



# Health statistics

## Atlas on mortality in the European Union

### Chapter 10 Respiratory cancers

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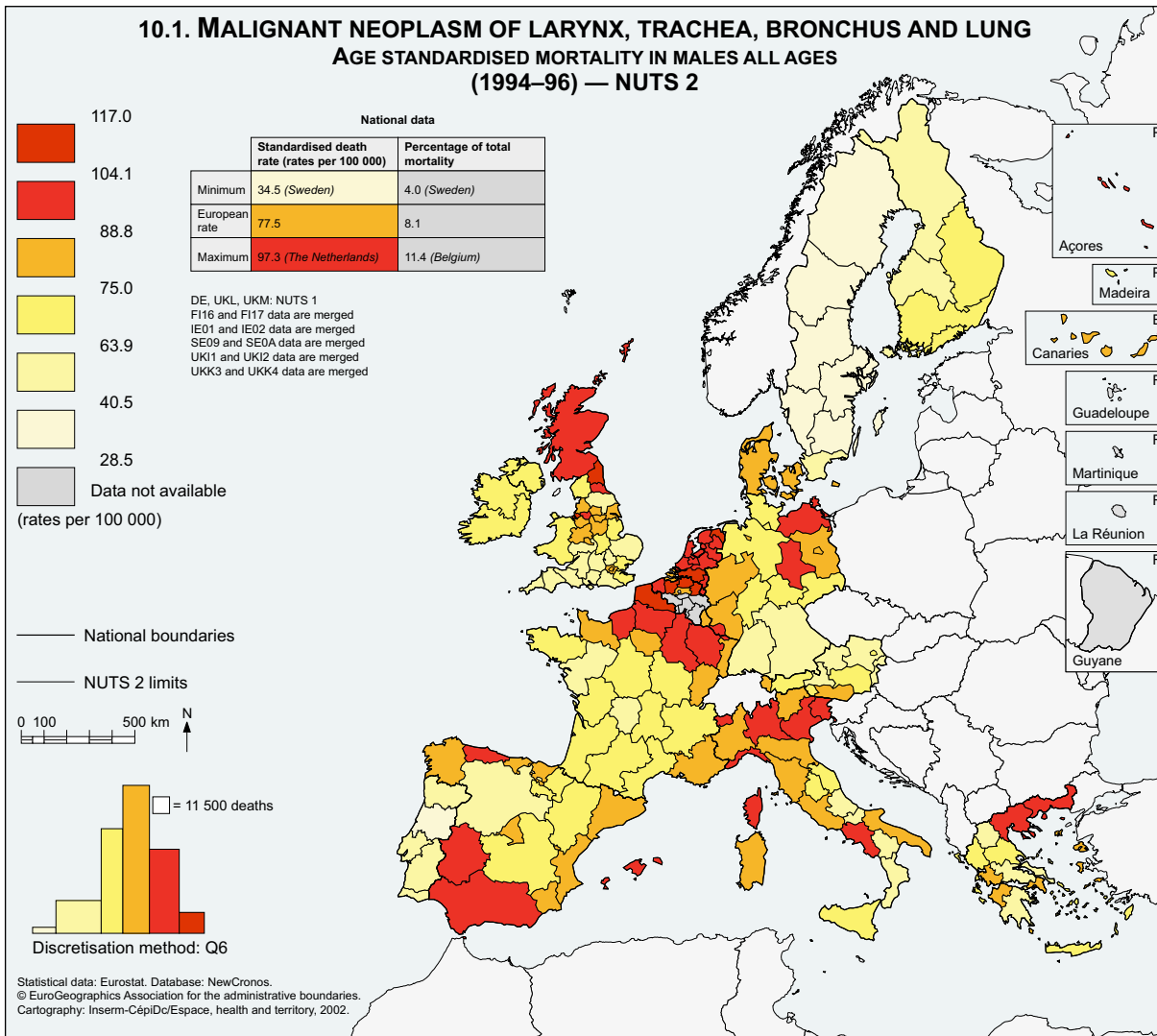
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## 10. Respiratory cancers

Respiratory cancers (lungs, bronchi, trachea, and larynx) account for 5 % of all deaths in the EU. These cancers, commonly known as ‘smokers’ cancers’, are mainly caused by smoking.

There is little medical science can do to increase the life expectancy of patients with this type of cancer: half of the deaths occur before the age of 65 years.

These pathologies therefore pose the problem of meaningful prevention on two levels, namely an anti-smoking strategy and early detection.

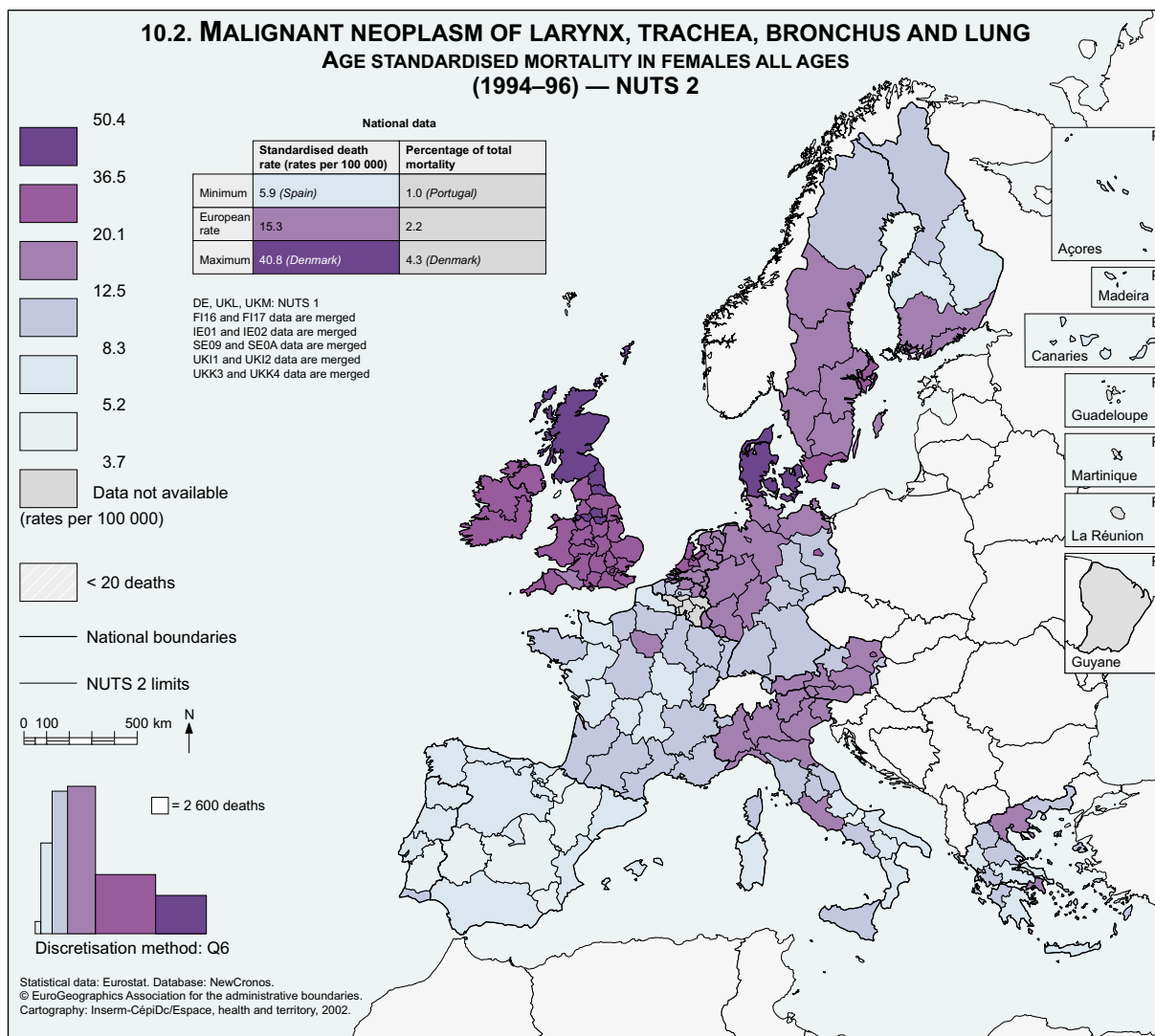
### For men, there is a strong correlation between industrial and urban factors and mortality level

Mortality rates for the male population varies at a ratio of 1 to 4 according to the region. Within na-

tional borders, the contrasts are striking. In France, Germany, the United Kingdom and the Mediterranean countries, with the exception of Portugal, industrial and urban regions with common socio-economic characteristics display high mortality levels.

Particularly affected are the old industrial areas of northern France, western Germany, northern Britain, northern Italy and the coastal provinces of Spain. All the major urban regions of these countries, as well as the province of Athens in Greece, experience excess mortality. High death rates are recorded also in regions hit by economic recession, for example the *Länder* of former East Germany (currently undergoing restructuring), Campania in Italy, Scotland, Anatoliki and Kentriki Makedonia and Thraki.

The correlation between urbanisation, an industrial economy and mortality from respiratory cancer



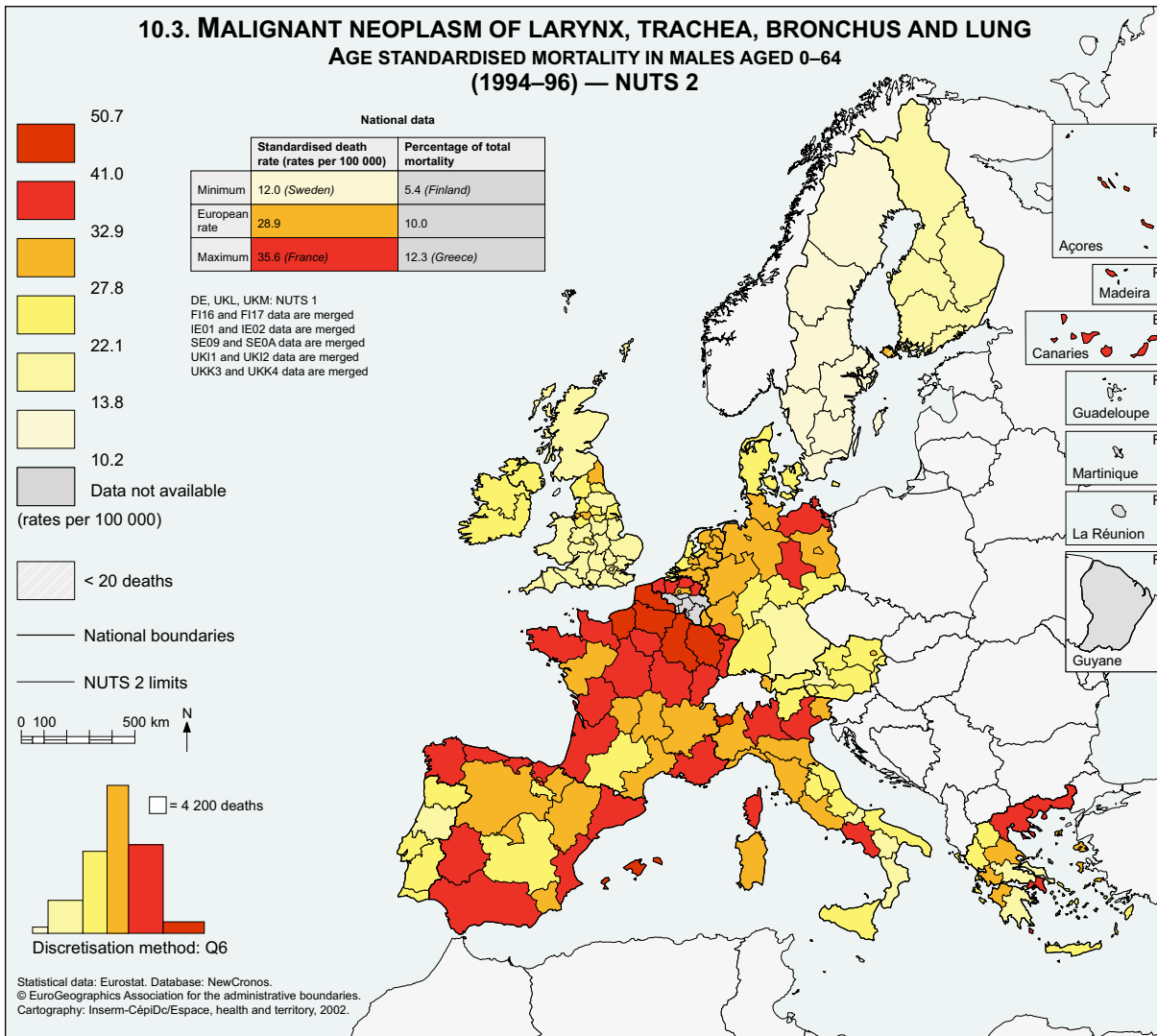
is evident also in the Netherlands and in Belgium. These two countries with excess mortality have similar territory with a dense urban network and high levels of industry. In contrast, this correlation is not borne out in Sweden, Finland and Portugal where the homogeneity of regional mortality rates does not reflect their very real socioeconomic disparities.

Deaths from respiratory cancer are frequent before the age of 65 years (survival time for this type of cancer is short). The geographical distribution of premature death rates differs noticeably from that of deaths across all age groups, marking a contrast between the relatively unaffected northern countries and the rest of the European Union. Despite the marked disparities within most countries, there are national trends. In France, for example, all regions are strongly affected.

Geographical links and overlaps across national borders should also be highlighted. All the coastal regions and Mediterranean islands suffer excess mortality, from Andalusia to Campania, as well as the Atlantic regions from Galicia to Brittany. Overall, with the exception of Austria and Portugal, all southern countries are affected.

In contrast, mortality in northern EU countries is low. Sweden and Finland appear very homogeneous. There are some marked disparities in the UK, but generally mortality is low.

The relationship between smoking and death from respiratory cancer is now well established. Regions with excess mortality are geographical areas where tobacco consumption is or has been higher than elsewhere. However, we do not have sufficiently reliable data on the history of tobacco consumption in European regions to allow us to measure this correlation accurately.



However, the studies on male tobacco consumption by socioeconomic group show that smoking is more widespread among manual workers. In industrial areas, the high death rates from respiratory cancer thus probably indicate a mortality which affects a male population with high tobacco consumption and simultaneously more frequent exposure to a polluting environment. It is not possible to measure the precise role of each of the potential causes of this mortality (owing to a lack of data on the geographical disparities of the risk factors).

The differences in the maps depicting deaths among men of all ages and among those under 65 years can be explained by the changes in tobacco consumption in the EU since the 1970s. Measures to raise risk awareness have led to a decline in tobacco consumption in all European countries. However, the extent of this decline has varied from country to country. It was more pronounced in the

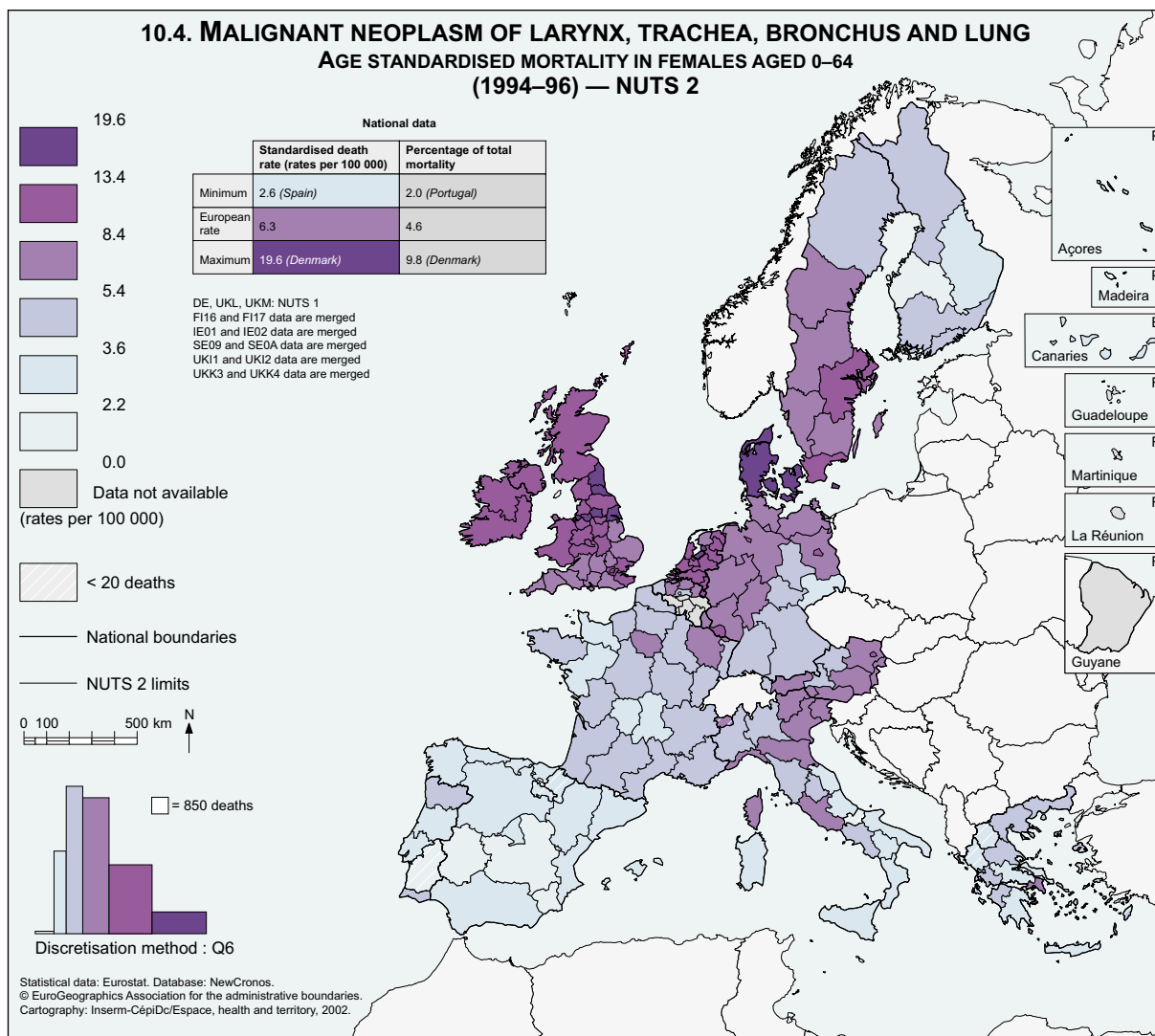
United Kingdom than in France — hence the lower premature mortality among men in the United Kingdom.

France and the other southern EU countries are currently witnessing an increase in smoking among young people. Unless there is a change in behaviour, it is likely that the number of deaths will rise.

### A geographical pattern of mortality specific to women

The geographical breakdown of female mortality differs from that of men.

There is a vast area with excess female mortality extending from the UK to the southern regions of Sweden and Finland as far as western Germany. In contrast, with the exception of Austria and northern Italy, the women of the Mediterranean coun-



tries escape relatively unscathed. The Iberian Peninsula constitutes a homogeneous whole with very low female mortality rates, up to 12 times lower than those of Denmark. The rates vary sharply between regions at either extreme (at a ratio of 1 to 14).

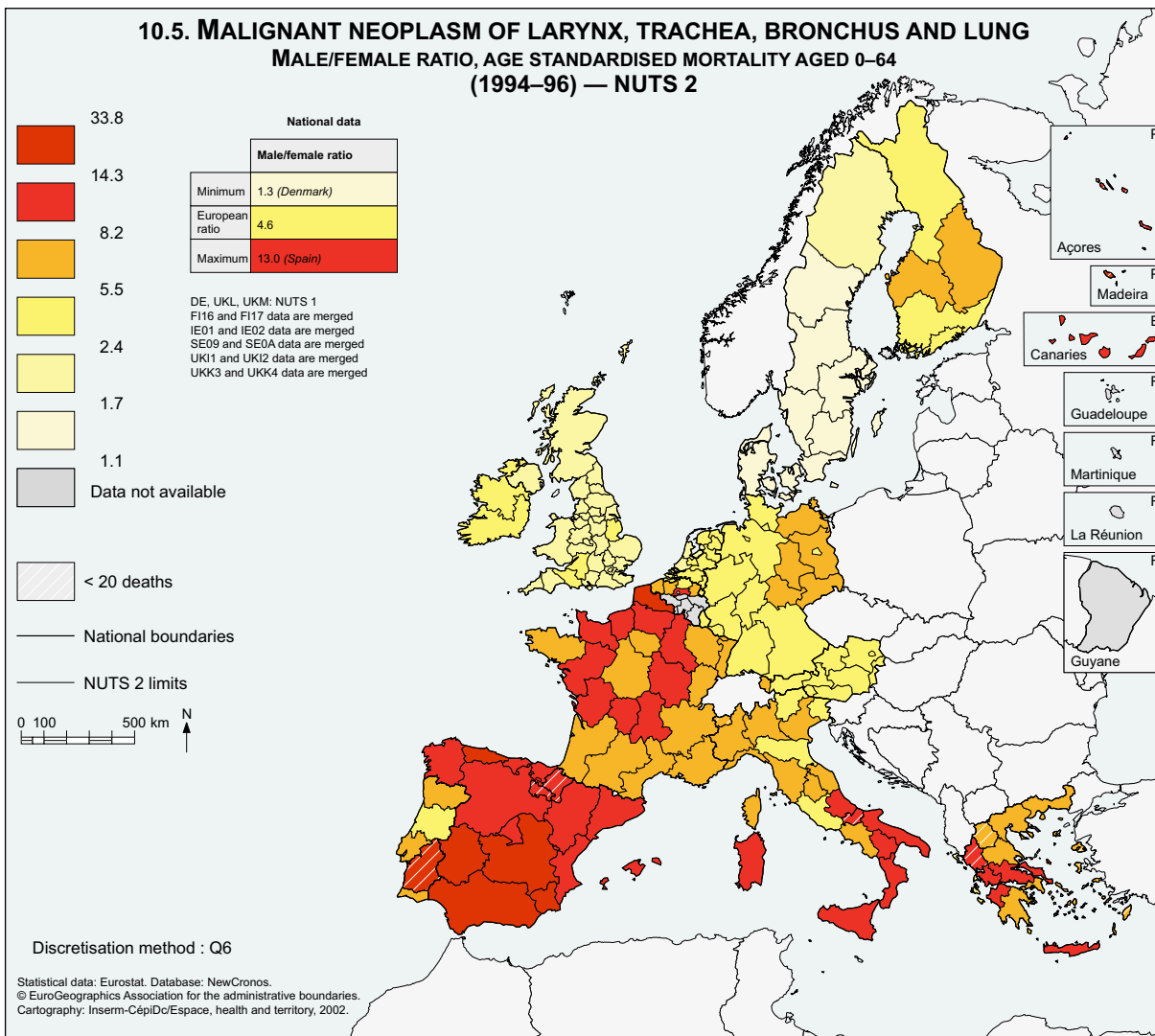
This clear-cut pattern can be explained by the very sharp differences in female smoking behaviour between the north and the south. In the northern countries, smoking among women is a phenomenon which has been around for some time. In southern countries, tobacco consumption among women is now rising sharply. This is evident in urban areas in particular, which, with the exception of Vale de Tejo (Lisbon) and the Comunidad de Madrid, are all currently recording female mortality rates close to those of the northern countries.

In the southern countries, smoking is very widespread in the young female population (high-

er than male consumption in the 15 to 24 age brackets in some countries). It is thus very probable that the current pattern will change in future, re-establishing an equilibrium between north and south, to the detriment of women in the south of the EU.

### Mortality risks for men are always higher than for women, but there are wide disparities in mortality between the sexes

Despite increasingly widespread smoking by women in the EU, it is clear that men still have a far higher incidence of respiratory cancer than women do. However, the ratios of excess mortality among men, in the population under 65 years, vary greatly by European region (ranging from 1.1 to 33). The geographical pattern of this excess mortality differs sharply between northern and southern countries.



In the northern countries, where female mortality is high, the ratios are low. In Sweden and Denmark, for example, respiratory cancers affect men almost on the same scale as women. In contrast in the Mediterranean countries, particularly Spain, the excess mortality among men is very marked. It is likely that these trends will change in future in countries such as France or Spain, in view of the fact that tobacco consumption by women is currently rising, while tending to level off among the male population.

The geographical disparities observed should therefore be interpreted with caution since they often reflect past behaviour in tobacco consumption, behaviour that varies according to sex and social category. In addition to smoking, which is a clearly identified risk factor, there are also other factors whose effects still have not been properly measured.

In view of current trends in tobacco consumption in the Member States, it is probable that the present disparities between countries and regions across Europe will change in the future.