mortality by cause of death is to define groups of regions with similar mortality profiles. This method has been used to portray male mortality and female mortality.

Each European country can be identified by a specific mortality profile. However, some profiles are found in a number of — usually neighbouring — Member States. While some profiles are more favourable than others, no European country displays excess mortality or below-average mortality for all of the causes of death considered.

Eight types of mortality for men and seven for women have been identified. The results of these analyses reflect mainly the predominant impact of nationality on mortality profiles.

Male mortality profile

Of the eight types of male mortality defined, two display overall below-average mortality, three are close to the European average, and three display excess mortality for a large number of causes of death.

Type 4 is found only in Greece, where below-average mortality is particularly marked for all cancers and respiratory diseases (chronic and infectious). However, there is slight excess mortality from cerebrovascular diseases and more marked excess mortality from transport accidents. The fact that Greece simultaneously has low mortality from suicide and a high percentage of ill-defined causes of death raises the problem of the reliability of the declaration of 'sensitive' causes of death such as suicide.

Type 2, which is found in all the regions of Sweden and Finland, displays below-average mortality for most causes of death, particularly those related to smoking (cancers of the larynx and trachea/bronchus/lung). There is also slight excess mortality for suicide and marked excess mortality for prostate cancer and ischaemic heart disease.

Type 6 is found throughout Spain, Italy and Luxembourg, where mortality rates for most causes of death are close to the European average. However, there is slightly below-average mortality for prostate cancer, ischaemic heart disease and suicide and slightly excess mortality for infectious diseases, including AIDS, and for stomach cancer.

Type 7 also has intermediate rates for most causes of death, but there is marked excess mortality for some causes, particularly ischaemic heart disease and infectious respiratory diseases. This mortality profile is found in Ireland and the United Kingdom.

Type 8 covers the Flemish part of Belgium and the Netherlands, both of which have intermediate rates for most causes of death but have excess mortality for causes linked to smoking (respiratory cancers and chronic respiratory diseases).

Type 3 covers Denmark, Germany and Austria and is typified by slight excess mortality for most causes of death, particularly those associated with alcoholism (cancers and diseases of the digestive system, alcoholic psychosis), suicides and ischaemic heart diseases. There is, however, slightly below-average mortality in these Member States for respiratory diseases.

Type 5, which applies only to the regions of France, is typified by marked excess mortality for pathologies associated with alcoholism and suicide. There is also slight excess mortality for infectious diseases mainly associated with AIDS. On the other hand, there is below-average mortality for ischaemic heart diseases.

Type 1, which is found in Portugal, has very marked excess mortality from stomach cancers and diseases of the digestive system, cerebrovascular diseases and transport accidents. There is also excess mortality from infectious diseases, particularly AIDS. As in Greece, the fact that a high proportion of ill-defined causes exists side by side with low mortality from suicide raises the question of the reliability of the data on deaths from suicide.

Female mortality profile

The predominance of the national component is also reflected in the mortality profiles for women. Although this geographical pattern has similarities with that of male mortality, there are differences in some Member States.

Type 6, which is found in Greece, displays — like the male type — marked below-average mortality for cancers and excess mortality for transport accidents. A low percentage of suicides also exist side by side with a high proportion of ill-defined causes. Excess mortality from cerebrovascular diseases is, however, much more prevalent among the female population than among the male population.

Type 1, which covers Spain, Italy and Luxembourg, is similar to the male type for the same Member

States, with a distribution of deaths similar to the European average.

Type 7 is also typified by intermediate rates for most causes of death, with slight excess mortality from suicides and ovarian cancers. This profile applies to Finland and Sweden, where there is a different profile of female mortality from that of the Netherlands and Belgium. In Sweden and Finland, the below-average mortality from cancer in the male mortality profile is not found in the female profile. On the other hand, women are far less affected by ischaemic heart diseases. In the Netherlands, the excess male mortality associated with smoking is not matched in the female population.

Type 5, the profile found in France and Belgium has similarities with male Type 5 as found in France: excess mortality from infectious diseases (AIDS), alcoholic psychosis and suicides. On the other hand, the marked excess male mortality from cancers of the digestive system is not matched among the female population of these Member States.

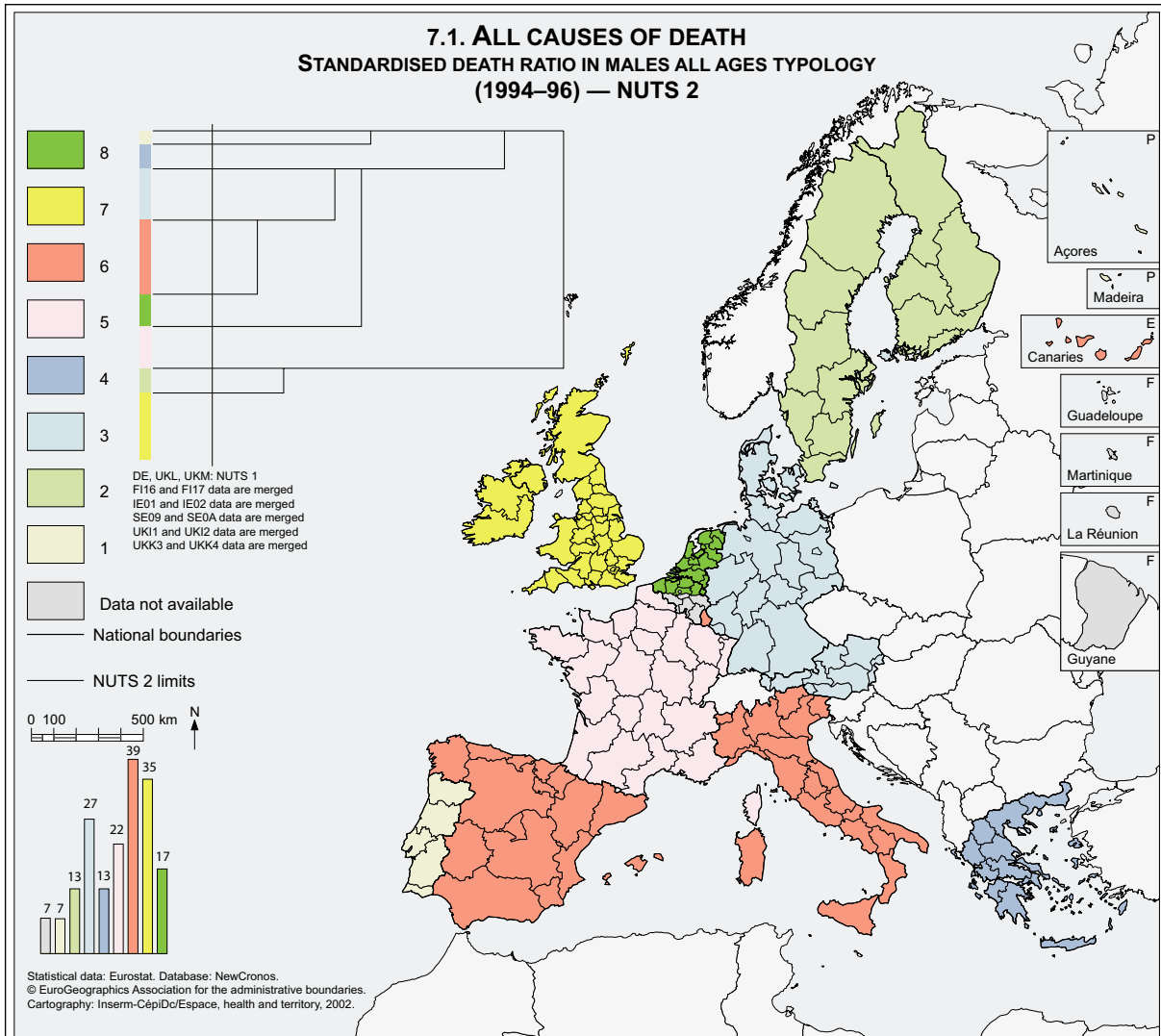
Female **Type 4** is similar to male Type 3 and applies to the same Member States: Denmark, Germany and Austria. This profile displays excess mortality for most causes of death. This excess mortality is more marked for men than for women for diseases caused by alcoholism and for stomach cancers.

There is also excess mortality from cancers of the uterus.

Type 3, which is found in Portugal, has excess mortality from stomach cancers, cerebrovascular diseases and transport accidents. There is, however, no excess female mortality from diseases of the digestive system. On the other hand, Portuguese women are greatly affected by cancer of the uterus.

Type 2, which covers the United Kingdom and Ireland, is different from the male profile in these two Member States, where there is marked excess female mortality for causes associated with smoking. This profile also displays excess mortality from cancers of the breast and ovaries.

The analysis of the regional mortality profiles thus chiefly reveals the importance of nationality. The analysis of mortality by cause, however, shows that there are considerable disparities in mortality within certain Member States and that there are considerable cross-border similarities for certain causes of death. The national component that dominates the maps of mortality profiles is explained mainly by the large contribution of certain causes of death, such as circulatory and respiratory diseases, to general mortality. The situation regarding these causes of death is relatively homogeneous in each Member State.



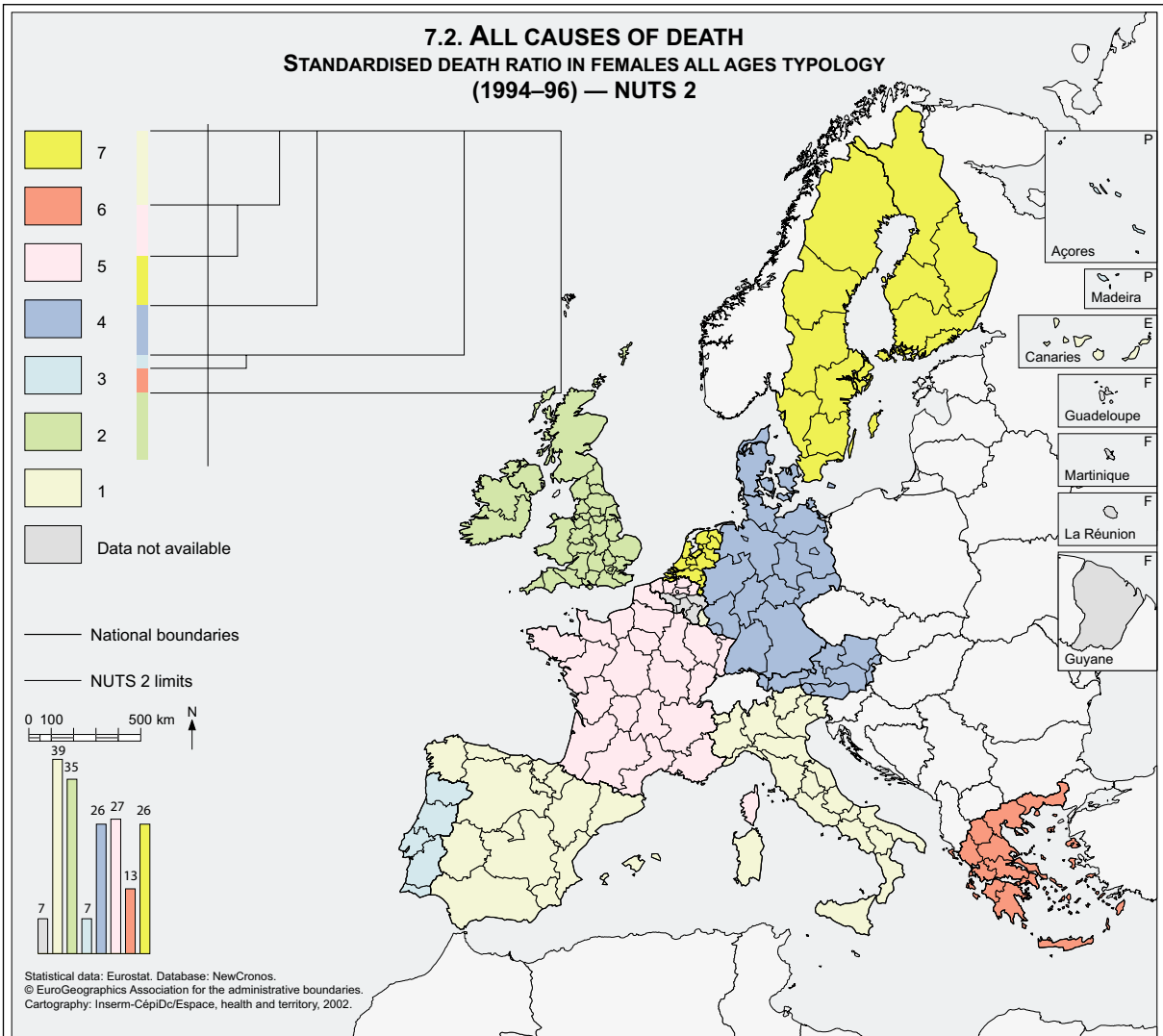
CAUSES OF DEATH and codes in the 'European Shortlist'

	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	
Infectious and parasitic diseases	1, 2, 3, 4, 5	■	■	■	■	■	■	■	Infectious diseases of the respiratory system	38, 39	■	■	■	■	■	■	■	■
Malignant neoplasm ORL	8, 9	■	■	■	■	■	■	■	Chronic diseases of the respiratory system	40, 41	■	■	■	■	■	■	■	■
Malignant neoplasm of larynx-trachea-bronchus-lung	15	■	■	■	■	■	■	■	Other diseases of the respiratory system	37	■	■	■	■	■	■	■	■
Malignant neoplasm of stomach	10	■	■	■	■	■	■	■	Diseases of the digestive system	42, 43, 44	■	■	■	■	■	■	■	■
Malignant neoplasm of the digestive system	11, 12, 13, 14	■	■	■	■	■	■	■	Suicide	63	■	■	■	■	■	■	■	■
Malignant neoplasm of prostate	21	■	■	■	■	■	■	■	Transport accidents	60	■	■	■	■	■	■	■	■
Other malignant neoplasms	6, 7, 16, 17, 22, 23, 24	■	■	■	■	■	■	■	Other accidents	58, 59, 61, 62, 64, 65	■	■	■	■	■	■	■	■
Alcoholic psychosis	29	■	■	■	■	■	■	■	Ill-defined causes	55, 56, 57	■	■	■	■	■	■	■	■
Ischaemic heart diseases	34	■	■	■	■	■	■	■	Other causes	25 to 28, 30 to 32, 45 to 49, 51 to 54	■	■	■	■	■	■	■	■
Cerebrovascular diseases	36	■	■	■	■	■	■	■										
Other diseases of the circulatory system	33, 35	■	■	■	■	■	■	■										

Distances to the European averages
(in standard deviation of each variable 'causes of death')



7. Typologies of mortality by cause



CAUSES OF DEATH and codes in the 'European Shortlist'

		1	2	3	4	5	6	7		1	2	3	4	5	6	7	
Infectious and parasitic diseases	1, 2, 3, 4, 5	■	■	■	■	■	■	■	Alcoholic psychosis	29	■	■	■	■	■	■	■
Malignant neoplasm of zone ORL	8, 9	■	■	■	■	■	■	■	Infectious diseases of the respiratory system	38, 39	■	■	■	■	■	■	■
Malignant neoplasm of larynx-trachea-bronchus-lung	15	■	■	■	■	■	■	■	Chronic diseases of the respiratory system	40, 41	■	■	■	■	■	■	■
Malignant neoplasm of stomach	10	■	■	■	■	■	■	■	Other diseases of the respiratory system	37	■	■	■	■	■	■	■
Malignant neoplasm of the digestive system	11, 12, 13, 14	■	■	■	■	■	■	■	Diseases of the digestive system	42, 43, 44	■	■	■	■	■	■	■
Malignant neoplasm of breast	17	■	■	■	■	■	■	■	Suicide	63	■	■	■	■	■	■	■
Malignant neoplasm of uterus	18, 19	■	■	■	■	■	■	■	Transport accidents	60	■	■	■	■	■	■	■
Malignant neoplasm of ovary	20	■	■	■	■	■	■	■	Other accidents	58, 59, 61, 62, 64, 65	■	■	■	■	■	■	■
Other malignant neoplasms	6, 7, 16, 21, 22, 23, 24	■	■	■	■	■	■	■	Ill-defined causes	55, 56, 57	■	■	■	■	■	■	■
Ischaemic heart diseases	34	■	■	■	■	■	■	■	Other causes	25 to 28, 30 to 32, 45 to 49, 51 to 54	■	■	■	■	■	■	■
Cerebrovascular diseases	36	■	■	■	■	■	■	■									
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Distances to the European averages
(in standard deviation of each variable 'causes of death')

