

## 28. HEALTH: AGE-ADJUSTED MORTALITY RATE

The age-adjusted mortality rate is a basic indicator of the population's health status. At the national level, it is the death rate that would occur in a country if its population's age profile was the same as the OECD average. Therefore, a value higher than the OECD average indicates that, after accounting for differences in age, that country's mortality rate is higher than the OECD average.

### **Mortality rates for males are considerably higher than for females**

Age-adjusted mortality rates of men and women vary significantly among OECD countries (Figure 28.1). In 2003, mortality rates for males were, on average, much higher (847 per 100 000 population) than for females (516).

The difference between the country with the lowest age-adjusted mortality rate (Japan) and the highest (Hungary) was considerably greater for males (684 deaths) than for females (463 deaths). Japan recorded the lowest female mortality rate and Mexico the highest.

### **Regional variations are high in North America, Australia and Portugal**

At the regional level, the age-adjusted mortality rate is expressed as the ratio of the observed number of deaths to expected number, i.e. the number of deaths that would occur in a given region if age-specific mortality rates in that

region were the same as in the country overall. A value higher than the national average indicates that, after accounting for differences in age, mortality rates in that region are higher than in the other regions of that country.

Considerable international differences in mortality rates hide even larger differences among regions. In 2003, the gap between the region with the lowest and the highest age-adjusted mortality rate for males was widest in Australia (75 percentage points), Canada (74), Denmark (72) and Portugal (53). For females the gap was widest in Canada (108), Denmark (76), Australia (62) and the United States (49).

In Canada and Australia the gap was driven by the high mortality rate of a single region: the Northwest Territories for the former and the Northern Territory for the latter. In Portugal the large gap was driven by the high mortality rates of two regions: Açores and Madeira (Figure 28.2).

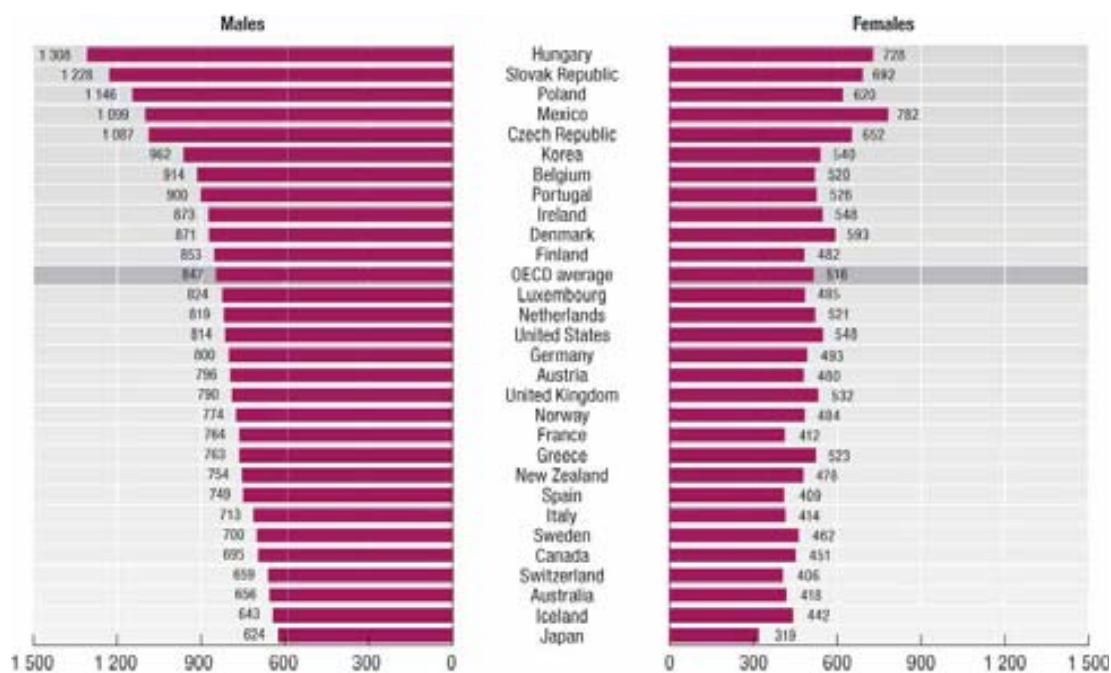
In contrast, for males the regional pattern in age-adjusted mortality rates was more balanced in New Zealand, the Netherlands, Greece, Japan, Sweden and Iceland, and for females it was more balanced in the Netherlands, Greece, New Zealand, the Slovak Republic, Japan, Switzerland, Iceland, Hungary, Finland and Sweden, where the gap between the region with the lowest and the highest age-adjusted mortality rate was no larger than 9 percentage points.

#### **Definition**

Crude mortality rates are adjusted for age, which is a primary factor of mortality. Age-adjusted mortality rates eliminate differences due to a population's age profile and are comparable across countries and regions.

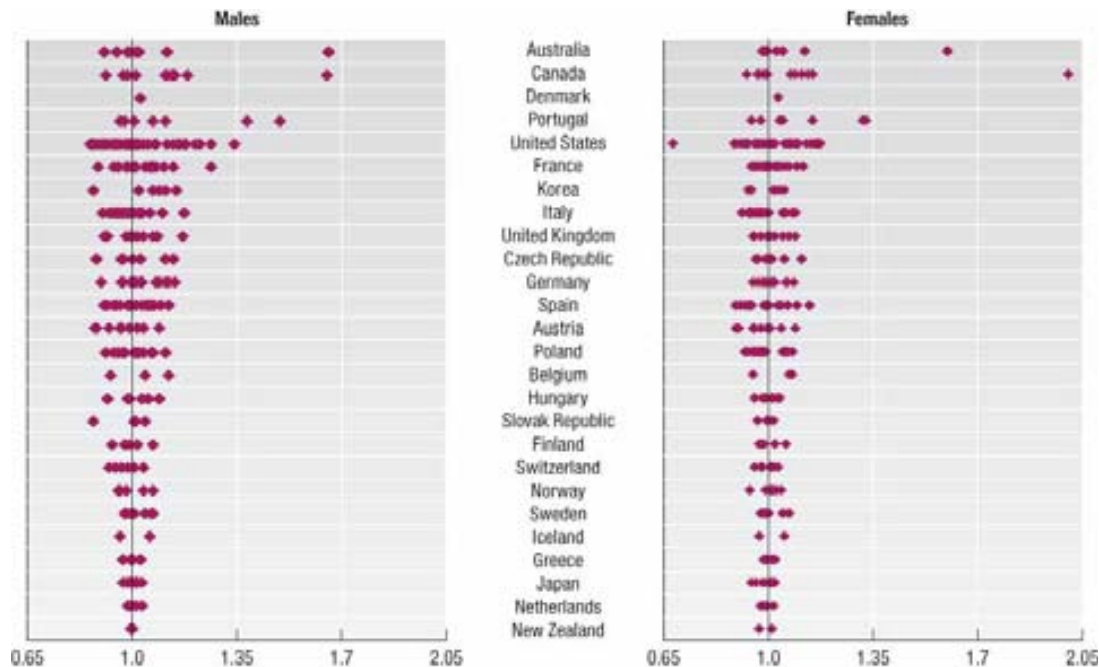
## 28. HEALTH: AGE-ADJUSTED MORTALITY RATE

### 28.1. Age-adjusted mortality rates in OECD countries (per 100 000 population), 2003



### 28.2. Regional disparities in age-adjusted mortality rates

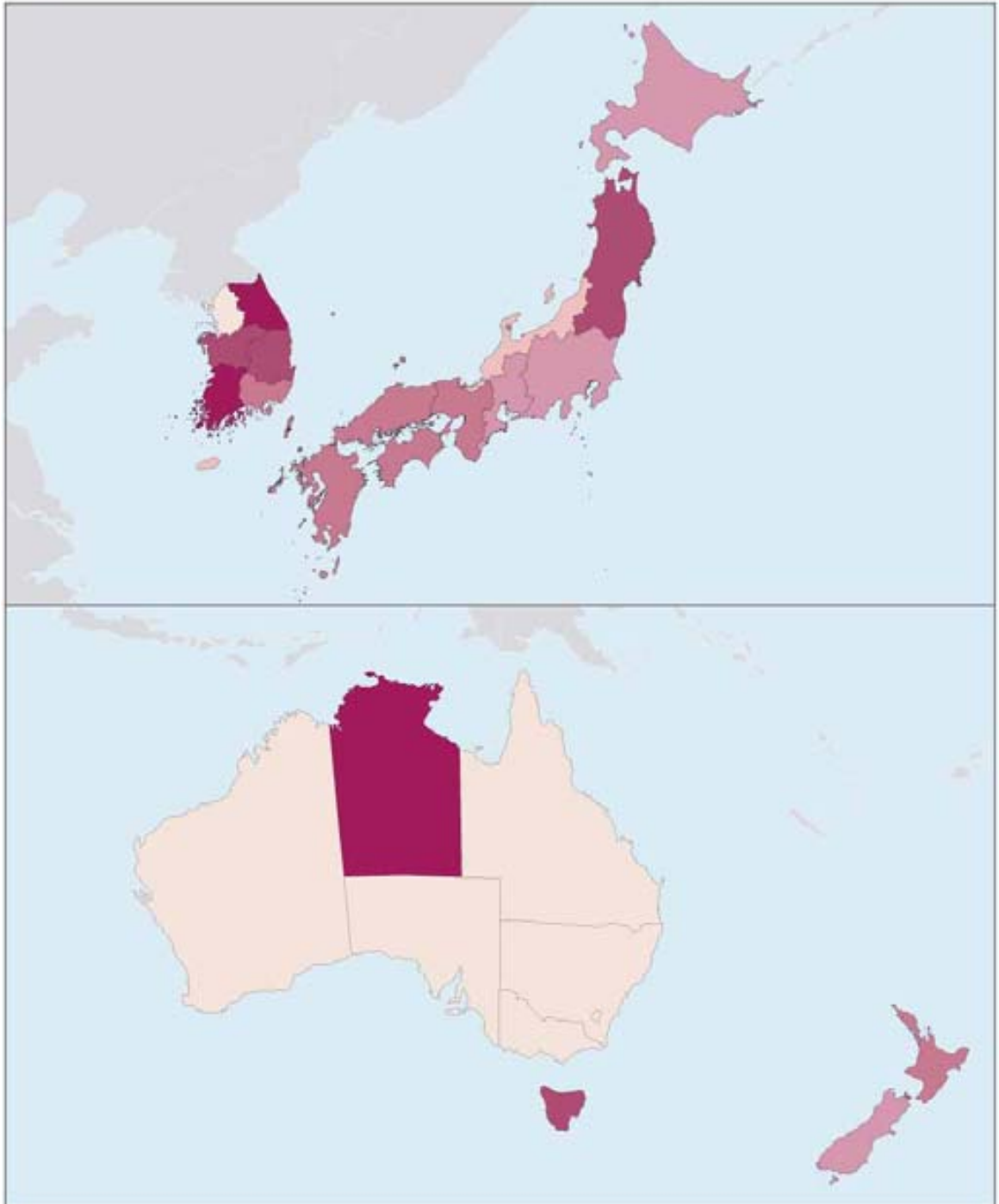
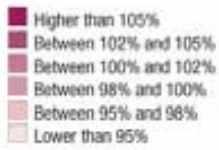
Regional age-adjusted mortality rates, 2003 (TL2)



StatLink <http://dx.doi.org/10.1787/520004880758>

### 28.3. Age-adjusted mortality rate for females: Asia and Oceania

Percentage of national average 2003

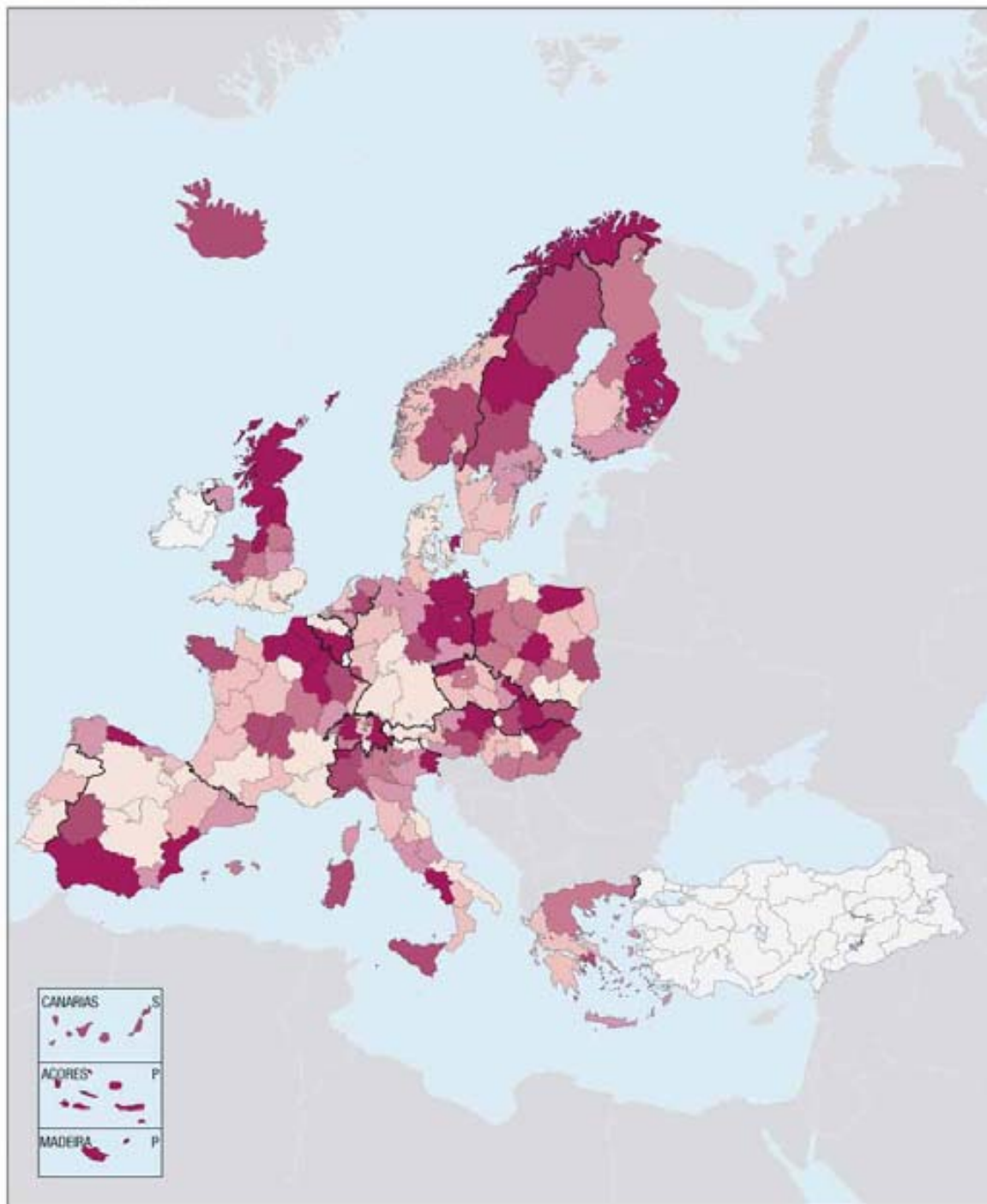



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28.4. Age-adjusted mortality rate for females: Europe

Percentage of national average 2003

- Higher than 105%
- Between 102% and 105%
- Between 100% and 102%
- Between 98% and 100%
- Between 95% and 98%
- Lower than 95%

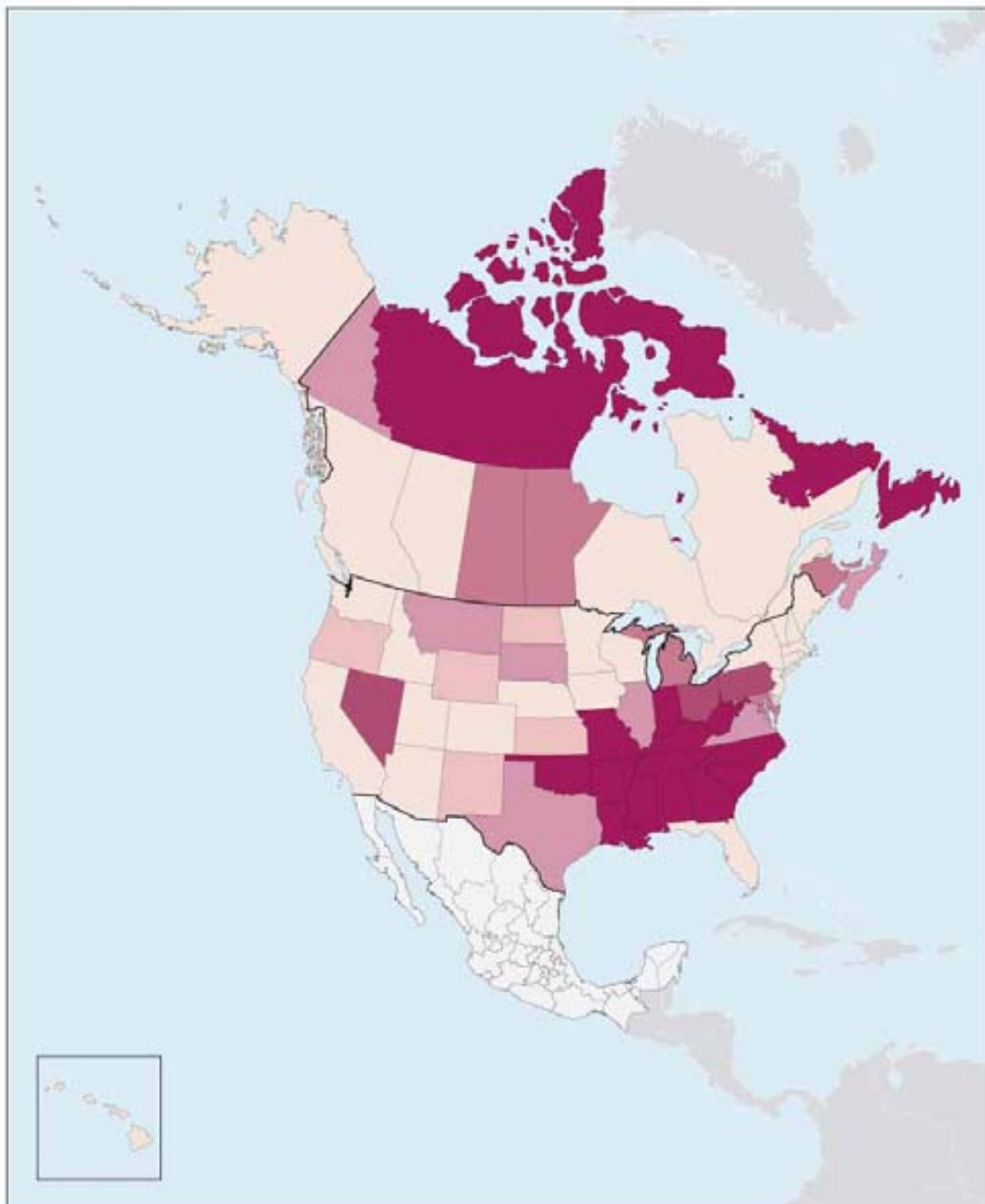



StatLink  <http://dx.doi.org/10.1787/087413716410>

28.5. Age-adjusted mortality rate for females: North America

Percentage of national average 2003

- Higher than 105%
- Between 102% and 105%
- Between 100% and 102%
- Between 98% and 100%
- Between 95% and 98%
- Lower than 95%



StatLink  <http://dx.doi.org/10.1787/087413716410>

### Age-adjusted mortality rates are significantly higher for males in rural regions and for females in urban regions

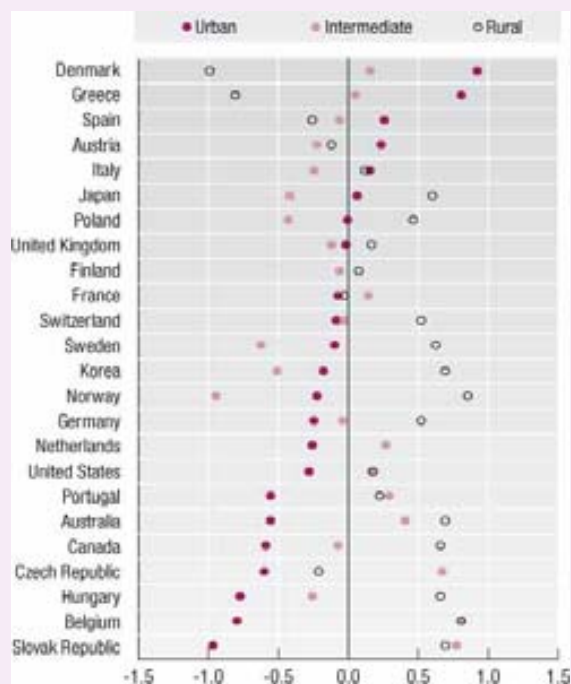
The correlation between age-adjusted mortality rates and population share by type of region (urban, intermediate and rural) was strongest for males in rural regions (in 14 out of 24 OECD countries) and for females in urban regions in 13 countries.

For males, the positive correlation between mortality rates and share of population in rural regions was particularly marked in Norway (0.84), Belgium (0.80), Korea and Australia (0.69) and the Slovak Republic (0.68). For intermediate regions it was strongest in Belgium (0.80), the Slovak Republic (0.76) and the Czech Republic (0.67), and for urban regions, it was strongest in Denmark (0.91) and Greece (0.80) (Figure 28.6).

For females, the strongest positive correlation between mortality rates and share of population in urban regions occurred in Denmark (0.92) and Japan (0.79), while in intermediate regions it was strongest in the Slovak Republic (0.99) and in rural regions it was strongest in Hungary (0.84) and Australia (0.58) (Figure 28.7).

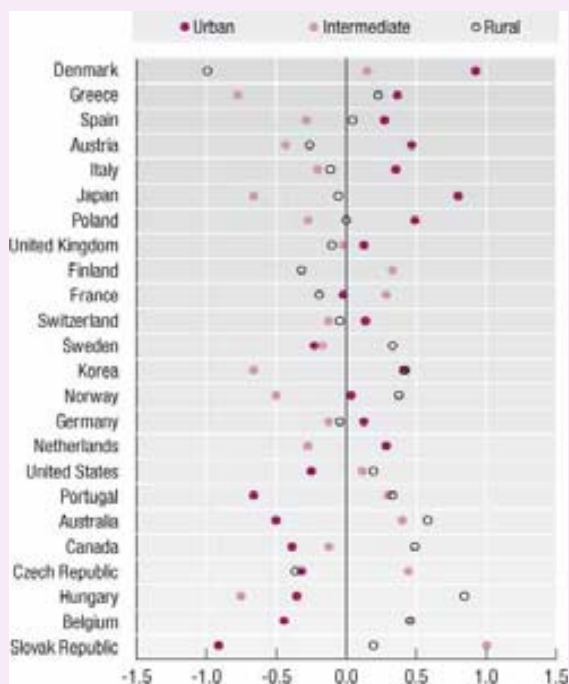
#### 28.6. The highest mortality rates for males were present in rural regions...

Correlation between male regional age adjusted mortality rates and population share by regional type, 2003 (TL2)



#### 28.7. ... and for females in urban regions

Correlation between female regional age adjusted mortality rates and population share by regional type, 2003 (TL2)



StatLink <http://dx.doi.org/10.1787/520004880758>

## Symbols and Abbreviations

<b>OECD (25) average</b>	Unweighted average of 25 OECD countries.
<b>OECD (25) total</b>	Sum over all regions of 25 OECD countries.
<b>OECD (25)</b>	Range of variation over all regions of 25 OECD countries.
<b>TL2</b>	Territorial Level 2.
<b>TL3</b>	Territorial Level 3
<b>NOG</b>	Non Official Grid
<b>*</b>	Differences in the definition of data or regions. Please check the “Sources and Methodology” section.
<b>PU</b>	Predominantly Urban
<b>IN</b>	Intermediate
<b>PR</b>	Predominantly Rural
<b>PPP</b>	Purchasing Power Parity
<b>USD</b>	United States Dollar







## **I. REGIONS AS ACTORS OF NATIONAL GROWTH**

1. GEOGRAPHIC CONCENTRATION OF POPULATION
2. GEOGRAPHIC CONCENTRATION OF THE ELDERLY POPULATION
3. GEOGRAPHIC CONCENTRATION OF GDP
4. REGIONAL CONTRIBUTIONS TO GROWTH IN NATIONAL GDP
5. GEOGRAPHIC CONCENTRATION OF INDUSTRIES
6. REGIONAL CONTRIBUTIONS TO CHANGES IN EMPLOYMENT
7. GEOGRAPHIC CONCENTRATION OF PATENTS

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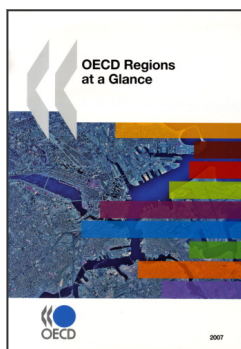
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