**Table 1: Deaths from COPD and lung cancer in 14 countries during the year 2008 (N=5,568,827)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Country | Abbreviations | Total Number of deaths | COPD deathsN | COPD deaths% of all deaths | Lung cancer deaths N | Lung cancer deaths % of all deaths |
| France | FR | 541,135 | 9,274  | 1.7 | 29,221 | 5.4 |
| Italy | IT | 578,192 | 21,356 | 3.7 | 33,004 | 5.7 |
| Spain (Andalusia) | ES | 57,380 | 2,564 | 4.5 | 3,198 | 5.6 |
| Belgium | BE | 102,924 | 4,751 | 4.6 | 6,491 | 6.3 |
| The Netherlands | NL | 135,136 | 6,303 | 4.9 | 9,918 | 7.6 |
| Czech Republic | CZ | 101,804 | 2,161 | 2.1 | 5,310 | 5.2 |
| Hungary | HU | 130,027 | 4,875 | 3.7 | 8,330 | 6.4 |
| England | ENG | 475,763 | 25,143 | 5.3 | 28,222 | 5.9 |
| Wales | WAL | 32,066 | 1,730 | 5.4 | 2,032 | 6.3 |
| New Zealand | NZ | 29,312 | 1,837 | 6.3 | 1,634 | 6.0 |
| Canada | CA | 182,134 | 8,185 | 4.5 | 12,902 | 7.1 |
| United States of America | USA | 2,428,343 | 12,8021 | 5.3 | 15,8889 | 6.5 |
| Mexico | MX | 528,093 | 21,804 | 4.6 | 6,563 | 1.2 |
| Korea | KR | 247,757 | 7,349 | 3.0 | 14,883 | 6.0 |
| **Total**  |  | **5,568,827** | **245,345**  | **4.4** | **320,591** | **5.8** |

COPD, Chronic obstructive pulmonary disease

**Table 2: Demographic characteristics of people with COPD or lung cancer who died during 2008 in 14 countries (N=562,151)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Number of deaths**  | **Age (%)** | **Sex (%)** | **Marital status (%)** |
|  |  |  | **18-64** | **65-84** | **85 or older** | **Female** | **Unmarried** | **Married** | **Widowed/divorced** |
| **France** | **COPD** | 9,274 | 10.2 | 30.0 | 59.6 | 37.5 | 12.4 | 40.4 | 47.3 |
|  | **Lung cancer** | 29,221 | 40.4 | 40.3 | 19.3 | 23.6 | 11.4 | 60.8 | 27.8 |
| **Italy** | **COPD** | 21,356 | 3.5 | 26.2 | 70.3 | 39.3 | 10.8 | 42.5 | 46.7 |
|  | **Lung cancer** | 33,004 | 22.3 | 50.7 | 27.0 | 23.4 | 8.1 | 69.3 | 22.6 |
| **Spain (Andalusia)** | **COPD** | 2,564 | 6.0 | 38.7 | 55.2 | 20.6 | 9.1 | 53.3 | 37.6 |
|  | **Lung cancer** | 3,198 | 33.1 | 47.1 | 19.8 | 13.7 | 8.5 | 71.6 | 19.9 |
| **Belgium** | **COPD** | 4,751 | 11.5 | 37.2 | 51.2 | 36.5 | 8.2 | 43.0 | 48.8 |
|  | **Lung cancer** | 6,491 | 30.9 | 47.3 | 21.8 | 23.8 | 7.1 | 61.3 | 31.7 |
| **The Netherlands** | **COPD** | 6,303 | 9.4 | 36.8 | 53.7 | 44.2 | 59.7 | 40.3 | N/A |
|  | **Lung cancer** | 9,918 | 31.5 | 48.5 | 20.0 | 35.6 | 38.9 | 61.1 | N/A |
| **Czech Republic** | **COPD** | 2,161 | 21.4 | 42.4 | 36.2 | 39.7 | 8.0 | 39.9 | 52.1 |
|  | **Lung cancer** | 5,31 | 39.6 | 46.7 | 13.6 | 27.4 | 5.7 | 57.2 | 37.1 |
| **Hungary** | **COPD** | 4,875 | 15.8**\*** | 48.4**\*** | 35.7**\*** | 40.9 | 9.5 | 36.3 | 54.1 |
|  | **Lung cancer** | 8,33 | 33.5\* | 55.5**\*** | 10.9**\*** | 32.8 | 7.5 | 53.6 | 38.9 |
| **England** | **COPD** | 25,143 | 10.5 | 39.2 | 50.1 | 48.7 | 7.8 | 36.9 | 55.3 |
|  | **Lung cancer** | 28,222 | 22.3 | 48.2 | 29.5 | 43.2 | 6.8 | 51.3 | 41.9 |
| **Wales** | **COPD** | 1,73 | 9.1 | 40.8 | 50.1 | 50.8 | 6.0 | 39.0 | 54.9 |
|  | **Lung cancer** | 2,032 | 22.5 | 49.2 | 28.3 | 42.4 | 6.1 | 51.8 | 42.1 |
| **New Zealand** | **COPD** | 1,837 | 12.2 | 37.8 | 49.9 | 50.2 | † | † | † |
|  | **Lung cancer** | 1,634 | 28.8 | 47.1 | 24.1 | 45.6 | † | † | † |
| **Canada** | **COPD** | 8,185 | 8.5 | 34.3 | 57.1 | 46.9 | 7.7 | 36.8 | 55.6 |
|  | **Lung cancer** | 12,902 | 26.7 | 47.7 | 25.7 | 46.0 | 6.8 | 55.5 | 37.7 |
| **USA** | **COPD** | 128,021 | 14.2 | 40.2 | 45.4 | 52.1 | 6.3 | 36.2 | 57.5 |
|  | **Lung cancer** | 158,889 | 28.8 | 47.1 | 24.1 | 44.3 | 6.0 | 51.0 | 43.0 |
| **Mexico** | **COPD** | 21,804 | 11.8 | 35.9 | 51.4 | 44.5 | 11.2 | 44.6 | 44.2 |
|  | **Lung cancer** | 6,563 | 31.3 | 47.3 | 21.3 | 33.7 | 10.8 | 61.8 | 27.4 |
| **Korea** | **COPD** | 7,349 | 7.9 | 42.8 | 49,3 | 38.7 | 2.8 | 47.7 | 49.7 |
|  | **Lung cancer** | 14,883 | 25.3 | 56.3 | 18.4 | 26.4 | 2.3 | 69.2 | 28.5 |

Percentages are row percentages.

\* For age, the Hungarian file was delivered using a different aggregation: 0-17,18-59,60-79(65-84), 80 or above(85 or above)

†Variable not available not available for the country; N/A: category within variable not presented on the data file of the Netherlands; variable was dichotomized into married or not.

Note: Percentages may not add up to 100 due to rounding

**Table 3: The place of death of deceased patients with COPD and lung cancer by country (N=562,151)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Number of deaths**  | **Home (%)** | **Hospital (%)** | **Nursing home (%)** | **Hospice setting (%)** | **Others (%)** |
| **France** | **COPD** | 9,274 | 25.6 | 60.2 | 11.2 | /\* | 3.0 |
|  | **Lung cancer** | 29,221 | 17.0 | 77.4 | 3.0 | /\* | 2.7 |
| **Italy** | **COPD** | 21,356 | 41.6 | 47.4 | 7.5 | /\* | 3.5 |
|  | **Lung cancer** | 33,004 | 44.2 | 49.5 | 2.9 | /\* | 3.5 |
| **Spain (Andalusia)** | **COPD** | 2,564 | 36.3 | 56.7 | 6.2 | /\* | .8 |
|  | **Lung cancer** | 3,198 | 33.1 | 64.5 | 2.1 | /\* | .2 |
| **Belgium** | **COPD** | 4,751 | 22.0 | 52.8 | 24.4 | /\* | .8 |
|  | **Lung cancer** | 6,491 | 28.8 | 63.9 | 6.8 | /\* | .6 |
| **The Netherlands** | **COPD** | 6,303 | 20.5 | 41.8 | 35.4 | 1.5＋ | 0.8 |
|  | **Lung cancer** | 9,918 | 48.0 | 28.0 | 15.3 | 7.2＋ | 1.5 |
| **Czech Republic** | **COPD** | 2,161 | 17.2 | 66.8 | 14.7 | /\* | 1.3 |
|  | **Lung cancer** | 5,31 | 17.3 | 66.4 | 15.5 | /\* | .8 |
| **Hungary** | **COPD** | 4,875 | /\* | 69.8 | /\* | /\* | 30.2 |
|  | **Lung cancer** | 8,33 | /\* | 72.1 | /\* | /\* | 27.9 |
| **England** | **COPD** | 25,143 | 19.8 | 67.5 | 10.8 | .9 | 1.0 |
|  | **Lung cancer** | 28,222 | 28.2 | 45.8 | 9.0 | 15.3 | 1.7 |
| **Wales** | **COPD** | 1,73 | 16.9 | 73.9 | 8.2 | .2 | .8 |
|  | **Lung cancer** | 2,032 | 28.1 | 57.5 | 4.2 | 8.5 | 1.6 |
| **New Zealand** | **COPD** | 1,837 | 15.5 | 44.7 | 34.0 | 1.9 | 4.0 |
|  | **Lung cancer** | 1,634 | 29.9 | 27.5 | 22.5 | 17.6 | 2.6 |
| **Canada** | **COPD** | 8,185 | 10.4 | 65.4 | 20.7 | /\* | 3.6 |
|  | **Lung cancer** | 12,902 | 16.3 | 69.0 | 9.9 | /\* | 4.9 |
| **USA** | **COPD** | 128,021 | 26.2 | 44.5 | 22.7 | 2.9 | 3.7 |
|  | **Lung cancer** | 158,889 | 40.3 | 33.9 | 15.0 | 5.2 | 5.7 |
| **Mexico** | **COPD** | 21,804 | 55.4 | 41.8 | /\* | /\* | 2.8 |
|  | **Lung cancer** | 6,563 | 57.1 | 40.1 | /\* | /\* | 2.8 |
| **Korea** | **COPD** | 7,349 | 19.4 | 78.9 | 1.5 | /\* | .3 |
|  | **Lung cancer** | 14,883 | 12.5 | 86.5 | .9 | /\* | .1 |

Percentages are row percentages. Percentages may not add up to 100 due to rounding

**\***Category not presented on death certificate. In Hungary, the death certificate registry only coded hospital or others as the place of death and nursing home does not exist as a separate health service in Mexico.

**＋**In the Netherlands the category ‘other institutions’on the death certificate mostly concerns hospices in these disease groups.

**Table 4: Odds ratios of COPD vs lung cancer patients (reference) stratified by place of death: binary multivariable logistic regression models of death certificates data from 14 countries during 2008(N=562,151)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Country | Home (vs all others)N=562,151 | Home (vs Hospital)N=447,537 | Hospital (vs all others)N=562,151 | Nursing home (vs Hospital) N=345,463 | Hospice setting (vs others)N=41,092 |
|  | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| France | **1.7 (1.58-1.80)** | **1.8 (1.71-1.94)** | **0.5 (0.52-0.58)** | **2.1 (1.89-2.33)** | /\* |
| Italy | **0.9 (0.87-0.94)** | **0.9 (0.88-0.96)** | **1.0 (1.00-1.08)** | **1.6 (1.42-1.72)** | /\* |
| Spain | **0.8 (0.75-0.96)** | 0.9 (0.79-1.01) | 1.0 (0.91-1.17) | **1.9 (1.34-2.67)** | /\* |
| Belgium | **0.8 (0.77-0.93)** | 0.97 (0.9-1.07) | **0.8 (0.71-0.84)** | **2.4 (2.09-2.73)** | /\* |
| The Netherlands | **0.4 (0.33-0.39)** | **0.3 (0.27-0.33)** | **2.4 (2.23-2.59)** | **0.9 (0.81-0.98)** | /\* |
| Czech Republic | 1.1 (0.96-1.26) | 1.1 (0.92-1.22) | 1.1 (0.95-1.19) | **0.8 (0.68-0.92)** | /\* |
| Hungary | /\* | /\* | 0.9 (0.85-1.01) | /\* | /\* |
| England | **0.7 (0.68-0.74)** | **0.5 (0.50-0.54)** | **2.5 (2.42-2.60)** | **0.6 (0.55-0.62)** | **0.1 (0.07-0.11)** |
| Wales | **0.6 (0.49-0.68)** | **0.5 (0.43-0.61)** | **2.1 (1.80 -2.40)** | 1.1 (0.82-1.48) | **0.1 (0.01-0.20)** |
| New Zealand | **0.5 (0.43-0.60)** | **0.3 (0.27-0.40)** | **2.7 (2.28-3.10)** | **0.6 (0.51-0.75)** | **0.1 (0.05-0.14)** |
| USA | **0.6 (0.56-0.58)** | **0.5 (0.47-0.49)** | **1.8 (1.81-1.87)** | **0.8 (0.77-0.81)** | **0.9 (0.87-0.98)** |
| Canada | **0.7 (0.63-0.76)** | **0.7 (0.67-0.80)** | 0.98 (0.92-1.05) | **1.5 (1.40-1.66)** | /\* |
| Mexico | **0.8 (0.72-0.82)** | **0.8 (0.72-0.81)** | **1.3 (1.21-1.37)** | /\* | /\* |
| Korea | **1.5 (1.43-1.68)** | **1.6 (1.43-1.69)** | **0.7 (0.60-0.71)** | 1.2 (0.90-1.57) | /\* |

Bold denotes a significant difference between lung cancer and COPD patients.

**\***Category did not exist on death certificate

 Variables included in model: age, sex, marital status (except NZ, where marital status was not available)

**Figure 1. Crude Risk Ratios for dying at home, in hospital, in a nursing home in a palliative care institution of those dying from lung cancer versus those from COPD**

****

Risk ratios calculated as proportion lung cancer/proportion COPD dying in each place. A risk ration >1 indicates that those with lung cancer were relatively more likely to die in that place compared to those with COPD deaths; a risk ratio <1 means that they were less likely