

Figure 6: Change in age-specific population-weighted Gini coefficient versus relative change in mortality rate from 1990 to 2013

Solid points show age groups for which the mean absolute difference between countries has increased and hollow points show those for which mean absolute difference has decreased.

less than in 2000). Between 2000 and 2013, deaths from diarrhoeal diseases fell by 31·1% (from 1·8 million [1·7–2·0] to 1·3 million [1·2–1·4]), tuberculosis and meningitis each by about 20% (1·6 million [1·4–1·7] to 1·3 million [1·2–1·4] for tuberculosis, 377 300 [331 400–438 000] to 303 500 [261 400–346 300] for meningitis), while mortality from tetanus fell by about 60% (142 400 [108 800–163 100] to 58 900 [39 800–77 300]), from measles by about 80% (494 500 [279·4–763·8] to 95 600 [48 500–172 900]), from diphtheria by about 40% (5400 [2800–10 700] to 3300 [1700–6600]), and from whooping cough by about 40% (111 800 [42 300–242 400] to 60 600 [22 300–136 800]). Deaths from neonatal causes fell by a quarter since 2000 (2·8 million to 2·0 million), and by about one-fifth for maternal causes (364 900 to 293 300). Comparing 2013 to 1990, malaria deaths decreased by 4·4% and HIV/AIDS increased by 368% (table 2). HIV/AIDS mortality and malaria mortality both peaked in 2005 (1·7 million [1·6–1·9] for HIV/AIDS, 1·2 million [1·1–1·4] for malaria); HIV/AIDS mortality fell by 21% (20·4–21·5) from 2005 to 2013, and malaria mortality fell by 30% (24·8–35·4).³⁸ The risk of death from various leading causes of communicable, maternal, neonatal, and nutritional disorders as measured by the age-standardised death rate (table 2), has generally declined by an even greater amount than the risk for HIV/AIDS and malaria.

Age-standardised death rates decreased by about 40% since 1990 for the category as a whole, as well as most notably, for lower respiratory infections, maternal disorders, neonatal disorders, and asthma, and by 50–60% for tuberculosis, diarrhoeal diseases, pneumoconiosis and several neglected tropical diseases (table 2). Despite a small decrease in numbers of deaths, age-standardised malaria mortality have fallen by 19% since 1990, with much of that decline occurring in the past 5 years or so (data not shown).³³

For most of the leading non-communicable diseases, the number of deaths has increased, by 42% between 1990 and 2013 (from 27·0 million [UI 26·3–27·6] in 1990, to 38·3 million [37·2–39·4] in 2013), but age-standardised mortality rates have fallen. Allowing for changes in the age structure of the world's population between 1990 and 2013, age-standardised death rates from non-communicable diseases fell by 18·6%; by 22% for cardiovascular and circulatory diseases, 13·7–14·7% for cirrhosis of the liver and cancer, and 21·9–30·4% for other digestive diseases and chronic respiratory diseases (table 2). For many disorders, including stomach cancer, Hodgkin lymphoma, rheumatic heart disease, peptic ulcer disease, appendicitis, and schizophrenia, age-standardised death rates have fallen by more than one-third since 1990 (table 2). Age-standardised death rates

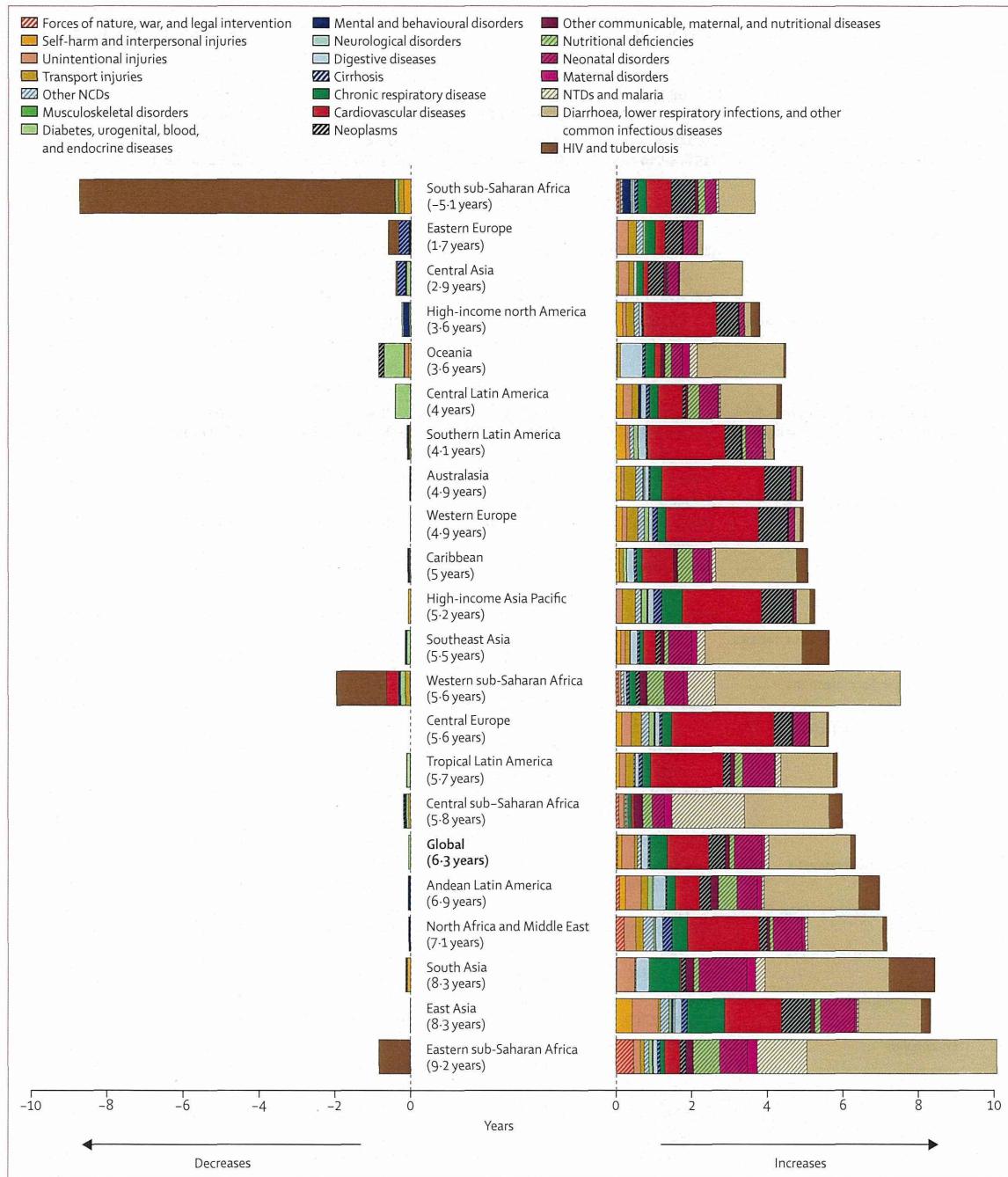


Figure 7: Change in life expectancy at birth by GBD region and cause group from 1990 to 2013

An interactive figure with these data is available at <http://vizhub.healthdata.org/le>. Changes in life expectancy as a result of specific causes were decomposed from the difference between all-cause lifetables and cause-deleted lifetables (mortality set to zero for a specific cause). Because all changes in life expectancy are based on cross-sectional lifetables, the cause-specific changes add up to the total change in life-expectancy. NTDs=neglected tropical diseases.

for some cancers have fallen (lung by 9%, breast by 18%, and leukaemia by 20%), but have remained unchanged for others (table 2). Global age-standardised death rates have fallen by more than one-fifth for ischaemic heart disease and stroke (table 2).

Global age-standardised mortality rates increased significantly for very few disease between 1990 and 2013. The largest increase was for HIV/AIDS, which peaked in 2005 and then fell by 31·0% (UI 25·7% to 35·9%) from 2005 to 2013 (from 26·9 to 18·5 per 100 000). Among the

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|---|------------------------------------|------------------------------------|-----------------------------|---|---------------------------|-----------------------------|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| All causes | 47 468·7 (46 771·7 to 48 223·3) | 54 863·8 (53 576·1 to 56 333·6) | 15·6 (12·54 to 19·11) | 1160·5 (1143·2 to 1179·0) | 879·7 (859·9 to 902·2) | -24·2 (-26·20 to -21·96) |
| Communicable, maternal, neonatal, and nutritional diseases | 16 149·4 (15 674·5 to 16 597·6) | 11 809·6 (11 335·5 to 12 283·0) | -26·8 (-29·99 to -24·10) | 289·5 (281·2 to 298·4) | 172·2 (165·2 to 178·8) | -40·5 (-42·98 to -38·35) |
| HIV/AIDS and tuberculosis | 2072·5 (1938·2 to 2246·1) | 2631·2 (2497·3 to 2863·2) | 26·8 (17·08 to 37·92) | 49·3 (46·2 to 53·3) | 38·0 (36·0 to 41·6) | -23·1 (-29·02 to -16·39) |
| Tuberculosis | 1786·1 (1666·4 to 1945·4) | 1290·3 (1167·3 to 1406·2) | -27·7 (-34·99 to -20·56) | 43·5 (40·4 to 47·2) | 19·4 (17·6 to 21·2) | -55·3 (-59·67 to -51·01) |
| HIV/AIDS | 286·4 (227·4 to 370·3) | 1341·0 (1257·8 to 1482·6) | 374·2 (262·47 to 490·73) | 5·8 (4·6 to 7·6) | 18·5 (17·4 to 20·5) | 222·0 (145·14 to 303·34) |
| HIV/AIDS resulting in mycobacterial infection | 27·8 (20·5 to 37·4) | 84·0 (67·4 to 104·9) | 205·1 (130·68 to 291·83) | 0·6 (0·4 to 0·8) | 1·2 (0·9 to 1·4) | 105·5 (55·00 to 166·22) |
| HIV/AIDS resulting in other diseases | 258·6 (206·1 to 334·4) | 1257·0 (1178·1 to 1391·1) | 393·2 (276·86 to 511·66) | 5·3 (4·2 to 6·8) | 17·4 (16·3 to 19·2) | 235·0 (154·55 to 319·43) |
| Diarrhoea, lower respiratory infections, and other common infectious diseases | 7880·5 (7468·3 to 8337·2) | 4750·5 (4388·8 to 5029·9) | -39·4 (-45·17 to -35·89) | 143·7 (137·3 to 151·9) | 72·4 (66·7 to 76·5) | -49·4 (-53·54 to -46·75) |
| Diarrhoeal diseases | 2578·7 (2412·2 to 2748·9) | 1264·1 (1151·2 to 1383·2) | -51·0 (-55·55 to -46·25) | 47·4 (44·4 to 50·1) | 19·0 (17·4 to 20·8) | -59·8 (-63·54 to -55·96) |
| Intestinal infectious diseases | 259·1 (145·6 to 424·6) | 221·3 (122·6 to 362·6) | -14·3 (-26·08 to -2·75) | 4·3 (2·4 to 7·0) | 3·1 (1·7 to 5·0) | -28·7 (-38·19 to -18·98) |
| Typhoid fever | 180·5 (96·4 to 302·3) | 160·7 (85·9 to 268·0) | -10·8 (-23·70 to 4·24) | 3·0 (1·6 to 5·0) | 2·2 (1·2 to 3·7) | -25·9 (-36·31 to -13·57) |
| Paratyphoid fever | 63·4 (33·6 to 106·7) | 54·3 (29·3 to 92·0) | -14·9 (-30·51 to 9·48) | 1·0 (0·6 to 1·7) | 0·7 (0·4 to 1·3) | -28·0 (-40·99 to -7·97) |
| Other intestinal infectious diseases | 15·3 (13·5 to 17·3) | 6·3 (5·5 to 7·0) | -59·1 (-63·26 to -54·09) | 0·3 (0·2 to 0·3) | 0·1 (0·1 to 0·1) | -66·7 (-70·02 to -62·84) |
| Lower respiratory infections | 3420·7 (3211·6 to 3638·4) | 2652·6 (2368·0 to 2808·1) | -22·2 (-29·71 to -16·32) | 66·8 (63·1 to 71·6) | 41·7 (37·1 to 44·1) | -37·4 (-42·54 to -33·45) |
| Upper respiratory infections | 4·7 (4·0 to 5·6) | 3·9 (3·3 to 4·7) | -16·4 (-33·55 to 4·22) | 0·1 (0·1 to 0·1) | 0·1 (0·1 to 0·1) | -40·8 (-52·40 to -26·16) |
| Otitis media | 4·9 (4·5 to 5·3) | 2·4 (2·3 to 2·6) | -50·8 (-54·22 to -46·41) | 0·1 (0·1 to 0·1) | 0·0 (0·0 to 0·0) | -60·8 (-63·34 to -57·76) |
| Meningitis | 464·4 (405·0 to 559·0) | 303·5 (261·4 to 346·3) | -34·3 (-45·34 to -24·08) | 7·7 (6·8 to 9·0) | 4·3 (3·7 to 4·9) | -43·9 (-52·65 to -36·07) |
| Pneumococcal meningitis | 112·1 (97·7 to 132·6) | 79·1 (67·8 to 91·1) | -29·4 (-39·84 to -16·86) | 1·9 (1·7 to 2·2) | 1·1 (1·0 to 1·3) | -41·7 (-49·60 to -31·37) |
| <i>Haemophilus influenzae</i> type B meningitis | 118·0 (98·2 to 147·0) | 64·4 (53·0 to 76·4) | -45·4 (-54·79 to -33·50) | 1·8 (1·5 to 2·2) | 0·9 (0·7 to 1·1) | -49·7 (-58·21 to -39·32) |
| Meningococcal meningitis | 88·1 (76·1 to 108·0) | 65·7 (55·9 to 75·8) | -24·9 (-38·82 to -12·62) | 1·5 (1·3 to 1·8) | 0·9 (0·8 to 1·1) | -37·3 (-47·55 to -27·80) |
| Other meningitis | 146·1 (128·0 to 174·9) | 94·2 (82·2 to 106·4) | -35·1 (-47·16 to -24·71) | 2·5 (2·2 to 2·9) | 1·3 (1·2 to 1·5) | -45·9 (-54·98 to -37·48) |
| Encephalitis | 92·2 (65·2 to 116·2) | 77·3 (65·4 to 97·0) | -15·2 (-40·15 to 16·01) | 1·6 (1·1 to 1·9) | 1·1 (0·9 to 1·4) | -28·7 (-48·10 to -4·52) |
| Diphtheria | 8·0 (3·9 to 18·8) | 3·3 (1·7 to 6·6) | -57·7 (-85·61 to 12·54) | 0·1 (0·1 to 0·3) | 0·0 (0·0 to 0·1) | -60·8 (-86·70 to 2·82) |
| Whooping cough | 138·2 (52·9 to 300·2) | 60·6 (22·3 to 136·8) | -56·7 (-83·76 to 14·31) | 1·9 (0·7 to 4·2) | 0·8 (0·3 to 1·9) | -58·2 (-84·31 to 10·44) |
| Tetanus | 356·2 (292·9 to 578·6) | 58·9 (39·8 to 77·3) | -82·1 (-92·00 to -76·10) | 5·7 (4·7 to 9·1) | 0·8 (0·6 to 1·1) | -83·9 (-92·72 to -77·84) |

(Table 2 continues on next page)

cancers, only liver cancer caused by hepatitis C increased substantially (table 2). Although age-standardised mortality for cardiovascular and circulatory diseases decreased by 22%, significant increases occurred for atrial fibrillation and flutter and peripheral vascular disease (table 2). Mortality rates for Alzheimer's disease

and other dementias increased by only 3·2% (UI -3·01 to 11·61) and Parkinson's disease by 28·2% (-6·42 to 37·83; table 2). Important worldwide increases occurred for diabetes (9·0%) and an even larger increase for chronic kidney disease (36·9%; table 2). The age-standardised death rate for sickle-cell disease increased

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|---|-----------------------------|----------------------------|-----------------------------|---|------------------------|-----------------------------|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| (Continued from previous page) | | | | | | |
| Measles | 544.5 (304.0 to 867.8) | 95.6 (48.5 to 172.9) | -83.0 (-90.23 to -67.93) | 7.8 (4.3 to 12.4) | 1.3 (0.7 to 2.4) | -83.7 (-90.66 to -69.19) |
| Varicella | 8.9 (7.2 to 11.7) | 7.0 (5.7 to 8.7) | -21.4 (-43.72 to 4.63) | 0.2 (0.2 to 0.3) | 0.1 (0.1 to 0.1) | -45.6 (-61.28 to -27.33) |
| Neglected tropical diseases and malaria | 1092.4 (994.1 to 1196.7) | 997.0 (840.5 to 1185.2) | -9.2 (-25.09 to 10.78) | 18.5 (17.0 to 20.2) | 13.9 (11.8 to 16.5) | -24.9 (-37.19 to -9.70) |
| Malaria | 888.1 (793.4 to 992.7) | 854.6 (702.9 to 1032.5) | -4.4 (-23.61 to 19.83) | 14.6 (13.2 to 16.2) | 11.9 (9.8 to 14.4) | -18.9 (-34.32 to 0.18) |
| Chagas disease | 12.7 (5.2 to 39.4) | 10.6 (4.2 to 33.0) | -19.3 (-41.12 to 25.58) | 0.3 (0.1 to 1.1) | 0.2 (0.1 to 0.5) | -51.7 (-66.06 to -24.52) |
| Leishmaniasis | 52.2 (44.6 to 60.6) | 62.5 (52.3 to 73.3) | 19.8 (3.56 to 37.74) | 0.9 (0.7 to 1.0) | 0.9 (0.7 to 1.0) | -0.3 (-14.18 to 14.25) |
| Visceral leishmaniasis | 52.2 (44.6 to 60.6) | 62.5 (52.3 to 73.3) | 19.8 (3.56 to 37.74) | 0.9 (0.7 to 1.0) | 0.9 (0.7 to 1.0) | -0.3 (-14.18 to 14.25) |
| African trypanosomiasis | 23.0 (11.4 to 37.7) | 6.9 (3.7 to 10.9) | -69.7 (-73.88 to -64.94) | 0.5 (0.2 to 0.7) | 0.1 (0.1 to 0.1) | -78.9 (-81.76 to -75.54) |
| Schistosomiasis | 17.4 (14.8 to 20.6) | 5.5 (4.9 to 6.2) | -68.2 (-73.56 to -61.68) | 0.4 (0.4 to 0.5) | 0.1 (0.1 to 0.1) | -80.7 (-84.06 to -76.71) |
| Cysticercosis | 0.9 (0.8 to 1.1) | 0.7 (0.5 to 1.0) | -28.6 (-35.23 to -15.09) | 0.0 (0.0 to 0.0) | 0.0 (0.0 to 0.0) | -53.0 (-57.59 to -43.63) |
| Cystic echinococcosis | 4.0 (3.8 to 4.3) | 2.2 (2.1 to 2.4) | -45.0 (-48.34 to -41.22) | 0.1 (0.1 to 0.1) | 0.0 (0.0 to 0.0) | -60.8 (-62.99 to -58.26) |
| Dengue | 8.8 (5.2 to 11.3) | 9.1 (5.6 to 10.8) | -1.3 (-21.69 to 74.08) | 0.1 (0.1 to 0.2) | 0.1 (0.1 to 0.2) | -13.6 (-31.42 to 42.41) |
| Yellow fever | 2.2 (1.9 to 2.5) | 0.5 (0.4 to 0.6) | -77.2 (-80.99 to -72.34) | 0.0 (0.0 to 0.0) | 0.0 (0.0 to 0.0) | -83.3 (-86.08 to -79.71) |
| Rabies | 38.4 (26.7 to 48.7) | 23.5 (17.3 to 28.6) | -38.3 (-53.14 to -24.37) | 0.7 (0.5 to 0.9) | 0.3 (0.2 to 0.4) | -54.0 (-64.09 to -44.23) |
| Intestinal nematode infections | 9.1 (8.1 to 10.2) | 4.5 (4.0 to 5.1) | -50.7 (-56.28 to -43.47) | 0.1 (0.1 to 0.2) | 0.1 (0.1 to 0.1) | -54.7 (-59.66 to -48.46) |
| Ascariasis | 9.1 (8.1 to 10.2) | 4.5 (4.0 to 5.1) | -50.7 (-56.28 to -43.47) | 0.1 (0.1 to 0.2) | 0.1 (0.1 to 0.1) | -54.7 (-59.66 to -48.46) |
| Other neglected tropical diseases | 35.6 (26.4 to 44.2) | 16.3 (13.9 to 19.6) | -54.4 (-64.57 to -36.37) | 0.6 (0.5 to 0.8) | 0.2 (0.2 to 0.3) | -62.3 (-69.58 to -49.75) |
| Maternal disorders | 376.6 (344.0 to 408.2) | 293.3 (261.3 to 328.2) | -22.3 (-31.63 to -11.38) | 6.9 (6.3 to 7.5) | 3.9 (3.5 to 4.4) | -43.6 (-50.45 to -35.70) |
| Maternal haemorrhage | 71.4 (64.6 to 78.5) | 44.2 (38.3 to 51.0) | -38.1 (-47.24 to -27.03) | 13 (1.2 to 1.4) | 0.6 (0.5 to 0.7) | -55.0 (-61.51 to -46.97) |
| Maternal sepsis and other maternal infections | 34.1 (30.5 to 38.0) | 23.8 (20.1 to 28.0) | -30.4 (-42.43 to -15.10) | 0.6 (0.6 to 0.7) | 0.3 (0.3 to 0.4) | -50.0 (-58.40 to -39.00) |
| Maternal hypertensive disorders | 36.6 (33.3 to 39.9) | 29.3 (25.7 to 33.5) | -20.0 (-30.89 to -7.22) | 0.7 (0.6 to 0.7) | 0.4 (0.3 to 0.4) | -41.3 (-49.14 to -32.20) |
| Obstructed labour | 29.3 (26.3 to 32.7) | 18.8 (16.3 to 21.8) | -35.9 (-45.56 to -23.86) | 0.5 (0.5 to 0.6) | 0.2 (0.2 to 0.3) | -53.4 (-60.20 to -44.45) |
| Complications of abortion | 50.0 (45.8 to 54.8) | 43.7 (38.3 to 49.9) | -12.6 (-24.72 to 2.00) | 0.9 (0.9 to 1.0) | 0.6 (0.5 to 0.7) | -37.5 (-46.15 to -26.71) |
| Indirect maternal deaths | 40.1 (35.5 to 44.4) | 31.1 (26.8 to 35.8) | -22.7 (-34.25 to -7.62) | 0.7 (0.6 to 0.8) | 0.4 (0.4 to 0.5) | -43.4 (-51.81 to -32.38) |
| Late maternal deaths | 44.9 (36.4 to 53.2) | 43.5 (35.7 to 52.4) | -1.8 (-26.81 to 21.95) | 0.8 (0.7 to 1.0) | 0.6 (0.5 to 0.7) | -28.4 (-46.61 to -11.67) |
| Maternal deaths aggravated by HIV/AIDS | 0.8 (0.5 to 1.1) | 2.1 (1.3 to 2.9) | 161.7 (128.02 to 202.66) | 0.0 (0.0 to 0.0) | 0.0 (0.0 to 0.0) | 94.1 (69.26 to 124.47) |
| Other maternal disorders | 68.6 (58.4 to 80.4) | 56.2 (48.7 to 64.4) | -18.2 (-31.79 to -0.04) | 1.3 (1.1 to 1.5) | 0.7 (0.6 to 0.9) | -40.8 (-50.36 to -27.88) |

(Table 2 continues on next page)

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|---|--|--|---|---|---|---|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| (Continued from previous page) | | | | | | |
| Neonatal disorders | 3 433·3 <i>(3 225·7 to 3 586·1)</i> | 2 048·0 <i>(1 934·7 to 2 160·3)</i> | -40·3 <i>(-43·9 to -36·30)</i> | 46·9 <i>(44·1 to 49·0)</i> | 27·6 <i>(26·1 to 29·1)</i> | -41·1 <i>(-44·7 to -37·13)</i> |
| Preterm birth complications | 1 570·5 (1 285·0 to 1 803·5) | 742·4 (591·3 to 910·8) | -52·9 (-58·7 to -45·50) | 21·4 (17·5 to 24·6) | 10·0 (8·0 to 12·3) | -53·5 (-59·23 to -46·20) |
| Neonatal encephalopathy (birth asphyxia/trauma) | 874·1 (688·5 to 1 055·4) | 643·8 (515·0 to 760·5) | -26·1 (-38·29 to -11·35) | 11·9 (9·4 to 14·4) | 8·7 (6·9 to 10·3) | -27·1 (-39·06 to -12·49) |
| Neonatal sepsis and other neonatal infections | 346·4 (195·7 to 484·0) | 366·0 (233·2 to 510·8) | 6·1 (-15·94 to 38·04) | 4·7 (2·7 to 6·6) | 4·9 (3·1 to 6·9) | 4·6 (-17·13 to 35·99) |
| Haemolytic disease and other neonatal jaundice | 64·8 (39·5 to 96·3) | 19·6 (13·0 to 29·7) | -70·0 (-79·78 to -50·43) | 0·9 (0·5 to 1·3) | 0·3 (0·2 to 0·4) | -70·6 (-80·17 to -51·17) |
| Other neonatal disorders | 577·6 (457·5 to 756·0) | 276·2 (219·6 to 350·7) | -52·3 (-62·41 to -36·77) | 7·9 (6·3 to 10·3) | 3·7 (3·0 to 4·7) | -53·0 (-63·01 to -37·68) |
| Nutritional deficiencies | 757·7 <i>(641·5 to 934·4)</i> | 681·1 <i>(533·5 to 795·5)</i> | -9·7 <i>(-22·87 to 1·86)</i> | 14·7 <i>(12·4 to 18·2)</i> | 10·4 <i>(8·2 to 12·2)</i> | -28·6 <i>(-38·77 to -20·45)</i> |
| Protein-energy malnutrition | 507·9 (394·3 to 648·5) | 468·8 (350·0 to 560·9) | -7·3 (-22·92 to 7·51) | 9·2 (7·1 to 11·8) | 7·1 (5·3 to 8·5) | -22·5 (-34·54 to -11·34) |
| Iodine deficiency | 2·1 (1·4 to 3·4) | 2·7 (1·5 to 4·7) | 24·5 (-29·82 to 137·21) | 0·0 (0·0 to 0·1) | 0·0 (0·0 to 0·1) | -7·9 (-47·13 to 80·62) |
| Iron-deficiency anaemia | 213·4 (143·5 to 309·3) | 183·4 (122·0 to 259·2) | -13·8 (-32·36 to 5·33) | 4·6 (3·3 to 6·6) | 2·8 (1·9 to 4·0) | -38·8 (-50·36 to -26·57) |
| Other nutritional deficiencies | 34·3 (23·8 to 56·1) | 26·2 (17·0 to 41·2) | -22·5 (-42·66 to -4·64) | 0·8 (0·5 to 1·3) | 0·4 (0·3 to 0·7) | -45·4 (-56·40 to -33·85) |
| Other communicable, maternal, neonatal, and nutritional diseases | 536·5 <i>(433·0 to 674·9)</i> | 408·4 <i>(342·1 to 488·3)</i> | -23·8 <i>(-33·94 to -11·53)</i> | 9·4 <i>(7·9 to 11·4)</i> | 5·9 <i>(5·0 to 7·0)</i> | -37·4 <i>(-44·55 to -28·28)</i> |
| Sexually transmitted diseases excluding HIV | 257·6 (154·7 to 396·4) | 142·0 (87·6 to 213·9) | -44·5 (-55·96 to -32·77) | 3·8 (2·4 to 5·7) | 1·9 (1·2 to 2·9) | -48·4 (-58·54 to -37·36) |
| Syphilis | 250·6 (147·4 to 389·1) | 136·8 (82·4 to 208·9) | -45·1 (-56·56 to -33·02) | 3·6 (2·2 to 5·5) | 1·9 (1·1 to 2·9) | -48·0 (-58·61 to -36·83) |
| Chlamydial infection | 1·5 (1·1 to 1·9) | 1·1 (0·9 to 1·4) | -23·0 (-42·59 to 0·03) | 0·0 (0·0 to 0·0) | 0·0 (0·0 to 0·0) | -51·1 (-64·66 to -34·62) |
| Gonococcal infection | 3·2 (2·5 to 3·8) | 2·3 (2·0 to 2·9) | -26·6 (-41·91 to -6·75) | 0·1 (0·1 to 0·1) | 0·0 (0·0 to 0·0) | -54·0 (-64·57 to -39·74) |
| Other sexually transmitted diseases | 2·4 (1·9 to 2·8) | 1·7 (1·5 to 2·1) | -27·3 (-42·08 to -10·71) | 0·1 (0·0 to 0·1) | 0·0 (0·0 to 0·0) | -53·2 (-63·49 to -40·60) |
| Hepatitis | 162·0 (152·8 to 171·4) | 136·7 (123·7 to 163·2) | -16·8 (-25·24 to 2·96) | 3·3 (3·1 to 3·5) | 2·0 (1·8 to 2·4) | -39·6 (-45·37 to -25·80) |
| Hepatitis A | 22·6 (7·9 to 40·2) | 14·9 (5·0 to 27·7) | -36·3 (-50·41 to -2·45) | 0·3 (0·1 to 0·6) | 0·2 (0·1 to 0·4) | -41·9 (-54·39 to -12·04) |
| Hepatitis B | 85·0 (65·1 to 104·0) | 68·6 (52·0 to 86·6) | -19·7 (-28·94 to -4·23) | 1·9 (1·5 to 2·2) | 1·1 (0·8 to 1·3) | -44·6 (-50·38 to -35·37) |
| Hepatitis C | 2·3 (0·5 to 5·3) | 3·5 (0·7 to 8·2) | 51·0 (24·40 to 86·56) | 0·1 (0·0 to 0·1) | 0·1 (0·0 to 0·1) | -4·2 (-20·86 to 17·67) |
| Hepatitis E | 52·1 (39·0 to 67·2) | 49·7 (36·1 to 67·5) | -6·1 (-17·83 to 20·41) | 1·0 (0·7 to 1·3) | 0·7 (0·5 to 1·0) | -30·8 (-39·35 to -11·37) |
| Other infectious diseases | 116·9 (94·0 to 144·3) | 129·8 (89·6 to 164·9) | 11·3 (-21·67 to 45·00) | 2·4 (1·9 to 3·0) | 2·0 (1·4 to 2·5) | -17·7 (-42·92 to 7·31) |
| Non-communicable diseases | 26 993·5 <i>(26 298·1 to 27 639·1)</i> | 38 267·2 <i>(37 202·2 to 39 417·6)</i> | 41·7 <i>(36·86 to 47·00)</i> | 782·5 <i>(765·5 to 798·2)</i> | 637·5 <i>(620·4 to 655·7)</i> | -18·6 <i>(-21·08 to -15·78)</i> |
| Neoplasms | 5659·7 <i>(5440·4 to 5826·6)</i> | 8235·7 <i>(7941·4 to 8538·9)</i> | 45·6 <i>(39·82 to 51·55)</i> | 157·0 <i>(151·3 to 161·5)</i> | 133·8 <i>(128·9 to 138·6)</i> | -14·7 <i>(-17·91 to -11·49)</i> |
| Oesophageal cancer | 313·1 (275·0 to 351·5) | 440·2 (389·2 to 516·8) | 39·9 (26·42 to 56·36) | 8·8 (7·8 to 9·9) | 7·2 (6·3 to 8·4) | -19·3 (-27·13 to -9·94) |
| Stomach cancer | 763·4 (725·6 to 803·2) | 841·0 (791·6 to 894·1) | 10·1 (3·94 to 17·43) | 21·7 (20·6 to 22·9) | 13·8 (13·0 to 14·7) | -36·3 (-39·82 to -32·14) |

(Table 2 continues on next page)

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|---------------------------------------|------------------------------|------------------------------|----------------------------|---|------------------------|-----------------------------|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| (Continued from previous page) | | | | | | |
| Liver cancer | 510.1 (474.9 to 543.1) | 818.0 (763.7 to 879.0) | 60.3 (46.21 to 75.28) | 13.7 (12.7 to 14.5) | 13.0 (12.1 to 13.9) | -5.0 (-13.01 to 3.61) |
| Liver cancer secondary to hepatitis B | 198.4 (181.7 to 215.4) | 300.0 (272.0 to 329.2) | 51.6 (33.51 to 72.02) | 5.1 (4.7 to 5.5) | 4.6 (4.2 to 5.1) | -9.1 (-19.63 to 2.69) |
| Liver cancer secondary to hepatitis C | 87.4 (79.5 to 94.7) | 342.5 (317.1 to 375.3) | 290.8 (251.46 to 342.52) | 2.4 (2.2 to 2.6) | 5.5 (5.1 to 6.0) | 125.4 (103.82 to 154.85) |
| Liver cancer secondary to alcohol use | 122.8 (113.8 to 132.5) | 92.2 (84.8 to 100.3) | -25.2 (-31.20 to -17.09) | 3.5 (3.2 to 3.7) | 1.5 (1.4 to 1.6) | -56.4 (-59.87 to -51.82) |
| Other liver cancer | 101.5 (92.8 to 110.0) | 83.3 (75.1 to 92.2) | -17.5 (-28.57 to -7.02) | 2.6 (2.4 to 2.9) | 1.3 (1.2 to 1.4) | -50.5 (-56.97 to -44.23) |
| Larynx cancer | 76.2 (62.7 to 88.1) | 87.6 (74.3 to 106.2) | 14.2 (7.25 to 27.55) | 2.1 (1.7 to 2.4) | 1.4 (1.2 to 1.7) | -33.4 (-37.26 to -26.29) |
| Tracheal, bronchus, and lung cancer | 1050.0 (1010.6 to 1078.2) | 1639.6 (1565.6 to 1706.0) | 56.5 (47.83 to 62.84) | 29.6 (28.5 to 30.4) | 27.0 (25.7 to 28.1) | -8.7 (-13.62 to -5.16) |
| Breast cancer | 327.3 (289.2 to 366.8) | 471.0 (412.0 to 514.2) | 44.2 (35.01 to 51.82) | 9.0 (7.9 to 10.1) | 7.4 (6.4 to 8.1) | -17.5 (-23.42 to -13.38) |
| Cervical cancer | 196.3 (162.9 to 212.4) | 235.7 (201.9 to 257.9) | 20.1 (10.74 to 30.15) | 5.2 (4.3 to 5.6) | 3.6 (3.1 to 4.0) | -30.1 (-35.55 to -24.13) |
| Uterine cancer | 45.6 (36.6 to 55.6) | 67.7 (53.6 to 79.0) | 48.6 (30.64 to 64.39) | 1.3 (1.0 to 1.6) | 1.1 (0.9 to 1.3) | -15.0 (-24.61 to -6.58) |
| Prostate cancer | 157.1 (124.0 to 193.1) | 292.7 (242.2 to 373.9) | 82.8 (71.77 to 109.02) | 5.1 (4.0 to 6.3) | 5.2 (4.3 to 6.6) | -1.0 (-7.17 to 13.05) |
| Colon and rectum cancer | 490.2 (476.1 to 504.5) | 771.1 (741.5 to 799.2) | 57.4 (51.89 to 62.64) | 14.5 (14.1 to 14.9) | 12.8 (12.4 to 13.3) | -11.1 (-14.40 to -8.17) |
| Lip and oral cavity cancer | 83.9 (74.0 to 96.2) | 135.0 (115.3 to 154.3) | 59.7 (46.91 to 78.39) | 2.3 (2.0 to 2.6) | 2.1 (1.8 to 2.5) | -7.9 (-14.96 to 2.32) |
| Nasopharynx cancer | 53.7 (47.7 to 63.5) | 60.5 (54.0 to 69.5) | 12.7 (1.19 to 24.74) | 1.4 (1.2 to 1.6) | 0.9 (0.8 to 1.1) | -32.5 (-39.31 to -25.55) |
| Other pharynx cancer | 48.9 (43.7 to 53.5) | 78.6 (67.0 to 86.3) | 60.9 (43.26 to 76.41) | 1.3 (1.2 to 1.4) | 1.2 (1.0 to 1.3) | -7.1 (-16.97 to 2.04) |
| Gallbladder and biliary tract cancer | 115.4 (100.6 to 130.4) | 139.5 (120.0 to 155.0) | 22.1 (6.85 to 32.36) | 3.4 (3.0 to 3.9) | 2.3 (2.0 to 2.6) | -31.2 (-39.96 to -25.22) |
| Pancreatic cancer | 186.4 (181.3 to 191.8) | 352.4 (339.4 to 364.8) | 89.0 (82.43 to 95.46) | 5.4 (5.3 to 5.6) | 5.9 (5.6 to 6.1) | 7.4 (3.63 to 11.04) |
| Malignant skin melanoma | 38.7 (30.1 to 50.9) | 56.9 (43.9 to 75.7) | 47.6 (31.54 to 57.81) | 1.1 (0.8 to 1.4) | 0.9 (0.7 to 1.2) | -14.1 (-23.86 to -8.06) |
| Non-melanoma skin cancer | 25.0 (20.2 to 30.0) | 39.2 (32.8 to 48.7) | 55.0 (43.30 to 76.59) | 0.8 (0.6 to 0.9) | 0.7 (0.6 to 0.8) | -12.9 (-20.00 to -0.93) |
| Ovarian cancer | 98.9 (93.1 to 106.1) | 157.8 (147.5 to 169.5) | 59.6 (50.81 to 68.88) | 2.7 (2.6 to 2.9) | 2.5 (2.3 to 2.7) | -7.8 (-12.97 to -2.56) |
| Testicular cancer | 7.0 (5.4 to 8.2) | 8.3 (6.3 to 10.4) | 18.4 (8.86 to 35.42) | 0.2 (0.1 to 0.2) | 0.1 (0.1 to 0.1) | -23.0 (-28.60 to -11.08) |
| Kidney cancer | 77.9 (73.8 to 83.0) | 133.8 (126.0 to 141.1) | 71.8 (63.06 to 81.02) | 2.1 (2.0 to 2.3) | 2.2 (2.0 to 2.3) | 1.6 (-3.95 to 8.11) |
| Bladder cancer | 130.8 (116.6 to 140.9) | 173.9 (156.8 to 192.5) | 32.2 (27.35 to 43.06) | 4.0 (3.5 to 4.3) | 3.0 (2.7 to 3.3) | -25.6 (-28.36 to -20.14) |
| Brain and nervous system cancers | 136.0 (116.6 to 155.2) | 203.9 (169.5 to 234.8) | 50.4 (34.04 to 60.33) | 3.3 (2.8 to 3.8) | 3.1 (2.6 to 3.6) | -4.6 (-13.99 to 0.96) |
| Thyroid cancer | 23.8 (20.3 to 26.1) | 33.7 (29.6 to 38.2) | 41.1 (29.80 to 59.27) | 0.7 (0.6 to 0.8) | 0.6 (0.5 to 0.6) | -19.6 (-25.50 to -9.09) |
| Mesothelioma | 17.0 (15.2 to 20.3) | 33.7 (29.4 to 38.7) | 100.5 (69.94 to 115.47) | 0.5 (0.4 to 0.6) | 0.5 (0.5 to 0.6) | 16.2 (-2.42 to 24.92) |
| Hodgkin lymphoma | 33.6 (24.1 to 38.0) | 24.2 (22.0 to 31.6) | -33.0 (-40.41 to 15.35) | 0.8 (0.5 to 0.8) | 0.4 (0.3 to 0.5) | -54.9 (-58.93 to -24.34) |
| Non-Hodgkin lymphoma | 133.6 (116.3 to 158.0) | 225.5 (186.3 to 245.8) | 72.0 (41.51 to 84.35) | 3.5 (3.1 to 4.2) | 3.6 (2.9 to 3.9) | 6.1 (-14.56 to 13.42) |
| Multiple myeloma | 45.3 (37.4 to 57.4) | 79.4 (65.3 to 94.2) | 77.1 (53.64 to 90.08) | 1.3 (1.1 to 1.7) | 1.3 (1.1 to 1.6) | 0.4 (-13.32 to 8.27) |

(Table 2 continues on next page)

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|---|--|--|----------------------------------|---|-----------------------------------|-------------------------------------|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| (Continued from previous page) | | | | | | |
| Leukaemia | 223.8 (215.1 to 234.2) | 265.1 (253.9 to 275.8) | 18.7 (11.69 to 24.19) | 5.2 (5.0 to 5.4) | 4.1 (3.9 to 4.3) | -20.0 (-24.12 to -16.68) |
| Other neoplasms | 250.6 (231.8 to 305.2) | 369.6 (328.0 to 400.1) | 51.3 (15.57 to 62.10) | 6.2 (5.8 to 7.3) | 5.8 (5.2 to 6.3) | -4.2 (-23.44 to 3.32) |
| Cardiovascular diseases | 12 279.6 (11 776.6 to 12 764.1) | 17 297.5 (16 520.2 to 18 071.9) | 40.8 (36.17 to 46.36) | 375.5 (360.5 to 389.1) | 293.2 (280.4 to 306.1) | -22.0 (-24.50 to -19.07) |
| Rheumatic heart disease | 373.5 (302.5 to 464.6) | 275.1 (222.6 to 353.9) | -26.5 (-33.64 to -17.20) | 9.8 (7.9 to 12.2) | 4.4 (3.5 to 5.6) | -55.4 (-59.47 to -50.11) |
| Ischaemic heart disease | 5737.5 (5254.9 to 6148.6) | 8139.9 (7322.9 to 8758.5) | 41.7 (35.96 to 48.44) | 177.3 (161.8 to 190.2) | 137.8 (123.9 to 148.2) | -22.3 (-25.48 to -18.68) |
| Cerebrovascular disease | 4584.8 (4162.1 to 4968.1) | 6446.9 (5963.0 to 7155.2) | 40.2 (34.43 to 49.56) | 141.6 (128.5 to 153.9) | 110.1 (101.8 to 122.2) | -22.5 (-25.56 to -17.30) |
| Ischaemic stroke | 2182.9 (1923.3 to 2430.9) | 3272.9 (2812.7 to 3592.6) | 50.2 (41.02 to 59.27) | 71.3 (63.0 to 79.3) | 57.3 (49.3 to 62.9) | -19.6 (-24.52 to -14.97) |
| Haemorrhagic stroke | 2401.9 (2109.4 to 2669.1) | 3174.0 (2885.7 to 3719.7) | 30.7 (22.23 to 49.07) | 70.3 (61.2 to 77.9) | 52.8 (48.0 to 62.3) | -25.9 (-30.64 to -14.73) |
| Hypertensive heart disease | 622.1 (525.7 to 783.9) | 1068.6 (849.8 to 1242.2) | 74.1 (47.34 to 93.73) | 19.3 (16.4 to 24.4) | 18.2 (14.5 to 21.3) | -4.5 (-18.86 to 6.41) |
| Cardiomyopathy and myocarditis | 293.9 (243.5 to 346.3) | 443.3 (370.1 to 512.0) | 51.4 (37.27 to 61.45) | 8.2 (6.9 to 9.6) | 7.1 (6.0 to 8.3) | -12.6 (-19.98 to -7.68) |
| Atrial fibrillation and flutter | 28.9 (26.0 to 32.4) | 112.2 (97.7 to 126.7) | 288.1 (246.32 to 335.03) | 1.0 (0.9 to 1.1) | 2.0 (1.8 to 2.3) | 100.0 (77.55 to 124.90) |
| Aortic aneurysm | 99.6 (82.4 to 118.5) | 151.5 (124.2 to 180.0) | 52.1 (43.75 to 60.91) | 3.0 (2.5 to 3.6) | 2.6 (2.1 to 3.1) | -15.3 (-20.06 to -10.50) |
| Peripheral vascular disease | 15.9 (14.4 to 17.5) | 40.5 (35.5 to 44.9) | 155.3 (126.51 to 178.39) | 0.5 (0.5 to 0.6) | 0.7 (0.6 to 0.8) | 34.1 (18.77 to 46.62) |
| Endocarditis | 45.1 (35.6 to 58.6) | 65.0 (48.6 to 79.4) | 46.3 (23.88 to 65.52) | 1.2 (1.0 to 1.6) | 1.0 (0.8 to 1.3) | -12.7 (-25.81 to -2.80) |
| Other cardiovascular and circulatory diseases | 478.3 (403.9 to 546.4) | 554.6 (499.1 to 654.2) | 15.2 (9.38 to 32.52) | 13.6 (11.5 to 15.5) | 9.3 (8.3 to 10.8) | -32.2 (-35.44 to -22.40) |
| Chronic respiratory diseases | 3490.2 (3280.4 to 3795.3) | 4267.5 (3996.3 to 4694.2) | 21.9 (14.95 to 31.48) | 104.5 (98.5 to 113.3) | 73.0 (68.4 to 80.2) | -30.4 (-34.19 to -25.05) |
| Chronic obstructive pulmonary disease | 2421.3 (2151.3 to 2632.4) | 2931.2 (2626.3 to 3215.8) | 21.0 (12.70 to 31.26) | 74.8 (66.8 to 81.2) | 50.7 (45.4 to 55.6) | -32.3 (-36.75 to -26.54) |
| Pneumoconiosis | 251.2 (184.0 to 317.8) | 259.7 (201.7 to 331.2) | 1.9 (-15.21 to 40.27) | 7.2 (5.3 to 9.0) | 4.3 (3.3 to 5.5) | -40.5 (-50.81 to -19.84) |
| Silicosis | 55.4 (36.7 to 77.1) | 46.3 (32.1 to 64.8) | -16.0 (-32.85 to 6.14) | 1.6 (1.0 to 2.2) | 0.8 (0.5 to 1.1) | -50.7 (-61.18 to -38.06) |
| Asbestosis | 21.0 (13.9 to 30.4) | 24.1 (17.5 to 32.3) | 14.2 (-10.20 to 54.87) | 0.6 (0.4 to 0.9) | 0.4 (0.3 to 0.5) | -32.6 (-47.35 to -9.61) |
| Coal workers pneumoconiosis | 28.9 (18.2 to 43.9) | 25.2 (19.0 to 35.6) | -13.7 (-30.65 to 23.06) | 0.8 (0.5 to 1.2) | 0.4 (0.3 to 0.6) | -50.2 (-60.26 to -29.13) |
| Other pneumoconiosis | 145.9 (100.3 to 189.2) | 164.1 (123.1 to 213.6) | 10.9 (-13.48 to 61.23) | 4.2 (2.9 to 5.5) | 2.7 (2.0 to 3.6) | -35.3 (-50.19 to -6.77) |
| Asthma | 504.3 (399.7 to 731.8) | 489.0 (397.7 to 676.8) | -2.9 (-24.58 to 19.21) | 13.7 (10.8 to 20.4) | 8.0 (6.5 to 11.1) | -41.5 (-55.17 to -28.01) |
| Interstitial lung disease and pulmonary sarcoidosis | 217.6 (128.7 to 299.4) | 471.5 (372.3 to 606.8) | 114.1 (53.25 to 214.86) | 6.6 (3.9 to 8.9) | 8.0 (6.3 to 10.3) | 20.1 (-11.89 to 74.20) |
| Other chronic respiratory diseases | 95.8 (78.3 to 113.8) | 116.1 (99.2 to 136.9) | 21.2 (7.78 to 40.66) | 2.2 (1.8 to 2.7) | 1.9 (1.6 to 2.3) | -15.1 (-24.22 to -3.39) |
| Cirrhosis of the liver | 838.0 (807.0 to 866.7) | 1221.1 (1170.3 to 1284.3) | 45.6 (38.47 to 54.52) | 21.8 (20.9 to 22.5) | 18.8 (18.0 to 19.7) | -13.7 (-17.75 to -8.49) |
| Cirrhosis of the liver secondary to hepatitis B | 233.9 (220.8 to 250.0) | 317.4 (292.3 to 344.6) | 35.6 (22.66 to 49.58) | 6.1 (5.7 to 6.5) | 4.9 (4.5 to 5.3) | -19.3 (-26.86 to -11.11) |
| Cirrhosis of the liver secondary to hepatitis C | 213.1 (200.4 to 226.7) | 357.8 (334.3 to 386.1) | 67.3 (54.60 to 83.86) | 5.7 (5.4 to 6.0) | 5.6 (5.2 to 6.0) | -2.4 (-9.58 to 7.48) |
| Cirrhosis of the liver secondary to alcohol use | 292.2 (276.5 to 307.1) | 383.8 (356.2 to 414.7) | 31.2 (20.27 to 43.97) | 7.8 (7.4 to 8.2) | 5.9 (5.5 to 6.4) | -24.1 (-30.24 to -16.92) |

(Table 2 continues on next page)

Articles

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|--|-------------------------------------|--------------------------------------|-----------------------------------|---|--------------------------------|-------------------------------------|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| (Continued from previous page) | | | | | | |
| Other cirrhosis of the liver | 98.8 (92.1 to 106.0) | 162.1 (145.5 to 182.9) | 63.5 (47.6 to 86.21) | 2.2 (2.0 to 2.3) | 2.4 (2.1 to 2.7) | 9.3 (-1.52 to 24.19) |
| Digestive diseases | 1053.2 (958.6 to 1131.2) | 1168.3 (1064.4 to 1275.5) | 10.4 (2.11 to 22.38) | 28.4 (25.8 to 30.5) | 19.0 (17.4 to 20.7) | -33.5 (-38.30 to -26.51) |
| Peptic ulcer disease | 326.9 (288.8 to 388.7) | 301.4 (249.8 to 350.5) | -7.6 (-21.26 to 5.52) | 9.1 (8.0 to 10.7) | 4.9 (4.1 to 5.7) | -45.8 (-53.37 to -38.53) |
| Gastritis and duodenitis | 54.2 (32.1 to 76.3) | 59.5 (42.2 to 90.1) | 5.8 (-13.46 to 50.38) | 1.4 (0.8 to 2.0) | 1.0 (0.7 to 1.5) | -35.1 (-46.54 to -6.86) |
| Appendicitis | 87.5 (70.8 to 105.9) | 71.9 (51.4 to 89.5) | -17.8 (-34.66 to 2.68) | 2.0 (1.6 to 2.4) | 1.1 (0.8 to 1.4) | -45.7 (-56.37 to -33.27) |
| Paralytic ileus and intestinal obstruction | 178.0 (116.3 to 228.5) | 235.7 (175.6 to 327.0) | 29.4 (11.32 to 68.61) | 4.7 (3.1 to 6.1) | 3.8 (2.8 to 5.3) | -20.3 (-31.07 to 1.80) |
| Inguinal, femoral, and abdominal hernia | 50.5 (33.2 to 61.2) | 32.5 (25.6 to 48.8) | -41.8 (-49.26 to -4.88) | 1.4 (0.9 to 1.7) | 0.5 (0.4 to 0.8) | -64.8 (-69.29 to -44.12) |
| Inflammatory bowel disease | 54.9 (40.4 to 67.2) | 51.2 (42.4 to 69.7) | -8.7 (-17.41 to 13.01) | 1.4 (1.0 to 1.6) | 0.8 (0.7 to 1.1) | -41.8 (-47.30 to -25.30) |
| Vascular intestinal disorders | 52.6 (34.7 to 78.4) | 79.5 (51.9 to 113.3) | 51.8 (36.03 to 67.16) | 1.6 (1.1 to 2.4) | 1.4 (0.9 to 1.9) | -16.3 (-24.49 to -8.10) |
| Gallbladder and biliary diseases | 80.5 (68.9 to 94.1) | 105.9 (89.1 to 122.3) | 32.2 (18.76 to 43.46) | 2.4 (2.0 to 2.8) | 1.8 (1.5 to 2.1) | -24.5 (-31.76 to -18.21) |
| Pancreatitis | 83.0 (59.2 to 111.3) | 122.6 (85.9 to 152.3) | 49.1 (16.02 to 76.94) | 2.1 (1.5 to 2.9) | 1.9 (1.3 to 2.4) | -10.2 (-29.33 to 5.74) |
| Other digestive diseases | 85.2 (73.3 to 99.5) | 108.0 (90.4 to 124.2) | 27.1 (14.25 to 39.04) | 2.3 (2.0 to 2.6) | 1.8 (1.5 to 2.0) | -21.9 (-29.04 to -15.13) |
| Neurological disorders | 1017.5 (965.0 to 1072.3) | 1976.8 (1875.0 to 2080.7) | 94.0 (83.99 to 106.61) | 34.2 (32.3 to 36.1) | 35.0 (33.2 to 36.9) | 2.3 (-3.27 to 9.08) |
| Alzheimer's disease and other dementias | 795.8 (747.9 to 844.3) | 1655.1 (1563.5 to 1765.3) | 107.2 (94.94 to 124.00) | 28.9 (27.1 to 30.7) | 29.9 (28.2 to 31.9) | 3.2 (-3.01 to 11.61) |
| Parkinson's disease | 43.7 (38.3 to 55.1) | 102.5 (79.3 to 112.6) | 139.8 (77.36 to 156.99) | 1.5 (1.3 to 1.9) | 1.8 (1.4 to 2.0) | 28.2 (-6.42 to 37.83) |
| Epilepsy | 111.0 (95.5 to 129.9) | 115.8 (93.7 to 132.0) | 4.7 (-12.05 to 24.00) | 2.2 (1.9 to 2.5) | 1.7 (1.3 to 1.9) | -22.4 (-33.73 to -10.21) |
| Multiple sclerosis | 12.4 (9.2 to 19.0) | 19.8 (12.8 to 25.5) | 64.8 (3.60 to 87.09) | 0.3 (0.2 to 0.5) | 0.3 (0.2 to 0.4) | -1.1 (-38.78 to 11.91) |
| Other neurological disorders | 54.6 (47.1 to 60.8) | 83.7 (71.8 to 90.8) | 54.2 (37.88 to 60.72) | 1.4 (1.2 to 1.5) | 1.3 (1.1 to 1.4) | -3.6 (-10.27 to 0.43) |
| Mental and substance use disorders | 188.3 (157.2 to 242.3) | 282.4 (233.9 to 329.3) | 51.5 (32.26 to 63.84) | 4.3 (3.6 to 5.7) | 4.0 (3.3 to 4.7) | -5.7 (-18.55 to 2.10) |
| Schizophrenia | 22.8 (14.7 to 28.3) | 16.0 (13.7 to 22.8) | -35.5 (-46.52 to 29.94) | 0.6 (0.4 to 0.7) | 0.2 (0.2 to 0.3) | -59.7 (-66.47 to -20.07) |
| Alcohol use disorders | 111.9 (84.0 to 165.3) | 139.2 (90.2 to 178.5) | 28.2 (1.78 to 35.66) | 2.7 (2.0 to 3.9) | 2.0 (1.3 to 2.6) | -22.0 (-38.53 to -17.54) |
| Drug use disorders | 53.2 (47.8 to 64.1) | 126.6 (110.8 to 135.5) | 140.4 (101.60 to 159.88) | 1.1 (1.0 to 1.3) | 1.8 (1.6 to 1.9) | 63.0 (36.10 to 74.81) |
| Opioid use disorders | 18.0 (16.5 to 22.2) | 50.7 (43.4 to 54.4) | 187.3 (134.80 to 210.24) | 0.4 (0.3 to 0.5) | 0.7 (0.6 to 0.8) | 92.7 (56.69 to 107.16) |
| Cocaine use disorders | 2.4 (2.2 to 2.9) | 4.3 (3.9 to 4.7) | 77.2 (49.11 to 102.26) | 0.1 (0.0 to 0.1) | 0.1 (0.1 to 0.1) | 20.9 (1.97 to 36.34) |
| Amphetamine use disorders | 2.1 (1.9 to 2.5) | 3.8 (3.4 to 4.1) | 80.4 (52.49 to 106.70) | 0.0 (0.0 to 0.1) | 0.1 (0.0 to 0.1) | 23.2 (4.70 to 40.49) |
| Other drug use disorders | 30.7 (26.1 to 37.3) | 67.7 (59.5 to 72.8) | 122.8 (86.51 to 146.32) | 0.6 (0.6 to 0.8) | 1.0 (0.8 to 1.0) | 51.6 (26.34 to 65.39) |
| Eating disorders | 0.4 (0.3 to 0.4) | 0.6 (0.5 to 0.7) | 60.4 (41.17 to 84.68) | 0.0 (0.0 to 0.0) | 0.0 (0.0 to 0.0) | 13.5 (-0.42 to 30.16) |
| Anorexia nervosa | 0.4 (0.3 to 0.4) | 0.6 (0.5 to 0.7) | 60.4 (41.17 to 84.68) | 0.0 (0.0 to 0.0) | 0.0 (0.0 to 0.0) | 13.5 (-0.42 to 30.16) |

(Table 2 continues on next page)

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|--|--|--|---|---|--------------------------------------|--|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| (Continued from previous page) | | | | | | |
| Diabetes, urogenital, blood, and endocrine diseases | 1569·4 (1456·7 to 1709·2) | 2955·0 (2764·0 to 3171·1) | 88·9 (76·44 to 99·49) | 42·2 (39·5 to 44·7) | 48·3 (45·1 to 51·4) | 14·4 (9·53 to 20·14) |
| Diabetes mellitus | 684·3 (653·2 to 711·5) | 1299·4 (1234·5 to 1374·8) | 89·7 (81·77 to 99·94) | 19·8 (18·9 to 20·6) | 21·6 (20·6 to 22·9) | 9·0 (4·59 to 14·69) |
| Acute glomerulonephritis | 23·6 (13·7 to 33·4) | 18·8 (14·3 to 22·8) | -21·4 (-36·96 to 14·96) | 0·5 (0·3 to 0·8) | 0·3 (0·2 to 0·3) | -45·8 (-55·70 to -21·57) |
| Chronic kidney disease | 408·6 (363·8 to 433·4) | 956·2 (812·9 to 1034·5) | 134·6 (115·70 to 150·20) | 11·6 (10·4 to 12·3) | 15·8 (13·5 to 17·1) | 36·9 (25·43 to 46·11) |
| Chronic kidney disease due to diabetes mellitus | 46·3 (34·8 to 54·8) | 173·1 (139·3 to 208·8) | 274·1 (243·06 to 309·05) | 1·4 (1·0 to 1·6) | 2·9 (2·3 to 3·5) | 106·5 (89·67 to 127·74) |
| Chronic kidney disease due to hypertension | 120·0 (91·6 to 144·8) | 275·7 (196·9 to 336·5) | 130·6 (106·28 to 151·38) | 3·6 (2·8 to 4·4) | 4·6 (3·3 to 5·6) | 29·4 (15·20 to 40·43) |
| Chronic kidney disease due to glomerulonephritis | 99·0 (84·5 to 114·7) | 116·3 (92·9 to 144·0) | 16·9 (1·69 to 35·32) | 2·5 (2·1 to 2·9) | 1·8 (1·5 to 2·3) | -26·8 (-35·84 to -15·66) |
| Chronic kidney diseases due to other causes | 143·3 (115·3 to 168·0) | 391·2 (297·0 to 452·3) | 175·3 (140·05 to 202·16) | 4·1 (3·3 to 4·8) | 6·5 (4·9 to 7·5) | 58·8 (37·59 to 74·71) |
| Urinary diseases and male infertility due to other causes | 151·4 (129·1 to 161·1) | 245·8 (205·5 to 264·7) | 62·8 (49·74 to 72·37) | 4·3 (3·7 to 4·6) | 4·1 (3·4 to 4·4) | -3·7 (-12·86 to 1·66) |
| Interstitial nephritis and urinary tract infections | 109·9 (92·9 to 118·1) | 175·5 (144·6 to 192·0) | 58·9 (48·57 to 74·08) | 3·1 (2·7 to 3·4) | 2·9 (2·4 to 3·2) | -6·3 (-14·36 to 2·19) |
| Urolithiasis | 15·1 (11·1 to 18·7) | 14·7 (12·4 to 20·1) | -5·9 (-16·02 to 44·87) | 0·4 (0·3 to 0·5) | 0·2 (0·2 to 0·3) | -45·3 (-50·97 to -14·32) |
| Other urinary diseases | 26·3 (21·9 to 35·0) | 55·5 (40·4 to 66·5) | 122·4 (69·54 to 151·57) | 0·7 (0·6 to 1·0) | 0·9 (0·7 to 1·1) | 32·5 (2·75 to 50·04) |
| Gynaecological diseases | 5·3 (3·9 to 7·0) | 3·4 (2·9 to 4·8) | -36·7 (-47·76 to -14·33) | 0·1 (0·1 to 0·2) | 0·1 (0·0 to 0·1) | -59·5 (-67·15 to -45·56) |
| Uterine fibroids | 1·2 (0·9 to 1·7) | 0·9 (0·7 to 1·2) | -29·7 (-43·96 to -6·20) | 0·0 (0·0 to 0·0) | 0·0 (0·0 to 0·0) | -57·8 (-66·54 to -43·72) |
| Polycystic ovarian syndrome | 0·2 (0·1 to 0·3) | 0·1 (0·1 to 0·2) | -56·2 (-63·48 to -29·90) | 0·0 (0·0 to 0·0) | 0·0 (0·0 to 0·0) | -68·5 (-73·81 to -49·56) |
| Endometriosis | 0·5 (0·4 to 0·6) | 0·2 (0·2 to 0·4) | -54·7 (-62·11 to -29·37) | 0·0 (0·0 to 0·0) | 0·0 (0·0 to 0·0) | -68·9 (-74·05 to -51·25) |
| Genital prolapse | 0·9 (0·7 to 1·2) | 0·6 (0·5 to 0·9) | -29·9 (-44·02 to -8·28) | 0·0 (0·0 to 0·0) | 0·0 (0·0 to 0·0) | -55·7 (-65·45 to -42·31) |
| Other gynaecological diseases | 2·5 (1·8 to 3·2) | 1·6 (1·3 to 2·2) | -37·4 (-48·19 to -15·38) | 0·1 (0·0 to 0·1) | 0·0 (0·0 to 0·0) | -59·7 (-67·23 to -46·18) |
| Haemoglobinopathies and haemolytic anaemias | 182·7 (91·5 to 302·5) | 240·4 (106·0 to 456·1) | 20·6 (-1·35 to 92·91) | 3·1 (1·6 to 5·0) | 3·4 (1·5 to 6·3) | 0·4 (-19·05 to 51·95) |
| Thalassaemias | 36·2 (21·2 to 49·4) | 24·8 (16·9 to 32·1) | -36·4 (-46·90 to 14·05) | 0·6 (0·3 to 0·8) | 0·3 (0·2 to 0·4) | -43·7 (-52·63 to -2·83) |
| Sickle cell disorders | 112·9 (39·4 to 222·6) | 176·2 (56·3 to 385·7) | 45·3 (14·30 to 131·19) | 1·8 (0·6 to 3·4) | 2·4 (0·8 to 5·3) | 28·8 (1·53 to 94·35) |
| G6PD deficiency | 3·4 (2·0 to 4·6) | 4·1 (2·6 to 5·6) | 12·7 (-7·12 to 91·90) | 0·1 (0·0 to 0·1) | 0·1 (0·0 to 0·1) | -8·2 (-23·19 to 45·12) |
| Other haemoglobinopathies and haemolytic anaemias | 30·3 (19·8 to 38·6) | 35·4 (24·3 to 44·9) | 15·1 (3·42 to 46·66) | 0·8 (0·5 to 1·0) | 0·6 (0·4 to 0·7) | -25·8 (-31·66 to -9·80) |
| Endocrine, metabolic, blood, and immune disorders | 113·5 (90·6 to 134·4) | 191·0 (150·5 to 218·5) | 69·5 (49·11 to 85·62) | 2·7 (2·2 to 3·2) | 3·0 (2·4 to 3·4) | 11·6 (0·55 to 20·87) |
| Musculoskeletal disorders | 65·9 (55·0 to 73·4) | 116·3 (100·4 to 137·7) | 77·1 (54·42 to 105·22) | 1·7 (1·5 to 1·9) | 1·9 (1·6 to 2·2) | 8·5 (-4·62 to 23·48) |
| Rheumatoid arthritis | 27·8 (23·8 to 31·7) | 38·1 (33·0 to 46·9) | 35·6 (16·43 to 64·74) | 0·8 (0·7 to 0·9) | 0·6 (0·5 to 0·8) | -20·5 (-31·22 to -4·53) |
| Other musculoskeletal disorders | 38·1 (30·3 to 44·1) | 78·2 (65·2 to 90·3) | 107·2 (76·94 to 145·59) | 0·9 (0·8 to 1·1) | 1·2 (1·0 to 1·4) | 32·7 (14·17 to 51·37) |
| Other non-communicable diseases | 831·7 (690·7 to 1061·0) | 746·6 (674·1 to 846·2) | -7·6 (-25·31 to 4·05) | 12·9 (10·9 to 16·1) | 10·5 (9·5 to 11·9) | -16·4 (-30·83 to -7·20) |

(Table 2 continues on next page)

| | All ages deaths (thousands) | | | Age-standardised death rate (per 100 000) | | |
|--|------------------------------|------------------------------|-----------------------------|---|------------------------|-----------------------------|
| | 1990 | 2013 | Median % change | 1990 | 2013 | Median % change |
| (Continued from previous page) | | | | | | |
| Congenital anomalies | 750·6 (611·8 to 969·7) | 632·1 (561·3 to 730·3) | -13·5 (-30·40 to -0·80) | 11·0 (9·0 to 14·1) | 8·7 (7·7 to 10·0) | -18·9 (-34·07 to -7·54) |
| Neural tube defects | 151·3 (109·1 to 256·3) | 68·9 (40·9 to 124·4) | -54·8 (-65·35 to -42·39) | 2·1 (1·5 to 3·6) | 0·9 (0·6 to 1·7) | -56·6 (-66·71 to -44·61) |
| Congenital heart anomalies | 366·2 (293·0 to 485·2) | 323·4 (288·3 to 372·6) | -9·8 (-29·83 to 7·37) | 5·4 (4·4 to 7·0) | 4·5 (4·0 to 5·1) | -15·8 (-33·64 to -0·61) |
| Orofacial clefts | 7·6 (4·2 to 11·5) | 3·3 (1·9 to 5·2) | -57·8 (-68·83 to -33·93) | 0·1 (0·1 to 0·2) | 0·0 (0·0 to 0·1) | -58·5 (-69·40 to -35·04) |
| Down's syndrome | 42·5 (16·4 to 73·0) | 36·4 (20·4 to 52·4) | -12·9 (-39·13 to 40·14) | 0·7 (0·3 to 1·1) | 0·5 (0·3 to 0·7) | -22·6 (-45·11 to 19·89) |
| Chromosomal unbalanced rearrangements | 19·1 (8·5 to 41·2) | 17·3 (10·6 to 26·8) | 5·5 (-40·18 to 35·89) | 0·3 (0·1 to 0·6) | 0·2 (0·1 to 0·4) | -3·0 (-43·13 to 25·13) |
| Other congenital anomalies | 163·9 (119·9 to 301·9) | 182·8 (150·2 to 261·9) | 18·0 (-16·45 to 40·74) | 2·4 (1·8 to 4·4) | 2·5 (2·1 to 3·6) | 8·5 (-20·90 to 29·30) |
| Skin and subcutaneous diseases | 59·1 (54·1 to 63·1) | 99·4 (89·9 to 107·3) | 68·3 (51·36 to 86·44) | 1·6 (1·5 to 1·7) | 1·6 (1·5 to 1·8) | 2·5 (-7·66 to 10·83) |
| Cellulitis | 27·0 (19·0 to 34·1) | 29·5 (22·5 to 39·3) | 8·0 (-5·23 to 30·03) | 0·7 (0·5 to 0·8) | 0·5 (0·4 to 0·6) | -29·8 (-38·47 to -16·25) |
| Pyoderma | 16·7 (11·6 to 23·1) | 37·7 (30·2 to 42·9) | 129·9 (71·83 to 186·99) | 0·4 (0·3 to 0·6) | 0·6 (0·5 to 0·7) | 44·0 (14·02 to 75·43) |
| Decubitus ulcer | 13·7 (11·5 to 16·9) | 28·5 (24·4 to 33·0) | 109·6 (82·53 to 132·42) | 0·5 (0·4 to 0·6) | 0·5 (0·4 to 0·6) | 8·3 (-4·81 to 19·09) |
| Other skin and subcutaneous diseases | 1·7 (1·2 to 2·2) | 3·8 (3·0 to 4·9) | 138·4 (74·18 to 201·77) | 0·0 (0·0 to 0·1) | 0·1 (0·0 to 0·1) | 35·9 (4·37 to 69·36) |
| Sudden infant death syndrome | 22·0 (12·7 to 40·2) | 15·1 (9·6 to 21·4) | -29·5 (-54·51 to -4·22) | 0·3 (0·2 to 0·6) | 0·2 (0·1 to 0·3) | -31·0 (-55·52 to -6·34) |
| Injuries | 4325·8 (4095·7 to 4524·0) | 4786·9 (4507·9 to 5072·8) | 10·4 (4·23 to 18·04) | 88·5 (84·5 to 93·0) | 70·0 (65·9 to 74·2) | -21·0 (-25·27 to -15·85) |
| Transport injuries | 1150·0 (1092·9 to 1253·9) | 1482·7 (1364·8 to 1588·8) | 29·3 (17·11 to 38·66) | 23·2 (22·1 to 25·1) | 21·2 (19·5 to 22·7) | -8·4 (-16·54 to -2·02) |
| Road injuries | 1058·4 (1005·0 to 1167·2) | 1395·8 (1286·1 to 1492·7) | 32·4 (19·21 to 41·84) | 21·3 (20·3 to 23·4) | 20·0 (18·4 to 21·3) | -6·1 (-15·12 to 0·28) |
| Pedestrian road injuries | 389·7 (339·6 to 472·0) | 543·8 (452·0 to 629·1) | 40·2 (17·55 to 58·63) | 8·0 (7·0 to 9·6) | 8·0 (6·7 to 9·2) | 0·1 (-15·84 to 12·51) |
| Cyclist road injuries | 68·6 (58·5 to 83·3) | 90·6 (74·2 to 106·6) | 32·0 (13·51 to 51·06) | 1·4 (1·2 to 1·7) | 1·3 (1·1 to 1·6) | -7·5 (-20·14 to 5·51) |
| Motorcyclist road injuries | 202·0 (169·3 to 236·4) | 248·5 (200·9 to 294·4) | 22·8 (7·72 to 40·45) | 3·9 (3·2 to 4·5) | 3·4 (2·8 to 4·0) | -12·2 (-22·77 to 0·56) |
| Motor vehicle road injuries | 364·4 (324·4 to 409·1) | 492·7 (431·0 to 555·1) | 35·5 (24·24 to 46·49) | 7·3 (6·5 to 8·2) | 6·9 (6·1 to 7·8) | -4·9 (-12·90 to 2·69) |
| Other road injuries | 33·8 (21·9 to 44·1) | 20·2 (14·4 to 25·5) | -40·7 (-54·01 to -7·44) | 0·7 (0·4 to 0·9) | 0·3 (0·2 to 0·4) | -57·3 (-67·23 to -34·33) |
| Other transport injuries | 91·6 (77·4 to 102·0) | 86·9 (72·0 to 97·2) | -5·3 (-18·27 to 10·72) | 1·9 (1·6 to 2·1) | 1·2 (1·0 to 1·4) | -33·6 (-42·61 to -22·72) |
| Unintentional injuries other than transport injuries | 2017·2 (1848·6 to 2165·7) | 2006·7 (1857·1 to 2183·1) | -1·0 (-8·96 to 10·95) | 40·8 (38·2 to 43·8) | 30·4 (28·0 to 32·9) | -25·7 (-31·89 to -18·23) |
| Falls | 340·5 (311·7 to 411·5) | 556·4 (448·5 to 610·7) | 66·7 (21·25 to 82·98) | 9·0 (8·2 to 10·8) | 9·1 (7·3 to 9·9) | 3·4 (-23·97 to 11·61) |
| Drowning | 544·9 (409·2 to 635·8) | 368·1 (311·0 to 515·4) | -35·0 (-43·35 to 17·98) | 9·4 (7·2 to 10·8) | 5·2 (4·4 to 7·3) | -46·3 (-52·33 to -6·00) |
| Fire, heat, and hot substances | 299·6 (262·7 to 352·9) | 237·5 (199·3 to 282·9) | -21·2 (-33·96 to -1·98) | 5·9 (5·2 to 7·0) | 3·5 (2·9 to 4·1) | -41·9 (-50·85 to -29·74) |
| Poisonings | 120·2 (104·1 to 168·5) | 98·0 (70·2 to 110·8) | -12·7 (-44·83 to -0·08) | 2·4 (2·1 to 3·3) | 1·4 (1·0 to 1·6) | -36·0 (-58·97 to -27·57) |
| Exposure to mechanical forces | 232·7 (186·3 to 273·9) | 196·8 (177·9 to 244·6) | -15·6 (-31·65 to 18·68) | 4·1 (3·4 to 4·8) | 2·8 (2·5 to 3·5) | -32·6 (-43·48 to -9·05) |

(Table 2 continues on next page)